Groundwater Interpretative Report

Imperial Oil and Gas Pty Ltd

Environmental Management Plan

2021-2025 EP187 Work Program IMP4-3

Reporting period 17 October 2023 to 16 October 2024

Document Control

Date	Rev	Description	Author(s)	Reviewed	Approved
15/01/2025	0	Issued for Submission	SR	NF, RL	NF

Table 1 Document Overview

Document title	Groundwater Interpretative Report
EMP title	2021-2025 EP187 Work Program IMP4-3
Exploration Permit	EP187
Interest holder details	Imperial Oil & Gas Pty Limited Level 19, 20 Bond Street, Sydney NSW 2000 ABN - 92 002 699 578
Operator details	Imperial Oil & Gas Pty Limited Level 19, 20 Bond Street, Sydney NSW 2000 ABN - 92 002 699 578

Acronyms & Definitions

Acronyms/Terms	Definition
C2/C3, C4, C2-H, C3-H, C4-V	Abbreviated form of Carpentaria 2, Carpentaria 3, and Carpentaria well pads. Sometimes followed by a “H” or “V” when referring to the well on the well pad, meaning Horizontal or Vertical respectively
Code	*Code of Practice: Onshore Petroleum Activities in the Northern Territory*
CMB	Control Monitoring Bore
DLPE	Department of Lands, Planning and Environment, previously known as DEPWS
EC	Electrical Conductivity
EMP	Environment Management Plan
EP	Exploration Permit
Guideline	*Preliminary Guideline: Groundwater Monitoring Bores for Exploration Petroleum Wells in the Beetaloo Sub-Basin*
IMB	Impact Monitoring Bore
LOR / LOD	Limit of Reporting / Detection

1 Table of Contents

2 List of Figures

List of Tables

3 Introduction

The EMP IMP4-3 – Imperial OG 2021-2025 EP187 Program, Rev 3, dated 20 July 2021 (IMP4-3) was approved on 17 October 2022.

Ministerial Condition 5.iii of the IMP4-3 Approval Notice requires Imperial Oil & Gas (Imperial) to provide an interpretative report of groundwater quality based on the groundwater monitoring required to be conducted at the well site.

Ministerial Condition 5.iii of the Approval Notice is as follows:

> *"...in support of clause B.4.17.2 of the code, the interest holder must provide to DEPWS, via Onshoregas.depws@nt.gov.au, an interpretative report of groundwater quality based on the groundwater monitoring required to be conducted at the well site(s) in accordance with Table 6 of the Code of Practice: Onshore Petroleum Activities in the Northern Territory. The interpretative report must be provided annually within 3 months of the anniversary of the approval date of the EMP and include:*
>
> - *demonstration that there is no change to groundwater quality or level attributable to conduct of the regulated activity at the well site(s);*
> - *interpretation of any statistical outliers observed from baseline measured values for each of the analytes;*
> - *discussion of any trends observed; and*
> - *a summary of the results including descriptive statistics."*

Data was collected from the Carpentaria 2, 3 (C2/3) and the Carpentaria 4 (C4) well pads. Horizontal (-H) and vertical (-V) well activities under IMP4-3 are outlined in the table below:

Table 2 –Commencement of Activities for Wells Under IMP4-3

Well	Drilling	Hydraulic Fracturing
C2-H	November 2021	July 2022
C3-H	October 2022	December 2022
C4-V	December 2022	No

Groundwater monitoring for the C2/3 bores has been ongoing since November 3, 2021. This Annual Groundwater Interpretive Report summarises the ongoing sampling activities for Carpentaria 2/3 and includes the most recent samples until October 6, 2024. In accordance with

the Department of Environment and Natural Resource's (DENR) *Preliminary Guideline: Groundwater Monitoring Bores for Exploration Petroleum Wells in the Beetaloo Sub-Basin* (*Guideline*), monitoring should continue for three years, after which its fitness for purpose should be reviewed. In line with Ministerial Condition 5 iv this report marks the end of the required scheduled groundwater monitoring and reporting for the bores RN042461, RN042462, RN042463, and RN042464, their site-specific performance standards are presented in Appendix B.

Ministerial Condition 5.iv of the Approval Notice is as follows:

> *"...in support of clause B.4.17.2 of the code, the interest holder must develop site-specific performance standards for groundwater quality and interquartile ranges for analytes at each of the impact monitoring bores established, based on the first 3 years of groundwater monitoring, and provide to DEPWS, via Onshoregas.depws@nt.gov.au within 6 months of the 3 year anniversary of approval of the EMP.*

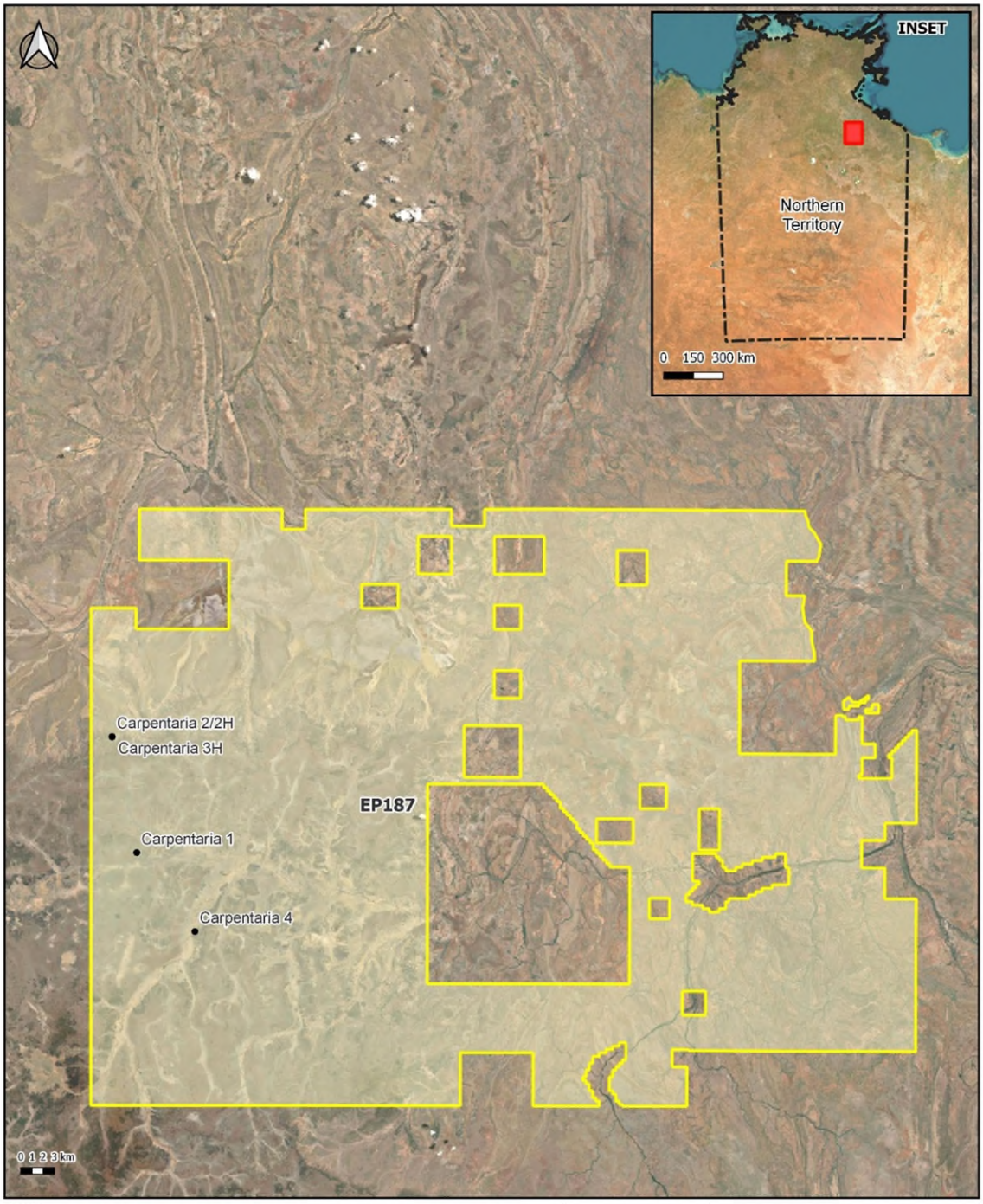

Figure 1 – Location of the Carpentaria-2/3 well pad

4 Groundwater Monitoring Program Details

4.1 Water Monitoring Bores

As per the *Guideline*, a Control Monitoring Bore (CMB) is located approximately 100 m up-gradient from the petroleum well, and an Impact Monitoring Bore (IMB) is located approximately 20 m down-gradient from the well. Details of the monitoring bores are presented in **Table 3** and **Table 4**. The Anthony Lagoon Aquifer and the Gum Ridge Aquifer are part of the Cambrian Limestone Aquifer (CLA). Only the Gum Ridge is present at Carpentaria 4.

Table 3 – Monitoring Bores per well

Well	Control Monitoring Bore	Impact Monitoring Bore
C2-H and, C3-H	Yes	Yes
C4-V	Yes	No

Table 4 – Monitoring bores information

Well site	Carpentaria 2/3				Carpentaria 4
Aquifer	Gum Ridge		Anthony Lagoon		Gum Ridge
Bore Number	**RN042461**	**RN042464**	**RN042462**	**RN042463**	**RN043012**
Category	IMB	CMB	IMB	CMB	CMB
Total Depth (m)	234	228	100	100	142.5
Length of slotted liner (m)	130.7	124	24	29	58
ID of casing (mm)	153	156	158	158	158
Total Vol. of bore (L)	4302	4357	1960	1960	2688
Production rate (L/s)	3	2	4	4	10+
Time of produce one full volume (min)	23	36	8.2	8.2	4.5

The locations of the monitoring bores relevant to IMP4-3 are present on the Carpentaria 2/3, and 4 wellsite. These are visualised on **Figure 2** and **Figure 3**.

Figure 2 – Schematic of the Monitoring Bore Locations in Relation to Carpentaria-2/3 Wells

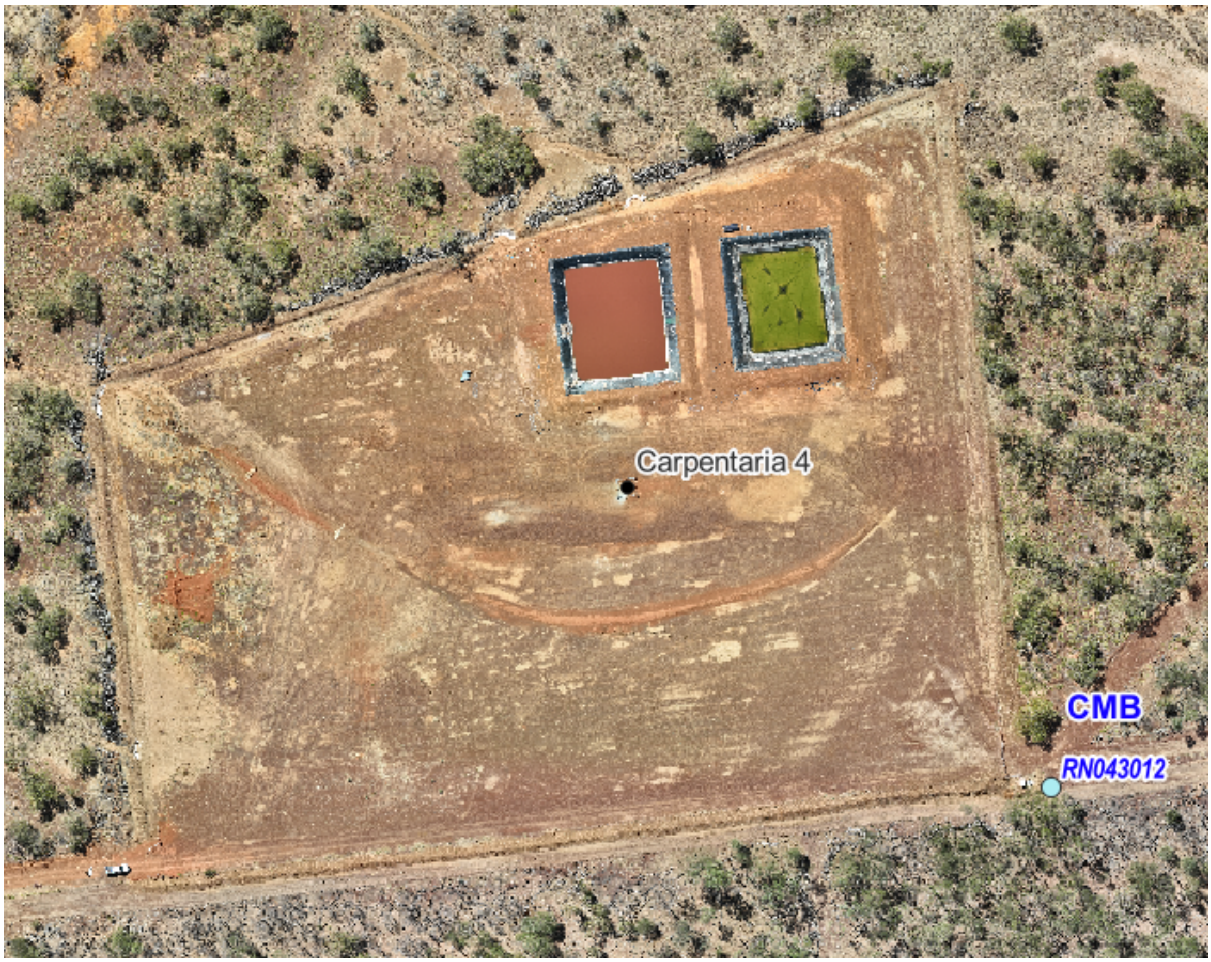

Figure 3 – Schematic of the Monitoring Bore Locations in Relation to Carpentaria-4 Well

4.2 Water Sampling

Water sampling from the monitoring bores have been undertaken at Carpentaria 2/3 well pad since 3 November 2021 until 6 October 2024 and Carpentaria 4 well pad since 29 August 2022 until 8 October 2024. The timeframe of drilling and hydraulic fracturing activities during this timeframe are as follows:

- Drilling of Carpentaria 2 was initiated on the 07/11/2021 and completed on the 16/12/2021
- Hydraulic Fracturing of Carpentaria 2 was initiated on 12/07/2022 and completed on 01/08/2022
- Drilling of Carpentaria 3 was initiated on the 13/10/2022 and completed on the 11/11/2022
- Hydraulic Fracturing of Carpentaria 3 was initiated on the 8/12/2022 and completed on the 17/01/2023.
- Drilling of Carpentaria 4 was initiated on 15/12/2022 and completed on 5/1/2023.

Groundwater samples were taken and analysed in accordance with the suite of analytes presented in Table 6: Minimum suite of analytes for groundwater monitoring from the *Code of Practice: Onshore Petroleum Activities in the Northern Territory* (*the Code*).

5 Methodology

All analytes listed in Table 6 of *the Code* were assessed by analysing the difference in the CMB and IMB. The CMB serves as the reference point or baseline, positioned hydraulically upgradient and thus assumed to be unaffected by external influences from well pad activities. It reflects the current state of local groundwater quality and it's natural change over time. Conversely, the IMB is located hydraulically downgradient of the well, the potential source of contamination, and is used to monitor changes in groundwater quality that may be due to these activities.

Therefore, the CMB results will always inform the baseline groundwater quality at the well pad.

As the aquifers IMB and CMB are in close proximity and are sampled within same day of each other, we can calculate the difference between the IMB and the CMB readings, this method accounts for natural fluctuations in groundwater conditions that might affect both bores equally. This differential analysis helps isolate the specific impacts of the well pad activity from other environmental or geological changes that could also influence groundwater quality, ensuring that the assessment focuses on changes attributable specifically to well pad activities rather than natural variability or unrelated factors.

Therefore, the results of the analysis indicate the following:

- **A negative difference:** When the CMB results are higher than those of the IMB, it suggests that any observed variations are likely due to natural fluctuations rather than impacts from well pad activities. These negative results are considered non-significant concerning well pad effects and have been adjusted to zero in the analysis to focus on potential impacts.
- **No difference:** If there is no difference between the IMB and CMB readings, this indicates that the well pad activities have not affected the groundwater quality relative to the control site. Such results confirm the absence of impact from the activities.
- **Positive difference:** A positive difference, where IMB readings are higher than the CMB, could be due to natural variability or potential impacts from well pad activities. These results warrant further assessment to determine the significance of the higher readings.

To further assess the degree of a positive result, the average of the reporting period is calculated and compared to the mean of the baseline, (where the baseline is all the prior reported data) using a Z score. If the average of the reporting period is more than 2 standard deviations above the mean, the results are flagged.

$$Z\ score = \frac{Mean_{Reporting\ Period} - Mean_{Baseline\ Period}}{Standard\ Deviation_{Baseline\ Period}}$$

Differential analysis has not been performed on the Carpentaria 4 CMB (RN43012) as this well pad does not yet have an IMB. All raw results are presented **Appendix A**, in addition to, the statistical calculations detailed above for the Carpentaria 2/ 3 bores.

6 Results and Discussions

Statistical analysis was performed for all analytes, as shown in **Appendix A,** based on the methodology discussed in **Section 5**. The analysis has flagged 2 analytes from the Gum Ridge Aquifer and 4 from the Anthony Lagoon Aquifer that had a standard deviation above 2, which indicates a notable difference in the IMB and CMB. As such these analytes are discussed in section 6.1

The Preliminary Guideline: Groundwater Monitoring Bores for Exploration Petroleum Wells in the Beetaloo Sub-basin states that the analytes of particular interest include total dissolved solids, chloride, electrical conductivity (EC), strontium, barium and dissolved methane. This is because drilling fluids, hydraulic fracturing fluids, well suspension fluids and produced formation fluids may have orders of magnitude (100s~1000s) higher concentrations than background values in potable waters. In addition, Strontium and Barium are typically elevated in produced water from unconventional shale gas reservoirs and serve among others as additional useful tracers. Dissolved methane is important to monitor as a baseline and over the longer term.

As such, these analytes have been further discussed in detail in **Section 6.2** and **6.3**.

6.1 Analysis of All Flagged Analytes

As outlined in the analysis method in Section 3 and detailed in Appendix A, six analytes have been flagged as they show a difference (IMB - CMB) exceeding 2 standard deviations from the baseline differences (all data prior to the reporting period). These analytes are as follows:

Table 5 – Summary of Flagged Analytes

Chemical Name	Aquifer	Z Score
Suspended Solids (SS)	Gum Ridge Aquifer	16.68
Iron T	Gum Ridge Aquifer	13.91
Manganese D	Anthony Lagoon Aquifer	22.71
Iron D	Anthony Lagoon Aquifer	5.72
Manganese T	Anthony Lagoon Aquifer	12.22
Methane	Anthony Lagoon Aquifer	4.91

It is important to note that some analytes appear in duplicate forms, such as manganese D and manganese T. These refer to the same chemical, with "D" indicating dissolved and "T" representing total. This distinction indicates whether the analyte is present as dissolved ions or includes both dissolved and particulate forms. For the purposes of further analysis, the dissolved form will be used.

Therefore, the following analytes will be discussed:

Table 6 – Summary of Analytes Requiring Analysis

Chemical Name	Aquifer	Z Score
Suspended Solids (SS)	Gum Ridge Aquifer	16.68
Iron T	Gum Ridge Aquifer	13.91
Manganese D	Anthony Lagoon Aquifer	22.71
Iron D	Anthony Lagoon Aquifer	5.72
Methane	Anthony Lagoon Aquifer	4.91

6.1.1 Suspended Solids (Gum Ridge Aquifer)

As shown in **Table 6**, suspended solids had a Z-score of 16.68. The raw data of IMB and CMB have been graphed in **Figure 4**. The graph shows first an increasing trend in the CMB followed by a delayed increase in the IMB. The increase was observed from January 2023 to November 2023, then in January 2024 until the IMB continues to increase while the CMB begins to return to a stable condition. This divergence resulted in the analyte being flagged. It is apparent from the data that a natural flux in the CMB was subsequently observed downstream in the IMB a few months later. coincidence of these trends strongly suggest that influences are independent of well-site operational activities and a decrease in IMB concentrations returning to background levels like the CMB is likely.

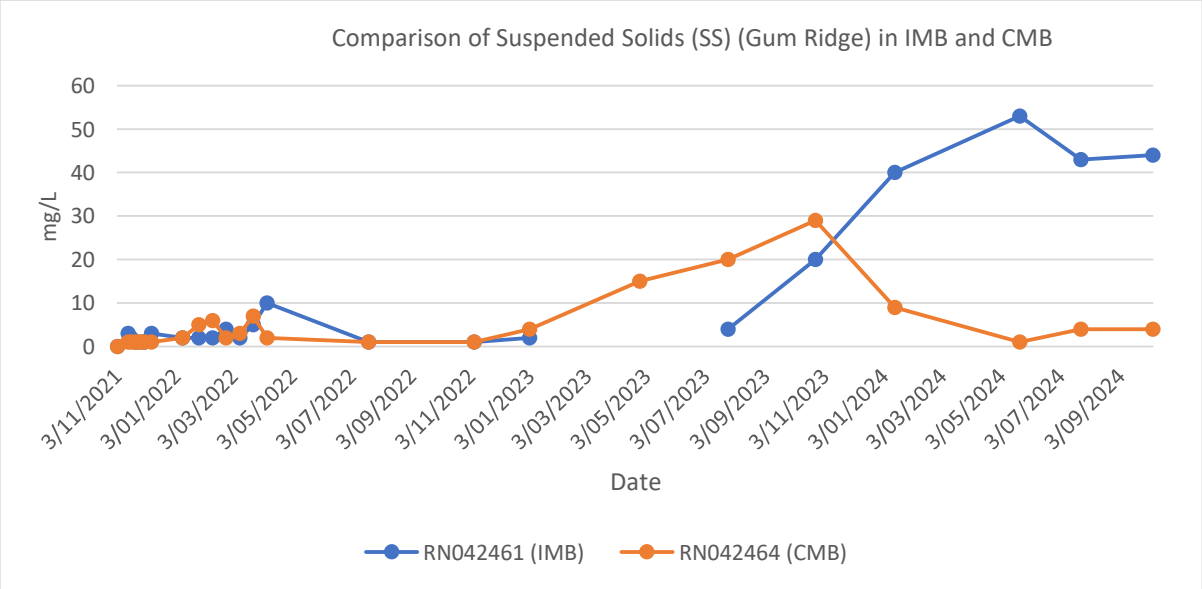

Figure 4 - Comparison of Suspended Solids (SS) (Gum Ridge)

6.1.2 Iron T (Gum Ridge Aquifer)

As shown in **Table 6**, Iron T had a Z-score of 13.91. The raw data of IMB and CMB have been graphed in **Figure 5**. Similar to the above section, the graph shows an increasing trend in the CMB, from January 2023 to July 2023. At the same time IMB (downstream) starts to see an increase in elevations while the CMB declines. This divergence resulted in the analyte being flagged. It is apparent from the data that a natural flux in the CMB was subsequently observed downstream in the IMB a few months later. The coincidence of these trends strongly suggest that influences are independent of well-site operational activities and a decrease in IMB concentrations returning to background levels is currently being observed.

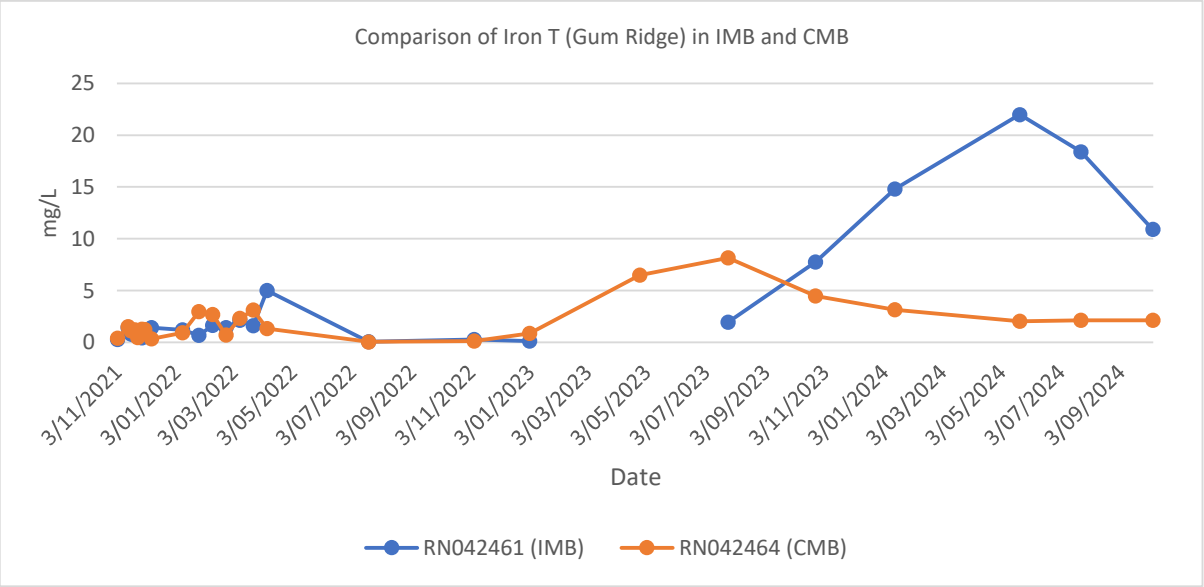

Figure 5 - Comparison of Iron T (Gum Ridge)

6.1.3 Manganese D (Anthony Lagoon Aquifer)

As seen in **Table 6**, Manganese D had a Z-score of 22.71. The raw data of IMB and CMB have been graphed in **Figure 6**. The graph shows that for the last five datasets the IMB has been marginally higher than the CMB, which resulted in the analyte being flagged; however, previous results from 2021 and 2022 show that concentrations are still below historic readings and therefore are within typical range and are not of concern.

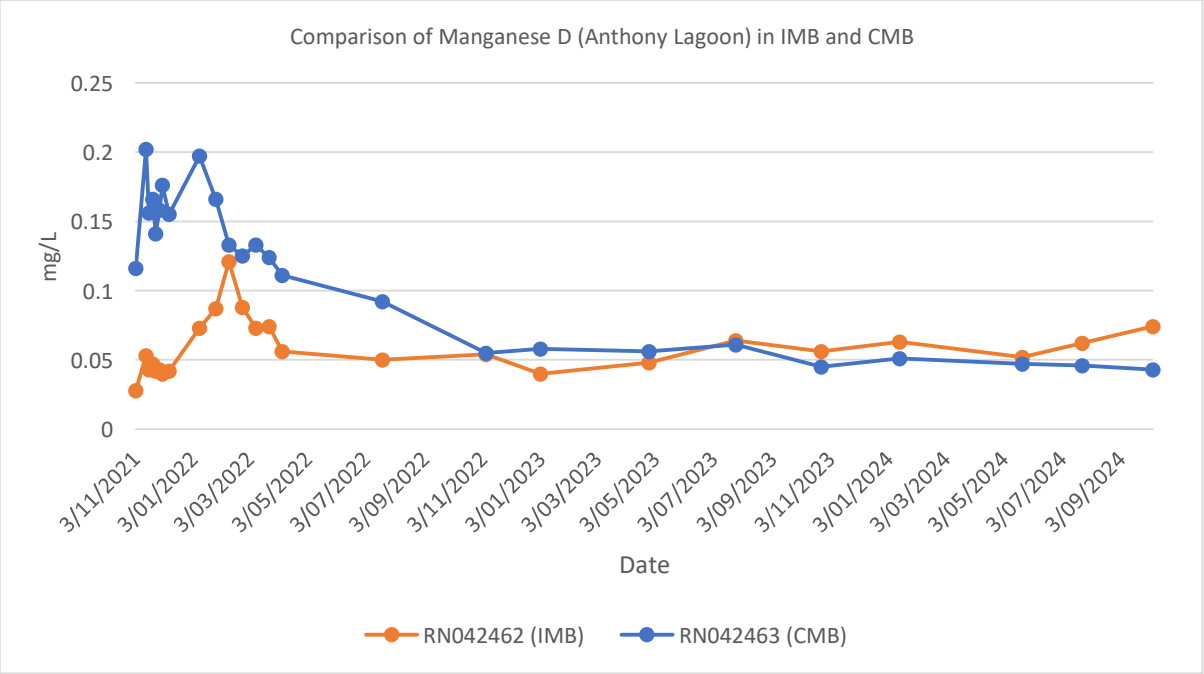

Figure 6 - Comparison of Manganese D (Anthony Lagoon)

6.1.4 *Iron D (Anthony Lagoon Aquifer)*

As seen in **Table 6**, Iron D had a Z-score of 5.72. The raw data of IMB and CMB have been graphed in **Figure 7**. The graph shows that for the last five datasets the IMB has been marginally higher than the CMB, which resulted in the analyte being flagged; however, previous results from 2021 and 2022 show that concentrations are still below historic readings and therefore are within typical range and are not of concern.

