

CFA VEMTC WMS Quarterly Performance Report

Calendar Quarter Three 2025 - 01/07/2025 - 30/09/2025

I. Report Issue Date - 15/10/2025

The Water Management System (WMS) at each Victorian Emergency Management Training Centre (VEMTC) is designed to produce water for training, in line with a Specification which ensures the water is better than the minimum requirements of the Australian Drinking Water Guidelines.

Water samples taken from two sampling locations at each VEMTC are sent for analysis at a NATA accredited laboratory. This report summarises the sampling results and their conformance to the Specification for the past quarter.



WTP1 - Penshurst Water Quality Summary		
Sample Date	Treated Water Tank Outlet	Hydrants
09/07/2025	Non Compliant Result	Non Compliant Result
21/07/2025	Non Compliant Result	Non Compliant Result
05/08/2025	Non Compliant Result	Non Compliant Result
19/08/2025	Non Compliant Result	Non Compliant Result
02/09/2025	Non Compliant Result	Non Compliant Result
16/09/2025	Non Compliant Result	All Hydrants within Specification
29/09/2025	All results within Specification	All Hydrants within Specification

WTP1 - Penshurst Results Discussion

The water treatment facility experienced a series of non-compliance events from July through September 2025, primarily affecting aesthetic and health-based water quality parameters.

Key Issues Identified:

- 1. **Colour Exceedances (July 9-21):** Initial non-compliance with colour parameters (25-30 Pt/Co units vs. 15 limit) led to transition to APWS supply on July 18. Subsequent resampling also revealed a singular coliform detection and elevated turbidity.
- 2. **Turbidity Issues (August-September):** Persistent turbidity exceedances (5.6-6.1 NTU vs. 5 NTU limit) throughout August, attributed to deteriorated lagoon source water quality, irregular plant operations, and inadequate coagulation performance. This was managed through coagulation dosing optimisation of ACH.
- 3. Chemical Contaminants (August-September):
 - Dichloroacetic acid exceeded health-based targets (0.13 mg/L vs. 0.1 mg/L limit) in early August
 - Acid Soluble Aluminium became the primary concern from mid-August through mid-September, with levels reaching 1 mg/L (vs. 0.2 mg/L limit), indicating ACH optimisation trials were effective for reducing turbidity while byproducts became a challenge.
- 4. **Root Causes:** Poor source water quality (raw water showing 0.23 mg/L aluminium), extended plant shutdown periods, and pre-treatment process challenges with optimisation of ACH.

Remedial Actions: Operations implemented corrective measures including ACH dosing adjustments and pre-treatment optimisation. By September 29, 2025, all parameters returned to specification compliance. The facility transitioned between WMS and APWS supply as needed to maintain service during remediation.

Follow up actions will be implemented in partnership with CFA to manage the water quality risks.



WTP2 - Wangaratta Water Quality Summary		
Sample Date	Treated Water Tank Outlet	Hydrants
14/07/2025	All results within Specification	All Hydrants within Specification
29/07/2025	All results within Specification	All Hydrants within Specification
11/08/2025	All results within Specification	All Hydrants within Specification
26/08/2025	All results within Specification	All Hydrants within Specification
08/09/2025	All results within Specification	All Hydrants within Specification
24/09/2025	All results within Specification	All Hydrants within Specification

WTP2 - Wangaratta Results Discussion



WTP3 - Sunraysia Water Quality Summary		
Sample Date	Treated Water Tank Outlet	Hydrants
03/07/2025	All results within Specification	All Hydrants within Specification
16/07/2025	All results within Specification	All Hydrants within Specification
30/07/2025	All results within Specification	All Hydrants within Specification
12/08/2025	All results within Specification	All Hydrants within Specification
26/08/2025	All results within Specification	All Hydrants within Specification
10/09/2025	All results within Specification	All Hydrants within Specification
23/09/2025	All results within Specification	All Hydrants within Specification

WTP3 - Sunraysia Results Discussion



WTP4 - West Sale Water Quality Summary		
Sample Date	Treated Water Tank Outlet	Hydrants
08/07/2025	All results within Specification	All Hydrants within Specification
21/07/2025	All results within Specification	All Hydrants within Specification
04/08/2025	All results within Specification	All Hydrants within Specification
18/08/2025	All results within Specification	All Hydrants within Specification
01/09/2025	All results within Specification	All Hydrants within Specification
15/09/2025	All results within Specification	All Hydrants within Specification

WTP4 - West Sale Results Discussion



WTP5 - Bangholme Water Quality Summary		
Sample Date	Treated Water Tank Outlet	Hydrants
03/07/2025	All results within Specification	All Hydrants within Specification
14/07/2025	All results within Specification	All Hydrants within Specification
28/07/2025	All results within Specification	All Hydrants within Specification
15/08/2025	All results within Specification	All Hydrants within Specification
27/08/2025	All results within Specification	All Hydrants within Specification
11/09/2025	All results within Specification	All Hydrants within Specification
22/09/2025	All results within Specification	All Hydrants within Specification

WTP5 - Bangholme Results Discussion



WTP6 - Longerenong Water Quality Summary		
Sample Date	Treated Water Tank Outlet	Hydrants
07/07/2025	All results within Specification	All hydrants within Specification
21/07/2025	All results within Specification	All hydrants within Specification
06/08/2025	All results within Specification	All hydrants within Specification
20/08/2025	All results within Specification	All hydrants within Specification
03/09/2025	All results within Specification	All hydrants within Specification
16/09/2025	All results within Specification	All hydrants within Specification

WTP6 - Longerenong Results Discussion



WTP7 - Huntly Water Quality Summary		
Sample Date	Treated Water Tank Outlet	Hydrants
16/07/2025	All results within Specification	All hydrants within Specification
30/07/2025	All results within Specification	All hydrants within Specification
13/08/2025	All results within Specification	All hydrants within Specification
27/08/2025	All results within Specification	Non Compliant Result
08/09/2025	All results within Specification	All hydrants within Specification
23/09/2025	All results within Specification	All hydrants within Specification

WTP7 - Huntly Results Discussion

Treated water tank outlet and all hydrants within Specification except for sample taken on 27/08/2025.

On August 27, 2025, water quality testing identified exceedances of the Australian Drinking Water Guidelines (ADWG) aesthetic target for Acid Soluble Aluminium (limit: 0.20mg/L) in both the;

- Treated Water Tank (VM-0610: 0.32mg/L) and
- Hydrant Composite samples (0.23mg/L).

The elevated aluminium levels resulted from increased aluminium chlorohydrate (ACH) dosing implemented on the same date to address higher incoming water turbidities. Corrective measures were initiated, including comprehensive pre-treatment system testing, verification of acceptable plant outlet turbidity (0.44 NTU), and optimisation of ACH dosing setpoints.

Immediate re-sampling confirmed effective remediation, with results received September 3, 2025, showing compliance at the aesthetic target threshold (Treated Water Tank: 0.20mg/L) and well below limits at the plant outlet (0.02mg/L). Subsequent monitoring on September 8, 2025, demonstrated sustained improvement with both sample points below the aesthetic target (Treated Water Tank: 0.14mg/L; Hydrant Composite: 0.12mg/L), confirming the Water Management System returned to full specification. The incident was promptly detected, investigated, and resolved through operational adjustments within six days.

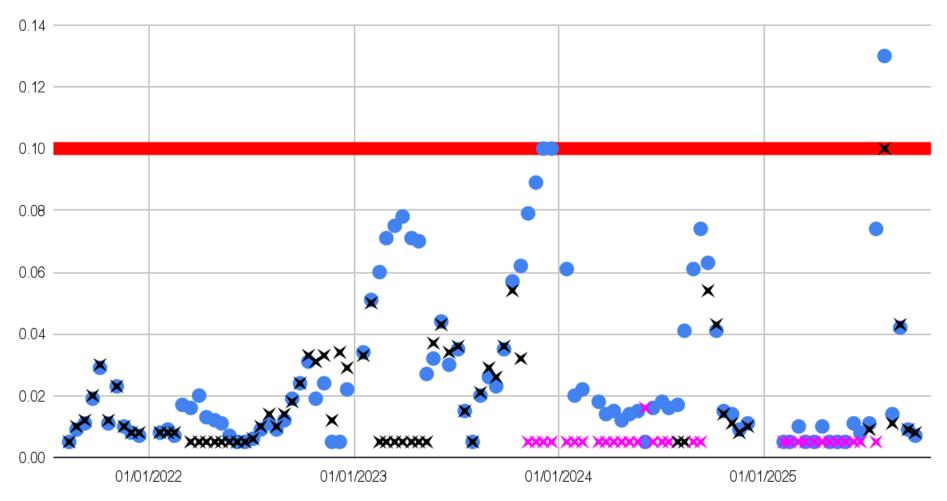


Water Quality Charts External Laboratory Results

Penshurst Treated Water Tank Chloroacetic Acid (mg/L) X Penshurst Hydrants Chloroacetic Acid (mg/L) Purple X - On APWS Water Supply 0.15 mg/L 0.15 0.10 0.05 0.00 -01/01/2025 01/01/2022 01/01/2023 01/01/2024

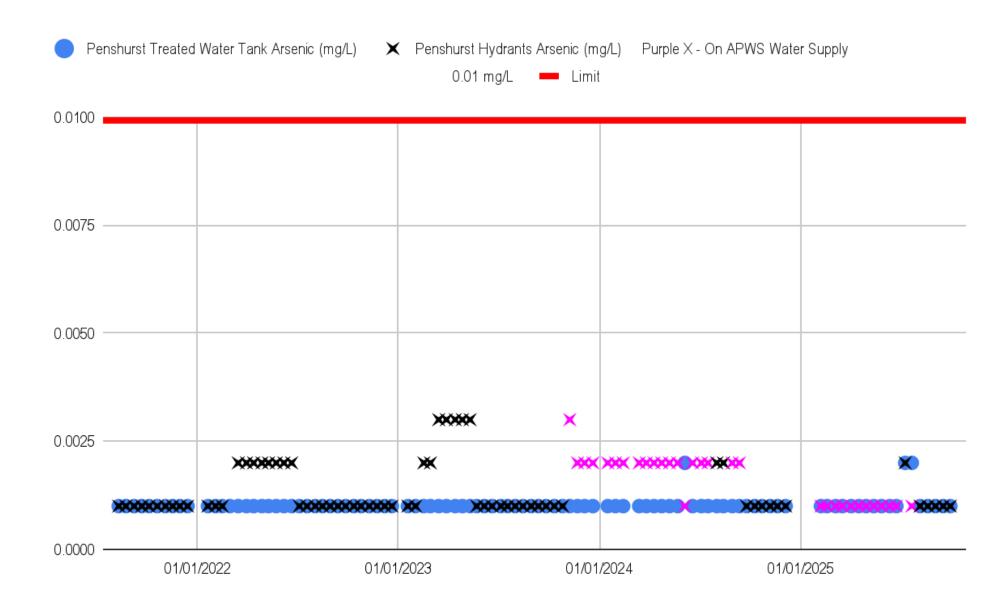
Penshurst Treated Water Tank Dichloroacetic Acid (mg/L) Renshurst Hydrants Dichloroacetic Acid (mg/L)

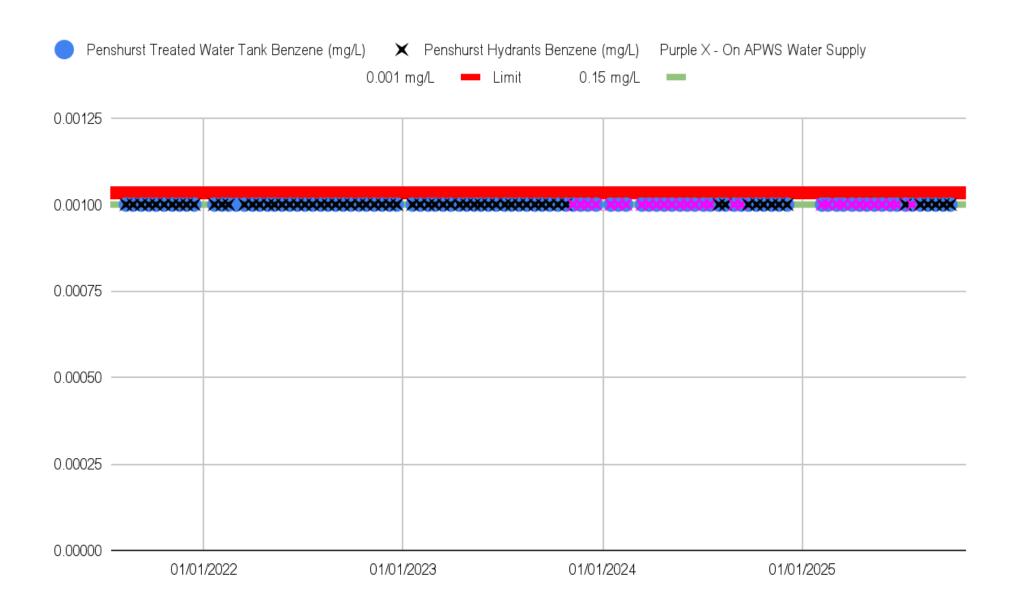
Purple X - On APWS Water Supply 0.1 mg/L Limit

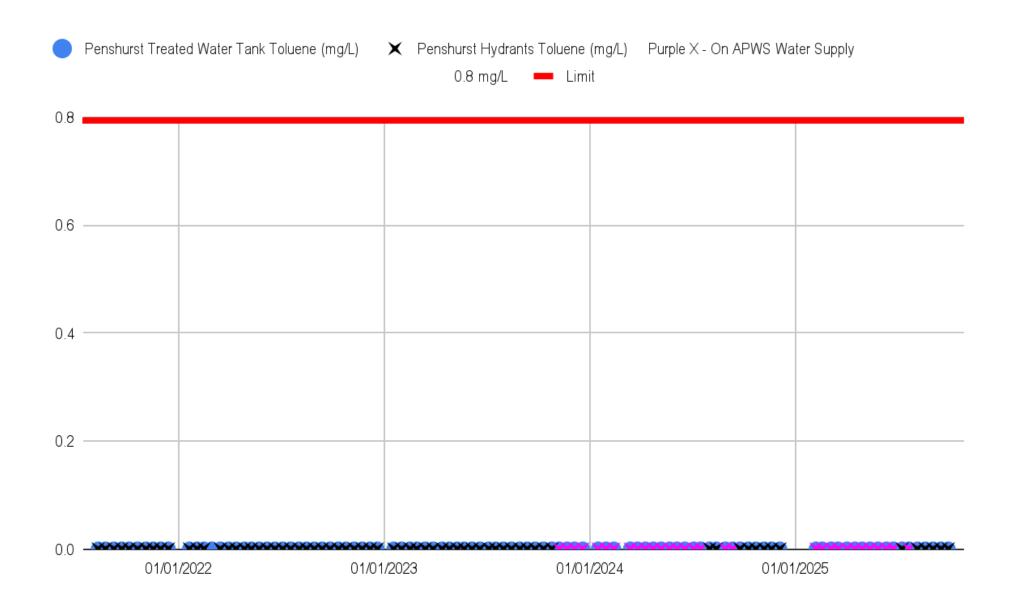


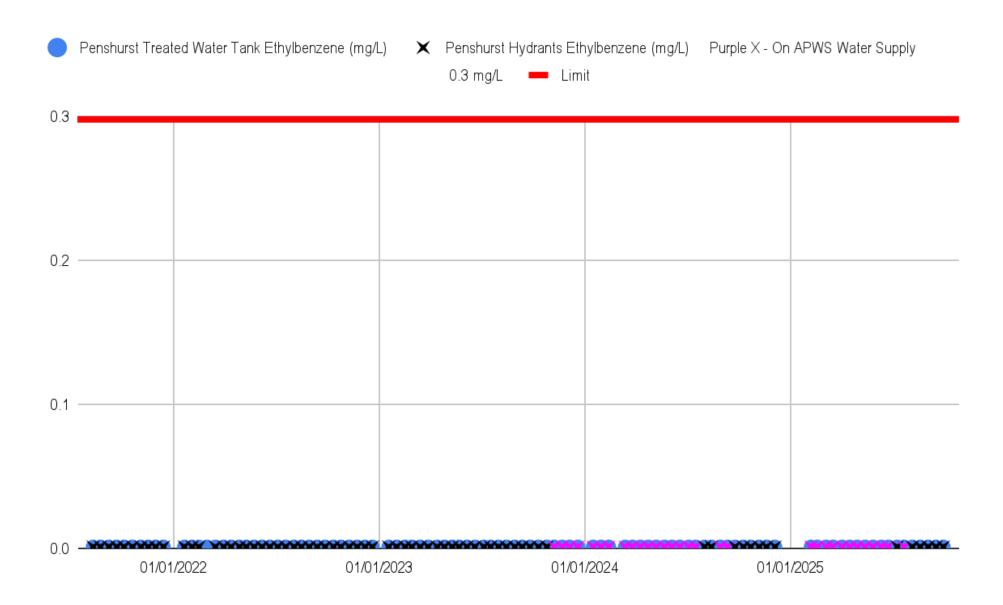
Penshurst Treated Water Tank Trichloroacetic Acid (mg/L) X Penshurst Hydrants Trichloroacetic Acid (mg/L) Purple X - On APWS Water Supply 0.1 mg/L 0.100 0.075 0.050 X 0.025 0.000 01/01/2022 01/01/2023 01/01/2024 01/01/2025

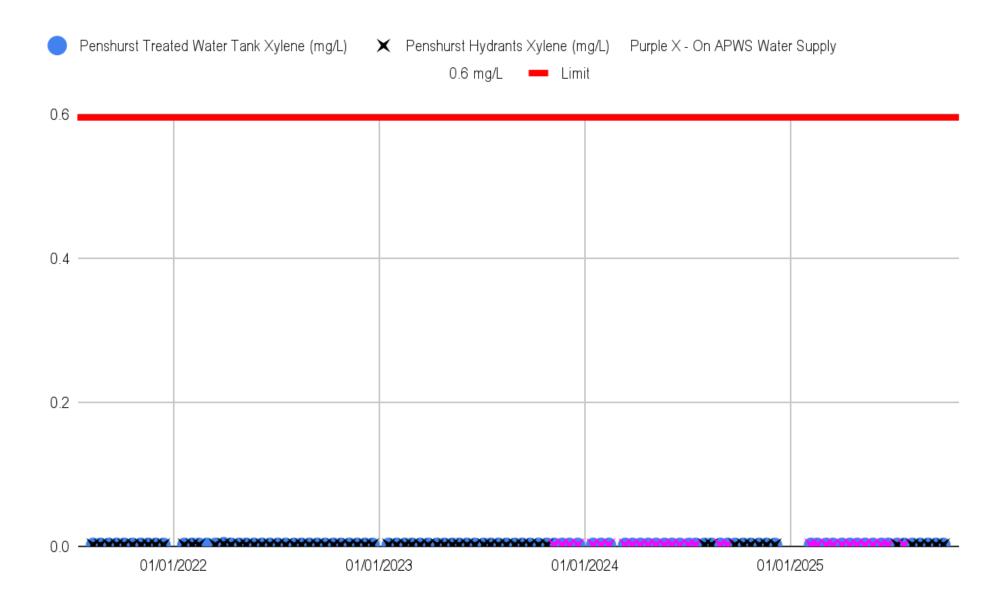
Penshurst Treated Water Tank Acid Soluble Aluminium (mg/L) X Penshurst Hydrants Acid Soluble Aluminium (mg/L) Purple X - On APWS Water Supply 0.2 mg/L 1.00 0.75 0.50 0.25 0.00 -01/01/2022 01/01/2023 01/01/2025 01/01/2024

