



April 12, 2024  
(117-7469013.01)

Ms. Cindy Koepke  
Hydrogeologist  
Wisconsin Department of Natural Resources  
Fitchburg Service Center  
3911 Fish Hatchery Road  
Fitchburg, WI 53711-5367

RE: Annual Progress Report, Source Area Remedial Action, Pentair Facility, Delavan, Wisconsin  
BRRTS# 02-65-529579, FID# 265091640

Dear Ms. Koepke:

Enclosed is the Annual Progress Report for the source area remedial action at the Pentair (former Sta-Rite Industries) facility in Delavan, Wisconsin.

SITE NAME/ACTIVITY: Contract No. SF-90-02  
Delavan Municipal Well #4  
Delavan, Wisconsin  
Source Area Remediation      DATE: April 12, 2024  
PERIOD: January 1 through December 31, 2023

The format of this report follows the Wisconsin Department of Natural Resources (WDNR) "Guidance for Design, Installation, and Operation of Soil Venting Systems," WDNR Emergency and Remedial Response Section, July 1993, PUBL-SW185-93.

The following activities took place in 2023:

1. The groundwater extraction wells on the Delavan facility were operated and quarterly samples were collected from the storm sewer outfall (SS-1 sample identification) where the groundwater is discharged.
2. As discussed in the 2022 progress report, the pump in extraction well EX-1 failed on June 11, 2022. Pumping from EX-1 was not resumed because as discussed in the 2021 and 2022 progress reports, the groundwater samples collected from EX-1 since September 2004 indicate it may be appropriate to stop groundwater extraction from EX-1 as none of the site contaminants of concern have been detected above their respective Chapter NR140 enforcement standards (ESs) during that period. The effect the stoppage of pumping from EX-1 has on contaminant concentrations in the on-site plume was evaluated in 2023 by collecting quarterly groundwater samples from monitor wells TW-1, TW-3, and D-18. The groundwater samples were submitted for laboratory analysis of tetrachloroethene (PCE), trichloroethene

(TCE), 1,1,1-trichloroethane (TCA), 1,1,2-trichloroethane (1,1,2-TCA), and vinyl chloride. The analytical results from the quarterly sampling events showed contaminant concentrations did not significantly change in the monitor wells located near EX-1 (D-18), upgradient of EX-1 (TW-3), and downgradient of EX-1 (TW-1) with no pumping from EX-1.

3. Monthly electronic wastewater discharge monitoring Long Reports documenting the total daily volume of groundwater discharged to the SS-1 storm sewer outfall from the Delavan facility groundwater extraction system were filled out and submitted to the WDNR. Quarterly electronic wastewater discharge monitoring Short Reports documenting the analytical results and field pH measurements for the quarterly samples collected from the SS-1 storm sewer outfall were filled out and submitted to the WDNR.
4. Annual sampling of the wells that are part of the groundwater monitoring program for the Delavan facility was performed in July. Extraction well EX-1 was not sampled because, as noted above, the pump failed on June 11, 2022 and pumping from EX-1 was not resumed until November 15, 2023. All existing site monitor wells were also inspected and any damage to the surface seals, protective casings or well casings were noted. The well cap on monitor well TW-2A was missing when inspected. A new well cap was installed on TW-2A.
5. An annual site inspection of the Delavan facility was performed during the annual groundwater sampling event to document the surface conditions in the two areas on the Delavan facility property containing residual volatile organic compounds (VOCs) impacts in the subsurface soil. A visual inspection of the entire Delavan facility property was also performed to document any potential land-use changes including the undeveloped east half of the property. Photographs were also taken to document site conditions.
6. The pump in extraction well EX-7R stopped pumping groundwater on December 14, 2022. The pump in EX-7R was repaired by Pentair Flow Technologies personnel on February 9, 2023 and pumping from EX-7R was re-started the same day.
7. A new ORION LTE endpoint was purchased for the Badger Meter Dynasonics<sup>®</sup> U500w ultrasonic meter installed on the discharge line of extraction well EX-7R because the original endpoint stopped uploading flow data from the meter to the Badger Meter AquaCUE website on October 10, 2022. The new endpoint was connected to the EX-7R meter by Tetra Tech personnel on February 24, 2023 after it was received from the vendor.
8. The pumps in extraction wells EX-2R and EX-6 were replaced by Pentair personnel with new 30 gallons per minute (gpm) pumps on April 18, 2023.
9. A new 30 gpm pump was installed in extraction well EX-7R on May 12, 2023 by Pentair personnel.
10. A new 30 gpm pump was installed in EX-2R by Pentair personnel on June 21, 2023.

11. A new 30 gpm pump was installed in extraction well EX-1 by Pentair personnel. Pumping from EX-1 was re-started on November 15, 2023 after the final quarterly samples were collected from TW-1, TW-3, and D-18.
12. The pumping rate in EX-7R began exhibiting a steady decline beginning on December 3, 2023 during which the pumping rate declined from 53,913 gallons per day to 6,771 gallons per day on December 17, 2023. A new pump was installed in EX-7R by Pentair personnel in December but the pumping rate in EX-7R did not improve. The cause for the reduction in pumping rate in EX-7R will be investigated and resolved in 2024. The on-site plume in the vicinity of the former sump source area where EX-7R is located is being contained by pumping from extraction well EX-1 while the cause for the reduction in pumping rate from EX-7R is being investigated and resolved.
13. The pump in EX-1 failed on December 28, 2023. Troubleshooting by Pentair personnel discovered a broken wire and leak in the discharge pipe. Pentair personnel repaired the broken wire, new pipe was ordered, and the damaged pipe was replaced once the new pipe was received. Pumping from EX-1 was re-started on January 23, 2024.

It is recommended that pumping from EX-1 be stopped once the pumping rate in extraction well EX-7R is restored to its normal rate of 30 to 37 gpm because the analytical results for the quarterly samples collected from monitor wells TW-1, TW-3, and D-18 demonstrate the stoppage in pumping from EX-1 did not cause an increase in contaminant concentrations in the on-site plume or cause an expansion of the plume. EX-1 will be used as a backup for extraction well EX-7R for instances when it is shut down due to a pump failure, or for maintenance or other repairs. EX-1 will remain in operation while the WDNR considers this recommendation. If you require additional information or have any questions regarding these matters, please contact me at your convenience.

Sincerely,

**Tetra Tech**



Mark A. Manthey, P.G.  
Associate Hydrogeologist  
[mark.manthey@tetrtech.com](mailto:mark.manthey@tetrtech.com)

Encs.

cc: David Flynn, Pentair (Electronic copy via email.)  
Curtis Hedman, Ph. D., Toxicologist, Wisconsin Department of Health Services (Electronic copy via email.)  
Michael Holt, EPA (Electronic copy via email.)

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**2023 ANNUAL  
PROGRESS REPORT  
PENTAIR FLOW TECHNOLOGIES, LLC  
DELAVAN, WISCONSIN FACILITY  
SOURCE AREA REMEDIATION**

**BRRTS# 02-65-529579  
FACILITY ID# 265091640**

April 12, 2024

Prepared For:

Pentair  
293 Wright Street  
Delavan, Wisconsin 53115

Prepared By:

Tetra Tech  
13555 Bishops Court, Suite 201  
Brookfield, Wisconsin 53005

Project No. 117-7469013



## **CERTIFICATION**

Hydrogeologist:

I hereby certify that I am a hydrogeologist as that term is defined in s. NR712.03(1), Wis. Adm. Code, and that, to the best of my knowledge, all information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR700 to 726, Wis. Adm. Code.



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Mark A. Manthey, P.G.  
Associate Hydrogeologist  
Tetra Tech



**SUMMARY OF PROGRESS MADE THIS REPORTING PERIOD**

The following remedial action activities took place in 2023:

1. The groundwater extraction wells on the Delavan facility were operated and quarterly samples were collected from the storm sewer outfall (SS-1 sample identification) where the groundwater is discharged.
2. Monthly electronic wastewater discharge monitoring Long Reports documenting the total daily volume of groundwater discharged to the SS-1 storm sewer outfall from the Delavan facility groundwater extraction system were filled out and submitted to the WDNR. Quarterly electronic wastewater discharge monitoring Short Reports documenting the analytical results and field pH measurements for the quarterly samples collected from the SS-1 storm sewer outfall were filled out and submitted to the WDNR.
3. As described in the 2022 progress report, the pump in extraction well EX-1 failed on June 11, 2022. It was decided to not re-start pumping from EX-1 because as discussed in the 2021 and 2022 progress reports, the groundwater samples collected from EX-1 since September 2004 indicate it may be appropriate to stop groundwater extraction from EX-1 as none of the site contaminants of concern have been detected above their respective Chapter NR140 enforcement standards (ESs) during that period. The effect the stoppage of pumping from EX-1 has on contaminant concentrations in the on-site plume was evaluated in 2023 by collecting quarterly groundwater samples from monitor wells TW-1, TW-3, and D-18, which are located near (D-18), upgradient (TW-3), and downgradient (TW-1) of EX-1.
4. One round of groundwater samples was collected from the monitor wells that are part of the groundwater monitoring program for the Delavan facility and from extraction wells EX-2R, EX-3R, and EX-7R July 20<sup>th</sup> and July 21<sup>st</sup>. Extraction well EX-1 was not sampled because, as noted above, the pump failed on June 11, 2022 and pumping from EX-1 was not resumed until

November 15, 2023 so that quarterly sampling of monitor wells TW-1, TW-3, and D-15 could be implemented to evaluate the effect that no pumping from EX-1 has on contaminant concentrations in the on-site plume.

The analytical results from 2023 showed decreases in the concentrations from 2022 to 2023 or no detections of the volatile organic compounds (VOCs) analyzed in eleven (11) of the 14 wells sampled. VOC concentrations exhibited stable to moderate increases in concentration in three monitor wells. The analytical results from the 2023 sampling round indicate the contaminant plume is exhibiting an overall stable to decreasing trend in the site contaminants. The analytical results for the groundwater samples collected from the site during this reporting period are summarized in Table 1, Table 2, and Figure 1. Charts showing the trends in VOC concentrations for select site monitor wells are included as Figures 2 through 8. Laboratory results and field data sheets for the annual groundwater sampling event, and the quarterly samples collected from monitor wells TW-1, TW-3, and D-18 are included in Appendix B. Copies of the quarterly discharge monitoring Short Reports containing the analytical results collected at the SS-1 storm sewer outfall where the groundwater pumped from the Delavan facility groundwater extraction system extraction wells discharges are provided in Appendix C.

5. As described in the Final Institutional Control Implementation and Assurance Plan (ICIAP) for the Delavan facility property (February 16, 2018), an annual site inspection of the Delavan facility was performed during the annual groundwater sampling event to document the surface conditions in the two areas on the Delavan facility property containing residual VOCs impacts in the subsurface soil. The first area is located next to the north wall of Plant 2 in the former sump source area and contains residual trichloroethene (TCE) impacts in the soil at a depth of 28 feet below ground surface that are protective of commercial and industrial site uses but are not protective of non-commercial/non-industrial uses. The second area is found beneath the concrete floor of Plant 1 and south of the south wall of Plant 1 and contains pervasive low-level VOCs impacts in the subsurface soil. The approximate extent of the low-level VOCs impacts in the soil beneath and south of Plant 1 is shown on Figure 1. Inspection of surface conditions in this area is needed to confirm the surface cover of the concrete floor of Plant 1

and the paved areas south of the south wall of Plant 1 are still intact to prevent direct contact with the potentially impacted soils. A visual inspection of the entire Delavan facility property was also performed to document any potential land-use changes including the former locations of the chip storage extraction system (CSES) and southeast extraction system (SES) and the undeveloped land on the east half of the property. Photographs were taken to document site conditions.

The site inspection confirmed the surface cover remains intact in the area of the residual VOCs impacts beneath and south of Plant 1 and the surface conditions in the former sump source area are unchanged. The undeveloped land on the east half of the property remains undeveloped and land use in and around the developed portion of the Delavan facility property including the former CSES area and former SES area remains the same. Photographs documenting site conditions are included in Appendix A.

The site monitor wells were also inspected. All other monitor wells were in good condition; however, there was no well cap on monitor well TW-2. Tetra Tech personnel installed a new well cap on monitor well TW-2 during the annual groundwater sampling event in July.

14. The pump in extraction well EX-7R stopped pumping groundwater on December 14, 2022. The pump in EX-7R was repaired by Pentair Flow Technologies personnel on February 9, 2023 and pumping from EX-7R was re-started the same day.
15. A new ORION LTE endpoint was purchased and installed on the discharge line of extraction well EX-7R by Tetra Tech personnel on February 24, 2023.
16. The pumps in extraction wells EX-2R and EX-6 were replaced by Pentair personnel with new 30 gallons per minute (gpm) pumps on April 18, 2023.
17. A new 30 gpm pump was installed in extraction well EX-7R on May 12, 2023 by Pentair personnel.

18. A new 30 gpm pump was installed in EX-2R by Pentair personnel on June 21, 2023.
19. A new 30 gpm pump was installed in EX-1 by Pentair personnel and pumping from EX-1 was re-started on November 15, 2023 after the final quarterly samples were collected from TW-1, TW-3, and D-18.
20. The pumping rate in EX-7R began exhibiting a steady decline from 53,913 gallons per day on December 3, 2023 to 6,771 gallons per day on December 17, 2023. A new pump was installed in EX-7R by Pentair personnel in December but the pumping rate in EX-7R did not improve.
21. The pump in EX-1 failed on December 28, 2023. Troubleshooting by Pentair personnel discovered a broken wire and leak in the discharge pipe. Pentair personnel repaired the broken wire, new pipe was ordered, and the damaged pipe was replaced once the new pipe was received. Pumping from EX-1 was re-started on January 23, 2024.

## GROUNDWATER

Residual groundwater impacts originating from the former southeast extraction system (SES) and former sump source areas are controlled by extraction wells EX-1 and EX-7R. Groundwater downgradient of the former chip storage extraction system (CSES) source area and the pervasive low-level residual VOCs impacts in the subsurface soil beneath a portion of the concrete floor of Plant 1 and south of the south wall of Plant 1 is controlled by extraction wells EX-2R, EX-3R, EX-4R, EX-5R, and EX-6 (see Figure 1). Monthly flow data for the extraction wells is provided in Table 3. Quarterly wastewater discharge monitoring short reports documenting the effluent chemistry where the combined flow from the seven extraction wells is discharged to the storm sewer (storm sewer outfall SS-1) are provided in Appendix C.

### Groundwater Sampling

The annual groundwater sampling round was conducted July 20<sup>th</sup> and July 21<sup>st</sup>. The monitor wells and groundwater extraction wells that are part of the Delavan facility groundwater monitoring program are listed in Table 4. As noted above, a groundwater sample was not collected from extraction well EX-1 because the pump in EX-1 failed on June 11, 2022 and pumping from EX-1 was not re-started until November 16, 2023 so that quarterly sampling of monitor wells TW-1, TW-3, and D-18 with no pumping from EX-1 could be performed to evaluate the effect that no pumping from EX-1 has on contaminant concentrations in the on-site plume. The quarterly samples were collected from TW-1, TW-3, and D-18 on February 1, 2023, May 18, 2023, July 20, 2023, and November 1, 2023. The field sampling forms and the analytical results for the groundwater sampling rounds are provided in Appendix B. The analytical results for the sampling points that are part of the Delavan facility groundwater monitoring plan are summarized in Table 1 and Table 2. Table 1 presents the analytical results for the chlorinated volatile organic compounds (CVOCs) for which all of the site monitoring points are analyzed, which include tetrachloroethene (PCE), 1,1,1-trichloroethane (TCA), TCE, 1,1,2-trichloroethane (1,1,2-TCA), and vinyl chloride. Table 2 summarizes the analytical results for monitor well TW-4, which is analyzed for the full list of volatile organic compounds (VOCs). Total VOC concentrations for the

five CVOCs that all samples are tested for from the annual sampling event are also listed next to each sampling point on Figure 1. Time versus concentration plots were prepared and graphed for contaminant concentrations in the most highly impacted wells near Plant 1 and Plant 2 and are included as Figures 2 through 8.

The following summarizes the trends in water quality at site monitoring points.

Plant 1: Four monitor wells and two extraction wells were sampled during this reporting period. Contaminants of concern are TCA and TCE. The PCE results for the Plant 1 wells are also discussed as it is a contaminant of concern at Plant 2.

PCE: No PCE was detected in any of the groundwater samples collected from the Plant 1 wells.

TCA: TCA was detected in the groundwater samples collected from three of the Plant 1 monitor wells sampled and extraction well EX-3R. All the reported TCA concentrations were below the TCA Chapter NR140 groundwater quality standards. Comparison of the 2022 TCA results to the 2023 TCA results is presented below:

TCA NR140 Enforcement Standard (ES) = 200 ug/L

TCA NR140 Preventive Action Limit (PAL) = 40 ug/L

- TCA concentrations in MW-1026 increased slightly from 11 ug/L to 12 ug/L. TCA concentrations in MW-1026 have exhibited an overall declining trend since the July 2006 sampling event. TCA concentrations in MW-1026 have not exceeded its PAL since the July 2007 sampling event.
- The TCA concentration in MW-1027 decreased from 5.4 ug/L in 2022 to 1.3 ug/L in 2023. TCA concentrations in MW-1027 have exhibited a

declining trend since the 2005 sampling event and have not exceeded its PAL since the July 2006 sampling event. 1994 was the last time the TCA concentration in MW-1027 exceeded the ES.

- The reported TCA concentration in TW-4 decreased from 24 ug/L in 2022 to 15 ug/L in 2023. TCA concentrations in TW-4 have been below its PAL since the July 2013 sampling round. The 2013 through 2023 TCA concentrations are the lowest reported TCA concentrations for samples collected from TW-4. The TCA data suggest there is a declining trend in TCA impacts at TW-4. 2001 was the last time the TCA concentration in TW-4 exceeded the ES.
- The TCA concentration in D-25R decreased slightly from 0.62 ug/L in 2022 to not detected above the detection limit of 0.38 in 2023. TCA concentrations in the D-25R samples have exhibited a declining trend since the 2005 sampling event and TCA concentrations have been below the PAL since the October 1996 sampling round.
- TCA was not detected above the detection of 0.38 ug/L in the samples collected from EX-2R in 2022 and 2023. TCA concentration in EX-2R have not exceeded the PAL since 1997.
- The TCA concentration in extraction well EX-3R decreased slightly from 3.9 ug/L in 2022 to 2.6 ug/L in 2023. EX-3R is the replacement extraction well for original extraction well EX-3 and was brought on-line in September 2017. TCA concentrations in the EX-3 and EX-3R samples have not exceeded the PAL since 1997.

TCE: TCE concentrations exceeded the NR140 ES of 5.0 ug/L in the groundwater samples collected from monitor wells MW-1027 and TW-4 and extraction well EX-3R during this reporting period. The reported TCE concentration

in the samples collected from monitor wells MW-1026 exceeded the PAL of 0.50 ug/L. TCE was not detected in the groundwater samples collected from D-25R and EX-2R, Comparison of the 2022 TCE results to the 2023 TCE results is presented below:

TCE NR140 ES = 5.0 ug/L

TCE NR140 PAL = 0.50 ug/L

- TCE concentrations in MW-1026 increased slightly from 3.5 ug/L to 4.8 ug/L. TCE concentrations in the groundwater samples collected from MW-1026 are exhibiting an overall declining trend since the 2005 sampling round when the reported TCE concentration in the MW-1026 sample was 21 ug/L.
- The TCE concentration in MW-1027 decreased from 44 ug/L to 30 ug/L. The reported TCE concentration in the 2019 groundwater sample collected from MW-1027 was 41 ug/L and 27 ug/L in 2018. The 27 ug/L concentration reported for the 2018 sample is the lowest historical TCE concentration for a MW-1027 sample. TCE concentrations at MW-1027 are exhibiting an overall declining trend since 1999.
- The TCE concentration in monitor well TW-4 decreased from 20 ug/L to 17 ug/L. Review of the TCE results for the TW-4 samples presented on Table 1 shows TCE concentrations have been below 30 ug/L since the July 2016 sampling event and have exhibited an overall declining trend since 1993.
- At monitor well D-25R, the TCE concentration decreased slightly from 0.54 ug/L in 2022 to not being detected above the detection limit of 0.16 ug/L in 2023. The TCE data indicate an overall declining trend in TCE impacts at D-25R. TCE concentrations in groundwater samples

collected from D-25R have not exceeded the ES since the July 2010 sampling event.

- The TCE concentration in extraction well EX-2R decreased from 0.67 ug/L to not being detected above the detection limit of 0.16 ug/L. TCE concentrations in the EX-2R samples have been below 10 ug/L since the July 2012 sampling event.
- The TCE concentration in extraction well EX-3R decreased slightly from 5.7 ug/L to 5.0 ug/L. TCE concentrations are exhibiting a decreasing trend at EX-3/EX-3R and have not exceeded the ES of 5.0 ug/L since the 2017 sampling event.

Plant 2: Seven monitor wells and one extraction well were sampled during this reporting period. Contaminants of concern are PCE, TCA, and TCE.

PCE: PCE was detected above ES of 5.0 ug/L in the groundwater sample collected from monitor well D-15. The PAL of 0.5 ug/L was exceeded in the February 1<sup>st</sup> and May 18<sup>th</sup> groundwater samples collected from monitor well D-18 and was not detected above the detection limit of 0.37 ug/L in the groundwater samples collected on July 20<sup>th</sup> and November 1<sup>st</sup>. No PCE was detected in the groundwater samples collected from monitor wells MW-2004, MW-2005R, MW-2011, and TW-1. A comparison of the 2022 PCE results to the 2023 PCE results is presented below:

PCE NR140 ES = 5.0 ug/L

PCE NR140 PAL = 0.50 ug/L

- No PCE was detected in the samples collected from monitor wells MW-2004, MW-2005R, MW-2011, and TW-1 in 2022 and 2023. PCE was last detected in MW-2004 in 1997. PCE has never been detected in MW-2011 and was last detected in TW-1 in 2008. The PCE concentrations

in the samples collected from MW-2005R, which replaced original monitor well MW-2005 in 2007, have been below 3 ug/L since the July 2007 sampling event and suggest an overall stable to declining trend in PCE impacts at MW-2005R since 2007. The last sample collected from MW-2005 in September 2004 had a reported PCE concentration of 17 ug/L.

- The PCE concentration in monitor well D-15 increased slightly from 3.0 ug/L to 5.9 ug/L. The PCE concentrations for the 2014, 2015, 2021, 2022, and 2023 samples are the lowest reported PCE concentration for samples collected from D-15 between the November 1991 sampling round and the 2023 sampling round. The 2023 analytical results confirm an overall decreasing trend in PCE concentrations at monitor well D-15 since the July 2010 sampling round when the reported PCE concentration in D-15 was 47 ug/L.
- PCE concentrations in monitor well D-18 increased slightly from 0.93 ug/L in 2022 to 1.1 ug/L in February 2023 and May 2023 but then decreased to below the detection limit of 0.37 ug/L in July 2023 and November 2023. PCE concentrations in samples collected from D-18 have been below the ES since the June 2003 sampling event. The reported PCE concentrations for the quarterly samples collected in 2023 indicate the stoppage in pumping from extraction well EX-1 did not result in a significant increase in PCE concentration near EX-1 during the first two quarterly sampling events and were below the detection limit during the last two quarterly sampling events.
- The PCE concentration increased slightly from 0.43 ug/L in 2022 to 0.46 ug/L in the first quarter sample collected from monitor well TW-3 on February 1, 2023 but then exhibited a decreasing trend from 0.38 ug/L in the May 18<sup>th</sup> sample to not detected above the detection limit

0.37 ug/L in the July 20<sup>th</sup> and November 1<sup>st</sup> samples. PCE impacts in TW-3 have been below the 5.0 ug/L ES since the April 2002 sampling event. The PCE concentrations in the quarterly samples collected from TW-3 indicate the stoppage in pumping in extraction well EX-1 did not cause PCE concentrations to increase upgradient of EX-1.

- The PCE concentration in replacement extraction well EX-7R, which replaced original extraction well EX-7 and was brought on-line in September 2017, decreased slightly from 4.8 ug/L in 2022 to 3.5 ug/L in 2023. The PCE results from EX-7 and EX-7R from the 2010 to 2023 sampling rounds suggest an overall declining trend in PCE impacts in the former sump source area.

TCA: TCA was not detected in any of the 2022 samples collected from the Plant 2 wells and was only detected in the 2023 groundwater sample collected from monitor well MW-2011 at a concentration of 0.71 ug/L. All the reported TCA detections in samples collected from MW-2011 are below the NR140 PAL of 40 ug/L. The TCA results for the quarterly samples collected from monitor wells TW-1, TW-3, and D-18 indicate the stoppage in pumping from extraction well EX-1 had no effect on TCA concentrations in the on-site plume.

TCE: TCE was detected above the ES of 5.0 ug/L in the groundwater sample collected from monitor well D-15. The PAL for TCE (0.50 ug/L) was exceeded in the first two quarterly groundwater samples collected from monitor well D-18 and the groundwater sample collected from MW-2011. No TCE was detected in the groundwater samples collected from monitor wells MW-2004, MW-2005R, and TW-1, and extraction well EX-7R. TCE was detected in the first quarter groundwater sample collected from monitor well TW-3 on February 1<sup>st</sup> at a concentrations below the PAL but was not

detected above the detection limit of 0.16 ug/L in the last three quarterly samples collected on May 18<sup>th</sup>, July 20<sup>th</sup>, and November 11<sup>th</sup>. A comparison of the 2022 TCE results to the 2023 TCE results is presented below:

TCE NR140 ES = 5.0 ug/L

TCE NR140 PAL = 0.50 ug/L

- No TCE was detected in the 2022 and 2023 groundwater samples collected from monitor wells MW-2004, MW-2005R, and TW-1. TCE concentrations have been below the ES of 5.0 ug/L in groundwater samples collected from monitor well MW-2004 since the 1997 annual sampling event and the PAL has not been exceeded since the 2015 sampling event. TCE has never been detected in a groundwater sample collected from MW-2005R, which replaced original monitor well MW-2005 in 2007. The last sample collected from MW-2005 in September 2004 had a reported TCE concentration of 1.3 ug/L. TCE was last detected in a groundwater sample collected from monitor well TW-1 in July 2012 at a concentration of 0.31 ug/L.
- The TCE concentration in monitor well MW-2011 increased from 0.69 ug/L in 2022 to 3.1 ug/L in 2023. The 0.69 ug/L concentration in the 2022 sample is the lowest reported TCE concentration and the 3.1 ug/L concentration is the second lowest TCE concentration for samples collected form MW-2011. TCE concentrations in MW-2011 are on an overall decreasing trend since the 2012 sampling event.
- The TCE concentration in monitor well D-15 increased slightly from 4.4 ug/L in 2022 to 6.0 ug/L in 2023. Review of the TCE data presented on Figure 5 shows TCE concentrations in D-15 are exhibiting on overall decreasing trend since the April 2001 sampling event.

- TCE concentrations in monitor well D-18 decreased from 0.71 ug/L in 2022 to 0.63 ug/L in February 2023 and May 2023, to not detected above the detection limit of 0.16 ug/L in July 2023 and November 2023. TCE impacts in D-18 have been below 1.0 ug/L since the July 2010 sampling event and have not exceeded the ES of 5.0 ug/L since 2003. The TCE results for the quarterly samples collected from D-18 indicate TCE concentrations declined in the vicinity of extraction well EX-1 with no pumping from EX-1.
- The TCE concentration in monitor well TW-3 increased slightly from 0.23 ug/L in 2022 to 0.41 ug/L in the February 1, 2023 groundwater sample but then decreased to less than the detection limit of 0.16 ug/L in the quarterly samples collected on May 18<sup>th</sup>, July 20<sup>th</sup>, and November 11<sup>th</sup>. Prior to the 2021 sampling event, TCE was last detected in the July 2016 sample collected from TW-3 at a concentration of 0.29 ug/L. TCE concentrations in TW-3 have been below the ES since the June 2003 sampling event. The TCE results for the quarterly samples collected from TW-3 indicate TCE concentrations declined upgradient of extraction well EX-1 with no pumping from EX-1.
- The reported TCE concentration in extraction well EX-7R decreased from 2.1 ug/L in 2022 to not being detected above the detection limit of 0.16 ug/L in 2023. The TCE results from EX-7 and EX-7R from the 2010 to 2023 sampling rounds suggest an overall declining trend in TCE impacts in the former sump source area.

#### Extraction Wells Maintenance and Meter Readings

As reported in the 2018 Annual Progress report, the four Badger Meter Dynasonics® U500w ultrasonic meters that read flow from extraction wells EX-1, EX-2R, EX-3R, EX-4R and EX-5R were installed and brought on-line in May 2018. The meter that reads flow from EX-6 was installed

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and brought on-line in August 2018 and the meter that reads flow from EX-7R was installed and brought on-line in November 2018. The meters that read flow from extraction wells EX-1, EX-2R, EX-3R, EX-4R, EX-5R and EX-6 are installed in storm sewer manholes on the Delavan facility property. One meter reads the combined flow from extraction wells EX-2R and EX-3R and four meters read the individual flow from EX-1, EX-4R, EX-5R and EX-6. The meter that reads the flow from extraction well EX-7R is installed in an insulated enclosure at the wellhead. The original ultrasonic meters installed on the discharge lines of extraction wells EX-1 and EX-6 were replaced with new ultrasonic meters by Pentair personnel on May 20, 2022 and December 7, 2022 respectively because the original meters were not recording flow accurately.

The original ORION LTE endpoint connected to the Badger Meter Dynasonics® U500w ultrasonic meter installed on the discharge line of extraction well EX-7R stopped uploading flow data from the meter to the Badger Meter AquaCUE Flow Management website on October 10, 2022. After consultation with Badger Meter technicians a new ORION LTE endpoint was purchased as the original endpoint was out of warranty. The new endpoint was connected to the EX-7R meter by Tetra Tech personnel on February 24, 2023 after it was received from the vendor.

The monthly flow data from the U500w ultrasonic meters downloaded from the AquaCUE® Flow Measurement Manager website is summarized in Table 3. Pumping from extraction well EX-1 stopped on June 11, 2022 due to the failure of the pump. It was decided to not re-start pumping from EX-1 because as discussed in the 2021 and 2022 progress reports, the groundwater samples collected from EX-1 since September 2004 indicate it may be appropriate to stop groundwater extraction from EX-1 as none of the site contaminants of concern were detected above their respective Chapter NR140 ESs during that period. The effect the stoppage of pumping from EX-1 has on contaminant concentrations in the on-site plume was evaluated in 2023 by collecting quarterly groundwater samples from monitor wells TW-1, TW-3, and D-18, which are located upgradient of EX-1 (TW-3), near EX-1 (D-18), and downgradient of EX-1 (TW-1). The analytical results from the quarterly sampling events were discussed above and demonstrate the stoppage in pumping from EX-1 did not significantly affect contaminant concentrations in the on-site plume.

The analytical results indicate pumping from EX-1 is not needed to adequately contain the on-site plume if extraction well EX-7R, which is located in the former sump source area, is operating.

The pump in extraction well EX-7R stopped pumping groundwater on December 14, 2022. The pump in EX-7R was repaired by Pentair Flow Technologies personnel on February 9, 2023 and pumping from EX-7R was re-started the same day.

The pump in extraction well EX-6 was replaced by Pentair personnel with a new 30 gpm pump on April 18, 2023 because the pumping rate in EX-6 had declined to less than 3 gpm. The combined pumping rates of EX-2R and EX-3R declined from over 82,600 gallons per day on January 11, 2024 to less than 30 gallons per day in February. Both pumps were checked by Pentair personnel and the pump in EX-3R was drawing over 70 amps indicating the motor was burned out. Pentair personnel installed a new 30 gpm pump in EX-2R the same day (April 18<sup>th</sup>) the new pump was installed in EX-6.

The pump in extraction well EX-7R stopped pumping groundwater on April 10, 2023. A new 30 gpm pump was installed in extraction well EX-7R on May 12, 2023 by Pentair personnel and pumping from EX-7R was resumed the same day.

The pump in extraction well EX-2R stopped pumping groundwater on May 22, 2023. A new 30 gpm pump was installed in EX-2R by Pentair personnel on June 21, 2023 and pumping from EX-2R was resumed the same day.

The pumping rate in EX-7R began exhibiting a steady decline beginning on December 3, 2023 during which the pumping rate declined from 53,913 gallons per day or approximately 37.4 gpm to 6,771 gallons per day (about 4.7 gpm) on December 17, 2023. A new pump was installed in EX-7R by Pentair personnel in December but the pumping rate in EX-7R did not improve and continued to decline to less than 400 gallons per day (about 0.3 gpm). The cause for the reduction in pumping rate in EX-7R will be investigated and resolved in 2024.

The pump in extraction well EX-1 failed on December 28, 2023. Troubleshooting by Pentair personnel discovered a broken pump wire and leak in the discharge pipe. Pentair personnel repaired the broken wire, new pipe was ordered, and the damaged pipe was replaced once the new pipe was received. Pumping from EX-1 was re-started on January 23, 2024.

## CONCLUSIONS AND RECOMMENDATIONS

### Conclusions

Significant reductions in VOC impacts at site monitor wells have been observed since the remedial action began. While VOC removal from the dual soil vapor extraction/groundwater extraction (SVE/GWE) wells in the former CSES and former SES areas and the SVE wells in the former sump source area has been discontinued, hydraulic control of the contaminant plume is maintained by pumping from the seven groundwater extraction wells located on the Delavan facility property (EX-1, EX-2R, EX-3R, EX-4R, EX-5R, EX-6 and EX-7R). As discussed above, the pumping rate in well EX-7R decline to less than 400 gallons per day. The on-site plume in the former sump source area is still contained by pumping from extraction well EX-1. The cause for the reduction in pumping from EX-7R will be investigated and resolved during the next reporting period.

### Recommendations

1. The cause for the reduction in the pumping rate in extraction well EX-7R will be investigated and resolved. The resolution may include re-developing the extraction well, treating the extraction well for slime bacteria, and/or replacing the pump. Pumping from extraction wells EX-1, EX-2R, EX-3R, EX-4R, EX-5R, and EX-6 will continue while the cause for the reduction in pumping rate in EX-7R is being investigated.
2. It is recommended that extraction well EX-1 not be operated when extraction well EX-7R is pumping at its normal pumping rate of approximately 30 to 37 gpm. The quarterly groundwater samples collected from monitor wells TW-1, TW-3, and D-18 in 2023 while

EX-1 was shut down demonstrated contaminant concentrations were not significantly affected in the on-site plume when there is no pumping from EX-1 if extraction well EX-7R is operating. The stoppage of pumping from EX-1 also did not cause the on-site plume to expand. EX-1 will be used as a backup extraction well for EX-7R in instances when the pump in EX-7R fails or when pumping from EX-7R is temporarily reduced or stopped for maintenance or repairs. EX-1 will remain in operation while the WDNR considers this recommendation.

3. Annual sampling of the monitor wells that are part of the groundwater monitoring program for the Delavan facility will continue. Annual samples will also be collected from extraction wells EX-2R, EX-3R, and EX-7R. The 2023 monitoring plan is summarized on Table 5.
4. All the site monitor wells will be inspected as part of the annual groundwater sampling event.
5. An annual site inspection of the Delavan facility property to document current site conditions and land use as described in the Final ICIAP will be performed in conjunction with the annual groundwater sampling event.

### FIGURES

- Figure 1. Site Layout and Total VOC Concentrations for Site Groundwater Monitoring Points
- Figure 2. Plant 1 Trichloroethene (TCE) Concentration Changes
- Figure 3. Plant 1 1,1,1-Trichloroethane (TCA) Concentration Changes
- Figure 4. Plant 1 Total VOC Concentration Changes
- Figure 5. Plant 2 Trichloroethene (TCE) Concentration Changes
- Figure 6. Plant 2 1,1,1-Trichloroethane (TCA) Concentration Changes
- Figure 7. Plant 2 Tetrachloroethene (PCE) Concentration Changes
- Figure 8. Plant 2 Total VOC Concentration Changes

### TABLES

- Table 1. Summary of Target Compound List VOCs Groundwater Monitoring Analytical Results for Pentair Delavan Facility Monitoring Points
- Table 2. Summary of VOCs Groundwater Monitoring Analytical Results for Plant #1 Monitor Well TW-4
- Table 3. Pentair Delavan Facility Extraction Wells Flow Data
- Table 4. Delavan Facility 2023 Groundwater Monitoring Program
- Table 5. Delavan Facility 2024 Groundwater Monitoring Program

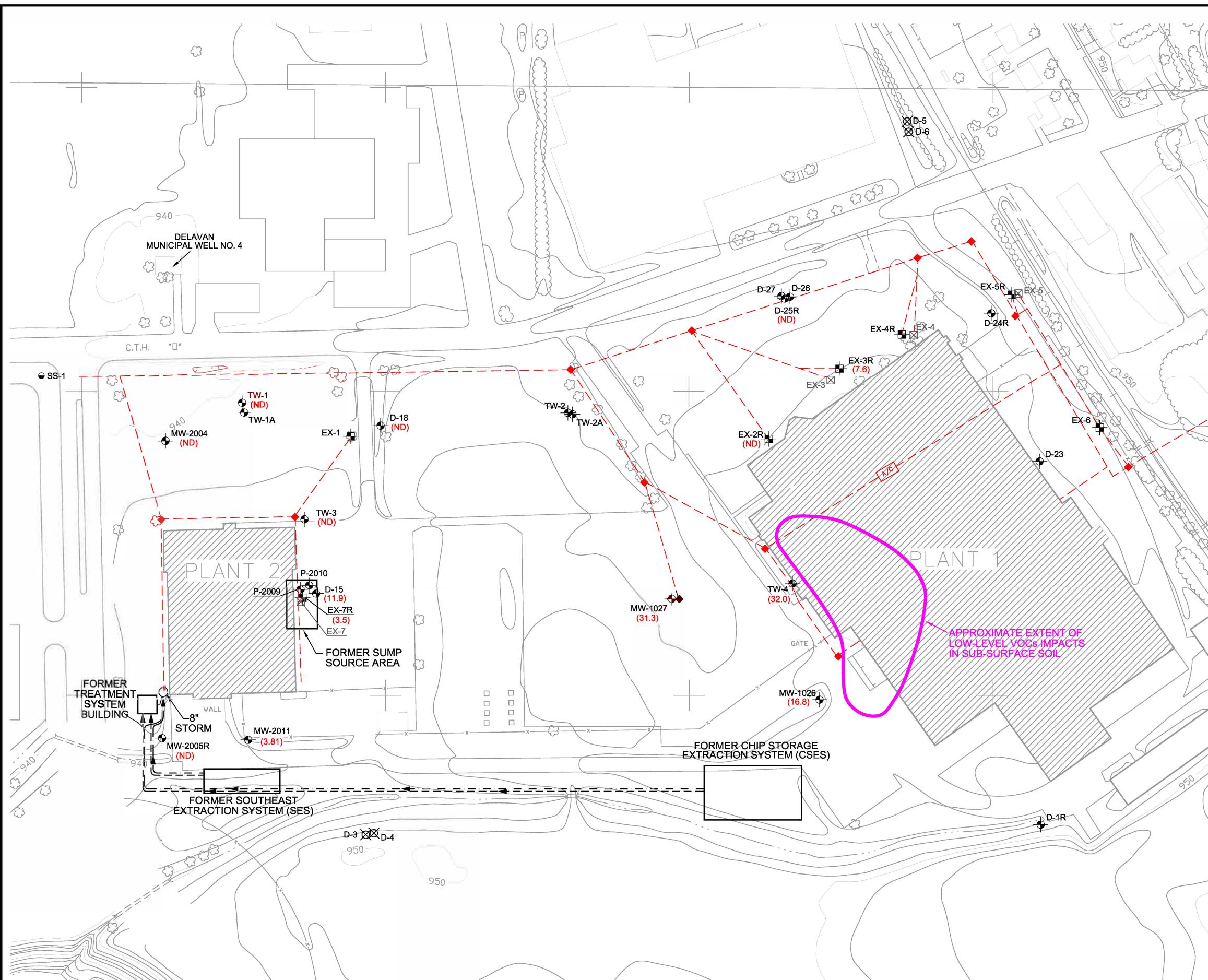
### APPENDICES

- Appendix A. Site Inspection Photographs
- Appendix B. Groundwater Monitoring Analytical Results and Field Data Sheets.
- Appendix C. Wastewater Discharge Monitoring Short Reports and Storm Sewer Outfall SS-1 Analytical Results

