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August 18, 2020

Mr. Steven Martin  
Wisconsin Department of Natural Resources  
South Central Region  
3911 Fish Hatchery Road  
Fitchburg, WI 53711

Subject: Operations, Monitoring, and Maintenance Semi-annual Report – January 1, 2020 – June 30, 2020, Groundwater and Soil Vapor Extraction Treatment Systems & Rain Garden  
Madison-Kipp Corporation, 201 Waubesa Street, Madison, Wisconsin  
Facility ID #113125320, WDNR BRRTS #02-13-558625 and #02-13-562649

Dear Mr. Martin:

TRC, on behalf of Madison-Kipp Corp. (MKC), is reporting on the operation, monitoring, and maintenance (OM&M) of the groundwater and soil vapor extraction treatment systems at MKC's facility at 201 Waubesa Street, Madison, Wisconsin (Site). Wisconsin Department of Natural Resources (WDNR) Form 4400-194 was completed per the requirements of NR 724.13(3). In addition, an update on work completed for the City of Madison's Rain Garden is included in this report. A comprehensive summary and discussion of the site will be included in the 2020 Annual Report which will be submitted in early 2021.

## **Groundwater Extraction and Treatment System OM&M**

MKC is operating a Groundwater Extraction and Treatment System (GETS) for extraction and treatment of tetrachloroethene (PCE)-impacted groundwater.

### **GETS System Operation**

Approximately 9,908,962 gallons of groundwater were treated between January 1, 2020 and June 30, 2020. A GETS operation summary log for this reporting period is included in Table 1. Approximately 116 pounds of VOCs were removed between January 1 and June 30, 2020. A trend plot depicting the cumulative VOCs removed over time since the start-up of the GETS system is included in Trend Plot A.1 of Attachment 1. In addition, the trend plot showing PCE concentration verses time for the groundwater extraction well (GWE-1) is include in Trend Plot A.2 of Attachment 1. Additional system operation information is noted in the attached Remediation Site Operation, Maintenance, Monitoring, and Optimization Report Form 4400-194 in Attachment 2.

The GETS system was shut down for several days in January 2020 after the accidental introduction of a small amount of Renoclean SGC 62 (cleaning agent). The introduction and subsequent steps were documented in a letter to WDNR on January 8, 2020. After the GETS system components were flushed to remove the cleaning agent, the GETS was restarted.

### **GETS Monthly Discharge Monitoring Reports**

MKC/TRC electronically submits monthly (long report) and quarterly (short report) Discharge Monitoring Reports (DMRs) through the WDNR Web Access Management System (WAMS) which is a requirement for the system operation and discharge permit (Wisconsin Pollution Discharge Elimination System Permit number WI-0046566-6). For performance monitoring and permit compliance, TRC

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collects samples of the extracted groundwater (GETS influent) and treated groundwater (GETS effluent) on a quarterly basis, and after scheduled cleaning events. Table 2 provides the influent and effluent laboratory analytical results for this reporting period.

The DMR long reports are submitted monthly and include daily flow and permanganate neutralization verification. Total suspended solids are analyzed for the influent and effluent if system cleaning is completed during that month. The DMR short reports are submitted on a quarterly basis following influent and effluent system monitoring for volatile organic compounds (VOCs) and select polycyclic aromatic hydrocarbons (PAHs). The DMRs for January through June 2020 were submitted electronically and a copy of the last submittal from the June 2020 monitoring event is included in Attachment 3. Laboratory analytical reports from the January 2020 restart and quarterly sampling events are included in Attachment 4.

### **GETS Monthly Vapor Sampling**

The GETS produces gases which are treated with granular activated carbon (GAC) for removal of vapor-phase VOCs. The GAC influent and GAC effluent gas are sampled on a semi-annual basis for performance and compliance monitoring, and were sampled June 9, 2020 during this reporting period. An analytical summary table with influent and effluent results are included in Table 3 for this and the 2019 reporting period (for comparison) and the 2020 laboratory analytical reports are included in Attachment 4. An emission rate was calculated based on the effluent analytical results and system flow rate; and results were compared to NR 445 and NR 406 effluent emissions standards. No regulatory standards for effluent emissions from the system were exceeded.

The influent gas (pre-carbon treatment on June 9, 2020) was analyzed for voluntary comparison to regulatory standards, and the influent gas concentrations were also below the established NR 445 and NR 406 effluent emissions standards.

### **Soil Vapor Extraction System OM&M**

The SVE system has been shut down since October 2018. Soil gas has been monitored during the SVE shut down, and the final proposed round of soil gas monitoring was completed in July and October 2019 and further discussed in the 2019 Operation, Monitoring, and Maintenance Annual Report (TRC, 2020).

Additional system operation information is noted in the attached Remediation Site Operation, Maintenance, Monitoring, and Optimization Report Form 4400-194 in Attachment 2.

### **Site Groundwater Monitoring**

Water level gauging and groundwater sampling at the Site for the first half of the 2020 calendar year was not conducted due to the shut-down of the MKC facility during the Wisconsin Department of Health Services Safer at Home order due to the spread of the SARS-CoV-2 virus, which causes COVID-19. A subset of groundwater monitoring, selecting wells for PCB monitoring, was completed in July 2020 and the more extensive semi-annual site monitoring event is planned for October 2020. The July and

October groundwater monitoring events will be completed as outlined in Table 4 and documented in the annual report for the site which will cover activities from July to December 2020.

## **Monitoring Well Network and Sampling Program**

The Site contains 39 monitoring wells, 4 multi-port wells, and one extraction well (GWE-1). The wells are installed in unconsolidated units and/or bedrock and their locations are shown on Figure 2. The Site's near-surface geology consists of two unconsolidated units consisting of fill material and glacially-derived deposits, which overlie three bedrock formations (Lone Rock, Wonewoc, and Eau Claire).

## **Groundwater Flow Conditions**

Water levels at 40 Site monitoring wells and 20 multi-port well intervals will be gauged in October 2020. The most recently available data, including a water table map and potentiometric surface maps for the site, were included in the 2019 Operation, Monitoring, and Maintenance Annual Report (TRC, 2020). Updated water table and potentiometric surface maps will be included in the 2020 Operation, Monitoring, and Maintenance Annual Report.

## **Groundwater Sampling Results**

Site groundwater monitoring results for the site are discussed in the 2019 Operation, Monitoring, and Maintenance Annual Report (TRC, 2020) and reports referenced within that report. The 2020 annual report will include further discussion of the site groundwater monitoring, including the July and October sampling results.

## **Rain Garden Semi-annual Sampling**

TRC completed the first semi-annual round of sediment sampling as recommended in the December 4, 2018, Rain Garden – 2018 Sediment Monitoring (BRRS #02-13-562649) letter. A sediment sample was collected from manhole MH-1A and from the Outfall point into the rain garden on June 9, 2020 and analyzed for PCBs using EPA Method 8082. In accordance with Section D Part 2 of the April 2, 2019, U.S. Environmental Protection Agency TSCA PCB Coordinated Approval, one water sample was collected from the outfall area on June 10, 2020 and analyzed for PCBs. Figure 4 shows the location of the sample points, Table 5 includes a summary of the sediment samples collected to date, and Attachment 5 includes the laboratory analytical report for the sediment and water samples collected.

- Based on the semi-annual sediment sample results, the material within MH-1A contains low concentrations of PCBs, below the NR 720 industrial direct contact residual contaminant levels (RCLs). The sediment observed within MH-1A was primarily coarse grain material with some fines and organics.
- Sediment accumulation within the Rain Garden at the Outfall, generally consisted of fine grain material with some organics. Results from this semi-annual monitoring show that sediment containing PCBs continues to discharge from the Outfall, but at concentrations below the NR 720 industrial direct contact RCLs.
- No PCB aroclors analyzed were detected above the laboratory method detection limits for the water sample collected from the Outfall point.

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## Conclusions/Recommendations

The OM&M activities for the GETS were completed as required at the Site during this reporting period. The system operated continuously throughout this reporting period, with the exception of the shut-down due to the accidental introduction of the cleaning agent and for routine maintenance and repairs.

No site groundwater monitoring was completed during this reporting period due to the Wisconsin Department of Health Services Safer at Home order. A small set of site wells was monitored in July 2020 and a more extensive round of groundwater monitoring is planned for October 2020. Water table, potentiometric surface, and isoconcentration maps and a discussion on groundwater quality will be included in the 2020 Annual Report.

The last round of soil gas monitoring was completed in July/October 2019 and results were discussed in the 2019 Operation, Monitoring, and Maintenance Annual Report (TRC, 2020). TRC recommends conducting a meeting between the WDNR, MKC, and TRC to discuss the future operations of the SVE system.

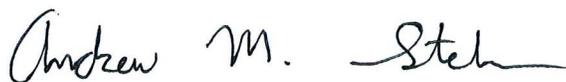
Based on the results of the January through June 2020 OM&M, the following work is planned for the remainder of the 2020 calendar year:

- GETS operation;
- SVE evaluation meeting;
- GETS compliance monitoring;
- Groundwater monitoring (July & October 2020);
- Annual report preparation; and
- Second semi-annual sampling event for the rain garden.

If you have any questions or comments related to this report, please contact Andrew Stehn (608-826-3665) or Katherine Vater (608-826-3663) of TRC.

Sincerely,

TRC



Andrew Stehn, P.E.  
Senior Project Engineer



Katherine Vater, P.E.  
Project Manger

cc: Mark Sheppard – MKC (electronic)  
Regional PCB Coordinator – U.S. EPA (electronic)

## References

TRC Environmental Corporation. 2019. Operations, Monitoring, and Maintenance Annual Report – January 1, 2019 – December 31, 2019, Madison-Kipp Corporation Groundwater and Soil Vapor Extraction Treatment Systems. April 7, 2020.

TRC Environmental Corporation. 2020. Notification of Renoclean SGC 62 Cleaning Agent Introduced to Groundwater Extraction and Treatment System. January 8, 2020.

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Table 1: Summary of Groundwater Extraction System Operation and Mass Removal - January - June 2020

Madison Kipp Corporation  
201 Waubesa Street  
Madison, Wisconsin

Date	Groundwater Discharged This Period (gal)	Cumulative Groundwater Discharged (gal) <sup>(1)</sup>	Average Discharge Flow Rate <sup>(2),(5)</sup> (gpd)	Average Discharge Flow Rate <sup>(2),(5),(6)</sup> (gpm)	Influent Sample Results <sup>(3)</sup>	Effluent Sample Results <sup>(3)</sup>	Cumulative VOCs Removed <sup>(1),(4)</sup> (pounds)	Comments
					VOCs (µg/L)	VOCs (µg/L)		
1/7/2020	449,645	84,026,929	57,549	40	NS	NS	1250	
1/14/2020	10,715	84,037,644	1,468	1	NS	NS	1250	System was shut down for cleaning after foreign substance introduced.
1/16/2020	109,784	84,147,428	57,550	40	NS	NS	1250	
1/23/2020	407,052	84,554,480	57,568	40	NS	NS	1260	
1/24/2020	47,486	84,601,966	57,462	40	NS	NS	1260	
1/27/2020	173,912	84,775,878	57,597	40	NS	NS	1260	
1/28/2020	61,635	84,837,513	57,409	40	NS	NS	1260	
2/4/2020	393,238	85,230,751	57,576	40	NS	NS	1270	
2/6/2020	115,516	85,346,267	57,459	40	NS	NS	1270	
2/14/2020	463,982	85,810,249	57,563	40	NS	NS	1270	
2/20/2020	351,208	86,161,457	57,575	40	NS	NS	1280	
2/21/2020	63,570	86,225,027	57,791	40	NS	NS	1280	
2/24/2020	165,970	86,390,997	57,548	40	NS	NS	1280	
2/26/2020	115,444	86,506,441	57,383	40	NS	NS	1280	
2/27/2020	55,069	86,561,510	57,883	40	NS	NS	1280	
3/2/2020	174,427	86,735,937	44,550	31	1503	15.6	1280	The GETS was shut down for a period of time due to a power outage.
3/4/2020	118,771	86,854,708	57,393	40	NS	NS	1280	
3/10/2020	121,241	86,975,949	20,434	14	NS	NS	1290	The GETS was shut down for a period of time between 3/6/2020 and 3/10/2020 due to scheduled electrical work near the facility.
3/20/2020	576,515	87,552,464	57,544	40	NS	NS	1290	
3/25/2020	289,921	87,842,385	57,537	40	NS	NS	1300	
4/2/2020	455,537	88,297,922	57,536	40	NS	NS	1300	
4/6/2020	--	--	--	--	NS	NS	1300	Meter reading not recorded during site visit.
4/14/2020	691,389	88,989,311	57,536	40	NS	NS	1310	
4/24/2020	545,815	89,535,126	54,578	38	NS	NS	1320	The GETS was shut down for a period of time on 4/21/20 due to a low pressure alarm for the peroxide metering pump system.
5/11/2020	976,111	90,511,237	57,526	40	NS	NS	1330	
5/18/2020	409,661	90,920,898	57,519	40	NS	NS	1340	
5/27/2020	523,118	91,444,016	57,512	40	NS	NS	1340	
6/5/2020	407,217	91,851,233	46,732	32	NS	NS	1350	The GETS was shut down for a period of time between 6/2/20 and 6/4/20 due to a power outage and replacement of a high level sensor in the air stripper unit.
6/9/2020	234,671	92,085,904	57,500	40	NS	NS	1350	GETS shut down for routine air stripper cleaning.
6/9/2020	2,910	92,088,814	11,387	8	1412	12.2	1350	GETS restarted following air stripper cleaning.
6/17/2020	443,105	92,531,919	57,505	40	NS	NS	1350	
6/24/2020	402,617	92,934,536	57,494	40	NS	NS	1360	

Notes:

-- = Field reading recorded is not consistent with previous collected data and not used for calculations or system issues did not allow a reading to be obtained.

VOCs = Volatile Organic Compounds

GETS - Groundwater Extraction and Treatment System

Updated By: B. Wachholz 3/17/2020

Checked/Updated By: L. Hoerning 6/23/2020

Checked By: A. Stehn 7/28/2020

Footnotes:

<sup>(1)</sup> The total gallons treated and VOCs removed by the GETS prior to 2020 are included in the 2019 Annual Report and reports referenced therein (TRC, April, 2020).

<sup>(2)</sup> The average discharge flow rate calculations noted take into account system down time and are based on volume of groundwater extracted and time elapsed between monitoring events.

<sup>(3)</sup> Analytical laboratory reports for sampling completed between January and June 2020 are included in Attachment 4 of the January to June 2020 Semi-annual Report (TRC, August 2020).

<sup>(4)</sup> Compliance sampling starting in 2019 is completed on a quarterly basis, prior to 2019 sampling was completed on a monthly basis. For weeks where samples were not collected the previously obtained sampling data was used for cumulative VOCs calculations.

<sup>(5)</sup> The extraction and transfer pumps for the GETS contain variable speed frequency drives that fluctuate based on liquid levels in the equalization and mixing tank along with the air stripper liquid level. At times the flow will fluctuate and readings collected over a few days time may reflect bias results for the overall system operation.

<sup>(6)</sup> The soil vapor extraction system was temporarily shutdown on October 25, 2018 for evaluation purposes. Based on the shutdown, the GETS operation flow rate was adjusted to 40 GPM.

**Table 2: GETS WPDES Compliance Sample Results - January - June 2020**  
**Madison-Kipp Corporation**  
**201 Waubesa Street, Madison, Wisconsin**

Parameter <sup>(3)</sup>	Permit Discharge Limits	Unit	Location Sample Date			
			Influent 3/2/2020	Effluent 3/2/2020	Influent 6/9/2020	Effluent 6/9/2020
<b>Miscellaneous</b>						
Total Suspended Solids	40	mg/L	--	--	1.0 J	<0.95
<b>VOCs</b>						
1,1,1-Trichloroethane	50	µg/L	<4.9	<0.24	<4.9	<0.24
1,1,2,2-Tetrachloroethane	50	µg/L	<5.5	<0.28	<5.5	<0.28
1,1,2-Trichloroethane	50	µg/L	<11.0	<0.55	<11.0	<0.55
1,1-Dichloroethene	50	µg/L	<4.9	<0.24	<4.9	<0.24
1,2-Dichloroethane	180	µg/L	<5.6	<0.28	<5.6	<0.28
Benzene	50	µg/L	<4.9	<0.25	<4.9	<0.25
Bromodichloromethane	120	µg/L	<7.3	<0.36	<7.3	<0.36
Bromoform	120	µg/L	<79.4	<4.0	<79.4	<4.0
Bromomethane	NE	µg/L	<19.4	<0.97	<19.4	<0.97
Carbon Tetrachloride	150	µg/L	<3.3	<0.17	<21.5	<1.1
cis-1,2-Dichloroethene	NE	µg/L	--	--	--	--
Chloromethane	NE	µg/L	<43.8	<2.2	<43.8	<2.2
Ethylbenzene	NE	µg/L	<4.4	<0.22	<6.4	<0.32
Tetrachloroethene	50	µg/L	1370	12.5	1280	10.2
Toluene	NE	µg/L	<3.4	<0.17	<5.4	<0.27
Total Xylenes	NE	µg/L	<30.0	<1.5	<30.0	<1.5
trans-1,2-Dichloroethene	NE	µg/L	--	--	--	--
Trichloroethene	50	µg/L	133	3.1	132	2.0
Vinyl Chloride	10	µg/L	<3.5	<0.17	<3.5	<0.17
Total BTEX <sup>(1)</sup>	750	µg/L	<30.0	<1.5	<30.0	<1.5
Total VOCs (includes BTEX)	NE	µg/L	1503	15.6	1412	12.2
<b>PAHs</b>						
Benzo(a)anthracene	NE	µg/L	<0.0069	<0.0071	<0.0073	<0.0069
Benzo(a)pyrene	0.1	µg/L	<0.0097	<0.0099	<0.010	<0.0097
Benzo(b)fluoranthene	NE	µg/L	<0.0053	<0.0054	<0.0055	<0.0053
Benzo(g,h,i)perylene	NE	µg/L	<0.0062	<0.0064	<0.0065	<0.0062
Benzo(k)fluoranthene	NE	µg/L	<0.0069	<0.0071	<0.0073	<0.0069
Chrysene	NE	µg/L	<0.012	<0.012	<0.013	<0.012
Dibenzo(a,h)anthracene	NE	µg/L	<0.0092	<0.0095	<0.0096	<0.0092
Fluoranthene	NE	µg/L	<0.0098	<0.010	<0.010	<0.0098
Indeno(1,2,3-cd)pyrene	NE	µg/L	<0.016	<0.017	<0.017	<0.016
Naphthalene	70	µg/L	<0.017	<0.017	<0.018	<0.017
Phenanthrene	NE	µg/L	<0.013	<0.013	<0.013	<0.013
Pyrene	NE	µg/L	<0.0070	<0.0072	<0.0074	<0.0070
PAHs Group of 10 Total <sup>(2)</sup>	0.1	µg/L	<0.016	<0.017	<0.017	<0.016

Notes:

< = Less than

µg/L = Micrograms per liter

mg/L = Milligrams per liter

J = Estimated value. Analyte detected at a level less than the reporting limit and greater than or equal to the detection limit.

NE = Not Established

-- = Not analyzed

PAHs = Polynuclear Aromatic Hydrocarbons

VOCs = Volatile Organic Compounds

TSS = Total Suspended Solids

Footnotes:

<sup>(1)</sup> Total BTEX is the sum of the benzene, toluene, ethylbenzene and xylene concentrations. If all compounds were below their corresponding laboratory detection limits, then the highest detection limit of the BTEX compounds was noted.

<sup>(2)</sup> PAH group of 10 (Polynuclear Aromatic Hydrocarbons) include the sum of the following individual compounds: benzo(a)anthracene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, fluoranthene, indeno(1,2,3-cd)pyrene, phenanthrene, and pyrene. If all compounds were below their corresponding laboratory detection limits, then the highest detection limit of the PAH group compounds was noted.

<sup>(3)</sup> Following WDNR approval, compliance monitoring parameters and frequency were adjusted in 2019. VOCs and PAHs are monitored on a quarterly basis and TSS is monitored on a periodic basis based on system cleaning.

Updated by: Andrew Stehn 06/23/2020

Checked by: L. Auner 7/28/2020

**Table 3: GETS Gas Analytical Data - June 2019 - June 2020**  
**Madison-Kipp Corporation**  
**201 Waubesa Street**  
**Madison, Wisconsin**

Sample Date	6/7/2019		12/9/2019		6/9/2020	
Sample Location	Influent	Effluent	Influent	Effluent	Influent <sup>(1)</sup>	Effluent
Vinyl Chloride	<b>16</b>	<b>9.7</b>	<b>10</b>	<b>11</b>	<9.6	<b>6.3</b>
1,1-Dichloroethene	<6.6	<1.2	<2.2	<2.1	<9.6	<1.2
cis-1,2-Dichloroethene	<b>1500</b>	<b>420</b>	<b>890</b>	<b>530</b>	<b>830</b>	<b>240</b>
Benzene	<6.6	<1.2	<2.2	<2.1	<9.6	<1.2
Trichloroethene	<b>660</b>	<b>75</b>	<b>350</b>	<b>430</b>	<b>560</b>	<b>32</b>
Toluene	<6.6	<b>1.4</b>	<b>2.6</b>	<2.1	<b>18</b>	<1.2
Tetrachloroethene	<b>1700</b>	<b>200</b>	<b>810</b>	<b>230</b>	<b>2800</b>	<b>200</b>
Ethyl Benzene	<6.6	<1.2	<2.2	<2.1	<9.6	<1.2
m,p-Xylene	<6.6	<1.2	<b>2.3</b>	<2.1	<9.6	<1.2
o-Xylene	<6.6	<1.2	<2.2	<2.1	<9.6	<1.2
1,3,5-Trimethylbenzene	<6.6	<1.2	<2.2	<2.1	<9.6	<1.2
1,2,4-Trimethylbenzene	<6.6	<1.2	<2.2	<2.1	<9.6	<1.2

**Notes:**

All concentrations in this table are reported in ppbv unless otherwise noted.

All samples were analyzed using Method TO-15 and the analytes shown in the table are from the VOC analyte list. Only analytes that were detected in at least one sample are shown in the table. A complete list of constituents analyzed are included in the laboratory analytical reports.

< = Constituent not detected above noted laboratory method detection limit.

The SVE system was shut down in October 2018 for evaluation purposes. Results summarized between November 2018 and December 2019 are representative of the GETS gas concentrations only.

**Bold** = Constituent detected above laboratory detection limit.

SVE = Soil vapor extraction

GETS = Groundwater extraction and treatment system

ppbv = parts per billion by volume

VOCs = Volatile Organic Compounds

**Footnotes:**

<sup>(1)</sup> Chloromethane was detected in the influent sample from the June 2020 sampling event. The reported detection may be due to lab contamination and will be further assessed during future sampling events.

