

September 20, 2022

Ms. Jennifer Dorman  
Environmental Program Associate  
Remediation and Redevelopment Program  
Wisconsin Department of Natural Resources  
1027 W. St. Paul Avenue  
Milwaukee, WI 53233

**Subject:** **Groundwater Monitoring Progress Report**  
Milwaukee Die Casting Company Site  
4132 North Holton Street, Milwaukee, Wisconsin  
WDNR BRRTS # 02-41-000023  
WDNR FID # 241228240

Dear Ms. Dorman,

We are providing this third semiannual *Groundwater Monitoring Progress Report* (“Report”) to the Wisconsin Department of Natural Resources (WDNR) for the Milwaukee Die Casting Company Site (“Site”) pursuant to the WDNR-approved June 15, 2021 *Additional Groundwater Investigation Work Plan and Groundwater Monitoring Plan* (“Work Plan”). This Report is being submitted on behalf of Pharmacia LLC (“Pharmacia”), which is acting on behalf of Fisher Controls International, Inc. (“Fisher”) in this matter.<sup>1</sup>

This Report provides the groundwater monitoring purpose and report basis, results of the April and July 2022 groundwater monitoring events,<sup>2</sup> a data trend evaluation, investigation-derived waste (“IDW”) management information, and a summary of planned activities. The Wisconsin Administrative Code NR 712.09 submittal certification is provided in **Attachment 1**.

### **Purpose and Report Basis**

Monitored natural attenuation (MNA) groundwater monitoring is being conducted at the Site in accordance with the Work Plan to collect sufficient data to confirm that post-removal action

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<sup>1</sup> By submitting this Report, neither Pharmacia nor Fisher is waiving any of its rights under federal or state law. Additionally, nothing in this Report should be deemed an admission of fact or law, or a waiver of any defense or right to contest Pharmacia’s or Fisher’s liability under any state or federal law.

<sup>2</sup> The April and July 2022 groundwater monitoring events are the fourth and fifth conducted pursuant to the Work Plan and the associated August 6, 2021 WDNR conditional approval letter and are the seventh and eighth consecutive quarterly groundwater monitoring events.

residual chlorinated volatile organic compound (CVOC) concentrations greater than NR 140 enforcement standards (ESs) are effectively naturally attenuating.

This Report was prepared in accordance with Wisconsin Administrative Code NR 724.13(3) and WDNR Form 4400-194<sup>3</sup> and pursuant to the following:

- The Work Plan.
- WDNR's August 6, 2021 *Review of Supplemental Site Investigation Report and Additional Groundwater Investigation Work Plan and Groundwater Monitoring Plan* letter.

Site background information and previous groundwater monitoring data are documented in the May 11, 2021 *Supplemental Site Investigation Report*, the Work Plan and the October 13, 2021 and April 11, 2022 *Groundwater Monitoring Progress Reports*.

### **April and July 2022 Groundwater Monitoring Events**

The seventh and eighth quarterly groundwater monitoring events were conducted on April 25 to 27, 2022 and on July 27 and 28, 2022, respectively. The following is a summary of the April and July 2022 groundwater monitoring results:

#### *Groundwater Elevation and Flow Data*

The April and July 2022 groundwater depth and elevation data (and previous data) are summarized in **Table 1 (Attachment 2)**. Shallow groundwater elevation contours for the July 2022 monitoring event are included on **Figure 1 (Attachment 3)** and deeper groundwater piezometric elevation contours for the July 2022 monitoring event are depicted on **Figure 2 (Attachment 3)**. As depicted on **Figure 1**, shallow groundwater flow is to the east consistent with previous data and as depicted on **Figure 2**, deeper groundwater flow is to the east-northeast consistent with previous data.

#### *Groundwater Analytical Data*

The April 2022 and July 2022 groundwater monitoring laboratory reports and associated data validation reports are provided in **Attachment 4**. The groundwater sample analytical data (and previous data) are summarized in **Table 2 (Attachment 2)**. The April and July 2022 data (CVOCs and 1,4-dioxane) are also summarized on **Figure 1** (shallow groundwater) and **Figure 2** (deeper

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<sup>3</sup> Pursuant to WDNR Form 4400-194 (R 06/20) General Instructions, the option of a narrative report or letter in lieu of the form may be submitted.

groundwater). The following table provides a summary of the CVOC analytical results for the April and July 2022 groundwater monitoring events:

Monitoring Well Location	CVOC Data Summary
On-Site Upgradient Well	MW-13 CVOCs were not detected in groundwater at upgradient on-Site groundwater monitoring well MW-13 in either monitoring event consistent with previous data.
On-Site Monitoring Wells and Piezometers	MW-1 MW-2, MW-4, MW-7, PZ-1, PZ-1A, PZ-2 CVOCs were detected in groundwater at on-Site groundwater monitoring wells MW-1, MW-2, MW-4 and MW-7 and piezometer PZ-1 at concentrations greater than NR 140 ESs in both monitoring events consistent with previous data.  CVOCs were not detected in deeper groundwater at on-Site piezometers PZ-2 or PZ-1A in either monitoring event consistent with previous data.
Near Off-Site Downgradient Monitoring Wells and Piezometers	MW-6, MW-14, MW-5, MW-8, PZ-6 CVOCs were detected in groundwater at near off-Site downgradient monitoring wells MW-6 and MW-14 at concentrations just greater than NR 140 ESs in both monitoring events consistent with previous data.  CVOCs were detected in groundwater at near off-Site downgradient monitoring well MW-5 at low concentrations [less than NR 140 ESs and NR 140 preventive action limits (PALs)] in both monitoring events. Sporadic low concentrations of CVOCs have been detected at MW-5 in past monitoring events.  CVOCs were not detected in groundwater at near off-Site downgradient monitoring well MW-8 in either monitoring event consistent with previous data.  CVOCs were not detected in deeper groundwater at near off-Site downgradient piezometer PZ-6 in either monitoring event consistent with previous data.
Off-Site Downgradient Sentinel Monitoring Well and Piezometer	MW-9, PZ-10 CVOCs were not detected in groundwater at off-Site downgradient sentinel monitoring well MW-9 or at off-Site downgradient sentinel piezometer PZ-10 in either monitoring event consistent with previous data.

1,4-Dioxane was detected in groundwater at near off-Site groundwater monitoring well MW-6 in the April 2022 monitoring event at a concentration greater than the NR 140 ES which is consistent with previous data. 1,4-Dioxane was not detected in groundwater at any other on-Site or off-Site groundwater monitoring well or piezometer location in the April 2022 monitoring event. 1,4-

Dioxane data are not available for the July 2022 monitoring event due to an intra-laboratory shipping issue.<sup>4</sup>

### *Geochemical Parameters*

Geochemical parameter data for the April and July 2022 groundwater monitoring events are provided in **Table 2**. These data are summarized in the following table:

Geochemical Parameters	Data Summary
Ethane, Ethene, Methane <sup>5</sup>	<p>Final CVOC degradation product ethene was detected in groundwater at MW-1 and PZ-1 (monitoring well and piezometer with the highest residual CVOC concentrations) at concentrations of 85.8 and 79.1 milligrams per liter (mg/L), respectively. Ethene was also detected in groundwater at MW-2. The continued presence of ethene is consistent with the CVOC reductive dechlorination (degradation) pattern of tetrachloroethene (PCE)/trichloroethene (TCE) → DCE → vinyl chloride → ethene.</p> <p>Low concentrations of ethane were detected in groundwater at MW-1, MW-2 and PZ-2.</p> <p>Methane was detected in groundwater at on-Site groundwater monitoring wells with CVOC concentrations greater than NR 140 ESs (MW-1, MW-2, MW-4, and MW-7) at concentrations ranging from 88.2 to 883 mg/L. Methane was also detected in groundwater at near off-Site groundwater monitoring well MW-6 at a concentration of 275 mg/L. Elevated methane concentrations are indicative of reduced groundwater conditions. Relatively lower methane concentrations were detected in groundwater at groundwater monitoring wells MW-9, MW-13 and MW-14 and piezometers PZ-1, PZ-2 and PZ-6.</p>
Dissolved Oxygen (DO)	DO concentrations in groundwater at on-Site groundwater monitoring wells and piezometers with the highest residual CVOC concentrations (MW-1, PZ-1 and MW-2) ranged from 0.45 to 0.52 mg/L for the July 2022 monitoring event. <sup>6</sup> DO concentrations less than 0.5 mg/L are indicative of reduced groundwater conditions. <sup>7</sup>

<sup>4</sup> The 1,4-dioxane samples shipped by Pace Analytical from their Green Bay laboratory to their Minneapolis laboratory for analysis arrived four days late and over the temperature acceptance criterion. A second set of samples for 1,4-dioxane analysis was collected on August 16 to 17, 2022, and this second set of samples also exceeded the temperature acceptance criterion following shipment by Pace Analytical from their Green Bay laboratory to their Tennessee laboratory.

<sup>5</sup> Ethane, ethene, methane and TOC data are collected semi-annually; therefore, these data were only collected for the July 2022 event.

<sup>6</sup> DO data for the April 2022 event were inconsistent with previous data and the July 2022 data suggesting a potential faulty DO sensor during the April 2022 event.

<sup>7</sup> *Understanding Chlorinated Hydrocarbon Behavior in Groundwater: Guidance on the Investigation, Assessment and Limitations of Monitored Natural Attenuation*, WDNR Publication RR-699.

Geochemical Parameters	Data Summary
Oxidation-Reduction Potential (ORP)	ORP measurements at on-Site groundwater monitoring wells and piezometers with the highest residual CVOC concentrations (MW-1, PZ-1 and MW-2) ranged from -163.4 to -46.1 millivolts (mV) in both monitoring events <sup>8</sup> . These data are indicative of “likely” to “possible” reductive dechlorination <sup>7</sup> .
pH	pH measurements ranged from 6.46 to 7.97 for the two monitoring events, which are within the optimal range for microbial activity ( $5 < \text{pH} < 9$ ) <sup>7</sup> .
Total Organic Carbon (TOC) <sup>5</sup>	TOC concentrations ranged from 0.75 to 6.4 mg/L for the two monitoring events, which are less than the TOC concentration generally considered to support reductive dechlorination (>20 mg/L). <sup>7</sup>

## Data Trends

### *Concentration and Groundwater Elevations versus Time*

CVOC concentration and groundwater elevation versus time plots for groundwater monitoring wells with NR 140 ES exceedances (MW-1, PZ-1, MW-2, MW-4, MW-6, MW-7 and MW-14) are provided in **Attachment 5**. These data trend plots show eight (8) quarterly data points between September 2020 and July 2022. The plots depict stable CVOC concentration trends over this period for each of the groundwater monitoring wells and piezometers with the exception of the following current variances:

- MW-2 (on-Site shallow groundwater monitoring well) cis-1,2-DCE and vinyl chloride data: the MW-2 data trend plot (**Attachment 5**, Page 3 of 10) depicts an apparent increasing concentration trend for intermediate degradation products cis-1,2-DCE and vinyl chloride; however, the cis-1,2-DCE and vinyl chloride concentrations in groundwater at MW-2 are low and the depicted increases are correspondingly low. Further, the increasing cis-1,2-DCE and vinyl chloride concentration trends correspond to a similar increasing concentration trend for ethene (final degradation product). This increasing ethene concentration trend and the MW-2 DO and ORP data (0.52 ng/L and -163.4 mV for the July 2022 monitoring event) suggest CVOC reductive dechlorination conditions at MW-2.
- MW-6 (near off-Site shallow groundwater monitoring well) CVOC data: the MW-6 data trend plot (**Attachment 5**, Page 5 of 10) depicts apparent increasing CVOC concentration trends; however, the CVOC concentrations in groundwater at MW-6 are low and the depicted increases are correspondingly low. The data trend plot for MW-7 (groundwater monitoring well upgradient of MW-6) depicts stable to decreasing CVOC concentrations

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<sup>8</sup> The exception to this range was an anomalous ORP measurement of 89.8 mV at PZ-1 in the April 2022 monitoring event.

and CVOCs have not been detected in groundwater at MW-9 downgradient of MW-6. These data suggest the apparent increasing trend at MW-6 may be a transient condition.

A 1,4-dioxane concentration and groundwater elevation versus time plot for MW-6 is also included in **Attachment 5** (Page 8 of 10). This data trend plot depicts stable to decreasing 1,4-dioxane concentrations in groundwater at MW-6.

As depicted on the **Attachment 5** data trend plots and in **Table 1**, there was a noticeable spike in groundwater elevations for the April 2022 monitoring event. However, there was no consistent effect of this groundwater elevation spike on CVOC concentrations in groundwater.

#### *Concentration versus Distance*

Concentration versus distance plots for the primary post-removal action residual CVOC groundwater flow path (MW-1 → MW-7 → MW-6 → MW-9) for the April and July 2022 sampling event data are included in **Attachment 5** (Pages 9 of 10 and 10 of 10). These data plots depict significant attenuation of CVOC concentrations with distance downgradient of MW-1 (shallow groundwater monitoring well with highest residual CVOC concentrations).

#### **IDW Management**

Water generated during groundwater sampling were contained in labeled 55-gallon drums. The drums were staged in the northwest portion of the Site in secondary containment. Three (3) water drums were generated during the April 2022 groundwater monitoring event and two (2) water drums were generated during the July 2022 groundwater monitoring event.

The drums generated during the April and July 2022 groundwater monitoring events were picked up by Veolia for off-site disposal on June 10, 2022 and September 9, 2022, respectively. The disposal manifests are included in **Attachment 6**.<sup>9</sup>

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<sup>9</sup> The disposal manifests for the January/February 2022 groundwater monitoring event are also provided in **Attachment 6**.

### **Planned Activities**

Pursuant to the Work Plan, the planned eight (8) quarterly groundwater monitoring events have been completed. The groundwater monitoring data demonstrate that residual groundwater concentrations at the Site are attenuating with time and distance through reductive dechlorination.

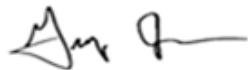
Pharmacia respectively requests a meeting with WDNR to discuss the groundwater monitoring data.

Please contact us if you have any questions regarding this letter.

Sincerely,



Jeremiah Johnson, P.G.  
Senior Geologist  
(Licensed P.G. in WI)



Greg Johnson, P.H., P.G., P.E.  
Senior Engineer  
(Licensed P.E. in WI, P.H. in WI, P.G. in IL, WI)

- Attachment 1 - NR 712.09 Submittal Certification
- Attachment 2 - Tables
- Attachment 3 - Figures
- Attachment 4 - Laboratory Reports and Data Validation Reports
- Attachment 5 - Data Trend Plots
- Attachment 6 - IDW Disposal Documentation

cc:     Mr. John (Greg) Moll, WDNR  
          Mr. Christopher Clark, Pharmacia LLC  
          Ms. Mary Jo Anzia, BSI

# **ATTACHMENT 1**

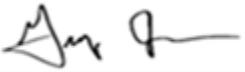
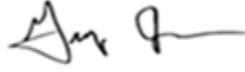
## **NR 712.09 Submittal Certification**

**Groundwater Monitoring Progress Report**  
Milwaukee Die Casting Company Site  
4132 North Holton Street  
Milwaukee, Wisconsin  
WDNR BRRTS # 02-41-000023  
WDNR FID # 241228240

**NR 712.09 Submittal certification.**

Document Name	GROUNDWATER MONITORING PROGRESS REPORT
Document Date	September 20, 2022
Site Name	Milwaukee Die Casting Company Site
WDNR BRRTS #	02-41-000023

"I, Greg Johnson, 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."

	 9/20/2022
Signature, title and P.E. number	P.E. stamp
"I, <u>Greg Johnson</u> , hereby certify that I am a hydrogeologist as that term is defined in s. NR 712.03 (1), Wis. Adm. Code, am registered in accordance with the requirements of ch. GHSS 2, Wis. Adm. Code, or licensed in accordance with the requirements of ch. GHSS 3, Wis. Adm. Code, and that, to the best of my knowledge, all of the 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."	
	Senior Engineer 9/20/2022
Signature and title	Date
"I, <u>Jeremiah Johnson</u> , 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 of the 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."	
	Senior Geologist 9/20/2022
Signature and title	Date

## **ATTACHMENT 2**

### Tables

**Groundwater Monitoring Progress Report**  
Milwaukee Die Casting Company Site  
4132 North Holton Street  
Milwaukee, Wisconsin  
WDNR BRRTS # 02-41-000023  
WDNR FID # 241228240

**TABLE 1**  
**Summary of Groundwater Elevation Data**  
Milwaukee Die Casting Company Site  
4132 North Holton Street  
Milwaukee, Wisconsin

Well	Ground Surface Elevation	TOC Elevation	Screen Interval Elevations		Groundwater Level <sup>1</sup>																		
					9/23/2020		1/18/2021		4/26/2021		7/20/2021		10/26/2021		1/31/2022		4/25/2022		7/27/2022				
			Bottom	Top	Depth	Elevation	Depth	Elevation	Depth	Elevation	Depth	Elevation	Depth	Elevation	Depth	Elevation	Depth	Elevation	Depth	Elevation	Depth	Elevation	
	(ft amsl)	(ft amsl)	(ft amsl)	(ft amsl)	(ft bTOC)	(ft bgs)	(ft amsl)	(ft bTOC)	(ft bgs)	(ft amsl)	(ft bTOC)	(ft bgs)	(ft amsl)	(ft bTOC)	(ft bgs)	(ft amsl)	(ft bTOC)	(ft bgs)	(ft amsl)	(ft bTOC)	(ft bgs)	(ft amsl)	(ft bTOC)
MW-1	646.55	648.74	631.15	641.15	6.64	4.45	642.10	6.09	3.90	642.65	5.62	3.43	643.12	7.37	5.18	641.37	7.75	5.56	640.99	7.82	5.63	640.92	3.49
MW-2	647.67	650.20	632.67	642.67	8.17	5.64	642.03	8.03	5.50	642.17	7.10	4.57	643.10	9.22	6.69	640.98	9.74	7.21	640.46	9.85	7.32	640.35	5.01
MW-3	648.57	650.91	633.07	643.07	10.13	7.79	640.78	8.46	6.12	642.45	7.94	5.60	642.97	11.20	8.86	639.71	12.14	9.80	638.77	13.13	10.79	637.78	5.38
MW-4	641.68	644.48	624.18	634.18	7.89	5.09	636.59	6.78	3.98	637.70	6.94	4.14	637.54	8.80	6.00	635.68	9.23	6.43	635.25	9.37	6.57	635.11	5.01
MW-5	638.52	641.49	621.22	631.22	16.68	13.70	624.81	11.94	8.96	629.55	10.28	7.30	631.21	13.09	10.11	628.40	13.04	10.06	628.45	14.00	11.02	627.49	8.46
MW-6	639.26	641.59	621.26	631.26	11.76	9.43	629.83	11.83	9.50	629.76	11.46	9.13	630.13	12.33	10.00	629.26	12.70	10.37	628.89	12.92	10.59	628.67	10.47
MW-7	641.78	644.17	626.88	636.88	4.82	2.43	639.35	4.05	1.66	640.12	4.26	1.87	639.91	5.29	2.90	638.88	6.08	3.69	638.09	6.50	4.11	637.67	3.00
MW-8	638.03	640.47	621.23	631.23	11.40	8.96	629.07	6.96	4.52	633.51	7.18	4.74	633.29	10.04	7.60	630.43	10.53	8.09	629.94	11.97	9.53	628.50	4.55
MW-9	635.74	638.33	620.54	630.54	10.63	8.05	627.70	8.05	5.47	630.28	6.87	4.29	631.46	10.63	8.05	627.70	11.21	8.63	627.12	12.40	9.82	625.93	6.53
MW-10	637.28	639.42	618.98	628.98	17.81	15.67	621.61	11.31	9.16	628.11	10.05	7.90	629.37	13.97	11.83	625.45	14.36	12.22	625.06	16.29	14.15	623.13	9.93
MW-11	637.66	640.29	622.36	632.36	16.97	14.35	623.32	5.15	2.53	635.14	6.15	3.53	634.14	10.45	7.83	629.84	10.90	8.28	629.39	13.43	10.81	626.86	5.25
MW-12	651.07	653.30	635.67	645.67	11.39	9.15	641.91	10.84	8.60	642.46	10.19	7.95	643.11	12.34	10.10	640.96	12.87	10.63	640.43	13.28	11.04	640.02	6.52
MW-13	650.91	653.17	635.61	645.61	10.44	8.19	642.73	9.72	7.47	643.45	9.52	7.27	643.65	11.31	9.06	641.86	11.40	9.15	641.77	11.58	9.33	641.59	6.87
MW-14	640.35	642.81	622.55	632.55	8.06	5.59	634.75	6.46	3.99	636.35	7.92	5.45	634.89	8.37	5.90	634.44	8.06	5.59	634.75	9.10	6.63	633.71	5.81
PZ-1	646.74	648.89	610.64	615.64	6.93	4.78	641.96	6.42	4.27	642.47	6.01	3.86	642.88	7.70	5.55	641.19	8.09	5.94	640.80	8.22	6.07	640.67	3.89
PZ-1A	646.79	648.62	598.79	603.79	--	--	--	--	--	--	--	--	--	--	--	--	8.99	7.16	639.63	9.29	7.46	639.33	5.41
PZ-2	648.21	650.86	611.11	616.11	9.98	7.33	640.88	9.69	7.04	641.17	9.17	6.52	641.69	10.91	8.26	639.95	11.42	8.77	639.44	11.75	9.10	639.11	6.89
PZ-6	639.27	641.35	606.27	611.27	--	--	--	--	--	--	--	--	--	--	--	--	19.42	17.35	621.93	19.84	17.77	621.51	17.62
PZ-10	637.53	640.15	604.83	609.83	23.55	20.93	616.60	23.74	21.12	616.41	23.25	20.63	616.90	23.83	21.21	616.32	24.20	21.58	615.95	24.43	21.81	615.72	22.98

Notes:

<sup>1</sup> - measured prior to groundwater sampling

ft amsl - feet above mean sea level

ft bgs - feet below ground surface

ft bTOC - feet below top of casing

TOC - top of casing





TABLE 2  
Summary of Groundwater Sample Analytical Results  
Milwaukee Die Casting Company Site  
4132 North Holton Street  
Milwaukee, Wisconsin

Well Identification	MW-7												MW-8												MW-9												MW-10												NR 140 Groundwater Quality Standard	
	5-15						7-17						5-15						8-18						28-33						PAL	ES																		
Approximate Screen Interval (ft bgs)	9/24/2020	1/19/2021	4/28/2021	7/22/2021	10/27/2021	2/1/2022	4/27/2022	7/28/2022	9/24/2020	1/19/2021	4/27/2021	7/22/2021	10/26/2021	1/31/2022	4/25/2022	7/27/2022	9/24/2020	1/19/2021	4/27/2021	7/21/2021	10/27/2021	1/31/2022	4/26/2022	7/28/2022	10/29/2020	1/20/2021	4/27/2021	7/21/2021	9/25/2020	1/20/2021	4/26/2021	7/21/2021	10/26/2021	1/31/2022	4/26/2022	7/27/2022														
Analytical Parameters																																																		
Detected VOCs (µg/L)																																																		
CVOCs																																																		
1,1,1-Trichloroethane	< 2.00	< 2.00	5.55	2.7	3.8	3.5	5.6	2.7	< 2.00	< 1.00	< 0.30	< 0.30	< 2.00	< 2.00	< 1.00	< 0.30	< 0.30	< 2.00	< 2.00	< 1.00	< 0.30	< 0.30	< 2.00	< 2.00	< 1.00	< 0.30	< 0.30	< 2.00	< 2.00	< 1.00	< 0.30	< 0.30	< 2.00	< 2.00	< 1.00	< 0.30	< 0.30	40	200											
1,1-Dichloroethane	< 2.00	< 2.00	4.00	2.9	3.5	3.2	5.0	3.5	< 2.00	< 1.00	< 0.30	< 0.30	< 2.00	< 2.00	< 1.00	< 0.30	< 0.30	< 2.00	< 2.00	< 1.00	< 0.30	< 0.30	< 2.00	< 2.00	< 1.00	< 0.30	< 0.30	< 2.00	< 2.00	< 1.00	< 0.30	< 0.30	85	850																
1,1-Dichloroethene	< 4.00	< 4.00	1.3 J	< 1.5	< 1.5	< 1.5	2.1 J	< 1.5	< 4.00	< 1.00	< 0.58	< 0.58	< 4.00	< 4.00	< 1.00	< 0.58	< 0.58	< 4.00	< 4.00	< 1.00	< 0.58	< 0.58	< 4.00	< 4.00	< 1.00	< 0.58	< 0.58	< 4.00	< 4.00	< 1.00	< 0.58	< 0.58	0.7	7																
cis & 1,2-Dichloroethene	48.8	222	402	279	291	293	499	342	< 2.00	< 1.00	< 0.47	< 0.47	< 2.00	< 2.00	< 1.00	< 0.47	< 0.47	< 2.00	< 2.00	< 1.00	< 0.47	< 0.47	< 2.00	< 2.00	< 1.00	< 0.47	< 0.47	< 2.00	< 2.00	< 1.00	< 0.47	< 0.47	7	70																
Tetrachloroethene	< 2.00	< 2.00	1.35 J	2.9	2.0 J	6.7	10.6	4.6	< 2.00	< 1.00	< 0.41	< 0.41	< 2.00	< 2.00	< 1.00	< 0.41	< 0.41	< 2.00	< 2.00	< 1.00	< 0.41	< 0.41	< 2.00	< 2.00	< 1.00	< 0.41	< 0.41	< 2.00	< 2.00	< 1.00	< 0.41	< 0.41	0.5	5																
trans-1,2-Dichloroethene	< 2.00	10.4	21.6	16.7	17.1	14.5	27.0	18.2	< 2.00	< 1.00	< 0.53	< 0.53	< 2.00	< 2.00	< 1.00	< 0.53	< 0.53	< 2.00	< 2.00	< 1.00	< 0.53	< 0.53	< 2.00	< 2.00	< 1.00	< 0.53	< 0.53	< 2.00	< 2.00	< 1.00	< 0.53	< 0.53	20	100																
Trichloroethene	< 2.00	7.12	18.4	10.3	12.3	14.4	23.1	12.8	< 2.00	< 1.00	< 0.32	< 0.32	< 2.00	< 2.00	< 1.00	< 0.32	< 0.32	< 2.00	< 2.00	< 1.00	< 0.32	< 0.32	< 2.00	< 2.00	< 1.00	< 0.32	< 0.32	< 2.00	< 2.00	< 1.00	< 0.32	< 0.32	0.5	5																
Vinyl chloride	< 2.00	< 2.00	< 2.50	< 0.44	1.1 J	1.4 J	2.7	3.3	< 2.00	< 2.00	< 2.50	< 0.17	< 2.00	< 2.00	< 2.00	< 0.17	< 2.00	< 2.00	< 2.50	< 0.17	< 2.00	< 2.00	< 2.50	< 0.17	< 2.00	< 2.00	< 2.50	< 0.17	< 2.00	< 2.00	< 2.50	< 0.17	< 2.00	0.02	0.2															
Other Reported VOCs																																																		
Carbon disulfide	< 2.00	< 2.00	2.35 J	< 2.8	--	--	--	--	< 2.00	< 2.00	2.15 J	< 1.1	--	--	--	--	--	< 2.00	< 2.00	2.40 J	< 1.1	--	--	--	--	--	< 2.00	< 2.00	2.20 J	< 1.1	< 2.00	< 2.00	2.20 J	< 1.1	--	--	--	200	1000											
Chloromethane	< 4.00	< 4.00	< 2.50	< 4.1	--	--	--	--	< 4.00	< 4.00	1.35 J	< 1.6	--	--	--	--	--	< 4.00	< 4.00	< 2.50	< 1.6	--	--	--	--	--	< 4.00	< 4.00	< 2.50	< 1.6	--	--	--	--	3	30														
Ethylbenzene	< 1.00	< 1.00	< 1.00	< 0.81	--	--	--	--	< 1.00	< 1.00	< 0.33	--	--	--	--	--	--	< 1.00	< 1.00	< 0.33	--	--	--	--	--	< 1.00	< 1.00	< 0.33	--	--	--	--	--	140	700															
m,p-Xylene	< 4.00	< 4.00	0.450 J	< 1.8	--	--	--	--	< 4.00	< 4.00	0.450 J	< 0.70	--	--	--	--	--	< 4.00	< 4.00	0.450 J	< 0.70	--	--	--	--	--	< 4.00	< 4.00	0.500 J	< 0.70	--	--	--	--	--	--	--	0.5	5											
Methylene chloride <sup>(2)</sup>	< 4.00	< 4.00	3.05 J	< 0.80	--	--	--	--	< 4.00	< 4.00	4.45 J	< 0.32	--	--	--																																			

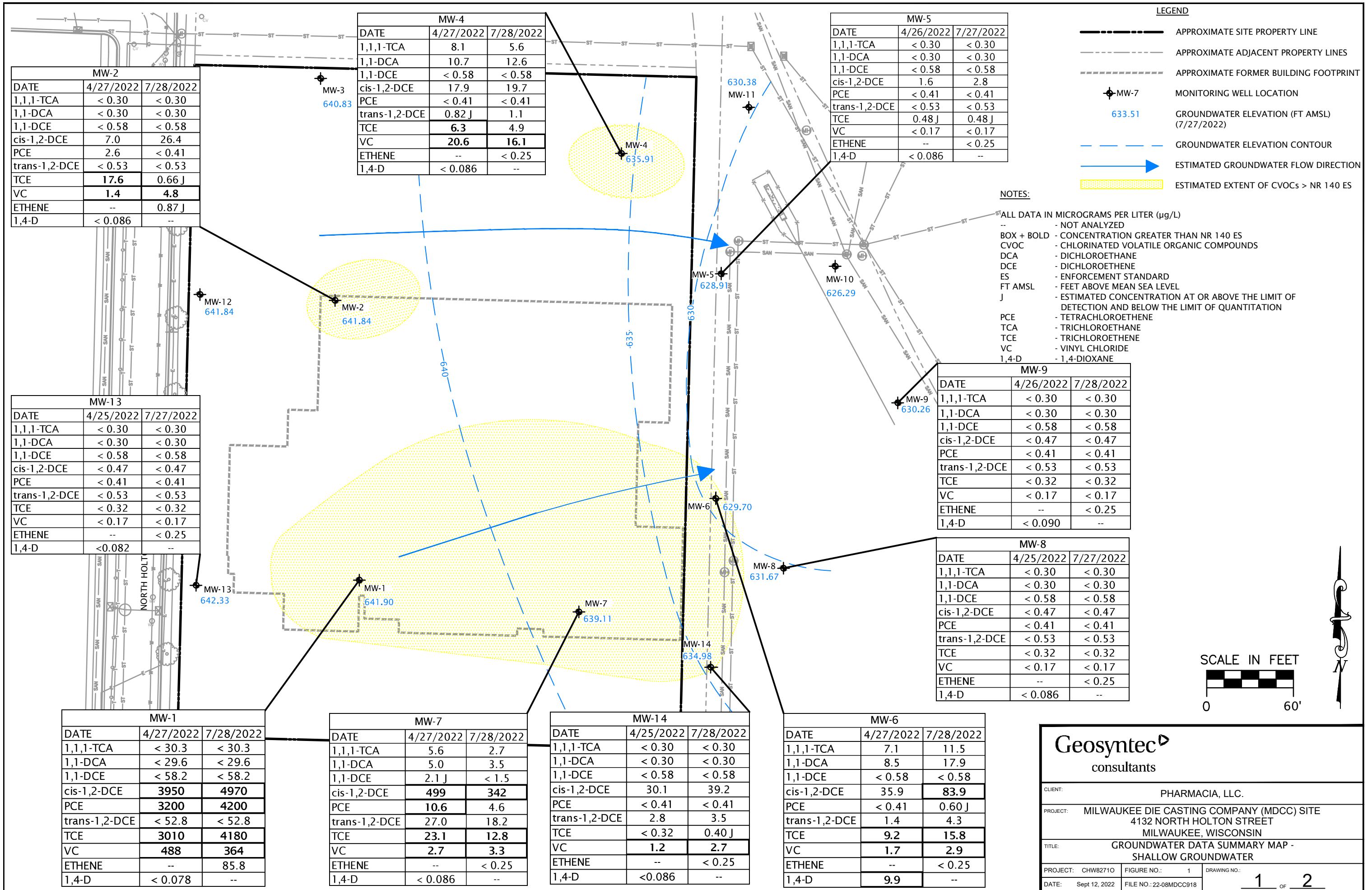
**TABLE 2**  
**Summary of Groundwater Sample Analytical Results**  
Milwaukee Die Casting Company Site  
4132 North Holton Street  
Milwaukee, Wisconsin