## **FIGURES**

**TETRA TECH**

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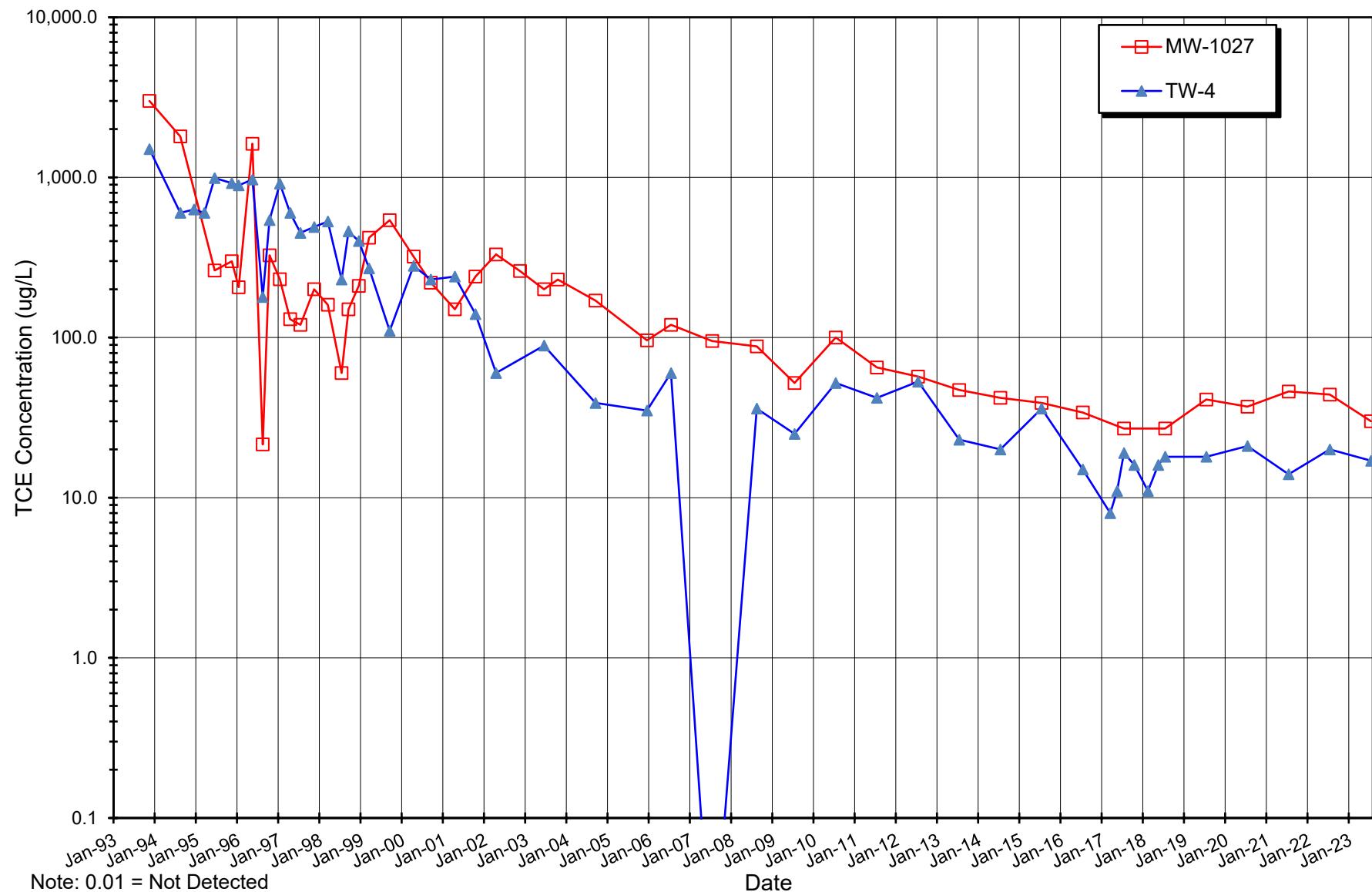


## EXPLANATION

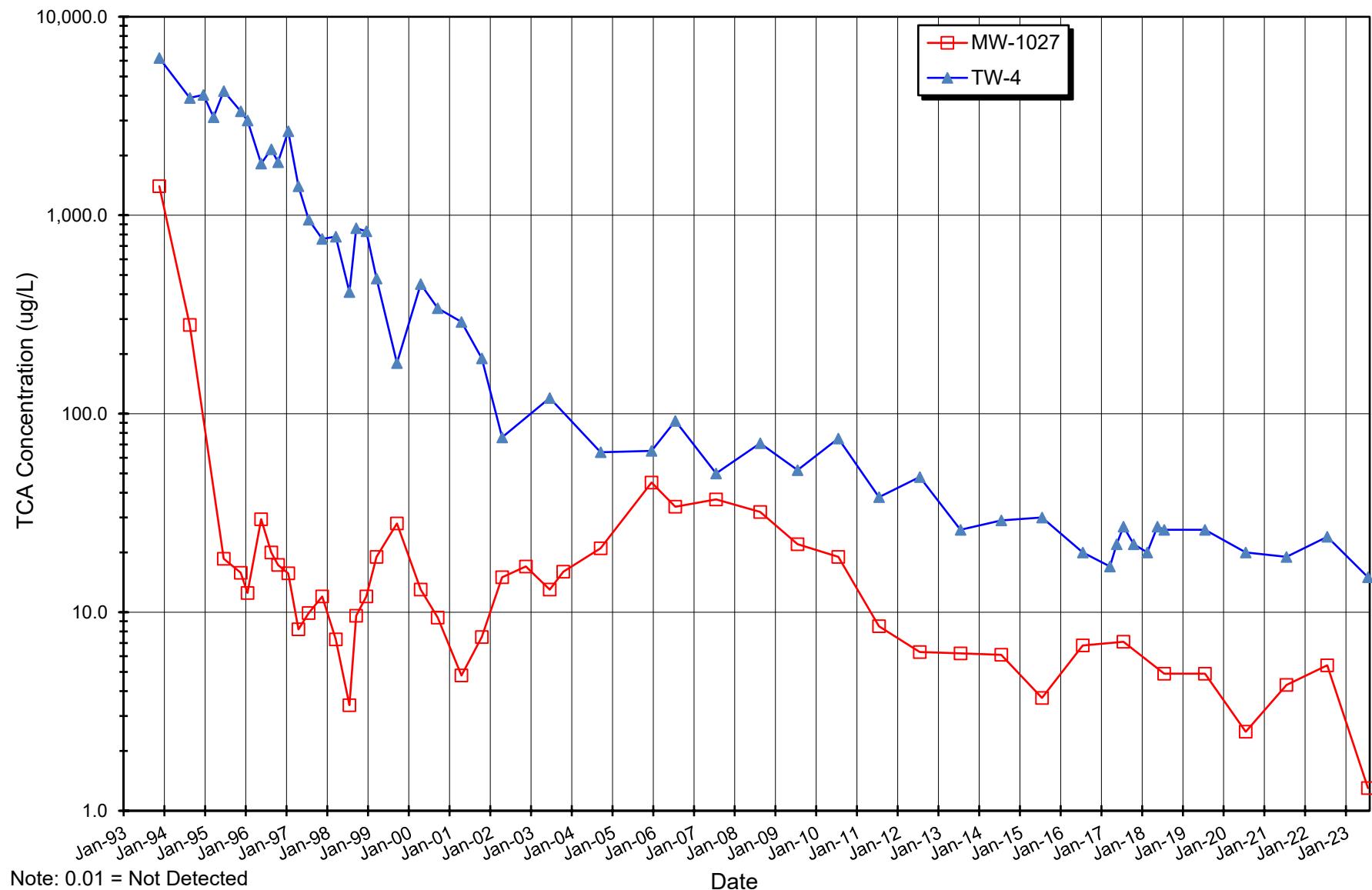
- MW-2004
- D-4
- E-3
- SS-1
- P-2009
- EX-7
- D-27 D-26 D-25R (ND)
- EX-5 EX-4 EX-4R EX-3 EX-3R (7.6) EX-2R (ND)
- EX-6 D-23 D-24R
- C.T.H. "0"
- SS-1 TW-1 (ND) TW-1A TW-2 TW-2A TW-3 (ND)
- MW-2004 (ND)
- P-2010 D-15 (11.9) EX-7R (3.5) EX-7
- FORMER SUMP SOURCE AREA
- FORMER TREATMENT SYSTEM BUILDING
- 8" STORM MW-2005R (ND)
- MW-2011 (3.81)
- FORMER SOUTHEAST EXTRACTION SYSTEM (SES)
- D-3 D-4
- MW-1027 (31.3)
- MW-1026 (16.8)
- GATE
- FORMER CHIP STORAGE EXTRACTION SYSTEM (CSES)
- D-1R
- APPROXIMATE EXTENT OF LOW-LEVEL VOCs IMPACTS IN SUB-SURFACE SOIL

STA-RITE INDUSTRIES, INC. DELAVAN, WISCONSIN	DATE: 04/02/24
SITE LAYOUT AND TOTAL VOCs CONCENTRATIONS FOR GROUNDWATER MONITORING POINTS	DESIGNED: CMP
	CHECKED: MAM
	APPROVED: MAM
	DRAWN: CMP
	PROJ.: 117-7469013
<b>TETRA TECH</b>	Figure 1

**Figure 2. Plant 1 Trichloroethene (TCE) Concentration Changes**  
**ES = 5 ug/L, PAL = 0.5 ug/L**

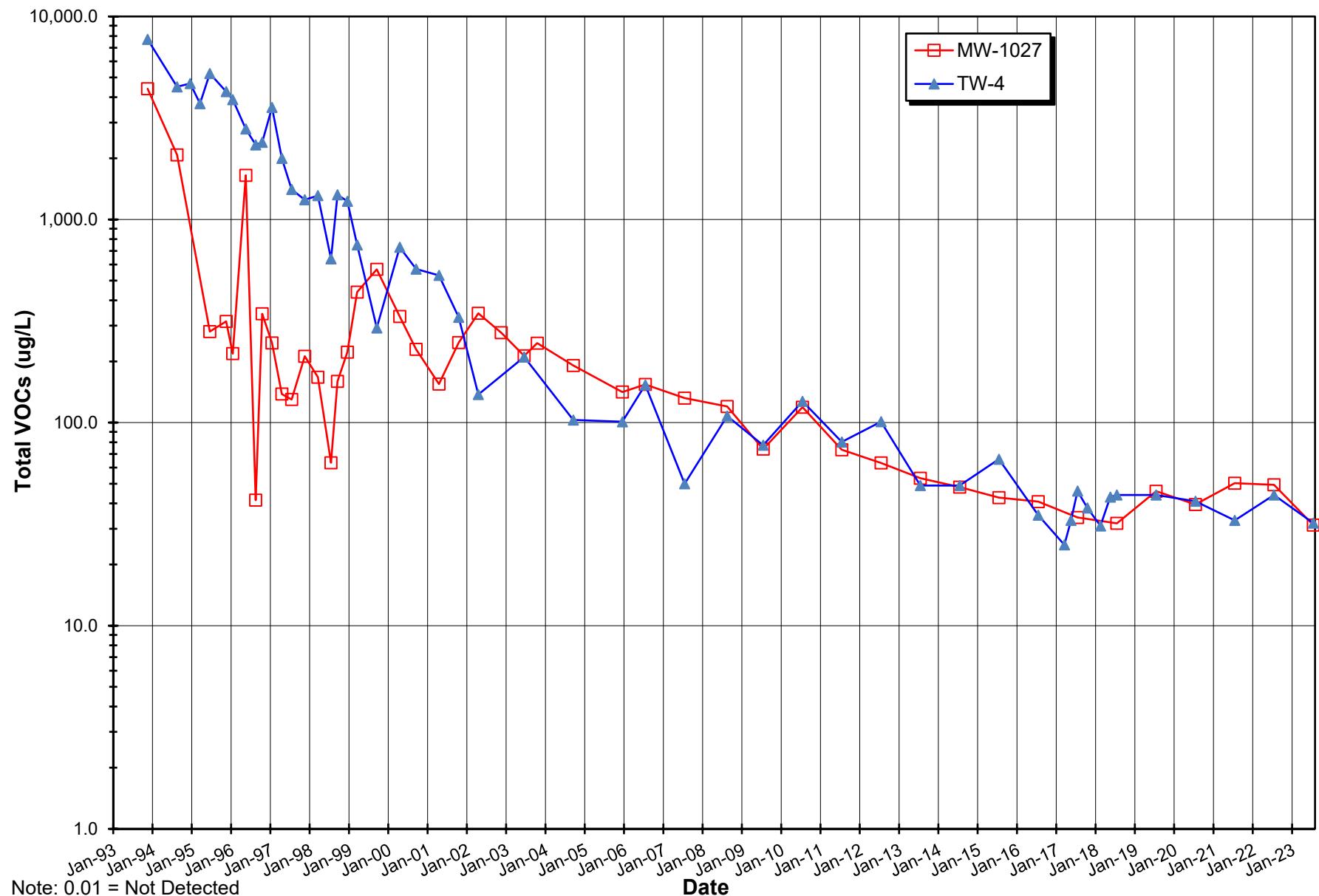


**Figure 3. Plant 1 1,1,1-Trichloroethane (TCA) Concentration Changes**  
**ES = 200 ug/L, PAL = 40 ug/L**



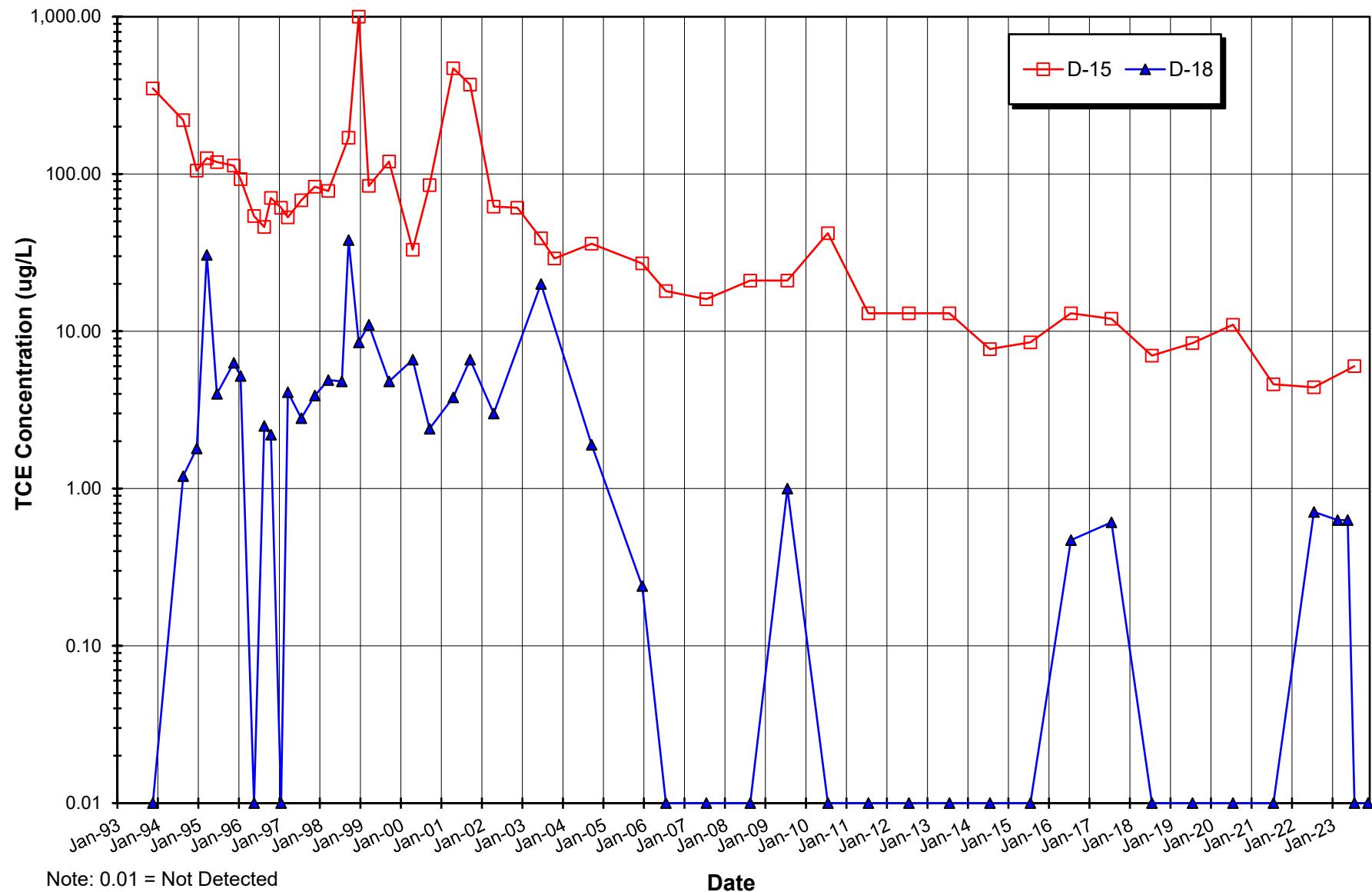
Note: 0.01 = Not Detected

**Figure 4. Plant 1 Total VOC Concentration Changes**



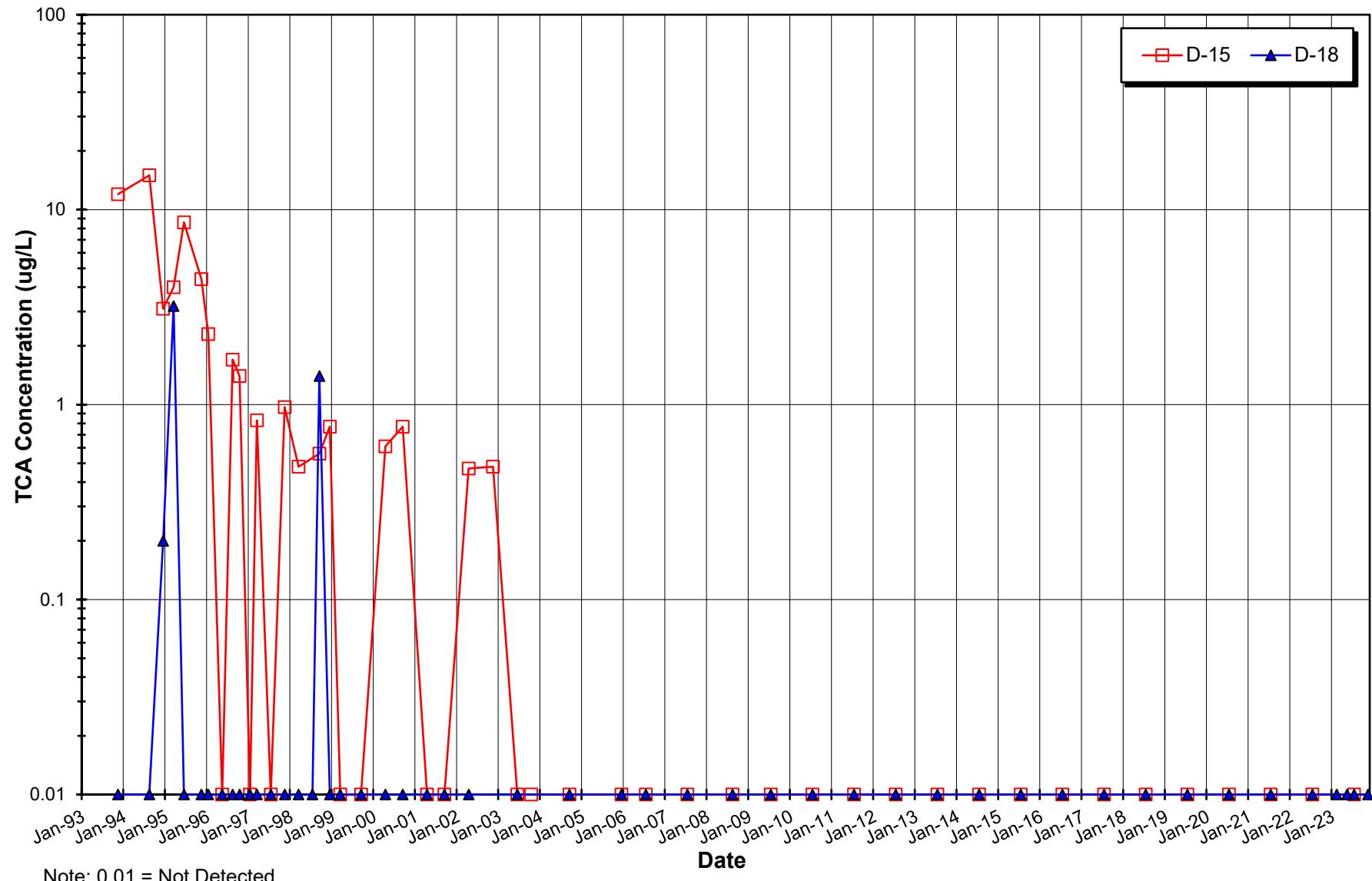
Note: 0.01 = Not Detected

**Figure 5. Plant 2 Trichloroethene (TCE) Concentration Changes**  
**ES = 5 ug/L, PAL = 0.5 ug/L**



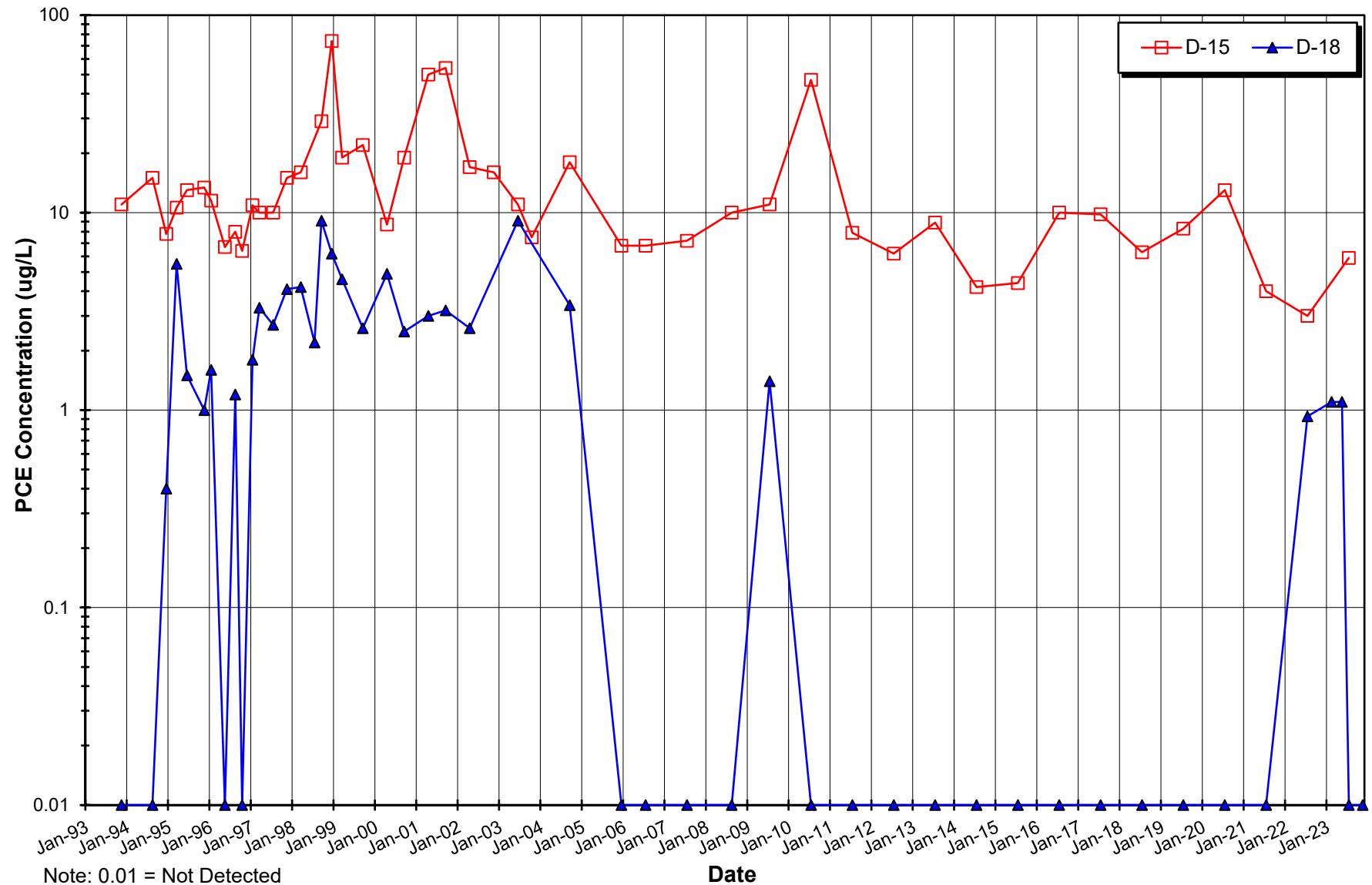
Note: 0.01 = Not Detected

**Figure 6. Plant 2 1,1,1-Trichloroethane (TCA) Concentration Changes**  
**ES = 200 ug/L, PAL = 40 ug/L**

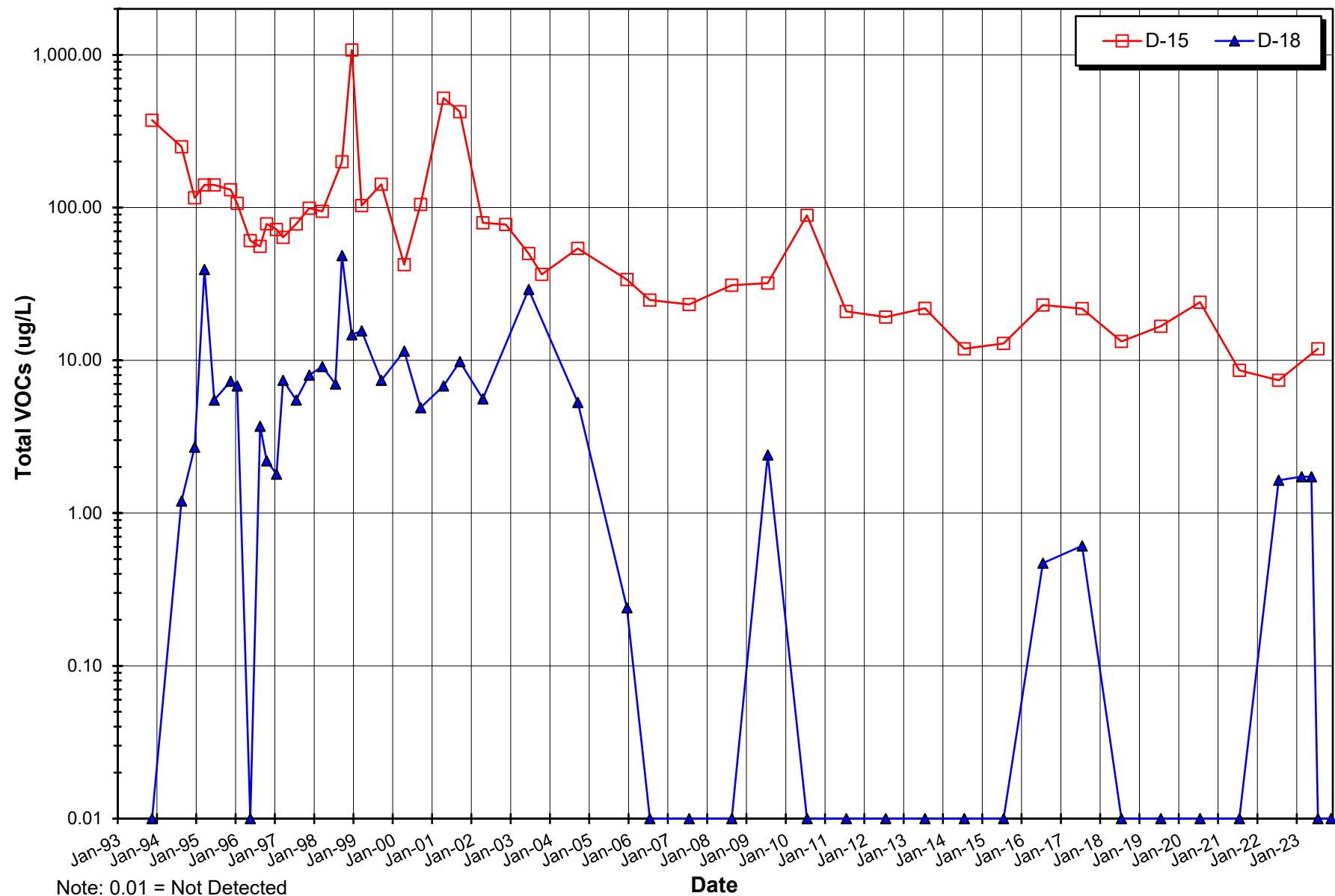


Note: 0.01 = Not Detected

**Figure 7. Plant 2 Tetrachloroethene (PCE) Concentration Changes**  
**ES = 5 ug/L, PAL = 0.5 ug/L**



**Figure 8. Plant 2 Total VOC Concentration Changes**



## **TABLES**

**TETRA TECH**

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**Table 1. Summary of Target Compound List VOCs Groundwater Monitoring Analytical Results for Pentair Delavan Facility Monitoring Points**

SAMPLE ID	DATE	PCE	1,1,1-TCA	TCE	1,1,2-TCA	Vinyl Chloride	Total VOCs	
Units		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	
NR 140	ES	5.0	200	5	5	0.2		
NR 140	PAL	0.5	40	0.5	0.5	0.02		
Plant #1								
Downgradient Monitor Wells	MW-1026	10/29/91	0.60	16000	1300	8.2	<0.3	17308.8
	MW-1026	10/29/91	1.2	15000	1300	7.1	<0.3	16308.3
	MW-1026	12/11/91	1.0	22000	1500	10	<0.3	23511
	MW-1026	11/11/93	<0.5	4500	250	1.0	<0.3	4751
	MW-1026	08/16/94	<1	1500	210	NA	<5	1710
MW-1026	MW-1026	12/13/94	<25	865	183	NA	<25	1048
	MW-1026	03/13/95	NA	NA	NA	NA	NA	0
	MW-1026	06/21/95	<0.34	41.9	72	<0.19	<0.27	113.9
	MW-1026	11/07/95	<0.5	<0.5	52.4	NA	<0.5	52.4
	MW-1026	01/25/96	<0.5	49.6	30.8	NA	<0.5	80.4
	MW-1026	05/13/96	<0.5	74.4	27.1	NA	<0.5	101.5
	MW-1026	08/13/96	<0.5	41	33.1	5.6	<0.5	79.7
	MW-1026	10/08/96	<0.5	26.1	21.5	1.8	<0.5	49.4
	MW-1026	01/21/97	<0.5	27	17.1	NA	<0.5	44.1
	MW-1026	04/01/97	<0.63	28	15	NA	<0.46	43
	MW-1026	07/23/97	<0.63	22	11	1.0	<0.46	34
	MW-1026	11/18/97	<0.25	20	13	NA	<0.25	33
	MW-1026	03/23/98	<0.63	15	10	NA	<0.46	25
	MW-1026	07/27/98	<0.25	8.4	4.5	1.8	<0.25	14.7
	MW-1026	09/28/98	<0.63	21	15	1.7	<0.46	37.7
	MW-1026	12/08/98	<0.63	24	14	NA	<0.46	38
	MW-1026	03/12/99	<0.63	21	13	NA	<0.46	34
	MW-1026	09/25/03	<0.50	25	6.1	<0.25	<0.25	31.1
	MW-1026	12/15/03	<0.50	34	10	<0.20	<0.25	44
	MW-1026	12/14/05	<0.50	91	21	0.27	<0.20	112.27
	MW-1026	07/31/06	<1.0	93	18	NA	NA	111
	MW-1026	07/31/07	<0.50	41	9.8	<0.25	<0.20	50.8
	MW-1026	08/19/08	<0.50	<0.50	<0.20	<0.25	<0.20	0
	MW-1026	07/28/09	<0.50	6.9	8	<0.25	<0.20	14.9
	MW-1026	07/14/10	<0.50	15	3.2	<0.25	<0.20	18.2
	MW-1026	07/21/11	<0.50	20	5.9	<0.25	<0.20	25.9
	MW-1026	07/10/12	<0.17	25	7.3	<0.28	<0.10	32.3

**Table 1. Summary of Target Compound List VOCs Groundwater Monitoring Analytical Results for Pentair Delavan Facility Monitoring Points**

SAMPLE ID	DATE	PCE	1,1,1-TCA	TCE	1,1,2-TCA	Vinyl Chloride	Total VOCs
Units		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
NR 140	ES	5.0	200	5	5	0.2	
NR 140	PAL	0.5	40	0.5	0.5	0.02	
MW-1026	07/24/13	<0.17	15	4.4	<0.28	<0.10	19.4
MW-1026	07/29/14	<0.17	7.4	1.8	<0.28	<0.10	9.2
MW-1026	07/14/15	<0.17	18	5.3	<0.28	<0.10	23.3
MW-1026	07/29/16	<0.37	21	6.2	<0.35	<0.20	27.2
MW-1026	07/13/17	<0.37	14	3.6	<0.35	<0.20	17.6
MW-1026	07/30/18	<0.37	11	2.7	<0.35	<0.20	13.7
MW-1026	07/18/19	<0.37	2.8	0.98	<0.35	<0.20	3.78
MW-1026	07/22/20	<0.37	3.2	1.3	<0.35	<0.20	4.5
MW-1026	07/22/21	<0.37	5.6	1.6	<0.35	<0.20	7.2
MW-1026	07/20/22	<0.37	11	3.5	<0.35	<0.20	14.5
MW-1026	07/20/23	<0.37	12	4.8	<0.35	<0.20	16.8
MW-1027	10/29/91	<0.5	780	1700	<0.5	<0.3	2480
MW-1027	12/12/91	<0.5	500	1200	<0.5	<0.3	1700
MW-1027	11/11/93	<0.5	1400	3000	<0.5	<0.3	4400
MW-1027	08/17/94	<1	280	1800	NA	<5	2080
MW-1027	06/21/95	<0.34	18.6	262	<0.19	<0.27	280.6
MW-1027	11/07/95	<0.5	15.8	299	NA	<0.5	314.8
MW-1027	01/26/96	<0.5	12.5	206	NA	<0.5	218.5
MW-1027	05/13/96	<0.5	29.4	1620	NA	<0.5	1649.4
MW-1027	08/14/96	<0.5	20	21.5	<0.5	<0.5	41.5
MW-1027	10/08/96	<0.5	17.3	326	<0.5	<0.5	343.3
MW-1027	01/21/97	<0.5	15.7	231	NA	<0.5	246.7
MW-1027	04/01/97	<0.63	8.2	130	NA	<0.46	138.2
MW-1027	07/24/97	<0.63	9.9	120	<0.15	<0.46	129.9
MW-1027	11/18/97	<0.25	12	200	NA	<0.25	212
MW-1027	03/23/98	<0.63	7.3	160	NA	<0.46	167.3
MW-1027	07/28/98	<1.2	3.4	60	<1.2	<1.2	63.4
MW-1027	09/28/98	<0.63	9.6	150	<0.28	<0.46	159.6
MW-1027	12/08/98	<1.3	12	210	NA	<0.46	222
MW-1027	03/11/99	<3.2	19	420	NA	<2.3	439
MW-1027	09/02/99	<3.2	28	540	NA	NA	568
MW-1027	04/25/00	<3.2	13	320	NA	<2.3	333
MW-1027	09/25/00	<3.2	9.4	220	NA	NA	229.4

**Table 1. Summary of Target Compound List VOCs Groundwater Monitoring Analytical Results for Pentair Delavan Facility Monitoring Points**

SAMPLE ID	DATE	PCE	1,1,1-TCA	TCE	1,1,2-TCA	Vinyl Chloride	Total VOCs
Units		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
NR 140	ES	5.0	200	5	5	0.2	
NR 140	PAL	0.5	40	0.5	0.5	0.02	
MW-1027	04/23/01	<1.0	4.8	150	NA	<1.0	154.8
MW-1027	10/02/01	<1.0	7.5	240	<1.0	NA	247.5
MW-1027	04/16/02	<1.2	15	330	<1.2	NA	345
MW-1027	11/19/02	<1.2	17	260	<1.2	NA	277
MW-1027	06/24/03	<5.0	13	200	<2.5	NA	213
MW-1027	10/20/03	<0.50	16	230	<0.25	NA	246
MW-1027	09/21/04	<2.0	21	170	NA	<0.80	191
MW-1027	12/14/05	<0.50	45	96	0.38	<0.20	141.38
MW-1027	07/31/06	<1.0	34	120	NA	NA	154
MW-1027	07/31/07	<0.50	37	95	<0.25	<0.20	132
MW-1027	08/19/08	<0.50	32	88	<0.25	<0.20	120
MW-1027	07/28/09	<0.50	22	52	<0.25	<0.20	74
MW-1027	07/14/10	<0.50	19	100	<0.25	<0.20	119
MW-1027	07/21/11	<0.50	8.5	65	<0.25	<0.20	73.5
MW-1027	07/10/12	<0.17	6.3	57	<0.28	<0.10	63.3
MW-1027	07/24/13	<0.17	6.2	47	<0.28	<0.10	53.2
MW-1027	07/29/14	<0.17	6.1	42	<0.28	<0.10	48.1
MW-1027	07/14/15	<0.17	3.7	39	<0.28	<0.10	42.7
MW-1027	07/29/16	<0.37	6.8	34	<0.35	<0.20	40.8
MW-1027	07/13/17	<0.37	7.1	27	<0.35	<0.20	34.1
MW-1027	07/30/18	<0.37	4.9	27	<0.35	<0.20	31.9
MW-1027	07/17/19	<0.37	4.9	41	<0.35	<0.20	45.9
MW-1027	07/22/20	<0.37	2.5	37	<0.35	<0.20	39.5
MW-1027	07/21/21	<0.37	4.3	46	<0.35	<0.20	50.3
MW-1027	07/20/22	<0.37	5.4	44	<0.35	<0.20	49.4
MW-1027	07/21/23	<0.37	1.3	30	<0.35	<0.20	31.3
TW-4	11/05/91	0.50	10000	1100	5.6	<0.3	11106.1
TW-4	12/12/91	0.60	11000	1200	4.5	<0.3	12205.1
TW-4	11/11/93	0.80	6200	1500	3.2	<0.3	7704
TW-4	08/17/94	<1	3900	600	NA	<5	4500
TW-4	12/14/94	<50	4040	630	NA	<50	4670
TW-4	03/13/95	ND	3120	600	NA	ND	3720
TW-4	06/21/95	NA	4220	990	17.6	5.4	5233

**Table 1. Summary of Target Compound List VOCs Groundwater Monitoring Analytical Results for Pentair Delavan Facility Monitoring Points**

SAMPLE ID	DATE	PCE	1,1,1-TCA	TCE	1,1,2-TCA	Vinyl Chloride	Total VOCs
Units		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
NR 140	ES	5.0	200	5	5	0.2	
NR 140	PAL	0.5	40	0.5	0.5	0.02	
TW-4	11/08/95	1.2	3340	920	NA	<0.5	4261.2
	01/25/96	1.1	3000	891	NA	<0.5	3892.1
TW-4	05/14/96	0.90	1820	969	NA	<0.5	2789.9
	08/14/96	<0.5	2150	179	1.8	<0.5	2330.8
TW-4	10/08/96	0.90	1850	541	6.3	<0.5	2398.2
	01/21/97	<0.5	2650	913	NA	<0.5	3563
TW-4	04/01/97	0.83	1400	600	NA	<0.46	2000.83
	07/23/97	0.67	950	450	4.4	<0.46	1405.07
TW-4	11/18/97	0.83	760	490	NA	<0.25	1250.83
	03/23/98	0.74	780	530	NA	<0.46	1310.74
TW-4	07/27/98	<2.5	410	230	<2.5	<2.5	640
	09/28/98	<0.63	860	460	2.8	<0.46	1322.8
TW-4	12/05/98	<6.3	830	400	NA	<4.6	1230
	03/11/99	<6.3	480	270	NA	<4.6	750
TW-4	09/02/99	<3.2	180	110	2.4	<2.3	292.4
	04/25/00	<3.2	450	280	NA	<2.3	730
TW-4	09/26/00	<6.3	340	230	<1.5	<4.6	570
	04/23/01	0.60	290	240	NA	<0.25	530.6
TW-4	10/02/01	<2.0	190	140	<2.0	<2.0	330
	04/16/02	<0.25	76	60	1.5	<0.25	137.5
TW-4	06/24/03	<1.0	120	89	1.4	<1.0	210.4
	09/21/04	<0.50	64	39	NA	<0.20	103
TW-4	12/14/05	<0.50	65	35	0.92	<0.20	100.92
	07/31/06	<0.50	92	60	1.3	<0.20	153.3
TW-4	07/31/07	<0.50	50	<0.20	<0.25	<0.20	50
	08/20/08	<0.50	71	36	0.73	<0.20	107.73
TW-4	07/28/09	<0.50	52	25	0.34	<0.20	77.34
	07/14/10	<0.50	75	52	0.28	<0.20	127.28
TW-4	07/21/11	<0.50	38	42	0.28	<0.20	80.28
	07/10/12	<0.17	48	53	<0.28	<0.10	101
TW-4	07/24/13	<0.17	26	23	<0.28	<0.10	49
	07/29/14	<0.17	29	20	<0.28	<0.10	49
TW-4	07/14/15	<0.17	30	36	<0.28	<0.10	66

**Table 1. Summary of Target Compound List VOCs Groundwater Monitoring Analytical Results for Pentair Delavan Facility Monitoring Points**

SAMPLE ID	DATE	PCE	1,1,1-TCA	TCE	1,1,2-TCA	Vinyl Chloride	Total VOCs
Units		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
NR 140	ES	5.0	200	5	5	0.2	
NR 140	PAL	0.5	40	0.5	0.5	0.02	
TW-4	07/29/16	<0.37	20	15	<0.35	<0.20	35
TW-4	03/01/17	<0.37	17	8.0	<0.35	<0.20	25
TW-4	05/17/17	<0.37	22	11	<0.35	<0.20	33
TW-4	07/13/17	<0.37	27	19	<0.35	<0.20	46
TW-4	10/24/17	<0.37	22	16	<0.35	<0.20	38
TW-4	02/28/18	<0.37	20	11	<0.35	<0.20	31
TW-4	05/10/18	<0.74	27	16	<0.33	<0.50	43
TW-4	07/30/18	<0.37	26	18	<0.35	<0.20	44
TW-4	07/18/19	<0.37	26	18	<0.35	<0.20	44
TW-4	07/23/20	<0.37	20	21	<0.35	<0.20	41
TW-4	07/22/21	<0.37	19	14	<0.35	<0.20	33
TW-4	07/20/22	<0.37	24	20	<0.35	<0.20	44
TW-4	07/21/23	<0.37	15	17	<0.35	<0.20	32
D-25R	10/29/91	<0.5	<0.5	11	<0.5	<0.3	11
D-25R	12/13/91	0.60	13	13	<0.5	<0.3	26.6
D-25R	11/11/93	<0.5	6.0	4.7	<0.5	<0.3	10.7
D-25R	08/17/94	<1	3.1	4.6	NA	<5	7.7
D-25R	12/13/94	0.40	4.7	5.4	NA	<0.5	10.5
D-25R	03/13/95	ND	4.3	3.2	NA	ND	7.5
D-25R	06/26/95	<0.34	3.1	<0.19	<0.19	<0.27	3.1
D-25R	11/07/95	<0.5	5.1	<0.5	NA	<0.5	5.1
D-25R	01/25/96	<0.5	4.7	5.1	NA	<0.5	9.8
D-25R	05/14/96	<0.5	6.9	6.3	NA	<0.5	13.2
D-25R	08/14/96	1.5	43.7	38.3	<0.5	<0.5	83.5
D-25R	10/09/96	<0.5	8.2	10.1	<0.5	<0.5	18.3
D-25R	01/20/97	<0.5	10.4	<0.5	NA	<0.5	10.4
D-25R	04/01/97	0.77	11	9.1	NA	<0.46	20.87
D-25R	07/24/97	0.86	9.5	9.8	<0.15	<0.46	20.16
D-25R	11/18/97	0.84	6.7	8.7	NA	<0.25	16.24
D-25R	03/23/98	0.71	5	7.5	NA	<0.46	13.21
D-25R	07/28/98	<0.25	2.1	2.7	<0.25	<0.25	4.8
D-25R	09/28/98	0.78	6.6	9.2	<0.28	<0.46	16.58
D-25R	12/08/98	0.70	6.5	8.7	NA	<0.46	15.9