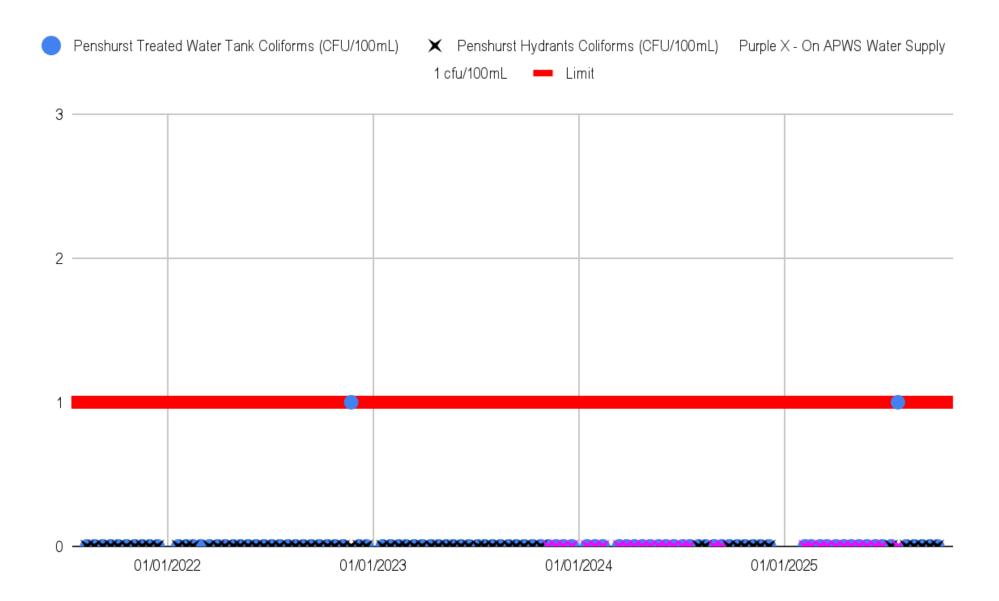


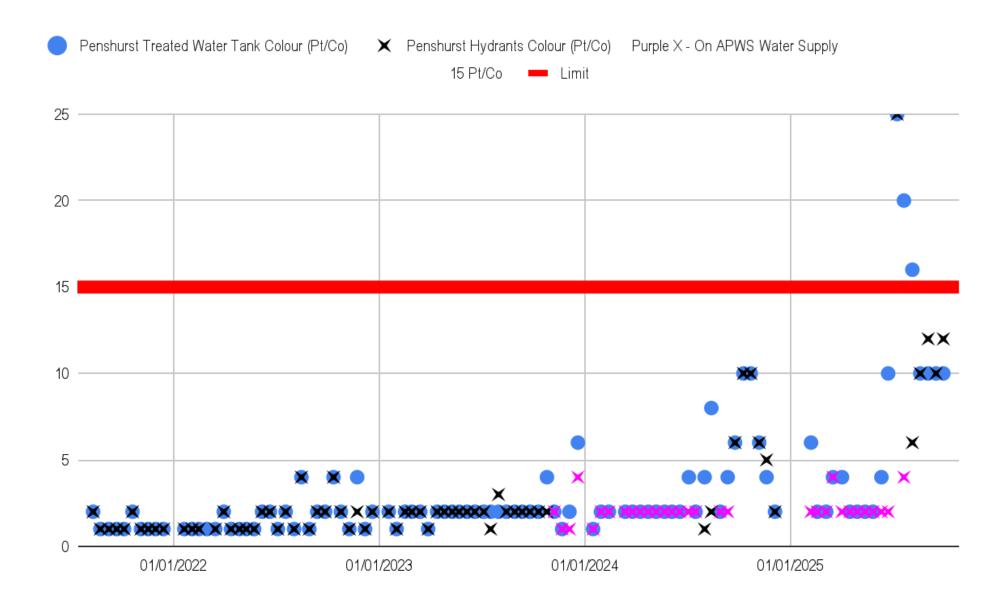


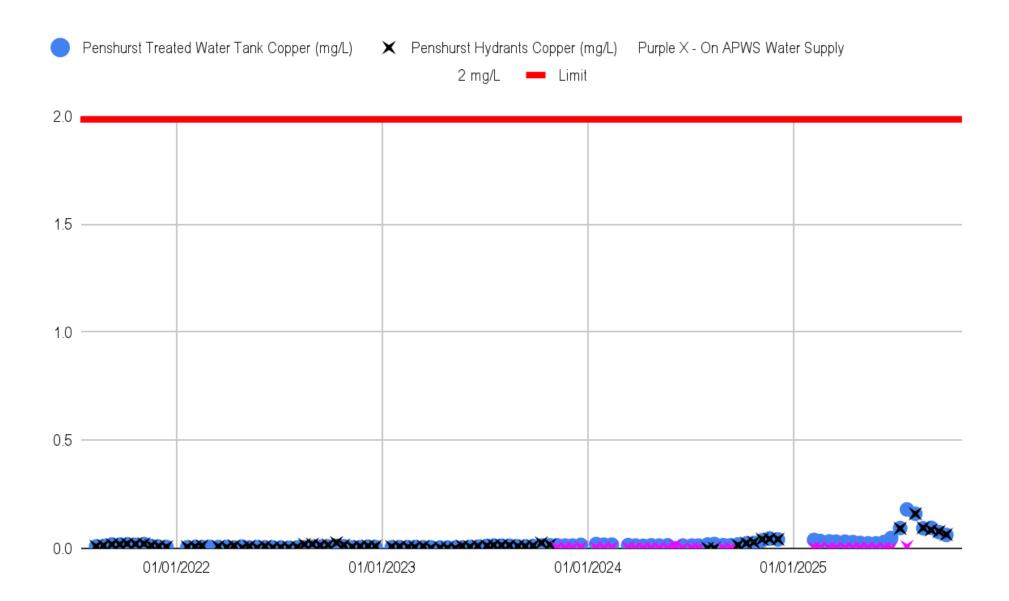


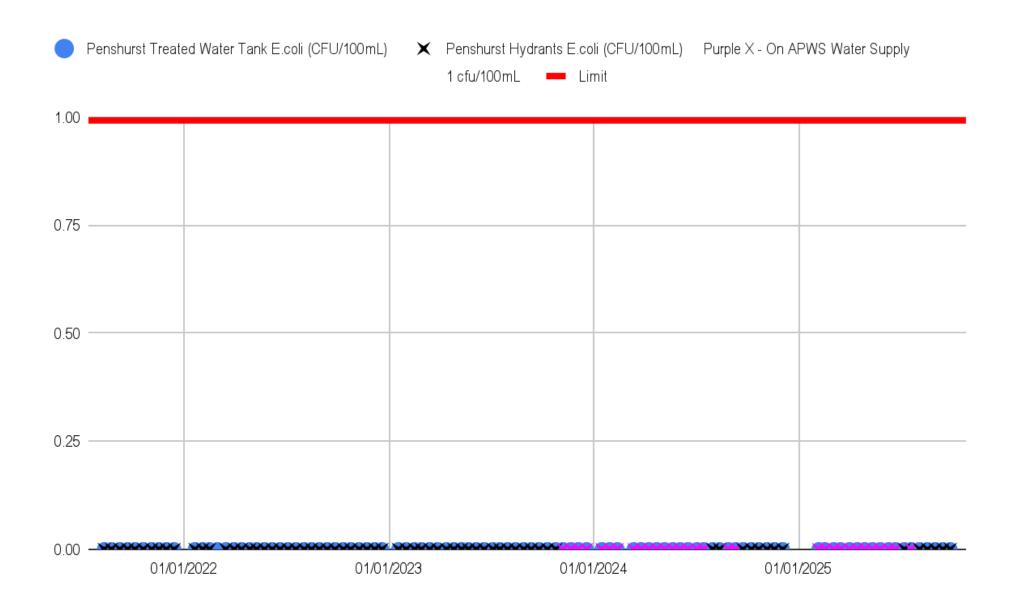


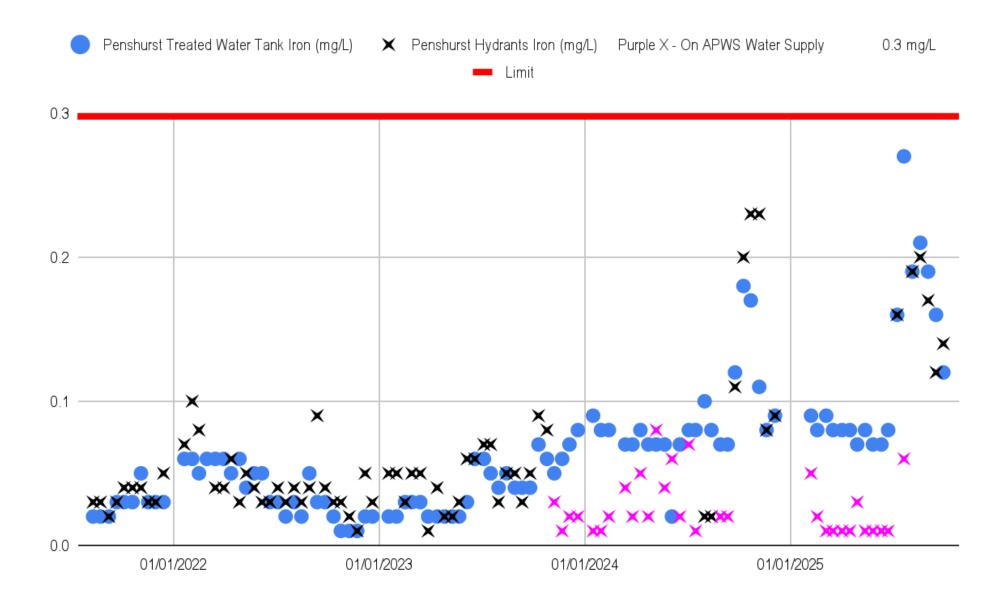


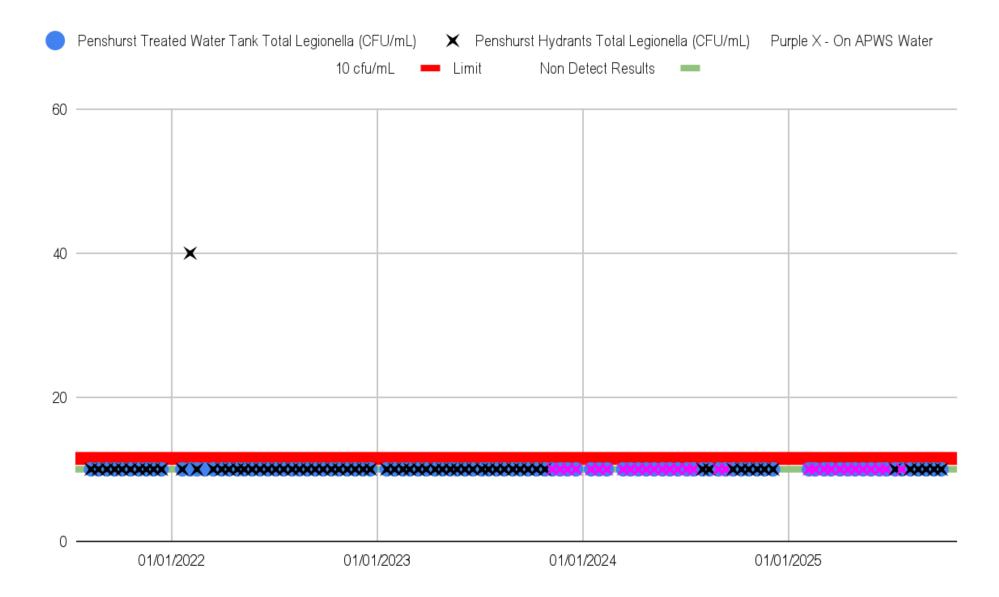


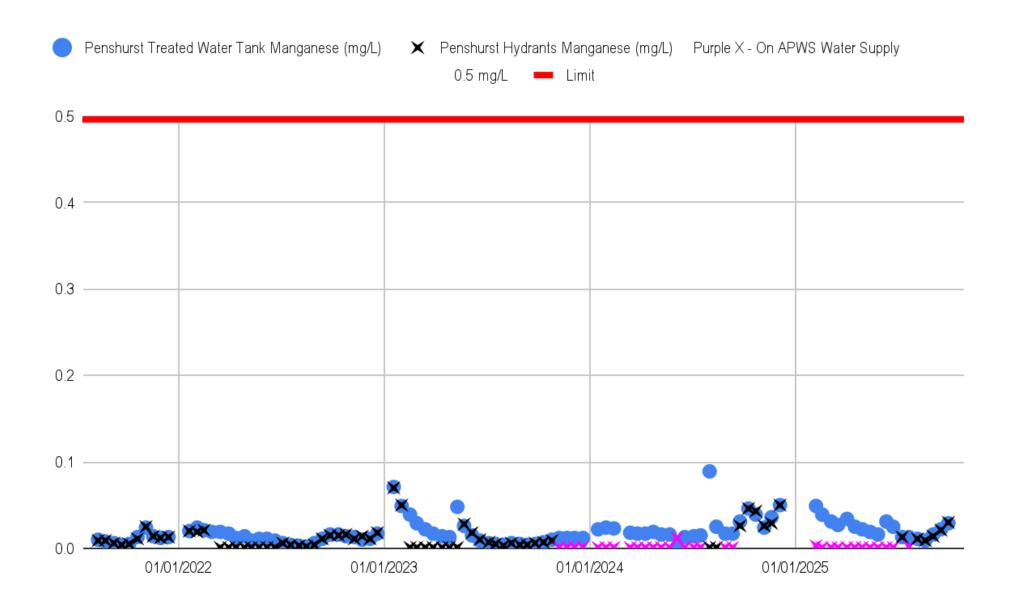


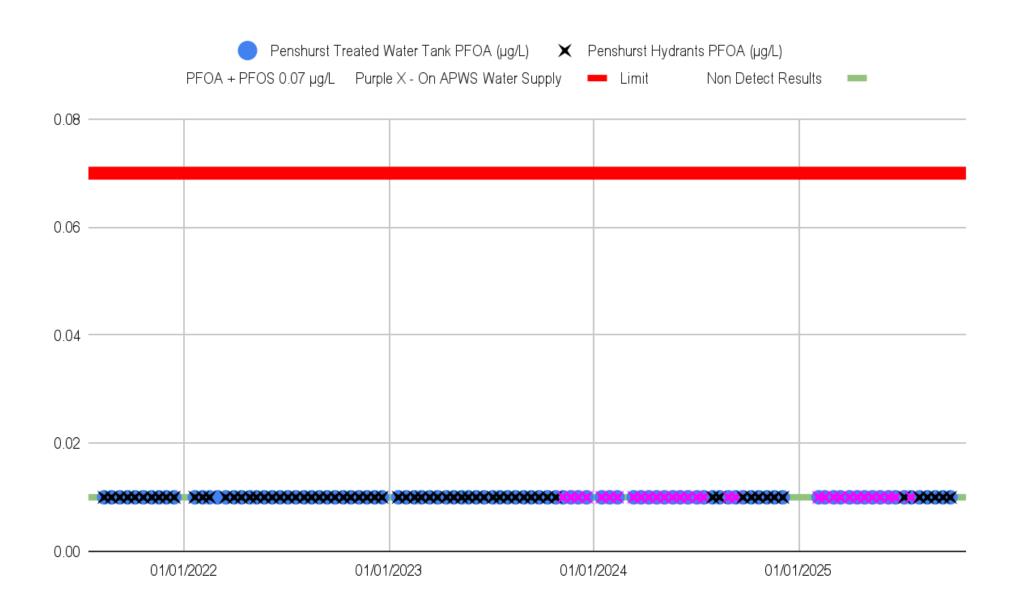


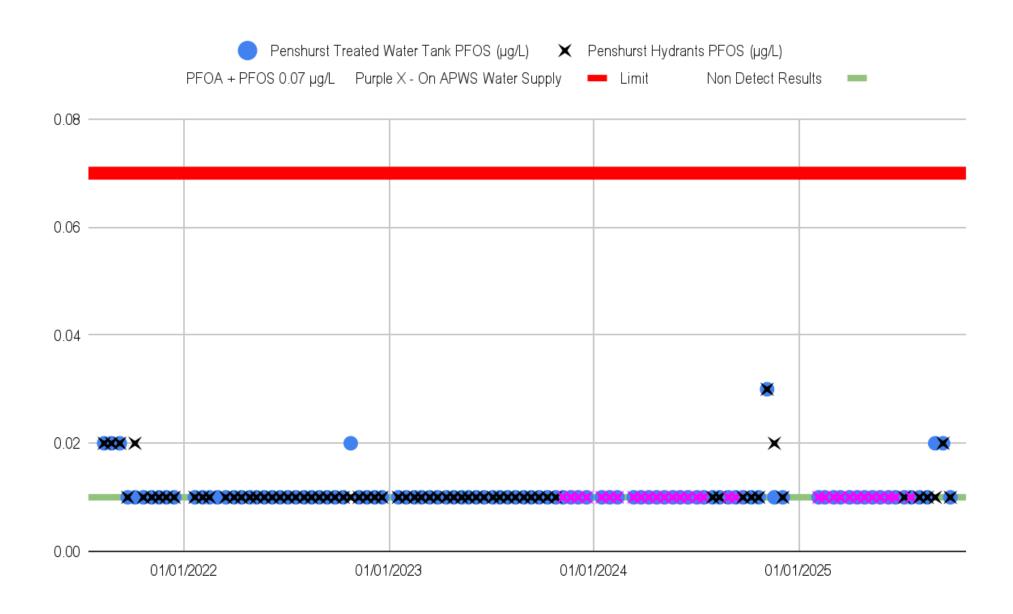


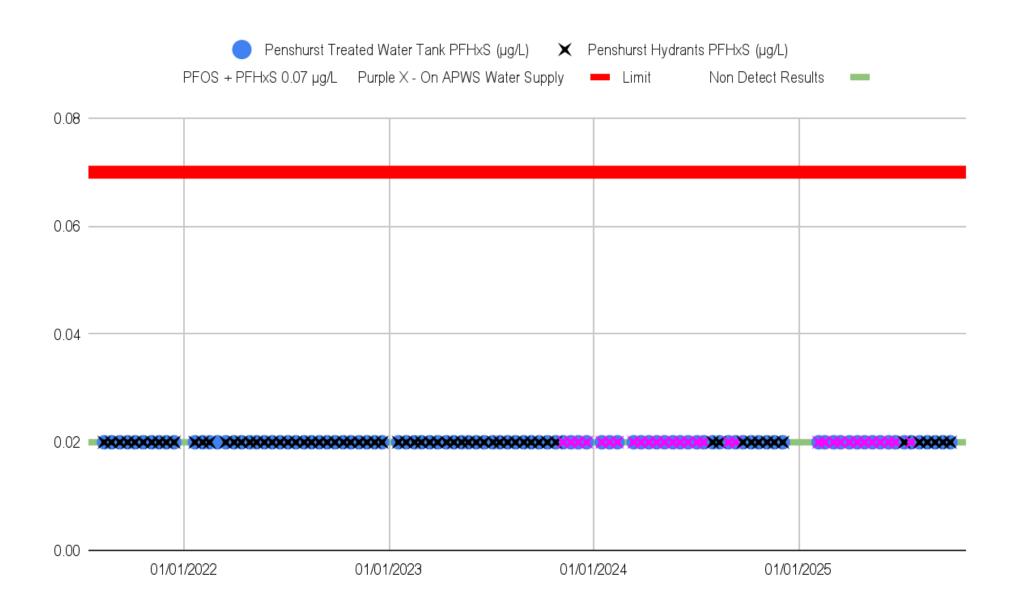


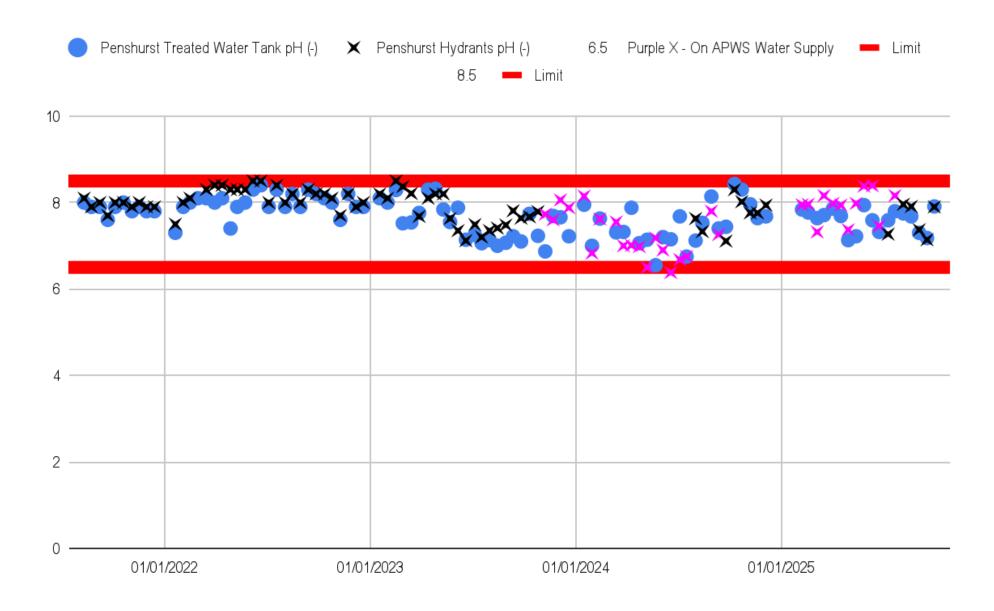


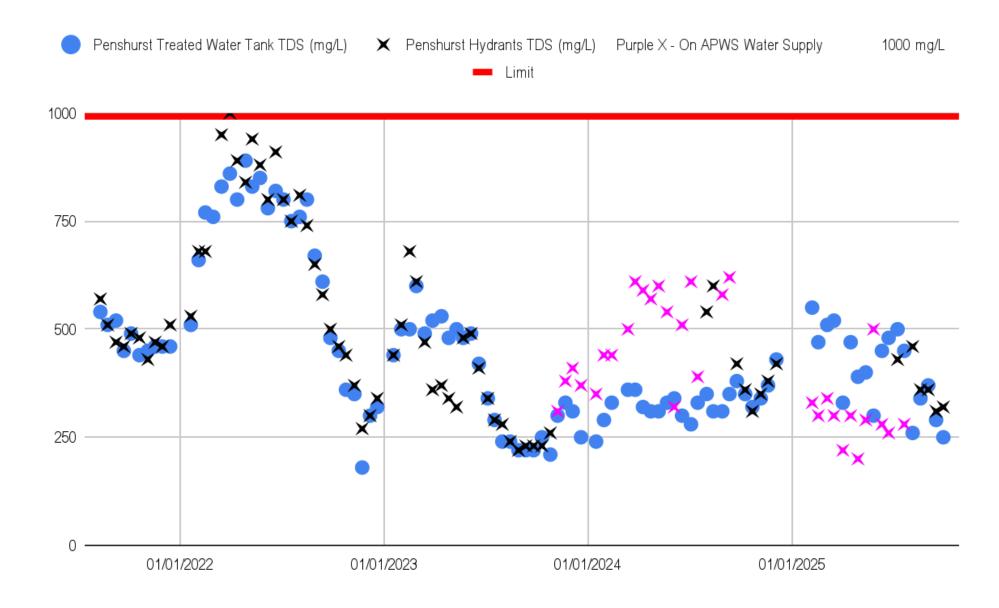


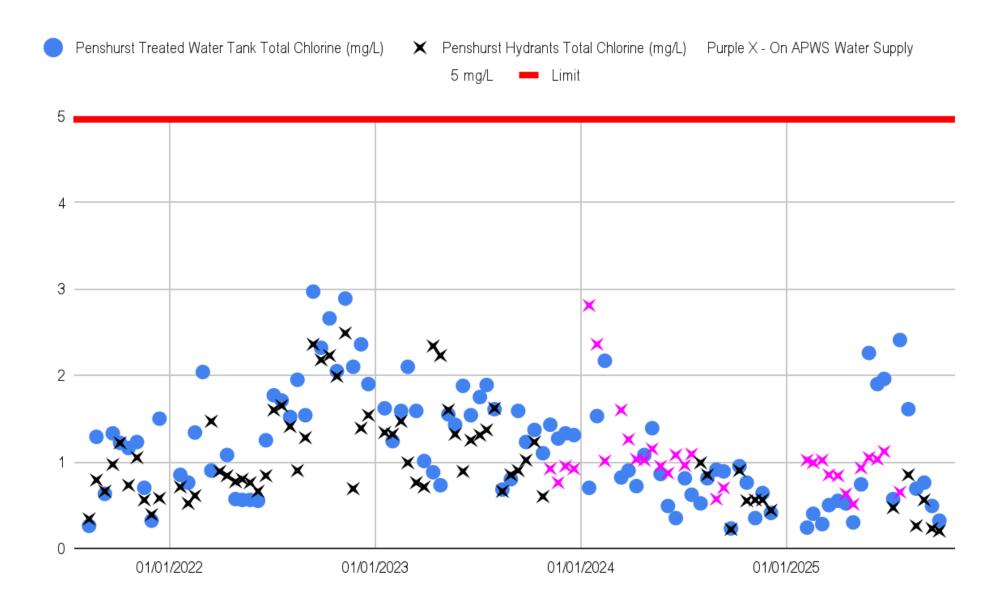


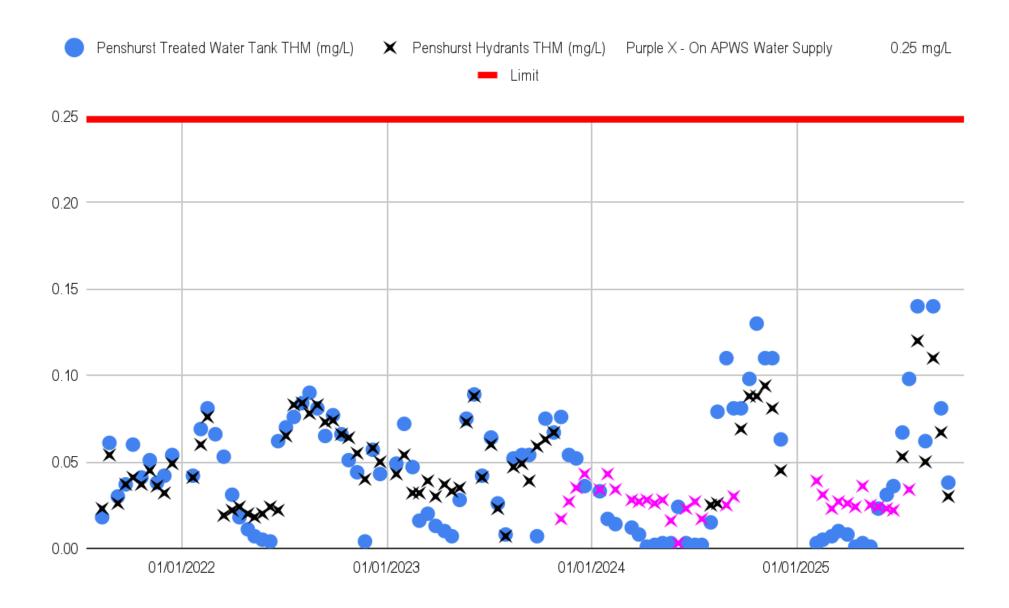


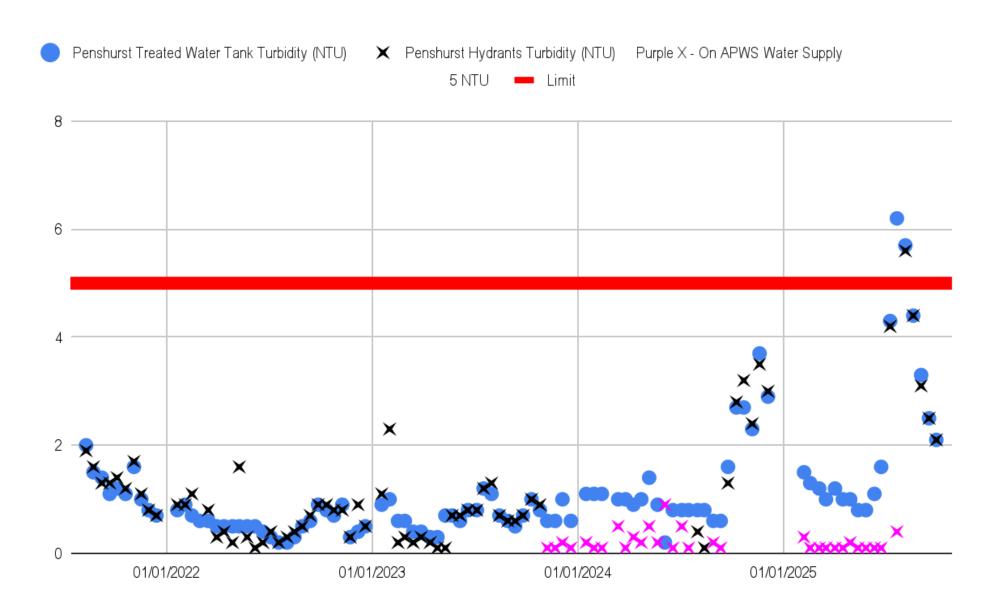


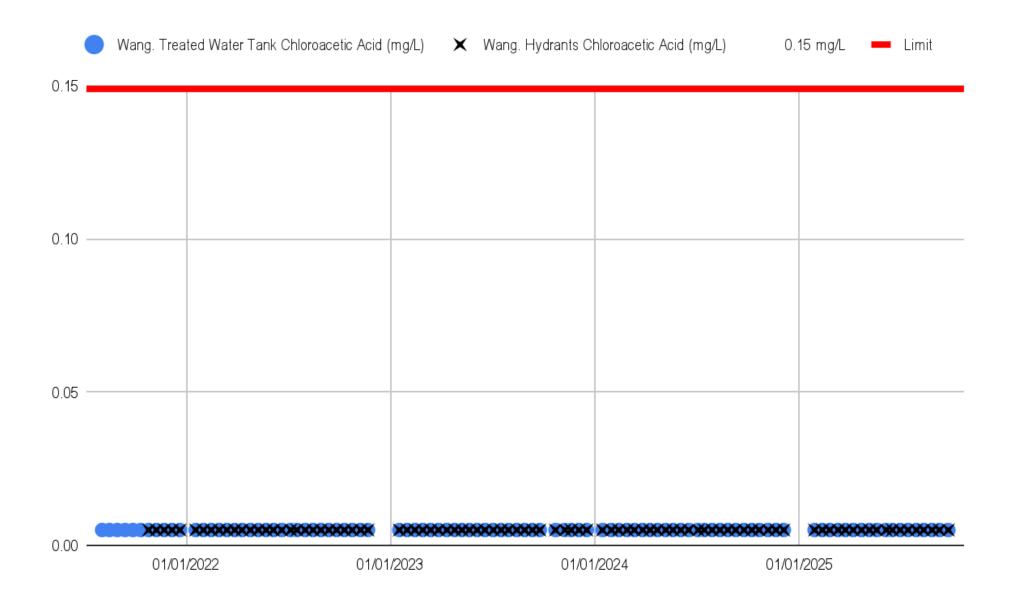


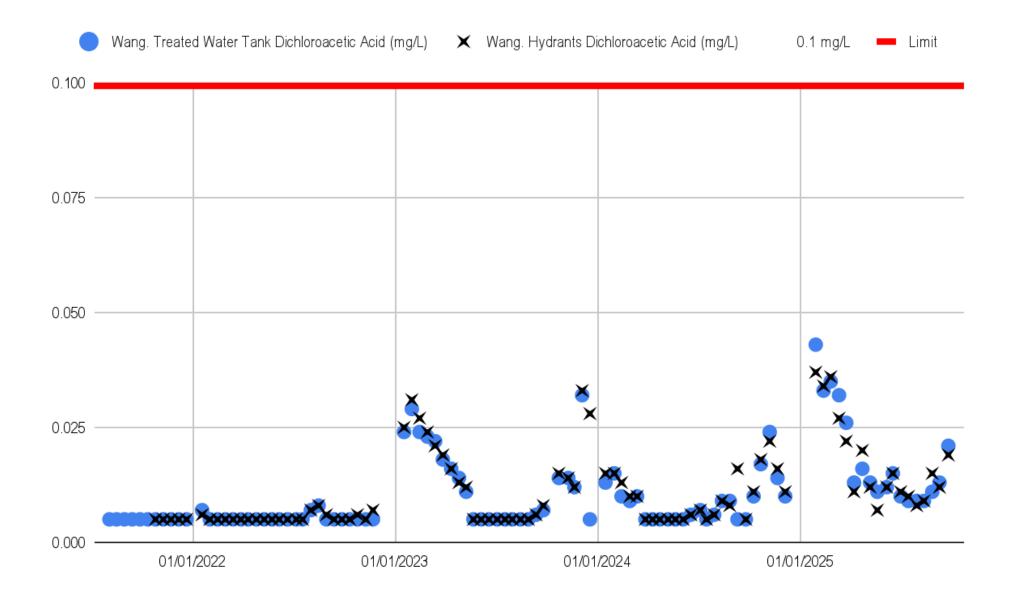


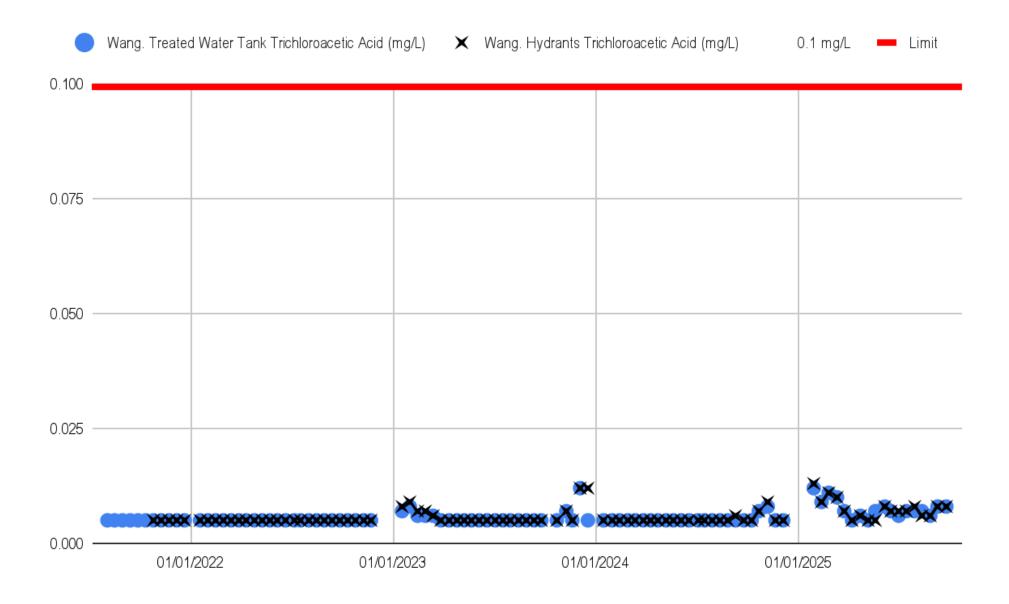


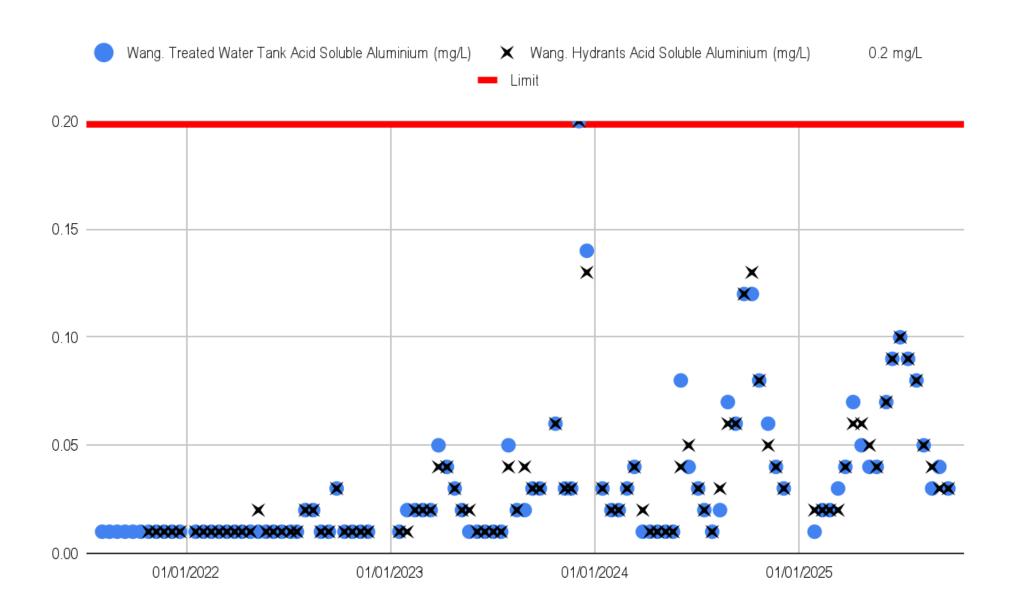


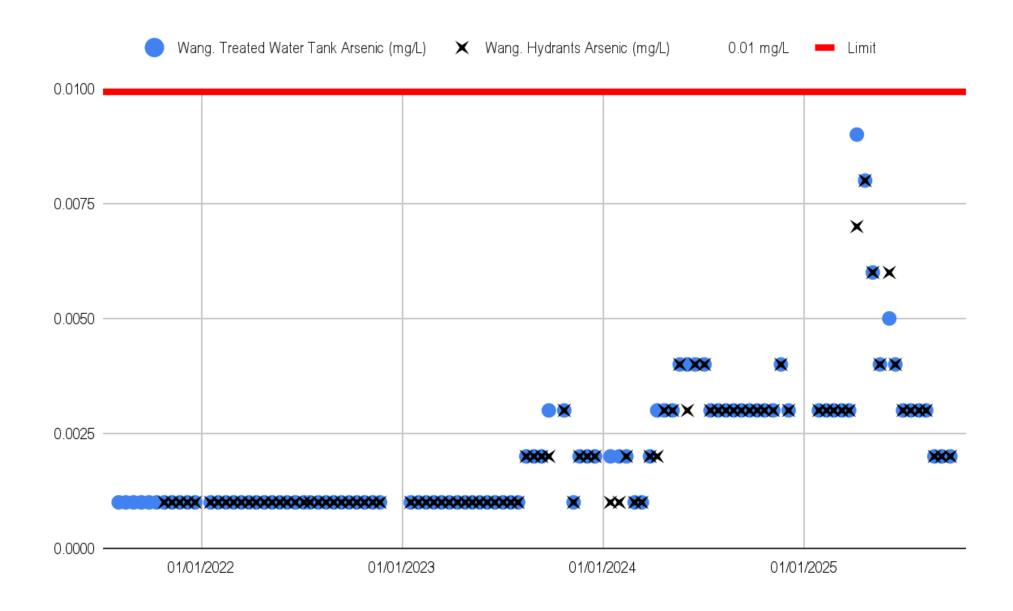


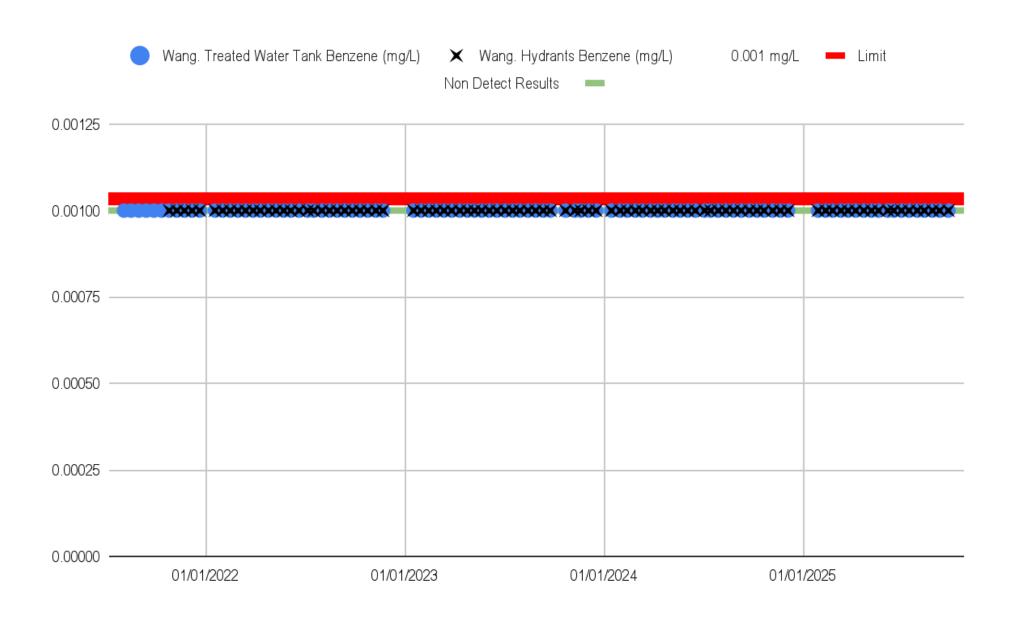


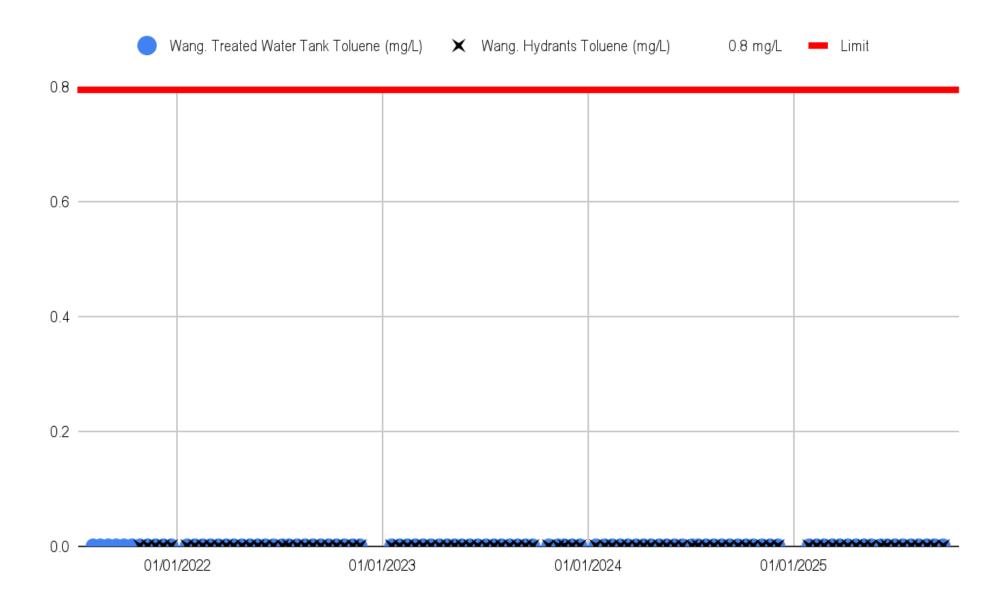


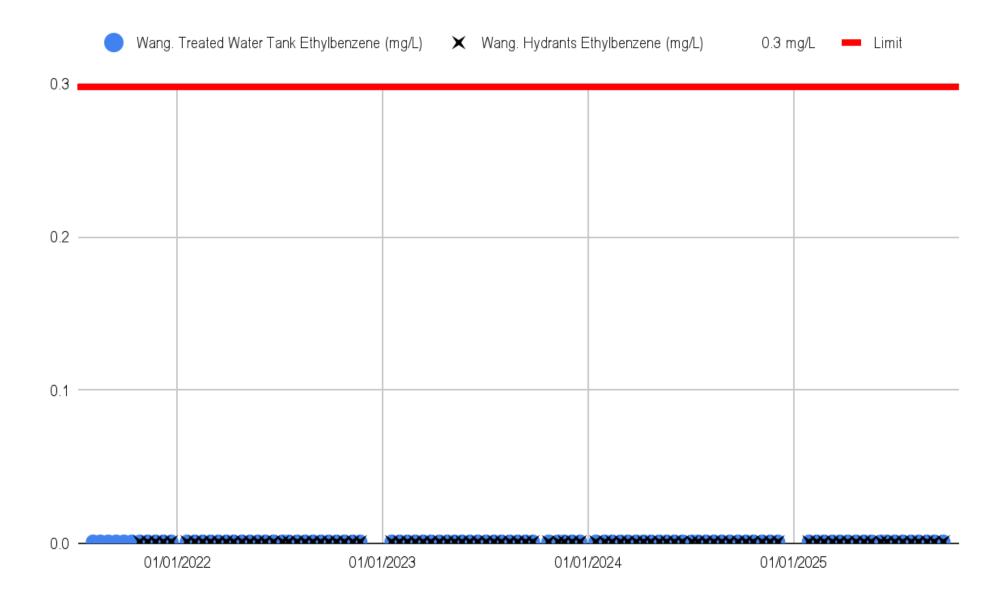


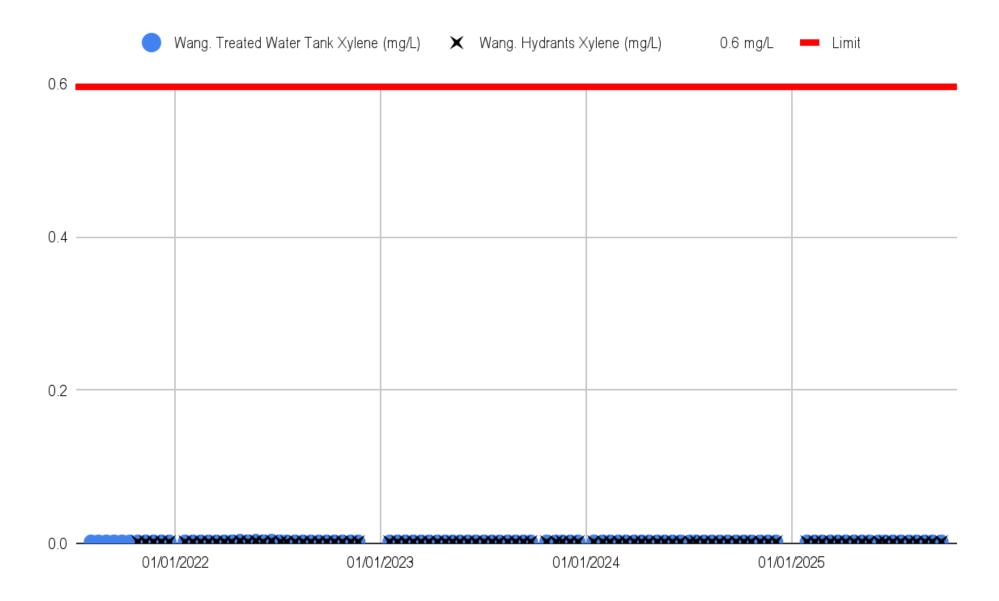


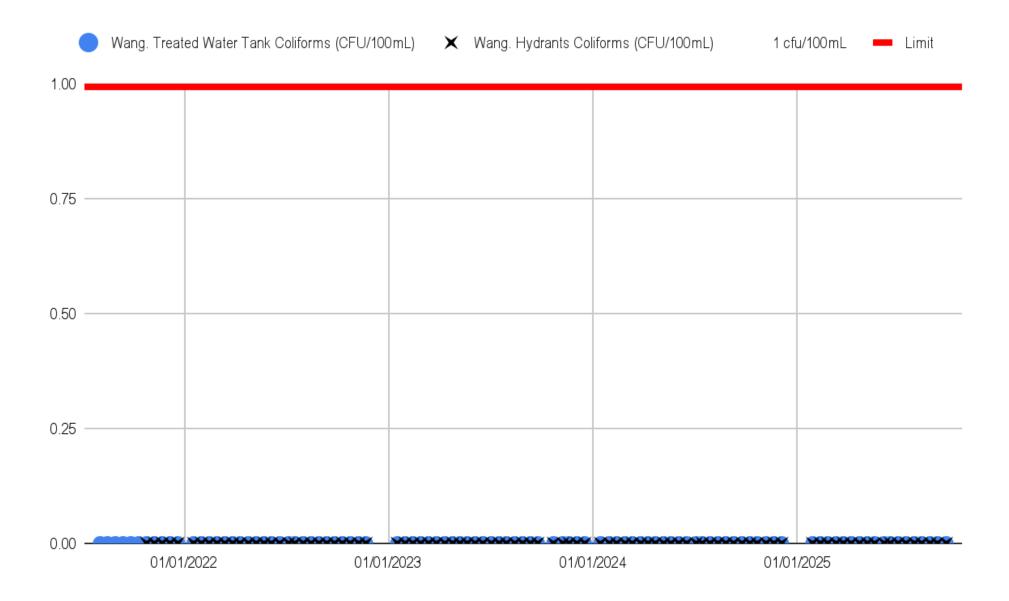


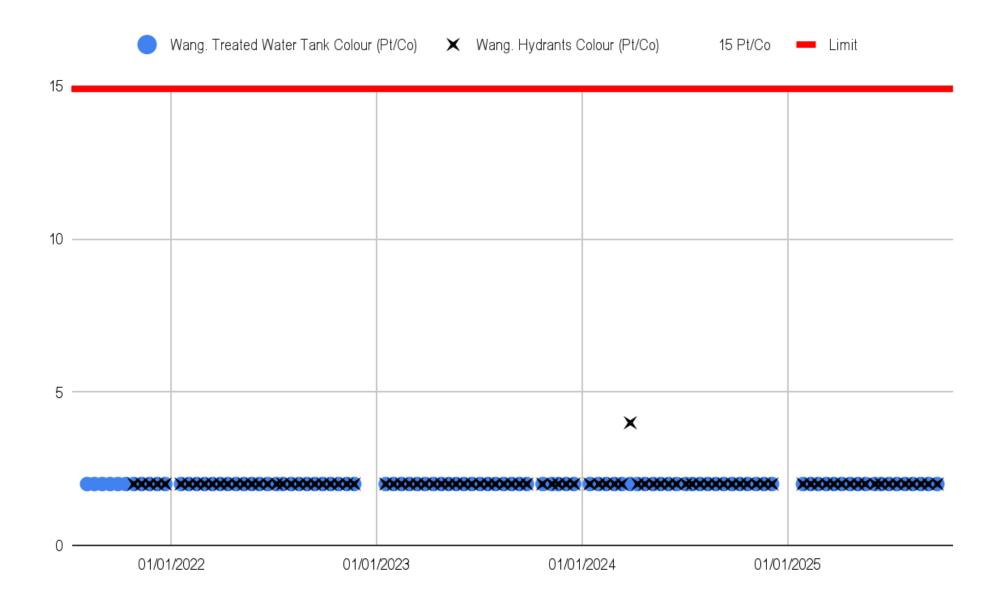


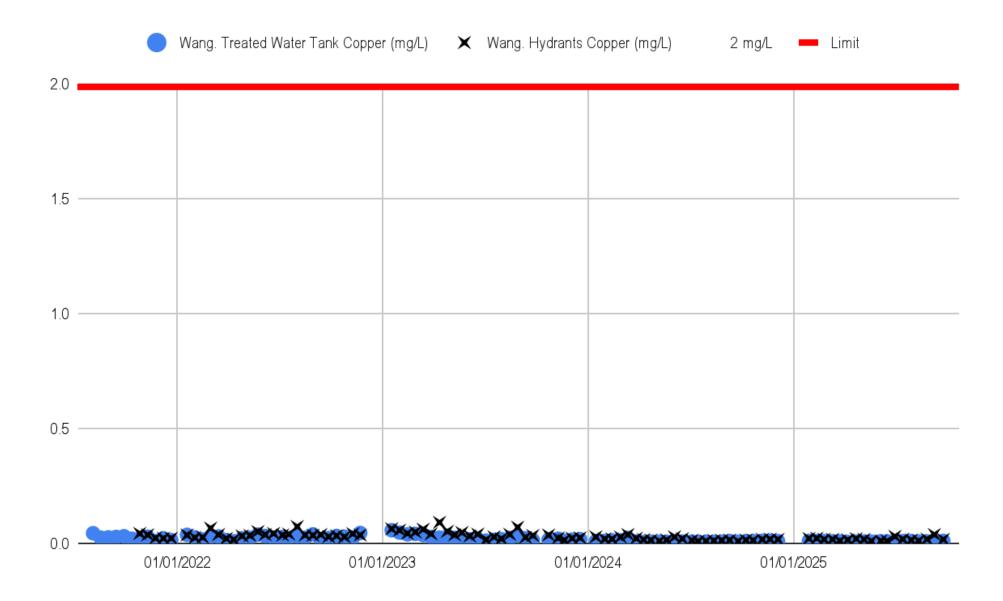


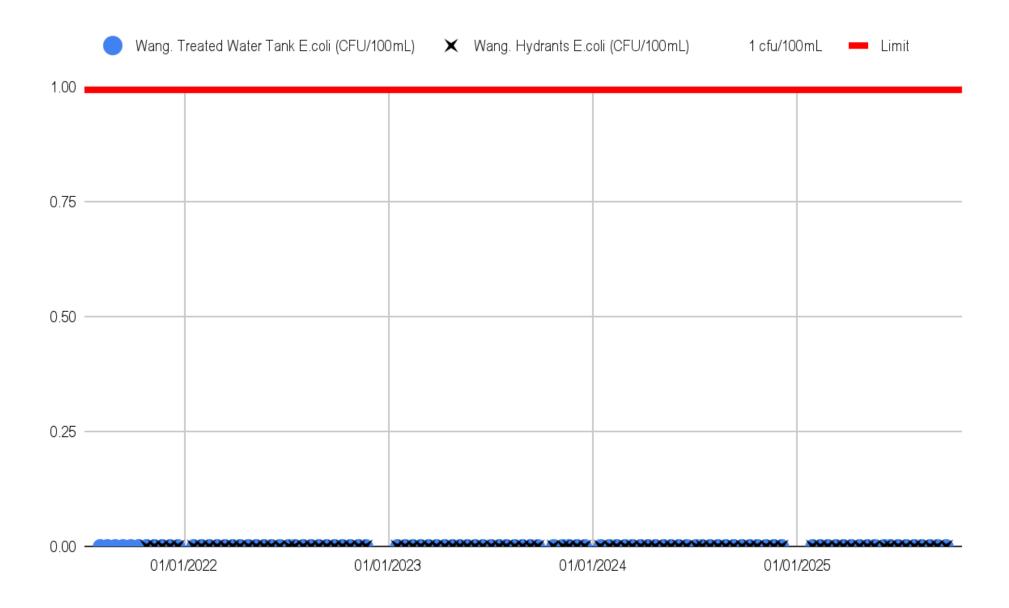


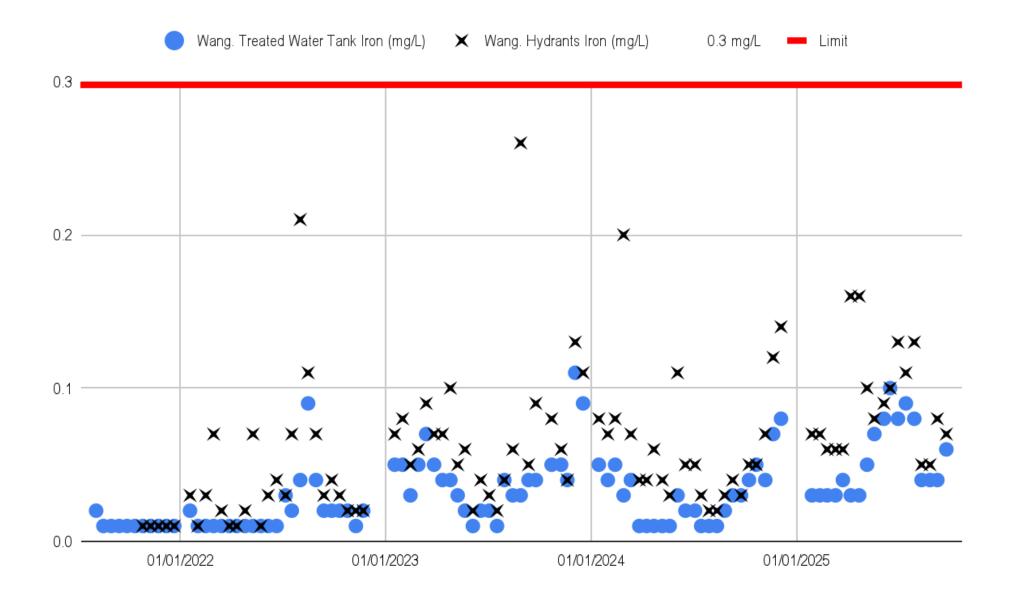


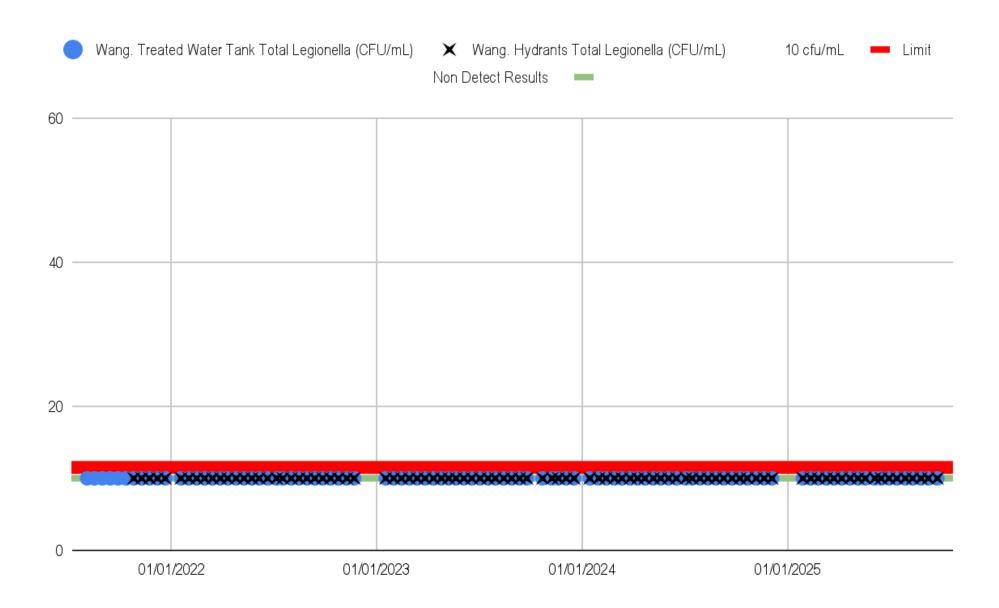