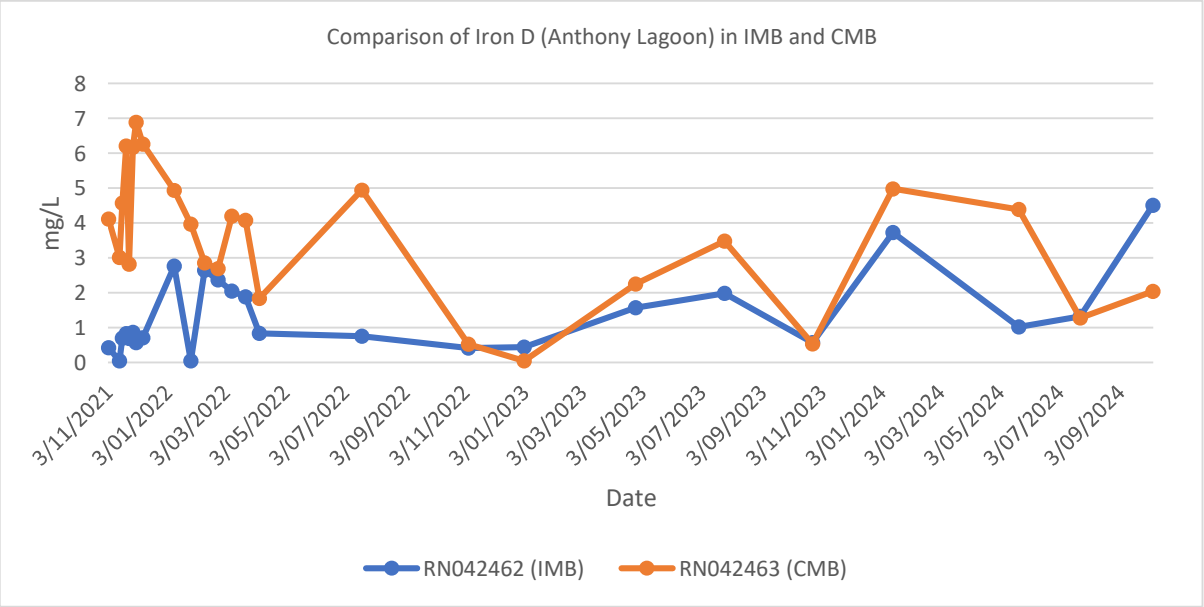

Figure 7 - Comparison of Iron D (Anthony Lagoon)

6.1.5 *Methane (Anthony Lagoon Aquifer)*

As Methane is an analyte of particular interest as per the Preliminary Guideline: Groundwater Monitoring Bores for Exploration Petroleum Wells in the Beetaloo Sub-basin, methane in the Anthony Lagoon Aquifer is analysed in ***Section 6.3.6****.*

6.2 Gum Ridge Aquifer

6.2.1 Electrical Conductivity

6.2.1.1 Carpentaria 2/ 3

The results of monitoring for electrical conductivity in Gum Ridge aquifer are presented in **Figure 8**.

Figure 8 – C2 & C3 Electrical Conductivity Measurements in Gum Ridge Aquifer

The data demonstrates a strong correlation between the IMB and CMB measurements, with both datasets exhibiting comparable trends and closely aligned variations over time.

To further compare the reporting period data, the data from before the reporting period is summarised below in

Table 7. This data is used in **Figure 9** to compare the data before the reporting period (the box and whisker plots) to the data in the reporting period (represented by green dots). **Figure 9** shows that the data during the reporting period is similar to the previous data. This demonstrates that the data during the reporting period is consistent with the data points prior.

Table 7 – C2 & C3 Summary Statistics of the Electrical Conductivity Measurements in the Gum Ridge Aquifer – Before the Reporting Period

Electrical Conductivity @ 25°C µS/cm	CMB (RN042464)	IMB (RN042461)
Minimum	966.00	962.00
Maximum	1120.00	1120.00
Average	1084.80	1078.53
20th percentile	1060.00	1050.00
80th percentile	1118.00	1100.00
Limit of detection	1.00	1.00
STD	37.86	38.43

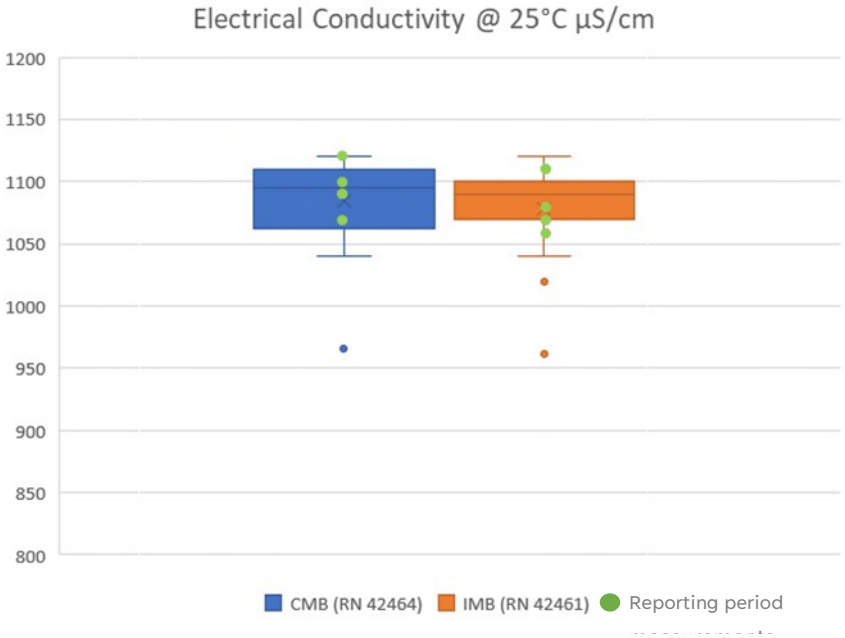

Figure 9 – Comparison of the Electrical Conductivity Measurements in the Gum Ridge aquifer – Before and During the Reporting Period

6.2.1.2 Carpentaria 4

The results of monitoring for electrical conductivity in the Gum Ridge Aquifer are presented in **Figure 10**.

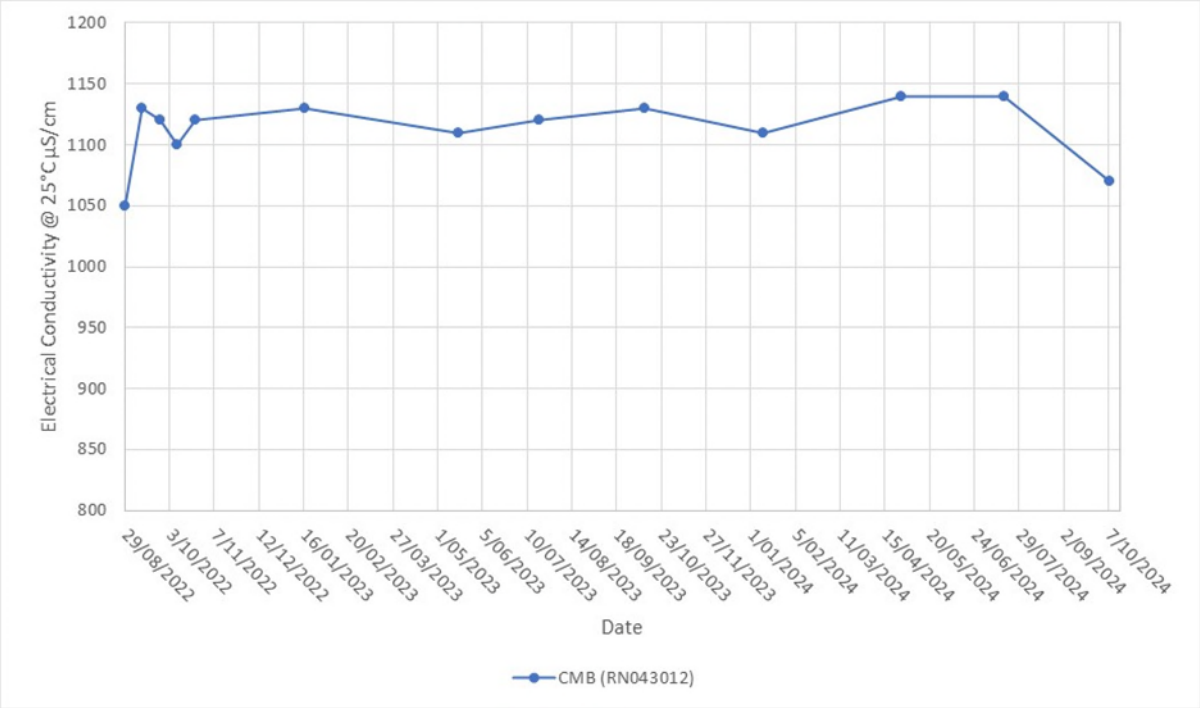

Figure 10 – C4 Electrical Conductivity Measurements in the Gum Ridge Aquifer

Preliminary data from the control monitoring bore is beginning to demonstrate a stable range for the analyte as shown in the table below.

Table 8 – C4 Summary Statistics of the Electrical Conductivity Measurements in the Gum Ridge Aquifer

Electrical Conductivity @ 25°C µS/cm	CMB (RN043012)
Minimum	1050.00
Maximum	1130.00
Average	1112.22
20th percentile	1100.00
80th percentile	1130.00
Limit of detection	1.00
STD	25.39

6.2.2 Total Dissolved Solids

6.2.2.1 Carpentaria 2/3

The results of monitoring for total dissolved solids in the Gum Ridge Aquifer are presented in **Figure 11**.

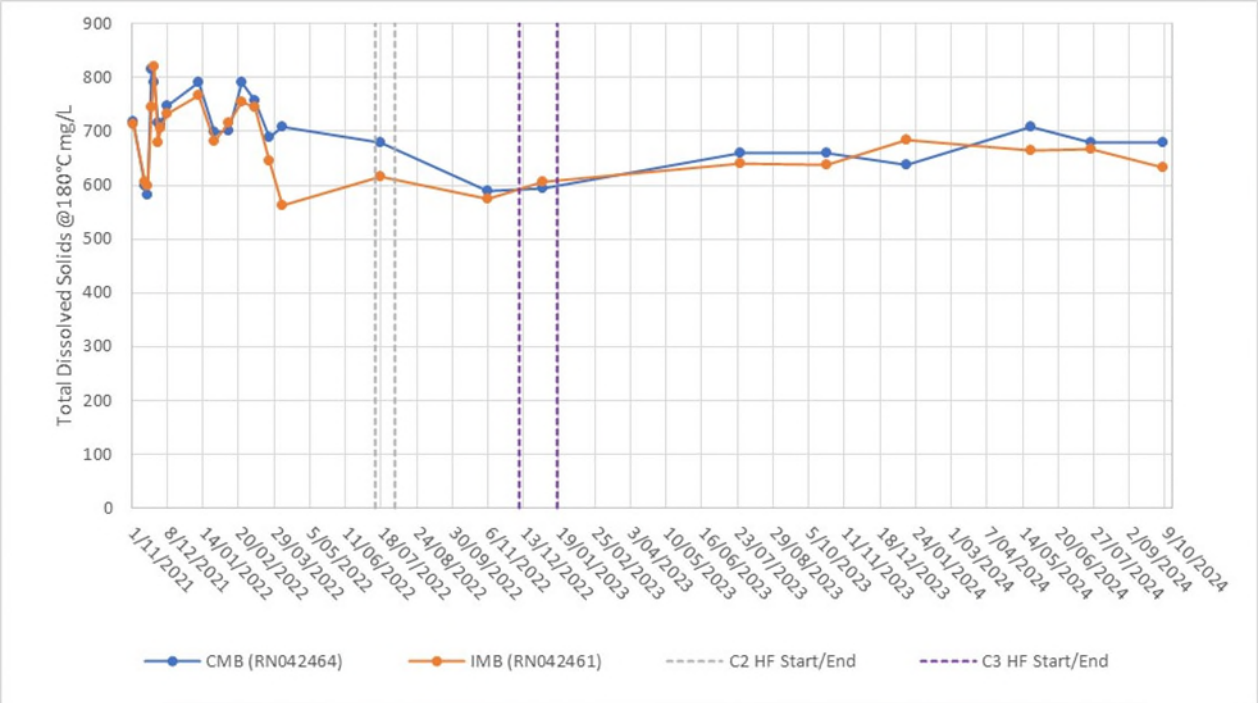

Figure 11 – C2 & C3 Total Dissolved Solids Measurement in Gum Ridge Aquifer

The data reveals a strong correlation between the IMB and CMB measurements, with both datasets displaying similar trends and closely aligned fluctuations over time. Divergences are observed but they stabilise over time.

To further compare the reporting period data, the data from before the reporting period is summarised below in

Table 9. This data is used in **Figure 12** to compare the data before the reporting period (the box and whisker plots) to the data in the reporting period (represented by green dots). **Figure 12** shows that the data during the reporting period is similar to the previous data. This demonstrates that the data during the reporting period is consistent with the data points prior.

Table 9 – C2 & C3 Summary Statistics of the Total Dissolved Solids Measurements in the Gum Ridge aquifer – Before the Reporting Period

Total Dissolved Solids @180°C mg/L	CMB (RN042464)	IMB (RN042461)
Minimum	582.00	562.00
Maximum	814.00	820.00
Average	699.70	679.05
20th percentile	612.00	605.00
80th percentile	783.20	744.00
Limit of detection	10.00	10.00
STD	70.84	73.19

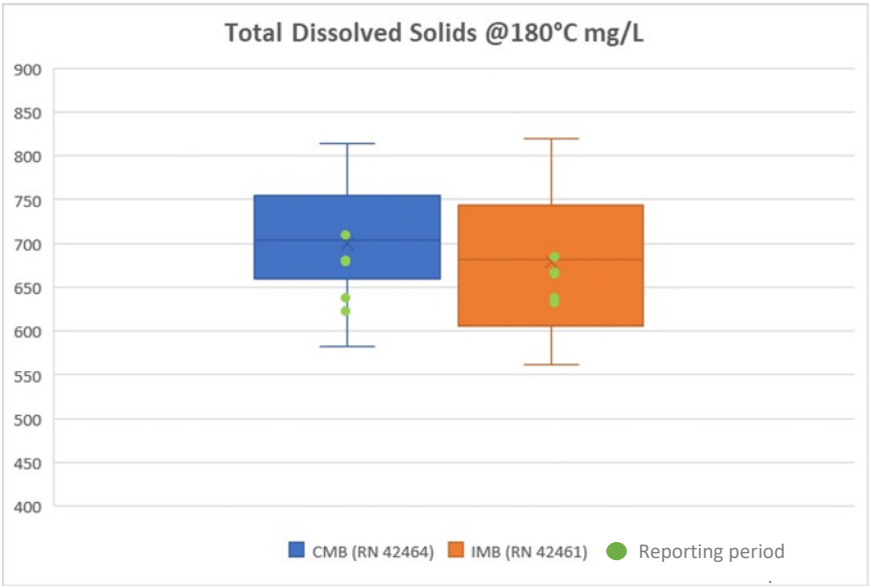

Figure 12 – Comparison of the Total Dissolved Solids Measurements in the Gum Ridge Aquifer – Before and During the Reporting Period

6.2.2.2 Carpentaria 4

The results of monitoring for total dissolved solids in the Gum Ridge Aquifer are presented in **Figure** 13.

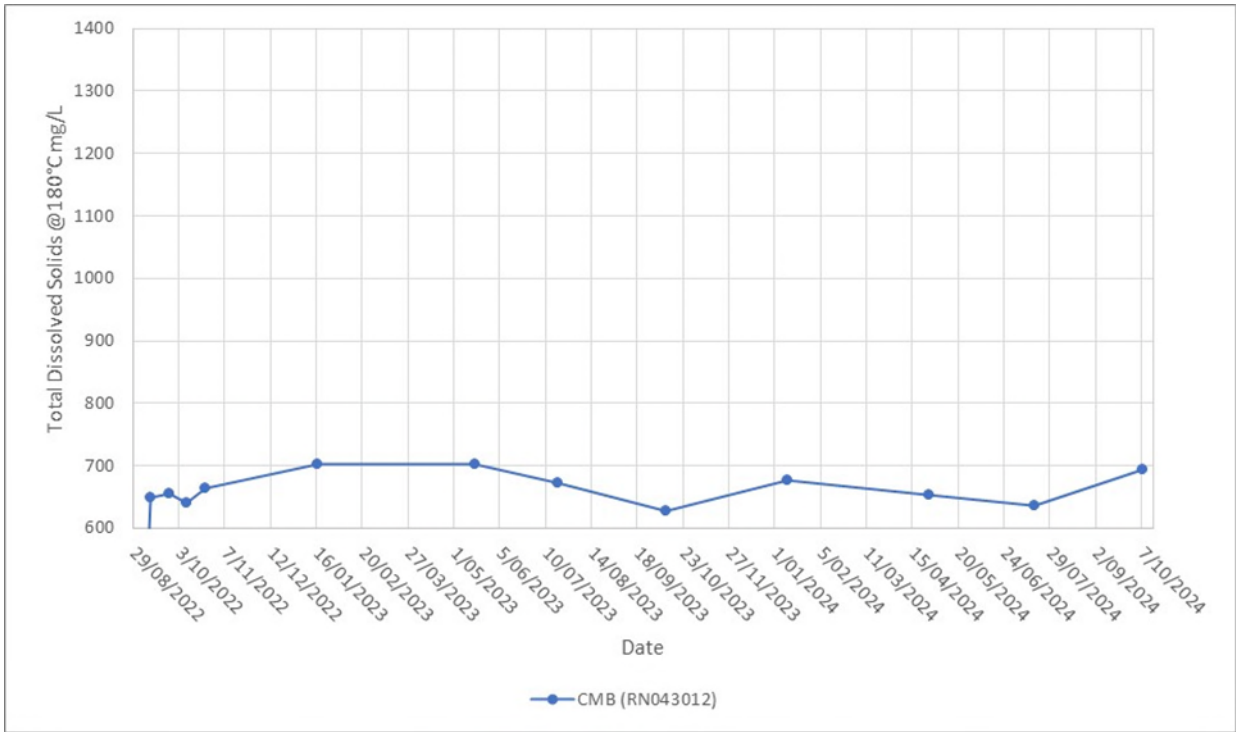

Figure 13 – C4 Total Dissolved Solids Measurement in the Gum Ridge Aquifer

Preliminary data from the control monitoring bore is beginning to demonstrate a stable range for the analyte as shown in the table below.

Table 10 – C4 Summary Statistics of the Total Dissolved Solids Measurements in the Gum Ridge Aquifer

Total Dissolved Solids @180°C mg/L	CMB (RN043012)
Minimum	10
Maximum	702.00
Average	590.33
20th percentile	628.00
80th percentile	702.00
Limit of detection	10.00
STD	222.81

6.2.3 Chloride

6.2.3.1 Carpentaria 2/3

The results of monitoring for chloride in the Gum Ridge Aquifer are presented **Figure 14**.

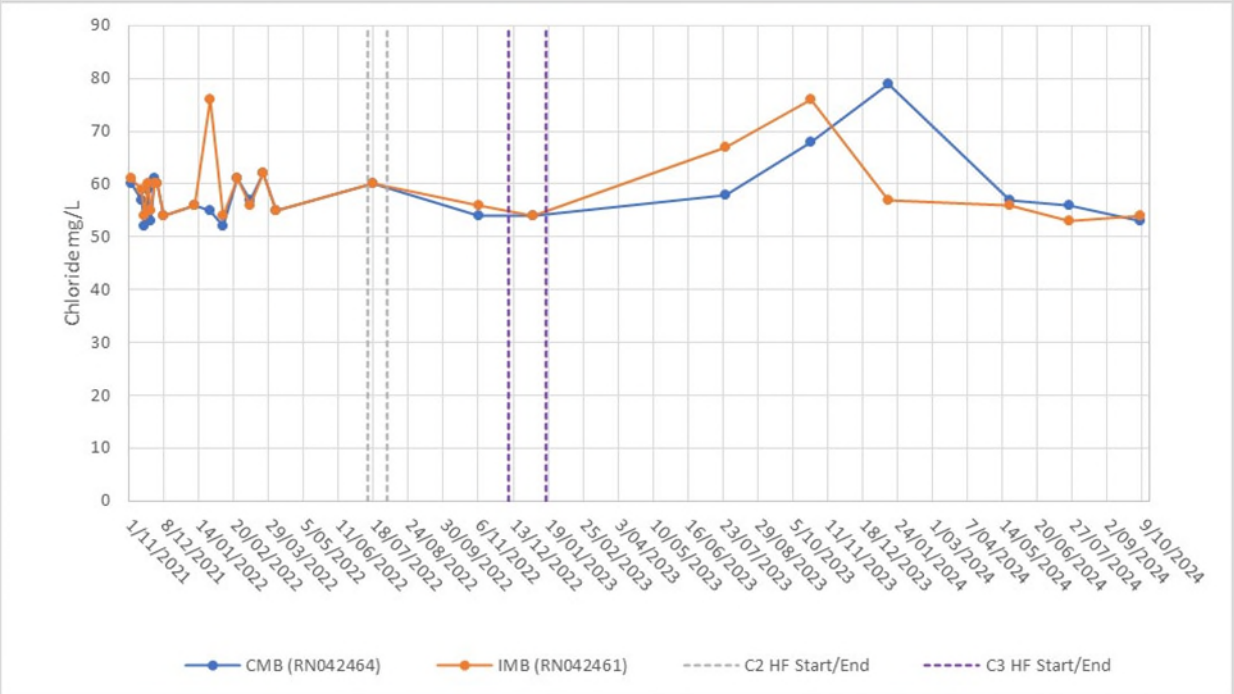

Figure 14 – C2 & C3 Chloride Measurements in the Gum Ridge Aquifer

The data shows consistent trends between the IMB and CMB measurements. Notably, there was an upward spike in chloride concentration observed in January 2022 at the IMB, however no activities that would affect the aquifer were being undertaken at the time by Imperial. In the later samples of 2023, the concentrations of chloride rose again which suggests higher concentrations are in the normal range for the aquifer. The data reveals a strong correlation between the IMB and CMB measurements, with both datasets displaying similar trends and closely aligned fluctuations over time. Divergences are observed but they stabilise over time.

To further compare the reporting period data, the data from before the reporting period is summarised below in **Table 11**. This data is used in **Figure 15** to compare the data before the reporting period (the box and whisker plots) to the data in the reporting period (represented by green dots). **Figure 15** shows that the data during the reporting period is roughly similar to the previous data, with one dataset from the upward trend in late 2023.

Table 11 – C2 & C3 Summary statistics of Chloride Measurements in the Gum Ridge Aquifer – Before the Reporting Period

Chloride mg/L	CMB (RN042464)	IMB (RN042461)
Minimum	52.00	54.00
Maximum	68.00	76.00
Average	57.40	58.95
20th percentile	54.00	54.00
80th percentile	60.80	61.00
Limit of detection	1.00	1.00
STD	4.03	5.44

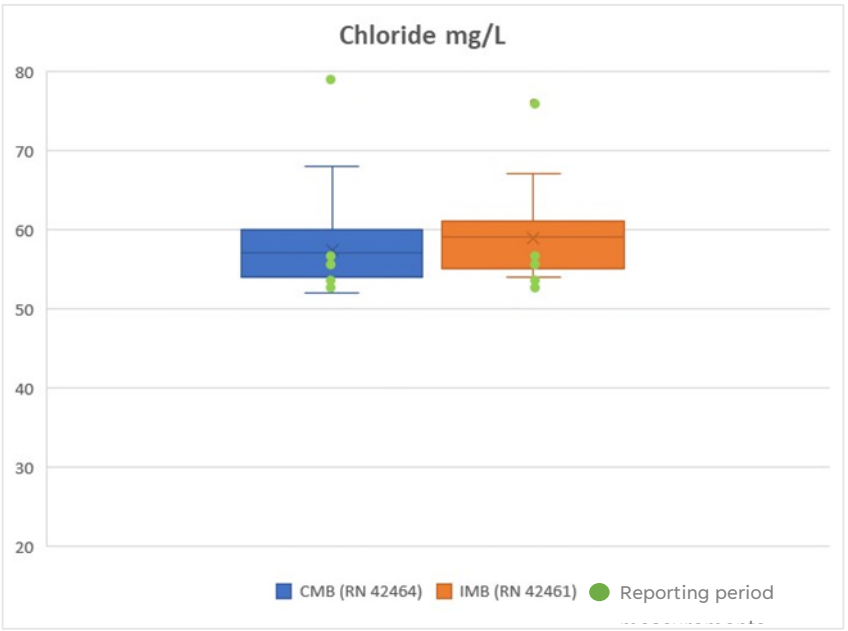

Figure 15 – Comparison of Chloride Measurements in the Gum Ridge Aquifer – Before and During the Reporting Period

6.2.3.2 Carpentaria 4

The results of monitoring for chloride in the Gum Ridge Aquifer are presented in **Figure 16**.

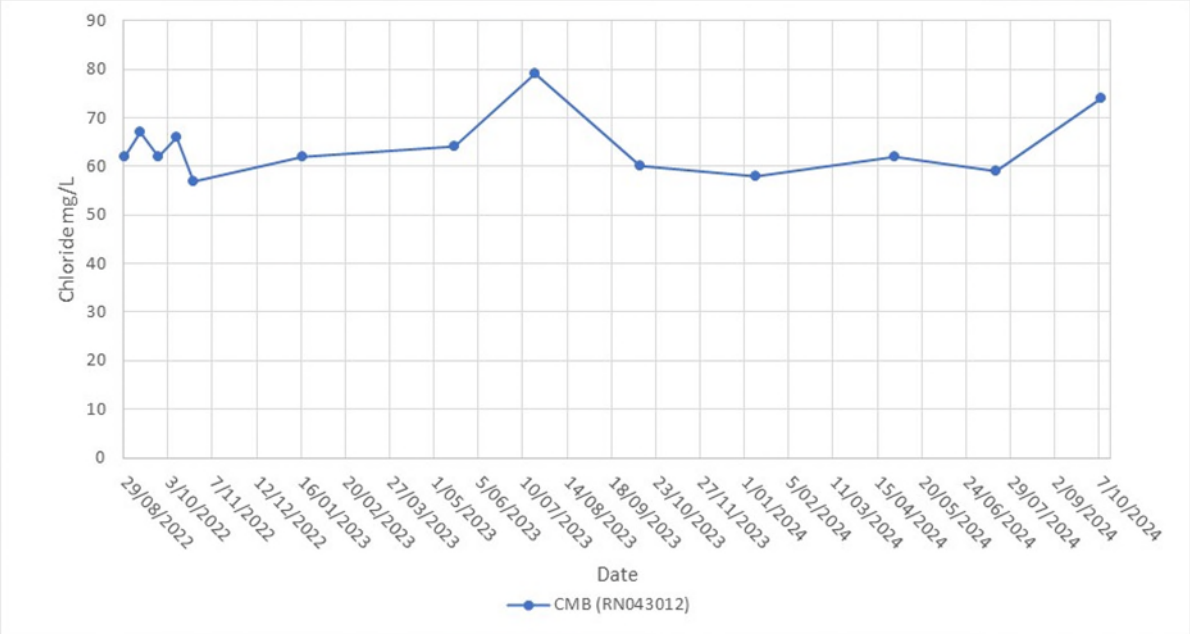

Figure 16 – C4 Chloride Measurements in the Gum Ridge Aquifer

Preliminary data from the control monitoring bore is beginning to demonstrate a stable range for the analyte, as shown in the table below.

Table 12 – C4 Summary Statistics of Chloride Measurements in the Gum Ridge Aquifer

Chloride mg/L	CMB (RN043012)
Minimum	57.00
Maximum	79.00
Average	64.33
20th percentile	60.00
80th percentile	67.00
Limit of detection	1.00
STD	6.27

6.2.4 Barium

6.2.4.1 Carpentaria 2/3

The results of monitoring for barium in the Gum Ridge Aquifer are presented in **Figure 17**.