Updated by: L. Auner, 6/29/2020  
Checked by: L. Hoerning 7/1/2020

**Table 4: Adjusted Groundwater Monitoring Plan - 2020**  
**Madison-Kipp Corporation**  
**201 Waubesa Street**  
**Madison, Wisconsin**

Well/ Point ID	Bedrock Unit	Screened Interval (ft bgs)	October Gauging	July PCB Sampling	October VOC Sampling	October PCB Sampling	Pump Type
GWE-1*	Lone Rock/ Wonewoc	55-175	x		x		NA
MW-1	Unconsolidated	14-24	x		x		Peristaltic
MW-2S	Unconsolidated	19-29	x				NA
MW-2D	Upper Lone Rock	39-44	x		x		Peristaltic
MW-3S	Unconsolidated	19-29	x		x		Peristaltic
MW-3D	Upper Lone Rock	48-53	x	x	x	x	Peristaltic
MW-3D2	Lower Lone Rock	76-81	x		x		Peristaltic
MW-3D3	Lower Wonewoc	214-224	x		x		GeoSub
MW-4S	Unconsolidated/ Upper Lone Rock	35-50	x	x		x	NA
MW-4D	Upper Lone Rock	65-70	x	x		x	NA
MW-4D2	Lower Lone Rock	91-96	x		x		Bladder
MW-5S	Upper Lone Rock	34-44	x	x	x	x	Peristaltic
MW-5D	Lower Lone Rock	75-80	x		x		Peristaltic
MW-5D2	Lower Wonewoc	166-171	x		x		Bladder
MW-5D3	Lower Wonewoc	225-235	x		x		GeoSub
MW-6S	Unconsolidated/ Upper Lone Rock	32-42	x	x	x	x	Bladder
MW-6D	Upper Lone Rock	66-71	x		x		Bladder
MW-7	Unconsolidated	25-35	x				NA
MW-8	Unconsolidated	24-34	x				NA
MW-9D	Upper Lone Rock	44-49	x		x		Peristaltic
MW-9D2	Lower Lone Rock	64-69	x		x		Peristaltic
MW-10S	Unconsolidated	11-21	x				NA
MW-11S	Unconsolidated	24-34	x	x		x	NA
MW-12S	Unconsolidated	3-13	x				NA
MW-17	Lower Wonewoc	160-170	x		x		Bladder
MW-18S	Unconsolidated	20-30	x				NA
MW-21D2	Upper/Lower Wonewoc	110-170					Well abandoned on October 24, 2018
MW-22S	Unconsolidated	25-35					Well Abandoned on January 16, 2018
MW-22D	Upper Lone Rock	45-50					Well Abandoned on January 16, 2018
MW-23S	Unconsolidated	25-35					Well Abandoned on January 16, 2018
MW-23D	Upper Lone Rock	45-50					Well Abandoned on January 16, 2018
MW-24	Upper Lone Rock	30-40	x	x		x	NA
MW-25D	Upper Wonewoc	120-130	x		x		Bladder
MW-25D2	Upper Wonewoc	160-170	x		x		Bladder
MW-26S	Unconsolidated	6.8-16.8	x				NA
MW-27D	Upper Wonewoc	130-140	x		x		Bladder
MW-27D2	Lower Wonewoc	170-180	x		x		Bladder
MW-28	Unconsolidated	28-38	x	x	x	x	Peristaltic
MW-29S	Unconsolidated	24-34	x	x		x	Peristaltic
MW-29D	Upper Lone Rock	45-50	x	x		x	Bladder
MP-13 Port 1	Lower Wonewoc	163-167	x		x		Westbay
MP-13 Port 2	Upper Wonewoc	135-139	x		x		Westbay
MP-13 Port 3	Upper Wonewoc	121-125	x		x		Westbay
MP-13 Port 4	Upper Wonewoc	102-106	x		x		Westbay
MP-13 Port 5	Lower Lone Rock	81-85	x		x		Westbay
MP-13 Port 6	Lower Lone Rock	67-71	x		x		Westbay
MP-13 Port 7	Upper Lone Rock	44-48	x		x		Westbay
MP-14 Port 1	Lower Wonewoc	170-178	x		x		Westbay
MP-14 Port 2	Upper Wonewoc	135-140	x		x		Westbay
MP-14 Port 3	Upper Wonewoc	100-105	x		x		Westbay
MP-14 Port 4	Lower Lone Rock	70-75	x				NA

**Table 4: Adjusted Groundwater Monitoring Plan - 2020**  
**Madison-Kipp Corporation**  
**201 Waubesa Street**  
**Madison, Wisconsin**

<b>Well/ Point ID</b>	<b>Bedrock Unit</b>	<b>Screened Interval (ft bgs)</b>	<b>October Gauging</b>	<b>July PCB Sampling</b>	<b>October VOC Sampling</b>	<b>October PCB Sampling</b>	<b>Pump Type</b>
MP-15 Port 1	Lower Wonewoc	177-187	x		x		Westbay
MP-15 Port 2	Lower Wonewoc	142-146	x		x		Westbay
MP-15 Port 3	Upper Wonewoc	120-125	x		x		Westbay
MP-15 Port 4	Upper Wonewoc	100-105	x		x		Westbay
MP-15 Port 5	Upper Wonewoc	88-92	x		x		Westbay
MP-16 Port 1	Lower Wonewoc	175-179	x		x		Westbay
MP-16 Port 2	Upper Wonewoc	140-144	x		x		Westbay
MP-16 Port 3	Upper Wonewoc	106-116	x		x		Westbay
MP-16 Port 4	Lower Lone Rock	80-84	x				NA
<b>Total Sample Points:</b>			<b>55</b>	<b>10</b>	<b>40</b>	<b>10</b>	

Notes:

\* = The GWE-1 influent sample results from the month of the sampling event will be used.

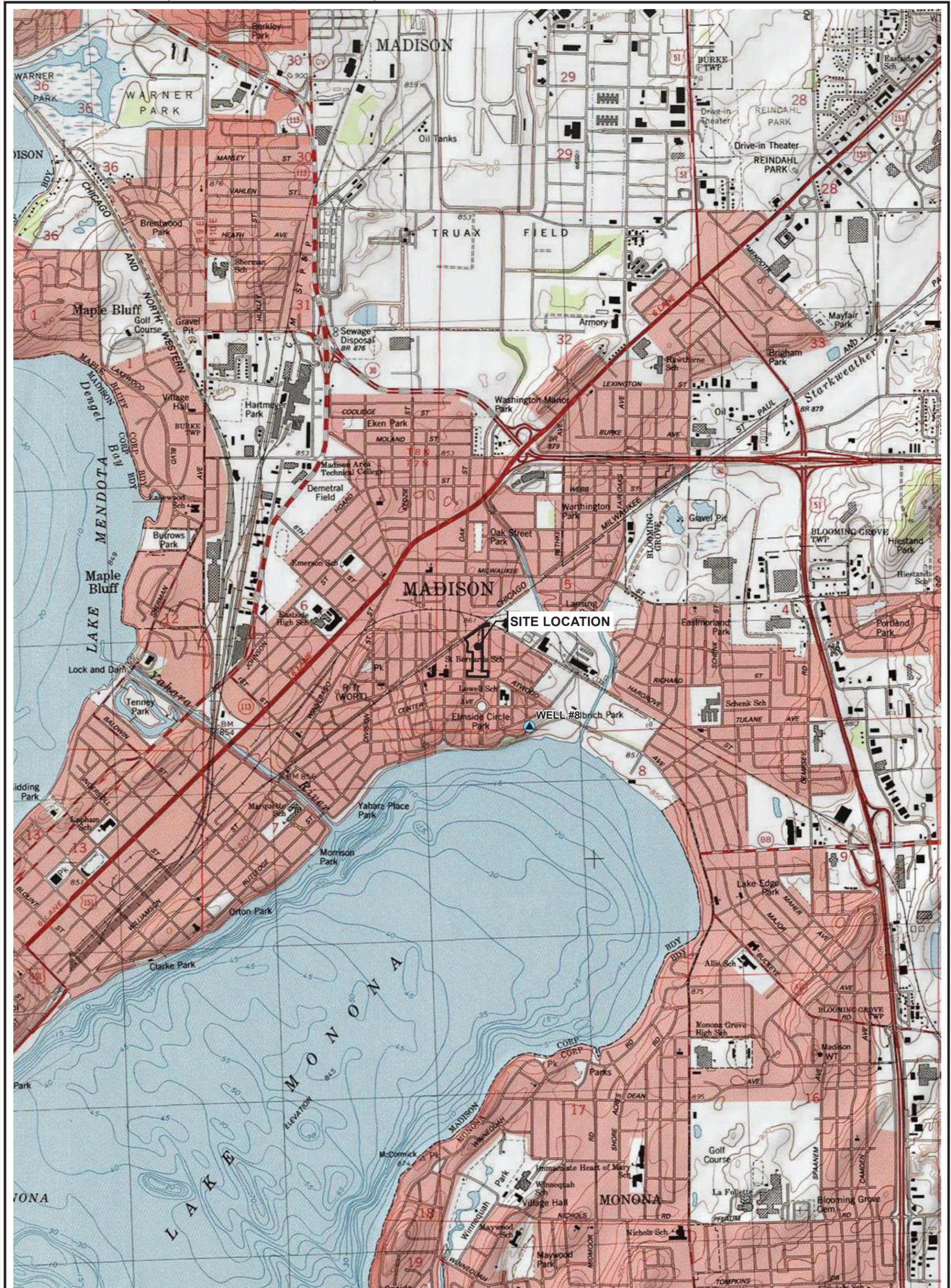
**Table 5: Storm Sewer System Sediment Sampling Analytical Results Summary**  
**Madison-Kipp Corporation**  
**201 Waubesa Street, Madison, Wisconsin**

Parameter	Unit <sup>(2)</sup>	NR 720 RCL	MH-1A											OUTFALL SAMPLE									
		Industrial Direct Contact <sup>(1)</sup>	Storm Sewer	MH-1A(3)-Basin	MH-1A 9/22/17	MH-1A (10/6/17)	MH-1A (10/17/17)	MH-1A (02/21/18)	MH-1A 051018	MH-1A 082318	MH-1A 100818	MH-1A (5/30/2019)	MH-1A 100819	MH-1A (06/09/20)	Pipe	Outfall (6/30)	Outfall 9/22/17	Outfall Pipe-051018	Outfall-082318	Outfall 100818	Outfall (5/30/2019)	Outfall (100819)	Outfall (06/09/20)
Sample Date	--	--	12/28/2016	6/30/2017	9/22/2017	10/6/2017	10/17/2017	2/21/2018	5/10/2018	8/23/2018	10/8/2018	5/30/2019	10/8/2019	6/9/2020	12/19/2016	6/30/2017	9/22/2017	5/10/2018	8/23/2018	10/8/2018	5/30/2019	10/8/2019	6/9/2020
Matrix	--	--	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
PCB-1016	mg/kg	28	<0.011	<0.0092	<0.0089	<0.0097	<0.010	<0.0094	<0.0083	<0.0053	<0.0058	<0.0058	<0.0059	<0.0059	<0.0095	<0.0086	<0.011	<0.0099	<0.0061	<0.0067	<0.0080	<0.0059	<0.0061
PCB-1221	mg/kg	0.883	<0.0059	<0.0051	<0.0049	<0.0054	<0.0057	<0.0052	<0.0046	<0.0076	<0.0084	<0.0083	<0.0084	<0.0085	<0.0053	<0.0048	<0.0061	<0.0055	<0.0088	<0.0096	<0.011	<0.0085	<0.0087
PCB-1232	mg/kg	0.792	<0.0040	<0.0035	<0.0034	<0.0037	<0.0039	<0.0036	<0.0031	<0.0050	<0.0056	<0.0055	<0.0056	<0.0056	<0.0036	<0.0032	<0.0042	<0.0038	<0.0059	<0.0064	<0.0076	<0.0057	<0.0058
PCB-1242	mg/kg	0.972	<0.0063	<0.0055	<0.0053	<0.0058	<0.0061	<0.0056	<0.0049	<0.010	<0.011	<0.011	<0.012	<0.012	<0.0057	<0.0051	<0.0066	<0.0059	<0.012	<0.013	<0.016	<0.012	<0.012
PCB-1248	mg/kg	0.975	<b>3.6</b>	<b>2.2</b>	0.11	0.23	0.71	0.33	0.15	0.14	0.16	0.24	0.11 J	0.14	<b>9.2</b>	<b>5.0</b>	<b>4.0</b>	<b>1.9</b>	0.32	0.57	0.43	0.33	0.33
PCB-1254	mg/kg	0.988	<0.0063	<0.0055	<0.0053	<0.0058	<0.0061	<0.0056	<0.0049	<0.0084	<0.0093	<0.0092	<0.0093	<0.0094	<0.0057	<0.0051	<0.0066	<0.0059	<0.0097	<0.011	<0.013	<0.0094	0.16
PCB-1260	mg/kg	1	<0.0034	<0.003	<0.0029	<0.0031	<0.0033	<0.0031	<0.0027	<0.0081	<0.0090	<0.0089	<0.0091	<0.0091	0.37	<0.0028	<0.0036	<0.0032	<0.0095	<0.010	<0.012	<0.0091	<0.0094
Total PCBs	mg/kg	0.967	<b>3.6</b>	<b>2.2</b>	0.11	0.23	0.71	0.33	0.15	0.14	0.16	0.24	0.11 J	0.14	<b>9.6</b>	<b>5.0</b>	<b>4.0</b>	<b>1.9</b>	0.32	0.57	0.43	0.33	0.50

Notes:  
 < = Less than  
 mg/kg = Milligrams per kilogram  
 J = Estimated value. Analyte detected at a level less than the reporting limit and greater than or equal to the detection limit.  
 µg/L = Micrograms per liter  
 RCL = residual contaminant level  
 PCBs = Polychlorinated Biphenyls  
 Bold and Italics = WDNR Industrial Direct Contact Limit Exceedance

Updated by: L. Hoerning 6/25/2020  
 Checked by: A. Stehn 7/28/2020

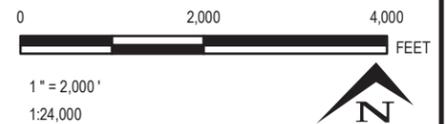
Footnotes:  
<sup>(1)</sup> The total PCBs and specific aroclors are compared to the WDNR industrial direct contact residual contaminant levels (June 2018).  
<sup>(2)</sup> Samples are reported in mg/kg unless otherwise noted.



**LEGEND**

-  SITE PROPERTY BOUNDARY
-  MUNICIPAL SUPPLY WELL

BASE MAP FROM USGS 7.5 MINUTE TOPOGRAPHIC QUADRANGLE SERIES, "USA TOPO MAPS" WEB BASEMAP SERVICE LAYER.




708 Heartland Trail  
Suite 3000  
Madison, WI 53717  
Phone: 608.826.3600

PROJECT:	<b>MADISON-KIPP CORPORATION 201 WAUBESA STREET MADISON, WISCONSIN</b>
TITLE:	<b>SITE LOCATION MAP</b>

DRAWN BY:	S. MAJOR
CHECKED BY:	A. STEHN
APPROVED BY:	K. VATER
DATE:	AUGUST 2019
PROJ. NO.:	323372
FILE:	323372-2019S2-001.mxd

**FIGURE 1**





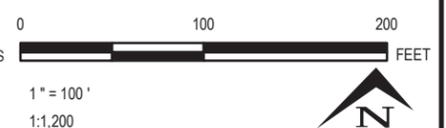
**LEGEND**

- SITE PROPERTY BOUNDARY
- SOIL EXTRACTION WELL

- VAPOR MONITORING POINT
- VAPOR MONITORING POINT (PROPOSED 2018 SAMPLING)
- VAPOR MONITORING POINT (LOST)

**NOTES**

1. BASE MAP IMAGERY FROM ESRI/DIGITAL GLOBE, 2018.
2. PARCEL INFORMATION FROM WISCONSIN STATE CARTOGRAPHER'S OFFICE, 2018



PROJECT:

**MADISON-KIPP CORPORATION  
201 WAUBESA STREET  
MADISON, WISCONSIN**

TITLE:

**SOIL VAPOR EXTRACTION WELL AND  
VAPOR MONITORING POINT LOCATION MAP**

DRAWN BY:

S. MAJOR

CHECKED BY:

A. STEHN

APPROVED BY:

K. VATER

DATE:

AUGUST 2019

PROJ. NO.:

323372

FILE:

323372-2019S2-003.mxd

**FIGURE 3**

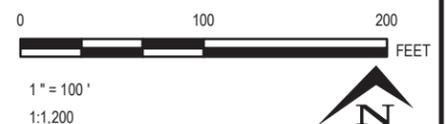


**NOTES**

1. MH-4AR REPRESENTS TWO COLLECTION POINTS THAT MERGE INTO ONE DISCHARGE POINT.
2. MH-5AH REPRESENTS A DISCHARGE PIPE LOCATED IN MANHOLE MH-5A, BOTH ABANDONED IN 2017.
3. MH-2W AND THE SECTION OF PIPE BETWEEN MH-2W AND MH-2A WERE ABANDONED IN 2017.
4. BASEMAP FROM GOOGLE EARTH PRO & PARTNERS, 2014.

**LEGEND**

- |  |                        |  |                  |  |                        |
|--|------------------------|--|------------------|--|------------------------|
|  | SITE PROPERTY BOUNDARY |  | S-1 PIPE SECTION |  | S-3-ABANDONED (NOTE 3) |
|  | ROOF DRAIN INLET       |  | S-2 PIPE SECTION |  | S-4 PIPE SECTION       |
|  | MANHOLE/CATCH BASIN    |  | S-3 PIPE SECTION |  |                        |
|  | OUTFALL                |  |                  |  |                        |



PROJECT:

**MADISON-KIPP CORPORATION  
 201 WAUBESA STREET  
 MADISON, WISCONSIN**

TITLE:

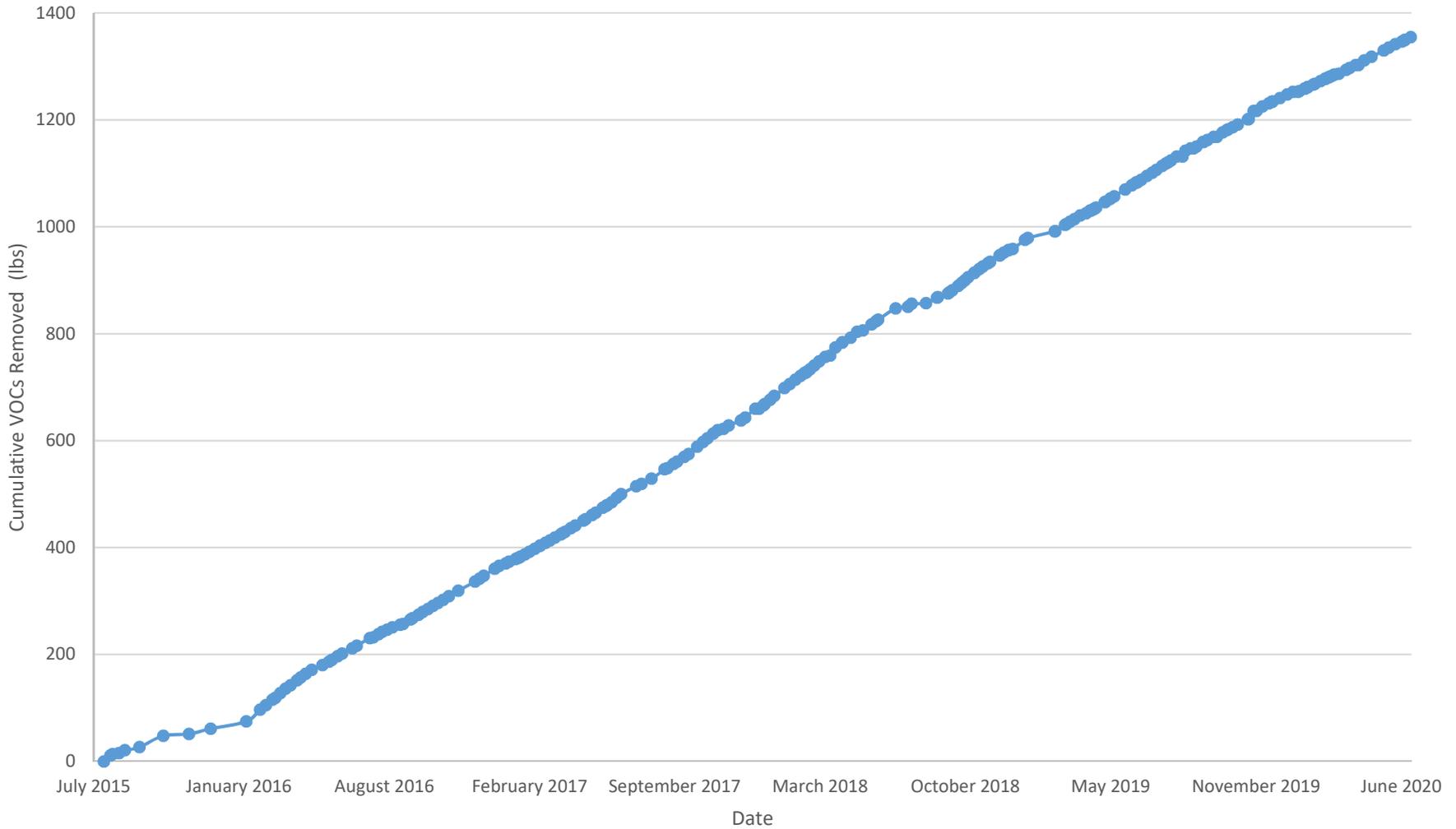
**RAIN GARDEN SITE MAP AND  
 STORM SEWER INFRASTRUCTURE**

DRAWN BY:	S. MAJOR
CHECKED BY:	A. STEHN
APPROVED BY:	K. VATER
DATE:	AUGUST 2019
PROJ. NO.:	323372
FILE:	323372-001.mxd

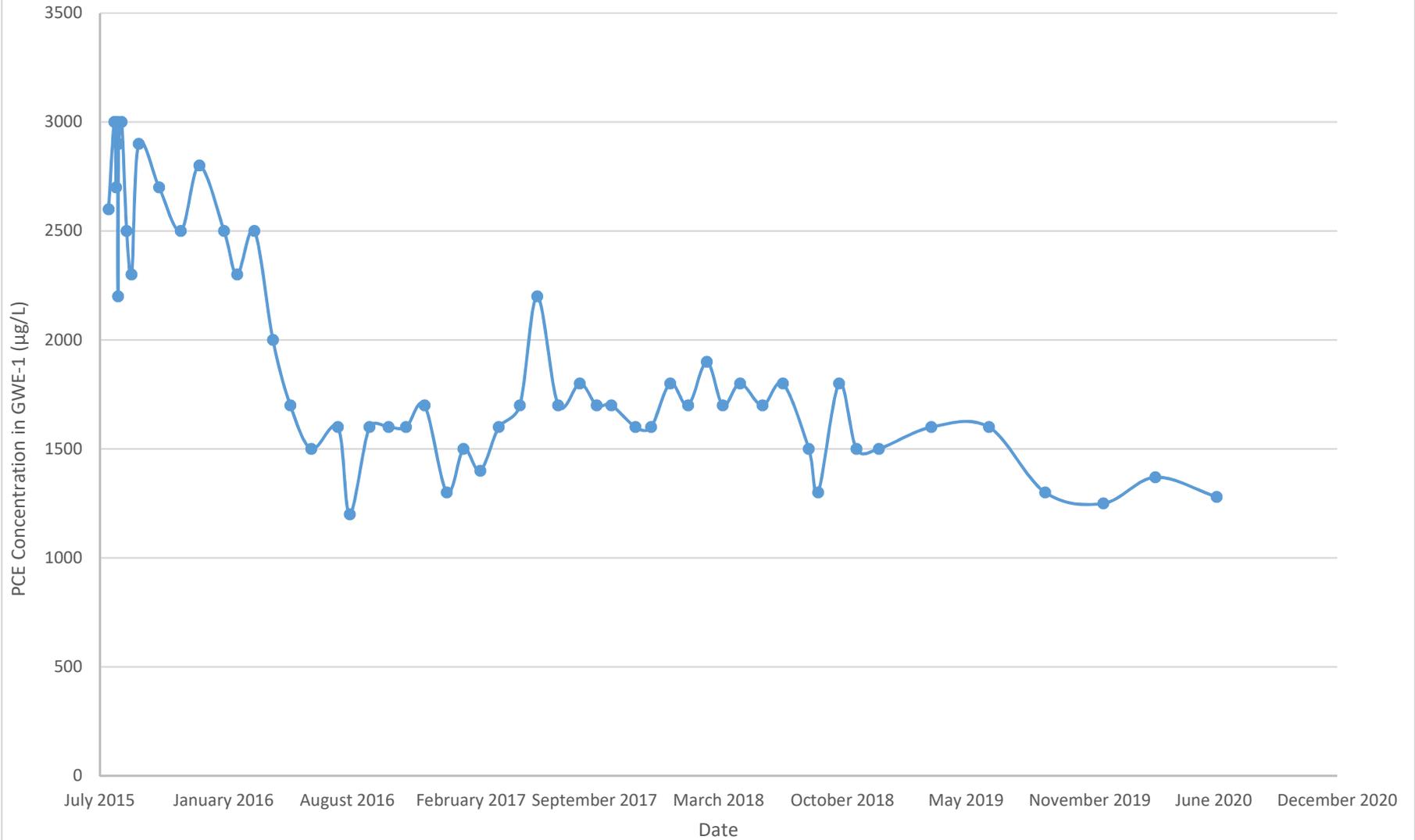
**FIGURE 4**

**Attachment 1**  
**Trend Plots**

Trend Plot A.1  
Groundwater Extraction System Operation  
Cumulative Volatile Organic Compounds (VOCs) Removed  
Madison Kipp Corporation  
201 Waubesa Street  
Madison, Wisconsin



Trend Plot A.2  
PCE Concentration in GWE-1  
Madison Kipp Corporation  
201 Waubesa Street  
Madison, Wisconsin



**Attachment 2**

**Remediation Site Operation, Maintenance, Monitoring, and  
Optimization Report Form 4400-194**

**GENERAL INSTRUCTIONS, PURPOSE AND APPLICABILITY OF THIS FORM:**

Completion of the applicable portions of this form is required under Wis. Admin. Code § NR 724.13(3). Failure to submit this form as required is a violation of that rule section and is subject to the penalties in Wis. Stats. § 292.99. This form must be submitted every six months for remediation projects that report operation and maintenance progress, in accordance with Wis. Admin. Code §. NR 724.13(3). A narrative report or letter containing the equivalent information required in this form may be submitted in lieu of the actual form. Submittal of this form is not a substitute for reporting required by department programs such as Waste Water or Air Management.