**Table 1. Summary of Target Compound List VOCs Groundwater Monitoring Analytical Results for Pentair Delavan Facility Monitoring Points**

SAMPLE ID	DATE	PCE	1,1,1-TCA	TCE	1,1,2-TCA	Vinyl Chloride	Total VOCs
Units		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
NR 140	ES	5.0	200	5	5	0.2	
NR 140	PAL	0.5	40	0.5	0.5	0.02	
D-25R	03/12/99	0.78	5.6	7.7	NA	<0.46	14.08
D-25R	09/02/99	0.72	6.7	8.4	NA	NA	15.82
D-25R	04/25/00	1.0	3.5	4.0	NA	<0.46	8.5
D-25R	09/26/00	0.82	4.5	4.7	NA	NA	10.02
D-25R	04/23/01	0.45	3.1	4.3	NA	<0.25	7.85
D-25R	10/02/01	0.58	4.0	3.8	<0.25	NA	8.38
D-25R	04/16/02	0.58	4.3	4.7	<0.25	NA	9.58
D-25R	11/19/02	0.87	7.6	6.2	<0.25	NA	14.67
D-25R	06/24/03	0.86	6.1	7.7	<0.25	NA	14.66
D-25R	10/20/03	0.71	4.3	4.6	<0.25	NA	9.61
D-25R	09/21/04	0.61	3.5	3.3	NA	<0.20	7.41
D-25R	12/13/05	0.59	15	12	<0.25	<0.20	27.59
D-25R	07/31/06	0.53	12	25	NA	NA	37.53
D-25R	07/31/07	<0.50	8.0	12	<0.25	<0.20	20
D-25R	08/20/08	0.51	7.3	8.3	<0.25	<0.20	16.11
D-25R	07/28/09	<0.50	6.2	6.0	<0.25	<0.20	12.2
D-25R	07/13/10	<0.50	8.4	7.6	<0.25	<0.20	16
D-25R	07/20/11	<0.50	1.4	2.7	<0.25	<0.20	4.1
D-25R	07/10/12	<0.17	1.3	1.4	<0.28	<0.10	2.7
D-25R	07/24/13	<0.17	1.0	1.0	<0.28	<0.10	2
D-25R	07/29/14	<0.17	0.7	0.82	<0.28	<0.10	1.49
D-25R	07/14/15	<0.17	<0.20	0.71	<0.28	<0.10	0.71
D-25R	07/28/16	<0.37	<0.38	0.57	<0.35	<0.20	0.57
D-25R	07/12/17	<0.37	2.9	2.3	<0.35	<0.20	5.2
D-25R	07/30/18	<0.37	<0.38	0.55	<0.35	<0.20	0.55
D-25R	07/17/19	<0.37	0.55	0.54	<0.35	<0.20	1.09
D-25R	07/22/20	<0.37	<0.38	<0.16	<0.35	<0.20	0
D-25R	07/21/21	<0.37	<0.38	0.46	<0.35	<0.20	0.46
D-25R	07/19/22	<0.37	0.62	0.54	<0.35	<0.20	1.16
D-25R	07/21/23	<0.37	<0.38	<0.16	<0.35	<0.20	0
Original EX-2 Extraction Well	11/07/91	<0.5	870	210	1.1	<0.3	1081.1
	12/18/91	<0.5	1260	268	1.4	<0.3	1529.4
	11/11/93	<0.5	890	250	1.3	<0.3	1141.3

**Table 1. Summary of Target Compound List VOCs Groundwater Monitoring Analytical Results for Pentair Delavan Facility Monitoring Points**

SAMPLE ID	DATE	PCE	1,1,1-TCA	TCE	1,1,2-TCA	Vinyl Chloride	Total VOCs
Units		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
NR 140	ES	5.0	200	5	5	0.2	
NR 140	PAL	0.5	40	0.5	0.5	0.02	
EX-2	12/13/94	<0.5	17.3	3.5	NA	<0.5	20.8
	06/21/95	<0.34	375	96.4	<0.19	<0.27	471.4
EX-2 /	08/14/96	<0.5	99.8	52	<0.5	<0.5	151.8
EX-2R	07/25/97	<0.63	1.2	2.6	<0.15	<0.46	3.8
EX-2R	07/28/98	<0.25	0.79	2.1	<0.25	<0.25	2.89
	09/07/99	<0.63	15	34	NA	NA	49
	04/18/00	<0.63	1.3	3.7	NA	<0.46	5
EX-2R	09/26/00	<0.63	18	36	NA	<0.46	54
	04/19/01	<0.25	2.6	8.4	NA	<0.25	11
	10/02/01	<0.25	16	34	<0.25	NA	50
	04/16/02	<0.25	8.4	22	<0.25	NA	30.4
	06/24/03	<0.50	0.69	2.9	<0.25	NA	3.59
EX-2R	09/21/04	<0.50	11	25	NA	<0.20	36
	07/31/06	<0.50	0.61	1.7	NA	NA	2.31
	07/31/07	<0.50	6.3	6.7	<0.25	<0.20	13
	08/20/08	<0.50	15	22	<0.25	<0.20	37
EX-2R	07/28/09	<0.50	5.0	4.5	<0.25	<0.20	9.5
	10/05/10	<0.50	8.2	21	<0.25	<0.20	29.2
	07/21/11	<0.50	5.0	15	<0.25	<0.20	20
EX-2R	07/11/12	<0.17	3.2	9.8	<0.28	<0.10	13
	07/24/13	<0.17	4.6	7.0	<0.28	<0.10	11.6
	07/30/14	<0.17	3.3	5.8	<0.28	<0.10	9.1
	07/15/15	<0.17	1.4	3.8	<0.28	<0.10	5.2
	07/28/16	<0.37	4.2	7.1	<0.35	<0.20	11.3
	10/24/17	<0.37	3.7	6.3	<0.35	<0.20	10
	07/31/18	<0.37	1.7	3.6	<0.35	<0.20	5.3
	07/18/19	<0.37	1.0	2.8	<0.35	<0.20	3.8
	07/23/20	<0.37	<0.38	2.4	<0.35	<0.20	2.4
	07/22/21	<0.37	0.47	2.1	<0.35	<0.20	2.57
	07/20/22	<0.37	<0.38	0.67	<0.35	<0.20	0.67
EX-2R	07/21/23	<0.37	<0.38	<0.16	<0.35	<0.20	0
Original EX-3	11/07/91	<0.5	50	14	<0.5	<0.3	64
Extraction Well	12/18/91	<0.5	30.3	9.5	<0.5	<0.3	39.8

**Table 1. Summary of Target Compound List VOCs Groundwater Monitoring Analytical Results for Pentair Delavan Facility Monitoring Points**

SAMPLE ID	DATE	PCE	1,1,1-TCA	TCE	1,1,2-TCA	Vinyl Chloride	Total VOCs
Units		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
NR 140	ES	5.0	200	5	5	0.2	
NR 140	PAL	0.5	40	0.5	0.5	0.02	
Original Extraction Wells	11/11/93	<0.5	<0.5	<0.5	<0.5	<0.3	0
EX-3	12/13/94	<0.5	14.4	5.8	NA	<0.5	20.2
	06/21/95	<0.34	8.7	4.0	<0.19	<0.27	12.7
	08/14/96	<0.5	4.5	3.6	<0.5	<0.5	8.1
EX-3	07/25/97	<0.63	93	52	0.4	<0.46	145.4
	07/28/98	<0.25	30	28	<0.25	<0.25	58
	09/07/99	<0.63	22	26	NA	NA	48
EX-3	04/18/00	<0.63	37	55	NA	<0.46	92
	09/26/00	<0.63	25	28	NA	NA	53
	04/19/01	<0.25	27	38	NA	<0.25	65
EX-3	10/02/01	<0.25	13	17	<0.25	NA	30
	04/16/02	<0.25	21	28	<0.25	NA	49
	06/24/03	<0.50	23	46	<0.25	NA	69
EX-3	09/21/04	<0.50	13	17	NA	<0.20	30
	12/14/05	<0.50	28	34	0.29	<0.20	62.29
	07/31/06	<0.50	32	66	NA	NA	98
EX-3	07/31/07	<0.50	15	25	<0.25	<0.20	40
	08/20/08	<0.50	7.5	3.6	<0.25	<0.20	11.1
	07/28/09	<0.50	14	21	<0.25	<0.20	35
EX-3	07/14/10	<0.50	38	29	0.34	<0.20	67.34
	07/21/11	<0.50	34	33	0.33	<0.20	67.33
	07/11/12	<0.17	15	18	<0.28	<0.10	33
EX-3/ EX-3R	07/24/13	<0.17	2.2	2.2	<0.28	<0.10	4.4
	07/30/14	<0.17	1.6	2.2	<0.28	<0.10	3.8
	07/15/15	<0.17	3.1	3.5	<0.28	<0.10	6.6
EX-3R	10/24/17	<0.37	2.3	3.3	<0.35	<0.20	5.6
	07/31/18	<0.37	2.4	2.4	<0.35	<0.20	4.8
	07/18/19	<0.37	4.5	5.2	<0.35	<0.20	9.7
EX-3R	07/23/20	<0.37	5.0	6.3	<0.35	<0.20	11.3
	07/22/21	<0.37	4.2	5.6	<0.35	<0.20	9.8
	07/20/22	<0.37	3.9	5.7	<0.35	<0.20	9.6
EX-3R	07/21/23	<0.37	2.6	5.0	<0.35	<0.20	7.6
EX-4R	07/18/19	<0.37	1.0	1.0	<0.35	<0.20	2

**Table 1. Summary of Target Compound List VOCs Groundwater Monitoring Analytical Results for Pentair Delavan Facility Monitoring Points**

SAMPLE ID	DATE	PCE	1,1,1-TCA	TCE	1,1,2-TCA	Vinyl Chloride	Total VOCs
Units		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
NR 140	ES	5.0	200	5	5	0.2	
NR 140	PAL	0.5	40	0.5	0.5	0.02	
EX-5R	07/18/19	<0.37	<0.38	<0.16	<0.35	<0.20	0
EX-6	07/18/19	<0.37	<0.38	<0.16	<0.35	<0.20	0
Storm Sewer Outfall	SS-1 11/11/93	<b>0.90</b>	<b>71</b>	<b>24</b>	<0.5	<0.3	95.9
	08/16/94	<1	<b>55</b>	<b>25</b>	NA	<5	80
	12/14/94	0.10	<b>11.2</b>	<b>3.0</b>	NA	<0.5	14.3
	06/21/95	<0.34	<b>31.2</b>	<b>18.1</b>	<0.19	<0.27	49.3
SS-1	11/06/95	<0.5	<b>21.7</b>	<0.5	NA	<0.5	21.7
	01/25/96	<b>2.6</b>	<b>17.1</b>	<b>21.1</b>	NA	<0.5	40.8
	SS-1 05/13/96	<b>0.60</b>	<b>12.6</b>	<b>8.2</b>	NA	<0.5	21.4
	08/13/96	<b>0.70</b>	<b>8.3</b>	<b>7.8</b>	<0.5	<0.5	16.8
SS-1	10/08/96	<b>0.70</b>	<b>6.7</b>	<b>8.8</b>	<0.5	<0.5	16.2
	01/20/97	<b>0.70</b>	<b>8.1</b>	<b>8.9</b>	<0.5	<0.5	17.7
	04/01/97	<b>0.74</b>	<b>5.8</b>	<b>6.6</b>	NA	<0.46	13.14
	07/23/97	<0.63	<b>1.2</b>	<b>1.5</b>	<0.15	<0.46	2.7
SS-1	11/18/97	<0.25	<b>4.9</b>	<b>4.9</b>	NA	<0.25	9.8
	09/02/99	<b>3.4</b>	<b>3.1</b>	<b>17</b>	NA	<0.46	23.5
	09/25/00	<0.63	<b>0.37</b>	<b>2.1</b>	NA	NA	2.47
	10/01/01	<0.25	<b>1.5</b>	<b>3.7</b>	<0.25	<0.25	5.2
SS-1	04/17/02	<b>1.1</b>	<b>1.4</b>	<b>5.2</b>	<0.25	NA	7.7
	12/04/02	<b>0.71</b>	<b>1.2</b>	<b>4.4</b>	<0.25	<0.25	6.31
	03/08/04	<0.50	<b>0.90</b>	<b>2.5</b>	<0.25	<0.20	3.4
	04/05/04	<0.50	<0.50	<b>3.2</b>	<0.25	<0.20	3.2
SS-1	06/22/05	<b>0.78</b>	<b>0.52</b>	<b>2.2</b>	<0.25	<0.20	3.5
	12/07/05	<b>1.8</b>	<b>0.67</b>	<b>0.64</b>	<0.25	<0.20	3.11
	08/01/06	<b>0.71</b>	<0.50	<b>1.6</b>	NA	<0.20	2.31
	08/01/07	<0.50	<b>0.80</b>	<b>1.9</b>	<0.25	<0.20	2.7
SS-1	08/20/08	<b>0.50</b>	<0.50	<b>0.79</b>	<0.25	<0.20	1.29
	07/28/09	<0.50	<b>1.8</b>	<b>3.2</b>	<0.25	<0.20	5
	07/20/10	<0.50	<0.50	<b>0.47</b>	<0.25	<0.20	0.47
	07/13/11	<0.50	<0.50	<b>1.5</b>	<0.25	<0.20	1.5
SS-1	07/10/12	<0.17	<0.20	<b>1.5</b>	<0.28	<0.10	1.5
	07/15/13	<0.17	<0.20	<0.19	<0.28	<0.10	0
	07/14/14	<0.17	<0.20	<b>0.75</b>	<0.28	<0.10	0.75

**Table 1. Summary of Target Compound List VOCs Groundwater Monitoring Analytical Results for Pentair Delavan Facility Monitoring Points**

SAMPLE ID	DATE	PCE	1,1,1-TCA	TCE	1,1,2-TCA	Vinyl Chloride	Total VOCs
Units		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
NR 140	ES	5.0	200	5	5	0.2	
NR 140	PAL	0.5	40	0.5	0.5	0.02	
SS-1	07/06/15	<b>0.67</b>	<0.20	<b>0.85</b>	<0.28	<0.10	1.52
	07/20/16	<0.37	<0.38	<b>0.88</b>	<0.35	<0.20	0.88
	07/19/17	<0.37	<0.38	<0.16	<0.35	<0.20	0
	07/11/18	<0.37	<0.38	<b>0.51</b>	<0.35	<0.20	0.51
SS-1	07/23/19	<0.37	<0.38	<b>0.51</b>	<0.35	<0.20	0.51
	07/23/20	<0.37	<0.38	<b>0.55</b>	<0.35	<0.20	0.55
	06/09/21	<0.37	<0.38	<b>0.42</b>	NA	<0.20	0.42
	06/20/22	<0.37	<0.38	<0.16	NA	<0.20	0
SS-1	08/21/23	<0.37	<0.38	<b>0.35</b>	NA	<0.20	0.35
Plant #2							
Southeast Source Area and Former Sump Source Area Monitor Wells	D-18	<0.5	<0.5	<b>1.5</b>	<0.5	<0.3	1.5
	D-18	<b>0.90</b>	0.5	<b>2.1</b>	<0.5	<0.3	3.5
	11/11/93	<0.5	<0.5	<0.5	<0.5	<0.3	0
	08/16/94	<1	<1	<b>1.2</b>	NA	<5	1.2
	12/13/94	<b>0.40</b>	<b>0.20</b>	<b>1.8</b>	NA	<b>0.30</b>	2.7
	03/13/95	<b>5.5</b>	<b>3.2</b>	<b>30.6</b>	NA	ND	39.3
	06/21/95	<b>1.5</b>	<0.13	<b>4.0</b>	<0.19	<0.27	5.5
	11/06/95	<b>1.0</b>	<0.5	<b>6.3</b>	NA	<0.5	7.3
	01/25/96	<b>1.6</b>	<0.5	<b>5.2</b>	NA	<0.5	6.8
	D-18	<b>&lt;0.5</b>	<0.5	<0.5	NA	<0.5	0
D-18	08/13/96	<b>1.2</b>	<0.5	<b>2.5</b>	<0.5	<0.5	3.7
	10/08/96	<0.5	<0.5	<b>2.2</b>	<0.5	<0.5	2.2
	01/20/97	<b>1.8</b>	<0.5	<0.5	NA	<0.5	1.8
	03/31/97	<b>3.3</b>	<0.28	<b>4.1</b>	NA	<0.46	7.4
	07/23/97	<b>2.7</b>	<0.28	<b>2.8</b>	<0.15	<0.46	5.5
	11/17/97	<b>4.1</b>	<0.28	<b>3.9</b>	NA	<0.48	8
	03/23/98	<b>4.2</b>	<0.28	<b>4.9</b>	NA	<0.46	9.1
	07/27/98	<b>2.2</b>	<0.25	<b>4.8</b>	<0.15	<0.25	7
	09/25/98	<b>9.1</b>	<b>1.4</b>	<b>38</b>	<0.28	<0.46	48.5
	12/08/98	<b>6.2</b>	<0.28	<b>8.5</b>	NA	<0.46	14.7
D-18	03/11/99	<b>4.6</b>	<0.28	<b>11</b>	NA	<0.46	15.6
	09/07/99	<b>2.6</b>	<0.28	<b>4.8</b>	NA	NA	7.4
	04/25/00	<b>4.9</b>	<0.28	<b>6.6</b>	NA	<0.46	11.5

**Table 1. Summary of Target Compound List VOCs Groundwater Monitoring Analytical Results for Pentair Delavan Facility Monitoring Points**

SAMPLE ID	DATE	PCE	1,1,1-TCA	TCE	1,1,2-TCA	Vinyl Chloride	Total VOCs
Units		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
NR 140	ES	5.0	200	5	5	0.2	
NR 140	PAL	0.5	40	0.5	0.5	0.02	
D-18	09/25/00	2.5	<0.28	2.4	NA	NA	4.9
D-18	04/19/01	3.0	<0.25	3.8	NA	<0.25	6.8
	09/27/01	3.2	<0.25	6.6	<0.25	NA	9.8
	04/17/02	2.6	<0.25	3.0	<0.25	NA	5.6
	06/20/03	9.1	<0.50	20	<0.25	NA	29.1
	10/20/03	<b>Not Sampled.</b>					
D-18	09/20/04	3.4	<0.50	1.9	NA	<0.20	5.3
	12/14/05	<0.50	<0.50	0.24	<0.25	<0.20	0.24
	07/31/06	<0.50	<0.50	<0.20	NA	NA	0
D-18	07/31/07	<0.50	<0.50	<0.20	<0.25	<0.20	0
	08/19/08	<0.50	<0.50	<0.20	<0.25	<0.20	0
	07/28/09	1.4	<0.50	1.0	<0.25	<0.20	2.4
D-18	07/13/10	<0.50	<0.50	<0.20	<0.25	<0.20	0
	07/20/11	<0.50	<0.50	<0.20	<0.25	<0.20	0
	07/10/12	<0.17	<0.20	<0.19	<0.28	<0.10	0
	07/24/13	<0.17	<0.20	<0.19	<0.28	<0.10	0
D-18	07/29/14	<0.17	<0.20	<0.19	<0.28	<0.10	0
	07/14/15	<0.17	<0.20	<0.19	<0.28	<0.10	0
	07/28/16	<0.37	<0.38	0.47	<0.35	<0.20	0.47
D-18	07/12/17	<0.37	<0.38	0.61	<0.35	<0.20	0.61
	07/30/18	<0.37	<0.38	<0.16	<0.35	<0.20	0
	07/17/19	<0.37	<0.38	<0.16	<0.35	<0.20	0
	07/22/20	<0.37	<0.38	<0.16	<0.35	<0.20	0
	07/21/21	<0.37	<0.38	<0.16	<0.35	<0.20	0
	07/19/22	0.93	<0.38	0.71	<0.35	<0.20	1.64
MW-2004	02/01/23	1.1	<0.38	0.63	<0.35	<0.20	1.73
	05/18/23	1.1	<0.38	0.63	<0.35	<0.20	1.73
D-18	07/20/23	<0.37	<0.38	<0.16	<0.35	<0.20	0
	11/01/23	<0.37	<0.38	<0.16	<0.35	<0.20	0
MW-2004	10/29/91	6.4	4.8	37	<0.5	<0.3	48.2
	12/13/91	11	2.6	61	<0.5	<0.3	74.6
	11/11/93	2.5	14	5.6	<0.5	<0.3	22.1
	12/13/94	0.70	0.20	1.8	NA	0.3	3
MW-2004	06/21/95	3.2	17.6	14.2	3.4	<0.27	38.4

**Table 1. Summary of Target Compound List VOCs Groundwater Monitoring Analytical Results for Pentair Delavan Facility Monitoring Points**

SAMPLE ID	DATE	PCE	1,1,1-TCA	TCE	1,1,2-TCA	Vinyl Chloride	Total VOCs
Units		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
NR 140	ES	5.0	200	5	5	0.2	
NR 140	PAL	0.5	40	0.5	0.5	0.02	
MW-2004	08/13/96	<b>0.96</b>	<b>7.2</b>	<b>5.2</b>	<0.5	<0.5	13.36
MW-2004	07/23/97	<0.63	<b>1.9</b>	<b>1.7</b>	<0.15	<0.46	3.6
MW-2004	07/27/98	<0.25	<0.25	<b>0.94</b>	<0.15	<0.25	0.94
MW-2004	09/07/99	<0.63	<0.28	<0.49	NA	NA	0
MW-2004	04/26/00	<0.63	<0.28	<0.49	NA	NA	0
MW-2004	09/27/01	<0.25	<0.25	<0.25	<0.25	NA	0
MW-2004	11/18/02	<0.25	<0.25	<0.25	<0.25	NA	0
MW-2004	06/20/03	<0.50	<0.50	<0.25	<0.25	NA	0
MW-2004	09/20/04	<0.50	<0.50	<0.20	NA	<0.20	0
MW-2004	12/13/05	<0.50	<0.50	<b>0.50</b>	<0.25	<0.20	0.5
MW-2004	07/29/06	<0.50	<0.50	<b>0.37</b>	NA	NA	0.37
MW-2004	07/31/07	<0.50	<0.50	<0.20	<0.25	<0.20	0
MW-2004	08/19/08	<0.50	<0.50	<0.20	<0.25	<0.20	0
MW-2004	07/28/09	<0.50	<0.50	<0.20	<0.25	<0.20	0
MW-2004	07/13/10	<0.50	<0.50	<0.20	<0.25	<0.20	0
MW-2004	07/20/11	<0.50	<0.50	<0.20	<0.25	<0.20	0
MW-2004	07/10/12	<0.17	<0.20	<0.19	<0.28	<0.10	0
MW-2004	07/24/13	<0.17	<0.20	<0.19	<0.28	<0.10	0
MW-2004	07/29/14	<0.17	<0.20	<0.19	<0.28	<0.10	0
MW-2004	07/14/15	<0.17	<0.20	<b>0.65</b>	<0.28	<0.10	0.65
MW-2004	07/28/16	<0.37	<0.38	<0.16	<0.35	<0.20	0
MW-2004	07/12/17	<0.37	<0.38	<0.16	<0.35	<0.20	0
MW-2004	07/30/18	<0.37	<0.38	<0.16	<0.35	<0.20	0
MW-2004	07/17/19	<0.37	<0.38	<0.16	<0.35	<0.20	0
MW-2004	07/22/20	<0.37	<0.38	<0.16	<0.35	<0.20	0
MW-2004	07/21/21	<0.37	<0.38	<0.16	<0.35	<0.20	0
MW-2004	07/19/22	<0.37	<0.38	<0.16	<0.35	<0.20	0
MW-2004	07/20/23	<0.37	<0.38	<0.16	<0.35	<0.20	0
MW-2005	10/28/91	<b>30</b>	<b>2.7</b>	<b>20</b>	<0.5	<0.3	52.7
MW-2005	12/13/91	<b>32</b>	<b>3.0</b>	<b>23</b>	<0.5	<0.3	58
MW-2005	11/11/93	<b>47</b>	<b>3.1</b>	<b>31</b>	<0.5	<0.3	81.1
MW-2005	12/13/94	<b>0.40</b>	<0.5	<0.5	NA	<0.5	0.4
MW-2005	08/16/94	<1	<1	<1	NA	<5	0
MW-2005	06/21/95	<b>0.70</b>	<0.13	<b>0.70</b>	<0.19	<0.27	1.4

**Table 1. Summary of Target Compound List VOCs Groundwater Monitoring Analytical Results for Pentair Delavan Facility Monitoring Points**

SAMPLE ID	DATE	PCE	1,1,1-TCA	TCE	1,1,2-TCA	Vinyl Chloride	Total VOCs
Units		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
NR 140	ES	5.0	200	5	5	0.2	
NR 140	PAL	0.5	40	0.5	0.5	0.02	
MW-2005	11/07/95	<b>1.9</b>	<0.5	<b>2.7</b>	NA	<0.5	4.6
MW-2005	01/25/96	<b>10.9</b>	<0.5	<b>5.2</b>	NA	<0.5	16.1
MW-2005	05/13/96	<0.5	<0.5	<0.5	NA	<0.5	0
MW-2005	08/13/96	<b>10.2</b>	<0.5	<b>2.1</b>	<0.5	<0.5	12.3
MW-2005	10/08/96	<b>13</b>	<0.5	<0.5	<0.5	<0.5	13
MW-2005	01/20/97	<b>24</b>	<0.5	<b>10.1</b>	NA	<0.5	34.1
MW-2005	04/01/97	<b>47</b>	0.76	<b>8.8</b>	NA	<0.46	56.56
MW-2005	07/23/97	<0.63	15	<b>1.6</b>	<0.15	<0.46	16.6
MW-2005	11/18/97	<b>2.7</b>	<0.25	<b>0.33</b>	NA	<0.25	3.03
MW-2005	03/23/98	<b>3.0</b>	<0.28	<b>0.51</b>	NA	<0.46	3.51
MW-2005	07/21/98	<b>19</b>	<0.25	<b>1.3</b>	<0.15	<0.25	20.3
MW-2005	09/25/98	<b>14</b>	<0.28	<b>1.1</b>	<0.28	<0.46	15.1
MW-2005	12/05/98	<b>6.2</b>	<0.28	<b>5.2</b>	NA	<0.46	11.4
MW-2005	03/12/99	<b>7.8</b>	<0.28	<b>8.9</b>	NA	<0.46	16.7
MW-2005	09/07/99	<b>7.8</b>	<0.28	<b>1.0</b>	NA	NA	8.8
MW-2005	04/25/00	<b>1.2</b>	<0.28	<0.49	NA	<0.46	1.2
MW-2005	09/25/00	<b>1.7</b>	<0.28	<0.49	NA	NA	1.7
MW-2005	04/19/01	<b>5.7</b>	<0.25	<b>0.60</b>	NA	<0.25	6.3
MW-2005	09/27/01	<b>7.5</b>	<0.25	<b>0.62</b>	<0.25	NA	8.12
MW-2005	04/17/02	<b>9.8</b>	<0.25	<b>0.89</b>	<0.25	NA	10.69
MW-2005	06/20/03	<b>6.0</b>	<0.50	<b>0.87</b>	<0.25	NA	6.87
MW-2005	09/20/04	<b>17</b>	<0.50	<b>1.3</b>	NA	<0.20	18.3
MW-2005R	07/30/07	<b>2.8</b>	<0.50	<0.20	<0.25	<0.20	2.8
MW-2005R	08/18/08	<0.50	<0.50	<0.20	<0.25	<0.20	0
MW-2005R	07/27/09	<0.50	<0.50	<0.20	<0.25	<0.20	0
MW-2005R	07/13/10	<0.50	<0.50	<0.20	<0.25	<0.20	0
MW-2005R	07/20/11	<0.50	<0.50	<0.20	<0.25	<0.20	0
MW-2005R	07/10/12	<0.17	<0.20	<0.19	<0.28	<0.10	0
MW-2005R	07/24/13	<0.17	<0.20	<0.19	<0.28	<0.10	0
MW-2005R	07/29/14	<b>2.9</b>	<0.20	<0.19	<0.28	<0.10	2.9
MW-2005R	07/14/15	<0.17	<0.20	<0.19	<0.28	<0.10	0
MW-2005R	07/28/16	<b>2.4</b>	<0.38	<0.16	<0.35	<0.20	2.4
MW-2005R	07/12/17	<0.37	<0.38	<0.16	<0.35	<0.20	0

**Table 1. Summary of Target Compound List VOCs Groundwater Monitoring Analytical Results for Pentair Delavan Facility Monitoring Points**

SAMPLE ID	DATE	PCE	1,1,1-TCA	TCE	1,1,2-TCA	Vinyl Chloride	Total VOCs
Units		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
NR 140	ES	5.0	200	5	5	0.2	
NR 140	PAL	0.5	40	0.5	0.5	0.02	
MW-2005R	07/30/18	<0.37	<0.38	<0.16	<0.35	<0.20	0
MW-2005R	07/17/19	<0.37	<0.38	<0.16	<0.35	<0.20	0
MW-2005R	07/22/20	<0.37	<0.38	<0.16	<0.35	<0.20	0
MW-2005R	07/21/21	<0.37	<0.38	<0.16	<0.35	<0.20	0
MW-2005R	07/19/22	<0.37	<0.38	<0.16	<0.35	<0.20	0
MW-2005R	07/20/23	<0.37	<0.38	<0.16	<0.35	<0.20	0
MW-2011	07/30/07	<0.50	<b>2.9</b>	<b>30</b>	<0.25	<0.20	32.9
MW-2011	08/18/08	<0.50	<b>2.0</b>	<b>12</b>	<0.25	<0.20	14
MW-2011	07/27/09	<0.50	<b>1.5</b>	<b>14</b>	<0.25	<0.20	15.5
MW-2011	07/13/10	<0.50	<b>2.8</b>	<b>13</b>	<0.25	<0.20	15.8
MW-2011	07/20/11	<0.50	<b>2.7</b>	<b>20</b>	<0.25	<0.20	22.7
MW-2011	07/10/12	<0.17	<b>3.4</b>	<b>39</b>	<0.28	<0.10	42.4
MW-2011	07/24/13	<0.17	<b>2.3</b>	<b>9.0</b>	<0.28	<0.10	11.3
MW-2011	07/29/14	<0.17	<b>4.1</b>	<b>35</b>	<0.28	<0.10	39.1
MW-2011	07/14/15	<0.17	<0.20	<b>7.2</b>	<0.28	<0.10	7.2
MW-2011	07/28/16	<0.37	<b>3.3</b>	<b>29</b>	<0.35	<0.20	32.3
MW-2011	07/12/17	<0.37	<b>2.1</b>	<b>16</b>	<0.35	<0.20	18.1
MW-2011	07/30/18	<0.37	<b>1.2</b>	<b>7.6</b>	<0.35	<0.20	8.8
MW-2011	07/17/19	<0.37	<b>2.2</b>	<b>13</b>	<0.35	<0.20	15.2
MW-2011	07/22/20	<0.37	<b>2.0</b>	<b>13</b>	<0.35	<0.20	15
MW-2011	07/21/21	<0.37	<b>2.0</b>	<b>14</b>	<0.35	<0.20	16
MW-2011	07/19/22	<0.37	<0.38	<b>0.69</b>	<0.35	<0.20	0.69
MW-2011	07/20/23	<0.37	<b>0.71</b>	<b>3.1</b>	<0.35	<0.20	3.81
D-15	11/05/91	<b>26</b>	<b>45</b>	<b>420</b>	<0.5	<0.3	491
D-15	12/12/91	<b>24</b>	31	<b>390</b>	<0.5	<0.3	445
D-15	11/11/93	<b>11</b>	12	<b>350</b>	<0.5	<0.3	373
D-15	08/16/94	<b>15</b>	<b>15</b>	<b>220</b>	NA	<5	250
D-15	12/13/94	<b>7.8</b>	<b>3.1</b>	<b>105</b>	NA	<5	115.9
D-15	03/13/95	<b>10.6</b>	<b>4.0</b>	<b>126</b>	NA	ND	140.6
D-15	06/21/95	<b>13</b>	<b>8.6</b>	<b>119</b>	<0.19	<0.27	140.6
D-15	11/06/95	<b>13.4</b>	<b>4.4</b>	<b>113</b>	NA	<0.5	130.8
D-15	01/25/96	<b>11.5</b>	<b>2.3</b>	<b>92.8</b>	NA	<0.5	106.6
D-15	05/13/96	<b>6.7</b>	<0.5	<b>54</b>	NA	<0.5	60.7

**Table 1. Summary of Target Compound List VOCs Groundwater Monitoring Analytical Results for Pentair Delavan Facility Monitoring Points**

SAMPLE ID	DATE	PCE	1,1,1-TCA	TCE	1,1,2-TCA	Vinyl Chloride	Total VOCs
Units		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
NR 140	ES	5.0	200	5	5	0.2	
NR 140	PAL	0.5	40	0.5	0.5	0.02	
D-15	08/15/96	8.0	1.7	46	<0.5	<0.5	55.7
D-15	10/08/96	6.4	1.4	70.4	<0.5	<0.5	78.2
D-15	01/20/97	10.9	<0.5	61	NA	<0.5	71.9
D-15	03/31/97	10	0.83	53	NA	<0.46	63.83
D-15	07/23/97	10	<0.28	68	<0.15	<0.46	78
D-15	11/17/97	15	0.97	83	NA	<0.48	98.97
D-15	03/23/98	16	0.48	78	NA	<0.46	94.48
D-15	07/27/98	Not Sampled.					
D-15	09/26/98	29	0.56	170	<0.28	<0.46	199.56
D-15	12/08/98	74	0.77	1000	NA	<0.46	1074.77
D-15	03/11/99	19	<0.56	84	NA	<0.92	103
D-15	09/07/99	22	<0.56	120	NA	NA	142
D-15	04/25/00	8.7	0.61	33	NA	<0.46	42.31
D-15	09/28/00	19	0.77	85	NA	NA	104.77
D-15	04/19/01	50	<2.5	470	NA	<2.5	520
D-15	09/27/01	54	<2.5	370	<2.5	NA	424
D-15	04/15/02	17	0.47	62	<2.5	NA	79.47
D-15	11/19/02	16	0.48	61	<0.25	NA	77.48
D-15	06/20/03	11	<0.50	39	<0.25	NA	50
D-15	10/20/03	7.5	<0.50	29	<0.25	NA	36.5
D-15	09/20/04	18	<0.50	36	NA	<0.20	54
D-15	12/13/05	6.8	<0.50	27	<0.25	<0.20	33.8
D-15	07/27/06	6.8	<0.50	18	NA	NA	24.8
D-15	07/31/07	7.2	<0.50	16	<0.25	<0.20	23.2
D-15	08/18/08	10	<0.50	21	<0.25	<0.20	31
D-15	07/27/09	11	<0.50	21	<0.25	<0.20	32
D-15	07/13/10	47	<0.50	42	<0.25	<0.20	89
D-15	07/20/11	7.9	<0.50	13	<0.25	<0.20	20.9
D-15	07/10/12	6.2	<0.20	13	<0.28	<0.10	19.2
D-15	07/24/13	8.9	<0.20	13	<0.28	<0.10	21.9
D-15	07/29/14	4.2	<0.20	7.7	<0.28	<0.10	11.9
D-15	07/14/15	4.4	<0.20	8.5	<0.28	<0.10	12.9
D-15	07/28/16	10	<0.38	13	<0.35	<0.20	23

**Table 1. Summary of Target Compound List VOCs Groundwater Monitoring Analytical Results for Pentair Delavan Facility Monitoring Points**

SAMPLE ID	DATE	PCE	1,1,1-TCA	TCE	1,1,2-TCA	Vinyl Chloride	Total VOCs
Units		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
NR 140	ES	5.0	200	5	5	0.2	
NR 140	PAL	0.5	40	0.5	0.5	0.02	
D-15	07/12/17	9.8	<0.38	12	<0.35	<0.20	21.8
D-15	07/31/18	6.3	<0.38	7.0	<0.35	<0.20	13.3
D-15	07/17/19	8.3	<0.38	8.4	<0.35	<0.20	16.7
D-15	07/22/20	13	<0.38	11	<0.35	<0.20	24
D-15	07/21/21	4.0	<0.38	4.6	<0.35	<0.20	8.6
D-15	07/19/22	3.0	<0.38	4.4	<0.35	<0.20	7.4
D-15	07/20/23	5.9	<0.38	6.0	<0.35	<0.20	11.9
TW-1	10/29/91	<0.5	1.3	18	<0.5	<0.3	19.3
TW-1	12/13/91	4.9	1.1	48	<0.5	<0.3	54
TW-1	11/11/93	4.0	9.1	20	<0.5	<0.3	33.1
TW-1	08/16/94	2.4	<1	14	NA	<5	16.4
TW-1	12/13/94	0.40	0.30	4.1	NA	<0.5	4.8
TW-1	03/13/95	NA	NA	NA	NA	NA	0
TW-1	06/21/95	1.1	1.8	4.9	<0.19	<0.27	7.8
TW-1	11/07/95	1.0	<0.5	8.7	NA	<0.5	9.7
TW-1	01/25/96	1.5	1.3	4.7	NA	<0.5	7.5
TW-1	05/13/96	1.1	0.60	2.9	NA	<0.5	4.6
TW-1	08/13/96	0.90	0.70	2.7	<0.5	<0.5	4.3
TW-1	10/08/96	<0.5	<0.5	<0.5	<0.5	<0.5	0
TW-1	01/20/97	2.1	3.0	10	NA	<0.5	15.1
TW-1	03/31/97	2.0	3.1	5.9	NA	<0.46	11
TW-1	07/23/97	0.88	0.74	2.5	<1.1	<0.46	4.12
TW-1	11/17/97	0.88	0.55	2.0	NA	<0.48	3.43
TW-1	03/23/98	<0.63	<0.28	1.7	NA	<0.46	1.7
TW-1	07/28/98	<0.25	<0.25	1.7	<0.15	<0.25	1.7
TW-1	09/26/98	<0.63	<0.28	1.7	<0.28	<0.46	1.7
TW-1	12/08/98	<0.63	<0.28	1.5	NA	<0.46	1.5
TW-1	03/12/99	<0.63	<0.28	1.0	NA	<0.46	1
TW-1	09/07/99	<0.63	0.57	2.4	NA	NA	2.97
TW-1	09/26/00	1.1	0.81	7.3	NA	NA	9.21
TW-1	09/28/01	<0.25	<0.25	1.2	<0.25	NA	1.2
TW-1	12/13/05	<0.50	<0.50	0.22	<0.25	<0.20	0.22
TW-1	12/13/05	<0.50	<0.50	0.22	<0.25	<0.20	0.22

**Table 1. Summary of Target Compound List VOCs Groundwater Monitoring Analytical Results for Pentair Delavan Facility Monitoring Points**

SAMPLE ID	DATE	PCE	1,1,1-TCA	TCE	1,1,2-TCA	Vinyl Chloride	Total VOCs
Units		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
NR 140	ES	5.0	200	5	5	0.2	
NR 140	PAL	0.5	40	0.5	0.5	0.02	
TW-1	07/29/06	<0.50	<0.50	<b>0.20</b>	NA	NA	0.2
	07/31/07	<0.50	<0.50	<b>1.2</b>	<0.25	<0.20	1.2
TW-1	08/19/08	<b>0.53</b>	<0.50	<b>0.62</b>	<0.25	<0.20	1.15
	07/28/09	<0.50	<0.50	<b>0.27</b>	<0.25	<0.20	0.27
TW-1	07/13/10	<0.50	<0.50	<b>0.38</b>	<0.25	<0.20	0.38
	07/20/11	<0.50	<0.50	<b>0.28</b>	<0.25	<0.20	0.28
TW-1	07/10/12	<0.17	<0.20	<b>0.31</b>	<0.28	<0.10	0.31
	07/24/13	<0.17	<0.20	<0.19	<0.28	<0.10	0
TW-1	07/29/14	<0.17	<0.20	<0.19	<0.28	<0.10	0
	07/14/15	<0.17	<0.20	<0.19	<0.28	<0.10	0
TW-1	07/28/16	<0.37	<0.38	<0.16	<0.35	<0.20	0
	07/12/17	<0.37	<0.38	<0.16	<0.35	<0.20	0
TW-1	07/30/18	<0.37	<0.38	<0.16	<0.35	<0.20	0
	07/17/19	<0.37	<0.38	<0.16	<0.35	<0.20	0
TW-1	07/22/20	<0.37	<0.38	<0.16	<0.35	<0.20	0
	07/21/21	<0.37	<0.38	<0.16	<0.35	<0.20	0
TW-1	07/19/22	<0.37	<0.38	<0.16	<0.35	<0.20	0
	02/01/23	<0.37	<0.38	<0.16	<0.35	<0.20	0
TW-1	05/18/23	<0.37	<0.38	<0.16	<0.35	<0.20	0
	07/20/23	<0.37	<0.38	<0.16	<0.35	<0.20	0
TW-1	11/01/23	<0.37	<0.38	<0.16	<0.35	<0.20	0
	TW-3	<b>6.8</b>	<b>1.7</b>	<b>19</b>	<0.5	<0.3	27.5
		<b>8.3</b>	<b>1.3</b>	<b>22</b>	<0.5	<0.3	31.6
		<b>7.5</b>	<b>0.70</b>	<b>12</b>	<0.5	<0.3	20.2
		<b>5.3</b>	<b>11.6</b>	<b>5.5</b>	NA	<0.5	22.4
TW-3	06/21/95	<b>5.5</b>	<b>11.9</b>	<b>7.4</b>	<0.19	<0.27	24.8
	08/13/96	<b>2.3</b>	<b>9.7</b>	<b>8.1</b>	<0.5	<0.5	20.1
TW-3	07/23/97	<b>1.7</b>	<b>3.6</b>	<b>4.3</b>	<0.15	<0.46	9.6
	07/28/98	<0.25	<b>1.0</b>	<b>1.6</b>	<0.15	<0.25	2.6
TW-3	09/07/99	<b>1.9</b>	<b>1.1</b>	<b>3.2</b>	NA	NA	6.2
	04/25/00	<b>1.2</b>	<b>0.74</b>	<b>1.9</b>	NA	<0.46	3.84
TW-3	09/25/00	<b>1.5</b>	<b>0.72</b>	<b>3.0</b>	NA	NA	5.22
	04/19/01	<b>2.7</b>	<b>0.68</b>	<b>6.0</b>	NA	<0.25	9.38
TW-3	09/27/01	<b>7.5</b>	<b>1.3</b>	<b>21.0</b>	<0.25	NA	29.8