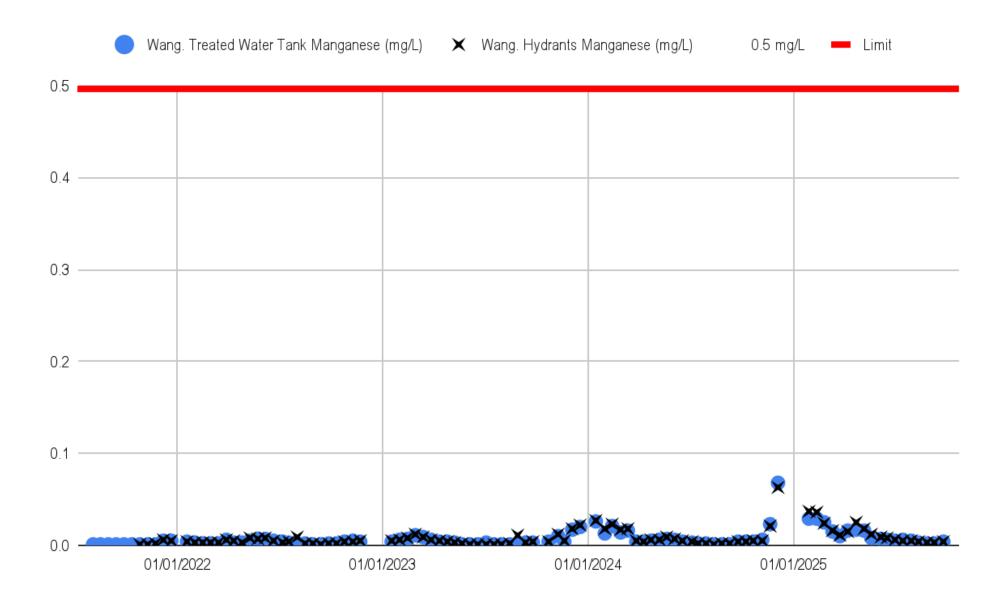


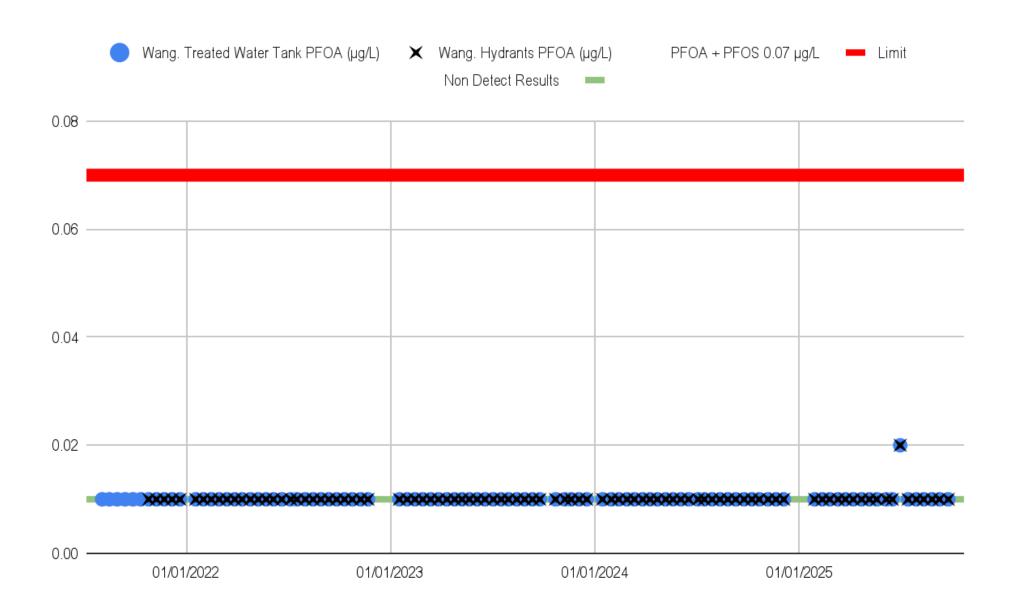


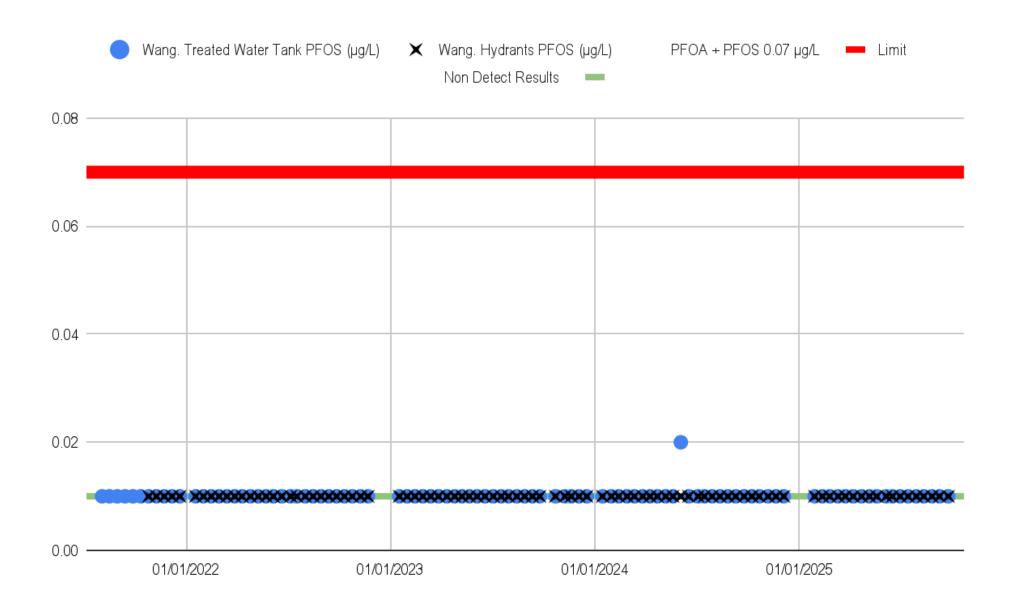


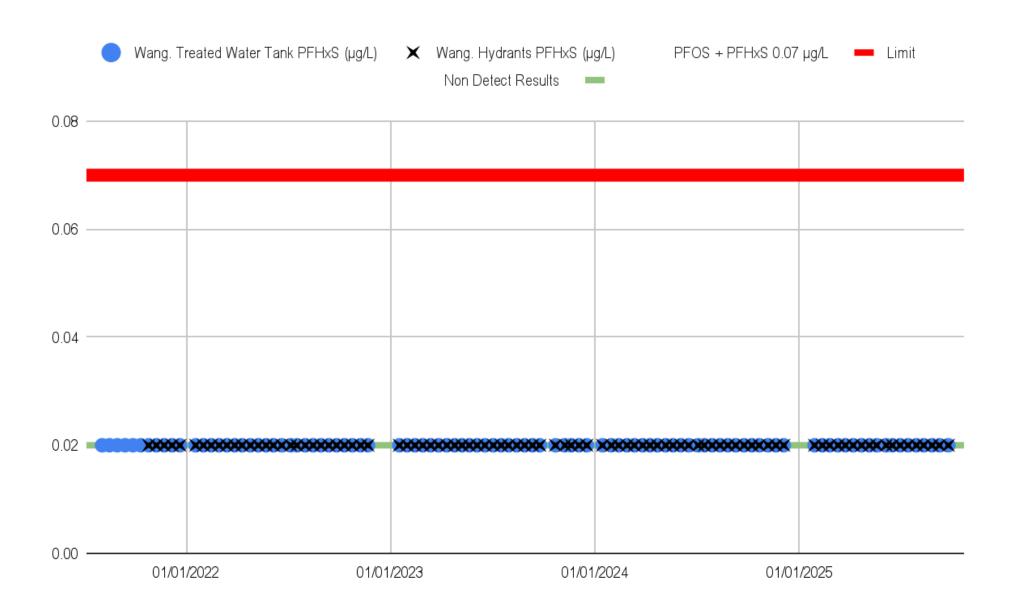


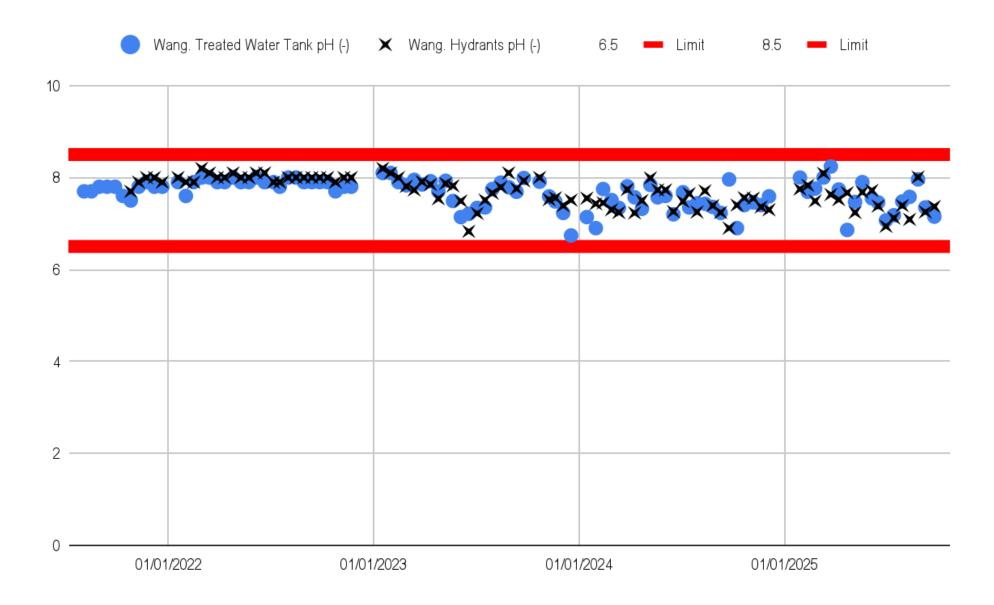


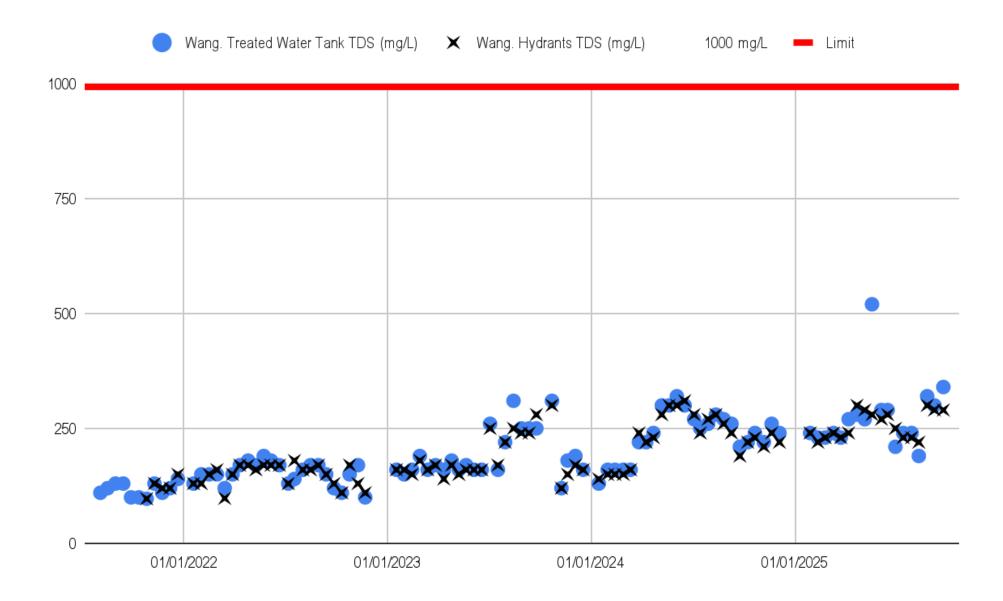


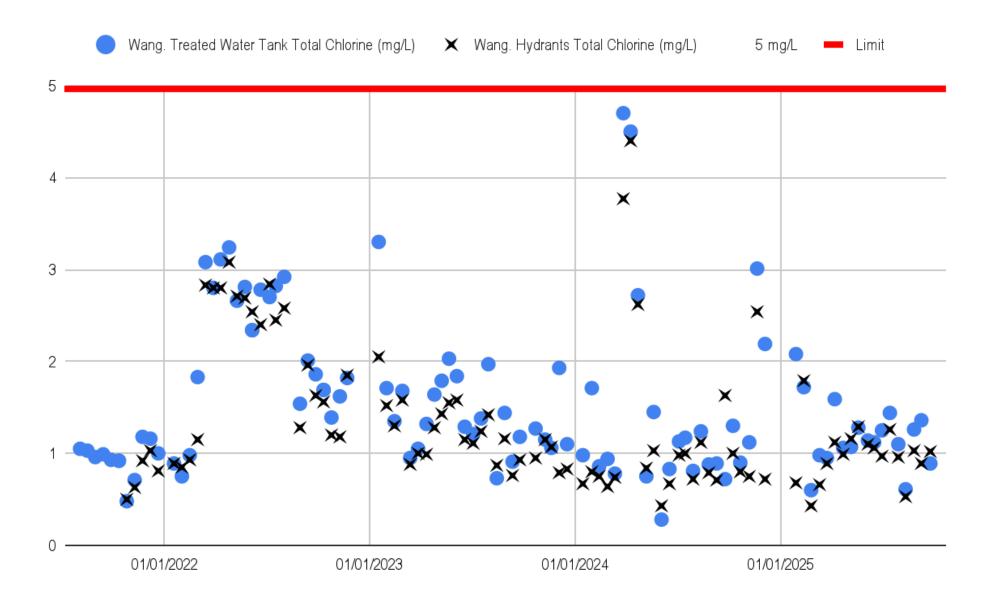


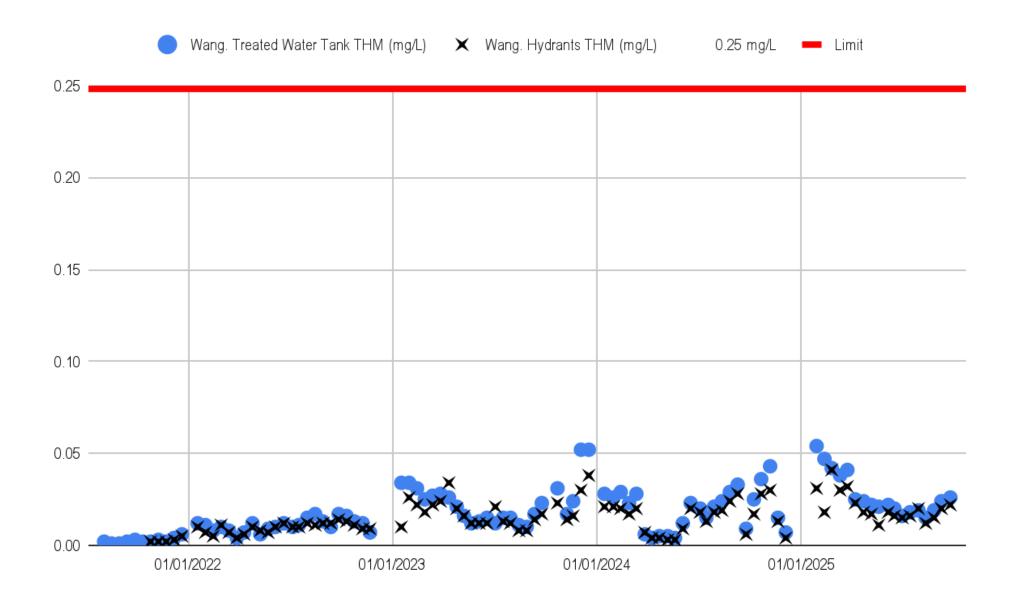


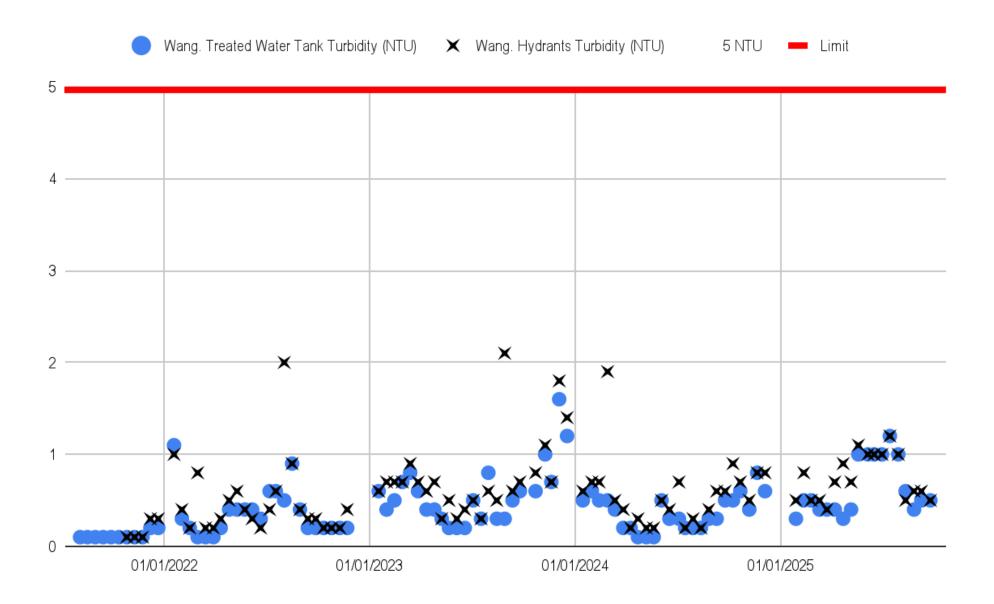


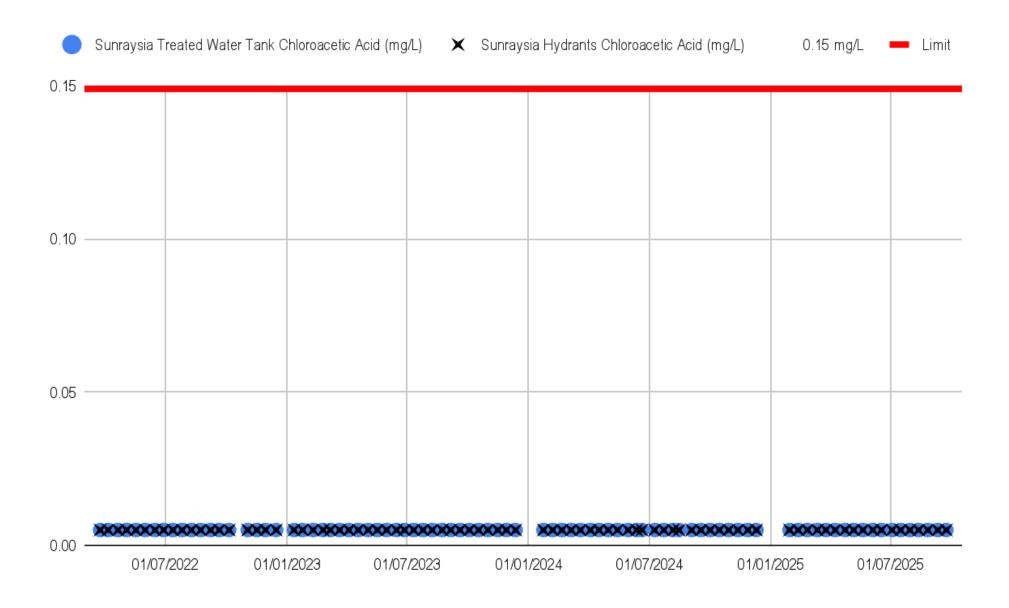


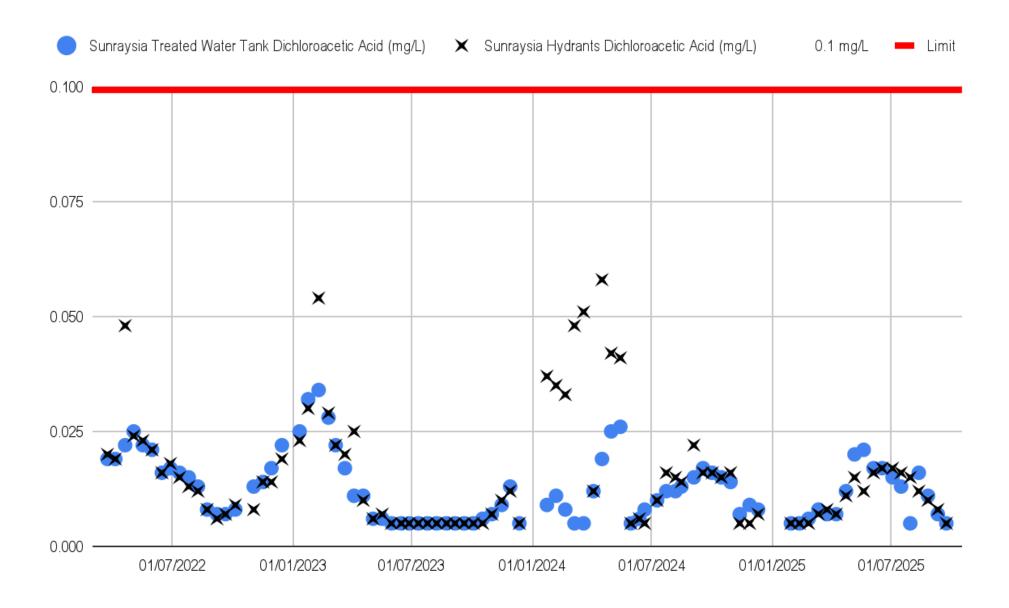


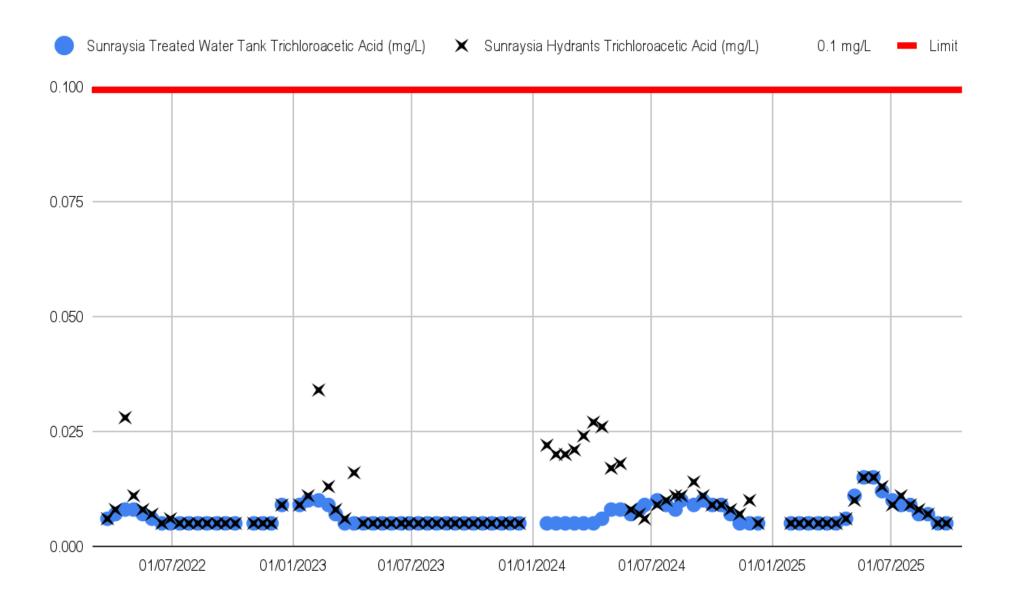


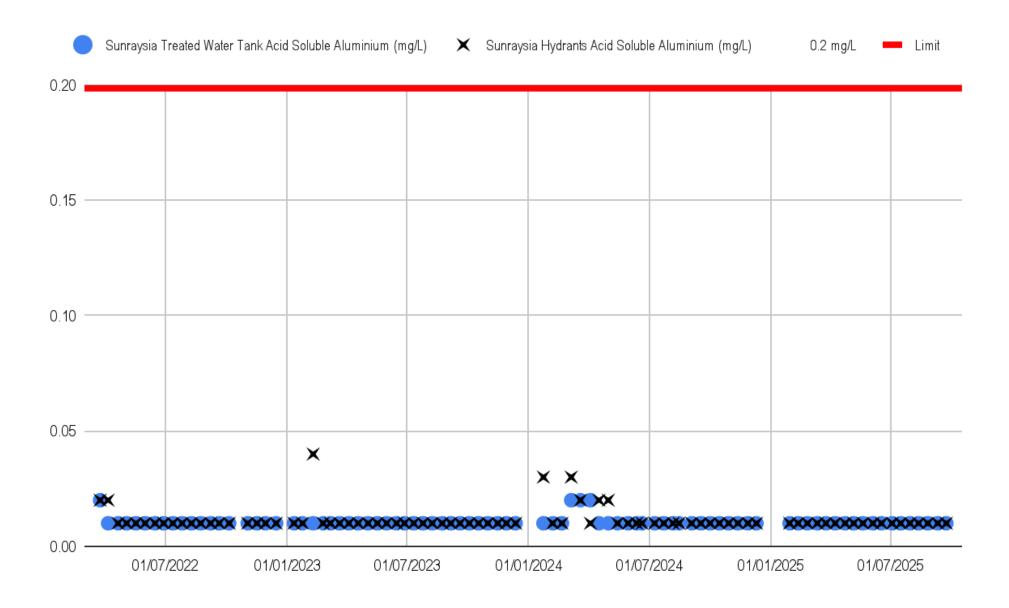


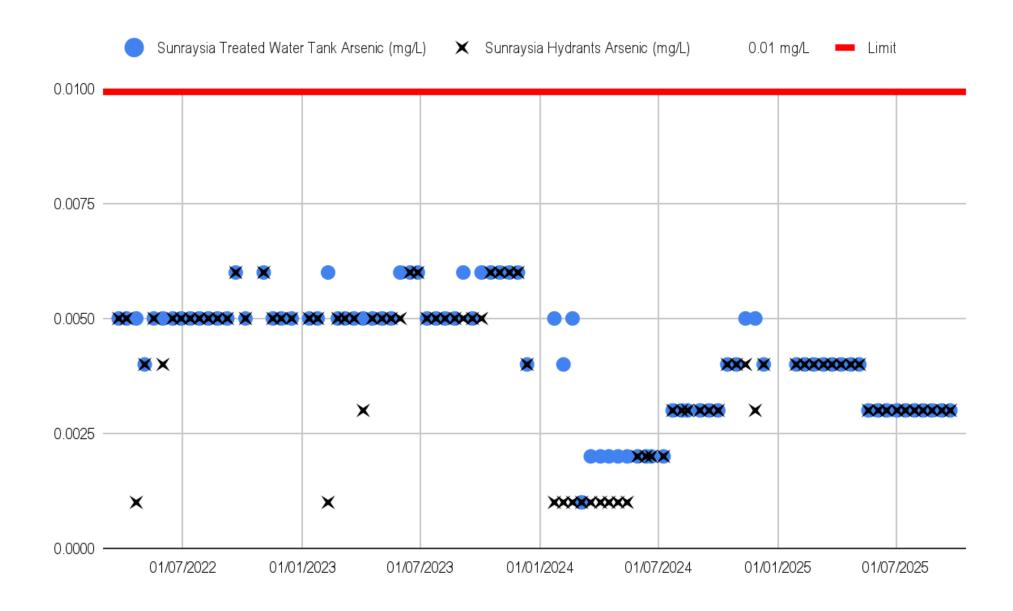


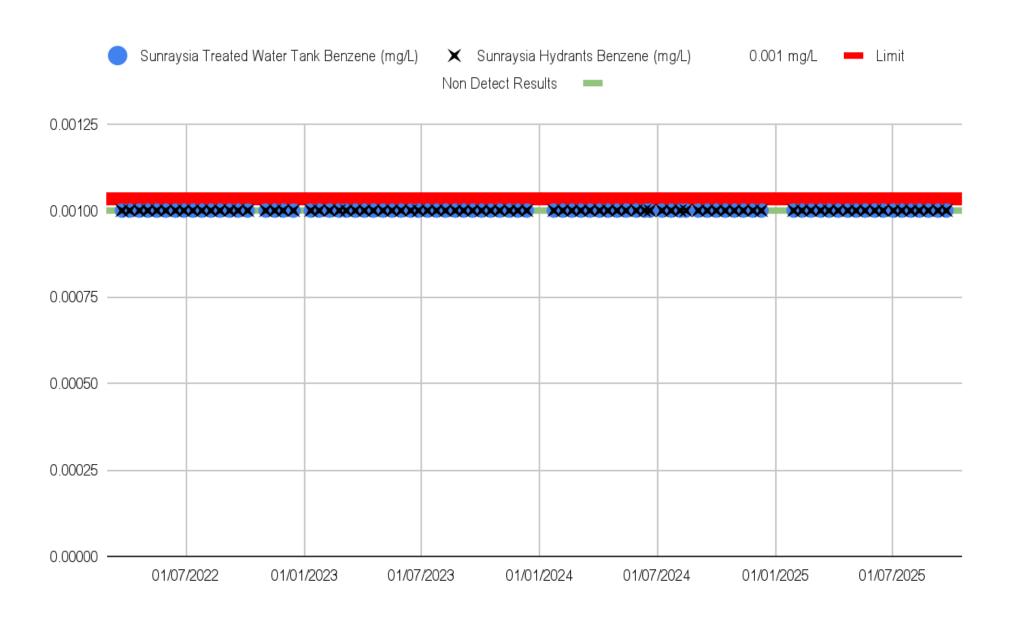


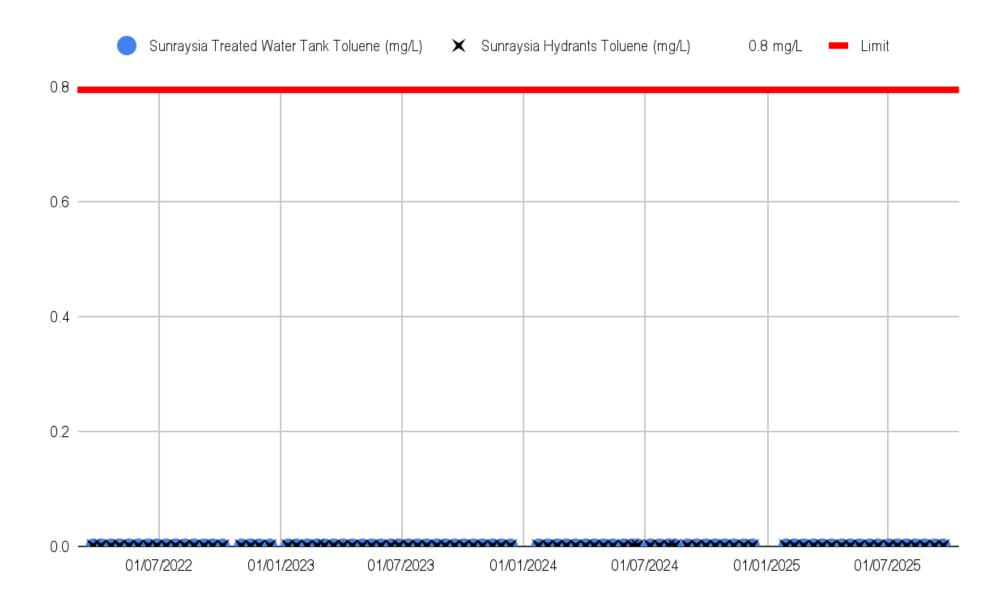


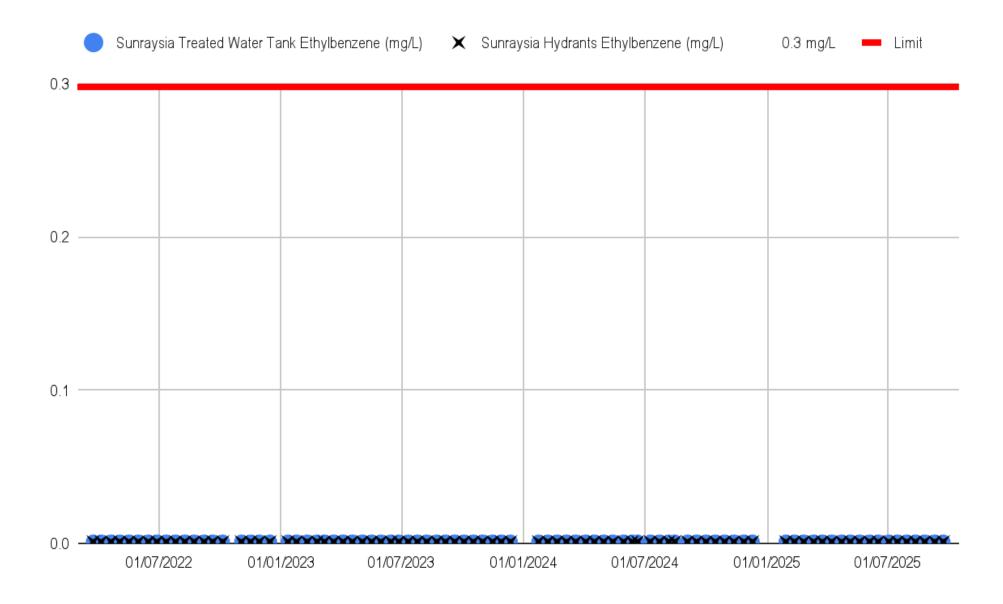


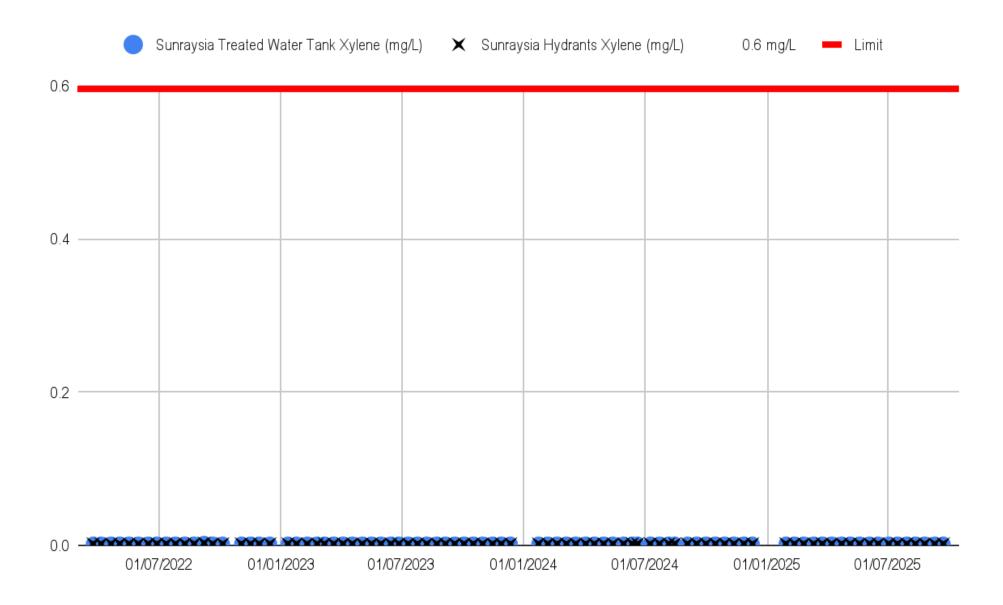


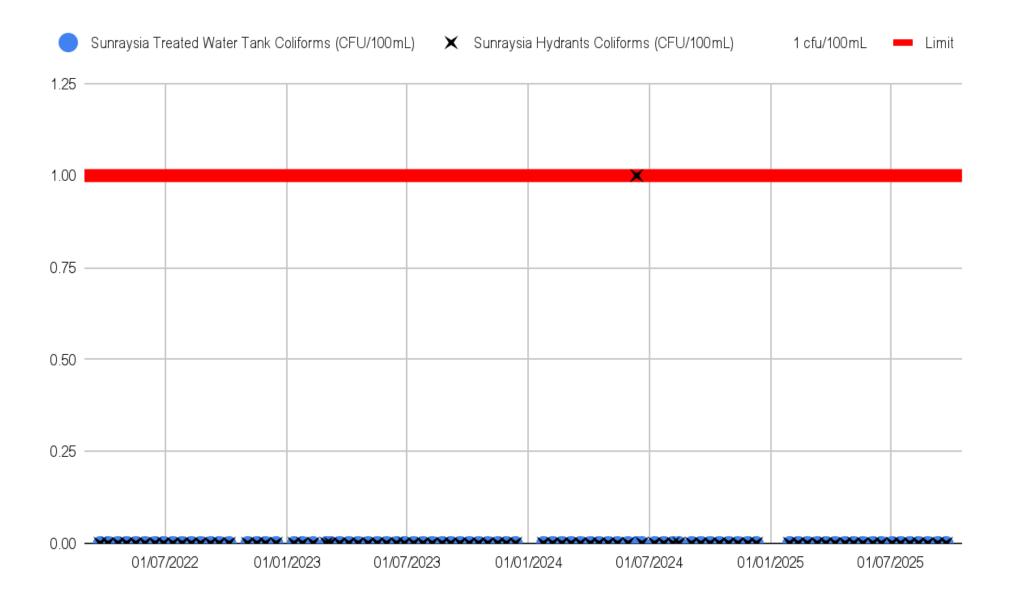


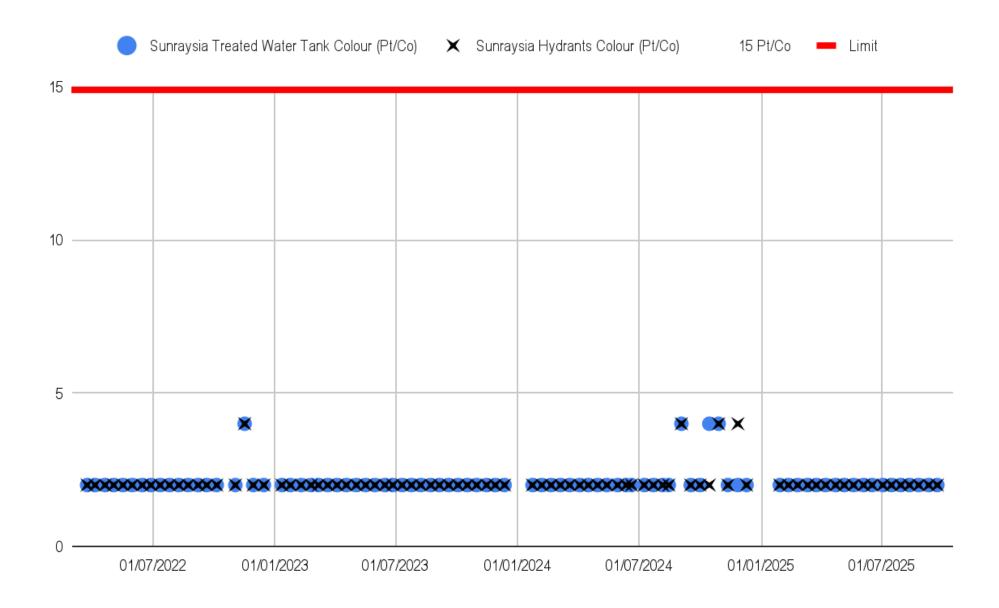


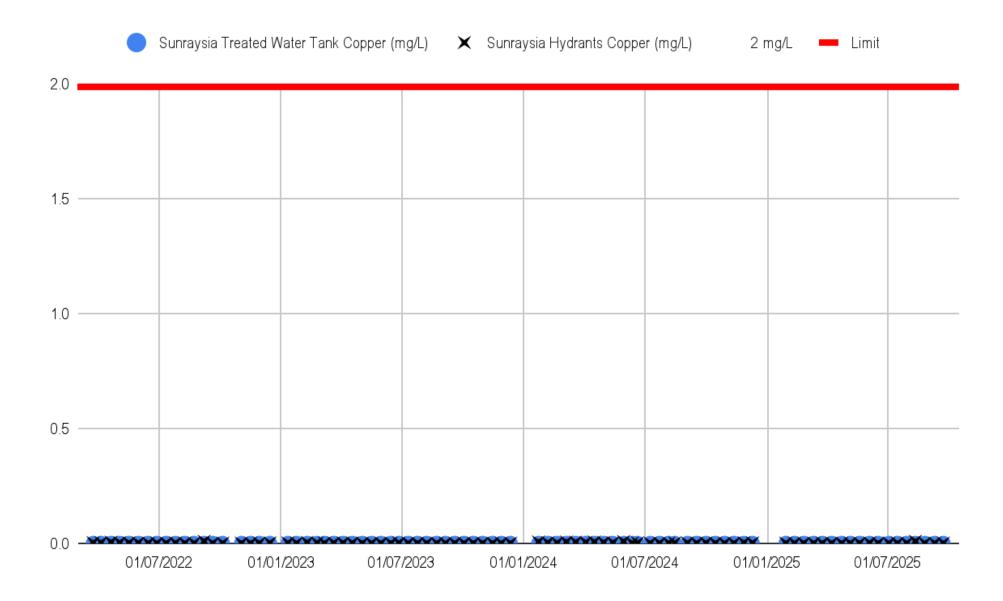


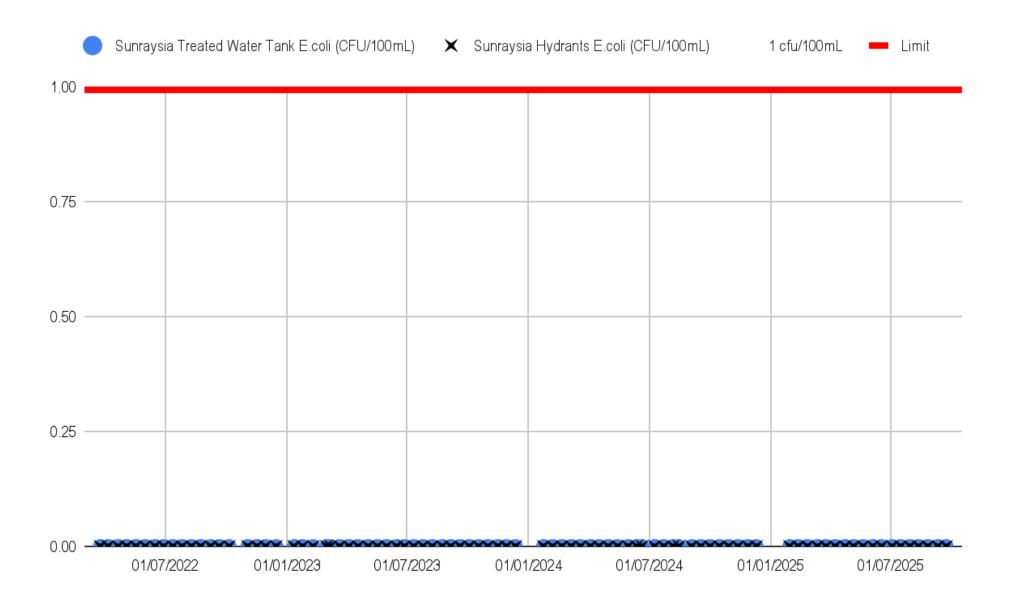


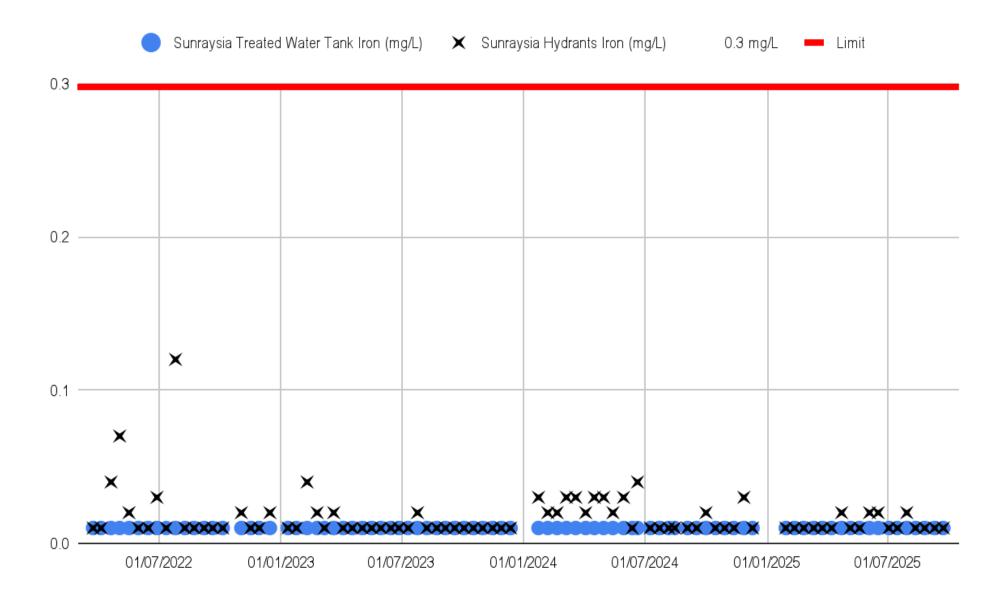


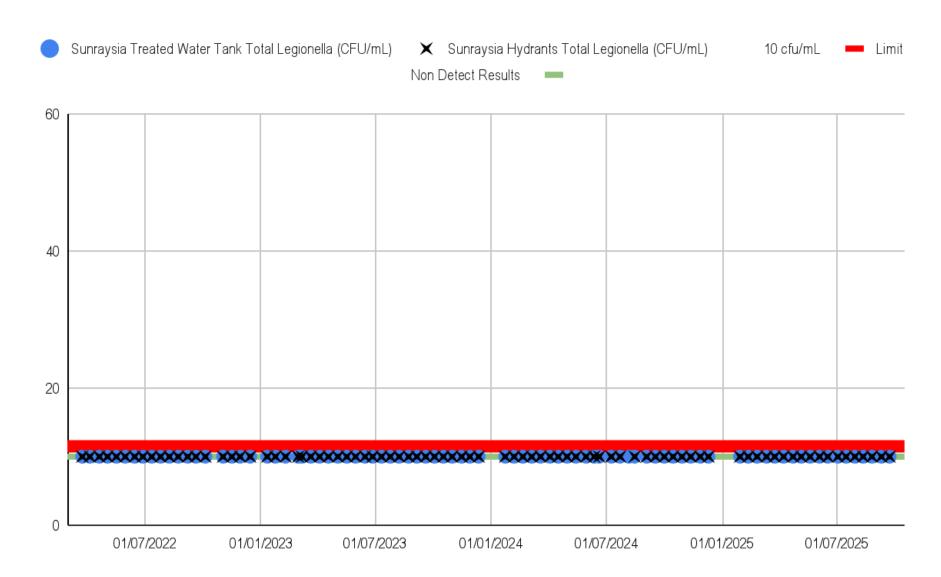




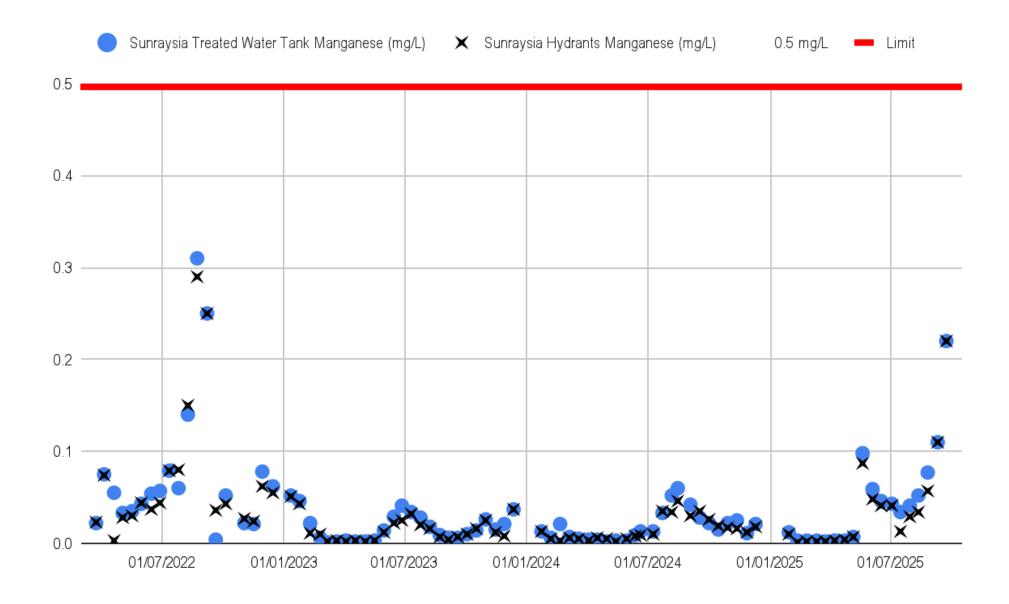


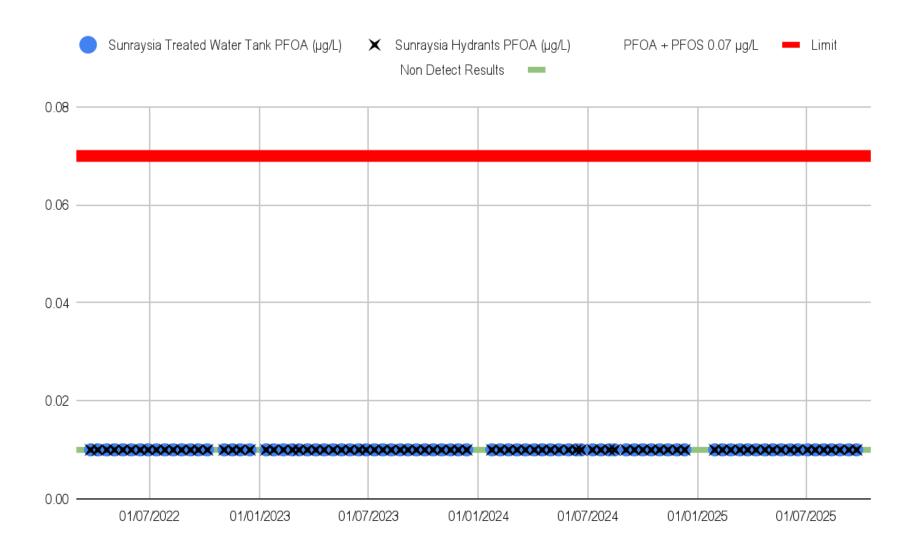


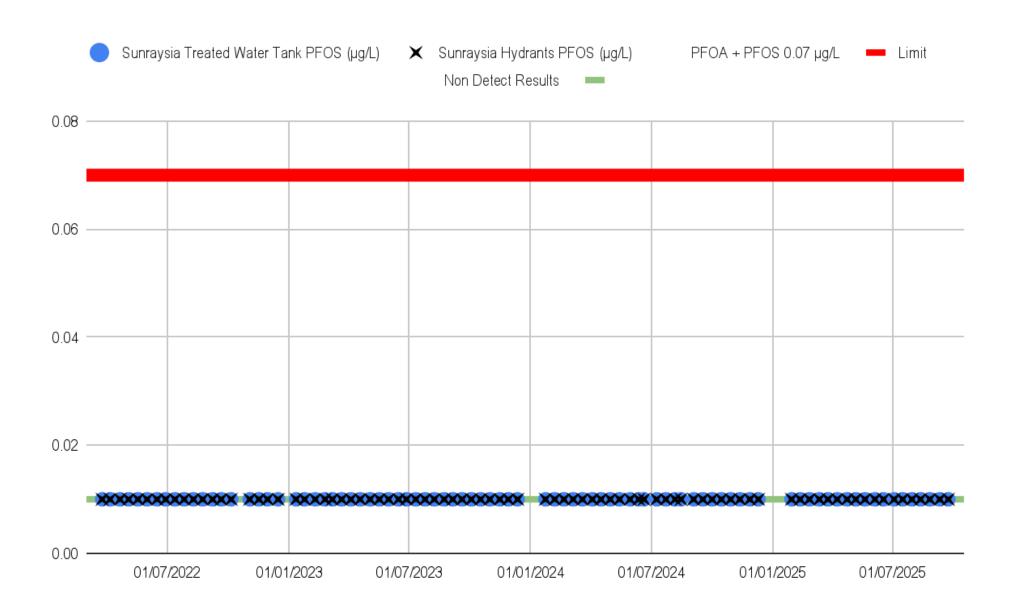


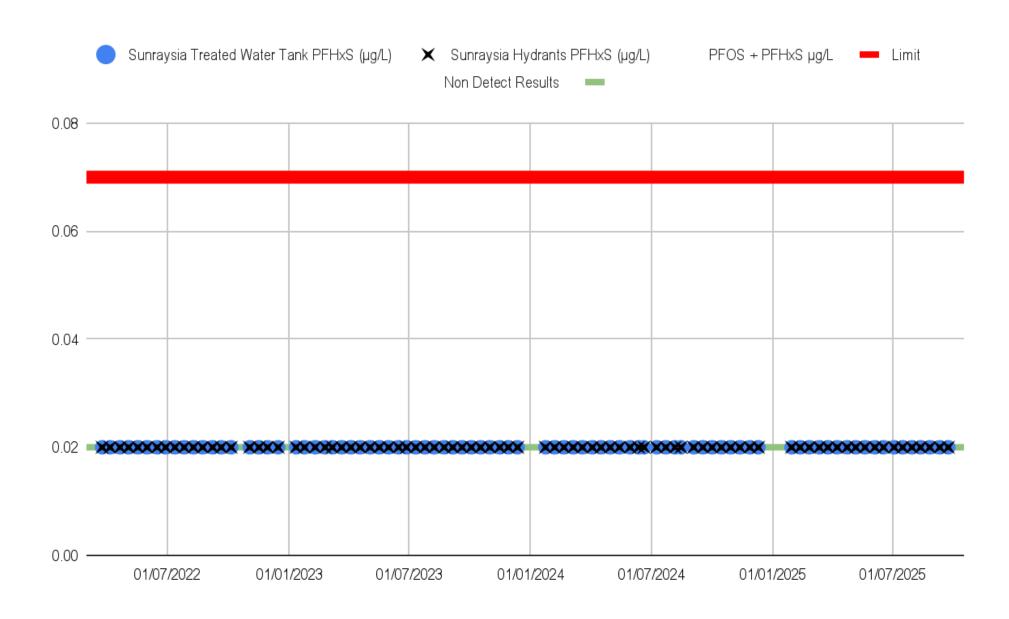


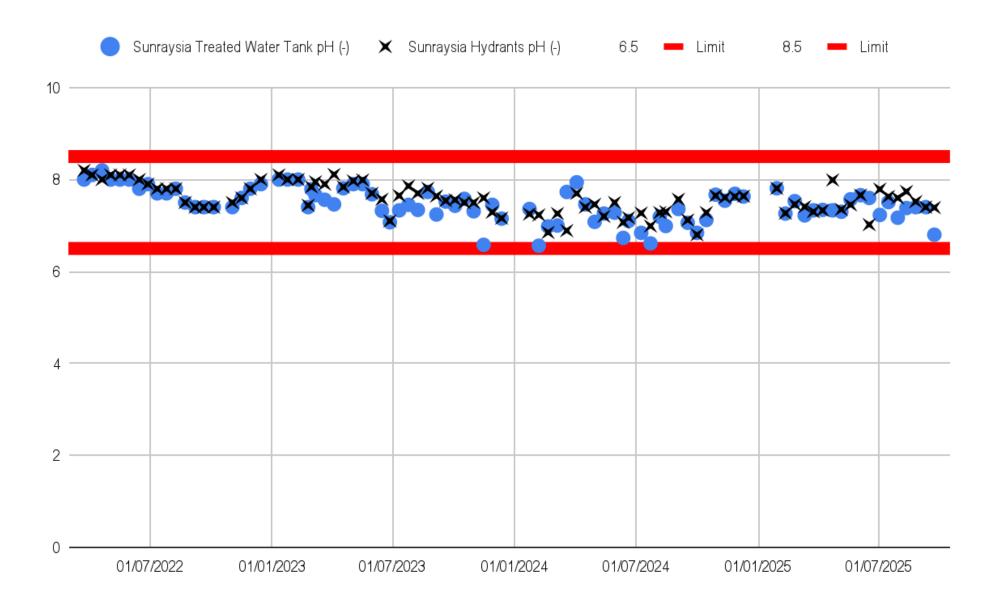
^{*}Hydrant Composite sample taken on 06/08/2024 (500CFU/mL) excluded from chart