Notes:

1. Long-term monitoring results submitted in accordance with Wis. Admin. Code § NR 724.17(3) are required to be submitted within 10 business days of receiving sampling results and are not required to be submitted using this form. However, portions of this form require monitoring data summary information that may be based on information previously submitted in accordance with that section of code.
2. Responsible parties should check with the department Project Manager assigned to the site to determine if this form is required to be submitted at sites responded to under the Federal Comprehensive Environmental Response and Compensation Act (commonly known as Superfund) or an equivalent state-lead response.
3. Responsible parties should check with the department Project Manager assigned to the site to determine if any of the information required in this form may be omitted or changed and should obtain prior written approval for any omissions or changes.
4. Responsible parties are required to report separately on a semi-annual basis under Wis. Admin. Code § NR 700.11(1). Reporting under that provision is through an internet-based form. More information can be found at: <http://dnr.wi.gov/topic/Brownfields/documents/regs/NR700progreport.pdf>.
5. Personally identifiable information on this form is not intended to be used for any other purpose than tracking progress of the remediation by Remediation and Redevelopment Program. Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Open Records Law (Wis. Stats. §§ 19.31–19.39).

**Section GI - General Site Information**

**A. General Information**

1. Site name

Madison-Kipp Corporation

2. Reporting period from: 01/01/2020	To: 06/30/2020	Days in period: 182
3. Regulatory agency (enter DNR, DATCP and/or other) DNR	4. BRRTS ID No. (2 digit program-2 digit county-6 digit site specific) 02-13-558625	

5. Site location

Region South Central Region	County Dane	Address 201 Waubesa Street					
Municipality name <input checked="" type="radio"/> City <input type="radio"/> Town <input type="radio"/> Village Madison			Township 07 N	Range <input checked="" type="radio"/> E <input type="radio"/> W 10	Section 5	¼ SW	¼ NW

6. Responsible party Name Tony Koblinski	7. Consultant <input type="checkbox"/> Select if the following information has changed since the last submittal	
Mailing address 201 Waubesa Street, Madison, WI 53704	Company name TRC	
Phone number (608) 242-5244	Mailing address 708 Heartland Trail Suite 3000 Madison, WI 53717	Phone number (608) 826-3600

8. Contaminants  
VOCs, metals, PCBs

9. Soil types (USCS or USDA)  
CL, SP, GP

10. Hydraulic conductivity(cm/sec): 0.08 - 13.2	11. Average linear velocity of groundwater (ft/yr) 0.5 - 12.9
--	--

Site name: Madison-Kipp Corporation  
Reporting period from: 01/01/2020 To: 06/30/2020  
Days in period: 182

## Remediation Site Operation, Maintenance, Monitoring & Optimization Report

Form 4400-194 (R 07/19)

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12. If soil is treated ex situ, is the treatment location off site?  Yes  No

If yes, give location: Region

County

Municipality name  City  Town  Village

Township

Range

E

Section

1/4

1/4

1/4

N

W

### B. Remediation Method

Only submit sections that apply to an individual site. Check all that apply:

- Groundwater extraction (submit a completed Section GW-1).
- Free product recovery (submit a completed Section GW-1).
- In situ air sparging (submit a completed Section GW-2).
- Groundwater natural attenuation (submit a completed Section GW-3).
- Other groundwater remediation method (submit a completed Section GW-4).
- Soil venting (including soil vapor extraction building venting and bioventing submit a completed Section IS-1).
- Soil natural attenuation (submit a completed Section IS-2).
- Other in situ soil remediation method (submit a completed Section IS-3).
- Biopiles (submit a completed Section ES-1).
- Landspreading/thinspreading of petroleum contaminated soil (submit a completed Section ES-2).
- Other ex situ remediation method (submit a completed Section ES-3).
- Site is a landfill (submit a completed Section LF-1).

### C. General Effectiveness Evaluation for All Active Systems

If the remediation is active (not natural attenuation), complete this subsection.

1. Is the system operating at design rates and specifications?  Yes  No

If the answer is no, explain whether or not modifications are necessary to achieve the goal that was previously established in design.

The onsite soil vapor extraction system is currently being evaluated for continued operation. The system as approved by the WDNR was temporarily shutdown in October 2018, and soil gas is being monitored at the site. The GETS system pump rate was adjusted to 40 gpm during the SVE shutdown period. Once the evaluation is complete the GETS will be adjusted to allow for the system to run at 45 gpm.

2. Are modifications to the system warranted to improve effectiveness  Yes  No

If yes, explain:

3. Is natural attenuation an effective low cost option at this time?  Yes  No

4. Is closure sampling warranted at this time?  Yes  No

5. Are there any modifications that can be made to the remediation to improve cost effectiveness?  Yes  No

If yes, explain:

The onsite soil vapor extraction system is currently being evaluated for continued operation. The system as approved by the WDNR was temporarily shutdown in October 2018, and soil gas is being monitored at the site.

Site name: Madison-Kipp Corporation  
Reporting period from: 01/01/2020 To: 06/30/2020  
Days in period: 182

## Remediation Site Operation, Maintenance, Monitoring & Optimization Report

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### D. Economic and Cost Data to Date

1. Total investigation cost: \_\_\_\_\_
2. Implementation costs (design, capital and installation costs, excluding investigation costs): \_\_\_\_\_
3. Total costs during the previous reporting period: \_\_\_\_\_
4. Total costs during this reporting period: \_\_\_\_\_
5. Total anticipated costs for the next reporting period: \_\_\_\_\_
6. Are any unusual or one-time costs listed in the reporting periods covered by D.3., D.4. or D.5. above?  Yes  No  
If yes, explain:

7. If closure is anticipated within 12 months, estimated costs for project closeout: \_\_\_\_\_

### E. Name(s), Signature(s) and Date of Person(s) Submitting Form

Legibly print name, date and sign. Only persons qualified to submit reports under ch. NR 712 Wis. Adm. Code are to sign this form for sites with any ongoing active remediation, monitoring or an investigation. Other persons may sign this form for sites with no response activities during the six month reporting period.

#### Registered Professional Engineers:

I hereby certify that I am a registered professional engineer in the State of Wisconsin, registered in accordance with the requirements of ch. A-E 4, Wis. Adm. Code; that this document has been prepared in accordance with the rules of Professional Conduct in ch. A-E 8, Wis. Adm. Code; and that, to the best of my knowledge, all information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code.

Print name	Title
Katherine Vater	Project Manager
Signature <i>Katherine Vater</i>	Date 8/18/2020

#### Hydrogeologists:

I hereby certify that I am a hydrogeologist as that term is defined in s. NR 712.03(1), Wis. Adm. Code, and that, to the best of my knowledge, all information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code.

Print name	Title
Signature	Date

#### Scientists:

I hereby certify that I am a scientist as that term is defined in s. NR 712.03(3), Wis. Adm. Code, and that, to the best of my knowledge, all information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code.

Print name	Title
Signature	Date

#### Other Persons:

Print name	Title
Andrew Stehn	Project Engineer
Signature <i>Andrew M. Stehn</i>	Date 08/18/2020

Site name: Madison-Kipp Corporation

Reporting period from: 01/01/2020

To: 06/30/2020

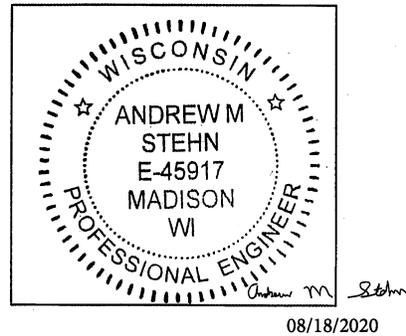
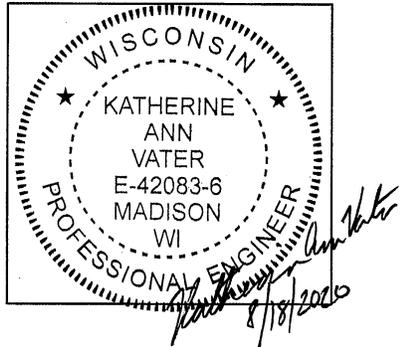
Days in period: 182

# Remediation Site Operation, Maintenance, Monitoring & Optimization Report

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**Professional Seal(s), if applicable:**



Site name: Madison-Kipp Corporation

Reporting period from: 01/01/2020 To: 06/30/2020

Days in period: 182

## Remediation Site Operation, Maintenance, Monitoring & Optimization Report

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### Section GW-1, Groundwater Pump and Treat Systems and Free Product Recovery Systems

#### A. Groundwater Extraction System Operation:

1. Total number of groundwater extraction wells or trenches available: 1 and the number in use during period: 1

2. Number of days of operation (only list the number of days the system actually operated, if unknown explain):  
172

3. System utilization in percent (days of operation divided by reporting time period multiplied by 100). If < 80%, explain:  
95%

4. Quantity of groundwater extracted during this time period: 9,908,962 gallons

5. Average groundwater extraction rate: 40 gpm

6. Quantity of dissolved phase contaminants removed during this time period in pounds: 116 lbs

#### B. Free Product Recovery System Operation

1. Is free product (nonaqueous phase liquid) being recovered at this site?  Yes  No

If yes, explain:

2. Quantity of free product extracted during this time period (enter none if none): \_\_\_\_\_ gallons

3. Average free product extraction rate: \_\_\_\_\_ gpm

#### C. System Effectiveness Evaluation

1. Is a contaminated groundwater plume fully contained in the capture zone?  Yes  No

If no, explain:

2. If free product is present, is the free product fully contained in capture zone?  Yes  No

If no, explain:

3. If free product is present in any wells at the site, but free product was not recovered during reporting period, explain:

4. If free product is not present, determine the single contaminant that requires the greatest percent reduction to achieve ch. NR 140 ES and PAL. Perform this calculation for all contaminants that were present at the site that have ch. NR 140 standards. Use the highest contaminant concentration measured in any sampling points during reporting period. If free product is present, write "FREE PRODUCT" in C.4.a.

a. Contaminant: Tetrachloroethene

b. Percent reduction necessary to reach ch. NR 140 ES and PAL: 99 %

c. Maximum contaminant concentration level in any monitoring well of that contaminant: 3,290 (Oct. 2019) µg/L

d. Maximum contaminant concentration level in any extraction well of that contaminant: 1,370 (March 2020) µg/L

Site name: Madison-Kipp Corporation

Reporting period from: 01/01/2020

To: 06/30/2020

Days in period: 182

## Remediation Site Operation, Maintenance, Monitoring & Optimization Report

Form 4400-194 (R 07/19)

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- e. If the maximum concentration in a monitoring well is more than one order of magnitude above the concentration measured in an extraction well, explain why the extracted groundwater contamination levels are significantly less than the levels at other locations within the aquifer.

Not applicable

### D. Additional Attachments

Attach the following to this form:

- Most recent report to the DNR Wastewater Program, if applicable.
- Groundwater contour map with capture zone indicated.
- Groundwater contaminant distribution map (may be combined with contour map).
- Graph of cumulative contaminant removal, if both free product recovery and ground water extraction are used, provide separate graphs.(Attachment 1 - Trend Plot A.1)
- Time versus groundwater contaminant concentration graphs for the contaminant listed in C.4.a. (above), as follows:
  - Graph of contaminant concentrations versus time for each extraction well in use during the period. (Attachment 1 - Trend Plot A.2)
  - Graph of contaminant concentrations versus time for the monitoring well with the greatest level of contamination. (See Appendix A Trend Plot A.3 of the 2019 Annual Report)
- Groundwater contaminant chemistry table. (See Table 16 of the 2019 Annual Report)
- Groundwater elevations table. (See Table 15 of the 2019 Annual Report)
- System operational data table. (Table 1)

Figures 3-13 - 2019 Annual Report - Update Figures will be provided in 2020 Annual Report )

#### 2019 Annual Report Reference:

TRC Environmental Corporation. 2019. Operations, Monitoring, and Maintenance Annual Report – January 1, 2019 – December 31, 2019, Madison-Kipp Corporation Groundwater and Soil Vapor Extraction Treatment Systems. April 7, 2020.

Site name: Madison-Kipp Corporation

Reporting period from: 01/01/2020 To: 06/30/2020

Days in period: 182

## Remediation Site Operation, Maintenance, Monitoring & Optimization Report

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### Section GW-2, In Situ Air Sparging Systems

#### A. In Situ Air Sparging System Operation

1. Number of air injection wells at the site and the number actually in use during the period: \_\_\_\_\_
2. Number of days of operation (only list the number of days the system actually operated, if unknown explain): \_\_\_\_\_
3. System utilization in percent (days of operation divided by reporting time period multiplied by 100). If < 80%, explain: \_\_\_\_\_

#### B. System Effectiveness Evaluation

1. If free product is not present, determine the single contaminant that requires the greatest percent reduction to achieve ch. NR 140 ES and PAL. Perform this calculation for all contaminants that were present at the site that have ch. NR 140 standards. Use the highest contaminant concentration measured in any sampling points during reporting period. If free product is present, write "FREE PRODUCT" in B.1.a.
  - a. Contaminant: \_\_\_\_\_
  - b. Percent reduction necessary to reach ch. NR 140 ES and PAL: \_\_\_\_\_ %
  - c. Maximum contaminant concentration level in any monitoring well: \_\_\_\_\_ µg/L
2. Is there any evidence that air is short circuiting through natural or man-made pathways?  Yes  No  
If yes, explain: \_\_\_\_\_
3. Is the size of the plume:  Increasing  Stabalized  Decreasing ?  
If increasing, explain: \_\_\_\_\_

#### C. Additional Attachments

Attach the following to this form:

- Groundwater contour map.
- Groundwater contaminant distribution map (may be combined with contour map).
- When contaminants are aerobically biodegradable, attach a dissolved oxygen in groundwater map (dissolved oxygen may be combined with the contaminant data on a single map).
- Site map with all air injection wells and groundwater monitoring points.
- Graph of contaminant concentrations versus time for the contaminant listed in B.1.a. (above) for the monitoring point with the greatest level of contamination.
- Groundwater contaminant chemistry table.
- Groundwater elevations table.
- System operational data table.

Site name: Madison-Kipp Corporation  
Reporting period from: 01/01/2020 To: 06/30/2020  
Days in period: 182

# Remediation Site Operation, Maintenance, Monitoring & Optimization Report

Form 4400-194 (R 07/19)

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## Section GW-3, Natural Attenuation (Passive Bioremediation) in Groundwater

### A. Effectiveness Evaluation

1. If free product is not present, determine the single contaminant that requires the greatest percent reduction to achieve ch. NR 140 ES and PAL. Perform this calculation for all contaminants that were present at the site that have ch. NR 140 standards. Use the highest contaminant concentration measured in any sampling points during reporting period. If free product is present, write "FREE PRODUCT" in A.1.a

a. Contaminant: \_\_\_\_\_

b. Percent reduction necessary to reach ch. NR 140 ES and PAL: \_\_\_\_\_ %

c. Maximum contaminant concentration level in any monitoring well of that contaminant: \_\_\_\_\_  $\mu\text{g/L}$

2. Aquifer parameters:

a. Hydraulic conductivity: \_\_\_\_\_  $\text{cm/sec}$

b. Groundwater average linear velocity: \_\_\_\_\_  $\text{ft/yr}$

3. Is there a downgradient monitoring well that meets ch. NR 140 standards?  Yes  No

4. Based on water chemistry results, is the plume:  Expanding  Stabalized  Contracting ?

5. If the answer in 4. (above) is "expanding," is natural attenuation still the best option?  Yes  No

If yes, explain:

6. Biodegradation parameters:

a. Upgradient (or other site specific background) DO level: \_\_\_\_\_  $\mu\text{g/L}$

b. DO levels in the part of the plume that is most heavily contaminated \_\_\_\_\_  $\mu\text{g/L}$

7. Is site closure a viable option within 12 months from the date of this form?  Yes  No

8. Are there any modifications that can improve cost effectiveness?  Yes  No

If yes, explain:

9. Have groundwater table fluctuations changed the contaminant level trends over time?  Yes  No

If yes, explain:

10. Has the direction of groundwater flow changed during the reporting period?  Yes  No

If yes, approximate change in degrees: \_\_\_\_\_

### B. Additional Attachments

Attach the following:

- Groundwater contour map.
- Groundwater contaminant distribution map (may be combined with contour map).
- When contaminants are aerobically biodegradable, attach a dissolved oxygen in groundwater map (dissolved oxygen may be combined with the contaminant data on a single map).
- Graph of contaminant concentrations versus time for the contaminant listed in A.1.a. (above) for the monitoring point with the greatest level of contamination.

Note: This is the minimum required graph; however, it is recommended that multiple time versus contamination concentration graphs as described in the instructions on page 24 for Natural Attenuation of Groundwater be submitted.

- Graph of contaminant concentrations versus distance.
- Groundwater contaminant chemistry table.
- Groundwater biological parameters.
- Groundwater elevations table.

Site name: Madison-Kipp Corporation

Reporting period from: 01/01/2020 To: 06/30/2020

Days in period: 182

## Remediation Site Operation, Maintenance, Monitoring & Optimization Report

Form 4400-194 (R 07/19)

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### Section GW-4, Other Groundwater Remediation Methods

#### A. Effectiveness Evaluation

1. If free product is not present, determine the single contaminant that requires the greatest percent reduction to achieve ch. NR 140 ES and PAL. Perform this calculation for all contaminants that were present at the site that have ch. NR 140 standards. Use the highest contaminant concentration measured in any sampling points during reporting period. If free product is present, write "FREE PRODUCT" in A.1.a.

a. Contaminant: \_\_\_\_\_

b. Percent reduction necessary: \_\_\_\_\_ %

c. Maximum contaminant concentration level in any monitoring well: \_\_\_\_\_ µg/L

2. Is the size of the plume:  Increasing  Stabalized  Decreasing ?

3. Describe the method used to remediate groundwater at the site:

4. List any additional information required by the DNR for this method for this site:

#### B. Additional Attachments

Attach the following:

- Groundwater contour map.
- Groundwater contaminant distribution map (may be combined with contour map).
- When contaminants are aerobically biodegradable, attach a dissolved oxygen in groundwater map (dissolved oxygen may be combined with the contaminant data on a single map).
- Graph of contaminant concentrations versus time for the contaminant listed in A.1.a. (above) for the monitoring point with the greatest level of contamination.
- Groundwater contaminant chemistry table.
- Groundwater elevations table.
- Any other attachments required by the DNR for this remediation method.

**Section IS-1, Soil Venting (Including Soil Vapor Extraction, Building Venting and Bioventing)****A. Soil Venting Operation**

**Note:** This form is not required for building vapor mitigation systems that are installed proactively to protect building occupants/users and are not considered part of ongoing active soil remediation.

1. Number of air extraction wells available and number of wells actually in use during the period: 0
  2. Number of days of operation (only list the number of days the system actually operated, if unknown explain):  
0, SVE system temporarily shutdown since October 2018 per WDNR approval.
  3. System utilization in percent (days of operation divided by reporting time period multiplied by 100). If < 80%, explain:  
0
4. Average depth to groundwater: 18.78 (Oct. 2019) ft

**B. Building Basement/Subslab Venting System Operation**

1. Number of venting points available and number of points actually in use during the period: 0
2. Number of days of operation (only list the number of days the system actually operated, if unknown explain):  
0
3. System utilization in percent (days of operation divided by reporting time period multiplied by 100). If < 80%, explain:  
0

**C. Effectiveness Evaluation**

1. Average contaminant removal rate for the entire system: 0 pounds per day
2. Average contaminant removal rate per well or venting point: 0 pounds per day
3. If the average contaminant removal rate is less than one pound per day for the entire system, or if the average contaminant removal rate per well is less than one tenth of a pound per day, evaluate the following:
  - a. If contaminants are aerobically biodegradable and confirmation borings have not been drilled in the past year:
    - i. Oxygen levels in extracted air: \_\_\_\_\_ percent
    - ii. Methane levels in extracted air (ppmv) If over 10 ppmv, explain:  
\_\_\_\_\_
  - iii. If methane is not present above 10 ppmv and if oxygen is greater than 20 percent in extracted air, you should either:
    - o Drill confirmation borings during the next reporting period, if the entire site should be considered for closure.
    - o Or, perform an in situ respirometry test in a zone of high contamination. Do not perform the test in an air extraction well, use a gas probe or water table well. If a zero order rate of decay based on oxygen depletion is less than 2 mg/kg per day, then you should drill confirmation borings, if the entire site should be considered for closure. If the rate of decay is between 2 and 10 mg/kg, operate for one more reporting period before evaluating further. If the zero order rate of decay is greater than 10 mg/kg total hydrocarbons, continue operating the system in a manner than maximizes aerobic biodegradation.
  - b. If contaminants are not aerobically biodegradable and confirmation borings have not been recently drilled during the past year, you should drill confirmation borings during the next reporting period if the entire site should be considered for closure.
  - c. If soil borings were drilled during the past year and soil contamination remains above acceptable levels, explain if the system effectiveness can be increased and/or if other options need to be considered to achieve cleanup criteria.