**Table 1. Summary of Target Compound List VOCs Groundwater Monitoring Analytical Results for Pentair Delavan Facility Monitoring Points**

SAMPLE ID	DATE	PCE	1,1,1-TCA	TCE	1,1,2-TCA	Vinyl Chloride	Total VOCs
Units		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
NR 140	ES	5.0	200	5	5	0.2	
NR 140	PAL	0.5	40	0.5	0.5	0.02	
TW-3	04/16/02	2.1	0.40	3.2	<0.25	NA	5.7
	11/19/02	4.0	0.53	7.8	<0.25	NA	12.33
TW-3	06/24/03	2.5	<0.50	2.6	<0.25	NA	5.1
	10/20/03	2.8	<0.50	2.0	<0.25	NA	4.8
TW-3	09/20/04	2.8	<0.50	2.8	NA	<0.20	5.6
	12/13/05	1.7	<0.50	1.6	<0.25	<0.20	3.3
TW-3	07/27/06	1.4	<0.50	1.2	NA	NA	2.6
	07/31/07	0.97	<0.50	0.94	<0.25	<0.20	1.91
TW-3	08/20/08	1.5	<0.50	0.79	<0.25	<0.20	2.29
	07/27/09	1.8	<0.50	0.86	<0.25	<0.20	2.66
TW-3	07/13/10	3.1	<0.50	4.9	<0.25	<0.20	8
	07/20/11	1.5	<0.50	0.63	<0.25	<0.20	2.13
TW-3	07/10/12	2.7	<0.20	1.1	<0.28	<0.10	3.8
	07/24/13	1.3	<0.20	0.61	<0.28	<0.10	1.91
TW-3	07/29/14	0.63	<0.20	0.38	<0.28	<0.10	1.01
	07/14/15	<0.17	<0.20	0.64	<0.28	<0.10	0.64
TW-3	07/28/16	0.54	<0.38	0.29	<0.35	<0.20	0.83
	07/12/17	0.59	<0.38	<0.16	<0.35	<0.20	0.59
TW-3	07/30/18	<0.37	<0.38	<0.16	<0.35	<0.20	0
	07/17/19	<0.37	<0.38	<0.16	<0.35	<0.20	0
TW-3	07/22/20	0.91	<0.38	<0.16	<0.35	<0.20	0.91
	07/21/21	0.85	<0.38	0.26	<0.35	<0.20	1.11
TW-3	07/19/22	0.43	<0.38	0.23	<0.35	<0.20	0.66
	02/01/23	0.46	<0.38	0.41	<0.35	<0.20	0.87
TW-3	05/18/23	0.38	<0.38	<0.16	<0.35	<0.20	0.38
	07/20/23	<0.37	<0.38	<0.16	<0.35	<0.20	0
TW-3	11/01/23	<0.37	<0.38	<0.16	<0.35	<0.20	0
	EX-1	11/07/91	8.2	3.7	20	<0.5	<0.3
Original Extraction Well	12/18/91	6.3	3.9	14.6	<0.5	<0.3	24.8
	11/11/93	6.8	2.3	13	<0.5	<0.3	22.1
EX-1	12/13/94	4.7	2.7	11	NA	<0.5	18.4
	06/21/95	6.2	<0.13	14.7	<0.19	<0.27	20.9
EX-1	08/13/96	2.8	1.6	6.7	<0.5	<0.5	11.1

**Table 1. Summary of Target Compound List VOCs Groundwater Monitoring Analytical Results for Pentair Delavan Facility Monitoring Points**

SAMPLE ID	DATE	PCE	1,1,1-TCA	TCE	1,1,2-TCA	Vinyl Chloride	Total VOCs	
Units		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	
NR 140	ES	5.0	200	5	5	0.2		
NR 140	PAL	0.5	40	0.5	0.5	0.02		
EX-1	07/23/97	3.1	1.5	5.4	<0.15	<0.46	10	
	07/28/98	<0.25	0.47	5.2	<0.15	<0.25	5.67	
EX-1	09/07/99	3.4	0.32	8.7	NA	NA	12.42	
	09/26/00	3.0	0.39	11	NA	NA	14.39	
EX-1	10/02/01	7.1	<0.25	27	<0.25	NA	34.1	
	09/21/04	3.8	<0.50	4.2	NA	<0.20	8	
EX-1	12/14/05	1.4	<0.50	1.4	<0.25	<0.20	2.8	
	07/31/06	1.4	<0.50	1.5	NA	NA	2.9	
EX-1	07/31/07	1.3	<0.50	0.84	<0.25	<0.20	2.14	
	08/20/08	1.1	<0.50	0.75	<0.25	<0.20	1.85	
EX-1	07/14/10	1.7	<0.50	3.1	<0.25	<0.20	4.8	
	07/21/11	1.1	<0.50	1.0	<0.25	<0.20	2.1	
EX-1	07/11/12	1.3	<0.20	1.2	<0.28	<0.10	2.5	
	07/24/13	0.89	<0.20	0.47	<0.28	<0.10	1.36	
EX-1	07/30/14	0.71	<0.20	0.42	<0.28	<0.10	1.13	
	07/15/15	<0.17	<0.20	<0.19	<0.28	<0.10	0	
EX-1	07/28/16	0.72	<0.38	<0.16	<0.35	<0.20	0.72	
	07/13/17	<0.37	<0.38	<0.16	<0.35	<0.20	0	
EX-1	07/31/18	0.60	<0.38	0.30	<0.35	<0.20	0.9	
	07/18/19	0.53	<0.38	0.30	<0.35	<0.20	0.83	
EX-1	07/23/20	<0.37	<0.38	<0.16	<0.35	<0.20	0	
	07/22/21	<0.37	<0.38	0.31	<0.35	<0.20	0.31	
Original Extraction Well	EX-7	11/07/91	37	5.0	350	<0.5	<0.3	392
	EX-7	12/18/91	44	5.1	241	<0.5	<0.3	290.1
	EX-7	11/11/93	27	8.1	160	<0.5	<0.3	195.1
	EX-7	12/13/94	19.6	0.80	62.8	NA	<0.5	83.2
EX-7	EX-7	06/21/95	60.6	<0.13	105	<0.19	<0.27	165.6
	EX-7	08/13/96	48.3	<0.5	243	<0.5	<0.5	291.3
	EX-7	07/23/97	24	0.49	130	<0.15	<0.5	154.49
	EX-7	07/28/98	<50	<50	1000	<50	<50	1000
EX-7	EX-7	09/07/99	130	<2.8	490	NA	NA	620
	EX-7	04/18/00	77	0.87	150	NA	<0.46	227.87
EX-7	EX-7	09/26/00	56	<0.56	140	NA	NA	196

**Table 1. Summary of Target Compound List VOCs Groundwater Monitoring Analytical Results for Pentair Delavan Facility Monitoring Points**

SAMPLE ID	DATE	PCE	1,1,1-TCA	TCE	1,1,2-TCA	Vinyl Chloride	Total VOCs
Units		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
NR 140	ES	5.0	200	5	5	0.2	
NR 140	PAL	0.5	40	0.5	0.5	0.02	
EX-7	04/19/01	56	<1.0	110	NA	<1.0	166
	04/16/02	19	<0.25	35	NA	<1.0	54
EX-7	11/19/02	26	0.40	58	<0.25	NA	84.4
	06/24/03	20	<0.50	26	<0.25	NA	46
EX-7	10/20/03	<0.50	<0.50	30	<0.25	NA	30
	09/21/04	25	<0.50	36	NA	<0.20	61
EX-7	12/14/05	14	<0.50	29	<0.25	<0.20	43
	07/31/06	14	<0.50	22	NA	NA	36
EX-7	07/31/07	9.0	<0.50	10	<0.25	<0.20	19
	08/20/08	6.2	<0.50	7.5	<0.25	<0.20	13.7
EX-7	07/29/09	7.5	<0.50	9.3	<0.25	<0.20	16.8
	07/15/10	98	<0.50	130	<0.25	<0.20	228
EX-7	07/21/11	7.8	<0.50	8.6	<0.25	<0.20	16.4
	07/11/12	7.0	<0.20	<0.19	<0.28	<0.10	7
EX-7	07/24/13	5.6	<0.20	3.9	<0.28	<0.10	9.5
	07/30/14	6.4	<0.20	4.6	<0.28	<0.10	11
EX-7	07/15/15	8.8	<0.20	6.4	<0.28	<0.10	15.2
EX-7R	07/28/16	6.5	<0.38	3.4	<0.35	<0.20	9.9
EX-7R	10/24/17	7.3	<0.38	3.8	<0.35	<0.20	11.1
	07/31/18	4.7	<0.38	2.4	<0.35	<0.20	7.1
EX-7R	07/18/19	5.4	<0.38	2.4	<0.35	<0.20	7.8
	07/23/20	5.0	<0.38	2.6	<0.35	<0.20	7.6
EX-7R	07/22/21	3.2	<0.38	1.8	<0.35	<0.20	5
	07/20/22	4.8	<0.38	2.1	<0.35	<0.20	6.9
EX-7R	07/21/23	3.5	<0.38	<0.16	<0.35	<0.20	3.5

Notes:

VOCs = Volatile Organic Compounds

ug/L = micrograms parts per liter, which is equivalent to parts per billion (ppb).

ES = Enforcement Standard, PAL = Preventative Action Limit

Orange Highlight = above ES, Yellow Highlight = above PAL

PCE = Tetrachloroethene

TCA = Trichloroethane

TCE = Trichloroethene

**Table 2. Summary of VOCs Groundwater Monitoring Analytical Results for Plant #1 Monitor Well TW-4**

WELL	DATE	PCE	1,1,1-TCA	TCE	1,1,2-TCA	Vinyl Chloride	Acetone	Benzene	Chloroethane	Chloroform	1,1-DCA	1,2-DCA	1,1-DCE	CIS-1,2-DCE	Trans-1,2-DCE	Methylene Chloride	Ethylbenzene	Xylenes, Total	Total VOCs
Units		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
NR 140	ES	5.0	200	5	5	0.2	9000	5.0	400	6	850	5	7	70	100	5	700	2000	
NR 140	PAL	0.5	40	0.5	0.5	0.02	1800	0.5	80	0.6	85	0.5	0.7	7	20	0.5	140	400	
TW-4	11/05/91	0.50	10000	1100	5.6	<0.3	<1.0	<0.5	<0.5	4.0	61	<0.5	440.0	50	<0.5	2.4	<0.5	<1.0	11663.5
	12/12/91	0.60	11000	1200	4.5	<0.3	<1.0	<0.5	<0.5	3.7	93	3	680.0	52	<0.5	<1	<0.5	<1.0	13036.8
	11/11/93	0.80	6200	1500	3.2	<0.3	<1.0	<0.5	<0.5	<0.5	26	<0.5	490	25	<0.5	<1.0	<0.5	<1.0	8245
	08/17/94	<1	3900	600	NA	<5	NA	NA	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA	4500
	12/14/94	<50	4040	630	NA	<50	NA	NA	<50	NA	NA	NA	NA	NA	NA	NA	NA	NA	4670
	03/13/95	ND	3120	600	NA	ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	3720
	06/21/95	NA	4220	990	17.6	5.4	<1.0	NA	<0.21	3.8	113	<0.5	415	93.6	NA	NA	NA	NA	5858.4
	11/08/95	1.2	3340	920	NA	<0.5	NA	NA	<0.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	4261.2
	01/25/96	1.1	3000	891	NA	<0.5	NA	NA	<0.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	3892.1
	05/14/96	0.90	1820	969	NA	<0.5	NA	NA	<0.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	2789.9
	08/14/96	<0.5	2150	179	1.8	<0.5	<1.0	<0.5	<0.7	<0.5	12	<1.6	36.7	NA	<0.5	NA	<0.5	NA	2379.5
	10/08/96	0.90	1850	541	6.3	<0.5	<1.0	<0.5	<0.7	1.0	36.3	<1.6	196	NA	<0.5	NA	<0.5	NA	2631.5
	01/21/97	<0.5	2650	913	NA	<0.5	NA	NA	<0.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	3563
	04/01/97	0.83	1400	600	NA	<0.46	NA	NA	<1.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	2000.83
	07/23/97	0.67	950	450	4.4	<0.46	3.4	0.3	<1.2	0.70	24	<0.20	66	36	0.5	<0.87	<0.38	<1.1	1535.97
	11/18/97	0.83	760	490	NA	<0.25	NA	NA	<0.25	NA	NA	NA	NA	NA	NA	NA	NA	NA	1250.83
	03/23/98	0.74	780	530	NA	<0.46	NA	NA	<1.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	1310.74
	07/27/98	<2.5	410	230	<2.5	<2.5	<20	<1.0	<2.5	<2.5	13	<2.5	16	21	<2.5	15	<2.5	<5.0	705
	09/28/98	<0.63	860	460	2.8	<0.46	NA	NA	<1.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	1322.8
	12/05/98	<6.3	830	400	NA	<4.6	NA	NA	<12	NA	NA	NA	NA	NA	NA	NA	NA	NA	1230
	03/11/99	<6.3	480	270	NA	<4.6	NA	NA	<12	NA	NA	NA	NA	NA	NA	NA	NA	NA	750
	09/02/99	<3.2	180	110	2.4	<2.3	NA	<1.6	<6.0	<0.90	<1.2	<1.0	19	2.0	<2.0	<4.4	<1.9	<5.5	313.4
	04/25/00	<3.2	450	280	NA	<2.3	NA	NA	<6.0	NA	NA	NA	NA	NA	NA	NA	NA	<5.5	730
	09/26/00	<6.3	340	230	<1.5	<4.6	NA	<3.1	<6.0	<1.8	5.2	<2.0	15	10	<3.9	<8.7	<3.8	<5.5	600.2

**Table 2. Summary of VOCs Groundwater Monitoring Analytical Results for Plant #1 Monitor Well TW-4**

WELL	DATE	PCE	1,1,1-TCA	TCE	1,1,2-TCA	Vinyl Chloride	Acetone	Benzene	Chloroethane	Chloroform	1,1-DCA	1,2-DCA	1,1-DCE	CIS-1,2-DCE	Trans-1,2-DCE	Methylene Chloride	Ethylbenzene	Xylenes, Total	Total VOCs
Units		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
NR 140	ES	5.0	200	5	5	0.2	9000	5.0	400	6	850	5	7	70	100	5	700	2000	
NR 140	PAL	0.5	40	0.5	0.5	0.02	1800	0.5	80	0.6	85	0.5	0.7	7	20	0.5	140	400	
TW-4	04/23/01	<b>0.60</b>	<b>290</b>	<b>240</b>	NA	<0.25	NA	NA	<0.25	NA	NA	NA	NA	NA	NA	NA	NA	NA	530.6
	10/02/01	<2.0	<b>190</b>	<b>140</b>	<2.0	<2.0	NA	<0.80	<2.0	<2.0	<b>2.1</b>	<2.0	<b>6.8</b>	<b>3.0</b>	<2.0	<b>8.1</b>	<2.0	<2.0	350
	04/16/02	<0.25	<b>76</b>	<b>60</b>	<b>1.5</b>	<0.25	NA	<0.10	<0.25	<0.25	<b>1.4</b>	<0.25	<b>2.5</b>	<b>0.76</b>	<0.25	<b>0.47</b>	<0.25	<0.25	142.63
	06/24/03	<1.0	<b>120</b>	<b>89</b>	<b>1.4</b>	<1.0	NA	<0.50	<2.0	<0.50	<b>2.1</b>	<1.0	<b>4.7</b>	<b>3.7</b>	<1.0	<2.0	<1.0	<1.0	220.9
	09/21/04	<0.50	<b>64</b>	<b>39</b>	NA	<0.20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	103
	12/14/05	<0.50	<b>65</b>	<b>35</b>	<b>0.92</b>	<0.20	<2.0	<0.20	<1.0	<0.20	<b>0.76</b>	<0.50	<b>1.6</b>	<b>0.55</b>	<0.50	<1.0	<0.50	<0.50	103.83
	07/31/06	<0.50	<b>92</b>	<b>60</b>	<b>1.3</b>	<0.20	<2.0	<0.20	<1.0	<0.20	<b>1.3</b>	<0.50	<b>2.9</b>	<b>1.4</b>	<0.50	<1.0	<0.50	<0.50	158.9
	07/31/07	<0.50	<b>50</b>	<0.20	<0.25	<0.20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	50
	08/20/08	<0.50	<b>71</b>	<b>36</b>	<b>0.73</b>	<0.20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	107.73
	07/28/09	<0.50	<b>52</b>	<b>25</b>	<b>0.34</b>	<0.20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.34
TW-4	07/14/10	<0.50	<b>75</b>	<b>52</b>	<b>0.28</b>	<0.20	NA	<0.20	<1.0	<0.20	<0.50	<0.50	<b>2.1</b>	<0.50	<0.50	<1.0	<0.50	<0.50	129.38
	07/21/11	<0.50	<b>38</b>	<b>42</b>	<b>0.28</b>	<0.20	NA	<0.20	<1.0	<0.20	<b>0.52</b>	<0.50	<b>0.78</b>	<0.50	<0.50	<1.0	<0.50	<0.50	81.58
	07/10/12	<0.17	<b>48</b>	<b>53</b>	<0.28	<0.10	NA	<0.074	<0.34	<0.20	<b>1.8</b>	<0.28	<b>1.8</b>	<0.12	<0.25	<0.68	<0.50	<0.068	104.6
	07/24/13	<0.17	<b>26</b>	<b>23</b>	<0.28	<0.10	NA	<0.074	<0.34	<0.20	<b>0.54</b>	<0.28	<b>1.1</b>	<0.12	<0.25	<0.68	<b>0.13</b>	<b>0.20</b>	50.97
	07/29/14	<0.17	<b>29</b>	<b>20</b>	<0.28	<0.10	NA	<0.074	<0.34	<0.20	<0.19	<0.28	<b>0.9</b>	<0.12	<0.25	<0.68	<0.13	<0.068	49.9
	07/14/15	<0.17	<b>30</b>	<b>36</b>	<0.28	<0.10	NA	<0.074	<0.34	<0.20	<b>4.9</b>	<0.28	<b>1.4</b>	<b>1.7</b>	<0.25	<b>8.2 B</b>	<0.10	<0.068	82.2
	07/29/16	<0.37	<b>20</b>	<b>15</b>	<0.35	<0.20	NA	<0.15	<0.51	<0.37	<0.41	<0.39	<0.39	<0.41	<0.35	<1.6	<0.18	<0.22	35
	03/01/17	<0.37	<b>17</b>	<b>8.0</b>	<0.35	<0.20	NA	<0.15	<0.51	<0.37	<0.41	<0.39	<0.39	<0.41	<0.35	<1.6	<0.18	<0.22	25
	05/17/17	<0.37	<b>22</b>	<b>11</b>	<0.35	<0.20	NA	<0.15	<0.51	<0.37	<b>0.96</b>	<0.39	<b>0.90</b>	<0.41	<0.35	<1.6	<0.18	<0.22	34.86
	07/13/17	<0.37	<b>27</b>	<b>19</b>	<0.35	<0.20	NA	<0.15	<0.51	<0.37	<b>1.1</b>	<0.39	<b>1.0</b>	<0.41	<0.35	<1.6	<0.18	<0.22	48.1
TW-4	10/24/17	<0.37	<b>22</b>	<b>16</b>	<0.35	<0.20	NA	<0.15	<0.51	<0.37	<0.41	<0.39	<b>0.91</b>	<0.41	<0.35	<1.6	<0.18	<0.22	38.91
	02/28/18	<0.37	<b>20</b>	<b>11</b>	<0.35	<0.20	NA	<0.15	<0.51	<0.37	<0.41	<0.39	<0.39	<0.41	<0.35	<1.6	<0.18	<0.22	31
	05/10/18	<0.74	<b>27</b>	<b>16</b>	<0.33	<0.50	NA	<0.43	<2.5	<0.50	<b>0.58</b>	<0.50	<b>0.70</b>	<0.41	<0.37	<2.5	<0.33	<0.23	44.28
TW-4	07/30/18	<0.37	<b>26</b>	<b>18</b>	<0.35	<0.20	NA	<0.15	<0.51	<0.37	<b>4.7</b>	<0.39	<b>1.6</b>	<0.41	<0.35	<1.6	<0.18	<0.22	50.3

**Table 2. Summary of VOCs Groundwater Monitoring Analytical Results for Plant #1 Monitor Well TW-4**

WELL	DATE	PCE	1,1,1-TCA	TCE	1,1,2-TCA	Vinyl Chloride	Acetone	Benzene	Chloroethane	Chloroform	1,1-DCA	1,2-DCA	1,1-DCE	CIS-1,2-DCE	Trans-1,2-DCE	Methylene Chloride	Ethylbenzene	Xylenes, Total	Total VOCs
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Units																			
NR 140	ES	5.0	200	5	5	0.2	9000	5.0	400	6	850	5	7	70	100	5	700	2000	
NR 140	PAL	0.5	40	0.5	0.5	0.02	1800	0.5	80	0.6	85	0.5	0.7	7	20	0.5	140	400	
TW-4	07/18/19	<0.37	26	18	<0.35	<0.20	NA	<0.15	<0.51	<0.37	3.6	<0.39	1.1	0.87	<0.35	<1.6	<0.18	<0.22	49.57
TW-4	07/23/20	<0.37	20	21	<0.35	<0.20	NA	<0.15	<0.51	<0.37	1.1	<0.39	<0.39	<0.41	<0.35	<1.6	<0.18	<0.22	42.1
TW-4	07/22/21	<0.37	19	14	<0.35	<0.20	NA	<0.15	<0.51	<0.37	1.1	<0.39	0.64	<0.41	<0.35	<1.6	<0.18	<0.22	34.74
TW-4	07/20/22	<0.37	24	20	<0.35	<0.20	NA	<0.15	0.56	<0.37	6.7	<0.39	0.93	1.6	<0.35	11	<0.18	<0.22	64.79
TW-4	07/21/03	<0.37	15	17	<0.35	<0.20	NA	<0.15	<0.51	<0.37	<0.41	<0.39	<0.39	<0.41	<0.35	<1.6	<0.18	<0.22	32

Notes: All values listed are in parts per billion (ug/L).

VOCs = Volatile Organic Compounds

ES = Enforcement Standard, PAL = Preventative Action Limit

Orange Highlight = above ES, Yellow Highlight = above PAL

ND = not detected, NA = not analyzed or no data available

PCE = Tetrachloroethene

TCA = Trichloroethane

TCE = Trichloroethene

DCA = Dichloroethane

DCE = Dichloroethene

B = Detected in blank sample at a similar concentration.

**Table 3. Pentair Delavan Facility Extraction Wells Flow Data**

Meter/ Well ID	Date	Meter Reading (gallons)	Monthly Flow Data		
			(gal/month)	(gpd)	(gpm)
EX-1	January-23	66,530	0.0	0.00	0.00
EX-1	February-23	66,530	0.0	0.00	0.00
EX-1	March-23	66,530	0.0	0.00	0.00
EX-1	April-23	66,530	0.0	0.00	0.00
EX-1	May-23	66,530	0.0	0.00	0.00
EX-1	June-23	66,530	0.0	0.00	0.00
EX-1	July-23	66,530	0.0	0.00	0.00
EX-1	August-23	66,530	0.0	0.00	0.00
EX-1	September-23	66,530	0.0	0.00	0.00
EX-1	October-23	66,530	0.0	0.00	0.00
EX-1	November-23	2,791,020	266,533.0	8,884.43	6.17
EX-1	December-23	8,563,470	577,245.0	18,620.81	12.93
EX-2R EX-3R	January-23	16,354,929	842,214.0	27,168.19	18.87
EX-2R EX-3R	February-23	16,355,151	222.0	7.93	0.01
EX-2R EX-3R	March-23	17,399,060	1,043,909.0	33,674.48	23.39
EX-2R EX-3R	April-23	18,799,582	1,400,522.0	46,684.07	32.42
EX-2R EX-3R	May-23	20,281,086	1,481,504.0	47,790.45	33.19
EX-2R EX-3R	June-23	21,617,586	1,336,500.0	44,550.00	30.94
EX-2R EX-3R	July-23	24,684,647	3,067,061.0	98,937.45	68.71
EX-2R EX-3R	August-23	27,756,369	3,071,722.0	99,087.81	68.81
EX-2R EX-3R	September-23	30,732,538	2,976,169.0	99,205.63	68.89
EX-2R EX-3R	October-23	33,817,187	3,084,649.0	99,504.81	69.10
EX-2R EX-3R	November-23	36,775,002	2,957,815.0	98,593.83	68.47
EX-2R EX-3R	December-23	39,780,093	3,005,091.0	96,938.42	67.32
EX-4R	January-23	95,135,025	1,739,817.0	56,123.13	38.97
EX-4R	February-23	96,708,433	1,573,408.0	56,193.14	39.02
EX-4R	March-23	98,457,093	1,748,660.0	56,408.39	39.17
EX-4R	April-23	163,823	1,706,730.0	56,891.00	39.51
EX-4R	May-23	1,931,772	1,767,949.0	57,030.61	39.60
EX-4R	June-23	3,633,453	1,701,681.0	56,722.70	39.39
EX-4R	July-23	5,355,089	1,721,636.0	55,536.65	38.57
EX-4R	August-23	7,075,387	1,720,298.0	55,493.48	38.54
EX-4R	September-23	8,737,459	1,662,072.0	55,402.40	38.47
EX-4R	October-23	10,473,415	1,735,956.0	55,998.58	38.89
EX-4R	November-23	12,162,233	1,688,818.0	56,293.93	39.09
EX-4R	December-23	13,900,406	1,738,173.0	56,070.10	38.94
EX-5R	January-23	99,398,100	1,724,647.0	55,633.77	38.63
EX-5R	February-23	953,576	1,555,476.0	55,552.71	38.58
EX-5R	March-23	2,674,531	1,720,955.0	55,514.68	38.55
EX-5R	April-23	4,347,567	1,673,036.0	55,767.87	38.73
EX-5R	May-23	6,077,213	1,729,646.0	55,795.03	38.75
EX-5R	June-23	7,743,261	1,666,048.0	55,534.93	38.57
EX-5R	July-23	9,438,916	1,695,655.0	54,698.55	37.99
EX-5R	August-23	11,132,872	1,693,956.0	54,643.74	37.95

**Table 3. Pentair Delavan Facility Extraction Wells Flow Data**

Meter/ Well ID	Date	Meter Reading (gallons)	Monthly Flow Data		
			(gal/month)	(gpd)	(gpm)
EX-5R	September-23	12,770,659	1,637,787.0	54,592.90	37.91
EX-5R	October-23	14,487,571	1,716,912.0	55,384.26	38.46
EX-5R	November-23	16,158,089	1,670,518.0	55,683.93	38.67
EX-5R	December-23	17,880,092	1,722,003.0	55,548.48	38.58
EX-6	January-23	61,836	58,740.0	1,894.84	1.32
EX-6	February-23	83,192	21,356.0	762.71	0.53
EX-6	March-23	124,172	40,980.0	1,321.94	0.92
EX-6	April-23	983,066	858,894.0	28,629.80	19.88
EX-6	May-23	3,040,714	2,057,648.0	66,375.74	46.09
EX-6	June-23	4,994,027	1,953,313.0	65,110.43	45.22
EX-6	July-23	7,002,212	2,008,185.0	64,780.16	44.99
EX-6	August-23	9,014,978	2,012,766.0	64,927.94	45.09
EX-6	September-23	10,959,254	1,944,276.0	64,809.20	45.01
EX-6	October-23	12,953,152	1,993,898.0	64,319.29	44.67
EX-6	November-23	14,868,106	1,914,954.0	63,831.80	44.33
EX-6	December-23	16,820,957	1,952,851.0	62,995.19	43.75
EX-7R	January-23		0.0	0.00	0.00
EX-7R	February-23	80,779,511	228,478.0	8,159.93	5.67
EX-7R	March-23	82,537,460	1,757,949.0	56,708.03	39.38
EX-7R	April-23	83,102,112	564,652.0	18,821.73	13.07
EX-7R	May-23	84,254,193	1,152,081.0	37,163.90	25.81
EX-7R	June-23	85,999,032	1,744,839.0	58,161.30	40.39
EX-7R	July-23	87,779,576	1,780,544.0	57,436.90	39.89
EX-7R	August-23	89,548,270	1,768,694.0	57,054.65	39.62
EX-7R	September-23	91,252,243	1,703,973.0	56,799.10	39.44
EX-7R	October-23	93,008,531	1,756,288.0	35,035.20	24.33
EX-7R	November-23	94,684,954	1,676,423.0	35,035.20	24.33
EX-7R	December-23	95,295,657	610,703.0	19,700.10	13.68

Notes:

gal/month: Gallons pumped for the month.

gpd: Average gallons per day.

gpm: Average gallons per minute.

EX-1 shut down until 11/16/2023 to evaluate effect stoppage in pumping from EX-1 has on contaminant concentrations and plume extent.

Pumping from EX-7R stopped on 12/14/2022 due to pump failure.

Pump repaired and re-started by Pentair personnel on 2/9/2023.

New pumps installed in EX-3R and EX-6 on 4/18/2023.

New pump installed in EX-7R on 5/12/2023.

New pump installed in EX-2R on 6/21/2023.

**Table 4. Delavan Facility 2023 Groundwater Monitoring Program Well List**  
Pentair Delavan, Wisconsin

Monitoring Point	Sampling Frequency	Parameters
Plant 1 Monitoring Points		
D-25R	Annual	PCE, 1,1,1-TCA, 1,1,2-TCA, TCE, VC
MW-1026	Annual	PCE, 1,1,1-TCA, 1,1,2-TCA, TCE, VC
MW-1027	Annual	PCE, 1,1,1-TCA, 1,1,2-TCA, TCE, VC
TW-4	Annual	VOCs
EX-2R	Annual	PCE, 1,1,1-TCA, 1,1,2-TCA, TCE, VC
EX-3R	Annual	PCE, 1,1,1-TCA, 1,1,2-TCA, TCE, VC
Plant 2 Monitoring Points		
D-15	Annual	PCE, 1,1,1-TCA, 1,1,2-TCA, TCE, VC
D-18	Quarterly	PCE, 1,1,1-TCA, 1,1,2-TCA, TCE, VC
MW-2004	Annual	PCE, 1,1,1-TCA, 1,1,2-TCA, TCE, VC
MW-2005R	Annual	PCE, 1,1,1-TCA, 1,1,2-TCA, TCE, VC
MW-2011	Annual	PCE, 1,1,1-TCA, 1,1,2-TCA, TCE, VC
TW-1	Quarterly	PCE, 1,1,1-TCA, 1,1,2-TCA, TCE, VC
TW-3	Quarterly	PCE, 1,1,1-TCA, 1,1,2-TCA, TCE, VC
EX-1	Annual	PCE, 1,1,1-TCA, 1,1,2-TCA, TCE, VC
EX-7R	Annual	PCE, 1,1,1-TCA, 1,1,2-TCA, TCE, VC
Site Monitoring Point		
Storm Sewer Grate (SS-1)	Quarterly	PCE, 1,1,1-TCA, TCE, VC

PCE = Tetrachloroethene

1,1,1-TCA = 1,1,1-Trichloroethane

1,1,2-TCA = 1,1,2-Trichloroethane

TCE = Trichloroethene

VC = Vinyl Chloride

VOCs = Volatile Organic Compounds

**Table 5. Delavan Facility 2024 Groundwater Monitoring Program Well List**  
Pentair, Delavan, Wisconsin

Monitoring Point	Sampling Frequency	Parameters
Plant 1 Monitoring Points		
D-25R	Annual	PCE, 1,1,1-TCA, 1,1,2-TCA, TCE, VC
MW-1026	Annual	PCE, 1,1,1-TCA, 1,1,2-TCA, TCE, VC
MW-1027	Annual	PCE, 1,1,1-TCA, 1,1,2-TCA, TCE, VC
TW-4	Annual	VOCs
EX-2R	Annual	PCE, 1,1,1-TCA, 1,1,2-TCA, TCE, VC
EX-3R	Annual	PCE, 1,1,1-TCA, 1,1,2-TCA, TCE, VC
Plant 2 Monitoring Points		
D-15	Annual	PCE, 1,1,1-TCA, 1,1,2-TCA, TCE, VC
D-18	Annual	PCE, 1,1,1-TCA, 1,1,2-TCA, TCE, VC
MW-2004	Annual	PCE, 1,1,1-TCA, 1,1,2-TCA, TCE, VC
MW-2005R	Annual	PCE, 1,1,1-TCA, 1,1,2-TCA, TCE, VC
MW-2011	Annual	PCE, 1,1,1-TCA, 1,1,2-TCA, TCE, VC
TW-1	Annual	PCE, 1,1,1-TCA, 1,1,2-TCA, TCE, VC
TW-3	Annual	PCE, 1,1,1-TCA, 1,1,2-TCA, TCE, VC
EX-1	Annual	PCE, 1,1,1-TCA, 1,1,2-TCA, TCE, VC
EX-7R	Annual	PCE, 1,1,1-TCA, 1,1,2-TCA, TCE, VC
Site Monitoring Point		
Storm Sewer Grate (SS-1)	Quarterly	PCE, 1,1,1-TCA, TCE, VC

PCE = Tetrachloroethene

1,1,1-TCA = 1,1,1-Trichloroethane

1,1,2-TCA = 1,1,2-Trichloroethane

TCE = Trichloroethene

VC = Vinyl Chloride

VOCs = Volatile Organic Compounds

**APPENDIX A**  
**SITE INSPECTON PHOTOGRAPHS**

**TETRA TECH**

P:\Pentair-Sta-Rite\Delavan\Progress Reports\2018-2024 Progress Report\2023 Report\Pentair\_Delavan\_Prog\_Report\_2023.docx

1. View looking northeast towards north side of property.



2. View looking northwest towards north side of property.



3. View looking west towards south side of property



4. View looking north towards southeast half of east side of property.



5. View looking north towards east side of property.



6. View looking south towards west side of property.



7. View looking north at west side of property.



8. View looking south inside Plant 1 where low-level VOC's impacts occur in the sub-surface soil.



9. View looking south towards monitoring well D-23 where the protector top steel casing is dented and rusting.



10. View looking down at the damaged hinge on the protector top of monitoring well TW-1.



**APPENDIX B**

**GROUNDWATER MONITORING ANALYTICAL RESULTS**

**AND FIELD DATA SHEETS**

**TETRA TECH**

P:\Pentair-Sta-Rite\Delavan\Progress Reports\2018-2024 Progress Report\2023 Report\Pentair\_Delavan\_Prog\_Report\_2023.docx

# TETRA TECH FIELD WATER QUALITY SAMPLING AND ANALYSIS FORM

PROJECT INFORMATION			INSTRUMENTS		
PROJECT	Delavan Facility Remedial Action		Temp. & pH	Hanna	
PROJECT NO.	117-7469013.100		Conductivity	Hanna	
LOCATION	Delavan, WI		ORP	NA	
PERSONNEL	Connor Lavoron, Kenny R.		DO	NA	
SAMPLE POINT	TW-1	TW-3	D-18		
WATER TYPE	Groundwater	Groundwater	Groundwater		
DATE (month/day/year)	2/1/23	2/1/23	2/1/23		
CLOCK TIME (Military)	12:15	10:50	11:30		
DEPTH TO WATER (ft)*	28.80	34.15	32.03		
MEASURED WELL DEPTH (ft)*	45.50	50.73	39.90		
CASING VOLUME (gallons)	3	3	1.3		
PURGE VOLUME (gallons)	9	9	4		
DEPTH SAMPLE TAKEN (ft)*	40	45	35		
SAMPLING DEVICE	Hanging Bailer	Hanging Bailer	Hanging Bailer		
FIELD TEMPERATURE (°C)	7.82	12.6	12.7		
pH	6.8	7.76	7.60		
ELEC. COND. (uS/cm) at 25°C	963	1424	1498		
ORP (mV)	NA	NA	NA		
DISSOLVED OXYGEN (ppm)	NA	NA	NA		
DISSOLVED OXYGEN (% Sat.)	NA	NA	NA		
COLOR	lt. brown	v. lt. Brn	v. lt. brn		
ODOR	none	None	none		
CLARITY	Cloudy	Cloudy	Cloudy		
SAMPLING PARAMETERS	# OF CONTAINERS & VOLUME; CONTAINER TYPE (A = AMBER GLASS; G = GLASS; P = PLASTIC); PRESERVATIVE TYPE (L = LAB ADDED; F = FIELD ADDED) OR NEUTRAL; FILTERED (YES or NO)				
PCE, TCE, TCA, Vinyl Chloride (EPA Method 8260B)	3 – 40 ml; G; L; HCl; No	3 – 40 ml; G; L; HCl; No	3 – 40 ml; G; L; HCl; No		
EX-7R:	End point good	Error on meter	No flow		
EX-6:	strong flow from spigot	~60 gpm			
<u>Comments:</u>					
NAME OF LABORATORY	Test America	Test America	Test America	Test America	Test America
DATE SENT TO LAB					
SAMPLER'S NAME					

\*Measured from top of well casing.

# TETRA TECH FIELD WATER QUALITY SAMPLING AND ANALYSIS FORM

PROJECT INFORMATION			INSTRUMENTS		
PROJECT	Delavan Facility Remedial Action		Temp. & pH	Hanna	
PROJECT NO.	117-7469013.100		Conductivity	Hanna	
LOCATION	Delavan, WI		ORP	NA	
PERSONNEL	Kenny Rodriguez		DO	NA	
SAMPLE POINT	TW-1	TW-3	D-18		
WATER TYPE	Groundwater	Groundwater	Groundwater		
DATE (month/day/year)	05/18/2023	05/18/2023	05/18/2023		
CLOCK TIME (Military)	12:55	11:30	12:15		
DEPTH TO WATER (ft)*	28.47	33.86	31.82		
MEASURED WELL DEPTH (ft)*	45.50	50.73	39.90		
CASING VOLUME (gallons)	2.84	2.82	1.35		
PURGE VOLUME (gallons)	8.5	8.5	4		
DEPTH SAMPLE TAKEN (ft)*	40	45	35		
SAMPLING DEVICE	Hanging Bailer	Hanging Bailer	Hanging Bailer		
FIELD TEMPERATURE (°C)	14.3	15.7	14.9		
pH	7.69	7.61	7.76		
ELEC. COND. (uS/cm) at 25° C	1080	1210	1550		
ORP (mV)	NA	NA	NA		
DISSOLVED OXYGEN (ppm)	NA	NA	NA		
DISSOLVED OXYGEN (% Sat.)	NA	NA	NA		
COLOR	lt. brown	clear	clear		
ODOR	none	none	none		
CLARITY	cloudy	cloudy	clear		
SAMPLING PARAMETERS	# OF CONTAINERS & VOLUME; CONTAINER TYPE (A = AMBER GLASS; G = GLASS; P = PLASTIC); PRESERVATIVE TYPE (L = LAB ADDED; F = FIELD ADDED) OR NEUTRAL; FILTERED (YES or NO)				
PCE, TCE, TCA, Vinyl Chloride (EPA Method 8260B)	3 – 40 ml; G; L; HCl; No	3 – 40 ml; G; L; HCl; No	3 – 40 ml; G; L; HCl; No		
<u>Comments:</u>					
NAME OF LABORATORY	Test America	Test America	Test America	Test America	Test America
DATE SENT TO LAB	05/18/2023	05/18/2023	05/18/2023	05/18/2023	05/18/2023
SAMPLER'S NAME	KRG	KRG	KRG	KRG	KRG

\*Measured from top of well casing.