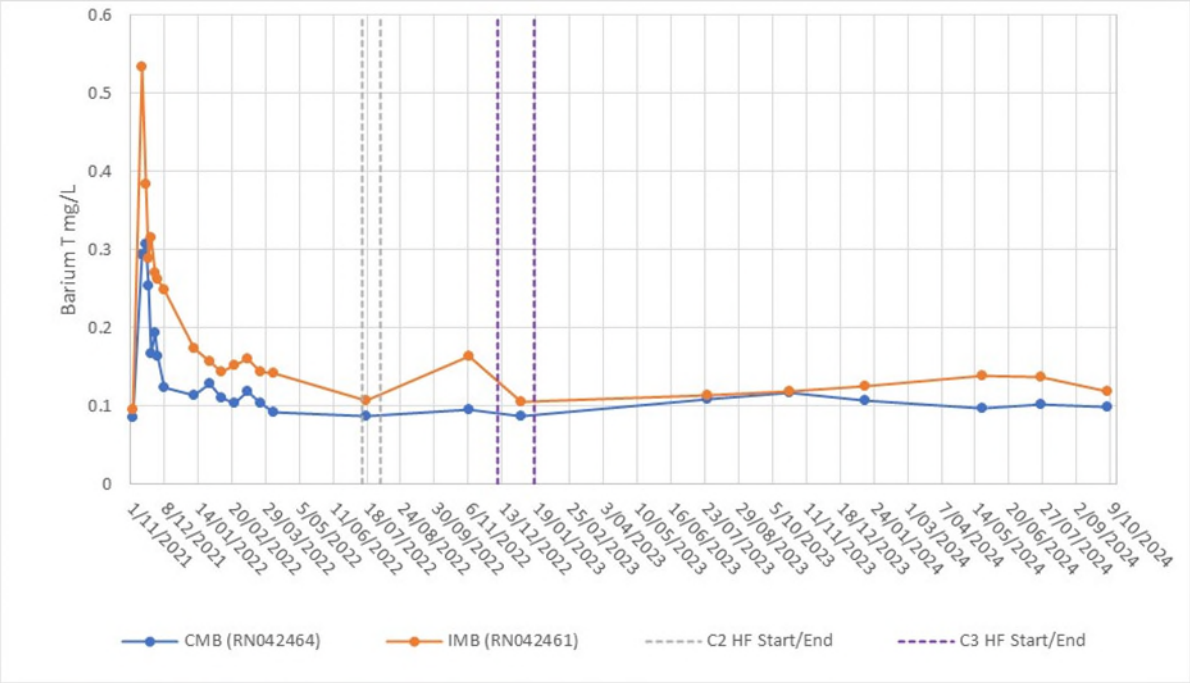

Figure 17 – C2 & C3 Barium measurements in the Gum Ridge aquifer

The data shows consistent trends between the IMB and CMB measurements. The data demonstrates a strong correlation between the IMB and CMB measurements, with both datasets exhibiting comparable trends and closely aligned variations over time.

To further compare the reporting period data, the data from before the reporting period is summarised below in **Table 13**. This data is used in **Figure 18** to compare the data before the reporting period (the box and whisker plots) to the data in the reporting period (represented by green dots). **Figure 18** shows that the data during the reporting period is roughly similar to the previous data. This demonstrates that the data during the reporting period is consistent with the data points prior.

Table 13 – C2 & C3 Summary Statistics of the Total Barium Measurements in Gum Ridge Aquifer – Before the Reporting Period

Barium T mg/L	CMB (RN042464)	IMB (RN042461)
Minimum	0.085	0.095
Maximum	0.31	0.53
Average	0.14	0.21
20th percentile	0.092	0.11
80th percentile	0.19	0.29
Limit of detection	0.001	0.001
STD	0.068	0.11

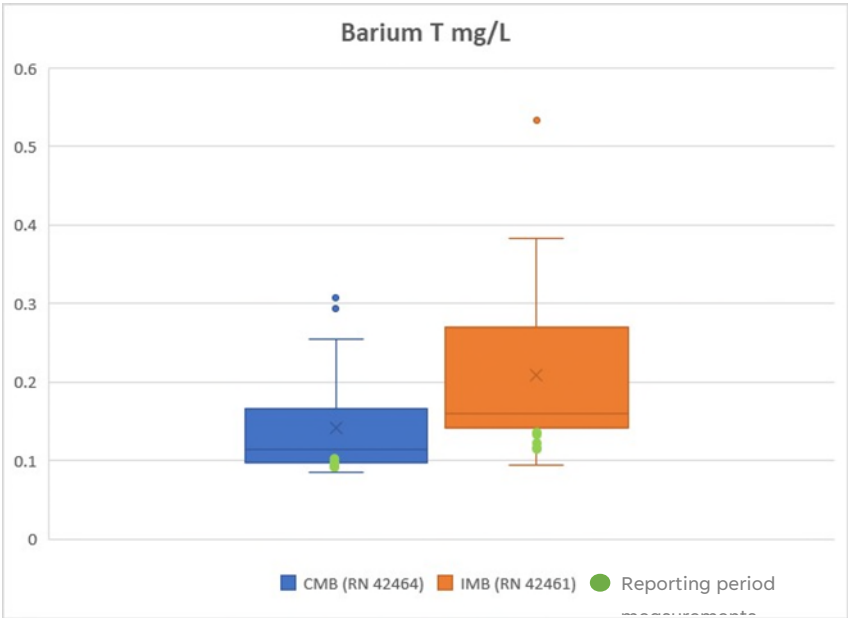

Figure 18 – Comparison of the Barium Measurements in the Gum Ridge Aquifer – Before and During the Reporting Period

6.2.4.2 Carpentaria 4

The results of monitoring for barium in the Gum Ridge aquifer are presented in **Figure 19.**

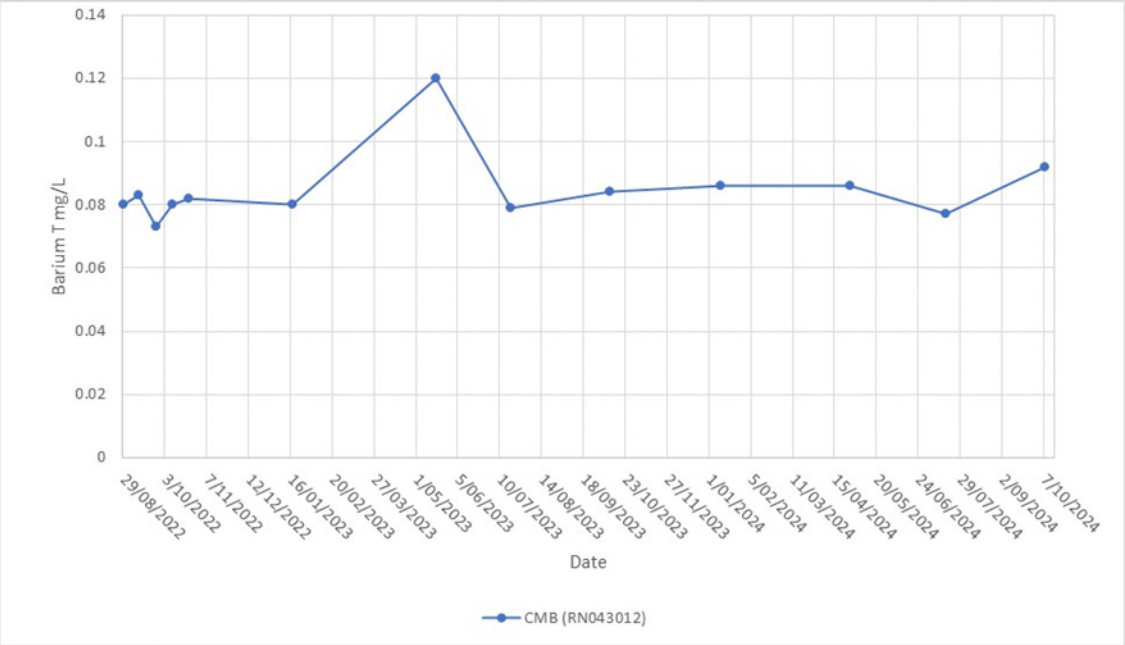

Figure 19 – C4 Total Barium Measurements in the Gum Ridge Aquifer

Preliminary data from the control monitoring bore is beginning to demonstrate a stable range for the analyte as shown in the table below.

Table 14 – C4 Summary statistics of the Total Barium Measurements in the Gum Ridge Aquifer

Barium T mg/L	CMB (RN043012)
Minimum	0.073
Maximum	0.12
Average	0.085
20th percentile	0.079
80th percentile	0.084
Limit of detection	0.001
STD	0.014

6.2.5 Strontium

6.2.5.1 Carpentaria 2/3

The results of monitoring for strontium in the Gum Ridge Aquifer are presented in **Figure 20**.

Figure 20 – C2 & C3 Total Strontium Measurements in the Gum Ridge Aquifer

The data reveals a strong correlation between the IMB and CMB measurements, with both datasets displaying similar upward trends and closely aligned fluctuations over time. Divergences are observed but they stabilise over time. Results from the reporting period are higher than historic measurements but the change is observed in both the CMB and IMB indicating influences outside of well pad activities. Measurements from the Carpentaria 4 gum ridge aquifer CMB (refer Section **6.2.5.2**) are also elevated for this period supporting that this change is natural within the aquifer.

To further compare the reporting period data, the data from before the reporting period is summarised below in **Table 15**. This data is used in **Figure 21** to compare the data before the reporting period (The box and whisker plots) to the data in the reporting period (represented by green dots). **Figure 21** shows that the data during the reporting period is roughly similar to the previous data. This demonstrates that the data during the reporting period is consistent with the data points prior.

Table 15 – C2 & C3 Summary Statistics of the Total Strontium Measurements in the Gum Ridge Aquifer – Before the Reporting Period

Strontium T mg/L	CMB (RN042464)	IMB (RN042461)
Minimum	0.48	0.46
Maximum	0.60	0.58
Average	0.53	0.52
20th percentile	0.50	0.50
80th percentile	0.55	0.53
Limit of detection	0.001	0.001
STD	0.029	0.025

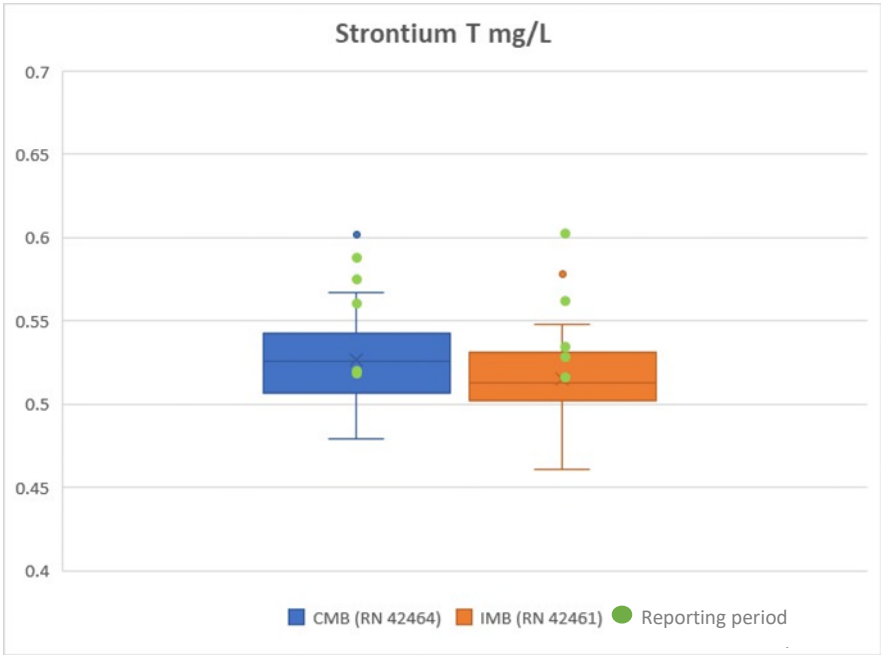

Figure 21 – Comparison of the Total Strontium Measurements in the Gum Ridge Aquifer – Before and During the Reporting Period

6.2.5.2 Carpentaria 4

The results of monitoring for strontium in the Gum Ridge Aquifer are presented in **Figure 22**.

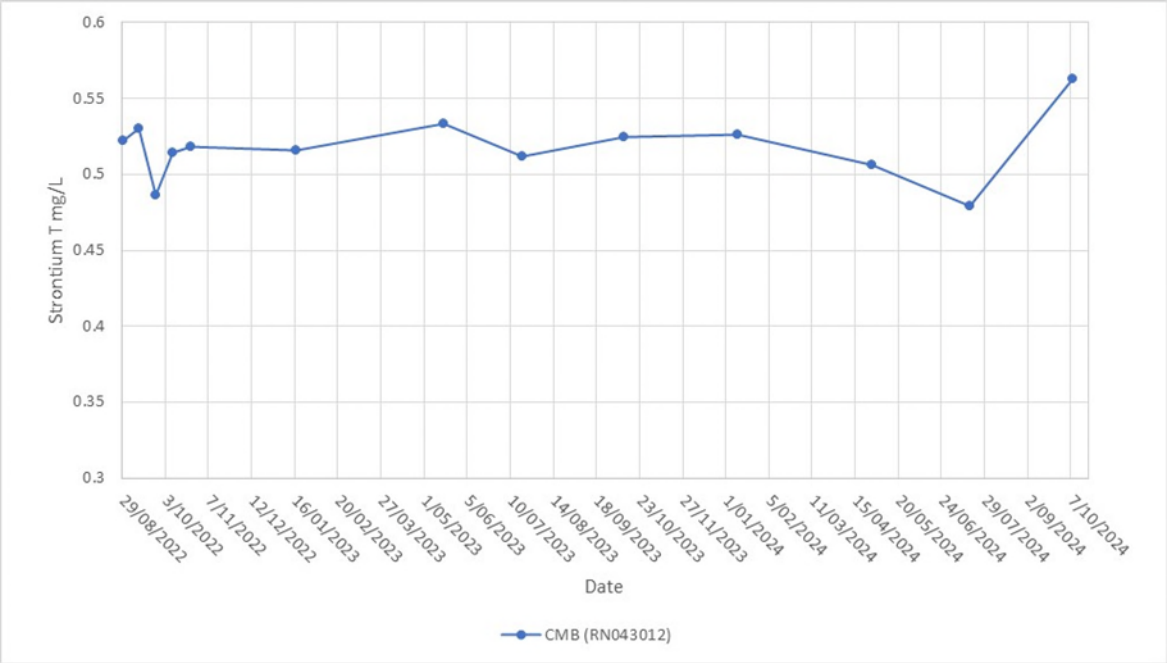

Figure 22 – C4 Total Strontium measurements in Gum Ridge Aquifer

Preliminary data from the control monitoring bore is beginning to demonstrate a stable range for the analyte as shown in the table below. The final data point (October 2024) shows an increase in the concentration, which matches the observed increase in the C2/3 bores.

Table 16 – C4 Summary Statistics of the Total Strontium Measurements in the Gum Ridge Aquifer

Strontium T mg/L	CMB (RN043012)
Minimum	0.49
Maximum	0.53
Average	0.52
20th percentile	0.51
80th percentile	0.53
Limit of detection	0.001
STD	0.014

6.2.6 Methane

6.2.6.1 Carpentaria 2/3

The results of monitoring for methane in the Gum Ridge Aquifer are presented in **Figure 23**. Measurements with values below the Limit of Detection (LOD) of 0.01 mg/L were assumed to be equal to 0.01 mg/L.

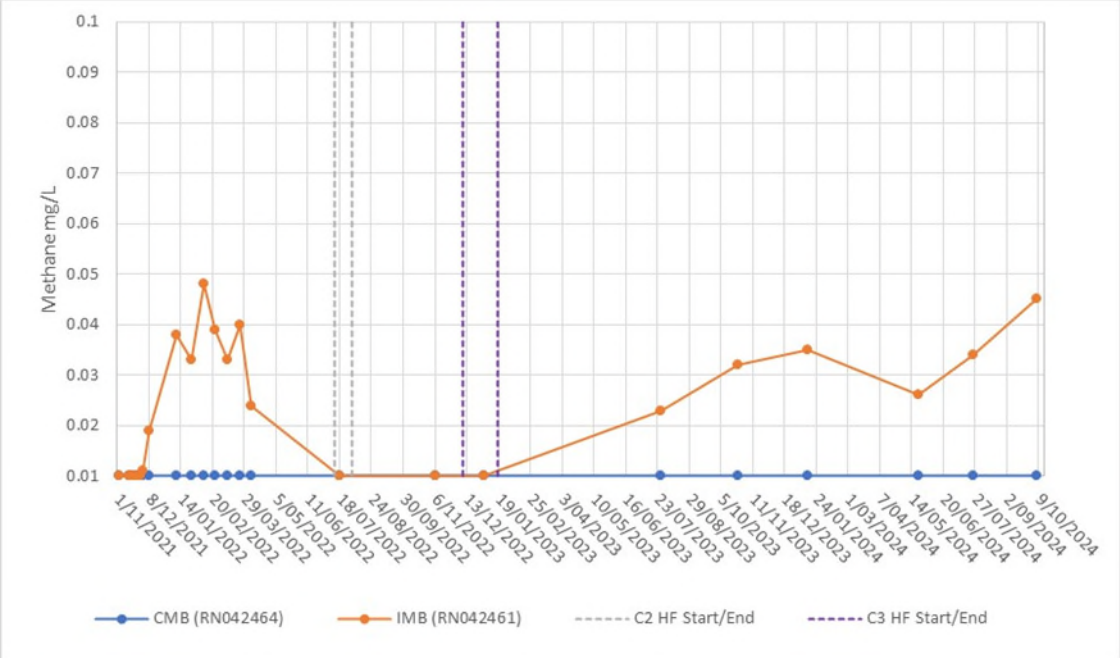

Figure 23 – C2 & C3 Methane Measurements in the Gum Ridge Aquifer

The data presented in Figure 22 clearly shows temporal variability in dissolved methane concentration in Gum Ridge impact monitoring bore RN042461. Methane is an indicator of hydrocarbon gases that can originate from leaks but can also occur naturally. However, methane is not the sole indicator. In compliance with the Code, Imperial has monitored various hydrocarbon indicators, including:

- Benzene, toluene, ethylbenzene, xylene, and naphthalene (BTEXN),
- Total recoverable hydrocarbons (TRH),
- Polycyclic aromatic hydrocarbons (PAH),
- Dissolved propane, and dissolved ethane.

No statistically significant increases have been observed in these hydrocarbon analytes (refer Appendix A), nor have there been any noteworthy deviations from those discussed in Section 6.3. This strongly suggests that the methane detected is from natural sources rather than anthropogenic ones.

Formation fluids, along with the drilling and hydraulic fracturing fluids used for the regulated activity, exhibit hydrocarbon concentrations orders of magnitude higher (~100-~1000 times)

than the aquifer baseline. If methane elevations were due to petroleum activity, corresponding increases would be expected in other hydrocarbon analytes, as well as in other analysis suites, such as physio-chemical, nutrient, radiological, ion, and dissolved metal parameters currently being assessed.

Dissolved methane is commonly found in sedimentary basins. For example, measurements in the Eromanga Basin within the Cooper GBA region have been recorded as high as 216,500 µg/L[1].While concentrations up to approximately 20,000 µg/L are typical in productive aquifers of the Surat Basin[2]. The CLA (where the IMB and CMB being discussed are present) spans the Daly, Georgina, and Wiso Basins. The CLA includes the Anthony Lagoon and Gum Ridge formations, where studies such as the SREBA Water Studies indicate dissolved methane concentrations are generally very low, typically below standard reporting limits (e.g., <0.01 mg/L). However, concentrations between 0.01–2.21 mg/L have been observed on several occasions during GISERA, industry, and SREBA monitoring programs[3] [4]. Data collected during the reporting period remain below the upper limits identified in these studies.

Carbon isotope analyses of dissolved methane suggest that concentrations typically below 10,000 µg/L observed across the Daly, Wiso, and Georgina Basin aquifers are due to microbial activity rather than leakage from deeper thermogenic gas reserves4. Isotope analysis shows that the elevated methane concentrations, such as the almost 6 mg/L detected in a pastoral bore east of Larrimah, are likely due to microbial activity introduced by iron- or sulfate-reducing bacteria.

This microbial activity may occur within the aquifer itself or within water bores, contributing to the detectable dissolved methane concentrations observed across the CLA. This conclusion is supported by the absence of detectable ethane, a significant component of deeper gas resources, which has not been found above laboratory reporting limits or in correlation with dissolved methane concentrations.

---

[1] Hall, L.S., Wang, L., Bailey, A.H.E., Orr, M.L., Owens, R., Jarrett, A.J.M., Lech, M.E., Skeers, N., Reese, B. and Woods, M. (2020). Petroleum prospectivity of the Beetaloo Sub-basin. Technical appendix for the Geological and Bioregional Assessment: Stage 2, Department of the Environment and Energy, Bureau of Meteorology, CSIRO and Geoscience Australia.

[2] Mallants D, Raiber M and Davies P (2016) Decision Support System for Investigating Gas in Water Bores and Links to Coal Seam Gas Development. Project report prepared by the Commonwealth Scientific and Industrial Research Organisation (CSIRO) for the Queensland Department of Natural Resources and Mines.

[3] ELA (2022). Strategic Regional Environmental and Baseline Assessment for the Beetaloo Sub-basin: Water Quality and Quantity Baseline Summary Report. Technical Report 24/2022. Report prepared for the Northern Territory Department of Environment, Parks and Water Security by Eco Logical Australia (ELA) and Tetra Tech Coffey.

[4] Wilkes, P., Rachakonda, P. K., Larcher, A. and Woltering, M. (2019). Baseline assessment of groundwater characteristics in the Beetaloo Sub-basin, NT: Geochemistry Analysis. Report prepared for the Gas Industry Social and Environmental Research Alliance by CSIRO.

The initial spike in dissolved methane concentrations appears to be near coincident with the commencement of the drilling of Carpentaria 2 on 07/11/2021. Methane concentrations in this bore for the initial methane spike peaked at near 0.05 mg/L and by mid July 2022 at the time of hydraulic fracturing of Carpentaria 2, it had subsided to limit of detection values[5]. This would suggest that the initial methane spike it attributable to drilling disturbance. A similar coincident spike in methane in groundwater followed by decline after cessation of drilling activities has been reported by Santos[6] for their Beetaloo-Basin Tanumbirini wells. No dissolved ethane or higher alkane gasses have been detected to date in bore RN042461. The presence of ethane or higher order hydrocarbons would be indicative of possible deep thermogenic source. If hydrocarbon gases in groundwater were leaking upward from the Beetaloo Sub-basin gas reserves, ethane would be expected to accompany methane due to its common presence in these resources[7] [8].

Accordingly, it is far more likely than not that the methane spike reflects a biogenic response of the microflora present in the Gum Ridge Formation aquifer here at that time[5].

A second methane spike commenced after the completion of hydraulic fracturing of the Carpentaria 3 well. From 26/07/2023 when a methane value of 0.023 mg/L was recorded these is a clear upward trend in methane with the most recent value on 6/10/2024 being 0.045 mg/L (still below the initial post drilling peak of 0.048 mg/L.) The reason for the development of this trend is uncertain. The other available temporal major ion and radiological parameter data does not show appreciable temporal discontinuity that might reflect an upward movement of water from the underlying Precambrian age sequence. The methane data from the control bore RN042464 remained consistently low through this period as it has throughout the record.

The recent increasing trend in methane in RN042461 could potentially reflect a dual porosity system or some other Karst system complexity in the Gum Ridge Formation which has allowed

[5] Evans, P. (2025). Cambrian Limestone Aquifer – NT: Review & Discussion of Origin & Significance of Dissolved Methane. DRAFT Report NAH-0001-2025-Rev A. Report prepared by NA Hydro for inGauge Energy Pty Ltd, 14 January 2025.

[6] RDM Hydro (2023) Santos QNT Pty Ltd EP161 – HFS EMP Annual Groundwater Monitoring Data Review, 14 December 2023 - Final

[7] ELA (2022). Strategic Regional Environmental and Baseline Assessment for the Beetaloo Sub-basin: Water Quality and Quantity Baseline Summary Report. Technical Report 24/2022. Report prepared for the Northern Territory Department of Environment, Parks and Water Security by Eco Logical Australia (ELA) and Tetra Tech Coffey

[8] Hall, L.S., Wang, L., Bailey, A.H.E., Orr, M.L., Owens, R., Jarrett, A.J.M., Lech, M.E., Skeers, N., Reese, B. and Woods, M. (2020). Petroleum prospectivity of the Beetaloo Sub-basin. Technical appendix for the Geological and Bioregional Assessment: Stage 2, Department of the Environment and Energy, Bureau of Meteorology, CSIRO and Geoscience Australia

a second pulse of water impacted by the original drilling to be delayed in transit[9]. The occurrence of microbial activity in the CLA is unsurprising, as it is a karstic system[7] with many bores in the region accessing the aquifer. Both the widespread presence of bores and the karstic features, such as sinkholes, independently provide pathways for organic matter to enter the aquifer. Organic matter naturally support bacterial populations, which naturally contribute to methane concentrations.

What is important to note here is that the concentrations of dissolved methane observed in RN042461 are still very low with a peak value of only 0.048 mg/L recorded to date.

NA Hydro Hydrologist Peter Evans has reviewed the methane concentrations and has recommended continued monitoring until such time as either the methane concentration decline (likely) or the upward trend continues[9].

To further compare the reporting period data, the data from before the reporting period is summarised below in Table 17. This data is used in **Figure 24**. to compare the data before the reporting period (the box and whisker plots) to the data in the reporting period (represented by green dots). **Figure 24** shows that the data during the reporting period is roughly similar to the previous data. This demonstrates that the data during the reporting period is consistent with the data points prior.

[9] Evans, P. (2025). Cambrian Limestone Aquifer – NT: Review & Discussion of Origin & Significance of Dissolved Methane. DRAFT Report NAH-0001-2025-Rev A. Report prepared by NA Hydro for inGauge Energy Pty Ltd, 14 January 2025.

Table 17 – C2 & C3 Summary Statistics of Methane Measurements in the Gum Ridge Aquifer – Before the Reporting Period

Methane mg/L	CMB (RN042464)	IMB (RN042461)
Minimum	0.01	0.01
Maximum	0.01	0.048
Average	0.01	0.021
20th percentile	0.01	0.010
80th percentile	0.01	0.038
Limit of detection	0.01	0.010
STD	0.00	0.013

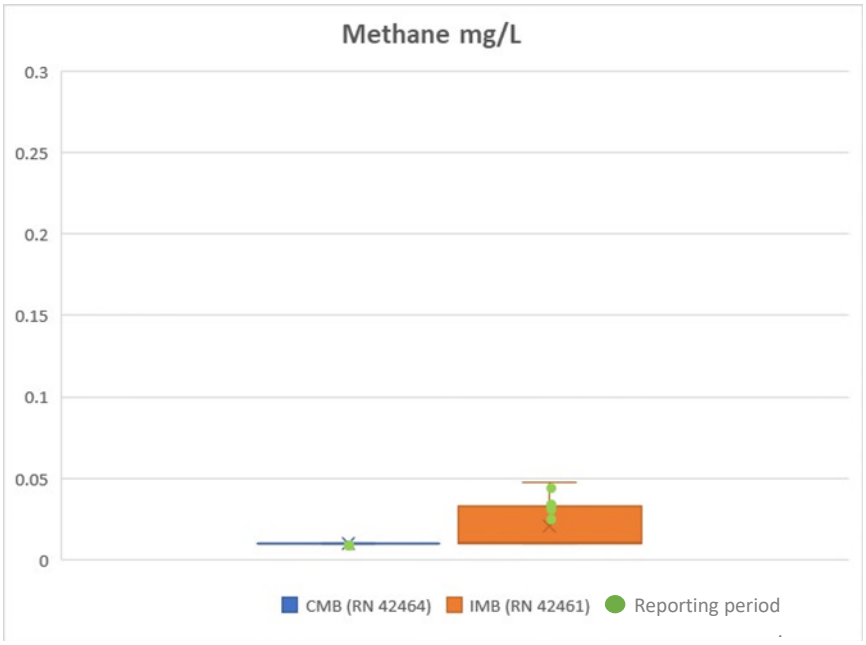

Figure 24 – Comparison of Methane Measurements in the Gum Ridge Aquifer – Before and During the Reporting Period

6.2.6.2 Carpentaria 4

The results of monitoring for methane in the Gum Ridge Aquifer are presented **Figure 25**. Measurements with values below the LOD of 0.01 mg/L were assumed to be equal to 0.01 mg/L.

