

Date: May 12, 2021

Mr. Brandon Alger
Warren District Office
Remediation and Redevelopment Division
Michigan Department of Energy, Great Lakes and Environment
2770 Donald Court
Warren, Michigan 48092

Our Ref: 30080642

Subject: Interim Groundwater Monitoring Plan Addendum #1

Ford Livonia Transmission Plan, Livonia, Michigan

28550 Cabot Drive Suite 500 Novi Michigan 48377 Phone: 248 994 2240 www.arcadis.com

Arcadis of Michigan, LLC

Dear Mr. Alger

Arcadis of Michigan LLC (Arcadis), on behalf of Ford Motor Company (Ford) has prepared this revised Interim Groundwater Monitoring Plan (IGMP) Addendum #1 for the Livonia Transmission Plant (LTP) property located in Livonia, Michigan (Site). This Addendum #1 to the original IGMP approved by EGLE on February 18, 2021 has been prepared for the Michigan Department of Environment, Great Lakes, and Energy (EGLE) to request modifying the sampling frequency at several on-site and off-site monitoring well locations.

As described in the approved *Remedial Investigation Response Activity Plan* ([RI ResAP] Arcadis 2018a), Ford met the obligation of quarterly groundwater sampling at all available monitoring well locations at the beginning of 2017, as described in the approved RI RespAP. Ford has continued the quarterly groundwater sampling voluntarily since 2019. Current hydrogeology and previous site investigation activities is provided in the IGMP.

Monitoring

Ford completed site-wide groundwater sampling events in 2016 and 2017 and has been completing quarterly monitoring at all available wells since the third quarter of 2017 (13 total quarterly events). Beginning in the first quarter 2021, Ford implemented a modified sampling plan outlined in the IGMP, which was approved by EGLE on February 18, 2021. The approval of the IGMP reduced the number of monitoring wells to be sampled quarterly from 284 to 253 monitoring wells in total. This includes quarterly sampling of 98 onsite and 155 offsite wells. Of the 253 total wells, 243 wells are currently sampled quarterly, and 10 wells are sampled annually. All wells are sampled for the seven site-specific constituents of concern (7 COCs): tetrachloroethene (PCE), trichloroethene (TCE), 1,1-dichloroethene (1,1-DCE), cis-1,2-dichloroethene (cis-1,2-DCE), trans-1,2-dichloroethene (trans-1,2-DCE), vinyl chloride (VC), and 1,4-dioxane (1,4-D).

A well construction summary table for all monitoring wells on-site and off-site including the install date is included as **Table 1** and a figure illustrating the location and the current number of samples for each well on-site and off-site is provided as **Figure 1**.

Stability and Trend Analysis

Since 2015, Ford has collected 3,161 samples from the existing monitoring well network. Based on the quarterly monitoring and results of the remedial investigation work, the groundwater impacts have been delineated to applicable Criteria provided in the Consent Decree (No: 2:1712372-GAD-RSW) and in conjunction with the Target

Mr. Brandon Alger EGLE May 12, 2021

Detection Limit modification request approved by EGLE on December 20, 2017. In addition, analytical results, along with the detailed remedial investigation, provide evidence that groundwater impacts are statistically stable to decreasing. Analytical trend graphs for each of the locations proposed for modified sampling have been provided in **Attachment 1** through **Attachment 3**.

Proposed Modifications

Based on multiple lines of evidence outlined above and detailed below, Arcadis proposes an additional modification to the IGMP sampling frequency for the following select monitoring well locations:

- On-site upgradient monitoring wells located in the northwest corner of the Ford property that are used for monitoring impacts migrating onto the Site.
- On-site side-gradient monitoring well along the northern Ford property boundary that have had consistent low-level detections or have been non-detect.
- On-site deep aquifer monitoring wells that have shown detections below the criteria or have been nondetect.
- Off-site monitoring wells located on commercial properties north of the groundwater impacts.

The proposed well locations are listed in the exhibit below. In addition, the well locations are presented on **Figure 2**.

Exhibit 1: Proposed Sampling Modifications

Monitoring	Current	Proposed	Technical Justification	
Well	Sampling	Sampling		
Identification	Frequency	Frequency		
Northwest Ford Property (8 total wells): MW-194, MW- 194S, MW-195S, MW-196, MW- 196S, MW-197S, MW-198, MW- 198S	Quarterly Sampling	Semi-Annual Sampling	 The wells are located in the northwest portion of the property. The monitoring wells were installed to monitor chlorinated impacts that have migrated on-site from an upgradient off-site source, unrelated to the chlorinated impacts at the Site associated with on-site sources. Analytical trends show consistent elevated TCE impacts at monitoring wells at MW-195S, MW-196, MW-196S, and MW-197S and consistent low-level detections to non-detect at monitoring wells MW-194, MW-194S, MW-198, and MW-198S indicating that extents of the impacts are known and defined (Attachment 1). A total of 40 samples have been collected from the northwestern boundary wells over 5 quarters of sampling. The number of samples collected from each well is shown in Figure 1. 	

Monitoring Well Identification	Current Sampling Frequency	Proposed Sampling Frequency	Technical Justification
Northern Ford Property Boundary (9 total wells): MW-55, MW-55D, MW-56, MW-113, MW-114, MW- 120, MW-122, MW-124, MW- 199S	Quarterly Sampling	Semi-Annual Sampling	 These wells are located along the northern Ford property boundary side-gradient to the site-related impacts. The analytical results have shown low-level detections of chlorinated impacts below criteria or have been non-detect indicating limited to no groundwater impacts are migrating off-site to the north. Analytical trends provided in Attachment 1 show consistent non-detect to low-level detections at the monitoring wells along the northern Ford property boundary. Based on the trends analysis the monitoring wells are considered stable to decreasing, where applicable. A total of 76 samples have been collected from the northern Ford property boundary wells over 5 to 15 quarters of sampling.
Deep Aquifer Monitoring Wells (3 total wells): MW-15-59D, MW- 15-60D, MW-15- 61D	Quarterly Sampling	No Further Sampling	 The deep monitoring wells are installed at depths up to 99 feet below grade to verify no vertical migration. The wells are installed beneath the regional lacustrine clay layer that varies from 50 feet thick in the northwest to 40 feet thick along the eastern property boundary. The regional clay isolates the deep wells from the shallow groundwater impacts. Previous and current analytical results show the deep monitoring wells have either been consistently non-detect or have had low-level laboratory estimated detections below criteria for the 7 COCs. The analytical results show there are no deep chlorinated impacts detected in the deep wells related to the shallow aquifer impacts (Attachment 1). A total of 49 samples have been collected from the deep wells over 16 to 17 quarters of sampling. Although, Arcadis is recommending no further sampling, the monitoring wells will remain in place for future monitoring if necessary.

Monitoring	Current	Proposed	Technical Justification
Well	Sampling	Sampling	
Identification	Frequency	Frequency	
Off-Site Commercial Property Wells (13 total wells): MW-125, MW- 125S, MW-129, MW-129S, MW- 186S, MW-187, MW-187S, MW- 188S, MW-189, MW-189S, MW- 190, MW-190S, MW-191S	Quarterly Sampling	Annual Sampling	 The off-site commercial monitoring wells are located side-gradient to the north and northwest of the site and groundwater flow. Analytical trends show impacts detected have either been consistently low-level detections below non-residential criteria or have been non-detect (Attachment 1). A total of 88 samples have been collected from the off-site commercial property wells over 5 to 7 quarters of sampling.
TW-16-01 and	Quarterly	No Further	 These test wells are in close proximity to PW-16-01 and are considered redundant. PW-16-01 is screened from 9.7 – 19.7 feet below ground surface (bgs) and the associated test wells TW-16-01 and TW-16-02 are screened from 12 – 17 feet bgs. TW-16-01 and TW-16-02 show similar concentrations and trends when compared to PW-16-01 (Attachment 2). MW-45 is closer to the Hydraulic Control System (HCS) and downgradient of PW-16-01 allowing for continued performance monitoring of the HCS. These wells were installed for aquifer testing purposes related to the design of the HCS and were not intended for groundwater monitoring. A total of 29 samples have been collected from the test wells over 14 to 15 quarters of sampling. Although, Arcadis is recommending no further sampling, the monitoring wells will remain in place for future monitoring if necessary.
TW-16-02	Sampling	Sampling	

www.arcadis.com 4/6

Monitoring Well Identification	Current Sampling Frequency	Proposed Sampling Frequency	Technical Justification	
			PW-16-02 is screened from 6 – 21 feet bgs and the associated test wells TW-16-03 and TW-16-04 are screened from 9 – 19 feet bgs.	
			TW-16-03 and TW-16-04 show similar concentrations and trends when compared to PW-16-02 (Attachment 3).	
TW-16-03 and TW-16-04	,	No Further Sampling	These wells were installed for aquifer testing purposes related to the design of the current HCS and were not intended for groundwater monitoring.	
			A total of 29 samples have been collected from the test wells over 14 to 15 quarters of sampling. Although, Arcadis is recommending no further sampling, the monitoring wells will remain in place for future monitoring if applicable.	

For the monitoring well locations proposed to move to a semi-annual frequency, the sampling events will take place during the second and fourth quarters of each year. For the well locations proposed to move to an annual frequency, they will be sampled during a comprehensive site-wide sampling event which will be conducted on a cycle between the second and fourth quarters to capture seasonal variability.

Closing

As described above, reduced sampling is proposed for wells that are redundant or of limited value when sampled on a quarterly basis. Following modification, 206 monitoring wells will continue to be sampled on a quarterly basis including those within the area of impact and downgradient commercial and residential areas located east of the Site. Future updates to the IGMP will be proposed as-needed based on monitoring results and documented in the quarterly progress report.

If the proposed modifications to sampling frequency are acceptable, changes will be implemented for the third quarter groundwater sampling event in 2021. Please let us know if you have questions or concerns or if you would like to discuss further.

Sincerely,

Arcadis of Michigan, LLC

Kris Hinskey

Certified Project Manager II

Email: kristoffer.hinskey@arcadis-us.com

Direct Line: 269-832-7478

Mr. Brandon Alger EGLE May 12, 2021

Enclosures:

Tables

Table 1 - Interim Groundwater Monitoring Summary Table

Figures

Figure 1 - Site Layout and Sampling Summary

Figure 2 - Proposed Modified Groundwater Sampling Locations

Attachments

Attachment 1 - Groundwater Analytical Trend Graphs

Attachment 2 - PW-16-01 Analytical Trend Comparison

Attachment 3 - PW-16-02 Analytical Trend Comparison

www.arcadis.com 6/6

Table



Well ID	Install Date Screen Interval (ft. bgs)		On-Site/Off-Site	Proposed Samplin Frequency	
LMW-15-01	10/27/2015	7.0-12.0	On-Site	No Further Samplin	
LMW-15-02	11/1/2015	7.0-12.0	On-Site	No Further Samplin	
LMW-15-03	11/4/2015	7.0-12.0	On-Site	No Further Samplin	
LMW-15-04	10/26/2015	6.0-11.0	On-Site	No Further Samplin	
LMW-15-05	10/27/2015	7.0-12.0	On-Site	No Further Samplin	
LMW-15-06	11/2/2015	7.0-12.0	On-Site	No Further Samplin	
LMW-15-07	11/4/2015	7.0-12.0	On-Site	No Further Samplin	
LMW-15-08	11/3/2015	7.5-12.5	On-Site	No Further Samplin	
LMW-15-09	11/3/2015	7.0-12.0	On-Site	No Further Samplin No Further Samplin	
LMW-15-10 LMW-20-11	11/2/2015 2/24/2020	7.0-12.0 5.0-15.0	On-Site On-Site	No Further Samplin	
LMW-20-11	2/27/2020	7.0-17.0	On-Site	No Further Samplin	
LMW-20-12	2/28/2020	6.0-16.0	On-Site	No Further Samplin	
LMW-20-14	3/2/2020	6.0-16.0	On-Site	No Further Samplin	
LMW-20-15	3/2/2020	7.5-17.5	On-Site	No Further Samplin	
LMW-20-16	3/3/2020	7.5-17.5	On-Site	No Further Samplin	
LMW-20-17	3/3/2020	7.0-17.0	On-Site	No Further Samplin	
LMW-20-18	3/3/2020	6.5-16.5	On-Site	No Further Samplin	
LMW-20-19	3/4/2020	6.0-16.0	On-Site	No Further Samplin	
LMW-20-20	3/4/2020	4.0-14.0	On-Site	No Further Samplin	
LMW-20-21	3/5/2020	7.0-17.0	On-Site	No Further Samplin	
LMW-20-22	3/5/2020	6.5-16.5	On-Site	No Further Samplin	
LMW-20-23	3/5/2020	5.0-15.0	On-Site	No Further Samplin	
LMW-20-24	6/8/2020	2.0-12.0	On-Site	No Further Samplin	
LMW-20-25	6/8/2020	3.0-13.0	On-Site	No Further Samplin	
LMW-20-26	6/9/2020	5.0-15.0	On-Site	No Further Samplin	
LMW-20-27	6/9/2020	5.0-15.0	On-Site	No Further Samplin	
LMW-20-28	7/2/2020	4.5-14.5	On-Site	No Further Samplin	
MW-01	2/10/2015	14.0-19.0	On-Site	Quarterly	
MW-02	2/5/2015	15.5-20.5	On-Site	Quarterly	
MW-03	2/4/2015	14.0-19.0	On-Site	Quarterly	
MW-04	2/6/2015	15.5-20.5	On-Site	Quarterly	
MW-05	2/5/2015	15.5-20.5	On-Site	Quarterly	
MW-07	2/10/2015	18.0-23.0	On-Site	Quarterly	
MW-09 MW-10	2/11/2015	19.5-24.5	On-Site	Quarterly Quarterly	
MW-14	2/12/2015	16.5-21.5	On-Site	Quarterly	
MW-15-59D	2/11/2015 12/21/2015	15.0-20.0 94.0-99.0	On-Site On-Site	No Further Samplin	
MW-15-60D	12/22/2015	93.0-98.0	On-Site	No Further Samplin	
MW-15-61D	12/28/2015	88.0-93.0	On-Site	No Further Samplin	
MW-18	2/17/2015	13.0-18.0	On-Site	Quarterly	
MW-19	2/9/2015	15.0-20.0	On-Site	Quarterly	
MW-20	2/17/2020	13.5-18.5	On-Site	Quarterly	
MW-21	2/17/2015	13.5-18.5	On-Site	Quarterly	
MW-22	2/19/2015	16.5-20.5	On-Site	Quarterly	
MW-23	2/19/2015	15.0-20.0	On-Site	Quarterly	
MW-24	2/20/2015	19.0-24.0	On-Site	Quarterly	
MW-25	2/20/2015	16.0-21.0	On-Site	Quarterly	
MW-26	2/23/2015	4.5-14.5	On-Site	No Further Samplin	
MW-27	4/17/2015	CNL	On-Site	No Further Samplin	
MW-28	3/24/2015	2.0-12.0	On-Site	No Further Samplin	
MW-29	3/23/2015	5.0-15.0	On-Site	Quarterly	
MW-30	4/9/2015	19.0-24.0	On-Site	Quarterly	
MW-31	4/9/2015	17.0-22.0	On-Site	Quarterly	
MW-32	4/10/2015	18.0-23.0	On-Site	Quarterly	
MW-33	4/10/2015	14.0-19.0	On-Site	Quarterly	
MW-34 MW-35	4/16/2015 4/16/2015	16.5-21.5 19.5-24.5	On-Site On-Site	Quarterly Quarterly	
MW-36	4/17/2015	20.0-25.0	On-Site	Quarterly	
MW-37	4/17/2015	18.0-23.0	On-Site	Quarterly	
MW-38	6/1/2015	15.0-20.0	On-Site	Quarterly	
MW-39	6/1/2015	19.5-24.5	On-Site	Quarterly	
MW-40	5/27/2015	15.0-20.0	On-Site	Quarterly	
MW-41	5/27/2015	16.0-21.0	On-Site	Quarterly	
MW-42	5/26/2015	16.0-21.0	On-Site	Quarterly	
MW-43	5/26/2015	17.0-22.0	On-Site	Quarterly	
MW-44	5/28/2015	16.0-21.0	On-Site	Quarterly	
MW-45	6/2/2015	15.0-20.0	On-Site	Quarterly	
MW-46	6/2/2015	16.0-21.0	On-Site	Quarterly	
MW-47	6/3/2015	16.0-21.0	On-Site	Quarterly	
MW-48	5/29/2015	17.0-22.0	On-Site	Quarterly	
MW-49	6/3/2015	12.5-17.5	On-Site	Quarterly	
MW-50	5/29/2015	16.0-21.0	On-Site	Quarterly	
MW-51	5/28/2015	15.0-20.0	On-Site	Quarterly	
MW-52	6/22/2015	15.0-20.0	On-Site	Quarterly	
MW-53	6/22/2015	16.0-21.0	On-Site	Quarterly	
MW-54	6/23/2015	16.0-21.0	On-Site	Quarterly	
MW-54S	4/10/2019	4.5-9.5	On-Site	Quarterly	
MW-55	6/23/2015	15.0-20.0	On-Site	Semi-Annually	
MW-55D	1/24/2018	19.0-24.0	On-Site	Semi-Annually	
	6/24/2015	16.0-21.0	On-Site	Semi-Annually	
MW-56 MW-57	6/24/2015	17.0-22.0	On-Site	Quarterly	