# TETRA TECH FIELD WATER QUALITY SAMPLING AND ANALYSIS FORM

PROJECT INFORMATION			INSTRUMENTS		
PROJECT	Delavan Facility Remedial Action		Temp. & pH	Hanna	
PROJECT NO.	117-7469013.100		Conductivity	Hanna	
LOCATION	Delavan, WI		ORP	NA	
PERSONNEL	CSL		DO	NA	
SAMPLE POINT	MW-2005R	MW-2011	D-15	TW-3	MW-2004
WATER TYPE	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
DATE (month/day/year)	7/20/23	7/20/23	7/20/23	7/20/23	7/20/23
CLOCK TIME (Military)	8:35	9:20	9:50	10:35	11:10
DEPTH TO WATER (ft)*	24.72	25.79	31.32	32.04	26.95
MEASURED WELL DEPTH (ft)*	37.81	36.51	38.18	50.73	39.33
CASING VOLUME (gallons)	2	1.8	1	3	2
PURGE VOLUME (gallons)	6	5.5	3	9	6
DEPTH SAMPLE TAKEN (ft)*	35	30	35	45	35
SAMPLING DEVICE	Hanging Bailer	Hanging Bailer	Hanging Bailer	Hanging Bailer	Hanging Bailer
FIELD TEMPERATURE (°C)	15.7	14.6	15.0	16.3	15.3
pH	7.64	7.82	7.31	7.52	7.70
ELEC. COND. (uS/cm) at 25° C	1309	1417	>3999	1111	933
ORP (mV)	NA	NA	NA	NA	NA
DISSOLVED OXYGEN (ppm)	NA	NA	NA	NA	NA
DISSOLVED OXYGEN (% Sat.)	NA	NA	NA	NA	NA
COLOR	Brn	lt. Brn	lt. Brn	clear	clear
ODOR	none	none	none	none	none
CLARITY	cloudy	cloudy	turbid	clear	clear
SAMPLING PARAMETERS	# OF CONTAINERS & VOLUME; CONTAINER TYPE (A = AMBER GLASS; G = GLASS; P = PLASTIC); PRESERVATIVE TYPE (L = LAB ADDED; F = FIELD ADDED) OR NEUTRAL; FILTERED (YES or NO)				
PCE, TCE, TCA, Vinyl Chloride (EPA Method 8260B)	3 – 40 ml; G; L; HCl; No	3 – 40 ml; G; L; HCl; No	3 – 40 ml; G; L; HCl; No	3 – 40 ml; G; L; HCl; No	3 – 40 ml; G; L; HCl; No
<u>Comments:</u>					
NAME OF LABORATORY	Test America	Test America	Test America	Test America	Test America
DATE SENT TO LAB	7/21/23	7/21/23	7/21/23	7/21/23	7/21/23
SAMPLER'S NAME	CSL	CSL	CSL	CSL	CSL

\*Measured from top of well casing.

# TETRA TECH FIELD WATER QUALITY SAMPLING AND ANALYSIS FORM

PROJECT INFORMATION			INSTRUMENTS		
PROJECT	Delavan Facility Remedial Action		Temp. & pH	Hanna	
PROJECT NO.	117-7469013.100		Conductivity	Hanna	
LOCATION	Delavan, WI		ORP	NA	
PERSONNEL	CSL		DO	NA	
SAMPLE POINT	TW-1	D-18	D-25R	MW-1027	TW-4
WATER TYPE	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
DATE (month/day/year)	7/20/23	7/20/23	7/21/23	7/21/23	7/21/23
CLOCK TIME (Military)	12:00	13:15	9:00	9:40	10:25
DEPTH TO WATER (ft)*	26.52	29.81	32.07	29.36	37.32
MEASURED WELL DEPTH (ft)*	45.50	39.90	42.39	39.98	50.52
CASING VOLUME (gallons)	3	1.7	1.75	1.8	2.25
PURGE VOLUME (gallons)	9	5	5	5.5	7
DEPTH SAMPLE TAKEN (ft)*	40	35	40	36	45
SAMPLING DEVICE	Hanging Bailer	Hanging Bailer	Hanging Bailer	Hanging Bailer	Hanging Bailer
FIELD TEMPERATURE (°C)	15.3	16.4	13.3	16.1	16.0
pH	7.68	7.49	7.43	7.30	7.15
ELEC. COND. (uS/cm) at 25° C	1058	1278	1370	2639	73999
ORP (mV)	NA	NA	NA	NA	NA
DISSOLVED OXYGEN (ppm)	NA	NA	NA	NA	NA
DISSOLVED OXYGEN (% Sat.)	NA	NA	NA	NA	NA
COLOR	clear	clear	lt. Brn	clear	clear
ODOR	None	None	None	None	None
CLARITY	clear	clear	cloudy	clear	clear
SAMPLING PARAMETERS	# OF CONTAINERS & VOLUME; CONTAINER TYPE (A = AMBER/Glass; G = GLASS; P = PLASTIC); PRESERVATIVE TYPE (L = LAB ADDED; F = FIELD ADDED) OR NEUTRAL; FILTERED (YES or NO)				
PCE, TCE, TCA, Vinyl Chloride (EPA Method 8260B)	3 – 40 ml; G; L; HCl; No	3 – 40 ml; G; L; HCl; No	3 – 40 ml; G; HCl; No	3 – 40 ml; G; L; HCl; No	
VOCs (EPA Method 8260B)					3 – 40 ml; G; L; HCl; No
<u>Comments:</u>					
NAME OF LABORATORY	Test America	Test America	Test America	Test America	Test America
DATE SENT TO LAB	7/21/23	7/21/23	7/21/23	7/21/23	7/21/23
SAMPLER'S NAME	CSL	CSL	CSL	CSL	CSL

\*Measured from top of well casing.

# TETRA TECH FIELD WATER QUALITY SAMPLING AND ANALYSIS FORM

PROJECT INFORMATION			INSTRUMENTS		
PROJECT	Delavan Facility Remedial Action		Temp. & pH		
PROJECT NO.	117-7469013.100		Conductivity		
LOCATION	Delavan, WI		ORP	NA	
PERSONNEL	CSL		DO	NA	
SAMPLE POINT	MW-1026	EX-1	EX-2R	EX-3R	EX-7R
WATER TYPE	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
DATE (month/day/year)	7/20/23	NS	7/21/23	7/21/23	7/21/23
CLOCK TIME (Military)	13:55		11:10	11:20	10:50
DEPTH TO WATER (ft)*	31.00	NA	NA	NA	NA
MEASURED WELL DEPTH (ft)*	36.00	NA	NA	NA	NA
CASING VOLUME (gallons)	0.8	NA	NA	NA	NA
PURGE VOLUME (gallons)	2.5	Grab	Grab	Grab	Grab
DEPTH SAMPLE TAKEN (ft)*	35	NA	NA	NA	NA
SAMPLING DEVICE	Hanging Bailer	Spigot	Spigot	Spigot	Spigot
FIELD TEMPERATURE (°C)	15.6		15.7	15.5	15.4
pH	7.42		7.34	7.43	7.60
ELEC. COND. (µS/cm) at 25° C	1847		2647	1516	1671
ORP (mV)	NA	NA	NA	NA	NA
DISSOLVED OXYGEN (ppm)	NA	NA	NA	NA	NA
DISSOLVED OXYGEN (% Sat.)	NA	NA	NA	NA	NA
COLOR	Brown		clear	clear	clear
ODOR	none		None	None	none
CLARITY	cloudy		clear	clear	clear
SAMPLING PARAMETERS	# OF CONTAINERS & VOLUME; CONTAINER TYPE (A = AMBER GLASS; G = GLASS; P = PLASTIC); PRESERVATIVE TYPE (L = LAB ADDED; F = FIELD ADDED) OR NEUTRAL; FILTERED (YES or NO)				
PCE, TCE, TCA, Vinyl Chloride (EPA Method 8260B)	3 – 40 ml; G; L; HCl; No	3 – 40 ml; G; L; HCl; No	3 – 40 ml; G; L; HCl; No	3 – 40 ml; G; L; HCl; No	3 – 40 ml; G; L; HCl; No
		Turned off			
<u>Comments:</u>					
NAME OF LABORATORY	Test America	Test America	Test America	Test America	Test America
DATE SENT TO LAB	7/21/23		7/21/23	7/21/23	7/21/23
SAMPLER'S NAME	CSL		CSL	CSL	CSL

\*Measured from top of well casing.

# MONITOR WELL INSPECTION FORM

Project Name: Pentair Delavan

Location: Delavan, WI

Project No: 117-7469011.100

Personnel: Connor Laizon

Well No.: Site Monitor Wells

Inspection Date: 7/20/23

ITEM	YES	NO	N/A	COMMENTS
Map Location Accurate?	X			
Adequately Visible in Hard-to-Find Area?			X	
Protective Posts Present? Type?	X			
Protective Posts Necessary?	X			
Is Well Painted?	X			Rust present on some wells
Located in a Dry Area?	X			
Well Labelled Inside and Outside?	X			Labels fading
Is Well Flushmount?			X	Both types
Protective Casing Diameter? Material?			X	
Is Well Immobile?			X	
Protective Casing Locked? Type of Lock?	X			2121 keys
Protective Casing Secure in Ground?	X			
Rust Inside Protective Casing Cap?	X			
Evidence of Frost Heave?		X		
Weep Hole at Base of Protective Casing?	X			
Well Casing Free of Kinks or Bends?	X			
Well Cap Present, Vented?		X		TN-2A missing cap. sch. 80 PVC
Well Diameter and Material			X	
Solvent cement present?	X			
Type of Surface Seal? Is Seal Cracked?		X		
Ground/Seal Sloped to Prevent Ponding?			X	
Well stickup (ft. above grade)			X	
Protective casing stickup (ft. above grade)			X	
Depth to Water Level (below PVC casing)			X	
Measured Well Depth (below PVC casing)			X	
Saturated Thickness (feet)			X	
Constructed Well Depth (from log):			X	
Thickness of Siltation: (ft.)			X	
Bailer easily inserted/removed?	X			
Proximity to drainage ditches:			X	

# Pentair Delavan Facility Field Water Level Data Sheet

Project Number: 117-7469011.100			Project Name: Pentair Delavan Remedial Action	
Personnel: Connor Lauzon			Instrument: Heron	
Well ID	Date	Time	Depth to Groundwater (feet btoc)	Notes
<b>Plant 1 Wells</b>				
EX-2R	NA	NA	NA	
EX-3R	NA	NA	NA	
EX-4R	NA	NA	NA	
EX-5	NA	NA	NA	
EX-6	NA	NA	NA	
TW-2	7/20/23	14:50	30.30	
TW-2A	7/20/23	14:52	30.90	MISSING CAP. SCH. 80 PVC
TW-4	7/20/23	14:55	37.27	
D-1R	7/20/23	14:00	32.27	
D-5	NA	NA	NA	ABANDONED
D-6	NA	NA	NA	ABANDONED
D-14R	NA	NA	NA	
D-23	7/20/23	14:12	31.92	
D-24R	7/20/23	14:20	29.73	
D-25R	7/20/23	14:35	32.00	
D-26	7/20/23	14:37	31.55	
D-27	7/20/23	14:40	31.56	
MW-1026	7/20/23	13:20	31.00	
MW-1027	7/20/23	15:00	29.26	
<b>Plant 2 Wells</b>				
EX-1	NA	NA	NA	
EX-7R	NA	NA	NA	
TW-1	7/20/23	11:20	26.52	Broken hinge
TW-1A	7/20/23	11:22	27.83	
TW-3	7/20/23	10:05	32.04	
D-3	NA	NA	NA	ABANDONED
D-4	NA	NA	NA	ABANDONED
D-15	7/20/23	9:30	31.32	
P-2009	7/20/23	10:00	30.99	
P-2010	7/20/23	10:02	30.66	
D-18	7/20/23	12:45	29.81	
MW-2004	7/20/23	10:40	26.95	
MW-2005R	7/20/23	8:00	24.42	
MW-2011	7/20/23	9:00	25.79	

# TETRA TECH FIELD WATER QUALITY SAMPLING AND ANALYSIS FORM

PROJECT INFORMATION			INSTRUMENTS	
PROJECT	Delavan Facility Remedial Action		Temp. & pH	Hanna
PROJECT NO.	117-7469013.100		Conductivity	Hanna
LOCATION	Delavan, WI		ORP	NA
PERSONNEL	CSL		DO	NA
SAMPLE POINT	TW-1	TW-3	D-18	
WATER TYPE	Groundwater	Groundwater	Groundwater	
DATE (month/day/year)	11/1/23	11/1/23	11/1/23	
CLOCK TIME (Military)	10:45	11:36	12:00	
DEPTH TO WATER (ft)*	27.99	33.32	31.10	
MEASURED WELL DEPTH (ft)*	45.50	50.73	39.90	
CASING VOLUME (gallons)	3	3	1.5	
PURGE VOLUME (gallons)	9	9	4.5	
DEPTH SAMPLE TAKEN (ft)*	40	45	35	
SAMPLING DEVICE	Hanging Bailer	Hanging Bailer	Hanging Bailer	
FIELD TEMPERATURE (°C)	11.3	10.6	16.6	
pH	7.79	7.73	7.64	
ELEC. COND. (µS/cm) at 25°C	1354	1105	1282	
ORP (mV)	NA	NA	NA	
DISSOLVED OXYGEN (ppm)	NA	NA	NA	
DISSOLVED OXYGEN (% Sat.)	NA	NA	NA	
COLOR	clear	clear	clear	
ODOR	none	None	none	
CLARITY	clear	clear	clear	
SAMPLING PARAMETERS	# OF CONTAINERS & VOLUME; CONTAINER TYPE (A = AMBER GLASS; G = GLASS; P = PLASTIC); PRESERVATIVE TYPE (L = LAB ADDED; F = FIELD ADDED) OR NEUTRAL; FILTERED (YES or NO)			
PCE, TCE, TCA, Vinyl Chloride (EPA Method 8260B)	3 – 40 ml; G; L; HCl; No	3 – 40 ml; G; L; HCl; No	3 – 40 ml; G; L; HCl; No	
<u>Comments:</u>				
NAME OF LABORATORY	Test America	Test America	Test America	Test America
DATE SENT TO LAB	11/1/23	11/1/23	11/1/23	
SAMPLER'S NAME	CSL	CSL	CSL	

\*Measured from top of well casing.

# TETRA TECH FIELD WATER QUALITY SAMPLING AND ANALYSIS FORM

PROJECT INFORMATION			INSTRUMENTS		
PROJECT	Delavan Facility Remedial Action		Temp. & pH	Hanna	
PROJECT NO.	117-7469013.100		Conductivity	Hanna	
LOCATION	Delavan, WI		ORP	NA	
PERSONNEL	Connor Lavoron, Kenny R.		DO	NA	
SAMPLE POINT	TW-1	TW-3	D-18		
WATER TYPE	Groundwater	Groundwater	Groundwater		
DATE (month/day/year)	2/1/23	2/1/23	2/1/23		
CLOCK TIME (Military)	12:15	10:50	11:30		
DEPTH TO WATER (ft)*	28.80	34.15	32.03		
MEASURED WELL DEPTH (ft)*	45.50	50.73	39.90		
CASING VOLUME (gallons)	3	3	1.3		
PURGE VOLUME (gallons)	9	9	4		
DEPTH SAMPLE TAKEN (ft)*	40	45	35		
SAMPLING DEVICE	Hanging Bailer	Hanging Bailer	Hanging Bailer		
FIELD TEMPERATURE (°C)	7.82	12.6	12.7		
pH	6.8	7.76	7.60		
ELEC. COND. (uS/cm) at 25°C	963	1424	1498		
ORP (mV)	NA	NA	NA		
DISSOLVED OXYGEN (ppm)	NA	NA	NA		
DISSOLVED OXYGEN (% Sat.)	NA	NA	NA		
COLOR	lt. brown	v. lt. Brn	v. lt. brn		
ODOR	none	None	none		
CLARITY	Cloudy	Cloudy	Cloudy		
SAMPLING PARAMETERS	# OF CONTAINERS & VOLUME; CONTAINER TYPE (A = AMBER GLASS; G = GLASS; P = PLASTIC); PRESERVATIVE TYPE (L = LAB ADDED; F = FIELD ADDED) OR NEUTRAL; FILTERED (YES or NO)				
PCE, TCE, TCA, Vinyl Chloride (EPA Method 8260B)	3 – 40 ml; G; L; HCl; No	3 – 40 ml; G; L; HCl; No	3 – 40 ml; G; L; HCl; No		
EX-7R:	End point good	Error on meter	No flow		
EX-6:	strong flow from spigot	~60 gpm			
<u>Comments:</u>					
NAME OF LABORATORY	Test America	Test America	Test America	Test America	Test America
DATE SENT TO LAB					
SAMPLER'S NAME					

\*Measured from top of well casing.

# ANALYTICAL REPORT

## PREPARED FOR

Attn: Mr. Mark Manthey

Tetra Tech GEO

13555 Bishops Ct

Suite 201

Brookfield, Wisconsin 53005

Generated 2/14/2023 11:25:14 AM

## JOB DESCRIPTION

Pentair Delavan

## JOB NUMBER

500-228923-1

# Eurofins Chicago

## Job Notes

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of Eurofins Environment Testing North Central, LLC and its client. All questions regarding this report should be directed to the Eurofins Environment Testing North Central, LLC Project Manager who has signed this report.

Results relate only to the items tested and the sample(s) as received by the laboratory. The results, detection limits (LOD) and Quantitation Limits (LOQ) have been adjusted for sample dilutions and/or solids content.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Chicago Project Manager.

## Authorization



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Authorized for release by  
Sandie Fredrick, Project Manager II  
[Sandra.Fredrick@et.eurofinsus.com](mailto:Sandra.Fredrick@et.eurofinsus.com)  
(920)261-1660

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# Case Narrative

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-228923-1

**Job ID: 500-228923-1**

**Laboratory: Eurofins Chicago**

## Narrative

**Job Narrative  
500-228923-1**

## Comments

No additional comments.

## Receipt

The samples were received on 2/2/2023 11:40 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.5° C.

## GC/MS VOA

Method 8260B: The laboratory control sample (LCS) for analytical batch 500-697050 recovered outside control limits for the following analytes: Bromomethane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.Trip Blank (500-228923-4)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

## Detection Summary

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-228923-1

### Client Sample ID: TW-1

Lab Sample ID: 500-228923-1

No Detections.

### Client Sample ID: TW-3

Lab Sample ID: 500-228923-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	0.46	J	1.0	0.37	ug/L	1		8260B	Total/NA
Trichloroethene	0.41	J	0.50	0.16	ug/L	1		8260B	Total/NA

### Client Sample ID: D-18

Lab Sample ID: 500-228923-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	1.1		1.0	0.37	ug/L	1		8260B	Total/NA
Trichloroethene	0.63		0.50	0.16	ug/L	1		8260B	Total/NA

### Client Sample ID: Trip Blank

Lab Sample ID: 500-228923-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	1.8	J B	5.0	1.6	ug/L	1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

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## Method Summary

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-228923-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	EET CHI
5030B	Purge and Trap	SW846	EET CHI

**Protocol References:**

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

EET CHI = Eurofins Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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## Sample Summary

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-228923-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-228923-1	TW-1	Water	02/01/23 12:15	02/02/23 11:40
500-228923-2	TW-3	Water	02/01/23 10:50	02/02/23 11:40
500-228923-3	D-18	Water	02/01/23 11:30	02/02/23 11:40
500-228923-4	Trip Blank	Water	02/01/23 00:00	02/02/23 11:40

# Client Sample Results

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-228923-1

**Client Sample ID: TW-1**

Date Collected: 02/01/23 12:15  
Date Received: 02/02/23 11:40

**Lab Sample ID: 500-228923-1**

Matrix: Water

**Method: SW846 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	<0.37		1.0	0.37	ug/L			02/03/23 13:54	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			02/03/23 13:54	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			02/03/23 13:54	1
Trichloroethene	<0.16		0.50	0.16	ug/L			02/03/23 13:54	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			02/03/23 13:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		72 - 124		02/03/23 13:54	1
Dibromofluoromethane (Surr)	106		75 - 120		02/03/23 13:54	1
1,2-Dichloroethane-d4 (Surr)	100		75 - 126		02/03/23 13:54	1
Toluene-d8 (Surr)	95		75 - 120		02/03/23 13:54	1

# Client Sample Results

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-228923-1

**Client Sample ID: TW-3**

**Lab Sample ID: 500-228923-2**

Date Collected: 02/01/23 10:50

Matrix: Water

Date Received: 02/02/23 11:40

## Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Tetrachloroethene</b>	<b>0.46</b>	<b>J</b>	1.0	0.37	ug/L			02/03/23 14:18	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			02/03/23 14:18	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			02/03/23 14:18	1
<b>Trichloroethene</b>	<b>0.41</b>	<b>J</b>	0.50	0.16	ug/L			02/03/23 14:18	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			02/03/23 14:18	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	93		72 - 124					02/03/23 14:18	1
Dibromofluoromethane (Surr)	103		75 - 120					02/03/23 14:18	1
1,2-Dichloroethane-d4 (Surr)	98		75 - 126					02/03/23 14:18	1
Toluene-d8 (Surr)	96		75 - 120					02/03/23 14:18	1

# Client Sample Results

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-228923-1

**Client Sample ID: D-18**  
**Date Collected: 02/01/23 11:30**  
**Date Received: 02/02/23 11:40**

**Lab Sample ID: 500-228923-3**  
**Matrix: Water**

## Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Tetrachloroethene</b>	<b>1.1</b>		1.0	0.37	ug/L			02/03/23 14:42	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			02/03/23 14:42	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			02/03/23 14:42	1
<b>Trichloroethene</b>	<b>0.63</b>		0.50	0.16	ug/L			02/03/23 14:42	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			02/03/23 14:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		72 - 124		02/03/23 14:42	1
Dibromofluoromethane (Surr)	106		75 - 120		02/03/23 14:42	1
1,2-Dichloroethane-d4 (Surr)	97		75 - 126		02/03/23 14:42	1
Toluene-d8 (Surr)	96		75 - 120		02/03/23 14:42	1

# Client Sample Results

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-228923-1

**Client Sample ID: Trip Blank**  
**Date Collected: 02/01/23 00:00**  
**Date Received: 02/02/23 11:40**

**Lab Sample ID: 500-228923-4**  
**Matrix: Water**

## Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			02/03/23 12:42	1
Bromobenzene	<0.36		1.0	0.36	ug/L			02/03/23 12:42	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			02/03/23 12:42	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			02/03/23 12:42	1
Bromoform	<0.48		1.0	0.48	ug/L			02/03/23 12:42	1
Bromomethane	<0.80 *+		3.0	0.80	ug/L			02/03/23 12:42	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			02/03/23 12:42	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			02/03/23 12:42	1
Chloroethane	<0.51		1.0	0.51	ug/L			02/03/23 12:42	1
Chloroform	<0.37		2.0	0.37	ug/L			02/03/23 12:42	1
Chloromethane	<0.32		1.0	0.32	ug/L			02/03/23 12:42	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			02/03/23 12:42	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			02/03/23 12:42	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			02/03/23 12:42	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			02/03/23 12:42	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			02/03/23 12:42	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			02/03/23 12:42	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			02/03/23 12:42	1
Dibromomethane	<0.27		1.0	0.27	ug/L			02/03/23 12:42	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			02/03/23 12:42	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			02/03/23 12:42	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			02/03/23 12:42	1
Dichlorodifluoromethane	<0.67		3.0	0.67	ug/L			02/03/23 12:42	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			02/03/23 12:42	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			02/03/23 12:42	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			02/03/23 12:42	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			02/03/23 12:42	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			02/03/23 12:42	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			02/03/23 12:42	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			02/03/23 12:42	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			02/03/23 12:42	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			02/03/23 12:42	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			02/03/23 12:42	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			02/03/23 12:42	1
<b>Methylene Chloride</b>	<b>1.8 JB</b>		5.0	1.6	ug/L			02/03/23 12:42	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			02/03/23 12:42	1
Naphthalene	<0.34		1.0	0.34	ug/L			02/03/23 12:42	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			02/03/23 12:42	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			02/03/23 12:42	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			02/03/23 12:42	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			02/03/23 12:42	1
Styrene	<0.39		1.0	0.39	ug/L			02/03/23 12:42	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			02/03/23 12:42	1
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			02/03/23 12:42	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			02/03/23 12:42	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			02/03/23 12:42	1
Toluene	<0.15		0.50	0.15	ug/L			02/03/23 12:42	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			02/03/23 12:42	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			02/03/23 12:42	1

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# Client Sample Results

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-228923-1

**Client Sample ID:** Trip Blank  
**Date Collected:** 02/01/23 00:00  
**Date Received:** 02/02/23 11:40

**Lab Sample ID:** 500-228923-4  
**Matrix:** Water

## Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			02/03/23 12:42	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			02/03/23 12:42	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			02/03/23 12:42	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			02/03/23 12:42	1
Trichloroethene	<0.16		0.50	0.16	ug/L			02/03/23 12:42	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			02/03/23 12:42	1
1,2,3-Trichloropropane	<0.41		2.0	0.41	ug/L			02/03/23 12:42	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			02/03/23 12:42	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			02/03/23 12:42	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			02/03/23 12:42	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			02/03/23 12:42	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>	
4-Bromofluorobenzene (Surr)	94		72 - 124				02/03/23 12:42	1	
Dibromofluoromethane (Surr)	103		75 - 120				02/03/23 12:42	1	
1,2-Dichloroethane-d4 (Surr)	96		75 - 126				02/03/23 12:42	1	
Toluene-d8 (Surr)	97		75 - 120				02/03/23 12:42	1	

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# Definitions/Glossary

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-228923-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

# QC Association Summary

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-228923-1

## GC/MS VOA

Analysis Batch: 697050

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-228923-1	TW-1	Total/NA	Water	8260B	
500-228923-2	TW-3	Total/NA	Water	8260B	
500-228923-3	D-18	Total/NA	Water	8260B	
500-228923-4	Trip Blank	Total/NA	Water	8260B	
MB 500-697050/7	Method Blank	Total/NA	Water	8260B	
LCS 500-697050/29	Lab Control Sample	Total/NA	Water	8260B	

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# Surrogate Summary

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-228923-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB (72-124)	DBFM (75-120)	DCA (75-126)	TOL (75-120)						
500-228923-1	TW-1	91	106	100	95						
500-228923-2	TW-3	93	103	98	96						
500-228923-3	D-18	93	106	97	96						
500-228923-4	Trip Blank	94	103	96	97						
LCS 500-697050/29	Lab Control Sample	89	102	91	98						
MB 500-697050/7	Method Blank	96	104	94	96						

### Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

DCA = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

# QC Sample Results

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-228923-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

**Lab Sample ID: MB 500-697050/7**

**Matrix: Water**

**Analysis Batch: 697050**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			02/03/23 11:55	1
Bromobenzene	<0.36		1.0	0.36	ug/L			02/03/23 11:55	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			02/03/23 11:55	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			02/03/23 11:55	1
Bromoform	<0.48		1.0	0.48	ug/L			02/03/23 11:55	1
Bromomethane	<0.80		3.0	0.80	ug/L			02/03/23 11:55	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			02/03/23 11:55	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			02/03/23 11:55	1
Chloroethane	<0.51		1.0	0.51	ug/L			02/03/23 11:55	1
Chloroform	<0.37		2.0	0.37	ug/L			02/03/23 11:55	1
Chloromethane	<0.32		1.0	0.32	ug/L			02/03/23 11:55	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			02/03/23 11:55	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			02/03/23 11:55	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			02/03/23 11:55	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			02/03/23 11:55	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			02/03/23 11:55	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			02/03/23 11:55	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			02/03/23 11:55	1
Dibromomethane	<0.27		1.0	0.27	ug/L			02/03/23 11:55	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			02/03/23 11:55	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			02/03/23 11:55	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			02/03/23 11:55	1
Dichlorodifluoromethane	<0.67		3.0	0.67	ug/L			02/03/23 11:55	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			02/03/23 11:55	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			02/03/23 11:55	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			02/03/23 11:55	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			02/03/23 11:55	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			02/03/23 11:55	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			02/03/23 11:55	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			02/03/23 11:55	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			02/03/23 11:55	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			02/03/23 11:55	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			02/03/23 11:55	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			02/03/23 11:55	1
Methylene Chloride	1.81 J		5.0	1.6	ug/L			02/03/23 11:55	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			02/03/23 11:55	1
Naphthalene	<0.34		1.0	0.34	ug/L			02/03/23 11:55	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			02/03/23 11:55	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			02/03/23 11:55	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			02/03/23 11:55	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			02/03/23 11:55	1
Styrene	<0.39		1.0	0.39	ug/L			02/03/23 11:55	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			02/03/23 11:55	1
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			02/03/23 11:55	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			02/03/23 11:55	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			02/03/23 11:55	1
Toluene	<0.15		0.50	0.15	ug/L			02/03/23 11:55	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			02/03/23 11:55	1

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# QC Sample Results

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-228923-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 500-697050/7**

**Matrix: Water**

**Analysis Batch: 697050**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			02/03/23 11:55	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			02/03/23 11:55	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			02/03/23 11:55	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			02/03/23 11:55	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			02/03/23 11:55	1
Trichloroethene	<0.16		0.50	0.16	ug/L			02/03/23 11:55	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			02/03/23 11:55	1
1,2,3-Trichloropropane	<0.41		2.0	0.41	ug/L			02/03/23 11:55	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			02/03/23 11:55	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			02/03/23 11:55	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			02/03/23 11:55	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			02/03/23 11:55	1

Surrogate	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		72 - 124		02/03/23 11:55	1
Dibromofluoromethane (Surr)	104		75 - 120		02/03/23 11:55	1
1,2-Dichloroethane-d4 (Surr)	94		75 - 126		02/03/23 11:55	1
Toluene-d8 (Surr)	96		75 - 120		02/03/23 11:55	1

**Lab Sample ID: LCS 500-697050/29**

**Matrix: Water**

**Analysis Batch: 697050**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Benzene	50.0	45.4		ug/L		91	70 - 120
Bromobenzene	50.0	44.3		ug/L		89	70 - 122
Bromochloromethane	50.0	48.5		ug/L		97	65 - 122
Bromodichloromethane	50.0	50.7		ug/L		101	69 - 120
Bromoform	50.0	60.9		ug/L		122	56 - 132
Bromomethane	50.0	78.8 *+		ug/L		158	40 - 152
Carbon tetrachloride	50.0	51.4		ug/L		103	59 - 133
Chlorobenzene	50.0	46.9		ug/L		94	70 - 120
Chloroethane	50.0	51.0		ug/L		102	48 - 136
Chloroform	50.0	45.9		ug/L		92	70 - 120
Chloromethane	50.0	37.7		ug/L		75	56 - 152
2-Chlorotoluene	50.0	43.8		ug/L		88	70 - 125
4-Chlorotoluene	50.0	45.7		ug/L		91	68 - 124
cis-1,2-Dichloroethene	50.0	45.9		ug/L		92	70 - 125
cis-1,3-Dichloropropene	50.0	43.9		ug/L		88	64 - 127
Dibromochloromethane	50.0	53.9		ug/L		108	68 - 125
1,2-Dibromo-3-Chloropropane	50.0	46.0		ug/L		92	56 - 123
1,2-Dibromoethane	50.0	46.5		ug/L		93	70 - 125
Dibromomethane	50.0	48.3		ug/L		97	70 - 120
1,2-Dichlorobenzene	50.0	44.6		ug/L		89	70 - 125
1,3-Dichlorobenzene	50.0	44.0		ug/L		88	70 - 125
1,4-Dichlorobenzene	50.0	44.8		ug/L		90	70 - 120
Dichlorodifluoromethane	50.0	37.7		ug/L		75	40 - 159
1,1-Dichloroethane	50.0	43.3		ug/L		87	70 - 125

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# QC Sample Results

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-228923-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 500-697050/29**

**Matrix: Water**

**Analysis Batch: 697050**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
1,2-Dichloroethane	50.0	42.9		ug/L	86	68 - 127	
1,1-Dichloroethene	50.0	47.1		ug/L	94	67 - 122	
1,2-Dichloropropane	50.0	41.6		ug/L	83	67 - 130	
1,3-Dichloropropane	50.0	46.2		ug/L	92	62 - 136	
2,2-Dichloropropane	50.0	45.3		ug/L	91	58 - 139	
1,1-Dichloropropene	50.0	46.0		ug/L	92	70 - 121	
Ethylbenzene	50.0	47.2		ug/L	94	70 - 123	
Hexachlorobutadiene	50.0	35.9		ug/L	72	51 - 150	
Isopropylbenzene	50.0	43.6		ug/L	87	70 - 126	
Methylene Chloride	50.0	49.0		ug/L	98	69 - 125	
Methyl tert-butyl ether	50.0	42.3		ug/L	85	55 - 123	
Naphthalene	50.0	38.5		ug/L	77	53 - 144	
n-Butylbenzene	50.0	46.2		ug/L	92	68 - 125	
N-Propylbenzene	50.0	46.2		ug/L	92	69 - 127	
p-Isopropyltoluene	50.0	45.6		ug/L	91	70 - 125	
sec-Butylbenzene	50.0	45.5		ug/L	91	70 - 123	
Styrene	50.0	50.1		ug/L	100	70 - 120	
tert-Butylbenzene	50.0	43.2		ug/L	86	70 - 121	
1,1,1,2-Tetrachloroethane	50.0	46.8		ug/L	94	70 - 125	
1,1,2,2-Tetrachloroethane	50.0	46.9		ug/L	94	62 - 140	
Tetrachloroethene	50.0	44.3		ug/L	89	70 - 128	
Toluene	50.0	46.9		ug/L	94	70 - 125	
trans-1,2-Dichloroethene	50.0	48.2		ug/L	96	70 - 125	
trans-1,3-Dichloropropene	50.0	47.0		ug/L	94	62 - 128	
1,2,3-Trichlorobenzene	50.0	35.9		ug/L	72	51 - 145	
1,2,4-Trichlorobenzene	50.0	38.3		ug/L	77	57 - 137	
1,1,1-Trichloroethane	50.0	47.8		ug/L	96	70 - 125	
1,1,2-Trichloroethane	50.0	47.5		ug/L	95	71 - 130	
Trichloroethene	50.0	46.7		ug/L	93	70 - 125	
Trichlorofluoromethane	50.0	46.7		ug/L	93	55 - 128	
1,2,3-Trichloropropane	50.0	44.7		ug/L	89	50 - 133	
1,2,4-Trimethylbenzene	50.0	45.3		ug/L	91	70 - 123	
1,3,5-Trimethylbenzene	50.0	44.9		ug/L	90	70 - 123	
Vinyl chloride	50.0	47.5		ug/L	95	64 - 126	
Xylenes, Total	100	93.8		ug/L	94	70 - 125	

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surrogate)	89		72 - 124
Dibromofluoromethane (Surrogate)	102		75 - 120
1,2-Dichloroethane-d4 (Surrogate)	91		75 - 126
Toluene-d8 (Surrogate)	98		75 - 120

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# Lab Chronicle

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-228923-1

**Client Sample ID: TW-1**

Date Collected: 02/01/23 12:15

Date Received: 02/02/23 11:40

**Lab Sample ID: 500-228923-1**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	697050	JDD	EET CHI	02/03/23 13:54

**Client Sample ID: TW-3**

Date Collected: 02/01/23 10:50

Date Received: 02/02/23 11:40

**Lab Sample ID: 500-228923-2**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	697050	JDD	EET CHI	02/03/23 14:18

**Client Sample ID: D-18**

Date Collected: 02/01/23 11:30

Date Received: 02/02/23 11:40

**Lab Sample ID: 500-228923-3**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	697050	JDD	EET CHI	02/03/23 14:42

**Client Sample ID: Trip Blank**

Date Collected: 02/01/23 00:00

Date Received: 02/02/23 11:40

**Lab Sample ID: 500-228923-4**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	697050	JDD	EET CHI	02/03/23 12:42

## Laboratory References:

EET CHI = Eurofins Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Eurofins Chicago

## Accreditation/Certification Summary

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-228923-1

### Laboratory: Eurofins Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Wisconsin	State	999580010	08-31-23

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## Eurofins Chicago

2417 Bond Street  
University Park IL 60484  
Phone 708-534-5200 Fax 708-534-5211

## Chain of Custody Record

eurofins

<b>Client Information</b>		Sampler <u>Connor Lanzon</u>		Lab PM Fredrick Sandie		Carrier Tracking No(s)		COC No. 500-109766-45830 1			
Client Contact Mr. Mark Manthey		Phone <u>(262)203-1294</u>		E Mar Sandra.Fredrick@et.eurofinsus.com		State of Origin <u>WI</u>		Page Page 1 of 1			
Company Tetra Tech GEO		PWSID				Analysis Requested		Job # <u>500-228923</u>			
Address: 13555 Bishops Ct Suite 201		Due Date Requested <u>standard</u>						Preservation Codes			
City Brookfield		TAT Requested (days) <u>standard</u>						A HCl	M Hexane		
State Zip WI 53005		Compliance Project. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No						B NaOH	N None		
Phone 262 792 1282(Tel)		PO #						C AsNaO2	P Na2O4S		
Email mark.marthey@tetrachem.com		PO #						D Nitric Acid	Q Na2SCo3		
Project Name Pentair Deavan		Project # 50006640						E NaHSO4	R Na2S2O3		
Site		SSOW#						F MeOH	S H2SO4		
								G Ammonia	T TSP Dodecahydrate		
								H Ascorbic Acid	U Acetone		
								Ice	V MCAA		
								J DI Water	W pH 4-5		
								K EDTA	Y Uzma		
								L EDA	Z other specify		
								Other			
<b>Sample Identification</b>		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix ( <sup>1</sup> ewater Soil/ Or/waste/oil ET-Tissue, A-Air)	Field Filtered Sample (Yes or No)	Permeable Sample (Yes or No)	Total Number of containers	Special Instructions/Note		
TW-1		<u>2/1/23</u>	<u>12:15</u>	<u>G</u>	Water	X					
TW-3		<u>2/1/23</u>	<u>10:50</u>	<u>G</u>	Water	X					
D-1B		<u>2/1/23</u>	<u>11:30</u>	<u>G</u>	Water	X					
Trip Blank		—	—	—	Water	X					
					Water						
<b>Possible Hazard Identification</b>										<b>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</b>	
<input type="checkbox"/> Non Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological					<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months						
Deliverable Requested I II III IV Other (specify)										Special Instructions/QC Requirements	
Empty Kit Relinquished by		Date		Time		Method of Shipment					
Relinquished by <u>Connor Lanzon</u>		Date/time <u>2/1/23 16:00</u>		Company <u>Tetra Tech</u>		Received by <u>Mike Lanzon</u>		Date/Time <u>2/2/23 11:40</u>	Comments <u>PTD</u>		
Relinquished by		Date/time		Company		Received by		Date/Time	Comments		
Relinquished by		Date/time		Company		Received by		Date/time	Comments		
Custody Seal intact. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) and Other Remarks		24→15		Ver 06/08/01			

## Login Sample Receipt Checklist

Client: Tetra Tech GEO

Job Number: 500-228923-1

**Login Number:** 228923

**List Source:** Eurofins Chicago

**List Number:** 1

**Creator:** Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

# ANALYTICAL REPORT

## PREPARED FOR

Attn: Mr. Mark Manthey  
Tetra Tech GEO  
13555 Bishops Ct  
Suite 201  
Brookfield, Wisconsin 53005

Generated 5/30/2023 3:45:49 PM

## JOB DESCRIPTION

Pentair Delavan

## JOB NUMBER

500-234036-1

# Eurofins Chicago

## Job Notes

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of Eurofins Environment Testing North Central, LLC and its client. All questions regarding this report should be directed to the Eurofins Environment Testing North Central, LLC Project Manager who has signed this report.

Results relate only to the items tested and the sample(s) as received by the laboratory. The results, detection limits (LOD) and Quantitation Limits (LOQ) have been adjusted for sample dilutions and/or solids content.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Chicago Project Manager.

## Authorization



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Authorized for release by  
Sandie Fredrick, Project Manager II  
[Sandra.Fredrick@et.eurofinsus.com](mailto:Sandra.Fredrick@et.eurofinsus.com)  
(920)261-1660

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## Case Narrative

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-234036-1

**Job ID: 500-234036-1**

**Laboratory: Eurofins Chicago**

### Narrative

#### Job Narrative 500-234036-1

### Receipt

The samples were received on 5/19/2023 10:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.9° C.

### GC/MS VOA

Method 8260B: The matrix spike duplicate (MSD) recoveries for analytical batch 500-715368 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

## Detection Summary

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-234036-1

### Client Sample ID: TW-01

Lab Sample ID: 500-234036-1

No Detections.

### Client Sample ID: TW-03

Lab Sample ID: 500-234036-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	0.38	J	1.0	0.37	ug/L	1		8260B	Total/NA

### Client Sample ID: D-18

Lab Sample ID: 500-234036-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	1.1		1.0	0.37	ug/L	1		8260B	Total/NA
Trichloroethene	0.63		0.50	0.16	ug/L	1		8260B	Total/NA

### Client Sample ID: Trip Blank

Lab Sample ID: 500-234036-4

No Detections.