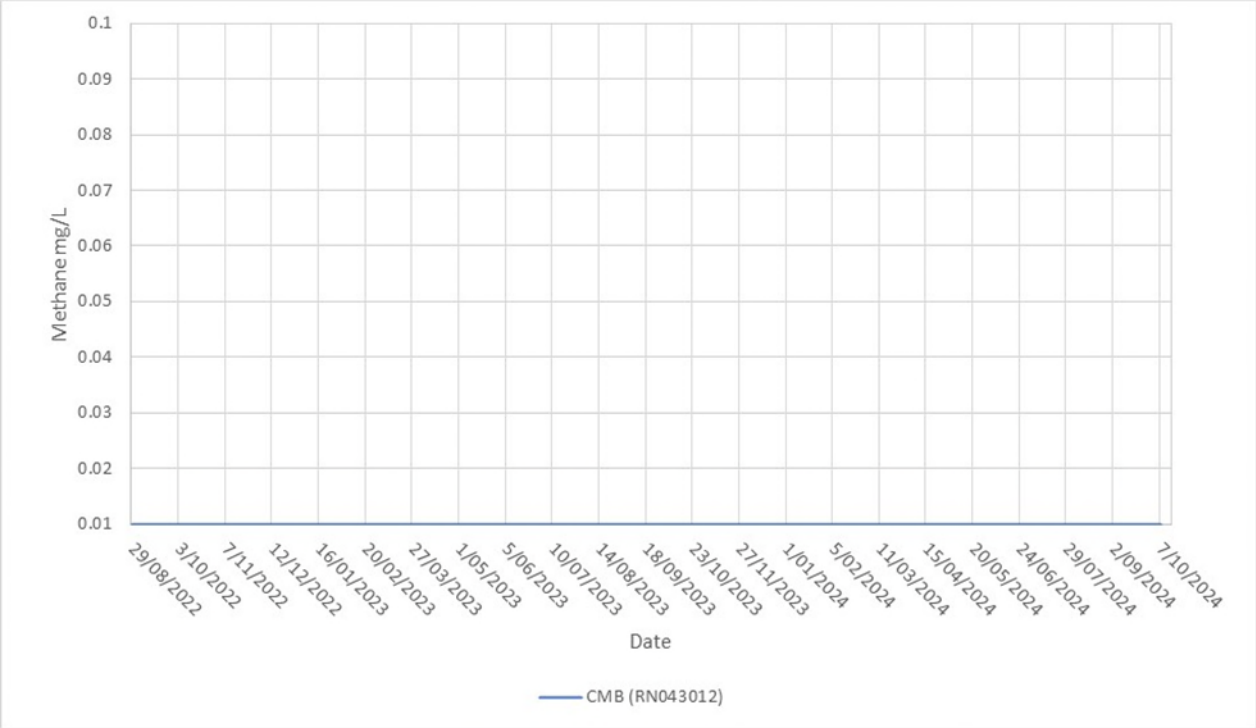

Figure 25 – C4 Methane Measurements in the Gum Ridge Aquifer

Preliminary data from the control monitoring bore consistently shows no reading above the LOD for the analyte as shown in **Table 18**.

Table 18 – C4 Summary Statistics of the Methane Measurements in the Gum Ridge Aquifer

Methane mg/L	CMB (RN043012)
Minimum	0.01
Maximum	0.01
Average	0.01
20th percentile	0.01
80th percentile	0.01
Limit of detection	0.01
STD	0.00

6.2.7 Water Level

Water levels in the Gum Ridge Aquifer prior to 2024 were monitored using Solinst Leveloggers, which measure pressure in the water column within a bore. These loggers were suspended on cables below the standing water level in designated impact monitoring bores. Leveloggers measure actual water column height and as such, measurements have been converted to standing water level. Recently, water levels have been measured manually using a dip tape.

Data points have remained consistent, with the Gum Ridge Aquifer maintaining a standing water level between 65m and 70m. Variations in logger measurements can be attributed to short-term disturbances during hydraulic fracturing, deployment height, equipment-related data spikes, interruptions caused by logger removal for data retrieval or redeployment of new devices.

Water level data for the Gum Ridge Aquifer is presented in **Figure 26**.

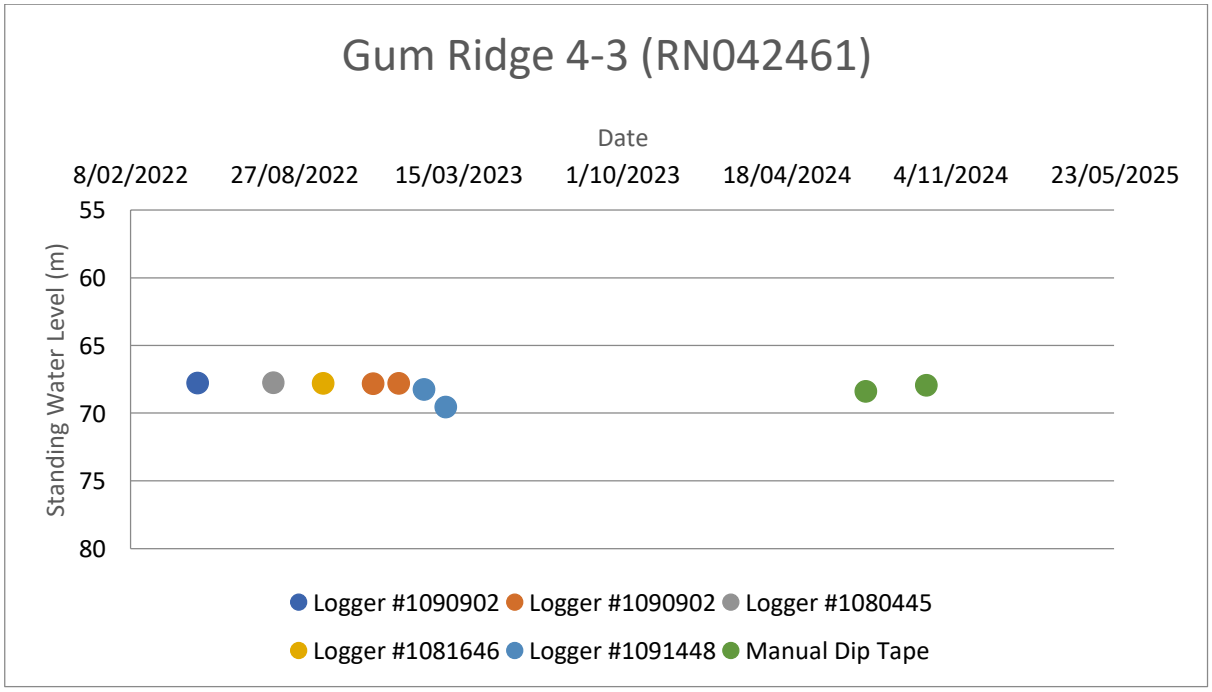

Figure 26 – Gum Ridge Aquifer Water Level

6.3 Anthony Lagoon Aquifer

6.3.1 Electrical Conductivity

The results of monitoring for electrical conductivity in the Anthony Lagoon Aquifer are presented in **Figure 27**.

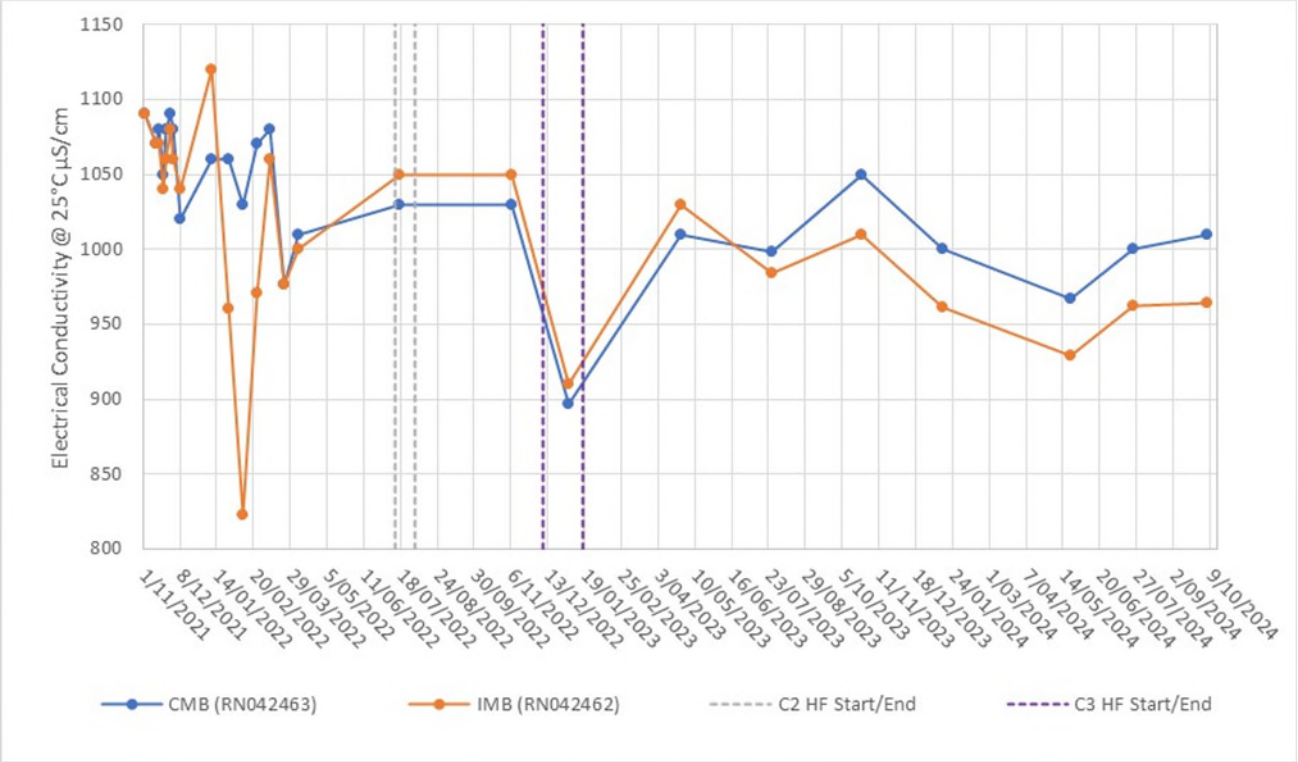

Figure 27 – C2 & C3 Electrical Conductivity Measurements in the Anthony Lagoon Aquifer

The data reveals a strong correlation between the IMB and CMB measurements, with both datasets displaying similar trends but divergences are observed. Samples within the reporting period follow the same trend, but there is a noticeable difference (not statistically significant) between the IMB and CMB in the last five datasets. This is, however, not of concern as the data points are within a normal range.

To further compare the reporting period data, the data from before the reporting period is summarised below in **Table 19**. This data is used in **Figure 28** to compare the data before the reporting period (the box and whisker plots) to the data in the reporting period (represented by green dots). **Figure 28** shows that the data during the reporting period is roughly similar to the previous data. This demonstrates that the data during the reporting period is consistent with prior data points.

Table 19 – C2 & C3 Summary Statistics of the Electrical Conductivity Measurements in the Anthony Lagoon Aquifer – Before the Reporting Period

Electrical Conductivity @ 25°C µS/cm	CMB (RN042463)	IMB (RN042462)
Minimum	897.00	823.00
Maximum	1090.00	1120.00
Average	1040.55	1022.20
20th percentile	1010.00	972.00
80th percentile	1080.00	1070.00
Limit of detection	1.00	1.00
STD	47.52	69.38

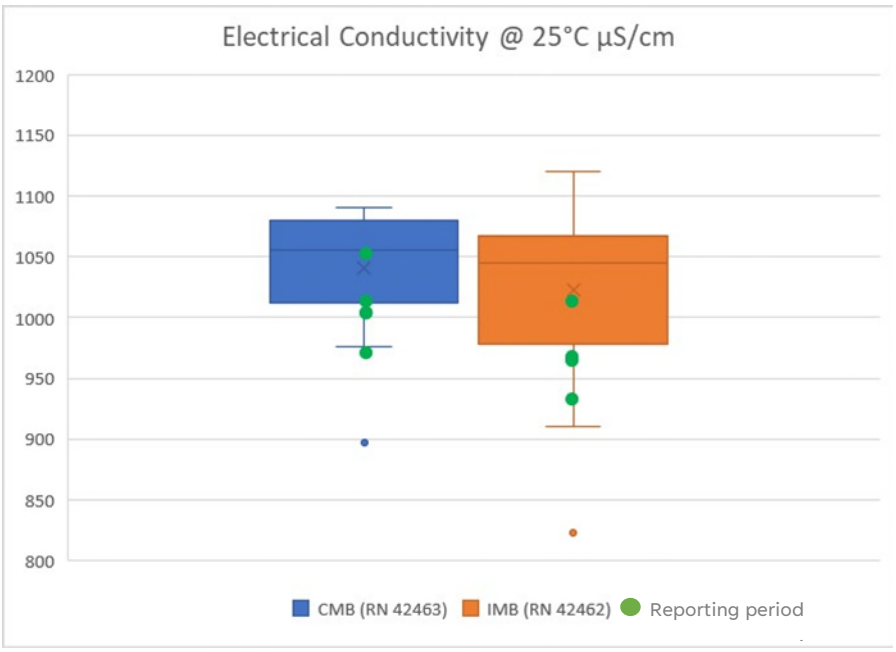

Figure 28 – Comparison of the Electrical Conductivity Measurements in the Anthony Lagoon Aquifer – Before and During the Reporting Period

6.3.2 Total Dissolved Solids

The results of monitoring for total dissolved solids in the Anthony Lagoon Aquifer are presented in **Figure 29**.

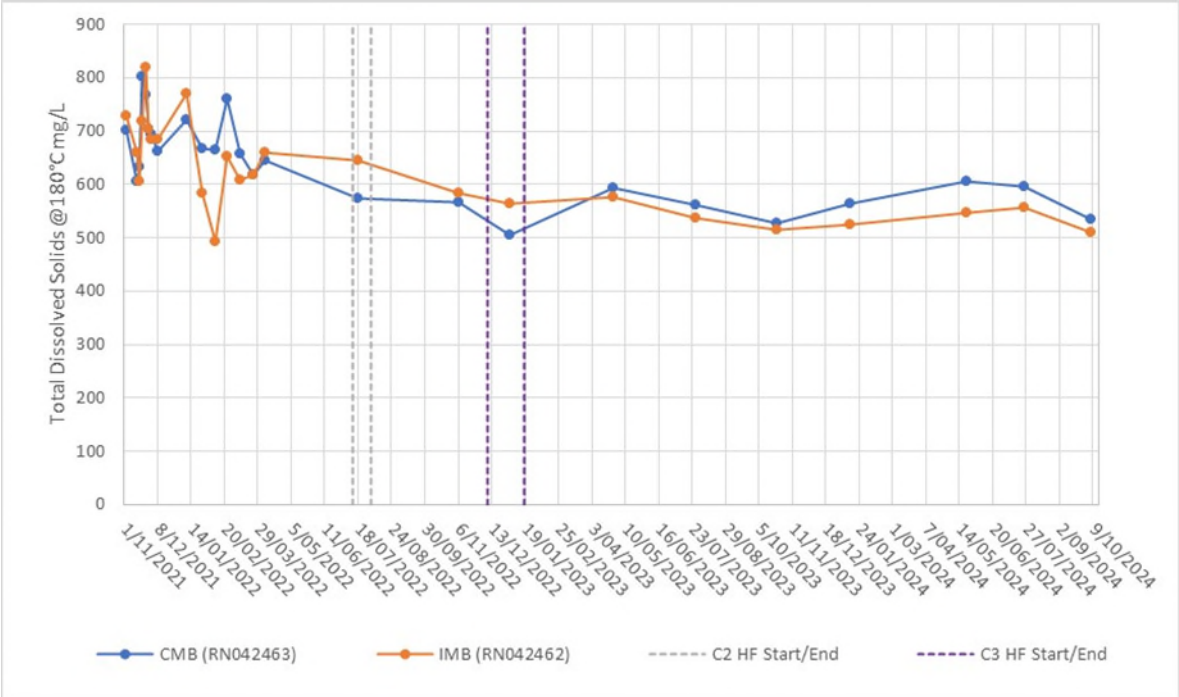

Figure 29 – C2 & C3 Total Dissolved Solids Measurements in the Anthony Lagoon Aquifer

The data demonstrates a strong correlation between the IMB and CMB measurements, with both datasets exhibiting comparable trends and closely aligned variations over time. To further compare the reporting period data, the data from before the reporting period is summarised below in **Table 20**. This data is used in **Figure 30** to compare the data before the reporting period (The box and whisker plots) to the data in the reporting period (represented by green dots). **Figure 30** shows that the data during the reporting period is slightly less than the previous data.

Table 20 – C2 & C3 Summary Statistics of the Total Dissolved Solids Measurements in the Anthony Lagoon Aquifer – Before the Reporting Period

Total Dissolved Solids @180°C mg/L	CMB (RN042463)	IMB (RN042462)
Minimum	506.00	492.00
Maximum	802.00	820.00
Average	655.40	644.90
20th percentile	578.80	577.60
80th percentile	717.60	715.40
Limit of detection	10.00	10.00
STD	75.77	80.41

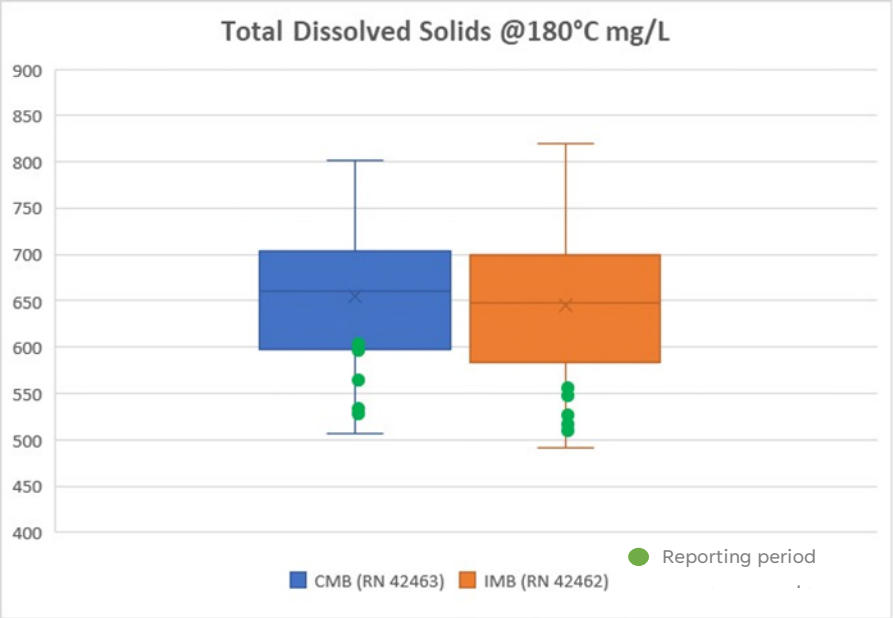

Figure 30 – Comparison of the Total Dissolved Solids Measurements in the Anthony Lagoon Aquifer – Before and During the Reporting Period

6.3.3 Chloride

The results of monitoring for chloride in the Anthony Lagoon Aquifer are presented in **Figure 31**.

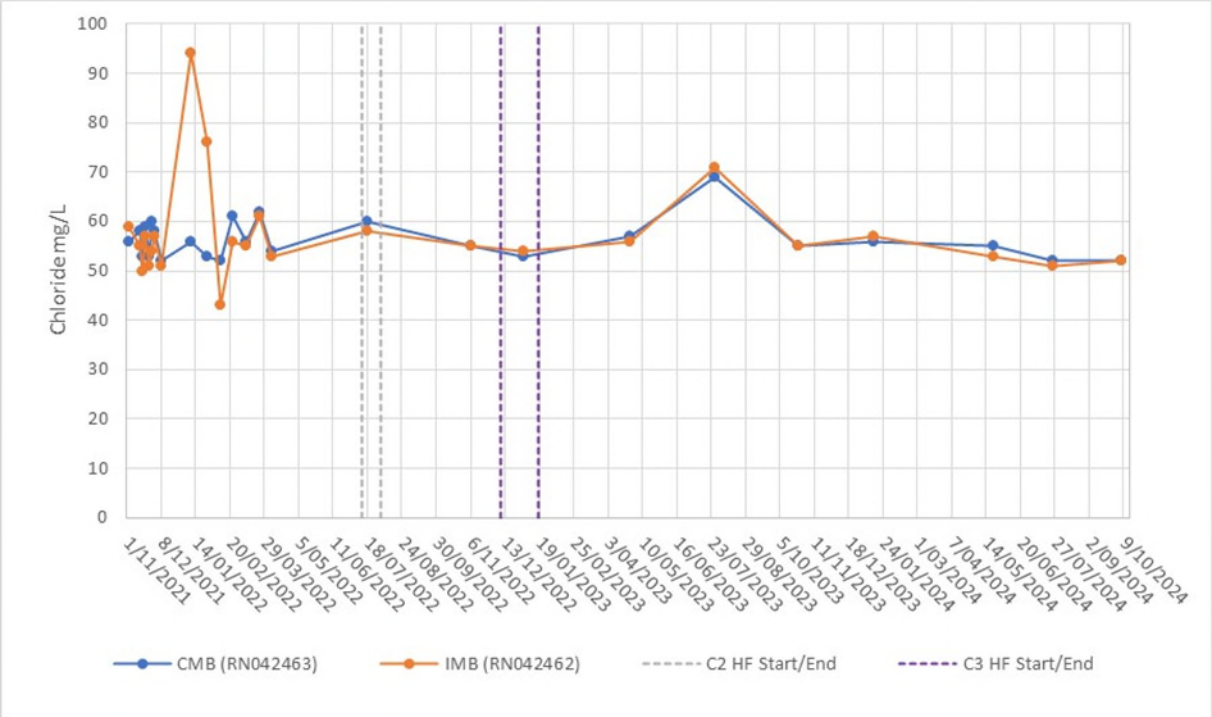

Figure 31 – C2 & C3 Chloride Measurements in the Anthony Lagoon Aquifer

The data reveals a strong correlation between the IMB and CMB measurements, with both datasets displaying similar trends and closely aligned fluctuations over time. Divergences are observed, but they stabilise over time. To further compare the reporting period data, the data from before the reporting period is summarised below in **Table 21**. This data is used in **Figure 32** to compare the data before the reporting period (the box and whisker plots) to the data in the reporting period (represented by green dots). **Figure 32** shows that the data during the reporting period is similar to the previous data. This demonstrates that the data during the reporting period is consistent with prior data points.

Table 21 – C2 & C3 Summary statistics of Chloride Measurements in the Anthony Lagoon Aquifer – Before the Reporting Period

Chloride mg/L	CMB (RN042463)	IMB (RN042462)
Minimum	52.00	43.00
Maximum	69.00	94.00
Average	56.85	58.30
20th percentile	53.00	51.40
80th percentile	60.00	60.60
Limit of detection	1.00	1.00
STD	4.22	10.95

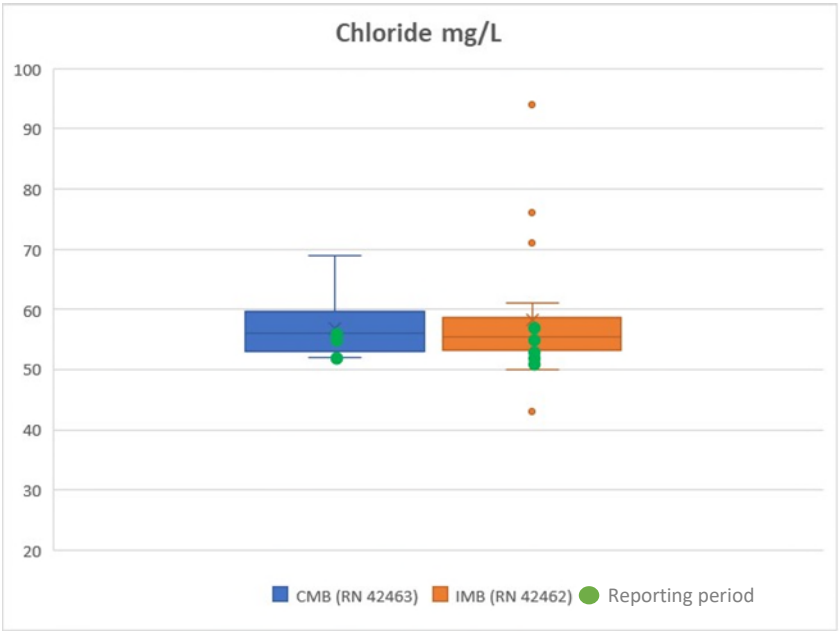

Figure 32 – Comparison of Chloride Measurements in the Anthony Lagoon Aquifer – Before and During the Reporting Period

6.3.4 Barium

The results of monitoring for barium in the Anthony Lagoon Aquifer are presented in **Figure 33**.

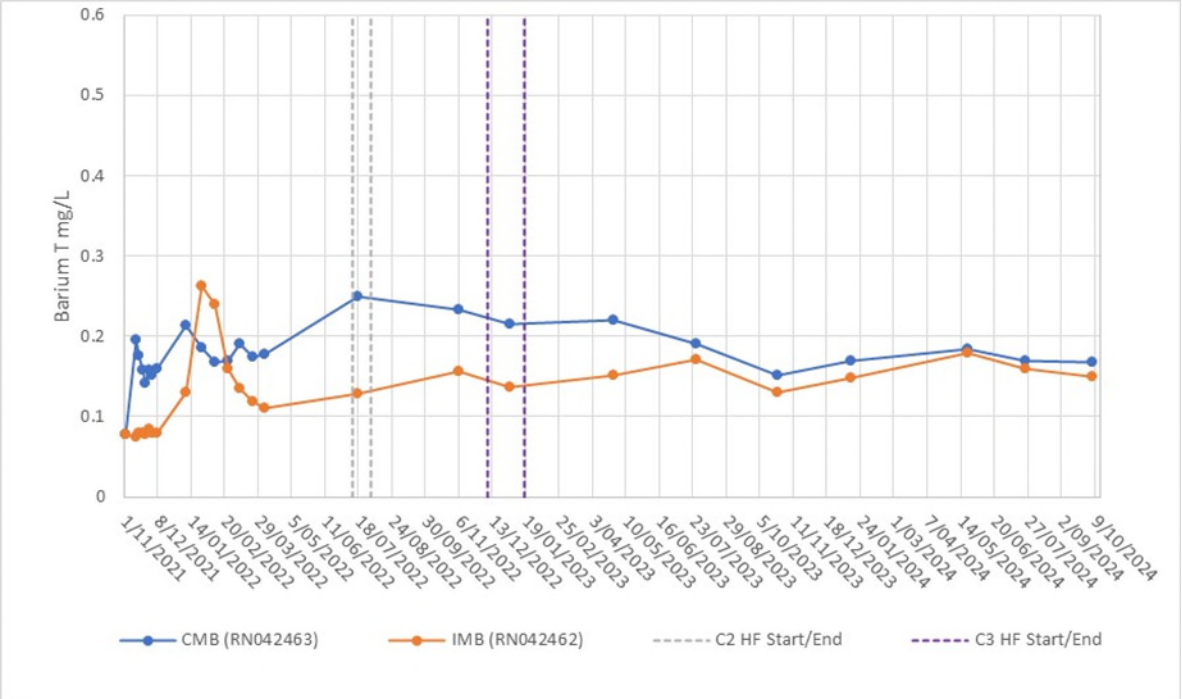

Figure 33 – C2 & C3 Total Barium Measurements in the Anthony Lagoon Aquifer

The data shows consistent trends between the IMB and CMB measurements. While divergences between datasets are observed, recent samples have a strong correlation.

To further compare the reporting period data, the data from before the reporting period is summarised below in **Table 22**. This data is used in **Figure 34** to compare the data before the reporting period (the box and whisker plots) to the data in the reporting period (represented by green dots). **Figure 34** shows that the data during the reporting period is roughly similar to the previous data. This demonstrates that the data during the reporting period is consistent with prior data points.