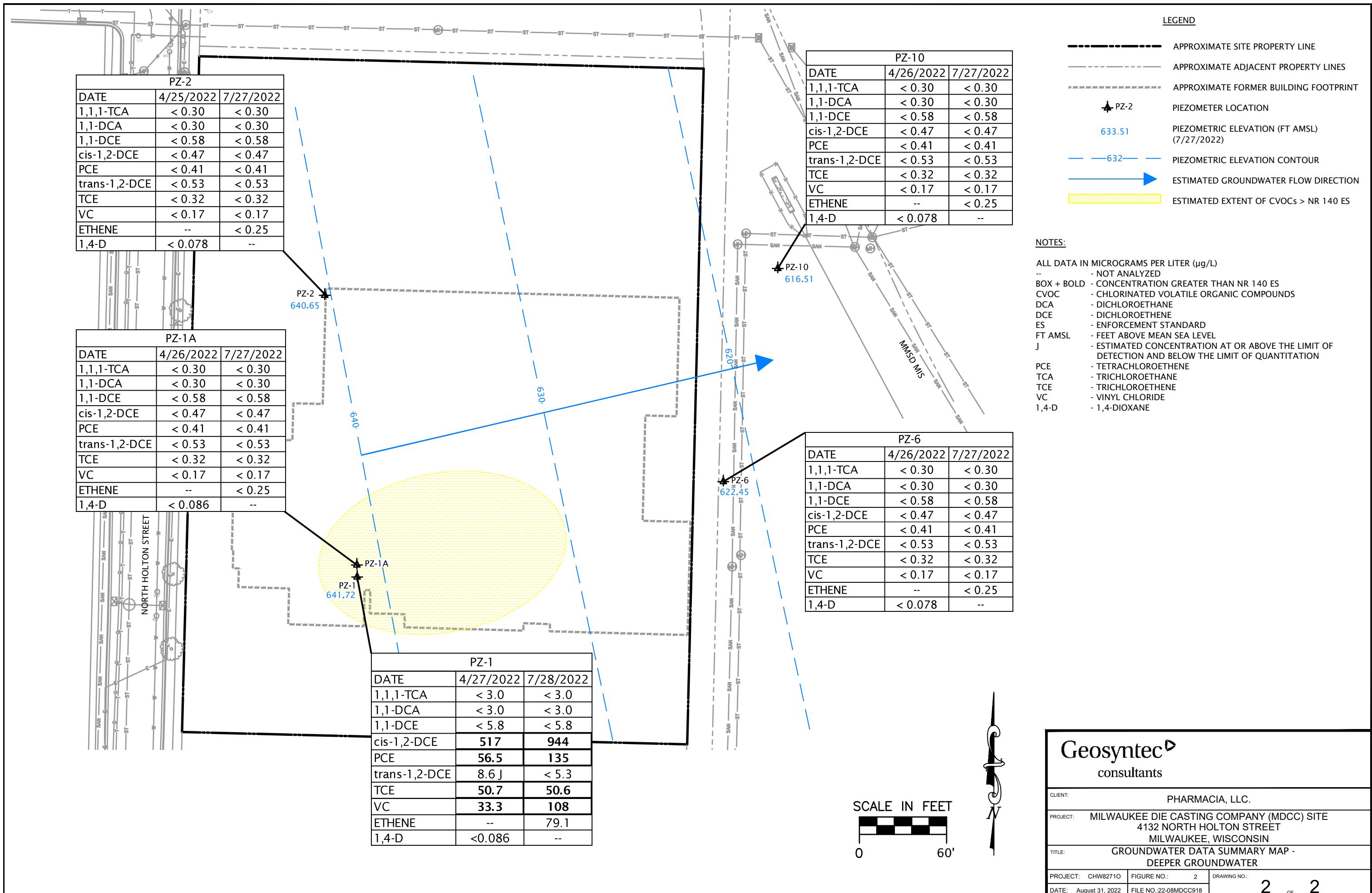
Well Identification	MW-11				MW-12				MW-13								MW-14								NR 140 Groundwater Quality Standard		
	5-15				5-15				5-15								8-18										
Sample Date	10/29/2020	1/19/2021	4/27/2021	7/21/2021	9/23/2020	9/23/2020	1/18/2021	4/27/2021	7/21/2021	9/23/2020	1/18/2021	4/27/2021	7/21/2021	10/26/2021	1/31/2022	4/25/2022	7/27/2022	9/23/2020	1/19/2021	4/28/2021	7/21/2021	10/26/2021	2/1/2022	4/25/2022	7/28/2022	PAL	ES
<b>Analytical Parameters</b>																											
<b>Detected VOCS (µg/L)</b>																											
<b>CVOCs</b>																											
1,1,1-Trichloroethane	< 2.00	< 2.00	< 1.00	< 0.30	< 2.00	< 2.00	< 2.00	< 1.00	< 0.30	< 2.00	< 2.00	< 1.00	< 0.30	< 0.30	< 0.30	< 0.30	< 2.00	< 2.00	< 1.00	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	40	200
1,1-Dichloroethane	< 2.00	< 2.00	< 1.00	< 0.30	< 2.00	< 2.00	< 2.00	< 1.00	< 0.30	< 2.00	< 2.00	< 1.00	< 0.30	< 0.30	< 0.30	< 0.30	< 2.00	< 2.00	< 1.00	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	85	850
1,1-Dichloroethene	< 4.00	< 4.00	< 1.00	< 0.58	< 4.00	< 4.00	< 4.00	< 1.00	< 0.58	< 4.00	< 4.00	< 1.00	< 0.58	< 0.58	< 0.58	< 0.58	< 4.00	< 4.00	< 1.00	< 0.58	< 0.58	< 0.58	< 0.58	< 0.58	< 0.58	0.7	7
cis-1,2-Dichloroethene	< 2.00	< 2.00	< 1.00	< 0.47	< 2.00	< 2.00	< 2.00	< 1.00	< 0.47	< 2.00	< 2.00	< 1.00	< 0.47	< 0.47	< 0.47	< 0.47	21.7	20.3	28.7	16.4	16.5	28.1	30.1	39.2	7	70	
Tetrachloroethene	< 2.00	< 2.00	< 1.00	< 0.41	< 2.00	< 2.00	< 2.00	< 1.00	<b>0.75 J</b>	< 2.00	< 2.00	< 1.00	< 0.41	< 0.41	< 0.41	< 0.41	< 2.00	< 2.00	< 1.00	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	0.5	5
trans-1,2-Dichloroethene	< 2.00	< 2.00	< 1.00	< 0.53	< 2.00	< 2.00	< 2.00	< 1.00	< 0.53	< 2.00	< 2.00	< 1.00	< 0.53	< 0.53	< 0.53	< 0.53	< 2.00	< 2.00	2.9	1.4	1.7	2.5	2.8	3.5	20	100	
Trichloroethene	< 2.00	< 2.00	< 1.00	< 0.32	< 2.00	< 2.00	< 2.00	< 1.00	< 0.32	< 2.00	< 2.00	< 1.00	< 0.32	< 0.32	< 0.32	< 0.32	< 2.00	< 2.00	< 1.00	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	0.40 J	0.5	5
Vinyl chloride	< 2.00	< 2.00	< 2.50	< 0.17	< 2.00	< 2.00	< 2.00	< 2.50	< 0.17	< 2.00	< 2.00	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 2.00	< 2.00	<b>2.0 J</b>	1.1	<b>0.98 J</b>	<b>0.60 J</b>	1.2	2.7	0.02	0.2	
<b>Other Reported VOCs</b>																											
Carbon disulfide	< 2.00	< 2.00	2.15 J	< 1.1	< 2.00	< 2.00	2.00 J	< 1.1	< 2.00	2.15 J	< 1.1	--	--	--	--	< 2.00	< 2.00	2.20 J	< 1.1	--	--	--	--	--	200	1000	
Chloromethane	< 4.00	< 4.00	1.40 J	< 1.6	< 4.00	< 4.00	< 4.00	< 2.50	< 1.6	< 4.00	< 4.00	< 2.50	< 1.6	--	--	< 4.00	< 4.00	< 2.50	< 1.6	--	--	--	--	--	3	30	
Ethylbenzene	< 1.00	< 1.00	< 1.00	< 0.33	< 1.00	< 1.00	< 1.00	< 0.33	< 1.00	< 1.00	< 1.00	< 0.33	--	--	--	< 1.00	< 1.00	< 1.00	< 0.33	--	--	--	--	--	140	700	
m,p-Xylene	< 4.00	< 4.00	< 2.00	< 0.70	< 4.00	< 4.00	< 4.00	0.450 J	< 0.70	< 4.00	< 4.00	0.450 J	< 0.70	--	--	< 4.00	< 4.00	< 2.00	< 0.70	--	--	--	--	--	--	--	
Methylene chloride <sup>(2)</sup>	< 4.00	< 4.00	4.00 J U	< 0.32	< 4.00	< 4.00	< 4.00	4.05 J U	< 0.32	< 4.00	< 4.00	3.75 J U	< 0.32	--	--	--	< 4.00	< 4.00	3.65 J U	< 0.32	--	--	--	--	--	0.5	5
o-Xylene	< 1.00	< 1.00	0.250 J	< 0.35	< 1.00	< 1.00	< 1.00	< 0.35	< 1.00	< 1.00	< 1.00	< 0.35	--	--	--	< 1.00	< 1.00	0.250 J	< 0.35	--	--	--	--	--	--	--	
Styrene	< 4.00	< 4.00	< 1.00	< 0.36	< 4.00	< 4.00	< 4.00	< 1.00	< 0.36	< 4.00	< 4.00	< 1.00	< 0.36	--	--	< 4.00	< 4.00	< 1.00	< 0.36	--	--	--	--	--	10	100	
Toluene	< 2.00	< 2.00	< 1.00	< 0.29	< 2.00	< 2.00	< 2.00	< 1.00	< 0.29	< 2.00	< 2.00	< 1.00	< 0.29	--	--	< 2.00	< 2.00	< 1.00	< 0.29	--	--	--	--	--	160	800	
Xylenes, Total	< 6.00	< 6.00	< 3.00	--	< 6.00	< 6.00	< 6.00	< 3.00	--	< 6.00	< 6.00	< 3.00	--	--	--	< 6.00	< 6.00	< 3.00	--	--	--	--	--	--	400	2000	
PCBs, Total (unfiltered)	< 0.533	< 0.532	--	--	< 0.524	< 0.534	< 0.519	--	--	< 0.517	< 0.508	--															

# **ATTACHMENT 3**

## Figures

**Groundwater Monitoring Progress Report**  
Milwaukee Die Casting Company Site  
4132 North Holton Street  
Milwaukee, Wisconsin  
WDNR BRRTS # 02-41-000023  
WDNR FID # 241228240





# **ATTACHMENT 4**

## Laboratory Reports

## Data Validation Reports

**Groundwater Monitoring Progress Report**  
Milwaukee Die Casting Company Site  
4132 North Holton Street  
Milwaukee, Wisconsin  
WDNR BRRTS # 02-41-000023  
WDNR FID # 241228240

May 10, 2022

Dave Zolp  
GEOSYNTEC CONSULTANTS  
10600 North Port Washington Rd  
Suite 100  
Thiensville, WI 53092

RE: Project: MILWAUKEE DIE CAST COMPANY  
Pace Project No.: 40244069

Dear Dave Zolp:

Enclosed are the analytical results for sample(s) received by the laboratory on April 28, 2022. 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
- Pace Analytical Services - Minneapolis

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

Sincerely,



Brian Basten  
brian.basten@pacelabs.com  
(920)469-2436  
Project Manager

Enclosures

cc: Jeremiah Johnson, GEOSYNTEC CONSULTANTS



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: MILWAUKEE DIE CAST COMPANY  
 Pace Project No.: 40244069

### Pace Analytical Services, LLC - Minneapolis MN

1700 Elm Street SE, Minneapolis, MN 55414	Missouri Certification #: 10100
1800 Elm Street SE, Minneapolis, MN 55414--Satellite Air Lab	Montana Certification #: CERT0092
A2LA Certification #: 2926.01*	Nebraska Certification #: NE-OS-18-06
Alabama Certification #: 40770	Nevada Certification #: MN00064
Alaska Contaminated Sites Certification #: 17-009*	New Hampshire Certification #: 2081*
Alaska DW Certification #: MN00064	New Jersey Certification #: MN002
Arizona Certification #: AZ0014*	New York Certification #: 11647*
Arkansas DW Certification #: MN00064	North Carolina DW Certification #: 27700
Arkansas WW Certification #: 88-0680	North Carolina WW Certification #: 530
California Certification #: 2929	North Dakota Certification (A2LA) #: R-036
Colorado Certification #: MN00064	North Dakota Certification (MN) #: R-036
Connecticut Certification #: PH-0256	Ohio DW Certification #: 41244
EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137	Ohio VAP Certification (1700) #: CL101
Florida Certification #: E87605*	Ohio VAP Certification (1800) #: CL110*
Georgia Certification #: 959	Oklahoma Certification #: 9507*
Hawaii Certification #: MN00064	Oregon Primary Certification #: MN300001
Idaho Certification #: MN00064	Oregon Secondary Certification #: MN200001*
Illinois Certification #: 200011	Pennsylvania Certification #: 68-00563*
Indiana Certification #: C-MN-01	Puerto Rico Certification #: MN00064
Iowa Certification #: 368	South Carolina Certification #: 74003001
Kansas Certification #: E-10167	Tennessee Certification #: TN02818
Kentucky DW Certification #: 90062	Texas Certification #: T104704192*
Kentucky WW Certification #: 90062	Utah Certification #: MN00064*
Louisiana DEQ Certification #: AI-03086*	Vermont Certification #: VT-027053137
Louisiana DW Certification #: MN00064	Virginia Certification #: 460163*
Maine Certification #: MN00064*	Washington Certification #: C486*
Maryland Certification #: 322	West Virginia DEP Certification #: 382
Michigan Certification #: 9909	West Virginia DW Certification #: 9952 C
Minnesota Certification #: 027-053-137*	Wisconsin Certification #: 999407970
Minnesota Dept of Ag Approval: via MN 027-053-137	Wyoming UST Certification #: via A2LA 2926.01
Minnesota Petrofund Registration #: 1240*	USDA Permit #: P330-19-00208
Mississippi Certification #: MN00064	*Please Note: Applicable air certifications are denoted with an asterisk (*).

### Pace Analytical Services Green Bay

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

## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: MILWAUKEE DIE CAST COMPANY  
Pace Project No.: 40244069

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40244069001	MW-1	Water	04/27/22 12:35	04/28/22 09:25
40244069002	MW-2	Water	04/27/22 11:40	04/28/22 09:25
40244069003	MW-2 DUP	Water	04/27/22 11:40	04/28/22 09:25
40244069004	MW-4	Water	04/27/22 09:35	04/28/22 09:25
40244069005	MW-5	Water	04/26/22 12:12	04/28/22 09:25
40244069006	MW-6	Water	04/27/22 10:20	04/28/22 09:25
40244069007	MW-7	Water	04/27/22 11:15	04/28/22 09:25
40244069008	MW-8	Water	04/25/22 15:55	04/28/22 09:25
40244069009	MW-9	Water	04/26/22 11:13	04/28/22 09:25
40244069010	MW-13	Water	04/25/22 14:25	04/28/22 09:25
40244069011	MW-14	Water	04/25/22 13:25	04/28/22 09:25
40244069012	PZ-1	Water	04/27/22 12:23	04/28/22 09:25
40244069013	PZ-1 DUP	Water	04/27/22 12:23	04/28/22 09:25
40244069014	PZ-1A	Water	04/26/22 10:05	04/28/22 09:25
40244069015	PZ-2	Water	04/25/22 15:55	04/28/22 09:25
40244069016	PZ-6	Water	04/26/22 14:35	04/28/22 09:25
40244069017	PZ-10	Water	04/26/22 12:30	04/28/22 09:25
40244069018	EB04272022	Water	04/27/22 14:00	04/28/22 09:25
40244069019	TB04272022	Water	04/27/22 14:00	04/28/22 09:25

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## SAMPLE ANALYTE COUNT

Project: MILWAUKEE DIE CAST COMPANY  
Pace Project No.: 40244069

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40244069001	MW-1	EPA 8270E by SIM EPA 8260	TWH LAP	2 12	PASI-M PASI-G
40244069002	MW-2	EPA 8270E by SIM EPA 8260	TWH LAP	2 12	PASI-M PASI-G
40244069003	MW-2 DUP	EPA 8270E by SIM EPA 8260	TWH LAP	2 12	PASI-M PASI-G
40244069004	MW-4	EPA 8270E by SIM EPA 8260	TWH LAP	2 12	PASI-M PASI-G
40244069005	MW-5	EPA 8270E by SIM EPA 8260	TWH LAP	2 12	PASI-M PASI-G
40244069006	MW-6	EPA 8270E by SIM EPA 8260	TWH LAP	2 12	PASI-M PASI-G
40244069007	MW-7	EPA 8270E by SIM EPA 8260	TWH LAP	2 12	PASI-M PASI-G
40244069008	MW-8	EPA 8270E by SIM EPA 8260	TWH LAP	2 12	PASI-M PASI-G
40244069009	MW-9	EPA 8270E by SIM EPA 8260	TWH LAP	2 12	PASI-M PASI-G
40244069010	MW-13	EPA 8270E by SIM EPA 8260	TWH LAP	2 12	PASI-M PASI-G
40244069011	MW-14	EPA 8270E by SIM EPA 8260	TWH LAP	2 12	PASI-M PASI-G
40244069012	PZ-1	EPA 8270E by SIM EPA 8260	TWH LAP	2 12	PASI-M PASI-G
40244069013	PZ-1 DUP	EPA 8270E by SIM EPA 8260	TWH LAP	2 12	PASI-M PASI-G
40244069014	PZ-1A	EPA 8270E by SIM EPA 8260	TWH LAP	2 12	PASI-M PASI-G
40244069015	PZ-2	EPA 8270E by SIM EPA 8260	TWH LAP	2 12	PASI-M PASI-G
40244069016	PZ-6	EPA 8270E by SIM EPA 8260	TWH LAP	2 12	PASI-M PASI-G
40244069017	PZ-10	EPA 8270E by SIM EPA 8260	TWH LAP	2 12	PASI-M PASI-G
40244069018	EB04272022	EPA 8260	LAP	12	PASI-G
40244069019	TB04272022	EPA 8260	LAP	12	PASI-G

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## SAMPLE ANALYTE COUNT

Project: MILWAUKEE DIE CAST COMPANY  
Pace Project No.: 40244069

Lab ID	Sample ID	Method	Analysts	Analytics Reported	Laboratory
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PASI-G = Pace Analytical Services - Green Bay

PASI-M = Pace Analytical Services - Minneapolis

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MILWAUKEE DIE CAST COMPANY

Pace Project No.: 40244069

Sample: MW-1	Lab ID: 40244069001	Collected: 04/27/22 12:35	Received: 04/28/22 09:25	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270E MSSV 14 Dioxane By SIM</b>	Analytical Method: EPA 8270E by SIM Preparation Method: EPA Mod. 3510C Pace Analytical Services - Minneapolis								
1,4-Dioxane (SIM) <b>Surrogates</b>	<0.078	ug/L	0.23	0.078	1	05/04/22 15:01	05/05/22 19:12	123-91-1	
1,4-Dioxane-d8 (S)	83	%.	15-125		1	05/04/22 15:01	05/05/22 19:12		
<b>8260 MSV</b>	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
1,1,1-Trichloroethane	<30.3	ug/L	100	30.3	100		04/29/22 16:58	71-55-6	
1,1-Dichloroethane	<29.6	ug/L	100	29.6	100		04/29/22 16:58	75-34-3	
1,1-Dichloroethene	<58.2	ug/L	100	58.2	100		04/29/22 16:58	75-35-4	
Chloroethane	<138	ug/L	500	138	100		04/29/22 16:58	75-00-3	
Tetrachloroethene	3200	ug/L	100	40.9	100		04/29/22 16:58	127-18-4	
Trichloroethene	3010	ug/L	100	32.0	100		04/29/22 16:58	79-01-6	
Vinyl chloride	488	ug/L	100	17.4	100		04/29/22 16:58	75-01-4	
cis-1,2-Dichloroethene	3950	ug/L	100	47.2	100		04/29/22 16:58	156-59-2	
trans-1,2-Dichloroethene	<52.8	ug/L	100	52.8	100		04/29/22 16:58	156-60-5	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	108	%	70-130		100		04/29/22 16:58	460-00-4	
1,2-Dichlorobenzene-d4 (S)	107	%	70-130		100		04/29/22 16:58	2199-69-1	
Toluene-d8 (S)	107	%	70-130		100		04/29/22 16:58	2037-26-5	
<b>Sample: MW-2</b>	Lab ID: 40244069002	Collected: 04/27/22 11:40	Received: 04/28/22 09:25	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270E MSSV 14 Dioxane By SIM</b>	Analytical Method: EPA 8270E by SIM Preparation Method: EPA Mod. 3510C Pace Analytical Services - Minneapolis								
1,4-Dioxane (SIM) <b>Surrogates</b>	<0.086	ug/L	0.25	0.086	1	05/04/22 15:01	05/05/22 18:38	123-91-1	
1,4-Dioxane-d8 (S)	45	%.	15-125		1	05/04/22 15:01	05/05/22 18:38		
<b>8260 MSV</b>	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
1,1,1-Trichloroethane	<0.30	ug/L	1.0	0.30	1		04/29/22 15:59	71-55-6	
1,1-Dichloroethane	<0.30	ug/L	1.0	0.30	1		04/29/22 15:59	75-34-3	
1,1-Dichloroethene	<0.58	ug/L	1.0	0.58	1		04/29/22 15:59	75-35-4	
Chloroethane	<1.4	ug/L	5.0	1.4	1		04/29/22 15:59	75-00-3	
Tetrachloroethene	2.6	ug/L	1.0	0.41	1		04/29/22 15:59	127-18-4	
Trichloroethene	17.6	ug/L	1.0	0.32	1		04/29/22 15:59	79-01-6	
Vinyl chloride	1.4	ug/L	1.0	0.17	1		04/29/22 15:59	75-01-4	
cis-1,2-Dichloroethene	7.0	ug/L	1.0	0.47	1		04/29/22 15:59	156-59-2	
trans-1,2-Dichloroethene	<0.53	ug/L	1.0	0.53	1		04/29/22 15:59	156-60-5	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	108	%	70-130		1		04/29/22 15:59	460-00-4	
1,2-Dichlorobenzene-d4 (S)	108	%	70-130		1		04/29/22 15:59	2199-69-1	

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## ANALYTICAL RESULTS

Project: MILWAUKEE DIE CAST COMPANY

Pace Project No.: 40244069

Sample: MW-2		Lab ID: 40244069002		Collected: 04/27/22 11:40		Received: 04/28/22 09:25		Matrix: Water	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
<b>Surrogates</b>									
Toluene-d8 (S)	108	%	70-130		1		04/29/22 15:59	2037-26-5	
Sample: MW-2 DUP		Lab ID: 40244069003		Collected: 04/27/22 11:40		Received: 04/28/22 09:25		Matrix: Water	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270E MSSV 14 Dioxane By SIM</b>	Analytical Method: EPA 8270E by SIM Preparation Method: EPA Mod. 3510C Pace Analytical Services - Minneapolis								
1,4-Dioxane (SIM)	<0.078	ug/L	0.23	0.078	1	05/04/22 15:01	05/05/22 18:55	123-91-1	
<b>Surrogates</b>									
1,4-Dioxane-d8 (S)	34	%..	15-125		1	05/04/22 15:01	05/05/22 18:55		
<b>8260 MSV</b>	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
1,1,1-Trichloroethane	<0.30	ug/L	1.0	0.30	1		04/29/22 16:18	71-55-6	
1,1-Dichloroethane	<0.30	ug/L	1.0	0.30	1		04/29/22 16:18	75-34-3	
1,1-Dichloroethene	<0.58	ug/L	1.0	0.58	1		04/29/22 16:18	75-35-4	
Chloroethane	<1.4	ug/L	5.0	1.4	1		04/29/22 16:18	75-00-3	
Tetrachloroethene	2.6	ug/L	1.0	0.41	1		04/29/22 16:18	127-18-4	
Trichloroethene	20.3	ug/L	1.0	0.32	1		04/29/22 16:18	79-01-6	
Vinyl chloride	1.3	ug/L	1.0	0.17	1		04/29/22 16:18	75-01-4	
cis-1,2-Dichloroethene	7.0	ug/L	1.0	0.47	1		04/29/22 16:18	156-59-2	
trans-1,2-Dichloroethene	<0.53	ug/L	1.0	0.53	1		04/29/22 16:18	156-60-5	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	105	%	70-130		1		04/29/22 16:18	460-00-4	
1,2-Dichlorobenzene-d4 (S)	107	%	70-130		1		04/29/22 16:18	2199-69-1	
Toluene-d8 (S)	109	%	70-130		1		04/29/22 16:18	2037-26-5	
Sample: MW-4		Lab ID: 40244069004		Collected: 04/27/22 09:35		Received: 04/28/22 09:25		Matrix: Water	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270E MSSV 14 Dioxane By SIM</b>	Analytical Method: EPA 8270E by SIM Preparation Method: EPA Mod. 3510C Pace Analytical Services - Minneapolis								
1,4-Dioxane (SIM)	<0.086	ug/L	0.25	0.086	1	05/04/22 15:01	05/05/22 17:30	123-91-1	
<b>Surrogates</b>									
1,4-Dioxane-d8 (S)	38	%..	15-125		1	05/04/22 15:01	05/05/22 17:30		
<b>8260 MSV</b>	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
1,1,1-Trichloroethane	8.1	ug/L	1.0	0.30	1		04/29/22 16:38	71-55-6	

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## ANALYTICAL RESULTS

Project: MILWAUKEE DIE CAST COMPANY

Pace Project No.: 40244069

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**Sample: MW-4**      **Lab ID: 40244069004**      Collected: 04/27/22 09:35      Received: 04/28/22 09:25      Matrix: Water

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Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
1,1-Dichloroethane	<b>10.7</b>	ug/L	1.0	0.30	1		04/29/22 16:38	75-34-3	
1,1-Dichloroethene	<b>&lt;0.58</b>	ug/L	1.0	0.58	1		04/29/22 16:38	75-35-4	
Chloroethane	<b>&lt;1.4</b>	ug/L	5.0	1.4	1		04/29/22 16:38	75-00-3	
Tetrachloroethene	<b>&lt;0.41</b>	ug/L	1.0	0.41	1		04/29/22 16:38	127-18-4	
Trichloroethene	<b>6.3</b>	ug/L	1.0	0.32	1		04/29/22 16:38	79-01-6	
Vinyl chloride	<b>20.6</b>	ug/L	1.0	0.17	1		04/29/22 16:38	75-01-4	
cis-1,2-Dichloroethene	<b>17.9</b>	ug/L	1.0	0.47	1		04/29/22 16:38	156-59-2	
trans-1,2-Dichloroethene	<b>0.82J</b>	ug/L	1.0	0.53	1		04/29/22 16:38	156-60-5	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	108	%	70-130		1		04/29/22 16:38	460-00-4	
1,2-Dichlorobenzene-d4 (S)	109	%	70-130		1		04/29/22 16:38	2199-69-1	
Toluene-d8 (S)	107	%	70-130		1		04/29/22 16:38	2037-26-5	

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**Sample: MW-5**      **Lab ID: 40244069005**      Collected: 04/26/22 12:12      Received: 04/28/22 09:25      Matrix: Water

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Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270E MSSV 14 Dioxane By SIM</b>	Analytical Method: EPA 8270E by SIM Preparation Method: EPA Mod. 3510C Pace Analytical Services - Minneapolis								
1,4-Dioxane (SIM)	<b>&lt;0.086</b>	ug/L	0.25	0.086	1	05/02/22 12:48	05/03/22 14:11	123-91-1	
<b>Surrogates</b>									
1,4-Dioxane-d8 (S)	64	%.	15-125		1	05/02/22 12:48	05/03/22 14:11		
<b>8260 MSV</b>	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
1,1,1-Trichloroethane	<b>&lt;0.30</b>	ug/L	1.0	0.30	1		04/29/22 12:40	71-55-6	
1,1-Dichloroethane	<b>&lt;0.30</b>	ug/L	1.0	0.30	1		04/29/22 12:40	75-34-3	
1,1-Dichloroethene	<b>&lt;0.58</b>	ug/L	1.0	0.58	1		04/29/22 12:40	75-35-4	
Chloroethane	<b>&lt;1.4</b>	ug/L	5.0	1.4	1		04/29/22 12:40	75-00-3	
Tetrachloroethene	<b>&lt;0.41</b>	ug/L	1.0	0.41	1		04/29/22 12:40	127-18-4	
Trichloroethene	<b>0.48J</b>	ug/L	1.0	0.32	1		04/29/22 12:40	79-01-6	
Vinyl chloride	<b>&lt;0.17</b>	ug/L	1.0	0.17	1		04/29/22 12:40	75-01-4	
cis-1,2-Dichloroethene	<b>1.6</b>	ug/L	1.0	0.47	1		04/29/22 12:40	156-59-2	
trans-1,2-Dichloroethene	<b>&lt;0.53</b>	ug/L	1.0	0.53	1		04/29/22 12:40	156-60-5	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	105	%	70-130		1		04/29/22 12:40	460-00-4	
1,2-Dichlorobenzene-d4 (S)	107	%	70-130		1		04/29/22 12:40	2199-69-1	
Toluene-d8 (S)	107	%	70-130		1		04/29/22 12:40	2037-26-5	