## Method Summary

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-234036-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	EET CHI
5030B	Purge and Trap	SW846	EET CHI

**Protocol References:**

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

EET CHI = Eurofins Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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# Sample Summary

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-234036-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-234036-1	TW-01	Water	05/18/23 12:55	05/19/23 10:00
500-234036-2	TW-03	Water	05/18/23 11:30	05/19/23 10:00
500-234036-3	D-18	Water	05/18/23 12:15	05/19/23 10:00
500-234036-4	Trip Blank	Water	05/18/23 00:00	05/19/23 10:00

# Client Sample Results

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-234036-1

**Client Sample ID: TW-01**

Date Collected: 05/18/23 12:55  
Date Received: 05/19/23 10:00

**Lab Sample ID: 500-234036-1**

Matrix: Water

**Method: SW846 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	<0.37		1.0	0.37	ug/L			05/25/23 22:18	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			05/25/23 22:18	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			05/25/23 22:18	1
Trichloroethene	<0.16		0.50	0.16	ug/L			05/25/23 22:18	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			05/25/23 22:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		72 - 124		05/25/23 22:18	1
Dibromofluoromethane (Surr)	102		75 - 120		05/25/23 22:18	1
1,2-Dichloroethane-d4 (Surr)	95		75 - 126		05/25/23 22:18	1
Toluene-d8 (Surr)	93		75 - 120		05/25/23 22:18	1

# Client Sample Results

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-234036-1

**Client Sample ID: TW-03**

**Lab Sample ID: 500-234036-2**

Date Collected: 05/18/23 11:30  
Date Received: 05/19/23 10:00

Matrix: Water

**Method: SW846 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.38	J	1.0	0.37	ug/L			05/25/23 22:43	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			05/25/23 22:43	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			05/25/23 22:43	1
Trichloroethene	<0.16		0.50	0.16	ug/L			05/25/23 22:43	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			05/25/23 22:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		72 - 124		05/25/23 22:43	1
Dibromofluoromethane (Surr)	111		75 - 120		05/25/23 22:43	1
1,2-Dichloroethane-d4 (Surr)	105		75 - 126		05/25/23 22:43	1
Toluene-d8 (Surr)	90		75 - 120		05/25/23 22:43	1

# Client Sample Results

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-234036-1

**Client Sample ID: D-18**

**Lab Sample ID: 500-234036-3**

Date Collected: 05/18/23 12:15  
Date Received: 05/19/23 10:00

Matrix: Water

**Method: SW846 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Tetrachloroethene</b>	<b>1.1</b>		1.0	0.37	ug/L			05/25/23 23:07	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			05/25/23 23:07	1
1,1,2-Trichloroethane	<0.35	F1	1.0	0.35	ug/L			05/25/23 23:07	1
<b>Trichloroethene</b>	<b>0.63</b>		0.50	0.16	ug/L			05/25/23 23:07	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			05/25/23 23:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		72 - 124		05/25/23 23:07	1
Dibromofluoromethane (Surr)	97		75 - 120		05/25/23 23:07	1
1,2-Dichloroethane-d4 (Surr)	90		75 - 126		05/25/23 23:07	1
Toluene-d8 (Surr)	95		75 - 120		05/25/23 23:07	1

# Client Sample Results

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-234036-1

**Client Sample ID: Trip Blank**  
**Date Collected: 05/18/23 00:00**  
**Date Received: 05/19/23 10:00**

**Lab Sample ID: 500-234036-4**  
**Matrix: Water**

## Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	<0.37		1.0	0.37	ug/L			05/24/23 14:52	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			05/24/23 14:52	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			05/24/23 14:52	1
Trichloroethene	<0.16		0.50	0.16	ug/L			05/24/23 14:52	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			05/24/23 14:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		72 - 124		05/24/23 14:52	1
Dibromofluoromethane (Surr)	92		75 - 120		05/24/23 14:52	1
1,2-Dichloroethane-d4 (Surr)	88		75 - 126		05/24/23 14:52	1
Toluene-d8 (Surr)	95		75 - 120		05/24/23 14:52	1

# Definitions/Glossary

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-234036-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
D	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

# QC Association Summary

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-234036-1

## GC/MS VOA

### Analysis Batch: 714970

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-234036-4	Trip Blank	Total/NA	Water	8260B	
MB 500-714970/7	Method Blank	Total/NA	Water	8260B	
LCS 500-714970/31	Lab Control Sample	Total/NA	Water	8260B	

### Analysis Batch: 715368

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-234036-1	TW-01	Total/NA	Water	8260B	
500-234036-2	TW-03	Total/NA	Water	8260B	
500-234036-3	D-18	Total/NA	Water	8260B	
MB 500-715368/6	Method Blank	Total/NA	Water	8260B	
LCS 500-715368/4	Lab Control Sample	Total/NA	Water	8260B	
500-234036-3 MS	D-18	Total/NA	Water	8260B	
500-234036-3 MSD	D-18	Total/NA	Water	8260B	

# Surrogate Summary

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-234036-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB (72-124)	DBFM (75-120)	DCA (75-126)	TOL (75-120)						
500-234036-1	TW-01	105	102	95	93						
500-234036-2	TW-03	108	111	105	90						
500-234036-3	D-18	102	97	90	95						
500-234036-3 MS	D-18	102	101	101	94						
500-234036-3 MSD	D-18	101	103	108	94						
500-234036-4	Trip Blank	102	92	88	95						
LCS 500-714970/31	Lab Control Sample	101	86	83	96						
LCS 500-715368/4	Lab Control Sample	99	96	83	98						
MB 500-714970/7	Method Blank	103	92	88	95						
MB 500-715368/6	Method Blank	106	98	89	96						

### Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

DCA = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

# QC Sample Results

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-234036-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

**Lab Sample ID: MB 500-714970/7**

**Matrix: Water**

**Analysis Batch: 714970**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	<0.37		1.0	0.37	ug/L			05/24/23 14:00	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			05/24/23 14:00	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			05/24/23 14:00	1
Trichloroethene	<0.16		0.50	0.16	ug/L			05/24/23 14:00	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			05/24/23 14:00	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		72 - 124		05/24/23 14:00	1
Dibromofluoromethane (Surr)	92		75 - 120		05/24/23 14:00	1
1,2-Dichloroethane-d4 (Surr)	88		75 - 126		05/24/23 14:00	1
Toluene-d8 (Surr)	95		75 - 120		05/24/23 14:00	1

**Lab Sample ID: LCS 500-714970/31**

**Matrix: Water**

**Analysis Batch: 714970**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Tetrachloroethene	40.0	46.8		ug/L		117	70 - 128
1,1,1-Trichloroethane	40.0	38.1		ug/L		95	70 - 125
1,1,2-Trichloroethane	40.0	40.6		ug/L		101	71 - 130
Trichloroethene	40.0	43.9		ug/L		110	70 - 125
Vinyl chloride	40.0	43.4		ug/L		108	64 - 126

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	101		72 - 124
Dibromofluoromethane (Surr)	86		75 - 120
1,2-Dichloroethane-d4 (Surr)	83		75 - 126
Toluene-d8 (Surr)	96		75 - 120

**Lab Sample ID: MB 500-715368/6**

**Matrix: Water**

**Analysis Batch: 715368**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	<0.37		1.0	0.37	ug/L			05/25/23 21:55	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			05/25/23 21:55	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			05/25/23 21:55	1
Trichloroethene	<0.16		0.50	0.16	ug/L			05/25/23 21:55	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			05/25/23 21:55	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		72 - 124		05/25/23 21:55	1
Dibromofluoromethane (Surr)	98		75 - 120		05/25/23 21:55	1
1,2-Dichloroethane-d4 (Surr)	89		75 - 126		05/25/23 21:55	1
Toluene-d8 (Surr)	96		75 - 120		05/25/23 21:55	1

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# QC Sample Results

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-234036-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 500-715368/4**

**Matrix: Water**

**Analysis Batch: 715368**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Tetrachloroethene	50.0	51.7		ug/L		103	70 - 128
1,1,1-Trichloroethane	50.0	46.0		ug/L		92	70 - 125
1,1,2-Trichloroethane	50.0	50.6		ug/L		101	71 - 130
Trichloroethene	50.0	49.2		ug/L		98	70 - 125
Vinyl chloride	50.0	44.5		ug/L		89	64 - 126

Surrogate	%Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	99		72 - 124
Dibromofluoromethane (Surr)	96		75 - 120
1,2-Dichloroethane-d4 (Surr)	83		75 - 126
Toluene-d8 (Surr)	98		75 - 120

**Lab Sample ID: 500-234036-3 MS**

**Matrix: Water**

**Analysis Batch: 715368**

**Client Sample ID: D-18**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Tetrachloroethene	1.1		50.0	47.3		ug/L		92	70 - 128
1,1,1-Trichloroethane	<0.38		50.0	43.4		ug/L		87	70 - 125
1,1,2-Trichloroethane	<0.35	F1	50.0	61.3		ug/L		123	71 - 130
Trichloroethene	0.63		50.0	48.7		ug/L		96	70 - 125
Vinyl chloride	<0.20		50.0	42.3		ug/L		85	64 - 126

Surrogate	%Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		72 - 124
Dibromofluoromethane (Surr)	101		75 - 120
1,2-Dichloroethane-d4 (Surr)	101		75 - 126
Toluene-d8 (Surr)	94		75 - 120

**Lab Sample ID: 500-234036-3 MSD**

**Matrix: Water**

**Analysis Batch: 715368**

**Client Sample ID: D-18**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD RPD
Tetrachloroethene	1.1		50.0	48.9		ug/L		96	70 - 128	3 20
1,1,1-Trichloroethane	<0.38		50.0	45.7		ug/L		91	70 - 125	5 20
1,1,2-Trichloroethane	<0.35	F1	50.0	67.3	F1	ug/L		135	71 - 130	9 20
Trichloroethene	0.63		50.0	50.2		ug/L		99	70 - 125	3 20
Vinyl chloride	<0.20		50.0	45.5		ug/L		91	64 - 126	7 20

Surrogate	%Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	101		72 - 124
Dibromofluoromethane (Surr)	103		75 - 120
1,2-Dichloroethane-d4 (Surr)	108		75 - 126
Toluene-d8 (Surr)	94		75 - 120

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# Lab Chronicle

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-234036-1

**Client Sample ID: TW-01**

Date Collected: 05/18/23 12:55

Date Received: 05/19/23 10:00

**Lab Sample ID: 500-234036-1**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	715368	EA	EET CHI	05/25/23 22:18

**Client Sample ID: TW-03**

Date Collected: 05/18/23 11:30

Date Received: 05/19/23 10:00

**Lab Sample ID: 500-234036-2**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	715368	EA	EET CHI	05/25/23 22:43

**Client Sample ID: D-18**

Date Collected: 05/18/23 12:15

Date Received: 05/19/23 10:00

**Lab Sample ID: 500-234036-3**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	715368	EA	EET CHI	05/25/23 23:07

**Client Sample ID: Trip Blank**

Date Collected: 05/18/23 00:00

Date Received: 05/19/23 10:00

**Lab Sample ID: 500-234036-4**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	714970	W1T	EET CHI	05/24/23 14:52

## Laboratory References:

EET CHI = Eurofins Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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## Accreditation/Certification Summary

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-234036-1

### Laboratory: Eurofins Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Wisconsin	State	999580010	08-31-23

1

2

3

4

5

6

7

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9

10

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## **Chain of Custody Record**

## Login Sample Receipt Checklist

Client: Tetra Tech GEO

Job Number: 500-234036-1

**Login Number:** 234036

**List Source:** Eurofins Chicago

**List Number:** 1

**Creator:** Moore, Cheyenne M

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.0-1.9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	

# ANALYTICAL REPORT

## PREPARED FOR

Attn: Mr. Mark Manthey  
Tetra Tech GEO  
13555 Bishops Ct  
Suite 201  
Brookfield, Wisconsin 53005

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## JOB DESCRIPTION

Pentair Delavan

## JOB NUMBER

500-237074-1

# Eurofins Chicago

## Job Notes

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of Eurofins Environment Testing North Central, LLC and its client. All questions regarding this report should be directed to the Eurofins Environment Testing North Central, LLC Project Manager who has signed this report.

Results relate only to the items tested and the sample(s) as received by the laboratory. The results, detection limits (LOD) and Quantitation Limits (LOQ) have been adjusted for sample dilutions and/or solids content.

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## Authorization



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# Case Narrative

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-237074-1

**Job ID: 500-237074-1**

**Laboratory: Eurofins Chicago**

## Narrative

### Job Narrative 500-237074-1

## Receipt

The samples were received on 07/22/23 09:50. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.3° C.

## Receipt Exceptions

Received 1 VOA vial broken for sample 6. TW-1 (500-237074-6)

## GC/MS VOA

Method 8260D: Surrogate recovery for the following sample was outside the upper control limit: D-18 (500-237074-7). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

## Detection Summary

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-237074-1

### **Client Sample ID: MW-2005R**

### **Lab Sample ID: 500-237074-1**

No Detections.

### **Client Sample ID: MW-2011**

### **Lab Sample ID: 500-237074-2**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.71	J	1.0	0.38	ug/L	1		8260D	Total/NA
Trichloroethene	3.1		0.50	0.16	ug/L	1		8260D	Total/NA

### **Client Sample ID: D-15**

### **Lab Sample ID: 500-237074-3**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	5.9		1.0	0.37	ug/L	1		8260D	Total/NA
Trichloroethene	6.0		0.50	0.16	ug/L	1		8260D	Total/NA

### **Client Sample ID: TW-3**

### **Lab Sample ID: 500-237074-4**

No Detections.

### **Client Sample ID: MW-2004**

### **Lab Sample ID: 500-237074-5**

No Detections.

### **Client Sample ID: TW-1**

### **Lab Sample ID: 500-237074-6**

No Detections.

### **Client Sample ID: D-18**

### **Lab Sample ID: 500-237074-7**

No Detections.

### **Client Sample ID: D-25R**

### **Lab Sample ID: 500-237074-8**

No Detections.

### **Client Sample ID: MW-1027**

### **Lab Sample ID: 500-237074-9**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	1.3		1.0	0.38	ug/L	1		8260D	Total/NA
Trichloroethene	30		0.50	0.16	ug/L	1		8260D	Total/NA

### **Client Sample ID: TW-4**

### **Lab Sample ID: 500-237074-10**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	15		1.0	0.38	ug/L	1		8260D	Total/NA
Trichloroethene	17		0.50	0.16	ug/L	1		8260D	Total/NA

### **Client Sample ID: MW-1026**

### **Lab Sample ID: 500-237074-11**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	12		1.0	0.38	ug/L	1		8260D	Total/NA
Trichloroethene	4.8		0.50	0.16	ug/L	1		8260D	Total/NA

### **Client Sample ID: EX-2R**

### **Lab Sample ID: 500-237074-12**

No Detections.

### **Client Sample ID: EX-3R**

### **Lab Sample ID: 500-237074-13**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	2.6		1.0	0.38	ug/L	1		8260D	Total/NA

This Detection Summary does not include radiochemical test results.

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## Detection Summary

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-237074-1

### Client Sample ID: EX-3R (Continued)

### Lab Sample ID: 500-237074-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	5.0		0.50	0.16	ug/L	1		8260D	Total/NA

### Client Sample ID: EX-7R

### Lab Sample ID: 500-237074-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	3.5		1.0	0.37	ug/L	1		8260D	Total/NA

### Client Sample ID: Trip Blank

### Lab Sample ID: 500-237074-15

No Detections.

This Detection Summary does not include radiochemical test results.

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## Method Summary

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-237074-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET CHI
5030B	Purge and Trap	SW846	EET CHI

**Protocol References:**

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

EET CHI = Eurofins Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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# Sample Summary

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-237074-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-237074-1	MW-2005R	Water	07/20/23 08:35	07/22/23 09:50
500-237074-2	MW-2011	Water	07/20/23 09:20	07/22/23 09:50
500-237074-3	D-15	Water	07/20/23 09:50	07/22/23 09:50
500-237074-4	TW-3	Water	07/20/23 10:35	07/22/23 09:50
500-237074-5	MW-2004	Water	07/20/23 11:10	07/22/23 09:50
500-237074-6	TW-1	Water	07/20/23 12:00	07/22/23 09:50
500-237074-7	D-18	Water	07/20/23 13:15	07/22/23 09:50
500-237074-8	D-25R	Water	07/21/23 09:00	07/22/23 09:50
500-237074-9	MW-1027	Water	07/21/23 09:40	07/22/23 09:50
500-237074-10	TW-4	Water	07/21/23 10:25	07/22/23 09:50
500-237074-11	MW-1026	Water	07/20/23 13:55	07/22/23 09:50
500-237074-12	EX-2R	Water	07/21/23 11:10	07/22/23 09:50
500-237074-13	EX-3R	Water	07/21/23 11:20	07/22/23 09:50
500-237074-14	EX-7R	Water	07/21/23 10:50	07/22/23 09:50
500-237074-15	Trip Blank	Water	07/20/23 00:00	07/22/23 09:50

# Client Sample Results

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-237074-1

**Client Sample ID: MW-2005R**

**Lab Sample ID: 500-237074-1**

Date Collected: 07/20/23 08:35

Matrix: Water

Date Received: 07/22/23 09:50

**Method: SW846 8260D - Volatile Organic Compounds by GC/MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	<0.37		1.0	0.37	ug/L			08/01/23 12:21	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			08/01/23 12:21	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			08/01/23 12:21	1
Trichloroethene	<0.16		0.50	0.16	ug/L			08/01/23 12:21	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			08/01/23 12:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	117		72 - 124		08/01/23 12:21	1
Dibromofluoromethane (Surr)	97		75 - 120		08/01/23 12:21	1
1,2-Dichloroethane-d4 (Surr)	97		75 - 126		08/01/23 12:21	1
Toluene-d8 (Surr)	106		75 - 120		08/01/23 12:21	1

# Client Sample Results

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-237074-1

**Client Sample ID: MW-2011**

**Lab Sample ID: 500-237074-2**

Date Collected: 07/20/23 09:20

Matrix: Water

Date Received: 07/22/23 09:50

## Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	<0.37		1.0	0.37	ug/L			08/01/23 12:46	1
<b>1,1,1-Trichloroethane</b>	<b>0.71</b>	<b>J</b>	1.0	0.38	ug/L			08/01/23 12:46	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			08/01/23 12:46	1
<b>Trichloroethylene</b>	<b>3.1</b>		0.50	0.16	ug/L			08/01/23 12:46	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			08/01/23 12:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	115		72 - 124		08/01/23 12:46	1
Dibromofluoromethane (Surr)	95		75 - 120		08/01/23 12:46	1
1,2-Dichloroethane-d4 (Surr)	96		75 - 126		08/01/23 12:46	1
Toluene-d8 (Surr)	106		75 - 120		08/01/23 12:46	1

# Client Sample Results

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-237074-1

**Client Sample ID: D-15**  
**Date Collected: 07/20/23 09:50**  
**Date Received: 07/22/23 09:50**

**Lab Sample ID: 500-237074-3**  
**Matrix: Water**

## Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Tetrachloroethene</b>	<b>5.9</b>		1.0	0.37	ug/L			08/01/23 13:11	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			08/01/23 13:11	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			08/01/23 13:11	1
<b>Trichloroethene</b>	<b>6.0</b>		0.50	0.16	ug/L			08/01/23 13:11	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			08/01/23 13:11	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	114		72 - 124					08/01/23 13:11	1
Dibromofluoromethane (Surr)	93		75 - 120					08/01/23 13:11	1
1,2-Dichloroethane-d4 (Surr)	96		75 - 126					08/01/23 13:11	1
Toluene-d8 (Surr)	107		75 - 120					08/01/23 13:11	1

# Client Sample Results

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-237074-1

**Client Sample ID: TW-3**

Date Collected: 07/20/23 10:35  
Date Received: 07/22/23 09:50

**Lab Sample ID: 500-237074-4**

Matrix: Water

**Method: SW846 8260D - Volatile Organic Compounds by GC/MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	<0.37		1.0	0.37	ug/L			08/01/23 13:36	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			08/01/23 13:36	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			08/01/23 13:36	1
Trichloroethene	<0.16		0.50	0.16	ug/L			08/01/23 13:36	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			08/01/23 13:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	113		72 - 124		08/01/23 13:36	1
Dibromofluoromethane (Surr)	98		75 - 120		08/01/23 13:36	1
1,2-Dichloroethane-d4 (Surr)	100		75 - 126		08/01/23 13:36	1
Toluene-d8 (Surr)	106		75 - 120		08/01/23 13:36	1

# Client Sample Results

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-237074-1

**Client Sample ID: MW-2004**

**Lab Sample ID: 500-237074-5**

**Matrix: Water**

Date Collected: 07/20/23 11:10  
Date Received: 07/22/23 09:50

**Method: SW846 8260D - Volatile Organic Compounds by GC/MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	<0.37		1.0	0.37	ug/L			08/01/23 14:01	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			08/01/23 14:01	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			08/01/23 14:01	1
Trichloroethene	<0.16		0.50	0.16	ug/L			08/01/23 14:01	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			08/01/23 14:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	115		72 - 124		08/01/23 14:01	1
Dibromofluoromethane (Surr)	96		75 - 120		08/01/23 14:01	1
1,2-Dichloroethane-d4 (Surr)	99		75 - 126		08/01/23 14:01	1
Toluene-d8 (Surr)	107		75 - 120		08/01/23 14:01	1

# Client Sample Results

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-237074-1

**Client Sample ID: TW-1**

Date Collected: 07/20/23 12:00

Date Received: 07/22/23 09:50

**Lab Sample ID: 500-237074-6**

Matrix: Water

**Method: SW846 8260D - Volatile Organic Compounds by GC/MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	<0.37		1.0	0.37	ug/L			08/01/23 14:26	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			08/01/23 14:26	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			08/01/23 14:26	1
Trichloroethene	<0.16		0.50	0.16	ug/L			08/01/23 14:26	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			08/01/23 14:26	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	113		72 - 124					08/01/23 14:26	1
Dibromofluoromethane (Surr)	95		75 - 120					08/01/23 14:26	1
1,2-Dichloroethane-d4 (Surr)	98		75 - 126					08/01/23 14:26	1
Toluene-d8 (Surr)	107		75 - 120					08/01/23 14:26	1

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# Client Sample Results

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-237074-1

**Client Sample ID: D-18**

**Lab Sample ID: 500-237074-7**

Date Collected: 07/20/23 13:15

Matrix: Water

Date Received: 07/22/23 09:50

**Method: SW846 8260D - Volatile Organic Compounds by GC/MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	<0.37		1.0	0.37	ug/L			08/01/23 14:51	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			08/01/23 14:51	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			08/01/23 14:51	1
Trichloroethene	<0.16		0.50	0.16	ug/L			08/01/23 14:51	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			08/01/23 14:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	125	S1+	72 - 124		08/01/23 14:51	1
Dibromofluoromethane (Surr)	96		75 - 120		08/01/23 14:51	1
1,2-Dichloroethane-d4 (Surr)	102		75 - 126		08/01/23 14:51	1
Toluene-d8 (Surr)	108		75 - 120		08/01/23 14:51	1

# Client Sample Results

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-237074-1

**Client Sample ID: D-25R**  
**Date Collected: 07/21/23 09:00**  
**Date Received: 07/22/23 09:50**

**Lab Sample ID: 500-237074-8**  
**Matrix: Water**

## Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	<0.37		1.0	0.37	ug/L			08/01/23 15:16	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			08/01/23 15:16	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			08/01/23 15:16	1
Trichloroethene	<0.16		0.50	0.16	ug/L			08/01/23 15:16	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			08/01/23 15:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	113		72 - 124					08/01/23 15:16	1
Dibromofluoromethane (Surr)	96		75 - 120					08/01/23 15:16	1
1,2-Dichloroethane-d4 (Surr)	102		75 - 126					08/01/23 15:16	1
Toluene-d8 (Surr)	103		75 - 120					08/01/23 15:16	1

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# Client Sample Results

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-237074-1

**Client Sample ID: MW-1027**

**Lab Sample ID: 500-237074-9**

**Matrix: Water**

Date Collected: 07/21/23 09:40  
Date Received: 07/22/23 09:50

**Method: SW846 8260D - Volatile Organic Compounds by GC/MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	<0.37		1.0	0.37	ug/L			08/01/23 15:41	1
<b>1,1,1-Trichloroethane</b>	<b>1.3</b>		1.0	0.38	ug/L			08/01/23 15:41	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			08/01/23 15:41	1
<b>Trichloroethylene</b>	<b>30</b>		0.50	0.16	ug/L			08/01/23 15:41	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			08/01/23 15:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	118		72 - 124		08/01/23 15:41	1
Dibromofluoromethane (Surr)	91		75 - 120		08/01/23 15:41	1
1,2-Dichloroethane-d4 (Surr)	98		75 - 126		08/01/23 15:41	1
Toluene-d8 (Surr)	109		75 - 120		08/01/23 15:41	1

# Client Sample Results

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-237074-1

**Client Sample ID: TW-4**

Date Collected: 07/21/23 10:25

Date Received: 07/22/23 09:50

**Lab Sample ID: 500-237074-10**

Matrix: Water

## Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			08/02/23 23:23	1
Bromobenzene	<0.36		1.0	0.36	ug/L			08/02/23 23:23	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			08/02/23 23:23	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			08/02/23 23:23	1
Bromoform	<0.48		1.0	0.48	ug/L			08/02/23 23:23	1
Bromomethane	<0.80		3.0	0.80	ug/L			08/02/23 23:23	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			08/02/23 23:23	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			08/02/23 23:23	1
Chloroethane	<0.51		1.0	0.51	ug/L			08/02/23 23:23	1
Chloroform	<0.37		2.0	0.37	ug/L			08/02/23 23:23	1
Chloromethane	<0.32		5.0	0.32	ug/L			08/02/23 23:23	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			08/02/23 23:23	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			08/02/23 23:23	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			08/02/23 23:23	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			08/02/23 23:23	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			08/02/23 23:23	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			08/02/23 23:23	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			08/02/23 23:23	1
Dibromomethane	<0.27		1.0	0.27	ug/L			08/02/23 23:23	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			08/02/23 23:23	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			08/02/23 23:23	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			08/02/23 23:23	1
Dichlorodifluoromethane	<0.67		3.0	0.67	ug/L			08/02/23 23:23	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			08/02/23 23:23	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			08/02/23 23:23	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			08/02/23 23:23	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			08/02/23 23:23	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			08/02/23 23:23	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			08/02/23 23:23	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			08/02/23 23:23	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			08/02/23 23:23	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			08/02/23 23:23	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			08/02/23 23:23	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			08/02/23 23:23	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			08/02/23 23:23	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			08/02/23 23:23	1
Naphthalene	<0.34		1.0	0.34	ug/L			08/02/23 23:23	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			08/02/23 23:23	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			08/02/23 23:23	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			08/02/23 23:23	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			08/02/23 23:23	1
Styrene	<0.39		1.0	0.39	ug/L			08/02/23 23:23	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			08/02/23 23:23	1
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			08/02/23 23:23	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			08/02/23 23:23	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			08/02/23 23:23	1
Toluene	<0.15		0.50	0.15	ug/L			08/02/23 23:23	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			08/02/23 23:23	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			08/02/23 23:23	1

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# Client Sample Results

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-237074-1

**Client Sample ID: TW-4**

**Lab Sample ID: 500-237074-10**

Date Collected: 07/21/23 10:25

Matrix: Water

Date Received: 07/22/23 09:50

## Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			08/02/23 23:23	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			08/02/23 23:23	1
<b>1,1,1-Trichloroethane</b>	<b>15</b>		1.0	0.38	ug/L			08/02/23 23:23	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			08/02/23 23:23	1
<b>Trichloroethene</b>	<b>17</b>		0.50	0.16	ug/L			08/02/23 23:23	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			08/02/23 23:23	1
1,2,3-Trichloropropane	<0.41		2.0	0.41	ug/L			08/02/23 23:23	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			08/02/23 23:23	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			08/02/23 23:23	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			08/02/23 23:23	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			08/02/23 23:23	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>	
4-Bromofluorobenzene (Surr)	110		72 - 124				08/02/23 23:23	1	
Dibromofluoromethane (Surr)	102		75 - 120				08/02/23 23:23	1	
1,2-Dichloroethane-d4 (Surr)	103		75 - 126				08/02/23 23:23	1	
Toluene-d8 (Surr)	106		75 - 120				08/02/23 23:23	1	

# Client Sample Results

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-237074-1

**Client Sample ID: MW-1026**  
**Date Collected: 07/20/23 13:55**  
**Date Received: 07/22/23 09:50**

**Lab Sample ID: 500-237074-11**  
**Matrix: Water**

## Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	<0.37		1.0	0.37	ug/L			08/01/23 16:06	1
<b>1,1,1-Trichloroethane</b>	<b>12</b>		1.0	0.38	ug/L			08/01/23 16:06	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			08/01/23 16:06	1
<b>Trichloroethene</b>	<b>4.8</b>		0.50	0.16	ug/L			08/01/23 16:06	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			08/01/23 16:06	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	124		72 - 124					08/01/23 16:06	1
Dibromofluoromethane (Surr)	90		75 - 120					08/01/23 16:06	1
1,2-Dichloroethane-d4 (Surr)	98		75 - 126					08/01/23 16:06	1
Toluene-d8 (Surr)	111		75 - 120					08/01/23 16:06	1

# Client Sample Results

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-237074-1

**Client Sample ID: EX-2R**  
**Date Collected: 07/21/23 11:10**  
**Date Received: 07/22/23 09:50**

**Lab Sample ID: 500-237074-12**  
**Matrix: Water**

## Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	<0.37		1.0	0.37	ug/L			08/01/23 16:31	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			08/01/23 16:31	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			08/01/23 16:31	1
Trichloroethene	<0.16		0.50	0.16	ug/L			08/01/23 16:31	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			08/01/23 16:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	119		72 - 124					08/01/23 16:31	1
Dibromofluoromethane (Surr)	94		75 - 120					08/01/23 16:31	1
1,2-Dichloroethane-d4 (Surr)	98		75 - 126					08/01/23 16:31	1
Toluene-d8 (Surr)	108		75 - 120					08/01/23 16:31	1

# Client Sample Results

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-237074-1

**Client Sample ID: EX-3R**  
**Date Collected: 07/21/23 11:20**  
**Date Received: 07/22/23 09:50**

**Lab Sample ID: 500-237074-13**  
**Matrix: Water**

## Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	<0.37		1.0	0.37	ug/L			08/01/23 16:56	1
<b>1,1,1-Trichloroethane</b>	<b>2.6</b>		1.0	0.38	ug/L			08/01/23 16:56	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			08/01/23 16:56	1
<b>Trichloroethylene</b>	<b>5.0</b>		0.50	0.16	ug/L			08/01/23 16:56	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			08/01/23 16:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	116		72 - 124		08/01/23 16:56	1
Dibromofluoromethane (Surr)	94		75 - 120		08/01/23 16:56	1
1,2-Dichloroethane-d4 (Surr)	97		75 - 126		08/01/23 16:56	1
Toluene-d8 (Surr)	107		75 - 120		08/01/23 16:56	1

# Client Sample Results

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-237074-1

**Client Sample ID: EX-7R**  
**Date Collected: 07/21/23 10:50**  
**Date Received: 07/22/23 09:50**

**Lab Sample ID: 500-237074-14**  
**Matrix: Water**

## Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Tetrachloroethene</b>	<b>3.5</b>		1.0	0.37	ug/L			08/01/23 17:21	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			08/01/23 17:21	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			08/01/23 17:21	1
Trichloroethene	<0.16		0.50	0.16	ug/L			08/01/23 17:21	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			08/01/23 17:21	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>		<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	119			72 - 124				08/01/23 17:21	1
Dibromofluoromethane (Surr)	94			75 - 120				08/01/23 17:21	1
1,2-Dichloroethane-d4 (Surr)	101			75 - 126				08/01/23 17:21	1
Toluene-d8 (Surr)	108			75 - 120				08/01/23 17:21	1

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# Client Sample Results

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-237074-1

**Client Sample ID: Trip Blank**

**Lab Sample ID: 500-237074-15**

**Matrix: Water**

Date Collected: 07/20/23 00:00

Date Received: 07/22/23 09:50

**Method: SW846 8260D - Volatile Organic Compounds by GC/MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			08/02/23 22:58	1
Bromobenzene	<0.36		1.0	0.36	ug/L			08/02/23 22:58	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			08/02/23 22:58	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			08/02/23 22:58	1
Bromoform	<0.48		1.0	0.48	ug/L			08/02/23 22:58	1
Bromomethane	<0.80		3.0	0.80	ug/L			08/02/23 22:58	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			08/02/23 22:58	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			08/02/23 22:58	1
Chloroethane	<0.51		1.0	0.51	ug/L			08/02/23 22:58	1
Chloroform	<0.37		2.0	0.37	ug/L			08/02/23 22:58	1
Chloromethane	<0.32		5.0	0.32	ug/L			08/02/23 22:58	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			08/02/23 22:58	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			08/02/23 22:58	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			08/02/23 22:58	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			08/02/23 22:58	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			08/02/23 22:58	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			08/02/23 22:58	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			08/02/23 22:58	1
Dibromomethane	<0.27		1.0	0.27	ug/L			08/02/23 22:58	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			08/02/23 22:58	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			08/02/23 22:58	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			08/02/23 22:58	1
Dichlorodifluoromethane	<0.67		3.0	0.67	ug/L			08/02/23 22:58	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			08/02/23 22:58	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			08/02/23 22:58	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			08/02/23 22:58	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			08/02/23 22:58	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			08/02/23 22:58	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			08/02/23 22:58	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			08/02/23 22:58	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			08/02/23 22:58	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			08/02/23 22:58	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			08/02/23 22:58	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			08/02/23 22:58	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			08/02/23 22:58	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			08/02/23 22:58	1
Naphthalene	<0.34		1.0	0.34	ug/L			08/02/23 22:58	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			08/02/23 22:58	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			08/02/23 22:58	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			08/02/23 22:58	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			08/02/23 22:58	1
Styrene	<0.39		1.0	0.39	ug/L			08/02/23 22:58	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			08/02/23 22:58	1
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			08/02/23 22:58	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			08/02/23 22:58	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			08/02/23 22:58	1
Toluene	<0.15		0.50	0.15	ug/L			08/02/23 22:58	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			08/02/23 22:58	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			08/02/23 22:58	1

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# Client Sample Results

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-237074-1

**Client Sample ID: Trip Blank**  
**Date Collected: 07/20/23 00:00**  
**Date Received: 07/22/23 09:50**

**Lab Sample ID: 500-237074-15**  
**Matrix: Water**

## Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			08/02/23 22:58	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			08/02/23 22:58	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			08/02/23 22:58	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			08/02/23 22:58	1
Trichloroethene	<0.16		0.50	0.16	ug/L			08/02/23 22:58	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			08/02/23 22:58	1
1,2,3-Trichloropropane	<0.41		2.0	0.41	ug/L			08/02/23 22:58	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			08/02/23 22:58	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			08/02/23 22:58	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			08/02/23 22:58	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			08/02/23 22:58	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>	
4-Bromofluorobenzene (Surr)	108		72 - 124				08/02/23 22:58	1	
Dibromofluoromethane (Surr)	98		75 - 120				08/02/23 22:58	1	
1,2-Dichloroethane-d4 (Surr)	103		75 - 126				08/02/23 22:58	1	
Toluene-d8 (Surr)	106		75 - 120				08/02/23 22:58	1	

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# Definitions/Glossary

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-237074-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1+	Surrogate recovery exceeds control limits, high biased.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
D	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

# QC Association Summary

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-237074-1

## GC/MS VOA

### Analysis Batch: 725704

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-237074-1	MW-2005R	Total/NA	Water	8260D	1
500-237074-2	MW-2011	Total/NA	Water	8260D	2
500-237074-3	D-15	Total/NA	Water	8260D	3
500-237074-4	TW-3	Total/NA	Water	8260D	4
500-237074-5	MW-2004	Total/NA	Water	8260D	5
500-237074-6	TW-1	Total/NA	Water	8260D	6
500-237074-7	D-18	Total/NA	Water	8260D	7
500-237074-8	D-25R	Total/NA	Water	8260D	8
500-237074-9	MW-1027	Total/NA	Water	8260D	9
500-237074-11	MW-1026	Total/NA	Water	8260D	10
500-237074-12	EX-2R	Total/NA	Water	8260D	11
500-237074-13	EX-3R	Total/NA	Water	8260D	12
500-237074-14	EX-7R	Total/NA	Water	8260D	13
MB 500-725704/7	Method Blank	Total/NA	Water	8260D	14
LCS 500-725704/5	Lab Control Sample	Total/NA	Water	8260D	15
500-237074-14 MS	EX-7R	Total/NA	Water	8260D	
500-237074-14 MSD	EX-7R	Total/NA	Water	8260D	

### Analysis Batch: 726059

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-237074-10	TW-4	Total/NA	Water	8260D	14
500-237074-15	Trip Blank	Total/NA	Water	8260D	15
MB 500-726059/8	Method Blank	Total/NA	Water	8260D	
LCS 500-726059/5	Lab Control Sample	Total/NA	Water	8260D	

# Surrogate Summary

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-237074-1

## Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (72-124)	DBFM (75-120)	DCA (75-126)	TOL (75-120)
500-237074-1	MW-2005R	117	97	97	106
500-237074-2	MW-2011	115	95	96	106
500-237074-3	D-15	114	93	96	107
500-237074-4	TW-3	113	98	100	106
500-237074-5	MW-2004	115	96	99	107
500-237074-6	TW-1	113	95	98	107
500-237074-7	D-18	125 S1+	96	102	108
500-237074-8	D-25R	113	96	102	103
500-237074-9	MW-1027	118	91	98	109
500-237074-10	TW-4	110	102	103	106
500-237074-11	MW-1026	124	90	98	111
500-237074-12	EX-2R	119	94	98	108
500-237074-13	EX-3R	116	94	97	107
500-237074-14	EX-7R	119	94	101	108
500-237074-14 MS	EX-7R	112	92	99	109
500-237074-14 MSD	EX-7R	112	97	96	109
500-237074-15	Trip Blank	108	98	103	106
LCS 500-725704/5	Lab Control Sample	104	100	91	102
LCS 500-726059/5	Lab Control Sample	108	97	99	109
MB 500-725704/7	Method Blank	110	97	93	106
MB 500-726059/8	Method Blank	115	96	103	109

### Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

DCA = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

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# QC Sample Results

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-237074-1

## Method: 8260D - Volatile Organic Compounds by GC/MS

**Lab Sample ID: MB 500-725704/7**

**Matrix: Water**

**Analysis Batch: 725704**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	<0.37		1.0	0.37	ug/L			08/01/23 10:27	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			08/01/23 10:27	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			08/01/23 10:27	1
Trichloroethene	<0.16		0.50	0.16	ug/L			08/01/23 10:27	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			08/01/23 10:27	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		72 - 124		08/01/23 10:27	1
Dibromofluoromethane (Surr)	97		75 - 120		08/01/23 10:27	1
1,2-Dichloroethane-d4 (Surr)	93		75 - 126		08/01/23 10:27	1
Toluene-d8 (Surr)	106		75 - 120		08/01/23 10:27	1

**Lab Sample ID: LCS 500-725704/5**

**Matrix: Water**

**Analysis Batch: 725704**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Tetrachloroethene	50.0	56.0		ug/L		112	70 - 128
1,1,1-Trichloroethane	50.0	50.4		ug/L		101	70 - 125
1,1,2-Trichloroethane	50.0	48.7		ug/L		97	71 - 130
Trichloroethene	50.0	48.9		ug/L		98	70 - 125
Vinyl chloride	50.0	46.8		ug/L		94	64 - 126

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	104		72 - 124
Dibromofluoromethane (Surr)	100		75 - 120
1,2-Dichloroethane-d4 (Surr)	91		75 - 126
Toluene-d8 (Surr)	102		75 - 120

**Lab Sample ID: 500-237074-14 MS**

**Matrix: Water**

**Analysis Batch: 725704**

**Client Sample ID: EX-7R**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Tetrachloroethene	3.5		50.0	55.1		ug/L		103	70 - 128
1,1,1-Trichloroethane	<0.38		50.0	43.7		ug/L		87	70 - 125
1,1,2-Trichloroethane	<0.35		50.0	50.1		ug/L		100	71 - 130
Trichloroethene	<0.16		50.0	46.1		ug/L		92	70 - 125
Vinyl chloride	<0.20		50.0	43.8		ug/L		88	64 - 126

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	112		72 - 124
Dibromofluoromethane (Surr)	92		75 - 120
1,2-Dichloroethane-d4 (Surr)	99		75 - 126
Toluene-d8 (Surr)	109		75 - 120

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# QC Sample Results

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-237074-1

## Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

**Lab Sample ID: 500-237074-14 MSD**

**Matrix: Water**

**Analysis Batch: 725704**

**Client Sample ID: EX-7R**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
Tetrachloroethene	3.5		50.0	59.8		ug/L		113	70 - 128	8	20
1,1,1-Trichloroethane	<0.38		50.0	51.6		ug/L		103	70 - 125	17	20
1,1,2-Trichloroethane	<0.35		50.0	56.2		ug/L		112	71 - 130	11	20
Trichloroethene	<0.16		50.0	50.0		ug/L		100	70 - 125	8	20
Vinyl chloride	<0.20		50.0	46.4		ug/L		93	64 - 126	6	20

Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits
4-Bromofluorobenzene (Surr)	112		72 - 124
Dibromofluoromethane (Surr)	97		75 - 120
1,2-Dichloroethane-d4 (Surr)	96		75 - 126
Toluene-d8 (Surr)	109		75 - 120

**Lab Sample ID: MB 500-726059/8**

**Matrix: Water**

**Analysis Batch: 726059**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			08/02/23 22:08	1
Bromobenzene	<0.36		1.0	0.36	ug/L			08/02/23 22:08	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			08/02/23 22:08	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			08/02/23 22:08	1
Bromoform	<0.48		1.0	0.48	ug/L			08/02/23 22:08	1
Bromomethane	<0.80		3.0	0.80	ug/L			08/02/23 22:08	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			08/02/23 22:08	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			08/02/23 22:08	1
Chloroethane	<0.51		1.0	0.51	ug/L			08/02/23 22:08	1
Chloroform	<0.37		2.0	0.37	ug/L			08/02/23 22:08	1
Chloromethane	<0.32		5.0	0.32	ug/L			08/02/23 22:08	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			08/02/23 22:08	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			08/02/23 22:08	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			08/02/23 22:08	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			08/02/23 22:08	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			08/02/23 22:08	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			08/02/23 22:08	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			08/02/23 22:08	1
Dibromomethane	<0.27		1.0	0.27	ug/L			08/02/23 22:08	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			08/02/23 22:08	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			08/02/23 22:08	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			08/02/23 22:08	1
Dichlorodifluoromethane	<0.67		3.0	0.67	ug/L			08/02/23 22:08	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			08/02/23 22:08	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			08/02/23 22:08	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			08/02/23 22:08	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			08/02/23 22:08	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			08/02/23 22:08	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			08/02/23 22:08	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			08/02/23 22:08	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			08/02/23 22:08	1