Table 1 - Interim Groundwater Monitoring Summary Table



Well ID Install Date Screen Inf		Screen Interval (ft. bgs)	On-Site/Off-Site	Proposed Sampling Frequency	
MW-62	4/12/2017	16.0-21.0	On-Site	Quarterly	
MW-63	4/12/2017	7.0-12.0	On-Site	Quarterly	
MW-64	4/19/2017	15.0-20.0	On-Site	Quarterly	
MW-65 MW-66	4/13/2017 4/14/2017	16.0-21.0 15.0-20.0	On-Site On-Site	Quarterly Quarterly	
MW-67	4/13/2017	9.0-14.0	On-Site	Quarterly	
MW-68	4/17/2017	15.0-20.0	On-Site	Quarterly	
MW-69	4/18/2017	15.0-20.0	On-Site	Quarterly	
MW-70	4/17/2017	15.0-20.0	On-Site	Quarterly	
MW-71	4/17/2017	15.0-20.0	On-Site	Quarterly	
MW-72 MW-72S	5/2/2017 12/5/2018	15.0-20.0 3.0-13.0	Off-Site (ROW) Off-Site (ROW)	Quarterly Quarterly	
MW-73D	5/1/2017	13.5-18.5	Off-Site (ROW)	Quarterly	
MW-73SR	12/6/2018	2.5-12.5	Off-Site (ROW)	Quarterly	
MW-74	5/3/2017	14.0-19.0	Off-Site (ROW)	Quarterly	
MW-74S	12/5/2018	3.0-13.0	Off-Site (ROW)	Quarterly	
MW-75D	5/3/2017	12.0-17.0	Off-Site (ROW)	Quarterly	
MW-75SR MW-76	12/6/2018 5/4/2017	2.5-12.5 15.0-20.0	Off-Site (ROW) Off-Site (ROW)	Quarterly Quarterly	
MW-76S	12/4/2018	4.5-14.5	Off-Site (ROW)	Quarterly	
MW-77	5/5/2017	9.0-14.0	Off-Site (ROW)	Quarterly	
MW-77S	11/28/2018	2.5-12.5	Off-Site (ROW)	Quarterly	
MW-78	5/10/2017	7.0-12.0	Off-Site (ROW)	Quarterly	
MW-78S	11/29/2018	2.5-12.5	Off-Site (ROW)	Quarterly	
MW-79D	5/11/2017	10.0-15.0	Off-Site (ROW)	Quarterly	
MW-79SR MW-80SR	12/3/2018 12/3/2018	2.5-12.5 2.5-12.5	Off-Site (ROW) Off-Site (ROW)	Quarterly Quarterly	
MW-81	5/8/2017	8.0-13.0	Off-Site (ROW)	Quarterly	
MW-81S	12/4/2018	2.5-12.5	Off-Site (ROW)	Quarterly	
MW-82D	5/9/2017	18.0-23.0	Off-Site (ROW)	Quarterly	
MW-82SR	12/4/2018	5.0-15.0	Off-Site (ROW)	Quarterly	
MW-83	5/8/2017	8.0-13.0	Off-Site (ROW)	Quarterly	
MW-83S	12/6/2018	3.0-13.0	Off-Site (ROW)	Quarterly Quarterly	
MW-84S	5/16/2017 11/30/2018	8.0-13.0 2.5-12.5	Off-Site (ROW) Off-Site (ROW)	Quarterly	
MW-85	5/11/2017	8.0-13.0	Off-Site (ROW)	Quarterly	
MW-85SR	4/5/2019	4.5-9.5	Off-Site (ROW)	Quarterly	
MW-86	5/15/2017	12.0-17.0	Off-Site (ROW)	Quarterly	
MW-86S	11/29/2018	2.5-12.5	Off-Site (ROW)	Quarterly	
MW-87	5/16/2017	14.0-19.0	Off-Site (ROW)	Quarterly	
MW-87S MW-88S	11/29/2018 10/31/2018	4.5-14.5 3.0-13.0	Off-Site (ROW) Off-Site (Residential)	Quarterly Quarterly	
MW-89S	10/31/2018	3.0-13.0	Off-Site (Residential)	Quarterly	
MW-90S	11/1/2018	2.5-12.5	Off-Site (Residential)	Quarterly	
MW-91S	11/1/2018	2.5-12.5	Off-Site (Residential)	Quarterly	
MW-92S	11/1/2018	2.5-12.5	Off-Site (Residential)	Quarterly	
MW-93S	11/2/2018	2.5-12.5	Off-Site (Residential)	Quarterly	
MW-94S MW-95S	11/2/2018 11/2/2018	2.5-12.5 2.5-12.5	Off-Site (Residential) Off-Site (Residential)	Quarterly Quarterly	
MW-96S	11/28/2018	2.5-12.5	Off-Site (ROW)	Quarterly	
MW-97S	11/28/2018	2.5-12.5	Off-Site (ROW)	Quarterly	
MW-98S	11/30/2018	2.5-12.5	Off-Site (ROW)	Quarterly	
MW-99S	12/5/2018	3.0-13.0	Off-Site (ROW)	Quarterly	
MW-100S MW-101S	12/5/2018	3.0-13.0	Off-Site (ROW)	Quarterly	
MW-1015 MW-102	12/4/2018 12/11/2018	4.5-14.5 10.0-15.0	Off-Site (ROW) Off-Site (ROW)	Quarterly Quarterly	
MW-102S	12/11/2018	2.5-12.5	Off-Site (ROW)	Quarterly	
MW-103S	1/22/2019	2.0-7.0	Off-Site (Residential)	Quarterly	
MW-104S	1/23/2019	9.0-14.0	Off-Site (Residential)	Quarterly	
MW-105S	12/11/2018	2.5-12.5	Off-Site (ROW)	Quarterly	
MW-106S	12/4/2018	2.5-12.5	Off-Site (ROW)	Quarterly	
MW-107S MW-108S	12/4/2018 12/4/2018	2.5-12.5 2.5-12.5	Off-Site (ROW) Off-Site (ROW)	Quarterly Quarterly	
MW-1083	12/17/2018	2.5-12.5	Off-Site (Residential)	Quarterly	
MW-110S	1/23/2019	8.0-13.0	Off-Site (Residential)	Quarterly	
MW-111S	1/29/2019	8.0-13.0	Off-Site (Residential)	Quarterly	
MW-112S	12/17/2018	2.5-12.5	Off-Site (Residential)	Quarterly	
MW-113	1/24/2019	5.0-10.0	On-Site	Semi-Annually	
MW-114 MW-115S	1/24/2019	5.0-10.0	On-Site	Semi-Annually Quarterly	
MW-115S MW-116S	12/13/2018 12/17/2018	2.5-12.5 3.0-13.0	Off-Site (Residential) Off-Site (Residential)	Quarterly Quarterly	
MW-117S	12/17/2018	2.5-12.5	Off-Site (Residential)	Quarterly	
			Off-Site (Residential)	Quarterly	
MW-118S	12/13/2018	2.5-12.5	OII-Site (Resideritial)	Quarterly	

Table 1 - Interim Groundwater Monitoring Summary Table



Well ID Install Dat		Screen Interval (ft. bgs)	On-Site/Off-Site	Proposed Sampling Frequency	
MW-120	2/7/2019	7.0-12.0	On-Site	Semi-Annually	
MW-121S	12/17/2018	2.5-12.5	Off-Site (Residential)	Quarterly	
MW-122	1/23/2019	16-20	On-Site	Semi-Annually	
MW-123S	12/13/2018	2.5-12.5	Off-Site (Residential)	Quarterly	
MW-124	1/25/2019	5.0-10.0	On-Site	Semi-Annually	
MW-125	2/7/2019	7.0-12.0	Off-Site (Commercial)	Annually	
MW-125S	2/7/2019	2.0-7.0	Off-Site (Commercial)	Annually	
MW-126S MW-127S	12/17/2018 12/12/2018	3.0-13.0 3.0-13.0	Off-Site (Residential) Off-Site (Residential)	Quarterly Quarterly	
MW-128S	12/12/2018	4.0-14.0	Off-Site (Residential)	Quarterly	
MW-129	2/8/2019	10.0-15.0	Off-Site (Commercial)	Annually	
MW-129S	2/8/2019	2.0-7.0	Off-Site (Commercial)	Annually	
MW-130S	12/13/2018	3.0-13.0	Off-Site (Residential)	Quarterly	
MW-131S	12/11/2018	2.5-12.5	Off-Site (ROW)	Quarterly	
MW-132S	12/11/2018	2.5-12.5	Off-Site (ROW)	Quarterly	
MW-133S	2/11/2019	4.0-9.0	Off-Site (ROW)	Quarterly	
MW-134S	2/11/2019	5.0-10.0	Off-Site (ROW)	Quarterly	
MW-135S	2/12/2019	5.0-10.0	Off-Site (ROW)	Quarterly	
MW-136S	2/13/2019	2.0-7.0	Off-Site (ROW)	Quarterly	
MW-137S	2/13/2019	2.0-7.0	Off-Site (ROW)	Quarterly	
MW-138S	2/13/2019	2.0-7.0	Off-Site (ROW)	Quarterly	
MW-139S	2/14/2019	2.0-7.0	Off-Site (ROW)	Quarterly	
MW-140S MW-141S	2/13/2019	2.0-7.0	Off-Site (ROW)	Quarterly Quarterly	
MW-141S	2/13/2019 2/14/2019	3.0-8.0 2.5-7.5	Off-Site (ROW) Off-Site (ROW)	Quarterly	
MW-143S	2/14/2019	5.5-10.5	Off-Site (Residential)	Quarterly	
MW-144S	2/14/2019	7.0-12.0	Off-Site (Residential)	Quarterly	
MW-145S	2/15/2019	6.0-11.0	Off-Site (Residential)	Quarterly	
MW-146S	2/15/2019	6.0-11.0	Off-Site (Residential)	Quarterly	
MW-147S	2/15/2019	2.0-7.0	Off-Site (Residential)	Quarterly	
MW-148S	2/15/2019	2.0-7.0	Off-Site (Residential)	Quarterly	
MW-149S	2/15/2019	2.0-7.0	Off-Site (Residential)	Quarterly	
MW-150S	2/18/2019	2.0-7.0	Off-Site (Residential)	Quarterly	
MW-151S	2/20/2019	2.5-7.5	Off-Site (Residential)	Quarterly	
MW-152S	2/18/2019	2.5-7.5	Off-Site (Residential)	Quarterly	
MW-153S	2/18/2019	2.0-7.0	Off-Site (Residential)	Quarterly	
MW-154S	2/18/2019	2.0-7.0	Off-Site (Residential)	Quarterly	
MW-155S	2/18/2019	2.0-7.0	Off-Site (Residential)	Quarterly	
MW-156S MW-157S	2/19/2019 2/18/2019	3.0-8.0 2.5-7.5	Off-Site (Residential) Off-Site (Residential)	Quarterly Quarterly	
MW-158S	2/19/2019	2.5-7.5	Off-Site (Residential)	Quarterly	
MW-159S	2/19/2019	4.0-9.0	Off-Site (Residential)	Quarterly	
MW-160S	2/19/2018	4.0-9.0	Off-Site (Residential)	Quarterly	
MW-161S	2/21/2019	2.5-7.5	Off-Site (Residential)	Quarterly	
MW-162S	2/20/2019	3.0-8.0	Off-Site (Residential)	Quarterly	
MW-163S	2/19/2019	2.0-7.0	Off-Site (Residential)	Quarterly	
MW-164S	2/19/2019	3.0-8.0	Off-Site (Residential)	Quarterly	
MW-165S	3/7/2019	2.0-7.0	Off-Site (Residential)	Quarterly	
MW-166S	3/8/2019	6.0-11.0	Off-Site (Residential)	Quarterly	
MW-167S	2/20/2019	5.0-10.0	Off-Site (Residential)	Quarterly	
MW-168S	2/20/2019	2.0-7.0	Off-Site (Residential)	Quarterly	
MW-169S MW-170S	2/20/2019 2/27/2019	2.0-7.0 4.5-9.5	Off-Site (Residential) Off-Site (Residential)	Quarterly Quarterly	
MW-171S	2/20/2019	4.5-9.5 2.0-7.0	Off-Site (Residential)	Quarterly	
MW-1715	2/21/2019	4.5-9.5	Off-Site (Residential)	Quarterly	
MW-173S	2/21/2019	5.5-10.5	Off-Site (Residential)	Quarterly	
MW-174S	2/26/2019	5.5-10.5	Off-Site (Residential)	Quarterly	
MW-175S	2/22/2019	6.0-11.0	Off-Site (Residential)	Quarterly	
MW-176S	2/21/2019	5.0-10.0	Off-Site (Residential)	Quarterly	
MW-177S	2/22/2019	4.0-9.0	Off-Site (Residential)	Quarterly	
MW-178S	2/21/2019	4.5-9.5	Off-Site (Residential)	Quarterly	
MW-179S	2/22/2019	6.0-11.0	Off-Site (Residential)	Quarterly	
MW-180SR	3/1/2019	6.5-11.5	Off-Site (Residential)	Quarterly	
MW-181S	2/27/2019	3.5-8.5	Off-Site (Residential)	Quarterly	
MW-182S	2/22/2019	4.0-9.0	Off-Site (Residential)	Quarterly	
MW-183S MW-184S	2/21/2019	8.0-13.0 4 5-9 5	Off-Site (Residential)	Quarterly Quarterly	
MW-185S	3/7/2019 3/1/2019	4.5-9.5 6.0-11.0	Off-Site (Residential) Off-Site (Residential)	Quarterly	
MW-186S	4/3/2019	2.5-7.5	Off-Site (Residential)	Annually	
MW-187	4/9/2019	8.0-13.0	Off-Site (Commercial)	Annually	
MW-187S	4/9/2019	3.0-8.0	Off-Site (Commercial)	Annually	
MW-188S	4/3/2019	3.0-8.0	Off-Site (Commercial)	Annually	
MW-189	4/4/2019	10.0-15.0	Off-Site (Commercial)	Annually	
		4.5-9.5	Off-Site (Commercial)	Annually	