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## ANALYTICAL RESULTS

Project: MILWAUKEE DIE CAST COMPANY

Pace Project No.: 40244069

Sample: MW-6	Lab ID: 40244069006	Collected: 04/27/22 10:20	Received: 04/28/22 09:25	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270E MSSV 14 Dioxane By SIM</b>	Analytical Method: EPA 8270E by SIM Preparation Method: EPA Mod. 3510C Pace Analytical Services - Minneapolis								
1,4-Dioxane (SIM) <b>Surrogates</b>	<b>9.9</b>	ug/L	0.24	0.082	1	05/04/22 15:01	05/05/22 18:05	123-91-1	
1,4-Dioxane-d8 (S)	58	%.	15-125		1	05/04/22 15:01	05/05/22 18:05		
<b>8260 MSV</b>	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
1,1,1-Trichloroethane	<b>7.1</b>	ug/L	1.0	0.30	1		04/29/22 15:19	71-55-6	
1,1-Dichloroethane	<b>8.5</b>	ug/L	1.0	0.30	1		04/29/22 15:19	75-34-3	
1,1-Dichloroethene	<b>&lt;0.58</b>	ug/L	1.0	0.58	1		04/29/22 15:19	75-35-4	
Chloroethane	<b>&lt;1.4</b>	ug/L	5.0	1.4	1		04/29/22 15:19	75-00-3	
Tetrachloroethene	<b>&lt;0.41</b>	ug/L	1.0	0.41	1		04/29/22 15:19	127-18-4	
Trichloroethene	<b>9.2</b>	ug/L	1.0	0.32	1		04/29/22 15:19	79-01-6	
Vinyl chloride	<b>1.7</b>	ug/L	1.0	0.17	1		04/29/22 15:19	75-01-4	
cis-1,2-Dichloroethene	<b>35.9</b>	ug/L	1.0	0.47	1		04/29/22 15:19	156-59-2	
trans-1,2-Dichloroethene	<b>1.4</b>	ug/L	1.0	0.53	1		04/29/22 15:19	156-60-5	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	107	%	70-130		1		04/29/22 15:19	460-00-4	
1,2-Dichlorobenzene-d4 (S)	109	%	70-130		1		04/29/22 15:19	2199-69-1	
Toluene-d8 (S)	107	%	70-130		1		04/29/22 15:19	2037-26-5	
<b>Sample: MW-7</b>	Lab ID: 40244069007	Collected: 04/27/22 11:15	Received: 04/28/22 09:25	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270E MSSV 14 Dioxane By SIM</b>	Analytical Method: EPA 8270E by SIM Preparation Method: EPA Mod. 3510C Pace Analytical Services - Minneapolis								
1,4-Dioxane (SIM) <b>Surrogates</b>	<b>&lt;0.086</b>	ug/L	0.25	0.086	1	05/04/22 15:01	05/05/22 18:21	123-91-1	
1,4-Dioxane-d8 (S)	85	%.	15-125		1	05/04/22 15:01	05/05/22 18:21		
<b>8260 MSV</b>	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
1,1,1-Trichloroethane	<b>5.6</b>	ug/L	2.5	0.76	2.5		04/29/22 17:18	71-55-6	
1,1-Dichloroethane	<b>5.0</b>	ug/L	2.5	0.74	2.5		04/29/22 17:18	75-34-3	
1,1-Dichloroethene	<b>2.1J</b>	ug/L	2.5	1.5	2.5		04/29/22 17:18	75-35-4	
Chloroethane	<b>&lt;3.4</b>	ug/L	12.5	3.4	2.5		04/29/22 17:18	75-00-3	
Tetrachloroethene	<b>10.6</b>	ug/L	2.5	1.0	2.5		04/29/22 17:18	127-18-4	
Trichloroethene	<b>23.1</b>	ug/L	2.5	0.80	2.5		04/29/22 17:18	79-01-6	
Vinyl chloride	<b>2.7</b>	ug/L	2.5	0.44	2.5		04/29/22 17:18	75-01-4	
cis-1,2-Dichloroethene	<b>499</b>	ug/L	2.5	1.2	2.5		04/29/22 17:18	156-59-2	
trans-1,2-Dichloroethene	<b>27.0</b>	ug/L	2.5	1.3	2.5		04/29/22 17:18	156-60-5	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	113	%	70-130		2.5		04/29/22 17:18	460-00-4	
1,2-Dichlorobenzene-d4 (S)	112	%	70-130		2.5		04/29/22 17:18	2199-69-1	

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## ANALYTICAL RESULTS

Project: MILWAUKEE DIE CAST COMPANY

Pace Project No.: 40244069

Sample: MW-7		Lab ID: 40244069007		Collected: 04/27/22 11:15		Received: 04/28/22 09:25		Matrix: Water	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
<b>Surrogates</b>									
Toluene-d8 (S)	108	%	70-130		2.5		04/29/22 17:18	2037-26-5	
Sample: MW-8		Lab ID: 40244069008		Collected: 04/25/22 15:55		Received: 04/28/22 09:25		Matrix: Water	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270E MSSV 14 Dioxane By SIM</b>	Analytical Method: EPA 8270E by SIM Preparation Method: EPA Mod. 3510C Pace Analytical Services - Minneapolis								
1,4-Dioxane (SIM)	<0.086	ug/L	0.25	0.086	1	05/02/22 12:48	05/03/22 12:47	123-91-1	
<b>Surrogates</b>									
1,4-Dioxane-d8 (S)	58	%.	15-125		1	05/02/22 12:48	05/03/22 12:47		
<b>8260 MSV</b>	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
1,1,1-Trichloroethane	<0.30	ug/L	1.0	0.30	1		04/29/22 13:00	71-55-6	
1,1-Dichloroethane	<0.30	ug/L	1.0	0.30	1		04/29/22 13:00	75-34-3	
1,1-Dichloroethene	<0.58	ug/L	1.0	0.58	1		04/29/22 13:00	75-35-4	
Chloroethane	<1.4	ug/L	5.0	1.4	1		04/29/22 13:00	75-00-3	
Tetrachloroethene	<0.41	ug/L	1.0	0.41	1		04/29/22 13:00	127-18-4	
Trichloroethene	<0.32	ug/L	1.0	0.32	1		04/29/22 13:00	79-01-6	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		04/29/22 13:00	75-01-4	
cis-1,2-Dichloroethene	<0.47	ug/L	1.0	0.47	1		04/29/22 13:00	156-59-2	
trans-1,2-Dichloroethene	<0.53	ug/L	1.0	0.53	1		04/29/22 13:00	156-60-5	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	111	%	70-130		1		04/29/22 13:00	460-00-4	
1,2-Dichlorobenzene-d4 (S)	112	%	70-130		1		04/29/22 13:00	2199-69-1	
Toluene-d8 (S)	106	%	70-130		1		04/29/22 13:00	2037-26-5	
Sample: MW-9		Lab ID: 40244069009		Collected: 04/26/22 11:13		Received: 04/28/22 09:25		Matrix: Water	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270E MSSV 14 Dioxane By SIM</b>	Analytical Method: EPA 8270E by SIM Preparation Method: EPA Mod. 3510C Pace Analytical Services - Minneapolis								
1,4-Dioxane (SIM)	<0.090	ug/L	0.26	0.090	1	05/02/22 12:48	05/03/22 13:54	123-91-1	
<b>Surrogates</b>									
1,4-Dioxane-d8 (S)	46	%.	15-125		1	05/02/22 12:48	05/03/22 13:54		C6
<b>8260 MSV</b>	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
1,1,1-Trichloroethane	<0.30	ug/L	1.0	0.30	1		04/29/22 13:20	71-55-6	

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## ANALYTICAL RESULTS

Project: MILWAUKEE DIE CAST COMPANY

Pace Project No.: 40244069

**Sample: MW-9**      **Lab ID: 40244069009**      Collected: 04/26/22 11:13      Received: 04/28/22 09:25      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
1,1-Dichloroethane	<0.30	ug/L	1.0	0.30	1		04/29/22 13:20	75-34-3	
1,1-Dichloroethene	<0.58	ug/L	1.0	0.58	1		04/29/22 13:20	75-35-4	
Chloroethane	<1.4	ug/L	5.0	1.4	1		04/29/22 13:20	75-00-3	
Tetrachloroethene	<0.41	ug/L	1.0	0.41	1		04/29/22 13:20	127-18-4	
Trichloroethene	<0.32	ug/L	1.0	0.32	1		04/29/22 13:20	79-01-6	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		04/29/22 13:20	75-01-4	
cis-1,2-Dichloroethene	<0.47	ug/L	1.0	0.47	1		04/29/22 13:20	156-59-2	
trans-1,2-Dichloroethene	<0.53	ug/L	1.0	0.53	1		04/29/22 13:20	156-60-5	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	108	%	70-130		1		04/29/22 13:20	460-00-4	
1,2-Dichlorobenzene-d4 (S)	111	%	70-130		1		04/29/22 13:20	2199-69-1	
Toluene-d8 (S)	105	%	70-130		1		04/29/22 13:20	2037-26-5	

**Sample: MW-13**      **Lab ID: 40244069010**      Collected: 04/25/22 14:25      Received: 04/28/22 09:25      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270E MSSV 14 Dioxane By SIM</b>	Analytical Method: EPA 8270E by SIM Preparation Method: EPA Mod. 3510C Pace Analytical Services - Minneapolis								
1,4-Dioxane (SIM)	<0.082	ug/L	0.24	0.082	1	05/02/22 12:48	05/03/22 13:21	123-91-1	
<b>Surrogates</b>									
1,4-Dioxane-d8 (S)	71	%.	15-125		1	05/02/22 12:48	05/03/22 13:21		
<b>8260 MSV</b>	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
1,1,1-Trichloroethane	<0.30	ug/L	1.0	0.30	1		04/29/22 13:40	71-55-6	
1,1-Dichloroethane	<0.30	ug/L	1.0	0.30	1		04/29/22 13:40	75-34-3	
1,1-Dichloroethene	<0.58	ug/L	1.0	0.58	1		04/29/22 13:40	75-35-4	
Chloroethane	<1.4	ug/L	5.0	1.4	1		04/29/22 13:40	75-00-3	
Tetrachloroethene	<0.41	ug/L	1.0	0.41	1		04/29/22 13:40	127-18-4	
Trichloroethene	<0.32	ug/L	1.0	0.32	1		04/29/22 13:40	79-01-6	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		04/29/22 13:40	75-01-4	
cis-1,2-Dichloroethene	<0.47	ug/L	1.0	0.47	1		04/29/22 13:40	156-59-2	
trans-1,2-Dichloroethene	<0.53	ug/L	1.0	0.53	1		04/29/22 13:40	156-60-5	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	110	%	70-130		1		04/29/22 13:40	460-00-4	
1,2-Dichlorobenzene-d4 (S)	108	%	70-130		1		04/29/22 13:40	2199-69-1	
Toluene-d8 (S)	106	%	70-130		1		04/29/22 13:40	2037-26-5	

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## ANALYTICAL RESULTS

Project: MILWAUKEE DIE CAST COMPANY

Pace Project No.: 40244069

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**Sample: MW-14**      Lab ID: 40244069011      Collected: 04/25/22 13:25      Received: 04/28/22 09:25      Matrix: Water

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Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270E MSSV 14 Dioxane By SIM</b>	Analytical Method: EPA 8270E by SIM Preparation Method: EPA Mod. 3510C								
	Pace Analytical Services - Minneapolis								
1,4-Dioxane (SIM)	<0.086	ug/L	0.25	0.086	1	05/02/22 12:48	05/03/22 13:04	123-91-1	
<b>Surrogates</b>									
1,4-Dioxane-d8 (S)	73	%.	15-125		1	05/02/22 12:48	05/03/22 13:04		
<b>8260 MSV</b>	Analytical Method: EPA 8260								
	Pace Analytical Services - Green Bay								
1,1,1-Trichloroethane	<0.30	ug/L	1.0	0.30	1		04/29/22 15:39	71-55-6	
1,1-Dichloroethane	<0.30	ug/L	1.0	0.30	1		04/29/22 15:39	75-34-3	
1,1-Dichloroethene	<0.58	ug/L	1.0	0.58	1		04/29/22 15:39	75-35-4	
Chloroethane	<1.4	ug/L	5.0	1.4	1		04/29/22 15:39	75-00-3	
Tetrachloroethene	<0.41	ug/L	1.0	0.41	1		04/29/22 15:39	127-18-4	
Trichloroethene	<0.32	ug/L	1.0	0.32	1		04/29/22 15:39	79-01-6	
Vinyl chloride	1.2	ug/L	1.0	0.17	1		04/29/22 15:39	75-01-4	
cis-1,2-Dichloroethene	30.1	ug/L	1.0	0.47	1		04/29/22 15:39	156-59-2	
trans-1,2-Dichloroethene	2.8	ug/L	1.0	0.53	1		04/29/22 15:39	156-60-5	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	107	%	70-130		1		04/29/22 15:39	460-00-4	
1,2-Dichlorobenzene-d4 (S)	106	%	70-130		1		04/29/22 15:39	2199-69-1	
Toluene-d8 (S)	105	%	70-130		1		04/29/22 15:39	2037-26-5	

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**Sample: PZ-1**      Lab ID: 40244069012      Collected: 04/27/22 12:23      Received: 04/28/22 09:25      Matrix: Water

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Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270E MSSV 14 Dioxane By SIM</b>	Analytical Method: EPA 8270E by SIM Preparation Method: EPA Mod. 3510C								
	Pace Analytical Services - Minneapolis								
1,4-Dioxane (SIM)	<0.086	ug/L	0.25	0.086	1	05/02/22 16:39	05/04/22 17:45	123-91-1	
<b>Surrogates</b>									
1,4-Dioxane-d8 (S)	123	%.	15-125		1	05/02/22 16:39	05/04/22 17:45		
<b>8260 MSV</b>	Analytical Method: EPA 8260								
	Pace Analytical Services - Green Bay								
1,1,1-Trichloroethane	<3.0	ug/L	10.0	3.0	10		04/29/22 17:38	71-55-6	
1,1-Dichloroethane	<3.0	ug/L	10.0	3.0	10		04/29/22 17:38	75-34-3	
1,1-Dichloroethene	<5.8	ug/L	10.0	5.8	10		04/29/22 17:38	75-35-4	
Chloroethane	<13.8	ug/L	50.0	13.8	10		04/29/22 17:38	75-00-3	
Tetrachloroethene	56.5	ug/L	10.0	4.1	10		04/29/22 17:38	127-18-4	
Trichloroethene	50.7	ug/L	10.0	3.2	10		04/29/22 17:38	79-01-6	
Vinyl chloride	33.3	ug/L	10.0	1.7	10		04/29/22 17:38	75-01-4	
cis-1,2-Dichloroethene	517	ug/L	10.0	4.7	10		04/29/22 17:38	156-59-2	
trans-1,2-Dichloroethene	8.6J	ug/L	10.0	5.3	10		04/29/22 17:38	156-60-5	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	106	%	70-130		10		04/29/22 17:38	460-00-4	
1,2-Dichlorobenzene-d4 (S)	110	%	70-130		10		04/29/22 17:38	2199-69-1	

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## ANALYTICAL RESULTS

Project: MILWAUKEE DIE CAST COMPANY

Pace Project No.: 40244069

Sample: PZ-1	Lab ID: 40244069012	Collected: 04/27/22 12:23	Received: 04/28/22 09:25	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
<b>Surrogates</b>									
Toluene-d8 (S)	106	%	70-130		10		04/29/22 17:38	2037-26-5	
Sample: PZ-1 DUP	Lab ID: 40244069013	Collected: 04/27/22 12:23	Received: 04/28/22 09:25	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270E MSSV 14 Dioxane By SIM</b>	Analytical Method: EPA 8270E by SIM Preparation Method: EPA Mod. 3510C Pace Analytical Services - Minneapolis								
1,4-Dioxane (SIM)	<0.086	ug/L	0.25	0.086	1	05/02/22 16:39	05/04/22 18:02	123-91-1	
<b>Surrogates</b>									
1,4-Dioxane-d8 (S)	56	%.	15-125		1	05/02/22 16:39	05/04/22 18:02		
<b>8260 MSV</b>	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
1,1,1-Trichloroethane	<3.0	ug/L	10.0	3.0	10		04/29/22 17:57	71-55-6	
1,1-Dichloroethane	<3.0	ug/L	10.0	3.0	10		04/29/22 17:57	75-34-3	
1,1-Dichloroethene	<5.8	ug/L	10.0	5.8	10		04/29/22 17:57	75-35-4	
Chloroethane	<13.8	ug/L	50.0	13.8	10		04/29/22 17:57	75-00-3	
Tetrachloroethene	55.2	ug/L	10.0	4.1	10		04/29/22 17:57	127-18-4	
Trichloroethene	49.7	ug/L	10.0	3.2	10		04/29/22 17:57	79-01-6	
Vinyl chloride	29.3	ug/L	10.0	1.7	10		04/29/22 17:57	75-01-4	
cis-1,2-Dichloroethene	485	ug/L	10.0	4.7	10		04/29/22 17:57	156-59-2	
trans-1,2-Dichloroethene	6.1J	ug/L	10.0	5.3	10		04/29/22 17:57	156-60-5	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	106	%	70-130		10		04/29/22 17:57	460-00-4	
1,2-Dichlorobenzene-d4 (S)	110	%	70-130		10		04/29/22 17:57	2199-69-1	
Toluene-d8 (S)	105	%	70-130		10		04/29/22 17:57	2037-26-5	
Sample: PZ-1A	Lab ID: 40244069014	Collected: 04/26/22 10:05	Received: 04/28/22 09:25	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270E MSSV 14 Dioxane By SIM</b>	Analytical Method: EPA 8270E by SIM Preparation Method: EPA Mod. 3510C Pace Analytical Services - Minneapolis								
1,4-Dioxane (SIM)	<0.086	ug/L	0.25	0.086	1	05/02/22 12:48	05/03/22 14:28	123-91-1	
<b>Surrogates</b>									
1,4-Dioxane-d8 (S)	47	%.	15-125		1	05/02/22 12:48	05/03/22 14:28		C6,IS
<b>8260 MSV</b>	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
1,1,1-Trichloroethane	<0.30	ug/L	1.0	0.30	1		04/29/22 12:21	71-55-6	

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## ANALYTICAL RESULTS

Project: MILWAUKEE DIE CAST COMPANY

Pace Project No.: 40244069

**Sample: PZ-1A**      **Lab ID: 40244069014**      Collected: 04/26/22 10:05      Received: 04/28/22 09:25      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
1,1-Dichloroethane	<0.30	ug/L	1.0	0.30	1				
1,1-Dichloroethene	<0.58	ug/L	1.0	0.58	1				
Chloroethane	<1.4	ug/L	5.0	1.4	1				
Tetrachloroethene	<0.41	ug/L	1.0	0.41	1				
Trichloroethene	<0.32	ug/L	1.0	0.32	1				
Vinyl chloride	<0.17	ug/L	1.0	0.17	1				
cis-1,2-Dichloroethene	<0.47	ug/L	1.0	0.47	1				
trans-1,2-Dichloroethene	<0.53	ug/L	1.0	0.53	1				
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	107	%	70-130		1				
1,2-Dichlorobenzene-d4 (S)	107	%	70-130		1				
Toluene-d8 (S)	106	%	70-130		1				

**Sample: PZ-2**      **Lab ID: 40244069015**      Collected: 04/25/22 15:55      Received: 04/28/22 09:25      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270E MSSV 14 Dioxane By SIM</b>	Analytical Method: EPA 8270E by SIM Preparation Method: EPA Mod. 3510C Pace Analytical Services - Minneapolis								
1,4-Dioxane (SIM)	<0.078	ug/L	0.23	0.078	1	05/02/22 12:48	05/03/22 13:38	123-91-1	
<b>Surrogates</b>									
1,4-Dioxane-d8 (S)	49	%.	15-125		1	05/02/22 12:48	05/03/22 13:38		C6
<b>8260 MSV</b>	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
1,1,1-Trichloroethane	<0.30	ug/L	1.0	0.30	1				
1,1-Dichloroethane	<0.30	ug/L	1.0	0.30	1				
1,1-Dichloroethene	<0.58	ug/L	1.0	0.58	1				
Chloroethane	<1.4	ug/L	5.0	1.4	1				
Tetrachloroethene	<0.41	ug/L	1.0	0.41	1				
Trichloroethene	<0.32	ug/L	1.0	0.32	1				
Vinyl chloride	<0.17	ug/L	1.0	0.17	1				
cis-1,2-Dichloroethene	<0.47	ug/L	1.0	0.47	1				
trans-1,2-Dichloroethene	<0.53	ug/L	1.0	0.53	1				
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	107	%	70-130		1				
1,2-Dichlorobenzene-d4 (S)	108	%	70-130		1				
Toluene-d8 (S)	105	%	70-130		1				

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## ANALYTICAL RESULTS

Project: MILWAUKEE DIE CAST COMPANY

Pace Project No.: 40244069

Sample: PZ-6	Lab ID: 40244069016	Collected: 04/26/22 14:35	Received: 04/28/22 09:25	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270E MSSV 14 Dioxane By SIM</b>	Analytical Method: EPA 8270E by SIM Preparation Method: EPA Mod. 3510C Pace Analytical Services - Minneapolis								
1,4-Dioxane (SIM) <b>Surrogates</b>	<0.078	ug/L	0.23	0.078	1	05/02/22 12:48	05/03/22 15:35	123-91-1	
1,4-Dioxane-d8 (S)	62	%.	15-125		1	05/02/22 12:48	05/03/22 15:35		
<b>8260 MSV</b>	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
1,1,1-Trichloroethane	<0.30	ug/L	1.0	0.30	1		04/29/22 14:19	71-55-6	
1,1-Dichloroethane	<0.30	ug/L	1.0	0.30	1		04/29/22 14:19	75-34-3	
1,1-Dichloroethene	<0.58	ug/L	1.0	0.58	1		04/29/22 14:19	75-35-4	
Chloroethane	<1.4	ug/L	5.0	1.4	1		04/29/22 14:19	75-00-3	
Tetrachloroethene	<0.41	ug/L	1.0	0.41	1		04/29/22 14:19	127-18-4	
Trichloroethene	<0.32	ug/L	1.0	0.32	1		04/29/22 14:19	79-01-6	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		04/29/22 14:19	75-01-4	
cis-1,2-Dichloroethene	<0.47	ug/L	1.0	0.47	1		04/29/22 14:19	156-59-2	
trans-1,2-Dichloroethene	<0.53	ug/L	1.0	0.53	1		04/29/22 14:19	156-60-5	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	105	%	70-130		1		04/29/22 14:19	460-00-4	
1,2-Dichlorobenzene-d4 (S)	109	%	70-130		1		04/29/22 14:19	2199-69-1	
Toluene-d8 (S)	105	%	70-130		1		04/29/22 14:19	2037-26-5	
<b>Sample: PZ-10</b>	Lab ID: 40244069017	Collected: 04/26/22 12:30	Received: 04/28/22 09:25	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270E MSSV 14 Dioxane By SIM</b>	Analytical Method: EPA 8270E by SIM Preparation Method: EPA Mod. 3510C Pace Analytical Services - Minneapolis								
1,4-Dioxane (SIM) <b>Surrogates</b>	<0.078	ug/L	0.23	0.078	1	05/02/22 12:48	05/03/22 15:18	123-91-1	
1,4-Dioxane-d8 (S)	60	%.	15-125		1	05/02/22 12:48	05/03/22 15:18		C6
<b>8260 MSV</b>	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
1,1,1-Trichloroethane	<0.30	ug/L	1.0	0.30	1		04/29/22 14:39	71-55-6	
1,1-Dichloroethane	<0.30	ug/L	1.0	0.30	1		04/29/22 14:39	75-34-3	
1,1-Dichloroethene	<0.58	ug/L	1.0	0.58	1		04/29/22 14:39	75-35-4	
Chloroethane	<1.4	ug/L	5.0	1.4	1		04/29/22 14:39	75-00-3	
Tetrachloroethene	<0.41	ug/L	1.0	0.41	1		04/29/22 14:39	127-18-4	
Trichloroethene	<0.32	ug/L	1.0	0.32	1		04/29/22 14:39	79-01-6	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		04/29/22 14:39	75-01-4	
cis-1,2-Dichloroethene	<0.47	ug/L	1.0	0.47	1		04/29/22 14:39	156-59-2	
trans-1,2-Dichloroethene	<0.53	ug/L	1.0	0.53	1		04/29/22 14:39	156-60-5	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	107	%	70-130		1		04/29/22 14:39	460-00-4	
1,2-Dichlorobenzene-d4 (S)	110	%	70-130		1		04/29/22 14:39	2199-69-1	

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## ANALYTICAL RESULTS

Project: MILWAUKEE DIE CAST COMPANY

Pace Project No.: 40244069

Sample: PZ-10	Lab ID: 40244069017	Collected: 04/26/22 12:30	Received: 04/28/22 09:25	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
<b>Surrogates</b>									
Toluene-d8 (S)	105	%	70-130		1		04/29/22 14:39	2037-26-5	
Sample: EB04272022	Lab ID: 40244069018	Collected: 04/27/22 14:00	Received: 04/28/22 09:25	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
1,1,1-Trichloroethane	<0.30	ug/L	1.0	0.30	1		04/29/22 12:01	71-55-6	
1,1-Dichloroethane	<0.30	ug/L	1.0	0.30	1		04/29/22 12:01	75-34-3	
1,1-Dichloroethene	<0.58	ug/L	1.0	0.58	1		04/29/22 12:01	75-35-4	
Chloroethane	<1.4	ug/L	5.0	1.4	1		04/29/22 12:01	75-00-3	
Tetrachloroethene	<0.41	ug/L	1.0	0.41	1		04/29/22 12:01	127-18-4	
Trichloroethene	<0.32	ug/L	1.0	0.32	1		04/29/22 12:01	79-01-6	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		04/29/22 12:01	75-01-4	
cis-1,2-Dichloroethene	<0.47	ug/L	1.0	0.47	1		04/29/22 12:01	156-59-2	
trans-1,2-Dichloroethene	<0.53	ug/L	1.0	0.53	1		04/29/22 12:01	156-60-5	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	105	%	70-130		1		04/29/22 12:01	460-00-4	
1,2-Dichlorobenzene-d4 (S)	108	%	70-130		1		04/29/22 12:01	2199-69-1	
Toluene-d8 (S)	106	%	70-130		1		04/29/22 12:01	2037-26-5	
Sample: TB04272022	Lab ID: 40244069019	Collected: 04/27/22 14:00	Received: 04/28/22 09:25	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
1,1,1-Trichloroethane	<0.30	ug/L	1.0	0.30	1		04/29/22 11:41	71-55-6	
1,1-Dichloroethane	<0.30	ug/L	1.0	0.30	1		04/29/22 11:41	75-34-3	
1,1-Dichloroethene	<0.58	ug/L	1.0	0.58	1		04/29/22 11:41	75-35-4	
Chloroethane	<1.4	ug/L	5.0	1.4	1		04/29/22 11:41	75-00-3	
Tetrachloroethene	<0.41	ug/L	1.0	0.41	1		04/29/22 11:41	127-18-4	
Trichloroethene	<0.32	ug/L	1.0	0.32	1		04/29/22 11:41	79-01-6	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		04/29/22 11:41	75-01-4	
cis-1,2-Dichloroethene	<0.47	ug/L	1.0	0.47	1		04/29/22 11:41	156-59-2	
trans-1,2-Dichloroethene	<0.53	ug/L	1.0	0.53	1		04/29/22 11:41	156-60-5	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	109	%	70-130		1		04/29/22 11:41	460-00-4	
1,2-Dichlorobenzene-d4 (S)	109	%	70-130		1		04/29/22 11:41	2199-69-1	
Toluene-d8 (S)	105	%	70-130		1		04/29/22 11:41	2037-26-5	

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## QUALITY CONTROL DATA

Project: MILWAUKEE DIE CAST COMPANY

Pace Project No.: 40244069

QC Batch:	414398	Analysis Method:	EPA 8260
QC Batch Method:	EPA 8260	Analysis Description:	8260 MSV
		Laboratory:	Pace Analytical Services - Green Bay
Associated Lab Samples:	40244069001, 40244069002, 40244069003, 40244069004, 40244069005, 40244069006, 40244069007, 40244069008, 40244069009, 40244069010, 40244069011, 40244069012, 40244069013, 40244069014, 40244069015, 40244069016, 40244069017, 40244069018, 40244069019		

METHOD BLANK: 2386053                          Matrix: Water

Associated Lab Samples: 40244069001, 40244069002, 40244069003, 40244069004, 40244069005, 40244069006, 40244069007,  
40244069008, 40244069009, 40244069010, 40244069011, 40244069012, 40244069013, 40244069014,  
40244069015, 40244069016, 40244069017, 40244069018, 40244069019

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	<0.30	1.0	04/29/22 07:43	
1,1-Dichloroethane	ug/L	<0.30	1.0	04/29/22 07:43	
1,1-Dichloroethene	ug/L	<0.58	1.0	04/29/22 07:43	
Chloroethane	ug/L	<1.4	5.0	04/29/22 07:43	
cis-1,2-Dichloroethene	ug/L	<0.47	1.0	04/29/22 07:43	
Tetrachloroethene	ug/L	<0.41	1.0	04/29/22 07:43	
trans-1,2-Dichloroethene	ug/L	<0.53	1.0	04/29/22 07:43	
Trichloroethene	ug/L	<0.32	1.0	04/29/22 07:43	
Vinyl chloride	ug/L	<0.17	1.0	04/29/22 07:43	
1,2-Dichlorobenzene-d4 (S)	%	109	70-130	04/29/22 07:43	
4-Bromofluorobenzene (S)	%	108	70-130	04/29/22 07:43	
Toluene-d8 (S)	%	105	70-130	04/29/22 07:43	

LABORATORY CONTROL SAMPLE: 2386054

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	51.2	102	70-134	
1,1-Dichloroethane	ug/L	50	49.1	98	70-130	
1,1-Dichloroethene	ug/L	50	53.7	107	74-131	
Chloroethane	ug/L	50	67.0	134	52-165	
cis-1,2-Dichloroethene	ug/L	50	44.4	89	70-130	
Tetrachloroethene	ug/L	50	51.8	104	70-130	
trans-1,2-Dichloroethene	ug/L	50	47.8	96	70-130	
Trichloroethene	ug/L	50	49.1	98	70-130	
Vinyl chloride	ug/L	50	52.7	105	63-134	
1,2-Dichlorobenzene-d4 (S)	%			103	70-130	
4-Bromofluorobenzene (S)	%			110	70-130	
Toluene-d8 (S)	%			107	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2386055                          2386056

Parameter	Units	40244069014 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
1,1,1-Trichloroethane	ug/L	<0.30	50	50	51.1	51.5	102	103	70-134	1	20	

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## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: MILWAUKEE DIE CAST COMPANY  
Pace Project No.: 40244069

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:		2386055		2386056									
Parameter	Units	MS		MSD		MS		MSD		% Rec		Max	
		40244069014	Spike Conc.	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	Limits	RPD	RPD	Qual	
1,1-Dichloroethane	ug/L	<0.30	50	50	49.3	48.7	99	97	70-130	1	20		
1,1-Dichloroethene	ug/L	<0.58	50	50	57.5	51.2	115	102	71-130	12	20		
Chloroethane	ug/L	<1.4	50	50	64.9	60.6	130	121	52-165	7	20		
cis-1,2-Dichloroethene	ug/L	<0.47	50	50	45.3	45.5	91	91	70-130	0	20		
Tetrachloroethene	ug/L	<0.41	50	50	51.5	49.7	103	99	70-130	4	20		
trans-1,2-Dichloroethene	ug/L	<0.53	50	50	47.0	47.1	94	94	70-130	0	20		
Trichloroethene	ug/L	<0.32	50	50	48.6	49.7	97	99	70-130	2	20		
Vinyl chloride	ug/L	<0.17	50	50	49.7	50.5	99	101	60-137	2	20		
1,2-Dichlorobenzene-d4 (S)	%						99	106	70-130				
4-Bromofluorobenzene (S)	%						106	110	70-130				
Toluene-d8 (S)	%						108	105	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

## QUALITY CONTROL DATA

Project: MILWAUKEE DIE CAST COMPANY

Pace Project No.: 40244069

QC Batch: 812575 Analysis Method: EPA 8270E by SIM

QC Batch Method: EPA Mod. 3510C Analysis Description: 8270E Water 14 Dioxane by SIM

Laboratory: Pace Analytical Services - Minneapolis

Associated Lab Samples: 40244069005, 40244069008, 40244069009, 40244069010, 40244069011, 40244069014, 40244069015,  
40244069016, 40244069017

METHOD BLANK: 4308867 Matrix: Water

Associated Lab Samples: 40244069005, 40244069008, 40244069009, 40244069010, 40244069011, 40244069014, 40244069015,  
40244069016, 40244069017

Parameter	Units	Blank	Reporting		Qualifiers
		Result	Limit	Analyzed	
1,4-Dioxane (SIM)	ug/L	<0.086	0.25	05/03/22 12:14	
1,4-Dioxane-d8 (S)	%.	59	15-125	05/03/22 12:14	

LABORATORY CONTROL SAMPLE: 4308868

Parameter	Units	Spike	LCS	LCS	% Rec	Qualifiers
		Conc.	Result	% Rec	Limits	
1,4-Dioxane (SIM)	ug/L	10	5.2	52	30-133	
1,4-Dioxane-d8 (S)	%.			87	15-125	

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 4308963 4308964

Parameter	Units	MS	MSD	MS	MSD	MS	MSD	% Rec	% Rec	RPD	RPD	Max
		40244069014	Spike	Spike	Result	Result	% Rec	Limits	RPD	RPD	Qual	
1,4-Dioxane (SIM)	ug/L	<0.086	10	10	7.0	7.7	70	77	30-150	10	30	
1,4-Dioxane-d8 (S)	%.						58	53	15-125			1q,IS

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## QUALITY CONTROL DATA

Project: MILWAUKEE DIE CAST COMPANY  
Pace Project No.: 40244069

QC Batch:	812576	Analysis Method:	EPA 8270E by SIM
QC Batch Method:	EPA Mod. 3510C	Analysis Description:	8270E Water 14 Dioxane by SIM
		Laboratory:	Pace Analytical Services - Minneapolis
Associated Lab Samples: 40244069012, 40244069013			

METHOD BLANK: 4308871 Matrix: Water

Associated Lab Samples: 40244069012, 40244069013

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,4-Dioxane (SIM)	ug/L	<0.086	0.25	05/04/22 12:43	
1,4-Dioxane-d8 (S)	%.	43	15-125	05/04/22 12:43	

LABORATORY CONTROL SAMPLE: 4308872

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (SIM)	ug/L	10	8.5	85	30-133	
1,4-Dioxane-d8 (S)	%.			50	15-125	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4309125 4309126

Parameter	Units	10606578001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,4-Dioxane (SIM)	ug/L	71.5	33.3	33.3	95.6	85.9	72	43	30-150	11	30	
1,4-Dioxane-d8 (S)	%.						45	41	15-125			

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

## **QUALITY CONTROL DATA**

Project: MILWAUKEE DIE CAST COMPANY  
Pace Project No.: 40244069

QC Batch: 813145 Analysis Method: EPA 8270E by SIM  
QC Batch Method: EPA Mod. 3510C Analysis Description: 8270E Water 14 Dioxane by SIM  
Associated Lab Samples: 40244069001, 40244069002, 40244069003, 40244069004, 40244069006, 40244069007  
Laboratory: Pace Analytical Services - Minneapolis

METHOD BLANK: 4311433 Matrix: Water

Associated Lab Samples: 40244069001, 40244069002, 40244069003, 40244069004, 40244069006, 40244069007

Parameter	Units	Blank	Reporting		Analyzed	Qualifiers
		Result	Limit			
1,4-Dioxane (SIM)	ug/L	<0.086	0.25	05/05/22 15:32		
1,4-Dioxane-d8 (S)	%.	23	15-125	05/05/22 15:32		

LABORATORY CONTROL SAMPLE: 4311434

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (SIM)	ug/L	10	8.4	84	30-133	
1,4-Dioxane-d8 (S)	%.			36	15-125	

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## QUALIFIERS

Project: MILWAUKEE DIE CAST COMPANY  
Pace Project No.: 40244069

---

### 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: 813401

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

### ANALYTE QUALIFIERS

1q Result confirmed by reanalysis conducted outside of the method specified holding time. Internal recoveries, surrogate and matrix spike were all passing.