Table 22 – C2 & C3 Summary Statistics of the Total Barium Measurements in the Anthony Lagoon Aquifer – Before the Reporting Period

Barium T mg/L	CMB (RN042463)	IMB (RN042462)
Minimum	0.078	0.075
Maximum	0.25	0.26
Average	0.18	0.13
20th percentile	0.16	0.079
80th percentile	0.22	0.16
Limit of detection	0.001	0.001
STD	0.037	0.053

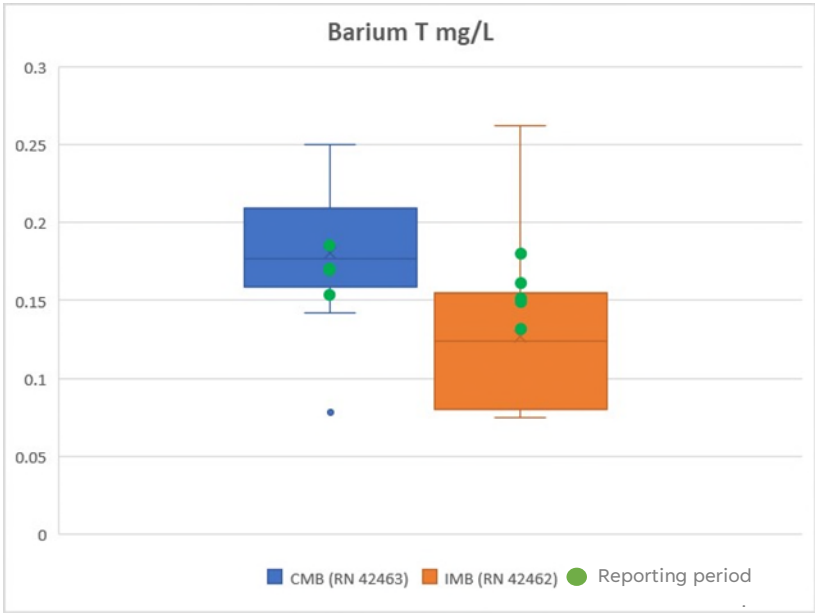

Figure 34 – Comparison of the Total Barium Measurements in the Anthony Lagoon Aquifer – Before and During the Reporting Period

6.3.5 Strontium

The results of monitoring for strontium in the Anthony Lagoon Aquifer are presented in **Figure 35**.

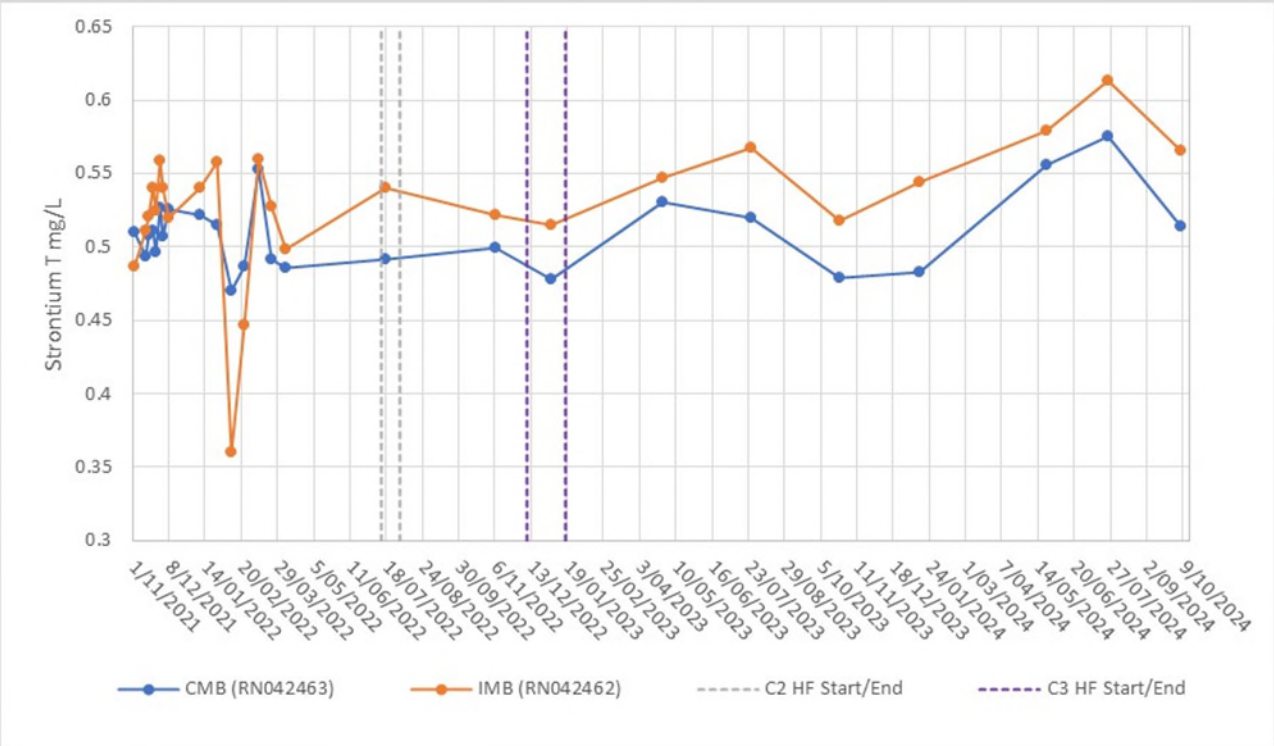

Figure 35 – C2 & C3 Total Strontium Measurements in the Anthony Lagoon Aquifer

The data reveals a strong correlation between the IMB and CMB measurements, with both datasets displaying similar trends but divergences are observed.

To further compare the reporting period data, the data from before the reporting period is summarised below in **Table 23**. This data is used in **Figure 36** to compare the data before the reporting period (the box and whisker plots) to the data in the reporting period (represented by green dots). **Figure 36** shows that the data during the reporting period is roughly similar to the previous data. This demonstrates that the data during the reporting period is consistent with the data points prior.

Table 23 – C2 & C3 Summary statistics of the total Strontium measurements in Anthony Lagoon aquifer – Before the reporting period

Strontium T mg/L	CMB (RN042463)	IMB (RN042462)
Minimum	0.47	0.36
Maximum	0.55	0.58
Average	0.51	0.52
20th percentile	0.49	0.50
80th percentile	0.53	0.56
Limit of detection	0.001	0.001
STD	0.020	0.047

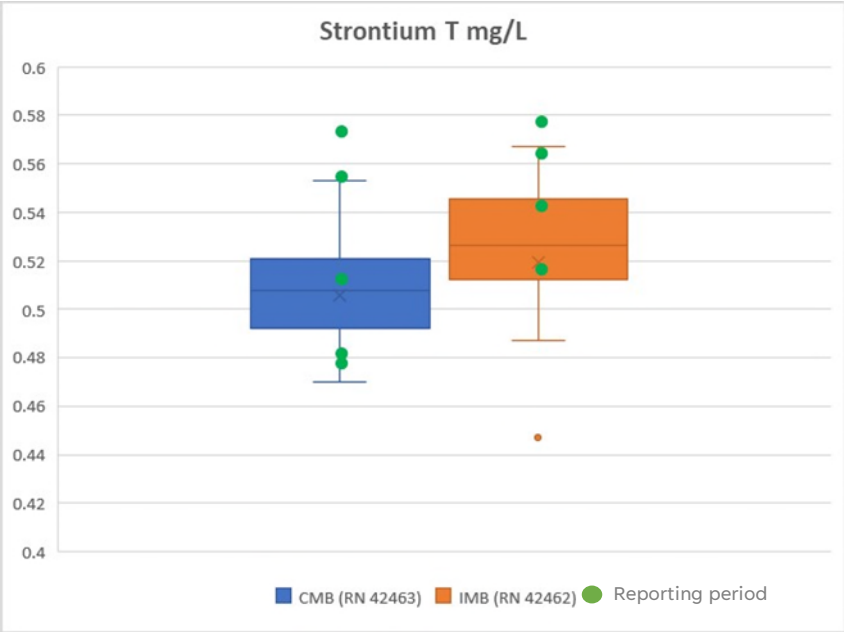

Figure 36 – Comparison of the Total Strontium Measurements in the Anthony Lagoon Aquifer – Before and During the Reporting Period

6.3.6 Methane

The results of monitoring for methane in the Anthony Lagoon Aquifer are presented in **Figure 37**. Measurements with values below the LOD of 0.01 mg/L were assumed to be equal to 0.01 mg/L.

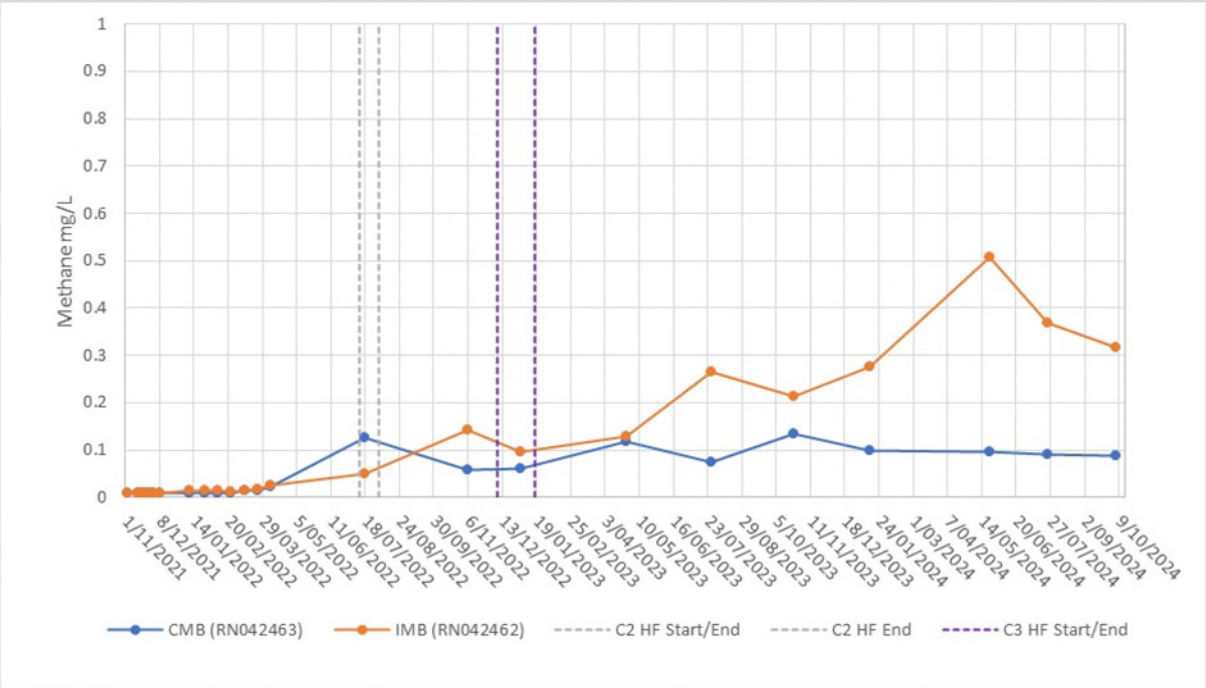

Figure 37 – C2 & C3 Methane Measurements in the Anthony Lagoon Aquifer

The data presented in Figure 36 clearly shows temporal variability in dissolved methane concentration in the Anthony Lagoon Beds impact monitoring bore RN042462. Note that **Section 6.2.6.1** provides additional context of methane concentrations.

The most easily perceived initial spike in dissolved methane concentrations appears shortly after the commencement of the drilling of Carpentaria 2 on 07/11/2021. Methane concentrations in this bore for the initial methane spike peaked at 0.051 mg/L. A value of 0.142 mg/L was reached by 6/11/2022 before the commencement of the Carpentaria 3 hydraulic stimulation. From 2/1/2023 during the Carpentaria 3 hydraulic fracturing the methane values rose with an obvious discernible trend to a peak of 0.507 mg/L on 22/05/2024. The methane levels in this bore began to decline thereafter to 0.307 mg/L by the most recent sample on 6/10/2024. The cause of the significant increasing trend may be associated with the construction of Carpentaria 2 based on timing.

Methane values in the control monitoring bore RN042463 were at below detection limit from 3/11/2012 through 23/2/2022. By 9/3/2022 methane levels in this bore had increased to 0.013 mg/L (postdating the construction of Carpentaria 2 on 7/11/2021 but preceding the construction of Carpentaria 3 on 13/10/2022). By 20/7/2022 during the hydraulic stimulation of

Carpentaria 2, the methane had risen to 0.126 mg/L which has been the peak methane value observed to date in this bore, the latest sample of which was 0.088 mg/L on 6/10/2024. The generally much lower methane observed in RN042463 compared to RN042462 is readily reconciled as RN04263 is an upgradient control monitoring bore. The timing departure from below detection limit methane values in this well precedes the construction of Carpentaria 3 and hence is more likely to be associated with the construction of Carpentaria 2.

No dissolved ethane or higher alkane gasses have been detected to date in either bore RN042462 or RN042463. The presence of ethane or higher order hydrocarbons would be indicative of possible deep thermogenic source. Accordingly, it is far more likely than not that the upward methane reflects a biogenic response of the microflora present in the Anthony Lagoon Beds aquifer here at that time[10].

The increasing trend in methane in RN042462 could potentially reflect a dual porosity system or some other Karst system complexity in the Anthony Lagoon Beds which has allowed a second pulse of water impacted by the original drilling to be delayed in transit[10].

What is important to note here is that the concentrations of dissolved methane observed in RN042462 are still very low with a peak value of only 0.317 mg/L recorded to date. It would be reasonable to continue monitoring of RN042462 until such time as either the methane concentration decline (likely) to background levels or the upward trend continues [11].

The concentration of dissolved methane in the Antony Lagoon Beds control bore RN042463 remains low at 0.88 mg/L with a likely slow declining trend. No dissolved methane limits are recommended in Australia. However, the levels of methane in groundwater have not exceeded the 28 mg/L solubility limit (temperature dependent) or the 10 mg/L action level promulgated by the U.S Department of the interior[12].

This is highlighted in **Table 24** and **Figure 38** which show the reporting period data to be higher than the prior datapoints.

[10] Evans, P. (2025). Cambrian Limestone Aquifer – NT: Review & Discussion of Origin & Significance of Dissolved Methane. DRAFT Report NAH-0001-2025-Rev A. Report prepared by NA Hydro for inGauge Energy Pty Ltd, 14 January 2025.

Table 24 – C2 & C3 Summary Statistics of Methane Measurements in the Anthony Lagoon Aquifer – Before the Reporting Period

Methane mg/L	CMB (RN042463)	IMB (RN042462)
Minimum	0.01	0.01
Maximum	0.13	0.27
Average	0.03	0.04
20th percentile	0.01	0.01
80th percentile	0.06	0.09
Limit of detection	0.01	0.01
STD	0.03	0.07

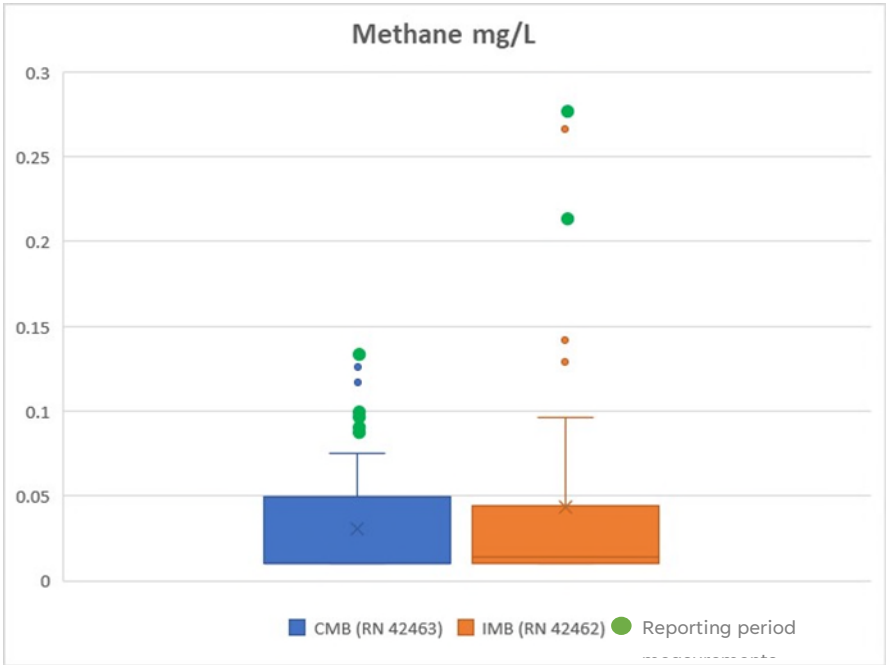

Figure 38 – Comparison of Methane Measurements in the Anthony Lagoon Aquifer – Before and During the Reporting Period

6.3.7 Water Level

Water levels in the Anthony Lagoon Aquifer prior to 2024 were monitored using Solinst Leveloggers, which measure pressure in the water column within a bore. These loggers were suspended on cables below the standing water level in designated impact monitoring bores. Leveloggers measure actual water column height and as such, measurements have been converted to standing water level. Recently, water levels have been measured manually using a dip tape.

Data points have remained consistent, with the Gum Ridge Aquifer maintaining a standing water level of approximately between 65 and 70 meters. Variations in logger measurements can be attributed to short-term disturbances during hydraulic fracturing, deployment height, equipment-related data spikes, interruptions caused by logger removal for data retrieval or redeployment of new devices.

The Anthony Lagoon Aquifer data can be seen in **Figure 39.**

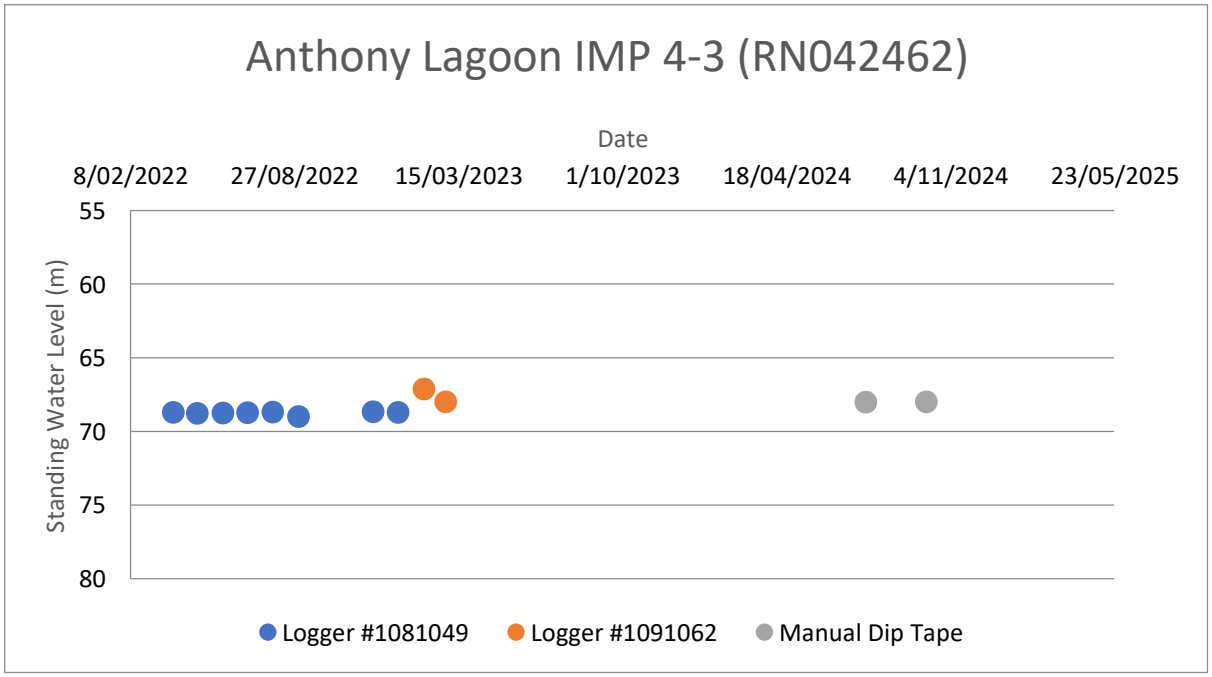

Figure 39 – Anthony Lagoon Aquifer Water Level

7 Conclusions

In conclusion, the Carpentaria 4 CMB consistently displays values that are consistent for the Gum Ridge Aquifer and will enable the establishment of a baseline comparison once an IMB is drilled.

For Carpentaria 2/3, a total of 106 analytes were tested for both the Gum Ridge Aquifer and the Anthony Lagoon Aquifer. Among these, six analytes were flagged for showing a notable increase in the IMB compared to the CMB, relative to the typical differences observed during the baseline period. The remaining analytes stayed within two standard deviations of the baseline average, indicating consistency with historical observations and suggesting that they are not influenced by any Imperial activities.

Of the six flagged analytes, one set showed matching results across both aquifers, leaving a total of five distinct analytes for further evaluation: Suspended Solids (Gum Ridge), Iron T (Gum Ridge), Manganese D (Anthony Lagoon), Iron D (Anthony Lagoon), and Methane (Anthony Lagoon). Further analysis of the raw data for Suspended Solids (Gum Ridge), Iron T (Gum Ridge), Manganese D (Anthony Lagoon) and Iron D (Anthony Lagoon) demonstrated that concentrations in the impact monitoring bores were consistent with those in the control monitoring bores, confirming that these results are not of concern.

NT Hydro Hydrologist Peter Evans was engaged to review the methane concentrations observed in the bores and provide recommendations. The methane data from the Empire Energy EP187 clearly show temporal fluctuation both increasing and decreasing that appears to be in response to drilling activities.

This is not particularly surprising as fluid losses during drilling of highly permeable carbonates can be extreme, and it can take a relatively long time for the impacts of drilling disturbance to subside. The introduction of drilling fluids and / or air can alter the existing water chemistry. It is possible that some drilling fluid additives (e.g. polymers) could act as a substrate for microbial production of methane[11].

The absence of any accompanying ethane, propane or other higher order hydrocarbons in these samples is encouraging. This is because the presence of such compounds would be

[11] Evans, P. (2025). Cambrian Limestone Aquifer – NT: Review & Discussion of Origin & Significance of Dissolved Methane. DRAFT Report NAH-0001-2025-Rev A. Report prepared by NA Hydro for inGauge Energy Pty Ltd, 14 January 2025.

reasonably strong (although not unequivocal) evidence that most likely fluids were migrating upwards from the Proterozoic age gas target formations[12].

It would be unwise to arrive at a conclusion that the groundwater impacts temporally associated with drilling indicate casing / cementing integrity issues leading to vertical system cross connection. One line of evidence for this are the instances of methane concentration increase followed by a decline in methane. In the absence of a workover remedial intervention, compromised wells rarely recover and vertical pathways induced by fractur stimulation would be expected to remain permanent[12].

The peak dissolved methane values recorded have been:

- 0.048 mg/L for RN042461, the Gum Ridge Formation Impact bore;
- <0.01 mg/L for RN042464, the Gum Ridge Formation control bore;
- <0.01 mg/L for RN043012, the Gum Ridge Formation control bore;
- 0.507 mg/L for RN042462, the Anthony Lagoon Beds impact bore; and
- 0.137 mg/L for RN042463, the Anthony Lagoon Beds control bore.

These peak values for dissolved methane in groundwater are still quite low and well below the U.S Department of the Interior 10 mg/L action value and nowhere near a 27 mg/L value for methane saturation that would lead to exsolving methane gas.

As such, it can be concluded that there were no negative environmental effects attributable to the petroleum activity in the groundwater observed during the reporting period.

Since the analysis of RN042461, RN042464, RN042462, RN042463 bore samples, conducted in accordance with Section B.4.17.2 of *the Code* has occurred for 3 years, site-specific standards are attached (see **Appendix B**) as per ministerial condition 5 iv. Therefore, this report marks the conclusion of the required groundwater sampling for RN042461, RN042464, RN042462, RN042463 bore and provides a sufficient data these bores to be considered as site specific control monitoring bores for any future activity in the same region.

As recommended by Peter Evans continued monitoring of RN042462 and RN042461 will occur until such time the methane concentration return to background levels.

[12] Evans, P. (2025). Cambrian Limestone Aquifer – NT: Review & Discussion of Origin & Significance of Dissolved Methane. DRAFT Report NAH-0001-2025-Rev A. Report prepared by NA Hydro for inGauge Energy Pty Ltd, 14 January 2025.

8 Appendix A – Groundwater Monitoring Data Tables

Page left blank intentionally.