**D. Additional Attachments**

Attach the following to this form:

- Well and soil sample location map indicating all air extraction wells. If forced air injection wells are also in use, identify those wells. (See Figure 3)
- If water table monitoring wells are present at the site, a map of well locations. (Figure 2)
- Time versus vapor phase contaminant concentration graph. N/A
- Time versus cumulative contaminant removal graph. N/A
- Groundwater elevations table, if water table wells are present at the site; also list screen lengths and elevations. (See Table 15 of the 2019 Annual Report)
- Table of soil contaminant chemistry data. N/A
- Soil gas data, if gas probes are used to monitor subsurface conditions in locations other than where air is extracted. (See Table 17 of the 2019 Annual Report)
- System operational data table. N/A

2019 Annual Report Reference:

TRC Environmental Corporation. 2019. Operations, Monitoring, and Maintenance Annual Report – January 1, 2019 – December 31, 2019, Madison-Kipp Corporation Groundwater and Soil Vapor Extraction Treatment Systems. April 7, 2020.

Site name: Madison-Kipp Corporation

Reporting period from: 01/01/2020 To: 06/30/2020

Days in period: 182

## Remediation Site Operation, Maintenance, Monitoring & Optimization Report

Form 4400-194 (R 07/19)

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### Section IS-2, Natural Attenuation (Passive Bioremediation) in Soil

#### A. Effectiveness Evaluation

1. Soil gas information in the soil that is most contaminated from a permanently installed gas probe(s) or water table monitoring well(s).

a. Hydrocarbon levels: \_\_\_\_\_ ppm, with an FID

b. Oxygen levels: \_\_\_\_\_ percent

c. Carbon dioxide levels(specify ppm or percent): \_\_\_\_\_

d. Methane levels: \_\_\_\_\_ ppm

2. Soil gas information in background (uncontaminated soil) from permanently installed gas probe(s) or water table monitoring well(s):

a. Hydrocarbon levels: \_\_\_\_\_ ppm, with an FID

b. Oxygen levels: \_\_\_\_\_ percent

c. Carbon dioxide levels(specify ppm or percent): \_\_\_\_\_

d. Methane levels: \_\_\_\_\_ ppm

3. List the results of the single boring that had the highest levels of soil contamination during the last round of soil sampling, and the date those samples were collected. Since soil borings are only drilled periodically, list the most recent data even if the data is prior to this reporting period. Since this data is used to assess progress based on the most recent soil sampling event, do not list data from prior sampling events.

a. Total hydrocarbons (Specify if GRO and/or DRO): \_\_\_\_\_  $\mu\text{g}/\text{kg}$

b. Specific compounds ( $\mu\text{g}/\text{kg}$ ):

i. Benzene: \_\_\_\_\_  $\mu\text{g}/\text{kg}$

ii. 1,2 Dichloroethane: \_\_\_\_\_  $\mu\text{g}/\text{kg}$

iii. Ethylbenzene: \_\_\_\_\_  $\mu\text{g}/\text{kg}$

iv. Toluene: \_\_\_\_\_  $\mu\text{g}/\text{kg}$

v. Total xylenes: \_\_\_\_\_  $\mu\text{g}/\text{kg}$

4. Is there any evidence that contaminants are leaching into groundwater?  Yes  No

If the answer is yes and if groundwater quality is not being monitored, explain:

5. Is site closure a viable option within 12 months from the date of this form?  Yes  No

6. Are there any modifications that can be made to the remediation to improve cost effectiveness?  Yes  No

If yes, explain:

#### B. Additional Attachments

Attach the following to this form:

- Well and soil sample location map.
- Cross sections showing the water table, soil sampling locations, screened intervals for gas probes or water table wells, geologic contacts, and any former excavation boundaries.
- Graphs of contaminant concentrations, oxygen, carbon dioxide and methane levels over time.
- Groundwater elevations table, if water table wells are present at the site.
- Table of soil contaminant chemistry.
- Table of soil gas readings.

Site name: Madison-Kipp Corporation

Reporting period from: 01/01/2020 To: 06/30/2020

Days in period: 182

## Remediation Site Operation, Maintenance, Monitoring & Optimization Report

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### Section IS-3, Other In Situ Soil Remediation Methods

#### A. Effectiveness Evaluation

1. Describe the method used to remediate soil at the site:

2. List all information required by the DNR for this remediation method for this site:

#### B. Additional Attachments

Attach the following to this form:

- Any other attachments required by the DNR for this remediation method.

Site name: Madison-Kipp Corporation

Reporting period from: 01/01/2020 To: 06/30/2020

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## Remediation Site Operation, Maintenance, Monitoring & Optimization Report

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### Section ES-1, Ex Situ Soil Treatment Using Biopiles

#### A. Effectiveness Evaluation

1. Volume of soil in the biopile (if multiple biopiles, list number of piles and total volume):

---

2. Monitoring used to assess progress and verify optimal conditions for biodegradation.

a. Vapor phase measurements of gases (average of all readings from most recent sampling event):

i. VOCs by FID: \_\_\_\_\_ ppm

ii. Oxygen: \_\_\_\_\_ percent

iii. Carbon dioxide: \_\_\_\_\_ percent

iv. Methane: \_\_\_\_\_ ppm

b. Soil temperature: \_\_\_\_\_ °F

c. Soil moisture sensors, if used: \_\_\_\_\_ percent

3. Treatment amendments added to the soil during construction:

a. Artificial nutrients, excluding manure.

i. Types and total pounds added:

---

ii. Nitrogen and phosphorous content of the added amendment: \_\_\_\_\_ percent

b. Manure: \_\_\_\_\_ total pounds

c. Natural organic materials (straw, wood chips, etc.)(type and total pounds):

---

4. Forced air biopiles only answer the following:

a. Total air flow rate of the ventilation system: \_\_\_\_\_ scfm

b. Average contaminant removal rate: \_\_\_\_\_ pounds per day

c. Average biodegradation rate based on oxygen utilization: \_\_\_\_\_ pounds per day

5. If soil samples have been taken to monitor progress, list results. Only list the most recent results. If none collected enter NA.

a. Total hydrocarbons. Specify if GRO and/or DRO: \_\_\_\_\_ µg/kg

b. Specific compounds (µg/kg):

i. Benzene: \_\_\_\_\_ µg/kg

ii. 1,2 Dichloroethane: \_\_\_\_\_ µg/kg

iii. Ethylbenzene: \_\_\_\_\_ µg/kg

iv. Toluene: \_\_\_\_\_ µg/kg

v. Total xylenes: \_\_\_\_\_ µg/kg

#### B. Additional Attachments

Attach the following to this form:

- Figure showing the construction details of the biopile and any sampling locations within the biopile.
- Table of soil contaminant chemistry data.
- Table of operational data.

Site name: Madison-Kipp Corporation

Reporting period from: 01/01/2020

To: 06/30/2020

Days in period: 182

# Remediation Site Operation, Maintenance, Monitoring & Optimization Report

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## Section ES-2, Ex Situ Soil Treatment Using Landspreading/Thinspreading

### A. Effectiveness Evaluation

1. Method used:  landspreading  thinspreading

**Note:** For purposes of this form, "landspreading" is the placement of contaminated soil on native topsoil, incorporation of that soil into the native soil and planting crops or other plants on it. The term "thinspreading" refers to placing contaminated soil on an impervious base for aeration.

2. Was any progress monitoring using field screening on soil conducted during this reporting period?  Yes  No

3. If the answer to A.2. (above) is yes:

i. List monitoring method:

ii. List monitoring results:

4. Is there any evidence of soil erosion at the landspreading/thinspreading location?  Yes  No

5. Spreading thickness: \_\_\_\_\_ inches

6. Type of crop planted (if thinspreading with no crop planted, so state):

7. Confirmation sampling date: \_\_\_\_\_ Anticipated confirmation sampling date: \_\_\_\_\_

8. Most recent soil sample results, if soil samples for laboratory analysis have been collected to monitor progress. Only list the highest result of the most recent sampling round. If no samples have been collected, enter NA.

a. Total hydrocarbons. Specify if GRO and/or DRO: \_\_\_\_\_ µg/kg

b. Specific compounds (µg/kg):

i. Benzene: \_\_\_\_\_ µg/kg

ii. 1,2 Dichloroethane: \_\_\_\_\_ µg/kg

iii. Ethylbenzene: \_\_\_\_\_ µg/kg

iv. Toluene: \_\_\_\_\_ µg/kg

v. Total xylenes: \_\_\_\_\_ µg/kg

### B. Additional Attachments

Attach the following to this form:

- Map of the landspreading/thinspreading area. If soil samples have been collected, specify locations of samples and dates of sampling.
- Table of soil contaminant chemistry data.
- Table of any field screening results with dates of sample collection.

Site name: Madison-Kipp Corporation

Reporting period from: 01/01/2020

To: 06/30/2020

Days in period: 182

## Remediation Site Operation, Maintenance, Monitoring & Optimization Report

Form 4400-194 (R 07/19)

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### Section ES-3, Landfills

**Note:** Reporting forms or reporting requirements in a Department approved Operation and Maintenance Plan for a landfill may take the place of this form.

Specific Inspection Items	Potential Problem Areas	Status	Notes
Perimeter Security Fencing	Broken or missing wood slats, torn chain link fabric, barbed wire, other - list		
Entrance Gate and Locking Mechanism	Lock broken/missing, mechanism inoperative.		
Monitoring Wells and Wellhead Covers	Signs of tampering, casing damaged, lock missing.		
Final Cover Vegetation	Bare spots, stressed vegetation, deep rooted vegetation.		
Final Cover Slope (explain below)	Gullies, lack of vegetation, subsidence, ponding.		
Evidence of Burrowing Animals	Damage to final cover, evidence of waste.		
Stormwater Drainage Channels	Gullies, erosion, debris, culvert blocked.		
Passive Landfill Gas Venting System	Damaged or blocked vent risers, stressed vegetation.		
Active Landfill Gas Extraction System	Damaged or blocked piping, cleanouts, other blower flare, knockouts, etc.		
Leachate Collection System	Pumps, connection piping, collection system piping, extraction wells, collection tanks, tanker truck loading system or sanitary sewer discharge piping.		
Access Road Cover Mowing; Tall Vegetation Removal	Ponding, rutting, erosion, cracked or damaged pavement. Mowing and tall vegetation removal done to specified vegetation.		

Summary of Deficiencies and/or Corrective Actions:

Site name: Madison-Kipp Corporation

Reporting period from: 01/01/2020

To: 06/30/2020

Days in period: 182

## Remediation Site Operation, Maintenance, Monitoring & Optimization Report

Form 4400-194 (R 07/19)

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### **B. Additional Attachments**

Attach the following to this form:

- Any photographs documenting problems and maintenance activities.
- Maps, drawings showing site features requiring maintenance.
- Records for leachate pumping/discharge/hauling.
- Records for active gas extraction volumes.

**Attachment 3**  
**June 2020 WPDES DMR Submittal**

# Wastewater Discharge Monitoring Short Report

For DNR Use Only

Facility Name : MADISON KIPP CORPORATION  
 Contact Address : 708 Heartland Trail, Suite 3000  
 Madison, WI 53717  
 Facility Contact : Andrew Stehn, Project Engineer  
 Phone Number : 608-826-3665  
 Reporting Period : 04/01/2020 - 06/30/2020  
 Form Due Date : 07/21/2020  
 Permit Number : **0046566**

Date Received:	
DOC:	447471
FIN:	7960
FID:	113125320
Region:	South Central Region
Permit Drafter:	Trevor J Moen
Reviewer:	Christopher A Dietrich
Office:	Milwaukee

Sample Point	Parameter #	Parameter	Date Sample	Sample Type	Sample Results	Units	Limit Type	Limit	LOD	LOQ	QC Exceed?	Lab Certification
001	40	Benzene	06/09/2020	GRAB	<0.25	ug/L	Monthly Avg	50(0)	0.25	1.0	N	405132750
001	54	BETX, Total	06/09/2020	GRAB	<1.5	ug/L	Monthly Avg	750(0)			N	405132750
001	393	PAHs	06/09/2020	GRAB	<0.016	ug/L	Monthly Avg	0.10(0)			N	405132750
001	44	Benzo(a)pyrene	06/09/2020	GRAB	<0.0097	ug/L	Monthly Avg	0.10(0)	0.0097	0.048	N	405132750
001	307	Naphthalene	06/09/2020	GRAB	<0.017	ug/L	Monthly Avg	70(0)	0.017	0.084	N	405132750
001	80	Bromoform	06/09/2020	GRAB	<4.0	ug/L	Monthly Avg	120(0)	4.0	13.2	N	405132750
001	93	Carbon tetrachloride	06/09/2020	GRAB	<1.1	ug/L		*****	1.1	3.6	N	405132750
001	118	Chloroform	06/09/2020	GRAB	<1.3	ug/L	Monthly Avg	120(0)	1.3	5.0	N	405132750
001	174	Dichlorobromo- methane (bromo-	06/09/2020	GRAB	<0.36	ug/L	Monthly Avg	120(0)	0.36	1.2	N	405132750
001	570	1,2-Dichloro- ethane	06/09/2020	GRAB	<0.28	ug/L	Monthly Avg	180(0)	0.28	1.0	N	405132750
001	558	1,1-Dichloro- ethylene	06/09/2020	GRAB	<0.24	ug/L	Monthly Avg	50(0)	0.24	1.0	N	405132750
001	82	Methyl bromide	06/09/2020	GRAB	<0.97	ug/L	Monthly Avg	120(0)	0.97	5.0	N	405132750
001	120	Chloromethane	06/09/2020	GRAB	<2.2	ug/L	Monthly Avg	120(0)	2.2	7.3	N	405132750
001	565	1,1,2,2-Tetrachloro- ethane	06/09/2020	GRAB	<0.28	ug/L	Monthly Avg	50(0)	0.28	1.0	N	405132750
001	490	Tetrachloroethylene	06/09/2020	GRAB	10.2	ug/L	Monthly Avg	50(0)	0.33	1.1	N	405132750
001	563	1,1,2-Trichloro- ethane	06/09/2020	GRAB	<0.55	ug/L	Monthly Avg	50(0)	0.55	5.0	N	405132750
001	561	1,1,1-Trichloro- ethane	06/09/2020	GRAB	<0.24	ug/L	Monthly Avg	50(0)	0.24	1.0	N	405132750
001	508	Trichloro- ethylene	06/09/2020	GRAB	2.0	ug/L	Monthly Avg	50(0)	0.26	1.0	N	405132750
001	517	Vinyl chloride	06/09/2020	GRAB	<0.17	ug/L	Monthly Avg	10(0)	0.17	1.0	N	405132750

## Wastewater Discharge Monitoring Short Report

Footnotes (DNR Use Only; Instructions for completing this form that are unique for your facility may be displayed here.)

### General Remarks

Permanganate: Absent (Parameter visually monitored by TRC for neutralization and photo documentation can be provided upon request).

No BTEX or PAH parameters were reported above the laboratory LOD. The parameter for each group with highest detection limit was reported.

### Laboratory Quality Control Comments

Submitted by astehn on 07/20/2020 8:04:11 PM

**Wastewater Discharge Monitoring Long Report**

**For DNR Use Only**

Facility Name: MADISON KIPP CORPORATION  
 Contact Address: 708 Heartland Trail, Suite 3000  
 Madison, WI 53717  
 Facility Contact: Andrew Stehn, Project Engineer  
 Phone Number: 608-826-3665  
 Reporting Period: 06/01/2020 - 06/30/2020  
 Form Due Date: 07/21/2020  
 Permit Number: 0046566

Date Received:  
 DOC: 447862  
 FIN: 7960  
 FID: 113125320  
 Region: South Central Region  
 Permit Drafter: Trevor J Moen  
 Reviewer: Christopher A Dietrich  
 Office: Milwaukee

	Sample Point	001	001	001
	Description	Surface Water Discharge	Surface Water Discharge	Surface Water Discharge
	Parameter	211	918	457
	Description	Flow Rate	Potassium Permanganate	Suspended Solids, Total
	Units	gpd	mg/L	mg/L
	Sample Type	ESTIMATED	GRAB	GRAB
	Frequency	DAILY	MONTHLY	PER OCCURANCE
Sample Results	Day 1	57600		
	2	53520		
	3	0		
	4	25535		
	5	57600		
	6	57600		
	7	57600		
	8	57600		
	9	45929		<0.95
	10	57600		
	11	57600		
	12	57600		
	13	57600		
	14	57600		
	15	57600		
	16	57600		
	17	57600		
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	24	57600		
	25	57600		
	26	57600		
	27	57600		
	28	57600		
	29	57600		
	30	57600		
	31			

	<b>Sample Point</b>	001		001		001	
	<b>Description</b>	Surface Water Discharge		Surface Water Discharge		Surface Water Discharge	
	<b>Parameter</b>	211		918		457	
	<b>Description</b>	Flow Rate		Potassium Permanganate		Suspended Solids, Total	
	<b>Units</b>	gpd		mg/L		mg/L	
<b>Summary Values</b>	<b>Monthly Avg</b>	54086.1333333333				0	
	<b>Daily Max</b>	57600				<0.95	
	<b>Daily Min</b>	0				<0.95	
<b>Limit(s) in Effect</b>	<b>Daily Max</b>					40	0
<b>QA/QC Information</b>	<b>LOD</b>					0.95	
	<b>LOQ</b>					2	
	<b>QC Exceedance</b>	N		N		N	
	<b>Lab Certification</b>					405132750	

Footnotes (DNR Use Only; Instructions for completing this form that are unique for your facility may be displayed here.)

General Remarks

Permanganate: Absent (Parameter visually monitored by MKC for neutralization and photo documentation can be provided upon request).

The GETS was shutdown between the evening of June 2, 2020 to June 4, 2020 due to a power outage and replacement of a high level sensor for the air stripper unit.

The GETS was shutdown on June 9, 2020 for a period of time to complete a scheduled cleaning of the air stripper unit and restarted following.

A TSS sample was collected following the system restart on June 9, 2020.

Laboratory Quality Control Comments

Submitted by astehn on 07/20/2020 8:17:46 PM

## **Attachment 4**

### **Quarterly GETS Influent and Effluent Groundwater and Vapor Laboratory Analytical Results**

6/24/2020

Mr. Andrew Stehn  
TRC Corporation (RMT)  
708 Heartland Trail  
Suite 3000  
Madison WI 53717

Project Name: GETS-MKC  
Project #: 372148.0000.0000  
Workorder #: 2006302

Dear Mr. Andrew Stehn

The following report includes the data for the above referenced project for sample(s) received on 6/11/2020 at Air Toxics Ltd.

The data and associated QC analyzed by TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Ausha Scott at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Ausha Scott  
Project Manager

**WORK ORDER #: 2006302**

Work Order Summary

<b>CLIENT:</b>	Mr. Andrew Stehn TRC Companies, Inc. 708 Heartland Trail Suite 3000 Madison, WI 53717	<b>BILL TO:</b>	Accounts Payable/Windsor TRC Companies, Inc. 21 Griffin Rd North Windsor, CT 06095
<b>PHONE:</b>	608-826-3665	<b>P.O. #</b>	149660
<b>FAX:</b>	608-826-3941	<b>PROJECT #</b>	372148.0000.0000 GETS-MKC
<b>DATE RECEIVED:</b>	06/11/2020	<b>CONTACT:</b>	Ausha Scott
<b>DATE COMPLETED:</b>	06/24/2020		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	Influent	TO-15	4.5 "Hg	15.2 psi
02A	Effluent	TO-15	5.7 "Hg	15.1 psi
03A	Lab Blank	TO-15	NA	NA
04A	CCV	TO-15	NA	NA
05A	LCS	TO-15	NA	NA
05AA	LCSD	TO-15	NA	NA

CERTIFIED BY:   
 \_\_\_\_\_  
 Technical Director

DATE: 06/24/20

Certification numbers: AZ Licensure AZ0775, FL NELAP – E87680, LA NELAP – 02089, NH NELAP - 209218, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP - T104704434-18-13, UT NELAP – CA009332019-11, VA NELAP - 460197, WA NELAP - C935

Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)

Accreditation number: CA300005-011, Effective date: 10/18/2019, Expiration date: 10/17/2020.

Eurofins Air Toxics, LLC certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, LLC.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630

(916) 985-1000 . (800) 985-5955 . FAX (916) 351-8279

**LABORATORY NARRATIVE**  
**EPA Method TO-15**  
**TRC Corporation (RMT)**  
**Workorder# 2006302**

Two 1 Liter Summa Canister samples were received on June 11, 2020. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

**Receiving Notes**

There were no receiving discrepancies.

**Analytical Notes**

Dilution was performed on sample Influent due to the presence of high level target species.

**Definition of Data Qualifying Flags**

Ten qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

M - Reported value may be biased due to apparent matrix interferences.