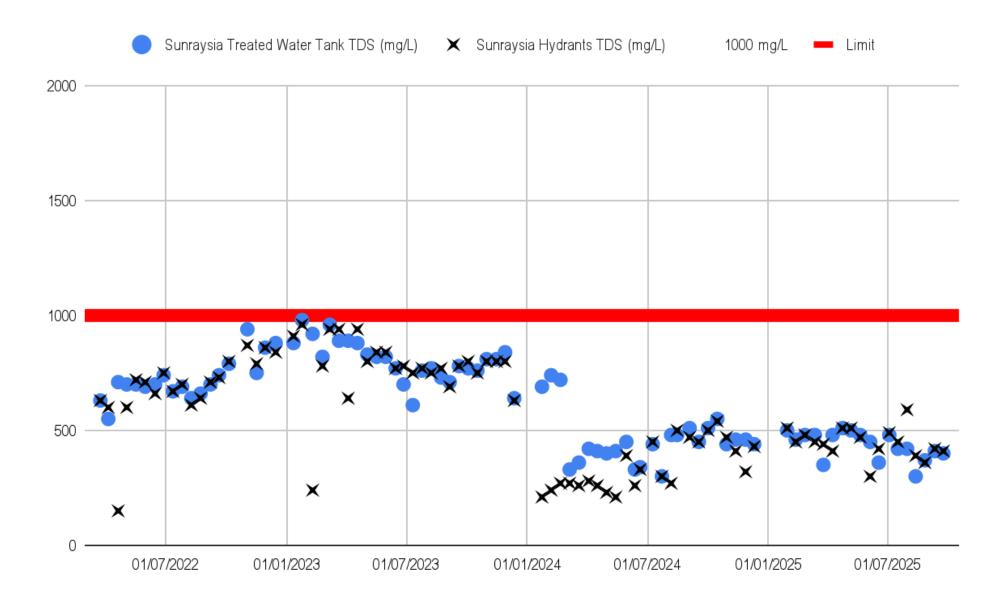


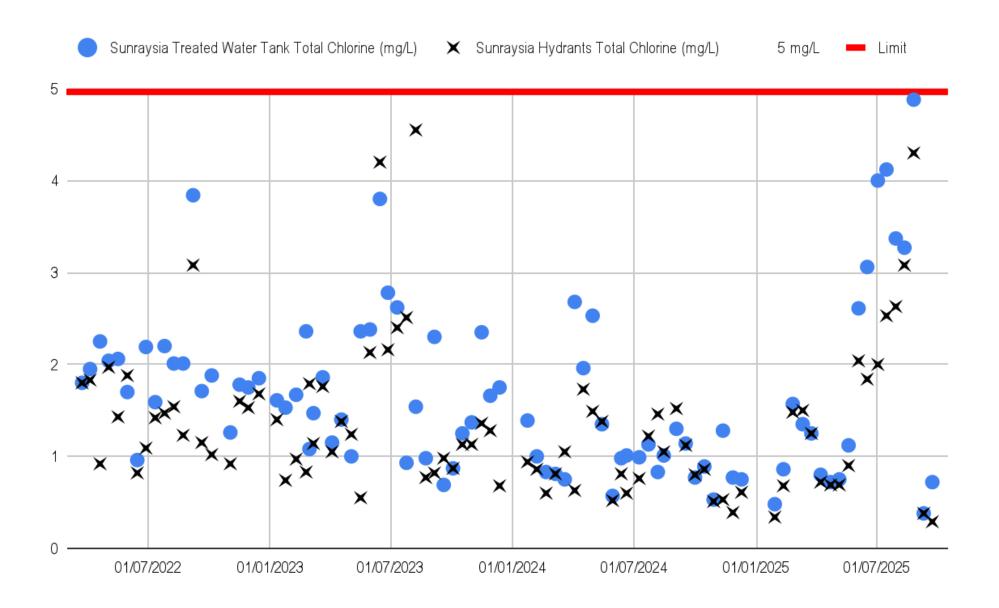


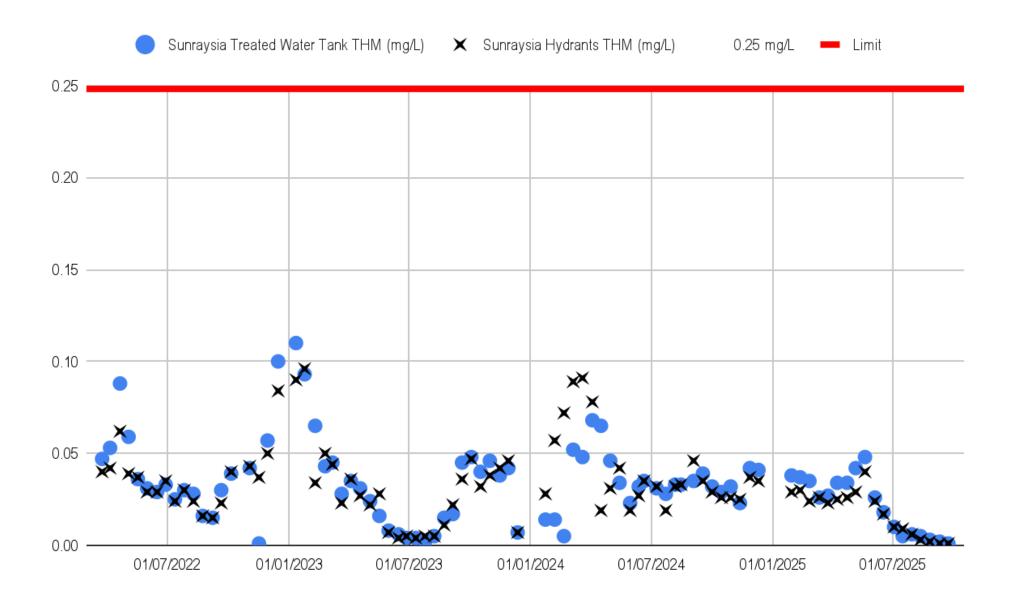


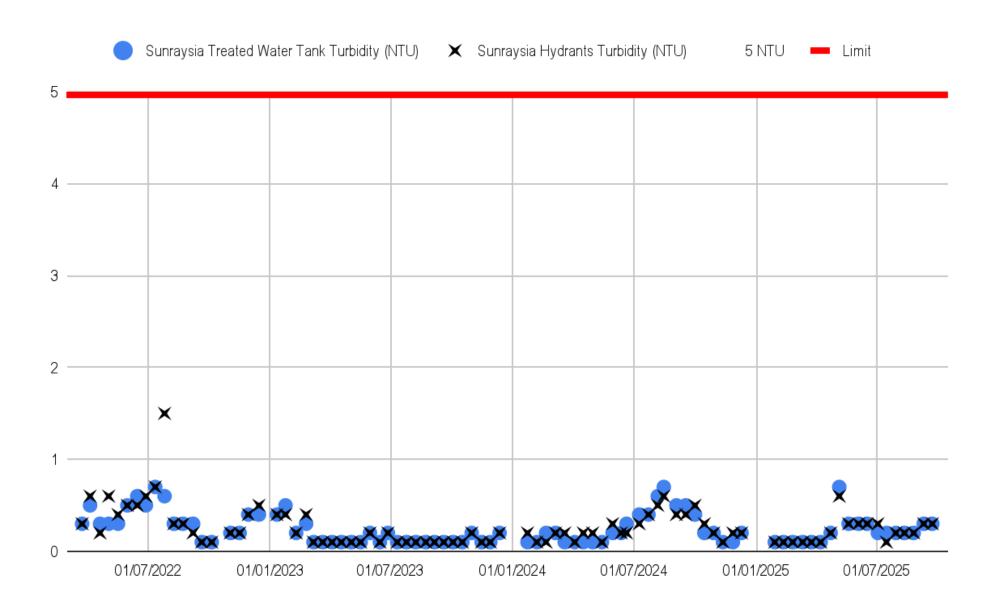


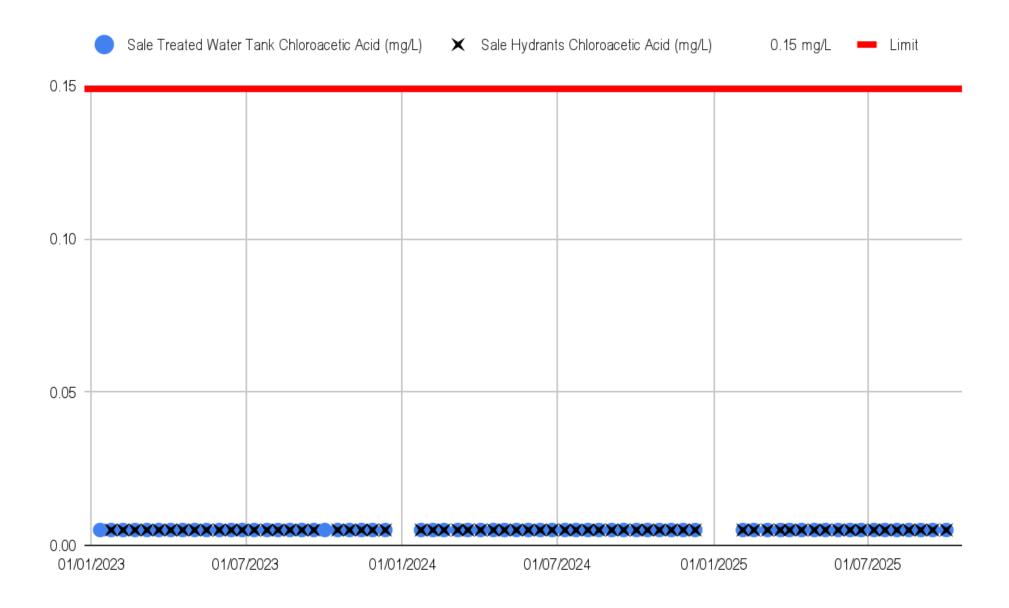


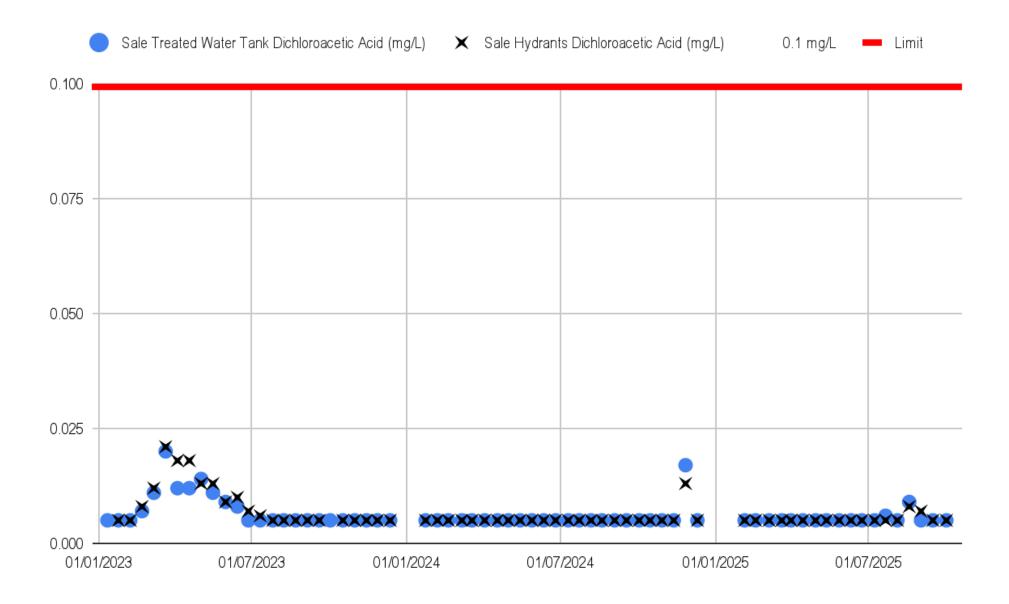


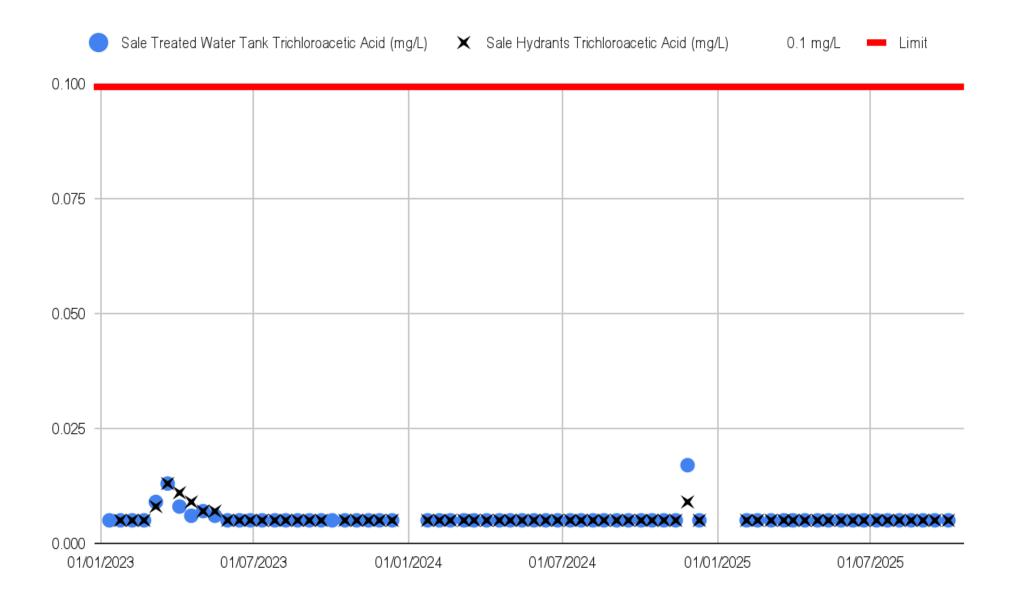


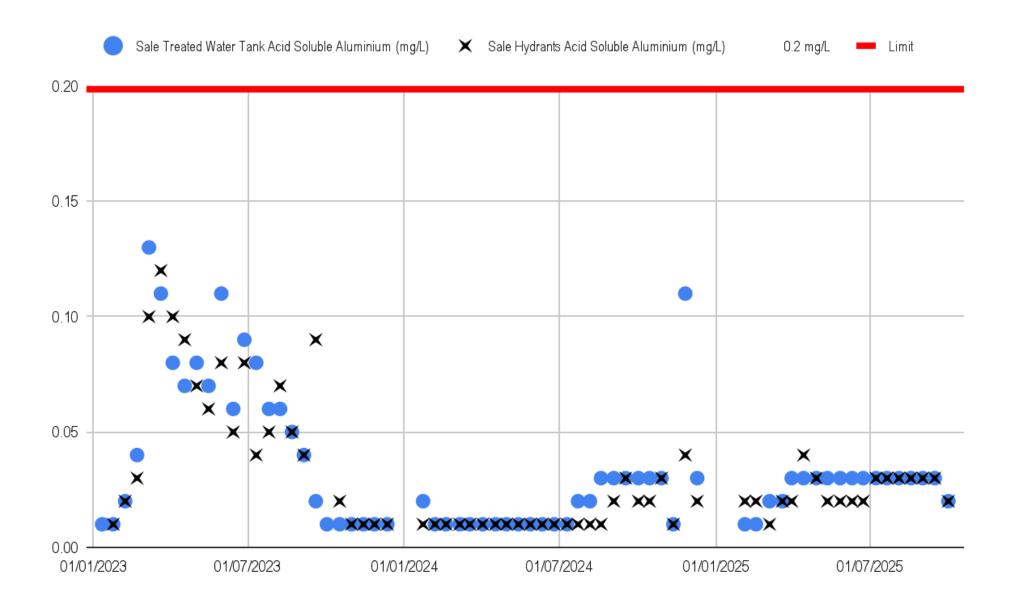


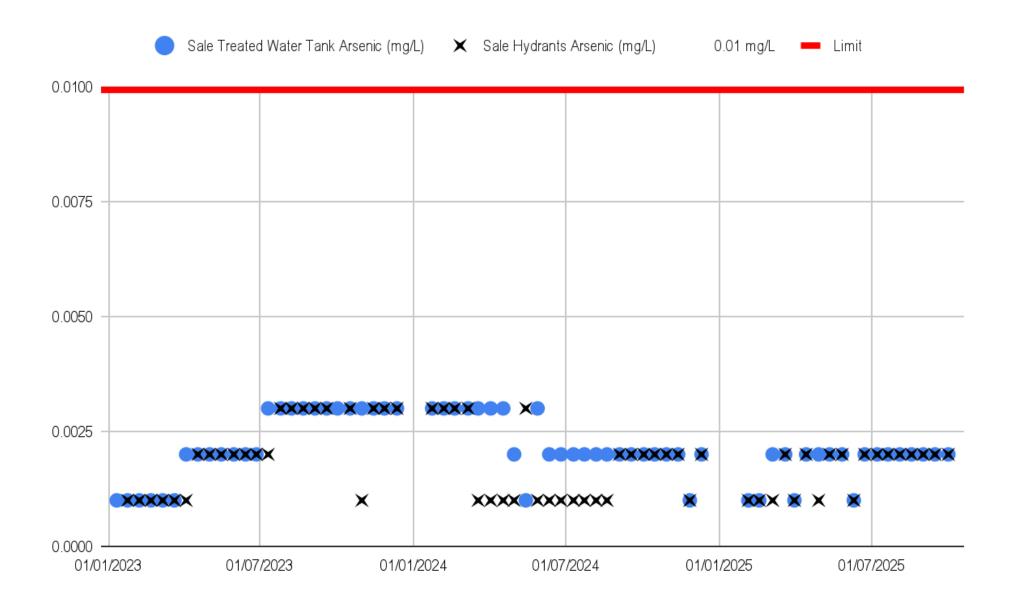


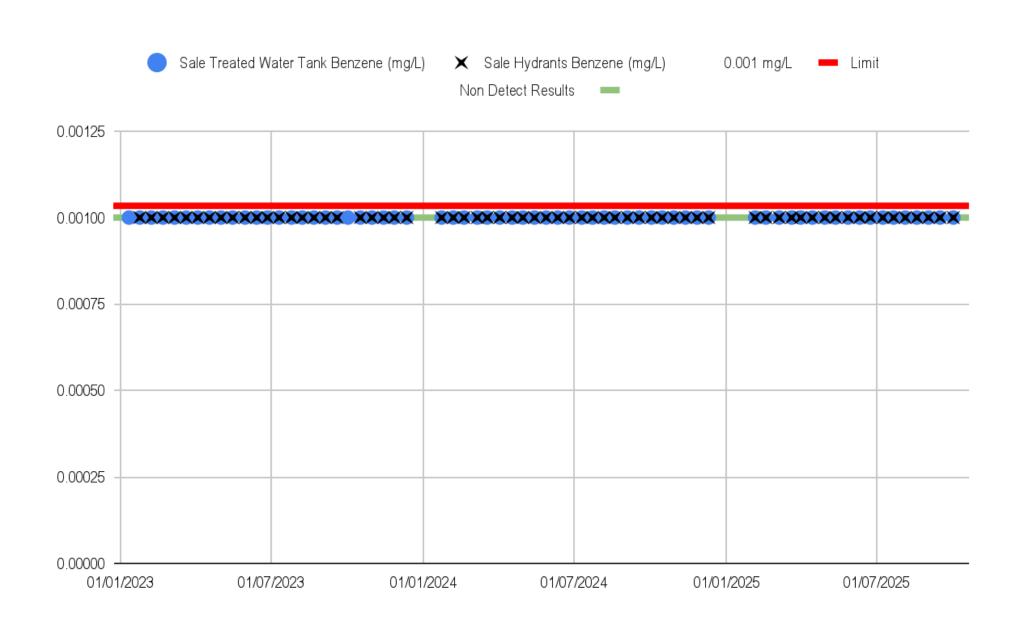


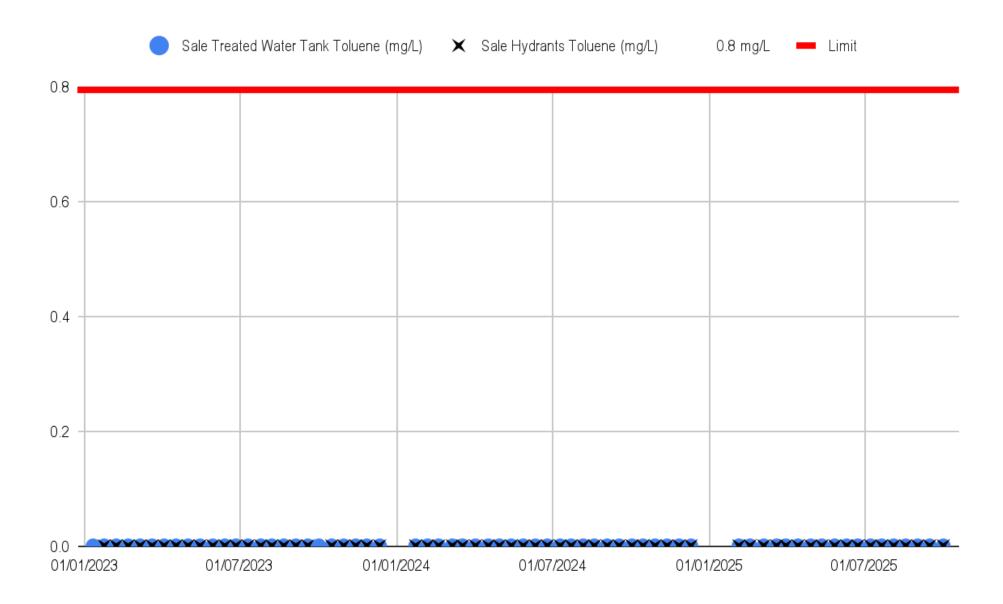


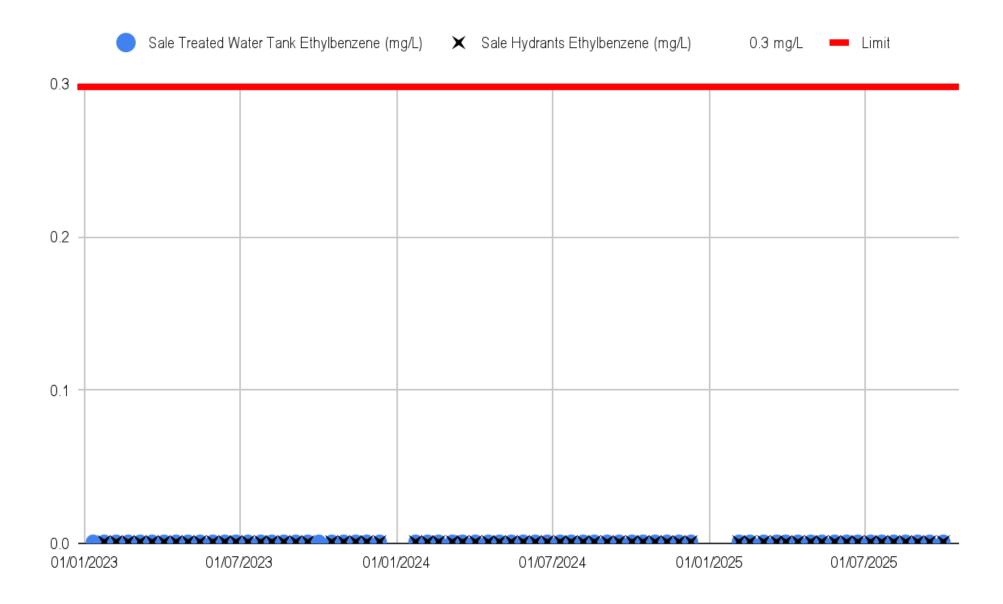


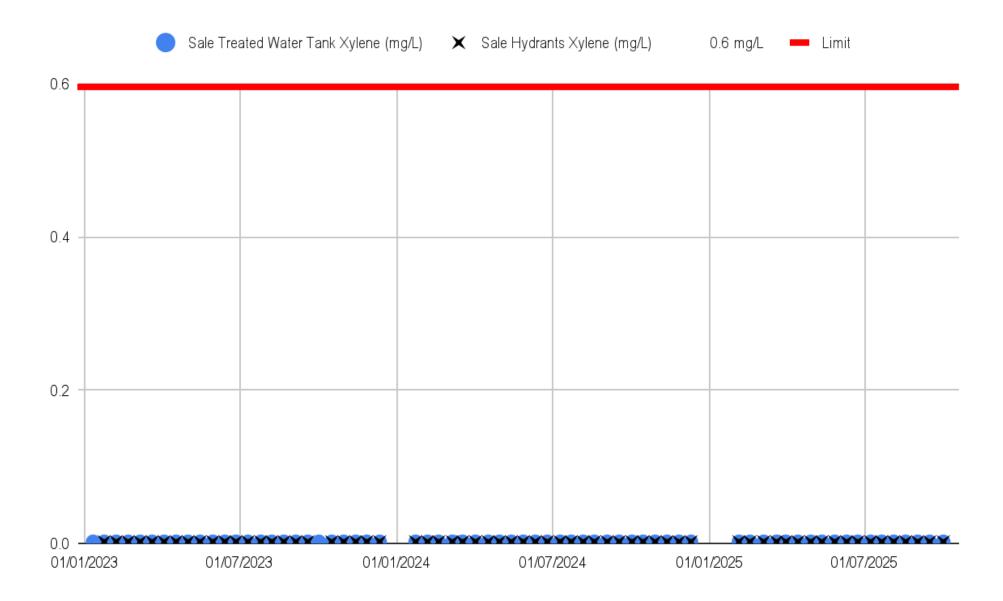


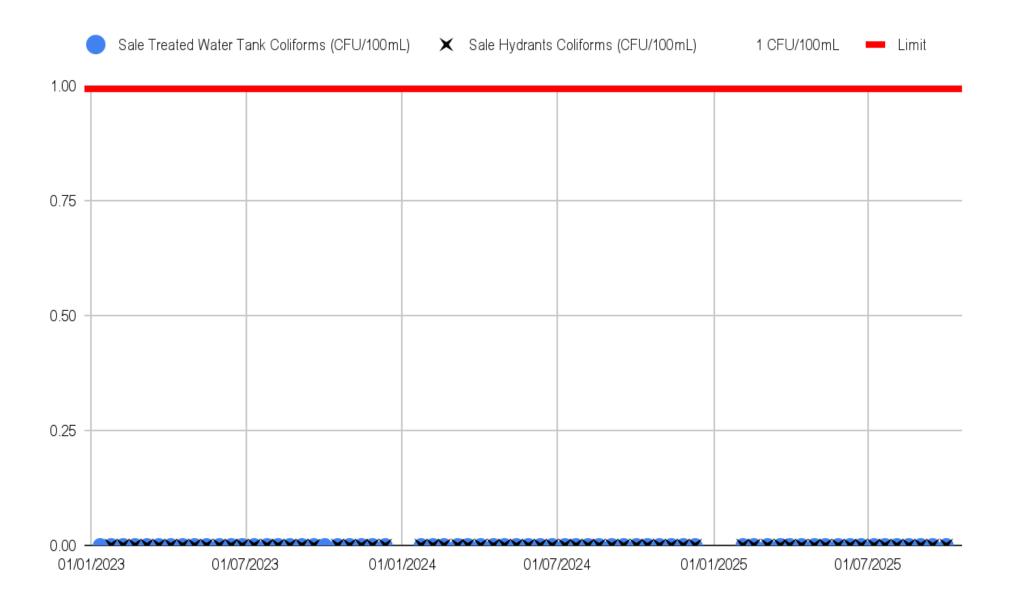


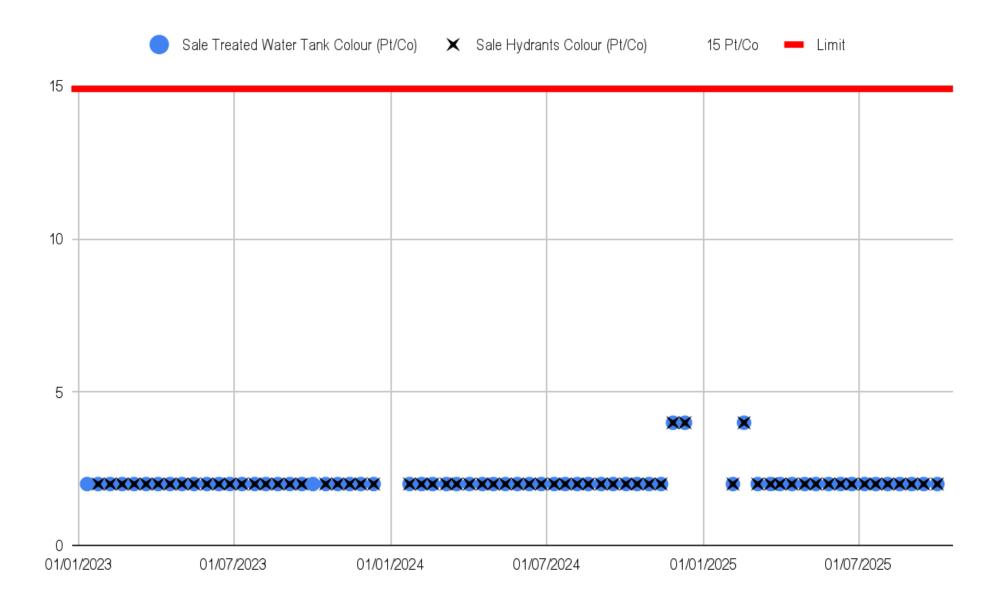


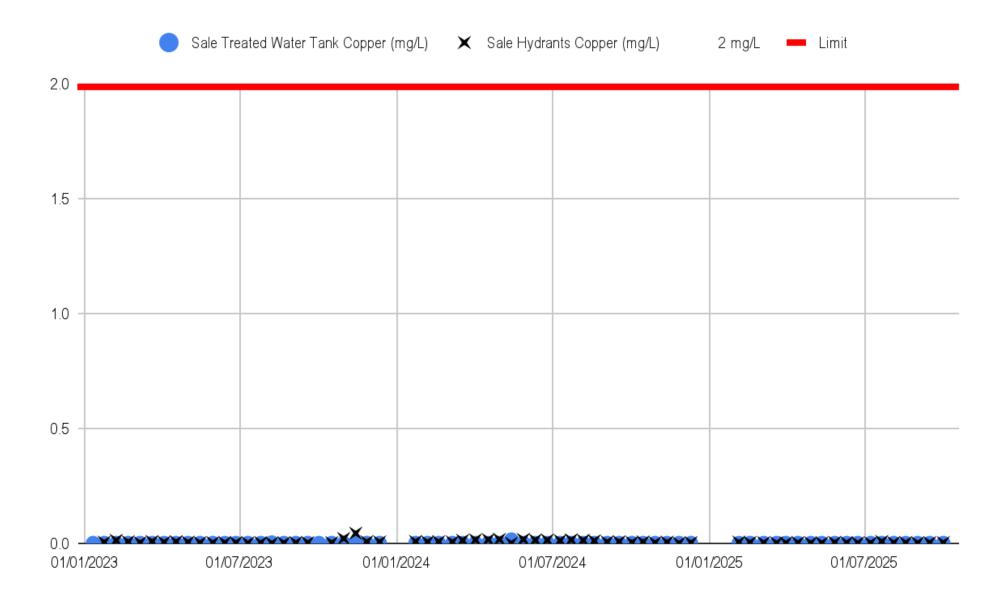


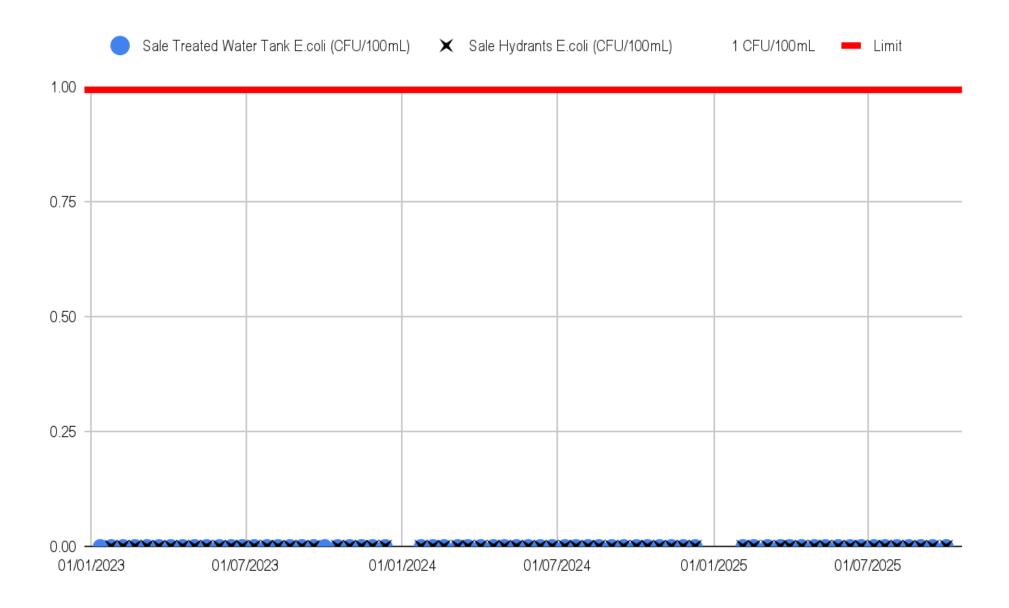


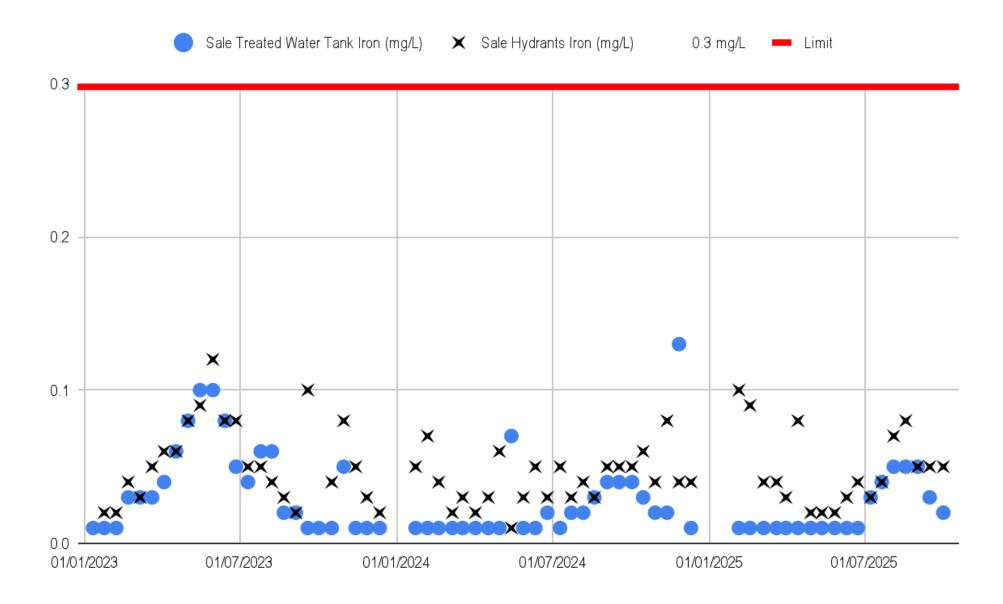


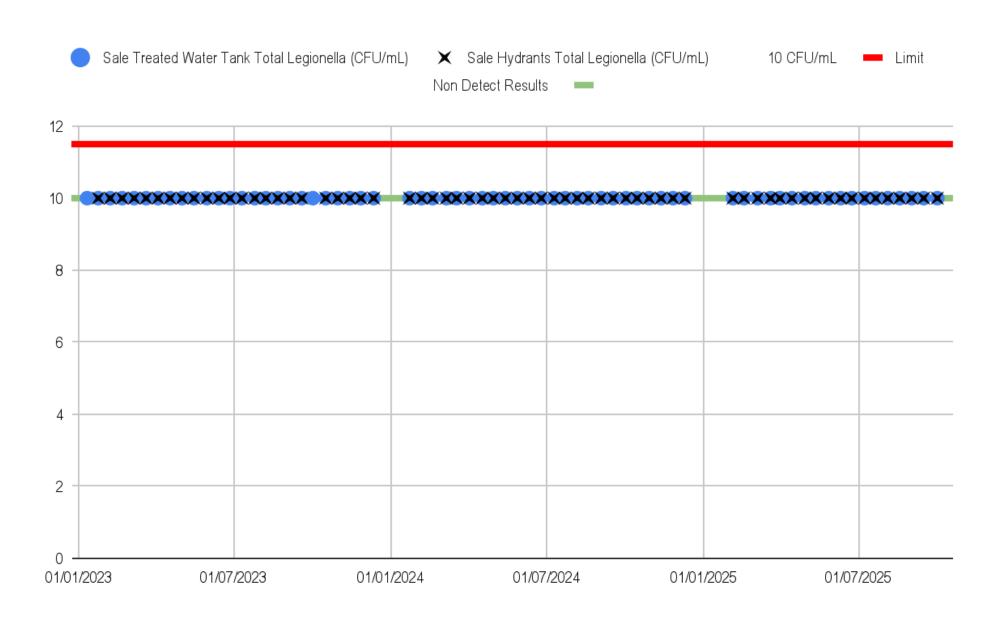


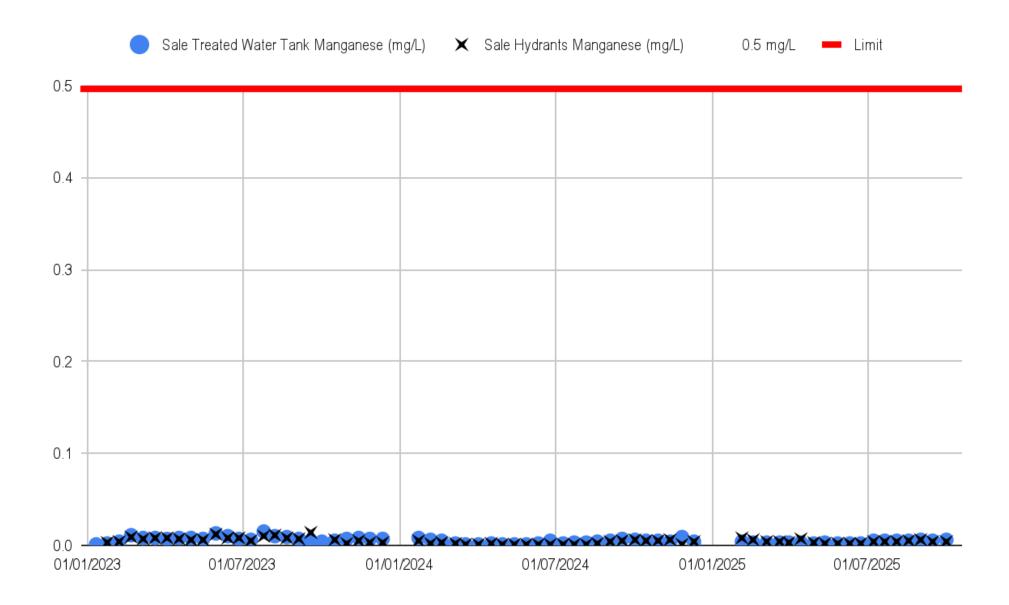


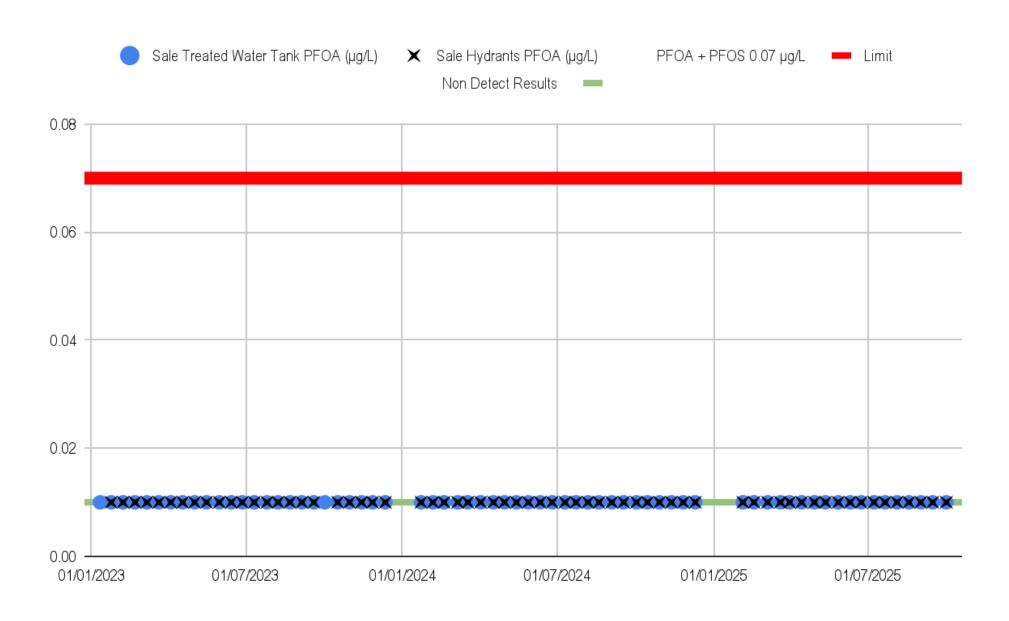


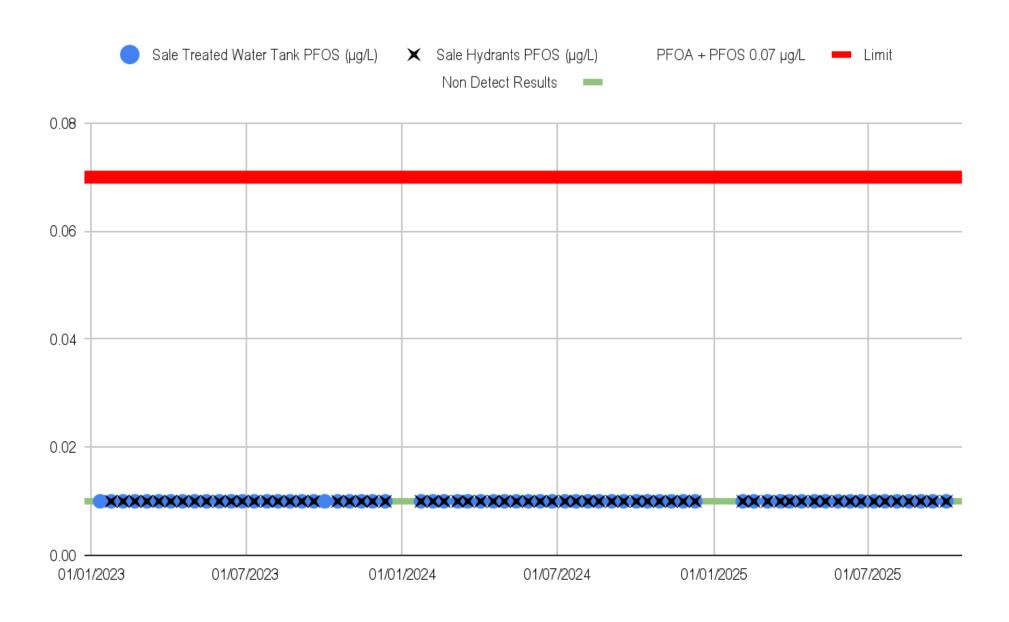


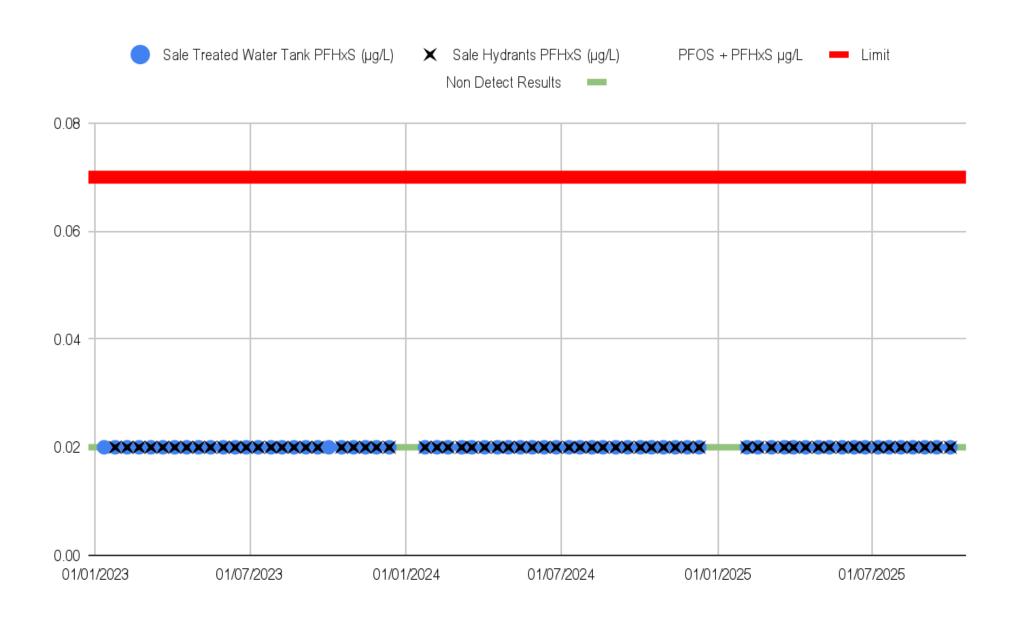


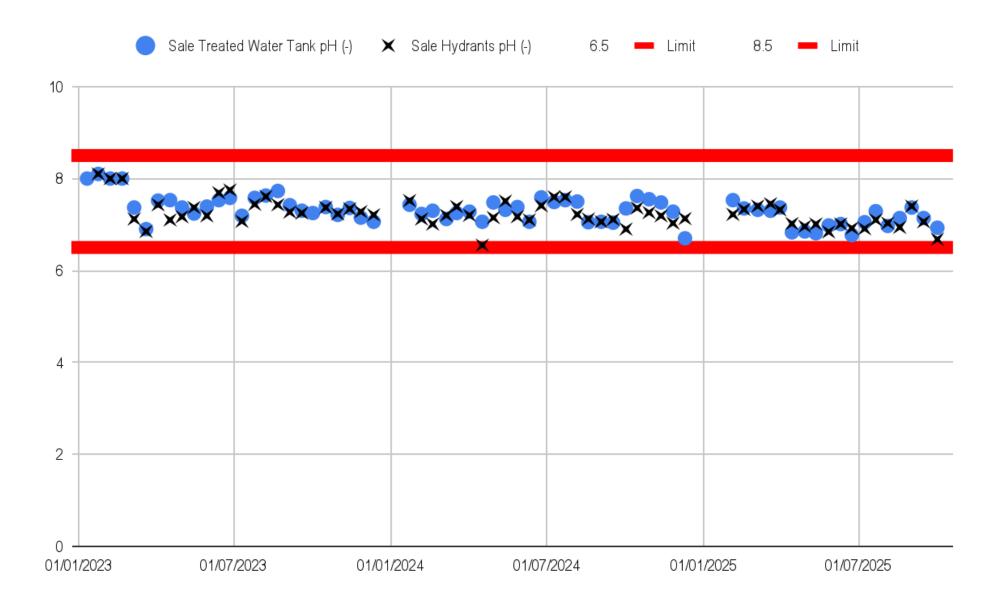


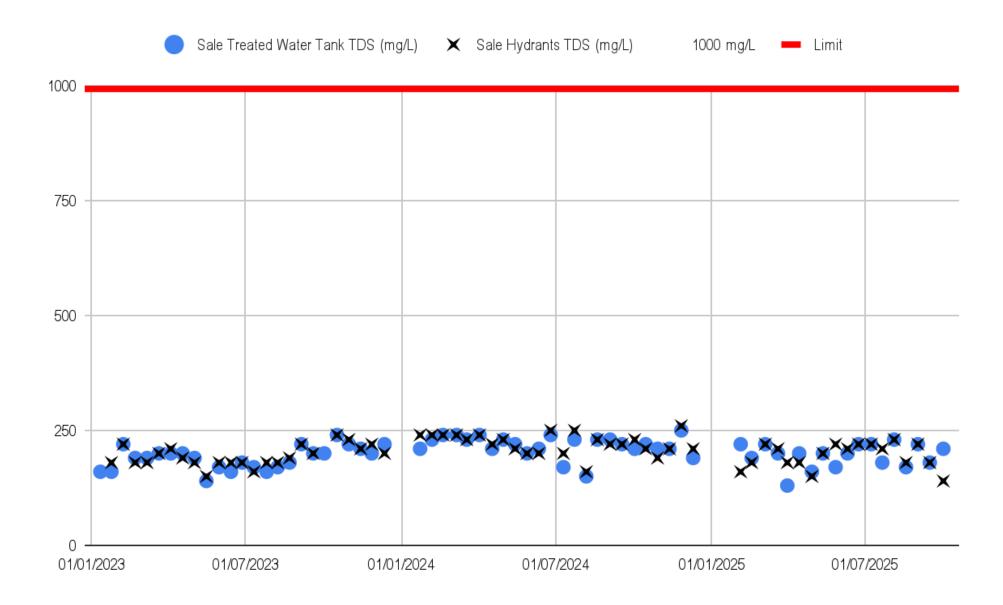


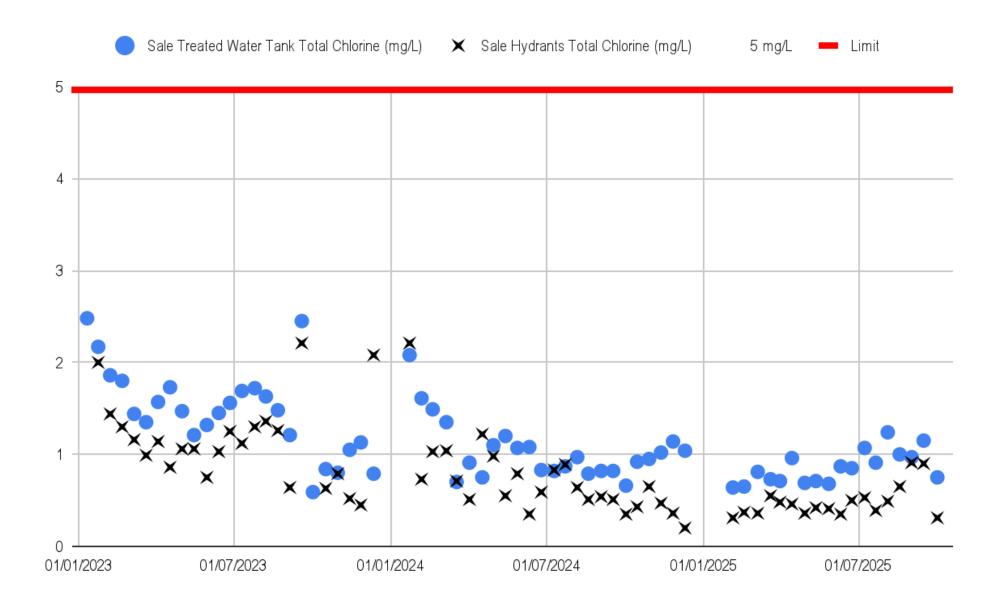


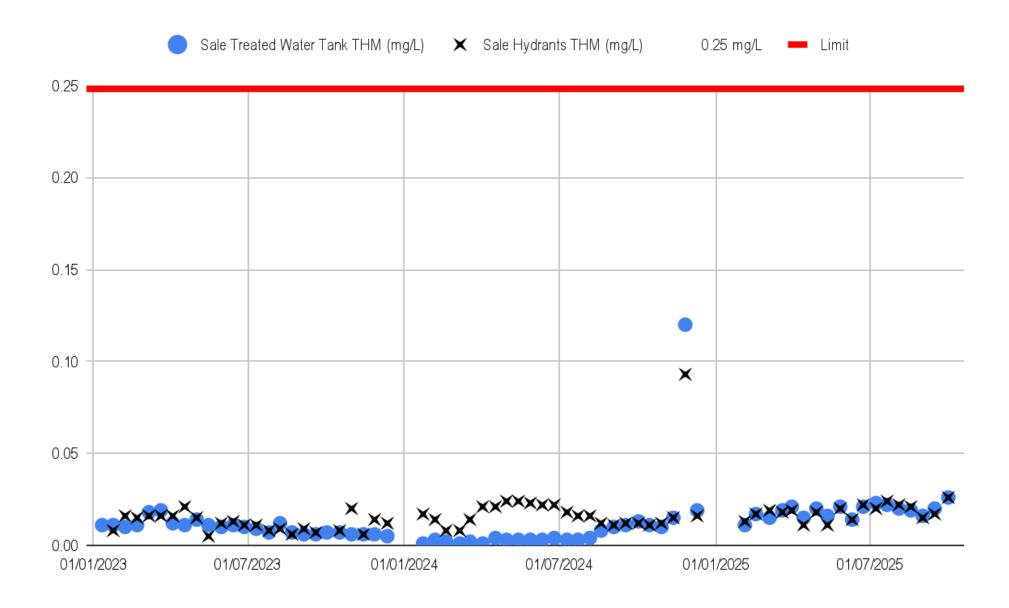


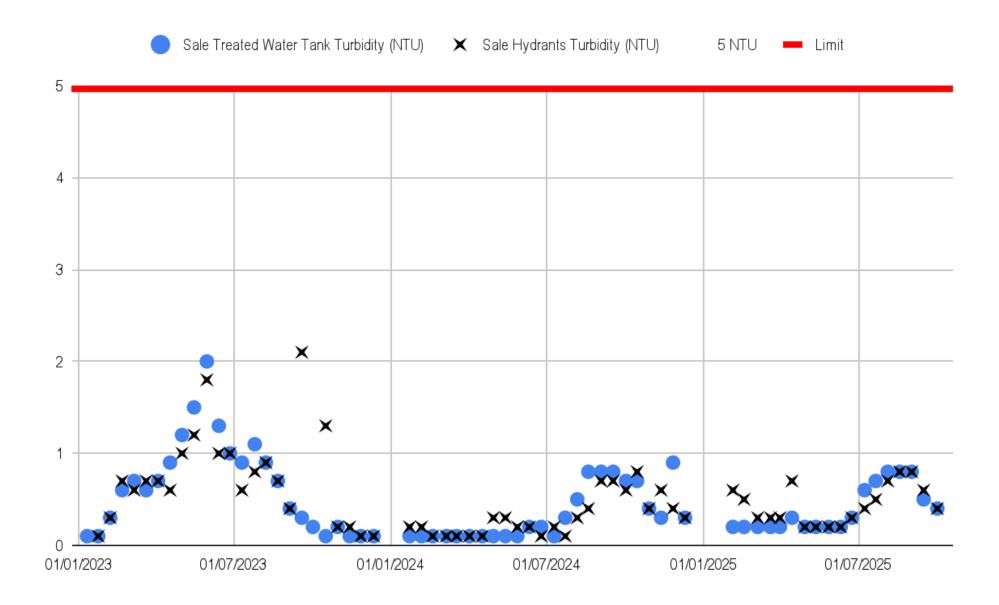


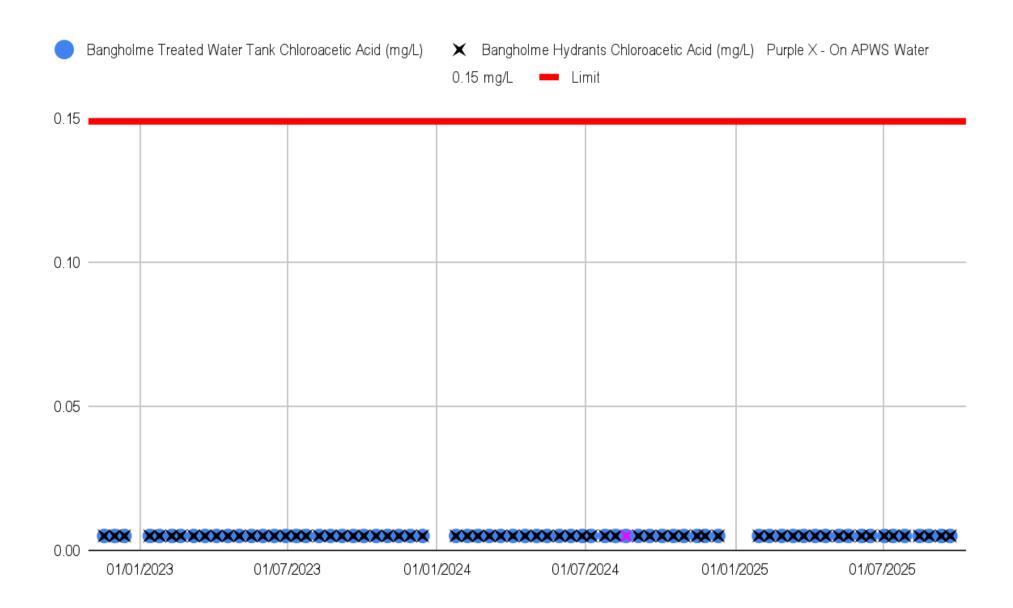


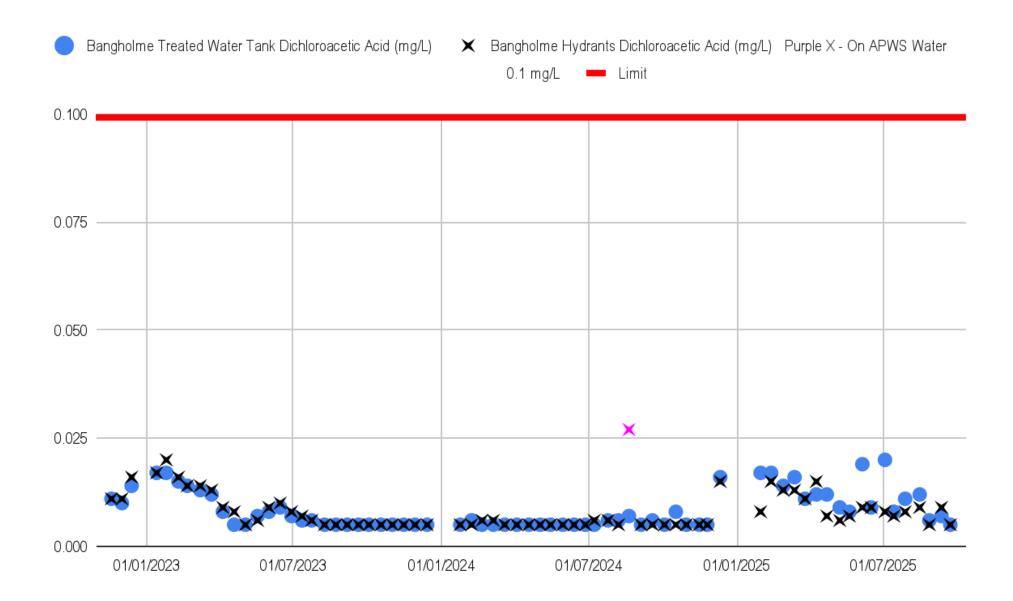


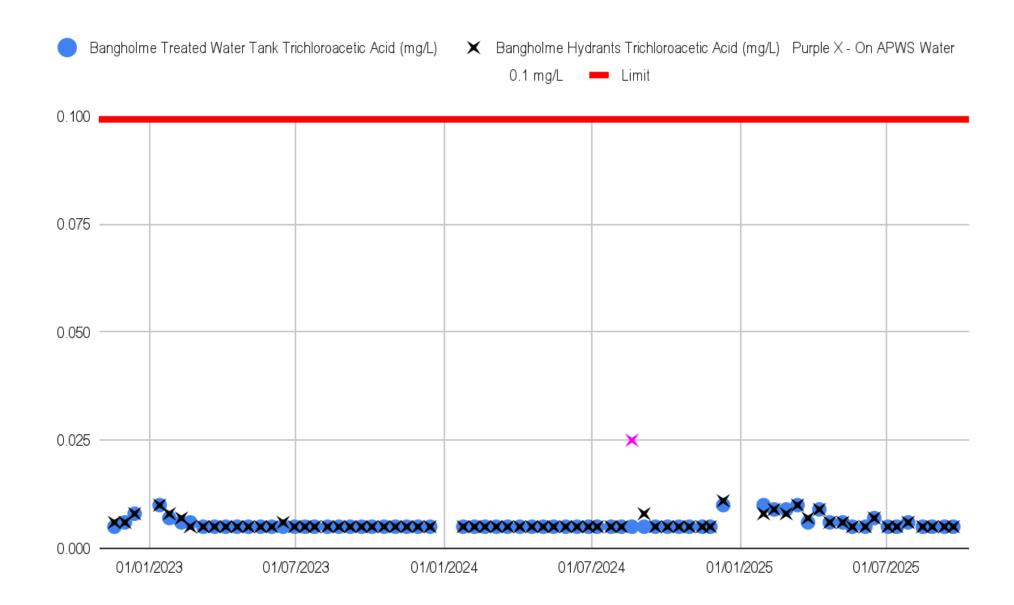


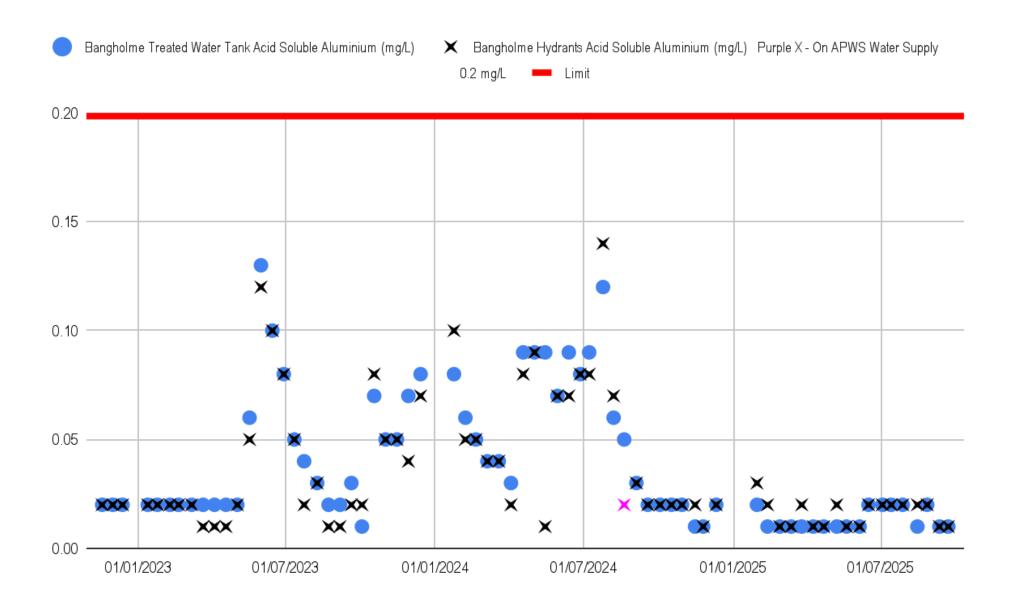


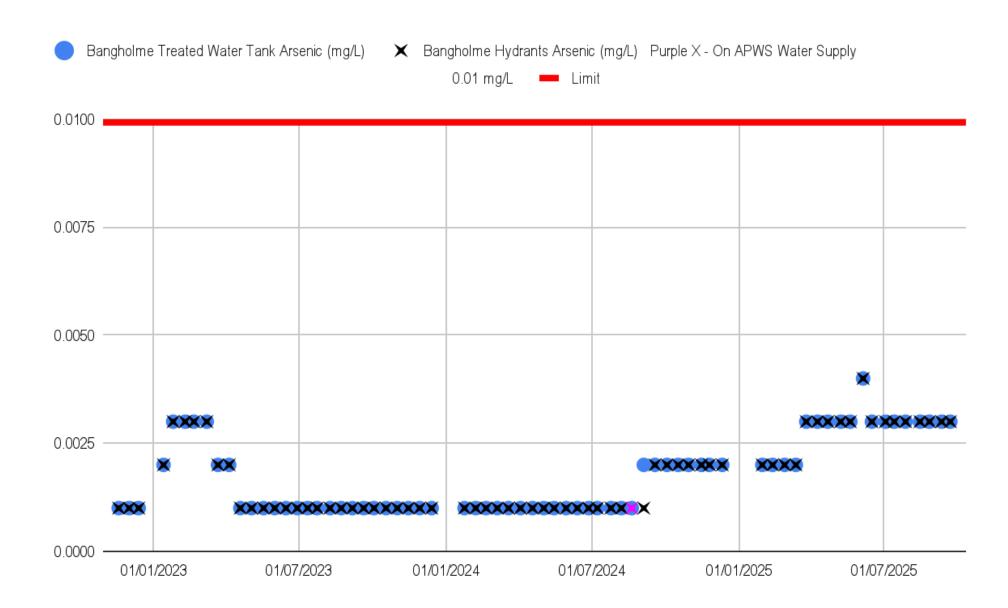