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# QC Sample Results

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-237074-1

## Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

**Lab Sample ID:** MB 500-726059/8

**Matrix:** Water

**Analysis Batch:** 726059

**Client Sample ID:** Method Blank  
**Prep Type:** Total/NA

Analyte	MB	MB	Qualifer	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result									
Hexachlorobutadiene	<0.45			1.0	0.45	ug/L			08/02/23 22:08	1
Isopropylbenzene	<0.39			1.0	0.39	ug/L			08/02/23 22:08	1
Isopropyl ether	<0.28			1.0	0.28	ug/L			08/02/23 22:08	1
Methylene Chloride	<1.6			5.0	1.6	ug/L			08/02/23 22:08	1
Methyl tert-butyl ether	<0.39			1.0	0.39	ug/L			08/02/23 22:08	1
Naphthalene	<0.34			1.0	0.34	ug/L			08/02/23 22:08	1
n-Butylbenzene	<0.39			1.0	0.39	ug/L			08/02/23 22:08	1
N-Propylbenzene	<0.41			1.0	0.41	ug/L			08/02/23 22:08	1
p-Isopropyltoluene	<0.36			1.0	0.36	ug/L			08/02/23 22:08	1
sec-Butylbenzene	<0.40			1.0	0.40	ug/L			08/02/23 22:08	1
Styrene	<0.39			1.0	0.39	ug/L			08/02/23 22:08	1
tert-Butylbenzene	<0.40			1.0	0.40	ug/L			08/02/23 22:08	1
1,1,1,2-Tetrachloroethane	<0.46			1.0	0.46	ug/L			08/02/23 22:08	1
1,1,2,2-Tetrachloroethane	<0.40			1.0	0.40	ug/L			08/02/23 22:08	1
Tetrachloroethene	<0.37			1.0	0.37	ug/L			08/02/23 22:08	1
Toluene	<0.15			0.50	0.15	ug/L			08/02/23 22:08	1
trans-1,2-Dichloroethene	<0.35			1.0	0.35	ug/L			08/02/23 22:08	1
trans-1,3-Dichloropropene	<0.36			1.0	0.36	ug/L			08/02/23 22:08	1
1,2,3-Trichlorobenzene	<0.46			1.0	0.46	ug/L			08/02/23 22:08	1
1,2,4-Trichlorobenzene	<0.34			1.0	0.34	ug/L			08/02/23 22:08	1
1,1,1-Trichloroethane	<0.38			1.0	0.38	ug/L			08/02/23 22:08	1
1,1,2-Trichloroethane	<0.35			1.0	0.35	ug/L			08/02/23 22:08	1
Trichloroethene	<0.16			0.50	0.16	ug/L			08/02/23 22:08	1
Trichlorofluoromethane	<0.43			1.0	0.43	ug/L			08/02/23 22:08	1
1,2,3-Trichloropropane	<0.41			2.0	0.41	ug/L			08/02/23 22:08	1
1,2,4-Trimethylbenzene	<0.36			1.0	0.36	ug/L			08/02/23 22:08	1
1,3,5-Trimethylbenzene	<0.25			1.0	0.25	ug/L			08/02/23 22:08	1
Vinyl chloride	<0.20			1.0	0.20	ug/L			08/02/23 22:08	1
Xylenes, Total	<0.22			1.0	0.22	ug/L			08/02/23 22:08	1

Surrogate	MB	MB	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	115		115		72 - 124			1
Dibromofluoromethane (Surr)	96		96		75 - 120			1
1,2-Dichloroethane-d4 (Surr)	103		103		75 - 126			1
Toluene-d8 (Surr)	109		109		75 - 120			1

**Lab Sample ID:** LCS 500-726059/5

**Matrix:** Water

**Analysis Batch:** 726059

**Client Sample ID:** Lab Control Sample  
**Prep Type:** Total/NA

Analyte	Spike Added	LC S	LC S	Unit	D	%Rec	%Rec
		Result	Qualifier				Limits
Benzene	50.0	46.2		ug/L		92	70 - 120
Bromobenzene	50.0	58.1		ug/L		116	70 - 122
Bromochloromethane	50.0	46.6		ug/L		93	65 - 122
Bromodichloromethane	50.0	50.0		ug/L		100	69 - 120
Bromoform	50.0	47.8		ug/L		96	56 - 132
Bromomethane	50.0	59.0		ug/L		118	40 - 152
Carbon tetrachloride	50.0	52.8		ug/L		106	59 - 133

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# QC Sample Results

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-237074-1

## Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

**Lab Sample ID: LCS 500-726059/5**

**Matrix: Water**

**Analysis Batch: 726059**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Chlorobenzene	50.0	53.8	ug/L		108	70 - 120	
Chloroethane	50.0	48.6	ug/L		97	48 - 136	
Chloroform	50.0	46.2	ug/L		92	70 - 120	
Chloromethane	50.0	38.1	ug/L		76	56 - 152	
2-Chlorotoluene	50.0	54.0	ug/L		108	70 - 125	
4-Chlorotoluene	50.0	54.7	ug/L		109	68 - 124	
cis-1,2-Dichloroethene	50.0	48.3	ug/L		97	70 - 125	
cis-1,3-Dichloropropene	50.0	55.9	ug/L		112	64 - 127	
Dibromochloromethane	50.0	55.8	ug/L		112	68 - 125	
1,2-Dibromo-3-Chloropropane	50.0	46.7	ug/L		93	56 - 123	
1,2-Dibromoethane	50.0	57.5	ug/L		115	70 - 125	
Dibromomethane	50.0	53.6	ug/L		107	70 - 120	
1,2-Dichlorobenzene	50.0	52.3	ug/L		105	70 - 125	
1,3-Dichlorobenzene	50.0	54.7	ug/L		109	70 - 125	
1,4-Dichlorobenzene	50.0	54.2	ug/L		108	70 - 120	
Dichlorodifluoromethane	50.0	41.2	ug/L		82	40 - 159	
1,1-Dichloroethane	50.0	50.2	ug/L		100	70 - 125	
1,2-Dichloroethane	50.0	52.3	ug/L		105	68 - 127	
1,1-Dichloroethene	50.0	46.7	ug/L		93	67 - 122	
1,2-Dichloropropane	50.0	51.5	ug/L		103	67 - 130	
1,3-Dichloropropane	50.0	57.6	ug/L		115	62 - 136	
2,2-Dichloropropane	50.0	49.9	ug/L		100	58 - 139	
1,1-Dichloropropene	50.0	50.0	ug/L		100	70 - 121	
Ethylbenzene	50.0	49.5	ug/L		99	70 - 123	
Hexachlorobutadiene	50.0	59.1	ug/L		118	51 - 150	
Isopropylbenzene	50.0	56.0	ug/L		112	70 - 126	
Methylene Chloride	50.0	49.4	ug/L		99	69 - 125	
Methyl tert-butyl ether	50.0	47.7	ug/L		95	55 - 123	
Naphthalene	50.0	44.7	ug/L		89	53 - 144	
n-Butylbenzene	50.0	52.4	ug/L		105	68 - 125	
N-Propylbenzene	50.0	55.5	ug/L		111	69 - 127	
p-Isopropyltoluene	50.0	54.1	ug/L		108	70 - 125	
sec-Butylbenzene	50.0	54.4	ug/L		109	70 - 123	
Styrene	50.0	50.5	ug/L		101	70 - 120	
tert-Butylbenzene	50.0	54.3	ug/L		109	70 - 121	
1,1,1,2-Tetrachloroethane	50.0	53.8	ug/L		108	70 - 125	
1,1,2,2-Tetrachloroethane	50.0	53.5	ug/L		107	62 - 140	
Tetrachloroethene	50.0	59.4	ug/L		119	70 - 128	
Toluene	50.0	51.4	ug/L		103	70 - 125	
trans-1,2-Dichloroethene	50.0	48.0	ug/L		96	70 - 125	
trans-1,3-Dichloropropene	50.0	54.0	ug/L		108	62 - 128	
1,2,3-Trichlorobenzene	50.0	50.8	ug/L		102	51 - 145	
1,2,4-Trichlorobenzene	50.0	53.7	ug/L		107	57 - 137	
1,1,1-Trichloroethane	50.0	50.4	ug/L		101	70 - 125	
1,1,2-Trichloroethane	50.0	54.7	ug/L		109	71 - 130	
Trichloroethene	50.0	50.4	ug/L		101	70 - 125	
Trichlorofluoromethane	50.0	48.5	ug/L		97	55 - 128	
1,2,3-Trichloropropene	50.0	55.5	ug/L		111	50 - 133	
1,2,4-Trimethylbenzene	50.0	52.6	ug/L		105	70 - 123	

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# QC Sample Results

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-237074-1

## Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 500-726059/5

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA

Matrix: Water

Analysis Batch: 726059

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
1,3,5-Trimethylbenzene	50.0	54.1		ug/L		108	70 - 123
Vinyl chloride	50.0	42.7		ug/L		85	64 - 126
Xylenes, Total	100	98.4		ug/L		98	70 - 125

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	108		72 - 124
Dibromofluoromethane (Surr)	97		75 - 120
1,2-Dichloroethane-d4 (Surr)	99		75 - 126
Toluene-d8 (Surr)	109		75 - 120

Eurofins Chicago

# Lab Chronicle

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-237074-1

**Client Sample ID: MW-2005R**  
Date Collected: 07/20/23 08:35  
Date Received: 07/22/23 09:50

**Lab Sample ID: 500-237074-1**  
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	725704	W1T	EET CHI	08/01/23 12:21

**Client Sample ID: MW-2011**  
Date Collected: 07/20/23 09:20  
Date Received: 07/22/23 09:50

**Lab Sample ID: 500-237074-2**  
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	725704	W1T	EET CHI	08/01/23 12:46

**Client Sample ID: D-15**  
Date Collected: 07/20/23 09:50  
Date Received: 07/22/23 09:50

**Lab Sample ID: 500-237074-3**  
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	725704	W1T	EET CHI	08/01/23 13:11

**Client Sample ID: TW-3**  
Date Collected: 07/20/23 10:35  
Date Received: 07/22/23 09:50

**Lab Sample ID: 500-237074-4**  
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	725704	W1T	EET CHI	08/01/23 13:36

**Client Sample ID: MW-2004**  
Date Collected: 07/20/23 11:10  
Date Received: 07/22/23 09:50

**Lab Sample ID: 500-237074-5**  
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	725704	W1T	EET CHI	08/01/23 14:01

**Client Sample ID: TW-1**  
Date Collected: 07/20/23 12:00  
Date Received: 07/22/23 09:50

**Lab Sample ID: 500-237074-6**  
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	725704	W1T	EET CHI	08/01/23 14:26

**Client Sample ID: D-18**  
Date Collected: 07/20/23 13:15  
Date Received: 07/22/23 09:50

**Lab Sample ID: 500-237074-7**  
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	725704	W1T	EET CHI	08/01/23 14:51

Eurofins Chicago

# Lab Chronicle

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-237074-1

**Client Sample ID: D-25R**  
Date Collected: 07/21/23 09:00  
Date Received: 07/22/23 09:50

**Lab Sample ID: 500-237074-8**  
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	725704	W1T	EET CHI	08/01/23 15:16

**Client Sample ID: MW-1027**  
Date Collected: 07/21/23 09:40  
Date Received: 07/22/23 09:50

**Lab Sample ID: 500-237074-9**  
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	725704	W1T	EET CHI	08/01/23 15:41

**Client Sample ID: TW-4**  
Date Collected: 07/21/23 10:25  
Date Received: 07/22/23 09:50

**Lab Sample ID: 500-237074-10**  
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	726059	W1T	EET CHI	08/02/23 23:23

**Client Sample ID: MW-1026**  
Date Collected: 07/20/23 13:55  
Date Received: 07/22/23 09:50

**Lab Sample ID: 500-237074-11**  
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	725704	W1T	EET CHI	08/01/23 16:06

**Client Sample ID: EX-2R**  
Date Collected: 07/21/23 11:10  
Date Received: 07/22/23 09:50

**Lab Sample ID: 500-237074-12**  
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	725704	W1T	EET CHI	08/01/23 16:31

**Client Sample ID: EX-3R**  
Date Collected: 07/21/23 11:20  
Date Received: 07/22/23 09:50

**Lab Sample ID: 500-237074-13**  
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	725704	W1T	EET CHI	08/01/23 16:56

**Client Sample ID: EX-7R**  
Date Collected: 07/21/23 10:50  
Date Received: 07/22/23 09:50

**Lab Sample ID: 500-237074-14**  
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	725704	W1T	EET CHI	08/01/23 17:21

Eurofins Chicago

# Lab Chronicle

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-237074-1

**Client Sample ID: Trip Blank**  
**Date Collected: 07/20/23 00:00**  
**Date Received: 07/22/23 09:50**

**Lab Sample ID: 500-237074-15**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	726059	W1T	EET CHI	08/02/23 22:58

**Laboratory References:**

EET CHI = Eurofins Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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## Accreditation/Certification Summary

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-237074-1

### Laboratory: Eurofins Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Wisconsin	State	999580010	08-31-23

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## Chain of Custody Record

Ergonomics

Client Information		Sampler <b>Connor Lavzon</b>	Lab PM <b>Fredrick Sandie</b>	Carrier Tracking No(s)	COC No. <b>500-114490-45830 1</b>
Client Contact Mr. Mark Manthey		Phone <b>(262)203-1294</b>	E-Mail <b>Sandra.Fredrick@et.eurofinsus.com</b>	State of Origin <b>WI</b>	Page <b>Page 1 of 2</b>
Company <b>Tetra Tech GEO</b>		PWSID:	Analysis Requested		
Address 13555 Bishops Ct Suite 201		Due Date Requested			
City Brookfield		TAT Requested (days) <b>standard</b>			
State Zip WI 53005		Compliance Project. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Phone 262-792-1282(Tel)		PO #			
Email mark.manthey@tetratech.com		WO #			
Project Name: Pentair Delavan		Project # 50006640			
Site		SSOW#			
Sample Identification		Sample Date <b>7/20</b>	Sample Time <b>8:35</b>	Sample Type (C=comp, G=grab) <b>G</b>	Matrix (W=water S=solid, O=wastewater, T=tissue, A=air) <b>Water</b>
				Field Filtered Sample (Yes or No) <b>X</b>	Perform NS/MSD (Yes or No) <b>A</b>
				8260B VOCs - Wisconsin <b>PCE, TCE, TCA, Vinyl Chloride</b>	Total Number of containers <b>1</b>
				Special Instructions/Note	
<b>MW-2005R</b>		<b>7/20</b>	<b>8:35</b>	<b>G</b>	<b>Water</b>
<b>MW-2011</b>			<b>9:20</b>		<b>Water</b>
<b>D-15</b>			<b>9:50</b>		<b>Water</b>
<b>TW-3</b>			<b>10:35</b>		<b>Water</b>
<b>MW-2004</b>			<b>11:10</b>		<b>Water</b>
<b>TW-1</b>			<b>12:00</b>		<b>Water</b>
<b>D-18</b>			<b>13:15</b>		<b>Water</b>
<b>D-25R</b>		<b>7/21</b>	<b>9:00</b>		<b>Water</b>
<b>MW-1027</b>			<b>9:40</b>		<b>Water</b>
<b>TW-4</b>			<b>10:25</b>		<b>Water</b>
<b>MW-1026</b>		<b>7/20</b>	<b>13:55</b>		<b>Water</b>
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological				Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Deliverable Requested I II III IV Other (specify)					
Empty Kit Relinquished by <b>Connor Lavzon</b>		Date <b>7/21/23 13:00</b>	Time	Method of Shipment	
Relinquished by		Date/Time	Company	Received by	Date/Time
Relinquished by		Date/Time	Company	Received by	Date/Time
Custody Seals Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks <b>24-313</b>	

## Chain of Custody Record

Client Information		Sampler Connor Callon		Lab PM Fredrick Sandie		Carrier Tracking No(s)		COC No. 500-114490-45830 2			
Client Contact: Mr Mark Manthey		Phone (262) 203-1294		E-Mail Sandra Fredrick@et eurofinsus.com		State of Origin WI		Page Page 2 of 2			
Company Tetra Tech GEO		PWSID:		Analysis Requested						Job # 500-237074	
Address 13555 Bishops Ct Suite 201		Due Date Requested								Preservation Codes	
City Brookfield		TAT Requested (days): Standard								A HCL M Hexane	
State Zip WI 53005		Compliance Project <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No								B NaOH N None	
Phone 262-792-1282(Tel)		PC #								C Zn Acetate O AsNaO2	
Email mark.manthey@tetrtech.com		WO #								D Nitric Acid P Na2O4S	
Project Name Pentair Delavan		Project #: 50006640								E NaHSO4 Q Na2SO3	
Site SSOW#										F MeOH R - Na2S2O3	
Sample Identification		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, B=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MSM/SM (Yes or No)	8260B - VOCs - Wisconsin	PCE, TCE, TCA, Vinyl Chl	Total Number of containers	Other:
EX-2R		7/21	11:10		Water	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		Special Instructions/Note
EX-3R			11:20		Water	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
EX-7R			10:50		Water	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Trip Blank		—	—	—	Water	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
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## Login Sample Receipt Checklist

Client: Tetra Tech GEO

Job Number: 500-237074-1

**Login Number: 237074**

**List Source: Eurofins Chicago**

**List Number: 1**

**Creator: Scott, Sherri L**

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	False	Containers recd broken. Sufficient sample in remaining containers for analysis.
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

# ANALYTICAL REPORT

## PREPARED FOR

Attn: Mr. Mark Manthey

Tetra Tech GEO

13555 Bishops Ct

Suite 201

Brookfield, Wisconsin 53005

Generated 11/13/2023 12:37:11 PM

## JOB DESCRIPTION

Pentair Delavan

## JOB NUMBER

500-242012-1

Eurofins Chicago  
2417 Bond Street  
University Park IL 60484

See page two for job notes and contact information.

# Eurofins Chicago

## Job Notes

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of Eurofins Environment Testing North Central, LLC and its client. All questions regarding this report should be directed to the Eurofins Environment Testing North Central, LLC Project Manager who has signed this report.

Results relate only to the items tested and the sample(s) as received by the laboratory. The results, detection limits (LOD) and Quantitation Limits (LOQ) have been adjusted for sample dilutions and/or solids content.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Chicago Project Manager.

## Compliance Statement

The LOD and LOQ reported are adjusted by the dilution factor when a dilution factor greater than 1 is needed. Additionally, where results are indicated as being reported on a dry weight basis, the LOD and LOQ are adjusted for moisture content as well.

### Definitions of Limits

- LOD = Limit of Detection = MDL as defined by 40 CFR part 136 Appendix B
- LOQ = Limit of Quantitation =  $3.33 \times \text{LOD}$  as defined by Wisconsin
- RL = Report Limit = a concentration supported by a standard in the calibration curves

## Authorization



Generated  
11/13/2023 12:37:11 PM

Authorized for release by  
Sandie Fredrick, Project Manager II  
[Sandra.Fredrick@et.eurofinsus.com](mailto:Sandra.Fredrick@et.eurofinsus.com)  
(920)261-1660

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## Case Narrative

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-242012-1

**Job ID: 500-242012-1**

**Laboratory: Eurofins Chicago**

### Narrative

**Job Narrative  
500-242012-1**

### Receipt

The samples were received on 11/3/2023 9:55 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.8° C.

### GC/MS VOA

Method 8260D: The matrix spike duplicate (MSD) for the following sample was analyzed outside the 12 hour tune window. No further action was taken.D-18 (500-242012-3)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

## Detection Summary

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-242012-1

### Client Sample ID: TW-1

Lab Sample ID: 500-242012-1

No Detections.

### Client Sample ID: TW-3

Lab Sample ID: 500-242012-2

No Detections.

### Client Sample ID: D-18

Lab Sample ID: 500-242012-3

No Detections.

### Client Sample ID: TB-1

Lab Sample ID: 500-242012-4

No Detections.

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This Detection Summary does not include radiochemical test results.

Eurofins Chicago

## Method Summary

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-242012-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET CHI
5030B	Purge and Trap	SW846	EET CHI

**Protocol References:**

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

EET CHI = Eurofins Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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## Sample Summary

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-242012-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-242012-1	TW-1	Water	11/01/23 10:45	11/03/23 09:55
500-242012-2	TW-3	Water	11/01/23 11:30	11/03/23 09:55
500-242012-3	D-18	Water	11/01/23 12:00	11/03/23 09:55
500-242012-4	TB-1	Water	11/01/23 00:00	11/03/23 09:55

# Client Sample Results

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-242012-1

**Client Sample ID: TW-1**

Date Collected: 11/01/23 10:45

Date Received: 11/03/23 09:55

**Lab Sample ID: 500-242012-1**

Matrix: Water

**Method: SW846 8260D - Volatile Organic Compounds by GC/MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			11/08/23 20:05	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			11/08/23 20:05	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			11/08/23 20:05	1
Trichloroethene	<0.16		0.50	0.16	ug/L			11/08/23 20:05	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			11/08/23 20:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		72 - 124		11/08/23 20:05	1
Dibromofluoromethane (Surr)	99		75 - 120		11/08/23 20:05	1
1,2-Dichloroethane-d4 (Surr)	93		75 - 126		11/08/23 20:05	1
Toluene-d8 (Surr)	103		75 - 120		11/08/23 20:05	1

# Client Sample Results

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-242012-1

**Client Sample ID: TW-3**

**Lab Sample ID: 500-242012-2**

Date Collected: 11/01/23 11:30

Matrix: Water

Date Received: 11/03/23 09:55

## Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			11/08/23 20:29	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			11/08/23 20:29	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			11/08/23 20:29	1
Trichloroethene	<0.16		0.50	0.16	ug/L			11/08/23 20:29	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			11/08/23 20:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		72 - 124		11/08/23 20:29	1
Dibromofluoromethane (Surr)	96		75 - 120		11/08/23 20:29	1
1,2-Dichloroethane-d4 (Surr)	93		75 - 126		11/08/23 20:29	1
Toluene-d8 (Surr)	107		75 - 120		11/08/23 20:29	1

# Client Sample Results

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-242012-1

**Client Sample ID: D-18**  
**Date Collected: 11/01/23 12:00**  
**Date Received: 11/03/23 09:55**

**Lab Sample ID: 500-242012-3**  
**Matrix: Water**

## Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			11/08/23 20:54	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			11/08/23 20:54	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			11/08/23 20:54	1
Trichloroethene	<0.16		0.50	0.16	ug/L			11/08/23 20:54	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			11/08/23 20:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		72 - 124		11/08/23 20:54	1
Dibromofluoromethane (Surr)	96		75 - 120		11/08/23 20:54	1
1,2-Dichloroethane-d4 (Surr)	91		75 - 126		11/08/23 20:54	1
Toluene-d8 (Surr)	103		75 - 120		11/08/23 20:54	1

# Client Sample Results

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-242012-1

**Client Sample ID: TB-1**

Date Collected: 11/01/23 00:00

Date Received: 11/03/23 09:55

**Lab Sample ID: 500-242012-4**

Matrix: Water

**Method: SW846 8260D - Volatile Organic Compounds by GC/MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			11/08/23 14:18	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			11/08/23 14:18	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			11/08/23 14:18	1
Trichloroethene	<0.16		0.50	0.16	ug/L			11/08/23 14:18	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			11/08/23 14:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		72 - 124		11/08/23 14:18	1
Dibromofluoromethane (Surr)	97		75 - 120		11/08/23 14:18	1
1,2-Dichloroethane-d4 (Surr)	90		75 - 126		11/08/23 14:18	1
Toluene-d8 (Surr)	104		75 - 120		11/08/23 14:18	1

# Definitions/Glossary

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-242012-1

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

# QC Association Summary

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-242012-1

## GC/MS VOA

Analysis Batch: 741080

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-242012-1	TW-1	Total/NA	Water	8260D	
500-242012-2	TW-3	Total/NA	Water	8260D	
500-242012-3	D-18	Total/NA	Water	8260D	
500-242012-4	TB-1	Total/NA	Water	8260D	
MB 500-741080/8	Method Blank	Total/NA	Water	8260D	
LCS 500-741080/5	Lab Control Sample	Total/NA	Water	8260D	
500-242012-3 MS	D-18	Total/NA	Water	8260D	
500-242012-3 MSD	D-18	Total/NA	Water	8260D	

# Surrogate Summary

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-242012-1

## Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB (72-124)	DBFM (75-120)	DCA (75-126)	TOL (75-120)						
500-242012-1	TW-1	96	99	93	103						
500-242012-2	TW-3	95	96	93	107						
500-242012-3	D-18	101	96	91	103						
500-242012-3 MS	D-18	91	97	88	107						
500-242012-3 MSD	D-18	89	97	90	101						
500-242012-4	TB-1	98	97	90	104						
LCS 500-741080/5	Lab Control Sample	88	97	87	104						
MB 500-741080/8	Method Blank	95	98	91	103						

### Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

DCA = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

# QC Sample Results

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-242012-1

## Method: 8260D - Volatile Organic Compounds by GC/MS

**Lab Sample ID: MB 500-741080/8**

**Matrix: Water**

**Analysis Batch: 741080**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			11/08/23 13:03	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			11/08/23 13:03	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			11/08/23 13:03	1
Trichloroethene	<0.16		0.50	0.16	ug/L			11/08/23 13:03	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			11/08/23 13:03	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		72 - 124		11/08/23 13:03	1
Dibromofluoromethane (Surr)	98		75 - 120		11/08/23 13:03	1
1,2-Dichloroethane-d4 (Surr)	91		75 - 126		11/08/23 13:03	1
Toluene-d8 (Surr)	103		75 - 120		11/08/23 13:03	1

**Lab Sample ID: LCS 500-741080/5**

**Matrix: Water**

**Analysis Batch: 741080**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec
1,1,1-Trichloroethane	50.0	44.7		ug/L		89	70 - 125
1,1,2-Trichloroethane	50.0	42.9		ug/L		86	71 - 130
Tetrachloroethene	50.0	57.5		ug/L		115	70 - 128
Trichloroethene	50.0	49.5		ug/L		99	70 - 125
Vinyl chloride	50.0	40.4		ug/L		81	64 - 126

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	88		72 - 124
Dibromofluoromethane (Surr)	97		75 - 120
1,2-Dichloroethane-d4 (Surr)	87		75 - 126
Toluene-d8 (Surr)	104		75 - 120

**Lab Sample ID: 500-242012-3 MS**

**Matrix: Water**

**Analysis Batch: 741080**

**Client Sample ID: D-18**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec
1,1,1-Trichloroethane	<0.38		50.0	49.2		ug/L		98	70 - 125
1,1,2-Trichloroethane	<0.35		50.0	42.4		ug/L		85	71 - 130
Tetrachloroethene	<0.37		50.0	62.8		ug/L		126	70 - 128
Trichloroethene	<0.16		50.0	51.5		ug/L		103	70 - 125
Vinyl chloride	<0.20		50.0	43.3		ug/L		87	64 - 126

Surrogate	MS %Recovery	MS Qualifer	Limits
4-Bromofluorobenzene (Surr)	91		72 - 124
Dibromofluoromethane (Surr)	97		75 - 120
1,2-Dichloroethane-d4 (Surr)	88		75 - 126
Toluene-d8 (Surr)	107		75 - 120

Eurofins Chicago

# QC Sample Results

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-242012-1

## **Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)**

**Lab Sample ID: 500-242012-3 MSD**

**Matrix: Water**

**Analysis Batch: 741080**

**Client Sample ID: D-18**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
1,1,1-Trichloroethane	<0.38		50.0	52.2		ug/L		104	70 - 125	6	20
1,1,2-Trichloroethane	<0.35		50.0	41.1		ug/L		82	71 - 130	3	20
Tetrachloroethene	<0.37		50.0	58.1		ug/L		116	70 - 128	8	20
Trichloroethene	<0.16		50.0	53.6		ug/L		107	70 - 125	4	20
Vinyl chloride	<0.20		50.0	46.2		ug/L		92	64 - 126	6	20

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	89		72 - 124
Dibromofluoromethane (Surr)	97		75 - 120
1,2-Dichloroethane-d4 (Surr)	90		75 - 126
Toluene-d8 (Surr)	101		75 - 120

# Lab Chronicle

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-242012-1

**Client Sample ID: TW-1**

Date Collected: 11/01/23 10:45

Date Received: 11/03/23 09:55

**Lab Sample ID: 500-242012-1**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	741080	W1T	EET CHI	11/08/23 20:05

**Client Sample ID: TW-3**

Date Collected: 11/01/23 11:30

Date Received: 11/03/23 09:55

**Lab Sample ID: 500-242012-2**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	741080	W1T	EET CHI	11/08/23 20:29

**Client Sample ID: D-18**

Date Collected: 11/01/23 12:00

Date Received: 11/03/23 09:55

**Lab Sample ID: 500-242012-3**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	741080	W1T	EET CHI	11/08/23 20:54

**Client Sample ID: TB-1**

Date Collected: 11/01/23 00:00

Date Received: 11/03/23 09:55

**Lab Sample ID: 500-242012-4**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	741080	W1T	EET CHI	11/08/23 14:18

## Laboratory References:

EET CHI = Eurofins Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Eurofins Chicago

## Accreditation/Certification Summary

Client: Tetra Tech GEO  
Project/Site: Pentair Delavan

Job ID: 500-242012-1

### Laboratory: Eurofins Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Wisconsin	State	999580010	08-31-24

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Eurofins Chicago

## Eurofins Chicago

2417 Bond Street  
University Park IL 60484  
Phone 708-534-5200 Fax 708-534 5211

## Chain of Custody Record


 eurofins | environmental

<b>Client Information</b>		Sampler <i>Connor Lanzon</i>	Lab PM <i>Fredrick Sandie</i>	Carrier Tracking No(s).	COC No: 500-118063-27960 1
Client Contact: Mr Mark Manthey		Phone <i>(762) 203 1294</i>	E Mail <i>Sandra.Fredrick@et.eurofinsus.com</i>	State of Origin	Page Page 1 of 1
Company: Tetra Tech GEO		PWSID	Analysis Requested		
Address: 13555 Bishops Ct Suite 201		Due Date Requested			
City: Brookfield		TAT Requested (days) <i>standard</i>			
State Zip: WI 53005		Compliance Project. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Phone: 262-792 1282(Tel)		PO #:			
Email: mark.manthey@tetrachtech.com		WO #:			
Project Name: Pentair Delavan		Project # 50006640			
Site		SSOW#:			
Sample Identification		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid O=waste/soil, D=tissue, A=air)
					Field Filtered Sample (Y/yes or N/no) 8260B - VOC-Short list
					Platform MSD (Y/yes or N/no)
					Total Number of containers
					Special Instructions/Note
TW-1		<i>11/1</i>	<i>10:45</i>	<i>G</i>	Water
TW-3			<i>11:30</i>	<i>↓</i>	Water
D-18		<i>↓</i>	<i>12:00</i>	<i>↓</i>	Water
TB-1		<i>—</i>	<i>—</i>	<i>—</i>	Water
Possible Hazard Identification					
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological					
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)					
<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Deliverable Requested I II III IV Other (specify)					
Special Instructions/QC Requirements					
Empty Kit Relinquished by		Date	Time	Method of Shipment	
Relinquished by <i>Connor Lanzon</i>		Date/Time <i>11/2/23 12:00</i>	Company <i>TetraTech</i>	Received by <i>John Smith</i>	Date/Time <i>11/2/23 12:00</i>
Relinquished by <i>John Smith</i>		Date/Time <i>11/2/23 1700</i>	Company <i>Eurofins</i>	Received by <i>John Smith</i>	Date/Time <i>11/3/23 0955</i>
Relinquished by		Date/Time	Company	Received by	Date/Time
Custody Seals Intact.		Custody Seal No		Cooler Temperature(s) °C and Other Remarks. <i>1.9 → 1.8</i>	

## Login Sample Receipt Checklist

Client: Tetra Tech GEO

Job Number: 500-242012-1

**Login Number: 242012**

**List Source: Eurofins Chicago**

**List Number: 1**

**Creator: Scott, Sherri L**

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

**APPENDIX C**

**WASTEWATER DISCHARGE MONITORING SHORT REPORTS AND**

**STORM SEWER OUTFALL SS-1 ANALYTICAL RESULTS**

**TETRA TECH**

P:\Pentair-Sta-Rite\Delavan\Progress Reports\2018-2024 Progress Report\2023 Report\Pentair\_Delavan\_Prog\_Report\_2023.docx

# Wastewater Discharge Monitoring Short Report

Facility Name : PENTAIR FLOW TECHNOLOGIES LLC  
 Contact Address : 293 S Wright St  
                     Delavan, WI 53115  
 Facility Contact : Maxwell Geyer, EH&S Specialist  
 Phone Number : 262-728-7408  
 Reporting Period : 01/01/2023 - 03/31/2023  
 Form Due Date : 04/21/2023  
 Permit Number : **0046566**

## For DNR Use Only

Date Received:	
DOC:	511854
FIN:	7072
FID:	265010900
Region:	Southeast Region
Permit Drafter:	Drafter not set
Reviewer:	Nicholas M Lent
Office:	Milwaukee

Sample Point	Parameter #	Parameter	Date Sample	Sample Type	Sample Results	Units	Limit Type	Limit	LOD	LOQ	QC Exceed?	Lab Certification
001	377	pH Field	03/14/2023	GRAB	7.61	su	Daily Max Daily Min	9(0) 6(0)			N	
001	457	Suspended Solids, Total	03/14/2023	GRAB	2.4	mg/L	Daily Max	40(0)	2.3	6.0	Y	999580010
001	490	Tetrachloroethylene	03/14/2023	GRAB	0.40	ug/L	Monthly Avg	50(0)	0.37	1.0	Y	999580010
001	561	1,1,1-Trichloro- ethane	03/14/2023	GRAB	<0.38	ug/L	Monthly Avg	50(0)	0.38	1.0	N	999580010
001	508	Trichloro- ethylene	03/14/2023	GRAB	0.31	ug/L	Monthly Avg	50(0)	0.16	0.50	Y	999580010
001	517	Vinyl chloride	03/14/2023	GRAB	<0.20	ug/L	Monthly Avg	10(0)	0.20	1.0	N	999580010

# Wastewater Discharge Monitoring Short Report

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

General Remarks

Laboratory Quality Control Comments

J: Result is less than the LOQ but greater than or equal to the LOD and the concentration is an approximate value.

Submitted by Mark Manthey(mmanthey) on 4/20/2023 3:59:40 PM

**GEOTRANS, INC. FIELD WATER QUALITY SAMPLING AND ANALYSIS FORM**

PROJECT INFORMATION			INSTRUMENTS		
PROJECT	Delavan Facility Remedial Action		Temp. & pH	HI 98129	
PROJECT NO.	Delavan Well #4WPDES		Conductivity	HI 98129	
LOCATION	Delavan, WI		ORP		
PERSONNEL	Dennis		DO		
SAMPLE POINT	SS-1	SS-1	SS-1	SS-1	SS-1
WATER TYPE	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
DATE (month/day/year)	3/14/23				
CLOCK TIME (Military)	1038				
DEPTH TO WATER (ft)*	NA	NA	NA	NA	NA
MEASURED WELL DEPTH (ft)*	NA	NA	NA	NA	NA
CASING VOLUME (gallons)	NA	NA	NA	NA	NA
PURGE VOLUME (gallons)	NA	NA	NA	NA	NA
DEPTH SAMPLE TAKEN (ft)*	NA	NA	NA	NA	NA
SAMPLING DEVICE	HI 98129				
FIELD TEMPERATURE (°C)	11.3				
pH	7.61				
ELEC. COND. (µS/cm)	Measured at 25°C	1558			
ORP (mV)	NA	NA	NA	NA	NA
DISSOLVED OXYGEN (ppm)	NA	NA	NA	NA	NA
DISSOLVED OXYGEN (% Sat.)	NA	NA	NA	NA	NA
COLOR	CLEAR				
ODOR	None				
CLARITY	CLEAR				
SAMPLING PARAMETERS	# OF CONTAINERS & VOLUME; CONTAINER TYPE (A = AMBER GLASS; G = GLASS; P = PLASTIC); PRESERVATIVE TYPE (L = LAB ADDED; F = FIELD ADDED) OR NEUTRAL; FILTERED (YES or NO)				
TCE, 1,1,1-TCA, 1,1,2-TCA, PCE, Vinyl Chloride (EPA Method SW 8260B)	3 - 40 ml; G; HCl - L; No.	3 - 40 ml; G; HCl - L; No.	3 - 40 ml; G; HCl - L; No.	3 - 40 ml; G; HCl - L; No.	3 - 40 ml; G; HCl - L; No.
<u>Comments:</u> TCE = Trichloroethene. TCA = Trichloroethane. PCE = Tetrachloroethene.					
NAME OF LABORATORY	Test America	Test America	Test America	Test America	Test America
DATE SENT TO LAB	3/15/23				
SAMPLER'S NAME	Dennis				

\*Measured from top of well casing.

# ANALYTICAL REPORT

## PREPARED FOR

Attn: Dennis Schwind  
Pentair Water  
293 Wright Street  
Delavan, Wisconsin 53115

Generated 3/30/2023 9:56:18 AM

## JOB DESCRIPTION

Pentair - SS1 Quarterly

## JOB NUMBER

500-230843-1

# Eurofins Chicago

## Job Notes

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of Eurofins Environment Testing North Central, LLC and its client. All questions regarding this report should be directed to the Eurofins Environment Testing North Central, LLC Project Manager who has signed this report.

Results relate only to the items tested and the sample(s) as received by the laboratory. The results, detection limits (LOD) and Quantitation Limits (LOQ) have been adjusted for sample dilutions and/or solids content.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Chicago Project Manager.

## Authorization



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3/30/2023 9:56:18 AM

Authorized for release by  
Sandie Fredrick, Project Manager II  
[Sandra.Fredrick@et.eurofinsus.com](mailto:Sandra.Fredrick@et.eurofinsus.com)  
(920)261-1660

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# Definitions/Glossary

Client: Pentair Water

Job ID: 500-230843-1

Project/Site: Pentair - SS1 Quarterly

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

## Case Narrative

Client: Pentair Water  
Project/Site: Pentair - SS1 Quarterly

Job ID: 500-230843-1

**Job ID: 500-230843-1**

**Laboratory: Eurofins Chicago**

### Narrative

**Job Narrative  
500-230843-1**

### Comments

No additional comments.

### Receipt

The samples were received on 3/16/2023 9:40 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.2° C.

### GC/MS VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

### General Chemistry

Method SM 2540D: Elevated reporting limits are provided for the following sample due to insufficient sample provided for Total Suspended Solids preparation/analysis: SS1 (500-230843-1).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

# Client Sample Results

Client: Pentair Water  
Project/Site: Pentair - SS1 Quarterly

Job ID: 500-230843-1

## Client Sample ID: SS1

Date Collected: 03/14/23 10:38  
Date Received: 03/16/23 09:40

## Lab Sample ID: 500-230843-1

Matrix: Water

### Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			03/24/23 14:46	1
Tetrachloroethene	0.40	J	1.0	0.37	ug/L			03/24/23 14:46	1
Trichloroethene	0.31	J	0.50	0.16	ug/L			03/24/23 14:46	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			03/24/23 14:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		75 - 126		03/24/23 14:46	1
4-Bromofluorobenzene (Surr)	99		72 - 124		03/24/23 14:46	1
Dibromofluoromethane (Surr)	103		75 - 120		03/24/23 14:46	1
Toluene-d8 (Surr)	94		75 - 120		03/24/23 14:46	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (SM 2540D)	2.4	J	6.0	2.3	mg/L			03/21/23 15:41	1

Eurofins Chicago

# Client Sample Results

Client: Pentair Water  
Project/Site: Pentair - SS1 Quarterly

Job ID: 500-230843-1

**Client Sample ID: Trip Blank**  
**Date Collected: 03/14/23 00:00**  
**Date Received: 03/16/23 09:40**

**Lab Sample ID: 500-230843-2**  
**Matrix: Water**

## Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			03/24/23 15:12	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			03/24/23 15:12	1
Trichloroethene	<0.16		0.50	0.16	ug/L			03/24/23 15:12	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			03/24/23 15:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		75 - 126		03/24/23 15:12	1
4-Bromofluorobenzene (Surr)	100		72 - 124		03/24/23 15:12	1
Dibromofluoromethane (Surr)	102		75 - 120		03/24/23 15:12	1
Toluene-d8 (Surr)	93		75 - 120		03/24/23 15:12	1

# Lab Chronicle

Client: Pentair Water

Job ID: 500-230843-1

Project/Site: Pentair - SS1 Quarterly

**Client Sample ID: SS1**

**Lab Sample ID: 500-230843-1**

Matrix: Water

Date Collected: 03/14/23 10:38

Date Received: 03/16/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	704068	AJP	EET CHI	03/24/23 14:46
Total/NA	Analysis	SM 2540D		1	703539	MB	EET CHI	03/21/23 15:41 - 03/21/23 15:45 <sup>1</sup>

**Client Sample ID: Trip Blank**

**Lab Sample ID: 500-230843-2**

Matrix: Water

Date Collected: 03/14/23 00:00

Date Received: 03/16/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	704068	AJP	EET CHI	03/24/23 15:12

<sup>1</sup> Completion dates and times are reported or not reported per method requirements or individual lab discretion.