CN - See Case Narrative.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

**Summary of Detected Compounds  
EPA METHOD TO-15 GC/MS FULL SCAN**

**Client Sample ID: Influent**

**Lab ID#: 2006302-01A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
cis-1,2-Dichloroethene	9.6	830	38	3300
Chloroform	9.6	18	47	86
Trichloroethene	9.6	560	51	3000
Toluene	9.6	18	36	69
Tetrachloroethene	9.6	2800	65	19000

**Client Sample ID: Effluent**

**Lab ID#: 2006302-02A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Vinyl Chloride	1.2	6.3	3.2	16
cis-1,2-Dichloroethene	1.2	240	5.0	960
Trichloroethene	1.2	32	6.7	170
Tetrachloroethene	1.2	200	8.5	1300



Air Toxics

Client Sample ID: Influent

Lab ID#: 2006302-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	j061533	Date of Collection:	6/9/20 9:25:00 AM
Dil. Factor:	19.1	Date of Analysis:	6/16/20 04:53 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	9.6	Not Detected	47	Not Detected
Freon 114	9.6	Not Detected	67	Not Detected
Chloromethane	96	Not Detected	200	Not Detected
Vinyl Chloride	9.6	Not Detected	24	Not Detected
Bromomethane	96	Not Detected	370	Not Detected
Chloroethane	38	Not Detected	100	Not Detected
Freon 11	9.6	Not Detected	54	Not Detected
Freon 113	9.6	Not Detected	73	Not Detected
1,1-Dichloroethene	9.6	Not Detected	38	Not Detected
Methylene Chloride	96	Not Detected	330	Not Detected
Methyl tert-butyl ether	38	Not Detected	140	Not Detected
1,1-Dichloroethane	9.6	Not Detected	39	Not Detected
cis-1,2-Dichloroethene	9.6	830	38	3300
Chloroform	9.6	18	47	86
1,1,1-Trichloroethane	9.6	Not Detected	52	Not Detected
Carbon Tetrachloride	9.6	Not Detected	60	Not Detected
Benzene	9.6	Not Detected	30	Not Detected
1,2-Dichloroethane	9.6	Not Detected	39	Not Detected
Trichloroethene	9.6	560	51	3000
1,2-Dichloropropane	9.6	Not Detected	44	Not Detected
cis-1,3-Dichloropropene	9.6	Not Detected	43	Not Detected
Toluene	9.6	18	36	69
trans-1,3-Dichloropropene	9.6	Not Detected	43	Not Detected
1,1,2-Trichloroethane	9.6	Not Detected	52	Not Detected
Tetrachloroethene	9.6	2800	65	19000
1,2-Dibromoethane (EDB)	9.6	Not Detected	73	Not Detected
Chlorobenzene	9.6	Not Detected	44	Not Detected
Ethyl Benzene	9.6	Not Detected	41	Not Detected
m,p-Xylene	9.6	Not Detected	41	Not Detected
o-Xylene	9.6	Not Detected	41	Not Detected
Styrene	9.6	Not Detected	41	Not Detected
1,1,2,2-Tetrachloroethane	9.6	Not Detected	66	Not Detected
1,3,5-Trimethylbenzene	9.6	Not Detected	47	Not Detected
1,2,4-Trimethylbenzene	9.6	Not Detected	47	Not Detected
1,3-Dichlorobenzene	9.6	Not Detected	57	Not Detected
1,4-Dichlorobenzene	9.6	Not Detected	57	Not Detected
alpha-Chlorotoluene	9.6	Not Detected	49	Not Detected
1,2-Dichlorobenzene	9.6	Not Detected	57	Not Detected
1,2,4-Trichlorobenzene	38	Not Detected	280	Not Detected
Hexachlorobutadiene	38	Not Detected	410	Not Detected

Container Type: 1 Liter Summa Canister

**Client Sample ID: Influent**

**Lab ID#: 2006302-01A**

**EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>j061533</b>	<b>Date of Collection: 6/9/20 9:25:00 AM</b>
<b>Dil. Factor:</b>	<b>19.1</b>	<b>Date of Analysis: 6/16/20 04:53 AM</b>

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	103	70-130
4-Bromofluorobenzene	98	70-130



Air Toxics

Client Sample ID: Effluent

Lab ID#: 2006302-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	j061532	Date of Collection:	6/9/20 9:37:00 AM
Dil. Factor:	2.50	Date of Analysis:	6/16/20 04:28 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	6.2	Not Detected
Freon 114	1.2	Not Detected	8.7	Not Detected
Chloromethane	12	Not Detected	26	Not Detected
Vinyl Chloride	1.2	6.3	3.2	16
Bromomethane	12	Not Detected	48	Not Detected
Chloroethane	5.0	Not Detected	13	Not Detected
Freon 11	1.2	Not Detected	7.0	Not Detected
Freon 113	1.2	Not Detected	9.6	Not Detected
1,1-Dichloroethene	1.2	Not Detected	5.0	Not Detected
Methylene Chloride	12	Not Detected	43	Not Detected
Methyl tert-butyl ether	5.0	Not Detected	18	Not Detected
1,1-Dichloroethane	1.2	Not Detected	5.0	Not Detected
cis-1,2-Dichloroethene	1.2	240	5.0	960
Chloroform	1.2	Not Detected	6.1	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.8	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.9	Not Detected
Benzene	1.2	Not Detected	4.0	Not Detected
1,2-Dichloroethane	1.2	Not Detected	5.0	Not Detected
Trichloroethene	1.2	32	6.7	170
1,2-Dichloropropane	1.2	Not Detected	5.8	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.7	Not Detected
Toluene	1.2	Not Detected	4.7	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.7	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.8	Not Detected
Tetrachloroethene	1.2	200	8.5	1300
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.6	Not Detected
Chlorobenzene	1.2	Not Detected	5.8	Not Detected
Ethyl Benzene	1.2	Not Detected	5.4	Not Detected
m,p-Xylene	1.2	Not Detected	5.4	Not Detected
o-Xylene	1.2	Not Detected	5.4	Not Detected
Styrene	1.2	Not Detected	5.3	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.6	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	6.1	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	6.1	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.5	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.5	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.5	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.5	Not Detected
1,2,4-Trichlorobenzene	5.0	Not Detected	37	Not Detected
Hexachlorobutadiene	5.0	Not Detected	53	Not Detected

Container Type: 1 Liter Summa Canister

Client Sample ID: Effluent

Lab ID#: 2006302-02A

**EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>j061532</b>	<b>Date of Collection: 6/9/20 9:37:00 AM</b>
<b>Dil. Factor:</b>	<b>2.50</b>	<b>Date of Analysis: 6/16/20 04:28 AM</b>

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	95	70-130
1,2-Dichloroethane-d4	108	70-130
4-Bromofluorobenzene	104	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 2006302-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	j061508	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	6/15/20 12:23 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	5.0	Not Detected	10	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	2.0	Not Detected	7.2	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected

Container Type: NA - Not Applicable

Client Sample ID: Lab Blank

Lab ID#: 2006302-03A

## EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	j061508	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 6/15/20 12:23 PM

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	107	70-130
4-Bromofluorobenzene	101	70-130

Client Sample ID: CCV

Lab ID#: 2006302-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	j061502	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 6/15/20 09:52 AM

Compound	%Recovery
Freon 12	117
Freon 114	107
Chloromethane	72
Vinyl Chloride	90
Bromomethane	104
Chloroethane	88
Freon 11	115
Freon 113	107
1,1-Dichloroethene	102
Methylene Chloride	86
Methyl tert-butyl ether	118
1,1-Dichloroethane	97
cis-1,2-Dichloroethene	104
Chloroform	103
1,1,1-Trichloroethane	112
Carbon Tetrachloride	116
Benzene	93
1,2-Dichloroethane	100
Trichloroethene	94
1,2-Dichloropropane	87
cis-1,3-Dichloropropene	99
Toluene	97
trans-1,3-Dichloropropene	110
1,1,2-Trichloroethane	92
Tetrachloroethene	107
1,2-Dibromoethane (EDB)	100
Chlorobenzene	101
Ethyl Benzene	112
m,p-Xylene	116
o-Xylene	117
Styrene	118
1,1,2,2-Tetrachloroethane	87
1,3,5-Trimethylbenzene	122
1,2,4-Trimethylbenzene	122
1,3-Dichlorobenzene	114
1,4-Dichlorobenzene	118
alpha-Chlorotoluene	122
1,2-Dichlorobenzene	116
1,2,4-Trichlorobenzene	125
Hexachlorobutadiene	123

Container Type: NA - Not Applicable

Client Sample ID: CCV

Lab ID#: 2006302-04A

## EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	j061502	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 6/15/20 09:52 AM

Surrogates	%Recovery	Method Limits
Toluene-d8	97	70-130
1,2-Dichloroethane-d4	104	70-130
4-Bromofluorobenzene	117	70-130

Client Sample ID: LCS

Lab ID#: 2006302-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	j061503	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 6/15/20 10:17 AM

Compound	%Recovery	Method Limits
Freon 12	121	70-130
Freon 114	109	70-130
Chloromethane	80	70-130
Vinyl Chloride	93	70-130
Bromomethane	114	70-130
Chloroethane	93	70-130
Freon 11	118	70-130
Freon 113	106	70-130
1,1-Dichloroethene	108	70-130
Methylene Chloride	88	70-130
Methyl tert-butyl ether	121	70-130
1,1-Dichloroethane	96	70-130
cis-1,2-Dichloroethene	97	70-130
Chloroform	104	70-130
1,1,1-Trichloroethane	118	70-130
Carbon Tetrachloride	118	70-130
Benzene	88	70-130
1,2-Dichloroethane	97	70-130
Trichloroethene	92	70-130
1,2-Dichloropropane	83	70-130
cis-1,3-Dichloropropene	103	70-130
Toluene	93	70-130
trans-1,3-Dichloropropene	108	70-130
1,1,2-Trichloroethane	91	70-130
Tetrachloroethene	100	70-130
1,2-Dibromoethane (EDB)	96	70-130
Chlorobenzene	95	70-130
Ethyl Benzene	108	70-130
m,p-Xylene	112	70-130
o-Xylene	113	70-130
Styrene	115	70-130
1,1,2,2-Tetrachloroethane	84	70-130
1,3,5-Trimethylbenzene	118	70-130
1,2,4-Trimethylbenzene	121	70-130
1,3-Dichlorobenzene	109	70-130
1,4-Dichlorobenzene	116	70-130
alpha-Chlorotoluene	128	70-130
1,2-Dichlorobenzene	110	70-130
1,2,4-Trichlorobenzene	112	70-130
Hexachlorobutadiene	114	70-130

Container Type: NA - Not Applicable

Client Sample ID: LCS

Lab ID#: 2006302-05A

## EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	j061503	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 6/15/20 10:17 AM

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	111	70-130
4-Bromofluorobenzene	115	70-130

Client Sample ID: LCSD

Lab ID#: 2006302-05AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	j061504	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 6/15/20 10:42 AM

Compound	%Recovery	Method Limits
Freon 12	117	70-130
Freon 114	106	70-130
Chloromethane	72	70-130
Vinyl Chloride	89	70-130
Bromomethane	110	70-130
Chloroethane	90	70-130
Freon 11	115	70-130
Freon 113	103	70-130
1,1-Dichloroethene	102	70-130
Methylene Chloride	86	70-130
Methyl tert-butyl ether	118	70-130
1,1-Dichloroethane	93	70-130
cis-1,2-Dichloroethene	95	70-130
Chloroform	99	70-130
1,1,1-Trichloroethane	113	70-130
Carbon Tetrachloride	115	70-130
Benzene	90	70-130
1,2-Dichloroethane	100	70-130
Trichloroethene	94	70-130
1,2-Dichloropropane	80	70-130
cis-1,3-Dichloropropene	105	70-130
Toluene	95	70-130
trans-1,3-Dichloropropene	109	70-130
1,1,2-Trichloroethane	88	70-130
Tetrachloroethene	100	70-130
1,2-Dibromoethane (EDB)	95	70-130
Chlorobenzene	95	70-130
Ethyl Benzene	107	70-130
m,p-Xylene	111	70-130
o-Xylene	114	70-130
Styrene	114	70-130
1,1,2,2-Tetrachloroethane	83	70-130
1,3,5-Trimethylbenzene	116	70-130
1,2,4-Trimethylbenzene	120	70-130
1,3-Dichlorobenzene	110	70-130
1,4-Dichlorobenzene	117	70-130
alpha-Chlorotoluene	126	70-130
1,2-Dichlorobenzene	109	70-130
1,2,4-Trichlorobenzene	113	70-130
Hexachlorobutadiene	113	70-130

Container Type: NA - Not Applicable

Client Sample ID: LCSD

Lab ID#: 2006302-05AA

## EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	j061504	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 6/15/20 10:42 AM

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	109	70-130
4-Bromofluorobenzene	116	70-130



January 23, 2020

Andrew Stehn  
TRC Madison  
708 Heartland Trail  
Madison, WI 53717

RE: Project: 372148 MADISON KIPP GETS  
Pace Project No.: 40202062

Dear Andrew Stehn:

Enclosed are the analytical results for sample(s) received by the laboratory on January 16, 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,



Tod Noltemeyer  
tod.noltemeyer@pacelabs.com  
(920)469-2436  
Project Manager

Enclosures

cc: Peggy Popp, TRC - Madison



## REPORT OF LABORATORY ANALYSIS

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

## CERTIFICATIONS

Project: 372148 MADISON KIPP GETS

Pace Project No.: 40202062

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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: 372148 MADISON KIPP GETS

Pace Project No.: 40202062

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Lab ID	Sample ID	Matrix	Date Collected	Date Received
40202062001	EFFLUENT	Water	01/14/20 15:15	01/16/20 09:15
40202062002	INFLUENT	Water	01/14/20 15:25	01/16/20 09:15

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### SAMPLE ANALYTE COUNT

Project: 372148 MADISON KIPP GETS  
Pace Project No.: 40202062

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Lab ID	Sample ID	Method	Analysts	Analytes Reported
40202062001	EFFLUENT	SM 2540D	JXM	1
40202062002	INFLUENT	SM 2540D	JXM	1

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### SUMMARY OF DETECTION

Project: 372148 MADISON KIPP GETS  
Pace Project No.: 40202062

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>40202062001</b>	<b>EFFLUENT</b>					
SM 2540D	Total Suspended Solids	1.0J	mg/L	2.0	01/20/20 11:04	

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## PROJECT NARRATIVE

Project: 372148 MADISON KIPP GETS

Pace Project No.: 40202062

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**Method:** SM 2540D

**Description:** 2540D Total Suspended Solids

**Client:** TRC - MADISON

**Date:** January 23, 2020

**General Information:**

2 samples were analyzed for SM 2540D. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

**Hold Time:**

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

**Method Blank:**

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

**Laboratory Control Spike:**

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

**Matrix Spikes:**

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

**Duplicate Sample:**

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

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

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: 372148 MADISON KIPP GETS

Pace Project No.: 40202062

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**Sample: EFFLUENT**      **Lab ID: 40202062001**      Collected: 01/14/20 15:15      Received: 01/16/20 09:15      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>2540D Total Suspended Solids</b>									
Analytical Method: SM 2540D									
Total Suspended Solids	<b>1.0J</b>	mg/L	2.0	0.95	1		01/20/20 11:04		

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: 372148 MADISON KIPP GETS

Pace Project No.: 40202062

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**Sample: INFLUENT**      **Lab ID: 40202062002**      Collected: 01/14/20 15:25      Received: 01/16/20 09:15      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>2540D Total Suspended Solids</b>									
Analytical Method: SM 2540D									
Total Suspended Solids	<b>&lt;0.95</b>	mg/L	2.0	0.95	1		01/20/20 11:04		

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 372148 MADISON KIPP GETS

Pace Project No.: 40202062

QC Batch: 345851

Analysis Method: SM 2540D

QC Batch Method: SM 2540D

Analysis Description: 2540D Total Suspended Solids

Associated Lab Samples: 40202062001, 40202062002

METHOD BLANK: 2006690

Matrix: Water

Associated Lab Samples: 40202062001, 40202062002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Suspended Solids	mg/L	<0.48	1.0	01/20/20 11:02	

LABORATORY CONTROL SAMPLE: 2006691

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Suspended Solids	mg/L	100	100	100	80-120	

SAMPLE DUPLICATE: 2006692

Parameter	Units	40202049002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	46.5	50.5	8	10	

SAMPLE DUPLICATE: 2006693

Parameter	Units	40202052005 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	87.5	87.5	0	10	

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

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## QUALIFIERS

Project: 372148 MADISON KIPP GETS

Pace Project No.: 40202062

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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.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 372148 MADISON KIPP GETS

Pace Project No.: 40202062

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Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40202062001	EFFLUENT	SM 2540D	345851		
40202062002	INFLUENT	SM 2540D	345851		

### REPORT OF LABORATORY ANALYSIS

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**CHAIN OF CUSTODY**

No. 10189

Page: 1

of 1  
 40202062

Lab Work Order #:

Report To: Andrew Stark  
 Company: TRC

Project Number: 372148 PO Number: 372148 Ph. 2 Tsk 2

Project Name: Madison Kipp GETS

Preservation Codes

Address 1: 708 Heartland Trail Suite 3000  
 Address 2: Madison WI 53717

Project Location (City, State): Madison, WI

E-mail Address: astehn@trccompanies.com

Turn Around (check one):  Normal  Rush

If Rush, Report Due Date:

Invoice To: Same as Company

Sampled By (Print): Ben Weckholz

Address 1: above

Address 2:

Sample Description

Collection		Matrix	Total # of Containers
Date	Time		
1/14/20	15:15	W	1
1/14/20	15:25	W	1

Lab ID	Lab Receipt Time
001	
002	

EFFLUENT

INFLUENT

Collection	Matrix	Total # of Containers	Analyses Requested	Comments	Lab ID	Lab Receipt Time
1/14/20	W	1	TSS		001	
1/14/20	W	1			002	

**Preservation Codes**

**Other Comments:**

A=None B=HCL C=H<sub>2</sub>SO<sub>4</sub>  
 D=HNO<sub>3</sub> E=EnCore F=Methanol  
 G=NaOH O=Other (Indicate)

Relinquished By: *AK*  
 Relinquished Date: *1/15/20*  
 Relinquished Time: *9:45*

Received By: *Courier*  
 Received Date: *1/15/20*  
 Received Time: *-*

Matrix Codes  
 A=Air S=Soil W=Water O=Other

Custody Seal:  NA  Intact  Not Intact

Received By: *Simon Lakota PACE*  
 Received Date: *1/16/20*  
 Received Time: *09:15*

# Sample Preservation Receipt Form

Client Name: Phyllis Madison

Project # 40202062

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

Lab Lot# of pH paper: \_\_\_\_\_

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

Initial when completed: \_\_\_\_\_

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

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

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
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													
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													

1-16-2015

Exceptions to preservation check: VOA, Coliform, TOC, TOX, TGH, O&G, W/DRO, Phenolics, Other: \_\_\_\_\_

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
1 liter amber glass	1 liter amber glass HCL	125 mL amber glass H2SO4	120 mL amber glass unpres	100 mL amber glass unpres	500 mL amber glass H2SO4	250 mL clear glass unpres	500 mL plastic unpres	500 mL plastic HNO3	500 mL plastic NaOH, Znact	250 mL plastic unpres	250 mL plastic NaOH	250 mL plastic HNO3	250 mL plastic H2SO4	40 mL amber ascorbic	40 mL amber Na Thio	40 mL clear vial unpres	40 mL clear vial HCL	40 mL clear vial MeOH	40 mL clear vial DI	4 oz amber jar unpres	4 oz clear jar unpres	4 oz plastic jar unpres	120 mL plastic Na Thiosulfate	ziploc bag	500 mL plastic unpres

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

### Sample Condition Upon Receipt Form (SCUR)

Project #: \_\_\_\_\_

 Client Name: PALM MADISON
**WO#: 40202062**

 Courier:  CS Logistics  Fed Ex  Speedee  UPS  Walto  
 Client  Pace Other: \_\_\_\_\_

 Tracking #: 2305548-1

 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 Plastic bags

 Thermometer Used SR - 96    Type of Ice:  Wet  Blue Dry None  Samples on ice, cooling process has begun

 Cooler Temperature    Uncorr: ROT    ICorr: ROT

 Temp Blank Present:  yes  no    Biological Tissue is Frozen:  yes  no

Person examining contents:

 Date: 1-16-20

 Initials: BR

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

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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
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 type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	4. <u>Elmer 1-16-20 BR</u>
Samples Arrived within Hold Time: <u>1-16-20</u>	<input checked="" type="checkbox"/> Yes <input checked="" 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 type="checkbox"/> Yes <input checked="" 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 type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
-Pace IR Containers Used:	<input checked="" 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 type="checkbox"/> No <input checked="" 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):		

**Client Notification/ Resolution:**

 If checked, see attached form for additional comments 

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

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

 Project Manager Review: AR for TN

 Date: 1/16/20

March 06, 2020

Andrew Stehn  
TRC Madison  
708 Heartland Trail  
Madison, WI 53717

RE: Project: 372148 MKC GETS  
Pace Project No.: 40204076

Dear Andrew Stehn:

Enclosed are the analytical results for sample(s) received by the laboratory on March 03, 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,



Tod Noltemeyer  
tod.noltemeyer@pacelabs.com  
(920)469-2436  
Project Manager

Enclosures

cc: Peggy Popp, TRC - Madison  
Ben Wachholz, TRC Madison



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: 372148 MKC GETS

Pace Project No.: 40204076

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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: 372148 MKC GETS

Pace Project No.: 40204076

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Lab ID	Sample ID	Matrix	Date Collected	Date Received
40204076001	INFLUENT	Water	03/02/20 10:05	03/03/20 09:15
40204076002	EFFLUENT	Water	03/02/20 10:00	03/03/20 09:15
40204076003	TRIP BLANK	Water	03/02/20 00:00	03/03/20 09:15

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: 372148 MKC GETS  
Pace Project No.: 40204076

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40204076001	INFLUENT	EPA 625 SIM	TPO	14
		EPA 624.1	HNW	21
40204076002	EFFLUENT	EPA 625 SIM	TPO	14
		EPA 624.1	HNW	21
40204076003	TRIP BLANK	EPA 624.1	HNW	21

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: 372148 MKC GETS  
Pace Project No.: 40204076

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>40204076001</b>	<b>INFLUENT</b>					
EPA 624.1	Tetrachloroethene	1370	ug/L	21.8	03/05/20 14:10	
EPA 624.1	Trichloroethene	133	ug/L	20.0	03/05/20 14:10	
<b>40204076002</b>	<b>EFFLUENT</b>					
EPA 624.1	Tetrachloroethene	12.5	ug/L	1.1	03/05/20 14:31	
EPA 624.1	Trichloroethene	3.1	ug/L	1.0	03/05/20 14:31	

### REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: 372148 MKC GETS

Pace Project No.: 40204076

---

**Method:** EPA 625 SIM

**Description:** 625 MSSV PAH by SIM

**Client:** TRC - MADISON

**Date:** March 06, 2020

**General Information:**

2 samples were analyzed for EPA 625 SIM. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

**Hold Time:**

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

**Sample Preparation:**

The samples were prepared in accordance with EPA 625 with any exceptions noted below.

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

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

**Continuing Calibration:**

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

**Internal Standards:**

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

**Surrogates:**

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

**Method Blank:**

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

**Laboratory Control Spike:**

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

**Matrix Spikes:**

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

**Additional Comments:**

Batch Comments:

An MS / MSD pair was extracted with this batch, it is reported with a different analytical batch. The MS / MSD passed all laboratory limits.