Table 1 - Interim Groundwater Monitoring Summary Table



Well ID Install Date		Screen Interval (ft. bgs)	On-Site/Off-Site	Proposed Sampling Frequency	
MW-190	4/4/2019	9.0-14.0	Off-Site (Commercial)	Annually	
MW-190S	4/4/2019	2.5-7.5	Off-Site (Commercial)	Annually	
MW-191S MW-192S	4/3/2019	2.5-7.5	Off-Site (Commercial)	Annually Quarterly	
MW-193S	4/9/2019 8/6/2019	2.5-7.5 3.0-8.0	Off-Site (ROW) Off-Site (Residential)	Quarterly	
MW-194	11/1/2019	12.0-17.0	On-Site	Semi-Annually	
MW-194S	11/1/2019	2.0-7.0	On-Site	Semi-Annually	
MW-195S	10/31/2019	2.0-7.0	On-Site	Semi-Annually	
MW-196	10/31/2019	12.0-17.0	On-Site	Semi-Annually	
MW-196S	10/31/2019	2.0-7.0	On-Site	Semi-Annually Semi-Annually	
MW-197S MW-198	11/4/2019 11/1/2019	3.0-8.0 12.0-17.0	On-Site On-Site	Semi-Annually Semi-Annually	
MW-198S	11/1/2019	2.5-7.5	On-Site	Semi-Annually	
MW-199S	11/1/2019	2.0-7.0	On-Site	Semi-Annually	
MW-200	11/5/2019	15.0-20.0	On-Site	Quarterly	
MW-200S	11/4/2019	5.0-10.0	On-Site	Quarterly	
MW-201	11/4/2019	17.0-22.0	On-Site	Quarterly	
MW-201S	11/4/2019	3.5-8.5	On-Site	Quarterly	
MW-202 MW-202S	12/17/2019 12/13/2019	12.0-17.0 3.5-8.5	Off-Site (Commercial) Off-Site (Commercial)	Annually Annually	
MW-203	12/17/2019	13.0-18.0	Off-Site (Commercial)	Annually	
MW-203S	12/13/2019	3.0-8.0	Off-Site (Commercial)	Annually	
MW-204	12/19/2019	12.0-17.0	Off-Site (ROW)	Annually	
MW-204S	12/16/2019	4.0-9.0	Off-Site (ROW)	Annually	
MW-205	12/19/2019	12.0-17.0	Off-Site (ROW)	Annually	
MW-205S	12/16/2019	4.5-9.5	Off-Site (ROW)	Annually	
MW-206 MW-206S	12/19/2019	14.0-19.0 6.5-11.5	Off-Site (Commercial) Off-Site (Commercial)	Annually Annually	
MW-2003	12/19/2019 12/17/2019	4.5-9.5	Off-Site (Residential)	Quarterly	
MW-208S	1/17/2020	9.0-14.0	On-Site	Quarterly	
MW-209S	1/17/2020	8.0-13.0	On-Site	Quarterly	
MW-210S	1/17/2020	8.0-13.0	On-Site	Quarterly	
MW-211S	1/20/2020	7.0-12.0	On-Site	Quarterly	
MW-212S	1/20/2020	6.5-11.5	On-Site	Quarterly	
MW-213S MW-214S	1/20/2020 1/21/2020	6.0-11.0	On-Site	Quarterly Quarterly	
MW-215S	1/21/2020	3.0-8.0 5.5-10.5	Off-Site (Commercial) Off-Site (Commercial)	Quarterly	
MW-216S	1/21/2020	6.0-11.0	Off-Site (Residential)	Quarterly	
MW-217S	1/22/2020	6.0-11.0	Off-Site (Residential)	Quarterly	
MW-218S	1/22/2020	9.0-14.0	On-Site	Quarterly	
MW-219S	1/22/2020	7.0-12.0	On-Site	Quarterly	
MW-220S	1/23/2020	6.0-11.0	On-Site	Quarterly	
MW-221S MW-222S	1/23/2020 1/24/2020	6.5-11.5 5.5.0-10.0.5	On-Site On-Site	Quarterly Quarterly	
MW-223S	1/28/2020	8.5-13.5	Off-Site (Commercial)	Quarterly	
MW-224S	1/29/2020	7.0-12.0	On-Site	Quarterly	
MW-225S	1/30/2020	5.5-10.5	Off-Site (Residential)	Quarterly	
PW-16-01	6/6/2016	9.7-19.7	On-Site	Quarterly	
PW-16-02	8/3/2016	12.0-17.0	On-Site	Quarterly	
PZ-01	11/14/2018	15.0-20.0	On-Site	Not Sampled	
PZ-02 PZ-03	11/15/2018 11/15/2018	15.0-20.0 15.0-20.0	On-Site On-Site	Not Sampled Not Sampled	
PZ-03	11/16/2018	16.0-21.0	On-Site	Not Sampled	
PZ-05	11/20/2018	15.0-20.0	On-Site	Not Sampled	
PZ-06	11/20/2018	16.0-21.0	On-Site	Not Sampled	
PZ-07	11/26/2018	15.0-20.0	On-Site	Not Sampled	
PZ-08	12/17/2018	15.0-20.0	On-Site	Not Sampled	
PZ-09	12/17/2018	15.0-20.0	On-Site	Not Sampled	
PZ-10	12/18/2018	15.0-20.0	On-Site	Not Sampled Not Sampled	
PZ-11 PZ-12	12/18/2018 12/19/2018	15.0-20.0 15.0-20.0	On-Site On-Site	Not Sampled Not Sampled	
PZ-12 PZ-13	12/19/2018	15.0-20.0	On-Site	Not Sampled	
PZ-14	4/10/2019	13.0-18.0	On-Site	Not Sampled	
PZ-15	4/10/2019	13.0-18.0	On-Site	Not Sampled	
TW-16-01	6/6/2016	12.0-17.0	On-Site	No Further Sampling	
TW-16-02 TW-16-03	6/7/2016 8/4/2016	12.0-17.0 9.0-19.0	On-Site On-Site	No Further Sampling No Further Sampling	

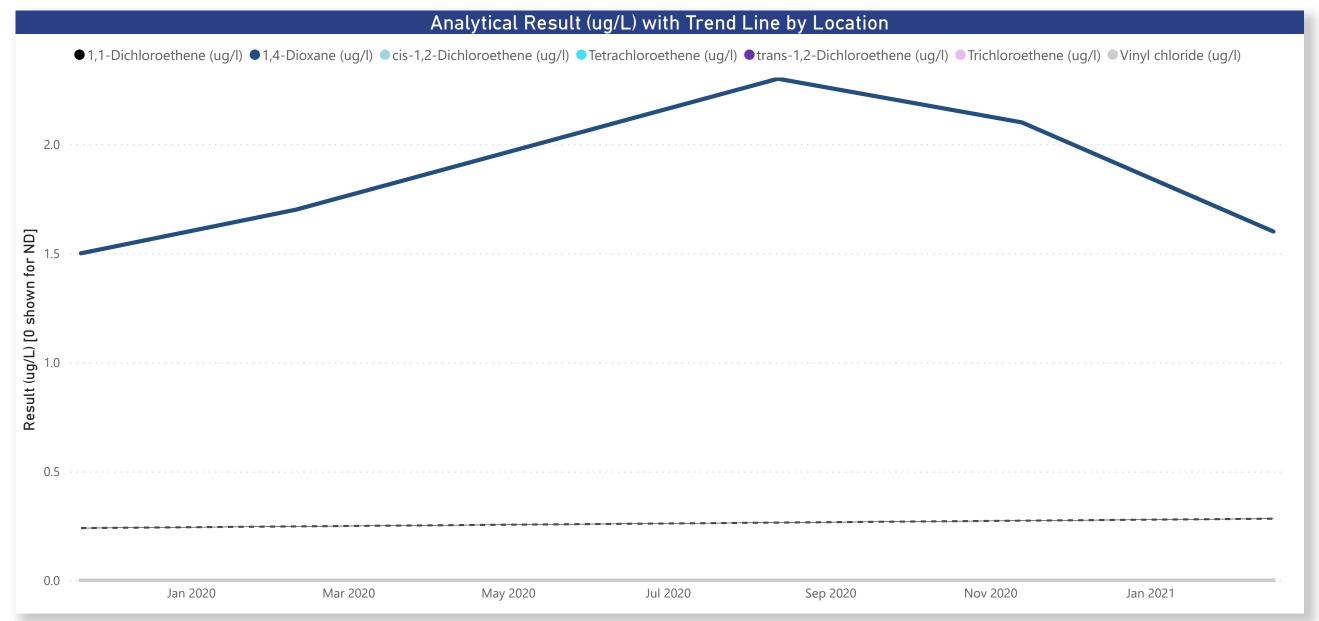
Notes: ft. bgs = feet below ground surface CNL = Could not locate

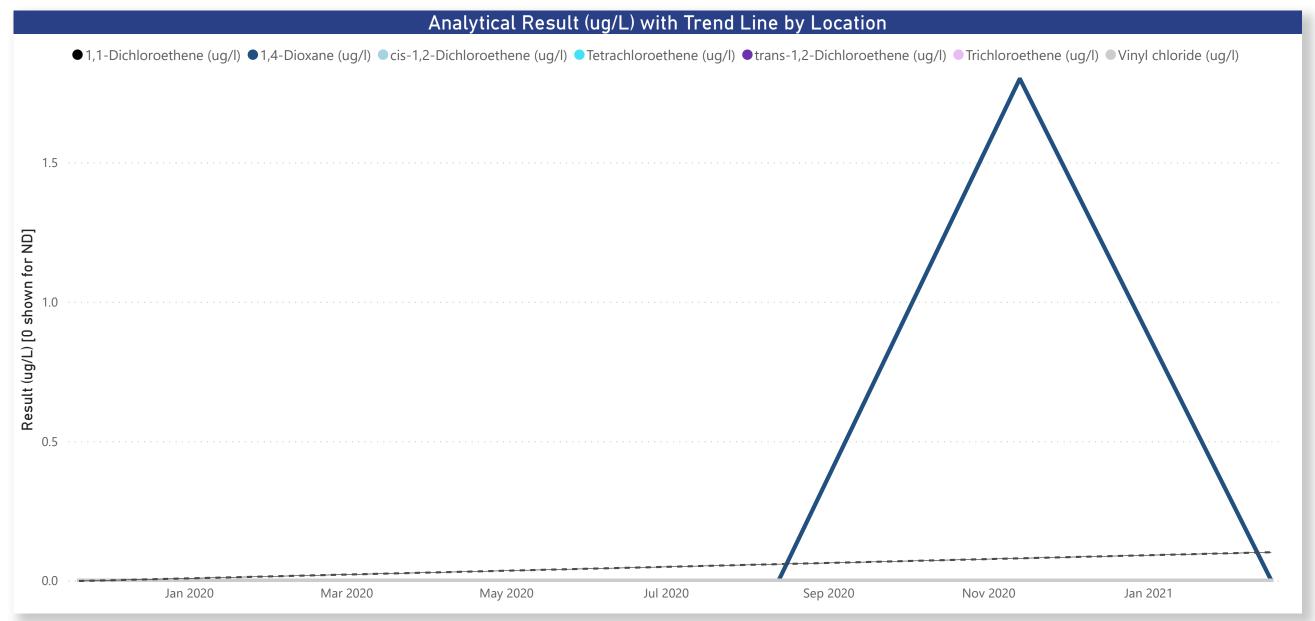
4/4 Table 1 - Interim Groundwater Monitoring Summary Table

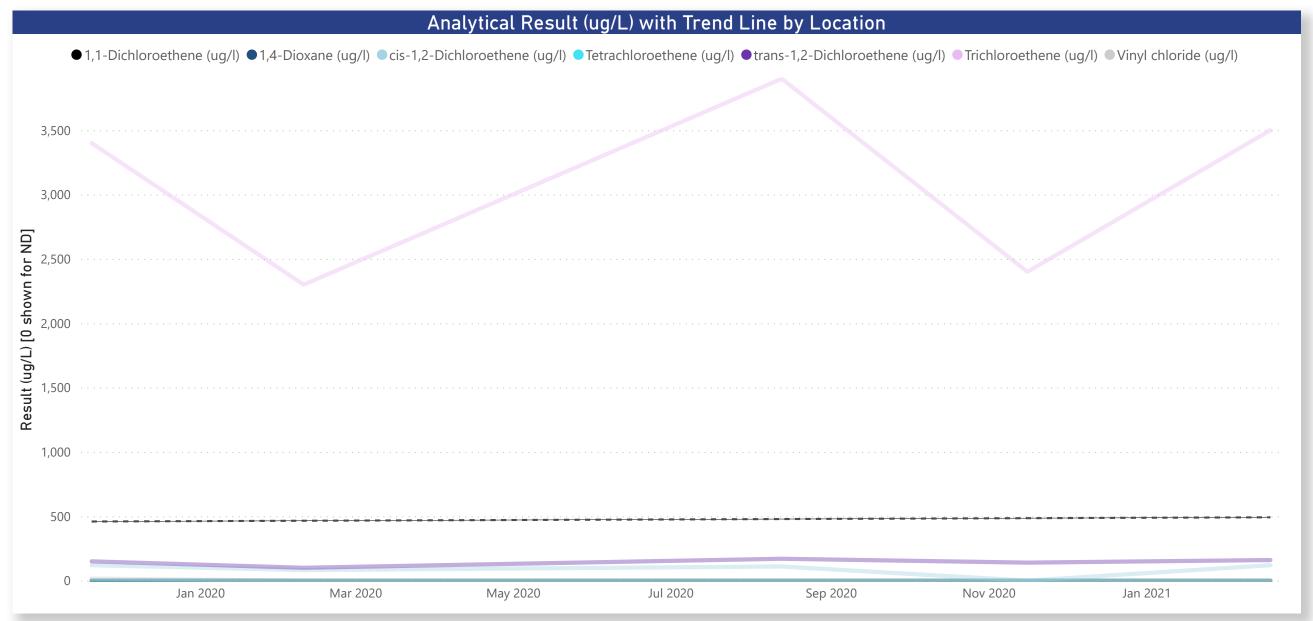
Figures

Attachment 1

Groundwater Analytical Trend Graphs







Constituent

Location

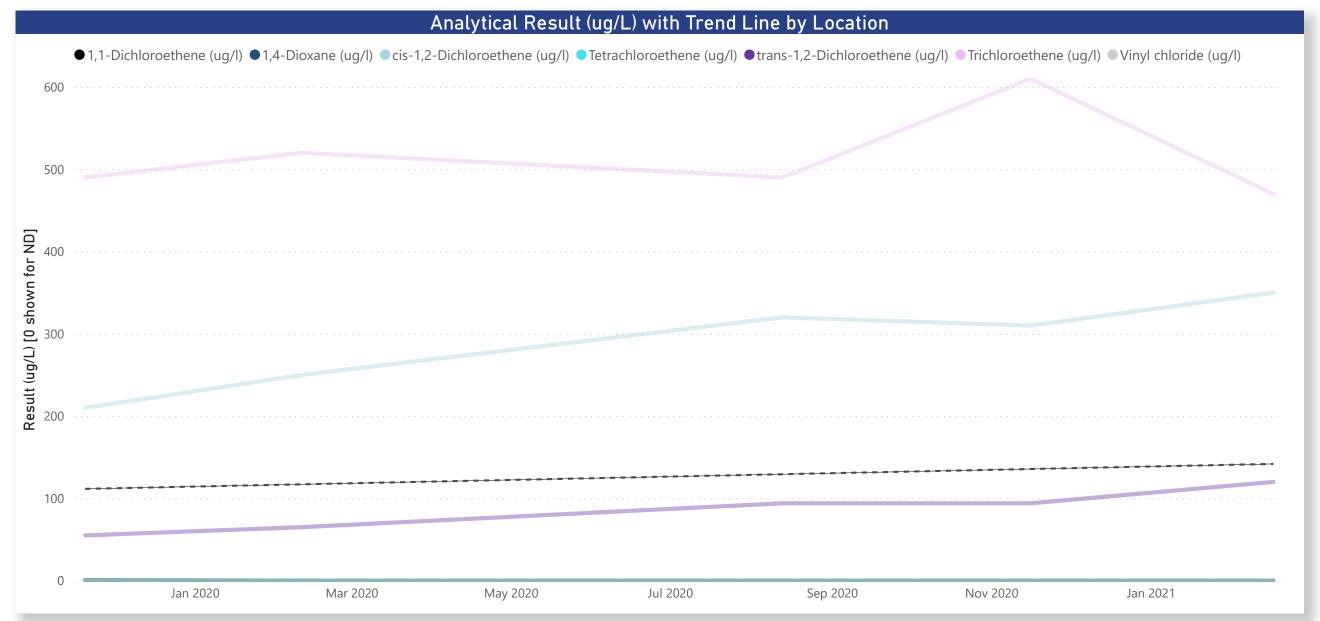
Select to Update Graph:

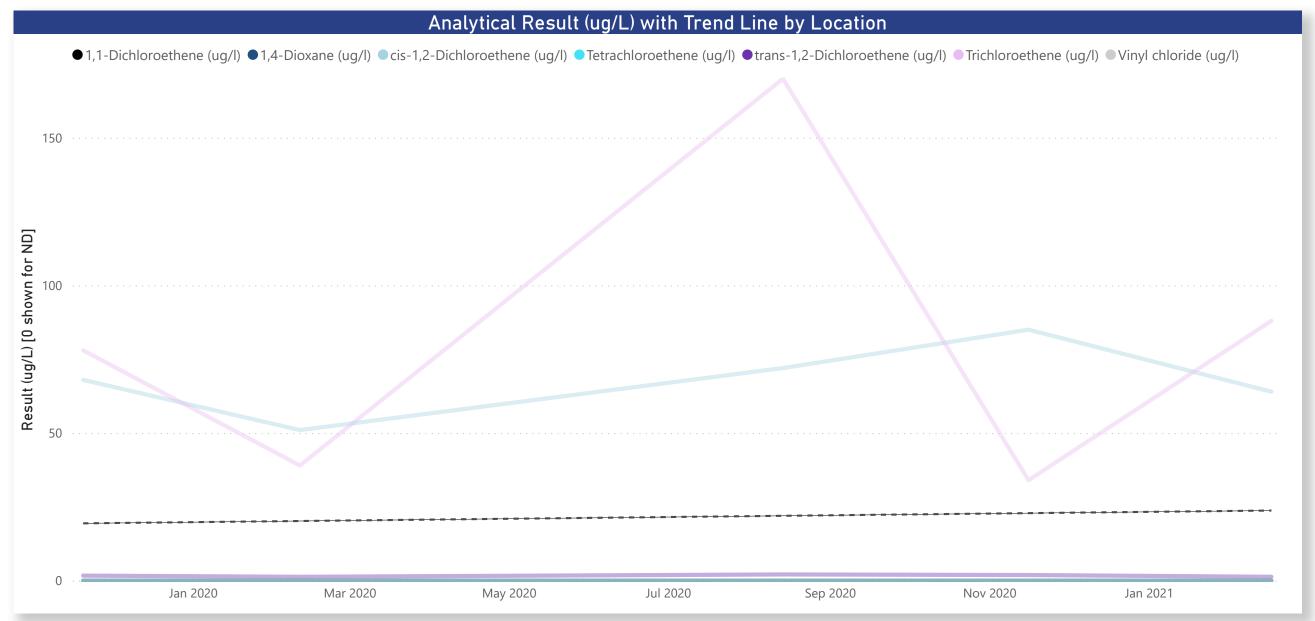


MW-196



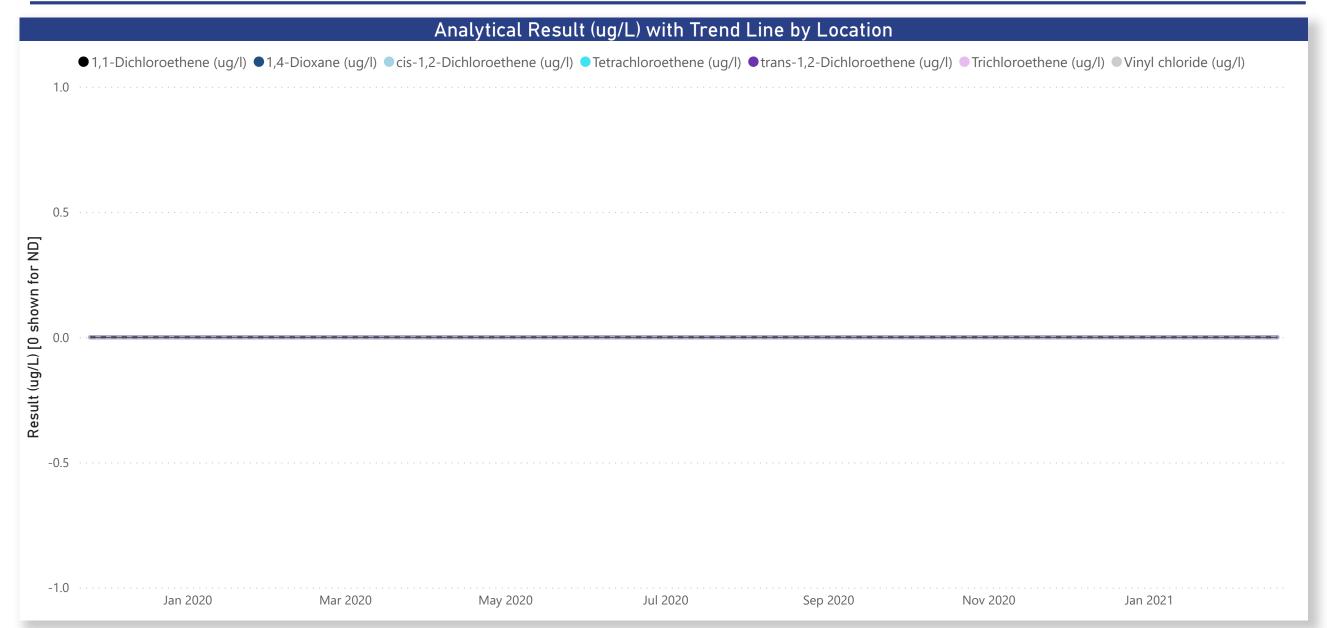


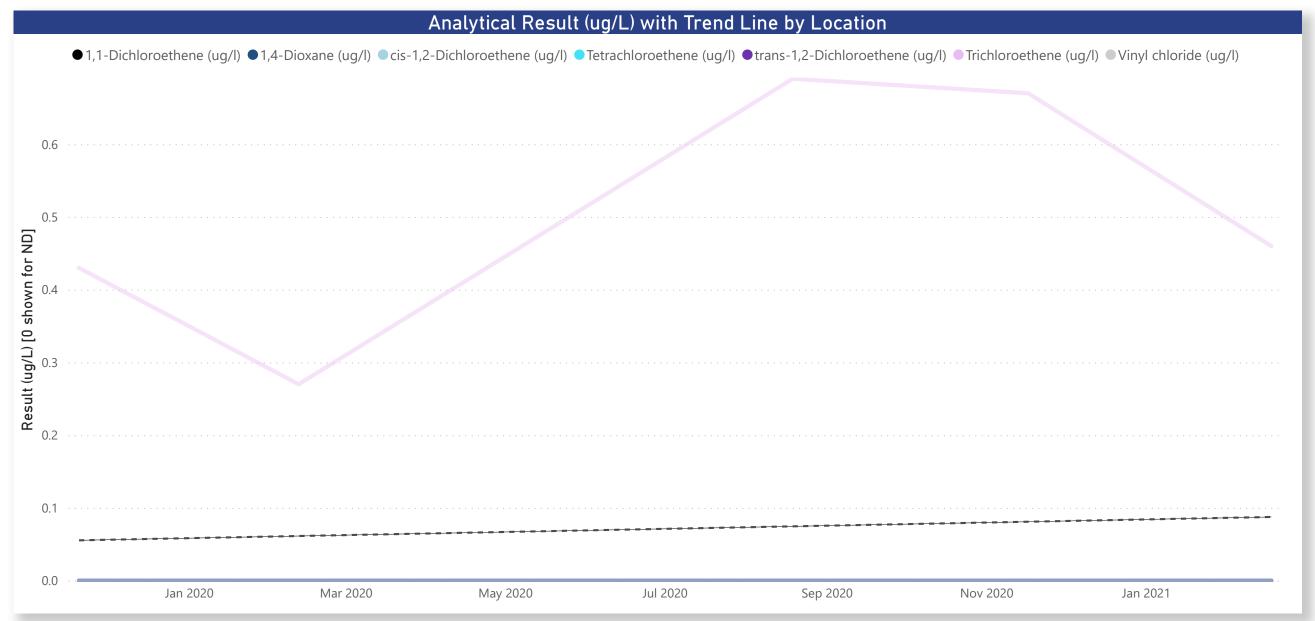


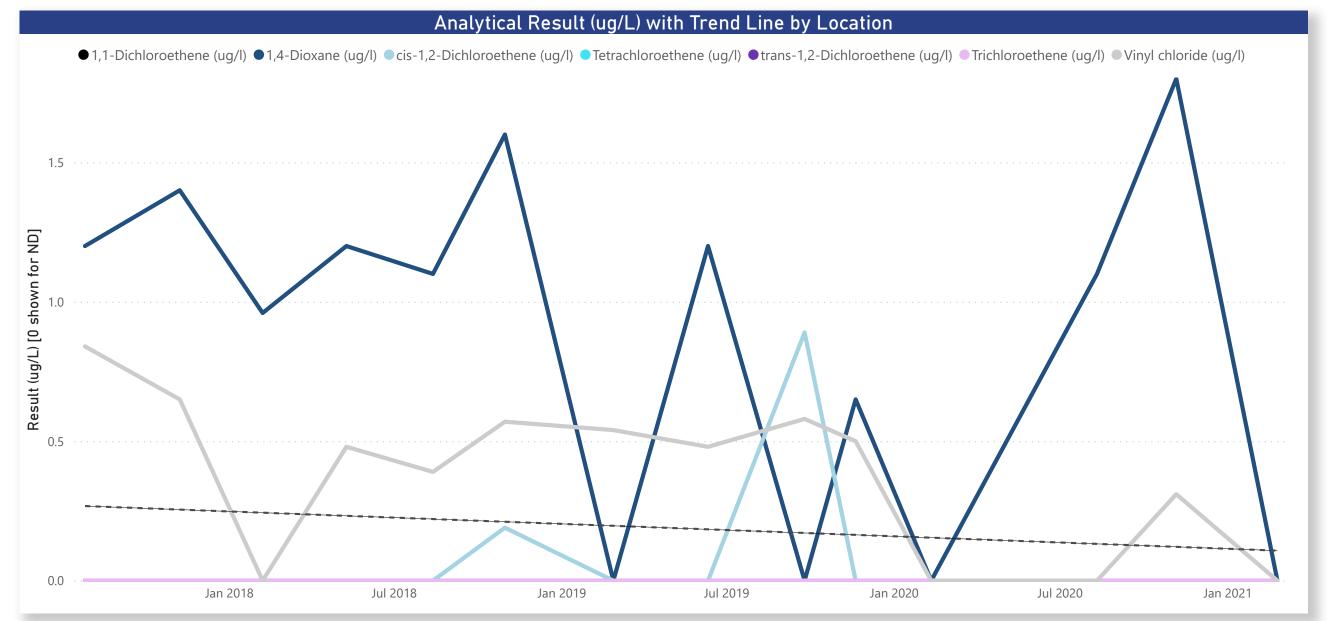




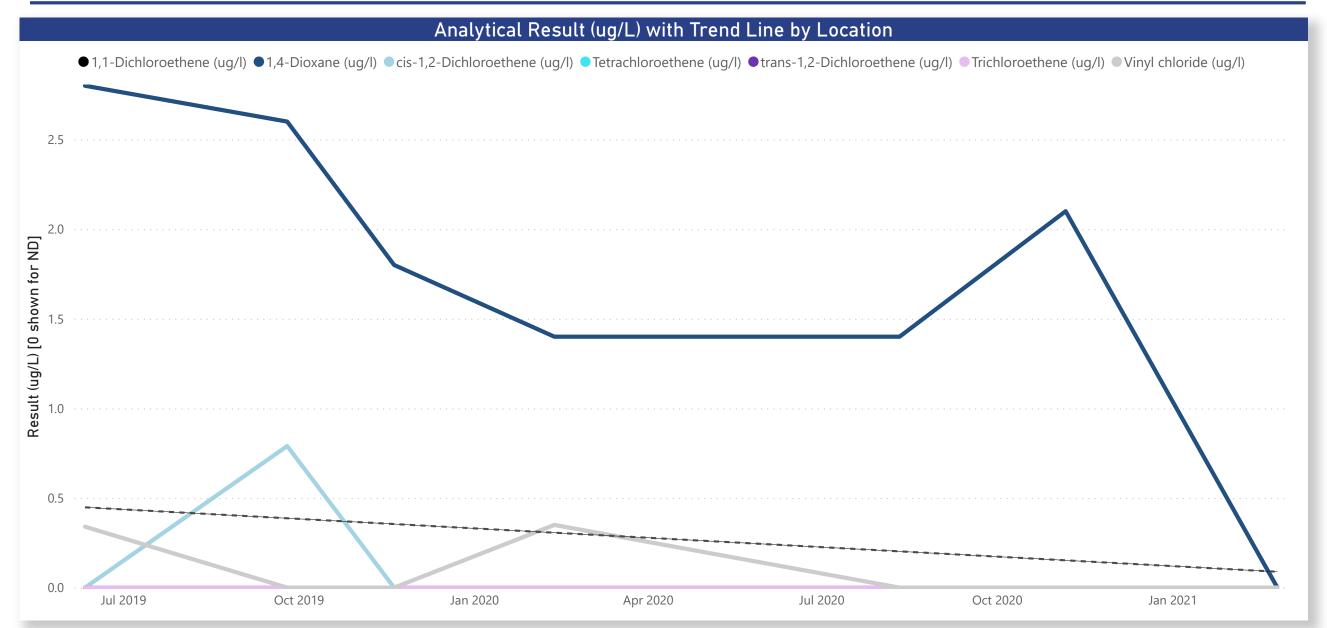




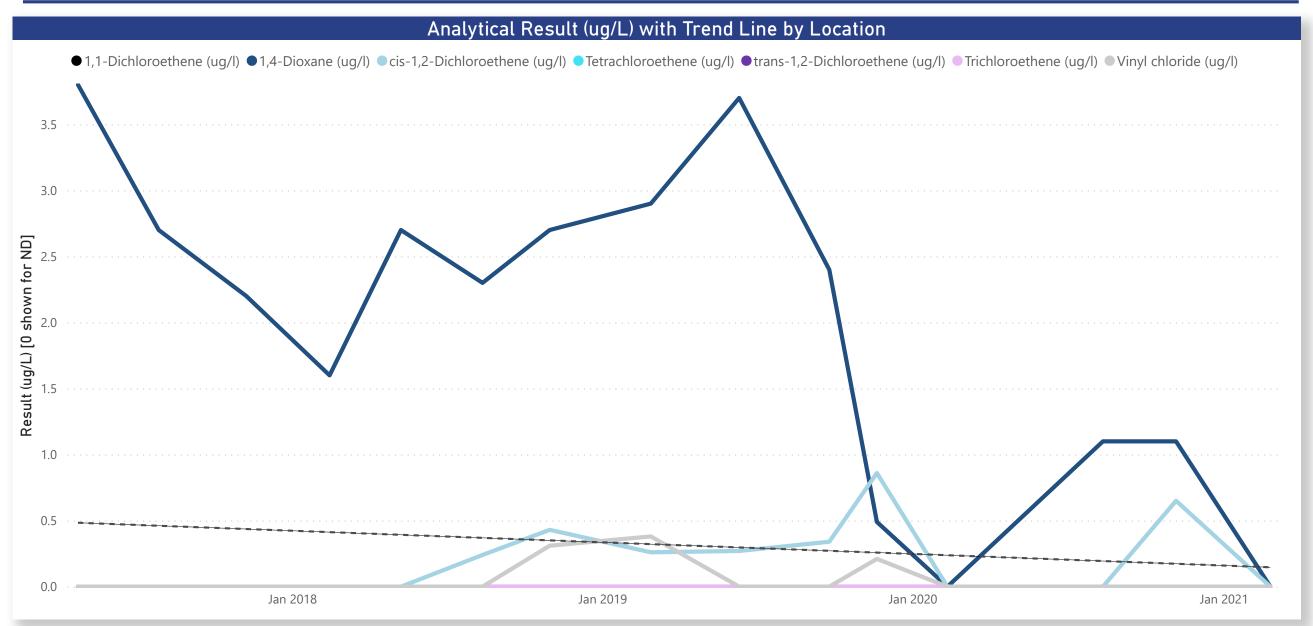


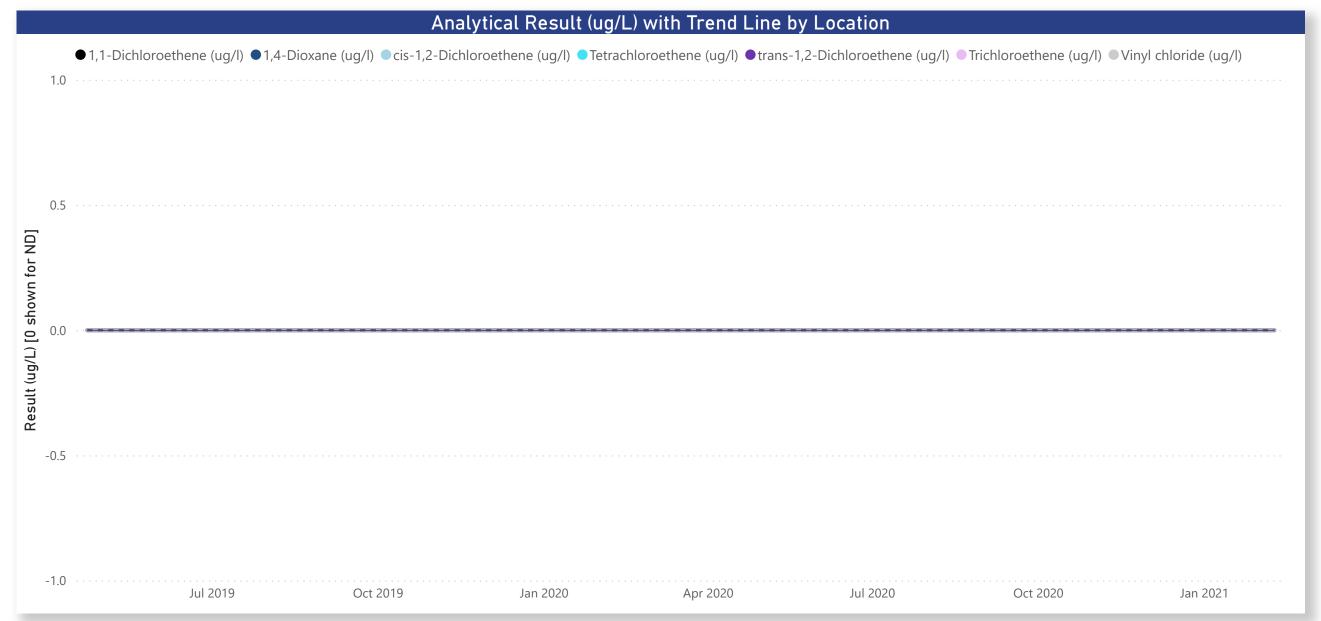


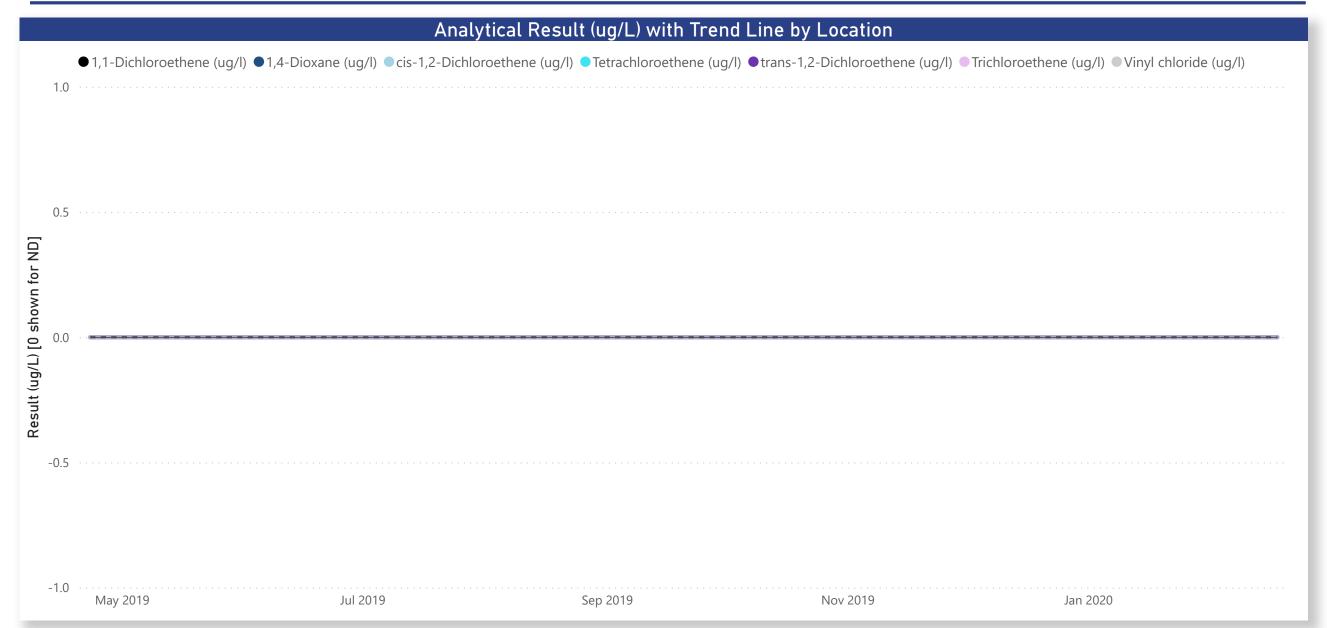












Constituent

Location

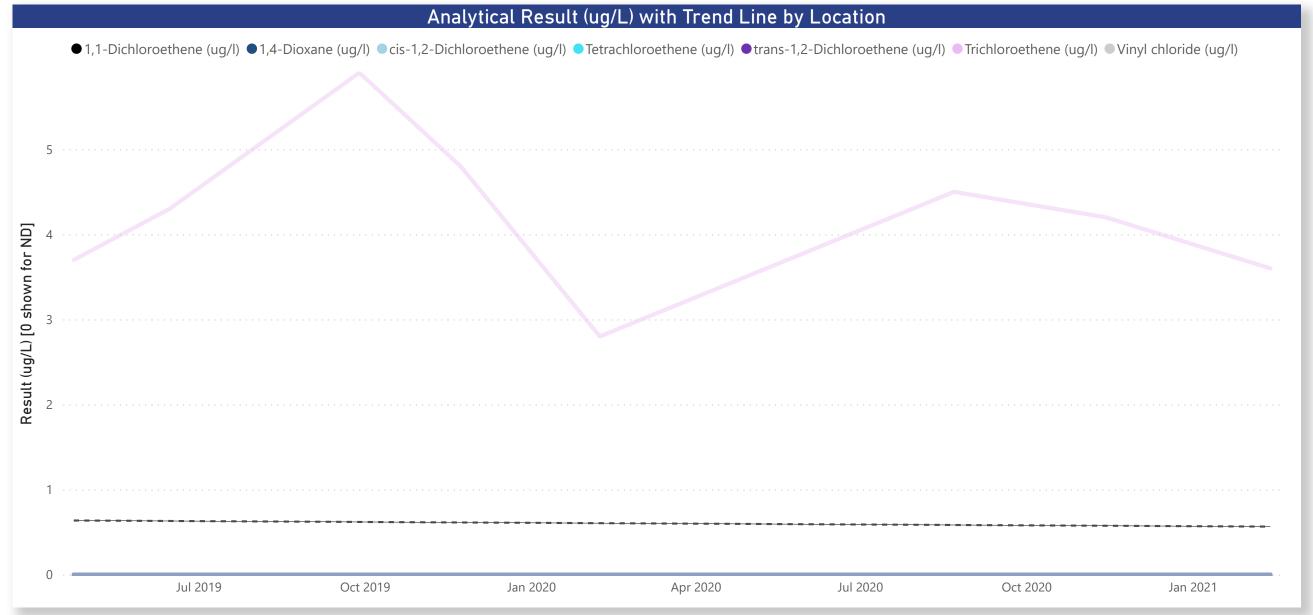
Select to Update Graph:



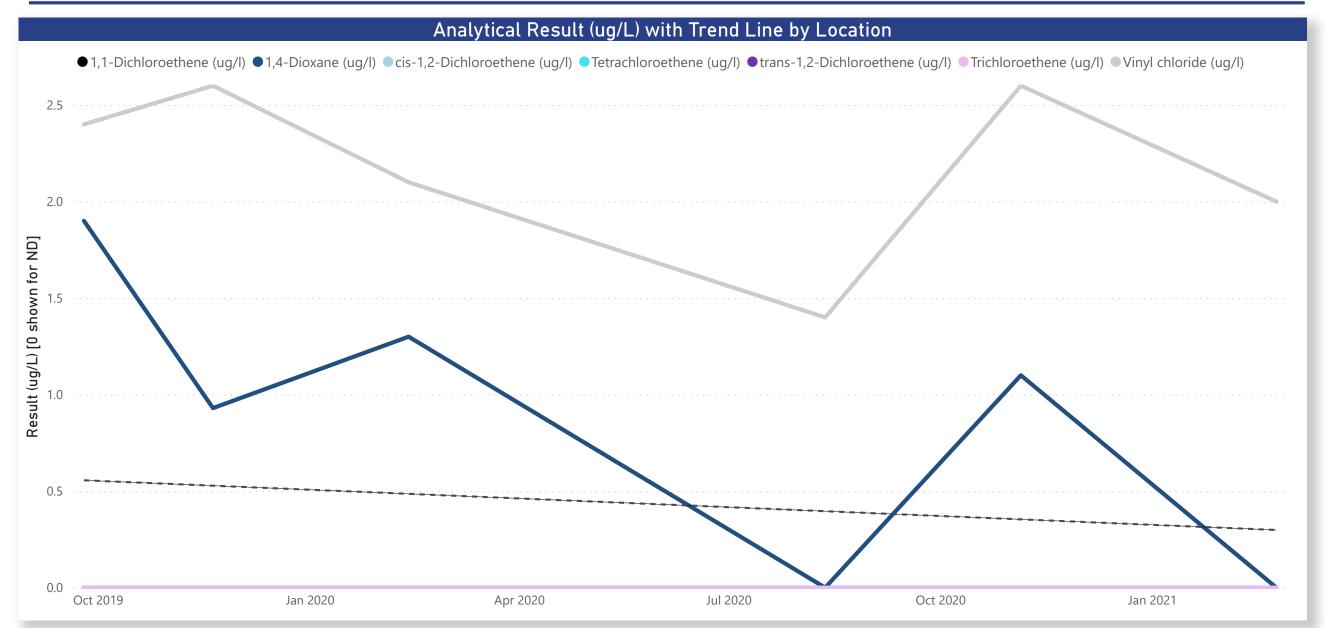
Multiple selections

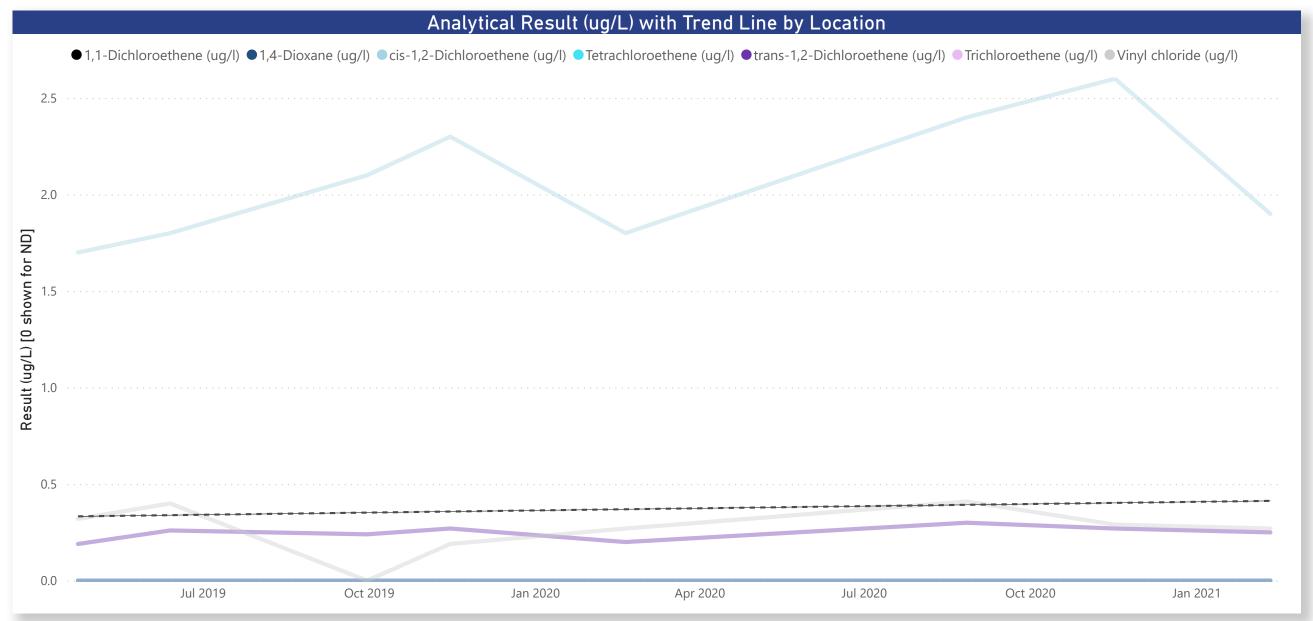
MW-120

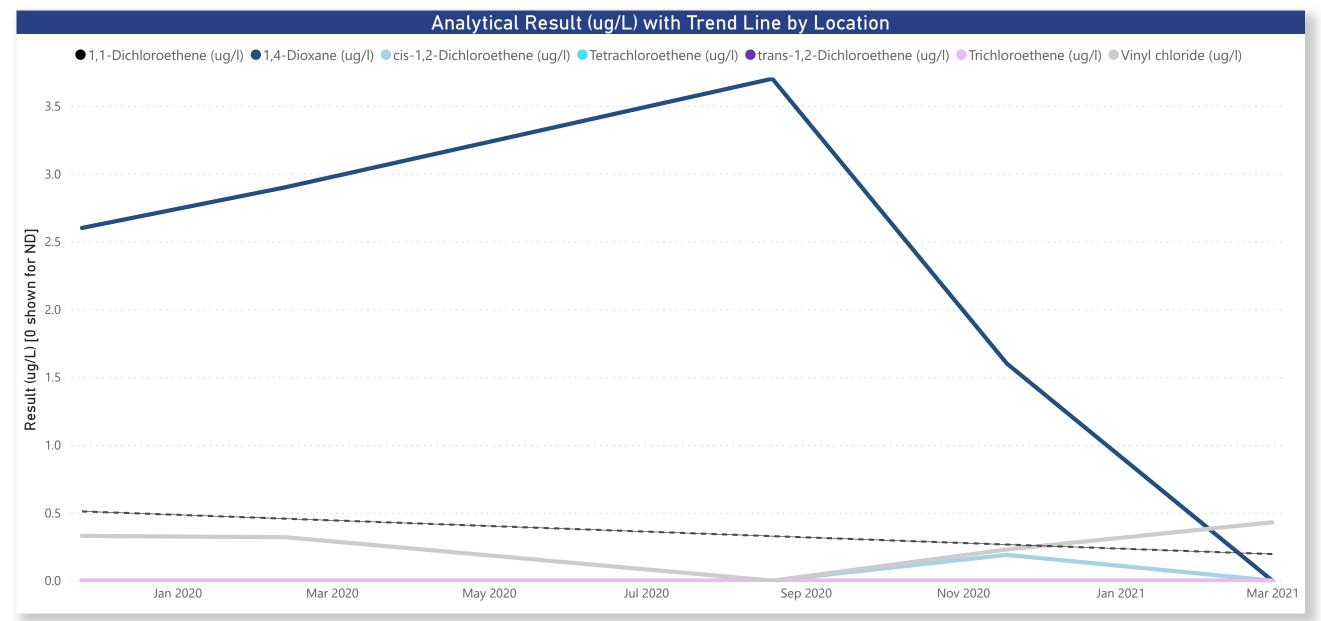


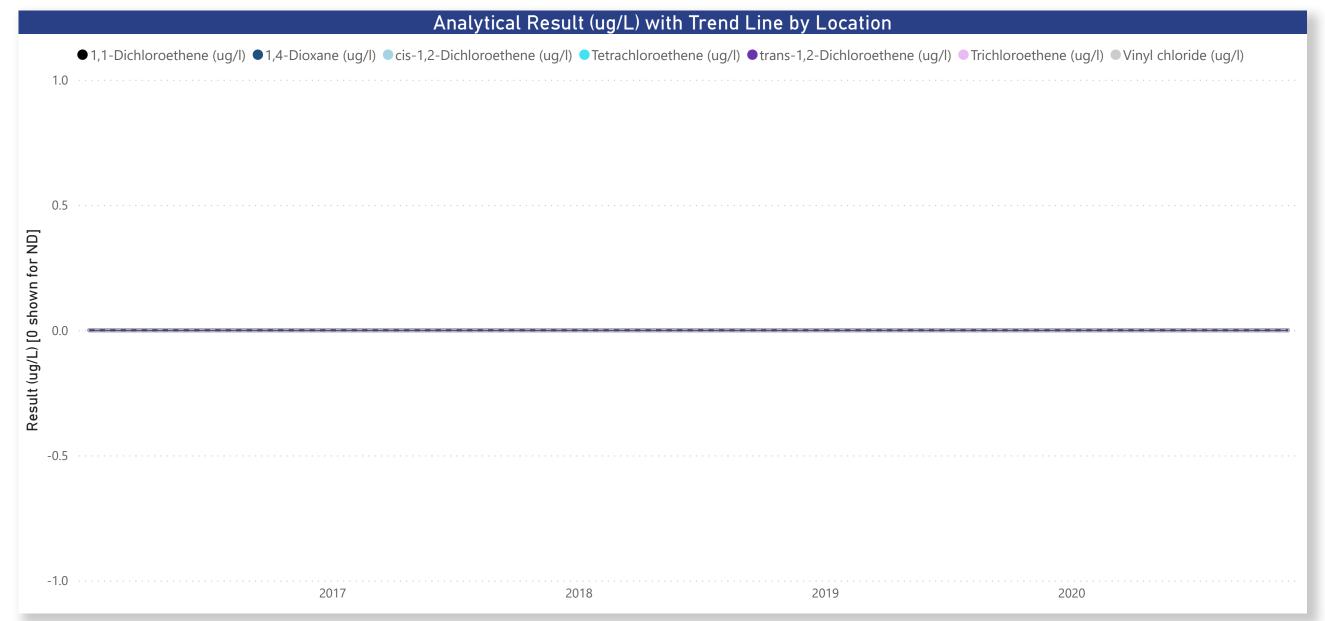


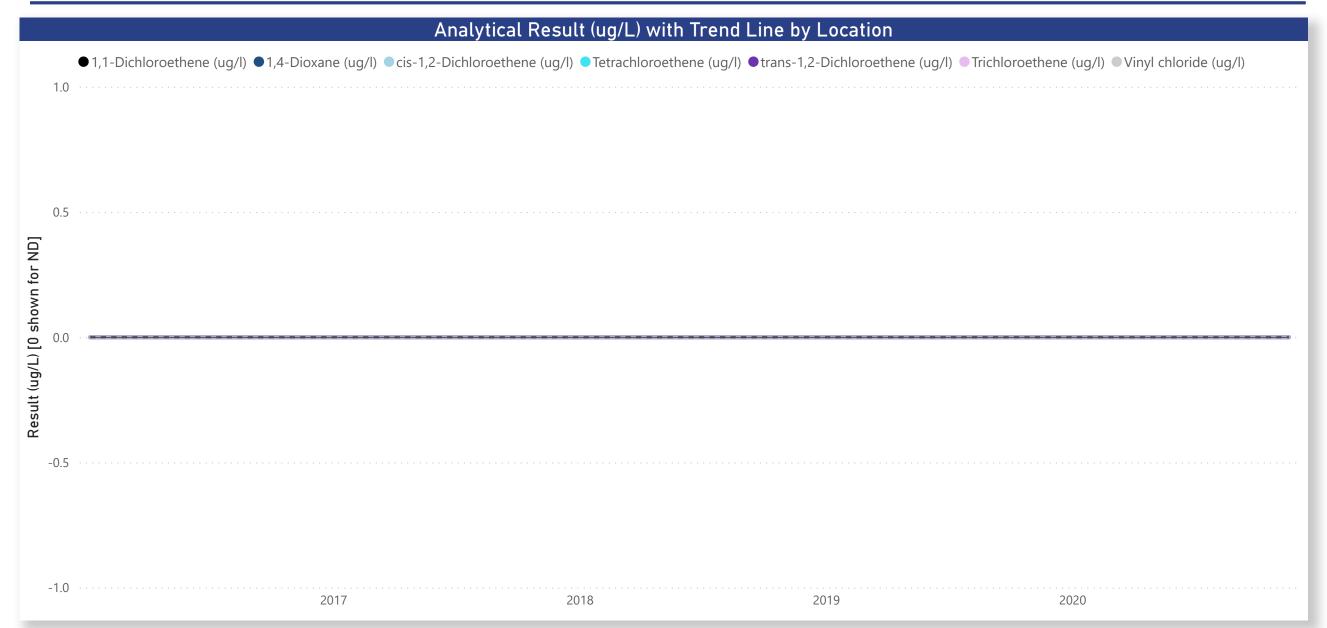


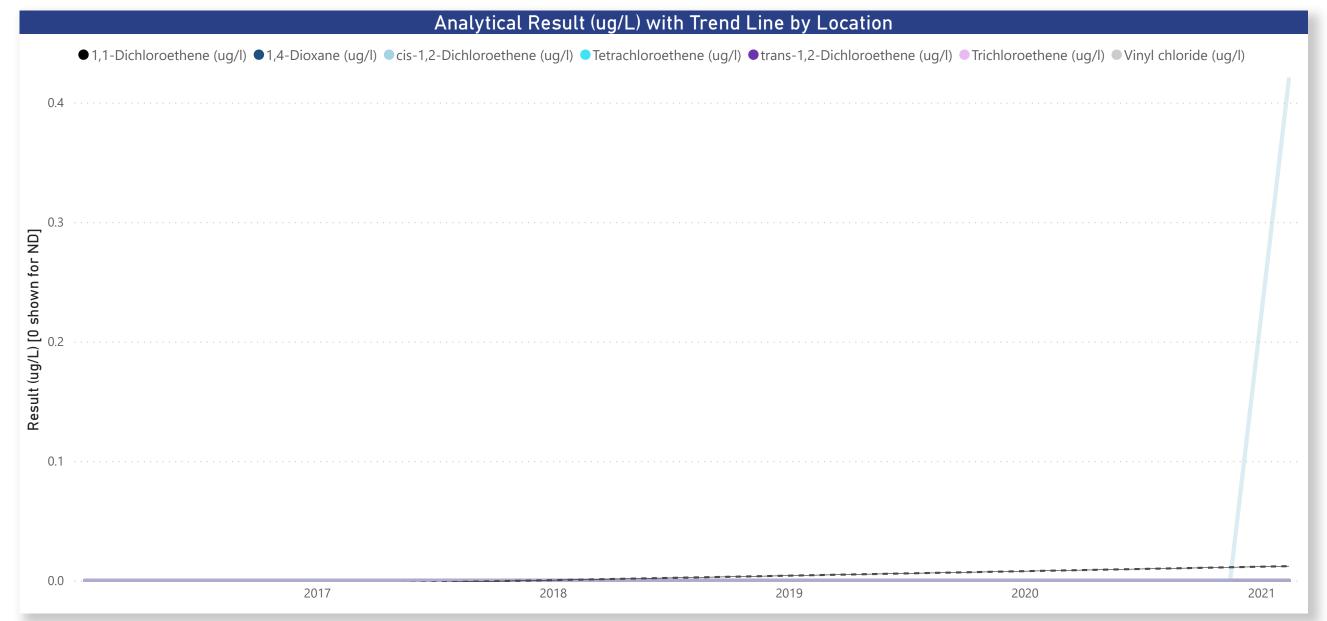