C6 Result confirmed by reanalysis conducted outside of the method specified holding time.

IS The internal standard response is below criteria. Results may be biased high.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MILWAUKEE DIE CAST COMPANY

Pace Project No.: 40244069

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40244069001	MW-1	EPA Mod. 3510C	813145	EPA 8270E by SIM	813401
40244069002	MW-2	EPA Mod. 3510C	813145	EPA 8270E by SIM	813401
40244069003	MW-2 DUP	EPA Mod. 3510C	813145	EPA 8270E by SIM	813401
40244069004	MW-4	EPA Mod. 3510C	813145	EPA 8270E by SIM	813401
40244069005	MW-5	EPA Mod. 3510C	812575	EPA 8270E by SIM	812812
40244069006	MW-6	EPA Mod. 3510C	813145	EPA 8270E by SIM	813401
40244069007	MW-7	EPA Mod. 3510C	813145	EPA 8270E by SIM	813401
40244069008	MW-8	EPA Mod. 3510C	812575	EPA 8270E by SIM	812812
40244069009	MW-9	EPA Mod. 3510C	812575	EPA 8270E by SIM	812812
40244069010	MW-13	EPA Mod. 3510C	812575	EPA 8270E by SIM	812812
40244069011	MW-14	EPA Mod. 3510C	812575	EPA 8270E by SIM	812812
40244069012	PZ-1	EPA Mod. 3510C	812576	EPA 8270E by SIM	813112
40244069013	PZ-1 DUP	EPA Mod. 3510C	812576	EPA 8270E by SIM	813112
40244069014	PZ-1A	EPA Mod. 3510C	812575	EPA 8270E by SIM	812812
40244069015	PZ-2	EPA Mod. 3510C	812575	EPA 8270E by SIM	812812
40244069016	PZ-6	EPA Mod. 3510C	812575	EPA 8270E by SIM	812812
40244069017	PZ-10	EPA Mod. 3510C	812575	EPA 8270E by SIM	812812
40244069001	MW-1	EPA 8260	414398		
40244069002	MW-2	EPA 8260	414398		
40244069003	MW-2 DUP	EPA 8260	414398		
40244069004	MW-4	EPA 8260	414398		
40244069005	MW-5	EPA 8260	414398		
40244069006	MW-6	EPA 8260	414398		
40244069007	MW-7	EPA 8260	414398		
40244069008	MW-8	EPA 8260	414398		
40244069009	MW-9	EPA 8260	414398		
40244069010	MW-13	EPA 8260	414398		
40244069011	MW-14	EPA 8260	414398		
40244069012	PZ-1	EPA 8260	414398		
40244069013	PZ-1 DUP	EPA 8260	414398		
40244069014	PZ-1A	EPA 8260	414398		
40244069015	PZ-2	EPA 8260	414398		
40244069016	PZ-6	EPA 8260	414398		
40244069017	PZ-10	EPA 8260	414398		
40244069018	EB04272022	EPA 8260	414398		
40244069019	TB04272022	EPA 8260	414398		

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**Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields**

Company: Geosyntec Consultants		Billing Information: Geosyntec Consultants Attn: Jeremiah Johnson						
Address: 10600 N. Port Washington Rd. Ste 100. Mequon, WI 53092								
Report To: Dave Zolp; Jeremiah Johnson		Email To: <a href="mailto:dzolp@geosyntec.com">dzolp@geosyntec.com</a> , <a href="mailto:jpjohnson@geosyntec.com">jpjohnson@geosyntec.com</a>						
Copy To:		Site Collection Info/Address:						
Customer Project Name/Number: Milwaukee Die Cast Company		State: County/City: Time Zone Collected: WI Milwaukee/ Milwaukee [ ]PT [ ]MT [ X ]CT [ ]ET						
Phone: 262-496-6103 Email: <a href="mailto:dzolp@geosyntec.com">dzolp@geosyntec.com</a>	Site/Facility ID #:				Compliance Monitoring? [ ] Yes [ ] No			
Collected By (print): Dave Zolp	Purchase Order #: Quote #:				DW PWS ID #: DW Location Code:			
Collected By (signature):	Turnaround Date Required:				Immediately Packed on Ice: [ x ] Yes [ ] No			
Sample Disposal: [ X ] Dispose as appropriate [ ] Return [ ] Archive: _____ [ ] Hold: _____	Rush: (Expedite Charges Apply) [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day				Field Filtered (if applicable): [ ] Yes [ x ] No Analysis: _____			
* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)								
Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start)		Composite End		Res Cl	# of Ctns
			Date	Time	Date	Time		
MW-1	GW	Grab	4/27/2022	1235				5
MW-2	GW	Grab	4/27/2022	1140				5
MW-2 DUP	GW	Grab	4/27/2022	1140				5
MW-4	GW	Grab	4/27/2022	935				5
MW-5	GW	Grab	4/26/2022	1212				5
MW-6	GW	Grab	4/27/2022	1020				5
MW-7	GW	Grab	4/27/2022	1115				5
MW-8	GW	Grab	4/25/2022	1555				5
MW-9	GW	Grab	4/26/2022	1113				5
MW-13	GW	Grab	4/25/2022	1425				5

LAB USE ONLY- Affix Workorder/Login Label Here or List Pace Workorder Number or

MTJL Log-in Number Here

40244000

**ALL BOLD OUTLINED AREAS are for LAB USE ONLY**

Container Preservative Type **							Lab Project Manager:	
3	U							
** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide (D) TSP (U) Unpreserved (O) Other								
Analyses							Lab Profile/Line:	
VOCs  1,4-DIOXANE (Method 8270 SIM)							Lab Sample Receipt Checklist: Custody Seals Present/Intact Y N NA Custody Signatures Present Y N NA Collector Signature Present Y N NA Bottles Intact Y N NA Correct Bottles Y N NA Sufficient Volume Y N NA Samples Received on Ice Y N NA VOA - Headspace Acceptable Y N NA USDA Regulated Soils Y N NA Samples in Holding Time Y N NA Residual Chlorine Present Y N NA Cl Strips: Sample pH Acceptable Y N NA pH Strips: Sulfide Present Y N NA Lead Acetate Strips: _____	
								LAB USE ONLY:
								Lab Sample # / Comments: _____
	X	X						001
	X	X						002
	X	X						003
	X	X						004
	X	X						005
	X	X						006
	X	X						007
X	X						008	
X	X						009	
X	X						010	
SHORT HOLDS PRESENT (<72 hours): Y N NA							LAB Sample Temperature Info:	
Lab Tracking #:							Temp Blank Received: Y N NA	
Samples received via: FEDEX    UPS    Client    Courier    Pace Courier							Therm ID#: _____	
							Cooler 1 Temp Upon Receipt: _____ °C	
							Cooler 1 Therm Corr. Factor: _____	
							Cooler 1 Corrected Temp: _____ °C	
							Comments: <i>50°</i>	
Date/Time:			MTJL LAB USE ONLY					
			Table #:				<i>see</i>	
Date/Time:			Acctnum:				Trip Blank Received: Y N NA	
			Template:				HCL    MeOH    TSP    Other	
1-28-22 C925			Preligin:					
Date/Time:			PM:				Non Conformance(s):	
			PB:				Page: <u>1</u> of <u>2</u> Page	



# CHAIN-OF-CUSTODY Analytical Request Document

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Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

Company: Geosyntec Consultants		Billing Information:	
Address: 10600 N. Port Washington Rd. Ste 100. Mequon, WI 53092		Geosyntec Consultants Attn: Jeremiah Johnson	
Report To: Dave Zolp; Jeremiah Johnson		Email To: dzolp@geosyntec.com, jpjohnson@geosyntec.com	
Copy To:		Site Collection Info/Address:	
Customer Project Name/Number: Milwaukee Die Cast Company		State: County/City: Time Zone Collected: WI Milwaukee/Milwaukee [ ] PT [ ] MT [ X ] CT [ ] ET	
Phone: 262-496-6103 Email: dzolp@geosyntec.com	Site/Facility ID #:		Compliance Monitoring? [ ] Yes [ ] No
Collected By (print): Dave Zolp	Purchase Order #: Quote #:		DW PWS ID #: DW Location Code:
Collected By (signature):	Turnaround Date Required:		Immediately Packed on Ice: [ x ] Yes [ ] No
Sample Disposal: [ X ] Dispose as appropriate [ ] Return [ ] Archive: [ ] Hold:	Rush: (Expedite Charges Apply) [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day		Field Filtered (if applicable): [ ] Yes [ x ] No Analysis: _____

\* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start)		Composite End		Res CI	# of Ctns	Container Type: Plastic (P) or Glass (G)	VOCs	1,4-DIOXANE (Method 8270 SIM)
			Date	Time	Date	Time					
MW-14	GW	Grab	4/26/2022	1325				5	G	X	X
PZ-1	GW	Grab	4/27/2022	1223				5	G	X	X
PZ-1 DUP	GW	Grab	4/27/2022	1223				5	G	X	X
PZ-1A	GW	Grab	4/26/2022	1005				5	G	X	X
PZ-2	GW	Grab	4/25/2022	1555				5	G	X	X
PZ-6	GW	Grab	4/26/2022	1435				5	G	X	X
PZ-10	GW	Grab	4/26/2022	1230				5	G	X	X
EB04272022		Grab	4/27/2022	1400				2	G	X	
TB04272022		Grab	4/27/2022	1400				2	G	X	

Customer Remarks / Special Conditions / Possible Hazards:

PZ-1A = Extra Volume for MS/MSD

Type of Ice Used: Wet Blue Dry None

SHORT HOLDS PRESENT (<72 hours): Y N N/A

Packing Material Used:

Lab Tracking #:

Radchem sample(s) screened (<500 cpm): Y N NA

Samples received via:  
FEDEX UPS Client Courier Pace Courier

LAB Sample Temperature Info:

Temp Blank Received: Y N NA  
Therm ID#: 228  
Cooler 1 Temp Upon Receipt: \_\_\_\_ °C  
Cooler 1 Therm Corr. Factor: \_\_\_\_ °C  
Cooler 1 Corrected Temp: \_\_\_\_ °C  
Comments: SCL

Relinquished by/Company: (Signature)

Geosyntec

Date/Time:

4/27/22 14:50

Received by/Company: (Signature)

Date/Time:

MTJL LAB USE ONLY

Table #:

Relinquished by/Company: (Signature)

Fed ex

Date/Time:

4-28-22 09:25

Received by/Company: (Signature)

Jst. P. Blatt Pace

Date/Time:

4-28-22 09:21

Acctnum:

Template:

Prelogin:

PM:

PB:

Trip Blank Received: Y N NA

HCl MeOH TSP Other

Relinquished by/Company: (Signature)

Date/Time:

Received by/Company: (Signature)

Date/Time:

Non Conformance(s):

YES / NO

Page: 2  
of: 2

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MTJL Log-In Number Here

40244069

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Container Preservative Type \*\*

3

U

Lab Project Manager:

\*\* Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other

Analyses

Lab Profile/Line:

Lab Sample Receipt Checklist:

Custody Seals Present/Intact Y N NA  
Custody Signatures Present Y N NA  
Collector Signature Present Y N NA  
Bottles Intact Y N NA  
Correct Bottles Y N NA  
Sufficient Volume Y N NA  
Samples Received on Ice Y N NA  
VOA - Headspace Acceptable Y N NA  
USDA Regulated Soils Y N NA  
Samples in Holding Time Y N NA  
Residual Chlorine Present Y N NA  
Cl Strips: *✓* Sample pH Acceptable Y N NA  
pH Strips: *✓* Sulfide Present Y N NA  
Lead Acetate Strips: \_\_\_\_\_  
LAB USE ONLY:  
Lab Sample # / Comments: \_\_\_\_\_

011

012

013

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015

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019

25 of 27

### Sample Preservation Receipt Form

Client Name: Geosyntec consultants

Project # 40244069

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 #	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	VOA Vials (>6mm) *	H2SO4 pH ≤2	NaOH+Zn Act. ≥H ≥9	NaOH pH ≥12	HNO3 pH ≤2	pH after adjusted	Volume (mL)
001						2										3													2.5 / 5 / 10				
002						2											3												2.5 / 5 / 10				
003						2											3												2.5 / 5 / 10				
004						2											3												2.5 / 5 / 10				
005						2											3												2.5 / 5 / 10				
006						2											3												2.5 / 5 / 10				
007						2											3												2.5 / 5 / 10				
008						2											3												2.5 / 5 / 10				
009						2											3												2.5 / 5 / 10				
010						2											3												2.5 / 5 / 10				
011						2											3												2.5 / 5 / 10				
012						2											3												2.5 / 5 / 10				
013						2											3												2.5 / 5 / 10				
014						6											9-10-22-07												2.5 / 5 / 10				
015						2											3												2.5 / 5 / 10				
016						2											3												2.5 / 5 / 10				
017						2											3												2.5 / 5 / 10				
018						2											N												2.5 / 5 / 10				
019																	4													2.5 / 5 / 10			
020																														2.5 / 5 / 10			

Exceptions to preservation check:  Coliform, TOC, TOX, TOH, O&G, WI DRO, Phenolics, Other: \_\_\_\_\_ Headspace in VOA Vials (>6mm):  Yes  No  N/A \*If yes look in headspace column

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

Page 1 of 2

DC#\_Title: ENV-FRM-GBAY-0014 v02\_SCUR  
Revision: 3 | Effective Date: | Issued by: Green Bay

### Sample Condition Upon Receipt Form (SCUR)

Project #:

WO# : 40244069



40244069

Client Name: Geosyntec Consultants

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

Tracking #: 7767 0915 1791

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-11b Type of Ice:  Wet Blue Dry None

Samples on ice, cooling process has begun

Cooler Temperature Uncorr: 2 /Corr: 2.1

Person examining contents:

Temp Blank Present:  yes  no

Biological Tissue is Frozen:  yes  no

Date: 4-28-22 /Initials: JP

Temp should be above freezing to 6°C.

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

Labeled By 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 & <del>Signature</del> on COC:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time: - VOA Samples frozen upon receipt	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5. 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: 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		8.
Correct Containers Used: -Pace Containers Used: -Pace IR Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
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 type="checkbox"/> N/A	11.
Sample Labels match COC: -Includes date/time/ID/Analysis	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
Trip Blank Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13. Extra volume received, per pm added to sample point 019
Trip Blank Custody Seals Present	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):	<u>477</u>	<u>4-28-22</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 login

Page 2 of 2

## Memorandum

Date: July 6, 2022

To: Jeremiah Johnson

From: Ashley Wilson

CC: J. Caprio

**Subject: Stage 2A Data Validation – Level II Data Deliverable – Pace Analytical Services Project Number: 40244069**

**SITE: Milwaukee Die Casting Company Site, Milwaukee, WI**

### INTRODUCTION

This report summarizes the findings of the Stage 2A data validation of fifteen water samples, two field duplicate samples, one trip blank and one equipment blank, collected between April 25 and 27, 2022, during a Milwaukee Die Casting Company Site sampling event. The analyses were performed by Pace Analytical Services, LLC, Green Bay, Wisconsin and Minneapolis Minnesota. The samples were analyzed for the following tests:

- Volatile Organic Compounds (VOCs) by United States (US) Environmental Protection Agency (EPA) Method 8260
- 1,4-Dioxane by US EPA Methods 3510C/8270E Modified using Selective Ion Monitoring (SIM)

### EXECUTIVE SUMMARY

Overall, based on this Stage 2A data validation covering the quality control (QC) parameters listed below and based on the information provided, the data as qualified are usable for supporting project objectives. The qualified data should be used within the limitations of the qualifications.

The data were reviewed based on the pertinent methods referenced by the laboratory report, professional and technical judgment and the following documents:

- Additional Groundwater Investigation Work Plan and Groundwater Monitoring Plan, Milwaukee Die Casting Company Site, 4132 North Holton Street. Milwaukee, Wisconsin, June 15, 2021
- US EPA National Functional Guidelines for Organic Superfund Methods Data Review, November 2020 (USEPA- 540-R-20-005)

# Milwaukee Die Casting Company Data Validation

July 6, 2022

Page 2

The following samples were analyzed in the data set and validated at a Stage 2A level:

Laboratory IDs	Client IDs
40244069001	MW-1
40244069002	MW-2
40244069003	MW-2 DUP
40244069004	MW-4
40244069005	MW-5
40244069006	MW-6
40244069007	MW-7
40244069008	MW-8
40244069009	MW-9
40244069010	MW-13

Laboratory IDs	Client IDs
40244069011	MW-14
40244069012	PZ-1
40244069013	PZ-1 DUP
40244069014	PZ-1A
40244069015	PZ-2
40244069016	PZ-6
40244069017	PZ-10
40244069018	EB04272022
40244069019	TB04272022

The samples were received at the laboratory at 2.1 degrees Celsius (°C) within the temperature criteria of 0-6°C. No sample preservation issues were noted by the laboratory.

## 1.0 VOLATILE ORGANIC COMPOUNDS

The samples were analyzed for VOCs per US EPA Method 8260.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable or not applicable. A preceding crossed circle (✗) signifies areas where issues were raised during the course of the validation review and should be considered to determine the impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Times
- ✓ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Trip Blank
- ✓ Equipment Blank
- ✓ Surrogates
- ✓ Field Duplicate
- ✓ Sensitivity
- ✓ Electronic Data Deliverable Review

### 1.1 Overall Assessment

The VOC data reported in this laboratory report are considered usable for supporting project objectives. The results are considered valid; the analytical completeness, defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to

the total number of analytical results requested on samples submitted for this analysis, for the sample set is 100%.

## **1.2 Holding Times**

The holding time for the VOC analyses of a preserved water sample is 14 days from collection to analysis. The holding times were met for the sample analyses.

## **1.3 Method Blank**

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One method blank was reported (batch 414398). VOCs were not detected in the method blank above the limits of detection (LODs).

## **1.4 Matrix Spike/Matrix Spike Duplicate**

MS/MSD pairs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One sample set specific MS/MSD pair was reported, using sample PZ-1A. The recovery and relative percent difference (RPD) results were within the laboratory specified acceptance criteria.

## **1.5 Laboratory Control Sample (LCS)**

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One LCS was reported. The recovery results were within the laboratory specified acceptance criteria.

## **1.6 Trip Blank**

One trip blank was submitted with the sample set, TB04272022. VOCs were not detected in the trip blank greater than the LODs.

## **1.7 Equipment Blank**

One equipment blank was collected with the sample set, EB04272022. VOCs were not detected in the equipment blank greater than the LODs.

## **1.8 Surrogates**

The surrogate recoveries were within the laboratory specified acceptance criteria.

### **1.9 Field Duplicate**

Two field duplicate samples, MW-2 DUP and PZ-1 DUP were collected with the sample set. Acceptable precision ( $RPD \leq 30\%$ ) was demonstrated between the field duplicates and the original samples, MW-2 and PZ-1, respectively.

### **1.10 Sensitivity**

The samples were reported to the LODs. Elevated non-detect results were reported due to the dilutions analyzed.

### **1.11 Electronic Data Deliverable (EDD) Review**

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

## **2.0 1,4-DIOXANE**

The samples were analyzed for 1,4-dioxane per US EPA Methods 3510C/8270E SIM.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable or not applicable. A preceding crossed circle (✗) signifies areas where issues were raised during the course of the validation review and should be considered to determine the impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Times
- ✓ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Surrogates
- ✓ Field Duplicate
- ✓ Sensitivity
- ✓ Electronic Data Deliverable Review

### **2.1 Overall Assessment**

The 1,4-dioxane data reported in this laboratory report are considered usable for supporting project objectives. The results are considered valid; the analytical completeness, defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for the sample set is 100%.

## **2.2 Holding Times**

The holding time for the 1,4-dioxane analyses of water samples is 7 days from collection to extraction and 40 days from extraction to analysis. The holding times were met for the sample analyses.

## **2.3 Method Blank**

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Three method blanks were reported (batches 812575, 812576 and 813145). 1,4-dioxane was not detected greater than the LOD in the method blank.

## **2.4 Matrix Spike/Matrix Spike Duplicate**

One sample set specific MS/MSD pair was reported, using sample PZ-1A. The recovery and RPD results were within the laboratory specified acceptance criteria.

One batch MS/MSD pair was also reported. Since this were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

## **2.5 Laboratory Control Sample**

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Three LCSs were reported. The recovery result was within the laboratory specified acceptance criteria.

## **2.6 Surrogates**

The surrogate recoveries were within the laboratory specified acceptance criteria.

The result for surrogate 1,4-dioxane-d8 in sample PZ-1A was flagged IS to indicate the internal standard was below criteria and the result may be biased high. Since the recovery of surrogate 1,4-dioxane-d8 in sample PZ-1A was within the laboratory specified acceptance criteria and based on professional and technical judgment, no qualifications were applied to the data.

## **2.7 Field Duplicate**

Two field duplicate samples, MW-2 DUP and PZ-1 DUP were collected with the sample set. Acceptable precision ( $RPD \leq 30\%$ ) was demonstrated between the field duplicates and the original samples, MW-2 and PZ-1, respectively.

## **2.8    Sensitivity**

The samples were reported to the LODs. Elevated non-detect results were not reported.

## **2.9    Electronic Data Deliverable Review**

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

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\* \* \* \* \*

**ATTACHMENT 1**  
**DATA VALIDATION QUALIFIER DEFINITIONS**  
**AND INTERPRETATION KEY**  
**Assigned by Geosyntec's Data Validation Team**

**DATA QUALIFIER DEFINITIONS**

- U The analyte was analyzed for but was not detected above the reported sample quantitation limit. Upon application of the U qualifier to a reported result, the definition changes to “not detected at or above the reported result”.
- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- J+ The analyte was positively identified; however, the associated numerical value is likely to be higher than the concentration of the analyte in the sample due to positive bias of associated QC or calibration data or attributable to matrix interference.
- J- The analyte was positively identified; however, the associated numerical value is likely to be lower than the concentration of the analyte in the sample due to negative bias of associated QC or calibration data or attributable to matrix interference.
- UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

**ATTACHMENT 2**  
**DATA VALIDATION REASON CODES**  
**Assigned by Geosyntec's Data Validation Team**

<b>Valid Value</b>	<b>Description</b>
1	Preservation requirement not met
2	Analysis holding time exceeded
3	Blank contamination (i.e., method, trip, equipment, etc.)
4	Matrix spike/matrix spike duplicate recovery or RPD outside limits
5	LCS or RPD recovery outside limits (LCS/LCSD)
6	Surrogate recovery outside limits
7	Field Duplicate RPD exceeded
8	Serial dilution percent difference exceeded
9	Calibration criteria not met
10	Linear range exceeded
11	Internal standard criteria not met
12	Lab duplicates RPD exceeded
13	Other
14	Lab flag removed or modified: no validation qualification required

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample duplicate

RPD - Relative percent difference

August 16, 2022

Jeremiah Johnson  
GEOSYNTEC CONSULTANTS  
10600 North Port Washington Rd  
Suite 100  
Thiensville, WI 53092

RE: Project: CHW82710 MDCC  
Pace Project No.: 40248989

Dear Jeremiah Johnson:

Enclosed are the analytical results for sample(s) received by the laboratory on July 29, 2022. 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,



Brian Basten  
brian.basten@pacelabs.com  
(920)469-2436  
Project Manager

Enclosures



## REPORT OF LABORATORY ANALYSIS

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without the written consent of Pace Analytical Services, LLC.

## CERTIFICATIONS

Project: CHW82710 MDCC  
Pace Project No.: 40248989

---

### **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: CHW82710 MDCC  
Pace Project No.: 40248989

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40248989001	MW-1	Water	07/28/22 14:32	07/29/22 10:15
40248989002	PZ-1	Water	07/28/22 15:25	07/29/22 10:15
40248989003	PZ-1 DUP	Water	07/28/22 15:25	07/29/22 10:15
40248989004	PZ-1A	Water	07/27/22 14:45	07/29/22 10:15
40248989005	MW-2	Water	07/28/22 12:30	07/29/22 10:15
40248989006	PZ-2	Water	07/27/22 16:30	07/29/22 10:15
40248989007	MW-4	Water	07/28/22 11:20	07/29/22 10:15
40248989008	MW-5	Water	07/27/22 16:10	07/29/22 10:15
40248989009	MW-6	Water	07/28/22 11:05	07/29/22 10:15
40248989010	MW-6 DUP	Water	07/28/22 11:05	07/29/22 10:15
40248989011	PZ-6	Water	07/27/22 15:55	07/29/22 10:15
40248989012	MW-7	Water	07/28/22 13:25	07/29/22 10:15
40248989013	MW-8	Water	07/27/22 12:55	07/29/22 10:15
40248989014	MW-9	Water	07/28/22 09:35	07/29/22 10:15
40248989015	PZ-10	Water	07/27/22 14:00	07/29/22 10:15
40248989016	MW-13	Water	07/27/22 11:45	07/29/22 10:15
40248989017	MW-14	Water	07/28/22 10:00	07/29/22 10:15
40248989018	TB07282022	Water	07/28/22 16:00	07/29/22 10:15

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## SAMPLE ANALYTE COUNT

Project: CHW82710 MDCC  
Pace Project No.: 40248989

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40248989001	MW-1	EPA 8015B Modified	KHB	3
		EPA 8260	ALD	12
		SM 5310C	TJJ	1
40248989002	PZ-1	EPA 8015B Modified	KHB	3
		EPA 8260	ALD	12
		SM 5310C	TJJ	1
40248989003	PZ-1 DUP	EPA 8015B Modified	KHB	3
		EPA 8260	ALD	12
		SM 5310C	TJJ	1
40248989004	PZ-1A	EPA 8015B Modified	KHB	3
		EPA 8260	ALD	12
		SM 5310C	TJJ	1
40248989005	MW-2	EPA 8015B Modified	KHB	3
		EPA 8260	ALD	12
		SM 5310C	TJJ	1
40248989006	PZ-2	EPA 8015B Modified	KHB	3
		EPA 8260	ALD	12
		SM 5310C	TJJ	1
40248989007	MW-4	EPA 8015B Modified	KHB	3
		EPA 8260	ALD	12
		SM 5310C	TJJ	1
40248989008	MW-5	EPA 8015B Modified	KHB	3
		EPA 8260	ALD	12
		SM 5310C	TJJ	1
40248989009	MW-6	EPA 8015B Modified	KHB	3
		EPA 8260	ALD	12
		SM 5310C	TJJ	1
40248989010	MW-6 DUP	EPA 8015B Modified	KHB	3
		EPA 8260	ALD	12
		SM 5310C	TJJ	1
40248989011	PZ-6	EPA 8015B Modified	KHB	3
		EPA 8260	ALD	12
		SM 5310C	TJJ	1
40248989012	MW-7	EPA 8015B Modified	KHB	3
		EPA 8260	ALD	12
		SM 5310C	TJJ	1
40248989013	MW-8	EPA 8015B Modified	KHB	3
		EPA 8260	ALD	12
		SM 5310C	TJJ	1

## REPORT OF LABORATORY ANALYSIS

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## SAMPLE ANALYTE COUNT

Project: CHW82710 MDCC  
Pace Project No.: 40248989

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40248989014	MW-9	EPA 8260	ALD	12
		SM 5310C	TJJ	1
		EPA 8015B Modified	KHB	3
40248989015	PZ-10	EPA 8260	SMT	12
		SM 5310C	TJJ	1
		EPA 8015B Modified	KHB	3
40248989016	MW-13	EPA 8260	SMT	12
		SM 5310C	TJJ	1
		EPA 8015B Modified	KHB	3
40248989017	MW-14	EPA 8260	SMT	12
		SM 5310C	TJJ	1
		EPA 8015B Modified	KHB	3
40248989018	TB07282022	EPA 8260	SMT	12
		SM 5310C	TJJ	1
		EPA 8260	LAP	12

PASI-G = Pace Analytical Services - Green Bay

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: CHW82710 MDCC

Pace Project No.: 40248989

Sample: MW-1	Lab ID: 40248989001	Collected: 07/28/22 14:32	Received: 07/29/22 10:15	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>Methane, Ethane, Ethene GCV</b>	Analytical Method: EPA 8015B Modified Pace Analytical Services - Green Bay								
Ethane	8.4	ug/L	5.6	0.39	1		08/01/22 12:31	74-84-0	
Ethene	85.8	ug/L	5.0	0.25	1		08/01/22 12:31	74-85-1	
Methane	871	ug/L	28.0	5.8	10		08/01/22 15:59	74-82-8	
<b>8260 MSV</b>	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
1,1,1-Trichloroethane	<30.3	ug/L	100	30.3	100		08/02/22 12:12	71-55-6	
1,1-Dichloroethane	<29.6	ug/L	100	29.6	100		08/02/22 12:12	75-34-3	
1,1-Dichloroethene	<58.2	ug/L	100	58.2	100		08/02/22 12:12	75-35-4	
Chloroethane	<138	ug/L	500	138	100		08/02/22 12:12	75-00-3	
Tetrachloroethene	4200	ug/L	100	40.9	100		08/02/22 12:12	127-18-4	
Trichloroethene	4180	ug/L	100	32.0	100		08/02/22 12:12	79-01-6	
Vinyl chloride	364	ug/L	100	17.4	100		08/02/22 12:12	75-01-4	
cis-1,2-Dichloroethene	4970	ug/L	100	47.2	100		08/02/22 12:12	156-59-2	
trans-1,2-Dichloroethene	<52.8	ug/L	100	52.8	100		08/02/22 12:12	156-60-5	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	107	%	70-130		100		08/02/22 12:12	460-00-4	
1,2-Dichlorobenzene-d4 (S)	103	%	70-130		100		08/02/22 12:12	2199-69-1	
Toluene-d8 (S)	104	%	70-130		100		08/02/22 12:12	2037-26-5	
<b>5310C TOC</b>	Analytical Method: SM 5310C Pace Analytical Services - Green Bay								
Total Organic Carbon	2.3	mg/L	0.50	0.14	1		08/08/22 08:10	7440-44-0	