RN042461

CARPENTARIA 2

Category	CHEMICAL NAME	FRACTION D/T/N	RESULT UNIT	LIMIT OF DETECTION	3/11/2021	14/11/2021	17/11/2021	21/11/2021	24/11/2021	28/11/2021	1/12/2021	8/12/2021	9/01/2022	26/01/2022	9/02/2022	23/02/2022	9/03/2022	23/03/2022	6/04/2022	20/07/2022	6/11/2022	2/01/2023	26/07/2023	24/10/2023	14/01/2024	22/05/2024	24/07/2024	6/10/2024
General, anions, cations and metal	pH - Lab	N	pH Unit	0.01	7.6	7.55	7.52	7	7.45	7.7	7.52	7.22	7.59	7.36	7.37	7.64	7.47	7.29	7.01	7.44	7.65	7	7.01	7.39	7.1	7.37	7.16	7.54
	Electrical Conductivity @ 25°C	N	µS/cm	1	1100	1090	1110	1070	1080	1090	1070	1040	1090	1080	1100	1100	1120	1020	1050	1100	1120	962	1100	1110.00	1080	1060	1110	1070
	Total Dissolved Solids @180°C	T	mg/L	10	713	605	598	744	820	680	706	732	766	682	716	754	744	644	562	617	574	605	640	638	684	665	666	632
	Suspended Solids (SS)	N	mg/L	1	----	3	2	1	<1	<1	<1	3	2	2	2	4	2	5	10	<1	<1	2	4	20	40	53	43	44
	Gross beta	T	Bq/L	0.10	0.33	0.45	0.34	0.39	0.36	0.34	0.34	0.37	0.26	0.21	0.24	0.31	0.36	---	0.31	0.39	0.33	0.41	0.3	0.3		0.29	0.19	0.30
	Hydroxide Alkalinity as CaCO3	T	mg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Carbonate Alkalinity as CaCO3	D	mg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Bicarbonate Alkalinity as CaCO3	D	mg/L	1	484	478	395	496	480	373	478	494	480	464	448	484	492	479	479	461	501	454	474	476	473	480	484	458
	Total Alkalinity as CaCO3	D	mg/L	1	484	478	395	496	480	373	478	494	480	464	448	484	492	479	479	461	501	454	474	476	473	480	484	458
	Sulfate as SO4 2-	N	mg/L	1	81	90	86	82	79	86	80	82	83	88	81	82	80	81	81	86	83	96	86	79	82	79	91	80
	Chloride	N	mg/L	1	61	59	54	60	55	60	60	54	56	76	54	61	56	62	55	60	56	54	67	76.00	57	56	53	54
	Calcium D	N	mg/L	1	129	131	116	127	124	125	134	125	122	138	139	139	130	129	132	124	133	103	135	118	155	113	113	136
	Magnesium D	N	mg/L	1	47	54	44	49	48	49	50	47	47	57	50	50	48	49	46	49	44	43	51	46	53	43	43	50
	Sodium D	N	mg/L	1	38	48	38	42	41	40	41	40	39	43	41	40	39	39	37	38	37	35	40	36	42	34	37	40
	Potassium D	D	mg/L	1	8	10	7	9	8	8	9	8	8	8	9	9	8	8	9	7	8	6	9	7	8	7	7	8
	Calcium T	D	mg/L	1	125	118	124	126	127	135	124	129	130	125	121	134	144	138	137	123	132	141	144	156	140	154	149	136
	Magnesium T	N	mg/L	1	51	47	48	50	49	50	50	50	50	49	48	52	51	55	51	52	55	48	53	52	51	54	48	53
	Sodium T	N	mg/L	1	36	43	41	41	42	41	43	42	40	37	39	41	41	42	41	40	43	40	42	41	40	43	42	41
	Potassium T	N	mg/L	1	7	8	8	8	9	9	8	8	8	7	7	8	8	9	8	7	9	9	10	8	10	9	9	8
	Arsenic D	N	mg/L	0.001	<0.001	0.003	0.002	0.003	<0.001	<0.001	0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Barium D	N	mg/L	0.001	0.089	0.552	0.342	0.279	0.302	0.238	0.258	0.234	0.155	0.125	0.156	0.148	0.141	0.134	0.131	0.102	0.129	0.09	0.103	0.088	0.101	0.083	0.09	0.102
	Cadmium D	N	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	Chromium D	D	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Copper D	T	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Lead D	T	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Lithium D	D	mg/L	0.001	0.038	0.042	0.036	0.046	0.04	0.04	0.042	0.04	0.04	0.027	0.04	0.04	0.039	0.038	0.039	0.043	0.037	0.033	0.043	0.04	0.041	0.033	0.038	0.04
	Manganese D	T	mg/L	0.001	0.012	1.32	0.781	0.688	0.662	0.56	0.569	0.455	0.337	0.264	0.326	0.285	0.246	0.18	0.117	0.049	0.267	0.058	0.034	0.027	0.038	0.033	0.034	0.041
	Selenium D	T	mg/L	0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Silver D	D	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Strontium D	T	mg/L	0.001	0.502	0.504	0.457	0.452	0.511	0.5	0.502	0.488	0.468	0.408	0.503	0.494	0.487	0.472	0.494	0.489	0.436	0.42	0.508	0.466	0.54	0.404	0.469	0.543
	Zinc D	D	mg/L	0.005	0.006	0.007	0.009	0.013	0.012	0.014	0.01	0.01	0.01	0.01	0.011	0.008	0.01	0.009	0.011	0.01	0.008	0.011	<0.005	0.013	0.011	0.007	0.008	0.008
	Boron D	T	mg/L	0.05	0.1	0.1	0.1	0.12	0.11	0.11	0.11	0.11	0.11	0.09	0.11	0.11	0.09	0.12	0.1	0.12	0.1	0.09	0.13	0.12	0.09	0.11	0.13	0.11
	Iron D	D	mg/L	0.05	0.22	1.37	0.48	0.49	0.24	0.14	0.27	0.53	0.41	0.26	0.5	0.53	0.76	0.89	1.11	<0.05	0.06	<0.05	0.6	0.1	0.39	0.26	0.2	0.17
	Arsenic T	T	mg/L	0.001	<0.001	0.002	0.002	0.001	0.001	0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	0.002	0.002	<0.001
	Barium T	D	mg/L	0.001	0.095	0.533	0.383	0.288	0.315	0.27	0.262	0.249	0.173	0.157	0.143	0.152	0.16	0.143	0.142	0.107	0.164	0.105	0.114	0.118	0.125	0.139	0.137	0.119
	Cadmium T	T	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	Chromium T	D	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Copper T	T	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Lead T	D	mg/L	0.001	<0.001	0.001	0.002	0.002	0.002	0.002	0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	0.002	<0.001	<0.001	0.002	0.001	0.002	<0.001
	Lithium T	T	mg/L	0.001	0.038	0.045	0.042	0.041	0.04	0.048	0.042	0.043	0.04	0.07	0.042	0.041	0.044	0.038	0.042	0.04	0.042	0.039	0.041	0.04	0.039	0.042	0.036	0.045
	Manganese T	D	mg/L	0.001	0.014	1.28	0.854	0.674	0.704	0.604	0.584	0.471	0.375	0.313	0.28	0.288	0.276	0.188	0.129	0.05	0.315	0.063	0.034	0.034	0.047	0.049	0.043	0.045
	Selenium T	T	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Silver T	T	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Strontium T	D	mg/L	0.001	0.53	0.489	0.495	0.51	0.518	0.542	0.514	0.506	0.531	0.508	0.461	0.502	0.578	0.513	0.506	0.513	0.534	0.491	0.548	0.54	0.522	0.568	0.608	0.534
	Zinc T	T	mg/L	0.005	0.008	0.01	0.012	0.015	0.016	0.015	0.014	0.014	0.013	0.009	0.014	0.011	0.013	0.011	0.016	0.009	0.01	0.013	0.005	0.023	0.026	0.027	0.026	0.016
	Boron T	T	mg/L	0.05	0.11	0.13	0.11	0.12	0.12	0.13	0.12	0.12	0.11	0.16	0.12	0.12	0.13	0.11	0.12	0.12	0.09	0.1	0.1	0.11	0.09	0.13	0.09	0.12
	Iron T	D	mg/L	0.05	0.29	1.44	0.81	0.69	0.63	0.43	0.8	1.43	1.22	0.7	1.66	1.42	2.14	1.62	5.01	0.06	0.28	0.14	1.95	7.77	14.8	22	18.4	10.9
	Mercury D	T	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	Mercury T	D	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	Reactive Silica	T	mg/L	0.05	32	28.9	29.8	30	30.4	31.5	30.6	31.5	31.6	30.4	31.4	30.5	30.4	31	30.2	31.4	31.5	29.9	32.9	33.60	32.8	32	31	33.3
	Fluoride	D	mg/L	0.1	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.6	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.30	0.4	0.4	0.5	0.3
	Nitrite as N	T	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Nitrate as N	T	mg/L	0.01	0.08	<0.01	0.01	0.02	0.01	0.01	0.01	0.02	0.04	0.04	0.03	0.04	0.05	0.08	0.02	0.07	0.02	0.06	0.05	0.02	0.03	0.01	0.03	0.03
	Nitrite + Nitrate as N	D	mg/L	0.01	0.08	<0.01	0.01	0.02	0.01	0.01	0.01	0.03	0.04	0.04	0.03	0.04	0.05	0.08	0.02	0.07	0.02	0.06	0.05	0.02	0.03	0.01	0.03	0.03
	Total Anions	T	meq/L	0.01	13.1	13.1	11.2	13.3	12.8	10.9	12.9	13.1	12.9	13.2	12.2	13.1	13.1	13	12.8	12.7	13.3	12.6	13.2	13.3	12.8	12.8	13.1	12.3
	Total Cations	T	meq/L	0.01	12.2	13.3	11.2	12.4	12.1	12.2	12.8	12	11.8	13.6	13.1	13	12.3	12.4	12.2	12	12.1	10.4	12.9	11.4	14.1	10.8	11	12.8
	Ionic Balance	N	%	0.01	3.62	0.89	0.16	3.43	2.65	5.53	0.36	4.18	4.2	1.51	3.58	0.29	2.9	2.5	2.38	2.59	4.91	9.75	0.95	7.6	5.06	8.37	8.71	2.01
Diss. pet. gases	Methane	N	µg/L	10	<10	<10	<10	<10	<10	<10	11	19	38	33	48	39	33	40	24	<10	<10	<10	23	32	35	26	34	45
	Ethane	N	µg/L	10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
	Propane	N	µg/L	10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
PAH Suite	Naphthalene	N	µg/L	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<0.1	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Acenaphthylene	N	µg/L	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Acenaphthene	N	µg/L	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Fluorene	N	µg/L	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Phenanthrene	N	µg/L	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Anthracene	N	µg/L	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Fluoranthene	N	µg/L	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Pyrene	N	µg/L	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Benz(a)anthracene	N	µg/L	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Chrysene	N	µg/L	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Benzo(b+j)fluoranthene	N	µg/L	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Benzo(k)fluoranthene	N	µg/L	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Benzo(a)pyrene	N	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
	Indeno(1.2.3.cd)pyrene	N	µg/L	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Dibenz(a.h)anthracene	N	µg/L	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Benzo(g.h.i)perylene	N	µg/L	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Sum of polycyclic aromatic hydrocarbons	N	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
	Benzo(a)pyrene TEQ (zero)	N	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
Total Recoverable Hydrocarbons	C6 - C9 Fraction	N	µg/L	20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
	C10 - C14 Fraction	N	µg/L	50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
	C15 - C28 Fraction	N	µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
	C29 - C36 Fraction	N	µg/L	50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
	C10 - C36 Fraction (sum)	N	µg/L	50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
	C6 - C10 Fraction	N	µg/L	20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
	C6 - C10 Fraction minus BTEX (F1)	N	µg/L	20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
	>C10 - C16 Fraction	N	µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
	>C16 - C34 Fraction	N	µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
	>C34 - C40 Fraction	N	µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
	>C10 - C40 Fraction (sum)	N	µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
	>C10 - C16 Fraction minus Naphthalene (F2)	N	µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
BTEXN, Alpha/Beta, Surrogates	Benzene	N	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Toluene	N	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	Ethylbenzene	N	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	meta- & para-Xylene	N	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	ortho-Xylene	N	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	Total Xylenes	N	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	Sum of BTEX	N	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Naphthalene	N	µg/L	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<0.1	<5	<0.1	<5	<5	<5	<5	<0.1	<5
	Gross alpha	N	Bq/L	0.05	0.2	0.33	0.25	0.31	0.23	0.25	0.24	0.26	0.21	0.22	0.18	0.2	0.15	---	0.14	0.22	0.2	0.22	0.19	0.18	---	0.18	0.36	0.19
	Gross beta activity - 40K	N	Bq/L	0.10	<0.10	0.22	0.11	0.17	0.14	0.12	0.11	0.16	<0.10	<0.10	<0.10	0.12	0.15	---	0.11	0.15	0.1	0.18	<0.10	<0.10	---	<0.10	0.11	<0.10
	Phenol-d6	N	%	1.0	26.5	24.4	26.6	18	22.7	26.7	22	24.4	32.9	15.6	24.9	25.2	---	---	---	---	---	---	---	---	---	---	0.00	28.60
	2-Chlorophenol-D4	N	%	1.0	55	53	55.4	37.7	52.8	54.7	55.6	59	64	46.7	42.4	53.9	---	---	---	---	---	---	---	---	---	---	0.00	79.30
	2.4.6-Tribromophenol	N	%	1.0	63.9	57.5	52	59.2	59.2	58.5	52	45.5	77	31.5	76.9	64.3	---	---	---	---	---	---	---	---	---	---	0.00	94.60
	2-Fluorobiphenyl	N	%	1.0	57.8	65.4	62.9	55.5	67.6	64.2	65.9	64.5	68.4	58.4	62.3	63.5	60.1	53.5	57.4	53.8	47.2	43.7	70.8	50.3	75.2	62.9	74	94.9
	Anthracene-d10	N	%	1.0	74.4	83.6	89.8	83.9	81.7	81.2	76.7	87.8	91.2	70.8	68.3	81.6	78.5	80.1	95.1	67.8	63.7	61.6	78.8	52.2	79.2	72.7	76.7	76.4
	4-Terphenyl-d14	N	%	1.0	80.5	90.8	88.7	92	80.8	92.5	96.6	99.9	91.3	72.8	67	91	66.6	73.4	88.8	75.1	66.2	71	78.7	54	82.8	74.3	81.5	79.1
	1.2-Dichloroethane-D4	N	%	2	112	96.6	86.6	123	120	118	113	132	99.5	91	110	126	102	91.4	104	119	100	107	93.1	84.2	103	96.8	102	105
	Toluene-D8	N	%	2	116	97	84.4	104	106	101	112	108	109	111	106	110	114	98.1	107	103	107	99.3	106	84	97.1	112	93.7	96
	4-Bromofluorobenzene	N	%	2	118	93.9	90.2	117	121	95.2	110	112	110	105	111	108	113	90.4	114	100	110	103	130	85.6	94.5	126	89	95.8

RN042461

CARPENTARIA 2

Statistics for All Data *

Category	CHEMICAL NAME	FRACTION D/T/N	RESULT UNIT	No. results	Min	Q1	Median	Mean	Q3	Max	20th Percentile	80th Percentile	Standard Deviation	LIMIT OF DETECTION
General, anions, cations and metal	pH - Lab	N	pH Unit	24	7.00	7.18	7.42	7.37	7.55	7.70	7.10	7.59	0.22	0.01
	Electrical Conductivity @ 25°C	N	µS/cm	24	962.00	1070.00	1090.00	1080.08	1100.00	1120.00	1060.00	1110.00	34.72	1
	Total Dissolved Solids @180°C	T	mg/L	24	562.00	620.75	673.00	674.46	728.00	820.00	605.00	744.00	64.61	10
	Suspended Solids (SS)	N	mg/L	23	1.00	1.00	2.00	10.74	10.00	53.00	1.00	24.00	16.35	1
	Gross beta	T	Bq/L	22	0.19	0.30	0.33	0.32	0.36	0.45	0.28	0.38	0.06	0.1
	Hydroxide Alkalinity as CaCO3	T	mg/L	24	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1
	Carbonate Alkalinity as CaCO3	D	mg/L	24	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1
	Bicarbonate Alkalinity as CaCO3	D	mg/L	24	373.00	461.75	478.50	469.38	484.00	501.00	458.00	484.00	28.84	1
	Total Alkalinity as CaCO3	D	mg/L	24	373.00	461.75	478.50	469.38	484.00	501.00	458.00	484.00	28.84	1
	Sulfate as SO4 2-	N	mg/L	24	79.00	80.25	82.00	83.50	86.00	96.00	80.00	86.00	4.24	1
	Chloride	N	mg/L	24	53.00	54.25	56.50	59.00	60.75	76.00	54.00	61.00	6.11	1
	Calcium D	N	mg/L	24	103.00	122.50	129.00	127.92	134.75	155.00	118.00	136.00	10.57	1
	Magnesium D	N	mg/L	24	43.00	46.00	48.50	48.21	50.00	57.00	44.00	50.00	3.46	1
	Sodium D	N	mg/L	24	34.00	37.25	39.50	39.38	41.00	48.00	37.00	41.00	2.84	1
	Potassium D	D	mg/L	24	6.00	7.25	8.00	8.04	9.00	10.00	7.00	9.00	0.89	1
	Calcium T	D	mg/L	24	118.00	125.00	133.00	133.83	140.75	156.00	124.00	144.00	10.18	1
	Magnesium T	N	mg/L	24	47.00	49.00	50.50	50.71	52.00	55.00	48.00	53.00	2.19	1
	Sodium T	N	mg/L	24	36.00	40.00	41.00	40.92	42.00	43.00	40.00	42.00	1.71	1
	Potassium T	N	mg/L	24	7.00	8.00	8.00	8.29	9.00	10.00	8.00	9.00	0.84	1
	Arsenic D	N	mg/L	24	0.001	0.001	0.001	0.001	0.001	0.003	0.001	0.001	0.001	0.001
	Barium D	N	mg/L	24	0.083	0.101	0.133	0.174	0.237	0.552	0.090	0.258	0.108	0.001
	Cadmium D	N	mg/L	24	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0	0.0001
	Chromium D	D	mg/L	24	0.001	0.001	0.001	0.001	0.001	0.002	0.001	0.001	0	0.001
	Copper D	T	mg/L	24	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0	0.001
	Lead D	T	mg/L	24	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0	0.001
	Lithium D	D	mg/L	24	0.027	0.038	0.040	0.039	0.041	0.046	0.037	0.042	0.004	0.001
	Manganese D	T	mg/L	24	0.012	0.039	0.255	0.308	0.534	1.320	0.034	0.569	0.316	0.001
	Selenium D	T	mg/L	24	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0	0.01
	Silver D	D	mg/L	24	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0	0.001
	Strontium D	T	mg/L	24	0.404	0.459	0.489	0.480	0.503	0.543	0.452	0.504	0.036	0.001
	Zinc D	D	mg/L	24	0.005	0.008	0.010	0.010	0.011	0.014	0.008	0.011	0.002	0.005
	Boron D	T	mg/L	24	0.09	0.10	0.11	0.11	0.12	0.13	0.10	0.12	0.01	0.05
	Iron D	D	mg/L	24	0.05	0.18	0.33	0.42	0.53	1.37	0.14	0.60	0.33	0.05
	Arsenic T	T	mg/L	24	0.001	0.001	0.001	0.001	0.001	0.002	0.001	0.001	0	0.001
	Barium T	D	mg/L	24	0.095	0.121	0.148	0.191	0.259	0.533	0.118	0.270	0.103	0.001
	Cadmium T	T	mg/L	24	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0	0.0001
	Chromium T	D	mg/L	24	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0	0.001
	Copper T	T	mg/L	24	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0	0.001
	Lead T	D	mg/L	24	0.001	0.001	0.001	0.001	0.002	0.002	0.001	0.002	0	0.001
	Lithium T	T	mg/L	24	0.036	0.040	0.042	0.043	0.043	0.070	0.039	0.044	0.006	0.001
	Manganese T	D	mg/L	24	0.014	0.048	0.278	0.321	0.556	1.280	0.045	0.604	0.317	0.001
	Selenium T	T	mg/L	24	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0	0.01
	Silver T	T	mg/L	24	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0	0.001
	Strontium T	D	mg/L	24	0.461	0.506	0.516	0.523	0.539	0.608	0.502	0.542	0.031	0.001
	Zinc T	T	mg/L	24	0.005	0.010	0.014	0.014	0.016	0.027	0.010	0.016	0.006	0.005
	Boron T	T	mg/L	24	0.09	0.11	0.12	0.12	0.12	0.16	0.10	0.13	0.02	0.05
	Iron T	D	mg/L	24	0.06	0.65	1.43	4.02	4.29	22.00	0.43	7.77	6.06	0.05
	Mercury D	T	mg/L	24	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0	0.0001
	Mercury T	D	mg/L	24	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0	0.0001
	Reactive Silica	T	mg/L	24	28.90	30.40	31.20	31.19	31.90	33.60	30.20	32.00	1.15	0.05
	Fluoride	D	mg/L	24	0.30	0.40	0.40	0.40	0.40	0.60	0.40	0.40	0.06	0.1
	Nitrite as N	T	mg/L	24	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0	0.01
	Nitrate as N	T	mg/L	24	0.01	0.01	0.03	0.03	0.05	0.08	0.01	0.05	0.02	0.01
	Nitrite + Nitrate as N	D	mg/L	24	0.01	0.01	0.03	0.03	0.05	0.08	0.01	0.05	0.02	0.01
	Total Anions	T	meq/L	24	10.90	12.73	12.95	12.78	13.10	13.30	12.60	13.20	0.59	0.01
	Total Cations	T	meq/L	24	10.40	11.85	12.20	12.25	12.88	14.10	11.40	13.00	0.87	0.01
	Ionic Balance	N	%	24	0.16	1.64	3.17	3.67	5.02	9.75	0.95	5.53	2.67	0.01
Diss. pet. gases	Methane	N	mg/L	24	10.00	10.00	23.50	23.75	34.75	48.00	10.00	38.00	13.07	0.01
	Ethane	N	µg/L	24	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	0	10
	Propane	N	µg/L	24	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	0	10
PAH Suite **	Naphthalene	N	µg/L	24	0.10	0.10	1.00	0.90	1.00	5.00	0.10	1.00	0	1
	Acenaphthylene	N	µg/L	24	0.10	0.10	1.00	0.70	1.00	1.00	0.10	1.00	0	1
	Acenaphthene	N	µg/L	24	0.10	0.10	1.00	0.70	1.00	1.00	0.10	1.00	0	1
	Fluorene	N	µg/L	24	0.10	0.10	1.00	0.70	1.00	1.00	0.10	1.00	0	1
	Phenanthrene	N	µg/L	24	0.10	0.10	1.00	0.70	1.00	1.00	0.10	1.00	0	1
	Anthracene	N	µg/L	24	0.10	0.10	1.00	0.70	1.00	1.00	0.10	1.00	0	1
	Fluoranthene	N	µg/L	24	0.10	0.10	1.00	0.70	1.00	1.00	0.10	1.00	0	1
	Pyrene	N	µg/L	24	0.10	0.10	1.00	0.70	1.00	1.00	0.10	1.00	0	1
	Benz(a)anthracene	N	µg/L	24	0.10	0.10	1.00	0.70	1.00	1.00	0.10	1.00	0	1
	Chrysene	N	µg/L	24	0.10	0.10	1.00	0.70	1.00	1.00	0.10	1.00	0	1
	Benzo(b+j)fluoranthene	N	µg/L	24	0.10	0.10	1.00	0.70	1.00	1.00	0.10	1.00	0	1
	Benzo(k)fluoranthene	N	µg/L	24	0.10	0.10	1.00	0.70	1.00	1.00	0.10	1.00	0	1
	Benzo(a)pyrene	N	µg/L	24	0.05	0.05	0.50	0.35	0.50	0.50	0.05	0.50	0	0.5
	Indeno(1.2.3.cd)pyrene	N	µg/L	24	0.10	0.10	1.00	0.74	1.00	1.00	0.10	1.00	0	1
	Dibenz(a.h)anthracene	N	µg/L	24	0.10	0.10	1.00	0.74	1.00	1.00	0.10	1.00	0	1
	Benzo(g.h.i)perylene	N	µg/L	24	0.10	0.10	1.00	0.74	1.00	1.00	0.10	1.00	0	1
	Sum of polycyclic aromatic hydrocarbons	N	µg/L	24	0.05	0.05	0.50	0.35	0.50	0.50	0.05	0.50	0	0.5
	Benzo(a)pyrene TEQ (zero)	N	µg/L	24	0.05	0.05	0.50	0.35	0.50	0.50	0.05	0.50	0	0.5
Total Recoverable Hydrocarbons	C6 - C9 Fraction	N	µg/L	24	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	0	20
	C10 - C14 Fraction	N	µg/L	24	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	0	50
	C15 - C28 Fraction	N	µg/L	24	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	0	100
	C29 - C36 Fraction	N	µg/L	24	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	0	50
	C10 - C36 Fraction (sum)	N	µg/L	24	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	0	50
	C6 - C10 Fraction	N	µg/L	24	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	0	20
	C6 - C10 Fraction minus BTEX (F1)	N	µg/L	24	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	0	20
	>C10 - C16 Fraction	N	µg/L	24	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	0	100
	>C16 - C34 Fraction	N	µg/L	24	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	0	100
	>C34 - C40 Fraction	N	µg/L	24	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	0	100
	>C10 - C40 Fraction (sum)	N	µg/L	24	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	0	100
	>C10 - C16 Fraction minus Naphthalene (F2)	N	µg/L	24	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	0	100
BTEXN, Alpha/Beta, Surrogates	Benzene	N	µg/L	24	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0	1
	Toluene	N	µg/L	24	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0	2
	Ethylbenzene	N	µg/L	24	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0	2
	meta- & para-Xylene	N	µg/L	24	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0	2
	ortho-Xylene	N	µg/L	24	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0	2
	Total Xylenes	N	µg/L	24	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0	2
	Sum of BTEX	N	µg/L	24	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0	1
	Naphthalene **	N	µg/L	24	0.10	1.00	1.00	1.89	4.00	5.00	1.00	5.00	0	1
	Gross alpha	N	Bq/L	22	0.14	0.19	0.22	0.22	0.25	0.36	0.18	0.25	0.05	0.05
	Gross beta activity - 40K	N	Bq/L	22	0.10	0.10	0.11	0.13	0.15	0.22	0.10	0.15	0.03	0.1
	Phenol-d6	N	%	14	<1	21.00	24.65	22.75	26.63	32.90	18.00	26.70	7.51	1
	2-Chlorophenol-D4	N	%	14	<1	45.63	54.30	50.68	56.45	79.30	42.40	59.00	16.88	1
	2.4.6-Tribromophenol	N	%	14	<1	50.38	58.85	56.58	67.45	94.60	45.50	76.90	21.38	1
	2-Fluorobiphenyl	N	%	24	43.70	55.98	62.90	62.51	67.18	94.90	53.80	68.40	10.23	1
	Anthracene-d10	N	%	24	52.20	71.28	78.65	77.24	83.13	95.10	68.30	83.90	9.65	1
	4-Terphenyl-d14	N	%	24	54.00	72.95	80.65	80.64	90.95	99.90	71.00	91.30	11.07	1
	1.2-Dichloroethane-D4	N	%	24	84.20	96.65	103.50	105.63	116.75	132.00	93.10	119.00	12.46	2
	Toluene-D8	N	%	24	84.00	97.35	106.00	103.40	109.75	116.00	97.00	111.00	8.26	2
	4-Bromofluorobenzene	N	%	24	85.60	94.68	109.00	105.94	113.75	130.00	93.90	117.00	11.96	2

CHEMICAL NAME	3/11/2021	14/11/2021	17/11/2021	21/11/2021	24/11/2021	28/11/2021	1/12/2021	8/12/2021	9/01/2022	26/01/2022	9/02/2022	23/02/2022
pH - Lab	7.6	7.55	7.52	7	7.45	7.7	7.52	7.22	7.59	7.36	7.37	7.64
Electrical Conductivity @ 25°C	1100	1090	1110	1070	1080	1090	1070	1040	1090	1080	1100	1100
Total Dissolved Solids @180°C	713	605	598	744	820	680	706	732	766	682	716	754
Suspended Solids (SS)	-	3	2	1	1	1	1	3	2	2	2	4
Gross beta	0.33	0.45	0.34	0.39	0.36	0.34	0.34	0.37	0.26	0.21	0.24	0.31
Hydroxide Alkalinity as CaCO3	1	1	1	1	1	1	1	1	1	1	1	1
Carbonate Alkalinity as CaCO3	1	1	1	1	1	1	1	1	1	1	1	1
Bicarbonate Alkalinity as CaCO3	484	478	395	496	480	373	478	494	480	464	448	484
Total Alkalinity as CaCO3	484	478	395	496	480	373	478	494	480	464	448	484
Sulfate as SO4 2-	81	90	86	82	79	86	80	82	83	88	81	82
Chloride	61	59	54	60	55	60	60	54	56	76	54	61
Calcium D	129	131	116	127	124	125	134	125	122	138	139	139
Magnesium D	47	54	44	49	48	49	50	47	47	57	50	50
Sodium D	38	48	38	42	41	40	41	40	39	43	41	40
Potassium D	8	10	7	9	8	8	9	8	8	8	9	9
Calcium T	125	118	124	126	127	135	124	129	130	125	121	134
Magnesium T	51	47	48	50	49	50	50	50	50	49	48	52
Sodium T	36	43	41	41	42	41	43	42	40	37	39	41
Potassium T	7	8	8	8	9	9	8	8	8	7	7	8
Arsenic D	0.001	0.003	0.002	0.003	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Barium D	0.089	0.552	0.342	0.279	0.302	0.238	0.258	0.234	0.155	0.125	0.156	0.148
Cadmium D	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
Chromium D	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Copper D	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Lead D	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Lithium D	0.038	0.042	0.036	0.046	0.04	0.04	0.042	0.04	0.04	0.027	0.04	0.04
Manganese D	0.012	1.32	0.781	0.688	0.662	0.56	0.569	0.455	0.337	0.264	0.326	0.285
Selenium D	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Silver D	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Strontium D	0.502	0.504	0.457	0.452	0.511	0.5	0.502	0.488	0.468	0.408	0.503	0.494
Zinc D	0.006	0.007	0.009	0.013	0.012	0.014	0.01	0.01	0.01	0.01	0.011	0.008
Boron D	0.1	0.1	0.1	0.12	0.11	0.11	0.11	0.11	0.11	0.09	0.11	0.11
Iron D	0.22	1.37	0.48	0.49	0.24	0.14	0.27	0.53	0.41	0.26	0.5	0.53
Arsenic T	0.001	0.002	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Barium T	0.095	0.533	0.383	0.288	0.315	0.27	0.262	0.249	0.173	0.157	0.143	0.152
Cadmium T	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
Chromium T	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Copper T	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Lead T	0.001	0.001	0.002	0.002	0.002	0.002	0.001	0.002	0.001	0.001	0.001	0.001
Lithium T	0.038	0.045	0.042	0.041	0.04	0.048	0.042	0.043	0.04	0.07	0.042	0.041
Manganese T	0.014	1.28	0.854	0.674	0.704	0.604	0.584	0.471	0.375	0.313	0.28	0.288
Selenium T	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Silver T	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Strontium T	0.53	0.489	0.495	0.51	0.518	0.542	0.514	0.506	0.531	0.508	0.461	0.502
Zinc T	0.008	0.01	0.012	0.015	0.016	0.015	0.014	0.014	0.013	0.009	0.014	0.011
Boron T	0.11	0.13	0.11	0.12	0.12	0.13	0.12	0.12	0.11	0.16	0.12	0.12
Iron T	0.29	1.44	0.81	0.69	0.63	0.43	0.8	1.43	1.22	0.7	1.66	1.42
Mercury D	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
Mercury T	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
Reactive Silica	32	28.9	29.8	30	30.4	31.5	30.6	31.5	31.6	30.4	31.4	30.5
Fluoride	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.6	0.4
Nitrite as N	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Nitrate as N	0.08	0.01	0.01	0.02	0.01	0.01	0.01	0.02	0.04	0.04	0.03	0.04
Nitrite + Nitrate as N	0.08	0.01	0.01	0.02	0.01	0.01	0.01	0.03	0.04	0.04	0.03	0.04
Total Anions	13.1	13.1	11.2	13.3	12.8	10.9	12.9	13.1	12.9	13.2	12.2	13.1
Total Cations	12.2	13.3	11.2	12.4	12.1	12.2	12.8	12	11.8	13.6	13.1	13
Ionic Balance	3.62	0.89	0.16	3.43	2.65	5.53	0.36	4.18	4.2	1.51	3.58	0.29
Methane	10	10	10	10	10	10	11	19	38	33	48	39
Ethane	10	10	10	10	10	10	10	10	10	10	10	10
Propane	10	10	10	10	10	10	10	10	10	10	10	10
Naphthalene	1	1	1	1	1	1	1	1	1	1	1	1
Acenaphthylene	1	1	1	1	1	1	1	1	1	1	1	1
Acenaphthene	1	1	1	1	1	1	1	1	1	1	1	1
Fluorene	1	1	1	1	1	1	1	1	1	1	1	1
Phenanthrene	1	1	1	1	1	1	1	1	1	1	1	1
Anthracene	1	1	1	1	1	1	1	1	1	1	1	1
Fluoranthene	1	1	1	1	1	1	1	1	1	1	1	1
Pyrene	1	1	1	1	1	1	1	1	1	1	1	1
Benz(a)anthracene	1	1	1	1	1	1	1	1	1	1	1	1
Chrysene	1	1	1	1	1	1	1	1	1	1	1	1
Benzo(b+j)fluoranthene	1	1	1	1	1	1	1	1	1	1	1	1
Benzo(k)fluoranthene	1	1	1	1	1	1	1	1	1	1	1	1
Benzo(a)pyrene	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Indeno(1.2.3.cd)pyrene	1	1	1	1	1	1	1	1	1	1	1	1
Dibenz(a.h)anthracene	1	1	1	1	1	1	1	1	1	1	1	1
Benzo(g.h.i)perylene	1	1	1	1	1	1	1	1	1	1	1	1
Sum of polycyclic aromatic hydrocarbons	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Benzo(a)pyrene TEQ (zero)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
C6 - C9 Fraction	20	20	20	20	20	20	20	20	20	20	20	20
C10 - C14 Fraction	50	50	50	50	50	50	50	50	50	50	50	50
C15 - C28 Fraction	100	100	100	100	100	100	100	100	100	100	100	100
C29 - C36 Fraction	50	50	50	50	50	50	50	50	50	50	50	50
C10 - C36 Fraction (sum)	50	50	50	50	50	50	50	50	50	50	50	50
C6 - C10 Fraction	20	20	20	20	20	20	20	20	20	20	20	20
C6 - C10 Fraction minus BTEX (F1)	20	20	20	20	20	20	20	20	20	20	20	20
>C10 - C16 Fraction	100	100	100	100	100	100	100	100	100	100	100	100
>C16 - C34 Fraction	100	100	100	100	100	100	100	100	100	100	100	100
>C34 - C40 Fraction	100	100	100	100	100	100	100	100	100	100	100	100
>C10 - C40 Fraction (sum)	100	100	100	100	100	100	100	100	100	100	100	100
>C10 - C16 Fraction minus Naphthalene (F2)	100	100	100	100	100	100	100	100	100	100	100	100
Benzene	1	1	1	1	1	1	1	1	1	1	1	1
Toluene	2	2	2	2	2	2	2	2	2	2	2	2
Ethylbenzene	2	2	2	2	2	2	2	2	2	2	2	2
meta- & para-Xylene	2	2	2	2	2	2	2	2	2	2	2	2
ortho-Xylene	2	2	2	2	2	2	2	2	2	2	2	2
Total Xylenes	2	2	2	2	2	2	2	2	2	2	2	2
Sum of BTEX	1	1	1	1	1	1	1	1	1	1	1	1
Naphthalene **	1	1	1	1	1	1	1	1	1	1	1	1
Gross alpha	0.2	0.33	0.25	0.31	0.23	0.25	0.24	0.26	0.21	0.22	0.18	0.2
Gross beta activity - 40K	0.1	0.22	0.11	0.17	0.14	0.12	0.11	0.16	0.1	0.1	0.1	0.12
Phenol-d6	26.5	24.4	26.6	18	22.7	26.7	22	24.4	32.9	15.6	24.9	25.2
2-Chlorophenol-D4	55	53	55.4	37.7	52.8	54.7	55.6	59	64	46.7	42.4	53.9
2.4.6-Tribromophenol	63.9	57.5	52	59.2	59.2	58.5	52	45.5	77	31.5	76.9	64.3
2-Fluorobiphenyl	57.8	65.4	62.9	55.5	67.6	64.2	65.9	64.5	68.4	58.4	62.3	63.5
Anthracene-d10	74.4	83.6	89.8	83.9	81.7	81.2	76.7	87.8	91.2	70.8	68.3	81.6
4-Terphenyl-d14	80.5	90.8	88.7	92	80.8	92.5	96.6	99.9	91.3	72.8	67	91
1.2-Dichloroethane-D4	112	96.6	86.6	123	120	118	113	132	99.5	91	110	126
Toluene-D8	116	97	84.4	104	106	101	112	108	109	111	106	110
4-Bromofluorobenzene	118	93.9	90.2	117	121	95.2	110	112	110	105	111	108