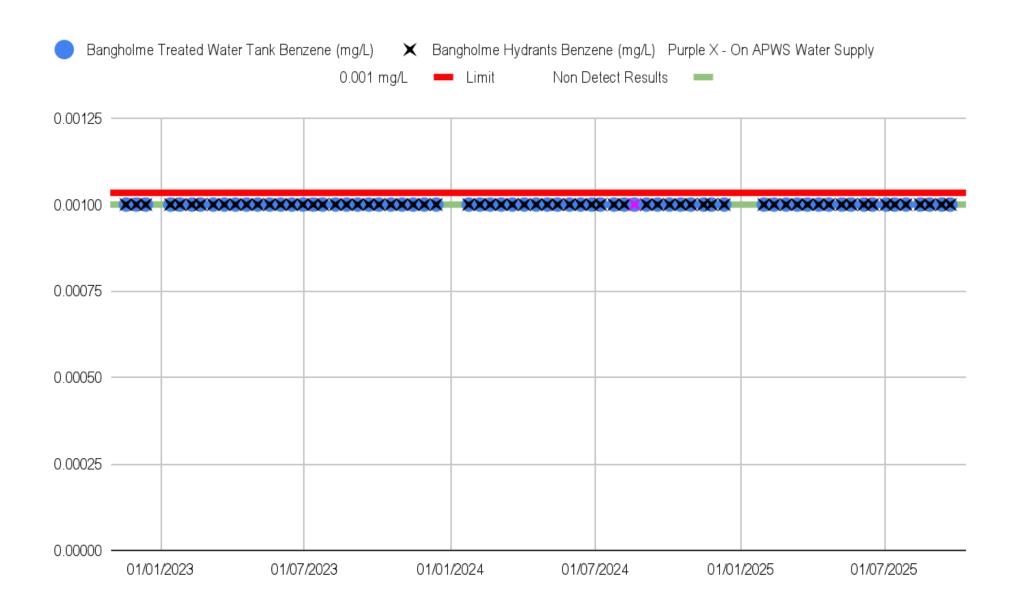


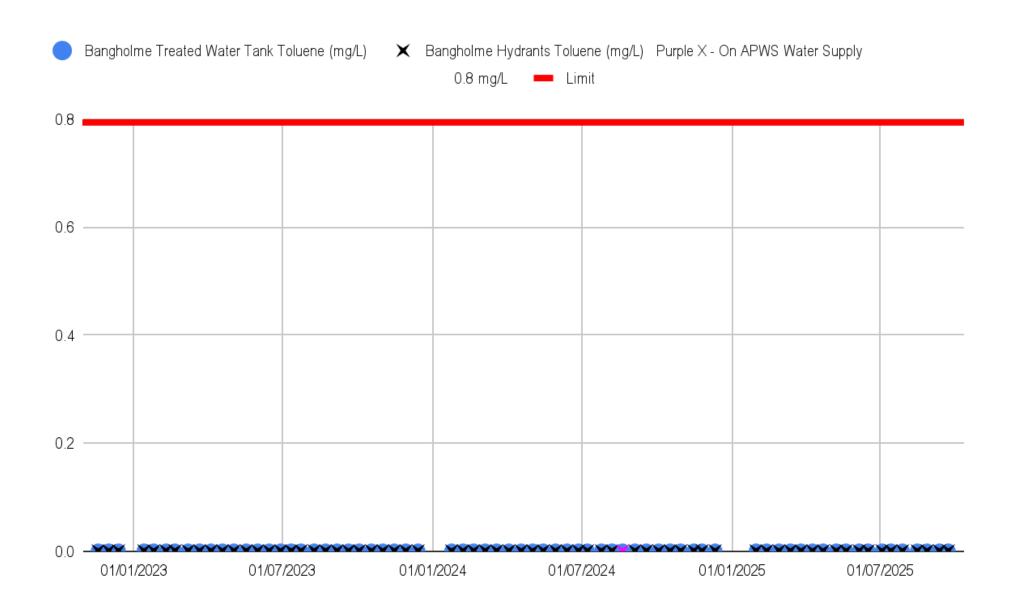


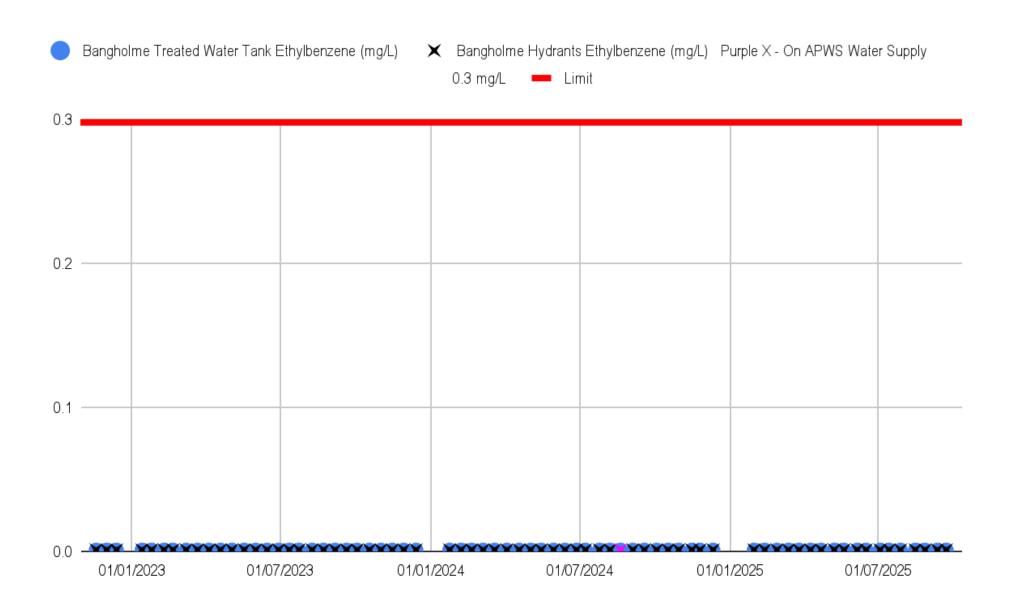


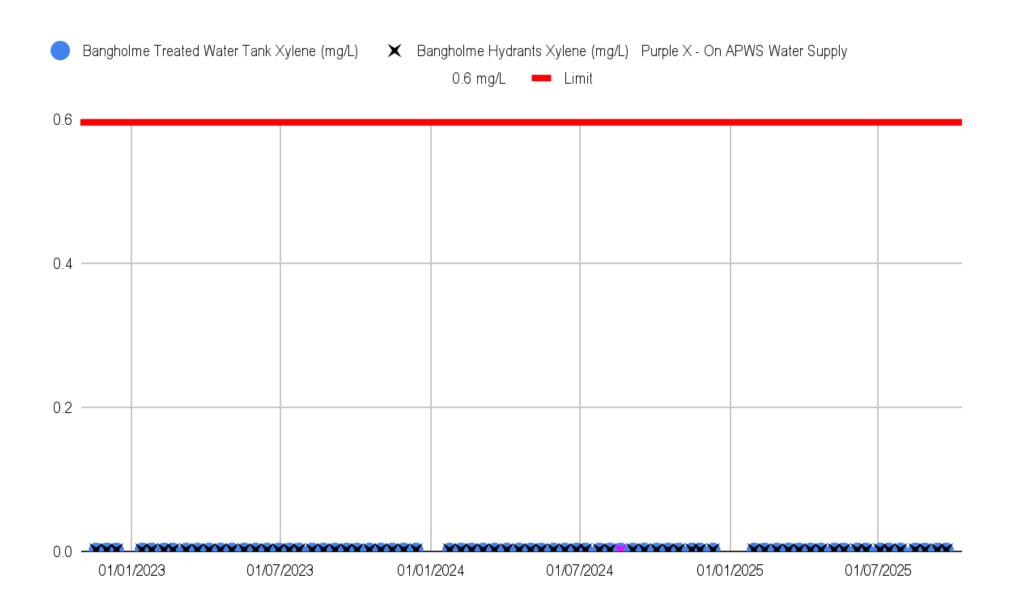


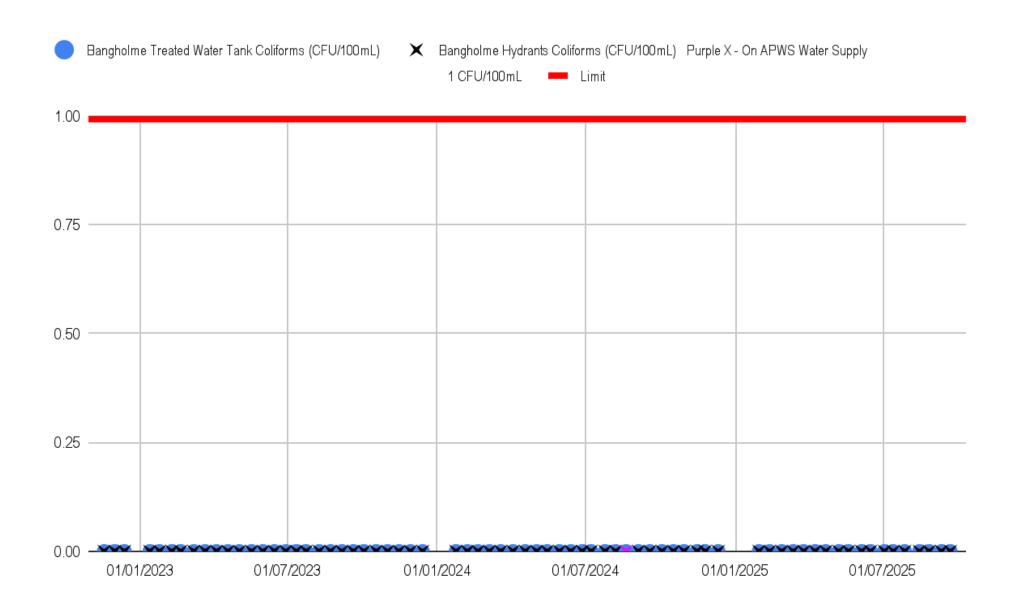


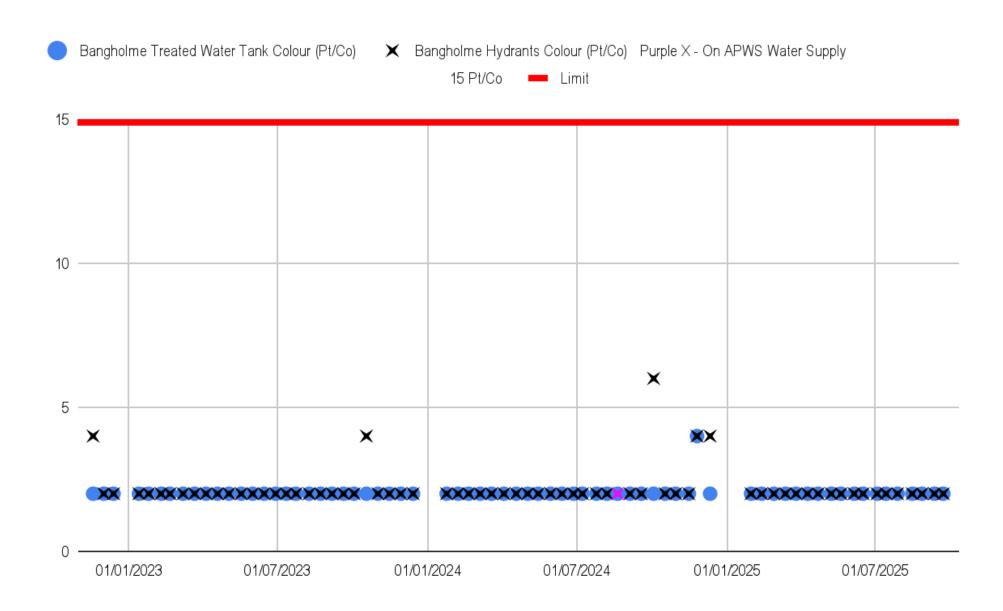


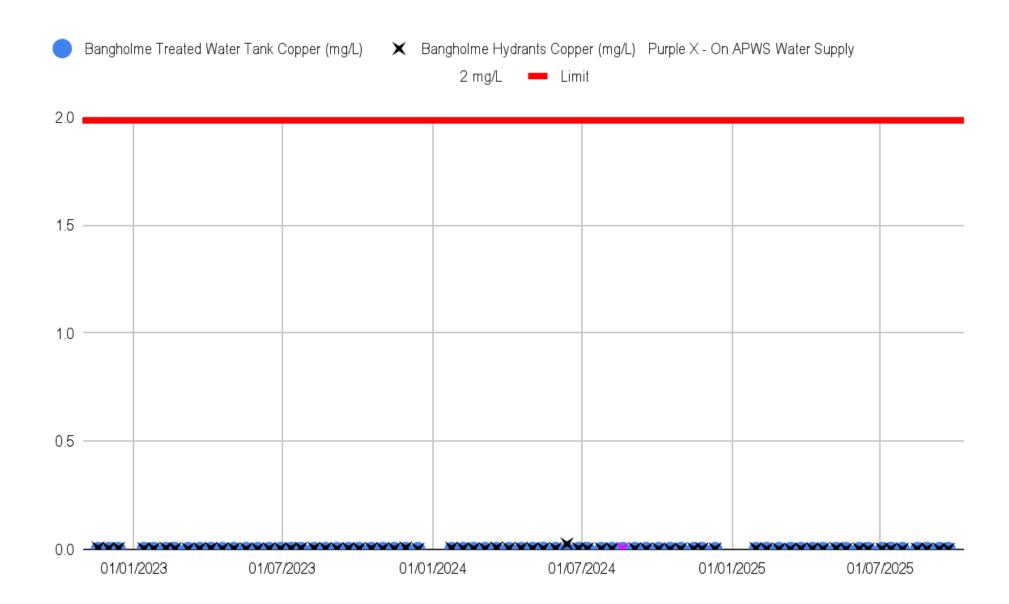




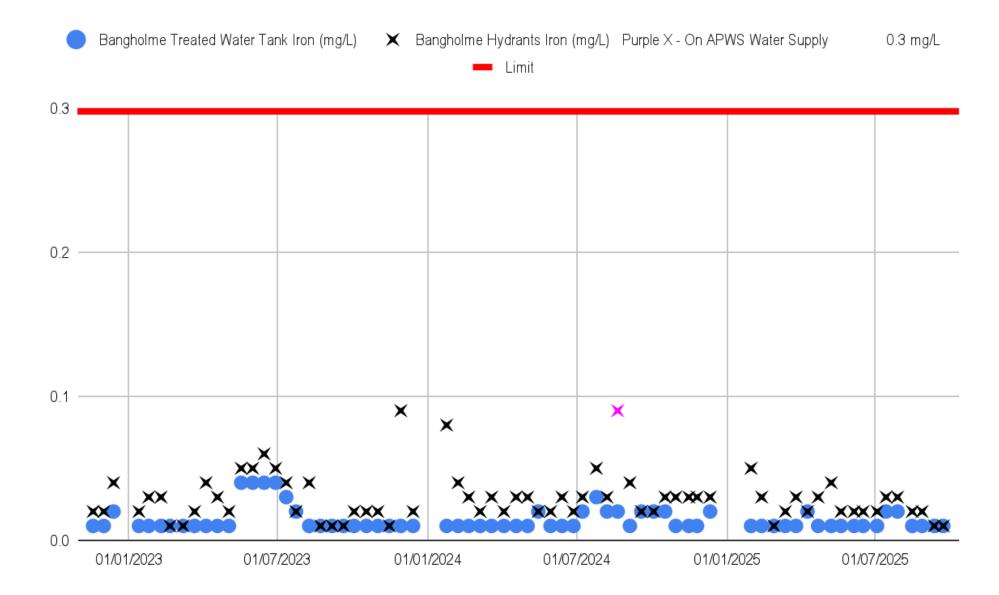


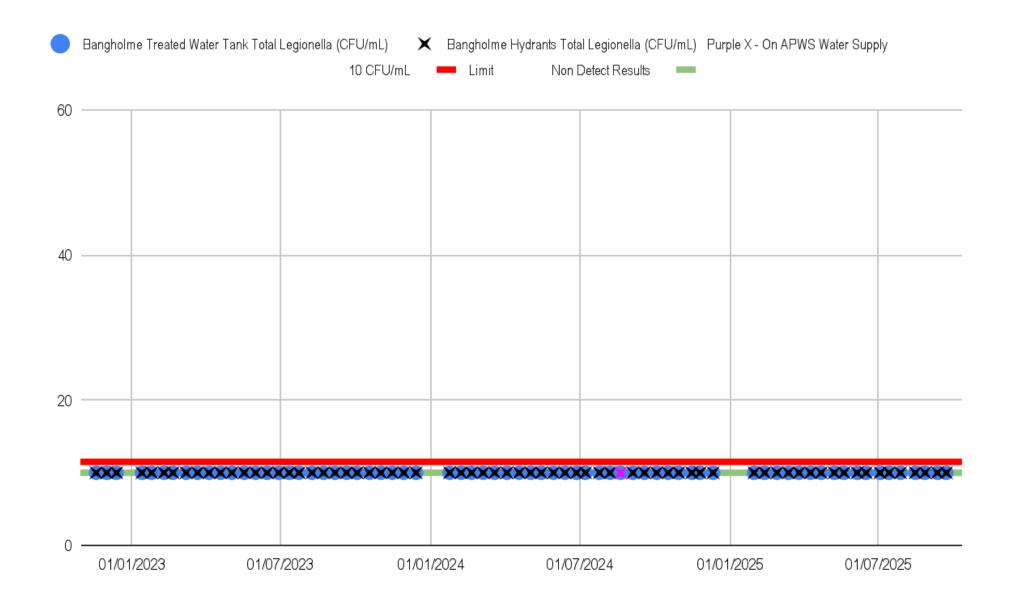


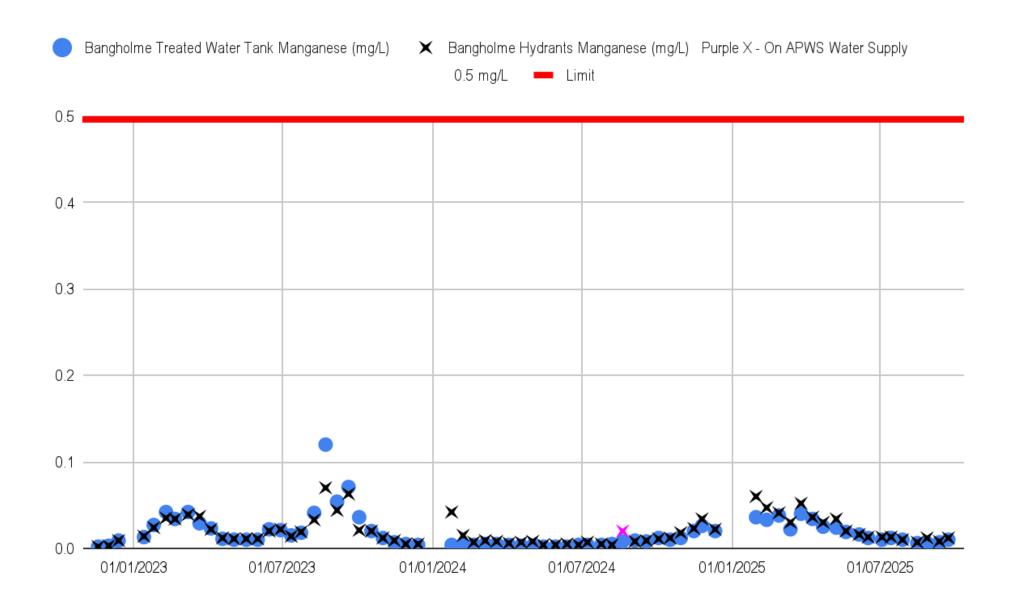


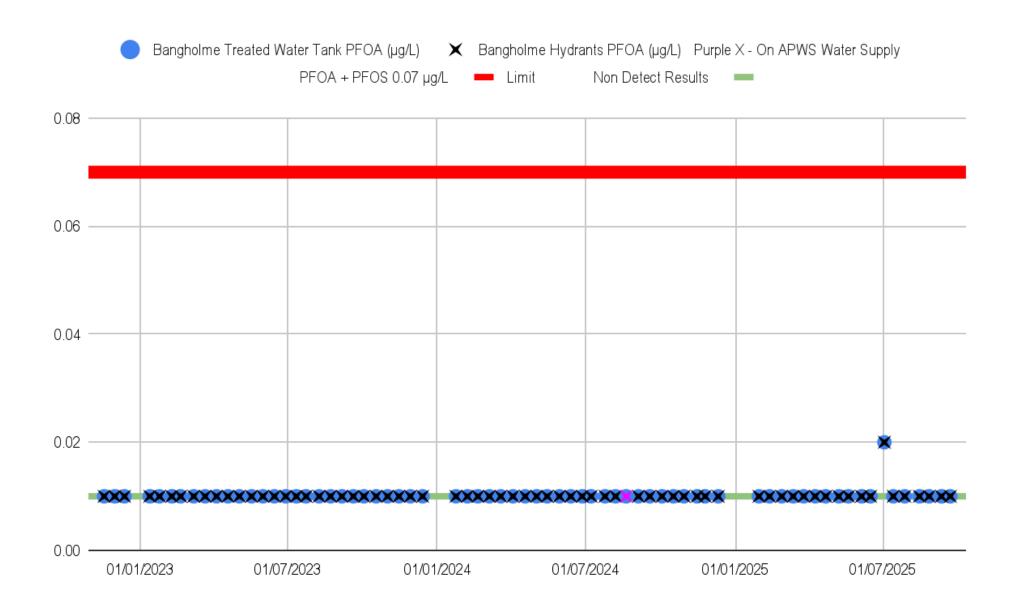


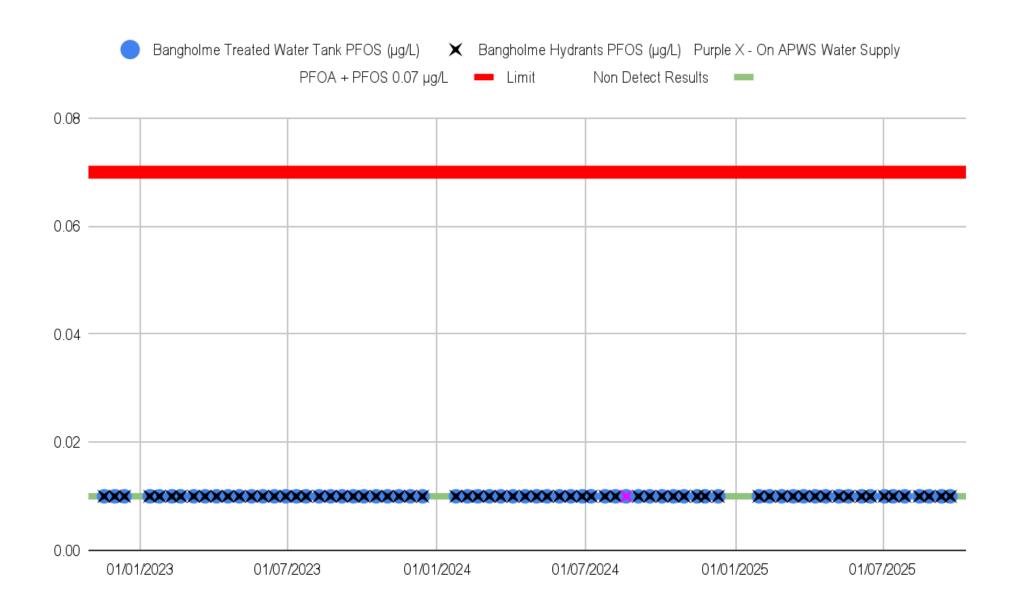
Bangholme Treated Water Tank E.coli (CFU/100mL) ➤ Bangholme Hydrants E.coli (CFU/100mL) Purple X - On APWS Water Supply 1 CFU/100mL Limit 1.00 0.75 0.50 0.25 01/01/2023 01/07/2023 01/01/2024 01/07/2024 01/01/2025 01/07/2025

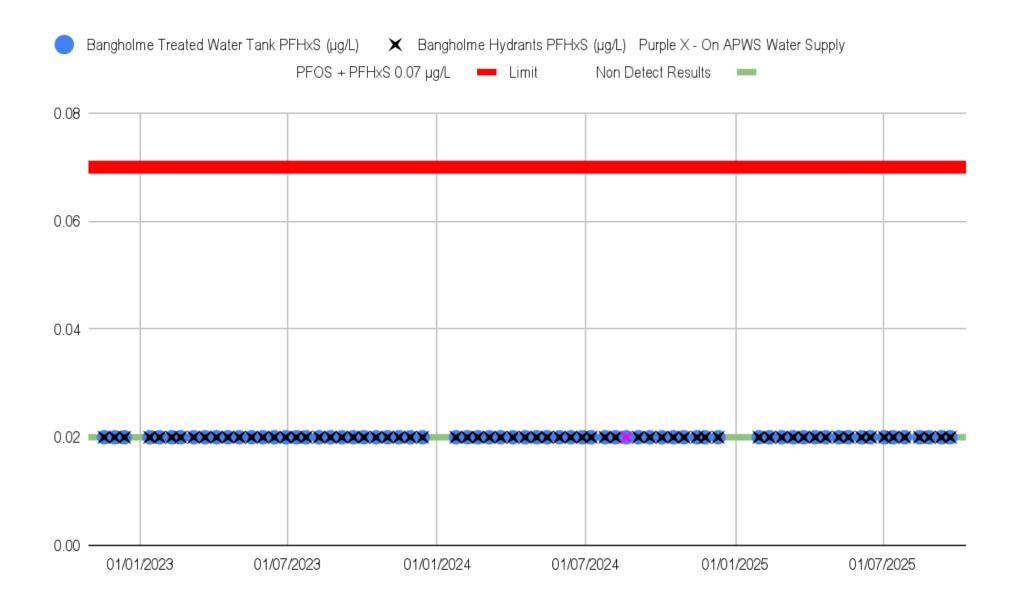


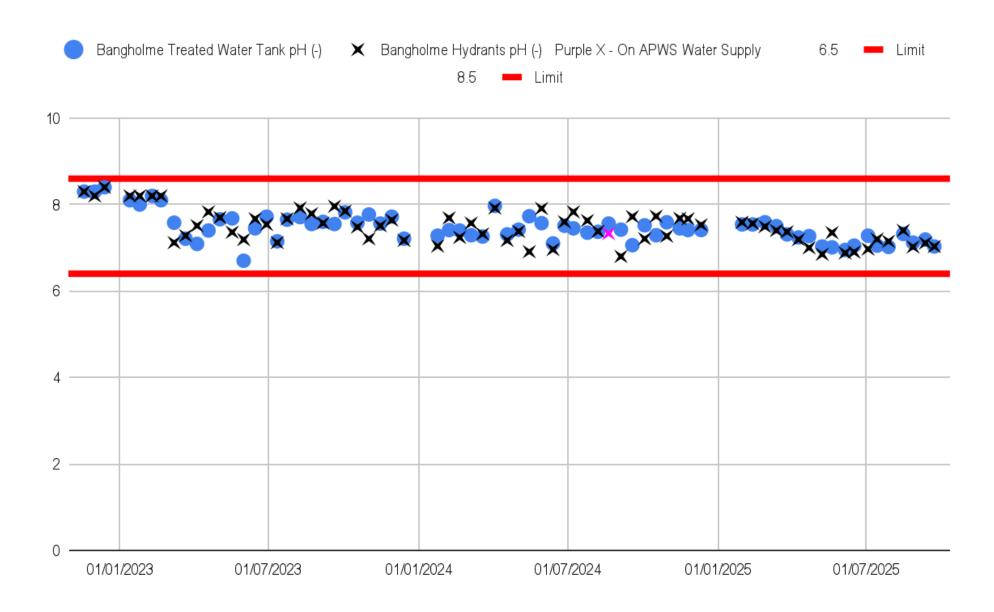


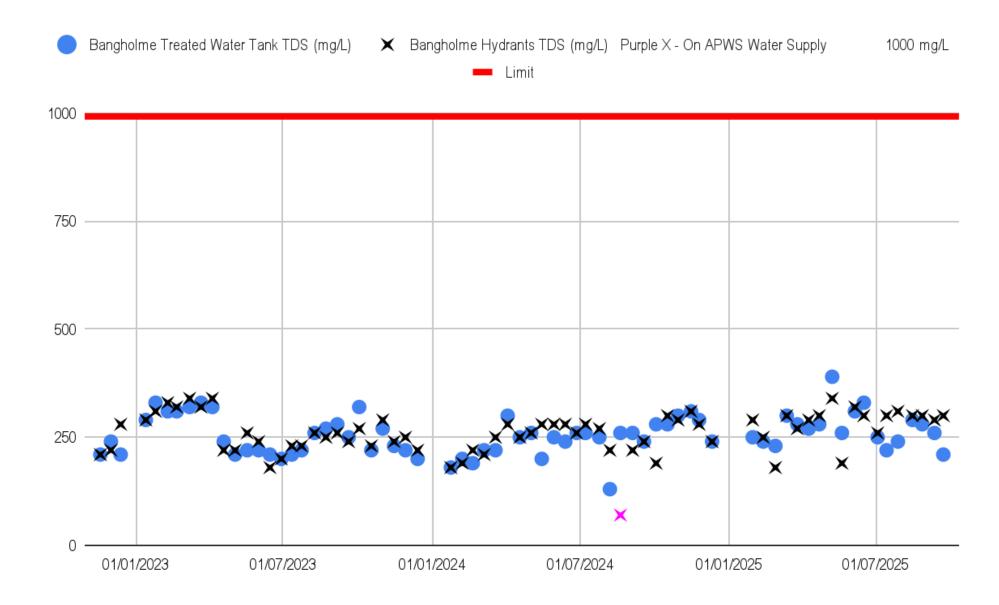












Bangholme Treated Water Tank Total Chlorine (mg/L) ➤ Bangholme Hydrants Total Chlorine (mg/L) Purple X - On APWS Water Supply 5 mg/L Limit 3

01/07/2024

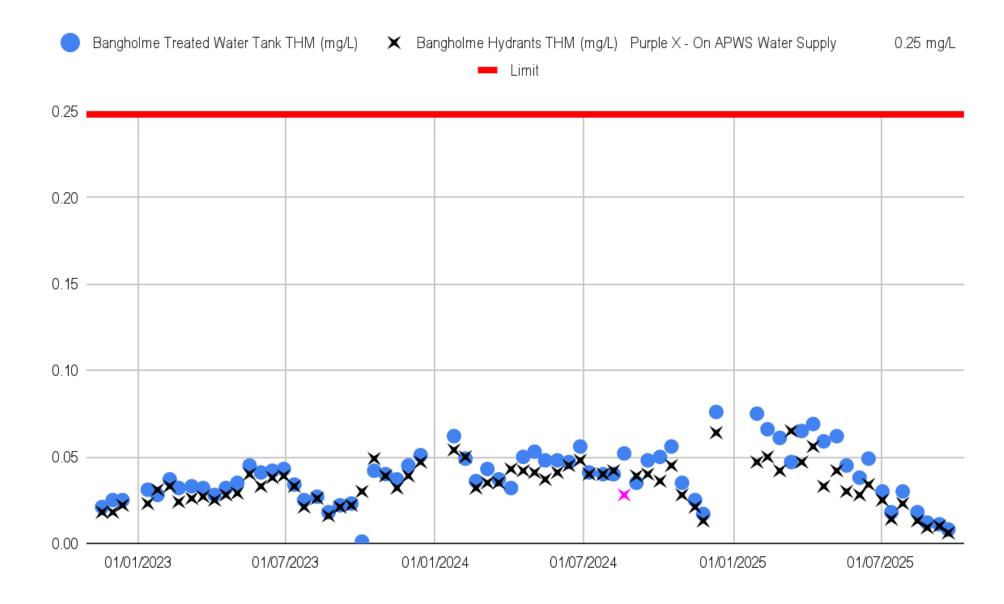
01/01/2025

01/07/2025

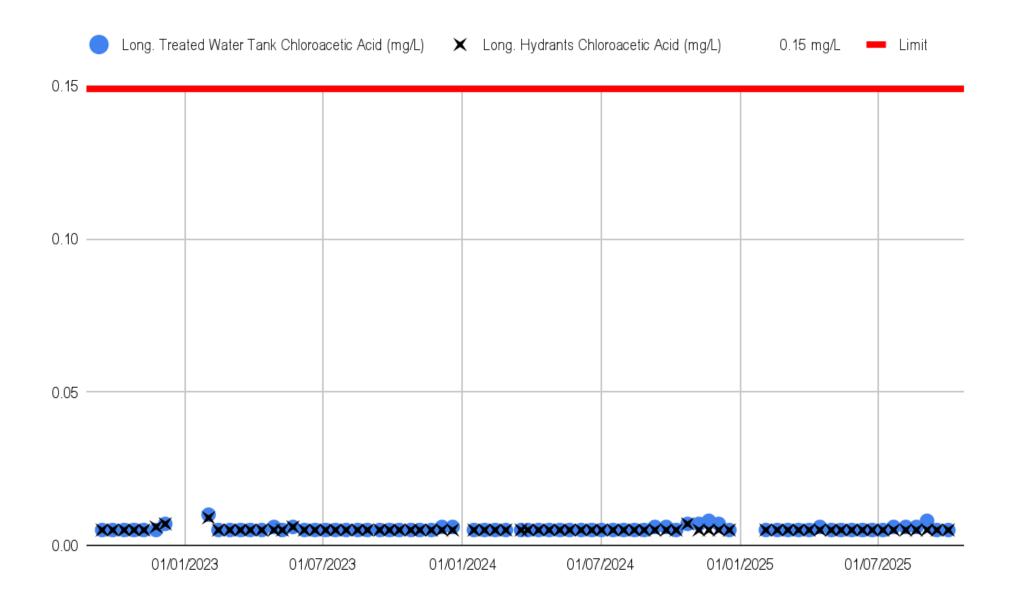
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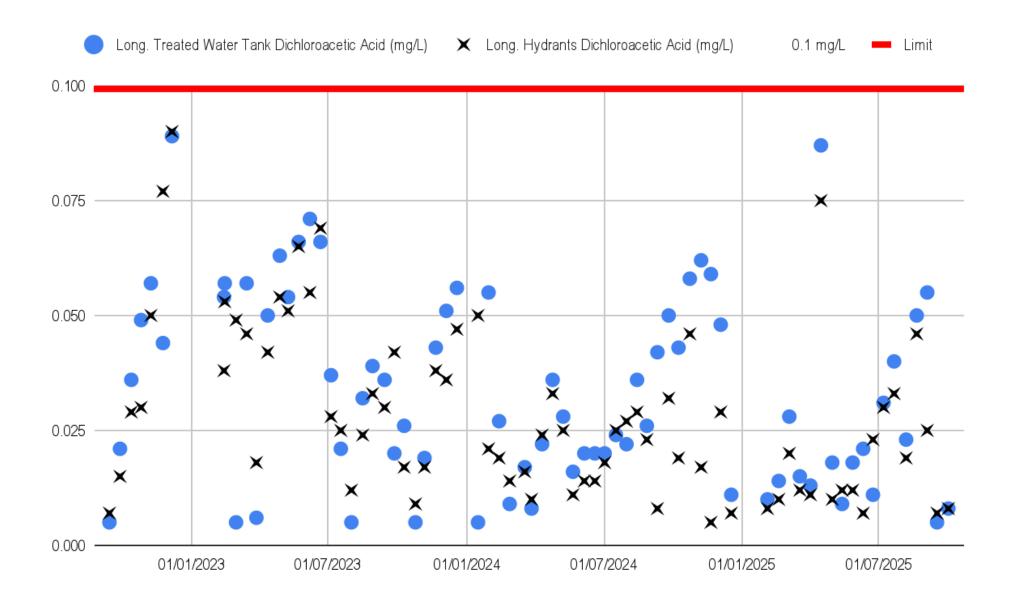
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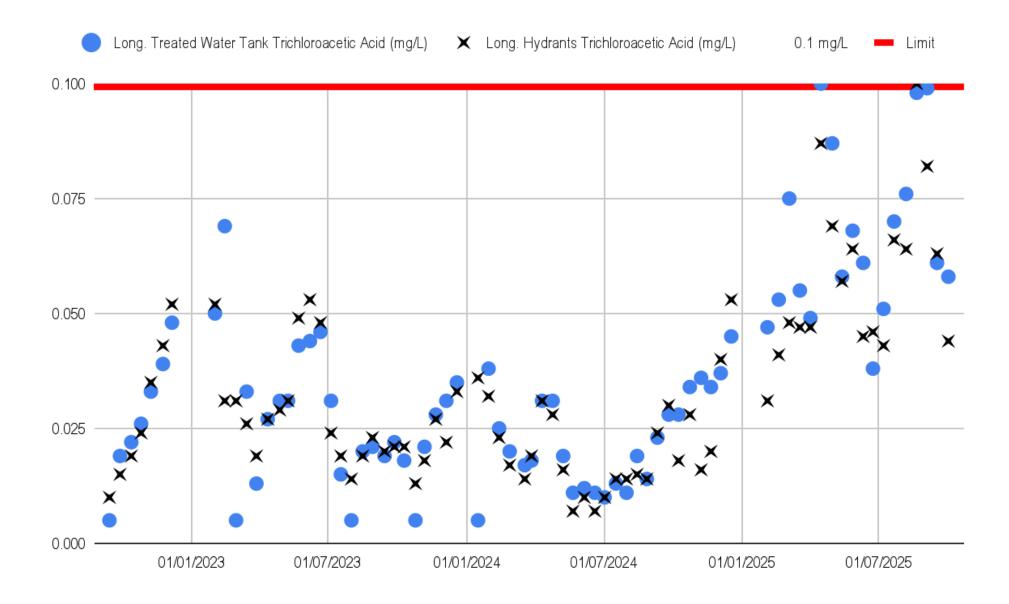
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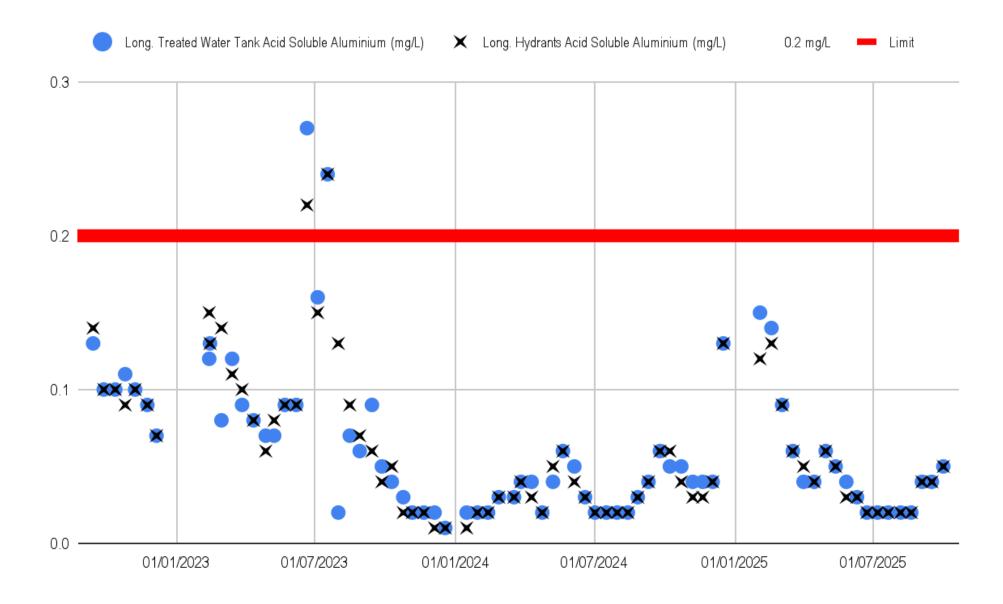