Sample: PZ-1	Lab ID: 40248989002	Collected: 07/28/22 15:25	Received: 07/29/22 10:15	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>Methane, Ethane, Ethene GCV</b>	Analytical Method: EPA 8015B Modified Pace Analytical Services - Green Bay								
Ethane	<0.39	ug/L	5.6	0.39	1		08/05/22 13:58	74-84-0	
Ethene	79.1	ug/L	5.0	0.25	1		08/01/22 12:38	74-85-1	
Methane	31.7	ug/L	2.8	0.58	1		08/01/22 12:38	74-82-8	
<b>8260 MSV</b>	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
1,1,1-Trichloroethane	<3.0	ug/L	10.0	3.0	10		08/02/22 12:54	71-55-6	
1,1-Dichloroethane	<3.0	ug/L	10.0	3.0	10		08/02/22 12:54	75-34-3	
1,1-Dichloroethene	<5.8	ug/L	10.0	5.8	10		08/02/22 12:54	75-35-4	
Chloroethane	<13.8	ug/L	50.0	13.8	10		08/02/22 12:54	75-00-3	
Tetrachloroethene	135	ug/L	10.0	4.1	10		08/02/22 12:54	127-18-4	
Trichloroethene	50.6	ug/L	10.0	3.2	10		08/02/22 12:54	79-01-6	
Vinyl chloride	108	ug/L	10.0	1.7	10		08/02/22 12:54	75-01-4	

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## ANALYTICAL RESULTS

Project: CHW82710 MDCC

Pace Project No.: 40248989

Sample: PZ-1	Lab ID: 40248989002	Collected: 07/28/22 15:25	Received: 07/29/22 10:15	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
cis-1,2-Dichloroethene	944	ug/L	10.0	4.7	10		08/02/22 12:54	156-59-2	
trans-1,2-Dichloroethene	<5.3	ug/L	10.0	5.3	10		08/02/22 12:54	156-60-5	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	110	%	70-130		10		08/02/22 12:54	460-00-4	
1,2-Dichlorobenzene-d4 (S)	108	%	70-130		10		08/02/22 12:54	2199-69-1	
Toluene-d8 (S)	100	%	70-130		10		08/02/22 12:54	2037-26-5	
<b>5310C TOC</b>	Analytical Method: SM 5310C Pace Analytical Services - Green Bay								
Total Organic Carbon	2.5	mg/L	0.50	0.14	1		08/08/22 08:27	7440-44-0	
Sample: PZ-1 DUP	Lab ID: 40248989003	Collected: 07/28/22 15:25	Received: 07/29/22 10:15	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>Methane, Ethane, Ethene GCV</b>	Analytical Method: EPA 8015B Modified Pace Analytical Services - Green Bay								
Ethane	<0.39	ug/L	5.6	0.39	1		08/05/22 14:04	74-84-0	
Ethene	86.4	ug/L	5.0	0.25	1		08/01/22 12:45	74-85-1	
Methane	34.7	ug/L	2.8	0.58	1		08/01/22 12:45	74-82-8	
<b>8260 MSV</b>	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
1,1,1-Trichloroethane	<3.0	ug/L	10.0	3.0	10		08/02/22 13:15	71-55-6	
1,1-Dichloroethane	<3.0	ug/L	10.0	3.0	10		08/02/22 13:15	75-34-3	
1,1-Dichloroethene	<5.8	ug/L	10.0	5.8	10		08/02/22 13:15	75-35-4	
Chloroethane	<13.8	ug/L	50.0	13.8	10		08/02/22 13:15	75-00-3	
Tetrachloroethene	132	ug/L	10.0	4.1	10		08/02/22 13:15	127-18-4	
Trichloroethene	53.5	ug/L	10.0	3.2	10		08/02/22 13:15	79-01-6	
Vinyl chloride	106	ug/L	10.0	1.7	10		08/02/22 13:15	75-01-4	
cis-1,2-Dichloroethene	968	ug/L	10.0	4.7	10		08/02/22 13:15	156-59-2	
trans-1,2-Dichloroethene	26.8	ug/L	10.0	5.3	10		08/02/22 13:15	156-60-5	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	108	%	70-130		10		08/02/22 13:15	460-00-4	
1,2-Dichlorobenzene-d4 (S)	107	%	70-130		10		08/02/22 13:15	2199-69-1	
Toluene-d8 (S)	100	%	70-130		10		08/02/22 13:15	2037-26-5	
<b>5310C TOC</b>	Analytical Method: SM 5310C Pace Analytical Services - Green Bay								
Total Organic Carbon	2.7	mg/L	0.50	0.14	1		08/08/22 08:44	7440-44-0	

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## ANALYTICAL RESULTS

Project: CHW82710 MDCC

Pace Project No.: 40248989

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**Sample: PZ-1A**      **Lab ID: 40248989004**      Collected: 07/27/22 14:45      Received: 07/29/22 10:15      Matrix: Water

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Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>Methane, Ethane, Ethene GCV</b>	Analytical Method: EPA 8015B Modified Pace Analytical Services - Green Bay								
Ethane	<0.39	ug/L	5.6	0.39	1		08/01/22 12:52	74-84-0	
Ethene	<0.25	ug/L	5.0	0.25	1		08/05/22 14:11	74-85-1	
Methane	10.1	ug/L	2.8	0.58	1		08/01/22 12:52	74-82-8	
<b>8260 MSV</b>	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
1,1,1-Trichloroethane	<0.30	ug/L	1.0	0.30	1		08/02/22 16:42	71-55-6	
1,1-Dichloroethane	<0.30	ug/L	1.0	0.30	1		08/02/22 16:42	75-34-3	
1,1-Dichloroethene	<0.58	ug/L	1.0	0.58	1		08/02/22 16:42	75-35-4	
Chloroethane	<1.4	ug/L	5.0	1.4	1		08/02/22 16:42	75-00-3	
Tetrachloroethene	<0.41	ug/L	1.0	0.41	1		08/02/22 16:42	127-18-4	
Trichloroethene	<0.32	ug/L	1.0	0.32	1		08/02/22 16:42	79-01-6	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		08/02/22 16:42	75-01-4	
cis-1,2-Dichloroethene	<0.47	ug/L	1.0	0.47	1		08/02/22 16:42	156-59-2	
trans-1,2-Dichloroethene	<0.53	ug/L	1.0	0.53	1		08/02/22 16:42	156-60-5	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	103	%	70-130		1		08/02/22 16:42	460-00-4	
1,2-Dichlorobenzene-d4 (S)	109	%	70-130		1		08/02/22 16:42	2199-69-1	
Toluene-d8 (S)	98	%	70-130		1		08/02/22 16:42	2037-26-5	
<b>5310C TOC</b>	Analytical Method: SM 5310C Pace Analytical Services - Green Bay								
Total Organic Carbon	0.75	mg/L	0.50	0.14	1		08/08/22 09:00	7440-44-0	

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**Sample: MW-2**      **Lab ID: 40248989005**      Collected: 07/28/22 12:30      Received: 07/29/22 10:15      Matrix: Water

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Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>Methane, Ethane, Ethene GCV</b>	Analytical Method: EPA 8015B Modified Pace Analytical Services - Green Bay								
Ethane	1.4J	ug/L	5.6	0.39	1		08/01/22 12:59	74-84-0	
Ethene	0.87J	ug/L	5.0	0.25	1		08/01/22 12:59	74-85-1	
Methane	883	ug/L	28.0	5.8	10		08/01/22 16:06	74-82-8	
<b>8260 MSV</b>	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
1,1,1-Trichloroethane	<0.30	ug/L	1.0	0.30	1		08/02/22 17:03	71-55-6	
1,1-Dichloroethane	<0.30	ug/L	1.0	0.30	1		08/02/22 17:03	75-34-3	
1,1-Dichloroethene	<0.58	ug/L	1.0	0.58	1		08/02/22 17:03	75-35-4	
Chloroethane	<1.4	ug/L	5.0	1.4	1		08/02/22 17:03	75-00-3	
Tetrachloroethene	<0.41	ug/L	1.0	0.41	1		08/02/22 17:03	127-18-4	
Trichloroethene	0.66J	ug/L	1.0	0.32	1		08/02/22 17:03	79-01-6	
Vinyl chloride	4.8	ug/L	1.0	0.17	1		08/02/22 17:03	75-01-4	

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## ANALYTICAL RESULTS

Project: CHW82710 MDCC

Pace Project No.: 40248989

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**Sample: MW-2**      **Lab ID: 40248989005**      Collected: 07/28/22 12:30      Received: 07/29/22 10:15      Matrix: Water

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Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
cis-1,2-Dichloroethene	<b>26.4</b>	ug/L	1.0	0.47	1		08/02/22 17:03	156-59-2	
trans-1,2-Dichloroethene	<b>&lt;0.53</b>	ug/L	1.0	0.53	1		08/02/22 17:03	156-60-5	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	106	%	70-130		1		08/02/22 17:03	460-00-4	
1,2-Dichlorobenzene-d4 (S)	106	%	70-130		1		08/02/22 17:03	2199-69-1	
Toluene-d8 (S)	100	%	70-130		1		08/02/22 17:03	2037-26-5	
<b>5310C TOC</b>	Analytical Method: SM 5310C Pace Analytical Services - Green Bay								
Total Organic Carbon	<b>3.5</b>	mg/L	0.50	0.14	1		08/08/22 09:15	7440-44-0	

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**Sample: PZ-2**      **Lab ID: 40248989006**      Collected: 07/27/22 16:30      Received: 07/29/22 10:15      Matrix: Water

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Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>Methane, Ethane, Ethene GCV</b>	Analytical Method: EPA 8015B Modified Pace Analytical Services - Green Bay								
Ethane	<b>0.67J</b>	ug/L	5.6	0.39	1		08/02/22 10:31	74-84-0	
Ethene	<b>&lt;0.25</b>	ug/L	5.0	0.25	1		08/02/22 10:31	74-85-1	
Methane	<b>44.3</b>	ug/L	2.8	0.58	1		08/02/22 10:31	74-82-8	
<b>8260 MSV</b>	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
1,1,1-Trichloroethane	<b>&lt;0.30</b>	ug/L	1.0	0.30	1		08/02/22 16:21	71-55-6	
1,1-Dichloroethane	<b>&lt;0.30</b>	ug/L	1.0	0.30	1		08/02/22 16:21	75-34-3	
1,1-Dichloroethene	<b>&lt;0.58</b>	ug/L	1.0	0.58	1		08/02/22 16:21	75-35-4	
Chloroethane	<b>&lt;1.4</b>	ug/L	5.0	1.4	1		08/02/22 16:21	75-00-3	
Tetrachloroethene	<b>&lt;0.41</b>	ug/L	1.0	0.41	1		08/02/22 16:21	127-18-4	
Trichloroethene	<b>&lt;0.32</b>	ug/L	1.0	0.32	1		08/02/22 16:21	79-01-6	
Vinyl chloride	<b>&lt;0.17</b>	ug/L	1.0	0.17	1		08/02/22 16:21	75-01-4	
cis-1,2-Dichloroethene	<b>&lt;0.47</b>	ug/L	1.0	0.47	1		08/02/22 16:21	156-59-2	
trans-1,2-Dichloroethene	<b>&lt;0.53</b>	ug/L	1.0	0.53	1		08/02/22 16:21	156-60-5	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	105	%	70-130		1		08/02/22 16:21	460-00-4	
1,2-Dichlorobenzene-d4 (S)	106	%	70-130		1		08/02/22 16:21	2199-69-1	
Toluene-d8 (S)	98	%	70-130		1		08/02/22 16:21	2037-26-5	
<b>5310C TOC</b>	Analytical Method: SM 5310C Pace Analytical Services - Green Bay								
Total Organic Carbon	<b>1.7</b>	mg/L	0.50	0.14	1		08/08/22 11:29	7440-44-0	

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## ANALYTICAL RESULTS

Project: CHW82710 MDCC

Pace Project No.: 40248989

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**Sample: MW-4**      Lab ID: **40248989007**      Collected: 07/28/22 11:20      Received: 07/29/22 10:15      Matrix: Water

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Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>Methane, Ethane, Ethene GCV</b>	Analytical Method: EPA 8015B Modified Pace Analytical Services - Green Bay								
Ethane	<0.39	ug/L	5.6	0.39	1		08/02/22 10:38	74-84-0	
Ethene	<0.25	ug/L	5.0	0.25	1		08/02/22 10:38	74-85-1	
Methane	147	ug/L	2.8	0.58	1		08/02/22 10:38	74-82-8	
<b>8260 MSV</b>	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
1,1,1-Trichloroethane	5.6	ug/L	1.0	0.30	1		08/02/22 17:23	71-55-6	
1,1-Dichloroethane	12.6	ug/L	1.0	0.30	1		08/02/22 17:23	75-34-3	
1,1-Dichloroethene	<0.58	ug/L	1.0	0.58	1		08/02/22 17:23	75-35-4	
Chloroethane	<1.4	ug/L	5.0	1.4	1		08/02/22 17:23	75-00-3	
Tetrachloroethene	<0.41	ug/L	1.0	0.41	1		08/02/22 17:23	127-18-4	
Trichloroethene	4.9	ug/L	1.0	0.32	1		08/02/22 17:23	79-01-6	
Vinyl chloride	16.1	ug/L	1.0	0.17	1		08/02/22 17:23	75-01-4	
cis-1,2-Dichloroethene	19.7	ug/L	1.0	0.47	1		08/02/22 17:23	156-59-2	
trans-1,2-Dichloroethene	1.1	ug/L	1.0	0.53	1		08/02/22 17:23	156-60-5	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	106	%	70-130		1		08/02/22 17:23	460-00-4	
1,2-Dichlorobenzene-d4 (S)	108	%	70-130		1		08/02/22 17:23	2199-69-1	
Toluene-d8 (S)	98	%	70-130		1		08/02/22 17:23	2037-26-5	
<b>5310C TOC</b>	Analytical Method: SM 5310C Pace Analytical Services - Green Bay								
Total Organic Carbon	6.4	mg/L	0.50	0.14	1		08/08/22 12:19	7440-44-0	

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**Sample: MW-5**      Lab ID: **40248989008**      Collected: 07/27/22 16:10      Received: 07/29/22 10:15      Matrix: Water

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Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>Methane, Ethane, Ethene GCV</b>	Analytical Method: EPA 8015B Modified Pace Analytical Services - Green Bay								
Ethane	<0.39	ug/L	5.6	0.39	1		08/02/22 10:45	74-84-0	
Ethene	<0.25	ug/L	5.0	0.25	1		08/02/22 10:45	74-85-1	
Methane	<0.58	ug/L	2.8	0.58	1		08/02/22 10:45	74-82-8	
<b>8260 MSV</b>	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
1,1,1-Trichloroethane	<0.30	ug/L	1.0	0.30	1		08/02/22 17:44	71-55-6	
1,1-Dichloroethane	<0.30	ug/L	1.0	0.30	1		08/02/22 17:44	75-34-3	
1,1-Dichloroethene	<0.58	ug/L	1.0	0.58	1		08/02/22 17:44	75-35-4	
Chloroethane	<1.4	ug/L	5.0	1.4	1		08/02/22 17:44	75-00-3	
Tetrachloroethene	<0.41	ug/L	1.0	0.41	1		08/02/22 17:44	127-18-4	
Trichloroethene	0.48J	ug/L	1.0	0.32	1		08/02/22 17:44	79-01-6	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		08/02/22 17:44	75-01-4	

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## ANALYTICAL RESULTS

Project: CHW82710 MDCC

Pace Project No.: 40248989

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**Sample: MW-5**      **Lab ID: 40248989008**      Collected: 07/27/22 16:10      Received: 07/29/22 10:15      Matrix: Water

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Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
cis-1,2-Dichloroethene	<b>2.8</b>	ug/L	1.0	0.47	1		08/02/22 17:44	156-59-2	
trans-1,2-Dichloroethene	<b>&lt;0.53</b>	ug/L	1.0	0.53	1		08/02/22 17:44	156-60-5	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	103	%	70-130		1		08/02/22 17:44	460-00-4	
1,2-Dichlorobenzene-d4 (S)	108	%	70-130		1		08/02/22 17:44	2199-69-1	
Toluene-d8 (S)	100	%	70-130		1		08/02/22 17:44	2037-26-5	
<b>5310C TOC</b>	Analytical Method: SM 5310C Pace Analytical Services - Green Bay								
Total Organic Carbon	<b>1.8</b>	mg/L	0.50	0.14	1		08/08/22 12:35	7440-44-0	

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**Sample: MW-6**      **Lab ID: 40248989009**      Collected: 07/28/22 11:05      Received: 07/29/22 10:15      Matrix: Water

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Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>Methane, Ethane, Ethene GCV</b>	Analytical Method: EPA 8015B Modified Pace Analytical Services - Green Bay								
Ethane	<b>&lt;0.39</b>	ug/L	5.6	0.39	1		08/02/22 10:51	74-84-0	
Ethene	<b>&lt;0.25</b>	ug/L	5.0	0.25	1		08/02/22 10:51	74-85-1	
Methane	<b>275</b>	ug/L	5.6	1.2	2		08/02/22 12:06	74-82-8	
<b>8260 MSV</b>	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
1,1,1-Trichloroethane	<b>11.5</b>	ug/L	1.0	0.30	1		08/02/22 18:05	71-55-6	
1,1-Dichloroethane	<b>17.9</b>	ug/L	1.0	0.30	1		08/02/22 18:05	75-34-3	
1,1-Dichloroethene	<b>&lt;0.58</b>	ug/L	1.0	0.58	1		08/02/22 18:05	75-35-4	
Chloroethane	<b>&lt;1.4</b>	ug/L	5.0	1.4	1		08/02/22 18:05	75-00-3	
Tetrachloroethene	<b>0.60J</b>	ug/L	1.0	0.41	1		08/02/22 18:05	127-18-4	
Trichloroethene	<b>15.8</b>	ug/L	1.0	0.32	1		08/02/22 18:05	79-01-6	
Vinyl chloride	<b>2.9</b>	ug/L	1.0	0.17	1		08/02/22 18:05	75-01-4	
cis-1,2-Dichloroethene	<b>83.9</b>	ug/L	1.0	0.47	1		08/02/22 18:05	156-59-2	
trans-1,2-Dichloroethene	<b>4.3</b>	ug/L	1.0	0.53	1		08/02/22 18:05	156-60-5	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	102	%	70-130		1		08/02/22 18:05	460-00-4	
1,2-Dichlorobenzene-d4 (S)	109	%	70-130		1		08/02/22 18:05	2199-69-1	
Toluene-d8 (S)	102	%	70-130		1		08/02/22 18:05	2037-26-5	
<b>5310C TOC</b>	Analytical Method: SM 5310C Pace Analytical Services - Green Bay								
Total Organic Carbon	<b>3.1</b>	mg/L	0.50	0.14	1		08/08/22 12:49	7440-44-0	

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## ANALYTICAL RESULTS

Project: CHW82710 MDCC

Pace Project No.: 40248989

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**Sample: MW-6 DUP**      Lab ID: **40248989010**      Collected: 07/28/22 11:05      Received: 07/29/22 10:15      Matrix: Water

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Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>Methane, Ethane, Ethene GCV</b>	Analytical Method: EPA 8015B Modified Pace Analytical Services - Green Bay								
Ethane	<0.39	ug/L	5.6	0.39	1		08/02/22 10:58	74-84-0	
Ethene	<0.25	ug/L	5.0	0.25	1		08/02/22 10:58	74-85-1	
Methane	295	ug/L	5.6	1.2	2		08/02/22 12:13	74-82-8	
<b>8260 MSV</b>	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
1,1,1-Trichloroethane	14.2	ug/L	1.0	0.30	1		08/02/22 18:26	71-55-6	
1,1-Dichloroethane	19.6	ug/L	1.0	0.30	1		08/02/22 18:26	75-34-3	
1,1-Dichloroethene	<0.58	ug/L	1.0	0.58	1		08/02/22 18:26	75-35-4	
Chloroethane	<1.4	ug/L	5.0	1.4	1		08/02/22 18:26	75-00-3	
Tetrachloroethene	0.48J	ug/L	1.0	0.41	1		08/02/22 18:26	127-18-4	
Trichloroethene	18.1	ug/L	1.0	0.32	1		08/02/22 18:26	79-01-6	
Vinyl chloride	3.3	ug/L	1.0	0.17	1		08/02/22 18:26	75-01-4	
cis-1,2-Dichloroethene	96.7	ug/L	1.0	0.47	1		08/02/22 18:26	156-59-2	
trans-1,2-Dichloroethene	4.5	ug/L	1.0	0.53	1		08/02/22 18:26	156-60-5	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	102	%	70-130		1		08/02/22 18:26	460-00-4	
1,2-Dichlorobenzene-d4 (S)	108	%	70-130		1		08/02/22 18:26	2199-69-1	
Toluene-d8 (S)	99	%	70-130		1		08/02/22 18:26	2037-26-5	
<b>5310C TOC</b>	Analytical Method: SM 5310C Pace Analytical Services - Green Bay								
Total Organic Carbon	3.1	mg/L	0.50	0.14	1		08/08/22 13:04	7440-44-0	

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**Sample: PZ-6**      Lab ID: **40248989011**      Collected: 07/27/22 15:55      Received: 07/29/22 10:15      Matrix: Water

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Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>Methane, Ethane, Ethene GCV</b>	Analytical Method: EPA 8015B Modified Pace Analytical Services - Green Bay								
Ethane	<0.39	ug/L	5.6	0.39	1		08/02/22 11:05	74-84-0	
Ethene	<0.25	ug/L	5.0	0.25	1		08/02/22 11:05	74-85-1	
Methane	2.9	ug/L	2.8	0.58	1		08/02/22 11:05	74-82-8	
<b>8260 MSV</b>	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
1,1,1-Trichloroethane	<0.30	ug/L	1.0	0.30	1		08/02/22 18:46	71-55-6	
1,1-Dichloroethane	<0.30	ug/L	1.0	0.30	1		08/02/22 18:46	75-34-3	
1,1-Dichloroethene	<0.58	ug/L	1.0	0.58	1		08/02/22 18:46	75-35-4	
Chloroethane	<1.4	ug/L	5.0	1.4	1		08/02/22 18:46	75-00-3	
Tetrachloroethene	<0.41	ug/L	1.0	0.41	1		08/02/22 18:46	127-18-4	
Trichloroethene	<0.32	ug/L	1.0	0.32	1		08/02/22 18:46	79-01-6	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		08/02/22 18:46	75-01-4	

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## ANALYTICAL RESULTS

Project: CHW82710 MDCC  
Pace Project No.: 40248989

Sample: PZ-6	Lab ID: 40248989011	Collected: 07/27/22 15:55	Received: 07/29/22 10:15	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
cis-1,2-Dichloroethene	<0.47	ug/L	1.0	0.47	1		08/02/22 18:46	156-59-2	
trans-1,2-Dichloroethene	<0.53	ug/L	1.0	0.53	1		08/02/22 18:46	156-60-5	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	104	%	70-130		1		08/02/22 18:46	460-00-4	
1,2-Dichlorobenzene-d4 (S)	110	%	70-130		1		08/02/22 18:46	2199-69-1	
Toluene-d8 (S)	99	%	70-130		1		08/02/22 18:46	2037-26-5	
<b>5310C TOC</b>	Analytical Method: SM 5310C Pace Analytical Services - Green Bay								
Total Organic Carbon	1.1	mg/L	0.50	0.14	1		08/08/22 13:18	7440-44-0	
Sample: MW-7	Lab ID: 40248989012	Collected: 07/28/22 13:25	Received: 07/29/22 10:15	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>Methane, Ethane, Ethene GCV</b>	Analytical Method: EPA 8015B Modified Pace Analytical Services - Green Bay								
Ethane	<0.39	ug/L	5.6	0.39	1		08/02/22 11:12	74-84-0	
Ethene	<0.25	ug/L	5.0	0.25	1		08/02/22 11:12	74-85-1	
Methane	88.2	ug/L	2.8	0.58	1		08/02/22 11:12	74-82-8	
<b>8260 MSV</b>	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
1,1,1-Trichloroethane	2.7	ug/L	2.5	0.76	2.5		08/02/22 13:35	71-55-6	
1,1-Dichloroethane	3.5	ug/L	2.5	0.74	2.5		08/02/22 13:35	75-34-3	
1,1-Dichloroethene	<1.5	ug/L	2.5	1.5	2.5		08/02/22 13:35	75-35-4	
Chloroethane	<3.4	ug/L	12.5	3.4	2.5		08/02/22 13:35	75-00-3	
Tetrachloroethene	4.6	ug/L	2.5	1.0	2.5		08/02/22 13:35	127-18-4	
Trichloroethene	12.8	ug/L	2.5	0.80	2.5		08/02/22 13:35	79-01-6	
Vinyl chloride	3.3	ug/L	2.5	0.44	2.5		08/02/22 13:35	75-01-4	
cis-1,2-Dichloroethene	342	ug/L	2.5	1.2	2.5		08/02/22 13:35	156-59-2	
trans-1,2-Dichloroethene	18.2	ug/L	2.5	1.3	2.5		08/02/22 13:35	156-60-5	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	106	%	70-130		2.5		08/02/22 13:35	460-00-4	
1,2-Dichlorobenzene-d4 (S)	105	%	70-130		2.5		08/02/22 13:35	2199-69-1	
Toluene-d8 (S)	101	%	70-130		2.5		08/02/22 13:35	2037-26-5	
<b>5310C TOC</b>	Analytical Method: SM 5310C Pace Analytical Services - Green Bay								
Total Organic Carbon	1.9	mg/L	0.50	0.14	1		08/08/22 13:33	7440-44-0	

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## ANALYTICAL RESULTS

Project: CHW82710 MDCC

Pace Project No.: 40248989

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**Sample: MW-8**      Lab ID: **40248989013**      Collected: 07/27/22 12:55      Received: 07/29/22 10:15      Matrix: Water

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Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>Methane, Ethane, Ethene GCV</b>	Analytical Method: EPA 8015B Modified Pace Analytical Services - Green Bay								
Ethane	<0.39	ug/L	5.6	0.39	1		08/02/22 11:19	74-84-0	
Ethene	<0.25	ug/L	5.0	0.25	1		08/02/22 11:19	74-85-1	
Methane	<0.58	ug/L	2.8	0.58	1		08/02/22 11:19	74-82-8	
<b>8260 MSV</b>	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
1,1,1-Trichloroethane	<0.30	ug/L	1.0	0.30	1		08/02/22 19:07	71-55-6	
1,1-Dichloroethane	<0.30	ug/L	1.0	0.30	1		08/02/22 19:07	75-34-3	
1,1-Dichloroethene	<0.58	ug/L	1.0	0.58	1		08/02/22 19:07	75-35-4	
Chloroethane	<1.4	ug/L	5.0	1.4	1		08/02/22 19:07	75-00-3	
Tetrachloroethene	<0.41	ug/L	1.0	0.41	1		08/02/22 19:07	127-18-4	
Trichloroethene	<0.32	ug/L	1.0	0.32	1		08/02/22 19:07	79-01-6	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		08/02/22 19:07	75-01-4	
cis-1,2-Dichloroethene	<0.47	ug/L	1.0	0.47	1		08/02/22 19:07	156-59-2	
trans-1,2-Dichloroethene	<0.53	ug/L	1.0	0.53	1		08/02/22 19:07	156-60-5	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	103	%	70-130		1		08/02/22 19:07	460-00-4	
1,2-Dichlorobenzene-d4 (S)	113	%	70-130		1		08/02/22 19:07	2199-69-1	
Toluene-d8 (S)	99	%	70-130		1		08/02/22 19:07	2037-26-5	
<b>5310C TOC</b>	Analytical Method: SM 5310C Pace Analytical Services - Green Bay								
Total Organic Carbon	2.5	mg/L	0.50	0.14	1		08/08/22 13:49	7440-44-0	

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**Sample: MW-9**      Lab ID: **40248989014**      Collected: 07/28/22 09:35      Received: 07/29/22 10:15      Matrix: Water

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Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>Methane, Ethane, Ethene GCV</b>	Analytical Method: EPA 8015B Modified Pace Analytical Services - Green Bay								
Ethane	<0.39	ug/L	5.6	0.39	1		08/02/22 11:26	74-84-0	
Ethene	<0.25	ug/L	5.0	0.25	1		08/02/22 11:26	74-85-1	
Methane	1.4J	ug/L	2.8	0.58	1		08/02/22 11:26	74-82-8	
<b>8260 MSV</b>	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
1,1,1-Trichloroethane	<0.30	ug/L	1.0	0.30	1		08/04/22 20:43	71-55-6	
1,1-Dichloroethane	<0.30	ug/L	1.0	0.30	1		08/04/22 20:43	75-34-3	
1,1-Dichloroethene	<0.58	ug/L	1.0	0.58	1		08/04/22 20:43	75-35-4	
Chloroethane	<1.4	ug/L	5.0	1.4	1		08/04/22 20:43	75-00-3	
Tetrachloroethene	<0.41	ug/L	1.0	0.41	1		08/04/22 20:43	127-18-4	
Trichloroethene	<0.32	ug/L	1.0	0.32	1		08/04/22 20:43	79-01-6	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		08/04/22 20:43	75-01-4	

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## ANALYTICAL RESULTS

Project: CHW82710 MDCC

Pace Project No.: 40248989

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**Sample: MW-9**      Lab ID: **40248989014**      Collected: 07/28/22 09:35      Received: 07/29/22 10:15      Matrix: Water

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Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
cis-1,2-Dichloroethene	<0.47	ug/L	1.0	0.47	1		08/04/22 20:43	156-59-2	
trans-1,2-Dichloroethene	<0.53	ug/L	1.0	0.53	1		08/04/22 20:43	156-60-5	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	100	%	70-130		1		08/04/22 20:43	460-00-4	
1,2-Dichlorobenzene-d4 (S)	98	%	70-130		1		08/04/22 20:43	2199-69-1	
Toluene-d8 (S)	102	%	70-130		1		08/04/22 20:43	2037-26-5	
<b>5310C TOC</b>	Analytical Method: SM 5310C Pace Analytical Services - Green Bay								
Total Organic Carbon	3.3	mg/L	0.50	0.14	1		08/12/22 05:42	7440-44-0	

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**Sample: PZ-10**      Lab ID: **40248989015**      Collected: 07/27/22 14:00      Received: 07/29/22 10:15      Matrix: Water

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Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>Methane, Ethane, Ethene GCV</b>	Analytical Method: EPA 8015B Modified Pace Analytical Services - Green Bay								
Ethane	<0.39	ug/L	5.6	0.39	1		08/02/22 11:33	74-84-0	
Ethene	<0.25	ug/L	5.0	0.25	1		08/02/22 11:33	74-85-1	
Methane	<0.58	ug/L	2.8	0.58	1		08/02/22 11:33	74-82-8	
<b>8260 MSV</b>	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
1,1,1-Trichloroethane	<0.30	ug/L	1.0	0.30	1		08/04/22 21:00	71-55-6	
1,1-Dichloroethane	<0.30	ug/L	1.0	0.30	1		08/04/22 21:00	75-34-3	
1,1-Dichloroethene	<0.58	ug/L	1.0	0.58	1		08/04/22 21:00	75-35-4	
Chloroethane	<1.4	ug/L	5.0	1.4	1		08/04/22 21:00	75-00-3	
Tetrachloroethene	<0.41	ug/L	1.0	0.41	1		08/04/22 21:00	127-18-4	
Trichloroethene	<0.32	ug/L	1.0	0.32	1		08/04/22 21:00	79-01-6	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		08/04/22 21:00	75-01-4	
cis-1,2-Dichloroethene	<0.47	ug/L	1.0	0.47	1		08/04/22 21:00	156-59-2	
trans-1,2-Dichloroethene	<0.53	ug/L	1.0	0.53	1		08/04/22 21:00	156-60-5	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	101	%	70-130		1		08/04/22 21:00	460-00-4	
1,2-Dichlorobenzene-d4 (S)	100	%	70-130		1		08/04/22 21:00	2199-69-1	
Toluene-d8 (S)	102	%	70-130		1		08/04/22 21:00	2037-26-5	
<b>5310C TOC</b>	Analytical Method: SM 5310C Pace Analytical Services - Green Bay								
Total Organic Carbon	0.89	mg/L	0.50	0.14	1		08/12/22 06:30	7440-44-0	