- QC Batch: 349197

## REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: 372148 MKC GETS  
Pace Project No.: 40204076

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**Method:** EPA 624.1  
**Description:** 624.1 Volatile Organics  
**Client:** TRC - MADISON  
**Date:** March 06, 2020

### General Information:

3 samples were analyzed for EPA 624.1. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

### Hold Time:

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

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

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

### Continuing Calibration:

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

### Internal Standards:

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

### Surrogates:

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

### Method Blank:

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

### Laboratory Control Spike:

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

### Matrix Spikes:

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

### Additional Comments:

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

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 372148 MKC GETS

Pace Project No.: 40204076

**Sample: INFLUENT**      **Lab ID: 40204076001**      Collected: 03/02/20 10:05      Received: 03/03/20 09:15      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>625 MSSV PAH by SIM</b>									
Analytical Method: EPA 625 SIM    Preparation Method: EPA 625									
Benzo(a)anthracene	<0.0069	ug/L	0.035	0.0069	1	03/04/20 10:00	03/05/20 11:36	56-55-3	
Benzo(a)pyrene	<0.0097	ug/L	0.048	0.0097	1	03/04/20 10:00	03/05/20 11:36	50-32-8	
Benzo(b)fluoranthene	<0.0053	ug/L	0.026	0.0053	1	03/04/20 10:00	03/05/20 11:36	205-99-2	
Benzo(g,h,i)perylene	<0.0062	ug/L	0.031	0.0062	1	03/04/20 10:00	03/05/20 11:36	191-24-2	
Benzo(k)fluoranthene	<0.0069	ug/L	0.035	0.0069	1	03/04/20 10:00	03/05/20 11:36	207-08-9	
Chrysene	<0.012	ug/L	0.060	0.012	1	03/04/20 10:00	03/05/20 11:36	218-01-9	
Dibenz(a,h)anthracene	<0.0092	ug/L	0.046	0.0092	1	03/04/20 10:00	03/05/20 11:36	53-70-3	
Fluoranthene	<0.0098	ug/L	0.049	0.0098	1	03/04/20 10:00	03/05/20 11:36	206-44-0	
Indeno(1,2,3-cd)pyrene	<0.016	ug/L	0.081	0.016	1	03/04/20 10:00	03/05/20 11:36	193-39-5	
Naphthalene	<0.017	ug/L	0.084	0.017	1	03/04/20 10:00	03/05/20 11:36	91-20-3	
Phenanthrene	<0.013	ug/L	0.063	0.013	1	03/04/20 10:00	03/05/20 11:36	85-01-8	
Pyrene	<0.0070	ug/L	0.035	0.0070	1	03/04/20 10:00	03/05/20 11:36	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	50	%	39-120		1	03/04/20 10:00	03/05/20 11:36	321-60-8	
Terphenyl-d14 (S)	81	%	10-159		1	03/04/20 10:00	03/05/20 11:36	1718-51-0	
<b>624.1 Volatile Organics</b>									
Analytical Method: EPA 624.1									
Benzene	<4.9	ug/L	20.0	4.9	20		03/05/20 14:10	71-43-2	
Bromodichloromethane	<7.3	ug/L	24.2	7.3	20		03/05/20 14:10	75-27-4	
Bromoform	<79.4	ug/L	265	79.4	20		03/05/20 14:10	75-25-2	
Bromomethane	<19.4	ug/L	100	19.4	20		03/05/20 14:10	74-83-9	
Carbon tetrachloride	<3.3	ug/L	20.0	3.3	20		03/05/20 14:10	56-23-5	
Chloroform	<25.5	ug/L	100	25.5	20		03/05/20 14:10	67-66-3	
Chloromethane	<43.8	ug/L	146	43.8	20		03/05/20 14:10	74-87-3	
1,2-Dichloroethane	<5.6	ug/L	20.0	5.6	20		03/05/20 14:10	107-06-2	
1,1-Dichloroethane	<4.9	ug/L	20.0	4.9	20		03/05/20 14:10	75-35-4	
Ethylbenzene	<4.4	ug/L	20.0	4.4	20		03/05/20 14:10	100-41-4	
1,1,2,2-Tetrachloroethane	<5.5	ug/L	20.0	5.5	20		03/05/20 14:10	79-34-5	
Tetrachloroethene	1370	ug/L	21.8	6.5	20		03/05/20 14:10	127-18-4	
Toluene	<3.4	ug/L	100	3.4	20		03/05/20 14:10	108-88-3	
1,1,1-Trichloroethane	<4.9	ug/L	20.0	4.9	20		03/05/20 14:10	71-55-6	
1,1,2-Trichloroethane	<11.0	ug/L	100	11.0	20		03/05/20 14:10	79-00-5	
Trichloroethene	133	ug/L	20.0	5.1	20		03/05/20 14:10	79-01-6	
Vinyl chloride	<3.5	ug/L	20.0	3.5	20		03/05/20 14:10	75-01-4	
Xylene (Total)	<30.0	ug/L	60.0	30.0	20		03/05/20 14:10	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	97	%	70-130		20		03/05/20 14:10	1868-53-7	
4-Bromofluorobenzene (S)	88	%	70-130		20		03/05/20 14:10	460-00-4	
Toluene-d8 (S)	97	%	70-130		20		03/05/20 14:10	2037-26-5	

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## ANALYTICAL RESULTS

Project: 372148 MKC GETS  
Pace Project No.: 40204076

**Sample: EFFLUENT**      **Lab ID: 40204076002**      Collected: 03/02/20 10:00      Received: 03/03/20 09:15      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>625 MSSV PAH by SIM</b>									
Analytical Method: EPA 625 SIM    Preparation Method: EPA 625									
Benzo(a)anthracene	<0.0071	ug/L	0.036	0.0071	1	03/04/20 10:00	03/05/20 11:53	56-55-3	
Benzo(a)pyrene	<0.0099	ug/L	0.050	0.0099	1	03/04/20 10:00	03/05/20 11:53	50-32-8	
Benzo(b)fluoranthene	<0.0054	ug/L	0.027	0.0054	1	03/04/20 10:00	03/05/20 11:53	205-99-2	
Benzo(g,h,i)perylene	<0.0064	ug/L	0.032	0.0064	1	03/04/20 10:00	03/05/20 11:53	191-24-2	
Benzo(k)fluoranthene	<0.0071	ug/L	0.036	0.0071	1	03/04/20 10:00	03/05/20 11:53	207-08-9	
Chrysene	<0.012	ug/L	0.062	0.012	1	03/04/20 10:00	03/05/20 11:53	218-01-9	
Dibenz(a,h)anthracene	<0.0095	ug/L	0.047	0.0095	1	03/04/20 10:00	03/05/20 11:53	53-70-3	
Fluoranthene	<0.010	ug/L	0.050	0.010	1	03/04/20 10:00	03/05/20 11:53	206-44-0	
Indeno(1,2,3-cd)pyrene	<0.017	ug/L	0.083	0.017	1	03/04/20 10:00	03/05/20 11:53	193-39-5	
Naphthalene	<0.017	ug/L	0.086	0.017	1	03/04/20 10:00	03/05/20 11:53	91-20-3	
Phenanthrene	<0.013	ug/L	0.065	0.013	1	03/04/20 10:00	03/05/20 11:53	85-01-8	
Pyrene	<0.0072	ug/L	0.036	0.0072	1	03/04/20 10:00	03/05/20 11:53	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	49	%	39-120		1	03/04/20 10:00	03/05/20 11:53	321-60-8	
Terphenyl-d14 (S)	91	%	10-159		1	03/04/20 10:00	03/05/20 11:53	1718-51-0	
<b>624.1 Volatile Organics</b>									
Analytical Method: EPA 624.1									
Benzene	<0.25	ug/L	1.0	0.25	1		03/05/20 14:31	71-43-2	
Bromodichloromethane	<0.36	ug/L	1.2	0.36	1		03/05/20 14:31	75-27-4	
Bromoform	<4.0	ug/L	13.2	4.0	1		03/05/20 14:31	75-25-2	
Bromomethane	<0.97	ug/L	5.0	0.97	1		03/05/20 14:31	74-83-9	
Carbon tetrachloride	<0.17	ug/L	1.0	0.17	1		03/05/20 14:31	56-23-5	
Chloroform	<1.3	ug/L	5.0	1.3	1		03/05/20 14:31	67-66-3	
Chloromethane	<2.2	ug/L	7.3	2.2	1		03/05/20 14:31	74-87-3	
1,2-Dichloroethane	<0.28	ug/L	1.0	0.28	1		03/05/20 14:31	107-06-2	
1,1-Dichloroethene	<0.24	ug/L	1.0	0.24	1		03/05/20 14:31	75-35-4	
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		03/05/20 14:31	100-41-4	
1,1,2,2-Tetrachloroethane	<0.28	ug/L	1.0	0.28	1		03/05/20 14:31	79-34-5	
Tetrachloroethene	12.5	ug/L	1.1	0.33	1		03/05/20 14:31	127-18-4	
Toluene	<0.17	ug/L	5.0	0.17	1		03/05/20 14:31	108-88-3	
1,1,1-Trichloroethane	<0.24	ug/L	1.0	0.24	1		03/05/20 14:31	71-55-6	
1,1,2-Trichloroethane	<0.55	ug/L	5.0	0.55	1		03/05/20 14:31	79-00-5	
Trichloroethene	3.1	ug/L	1.0	0.26	1		03/05/20 14:31	79-01-6	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		03/05/20 14:31	75-01-4	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		03/05/20 14:31	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	103	%	70-130		1		03/05/20 14:31	1868-53-7	
4-Bromofluorobenzene (S)	89	%	70-130		1		03/05/20 14:31	460-00-4	
Toluene-d8 (S)	96	%	70-130		1		03/05/20 14:31	2037-26-5	

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## ANALYTICAL RESULTS

Project: 372148 MKC GETS  
Pace Project No.: 40204076

**Sample: TRIP BLANK**      **Lab ID: 40204076003**      Collected: 03/02/20 00:00      Received: 03/03/20 09:15      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>624.1 Volatile Organics</b>		Analytical Method: EPA 624.1							
Benzene	<0.25	ug/L	1.0	0.25	1		03/04/20 17:21	71-43-2	
Bromodichloromethane	<0.36	ug/L	1.2	0.36	1		03/04/20 17:21	75-27-4	
Bromoform	<4.0	ug/L	13.2	4.0	1		03/04/20 17:21	75-25-2	
Bromomethane	<0.97	ug/L	5.0	0.97	1		03/04/20 17:21	74-83-9	
Carbon tetrachloride	<0.17	ug/L	1.0	0.17	1		03/04/20 17:21	56-23-5	
Chloroform	<1.3	ug/L	5.0	1.3	1		03/04/20 17:21	67-66-3	
Chloromethane	<2.2	ug/L	7.3	2.2	1		03/04/20 17:21	74-87-3	
1,2-Dichloroethane	<0.28	ug/L	1.0	0.28	1		03/04/20 17:21	107-06-2	
1,1-Dichloroethene	<0.24	ug/L	1.0	0.24	1		03/04/20 17:21	75-35-4	
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		03/04/20 17:21	100-41-4	
1,1,2,2-Tetrachloroethane	<0.28	ug/L	1.0	0.28	1		03/04/20 17:21	79-34-5	
Tetrachloroethene	<0.33	ug/L	1.1	0.33	1		03/04/20 17:21	127-18-4	
Toluene	<0.17	ug/L	5.0	0.17	1		03/04/20 17:21	108-88-3	
1,1,1-Trichloroethane	<0.24	ug/L	1.0	0.24	1		03/04/20 17:21	71-55-6	
1,1,2-Trichloroethane	<0.55	ug/L	5.0	0.55	1		03/04/20 17:21	79-00-5	
Trichloroethene	<0.26	ug/L	1.0	0.26	1		03/04/20 17:21	79-01-6	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		03/04/20 17:21	75-01-4	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		03/04/20 17:21	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	102	%	70-130		1		03/04/20 17:21	1868-53-7	
4-Bromofluorobenzene (S)	88	%	70-130		1		03/04/20 17:21	460-00-4	
Toluene-d8 (S)	94	%	70-130		1		03/04/20 17:21	2037-26-5	

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### QUALITY CONTROL DATA

Project: 372148 MKC GETS  
Pace Project No.: 40204076

QC Batch: 349084 Analysis Method: EPA 624.1  
QC Batch Method: EPA 624.1 Analysis Description: 624.1 MSV  
Associated Lab Samples: 40204076003

METHOD BLANK: 2022856 Matrix: Water  
Associated Lab Samples: 40204076003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	<0.24	1.0	03/04/20 09:07	
1,1,2,2-Tetrachloroethane	ug/L	<0.28	1.0	03/04/20 09:07	
1,1,2-Trichloroethane	ug/L	<0.55	5.0	03/04/20 09:07	
1,1-Dichloroethene	ug/L	<0.24	1.0	03/04/20 09:07	
1,2-Dichloroethane	ug/L	<0.28	1.0	03/04/20 09:07	
Benzene	ug/L	<0.25	1.0	03/04/20 09:07	
Bromodichloromethane	ug/L	<0.36	1.2	03/04/20 09:07	
Bromoform	ug/L	<4.0	13.2	03/04/20 09:07	
Bromomethane	ug/L	<0.97	5.0	03/04/20 09:07	
Carbon tetrachloride	ug/L	<0.17	1.0	03/04/20 09:07	
Chloroform	ug/L	<1.3	5.0	03/04/20 09:07	
Chloromethane	ug/L	<2.2	7.3	03/04/20 09:07	
Ethylbenzene	ug/L	<0.22	1.0	03/04/20 09:07	
Tetrachloroethene	ug/L	<0.33	1.1	03/04/20 09:07	
Toluene	ug/L	<0.17	5.0	03/04/20 09:07	
Trichloroethene	ug/L	<0.26	1.0	03/04/20 09:07	
Vinyl chloride	ug/L	<0.17	1.0	03/04/20 09:07	
Xylene (Total)	ug/L	<1.5	3.0	03/04/20 09:07	
4-Bromofluorobenzene (S)	%	96	70-130	03/04/20 09:07	
Dibromofluoromethane (S)	%	99	70-130	03/04/20 09:07	
Toluene-d8 (S)	%	100	70-130	03/04/20 09:07	

LABORATORY CONTROL SAMPLE: 2022857

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	50.5	101	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	45.9	92	60-140	
1,1,2-Trichloroethane	ug/L	50	48.2	96	70-130	
1,1-Dichloroethene	ug/L	50	44.9	90	50-150	
1,2-Dichloroethane	ug/L	50	48.5	97	70-130	
Benzene	ug/L	50	48.3	97	65-135	
Bromodichloromethane	ug/L	50	50.9	102	65-135	
Bromoform	ug/L	50	51.7	103	70-130	
Bromomethane	ug/L	50	57.4	115	15-185	
Carbon tetrachloride	ug/L	50	53.9	108	70-130	
Chloroform	ug/L	50	48.8	98	70-135	
Chloromethane	ug/L	50	39.6	79	10-200	
Ethylbenzene	ug/L	50	48.4	97	60-140	
Tetrachloroethene	ug/L	50	50.0	100	70-130	
Toluene	ug/L	50	46.9	94	70-130	

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### QUALITY CONTROL DATA

Project: 372148 MKC GETS

Pace Project No.: 40204076

LABORATORY CONTROL SAMPLE: 2022857

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Trichloroethene	ug/L	50	49.8	100	65-135	
Vinyl chloride	ug/L	50	45.3	91	10-195	
Xylene (Total)	ug/L	150	146	97	70-130	
4-Bromofluorobenzene (S)	%			102	70-130	
Dibromofluoromethane (S)	%			101	70-130	
Toluene-d8 (S)	%			100	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2023048 2023049

Parameter	Units	40204013001		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	% Rec	% Rec					
1,1,1-Trichloroethane	ug/L	<1.0	50	50	51.7	53.6	103	107	52-162	4	36		
1,1,2,2-Tetrachloroethane	ug/L	<1.0	50	50	47.2	52.7	94	105	46-157	11	50		
1,1,2-Trichloroethane	ug/L	<5.0	50	50	50.8	52.4	102	105	52-150	3	45		
1,1-Dichloroethene	ug/L	<1.0	50	50	46.3	46.4	93	93	10-200	0	32		
1,2-Dichloroethane	ug/L	<1.0	50	50	51.3	51.5	103	103	49-155	0	49		
Benzene	ug/L	<1.0	50	50	49.9	52.5	100	105	37-151	5	50		
Bromodichloromethane	ug/L	<1.2	50	50	51.7	54.3	103	109	35-155	5	50		
Bromoform	ug/L	<13.2	50	50	51.1	55.3	102	111	45-169	8	42		
Bromomethane	ug/L	<5.0	50	50	41.1	44.0	82	88	10-200	7	50		
Carbon tetrachloride	ug/L	<1.0	50	50	56.8	58.2	114	116	70-140	2	41		
Chloroform	ug/L	<5.0	50	50	50.4	53.1	101	106	51-138	5	50		
Chloromethane	ug/L	<7.3	50	50	33.6	35.6	67	71	10-200	6	50		
Ethylbenzene	ug/L	<1.0	50	50	51.7	53.3	103	107	37-162	3	20		
Tetrachloroethene	ug/L	<1.1	50	50	49.3	51.8	99	104	64-148	5	39		
Toluene	ug/L	<5.0	50	50	49.3	50.2	99	100	47-150	2	41		
Trichloroethene	ug/L	<1.0	50	50	53.1	53.1	106	106	70-157	0	48		
Vinyl chloride	ug/L	<1.0	50	50	39.9	41.5	80	83	10-200	4	50		
Xylene (Total)	ug/L	<3.0	150	150	155	158	103	105	70-130	2	20		
4-Bromofluorobenzene (S)	%						101	103	70-130				
Dibromofluoromethane (S)	%						100	102	70-130				
Toluene-d8 (S)	%						96	98	70-130				

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### QUALITY CONTROL DATA

Project: 372148 MKC GETS  
Pace Project No.: 40204076

QC Batch: 349246 Analysis Method: EPA 624.1  
QC Batch Method: EPA 624.1 Analysis Description: 624.1 MSV  
Associated Lab Samples: 40204076001, 40204076002

METHOD BLANK: 2023493 Matrix: Water  
Associated Lab Samples: 40204076001, 40204076002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	<0.24	1.0	03/05/20 10:36	
1,1,2,2-Tetrachloroethane	ug/L	<0.28	1.0	03/05/20 10:36	
1,1,2-Trichloroethane	ug/L	<0.55	5.0	03/05/20 10:36	
1,1-Dichloroethene	ug/L	<0.24	1.0	03/05/20 10:36	
1,2-Dichloroethane	ug/L	<0.28	1.0	03/05/20 10:36	
Benzene	ug/L	<0.25	1.0	03/05/20 10:36	
Bromodichloromethane	ug/L	<0.36	1.2	03/05/20 10:36	
Bromoform	ug/L	<4.0	13.2	03/05/20 10:36	
Bromomethane	ug/L	<0.97	5.0	03/05/20 10:36	
Carbon tetrachloride	ug/L	<0.17	1.0	03/05/20 10:36	
Chloroform	ug/L	<1.3	5.0	03/05/20 10:36	
Chloromethane	ug/L	<2.2	7.3	03/05/20 10:36	
Ethylbenzene	ug/L	<0.22	1.0	03/05/20 10:36	
Tetrachloroethene	ug/L	<0.33	1.1	03/05/20 10:36	
Toluene	ug/L	<0.17	5.0	03/05/20 10:36	
Trichloroethene	ug/L	<0.26	1.0	03/05/20 10:36	
Vinyl chloride	ug/L	<0.17	1.0	03/05/20 10:36	
Xylene (Total)	ug/L	<1.5	3.0	03/05/20 10:36	
4-Bromofluorobenzene (S)	%	89	70-130	03/05/20 10:36	
Dibromofluoromethane (S)	%	101	70-130	03/05/20 10:36	
Toluene-d8 (S)	%	94	70-130	03/05/20 10:36	

LABORATORY CONTROL SAMPLE: 2023494

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	49.6	99	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	45.0	90	60-140	
1,1,2-Trichloroethane	ug/L	50	48.6	97	70-130	
1,1-Dichloroethene	ug/L	50	43.2	86	50-150	
1,2-Dichloroethane	ug/L	50	47.1	94	70-130	
Benzene	ug/L	50	47.9	96	65-135	
Bromodichloromethane	ug/L	50	50.5	101	65-135	
Bromoform	ug/L	50	55.4	111	70-130	
Bromomethane	ug/L	50	49.9	100	15-185	
Carbon tetrachloride	ug/L	50	54.2	108	70-130	
Chloroform	ug/L	50	47.8	96	70-135	
Chloromethane	ug/L	50	38.0	76	10-200	
Ethylbenzene	ug/L	50	49.4	99	60-140	
Tetrachloroethene	ug/L	50	50.9	102	70-130	
Toluene	ug/L	50	46.9	94	70-130	

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### QUALITY CONTROL DATA

Project: 372148 MKC GETS  
Pace Project No.: 40204076

LABORATORY CONTROL SAMPLE: 2023494

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Trichloroethene	ug/L	50	48.6	97	65-135	
Vinyl chloride	ug/L	50	44.6	89	10-195	
Xylene (Total)	ug/L	150	149	99	70-130	
4-Bromofluorobenzene (S)	%			101	70-130	
Dibromofluoromethane (S)	%			98	70-130	
Toluene-d8 (S)	%			98	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2023526 2023527

Parameter	Units	2023526		2023527		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		40204129001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result							MSD Result
1,1,1-Trichloroethane	ug/L	184	50	50	251	258	133	147	52-162	3	36	
1,1,2,2-Tetrachloroethane	ug/L	<1.4	50	50	47.5	48.3	95	97	46-157	2	50	
1,1,2-Trichloroethane	ug/L	<2.8	50	50	49.8	50.9	100	102	52-150	2	45	
1,1-Dichloroethene	ug/L	3.6J	50	50	48.6	51.7	90	96	10-200	6	32	
1,2-Dichloroethane	ug/L	<1.4	50	50	50.2	52.6	100	105	49-155	4	49	
Benzene	ug/L	<1.2	50	50	49.9	51.8	100	104	37-151	4	50	
Bromodichloromethane	ug/L	<1.8	50	50	53.4	52.5	107	105	35-155	2	50	
Bromoform	ug/L	<19.9	50	50	54.3	54.6	109	109	45-169	1	42	
Bromomethane	ug/L	<4.9	50	50	45.3	45.9	91	92	10-200	1	50	
Carbon tetrachloride	ug/L	<0.83	50	50	56.0	58.8	112	118	70-140	5	41	
Chloroform	ug/L	<6.4	50	50	48.7	53.0	97	106	51-138	9	50	
Chloromethane	ug/L	<10.9	50	50	41.6	42.2	83	84	10-200	2	50	
Ethylbenzene	ug/L	<1.1	50	50	52.0	52.7	104	105	37-162	1	20	
Tetrachloroethene	ug/L	<1.6	50	50	51.1	52.0	102	104	64-148	2	39	
Toluene	ug/L	<0.86	50	50	49.8	50.4	100	101	47-150	1	41	
Trichloroethene	ug/L	60.8	50	50	118	118	114	114	70-157	0	48	
Vinyl chloride	ug/L	5.1	50	50	53.7	54.5	97	99	10-200	2	50	
Xylene (Total)	ug/L	<7.5	150	150	157	157	104	105	70-130	0	20	
4-Bromofluorobenzene (S)	%						104	100	70-130			
Dibromofluoromethane (S)	%						97	101	70-130			
Toluene-d8 (S)	%						95	95	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

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### QUALITY CONTROL DATA

Project: 372148 MKC GETS  
Pace Project No.: 40204076

QC Batch: 349147 Analysis Method: EPA 625 SIM  
QC Batch Method: EPA 625 Analysis Description: 625 Water PAH  
Associated Lab Samples: 40204076001, 40204076002

METHOD BLANK: 2023061 Matrix: Water  
Associated Lab Samples: 40204076001, 40204076002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzo(a)anthracene	ug/L	<0.0076	0.038	03/05/20 10:42	
Benzo(a)pyrene	ug/L	<0.011	0.053	03/05/20 10:42	
Benzo(b)fluoranthene	ug/L	<0.0057	0.029	03/05/20 10:42	
Benzo(g,h,i)perylene	ug/L	<0.0068	0.034	03/05/20 10:42	
Benzo(k)fluoranthene	ug/L	<0.0076	0.038	03/05/20 10:42	
Chrysene	ug/L	<0.013	0.065	03/05/20 10:42	
Dibenz(a,h)anthracene	ug/L	<0.010	0.050	03/05/20 10:42	
Fluoranthene	ug/L	<0.011	0.053	03/05/20 10:42	
Indeno(1,2,3-cd)pyrene	ug/L	<0.018	0.088	03/05/20 10:42	
Naphthalene	ug/L	<0.018	0.092	03/05/20 10:42	
Phenanthrene	ug/L	<0.014	0.069	03/05/20 10:42	
Pyrene	ug/L	<0.0076	0.038	03/05/20 10:42	
2-Fluorobiphenyl (S)	%	64	39-120	03/05/20 10:42	
Terphenyl-d14 (S)	%	112	10-159	03/05/20 10:42	

LABORATORY CONTROL SAMPLE: 2023062

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzo(a)anthracene	ug/L	2	1.7	84	47-118	
Benzo(a)pyrene	ug/L	2	2.0	100	70-120	
Benzo(b)fluoranthene	ug/L	2	1.7	84	54-97	
Benzo(g,h,i)perylene	ug/L	2	1.1	53	26-74	
Benzo(k)fluoranthene	ug/L	2	2.1	105	73-126	
Chrysene	ug/L	2	2.3	117	75-151	
Dibenz(a,h)anthracene	ug/L	2	0.93	47	13-72	
Fluoranthene	ug/L	2	1.8	89	63-120	
Indeno(1,2,3-cd)pyrene	ug/L	2	1.7	86	51-101	
Naphthalene	ug/L	2	1.2	60	41-120	
Phenanthrene	ug/L	2	1.5	75	47-100	
Pyrene	ug/L	2	2.0	100	70-128	
2-Fluorobiphenyl (S)	%			64	39-120	
Terphenyl-d14 (S)	%			120	10-159	

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.

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## QUALIFIERS

Project: 372148 MKC GETS

Pace Project No.: 40204076

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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.

### BATCH QUALIFIERS

Batch: 349197

[1] An MS / MSD pair was extracted with this batch, it is reported with a different analytical batch. The MS / MSD passed all laboratory limits.

## REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: 372148 MKC GETS

Pace Project No.: 40204076

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40204076001	INFLUENT	EPA 625	349147	EPA 625 SIM	349197
40204076002	EFFLUENT	EPA 625	349147	EPA 625 SIM	349197
40204076001	INFLUENT	EPA 624.1	349246		
40204076002	EFFLUENT	EPA 624.1	349246		
40204076003	TRIP BLANK	EPA 624.1	349084		

**REPORT OF LABORATORY ANALYSIS**

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**Madison-Kipp Corporation GETS Sampling Parameters  
March/June/September/December 2020**

48504574

**VOCS**

Parameter	Method
Bromoform	624
Carbon Tetrachloride	624
Chloroform	624
Dichlorobromomethane	624
1,2-Dichloroethane	624
1,1-Dichloroethylene	624
Methyl Bromide	624
Chloromethane	624
1,1,2,2-Tetrachloroethane	624
Tetrachloroethene	624
1,1,2-Trichloroethane	624
1,1,1-Trichloroethane	624
Trichloroethylene	624
Vinyl Chloride	624

**PAHS**

Parameter	Method
Benzo(a)pyrene	625 SIM
Naphthalene	625 SIM
Benzo(a)anthracene	625 SIM
Benzo(b)fluoranthene	625 SIM
Benzo(g,h,i)perylene	625 SIM
Benzo(k)fluoranthene	625 SIM
Chrysene	625 SIM
Dibenzo(a,h)anthracene	625 SIM
Fluoranthene	625 SIM
Indeno(1,2,3-cd)pyrene	625 SIM
Phenanthrene	625 SIM
Pyrene	625 SIM

**TSS\***

Parameter	Method
Total Suspended Solids	2540D

\* only in June/December

**BTEX**

Parameter	Method
Benzene	624
Toluene	624
Ethylbenzene	624
Xylenes	624

7/14/20

2020 03/06/09/12/20 VMS

RCF

Client Name: TRC

**Sample Preservation Receipt Form**

Project # 40204076

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

Lab Lot# of pH paper:

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

Initial when completed:

Date/Time:

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
007																																		2.5 / 5 / 10
008																																		2.5 / 5 / 10
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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

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

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

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

### Sample Condition Upon Receipt Form (SCUR)

**Client Name:** TRC      **Project #:** WO#: 40204076  
**Courier:**  CS Logistics  Fed Ex  Speedee  UPS  Walco  
 Client  Pace Other: \_\_\_\_\_  
**Tracking #:** 7779 1026 4930  
**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 - N/A    **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: 3-3-20  
 Initials: SKW

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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
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 type="checkbox"/> Yes <input checked="" 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 checked="" 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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased): <u>4381</u>		

**Client Notification/ Resolution:**      If checked, see attached form for additional comments   
 Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Comments/ Resolution: \_\_\_\_\_

**Project Manager Review:** HMR for TN      **Date:** 8/3/20

June 18, 2020

Andrew Stehn  
TRC Madison  
708 Heartland Trail  
Madison, WI 53717

RE: Project: 372148 PH.2 TSK 2 MKC-GETS  
Pace Project No.: 40209294

Dear Andrew Stehn:

Enclosed are the analytical results for sample(s) received by the laboratory on June 11, 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,



Tod Noltemeyer  
tod.noltemeyer@pacelabs.com  
(920)469-2436  
Project Manager

Enclosures

cc: Peggy Popp, TRC - Madison  
Ben Wachholz, TRC Madison



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: 372148 PH.2 TSK 2 MKC-GETS

Pace Project No.: 40209294

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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: 372148 PH.2 TSK 2 MKC-GETS

Pace Project No.: 40209294

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Lab ID	Sample ID	Matrix	Date Collected	Date Received
40209294001	EFFLUENT	Water	06/09/20 15:00	06/11/20 08:35
40209294002	INFLUENT	Water	06/09/20 15:05	06/11/20 08:35
40209294003	TRIP BLANK	Water	06/09/20 00:00	06/11/20 08:35

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: 372148 PH.2 TSK 2 MKC-GETS

Pace Project No.: 40209294

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40209294001	EFFLUENT	EPA 625 SIM	TPO	14
		EPA 624.1	HNW	21
		SM 2540D	JXM	1
40209294002	INFLUENT	EPA 625 SIM	TPO	14
		EPA 624.1	HNW	21
		SM 2540D	JXM	1
40209294003	TRIP BLANK	EPA 624.1	HNW	21

PASI-G = Pace Analytical Services - Green Bay

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: 372148 PH.2 TSK 2 MKC-GETS

Pace Project No.: 40209294

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>40209294001</b>	<b>EFFLUENT</b>					
EPA 624.1	Tetrachloroethene	10.2	ug/L	1.1	06/12/20 20:08	
EPA 624.1	Trichloroethene	2.0	ug/L	1.0	06/12/20 20:08	
<b>40209294002</b>	<b>INFLUENT</b>					
EPA 624.1	Tetrachloroethene	1280	ug/L	21.8	06/12/20 13:33	
EPA 624.1	Trichloroethene	132	ug/L	20.0	06/12/20 13:33	
SM 2540D	Total Suspended Solids	1.0J	mg/L	2.0	06/15/20 06:07	

### REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: 372148 PH.2 TSK 2 MKC-GETS

Pace Project No.: 40209294

---

**Method:** EPA 625 SIM

**Description:** 625 MSSV PAH by SIM

**Client:** TRC - MADISON

**Date:** June 18, 2020

### General Information:

2 samples were analyzed for EPA 625 SIM by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

### Hold Time:

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

### Sample Preparation:

The samples were prepared in accordance with EPA 625 with any exceptions noted below.

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

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

### Continuing Calibration:

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

### Internal Standards:

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

### Surrogates:

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

### Method Blank:

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

### Laboratory Control Spike:

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

### Matrix Spikes:

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

### Additional Comments:

Batch Comments:

An MS / MSD pair was extracted with this batch, it is reported with a different analytical batch. The MS / MSD passed all laboratory limits.

- QC Batch: 357456

## REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: 372148 PH.2 TSK 2 MKC-GETS

Pace Project No.: 40209294

---

**Method:** EPA 624.1

**Description:** 624.1 Volatile Organics

**Client:** TRC - MADISON

**Date:** June 18, 2020

**General Information:**

3 samples were analyzed for EPA 624.1 by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

**Hold Time:**

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

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

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

**Continuing Calibration:**

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

**Internal Standards:**

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

**Surrogates:**

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

**Method Blank:**

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

**Laboratory Control Spike:**

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

**Matrix Spikes:**

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

**Additional Comments:**

## REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: 372148 PH.2 TSK 2 MKC-GETS

Pace Project No.: 40209294

---

**Method:** SM 2540D

**Description:** 2540D Total Suspended Solids

**Client:** TRC - MADISON

**Date:** June 18, 2020

**General Information:**

2 samples were analyzed for SM 2540D by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

**Hold Time:**

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

**Method Blank:**

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

**Laboratory Control Spike:**

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

**Matrix Spikes:**

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

**Duplicate Sample:**

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

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

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: 372148 PH.2 TSK 2 MKC-GETS  
Pace Project No.: 40209294

**Sample: EFFLUENT**      **Lab ID: 40209294001**      Collected: 06/09/20 15:00      Received: 06/11/20 08:35      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>625 MSSV PAH by SIM</b>									
Analytical Method: EPA 625 SIM    Preparation Method: EPA 625 Pace Analytical Services - Green Bay									
Benzo(a)anthracene	<0.0069	ug/L	0.035	0.0069	1	06/11/20 14:29	06/12/20 17:44	56-55-3	
Benzo(a)pyrene	<0.0097	ug/L	0.048	0.0097	1	06/11/20 14:29	06/12/20 17:44	50-32-8	
Benzo(b)fluoranthene	<0.0053	ug/L	0.026	0.0053	1	06/11/20 14:29	06/12/20 17:44	205-99-2	
Benzo(g,h,i)perylene	<0.0062	ug/L	0.031	0.0062	1	06/11/20 14:29	06/12/20 17:44	191-24-2	
Benzo(k)fluoranthene	<0.0069	ug/L	0.035	0.0069	1	06/11/20 14:29	06/12/20 17:44	207-08-9	
Chrysene	<0.012	ug/L	0.060	0.012	1	06/11/20 14:29	06/12/20 17:44	218-01-9	
Dibenz(a,h)anthracene	<0.0092	ug/L	0.046	0.0092	1	06/11/20 14:29	06/12/20 17:44	53-70-3	
Fluoranthene	<0.0098	ug/L	0.049	0.0098	1	06/11/20 14:29	06/12/20 17:44	206-44-0	
Indeno(1,2,3-cd)pyrene	<0.016	ug/L	0.081	0.016	1	06/11/20 14:29	06/12/20 17:44	193-39-5	
Naphthalene	<0.017	ug/L	0.084	0.017	1	06/11/20 14:29	06/12/20 17:44	91-20-3	
Phenanthrene	<0.013	ug/L	0.063	0.013	1	06/11/20 14:29	06/12/20 17:44	85-01-8	
Pyrene	<0.0070	ug/L	0.035	0.0070	1	06/11/20 14:29	06/12/20 17:44	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	49	%	39-120		1	06/11/20 14:29	06/12/20 17:44	321-60-8	
Terphenyl-d14 (S)	73	%	10-159		1	06/11/20 14:29	06/12/20 17:44	1718-51-0	
<b>624.1 Volatile Organics</b>									
Analytical Method: EPA 624.1 Pace Analytical Services - Green Bay									
Benzene	<0.25	ug/L	1.0	0.25	1		06/12/20 20:08	71-43-2	
Bromodichloromethane	<0.36	ug/L	1.2	0.36	1		06/12/20 20:08	75-27-4	
Bromoform	<4.0	ug/L	13.2	4.0	1		06/12/20 20:08	75-25-2	
Bromomethane	<0.97	ug/L	5.0	0.97	1		06/12/20 20:08	74-83-9	
Carbon tetrachloride	<1.1	ug/L	3.6	1.1	1		06/12/20 20:08	56-23-5	
Chloroform	<1.3	ug/L	5.0	1.3	1		06/12/20 20:08	67-66-3	
Chloromethane	<2.2	ug/L	7.3	2.2	1		06/12/20 20:08	74-87-3	
1,2-Dichloroethane	<0.28	ug/L	1.0	0.28	1		06/12/20 20:08	107-06-2	
1,1-Dichloroethene	<0.24	ug/L	1.0	0.24	1		06/12/20 20:08	75-35-4	
Ethylbenzene	<0.32	ug/L	1.1	0.32	1		06/12/20 20:08	100-41-4	
1,1,2,2-Tetrachloroethane	<0.28	ug/L	1.0	0.28	1		06/12/20 20:08	79-34-5	
Tetrachloroethene	10.2	ug/L	1.1	0.33	1		06/12/20 20:08	127-18-4	
Toluene	<0.27	ug/L	0.90	0.27	1		06/12/20 20:08	108-88-3	
1,1,1-Trichloroethane	<0.24	ug/L	1.0	0.24	1		06/12/20 20:08	71-55-6	
1,1,2-Trichloroethane	<0.55	ug/L	5.0	0.55	1		06/12/20 20:08	79-00-5	
Trichloroethene	2.0	ug/L	1.0	0.26	1		06/12/20 20:08	79-01-6	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		06/12/20 20:08	75-01-4	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		06/12/20 20:08	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	97	%	70-130		1		06/12/20 20:08	1868-53-7	
4-Bromofluorobenzene (S)	94	%	70-130		1		06/12/20 20:08	460-00-4	
Toluene-d8 (S)	100	%	70-130		1		06/12/20 20:08	2037-26-5	
<b>2540D Total Suspended Solids</b>									
Analytical Method: SM 2540D Pace Analytical Services - Green Bay									
Total Suspended Solids	<0.95	mg/L	2.0	0.95	1		06/15/20 06:07		

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### ANALYTICAL RESULTS

Project: 372148 PH.2 TSK 2 MKC-GETS

Pace Project No.: 40209294

**Sample: INFLUENT**      **Lab ID: 40209294002**      Collected: 06/09/20 15:05      Received: 06/11/20 08:35      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>625 MSSV PAH by SIM</b>									
Analytical Method: EPA 625 SIM    Preparation Method: EPA 625									
Pace Analytical Services - Green Bay									
Benzo(a)anthracene	<0.0073	ug/L	0.036	0.0073	1	06/11/20 14:29	06/12/20 18:03	56-55-3	
Benzo(a)pyrene	<0.010	ug/L	0.051	0.010	1	06/11/20 14:29	06/12/20 18:03	50-32-8	
Benzo(b)fluoranthene	<0.0055	ug/L	0.028	0.0055	1	06/11/20 14:29	06/12/20 18:03	205-99-2	
Benzo(g,h,i)perylene	<0.0065	ug/L	0.033	0.0065	1	06/11/20 14:29	06/12/20 18:03	191-24-2	
Benzo(k)fluoranthene	<0.0073	ug/L	0.036	0.0073	1	06/11/20 14:29	06/12/20 18:03	207-08-9	
Chrysene	<0.013	ug/L	0.063	0.013	1	06/11/20 14:29	06/12/20 18:03	218-01-9	
Dibenz(a,h)anthracene	<0.0096	ug/L	0.048	0.0096	1	06/11/20 14:29	06/12/20 18:03	53-70-3	
Fluoranthene	<0.010	ug/L	0.051	0.010	1	06/11/20 14:29	06/12/20 18:03	206-44-0	
Indeno(1,2,3-cd)pyrene	<0.017	ug/L	0.085	0.017	1	06/11/20 14:29	06/12/20 18:03	193-39-5	
Naphthalene	<0.018	ug/L	0.088	0.018	1	06/11/20 14:29	06/12/20 18:03	91-20-3	
Phenanthrene	<0.013	ug/L	0.066	0.013	1	06/11/20 14:29	06/12/20 18:03	85-01-8	
Pyrene	<0.0074	ug/L	0.037	0.0074	1	06/11/20 14:29	06/12/20 18:03	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	60	%	39-120		1	06/11/20 14:29	06/12/20 18:03	321-60-8	
Terphenyl-d14 (S)	88	%	10-159		1	06/11/20 14:29	06/12/20 18:03	1718-51-0	
<b>624.1 Volatile Organics</b>									
Analytical Method: EPA 624.1									
Pace Analytical Services - Green Bay									
Benzene	<4.9	ug/L	20.0	4.9	20		06/12/20 13:33	71-43-2	
Bromodichloromethane	<7.3	ug/L	24.2	7.3	20		06/12/20 13:33	75-27-4	
Bromoform	<79.4	ug/L	265	79.4	20		06/12/20 13:33	75-25-2	
Bromomethane	<19.4	ug/L	100	19.4	20		06/12/20 13:33	74-83-9	
Carbon tetrachloride	<21.5	ug/L	71.8	21.5	20		06/12/20 13:33	56-23-5	
Chloroform	<25.5	ug/L	100	25.5	20		06/12/20 13:33	67-66-3	
Chloromethane	<43.8	ug/L	146	43.8	20		06/12/20 13:33	74-87-3	
1,2-Dichloroethane	<5.6	ug/L	20.0	5.6	20		06/12/20 13:33	107-06-2	
1,1-Dichloroethene	<4.9	ug/L	20.0	4.9	20		06/12/20 13:33	75-35-4	
Ethylbenzene	<6.4	ug/L	21.2	6.4	20		06/12/20 13:33	100-41-4	
1,1,2,2-Tetrachloroethane	<5.5	ug/L	20.0	5.5	20		06/12/20 13:33	79-34-5	
Tetrachloroethene	1280	ug/L	21.8	6.5	20		06/12/20 13:33	127-18-4	
Toluene	<5.4	ug/L	18.0	5.4	20		06/12/20 13:33	108-88-3	
1,1,1-Trichloroethane	<4.9	ug/L	20.0	4.9	20		06/12/20 13:33	71-55-6	
1,1,2-Trichloroethane	<11.0	ug/L	100	11.0	20		06/12/20 13:33	79-00-5	
Trichloroethene	132	ug/L	20.0	5.1	20		06/12/20 13:33	79-01-6	
Vinyl chloride	<3.5	ug/L	20.0	3.5	20		06/12/20 13:33	75-01-4	
Xylene (Total)	<30.0	ug/L	60.0	30.0	20		06/12/20 13:33	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	99	%	70-130		20		06/12/20 13:33	1868-53-7	
4-Bromofluorobenzene (S)	91	%	70-130		20		06/12/20 13:33	460-00-4	
Toluene-d8 (S)	98	%	70-130		20		06/12/20 13:33	2037-26-5	
<b>2540D Total Suspended Solids</b>									
Analytical Method: SM 2540D									
Pace Analytical Services - Green Bay									
Total Suspended Solids	1.0J	mg/L	2.0	0.95	1		06/15/20 06:07		

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: 372148 PH.2 TSK 2 MKC-GETS

Pace Project No.: 40209294

**Sample: TRIP BLANK**      **Lab ID: 40209294003**      Collected: 06/09/20 00:00      Received: 06/11/20 08:35      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>624.1 Volatile Organics</b>									
Analytical Method: EPA 624.1									
Pace Analytical Services - Green Bay									
Benzene	<0.25	ug/L	1.0	0.25	1		06/12/20 17:53	71-43-2	
Bromodichloromethane	<0.36	ug/L	1.2	0.36	1		06/12/20 17:53	75-27-4	
Bromoform	<4.0	ug/L	13.2	4.0	1		06/12/20 17:53	75-25-2	
Bromomethane	<0.97	ug/L	5.0	0.97	1		06/12/20 17:53	74-83-9	
Carbon tetrachloride	<1.1	ug/L	3.6	1.1	1		06/12/20 17:53	56-23-5	
Chloroform	<1.3	ug/L	5.0	1.3	1		06/12/20 17:53	67-66-3	
Chloromethane	<2.2	ug/L	7.3	2.2	1		06/12/20 17:53	74-87-3	
1,2-Dichloroethane	<0.28	ug/L	1.0	0.28	1		06/12/20 17:53	107-06-2	
1,1-Dichloroethene	<0.24	ug/L	1.0	0.24	1		06/12/20 17:53	75-35-4	
Ethylbenzene	<0.32	ug/L	1.1	0.32	1		06/12/20 17:53	100-41-4	
1,1,2,2-Tetrachloroethane	<0.28	ug/L	1.0	0.28	1		06/12/20 17:53	79-34-5	
Tetrachloroethene	<0.33	ug/L	1.1	0.33	1		06/12/20 17:53	127-18-4	
Toluene	<0.27	ug/L	0.90	0.27	1		06/12/20 17:53	108-88-3	
1,1,1-Trichloroethane	<0.24	ug/L	1.0	0.24	1		06/12/20 17:53	71-55-6	
1,1,2-Trichloroethane	<0.55	ug/L	5.0	0.55	1		06/12/20 17:53	79-00-5	
Trichloroethene	<0.26	ug/L	1.0	0.26	1		06/12/20 17:53	79-01-6	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		06/12/20 17:53	75-01-4	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		06/12/20 17:53	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	100	%	70-130		1		06/12/20 17:53	1868-53-7	
4-Bromofluorobenzene (S)	93	%	70-130		1		06/12/20 17:53	460-00-4	
Toluene-d8 (S)	99	%	70-130		1		06/12/20 17:53	2037-26-5	

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 372148 PH.2 TSK 2 MKC-GETS  
Pace Project No.: 40209294

QC Batch: 357469 Analysis Method: EPA 624.1  
QC Batch Method: EPA 624.1 Analysis Description: 624.1 MSV  
Laboratory: Pace Analytical Services - Green Bay  
Associated Lab Samples: 40209294001, 40209294002, 40209294003

METHOD BLANK: 2067555 Matrix: Water  
Associated Lab Samples: 40209294001, 40209294002, 40209294003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	<0.24	1.0	06/12/20 12:26	
1,1,2,2-Tetrachloroethane	ug/L	<0.28	1.0	06/12/20 12:26	
1,1,2-Trichloroethane	ug/L	<0.55	5.0	06/12/20 12:26	
1,1-Dichloroethene	ug/L	<0.24	1.0	06/12/20 12:26	
1,2-Dichloroethane	ug/L	<0.28	1.0	06/12/20 12:26	
Benzene	ug/L	<0.25	1.0	06/12/20 12:26	
Bromodichloromethane	ug/L	<0.36	1.2	06/12/20 12:26	
Bromoform	ug/L	<4.0	13.2	06/12/20 12:26	
Bromomethane	ug/L	<0.97	5.0	06/12/20 12:26	
Carbon tetrachloride	ug/L	<1.1	3.6	06/12/20 12:26	
Chloroform	ug/L	<1.3	5.0	06/12/20 12:26	
Chloromethane	ug/L	<2.2	7.3	06/12/20 12:26	
Ethylbenzene	ug/L	<0.32	1.1	06/12/20 12:26	
Tetrachloroethene	ug/L	<0.33	1.1	06/12/20 12:26	
Toluene	ug/L	<0.27	0.90	06/12/20 12:26	
Trichloroethene	ug/L	<0.26	1.0	06/12/20 12:26	
Vinyl chloride	ug/L	<0.17	1.0	06/12/20 12:26	
Xylene (Total)	ug/L	<1.5	3.0	06/12/20 12:26	
4-Bromofluorobenzene (S)	%	92	70-130	06/12/20 12:26	
Dibromofluoromethane (S)	%	99	70-130	06/12/20 12:26	
Toluene-d8 (S)	%	99	70-130	06/12/20 12:26	

LABORATORY CONTROL SAMPLE: 2067556

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	47.0	94	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	49.7	99	60-140	
1,1,2-Trichloroethane	ug/L	50	50.1	100	70-130	
1,1-Dichloroethene	ug/L	50	46.5	93	50-150	
1,2-Dichloroethane	ug/L	50	46.7	93	70-130	
Benzene	ug/L	50	46.5	93	65-135	
Bromodichloromethane	ug/L	50	49.0	98	65-135	
Bromoform	ug/L	50	52.7	105	70-130	
Bromomethane	ug/L	50	51.0	102	15-185	
Carbon tetrachloride	ug/L	50	48.4	97	70-130	
Chloroform	ug/L	50	46.3	93	70-135	
Chloromethane	ug/L	50	45.8	92	10-200	
Ethylbenzene	ug/L	50	51.9	104	60-140	
Tetrachloroethene	ug/L	50	50.4	101	70-130	

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### QUALITY CONTROL DATA

Project: 372148 PH.2 TSK 2 MKC-GETS  
Pace Project No.: 40209294

LABORATORY CONTROL SAMPLE: 2067556

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Toluene	ug/L	50	50.1	100	70-130	
Trichloroethene	ug/L	50	48.4	97	65-135	
Vinyl chloride	ug/L	50	46.6	93	10-195	
Xylene (Total)	ug/L	150	159	106	70-130	
4-Bromofluorobenzene (S)	%			103	70-130	
Dibromofluoromethane (S)	%			98	70-130	
Toluene-d8 (S)	%			101	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2067579 2067580