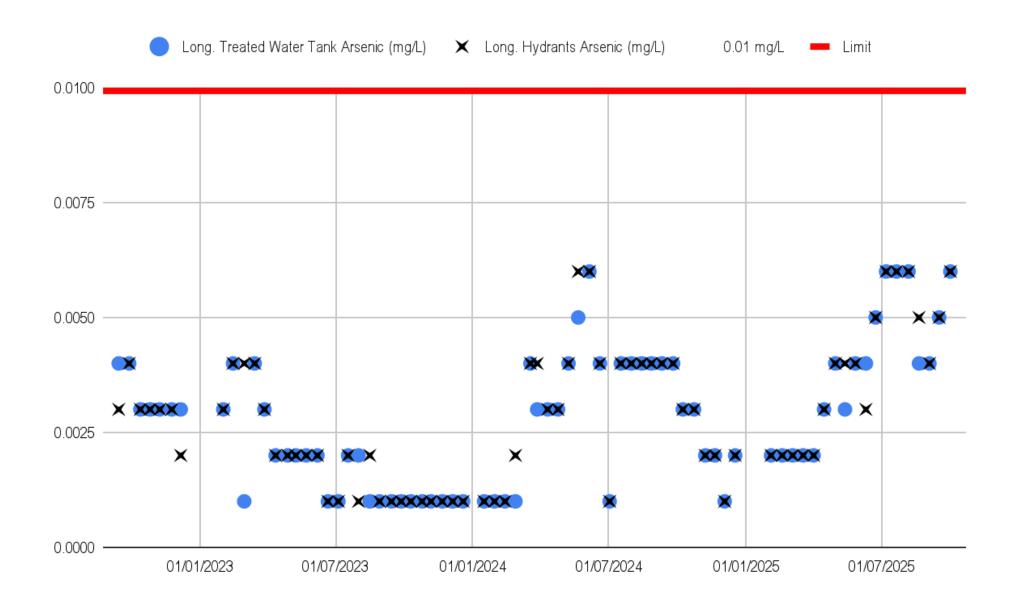
Bangholme Treated Water Tank Turbidity (NTU) ➤ Bangholme Hydrants Turbidity (NTU) Purple X - On APWS Water Supply 5 NTU Limit 3 2 X × 01/01/2023 01/07/2023 01/07/2024 01/01/2025 01/01/2024 01/07/2025