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## ANALYTICAL RESULTS

Project: CHW82710 MDCC

Pace Project No.: 40248989

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**Sample: MW-13**      Lab ID: **40248989016**      Collected: 07/27/22 11:45      Received: 07/29/22 10:15      Matrix: Water

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Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>Methane, Ethane, Ethene GCV</b>	Analytical Method: EPA 8015B Modified Pace Analytical Services - Green Bay								
Ethane	<0.39	ug/L	5.6	0.39	1		08/02/22 11:53	74-84-0	
Ethene	<0.25	ug/L	5.0	0.25	1		08/02/22 11:53	74-85-1	
Methane	16.4	ug/L	2.8	0.58	1		08/02/22 11:53	74-82-8	
<b>8260 MSV</b>	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
1,1,1-Trichloroethane	<0.30	ug/L	1.0	0.30	1		08/04/22 21:17	71-55-6	
1,1-Dichloroethane	<0.30	ug/L	1.0	0.30	1		08/04/22 21:17	75-34-3	
1,1-Dichloroethene	<0.58	ug/L	1.0	0.58	1		08/04/22 21:17	75-35-4	
Chloroethane	<1.4	ug/L	5.0	1.4	1		08/04/22 21:17	75-00-3	
Tetrachloroethene	<0.41	ug/L	1.0	0.41	1		08/04/22 21:17	127-18-4	
Trichloroethene	<0.32	ug/L	1.0	0.32	1		08/04/22 21:17	79-01-6	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		08/04/22 21:17	75-01-4	
cis-1,2-Dichloroethene	<0.47	ug/L	1.0	0.47	1		08/04/22 21:17	156-59-2	
trans-1,2-Dichloroethene	<0.53	ug/L	1.0	0.53	1		08/04/22 21:17	156-60-5	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	101	%	70-130		1		08/04/22 21:17	460-00-4	
1,2-Dichlorobenzene-d4 (S)	97	%	70-130		1		08/04/22 21:17	2199-69-1	
Toluene-d8 (S)	102	%	70-130		1		08/04/22 21:17	2037-26-5	
<b>5310C TOC</b>	Analytical Method: SM 5310C Pace Analytical Services - Green Bay								
Total Organic Carbon	1.5	mg/L	0.50	0.14	1		08/12/22 06:46	7440-44-0	

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**Sample: MW-14**      Lab ID: **40248989017**      Collected: 07/28/22 10:00      Received: 07/29/22 10:15      Matrix: Water

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Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>Methane, Ethane, Ethene GCV</b>	Analytical Method: EPA 8015B Modified Pace Analytical Services - Green Bay								
Ethane	<0.39	ug/L	5.6	0.39	1		08/02/22 11:59	74-84-0	
Ethene	<0.25	ug/L	5.0	0.25	1		08/02/22 11:59	74-85-1	
Methane	2.0J	ug/L	2.8	0.58	1		08/02/22 11:59	74-82-8	
<b>8260 MSV</b>	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
1,1,1-Trichloroethane	<0.30	ug/L	1.0	0.30	1		08/04/22 21:34	71-55-6	
1,1-Dichloroethane	<0.30	ug/L	1.0	0.30	1		08/04/22 21:34	75-34-3	
1,1-Dichloroethene	<0.58	ug/L	1.0	0.58	1		08/04/22 21:34	75-35-4	
Chloroethane	<1.4	ug/L	5.0	1.4	1		08/04/22 21:34	75-00-3	
Tetrachloroethene	<0.41	ug/L	1.0	0.41	1		08/04/22 21:34	127-18-4	
Trichloroethene	0.40J	ug/L	1.0	0.32	1		08/04/22 21:34	79-01-6	
Vinyl chloride	2.7	ug/L	1.0	0.17	1		08/04/22 21:34	75-01-4	

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## ANALYTICAL RESULTS

Project: CHW82710 MDCC

Pace Project No.: 40248989

Sample: MW-14	Lab ID: 40248989017	Collected: 07/28/22 10:00	Received: 07/29/22 10:15	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
cis-1,2-Dichloroethene	39.2	ug/L	1.0	0.47	1		08/04/22 21:34	156-59-2	
trans-1,2-Dichloroethene	3.5	ug/L	1.0	0.53	1		08/04/22 21:34	156-60-5	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	99	%	70-130		1		08/04/22 21:34	460-00-4	
1,2-Dichlorobenzene-d4 (S)	96	%	70-130		1		08/04/22 21:34	2199-69-1	
Toluene-d8 (S)	101	%	70-130		1		08/04/22 21:34	2037-26-5	
<b>5310C TOC</b>	Analytical Method: SM 5310C Pace Analytical Services - Green Bay								
Total Organic Carbon	1.7	mg/L	0.50	0.14	1		08/12/22 07:01	7440-44-0	

Sample: TB07282022	Lab ID: 40248989018	Collected: 07/28/22 16:00	Received: 07/29/22 10:15	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
1,1,1-Trichloroethane	<0.30	ug/L	1.0	0.30	1		08/05/22 01:13	71-55-6	
1,1-Dichloroethane	<0.30	ug/L	1.0	0.30	1		08/05/22 01:13	75-34-3	
1,1-Dichloroethene	<0.58	ug/L	1.0	0.58	1		08/05/22 01:13	75-35-4	
Chloroethane	<1.4	ug/L	5.0	1.4	1		08/05/22 01:13	75-00-3	
Tetrachloroethene	<0.41	ug/L	1.0	0.41	1		08/05/22 01:13	127-18-4	
Trichloroethene	<0.32	ug/L	1.0	0.32	1		08/05/22 01:13	79-01-6	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		08/05/22 01:13	75-01-4	
cis-1,2-Dichloroethene	<0.47	ug/L	1.0	0.47	1		08/05/22 01:13	156-59-2	
trans-1,2-Dichloroethene	<0.53	ug/L	1.0	0.53	1		08/05/22 01:13	156-60-5	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	90	%	70-130		1		08/05/22 01:13	460-00-4	
1,2-Dichlorobenzene-d4 (S)	107	%	70-130		1		08/05/22 01:13	2199-69-1	
Toluene-d8 (S)	98	%	70-130		1		08/05/22 01:13	2037-26-5	

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: CHW82710 MDCC

Pace Project No.: 40248989

QC Batch: 422209 Analysis Method: EPA 8015B Modified

QC Batch Method: EPA 8015B Modified Analysis Description: Methane, Ethane, Ethene GCV

Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40248989001, 40248989002, 40248989003, 40248989004, 40248989005

METHOD BLANK: 2432372 Matrix: Water

Associated Lab Samples: 40248989001, 40248989002, 40248989003, 40248989004, 40248989005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethane	ug/L	<0.39	5.6	08/01/22 09:47	
Ethene	ug/L	<0.25	5.0	08/01/22 09:47	
Methane	ug/L	<0.58	2.8	08/01/22 09:47	

LABORATORY CONTROL SAMPLE &amp; LCSD: 2432373 2432374

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Ethane	ug/L	53.6	53.2	52.8	99	98	74-120	1	20	
Ethene	ug/L	50	49.7	49.1	99	98	71-122	1	20	
Methane	ug/L	28.6	29.2	29.0	102	101	73-120	1	20	

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 2432538 2432539

Parameter	Units	MS 40248989004 Result	MSD Spike Conc.	MS 40248989004 Result	MSD Spike Conc.	MS 40248989004 Result	MSD % Rec	MS 40248989004 Result	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Ethane	ug/L	<0.39	53.6	53.6	48.6	53.3	91	99	70-120	9	20		
Ethene	ug/L	<0.25	50	50	46.0	50.2	92	100	68-122	9	20		
Methane	ug/L	10.1	28.6	28.6	32.6	36.8	79	93	10-200	12	20		

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## QUALITY CONTROL DATA

Project: CHW82710 MDCC

Pace Project No.: 40248989

QC Batch: 422339 Analysis Method: EPA 8015B Modified

QC Batch Method: EPA 8015B Modified Analysis Description: Methane, Ethane, Ethene GCV

Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40248989006, 40248989007, 40248989008, 40248989009, 40248989010, 40248989011, 40248989012, 40248989013, 40248989014, 40248989015, 40248989016, 40248989017

METHOD BLANK: 2432731 Matrix: Water

Associated Lab Samples: 40248989006, 40248989007, 40248989008, 40248989009, 40248989010, 40248989011, 40248989012, 40248989013, 40248989014, 40248989015, 40248989016, 40248989017

Parameter	Units	Blank		Reporting		Qualifiers
		Result	Limit	Analyzed		
Ethane	ug/L	<0.39	5.6	08/02/22 09:23		
Ethene	ug/L	<0.25	5.0	08/02/22 09:23		
Methane	ug/L	<0.58	2.8	08/02/22 09:23		

LABORATORY CONTROL SAMPLE &amp; LCSD: 2432732

2432733

Parameter	Units	Spike	LCS	LCSD	LCS	LCSD	% Rec	RPD	Max RPD	Qualifiers
		Conc.	Result	Result	% Rec	% Rec	Limits			
Ethane	ug/L	53.6	54.3	56.5	101	105	74-120	4	20	
Ethene	ug/L	50	50.5	52.6	101	105	71-122	4	20	
Methane	ug/L	28.6	30.4	31.8	106	111	73-120	4	20	

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 2432734

2432735

Parameter	Units	MS		MSD		MS		MSD		% Rec		RPD	Max RPD	Qual
		40248989006	Spike	Spike	MS	MSD	MS	MSD	% Rec	% Rec	% Rec			
Ethane	ug/L	0.67J	53.6	53.6	53.5	53.2	99	98	70-120	1	20			
Ethene	ug/L	<0.25	50	50	49.8	49.6	100	99	68-122	0	20			
Methane	ug/L	44.3	28.6	28.6	88.2	89.7	154	159	10-200	2	20			

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## QUALITY CONTROL DATA

Project: CHW82710 MDCC

Pace Project No.: 40248989

QC Batch: 422225 Analysis Method: EPA 8260

QC Batch Method: EPA 8260 Analysis Description: 8260 MSV

Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40248989001, 40248989002, 40248989003, 40248989004, 40248989005, 40248989006, 40248989007,  
40248989008, 40248989009, 40248989010, 40248989011, 40248989012, 40248989013

METHOD BLANK: 2432414

Matrix: Water

Associated Lab Samples: 40248989001, 40248989002, 40248989003, 40248989004, 40248989005, 40248989006, 40248989007,  
40248989008, 40248989009, 40248989010, 40248989011, 40248989012, 40248989013

Parameter	Units	Blank	Reporting	Analyzed	Qualifiers
		Result	Limit		
1,1,1-Trichloroethane	ug/L	<0.30	1.0	08/02/22 10:08	
1,1-Dichloroethane	ug/L	<0.30	1.0	08/02/22 10:08	
1,1-Dichloroethene	ug/L	<0.58	1.0	08/02/22 10:08	
Chloroethane	ug/L	<1.4	5.0	08/02/22 10:08	
cis-1,2-Dichloroethene	ug/L	<0.47	1.0	08/02/22 10:08	
Tetrachloroethene	ug/L	<0.41	1.0	08/02/22 10:08	
trans-1,2-Dichloroethene	ug/L	<0.53	1.0	08/02/22 10:08	
Trichloroethene	ug/L	<0.32	1.0	08/02/22 10:08	
Vinyl chloride	ug/L	<0.17	1.0	08/02/22 10:08	
1,2-Dichlorobenzene-d4 (S)	%	108	70-130	08/02/22 10:08	
4-Bromofluorobenzene (S)	%	106	70-130	08/02/22 10:08	
Toluene-d8 (S)	%	100	70-130	08/02/22 10:08	

LABORATORY CONTROL SAMPLE: 2432415

Parameter	Units	Spike	LCS	LCS	% Rec	Qualifiers
		Conc.	Result	% Rec	Limits	
1,1,1-Trichloroethane	ug/L	50	51.4	103	70-134	
1,1-Dichloroethane	ug/L	50	49.2	98	70-130	
1,1-Dichloroethene	ug/L	50	50.9	102	74-131	
Chloroethane	ug/L	50	48.8	98	52-165	
cis-1,2-Dichloroethene	ug/L	50	48.9	98	70-130	
Tetrachloroethene	ug/L	50	53.2	106	70-130	
trans-1,2-Dichloroethene	ug/L	50	52.0	104	70-130	
Trichloroethene	ug/L	50	51.9	104	70-130	
Vinyl chloride	ug/L	50	48.3	97	63-134	
1,2-Dichlorobenzene-d4 (S)	%			101	70-130	
4-Bromofluorobenzene (S)	%			109	70-130	
Toluene-d8 (S)	%			102	70-130	

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 2432416 2432417

Parameter	Units	MS		MSD		MS	MSD	MS	MSD	% Rec	% Rec	RPD	Max RPD	Qual
		40248989006	Spike	Spike	Conc.	Result	Result	% Rec	% Rec	RPD	RPD	RPD	RPD	Qual
1,1,1-Trichloroethane	ug/L	<0.30	50	50	59.6	53.4	119	107	70-134	11	20			
1,1-Dichloroethane	ug/L	<0.30	50	50	57.5	51.1	115	102	70-130	12	20			
1,1-Dichloroethene	ug/L	<0.58	50	50	59.7	53.4	119	107	71-130	11	20			

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## QUALITY CONTROL DATA

Project: CHW82710 MDCC

Pace Project No.: 40248989

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MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2432416      2432417

Parameter	Units	MS		MSD		MS Result	% Rec	MSD % Rec	% Rec	Max	
		40248989006	Spike Conc.	Spike Conc.	MS Result					RPD	RPD
Chloroethane	ug/L	<1.4	50	50	56.2	50.1	112	100	52-165	11	20
cis-1,2-Dichloroethene	ug/L	<0.47	50	50	56.1	50.0	112	100	70-130	11	20
Tetrachloroethene	ug/L	<0.41	50	50	60.8	54.1	122	108	70-130	12	20
trans-1,2-Dichloroethene	ug/L	<0.53	50	50	60.3	53.1	121	106	70-130	13	20
Trichloroethene	ug/L	<0.32	50	50	61.1	52.9	122	106	70-130	14	20
Vinyl chloride	ug/L	<0.17	50	50	55.2	49.5	110	99	60-137	11	20
1,2-Dichlorobenzene-d4 (S)	%						102	100	70-130		
4-Bromofluorobenzene (S)	%						111	110	70-130		
Toluene-d8 (S)	%						103	102	70-130		

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## QUALITY CONTROL DATA

Project: CHW82710 MDCC

Pace Project No.: 40248989

QC Batch: 422279 Analysis Method: EPA 8260

QC Batch Method: EPA 8260 Analysis Description: 8260 MSV

Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40248989018

METHOD BLANK: 2432531 Matrix: Water

Associated Lab Samples: 40248989018

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	<0.30	1.0	08/04/22 17:58	
1,1-Dichloroethane	ug/L	<0.30	1.0	08/04/22 17:58	
1,1-Dichloroethene	ug/L	<0.58	1.0	08/04/22 17:58	
Chloroethane	ug/L	<1.4	5.0	08/04/22 17:58	
cis-1,2-Dichloroethene	ug/L	<0.47	1.0	08/04/22 17:58	
Tetrachloroethene	ug/L	<0.41	1.0	08/04/22 17:58	
trans-1,2-Dichloroethene	ug/L	<0.53	1.0	08/04/22 17:58	
Trichloroethene	ug/L	<0.32	1.0	08/04/22 17:58	
Vinyl chloride	ug/L	<0.17	1.0	08/04/22 17:58	
1,2-Dichlorobenzene-d4 (S)	%	109	70-130	08/04/22 17:58	
4-Bromofluorobenzene (S)	%	92	70-130	08/04/22 17:58	
Toluene-d8 (S)	%	100	70-130	08/04/22 17:58	

LABORATORY CONTROL SAMPLE: 2432532

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	49.7	99	70-134	
1,1-Dichloroethane	ug/L	50	60.1	120	70-130	
1,1-Dichloroethene	ug/L	50	54.9	110	74-131	
Chloroethane	ug/L	50	57.0	114	52-165	
cis-1,2-Dichloroethene	ug/L	50	49.6	99	70-130	
Tetrachloroethene	ug/L	50	49.3	99	70-130	
trans-1,2-Dichloroethene	ug/L	50	53.1	106	70-130	
Trichloroethene	ug/L	50	50.8	102	70-130	
Vinyl chloride	ug/L	50	55.7	111	63-134	
1,2-Dichlorobenzene-d4 (S)	%			105	70-130	
4-Bromofluorobenzene (S)	%			96	70-130	
Toluene-d8 (S)	%			105	70-130	

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 2434892 2434893

Parameter	Units	MS		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		40249072001	Spike Conc.	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	MS % Rec				
1,1,1-Trichloroethane	ug/L	<0.30	50	50	47.6	50.1	95	100	70-134	5	20		
1,1-Dichloroethane	ug/L	<0.30	50	50	51.9	58.4	104	117	70-130	12	20		
1,1-Dichloroethene	ug/L	<0.58	50	50	56.7	57.2	113	114	71-130	1	20		
Chloroethane	ug/L	<1.4	50	50	54.7	59.5	109	119	52-165	8	20		

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## QUALITY CONTROL DATA

Project: CHW82710 MDCC

Pace Project No.: 40248989

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MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2434892      2434893

Parameter	Units	MS		MSD		MS Result	% Rec	MSD % Rec	% Rec	Max	
		40249072001	Spike Conc.	Spike Conc.	MS Result					RPD	RPD
cis-1,2-Dichloroethene	ug/L	<0.47	50	50	45.8	48.0	92	96	70-130	5	20
Tetrachloroethene	ug/L	<0.41	50	50	54.8	49.9	110	100	70-130	9	20
trans-1,2-Dichloroethene	ug/L	<0.53	50	50	52.6	55.0	105	110	70-130	5	20
Trichloroethene	ug/L	<0.32	50	50	52.3	52.0	105	104	70-130	0	20
Vinyl chloride	ug/L	<0.17	50	50	57.3	58.2	115	116	60-137	2	20
1,2-Dichlorobenzene-d4 (S)	%						104	103	70-130		
4-Bromofluorobenzene (S)	%						95	96	70-130		
Toluene-d8 (S)	%						110	105	70-130		

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## QUALITY CONTROL DATA

Project: CHW82710 MDCC

Pace Project No.: 40248989

QC Batch: 422476 Analysis Method: EPA 8260

QC Batch Method: EPA 8260 Analysis Description: 8260 MSV

Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40248989014, 40248989015, 40248989016, 40248989017

METHOD BLANK: 2433362

Matrix: Water

Associated Lab Samples: 40248989014, 40248989015, 40248989016, 40248989017

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	<0.30	1.0	08/04/22 15:01	
1,1-Dichloroethane	ug/L	<0.30	1.0	08/04/22 15:01	
1,1-Dichloroethene	ug/L	<0.58	1.0	08/04/22 15:01	
Chloroethane	ug/L	<1.4	5.0	08/04/22 15:01	
cis-1,2-Dichloroethene	ug/L	<0.47	1.0	08/04/22 15:01	
Tetrachloroethene	ug/L	<0.41	1.0	08/04/22 15:01	
trans-1,2-Dichloroethene	ug/L	<0.53	1.0	08/04/22 15:01	
Trichloroethene	ug/L	<0.32	1.0	08/04/22 15:01	
Vinyl chloride	ug/L	<0.17	1.0	08/04/22 15:01	
1,2-Dichlorobenzene-d4 (S)	%	98	70-130	08/04/22 15:01	
4-Bromofluorobenzene (S)	%	105	70-130	08/04/22 15:01	
Toluene-d8 (S)	%	101	70-130	08/04/22 15:01	

LABORATORY CONTROL SAMPLE: 2433363

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	50.4	101	70-134	
1,1-Dichloroethane	ug/L	50	51.8	104	70-130	
1,1-Dichloroethene	ug/L	50	58.6	117	74-131	
Chloroethane	ug/L	50	58.1	116	52-165	
cis-1,2-Dichloroethene	ug/L	50	48.3	97	70-130	
Tetrachloroethene	ug/L	50	49.6	99	70-130	
trans-1,2-Dichloroethene	ug/L	50	50.6	101	70-130	
Trichloroethene	ug/L	50	51.8	104	70-130	
Vinyl chloride	ug/L	50	63.0	126	63-134	
1,2-Dichlorobenzene-d4 (S)	%			96	70-130	
4-Bromofluorobenzene (S)	%			104	70-130	
Toluene-d8 (S)	%			101	70-130	

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## QUALITY CONTROL DATA

Project: CHW82710 MDCC

Pace Project No.: 40248989

QC Batch: 422595 Analysis Method: SM 5310C

QC Batch Method: SM 5310C Analysis Description: 5310C Total Organic Carbon

Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40248989001, 40248989002, 40248989003, 40248989004, 40248989005, 40248989006, 40248989007,  
40248989008, 40248989009, 40248989010, 40248989011, 40248989012, 40248989013

METHOD BLANK: 2434148 Matrix: Water

Associated Lab Samples: 40248989001, 40248989002, 40248989003, 40248989004, 40248989005, 40248989006, 40248989007,  
40248989008, 40248989009, 40248989010, 40248989011, 40248989012, 40248989013

Parameter	Units	Blank	Reporting	Analyzed	Qualifiers
		Result	Limit		
Total Organic Carbon	mg/L	<0.14	0.50	08/08/22 04:28	

LABORATORY CONTROL SAMPLE: 2434149

Parameter	Units	Spike	LCS	LCS	% Rec	Qualifiers
		Conc.	Result	% Rec	Limits	
Total Organic Carbon	mg/L	12.5	12.3	98	80-120	

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 2434150 2434151

Parameter	Units	MS	MSD	MS	MSD	MS	MSD	% Rec	% Rec	RPD	Max
		40248934004	Spike	Spike	Spike	Result	Result	% Rec	% Rec	RPD	RPD
Total Organic Carbon	mg/L	5.9	6	6	6	11.9	11.8	100	99	80-120	1 10

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 2434152 2434153

Parameter	Units	MS	MSD	MS	MSD	MS	MSD	% Rec	% Rec	RPD	Max
		40248989006	Spike	Spike	Spike	Result	Result	% Rec	% Rec	RPD	RPD
Total Organic Carbon	mg/L	1.7	6	6	6	7.3	7.4	93	96	80-120	2 10

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## QUALITY CONTROL DATA

Project: CHW82710 MDCC

Pace Project No.: 40248989

QC Batch: 423200 Analysis Method: SM 5310C

QC Batch Method: SM 5310C Analysis Description: 5310C Total Organic Carbon

Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40248989014, 40248989015, 40248989016, 40248989017

METHOD BLANK: 2437605 Matrix: Water

Associated Lab Samples: 40248989014, 40248989015, 40248989016, 40248989017

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Organic Carbon	mg/L	<0.14	0.50	08/12/22 05:01	

LABORATORY CONTROL SAMPLE: 2437606

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	12.5	12.1	97	80-120	

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 2437607 2437608

Parameter	Units	MS Result	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	40248989014 3.3	6	6	9.3	9.3	100	100	80-120	0	10

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## QUALIFIERS

Project: CHW82710 MDCC

Pace Project No.: 40248989

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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

This report shall not be reproduced, except in full,  
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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: CHW82710 MDCC  
Pace Project No.: 40248989

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40248989001	MW-1	EPA 8015B Modified	422209		
40248989002	PZ-1	EPA 8015B Modified	422209		
40248989003	PZ-1 DUP	EPA 8015B Modified	422209		
40248989004	PZ-1A	EPA 8015B Modified	422209		
40248989005	MW-2	EPA 8015B Modified	422209		
40248989006	PZ-2	EPA 8015B Modified	422339		
40248989007	MW-4	EPA 8015B Modified	422339		
40248989008	MW-5	EPA 8015B Modified	422339		
40248989009	MW-6	EPA 8015B Modified	422339		
40248989010	MW-6 DUP	EPA 8015B Modified	422339		
40248989011	PZ-6	EPA 8015B Modified	422339		
40248989012	MW-7	EPA 8015B Modified	422339		
40248989013	MW-8	EPA 8015B Modified	422339		
40248989014	MW-9	EPA 8015B Modified	422339		
40248989015	PZ-10	EPA 8015B Modified	422339		
40248989016	MW-13	EPA 8015B Modified	422339		
40248989017	MW-14	EPA 8015B Modified	422339		
40248989001	MW-1	EPA 8260	422225		
40248989002	PZ-1	EPA 8260	422225		
40248989003	PZ-1 DUP	EPA 8260	422225		
40248989004	PZ-1A	EPA 8260	422225		
40248989005	MW-2	EPA 8260	422225		
40248989006	PZ-2	EPA 8260	422225		
40248989007	MW-4	EPA 8260	422225		
40248989008	MW-5	EPA 8260	422225		
40248989009	MW-6	EPA 8260	422225		
40248989010	MW-6 DUP	EPA 8260	422225		
40248989011	PZ-6	EPA 8260	422225		
40248989012	MW-7	EPA 8260	422225		
40248989013	MW-8	EPA 8260	422225		
40248989014	MW-9	EPA 8260	422476		
40248989015	PZ-10	EPA 8260	422476		
40248989016	MW-13	EPA 8260	422476		
40248989017	MW-14	EPA 8260	422476		
40248989018	TB07282022	EPA 8260	422279		
40248989001	MW-1	SM 5310C	422595		
40248989002	PZ-1	SM 5310C	422595		
40248989003	PZ-1 DUP	SM 5310C	422595		
40248989004	PZ-1A	SM 5310C	422595		
40248989005	MW-2	SM 5310C	422595		
40248989006	PZ-2	SM 5310C	422595		
40248989007	MW-4	SM 5310C	422595		
40248989008	MW-5	SM 5310C	422595		
40248989009	MW-6	SM 5310C	422595		
40248989010	MW-6 DUP	SM 5310C	422595		
40248989011	PZ-6	SM 5310C	422595		

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: CHW82710 MDCC  
 Pace Project No.: 40248989

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40248989012	MW-7	SM 5310C	422595		
40248989013	MW-8	SM 5310C	422595		
40248989014	MW-9	SM 5310C	423200		
40248989015	PZ-10	SM 5310C	423200		
40248989016	MW-13	SM 5310C	423200		
40248989017	MW-14	SM 5310C	423200		

### REPORT OF LABORATORY ANALYSIS

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## CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

Company:  
**Geosyntec consultants**  
Address: 10600 N. Port Washington Rd  
Ste 100, Mequon, WI 53092

Billing Information:  
**Geosyntec consultants**  
10600 N. Port Washington Rd  
Ste 100  
Mequon, WI 53092

Report To: **Dave Zolp**Email To: **DZolp@geosyntec.com**

Copy To:

Site Collection Info/Address:

**4132 N. Holton St**Customer Project Name/Number:  
**MDCC / CHW82710**State: County/City: Time Zone Collected:  
**WI / Milwaukee [ ] PT [ ] MT [ ] CT [ ] ET**Phone: **262-834-**  
Email: **DZolp@geosyntec.com**Site/Facility ID #: **C-1012**Compliance Monitoring?  
[ ] Yes **No**Collected By (print):  
**C. Kopl**Purchase Order #: **1012**  
Quote #:DW PWS ID #: **1012**  
DW Location Code:Collected By (signature):  
**Collected by C. Kopl**

Turnaround Date Required:

Immediately Packed on Ice:  
[ ] Yes **No**Sample Disposal:  
[ ] Dispose as appropriate [ ] Return  
[ ] Archive: \_\_\_\_\_  
[ ] Hold: \_\_\_\_\_

Rush: [ ] Same Day [ ] Next Day

Field Filtered (if applicable):  
[ ] Yes **No**

[ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day

Analysis: \_\_\_\_\_

(Expedite Charges Apply)

\* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start)		Composite End		Res Cl	# of Ctns	Focused VOCs (see Notes)	1,4 Dioxane	Methane, Ethane, Ethene	TOC
			Date	Time	Date	Time						
MW-1	GW	G	7/28/22	1432				9	x	x	x	x
PZ-1			7/28/22	1525								
PZ-1 DUP			7/28/22	1525								
PZ-1A			7/27/22	1445								
MW-2			7/28/22	1230								
PZ-2			7/27/22	1630								
MW-4			7/28/22	1120								
MW-5			7/27/22	1610								
MW-6			7/28/22	1105								
MW-6 DUP			7/28/22	1105								

Customer Remarks / Special Conditions / Possible Hazards:

- focused VOCs
- PCP
- TCE
- 1,1,1-TCE
- 1,1-Dichloroethane
- VC
- cis-1,2-DCE
- trans-1,2-DCE
- chloroethane

Type of Ice Used: Wet Blue Dry None

Packing Material Used: **1**

LAB USE ONLY- Affix Workorder/Login Label Here or List Pace Workorder Number or MTJL Log-in Number Here

**40248989**

## ALL SHADED AREAS are for LAB USE ONLY

Container Preservative Type \*\* Lab Project Manager:

**3 U 3 A**

\*\* Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other

Analyses

Lab Profile/Line:

Lab Sample Receipt Checklist:

Custody Seals Present/Intact	<b>Y</b>	<b>N</b>	<b>NA</b>
Custody Signatures Present	<b>Y</b>	<b>N</b>	<b>NA</b>
Collector Signature Present	<b>Y</b>	<b>N</b>	<b>NA</b>
Bottles Intact	<b>Y</b>	<b>N</b>	<b>NA</b>
Correct Bottles	<b>Y</b>	<b>N</b>	<b>NA</b>
Sufficient Volume	<b>Y</b>	<b>N</b>	<b>NA</b>
Samples Received on Ice	<b>Y</b>	<b>N</b>	<b>NA</b>
VOA - Headspace Acceptable	<b>Y</b>	<b>N</b>	<b>NA</b>
USDA Regulated Series	<b>Y</b>	<b>N</b>	<b>NA</b>
Samples in Holding Time	<b>Y</b>	<b>N</b>	<b>NA</b>
Residual Chlorine Present	<b>Y</b>	<b>N</b>	<b>NA</b>
Cl Strips:			
Sample pH Acceptable	<b>Y</b>	<b>N</b>	<b>NA</b>
pH Strips:			
Sulfide Present	<b>Y</b>	<b>N</b>	<b>NA</b>
Lead Acetate Strips:			

LAB USE ONLY:

Lab Sample # / Comments:

Relinquished by/Company: (Signature)

**Collected by C. Kopl / Geosyntec**

Date/Time:

**7/28/22 1700**

Received by/Company: (Signature)

**Anthony Verkel**

Date/Time:

MTJL LAB USE ONLY

Table #:

Acctnum:

Template:

Prelogin:

PM:

PB:

Lab Sample Temperature Info:

Temp Blank Received: **Y** **N** **NA**

Therm ID#:

Cooler 1 Temp Upon Receipt: **oC**Cooler 1 Therm Corr. Factor: **oC**Cooler 1 Corrected Temp: **oC**

Comments:

Trip Blank Received: **Y** **N** **NA**

HCL MeOH TSP Other

Non Conformance(s): **YES** / **NO**Page: **1** of **2** Page 30 of 33

Relinquished by/Company: (Signature)

**Fedex**

Date/Time:

**7/29/22 1015**

Received by/Company: (Signature)

**Anthony Verkel**

Date/Time:

**7/29/22 1015**



## CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

Company: Geosyntec	Billing Information:
Address: SEE Pg 1	
Report To:	Email To:
Copy To:	Site Collection Info/Address:
Customer Project Name/Number: CHWED710 / MD OC	State: County/City: WI MKE Time Zone Collected: [ ] PT [ ] MT [X] CT [ ] ET
Phone: Email:	Site/Facility ID #: Compliance Monitoring? [ ] Yes [X] No