CHEMICAL NAME	9/03/2022	23/03/2022	6/04/2022	20/07/2022	6/11/2022	2/01/2023	26/07/2023	24/10/2023	14/01/2024	22/05/2024	24/07/2024	6/10/2024
pH - Lab	7.47	7.29	7.01	7.44	7.65	7	7.01	7.39	7.1	7.37	7.16	7.54
Electrical Conductivity @ 25°C	1120	1020	1050	1100	1120	962	1100	1110	1080	1060	1110	1070
Total Dissolved Solids @180°C	744	644	562	617	574	605	640	638	684	665	666	632
Suspended Solids (SS)	2	5	10	1	1	2	4	20	40	53	43	44
Gross beta	0.36	-	0.31	0.39	0.33	0.41	0.3	0.3	-	0.29	0.19	0.3
Hydroxide Alkalinity as CaCO3	1	1	1	1	1	1	1	1	1	1	1	1
Carbonate Alkalinity as CaCO3	1	1	1	1	1	1	1	1	1	1	1	1
Bicarbonate Alkalinity as CaCO3	492	479	479	461	501	454	474	476	473	480	484	458
Total Alkalinity as CaCO3	492	479	479	461	501	454	474	476	473	480	484	458
Sulfate as SO4 2-	80	81	81	86	83	96	86	79	82	79	91	80
Chloride	56	62	55	60	56	54	67	76	57	56	53	54
Calcium D	130	129	132	124	133	103	135	118	155	113	113	136
Magnesium D	48	49	46	49	44	43	51	46	53	43	43	50
Sodium D	39	39	37	38	37	35	40	36	42	34	37	40
Potassium D	8	8	9	7	8	6	9	7	8	7	7	8
Calcium T	144	138	137	123	132	141	144	156	140	154	149	136
Magnesium T	51	55	51	52	55	48	53	52	51	54	48	53
Sodium T	41	42	41	40	43	40	42	41	40	43	42	41
Potassium T	8	9	8	7	9	9	10	8	10	9	9	8
Arsenic D	0.001	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Barium D	0.141	0.134	0.131	0.102	0.129	0.09	0.103	0.088	0.101	0.083	0.09	0.102
Cadmium D	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
Chromium D	0.001	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Copper D	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Lead D	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Lithium D	0.039	0.038	0.039	0.043	0.037	0.033	0.043	0.04	0.041	0.033	0.038	0.04
Manganese D	0.246	0.18	0.117	0.049	0.267	0.058	0.034	0.027	0.038	0.033	0.034	0.041
Selenium D	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Silver D	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Strontium D	0.487	0.472	0.494	0.489	0.436	0.42	0.508	0.466	0.54	0.404	0.469	0.543
Zinc D	0.01	0.009	0.011	0.01	0.008	0.011	0.005	0.013	0.011	0.007	0.008	0.008
Boron D	0.09	0.12	0.1	0.12	0.1	0.09	0.13	0.12	0.09	0.11	0.13	0.11
Iron D	0.76	0.89	1.11	0.05	0.06	0.05	0.6	0.1	0.39	0.26	0.2	0.17
Arsenic T	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.002	0.001
Barium T	0.16	0.143	0.142	0.107	0.164	0.105	0.114	0.118	0.125	0.139	0.137	0.119
Cadmium T	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
Chromium T	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Copper T	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Lead T	0.001	0.001	0.001	0.001	0.001	0.002	0.001	0.001	0.002	0.001	0.002	0.001
Lithium T	0.044	0.038	0.042	0.04	0.042	0.039	0.041	0.04	0.039	0.042	0.036	0.045
Manganese T	0.276	0.188	0.129	0.05	0.315	0.063	0.034	0.034	0.047	0.049	0.043	0.045
Selenium T	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Silver T	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Strontium T	0.578	0.513	0.506	0.513	0.534	0.491	0.548	0.54	0.522	0.568	0.608	0.534
Zinc T	0.013	0.011	0.016	0.009	0.01	0.013	0.005	0.023	0.026	0.027	0.026	0.016
Boron T	0.13	0.11	0.12	0.12	0.09	0.1	0.1	0.11	0.09	0.13	0.09	0.12
Iron T	2.14	1.62	5.01	0.06	0.28	0.14	1.95	7.77	14.8	22	18.4	10.9
Mercury D	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
Mercury T	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
Reactive Silica	30.4	31	30.2	31.4	31.5	29.9	32.9	33.6	32.8	32	31	33.3
Fluoride	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.5	0.3
Nitrite as N	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Nitrate as N	0.05	0.08	0.02	0.07	0.02	0.06	0.05	0.02	0.03	0.01	0.03	0.03
Nitrite + Nitrate as N	0.05	0.08	0.02	0.07	0.02	0.06	0.05	0.02	0.03	0.01	0.03	0.03
Total Anions	13.1	13	12.8	12.7	13.3	12.6	13.2	13.3	12.8	12.8	13.1	12.3
Total Cations	12.3	12.4	12.2	12	12.1	10.4	12.9	11.4	14.1	10.8	11	12.8
Ionic Balance	2.9	2.5	2.38	2.59	4.91	9.75	0.95	7.6	5.06	8.37	8.71	2.01
Methane	33	40	24	10	10	10	23	32	35	26	34	45
Ethane	10	10	10	10	10	10	10	10	10	10	10	10
Propane	10	10	10	10	10	10	10	10	10	10	10	10
Naphthalene	1	1	1	0.1	5	0.1	0.1	0.1	0.1	0.1	0.1	1
Acenaphthylene	1	1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1
Acenaphthene	1	1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1
Fluorene	1	1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1
Phenanthrene	1	1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1
Anthracene	1	1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1
Fluoranthene	1	1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1
Pyrene	1	1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1
Benz(a)anthracene	1	1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1
Chrysene	1	1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1
Benzo(b+j)fluoranthene	1	1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1
Benzo(k)fluoranthene	1	1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1
Benzo(a)pyrene	0.5	0.5	0.5	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.5
Indeno(1.2.3.cd)pyrene	1	1	1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1
Dibenz(a.h)anthracene	1	1	1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1
Benzo(g.h.i)perylene	1	1	1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1
Sum of polycyclic aromatic hydrocarbons	0.5	0.5	0.5	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.5
Benzo(a)pyrene TEQ (zero)	0.5	0.5	0.5	0.05	0.05	0.1	0.05	0.05	0.05	0.05	0.05	0.5
C6 - C9 Fraction	20	20	20	20	20	20	20	20	20	20	20	20
C10 - C14 Fraction	50	50	50	50	50	50	50	50	50	50	50	50
C15 - C28 Fraction	100	100	100	100	100	100	100	100	100	100	100	100
C29 - C36 Fraction	50	50	50	50	50	50	50	50	50	50	50	50
C10 - C36 Fraction (sum)	50	50	50	50	50	50	50	50	50	50	50	50
C6 - C10 Fraction	20	20	20	20	20	20	20	20	20	20	20	20
C6 - C10 Fraction minus BTEX (F1)	20	20	20	20	20	20	20	20	20	20	20	20
>C10 - C16 Fraction	100	100	100	100	100	100	100	100	100	100	100	100
>C16 - C34 Fraction	100	100	100	100	100	100	100	100	100	100	100	100
>C34 - C40 Fraction	100	100	100	100	100	100	100	100	100	100	100	100
>C10 - C40 Fraction (sum)	100	100	100	100	100	100	100	100	100	100	100	100
>C10 - C16 Fraction minus Naphthalene (F2)	100	100	100	100	100	100	100	100	100	100	100	100
Benzene	1	1	1	1	1	1	1	1	1	1	1	1
Toluene	2	2	2	2	2	2	2	2	2	2	2	2
Ethylbenzene	2	2	2	2	2	2	2	2	2	2	2	2
meta- & para-Xylene	2	2	2	2	2	2	2	2	2	2	2	2
ortho-Xylene	2	2	2	2	2	2	2	2	2	2	2	2
Total Xylenes	2	2	2	2	2	2	2	2	2	2	2	2
Sum of BTEX	1	1	1	1	1	1	1	1	1	1	1	1
Naphthalene **	1	1	1	0.1	5	0.1	5	5	5	5	0.1	5
Gross alpha	0.15	-	0.14	0.22	0.2	0.22	0.19	0.18	-	0.18	0.36	0.19
Gross beta activity - 40K	0.15	-	0.11	0.15	0.1	0.18	0.1	0.1	-	0.1	0.11	0.1
Phenol-d6	-	-	-	-	-	-	-	-	-	-	0	28.6
2-Chlorophenol-D4	-	-	-	-	-	-	-	-	-	-	0	79.3
2.4.6-Tribromophenol	-	-	-	-	-	-	-	-	-	-	0	94.6
2-Fluorobiphenyl	60.1	53.5	57.4	53.8	47.2	43.7	70.8	50.3	75.2	62.9	74	94.9
Anthracene-d10	78.5	80.1	95.1	67.8	63.7	61.6	78.8	52.2	79.2	72.7	76.7	76.4
4-Terphenyl-d14	66.6	73.4	88.8	75.1	66.2	71	78.7	54	82.8	74.3	81.5	79.1
1.2-Dichloroethane-D4	102	91.4	104	119	100	107	93.1	84.2	103	96.8	102	105
Toluene-D8	114	98.1	107	103	107	99.3	106	84	97.1	112	93.7	96
4-Bromofluorobenzene	113	90.4	114	100	110	103	130	85.6	94.5	126	89	95.8

*All readings below the limit of detection (LOD) have been assumed to be equal to the limit of detection.

** Limit of detection has changed, all readings are equal to limit of detection (LOD)

RN042464

CARPENTARIA 2

Category	CHEMICAL NAME	FRACTION D/T/N	RESULT UNIT	LIMIT OF DETECTION	3/11/2021	14/11/2021	17/11/2021	21/11/2021	24/11/2021	28/11/2021	1/12/2021	8/12/2021	9/01/2022	26/01/2022	9/02/2022	23/02/2022	9/03/2022	23/03/2022	6/04/2022	20/07/2022	6/11/2022	2/01/2023	26/04/2023	26/07/2023	24/10/2023	14/01/2024	22/05/2024	24/07/2024	6/10/2024
General, anions, cations and metal	pH - Lab	N	pH Unit	0.01	7.51	7.43	7.43	7.03	7.55	7.58	7.49	7.27	7.64	7.33	7.44	7.5	7.62	7.24	7.06	7.4	7.6	6.96	7.56	7.07	7.49	7.29	7.47	7.2	7.66
	Electrical Conductivity @ 25°C	N	µS/cm	1	1120	1110	1100	1070	1090	1100	1090	1040	1110	1080	1060	1110	1120	1040	1060	1120	1120	966	1090	1100	1120	1090	1070	1100	1090
	Total Dissolved Solids @180°C	T	mg/L	10	717	600	582	814	790	716	712	748	792	698	700	791	756	689	708	678	588	595	660	660	638	709	678	680	623
	Suspended Solids (SS)	N	mg/L	1	----	1	<1	1	<1	<1	<1	1	2	5	6	2	3	7	2	<1	<1	4	15	20	29	9	<1	4	4
	Gross beta	T	Bq/L	0.1	0.3	0.31	0.36	0.31	0.31	0.25	0.32	0.27	0.27	0.3	0.25	0.3	0.34	---	0.31	0.32	0.25	0.43	0.28	0.28	0.34	----	0.32	0.33	0.29
	Hydroxide Alkalinity as CaCO3	T	mg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Carbonate Alkalinity as CaCO3	D	mg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Bicarbonate Alkalinity as CaCO3	D	mg/L	1	493	484	390	497	490	369	492	496	482	470	486	482	464	474	478	455	472	449	411	470	476	483	478	479	458
	Total Alkalinity as CaCO3	D	mg/L	1	493	484	390	497	490	369	492	496	482	470	486	482	464	474	478	455	472	449	411	470	476	483	478	479	458
	Sulfate as SO4 2-	N	mg/L	1	80	92	83	83	81	85	84	85	122	77	83	85	83	84	83	86	90	98	80	84	91	91	82	88	86
	Chloride	N	mg/L	1	60	57	52	59	53	61	60	54	56	55	52	61	57	62	55	60	54	54	58	68	79	57	56	53	54
	Calcium D	N	mg/L	1	128	123	120	124	117	126	140	130	127	108	144	143	131	134	141	123	139	102	107	136	130	152	113	113	137
	Magnesium D	N	mg/L	1	48	46	44	47	44	48	50	47	50	43	52	50	49	52	48	50	46	43	44	51	50	53	44	43	50
	Sodium D	N	mg/L	1	42	36	35	37	35	38	39	38	40	34	45	39	38	40	38	38	37	34	36	40	39	41	34	36	39
	Potassium D	D	mg/L	1	7	7	7	8	7	8	8	8	8	6	9	9	8	8	10	7	8	6	6	9	8	8	6	6	8
	Calcium T	D	mg/L	1	129	130	129	132	126	141	132	133	132	154	130	135	143	136	135	123	135	143	136	142	149	141	164	148	142
	Magnesium T	N	mg/L	1	54	48	48	50	48	51	50	50	50	58	48	51	50	54	50	52	55	49	51	53	50	52	57	48	56
	Sodium T	N	mg/L	1	37	40	37	39	38	39	41	40	38	46	39	40	40	41	39	40	42	40	40	41	39	41	45	41	48
	Potassium T	N	mg/L	1	6	8	8	8	8	9	8	8	8	9	8	8	8	9	8	7	9	9	8	10	8	10	10	9	8
	Arsenic D	N	mg/L	0.001	<0.001	<0.001	0.001	0.004	<0.001	0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Barium D	N	mg/L	0.001	0.087	0.28	0.272	0.227	0.151	0.168	0.158	0.119	0.099	0.092	0.111	0.106	0.108	0.101	0.092	0.084	0.08	0.072	0.088	0.101	0.101	0.087	0.07	0.081	0.087
	Cadmium D	N	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	Chromium D	D	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Copper D	T	mg/L	0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Lead D	T	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Lithium D	D	mg/L	0.001	0.038	0.042	0.037	0.044	0.037	0.038	0.042	0.039	0.043	0.032	0.041	0.04	0.04	0.041	0.043	0.044	0.037	0.034	0.032	0.043	0.045	0.044	0.034	0.04	0.04
	Manganese D	T	mg/L	0.001	0.007	0.457	0.407	0.367	0.26	0.25	0.228	0.177	0.098	0.109	0.134	0.114	0.117	0.104	0.086	0.007	0.008	0.009	0.052	0.071	0.074	0.034	0.02	0.031	0.008
	Selenium D	T	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Silver D	D	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Strontium D	T	mg/L	0.001	0.494	0.493	0.47	0.431	0.461	0.506	0.512	0.498	0.487	0.432	0.519	0.499	0.488	0.472	0.513	0.499	0.455	0.429	0.479	0.491	0.506	0.54	0.398	0.472	0.538
	Zinc D	D	mg/L	0.005	0.005	0.007	0.006	0.01	<0.005	0.006	<0.005	0.006	<0.005	0.005	0.007	<0.005	0.007	0.006	0.007	0.007	0.005	0.005	0.008	0.011	0.006	0.011	0.007	0.009	0.008
	Boron D	T	mg/L	0.05	0.1	0.11	0.1	0.11	0.1	0.1	0.11	0.1	0.11	0.1	0.13	0.11	0.09	0.12	0.1	0.13	0.1	0.1	0.1	0.12	0.13	0.11	0.12	0.13	0.1
	Iron D	D	mg/L	0.05	0.33	0.78	0.76	0.9	0.31	0.82	0.92	0.2	<0.05	0.62	1.03	0.35	1	1.02	0.32	<0.05	<0.05	0.09	0.64	1.26	1.13	0.51	0.11	0.48	0.08
	Arsenic T	T	mg/L	0.001	<0.001	<0.001	<0.001	0.001	<0.001	0.002	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Barium T	D	mg/L	0.001	0.085	0.294	0.307	0.254	0.166	0.193	0.164	0.124	0.113	0.129	0.11	0.104	0.118	0.104	0.091	0.086	0.095	0.086	0.109	0.116	0.106	0.096	0.102	0.098	0.095
	Cadmium T	T	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.0002
	Chromium T	D	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Copper T	T	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.008
	Lead T	D	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	0.002	0.002	<0.001	<0.001	<0.001	0.002
	Lithium T	T	mg/L	0.001	0.042	0.042	0.042	0.04	0.039	0.051	0.043	0.043	0.043	0.044	0.038	0.04	0.043	0.038	0.039	0.041	0.041	0.038	0.043	0.042	0.04	0.04	0.044	0.038	0.046
	Manganese T	D	mg/L	0.001	0.007	0.47	0.452	0.389	0.288	0.277	0.235	0.199	0.113	0.158	0.13	0.111	0.13	0.099	0.089	0.007	0.009	0.011	0.062	0.069	0.08	0.037	0.027	0.034	0.008
	Selenium T	T	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Silver T	T	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Strontium T	D	mg/L	0.001	0.526	0.526	0.509	0.533	0.493	0.557	0.538	0.51	0.544	0.602	0.479	0.496	0.567	0.508	0.506	0.522	0.529	0.504	0.532	0.551	0.524	0.526	0.581	0.594	0.566
	Zinc T	T	mg/L	0.005	0.009	0.007	0.006	0.006	0.006	0.007	0.006	0.138	0.007	0.009	0.007	0.008	0.007	0.006	0.008	0.006	0.007	0.007	0.016	0.021	0.015	0.016	0.014	0.012	0.021
	Boron T	T	mg/L	0.05	0.1	0.12	0.11	0.12	0.12	0.13	0.12	0.12	0.11	0.11	0.1	0.11	0.11	0.1	0.1	0.12	0.09	0.11	0.12	0.11	0.12	0.09	0.13	0.1	0.12
	Iron T	D	mg/L	0.05	0.42	1.53	1.13	1.2	0.47	1.27	1.23	0.34	0.94	2.96	2.7	0.72	2.32	3.13	1.34	<0.05	0.13	0.87	6.5	8.15	4.49	3.17	2.05	2.14	2.13
	Mercury D	T	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	Mercury T	D	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	Reactive Silica	T	mg/L	0.05	30.9	29.1	29.5	31.4	30.5	31.8	30.7	30.7	30.4	29.6	31.1	30.3	29.9	30.8	30	31.2	31	30.1	32.3	32.2	31.5	32.7	31.8	31.1	32.2
	Fluoride	D	mg/L	0.1	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.3
	Nitrite as N	T	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Nitrate as N	T	mg/L	0.01	0.08	0.02	0.02	0.03	0.03	0.02	0.03	0.04	0.04	0.03	0.03	0.04	0.04	0.07	0.03	0.07	0.06	0.05	0.05	0.08	0.03	0.03	0.02	0.04	0.04
	Nitrite + Nitrate as N	D	mg/L	0.01	0.08	0.02	0.02	0.03	0.03	0.02	0.03	0.04	0.04	0.03	0.03	0.04	0.04	0.07	0.03	0.07	0.06	0.05	0.05	0.08	0.03	0.03	0.02	0.04	0.04
	Total Anions	T	meq/L	0.01	13.2	13.2	11	13.3	13	10.9	13.3	13.2	13.8	12.5	12.9	13.1	12.6	13	12.8	12.6	12.8	12.5	11.5	13	13.6	13.2	12.8	12.9	12.5
	Total Cations	T	meq/L	0.01	12.3	11.7	11.3	11.9	11.2	12.1	13	12.2	12.4	10.6	13.6	13.2	12.4	12.9	12.9	12.1	12.5	10.3	10.7	13	12.5	13.9	10.9	10.9	12.8
	Ionic Balance	N	%	0.01	3.38	6.13	1.45	5.76	7.5	5.37	1.02	3.9	5.17	8.59	2.82	0.22	0.72	0.22	0.25	1.98	1.15	9.97	3.76	0.4	4.32	2.89	8.2	8.41	1.53
Diss. pet. gases	Methane	N	µg/L	10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
	Ethane	N	µg/L	10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
	Propane	N	µg/L	10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
PAH Suite	Naphthalene	N	µg/L	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<0.1	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Acenaphthylene	N	µg/L	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Acenaphthene	N	µg/L	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Fluorene	N	µg/L	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Phenanthrene	N	µg/L	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Anthracene	N	µg/L	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Fluoranthene	N	µg/L	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Pyrene	N	µg/L	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Benz(a)anthracene	N	µg/L	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Chrysene	N	µg/L	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Benzo(b+j)fluoranthene	N	µg/L	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Benzo(k)fluoranthene	N	µg/L	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Benzo(a)pyrene	N	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
	Indeno(1.2.3.cd)pyrene	N	µg/L	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Dibenz(a.h)anthracene	N	µg/L	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Benzo(g.h.i)perylene	N	µg/L	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Sum of polycyclic aromatic hydrocarbons	N	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
	Benzo(a)pyrene TEQ (zero)	N	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
Total Recoverable Hydrocarbons	C6 - C9 Fraction	N	µg/L	20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
	C10 - C14 Fraction	N	µg/L	50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
	C15 - C28 Fraction	N	µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
	C29 - C36 Fraction	N	µg/L	50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
	C10 - C36 Fraction (sum)	N	µg/L	50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
	C6 - C10 Fraction	N	µg/L	20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
	C6 - C10 Fraction minus BTEX (F1)	N	µg/L	20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
	>C10 - C16 Fraction	N	µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
	>C16 - C34 Fraction	N	µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
	>C34 - C40 Fraction	N	µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
	>C10 - C40 Fraction (sum)	N	µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
	>C10 - C16 Fraction minus Naphthalene (F2)	N	µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
BTEXN, Alpha/Beta, Surrogates	Benzene	N	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Toluene	N	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	Ethylbenzene	N	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	meta- & para-Xylene	N	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	ortho-Xylene	N	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	Total Xylenes	N	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	Sum of BTEX	N	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Naphthalene	N	µg/L	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<0.1	<5	<0.1	<0.1	<5	<5	<5	<5	<5	<5
	Gross alpha	N	Bq/L	0.05	0.21	0.26	0.31	0.2	0.26	0.19	0.23	0.22	0.17	0.2	0.18	0.2	0.18	---	0.18	0.25	0.21	0.14	0.23	0.19	0.21	---	0.21	0.2	0.2
	Gross beta activity - 40K	N	Bq/L	0.1	<0.10	<0.10	0.14	<0.10	0.11	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.13	---	0.11	<0.1	<0.10	0.22	<0.10	<0.10	0.13	---	<0.10	<0.10	<0.10
	Phenol-d6	N	%	1	19.7	21.5	31.4	18.7	21.5	23.7	20.8	22.6	26.6	16.8	18.5	28.2	---	---	---	---	---	---	---	---	---	---	---	---	34.8
	2-Chlorophenol-D4	N	%	1	42.3	46.7	63.7	43.5	49.9	44.9	53.2	53.4	51.6	40.5	36.3	58.7	---	---	---	---	---	---	---	---	---	---	---	---	68.1
	2.4.6-Tribromophenol	N	%	1	51.4	47.7	65.4	44.5	63.1	48.1	48	37.8	76	33.9	41.4	69.1	---	---	---	---	---	---	---	---	---	---	---	---	81.6
	2-Fluorobiphenyl	N	%	1	53.4	57.1	72	55.2	61.6	52.5	67	68.7	58.4	58.7	55.8	79.4	54.6	47.5	51.5	62.4	47.3	54.6	69.8	74.6	64.5	64.3	62.4	89.1	77.1
	Anthracene-d10	N	%	1	63.1	76.2	105	80	81.9	63.1	75.6	78.4	88.2	91	65.7	91	72.6	74.4	82.7	73.3	66.1	78.9	86.6	90.3	67.2	74	66.9	85.8	89.4
	4-Terphenyl-d14	N	%	1	65.1	86.3	100	91.2	85.5	72.3	89	94.7	92.2	83.9	73.1	92.3	62.6	65.5	75.7	78	69.2	95.7	99.6	95.2	68.9	75.6	70	83.6	91.9
	1.2-Dichloroethane-D4	N	%	2	110	101	89.2	119	113	126	122	130	97.8	90.7	116	118	99.3	86.9	99.7	99.4	106	115	105	83.5	87.2	109	97.7	106	114
	Toluene-D8	N	%	2	110	104	89.1	101	110	107	113	104	108	110	112	109	112	110	101	86.7	105	95.2	108	94.3	84.2	105	114	101	103
	4-Bromofluorobenzene	N	%	2	111	96.7	93.8	115	110	97.9	114	106	104	104	122	98.3	114	97.5	108	80.7	104	104	99.2	114	87.5	95.8	127	93.9	102