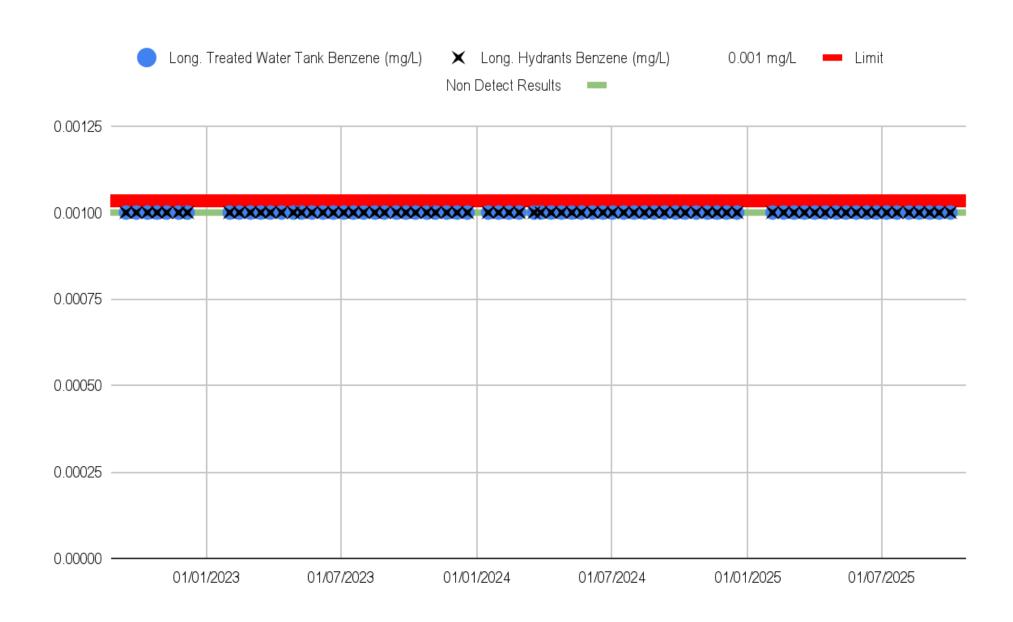


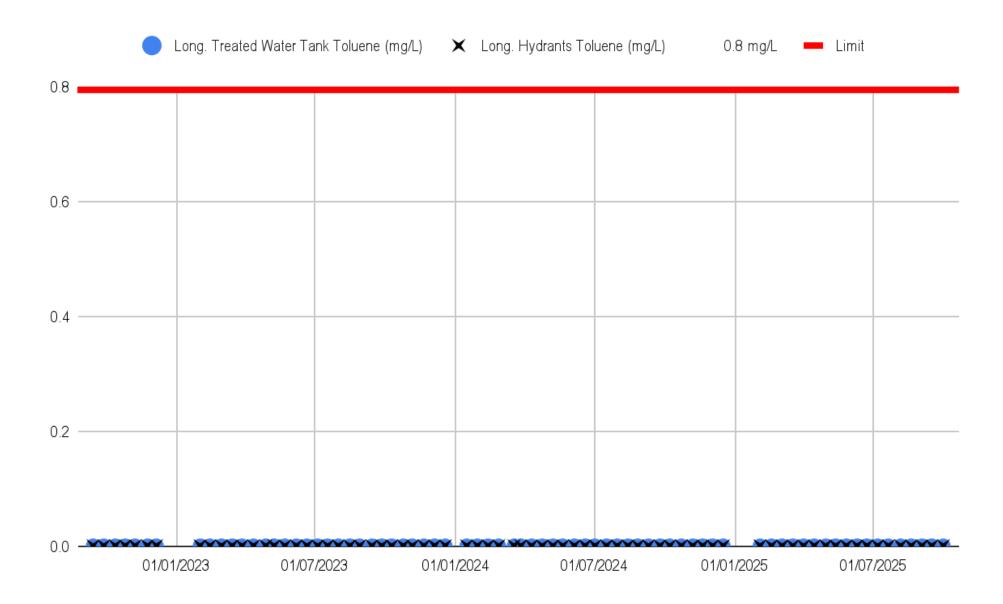


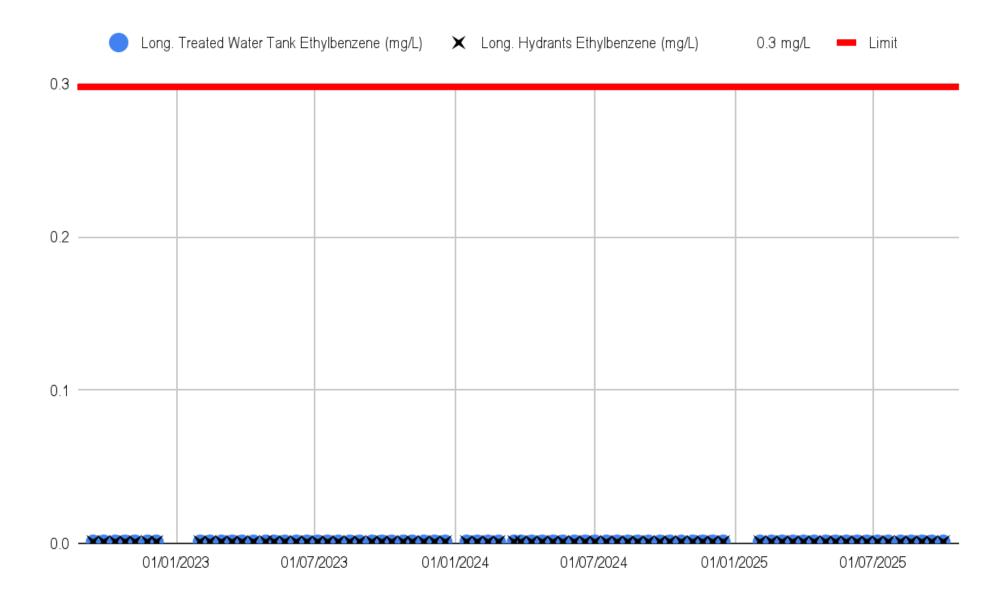


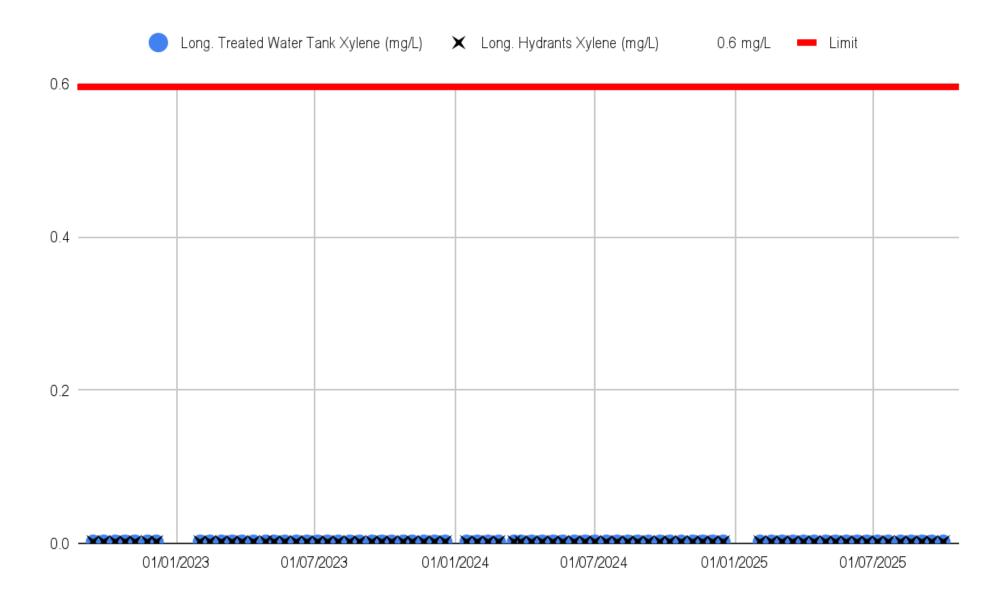


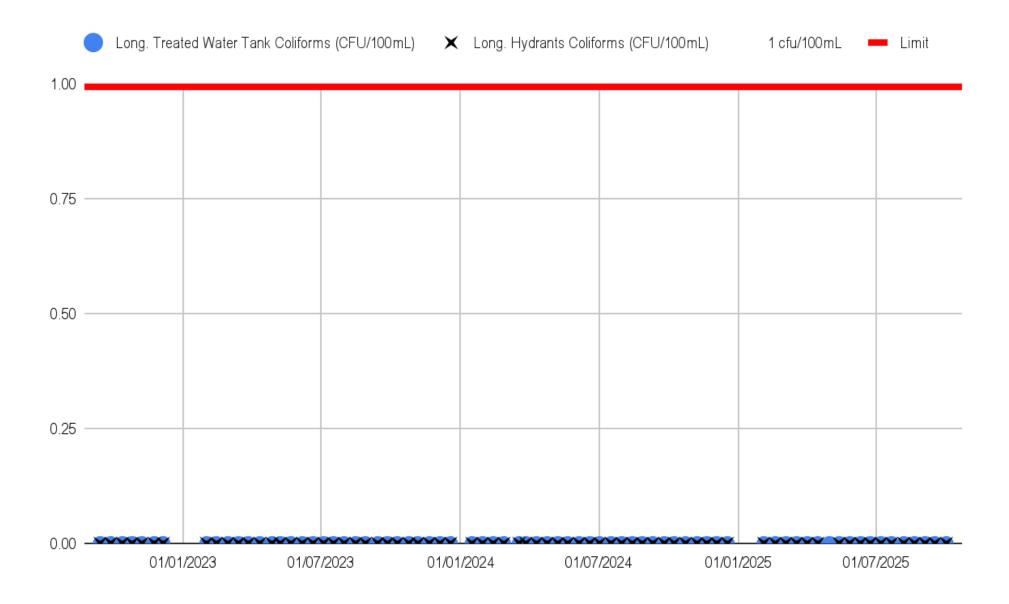


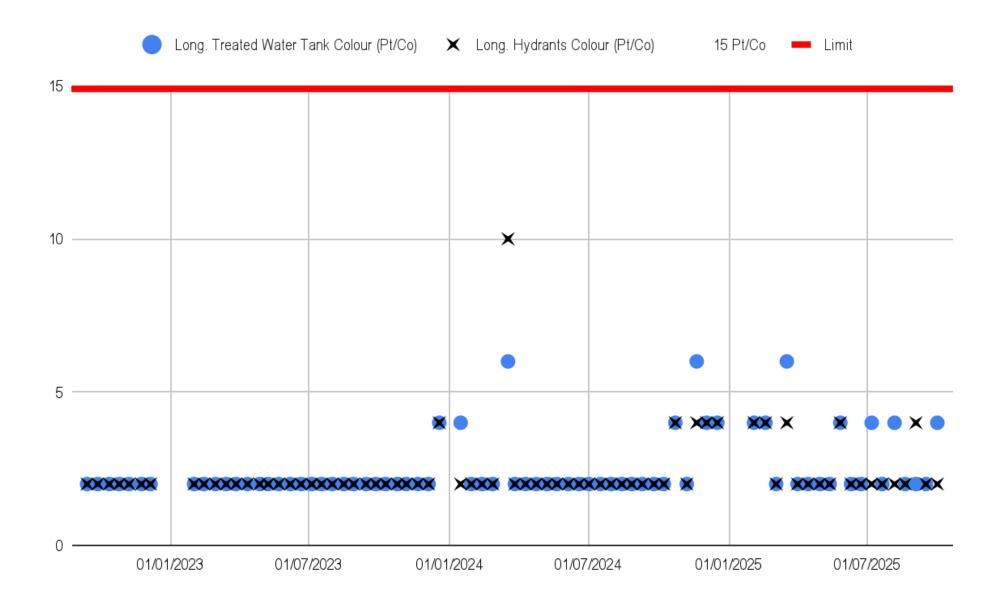


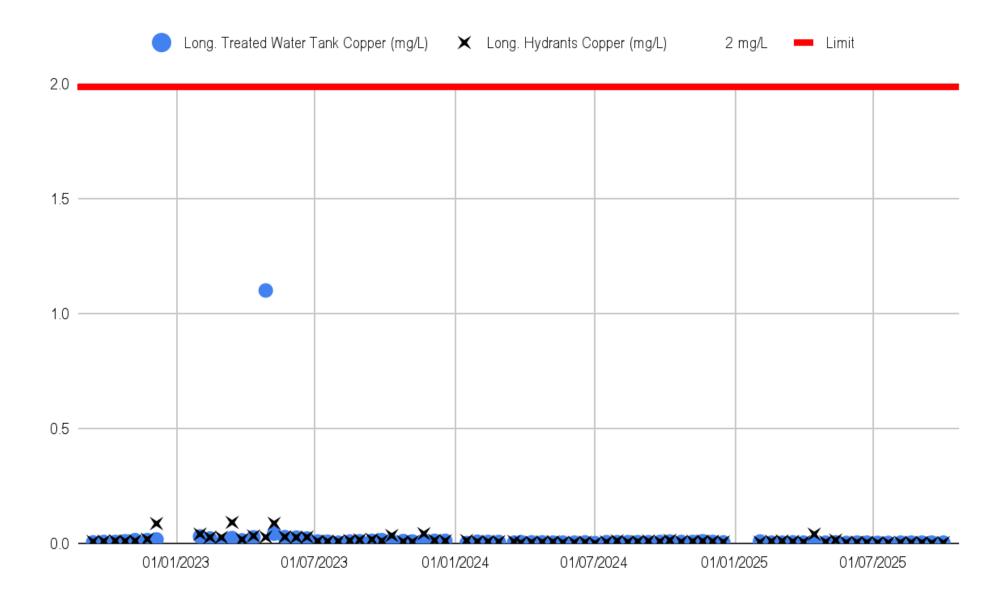


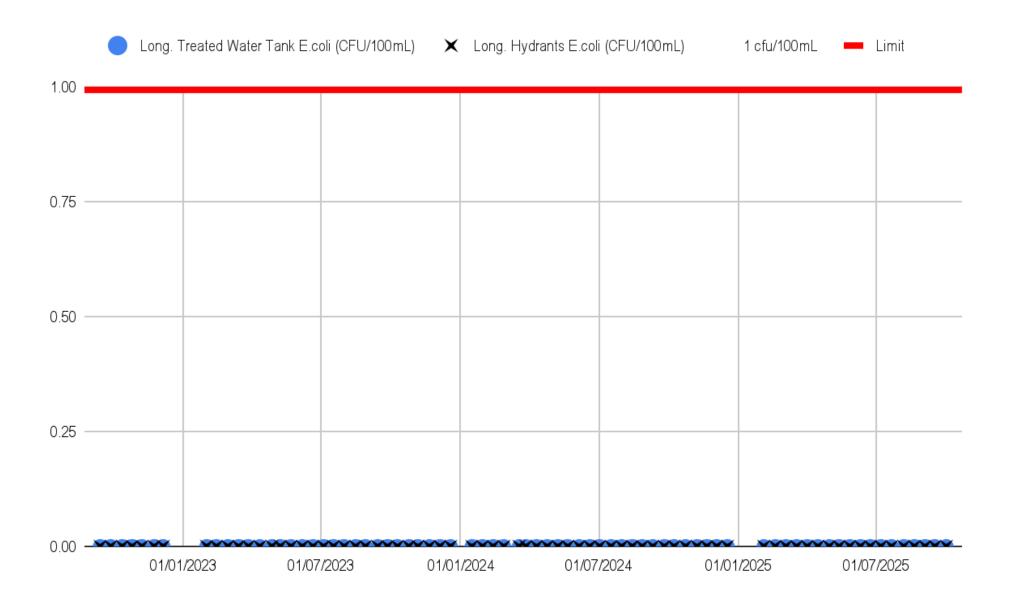


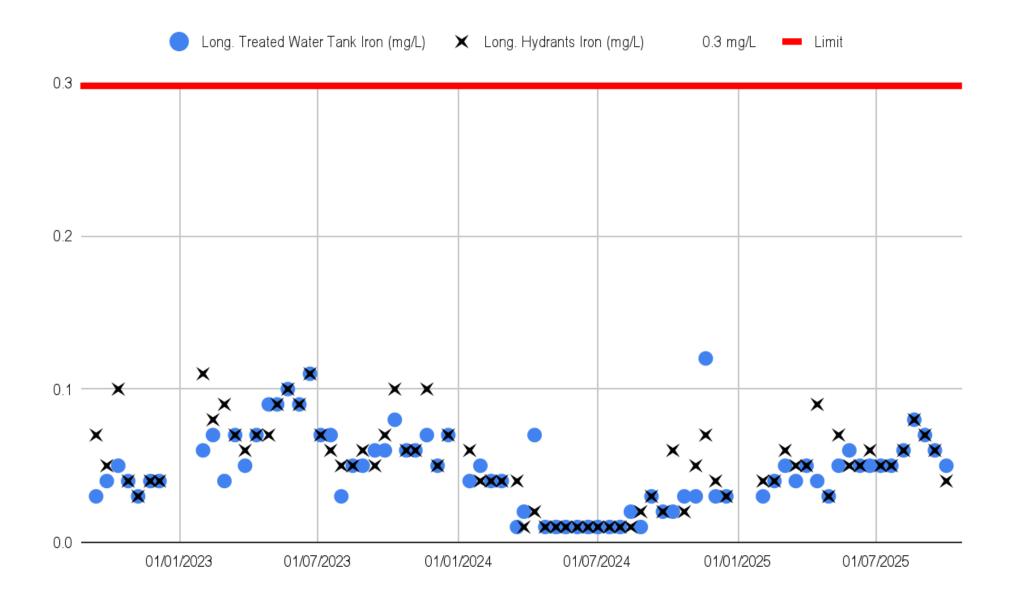


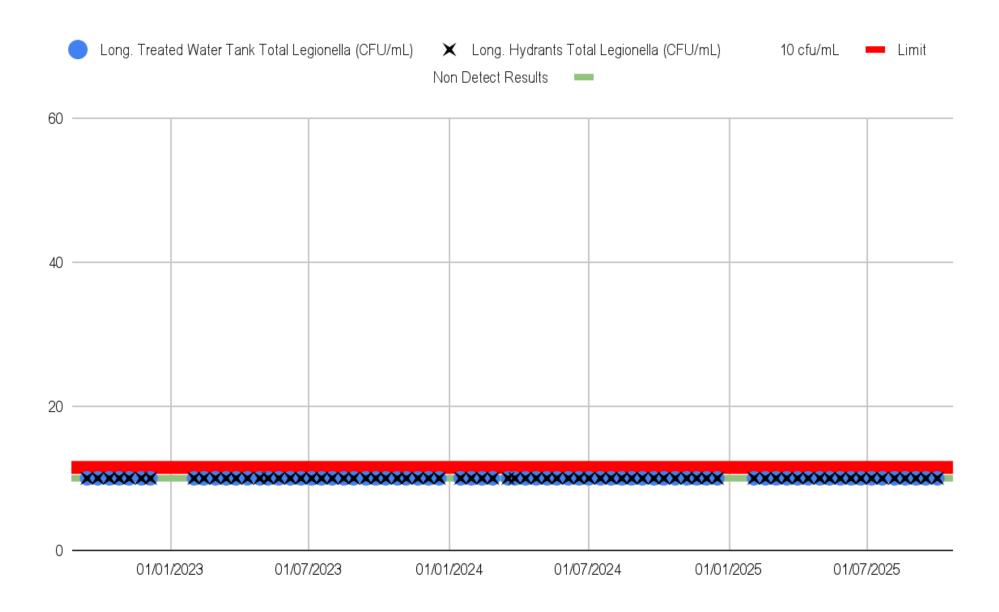


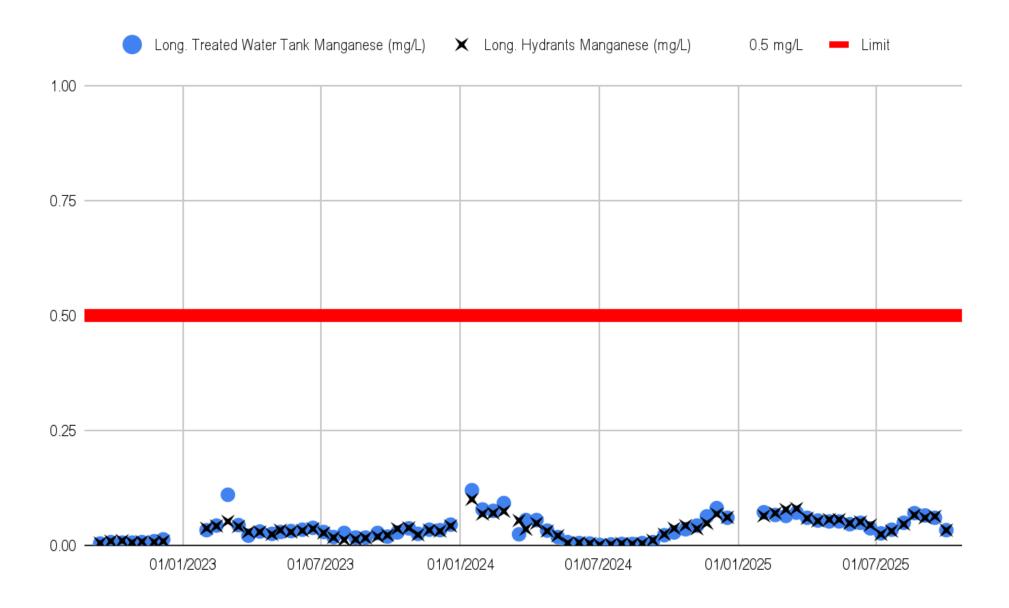


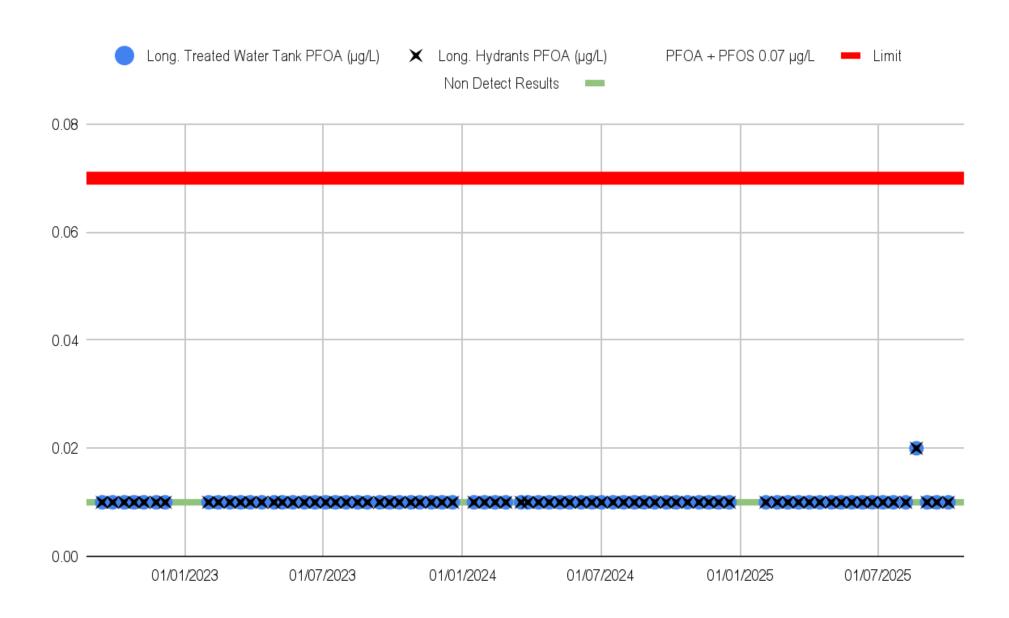


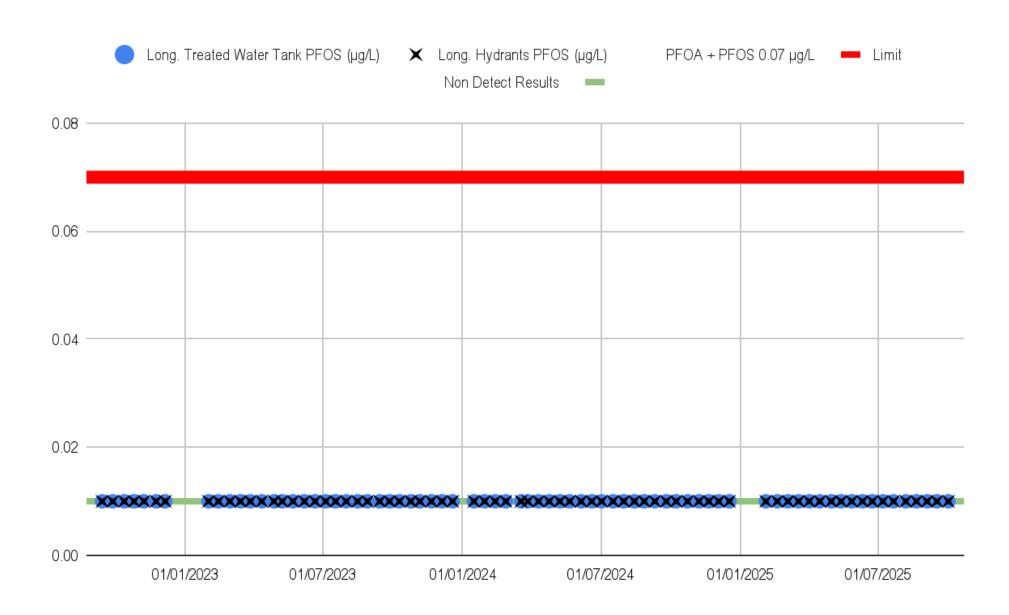


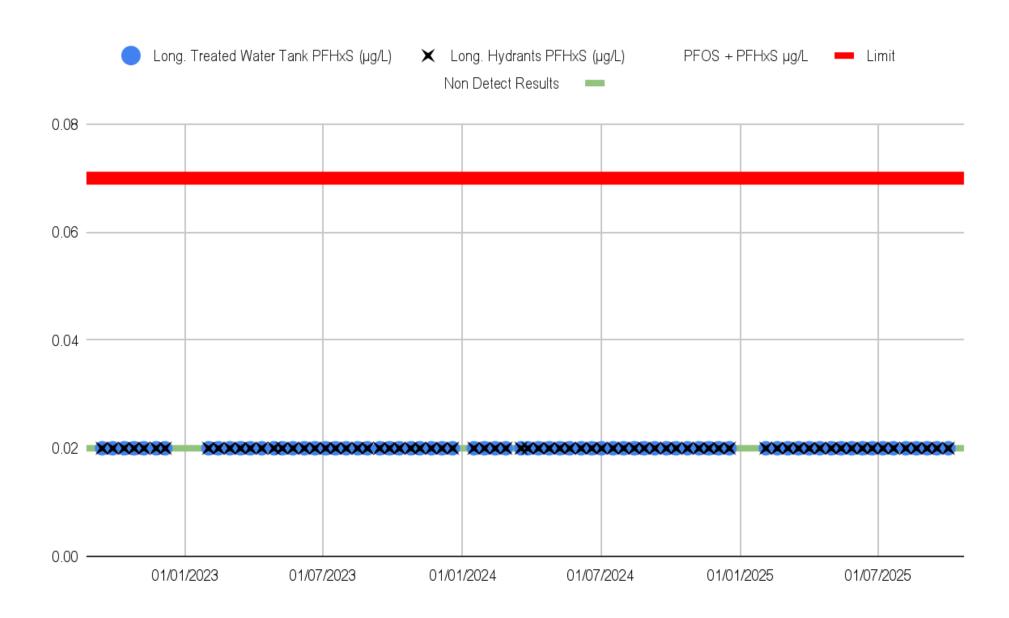


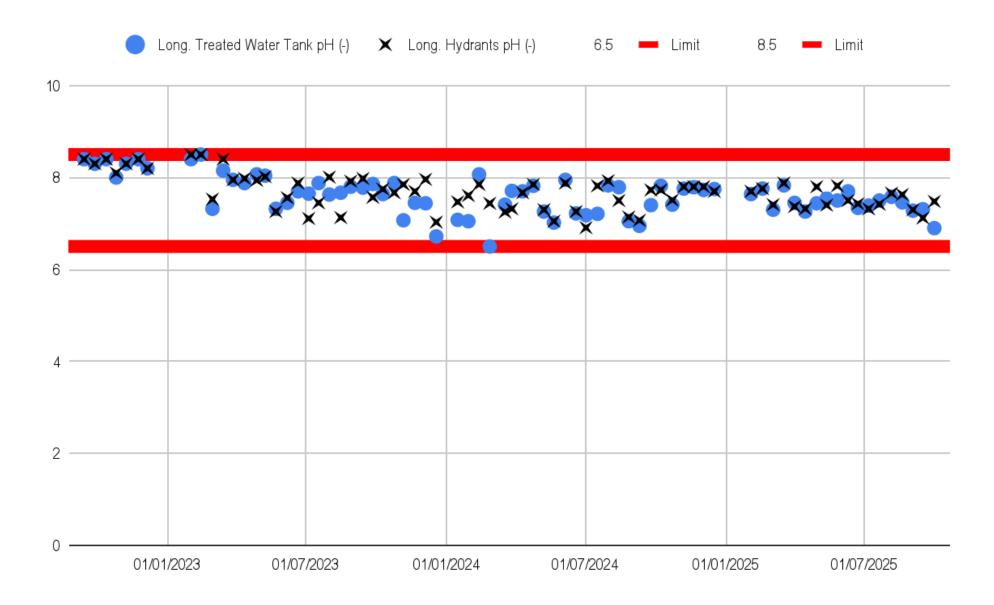


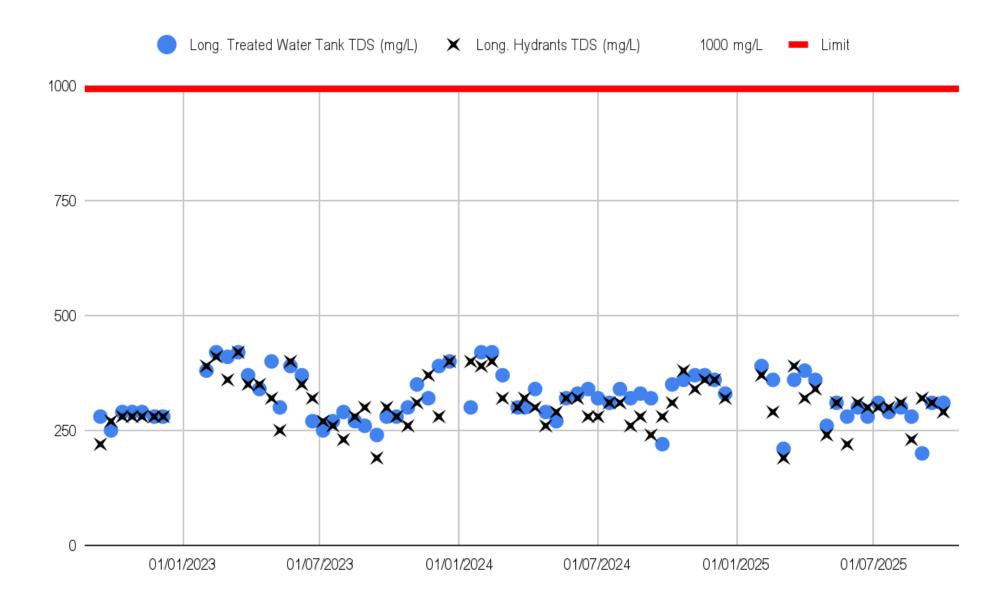


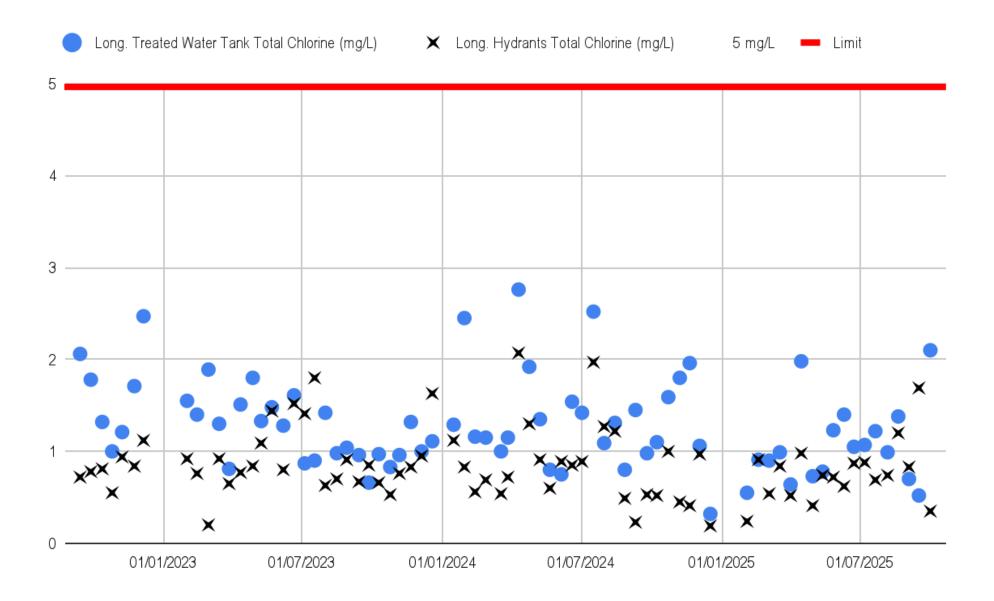


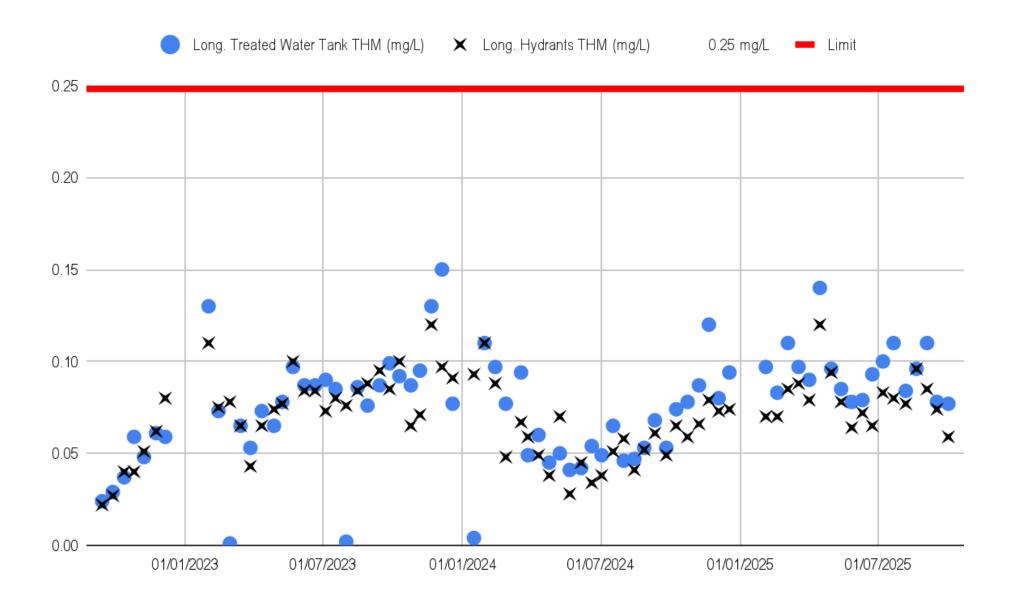


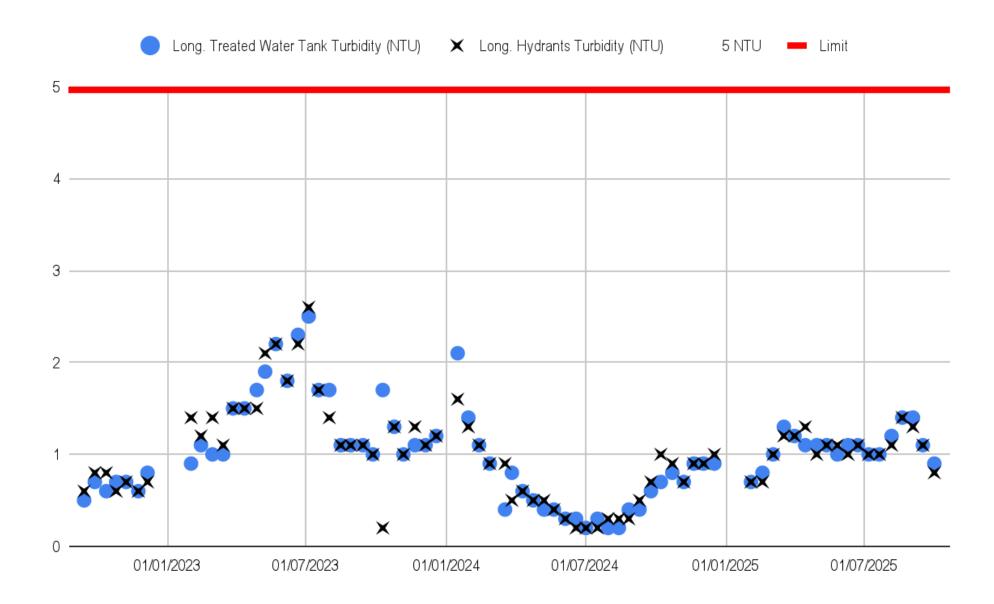


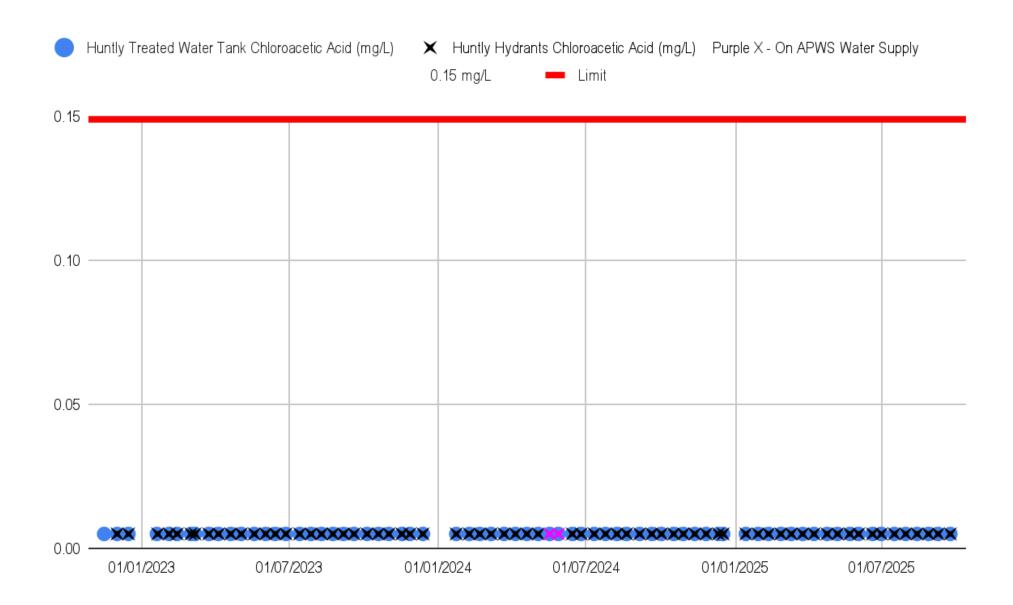


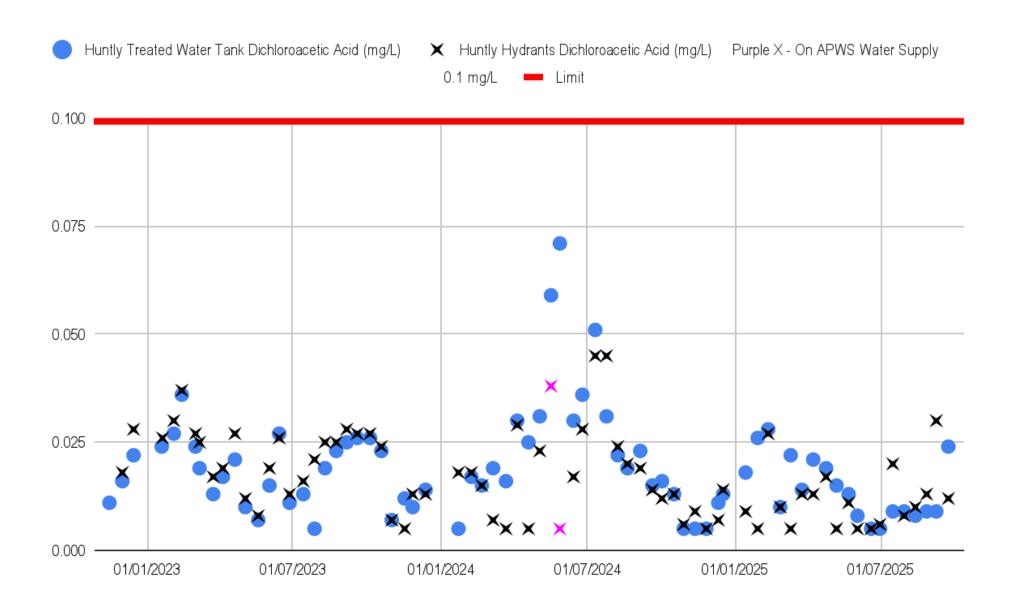


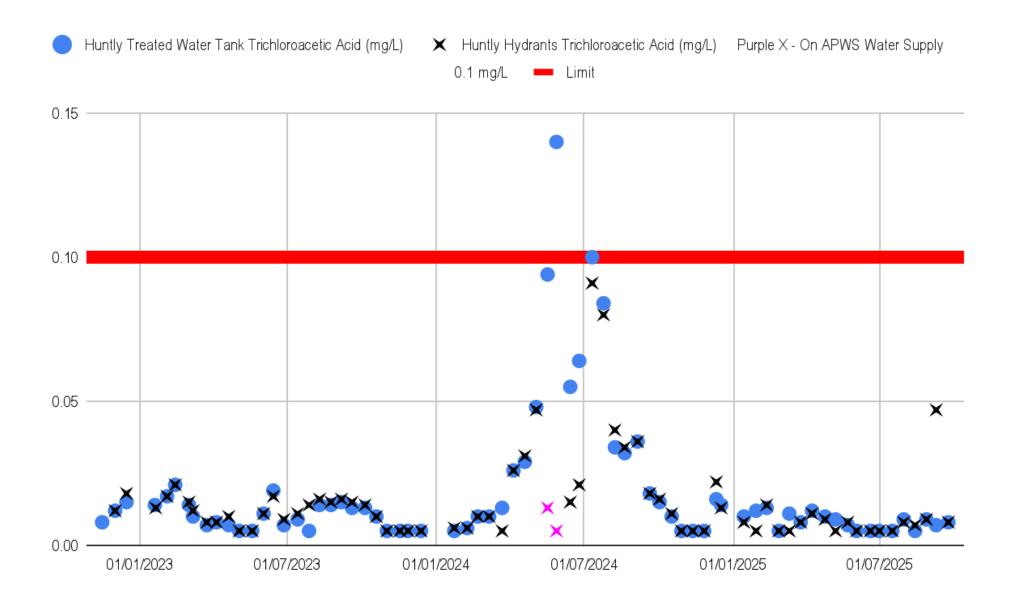