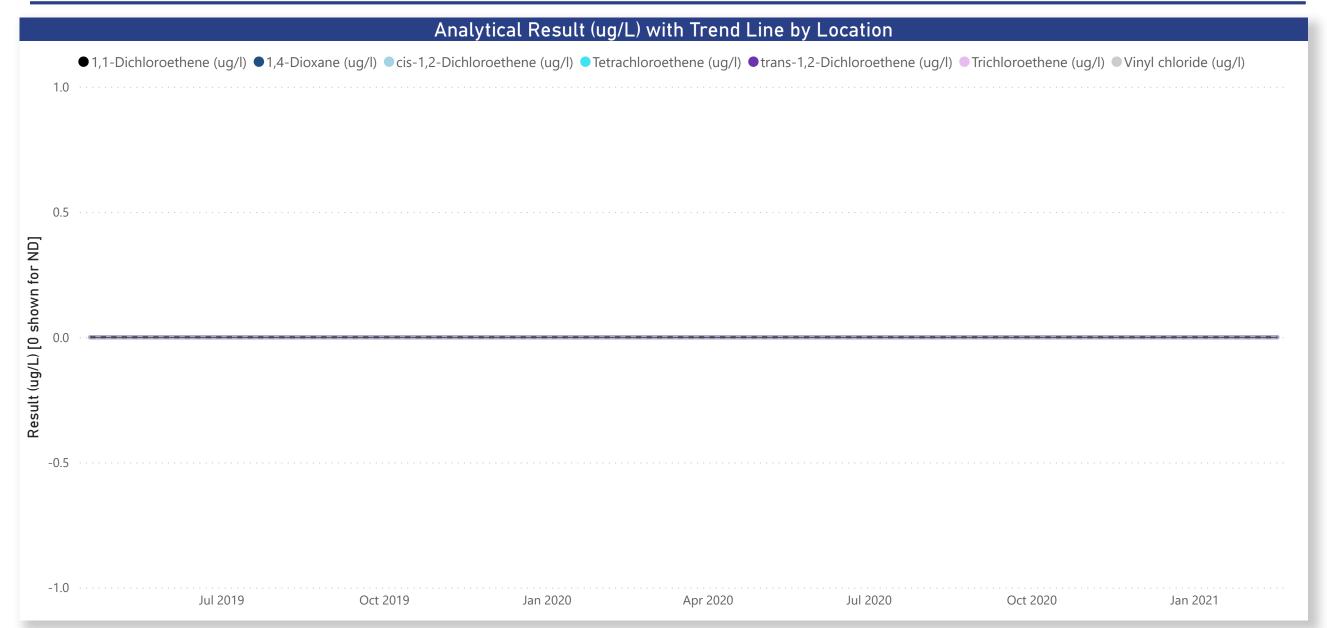












Select to Update Graph:

Constituent

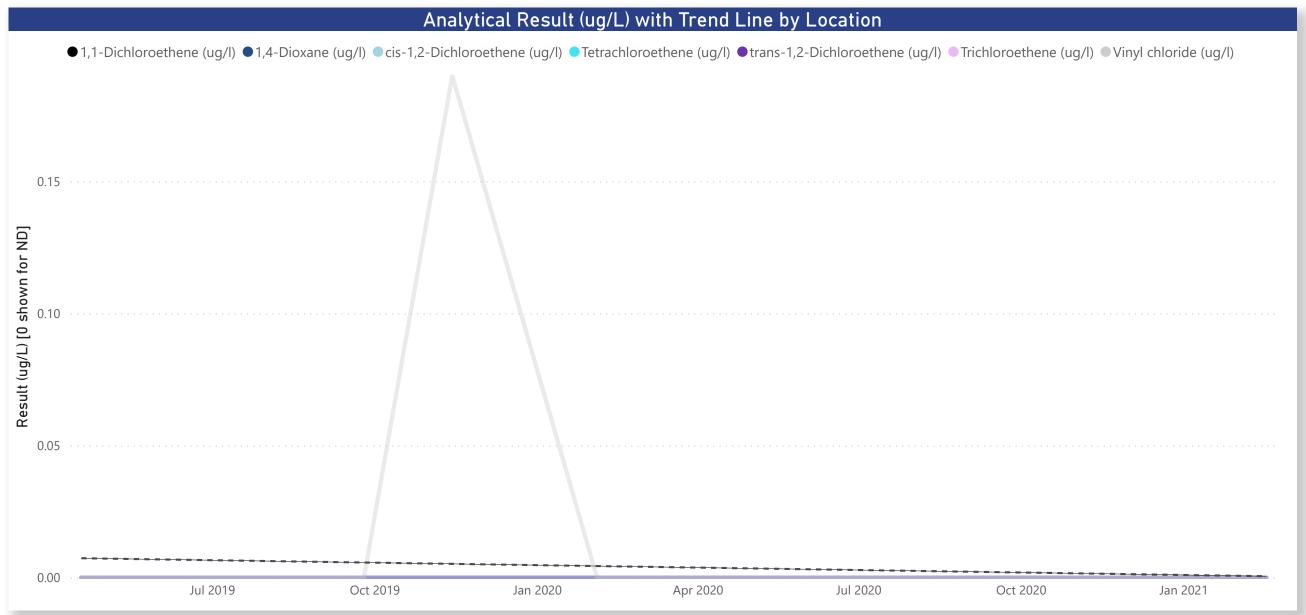
Location

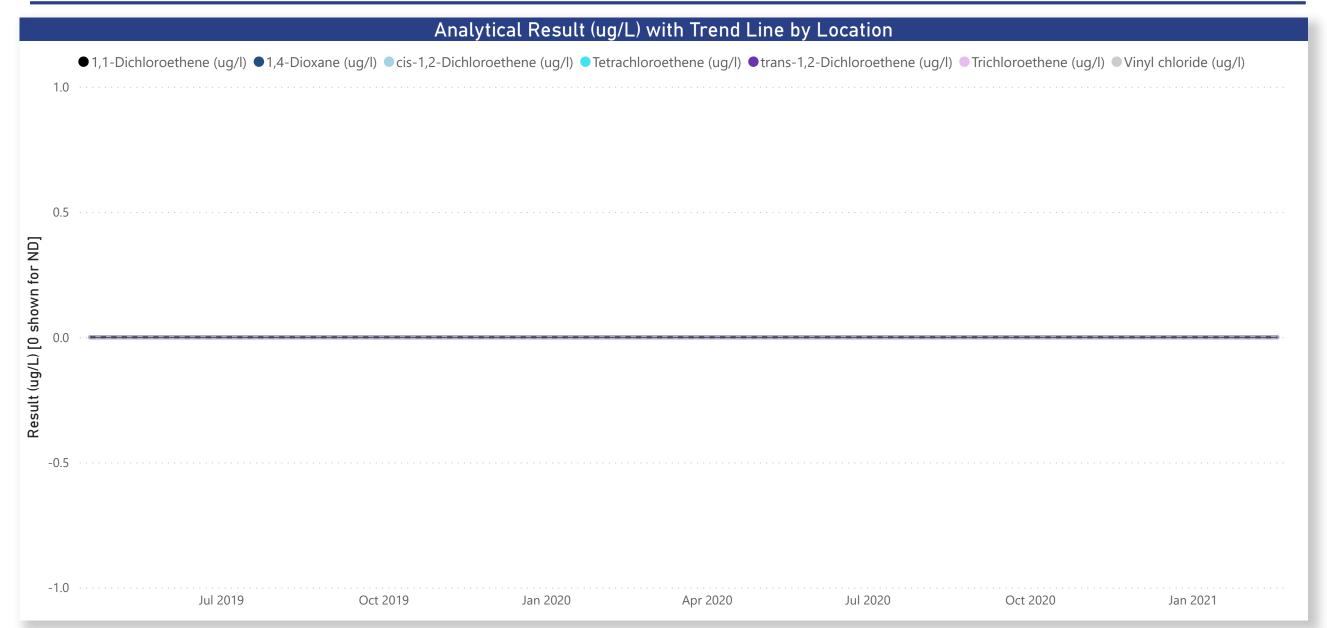
Multiple selections

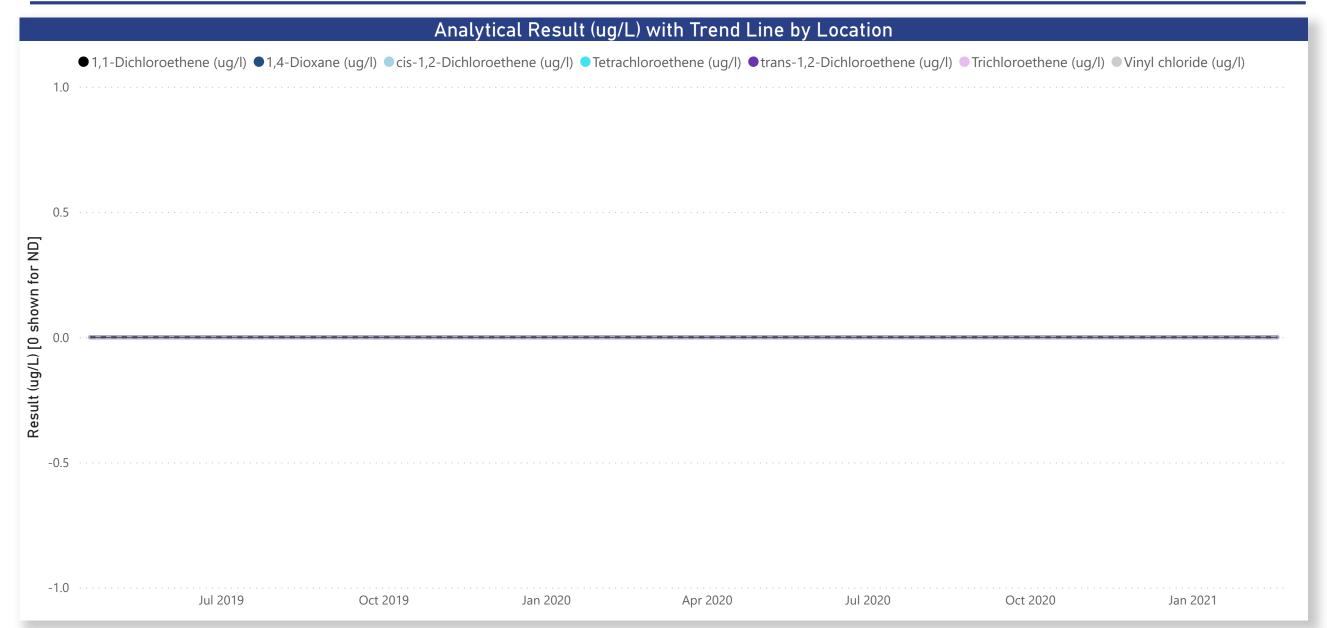
Select to Update Graph:

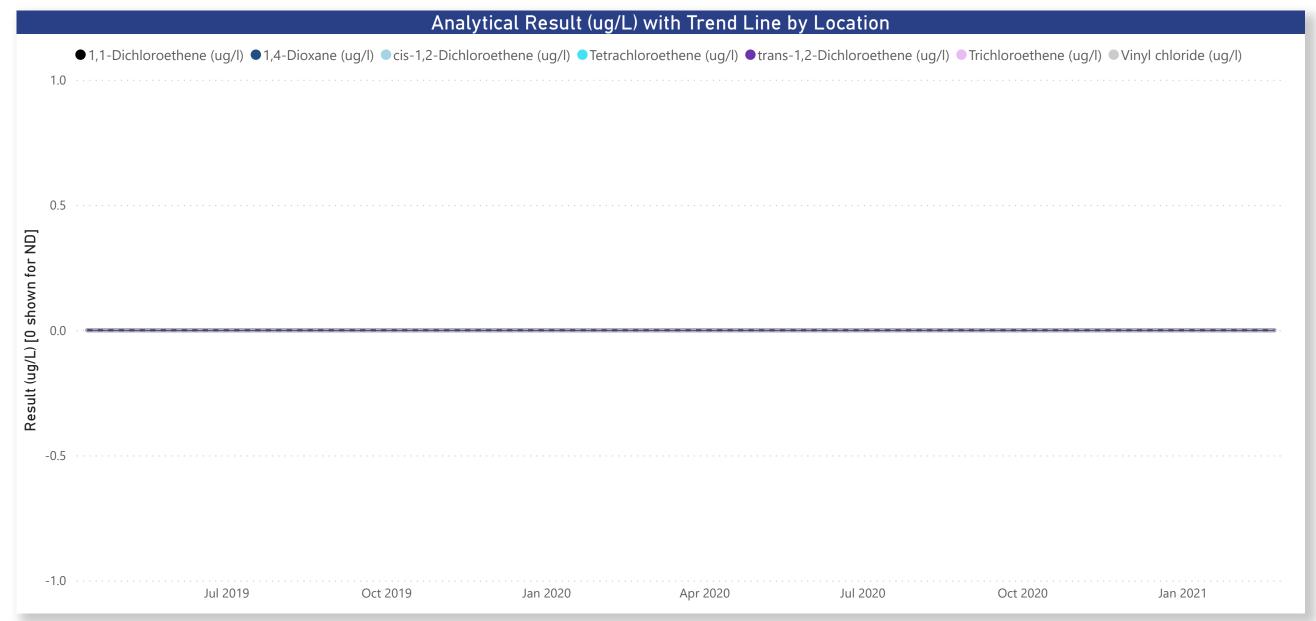
Location

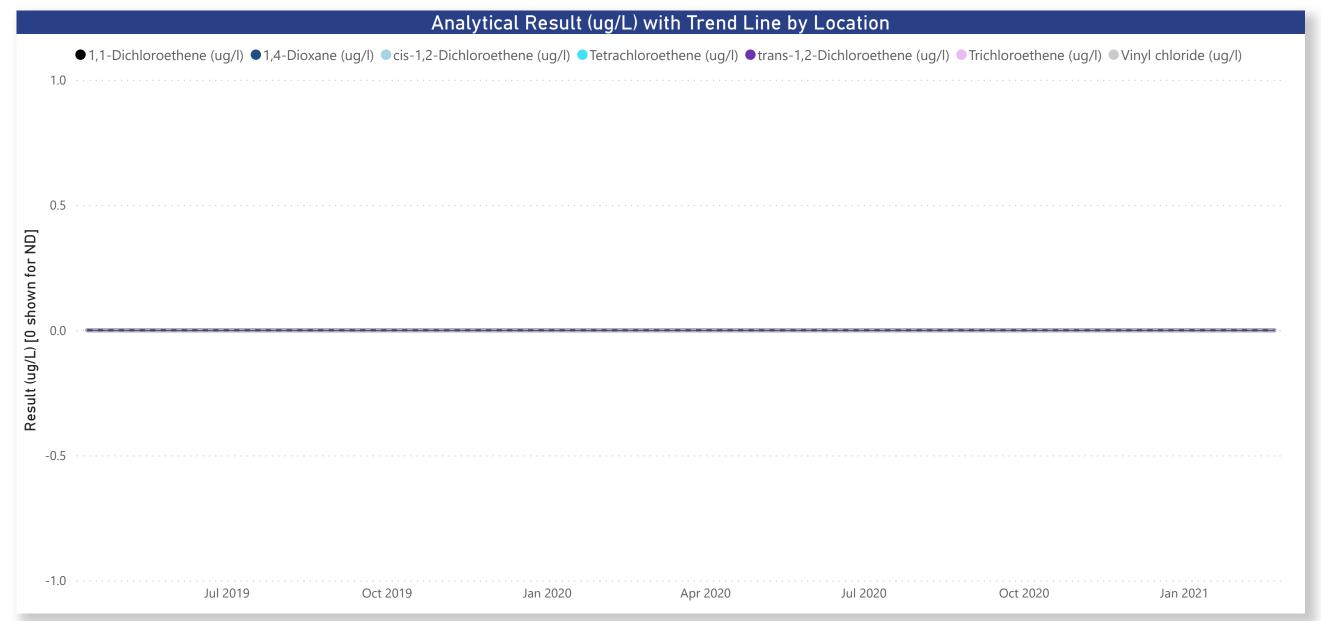
MW-125S

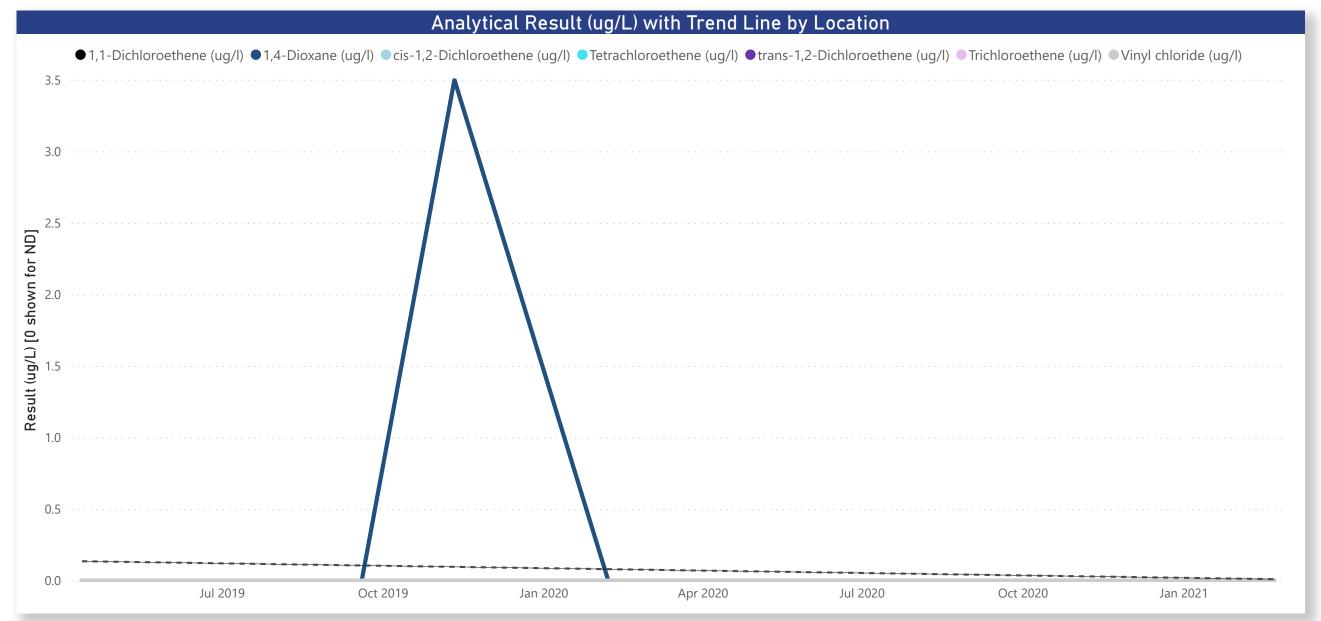


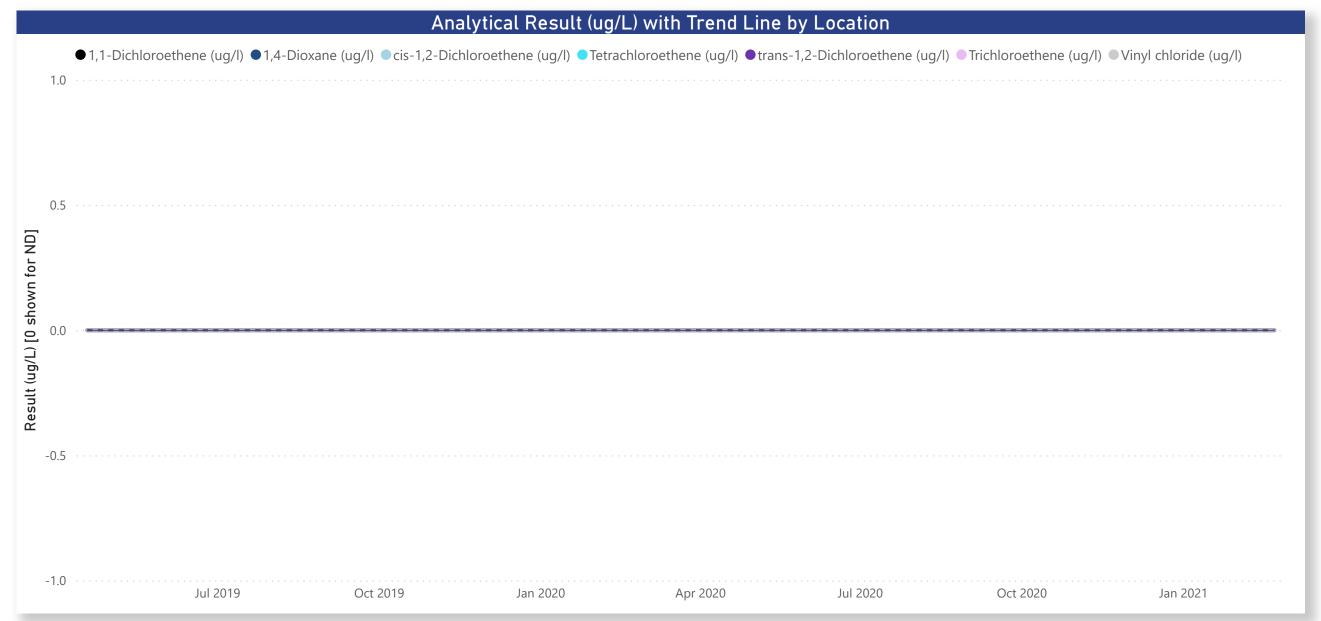


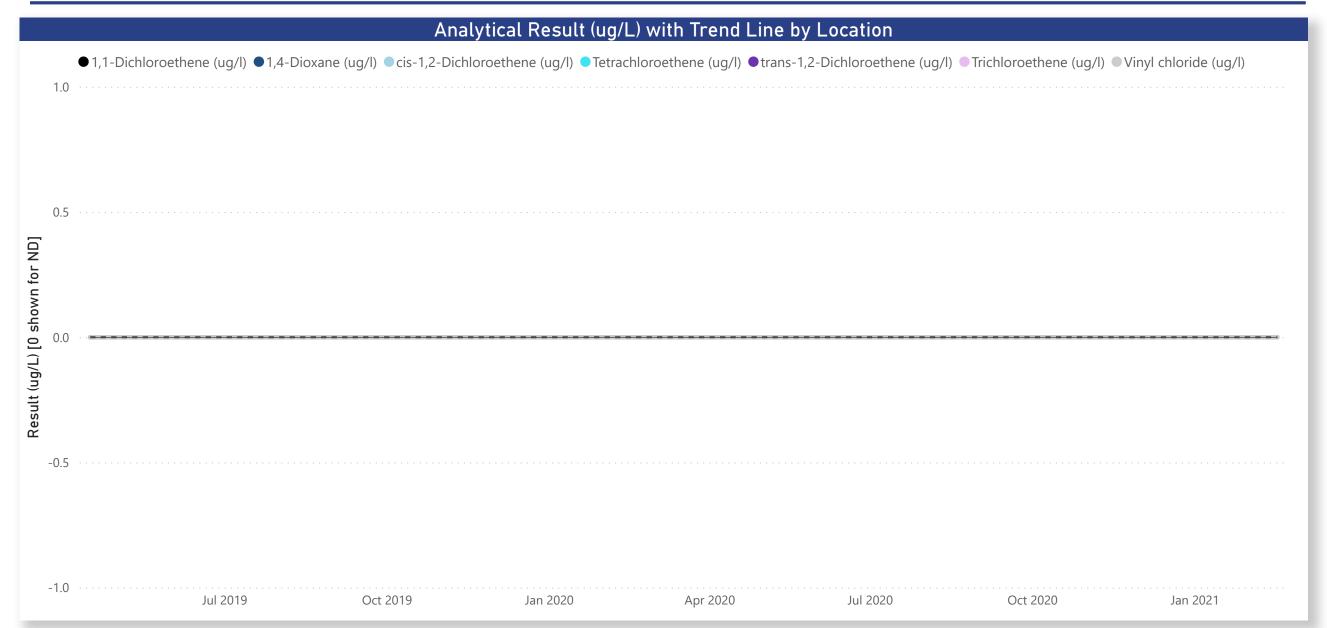


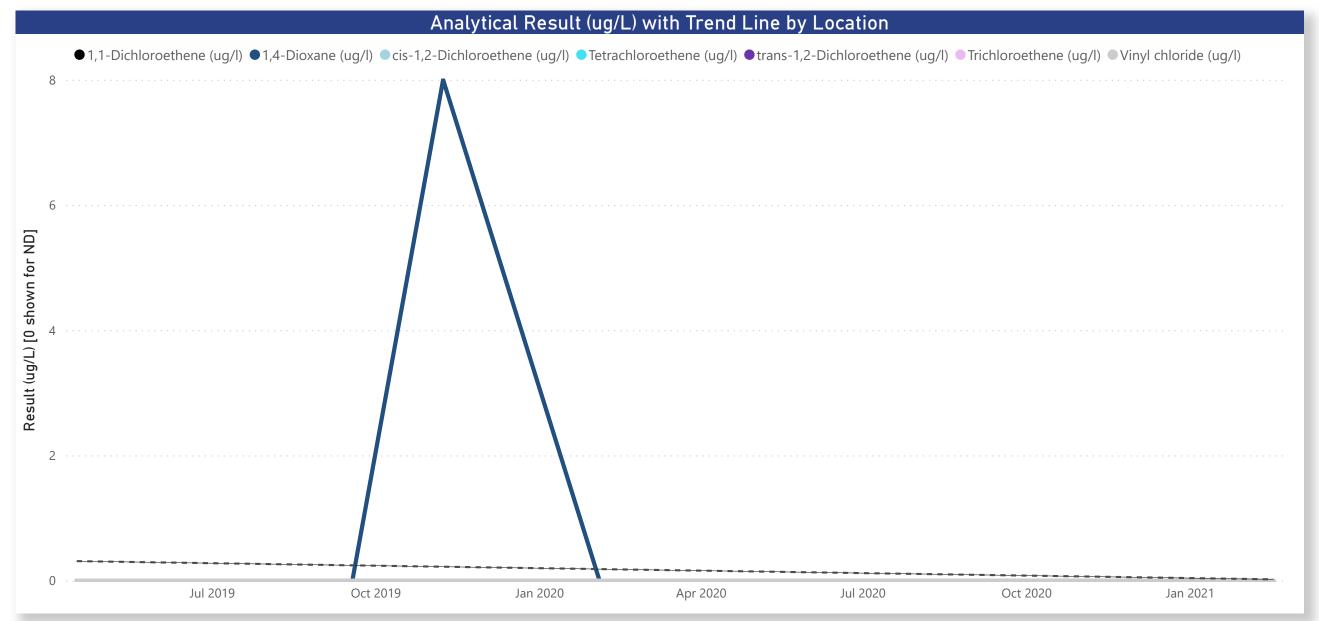




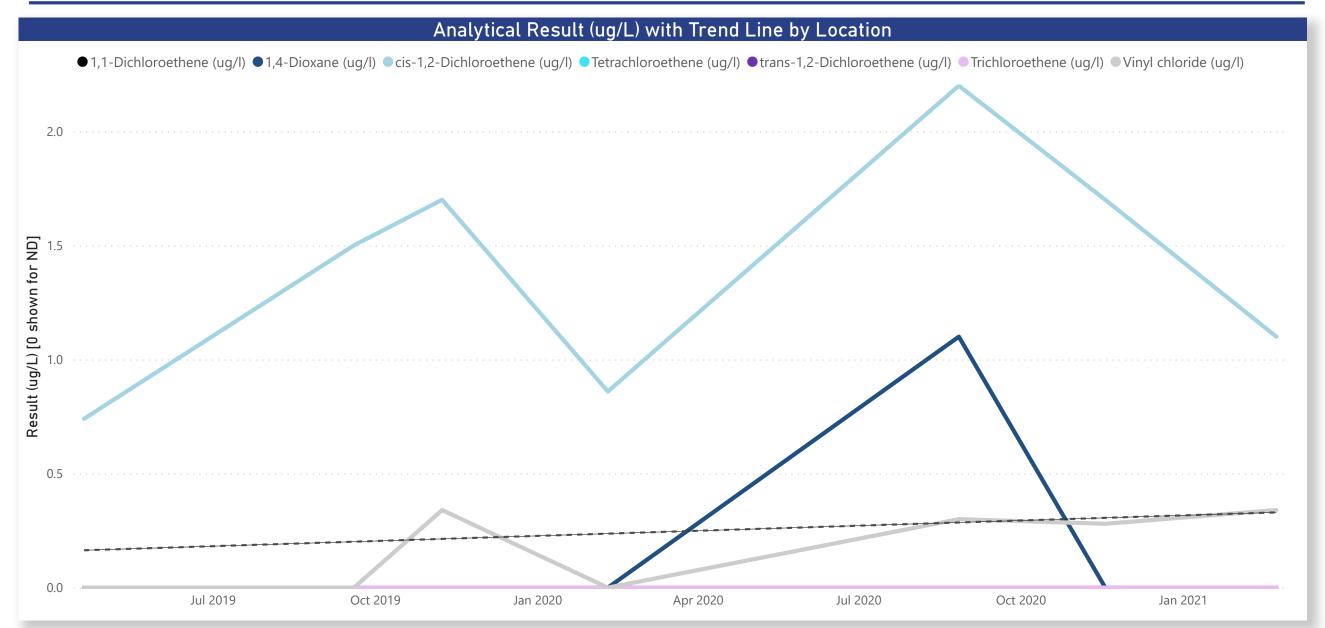


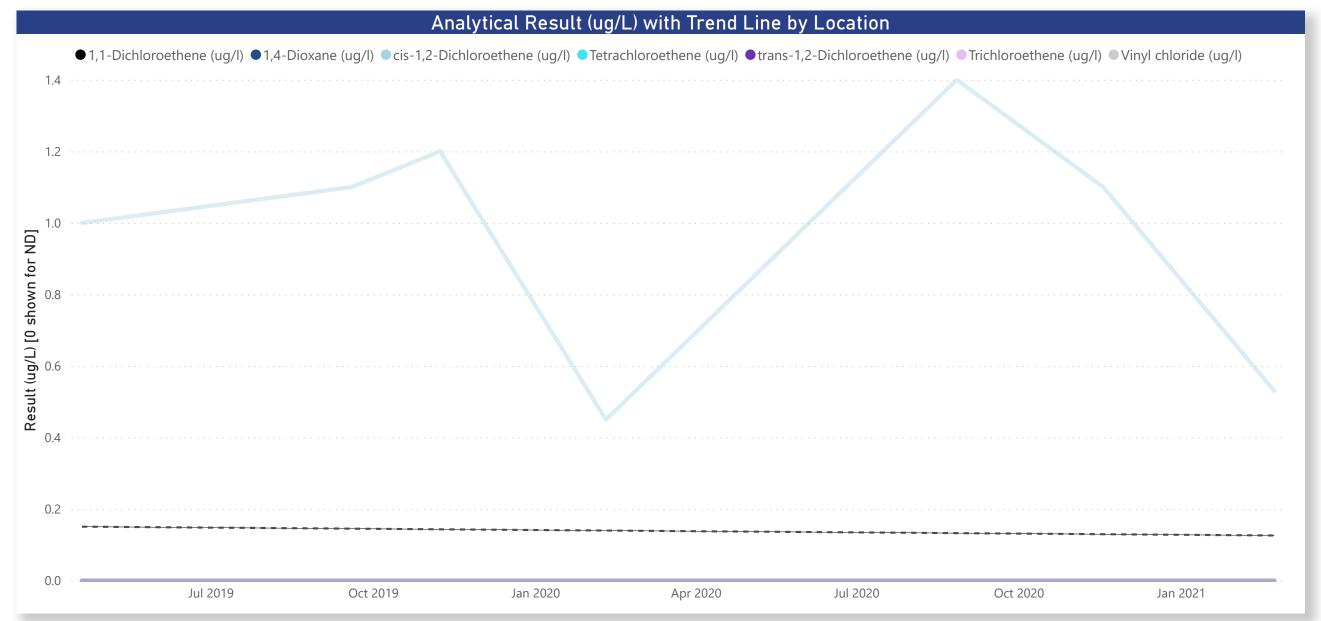




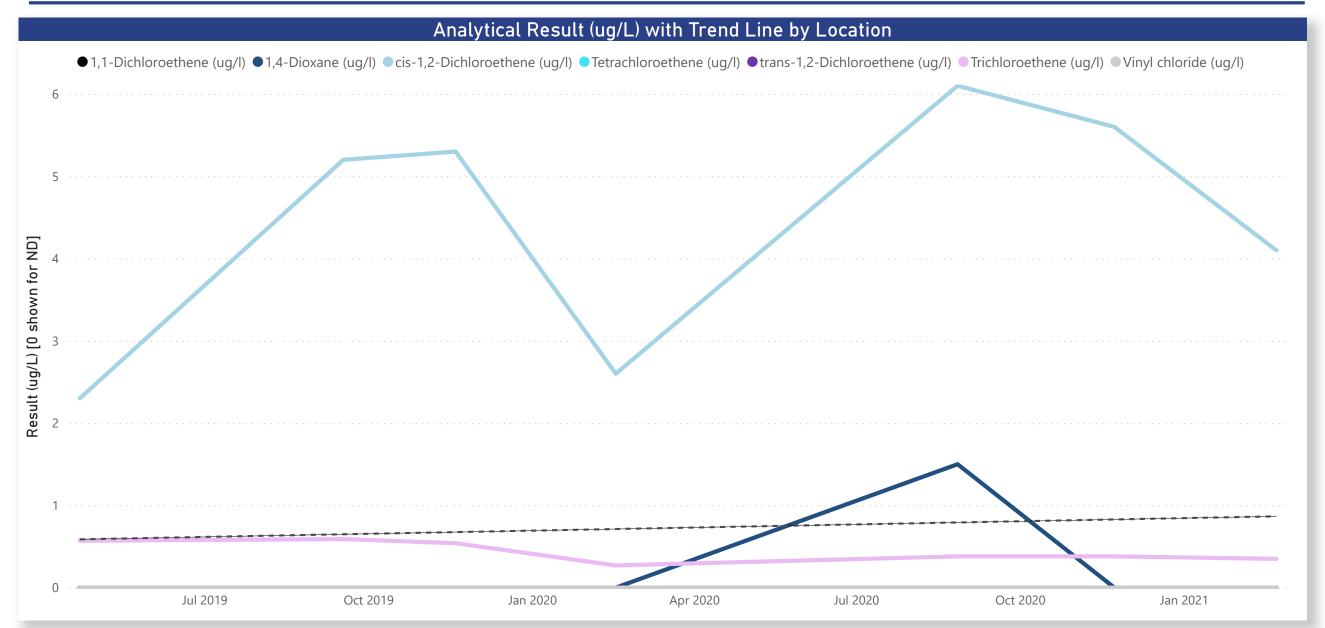






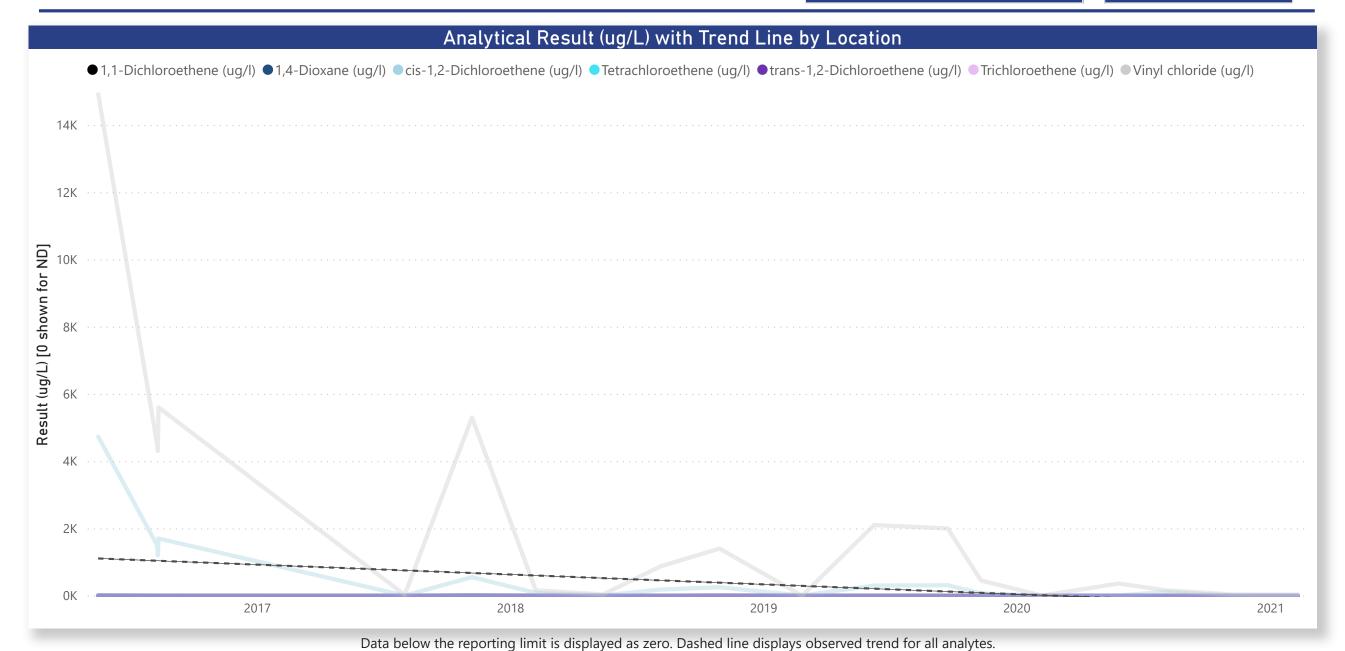