Collected By (print): C. Kolp	Purchase Order #: DW PWS ID #: DW Location Code:
Collected By (signature): Cody	Turnaround Date Required: Standard
Sample Disposal: [ ] Dispose as appropriate [ ] Return [ ] Archive: _____ [ ] Hold: _____	Rush: [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply)
	Field Filtered (if applicable): [ ] Yes [X] No Analysis: _____

\* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start)		Composite End		Res CI	# of Ctns	Focused VOCs	Dropon	Met/H2S, Ethene, Ethene	TOC
			Date	Time	Date	Time						
PZ-6	GN	G	7/27/22	1555				9	X	X	X	X
MW-7			7/28/22	1325								
MW-8			7/27/22	1255								
MW-9			7/28/22	0435								
PZ-10			7/27/22	1400								
MW-13			7/27/22	1145								
MW-14			7/28/22	1000								
TB07282022	DT	G	7/28/22	1600				2	X			

Customer Remarks / Special Conditions / Possible Hazards:

SEE Pg 1/2

Type of Ice Used: Wet Blue Dry None SHORT HOLDS PRESENT (&lt;72 hours): Y N N/A

Packing Material Used: Lab Tracking #: 2825850

Radchem sample(s) screened (&lt;500 cpm): Y N NA Samples received via: FEDEX UPS Client Courier Pace Courier

Lab Sample Temperature Info:

Temp Blank Received: Y N NA

Therm ID#: \_\_\_\_\_

Cooler 1 Temp Upon Receipt: \_\_\_\_oC

Cooler 1 Therm Corr. Factor: \_\_\_\_oC

Cooler 1 Corrected Temp: \_\_\_\_oC

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

Relinquished by/Company: (Signature)

John K. Geosyntec

Date/Time:

7/28/22 1700

Received by/Company: (Signature)

Date/Time:

MTJL LAB USE ONLY

Table #:

Acctnum:

Template:

Prelogin:

PM:

PB:

Relinquished by/Company: (Signature)

Fedex

Date/Time:

7/29/22 1015

Received by/Company: (Signature)

Date/Time:

7/29/22 1015

Trip Blank Received: Y N NA

HCl MeOH TSP Other

Relinquished by/Company: (Signature)

Date/Time:

Received by/Company: (Signature)

Date/Time:

Non Conformance(s): YES / NO

Page: 31 of 33

40248989

## ALL SHADED AREAS are for LAB USE ONLY

Container Preservative Type **			Lab Project Manager:		
3	U	32			

\*\* Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfite, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other

## Analyses

## Lab Profile/Line:

## Lab Sample Receipt Checklist:

Custody Seals Present/Intact Y N NA  
 Custody Signatures Present Y N NA  
 Collector Signature Present Y N NA  
 Bottles Intact Y N NA  
 Correct Bottles Y N NA  
 Sufficient Volume Y N NA  
 Samples Received on Ice Y N NA  
 VOA - Headspace Acceptable Y N NA  
 USDA Regulated Soils Y N NA  
 Samples in Holding Time Y N NA  
 Residual Chlorine Present Y N NA  
 Cl Strips:  
 Sample pH Acceptable Y N NA  
 pH Strips:  
 Sulfide Present Y N NA  
 Lead Acetate Strips: \_\_\_\_\_

LAB USE ONLY:  
Lab Sample # / Comments:

## Sample Preservation Receipt Form

Client Name: GeosyntecProject # 40248989All 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 Acet pH ≥20	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	WG FU	WPFU	SP5T	ZPLC	GN	
001														6	6	6	6	6	6								2.5/5/10
002														6	6	6	6	6	6								2.5/5/10
003														6	6	6	6	6	6								2.5/5/10
004														6	6	6	6	6	6								2.5/5/10
005														6	6	6	6	6	6								2.5/5/10
006														18	18	18	18	18	18								2.5/5/10
007														6	6	6	6	6	6								2.5/5/10
008														6	6	6	6	6	6								2.5/5/10
009														6	6	6	6	6	6								2.5/5/10
010														6	6	6	6	6	6								2.5/5/10
011														6	6	6	6	6	6								2.5/5/10
012														6	6	6	6	6	6								2.5/5/10
013														6	6	6	6	6	6								2.5/5/10
014														6	6	6	6	6	6								2.5/5/10
015														6	6	6	6	6	6								2.5/5/10
016														6	6	6	6	6	6								2.5/5/10
017														6	6	6	6	6	6								2.5/5/10
018														6	6	6	6	6	6								2.5/5/10
019														6	6	6	6	6	6								2.5/5/10
020														6	6	6	6	6	6								2.5/5/10

Exceptions to preservation check:  VOA,  Coliform,  TOC,  TOH,  O&G,  WI DRO,  Phenolics,  Other: \_\_\_\_\_ Headspace in VOA Vials (>6mm):  Yes  No  N/A \*If yes look in headspace column

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

DC#\_Title: ENV-FRM-GBAY-0014 v02\_SCUR  
Revision: 3 | Effective Date: | Issued by: Green Bay

### Sample Condition Upon Receipt Form (SCUR)

Project #:

WO# : 40248989



40248989

Client Name: Geosyntec

Courier:  CS Logistics  Fed Ex  Speedee  UPS  Waltco  
 Client  Pace Other:

Tracking #: Master#: 7775 1455 0798

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 - 90 Type of Ice:  Wet Blue Dry None

Cooler Temperature Uncorr: 44.5 /Corr: 36.4

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 if shipped on Dry Ice.

Samples on ice, cooling process has begun

Person examining contents:

Date: 7/21/22 /Initials: AW

Labeled By Initials: MR

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1. <i>+CC 7/21/22 AW</i>
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: - VOA Samples frozen upon receipt	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No	5. Date/Time:
Short Hold Time Analysis (<72hr):	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7.
Sufficient Volume: For Analysis: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No MS/MSD: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		8.
Correct Containers Used: -Pace Containers Used: -Pace IR Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	9.
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: -Includes date/time/ID/Analysis Matrix:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
Trip Blank Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.
Trip Blank Custody Seals Present	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased): 486		

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 login

Page 2 of 2

## Memorandum

Date: September 12, 2022  
To: Jeremiah Johnson  
From: Ashley Wilson  
CC: J. Caprio  
**Subject: Stage 2A Data Validation – Level II Data Deliverable – Pace Analytical Services Project Number: 40248989**

**SITE: Milwaukee Die Casting Company Site, Milwaukee, WI**

### INTRODUCTION

This report summarizes the findings of the Stage 2A data validation of fifteen water samples including two field duplicate samples and one trip blank, collected on July 27 and 28, 2022, during a Milwaukee Die Casting Company Site sampling event. The analyses were performed by Pace Analytical Services, LLC, Green Bay, Wisconsin. The samples were analyzed for the following tests:

- Volatile Organic Compounds (VOCs) by United States (US) Environmental Protection Agency (EPA) Method 8260
- Dissolved Gases (Methane, Ethane, Ethene) by US EPA Method 8015B Modified
- Total Organic Carbon (TOC) by Standard Method (SM) 5310C

### EXECUTIVE SUMMARY

Overall, based on this Stage 2A data validation covering the quality control (QC) parameters listed below and based on the information provided, the data as qualified are usable for supporting project objectives. The qualified data should be used within the limitations of the qualifications.

The data were reviewed based on the pertinent methods referenced by the laboratory report, professional and technical judgment and the following documents:

- Additional Groundwater Investigation Work Plan and Groundwater Monitoring Plan, Milwaukee Die Casting Company Site, 4132 North Holton Street. Milwaukee, Wisconsin, June 15, 2021
- US EPA National Functional Guidelines for Organic Superfund Methods Data Review, November 2020 (USEPA-540-R-20-005)

# Milwaukee Die Casting Company Data Validation

September 12, 2022

Page 2

- US EPA National Functional Guidelines for Inorganic Superfund Methods Data Review, November 2020 (USEPA-540-R-20-006)

The following samples were analyzed in the data set and validated at a Stage 2A level:

Laboratory IDs	Client IDs
40248989001	MW-1
40248989002	PZ-1
40248989003	PZ-1 DUP
40248989004	PZ-1A
40248989005	MW-2
40248989006	PZ-2
40248989007	MW-4
40248989008	MW-5
40248989009	MW-6

Laboratory IDs	Client IDs
40248989010	MW-6 DUP
40248989011	PZ-6
40248989012	MW-7
40248989013	MW-8
40248989014	MW-9
40248989015	PZ-10
40248989016	MW-13
40248989017	MW-14
40248989018	TB07282022

The samples were received at the laboratory at 3.6 and 4.1 degrees Celsius (°C) within the temperature criteria of 0-6°C. No sample preservation issues were noted by the laboratory.

Incorrect error corrections executed by the lab were observed on the chain of custody (COC), instead of the proper procedure of a single strike through, correction, and initials and date of person making the corrections.

The COC includes 1,4-dioxane. However, the lab report does not include 1,4-dioxane results as there were shipping delays with the 1,4-dioxane samples (which had to go to a different Pace lab) and were received over temperature.

## 1.0 VOLATILE ORGANIC COMPOUNDS

The samples were analyzed for VOCs per US EPA Method 8260.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable or not applicable. A preceding crossed circle (✗) signifies areas where issues were raised during the course of the validation review and should be considered to determine the impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Times
- ✓ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Trip Blank
- ✓ Equipment Blank

- Surrogates
- Field Duplicate
- Sensitivity
- Electronic Data Deliverable Review

### **1.1 Overall Assessment**

The VOC data reported in this laboratory report are considered usable for supporting project objectives. The results are considered valid; the analytical completeness, defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for the sample set is 100%.

### **1.2 Holding Times**

The holding time for the VOC analyses of a preserved water sample is 14 days from collection to analysis. The holding times were met for the sample analyses.

### **1.3 Method Blank**

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Three method blanks were reported (batches 422225, 422279 and 422476). VOCs were not detected in the method blanks above the limits of detection (LODs).

### **1.4 Matrix Spike/Matrix Spike Duplicate (MS/MSD)**

One sample set specific MS/MSD pair was reported, using sample PZ-2. The recovery and relative percent difference (RPD) results were within the laboratory specified acceptance criteria.

One batch MS/MSD pair was also reported. Since this was batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

### **1.5 Laboratory Control Sample (LCS)**

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Three LCSs were reported. The recovery results were within the laboratory specified acceptance criteria.

### **1.6 Trip Blank**

One trip blank was submitted with the sample set, TB07282022. VOCs were not detected in the trip blank greater than the LODs.

### **1.7 Equipment Blank**

An equipment blank was not submitted with the sample set.

### **1.8 Surrogates**

The surrogate recoveries were within the laboratory specified acceptance criteria.

### **1.9 Field Duplicate**

Two field duplicate samples, MW-6 DUP and PZ-1 DUP were collected with the sample set. Acceptable precision ( $RPD \leq 30\%$ ) was demonstrated between the field duplicates and the original samples, MW-6 and PZ-1, respectively, with the following exceptions.

Trans-1,2-dichloroethene was detected at a concentration greater than the limit of quantitation (LOQ) in field duplicate sample, PZ-1 DUP, and not detected in original sample, PZ-1, resulting in a noncalculable RPD between the results. Therefore, based on professional and technical judgment, the trans-1,2-dichloroethene concentration in the field duplicate, PZ-1 DUP, was J qualified as estimated and the nondetect result in PZ-1 was UJ qualified as estimated less than the LOD.

Sample ID	Compound	Laboratory Result ( $\mu\text{g}/\text{L}$ )	Laboratory Flag	RPD	Validation Result ( $\mu\text{g}/\text{L}$ )	Validation Qualifier*	Reason Code**
PZ-1	trans-1,2-Dichloroethene	5.3	U	NC	5.3	UJ	7
PZ-1 DUP	trans-1,2-Dichloroethene	26.8	NA		26.8	J	7

$\mu\text{g}/\text{L}$ -microgram per liter

U-not detected at or above the LOD

NA-not applicable

NC-not calculable

RPD-relative percent difference

\* Validation qualifiers are defined in Attachment 1 at the end of this report

\*\*Reason codes are defined in Attachment 2 at the end of this report

### **1.10 Sensitivity**

The samples were reported to the LODs. Elevated non-detect results were reported due to the dilutions analyzed.

### **1.11 Electronic Data Deliverable (EDD) Review**

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

## 2.0 DISSOLVED GASES

The samples were analyzed for dissolved gases (methane, ethane and ethene) per US EPA Method 8015B Modified.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable or not applicable. A preceding crossed circle (✗) signifies areas where issues were raised during the course of the validation review and should be considered to determine the impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Times
- ✓ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Field Duplicate
- ✓ Sensitivity
- ✓ Electronic Data Deliverable Review

### 2.1 Overall Assessment

The dissolved gas data reported in this laboratory report are considered usable for supporting project objectives. The results are considered valid; the analytical completeness, defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for the sample set is 100%.

### 2.2 Holding Times

The holding time for the dissolved gas analyses of a preserved water sample is 14 days from collection to analysis. The holding times were met for the sample analyses.

### 2.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Two method blanks were reported (batches 422209 and 422339). Dissolved gases were not detected in the method blanks above the LODs.

#### **2.4 Matrix Spike/Matrix Spike Duplicate**

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Two sample set specific MS/MSD pairs were reported, using samples PZ-1A and PZ-2. The recovery and RPD results were within the laboratory specified acceptance criteria.

#### **2.5 Laboratory Control Sample**

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Two LCS/LCS Duplicates (LCSDs) were reported. The recovery results were within the laboratory specified acceptance criteria.

#### **2.6 Field Duplicate**

Two field duplicate samples, MW-6 DUP and PZ-1 DUP were collected with the sample set. Acceptable precision ( $RPD \leq 30\%$ ) was demonstrated between the field duplicates and the original samples, MW-6 and PZ-1, respectively.

#### **2.7 Sensitivity**

The samples were reported to the LODs. Elevated non-detect results were not reported.

#### **2.8 Electronic Data Deliverable Review**

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

### **3.0 TOTAL ORGANIC CARBON**

The samples were analyzed for TOC by SM 5310C.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable or not applicable. A preceding crossed circle (✗) signifies areas where issues were raised over the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Times
- ✓ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample

- ✓ Field Duplicate
- ✓ Sensitivity
- ✓ Electronic Data Deliverable Review

### **3.1 Overall Assessment**

The TOC data reported in this laboratory report are considered usable for supporting project objectives. The results are considered valid; the analytical completeness, defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for the sample set is 100%.

### **3.2 Holding Times**

The holding time for the TOC analysis of a water sample is 28 days from sample collection to analysis. The holding times were met for the sample analyses.

### **3.3 Method Blank**

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Two method blanks were reported (batches 422595 and 423200). TOC was not detected greater than the LOD in the method blanks.

### **3.4 Matrix Spike/Matrix Spike Duplicate**

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Two sample set specific MS/MSD pairs were reported, using samples PZ-2 and MW-9. The recovery and RPD results were within the laboratory specified acceptance criteria.

One batch MS/MSD pair was also reported. Since this was batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

### **3.5 Laboratory Control Sample**

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Two LCSs were reported. The recovery results were within the laboratory specified acceptance criteria.

### **3.6 Field Duplicate**

Two field duplicate samples, MW-6 DUP and PZ-1 DUP were collected with the sample set. Acceptable precision ( $RPD \leq 30\%$ ) was demonstrated between the field duplicates and the original samples, MW-6 and PZ-1, respectively.

### **3.7 Sensitivity**

The samples were reported to the LODs. Elevated non-detect results were not reported.

### **3.8 Electronic Data Deliverable Review**

Results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

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\* \* \* \* \*

**ATTACHMENT 1**  
**DATA VALIDATION QUALIFIER DEFINITIONS**  
**AND INTERPRETATION KEY**  
**Assigned by Geosyntec's Data Validation Team**

**DATA QUALIFIER DEFINITIONS**

- U The analyte was analyzed for but was not detected above the reported sample quantitation limit. Upon application of the U qualifier to a reported result, the definition changes to “not detected at or above the reported result”.
- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- J+ The analyte was positively identified; however, the associated numerical value is likely to be higher than the concentration of the analyte in the sample due to positive bias of associated QC or calibration data or attributable to matrix interference.
- J- The analyte was positively identified; however, the associated numerical value is likely to be lower than the concentration of the analyte in the sample due to negative bias of associated QC or calibration data or attributable to matrix interference.
- UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

**ATTACHMENT 2**  
**DATA VALIDATION REASON CODES**  
**Assigned by Geosyntec's Data Validation Team**

<b>Valid Value</b>	<b>Description</b>
1	Preservation requirement not met
2	Analysis holding time exceeded
3	Blank contamination (i.e., method, trip, equipment, etc.)
4	Matrix spike/matrix spike duplicate recovery or RPD outside limits
5	LCS or RPD recovery outside limits (LCS/LCSD)
6	Surrogate recovery outside limits
7	Field Duplicate RPD exceeded
8	Serial dilution percent difference exceeded
9	Calibration criteria not met
10	Linear range exceeded
11	Internal standard criteria not met
12	Lab duplicates RPD exceeded
13	Other
14	Lab flag removed or modified: no validation qualification required

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample duplicate

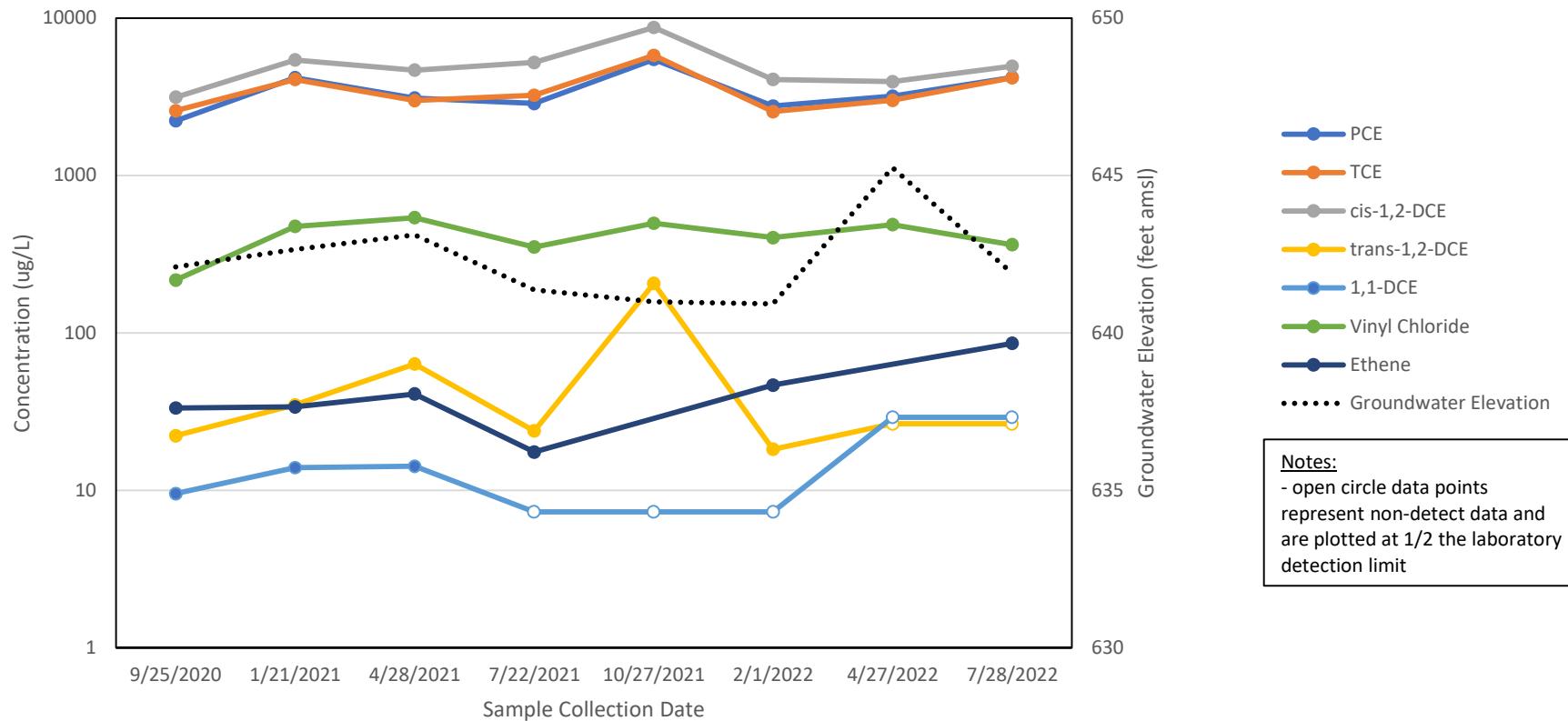
RPD - Relative percent difference

## **ATTACHMENT 5**

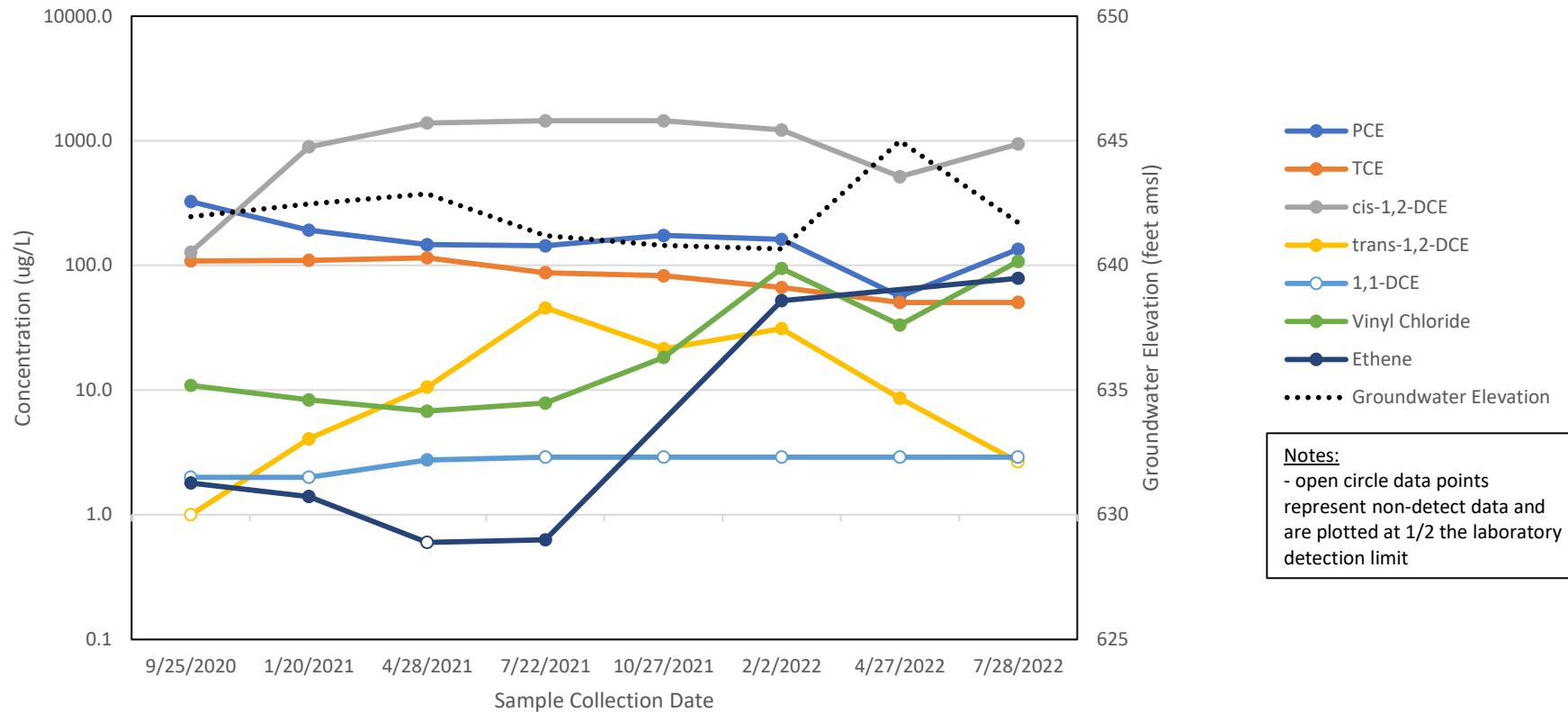
### Data Trend Plots

**Groundwater Monitoring Progress Report**  
Milwaukee Die Casting Company Site  
4132 North Holton Street  
Milwaukee, Wisconsin  
WDNR BRRTS # 02-41-000023  
WDNR FID # 241228240

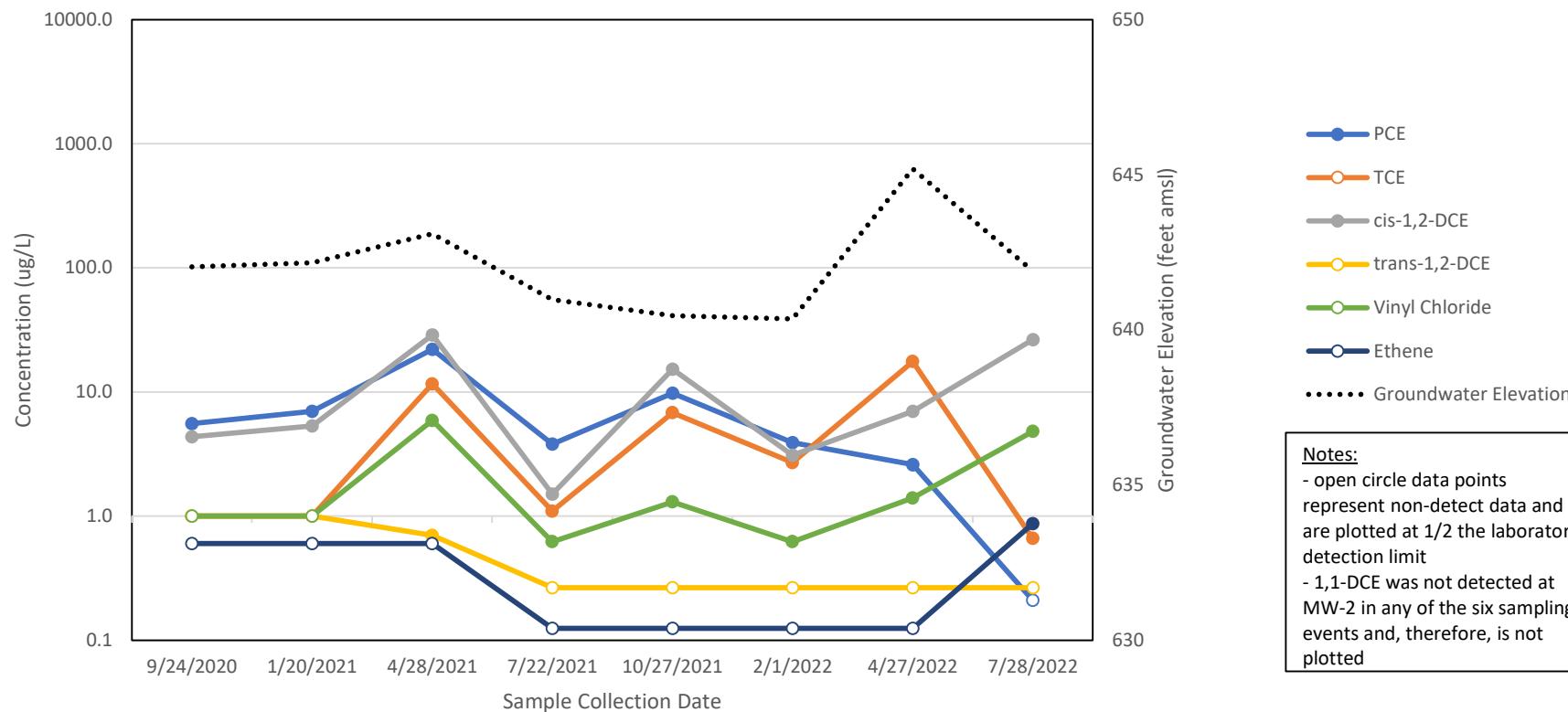
**MW-1**  
**CVOC Concentration and Groundwater Elevation v. Time Plot**



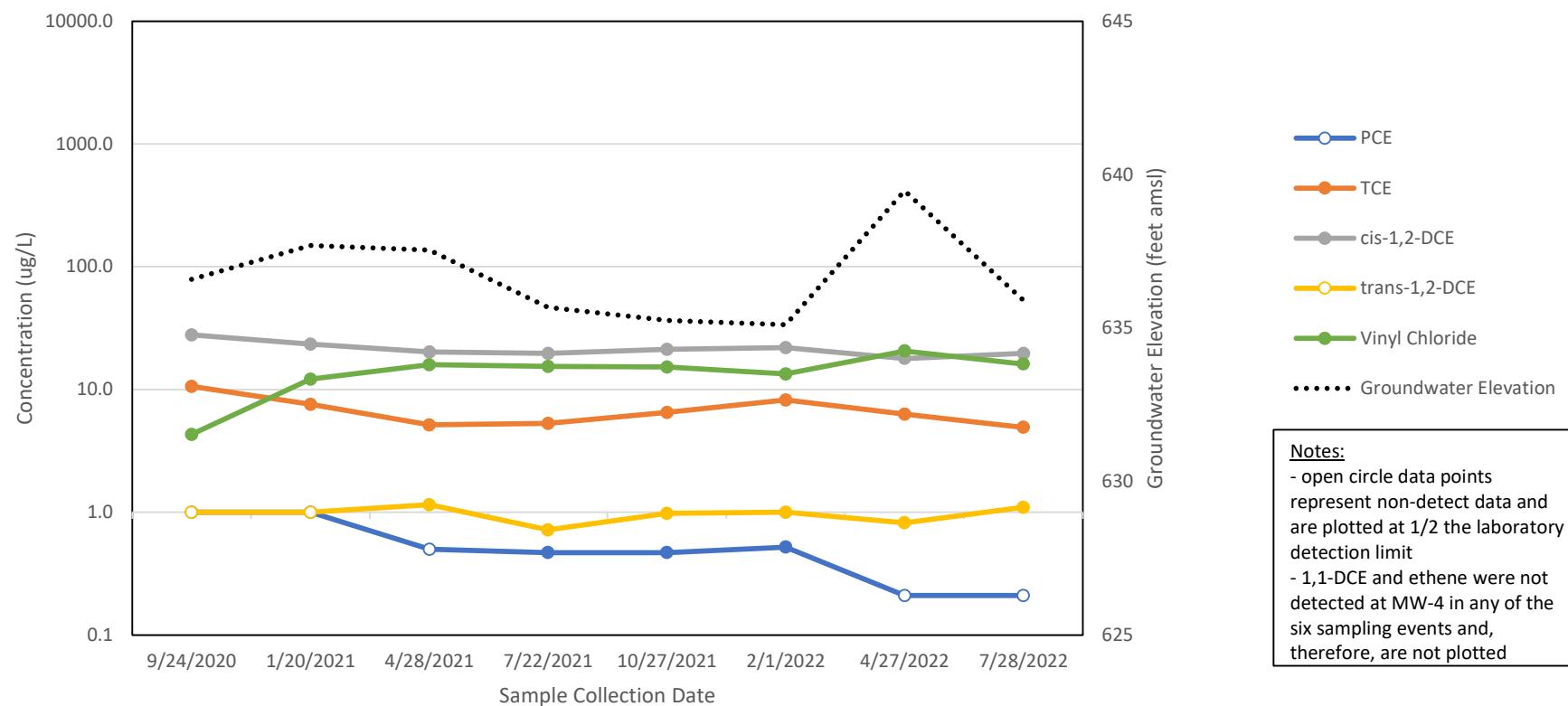
**PZ-1**  
**CVOC Concentration and Groundwater Elevation v. Time Plot**