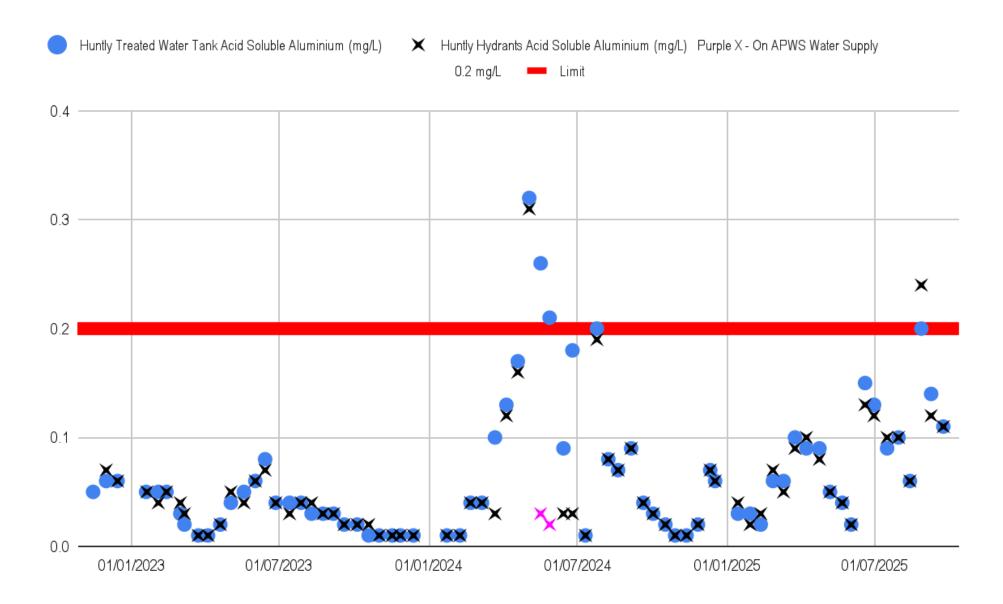


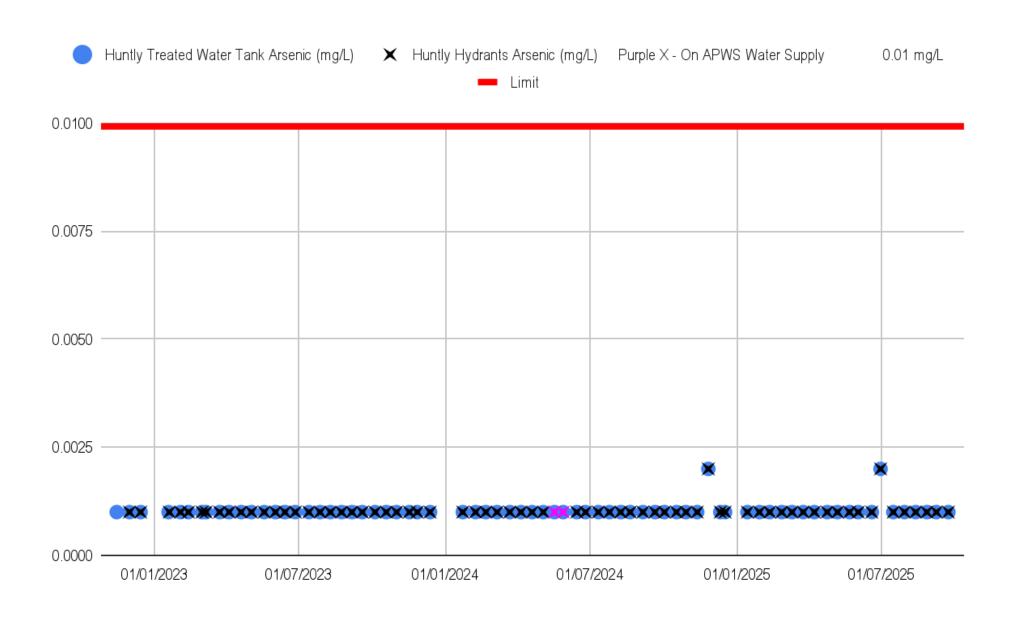


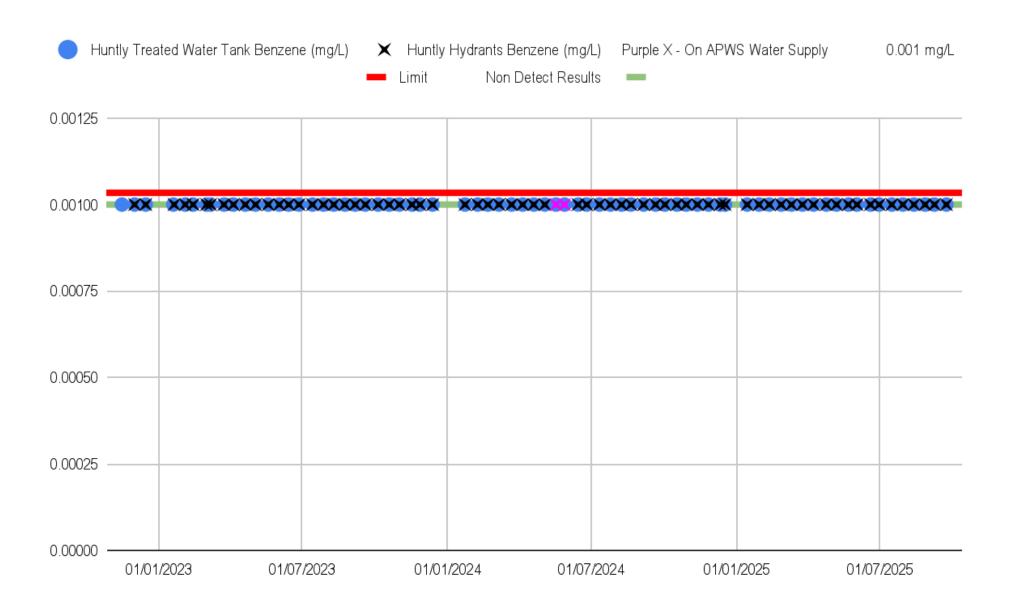


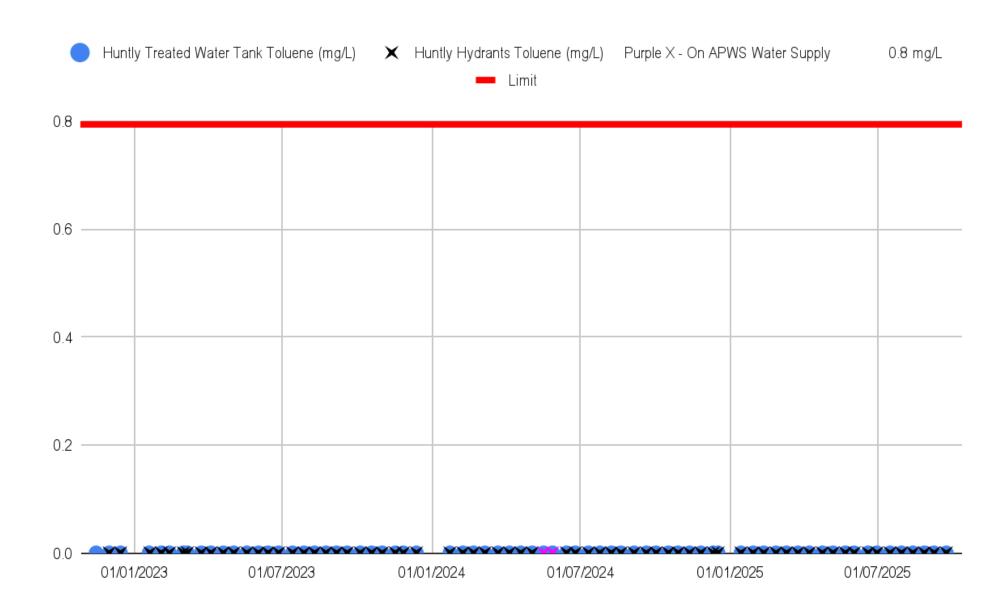


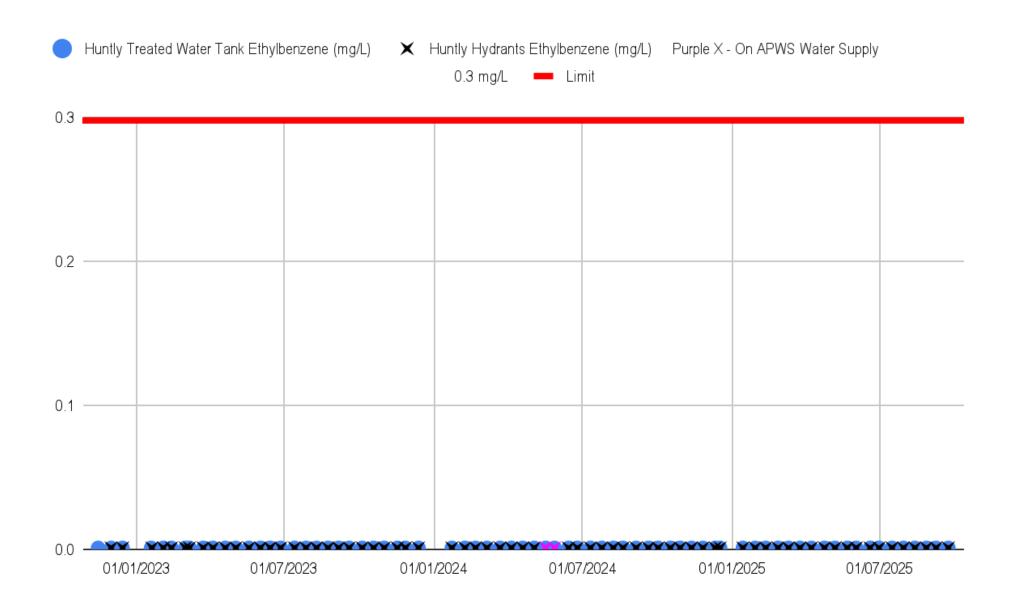


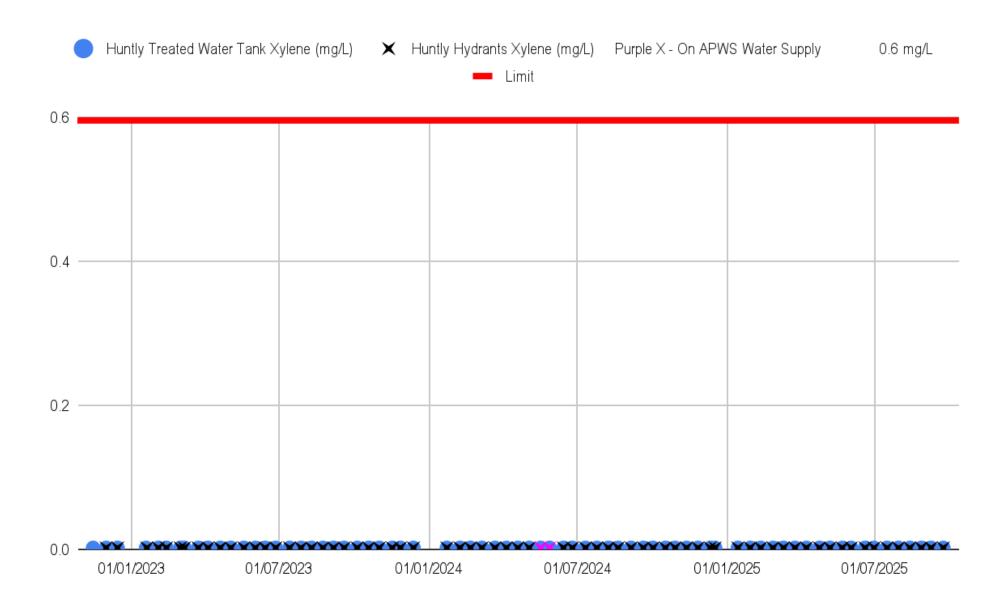


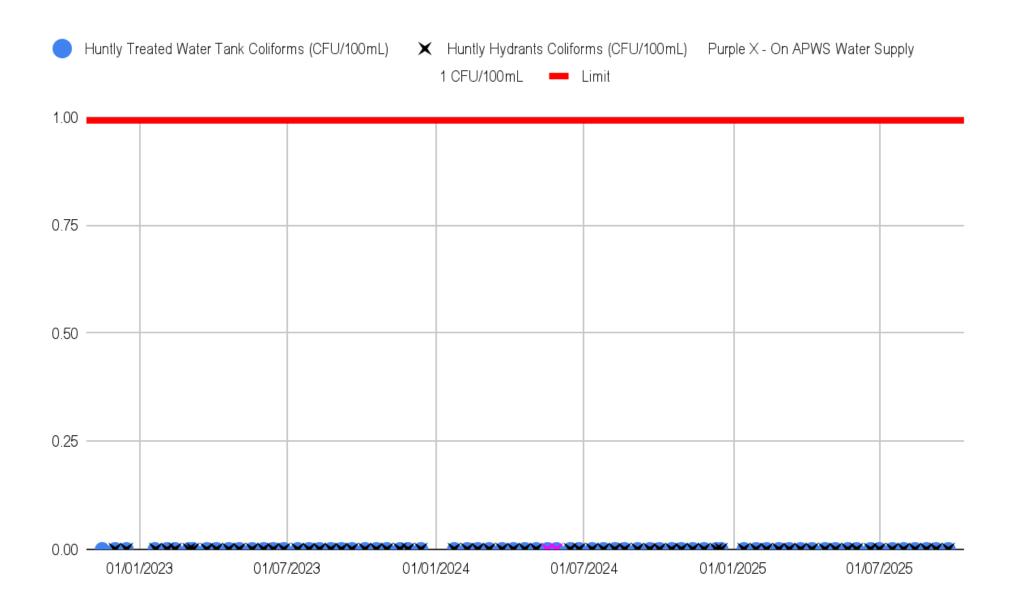


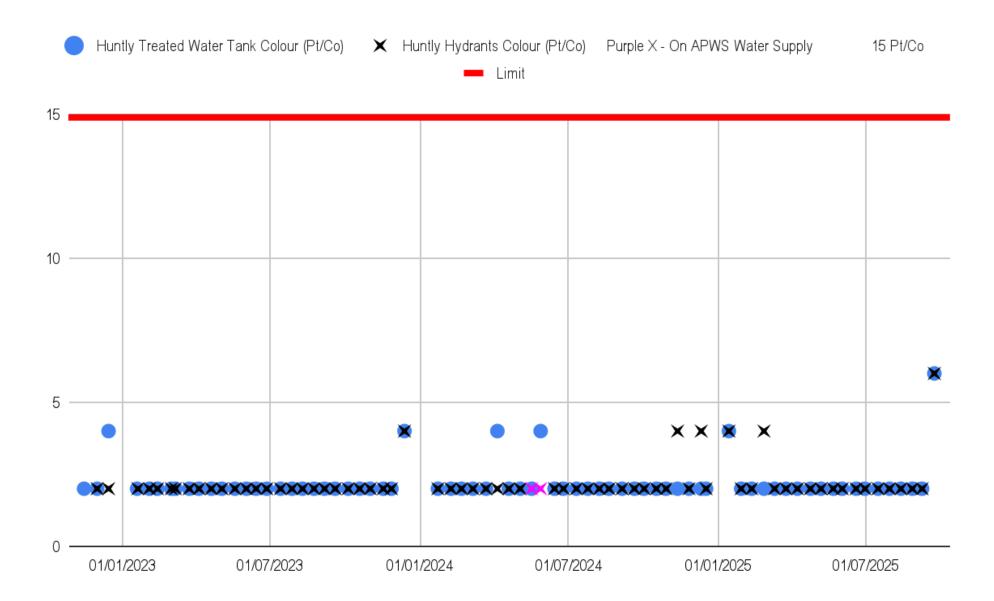


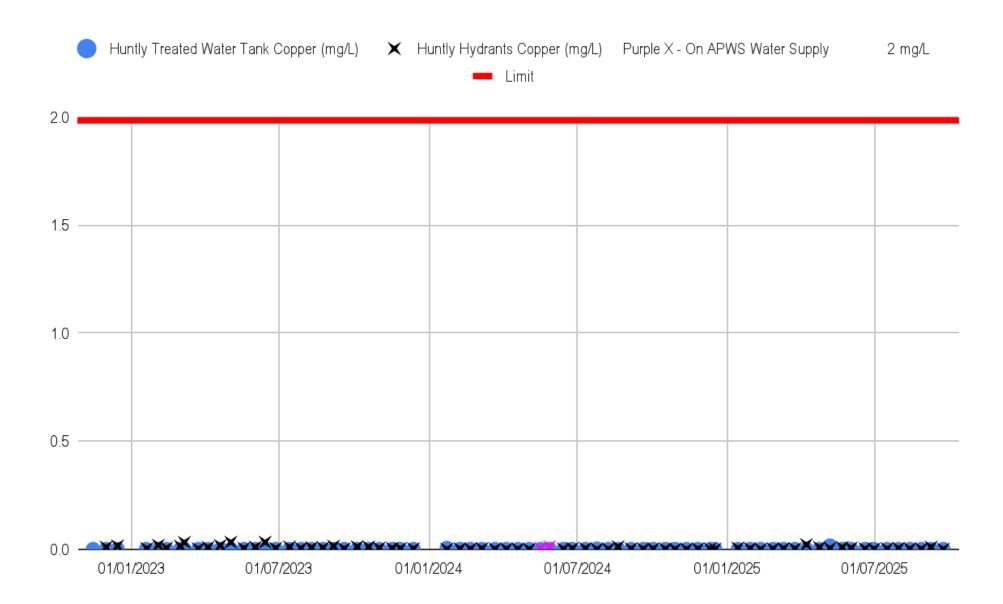


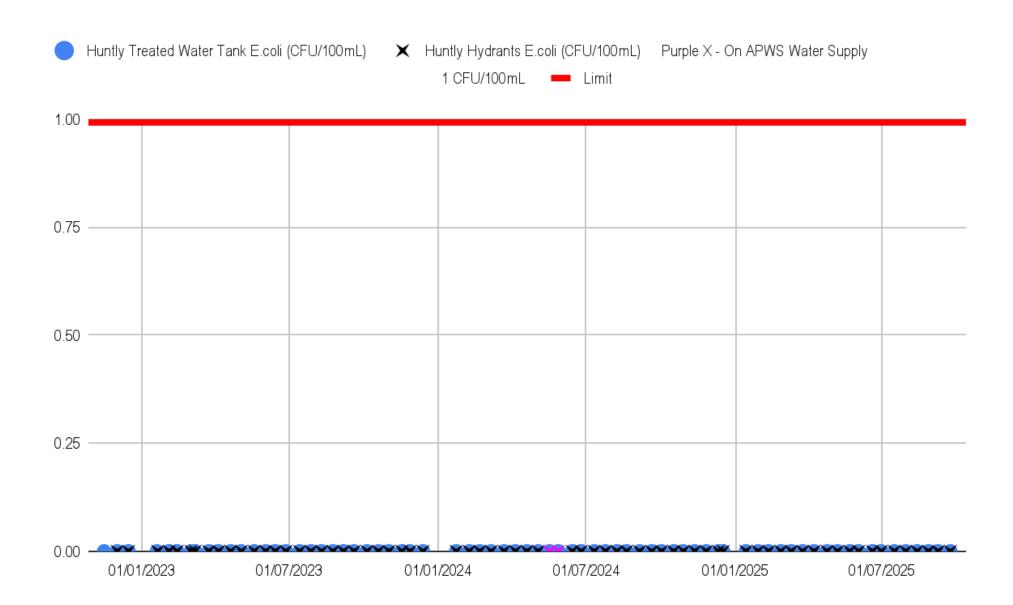


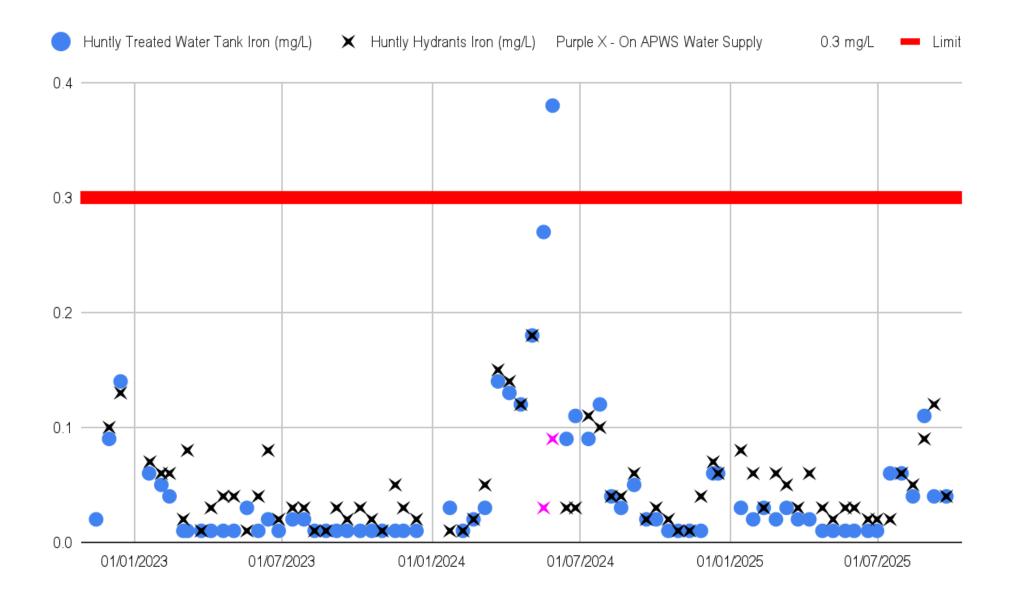


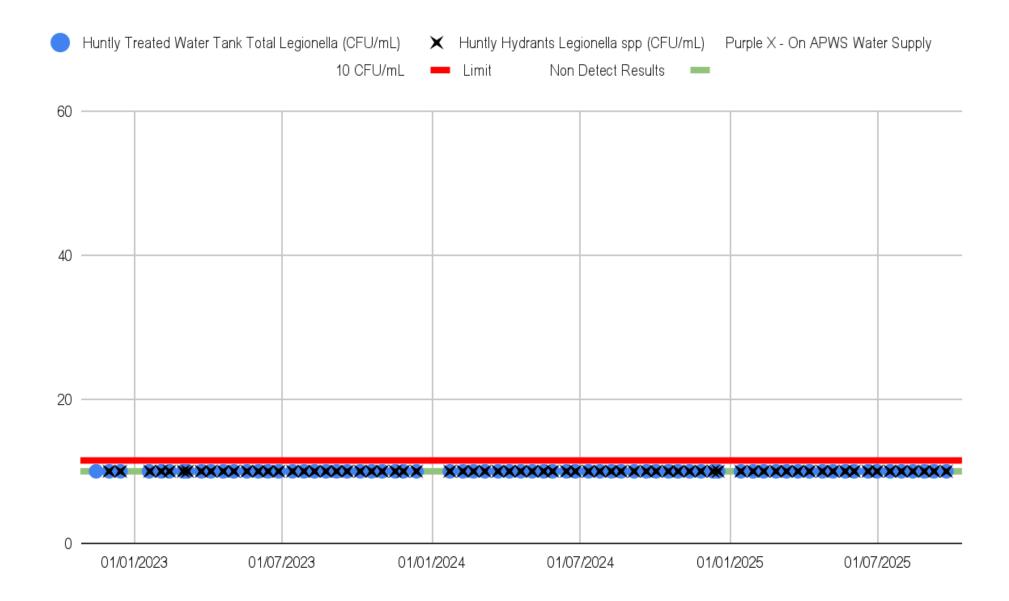


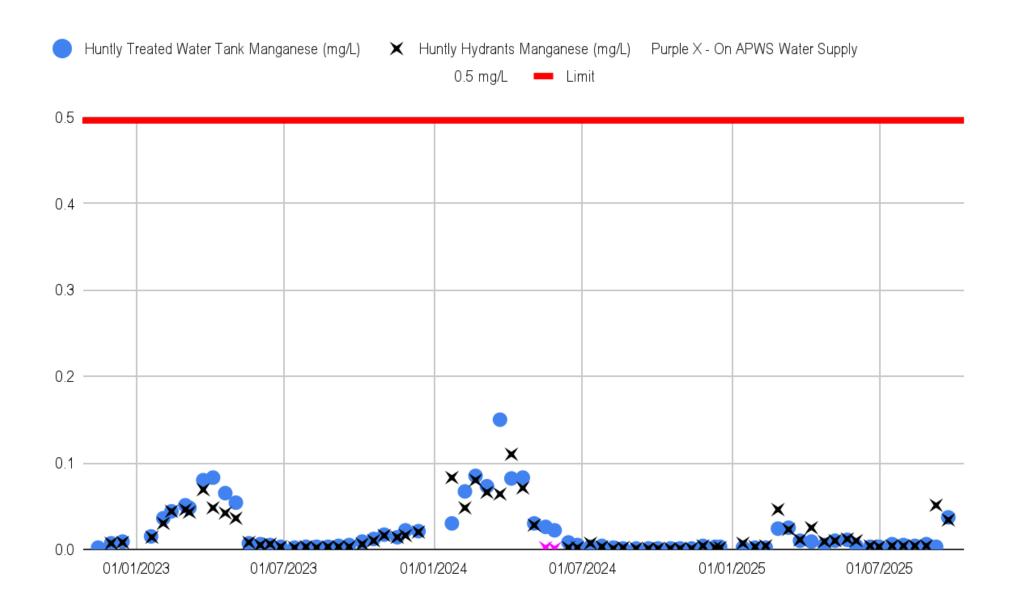


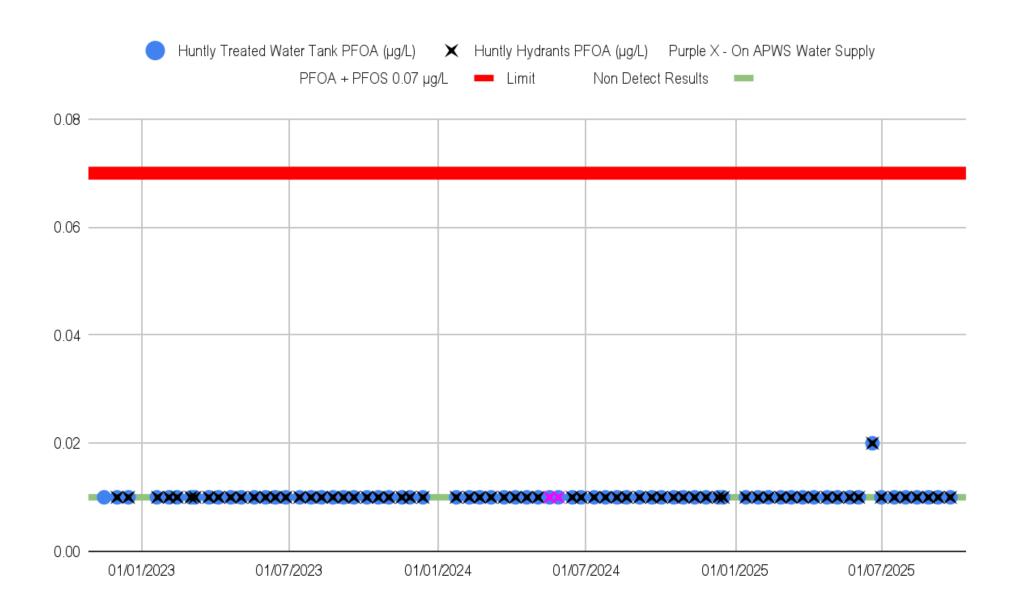


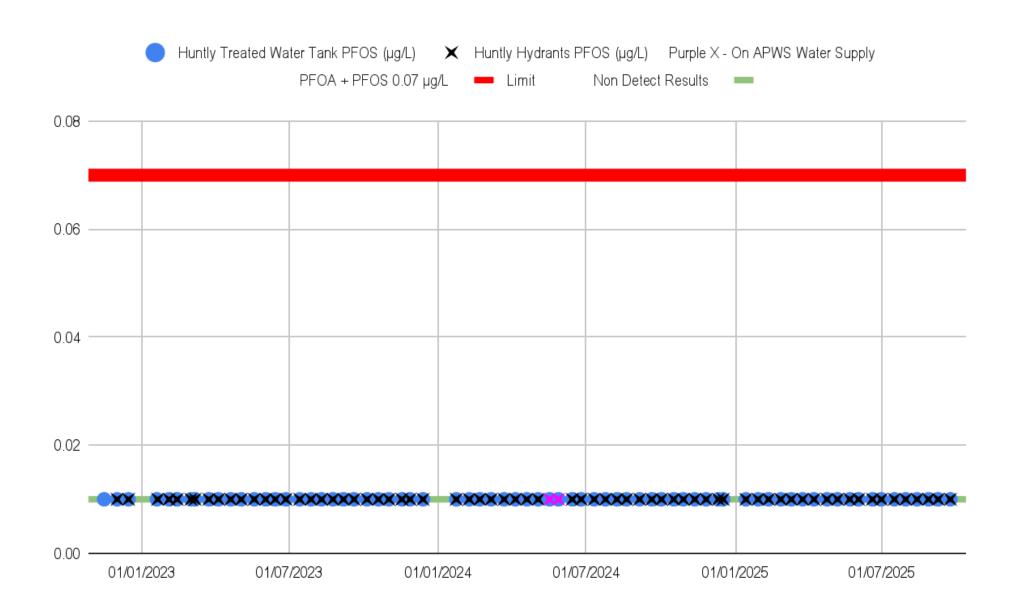


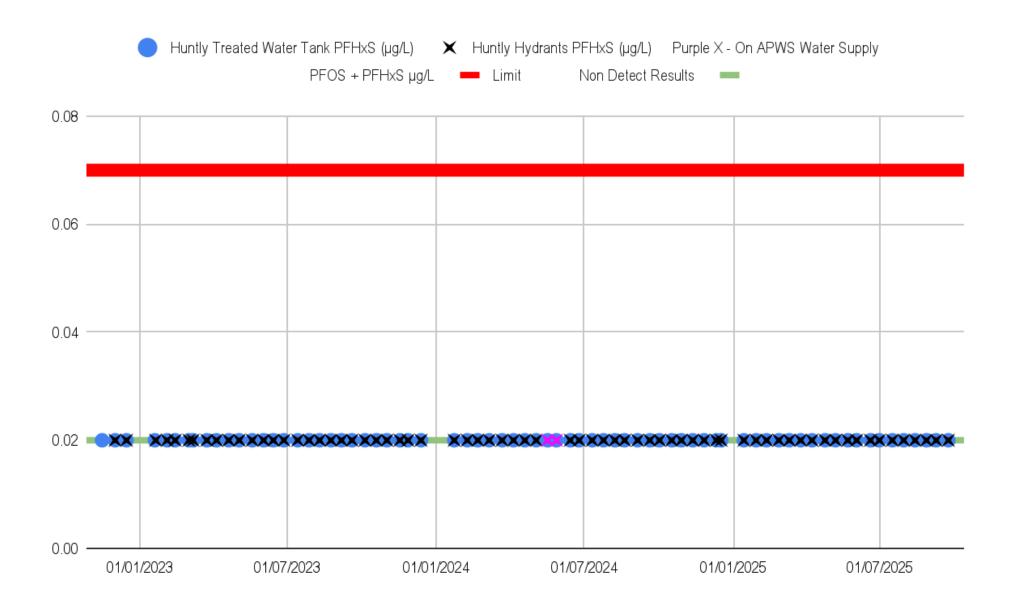


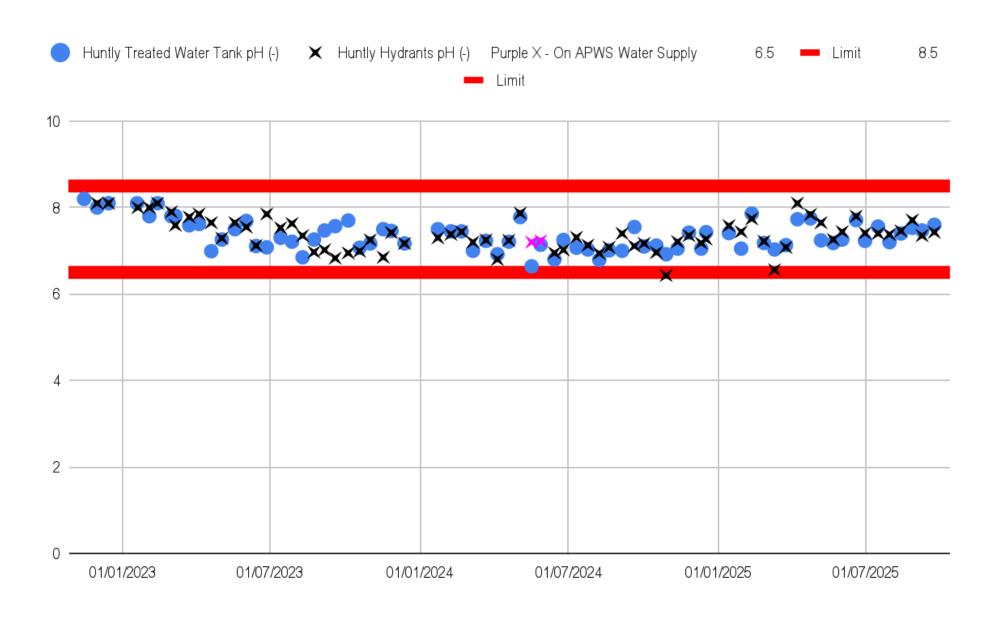


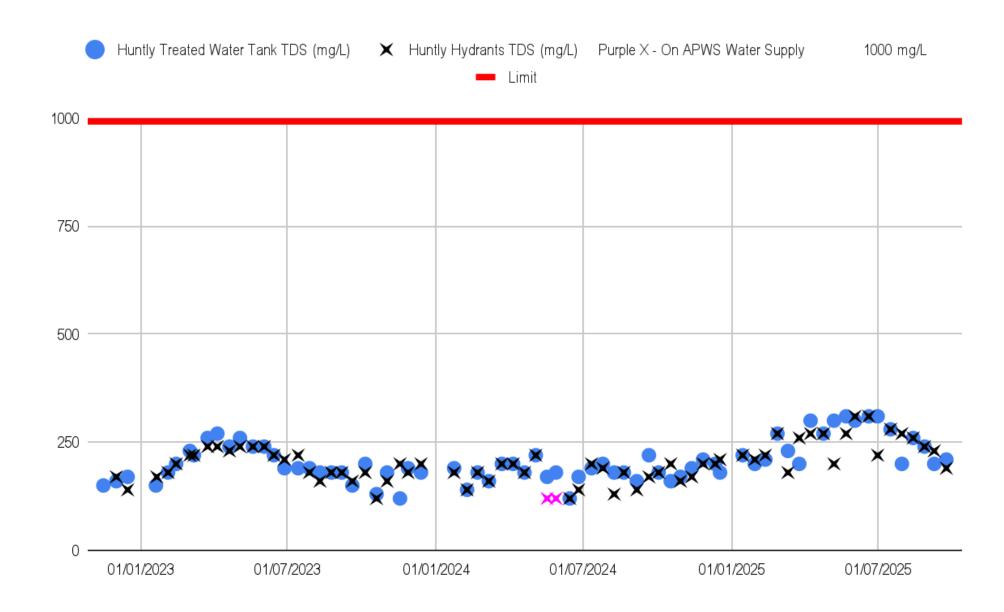












Huntly Treated Water Tank Total Chlorine (mg/L) ➤ Huntly Hydrants Total Chlorine (mg/L) Purple X - On APWS Water Supply 5 mg/L Limit 3 × 01/01/2023 01/07/2024 01/01/2025 01/07/2023 01/01/2024 01/07/2025