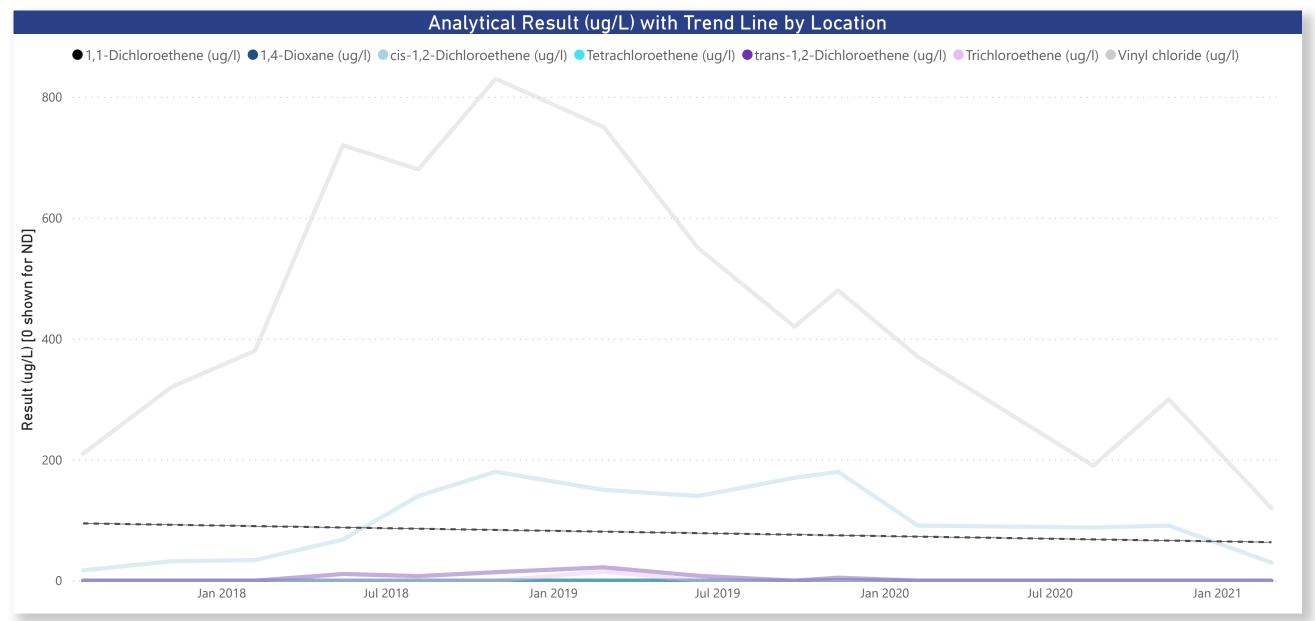




Attachment 2

PW-16-01 Analytical Trend Comparison



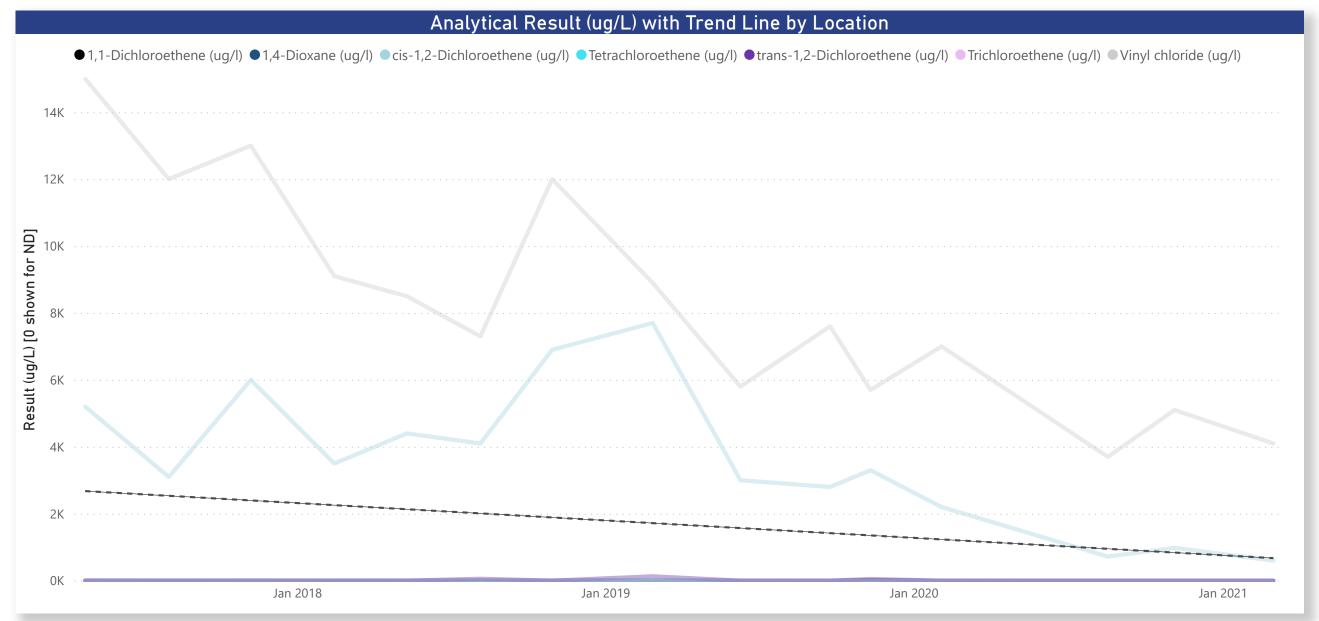




Multiple selections

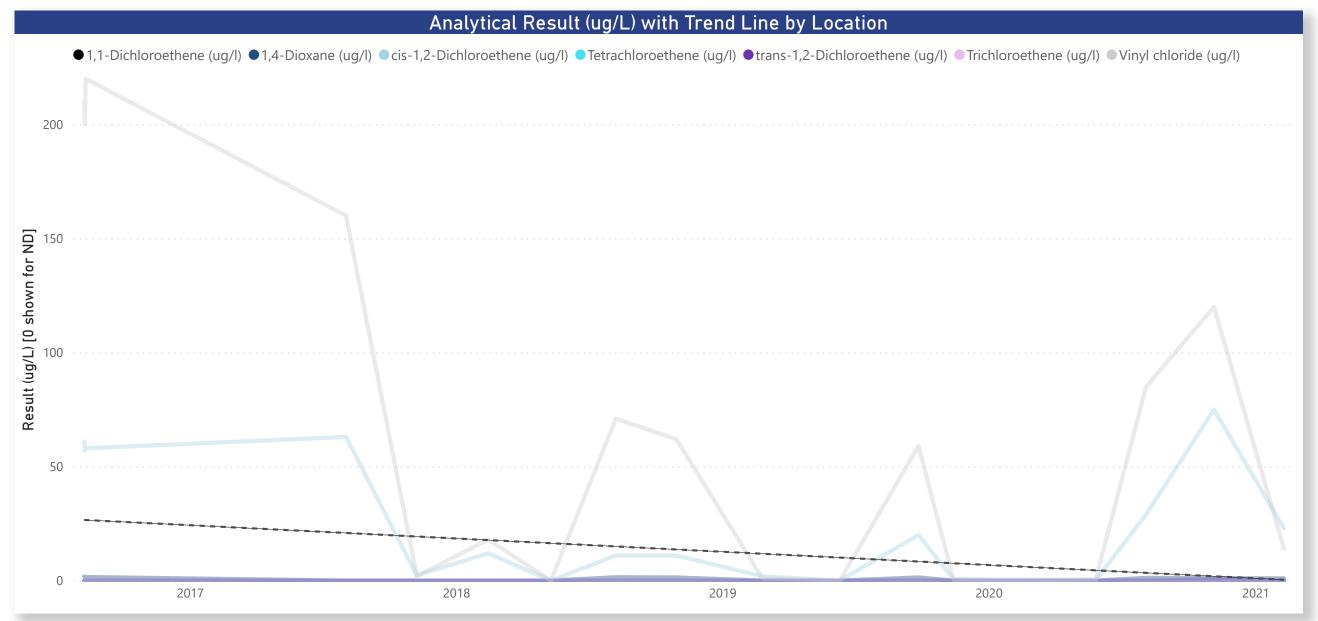
TW-16-02

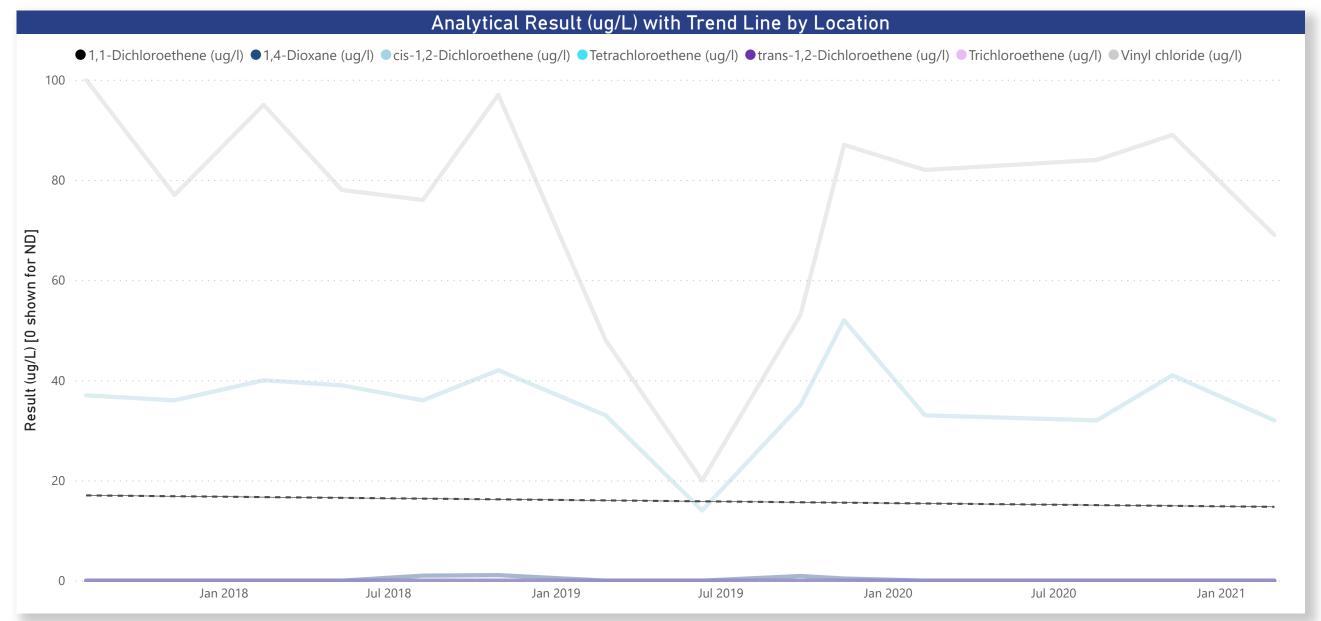




Attachment 3

PW-16-02 Analytical Trend Comparison





Select to Update Graph:

Constituent

Multiple selections

Select to Update Graph:

Location

TW-16-04