Parameter	Units	2067579		2067580		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		10519645001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
1,1,1-Trichloroethane	ug/L	ND	50	50	46.0	47.2	92	94	52-162	3	36 H1
1,1,2,2-Tetrachloroethane	ug/L	ND	50	50	46.7	49.6	93	99	46-157	6	50 H1
1,1,2-Trichloroethane	ug/L	ND	50	50	48.3	49.9	97	100	52-150	3	45 H1
1,1-Dichloroethene	ug/L	ND	50	50	43.5	45.1	87	90	10-200	4	32 H1
1,2-Dichloroethane	ug/L	ND	50	50	43.7	45.1	87	90	49-155	3	49 H1
Benzene	ug/L	ND	50	50	45.1	46.4	90	93	37-151	3	50 H1
Bromodichloromethane	ug/L	1.2	50	50	49.3	50.8	96	99	35-155	3	50 H1
Bromoform	ug/L	ND	50	50	48.8	51.0	98	102	45-169	5	42 H1
Bromomethane	ug/L	ND	50	50	36.6	39.7	73	79	10-200	8	50 H1
Carbon tetrachloride	ug/L	ND	50	50	48.5	50.1	97	100	70-140	3	41 H1
Chloroform	ug/L	20.3	50	50	64.1	65.9	87	91	51-138	3	50 H1
Chloromethane	ug/L	ND	50	50	33.7	36.0	67	72	10-200	6	50 H1
Ethylbenzene	ug/L	ND	50	50	51.2	52.9	102	106	37-162	3	20 H1
Tetrachloroethene	ug/L	ND	50	50	50.4	51.7	101	103	64-148	3	39 H1
Toluene	ug/L	ND	50	50	50.1	51.4	100	102	47-150	2	41 H1
Trichloroethene	ug/L	ND	50	50	49.4	50.9	99	102	70-157	3	48 H1
Vinyl chloride	ug/L	ND	50	50	38.0	40.1	76	80	10-200	5	50 H1
Xylene (Total)	ug/L	ND	150	150	156	162	104	108	70-130	4	20
4-Bromofluorobenzene (S)	%						99	100	70-130		
Dibromofluoromethane (S)	%						96	96	70-130		
Toluene-d8 (S)	%						101	100	70-130		

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### QUALITY CONTROL DATA

Project: 372148 PH.2 TSK 2 MKC-GETS  
Pace Project No.: 40209294

QC Batch: 357423	Analysis Method: EPA 625 SIM
QC Batch Method: EPA 625	Analysis Description: 625 Water PAH
	Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40209294001, 40209294002

METHOD BLANK: 2067170 Matrix: Water

Associated Lab Samples: 40209294001, 40209294002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzo(a)anthracene	ug/L	<0.0076	0.038	06/12/20 15:03	
Benzo(a)pyrene	ug/L	<0.011	0.053	06/12/20 15:03	
Benzo(b)fluoranthene	ug/L	<0.0057	0.029	06/12/20 15:03	
Benzo(g,h,i)perylene	ug/L	<0.0068	0.034	06/12/20 15:03	
Benzo(k)fluoranthene	ug/L	<0.0076	0.038	06/12/20 15:03	
Chrysene	ug/L	<0.013	0.065	06/12/20 15:03	
Dibenz(a,h)anthracene	ug/L	<0.010	0.050	06/12/20 15:03	
Fluoranthene	ug/L	<0.011	0.053	06/12/20 15:03	
Indeno(1,2,3-cd)pyrene	ug/L	<0.018	0.088	06/12/20 15:03	
Naphthalene	ug/L	<0.018	0.092	06/12/20 15:03	
Phenanthrene	ug/L	<0.014	0.069	06/12/20 15:03	
Pyrene	ug/L	<0.0076	0.038	06/12/20 15:03	
2-Fluorobiphenyl (S)	%	60	39-120	06/12/20 15:03	
Terphenyl-d14 (S)	%	97	10-159	06/12/20 15:03	

LABORATORY CONTROL SAMPLE: 2067171

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzo(a)anthracene	ug/L	2	1.9	93	47-118	
Benzo(a)pyrene	ug/L	2	1.9	96	70-120	
Benzo(b)fluoranthene	ug/L	2	1.8	90	54-97	
Benzo(g,h,i)perylene	ug/L	2	1.0	52	26-74	
Benzo(k)fluoranthene	ug/L	2	2.0	100	73-126	
Chrysene	ug/L	2	1.9	97	75-151	
Dibenz(a,h)anthracene	ug/L	2	0.89	44	13-72	
Fluoranthene	ug/L	2	2.0	100	63-120	
Indeno(1,2,3-cd)pyrene	ug/L	2	1.7	86	51-101	
Naphthalene	ug/L	2	1.1	53	41-120	
Phenanthrene	ug/L	2	1.6	81	47-100	
Pyrene	ug/L	2	1.8	89	70-128	
2-Fluorobiphenyl (S)	%			60	39-120	
Terphenyl-d14 (S)	%			95	10-159	

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

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

### QUALITY CONTROL DATA

Project: 372148 PH.2 TSK 2 MKC-GETS

Pace Project No.: 40209294

QC Batch: 357563	Analysis Method: SM 2540D
QC Batch Method: SM 2540D	Analysis Description: 2540D Total Suspended Solids
	Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40209294001, 40209294002

METHOD BLANK: 2068447 Matrix: Water

Associated Lab Samples: 40209294001, 40209294002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Suspended Solids	mg/L	<0.48	1.0	06/15/20 06:05	

LABORATORY CONTROL SAMPLE: 2068448

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Suspended Solids	mg/L	100	92.0	92	80-120	

SAMPLE DUPLICATE: 2068449

Parameter	Units	40209278002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	373	347	7	10	

SAMPLE DUPLICATE: 2068450

Parameter	Units	40209304001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	60.0	61.7	3	10	

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

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## QUALIFIERS

Project: 372148 PH.2 TSK 2 MKC-GETS

Pace Project No.: 40209294

---

### 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: 357456

[1] An MS / MSD pair was extracted with this batch, it is reported with a different analytical batch. The MS / MSD passed all laboratory limits.

### ANALYTE QUALIFIERS

H1 Analysis conducted outside the recognized method holding time.

## REPORT OF LABORATORY ANALYSIS

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without the written consent of Pace Analytical Services, LLC.

### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 372148 PH.2 TSK 2 MKC-GETS

Pace Project No.: 40209294

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40209294001	EFFLUENT	EPA 625	357423	EPA 625 SIM	357456
40209294002	INFLUENT	EPA 625	357423	EPA 625 SIM	357456
40209294001	EFFLUENT	EPA 624.1	357469		
40209294002	INFLUENT	EPA 624.1	357469		
40209294003	TRIP BLANK	EPA 624.1	357469		
40209294001	EFFLUENT	SM 2540D	357563		
40209294002	INFLUENT	SM 2540D	357563		

### REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
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(Please Print Clearly)

Company Name: **TRC**  
 Branch/Location: **Madison**  
 Project Contact: **Andy Stehn**  
 Phone: **(608) 826-3665**  
 Project Number: **372148 Ph. 2 TSC 2**  
 Project Name: **MKC - GETS**  
 Project State: **WI**  
 Sampled By (Print): **Andrew Stehn / John Koelke**  
 Sampled By (Sign): *[Signature]*  
 PO #: **149656** Regulatory Program:



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

**40209294**

### 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

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

Y/N	N	N	N								
Pick Letter	B	A	A								
Analyses Requested	VOC's	PAH	TSS								

Quote #: **40209294**  
 Mail To Contact: **Andrew Stehn**  
 Mail To Company: **TRC**  
 Mail To Address: **708 Heartland Trl  
 Suite 3000 Madison WI**  
 Invoice To Contact:  
 Invoice To Company:  
 Invoice To Address: **Same as above**  
 Invoice To Phone: **608-826-3665**

**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 W = Water  
 B = Biota DW = Drinking Water  
 C = Charcoal GW = Ground Water  
 O = Oil SW = Surface Water  
 S = Soil WW = Waste Water  
 SI = Sludge WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION		MATRIX	Y/N	N	N	N						
		DATE	TIME											
001	Effluent	6/9/20	15:00	GW		3	2	1						
002	Influent	6/9/20	15:05	L		3	2	1						
003	Trip Blank	4/16/20	-	L		2								

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:	Relinquished By: <i>[Signature]</i> TRC Date/Time: 6/10/20 / 10:00	Received By: PACE courier Date/Time: 6/10/20	PACE Project No. <b>40209294</b> Receipt Temp = <b>100</b> °C Sample Receipt pH OK / Adjusted Cooler Custody Seal Present / Not Present Intact / Not Intact
	Relinquished By: C.S Logistics Date/Time: 6/11/20 0835	Received By: <i>[Signature]</i> Date/Time: 6/11/20 0835	
	Relinquished By: Date/Time:	Received By: Date/Time:	
	Relinquished By: Date/Time:	Received By: Date/Time:	

# Sample Preservation Receipt Form

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

Client Name: TRC

Project # 400994

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 Std #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	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			1							3																				2.5 / 5 / 10
002					2			1							3																			2.5 / 5 / 10	
003															2										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	

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

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

 1241 Bellevue Street, Green Bay, WI 54302	Document Name: <b>Sample Condition Upon Receipt (SCUR)</b>	Document Revised: 26Mar2020
	Document No.: <b>ENV-FRM-GBAY-0014-Rev.00</b>	Author: Pace Green Bay Quality Office

### Sample Condition Upon Receipt Form (SCUR)

**Client Name:** TRC  
**Courier:**  CS Logistics  Fed Ex  Speedee  UPS  Waltco  
 Client  Pace Other: \_\_\_\_\_

Project #: \_\_\_\_\_

WO#: 40209294



40209294

**Tracking #:** 1761 061020  
**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  
**Cooler Temperature**    Uncorr: VOI / Corr: \_\_\_\_\_  
**Temp Blank Present:**  yes  no    **Biological Tissue is Frozen:**  yes  no

Person examining contents:

Date: 6/11/20 Initials: [Signature]

Labeled By Initials: [Signature]

Temp should be above freezing to 6°C.  
Biota Samples may be received at ≤ 0°C if shipped on Dry Ice.

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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
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: _____
<b>Short Hold Time Analysis (&lt;72hr):</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	6.
<b>Rush Turn Around Time Requested:</b>	<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 checked="" 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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased): <u>447</u>		

**Client Notification/ Resolution:** \_\_\_\_\_ If checked, see attached form for additional comments   
 Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Comments/ Resolution: \_\_\_\_\_

PM Review is documented electronically in LIMs. By releasing the project, the PM acknowledges they have reviewed the sample logir

**Attachment 5**

**Storm Sewer Sediment and Stormwater Monitoring  
Laboratory Analytical Report**



2525 Advance Road  
Madison, WI 53718  
608.221.8700 Phone  
608.221.4889 Fax

June 24, 2020

Andrew Stehn  
TRC Environmental Corporation, Inc.  
708 Heartland Trail, Ste 3000  
Madison, WI 53717  
RE: MKC Raingarden - Madison, WI

Enclosed are the analytical results for the samples received by the laboratory on 06/10/2020.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. These results are in compliance with the 2009 NELAC Standards and the appropriate agencies listed below, unless otherwise noted in the case narrative. This analytical report should be reproduced in its entirety.

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

Sincerely,

Molly Palzkill For Jessica Esser  
Project Manager

**Certification List**

**Expires**

Certification List	Expires
DODELAP DOD ELAP Accreditation (A2LA) 3269.01	03/31/2021
ILEPA Illinois Secondary NELAP Accreditation 004366	04/30/2021
KDHE Kansas Secondary NELAP Accreditation E-10384	04/30/2021
LELAP Louisiana Primary NELAP Accreditation 04165	06/30/2020
NJDEP New Jersey Secondary NELAP Accreditation WI004	06/30/2020
TCEQ Texas Secondary NELAP Accreditation T104704504-16-7	11/30/2020
WDNR Wisconsin Certification under NR 149 113289110	08/31/2020

TRC Environmental Corporation, Inc.  
 708 Heartland Trail, Ste 3000  
 Madison WI, 53717

Project: MKC Raingarden - Madison, WI  
 Project Number: 372148 PL.3 TSK.2  
 Project Manager: Andrew Stehn

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
OUTFALL (6-9-20)	A202413-01	Other	06/09/2020	06/10/2020
MH-1A (6-9-20)	A202413-02	Other	06/09/2020	06/10/2020
OUTFALL (6/10/20)	A202413-03	Water	06/10/2020	06/10/2020

**CASE NARRATIVE**

**Sample Receipt Information:**

Three samples were received on 06/10/2020. Samples were received in acceptable condition.

Please see the chain of custody (COC) document at the end of this report for additional information.

TRC Environmental Corporation, Inc.  
 708 Heartland Trail, Ste 3000  
 Madison WI, 53717

Project: MKC Raingarden - Madison, WI  
 Project Number: 372148 PL.3 TSK.2  
 Project Manager: Andrew Stehn

**OUTFALL (6-9-20)**

Date Sampled

**A202413-01 (Other)**

06/09/2020 13:50

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Polychlorinated Biphenyls by EPA Method 8082**

**Preparation Batch: A006156**

PCB-1016	ND	0.0061	0.13	mg/kg dry	1	06/18/2020	06/19/2020 01:35	EPA 8082A	
PCB-1221	ND	0.0087	0.13	mg/kg dry	1	06/18/2020	06/19/2020 01:35	EPA 8082A	
PCB-1232	ND	0.0058	0.13	mg/kg dry	1	06/18/2020	06/19/2020 01:35	EPA 8082A	
PCB-1242	ND	0.012	0.13	mg/kg dry	1	06/18/2020	06/19/2020 01:35	EPA 8082A	
<b>PCB-1248</b>	<b>0.33</b>	0.011	0.13	mg/kg dry	1	06/18/2020	06/19/2020 01:35	EPA 8082A	
<b>PCB-1254</b>	<b>0.16</b>	0.0096	0.13	mg/kg dry	1	06/18/2020	06/19/2020 01:35	EPA 8082A	
PCB-1260	ND	0.0094	0.13	mg/kg dry	1	06/18/2020	06/19/2020 01:35	EPA 8082A	
<b>Total PCBs</b>	<b>0.50</b>	0.012	0.13	mg/kg dry	1	06/18/2020	06/19/2020 01:35	EPA 8082A	

Surrogate: Tetrachloro-meta-xylene

110 % 70.6-121

06/18/2020 06/19/2020 01:35

EPA 8082A

Surrogate: Decachlorobiphenyl

101 % 64.2-121

06/18/2020 06/19/2020 01:35

EPA 8082A

**Classical Chemistry Parameters**

**Preparation Batch: A006150**

<b>% Solids</b>	<b>75.8</b>		0.00	% by Weight	1	06/16/2020	06/17/2020 11:52	SM 2540B	
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TRC Environmental Corporation, Inc.  
 708 Heartland Trail, Ste 3000  
 Madison WI, 53717

Project: MKC Raingarden - Madison, WI  
 Project Number: 372148 PL.3 TSK.2  
 Project Manager: Andrew Stehn

**MH-1A (6-9-20)**

Date Sampled

**A202413-02 (Other)**

06/09/2020 14:10

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Polychlorinated Biphenyls by EPA Method 8082**

**Preparation Batch: A006156**

PCB-1016	ND	0.0059	0.13	mg/kg dry	1	06/18/2020	06/19/2020 02:00	EPA 8082A	
PCB-1221	ND	0.0085	0.13	mg/kg dry	1	06/18/2020	06/19/2020 02:00	EPA 8082A	
PCB-1232	ND	0.0056	0.13	mg/kg dry	1	06/18/2020	06/19/2020 02:00	EPA 8082A	
PCB-1242	ND	0.012	0.13	mg/kg dry	1	06/18/2020	06/19/2020 02:00	EPA 8082A	
<b>PCB-1248</b>	<b>0.14</b>	0.011	0.13	mg/kg dry	1	06/18/2020	06/19/2020 02:00	EPA 8082A	
PCB-1254	ND	0.0094	0.13	mg/kg dry	1	06/18/2020	06/19/2020 02:00	EPA 8082A	
PCB-1260	ND	0.0091	0.13	mg/kg dry	1	06/18/2020	06/19/2020 02:00	EPA 8082A	
<b>Total PCBs</b>	<b>0.14</b>	0.012	0.13	mg/kg dry	1	06/18/2020	06/19/2020 02:00	EPA 8082A	
<i>Surrogate: Tetrachloro-meta-xylene</i>			116 %	70.6-121		06/18/2020	06/19/2020 02:00	EPA 8082A	
<i>Surrogate: Decachlorobiphenyl</i>			101 %	64.2-121		06/18/2020	06/19/2020 02:00	EPA 8082A	

**Classical Chemistry Parameters**

**Preparation Batch: A006150**

<b>% Solids</b>	<b>77.9</b>		0.00	% by Weight	1	06/16/2020	06/17/2020 11:52	SM 2540B	
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TRC Environmental Corporation, Inc.  
 708 Heartland Trail, Ste 3000  
 Madison WI, 53717

Project: MKC Raingarden - Madison, WI  
 Project Number: 372148 PL.3 TSK.2  
 Project Manager: Andrew Stehn

**OUTFALL (6/10/20)**

**A202413-03 (Water)**

**Date Sampled**

**06/10/2020 09:06**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Polychlorinated Biphenyls by EPA Method 8082**

**Preparation Batch: A006162**

PCB-1016	ND	0.0072	0.13	ug/L	1	06/19/2020	06/19/2020 22:42	EPA 8082A	
PCB-1221	ND	0.026	0.25	ug/L	1	06/19/2020	06/19/2020 22:42	EPA 8082A	
PCB-1232	ND	0.0042	0.13	ug/L	1	06/19/2020	06/19/2020 22:42	EPA 8082A	
PCB-1242	ND	0.013	0.13	ug/L	1	06/19/2020	06/19/2020 22:42	EPA 8082A	
PCB-1248	ND	0.011	0.13	ug/L	1	06/19/2020	06/19/2020 22:42	EPA 8082A	
PCB-1254	ND	0.010	0.13	ug/L	1	06/19/2020	06/19/2020 22:42	EPA 8082A	
PCB-1260	ND	0.012	0.13	ug/L	1	06/19/2020	06/19/2020 22:42	EPA 8082A	
Total PCBs	ND	0.026	0.25	ug/L	1	06/19/2020	06/19/2020 22:42	EPA 8082A	
<i>Surrogate: Tetrachloro-meta-xylene</i>			93.2 %	64.9-137		06/19/2020	06/19/2020 22:42	EPA 8082A	
<i>Surrogate: Decachlorobiphenyl</i>			103 %	67.4-146		06/19/2020	06/19/2020 22:42	EPA 8082A	

TRC Environmental Corporation, Inc.  
708 Heartland Trail, Ste 3000  
Madison WI, 53717

Project: MKC Raingarden - Madison, WI  
Project Number: 372148 PL.3 TSK.2  
Project Manager: Andrew Stehn

**Polychlorinated Biphenyls by EPA Method 8082 - Quality Control**

**Pace Analytical - Madison**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch A006156 - EPA 3570**

**Blank (A006156-BLK1)**

Prepared: 06/18/2020 Analyzed: 06/19/2020 01:10

PCB-1016	ND	0.10	mg/kg wet							
PCB-1221	ND	0.10	mg/kg wet							
PCB-1232	ND	0.10	mg/kg wet							
PCB-1242	ND	0.10	mg/kg wet							
PCB-1248	ND	0.10	mg/kg wet							
PCB-1254	ND	0.10	mg/kg wet							
PCB-1260	ND	0.10	mg/kg wet							
Total PCBs	ND	0.10	mg/kg wet							
Surrogate: Tetrachloro-meta-xylene	0.250		mg/kg wet	0.2395		104	70.6-121			
Surrogate: Decachlorobiphenyl	0.259		mg/kg wet	0.2395		108	64.2-121			

**LCS (A006156-BS1)**

Prepared: 06/18/2020 Analyzed: 06/19/2020 00:45

PCB-1242	2.08	0.10	mg/kg wet	1.996		104	82.7-118			
Surrogate: Tetrachloro-meta-xylene	0.232		mg/kg wet	0.2395		96.9	70.6-121			
Surrogate: Decachlorobiphenyl	0.239		mg/kg wet	0.2395		99.7	64.2-121			

**Matrix Spike (A006156-MS1)**

Source: A202413-02

Prepared: 06/18/2020 Analyzed: 06/19/2020 02:25

PCB-1242	2.87	0.13	mg/kg dry	2.557	ND	112	61.9-148			
Surrogate: Tetrachloro-meta-xylene	0.334		mg/kg dry	0.3068		109	70.6-121			
Surrogate: Decachlorobiphenyl	0.312		mg/kg dry	0.3068		102	64.2-121			

**Matrix Spike Dup (A006156-MSD1)**

Source: A202413-02

Prepared: 06/18/2020 Analyzed: 06/19/2020 02:51

PCB-1242	3.22	0.13	mg/kg dry	2.547	ND	127	61.9-148	11.7	20	
Surrogate: Tetrachloro-meta-xylene	0.367		mg/kg dry	0.3056		120	70.6-121			
Surrogate: Decachlorobiphenyl	0.332		mg/kg dry	0.3056		109	64.2-121			

**Batch A006162 - EPA 3511**

**Blank (A006162-BLK1)**

Prepared: 06/19/2020 Analyzed: 06/19/2020 22:17

PCB-1016	ND	0.13	ug/L							
PCB-1221	ND	0.25	ug/L							
PCB-1232	ND	0.13	ug/L							
PCB-1242	ND	0.13	ug/L							
PCB-1248	ND	0.13	ug/L							
PCB-1254	ND	0.13	ug/L							
PCB-1260	ND	0.13	ug/L							
Total PCBs	ND	0.25	ug/L							
Surrogate: Tetrachloro-meta-xylene	0.766		ug/L	0.7500		102	64.9-137			
Surrogate: Decachlorobiphenyl	0.856		ug/L	0.7500		114	67.4-146			

TRC Environmental Corporation, Inc.  
708 Heartland Trail, Ste 3000  
Madison WI, 53717

Project: MKC Raingarden - Madison, WI  
Project Number: 372148 PL.3 TSK.2  
Project Manager: Andrew Stehn

**Polychlorinated Biphenyls by EPA Method 8082 - Quality Control**

**Pace Analytical - Madison**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch A006162 - EPA 3511**

**LCS (A006162-BS1)**

Prepared: 06/19/2020 Analyzed: 06/19/2020 21:52

PCB-1242	14.1	0.13	ug/L	12.50		113	70-130			
Surrogate: Tetrachloro-meta-xylene	0.809		ug/L	0.7500		108	64.9-137			
Surrogate: Decachlorobiphenyl	0.861		ug/L	0.7500		115	67.4-146			

**Matrix Spike (A006162-MS1)**

Source: A202413-03

Prepared: 06/19/2020 Analyzed: 06/19/2020 23:07

PCB-1242	11.6	0.13	ug/L	12.50	ND	93.0	60-140			
Surrogate: Tetrachloro-meta-xylene	0.546		ug/L	0.7500		72.8	64.9-137			
Surrogate: Decachlorobiphenyl	0.587		ug/L	0.7500		78.2	67.4-146			

**Matrix Spike Dup (A006162-MSD1)**

Source: A202413-03

Prepared: 06/19/2020 Analyzed: 06/19/2020 23:32

PCB-1242	12.7	0.13	ug/L	12.50	ND	101	60-140	8.47	20	
Surrogate: Tetrachloro-meta-xylene	0.627		ug/L	0.7500		83.5	64.9-137			
Surrogate: Decachlorobiphenyl	0.692		ug/L	0.7500		92.2	67.4-146			

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 708 Heartland Trail, Ste 3000  
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Project: MKC Raingarden - Madison, WI  
 Project Number: 372148 PL.3 TSK.2  
 Project Manager: Andrew Stehn

**Classical Chemistry Parameters - Quality Control**

**Pace Analytical - Madison**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch A006150 - % Solids**

**Duplicate (A006150-DUP1)**

**Source: A202404-78**

Prepared: 06/16/2020 Analyzed: 06/17/2020 11:52

% Solids	93.1	0.00	% by Weight		93.9			0.816	20	
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TRC Environmental Corporation, Inc.  
708 Heartland Trail, Ste 3000  
Madison WI, 53717

Project: MKC Raingarden - Madison, WI  
Project Number: 372148 PL.3 TSK.2  
Project Manager: Andrew Stehn

### Notes and Definitions

- ND Analyte NOT DETECTED at or above the reporting limit or limit of detection (if listed).
- NR Not Reported
- dry Sample results reported on a dry weight basis. If the word 'dry' does not appear after the units, results are reported on an as-is basis.
- RPD Relative Percent Difference