## Laboratory References:

EET CHI = Eurofins Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

# Accreditation/Certification Summary

Client: Pentair Water

Project/Site: Pentair - SS1 Quarterly

Job ID: 500-230843-1

## Laboratory: Eurofins Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Wisconsin	State	999580010	08-31-23

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Eurofins Chicago

# Method Summary

Client: Pentair Water  
Project/Site: Pentair - SS1 Quarterly

Job ID: 500-230843-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	EET CHI
SM 2540D	Solids, Total Suspended (TSS)	SM	EET CHI
5030B	Purge and Trap	SW846	EET CHI

## Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

## Laboratory References:

EET CHI = Eurofins Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

## Sample Summary

Client: Pentair Water

Project/Site: Pentair - SS1 Quarterly

Job ID: 500-230843-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-230843-1	SS1	Water	03/14/23 10:38	03/16/23 09:40
500-230843-2	Trip Blank	Water	03/14/23 00:00	03/16/23 09:40

1

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## Eurofins Chicago

2417 Bond Street  
University Park IL 60484  
Phone 708-534-5200 Fax: 708-534-5211

## Chain of Custody Record



eurofins

Env T I

<b>Client Information</b>		Sampler <u>Dennis</u>		Lab PM Fredrick Sandie		500-230843 COC		COC No: 500-109853-25416 1			
Client Contact: Dennis Schwind		Phone <u>262 728-5225</u>		E-Mail Sandra.Fredrick@et.eurofinsus.com				Page 1 of 1			
Company: Pentair Water		PWSID						Job # <u>500-230843</u>			
Address: 293 Wright Street		Due Date Requested						Preservation Codes			
City: Delavan		TAT Requested (days)						A HCL	M Hexane		
State Zip: WI 53115		Compliance Project: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No						B NaOH	N None		
Phone		PO # Purchase Order not required						C Zn Acetate	O AsNaO2		
Email: dennis.schwind@PENTAIR.COM		WO #						D Nitric Acid	P Na2C4S		
Project Name: Pentair - SS1 Quarterly		Project # 50006669						E NaHSO4	Q Na2SO3		
Site: <u>Delavan WI</u>		SSOW#:						F MeOH	R Na2S2O3		
Sample Identification		Sample Date <u>03/14/23</u>	Sample Time <u>1038 C</u>	Sample Type (C=Comp, G=grab) <u>G</u>	Matrix (W=water S=solid, O=waste/oil, BT=TSUS, A=Air)	Field Filtered Samples (Yes or No) <input checked="" type="checkbox"/>	Random MSD (Yes or No) <input checked="" type="checkbox"/>	TCE <u>PCB</u> <u>Vinyl Chloride</u>	Total Number of containers	Special Instructions/Note	
1 SS1											
2 Trip Blank											
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)					
<input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological						<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Deliverable Requested I II III IV Other (specify)						Special Instructions/QC Requirements.					
Empty Kit Relinquished by <u>Dennis Schwind</u>		Date <u>3/15/22 1030</u>	Time			Method of Shipment:					
Relinquished by		Date/Time	Company	Received by			Date/Time	Company			
Relinquished by		Date/Time	Company	Received			Date/Time	Company			
Custody Seals Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No						Cooler Temperature(s) °C and Other Remarks <u>1.8 - 2.2</u>					

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8  
9  
10  
11



500-230843 Wayb

ORIGIN ID-RRLA (262) 202-5955  
DENNIS SCHWIND  
PENTAIR WATER  
293 WRIGHT ST.

DELAVAL, WI 53115  
UNITED STATES US

**TO SAMPLE RECEIPT  
EURUFINS CHICAGO  
2417 BOND STREET**

SHIP DATE: 18JAN23  
ACTWGT: 15.00 LB MAN  
CAD: 0269688/CAFE3616

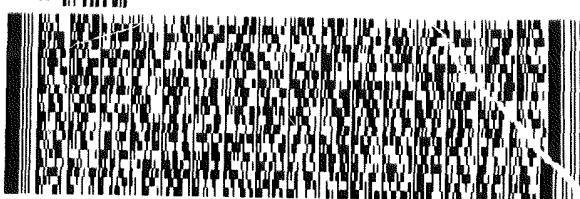
ט' ט' ט' ט' ט'

**UNIVERSITY PARK IL 60484**

(708) 534-5200

DEF

DEPT:



**FedEx**

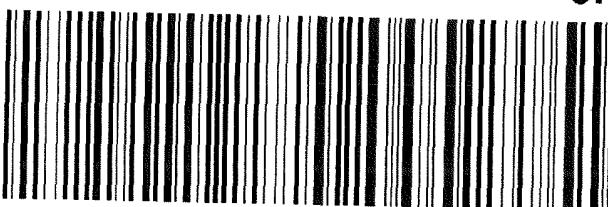
TRK# 0221 6283 9315 4111

**THU - 16 MAR AA  
PRIORITY OVERNIGHT**

1094

XN JOTA

60484  
IL-US  
ORD



## Login Sample Receipt Checklist

Client: Pentair Water

Job Number: 500-230843-1

SDG Number:

**Login Number: 230843**

**List Source: Eurofins Chicago**

**List Number: 1**

**Creator: James, Jeff A**

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

# Wastewater Discharge Monitoring Short Report

For DNR Use Only

Facility Name : PENTAIR FLOW TECHNOLOGIES LLC

Contact Address : □□

□□ , □□

Facility Contact : , □□

Phone Number : □□

Reporting Period : 04/01/2023 - 06/30/2023

Form Due Date : 07/21/2023

Permit Number : **0046566**

Date Received:	
DOC:	519293
FIN:	7072
FID:	265010900
Region:	Southeast Region
Permit Drafter:	Drafter not set
Reviewer:	Nicholas M Lent
Office:	Milwaukee

Sample Point	Parameter #	Parameter	Date Sample	Sample Type	Sample Results	Units	Limit Type	Limit	LOD	LOQ	QC Exceed?	Lab Certification
001	377	pH Field	06/07/2023	GRAB	7.48	su	Daily Max Daily Min	9(0) 6(0)			N	
001	457	Suspended Solids, Total	06/07/2023	GRAB	<2.0	mg/L	Daily Max	40(0)	2.0	5.2	N	999580010
001	490	Tetrachloroethylene	06/07/2023	GRAB	0.97	ug/L	Monthly Avg	50(0)	0.37	1.0	Y	999580010
001	561	1,1,1-Trichloro- ethane	06/07/2023	GRAB	<0.38	ug/L	Monthly Avg	50(0)	0.38	1.0	N	999580010
001	508	Trichloro- ethylene	06/07/2023	GRAB	0.61	ug/L	Monthly Avg	50(0)	0.16	0.51	N	999580010
001	517	Vinyl chloride	06/07/2023	GRAB	<0.20	ug/L	Monthly Avg	10(0)	0.20	1.0	N	999580010

# Wastewater Discharge Monitoring Short Report

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

## General Remarks

## Laboratory Quality Control Comments

LCS and/or LCSD is outside acceptance limits, high biased.  
Compound was found in the blank and sample.  
Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Submitted by Mark Manthey(mmanthey) on 7/19/2023 2:50:06 PM

**GEOTRANS, INC. FIELD WATER QUALITY SAMPLING AND ANALYSIS FORM**

PROJECT INFORMATION			INSTRUMENTS		
PROJECT	Delavan Facility Remedial Action		Temp. & pH	HI 98129	
PROJECT NO.	Delavan Well # 4		Conductivity	HI 98129	
LOCATION	Delavan, WI		ORP		
PERSONNEL	Dennis		DO		
SAMPLE POINT	SS-1	SS-1	SS-1	SS-1	SS-1
WATER TYPE	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
DATE (month/day/year)	6/7/23				
CLOCK TIME (Military)	1045				
DEPTH TO WATER (ft)*	NA	NA	NA	NA	NA
MEASURED WELL DEPTH (ft)*	NA	NA	NA	NA	NA
CASING VOLUME (gallons)	NA	NA	NA	NA	NA
PURGE VOLUME (gallons)	NA	NA	NA	NA	NA
DEPTH SAMPLE TAKEN (ft)*	NA	NA	NA	NA	NA
SAMPLING DEVICE	HI 98129				
FIELD TEMPERATURE (°C)	15.1				
pH	7.48				
ELEC. COND. (µS/cm)	Measured at 25°C	15.22			
ORP (mV)	NA	NA	NA	NA	NA
DISSOLVED OXYGEN (ppm)	NA	NA	NA	NA	NA
DISSOLVED OXYGEN (% Sat.)	NA	NA	NA	NA	NA
COLOR	CLEAR				
ODOR	NO ODE				
CLARITY	Clear				
SAMPLING PARAMETERS	# OF CONTAINERS & VOLUME; CONTAINER TYPE (A = AMBER GLASS; G = GLASS; P = PLASTIC); PRESERVATIVE TYPE (L = LAB ADDED; F = FIELD ADDED) OR NEUTRAL; FILTERED (YES or NO)				
TCE, 1,1,1-TCA, 1,1,2-TCA, PCE, Vinyl Chloride (EPA Method SW 8260B)	3 - 40 ml; G; HCl - L; No.	3 - 40 ml; G; HCl - L; No.	3 - 40 ml; G; HCl - L; No.	3 - 40 ml; G; HCl - L; No.	3 - 40 ml; G; HCl - L; No.
<u>Comments:</u> TCE = Trichloroethene. TCA = Trichloroethane. PCE = Tetrachloroethene.					
NAME OF LABORATORY	Test America	Test America	Test America	Test America	Test America
DATE SENT TO LAB	6/7/23				
SAMPLER'S NAME	Dennis				

\*Measured from top of well casing.

# ANALYTICAL REPORT

## PREPARED FOR

Attn: Dennis Schwind  
Pentair Water  
293 Wright Street  
Delavan, Wisconsin 53115

Generated 6/20/2023 1:20:27 PM

## JOB DESCRIPTION

Delavan Well #4 WPDES

## JOB NUMBER

500-234991-1

# Eurofins Chicago

## Job Notes

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The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Chicago Project Manager.

## Authorization



Generated  
6/20/2023 1:20:27 PM

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Authorized for release by  
Sandie Fredrick, Project Manager II  
[Sandra.Fredrick@et.eurofinsus.com](mailto:Sandra.Fredrick@et.eurofinsus.com)  
(920)261-1660

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# Definitions/Glossary

Client: Pentair Water

Project/Site: Delavan Well #4 WPDES

Job ID: 500-234991-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

# Case Narrative

Client: Pentair Water  
Project/Site: Delavan Well #4 WPDES

Job ID: 500-234991-1

**Job ID: 500-234991-1**

**Laboratory: Eurofins Chicago**

## Narrative

### Job Narrative 500-234991-1

#### Receipt

The samples were received on 6/8/2023 9:50 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.0° C.

#### GC/MS VOA

Method 8260B: The laboratory control sample (LCS) for analytical batch 500-718713 recovered outside control limits for the following analytes: Tetrachloroethene. These analytes were biased high in the LCS and were not detected above the reporting limit in the associated samples; therefore, the data have been reported.

Method 8260B: The method blank for preparation batch 718713 contained Tetrachloroethene above the reporting limit (RL). None of the samples associated with this method blank contained the target compound above the reporting limit; therefore, re-extraction and/or re-analysis of samples were not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### General Chemistry

Method SM 2540D: Elevated reporting limit is provided for the following sample due to insufficient sample provided for analysis: SS1 (500-234991-1).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

# Client Sample Results

Client: Pentair Water

Project/Site: Delavan Well #4 WPDES

Job ID: 500-234991-1

**Client Sample ID: SS1**

Date Collected: 06/07/23 00:00

Date Received: 06/08/23 09:50

**Lab Sample ID: 500-234991-1**

Matrix: Water

## Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			06/15/23 17:31	1
<b>Tetrachloroethene</b>	<b>0.97</b>	<b>J B *+</b>	1.0	0.37	ug/L			06/15/23 17:31	1
<b>Trichloroethene</b>	<b>0.61</b>		0.50	0.16	ug/L			06/15/23 17:31	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			06/15/23 17:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		75 - 126		06/15/23 17:31	1
4-Bromofluorobenzene (Surr)	102		72 - 124		06/15/23 17:31	1
Dibromofluoromethane (Surr)	95		75 - 120		06/15/23 17:31	1
Toluene-d8 (Surr)	97		75 - 120		06/15/23 17:31	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (SM 2540D)	<2.0		5.2	2.0	mg/L			06/10/23 09:32	1

Eurofins Chicago

# Client Sample Results

Client: Pentair Water  
 Project/Site: Delavan Well #4 WPDES

Job ID: 500-234991-1

## **Client Sample ID: Trip Blank**

Date Collected: 06/07/23 00:00

Date Received: 06/08/23 09:50

## **Lab Sample ID: 500-234991-2**

Matrix: Water

### **Method: SW846 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			06/15/23 17:05	1
<b>Tetrachloroethene</b>	<b>0.54</b>	<b>J B *+</b>	1.0	0.37	ug/L			06/15/23 17:05	1
Trichloroethene	<0.16		0.50	0.16	ug/L			06/15/23 17:05	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			06/15/23 17:05	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,2-Dichloroethane-d4 (Surr)	94		75 - 126					06/15/23 17:05	1
4-Bromofluorobenzene (Surr)	102		72 - 124					06/15/23 17:05	1
Dibromofluoromethane (Surr)	94		75 - 120					06/15/23 17:05	1
Toluene-d8 (Surr)	98		75 - 120					06/15/23 17:05	1

# Lab Chronicle

Client: Pentair Water  
Project/Site: Delavan Well #4 WPDES

Job ID: 500-234991-1

## Client Sample ID: SS1

Date Collected: 06/07/23 00:00  
Date Received: 06/08/23 09:50

## Lab Sample ID: 500-234991-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	718713	W1T	EET CHI	06/15/23 17:31
Total/NA	Analysis	SM 2540D		1	717902	MB	EET CHI	06/10/23 09:32 - 06/10/23 09:35 <sup>1</sup>

## Client Sample ID: Trip Blank

Date Collected: 06/07/23 00:00  
Date Received: 06/08/23 09:50

## Lab Sample ID: 500-234991-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	718713	W1T	EET CHI	06/15/23 17:05

<sup>1</sup>This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

### Laboratory References:

EET CHI = Eurofins Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

## Accreditation/Certification Summary

Client: Pentair Water

Project/Site: Delavan Well #4 WPDES

Job ID: 500-234991-1

### Laboratory: Eurofins Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Wisconsin	State	999580010	08-31-23

1

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Eurofins Chicago

# Method Summary

Client: Pentair Water  
Project/Site: Delavan Well #4 WPDES

Job ID: 500-234991-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	EET CHI
SM 2540D	Solids, Total Suspended (TSS)	SM	EET CHI
5030B	Purge and Trap	SW846	EET CHI

## Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

## Laboratory References:

EET CHI = Eurofins Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

## Sample Summary

Client: Pentair Water

Project/Site: Delavan Well #4 WPDES

Job ID: 500-234991-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-234991-1	SS1	Water	06/07/23 00:00	06/08/23 09:50
500-234991-2	Trip Blank	Water	06/07/23 00:00	06/08/23 09:50

**Eurofins Chicago**

**2417 Bond Street  
University Park IL 60484  
Phone 708-534-5200 Fax: 708**

## **Chain of Custody Record**



## Environment Ta-tung

1  
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500-234991 Waybill

ORIGIN ID RRLA (262) 202 5955  
DENNIS SCHWIND  
PENTAIR WATER  
293 WRIGHT ST

SHIP DATE 31MAR23  
ACTWTG. 15.00 LB MAN  
CAD 0269688/CAFE3621

DELAVAN, WI 53115  
UNITED STATES US

SAMPLE RECEIPT  
EUROFINS CHICAGO  
417 BOND STREET

68052022060801

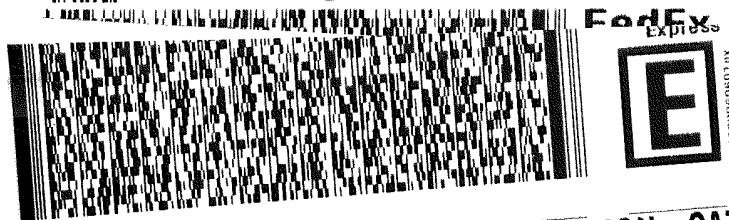
UNIVERSITY PARK IL 60484

10 534-5200

REF#

DEPT

1 2 3 4 5 6 7 8 9 10 11



FedEx Express



KX  
10/23/22/060801

RETURNS MON-SAT  
PRIORITY OVERNIGHT  
THU - 08 JUN AA  
PRIORITY OVERNIGHT

FedEx.  
TRK#  
0221 6374 2028 4082

XN JOTA

60484  
IL-US  
ORD



91132 07Jun2023 JVIA 53162/29AB/C0B8

## Login Sample Receipt Checklist

Client: Pentair Water

Job Number: 500-234991-1

**Login Number:** 234991

**List Source:** Eurofins Chicago

**List Number:** 1

**Creator:** Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

# Wastewater Discharge Monitoring Short Report

For DNR Use Only

Facility Name : PENTAIR FLOW TECHNOLOGIES LLC

Contact Address : □□

□□ , □□

Facility Contact : , □□

Phone Number : □□

Reporting Period : 07/01/2023 - 09/30/2023

Form Due Date : 10/21/2023

Permit Number : **0046566**

Date Received:	
DOC:	526686
FIN:	7072
FID:	265010900
Region:	Southeast Region
Permit Drafter:	Drafter not set
Reviewer:	Nicholas M Lent
Office:	Milwaukee

Sample Point	Parameter #	Parameter	Date Sample	Sample Type	Sample Results	Units	Limit Type	Limit	LOD	LOQ	QC Exceed?	Lab Certification
001	377	pH Field	08/21/2023	GRAB	7.44	su	Daily Max Daily Min	9(0) 6(0)			N	
001	457	Suspended Solids, Total	08/21/2023	GRAB	<1.9	mg/L	Daily Max	40(0)	1.9	5.0	N	999580010
001	490	Tetrachloroethylene	08/21/2023	GRAB	<0.37	ug/L	Monthly Avg	50(0)	0.37	1.0	N	999580010
001	561	1,1,1-Trichloro- ethane	08/21/2023	GRAB	<0.38	ug/L	Monthly Avg	50(0)	0.38	1.0	N	999580010
001	508	Trichloro- ethylene	08/21/2023	GRAB	0.35	ug/L	Monthly Avg	50(0)	0.16	0.50	Y	999580010
001	517	Vinyl chloride	08/21/2023	GRAB	<0.20	ug/L	Monthly Avg	10(0)	0.20	1.0	N	999580010

# Wastewater Discharge Monitoring Short Report

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

General Remarks

Laboratory Quality Control Comments

J: Result is less than the LOQ but greater than or equal to the LOD and the concentration is an approximate value.

Submitted by Mark Manthey(mmanthey) on 10/20/2023 2:45:39 PM

**GEOTRANS, INC. FIELD WATER QUALITY SAMPLING AND ANALYSIS FORM**

PROJECT INFORMATION		INSTRUMENTS			
PROJECT	Delavan Facility Remedial Action	Temp. & pH	HI 98129		
PROJECT NO.	<i>Delavan Well #4 WPDES</i>	Conductivity	HI 98129		
LOCATION	Delavan, WI	ORP			
PERSONNEL	Dennis	DO			
SAMPLE POINT	SS-1	SS-1	SS-1	SS-1	SS-1
WATER TYPE	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
DATE (month/day/year)	8/21/23				
CLOCK TIME (Military)	0915				
DEPTH TO WATER (ft)*	NA	NA	NA	NA	NA
MEASURED WELL DEPTH (ft)*	NA	NA	NA	NA	NA
CASING VOLUME (gallons)	NA	NA	NA	NA	NA
PURGE VOLUME (gallons)	NA	NA	NA	NA	NA
DEPTH SAMPLE TAKEN (ft)*	NA	NA	NA	NA	NA
SAMPLING DEVICE	HI 98129				
FIELD TEMPERATURE (°C)	15.2				
pH	7.44				
ELEC. COND. ( $\mu\text{S}/\text{cm}$ )	Measured at 25°C	1673			
ORP (mV)	NA	NA	NA	NA	NA
DISSOLVED OXYGEN (ppm)	NA	NA	NA	NA	NA
DISSOLVED OXYGEN (% Sat.)	NA	NA	NA	NA	NA
COLOR	Clear				
ODOR	None				
CLARITY	Clear				
SAMPLING PARAMETERS	# OF CONTAINERS & VOLUME; CONTAINER TYPE (A = AMBER GLASS; G = GLASS; P = PLASTIC); PRESERVATIVE TYPE (L = LAB ADDED; F = FIELD ADDED) OR NEUTRAL; FILTERED (YES or NO)				
TCE, 1,1,1-TCA, 1,1,2-TCA, PCE, Vinyl Chloride (EPA Method SW 8260B)	3 – 40 ml; G; HCl – L; No.	3 – 40 ml; G; HCl – L; No.	3 – 40 ml; G; HCl – L; No.	3 – 40 ml; G; HCl – L; No.	3 – 40 ml; G; HCl – L; No.
<u>Comments:</u> TCE = Trichloroethene. TCA = Trichloroethane. PCE = Tetrachloroethene.					
NAME OF LABORATORY	Test America	Test America	Test America	Test America	Test America
DATE SENT TO LAB	8/21/23				
SAMPLER'S NAME	Dennis				

\*Measured from top of well casing.

# ANALYTICAL REPORT

## PREPARED FOR

Attn: Dennis Schwind  
Pentair Water  
293 Wright Street  
Delavan, Wisconsin 53115

Generated 8/30/2023 1:23:33 PM

## JOB DESCRIPTION

Pentair - SS1 Quarterly

## JOB NUMBER

500-238482-1

Eurofins Chicago  
2417 Bond Street  
University Park IL 60484

See page two for job notes and contact information.

# Eurofins Chicago

## Job Notes

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of Eurofins Environment Testing North Central, LLC and its client. All questions regarding this report should be directed to the Eurofins Environment Testing North Central, LLC Project Manager who has signed this report.

Results relate only to the items tested and the sample(s) as received by the laboratory. The results, detection limits (LOD) and Quantitation Limits (LOQ) have been adjusted for sample dilutions and/or solids content.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Chicago Project Manager.

## Authorization



Generated  
8/30/2023 1:23:33 PM

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Authorized for release by  
Sandie Fredrick, Project Manager II  
[Sandra.Fredrick@et.eurofinsus.com](mailto:Sandra.Fredrick@et.eurofinsus.com)  
(920)261-1660

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Sample Summary .....	11
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Receipt Checklists .....	14

# Definitions/Glossary

Client: Pentair Water

Project/Site: Pentair - SS1 Quarterly

Job ID: 500-238482-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

# Case Narrative

Client: Pentair Water  
Project/Site: Pentair - SS1 Quarterly

Job ID: 500-238482-1

**Job ID: 500-238482-1**

**Laboratory: Eurofins Chicago**

## Narrative

**Job Narrative  
500-238482-1**

## Receipt

The samples were received on 8/22/2023 10:10 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.3° C.

## GC/MS VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

## General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

# Client Sample Results

Client: Pentair Water  
Project/Site: Pentair - SS1 Quarterly

Job ID: 500-238482-1

## **Client Sample ID: SS1**

Date Collected: 08/21/23 09:15  
Date Received: 08/22/23 10:10

## **Lab Sample ID: 500-238482-1**

Matrix: Water

### **Method: SW846 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			08/24/23 13:06	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			08/24/23 13:06	1
<b>Trichloroethene</b>	<b>0.35</b>	<b>J</b>	0.50	0.16	ug/L			08/24/23 13:06	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			08/24/23 13:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		75 - 126		08/24/23 13:06	1
4-Bromofluorobenzene (Surr)	108		72 - 124		08/24/23 13:06	1
Dibromofluoromethane (Surr)	96		75 - 120		08/24/23 13:06	1
Toluene-d8 (Surr)	93		75 - 120		08/24/23 13:06	1

### **General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (SM 2540D)	<1.9		5.0	1.9	mg/L			08/23/23 12:47	1

# Client Sample Results

Client: Pentair Water  
Project/Site: Pentair - SS1 Quarterly

Job ID: 500-238482-1

**Client Sample ID: Trip Blank**  
**Date Collected: 08/21/23 00:00**  
**Date Received: 08/22/23 10:10**

**Lab Sample ID: 500-238482-2**  
**Matrix: Water**

## Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			08/24/23 11:30	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			08/24/23 11:30	1
Trichloroethene	<0.16		0.50	0.16	ug/L			08/24/23 11:30	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			08/24/23 11:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		75 - 126		08/24/23 11:30	1
4-Bromofluorobenzene (Surr)	109		72 - 124		08/24/23 11:30	1
Dibromofluoromethane (Surr)	97		75 - 120		08/24/23 11:30	1
Toluene-d8 (Surr)	96		75 - 120		08/24/23 11:30	1

# Lab Chronicle

Client: Pentair Water

Job ID: 500-238482-1

Project/Site: Pentair - SS1 Quarterly

**Client Sample ID: SS1**

**Lab Sample ID: 500-238482-1**

Matrix: Water

Date Collected: 08/21/23 09:15

Date Received: 08/22/23 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	729225	W1T	EET CHI	08/24/23 13:06
Total/NA	Analysis	SM 2540D		1	729100	SO	EET CHI	08/23/23 12:47 - 08/23/23 12:52 <sup>1</sup>

**Client Sample ID: Trip Blank**

**Lab Sample ID: 500-238482-2**

Matrix: Water

Date Collected: 08/21/23 00:00

Date Received: 08/22/23 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	729225	W1T	EET CHI	08/24/23 11:30

<sup>1</sup> This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

## Laboratory References:

EET CHI = Eurofins Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

# Accreditation/Certification Summary

Client: Pentair Water

Project/Site: Pentair - SS1 Quarterly

Job ID: 500-238482-1

## Laboratory: Eurofins Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Wisconsin	State	999580010	08-31-23

1

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Eurofins Chicago

# Method Summary

Client: Pentair Water  
Project/Site: Pentair - SS1 Quarterly

Job ID: 500-238482-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	EET CHI
SM 2540D	Solids, Total Suspended (TSS)	SM	EET CHI
5030B	Purge and Trap	SW846	EET CHI

## Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

## Laboratory References:

EET CHI = Eurofins Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

## Sample Summary

Client: Pentair Water

Project/Site: Pentair - SS1 Quarterly

Job ID: 500-238482-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-238482-1	SS1	Water	08/21/23 09:15	08/22/23 10:10
500-238482-2	Trip Blank	Water	08/21/23 00:00	08/22/23 10:10

## Eurofins Chicago

2417 Bond Street  
University Park IL 60484  
Phone 708-534-5200 Fax. 708-534-5211

## Chain of Custody Record

eurofins

Environmental Testing

<b>Client Information</b>		Sampler <i>Dennis</i>		Lab PM Fredrick, Sandie		Carrier Tracking No(s)		COC No: 500-109163-25416 1
Client Contact: Dennis Schwind		Phone: 260-728-5551		E-Mail Sandra Fredrick@et.eurofinsus.com		State of Origin:		Page: Page 1 of 1
Company: Pentair Water		PWSID:						Job #: 500-238482
Address: 293 Wright Street		Due Date Requested						Preservation Codes
City: Delavan		TAT Requested (days)						A HCL M Hexane B NaOH N None C Zn Acetate O AsNaO2 D Nitric Acid P Na2O4S E NaHSO4 Q Na2SO3 F - MeOH R Na2SO3 G Amchlor S H2SO4 H Ascorbic Acid T TSP Dodecahydrate I - Ice U Acetone J DI Water V MCAA K - EDTA W pH 4-5 L EDA Y Trizma Other: Z other (specify)
State, Zip: WI, 53115		Compliance Project: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No						
Phone:		PO #:		Purchase Order not required				
Email: dennis.schwind@PENTAIR.COM		WO #:						
Project Name: Pentair - SS1 Quarterly		Project #: 50006669						
Site:		SSOW#:						
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wastefill, BT=tissue, A=air)	Field Filtered Sample (Yes or No)	Preservation Method (Yes or No)	Total Number of containers
1 SS 1		8/21/23	0915	G	Water	<input checked="" type="checkbox"/> TCE	<input checked="" type="checkbox"/> PCP	<input checked="" type="checkbox"/> Vinyl Chloride
					Water	<input checked="" type="checkbox"/> TCE	<input checked="" type="checkbox"/> PCP	<input checked="" type="checkbox"/> TSS
2 Trip Blank								
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological						<input type="checkbox"/> Return To Client	<input type="checkbox"/> Disposal By Lab	<input type="checkbox"/> Archive For _____ Months
Deliverable Requested I II III IV Other (specify)						Special Instructions/QC Requirements		
Empty Kit Relinquished by		Date		Time		Method of Shipment		
<i>Dennis Schwind</i>								
Relinquished by		Date/Time:		Company		Received by	Date/Time	Company
						<i>Ronald</i>	8/22/23 1010	EETA
Relinquished by		Date/Time:		Company		Received by	Date/Time	Company
Custody Seals Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks: 5.7 → 5.3				

1  
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ORIGIN ID.RRLA (262) 202-5955  
DENNIS SCHWIND  
PENTAIR WATER  
293 WRIGHT ST

DELAVAL, WI 53115  
UNITED STATES US

SHIP DATE 28JUN23  
ACTWT. 15 00 LB MAN  
CAD 0269688/CAFE3707



500-238482 Waybi

TO SAMPLE RECEIPT  
EUROFINS CHICAGO  
2417 BOND STREET

UNIVERSITY PARK IL 60484

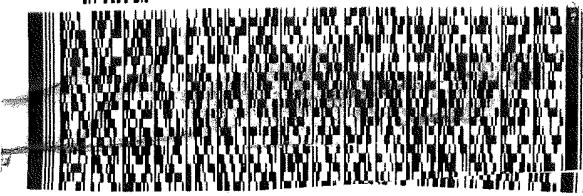
(708) 534-5200

REF

TRN:  
PO:

DEPT

RMA



TRK#  
0221 6483 4234 0155

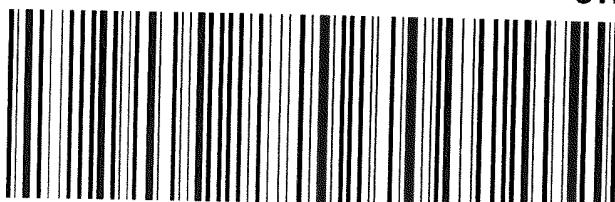
RETURNS MON-SAT  
PRIORITY OVERNIGHT  
TUE - 22 AUG AA  
PRIORITY OVERNIGHT

FedEx.

TRK#  
0221 6483 4234 0155

XN JOTA

60484  
JL-US  
ORD



91132 21Aug2023 JVLA 58165/7584/C088

16ct

## Login Sample Receipt Checklist

Client: Pentair Water

Job Number: 500-238482-1

SDG Number:

**Login Number: 238482**

**List Source: Eurofins Chicago**

**List Number: 1**

**Creator: Schmidt, Kara**

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

# Wastewater Discharge Monitoring Short Report

For DNR Use Only

Facility Name : PENTAIR FLOW TECHNOLOGIES LLC

Contact Address : □□  
□□ , □□

Facility Contact : , □□

Phone Number : □□

Reporting Period : 10/01/2023 - 12/31/2023

Form Due Date : 01/21/2024

Permit Number : **0046566**

Date Received:	
DOC:	532793
FIN:	7072
FID:	265010900
Region:	Southeast Region
Permit Drafter:	Drafter not set
Reviewer:	Nicholas M Lent
Office:	Milwaukee

Sample Point	Parameter #	Parameter	Date Sample	Sample Type	Sample Results	Units	Limit Type	Limit	LOD	LOQ	QC Exceed?	Lab Certification
001	377	pH Field	12/11/2023	GRAB	7.85	su	Daily Max Daily Min	9(0) 6(0)			N	
001	457	Suspended Solids, Total	12/11/2023	GRAB	<1.9	mg/L	Daily Max	40(0)	1.9	5.0	N	999580010
001	490	Tetrachloroethylene	12/11/2023	GRAB	<0.37	ug/L	Monthly Avg	50(0)	0.37	1.0	N	999580010
001	561	1,1,1-Trichloro- ethane	12/11/2023	GRAB	<0.38	ug/L	Monthly Avg	50(0)	0.38	1.0	N	999580010
001	508	Trichloro- ethylene	12/11/2023	GRAB	0.28	ug/L	Monthly Avg	50(0)	0.16	0.50	Y	999580010
001	517	Vinyl chloride	12/11/2023	GRAB	<0.20	ug/L	Monthly Avg	10(0)	0.20	1.0	N	999580010

# Wastewater Discharge Monitoring Short Report

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

General Remarks

Laboratory Quality Control Comments

J: Result is less than the LOQ but greater than or equal to the LOD and the concentration is an approximate value.

Submitted by Mark Manthey(mmanthey) on 1/17/2024 4:43:39 PM

**GEOTRANS, INC. FIELD WATER QUALITY SAMPLING AND ANALYSIS FORM**

PROJECT INFORMATION			INSTRUMENTS		
PROJECT	Delavan Facility Remedial Action		Temp. & pH	HI98129	
PROJECT NO.	Delavan Well #4 WPD/ES		Conductivity	HI98129	
LOCATION	Delavan, WI		ORP		
PERSONNEL	Dennis		DO		
SAMPLE POINT	SS-1	SS-1	SS-1	SS-1	SS-1
WATER TYPE	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
DATE (month/day/year)	12/11/23				
CLOCK TIME (Military)	1045				
DEPTH TO WATER (ft)*	NA	NA	NA	NA	NA
MEASURED WELL DEPTH (ft)*	NA	NA	NA	NA	NA
CASING VOLUME (gallons)	NA	NA	NA	NA	NA
PURGE VOLUME (gallons)	NA	NA	NA	NA	NA
DEPTH SAMPLE TAKEN (ft)*	NA	NA	NA	NA	NA
SAMPLING DEVICE	HI98129				
FIELD TEMPERATURE (°C)	12.2				
pH	7.85				
ELEC. COND. (µS/cm)	Measured at 25°C	1533			
ORP (mV)	NA	NA	NA	NA	NA
DISSOLVED OXYGEN (ppm)	NA	NA	NA	NA	NA
DISSOLVED OXYGEN (% Sat.)	NA	NA	NA	NA	NA
COLOR	CLEAR				
ODOR	NONE				
CLARITY	CLEAR				
SAMPLING PARAMETERS	# OF CONTAINERS & VOLUME; CONTAINER TYPE (A = AMBER GLASS; G = GLASS; P = PLASTIC); PRESERVATIVE TYPE (L = LAB ADDED; F = FIELD ADDED) OR NEUTRAL; FILTERED (YES or NO)				
TCE, 1,1,1-TCA, 1,1,2-TCA, PCE, Vinyl Chloride (EPA Method SW 8260B)	3 - 40 ml; G; HCl - L; No.	3 - 40 ml; G; HCl - L; No.	3 - 40 ml; G; HCl - L; No.	3 - 40 ml; G; HCl - L; No.	3 - 40 ml; G; HCl - L; No.
<u>Comments:</u> TCE = Trichloroethene. TCA = Trichloroethane. PCE = Tetrachloroethene.					
NAME OF LABORATORY	Test America	Test America	Test America	Test America	Test America
DATE SENT TO LAB					
SAMPLER'S NAME	Dennis				

\*Measured from top of well casing.

# ANALYTICAL REPORT

## PREPARED FOR

Attn: Dennis Schwind  
Pentair Water  
293 Wright Street  
Delavan, Wisconsin 53115

Generated 12/21/2023 11:23:58 AM

## JOB DESCRIPTION

Delavan Well #4 WPDES

## JOB NUMBER

500-243813-1

# Eurofins Chicago

## Job Notes

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of Eurofins Environment Testing North Central, LLC and its client. All questions regarding this report should be directed to the Eurofins Environment Testing North Central, LLC Project Manager who has signed this report.

Results relate only to the items tested and the sample(s) as received by the laboratory. The results, detection limits (LOD) and Quantitation Limits (LOQ) have been adjusted for sample dilutions and/or solids content.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Chicago Project Manager.

## Compliance Statement

The LOD and LOQ reported are adjusted by the dilution factor when a dilution factor greater than 1 is needed. Additionally, where results are indicated as being reported on a dry weight basis, the LOD and LOQ are adjusted for moisture content as well.

### Definitions of Limits

- LOD = Limit of Detection = MDL as defined by 40 CFR part 136 Appendix B
- LOQ = Limit of Quantitation =  $3.33 \times \text{LOD}$  as defined by Wisconsin
- RL = Report Limit = a concentration supported by a standard in the calibration curves

## Authorization



Generated  
12/21/2023 11:23:58 AM

Authorized for release by  
Sandie Fredrick, Senior Project Manager  
[Sandra.Fredrick@et.eurofinsus.com](mailto:Sandra.Fredrick@et.eurofinsus.com)  
(920)261-1660

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# Definitions/Glossary

Client: Pentair Water

Project/Site: Delavan Well #4 WPDES

Job ID: 500-243813-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

# Case Narrative

Client: Pentair Water  
Project: Delavan Well #4 WPDES

Job ID: 500-243813-1

**Job ID: 500-243813-1**

**Eurofins Chicago**

## Job Narrative 500-243813-1

### **Receipt**

The samples were received on 12/13/2023 10:30 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.2° C.

### **GC/MS VOA**

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

### **General Chemistry**

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Eurofins Chicago

# Client Sample Results

Client: Pentair Water  
Project/Site: Delavan Well #4 WPDES

Job ID: 500-243813-1

**Client Sample ID: SS1**

Date Collected: 12/11/23 10:45  
Date Received: 12/13/23 10:30

**Lab Sample ID: 500-243813-1**

Matrix: Water

## Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			12/15/23 16:45	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			12/15/23 16:45	1
<b>Trichloroethene</b>	<b>0.28</b>	<b>J</b>	0.50	0.16	ug/L			12/15/23 16:45	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			12/15/23 16:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	112		75 - 126		12/15/23 16:45	1
4-Bromofluorobenzene (Surr)	101		72 - 124		12/15/23 16:45	1
Dibromofluoromethane (Surr)	108		75 - 120		12/15/23 16:45	1
Toluene-d8 (Surr)	101		75 - 120		12/15/23 16:45	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (SM 2540D)	<1.9		5.0	1.9	mg/L			12/15/23 13:41	1

# Client Sample Results

Client: Pentair Water  
Project/Site: Delavan Well #4 WPDES

Job ID: 500-243813-1

**Client Sample ID: Trip Blank**  
**Date Collected: 12/11/23 00:00**  
**Date Received: 12/13/23 10:30**

**Lab Sample ID: 500-243813-2**  
**Matrix: Water**

## Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			12/15/23 13:16	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			12/15/23 13:16	1
Trichloroethene	<0.16		0.50	0.16	ug/L			12/15/23 13:16	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			12/15/23 13:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		75 - 126		12/15/23 13:16	1
4-Bromofluorobenzene (Surr)	101		72 - 124		12/15/23 13:16	1
Dibromofluoromethane (Surr)	106		75 - 120		12/15/23 13:16	1
Toluene-d8 (Surr)	101		75 - 120		12/15/23 13:16	1

# Lab Chronicle

Client: Pentair Water  
Project/Site: Delavan Well #4 WPDES

Job ID: 500-243813-1

## Client Sample ID: SS1

Date Collected: 12/11/23 10:45

Date Received: 12/13/23 10:30

## Lab Sample ID: 500-243813-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	746856	LMB	EET CHI	12/15/23 16:45
Total/NA	Analysis	SM 2540D		1	746950	SO	EET CHI	12/15/23 13:41 - 12/15/23 13:43 <sup>1</sup>

## Client Sample ID: Trip Blank

Date Collected: 12/11/23 00:00

Date Received: 12/13/23 10:30

## Lab Sample ID: 500-243813-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	746856	LMB	EET CHI	12/15/23 13:16

<sup>1</sup>This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

### Laboratory References:

EET CHI = Eurofins Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

## Accreditation/Certification Summary

Client: Pentair Water

Project/Site: Delavan Well #4 WPDES

Job ID: 500-243813-1

### Laboratory: Eurofins Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Wisconsin	State	999580010	08-31-24

1

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Eurofins Chicago

# Method Summary

Client: Pentair Water  
Project/Site: Delavan Well #4 WPDES

Job ID: 500-243813-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET CHI
SM 2540D	Solids, Total Suspended (TSS)	SM	EET CHI
5030B	Purge and Trap	SW846	EET CHI

## Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

## Laboratory References:

EET CHI = Eurofins Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

## Sample Summary

Client: Pentair Water

Project/Site: Delavan Well #4 WPDES

Job ID: 500-243813-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-243813-1	SS1	Water	12/11/23 10:45	12/13/23 10:30
500-243813-2	Trip Blank	Water	12/11/23 00:00	12/13/23 10:30

## Chain of Custody Record

<b>Client Information</b>		Sampler <i>Dennis</i>	Lab PM Fredrick Sandie	Carrier Tracking No(s)	COC No: 500-109164-25416 1										
Client Contact Dennis Schwind		Phone <i>262-728-5551</i>	E-Mail Sandra Fredrick@el eurofinsus com	State of Origin											
Company Pentair Water		PWSID	Analysis Requested												
Address 293 Wright Street		Due Date Requested													
City Delavan		TAT Requested (days)													
State Zip: WI 53115		Compliance Project <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No													
Phone		PO# Purchase Order not required													
Email dennis.schwind@PENTAIR.COM		WO#													
Project Name Pentair - SS1 Quarterly		Project # 50006669													
Site <i>Delavan Well #4 4PDES</i>		SSOW#.													
Sample Identification		Sample Date <i>12/11/23</i>	Sample Time <i>1045 G</i>	Sample Type (C=Comp, G=grab)	Matrix (W=water B=solid O=waste/oil, DT=tissue, A=Air)	Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/>	Partion/MSD (Yes or No) <input checked="" type="checkbox"/>	TCE	TCA	PCE	Vinyl Chloride	TSS	Total Number of containers	Special Instructions/Note	
1 SS1				Water	N	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
2 Trip Blank				Water	N	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
Possible Hazard Identification								Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)							
<input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological								<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months							
Deliverable Requested I II, III IV Other (specify)								Special Instructions/QC Requirements							
Empty Kit Relinquished by <i>Dennis Schwind</i>				Date <i>12/12/23 10:22</i>		Time		Method of Shipment							
Relinquished by				Date/Time <i>12/12/23 10:22</i>	Company <i>Pentair</i>	Received by <i>Ramiro</i>	Date/Time <i>12/13/23 1030</i>		Company <i>EETA</i>						
Relinquished by				Date/Time	Company	Received by	Date/Time		Company						
Custody Seals Intact. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				Custody Seal No		Cooler Temperature(s) °C and Other Remarks <i>1.3 → 1.2</i>									

## Login Sample Receipt Checklist

Client: Pentair Water

Job Number: 500-243813-1

**Login Number:** 243813

**List Source:** Eurofins Chicago

**List Number:** 1

**Creator:** Schmidt, Kara

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

**TETRA TECH**

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