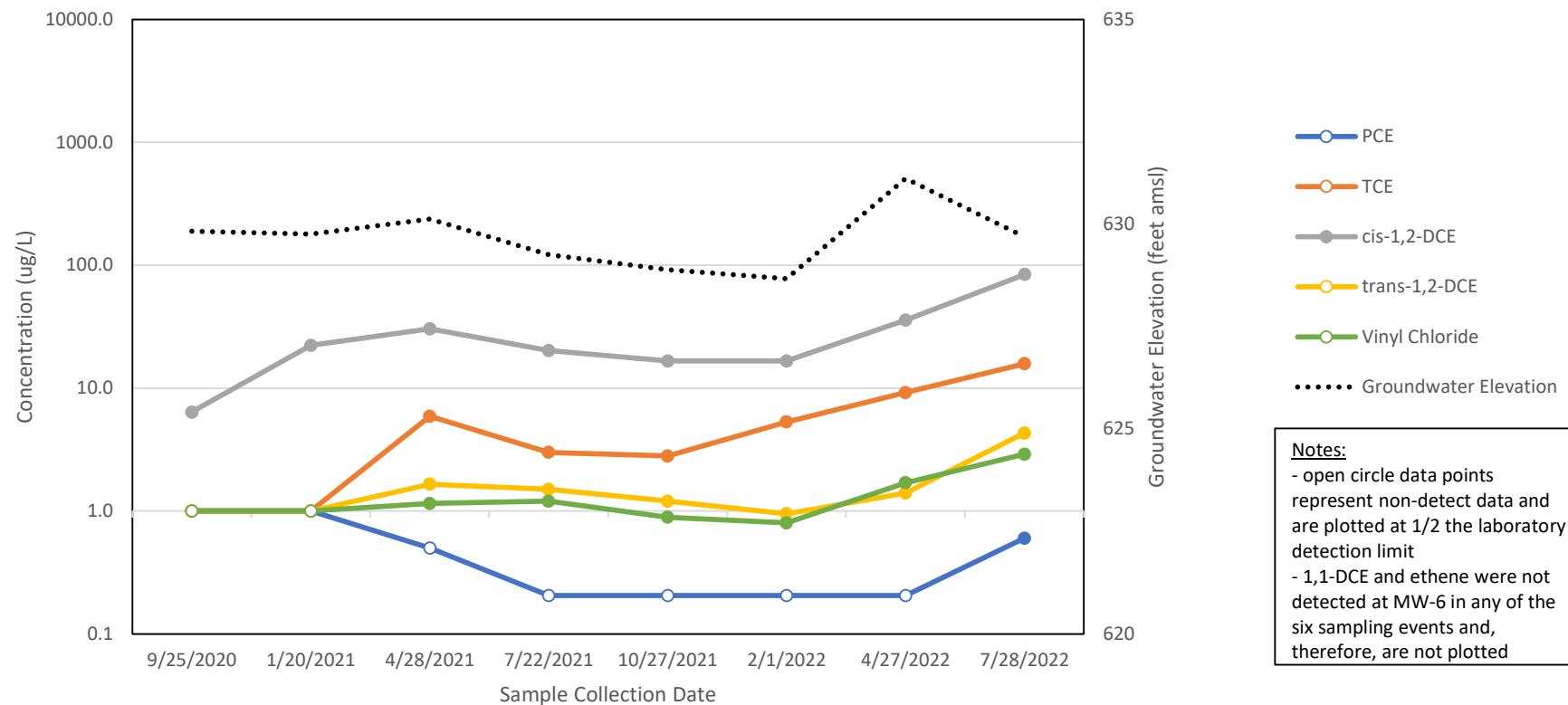
**MW-2**  
**CVOC Concentration and Groundwater Elevation v. Time Plot**



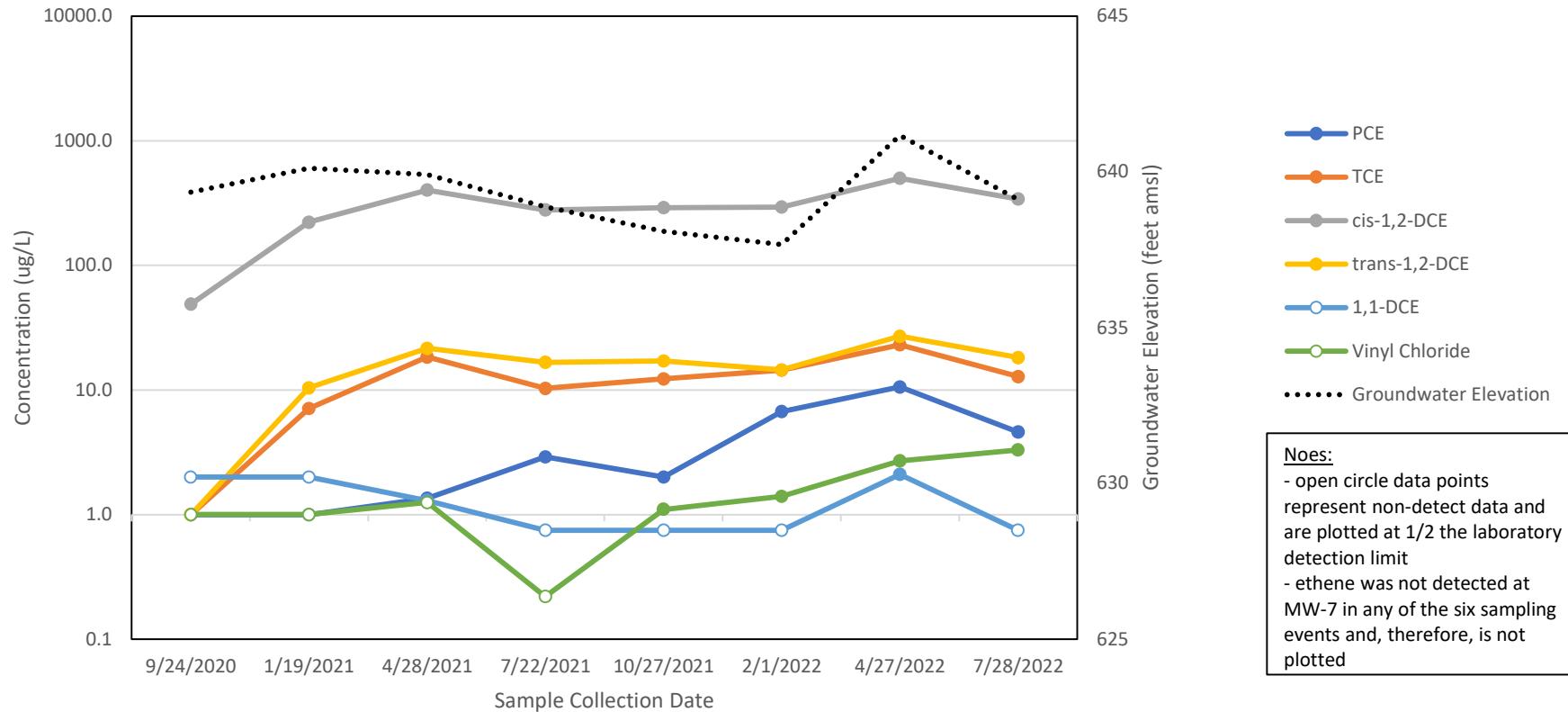
**MW-4**  
**CVOC Concentration and Groundwater Elevation v. Time Plot**



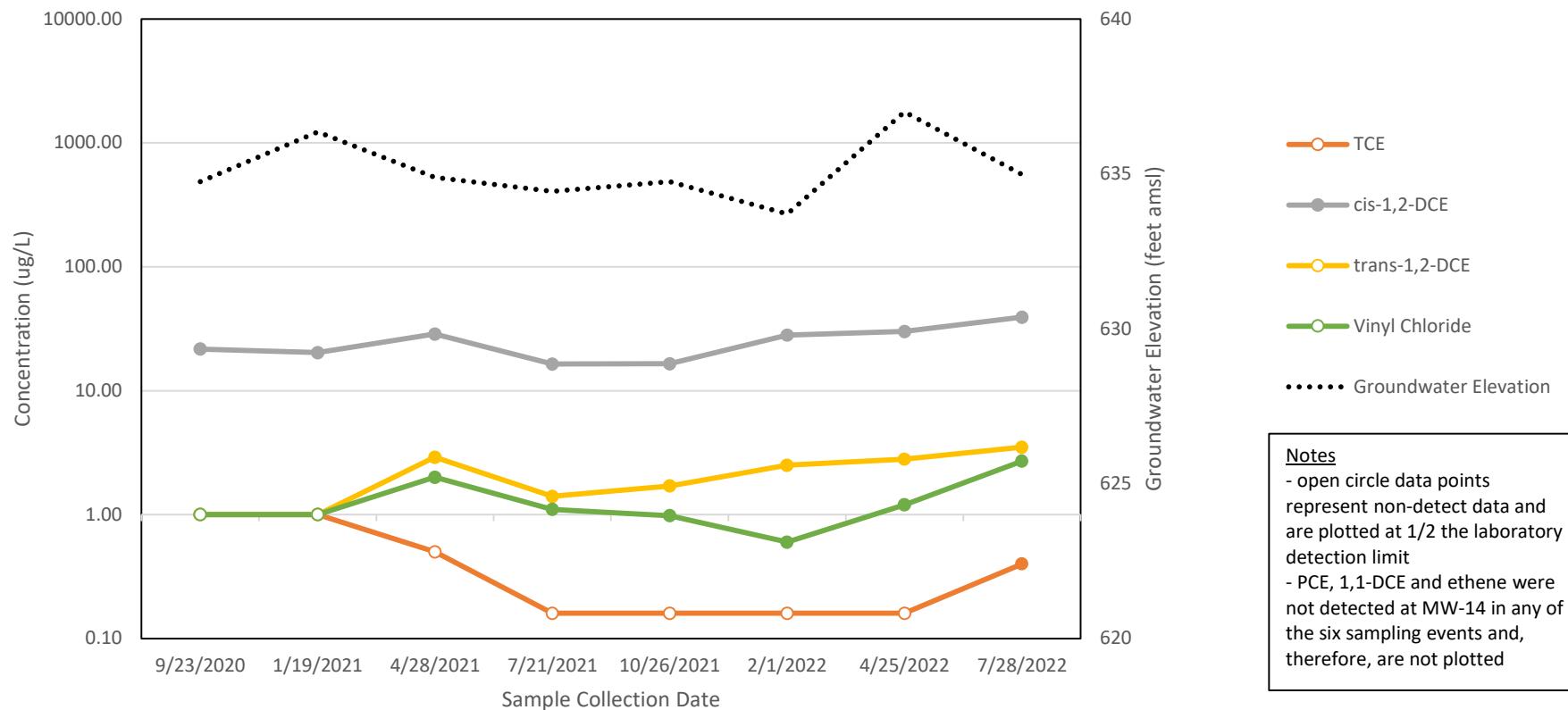
**MW-6**  
**CVOC Concentration and Groundwater Elevation v. Time Plot**



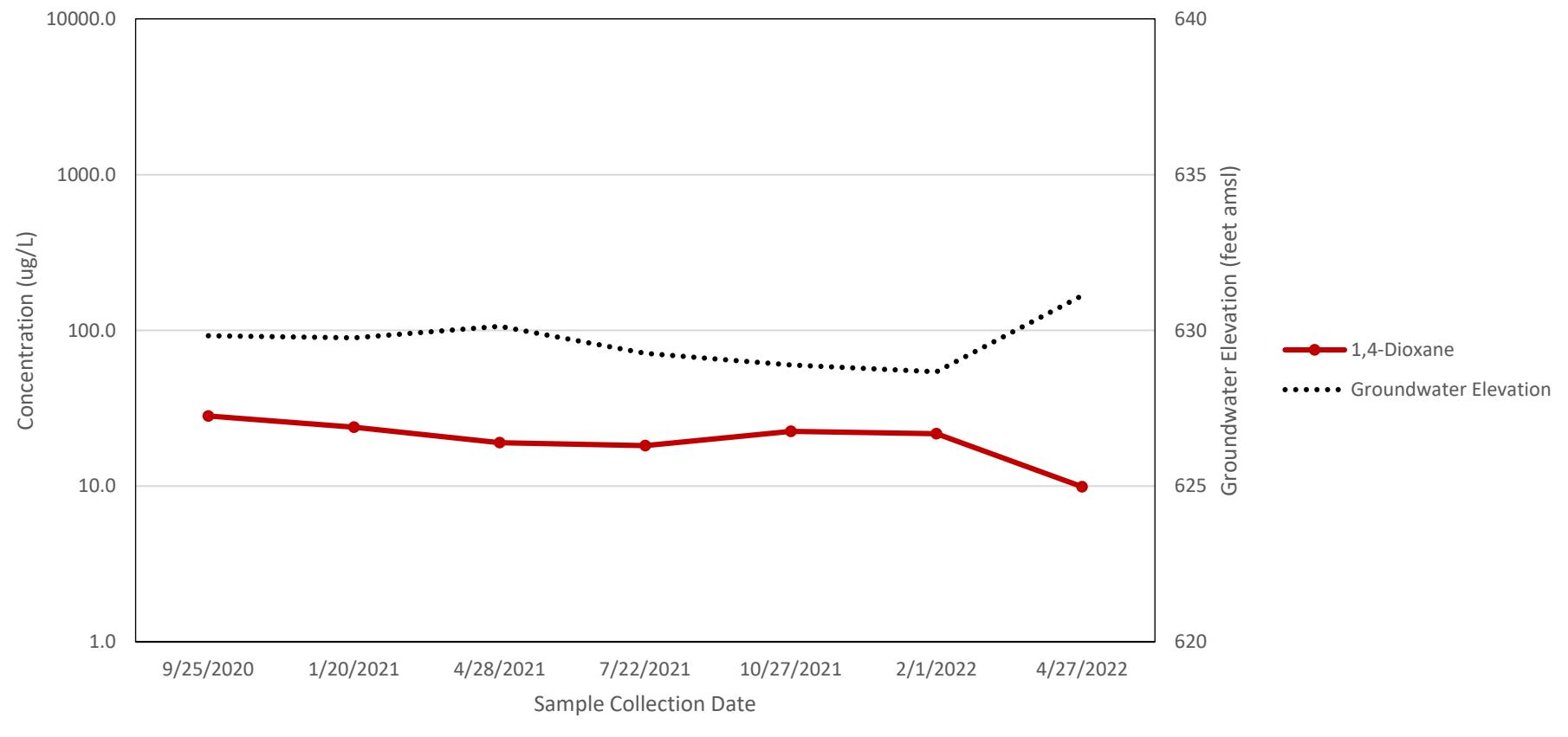
**MW-7**  
**CVOC Concentration and Groundwater Elevation v. Time Plot**



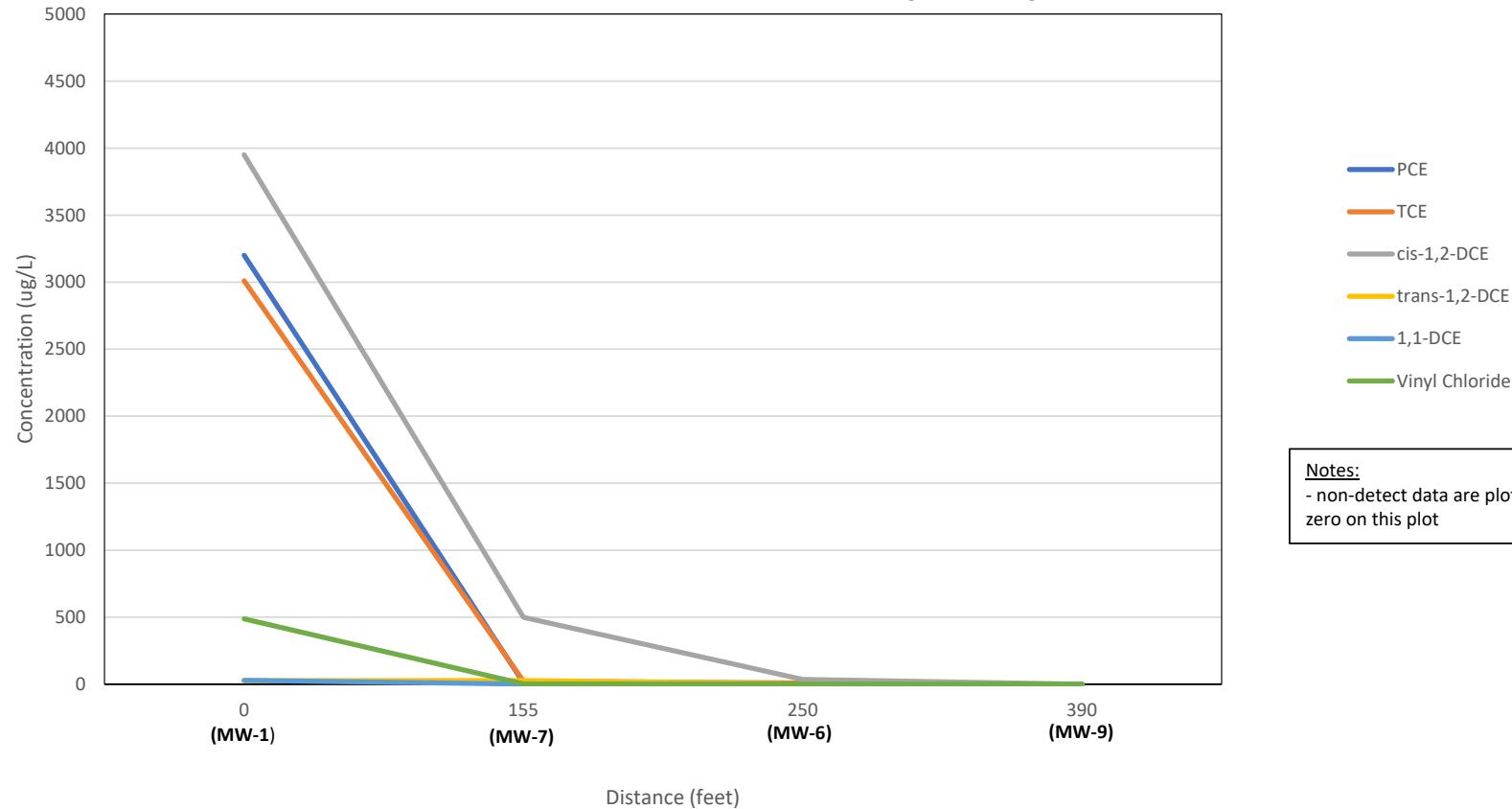
**MW-14**  
**CVOC Concentration and Groundwater Elevation v. Time Plot**



**MW-6**  
**1,4-Dioxane Concentration and Groundwater Elevation v. Time Plot**

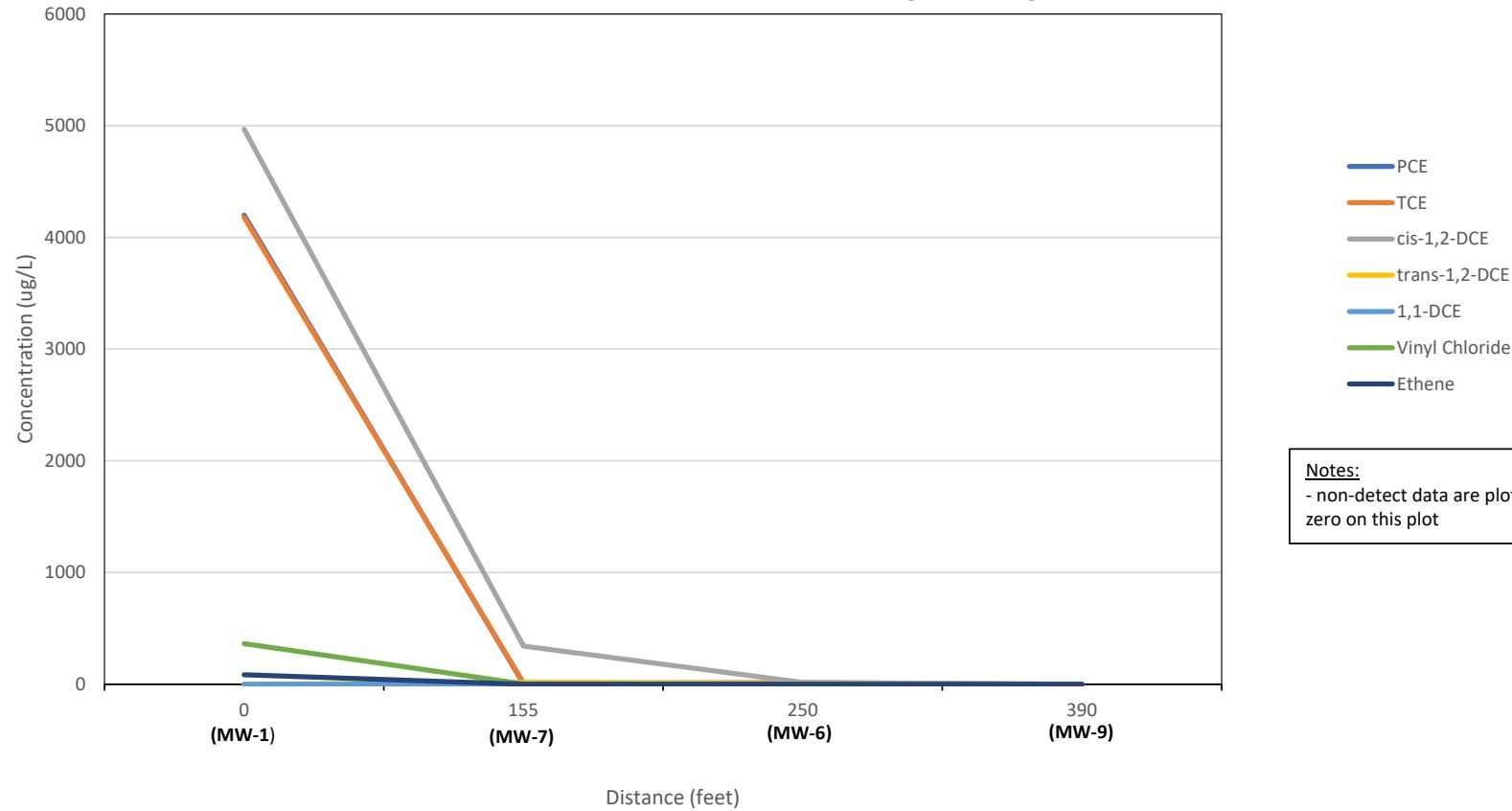


CVOC Concentration v. Distance Plot - April 2022  
Primary Post-Removal Action Residual CVOC Groundwater Flow Path  
MW-1 ⇌ MW-7 ⇌ MW-6 ⇌ MW-9



**Notes:**  
- non-detect data are plotted at zero on this plot

CVOC Concentration v. Distance Plot - July 2022  
Primary Post-Removal Action Residual CVOC Groundwater Flow Path  
MW-1 ⇌ MW-7 ⇌ MW-6 ⇌ MW-9



**Notes:**  
- non-detect data are plotted at zero on this plot

## **ATTACHMENT 6**

### **IDW Disposal Documentation**

**Groundwater Monitoring Progress Report**  
Milwaukee Die Casting Company Site  
4132 North Holton Street  
Milwaukee, Wisconsin  
WDNR BRRTS # 02-41-000023  
WDNR FID # 241228240



Please print or type.

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number W I D D 0 0 6 1 0 2 3 0 5	2. Page 1 of	3 Emergency Response Phone (800) 326-1221	4. Manifest Tracking Number <b>002026421 VES</b>				
5. Generator's Name and Mailing Address FORMER MILWAUKEE DIE CAST 4132 NORTH HOLTON STREET MILWAUKEE, WI 53212 Generator's Phone <i>Myer 262-292-6080</i> SAME									
6. Transporter 1 Company Name <b>VEOLIA ES TECHNICAL SOLUTIONS</b>									
7. Transporter 2 Company Name U.S. EPA ID Number <b>N J D 0 8 0 6 3 1 3 6 9</b>									
8. Designated Facility Name and Site Address U.S. EPA ID Number VEOLIA ES TECHNICAL SOLUTIONS, WI24 N9451 BOUNDARY MEMONOMEE FALLS, WI 53051									
Facility's Phone 262-253-6655									
W I D D 0 0 3 9 6 7 1 4 8									
GENERATOR	9a HM	3b U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any)) <b>X 1 NA3002 HAZARDOUS WASTE, LIQUID, n.o.s., (TRICHLOROETHENE, VINYL CHLORIDE), 9, III</b>	10. Containers		11. Total Quantity	12. Unit Wt./Vol	13. Waste Codes		
	No	Type	1	D M	150	P	F002	D040	
						D039	D043		
						NONE			
14. Special Handling Instructions and Additional Information ER Service Contracted by HERITAGE + OU36190 *V8* + Contract retained by generator confers agency authority on initial transporter to add or substitute additional transporters on generator's behalf + 1) D- 61 2) D-59, D-60 : ) C TL 992094 2) CWD/RCNHL 992-97									
15. GENERATOR/OFFEROR'S CERTIFICATION. I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations of export shipment and I am the Primary Exporter. I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.									
Generator/Offeror's Printed/Typed Name <b>AS AGENT FOR MARY JO ANZIA PHARMACIA LLC</b>						Signature <i>Mary Jo Anzia</i>	Month <b>04</b>	Day <b>14</b>	Year <b>2022</b>
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S.						Port of Entry/Exit Data leaving U.S.			
TRANSPORTER INT'L									
17. Transporter Acknowledgment of Receipt of Materials Transporter 1 Printed/Typed Name <b>Alex Swartlander</b>						Signature <i>Alex Swartlander</i>	Month <b>04</b>	Day <b>14</b>	Year <b>2022</b>
Transporter 2 Printed/Typed Name						Signature	Month	Day	Year
18. Discrepancy									
18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection									
18b. Alternate Facility (or Generator)						Manifest Reference Number			
Facility's Phone:									
18c. Signature of Alternate Facility (or Generator)						Month	Day	Year	
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)									
1 <b>H141</b> 2 <b>H141</b> 3 <b></b> 4 <b></b>									
20. Designated Facility Owner or Operator, Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a									
Printed/Typed Name <b>Michelle Martinson</b>						Signature <i>Michelle Martinson</i>	Month <b>04</b>	Day <b>15</b>	Year <b>2022</b>

Please print or type.



<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1 Generator ID Number <b>W I D 0 0 6 1 0 2 3 0 5</b>	2 Page 1 of <b>1</b>	3 Emergency Response Phone <b>(800) 326-1221</b>	4 Manifest Tracking Number <b>001687976 VES</b>	
5. Generator's Name and Mailing Address <b>FORMER MILWAUKEE DIE CAST 4132 NORTH HOLTON STREET MILWAUKEE, WI 53212</b>						
Generator's Site Address (if different than mailing address) <b>SAME</b>						
Generator's Phone <b>262-292-6080</b>						
6. Transporter 1 Company Name <b>VEOLIA ES TECHNICAL SOLUTIONS</b>						
7. Transporter 2 Company Name						
8. Designated Facility Name and Site Address <b>VEOLIA ES TECHNICAL SOLUTIONS W124 N9451 BOUNDARY RD. MENOMONEE FALLS, WI 53051</b>						
9. Facility's Phone <b>262-255-6655</b>						
10. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))						
<b>GENERATOR</b>	11. Containers	12. Total Quantity	13. Unit WL/Vol	14. Waste Codes		
	No.	Type		<b>F002</b>	<b>D040</b>	
			<b>150</b>	<b>P</b>	<b>D039</b>	
					<b>D043</b>	
				<b>P002</b>		
				<b>NONE</b>		
14. Special Handling Instructions and Additional Information <b>ER Service Contracted by HERITAGE + OU36190 WW</b>						
15. GENERATOR/OFFEROR'S CERTIFICATION. I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consignee. I certify that the waste minimization statement identified in 40 CFR 262.27(a)(1) (I am a large quantity generator) or (b) (I am a small quantity generator) is true.						
Generator/Offeror's Printed/Typed Name <b>MARY JO ANZIA PHARMACIA LLC</b>			Signature <i>Mary Jo Anzia</i>	Month <b>06</b>	Day <b>10</b>	Year <b>2022</b>
<b>INT'L</b>	16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S.	Port of entry/land				
	Transporter signature (for exports only)	Date leaving U.S.				
<b>TRANSPORTER</b>	17. Transporter Acknowledgment of Receipt of Materials					
Transporter 1 Printed/Typed Name <b>Robert McDonald Jr.</b>			Signature <i>Robert McDonald Jr.</i>	Month <b>06</b>	Day <b>10</b>	Year <b>2022</b>
Transporter 2 Printed/Typed Name			Signature	Month	Day	Year
<b>DESIGNATED FACILITY</b>	18. Discrepancy					
18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection						
Manifest Reference Number						
18b. Alternate Facility (or Generator)						
U.S. EPA ID Number						
Facility's Phone						
18c. Signature of Alternate Facility (or Generator)						
Month Day Year						
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)						
1. <b>H141</b> 2. <b>H141</b> 3. <b>H141</b> 4. <b></b>						
20. Designated Facility Owner or Operator Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18c.						
Printed/Typed Name <b>Ben Fleckenstein</b> Signature <i>Ben Fleckenstein</i> Month Day Year <b>06 13 22</b>						



Please print or type

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number <b>WID006102305</b>	2. Page 1 of 1	3. Emergency Response Phone (877) 512-0007	4. Manifest Tracking Number <b>002178061 VES</b>		
5. Generator's Name and Mailing Address <b>FORMER MILWAUKEE DIE CAST 4132 NORTH HOLTON STREET MILWAUKEE, WI 53212</b> Generator's Phone <b>262-292-6080</b>							
Generator's Site Address (if different than mailing address) <b>SAME</b>							
6. Transporter 1 Company Name <b>VEOLIA ES TECHNICAL SOLUTIONS</b>							
U.S. EPA ID Number <b>NJQ030631369</b>							
7. Transporter 2 Company Name U.S. EPA ID Number							
8. Designated Facility Name and Site Address <b>VEOLIA ES TECHNICAL SOLUTIONS W124 N9451 BOUNDARY RD MENOMONEE FALLS, WI 53051</b>							
U.S. EPA ID Number							
Facility's Phone <b>262-255-4655</b>							
W I D 0 0 3 9 6 7 1 4 8							
GENERATOR	9b U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any)) <b>X 1. NA3082, HAZARDOUS WASTE, LIQUID, n.o.s., (TRICHLOROETHYLENE, VINYL CHLORIDE), 9, III</b>		10. Containers No. <b>1</b> Type <b>D M</b>	11. Total Quantity <b>460</b>	12. Unit Wt/Vol <b>P</b>	13. Waste Codes <b>F002 D040 D039 -- D043</b>	
	2. NON-HAZARDOUS WATER, n.o.s., (PURGE WATER)		1 D M	460	P	NONE	
	3.						
	4.						
	14. Special Handling Instructions and Additional Information ER Service Contracted by VESTS 4-OUB6190 WW + 1) ERG171 W:992094 A:CWDITWILIQ 2) W:992097 A:CWDORCNR						
	15. GENERATOR/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable International and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement I signed in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.						
	Generator's/Officer's Printed/Typed Name <b>MARY JO ANZIA PHARMACIA LLC</b>		Signature <i>Mary Jo Anzia</i>		Month <b>10</b> Day <b>09</b> Year <b>2022</b>		
	TRANSPORTER INT'L	16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S.		Port of entry/exit _____ Date leaving U.S. _____			
		Transporter 1 Printed/Typed Name <b>Robert Maldonado Jr</b>					
		Signature <i>Robert Maldonado Jr</i>					
		Month <b>09</b> Day <b>22</b> Year <b>2022</b>					
	Transporter 2 Printed/Typed Name						
	Signature						
Month <b>09</b> Day <b>22</b> Year <b>2022</b>							
DESIGNATED FACILITY	18. Discrepancy						
	18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection						
	Manifest Reference Number						
	18b. Alternate Facility (or Generator) U.S. EPA ID Number						
	Facility's Phone						
	18c. Signature of Alternate Facility (or Generator)						
	Month <b>10</b> Day <b>14</b> Year <b>2022</b>						
	19. Hazardous Waste Report Management Method Codes (i.e. codes for hazardous waste treatment, disposal, and recycling systems)						
1 <b>H141</b>		2 <b>H141</b>		3 <b></b> 4. <b></b>			
20. Designated Facility Owner or Operator Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a							
Printed/Typed Name <b>Heather Kimball</b> Signature <b>Heather Kimball</b> Month <b>10</b> Day <b>14</b> Year <b>2022</b>							