RN042464

CARPENTARIA 2

Statistics for All Data *

Category	CHEMICAL NAME	FRACTION D/T/N	RESULT UNIT	No. results	Min	Q1	Median	Mean	Q3	Max	20th Percentile	80th Percentile	Standard Deviation	LIMIT OF DETECTION	3/11/2021	14/11/2021	17/11/2021	21/11/2021	24/11/2021	28/11/2021	1/12/2021	8/12/2021	9/01/2022	26/01/2022	9/02/2022	23/02/2022	9/03/2022	23/03/2022	6/04/2022	20/07/2022	6/11/2022	2/01/2023	26/04/2023	26/07/2023	24/10/2023	14/01/2024	22/05/2024	24/07/2024	6/10/2024
General, anions, cations and metal	pH - Lab	N	pH Unit	25	6.96	7.26	7.44	7.39	7.56	7.66	7.21	7.58	0.20	0.01	7.51	7.43	7.43	7.03	7.55	7.58	7.49	7.27	7.64	7.33	7.44	7.50	7.62	7.24	7.06	7.40	7.60	6.96	7.56	7.07	7.49	7.29	7.47	7.20	7.66
	Electrical Conductivity @ 25°C	N	µS/cm	25	966.00	1070.00	1090.00	1086.64	1110.00	1120.00	1062.00	1118.00	34.00	1	1120.00	1110.00	1100.00	1070.00	1090.00	1100.00	1090.00	1040.00	1110.00	1080.00	1060.00	1110.00	1120.00	1040.00	1060.00	1120.00	1120.00	966.00	1090.00	1100.00	1120.00	1090.00	1070.00	1100.00	1090.00
	Total Dissolved Solids @180°C	T	mg/L	25	582.00	649.00	698.00	692.88	732.50	814.00	626.00	754.40	64.75	10	717.00	600.00	582.00	814.00	790.00	716.00	712.00	748.00	792.00	698.00	700.00	791.00	756.00	689.00	708.00	678.00	588.00	595.00	660.00	660.00	638.00	709.00	678.00	680.00	623.00
	Suspended Solids (SS)	N	mg/L	24	1.00	1.00	2.00	5.08	5.75	29.00	1.00	7.00	6.82	1	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	5.00	6.00	2.00	3.00	7.00	2.00	1.00	1.00	4.00	15.00	20.00	29.00	9.00	1.00	4.00	4.00
	Gross beta	T	Bq/L	23	0.25	0.28	0.31	0.31	0.32	0.43	0.27	0.33	0.04	0.1	0.30	0.31	0.36	0.31	0.31	0.25	0.32	0.27	0.27	0.30	0.25	0.30	0.34	-	0.31	0.32	0.25	0.43	0.28	0.28	0.34	-	0.32	0.33	0.29
	Hydroxide Alkalinity as CaCO3	T	mg/L	25	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0	1	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	Carbonate Alkalinity as CaCO3	D	mg/L	25	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0	1	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	Bicarbonate Alkalinity as CaCO3	D	mg/L	25	369.00	461.00	478.00	467.12	485.00	497.00	455.60	489.20	31.44	1	493.00	484.00	390.00	497.00	490.00	369.00	492.00	496.00	482.00	470.00	486.00	482.00	464.00	474.00	478.00	455.00	472.00	449.00	411.00	470.00	476.00	483.00	478.00	479.00	458.00
	Total Alkalinity as CaCO3	D	mg/L	25	369.00	461.00	478.00	467.12	485.00	497.00	455.60	489.20	31.44	1	493.00	484.00	390.00	497.00	490.00	369.00	492.00	496.00	482.00	470.00	486.00	482.00	464.00	474.00	478.00	455.00	472.00	449.00	411.00	470.00	476.00	483.00	478.00	479.00	458.00
	Sulfate as SO4 2-	N	mg/L	25	77.00	83.00	84.00	86.64	89.00	122.00	82.20	90.80	8.46	1	80.00	92.00	83.00	83.00	81.00	85.00	84.00	85.00	122.00	77.00	83.00	85.00	83.00	84.00	83.00	86.00	90.00	98.00	80.00	84.00	91.00	91.00	82.00	88.00	86.00
	Chloride	N	mg/L	25	52.00	54.00	57.00	57.88	60.00	79.00	54.00	60.80	5.67	1	60.00	57.00	52.00	59.00	53.00	61.00	60.00	54.00	56.00	55.00	52.00	61.00	57.00	62.00	55.00	60.00	54.00	54.00	58.00	68.00	79.00	57.00	56.00	53.00	54.00
	Calcium D	N	mg/L	25	102.00	118.50	128.00	127.52	138.00	152.00	113.80	139.80	12.50	1	128.00	123.00	120.00	124.00	117.00	126.00	140.00	130.00	127.00	108.00	144.00	143.00	131.00	134.00	141.00	123.00	139.00	102.00	107.00	136.00	130.00	152.00	113.00	113.00	137.00
	Magnesium D	N	mg/L	25	43.00	44.00	48.00	47.68	50.00	53.00	44.00	50.00	3.08	1	48.00	46.00	44.00	47.00	44.00	48.00	50.00	47.00	50.00	43.00	52.00	50.00	49.00	52.00	48.00	50.00	46.00	43.00	44.00	51.00	50.00	53.00	44.00	43.00	50.00
	Sodium D	N	mg/L	25	34.00	36.00	38.00	37.92	39.50	45.00	35.20	40.00	2.61	1	42.00	36.00	35.00	37.00	35.00	38.00	39.00	38.00	40.00	34.00	45.00	39.00	38.00	40.00	38.00	38.00	37.00	34.00	36.00	40.00	39.00	41.00	34.00	36.00	39.00
	Potassium D	D	mg/L	25	6.00	7.00	8.00	7.60	8.00	10.00	6.20	8.00	1.06	1	7.00	7.00	7.00	8.00	7.00	8.00	8.00	8.00	8.00	6.00	9.00	9.00	8.00	8.00	10.00	7.00	8.00	6.00	6.00	9.00	8.00	8.00	6.00	6.00	8.00
	Calcium T	D	mg/L	25	123.00	131.00	135.00	137.60	142.50	164.00	130.00	143.00	9.11	1	129.00	130.00	129.00	132.00	126.00	141.00	132.00	133.00	132.00	154.00	130.00	135.00	143.00	136.00	135.00	123.00	135.00	143.00	136.00	142.00	149.00	141.00	164.00	148.00	142.00
	Magnesium T	N	mg/L	25	48.00	49.50	50.00	51.32	53.50	58.00	48.20	54.00	2.85	1	54.00	48.00	48.00	50.00	48.00	51.00	50.00	50.00	50.00	58.00	48.00	51.00	50.00	54.00	50.00	52.00	55.00	49.00	51.00	53.00	50.00	52.00	57.00	48.00	56.00
	Sodium T	N	mg/L	25	37.00	39.00	40.00	40.44	41.00	48.00	39.00	41.00	2.53	1	37.00	40.00	37.00	39.00	38.00	39.00	41.00	40.00	38.00	46.00	39.00	40.00	40.00	41.00	39.00	40.00	42.00	40.00	40.00	41.00	39.00	41.00	45.00	41.00	48.00
	Potassium T	N	mg/L	25	6.00	8.00	8.00	8.36	9.00	10.00	8.00	9.00	0.89	1	6.00	8.00	8.00	8.00	8.00	9.00	8.00	8.00	8.00	9.00	8.00	8.00	8.00	9.00	8.00	7.00	9.00	9.00	8.00	10.00	8.00	10.00	10.00	9.00	8.00
	Arsenic D	N	mg/L	25	0.001	0.001	0.001	0.001	0.001	0.004	0.001	0.001	0.001	0.001	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Barium D	N	mg/L	25	0.070	0.087	0.101	0.121	0.135	0.280	0.085	0.157	0.057	0.001	0.09	0.28	0.27	0.23	0.15	0.17	0.16	0.12	0.10	0.09	0.11	0.11	0.11	0.10	0.09	0.08	0.08	0.07	0.09	0.10	0.10	0.09	0.07	0.08	0.09
	Cadmium D	N	mg/L	25	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0	0.0001	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chromium D	D	mg/L	25	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0	0.001	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Copper D	T	mg/L	25	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0	0.001	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Lead D	T	mg/L	25	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0	0.001	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Lithium D	D	mg/L	25	0.032	0.037	0.040	0.040	0.043	0.045	0.037	0.043	0.004	0.001	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.03	0.03	0.04	0.05	0.04	0.03	0.04	0.04
	Manganese D	T	mg/L	25	0.007	0.026	0.098	0.129	0.203	0.457	0.011	0.246	0.127	0.001	0.01	0.46	0.41	0.37	0.26	0.25	0.23	0.18	0.10	0.11	0.13	0.11	0.12	0.10	0.09	0.01	0.01	0.01	0.05	0.07	0.07	0.03	0.02	0.03	0.01
	Selenium D	T	mg/L	25	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	Silver D	D	mg/L	25	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0	0.001	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Strontium D	T	mg/L	25	0.398	0.466	0.491	0.483	0.506	0.540	0.456	0.511	0.034	0.001	0.49	0.49	0.47	0.43	0.46	0.51	0.51	0.50	0.49	0.43	0.52	0.50	0.49	0.47	0.51	0.50	0.46	0.43	0.48	0.49	0.51	0.54	0.40	0.47	0.54
	Zinc D	D	mg/L	25	0.005	0.005	0.006	0.007	0.008	0.011	0.005	0.008	0.002	0.005	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	Boron D	T	mg/L	25	0.09	0.10	0.11	0.11	0.12	0.13	0.10	0.12	0.01	0.05	0.10	0.11	0.10	0.11	0.10	0.10	0.11	0.10	0.11	0.10	0.13	0.11	0.09	0.12	0.10	0.13	0.10	0.10	0.10	0.12	0.13	0.11	0.12	0.13	0.10
	Iron D	D	mg/L	25	0.05	0.16	0.51	0.55	0.91	1.26	0.09	0.98	0.38	0.05	0.33	0.78	0.76	0.90	0.31	0.82	0.92	0.20	0.05	0.62	1.03	0.35	1.00	1.02	0.32	0.05	0.05	0.09	0.64	1.26	1.13	0.51	0.11	0.48	0.08
	Arsenic T	T	mg/L	25	0.001	0.001	0.001	0.001	0.001	0.002	0.001	0.001	0.0002	0.001	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Barium T	D	mg/L	25	0.085	0.096	0.109	0.134	0.147	0.307	0.095	0.166	0.062	0.001	0.09	0.29	0.31	0.25	0.17	0.19	0.16	0.12	0.11	0.13	0.11	0.10	0.12	0.10	0.09	0.09	0.10	0.09	0.11	0.12	0.11	0.10	0.10	0.10	0.10
	Cadmium T	T	mg/L	25	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0001	0.0001	0	0.0001	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chromium T	D	mg/L	25	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0	0.001	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Copper T	T	mg/L	25	0.001	0.001	0.001	0.001	0.001	0.008	0.001	0.001	0.0014	0.001	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
	Lead T	D	mg/L	25	0.001	0.001	0.001	0.001	0.001	0.002	0.001	0.001	0.0004	0.001	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Lithium T	T	mg/L	25	0.038	0.040	0.042	0.042	0.043	0.051	0.039	0.043	0.003	0.001	0.04	0.04	0.04	0.04	0.04	0.05	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.05
	Manganese T	D	mg/L	25	0.007	0.031	0.099	0.140	0.217	0.470	0.014	0.269	0.136	0.001	0.01	0.47	0.45	0.39	0.29	0.28	0.24	0.20	0.11	0.16	0.13	0.11	0.13	0.10	0.09	0.01	0.01	0.01	0.06	0.07	0.08	0.04	0.03	0.03	0.01
	Selenium T	T	mg/L	25	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	Silver T	T	mg/L	25	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0	0.001	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Strontium T	D	mg/L	25	0.479	0.509	0.526	0.533	0.554	0.602	0.506	0.564	0.031	0.001	0.53	0.53	0.51	0.53	0.49	0.56	0.54	0.51	0.54	0.60	0.48	0.50	0.57	0.51	0.51	0.52	0.53	0.50	0.53	0.55	0.52	0.53	0.58	0.59	0.57
	Zinc T	T	mg/L	25	0.006	0.007	0.007	0.015	0.015	0.138	0.006	0.016	0.026	0.005	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.14	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.01	0.01	0.02
	Boron T	T	mg/L	25	0.09	0.10	0.11	0.11	0.12	0.13	0.10	0.12	0.01	0.05	0.10	0.12	0.11	0.12	0.12	0.13	0.12	0.12	0.11	0.11	0.10	0.11	0.11	0.10	0.10	0.12	0.09	0.11	0.12	0.11	0.12	0.09	0.13	0.10	0.12
	Iron T	D	mg/L	25	0.05	0.80	1.34	2.06	2.83	8.15	0.52	3.10	1.90	0.05	0.42	1.53	1.13	1.20	0.47	1.27	1.23	0.34	0.94	2.96	2.70	0.72	2.32	3.13	1.34	0.05	0.13	0.87	6.50	8.15	4.49	3.17	2.05	2.14	2.13
	Mercury D	T	mg/L	25	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0	0.0001	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Mercury T	D	mg/L	25	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0	0.0001	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Reactive Silica	T	mg/L	25	29.10	30.20	30.90	30.91	31.65	32.70	30.02	31.80	0.92	0.05	30.90	29.10	29.50	31.40	30.50	31.80	30.70	30.70	30.40	29.60	31.10	30.30	29.90	30.80	30.00	31.20	31.00	30.10	32.30	32.20	31.50	32.70	31.80	31.10	32.20
	Fluoride	D	mg/L	25	0.30	0.40	0.40	0.39	0.40	0.50	0.40	0.40	0.04	0.1	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.30	0.40	0.40	0.40	0.40	0.30	0.40	0.40	0.40	0.40	0.40	0.50	0.40	0.40	0.40	0.40	0.40	0.30
	Nitrite as N	T	mg/L	25	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	Nitrate as N	T	mg/L	25	0.02	0.03	0.04	0.04	0.05	0.08	0.03	0.06	0.02	0.01	0.08	0.02	0.02	0.03	0.03	0.02	0.03	0.04	0.04	0.03	0.03	0.04	0.04	0.07	0.03	0.07	0.06	0.05	0.05	0.08	0.03	0.03	0.02	0.04	0.04
	Nitrite + Nitrate as N	D	mg/L	25	0.02	0.03	0.04	0.04	0.05	0.08	0.03	0.06	0.02	0.01	0.08	0.02	0.02	0.03	0.03	0.02	0.03	0.04	0.04	0.03	0.03	0.04	0.04	0.07	0.03	0.07	0.06	0.05	0.05	0.08	0.03	0.03	0.02	0.04	0.04
	Total Anions	T	meq/L	25	10.90	12.55	12.90	12.77	13.20	13.80	12.50	13.20	0.69	0.01	13.20	13.20	11.00	13.30	13.00	10.90	13.30	13.20	13.80	12.50	12.90	13.10	12.60	13.00	12.80	12.60	12.80	12.50	11.50	13.00	13.60	13.20	12.80	12.90	12.50
	Total Cations	T	meq/L	25	10.30	11.25	12.30	12.13	12.90	13.90	10.96	12.98	0.95	0.01	12.30	11.70	11.30	11.90	11.20	12.10	13.00	12.20	12.40	10.60	13.60	13.20	12.40	12.90	12.90	12.10	12.50	10.30	10.70	13.00	12.50	13.90	10.90	10.90	12.80
	Ionic Balance	N	%	25	0.22	1.09	3.38	3.80	5.95	9.97	0.78	7.23	2.96	0.01	3.38	6.13	1.45	5.76	7.50	5.37	1.02	3.90	5.17	8.59	2.82	0.22	0.72	0.22	0.25	1.98	1.15	9.97	3.76	0.40	4.32	2.89	8.20	8.41	1.53
Diss. pet. gases	Methane	N	mg/L	25	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	0	0.01	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
	Ethane	N	µg/L	25	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	0	10	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
	Propane	N	µg/L	25	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	0	10	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
PAH Suite **	Naphthalene	N	µg/L	25	0.10	0.10	1.00	0.87	1.00	5.00	0.10	1.00	1	1	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.10	5.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	1.00
	Acenaphthylene	N	µg/L	25	0.10	0.10	1.00	0.68	1.00	1.00	0.10	1.00	0	1	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	1.00
	Acenaphthene	N	µg/L	25	0.10	0.10	1.00	0.68	1.00	1.00	0.10	1.00	0	1	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	1.00
	Fluorene	N	µg/L	25	0.10	0.10	1.00	0.68	1.00	1.00	0.10	1.00	0	1	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	1.00
	Phenanthrene	N	µg/L	25	0.10	0.10	1.00	0.68	1.00	1.00	0.10	1.00	0	1	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	1.00
	Anthracene	N	µg/L	25	0.10	0.10	1.00	0.68	1.00	1.00	0.10	1.00	0	1	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	1.00
	Fluoranthene	N	µg/L	25	0.10	0.10	1.00	0.68	1.00	1.00	0.10	1.00	0	1	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	1.00
	Pyrene	N	µg/L	25	0.10	0.10	1.00	0.68	1.00	1.00	0.10	1.00	0	1	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	1.00
	Benz(a)anthracene	N	µg/L	25	0.10	0.10	1.00	0.68	1.00	1.00	0.10	1.00	0	1	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	1.00
	Chrysene	N	µg/L	25	0.10	0.10	1.00	0.68	1.00	1.00	0.10	1.00	0	1	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	1.00
	Benzo(b+j)fluoranthene	N	µg/L	25	0.10	0.10	1.00	0.68	1.00	1.00	0.10	1.00	0	1	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	1.00
	Benzo(k)fluoranthene	N	µg/L	25	0.10	0.10	1.00	0.68	1.00	1.00	0.10	1.00	0	1	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	1.00
	Benzo(a)pyrene	N	µg/L	25	0.05	0.05	0.50	0.34	0.50	0.50	0.05	0.50	0	0.5	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.50
	Indeno(1.2.3.cd)pyrene	N	µg/L	25	0.10	0.10	1.00	0.71	1.00	1.00	0.10	1.00	0	1	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	1.00
	Dibenz(a.h)anthracene	N	µg/L	25	0.10	0.10	1.00	0.71	1.00	1.00	0.10	1.00	0	1	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	1.00
	Benzo(g.h.i)perylene	N	µg/L	25	0.10	0.10	1.00	0.71	1.00	1.00	0.10	1.00	0	1	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	1.00
	Sum of polycyclic aromatic hydrocarbons	N	µg/L	25	0.05	0.05	0.50	0.34	0.50	0.50	0.05	0.50	0	0.5	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.50
	Benzo(a)pyrene TEQ (zero)	N	µg/L	25	0.05	0.05	0.50	0.34	0.50	0.50	0.05	0.50	0	0.5	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.05	0.05	0.10	0.05	0.05	0.05	0.05	0.05	0.05	0.50
Total Recoverable Hydrocarbons	C6 - C9 Fraction	N	µg/L	25	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	0	20	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00
	C10 - C14 Fraction	N	µg/L	25	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	0	50	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
	C15 - C28 Fraction	N	µg/L	25	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	0	100	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
	C29 - C36 Fraction	N	µg/L	25	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	0	50	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
	C10 - C36 Fraction (sum)	N	µg/L	25	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	0	50	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
	C6 - C10 Fraction	N	µg/L	25	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	0	20	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00
	C6 - C10 Fraction minus BTEX (F1)	N	µg/L	25	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	0	20	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00
	>C10 - C16 Fraction	N	µg/L	25	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	0	100	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
	>C16 - C34 Fraction	N	µg/L	25	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	0	100	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
	>C34 - C40 Fraction	N	µg/L	25	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	0	100	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
	>C10 - C40 Fraction (sum)	N	µg/L	25	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	0	100	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
	>C10 - C16 Fraction minus Naphthalene (F2)	N	µg/L	25	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	0	100	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
BTEXN, Alpha/Beta, Surrogates	Benzene	N	µg/L	25	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0	1	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	Toluene	N	µg/L	25	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0	2	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
	Ethylbenzene	N	µg/L	25	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0	2	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
	meta- & para-Xylene	N	µg/L	25	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0	2	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
	ortho-Xylene	N	µg/L	25	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0	2	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
	Total Xylenes	N	µg/L	25	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0	2	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
	Sum of BTEX	N	µg/L	25	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0	1	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	Naphthalene **	N	µg/L	25	0.10	1.00	1.00	2.01	5.00	5.00	1.00	5.00	1.88	1	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.10	5.00	0.10	0.10	5.00	5.00	5.00	5.00	5.00	5.00
	Gross alpha	N	Bq/L	23	0.14	0.19	0.20	0.21	0.23	0.31	0.18	0.23	0.03	0.05	0.21	0.26	0.31	0.20	0.26	0.19	0.23	0.22	0.17	0.20	0.18	0.20	0.18	-	0.18	0.25	0.21	0.14	0.23	0.19	0.21	-	0.21	0.20	0.20
	Gross beta activity - 40K	N	Bq/L	23	0.10	0.10	0.10	0.11	0.11	0.22	0.10	0.11	0.03	0.1	0.10	0.10	0.14	0.10	0.11	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.13	-	0.11	0.10	0.10	0.22	0.10	0.10	0.13	-	0.10	0.10	0.10
	Phenol-d6	N	%	13	16.80	19.20	21.50	23.45	27.40	34.80	18.66	28.84	5.15	1	19.70	21.50	31.40	18.70	21.50	23.70	20.80	22.60	26.60	16.80	18.50	28.20	-	-	-	-	-	-	-	-	-	-	-	-	34.80
	2-Chlorophenol-D4	N	%	13	36.30	42.90	49.90	50.22	56.05	68.10	41.94	59.70	8.91	1	42.30	46.70	63.70	43.50	49.90	44.90	53.20	53.40	51.60	40.50	36.30	58.70	-	-	-	-	-	-	-	-	-	-	-	-	68.10
	2.4.6-Tribromophenol	N	%	13	33.90	42.95	48.10	54.46	67.25	81.60	40.68	70.48	14.46	1	51.40	47.70	65.40	44.50	63.10	48.10	48.00	37.80	76.00	33.90	41.40	69.10	-	-	-	-	-	-	-	-	-	-	-	-	81.60
	2-Fluorobiphenyl	N	%	25	47.30	54.60	61.60	62.38	69.25	89.10	53.64	71.56	10.21	1	53.40	57.10	72.00	55.20	61.60	52.50	67.00	68.70	58.40	58.70	55.80	79.40	54.60	47.50	51.50	62.40	47.30	54.60	69.80	74.60	64.50	64.30	62.40	89.10	77.10
	Anthracene-d10	N	%	25	63.10	69.90	78.40	78.70	87.40	105.00	66.96	89.16	10.36	1	63.10	76.20	105.00	80.00	81.90	63.10	75.60	78.40	88.20	91.00	65.70	91.00	72.60	74.40	82.70	73.30	66.10	78.90	86.60	90.30	67.20	74.00	66.90	85.80	89.40
	4-Terphenyl-d14	N	%	25	62.60	71.15	83.90	82.28	92.25	100.00	69.36	94.22	11.52	1	65.10	86.30	100.00	91.20	85.50	72.30	89.00	94.70	92.20	83.90	73.10	92.30	62.60	65.50	75.70	78.00	69.20	95.70	99.60	95.20	68.90	75.60	70.00	83.60	91.90
	1.2-Dichloroethane-D4	N	%	25	83.50	97.75	106.00	105.66	115.50	130.00	92.10	117.60	12.48	2	110.00	101.00	89.20	119.00	113.00	126.00	122.00	130.00	97.80	90.70	116.00	118.00	99.30	86.90	99.70	99.40	106.00	115.00	105.00	83.50	87.20	109.00	97.70	106.00	114.00
	Toluene-D8	N	%	25	84.20	101.00	105.00	103.86	110.00	114.00	96.36	110.00	8.08	2	110.00	104.00	89.10	101.00	110.00	107.00	113.00	104.00	108.00	110.00	112.00	109.00	112.00	110.00	101.00	86.70	105.00	95.20	108.00	94.30	84.20	105.00	114.00	101.00	103.00
	4-Bromofluorobenzene	N	%	25	80.70	97.10	104.00	104.01	112.50	127.00	95.98	114.00	10.31	2	111.00	96.70	93.80	115.00	110.00	97.90	114.00	106.00	104.00	104.00	122.00	98.30	114.00	97.50	108.00	80.70	104.00	104.00	99.20	114.00	87.50	95.80	127.00	93.90	102.00

*All readings below the limit of detection (LOD) have been assumed to be equal to the limit of detection.

** Limit of detection has changed, all readings are equal to limit of detection (LOD)

Bores;
RN042461 **Difference in Bores (IMB -CMB)**
RN042464

CARPENTARIA 2

Category	CHEMICAL NAME	RESULT UNIT	Baseline Statistics* Min	Q1	Median	Mean	Q3	Max	Standard Deviation	Average from reporting period (17/10/23 - 16/10/24)	Flag if above 2 Z Score	LIMIT OF DETECTION
General, anions, cations and metal	pH - Lab	pH Unit	0.00	0.00	0.03	0.04	0.09	0.14	0.05	0.000	-	0.01
	Electrical Conductivity @ 25°C	µS/cm	0.00	0.00	0.00	2.63	0.00	40.00	9.09	2.000	-0.07	1
	Total Dissolved Solids @180°C	mg/L	0.00	0.00	0.00	4.05	5.00	30.00	8.03	1.800	-0.28	10
	Suspended Solids (SS)	mg/L	0.00	0.00	0.00	0.83	1.25	8.00	1.89	32.400	16.68	1
	Gross beta	Bq/L	0.00	0.00	0.02	0.04	0.08	0.14	0.04	0.003	-0.87	0.1
	Hydroxide Alkalinity as CaCO3	mg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	1
	Carbonate Alkalinity as CaCO3	mg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	1
	Bicarbonate Alkalinity as CaCO3	mg/L	0.00	0.00	1.00	4.68	5.00	29.00	8.45	1.400	-0.39	1
	Total Alkalinity as CaCO3	mg/L	0.00	0.00	1.00	4.68	5.00	29.00	8.45	1.400	-0.39	1
	Sulfate as SO4 2-	mg/L	0.00	0.00	0.00	0.95	1.00	11.00	2.50	0.600	-0.14	1
	Chloride	mg/L	0.00	0.00	0.00	1.74	2.00	21.00	4.62	0.000	-	1
	Calcium D	mg/L	0.00	0.00	0.00	2.68	1.00	30.00	6.84	0.600	-0.30	1
	Magnesium D	mg/L	0.00	0.00	0.00	1.53	1.00	14.00	3.53	0.000	-	1
	Sodium D	mg/L	0.00	0.00	1.00	2.32	3.00	12.00	3.31	0.600	-0.52	1
	Potassium D	mg/L	0.00	0.00	0.00	0.47	1.00	3.00	0.82	0.400	-0.09	1
	Calcium T	mg/L	0.00	0.00	0.00	0.42	1.00	2.00	0.75	1.600	1.58	1
	Magnesium T	mg/L	0.00	0.00	0.00	0.26	1.00	1.00	0.44	0.400	0.31	1
	Sodium T	mg/L	0.00	0.00	1.00	1.47	2.00	4.00	1.23	0.600	-0.71	1
	Potassium T	mg/L	0.00	0.00	0.00	0.11	0.00	1.00	0.31	0.000	-	1
	Arsenic D	mg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	0.001
	Barium D	mg/L	0.00	0.03	0.05	0.06	0.07	0.27	0.06	0.010	-0.86	0.001
	Cadmium D	mg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	0.0001
	Chromium D	mg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	0.001
	Copper D	mg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	0.001
	Lead D	mg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	0.001
	Lithium D	mg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	0.001
	Manganese D	mg/L	0.00	0.05	0.19	0.22	0.32	0.86	0.20	0.011	-1.08	0.001
	Selenium D	mg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	0.01
	Silver D	mg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	0.001
	Strontium D	mg/L	0.00	0.00	0.00	0.01	0.01	0.05	0.01	0.002	-0.28	0.001
	Zinc D	mg/L	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.001	-1.13	0.005
	Boron D	mg/L	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.002	-0.14	0.05
	Iron D	mg/L	0.00	0.00	0.00	0.12	0.18	0.79	0.23	0.048	-0.31	0.05
	Arsenic T	mg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.96	0.001
	Barium T	mg/L	0.00	0.03	0.05	0.06	0.08	0.24	0.06	0.028	-0.65	0.001
	Cadmium T	mg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	0.0001
	Chromium T	mg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	0.001
	Copper T	mg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	0.001
	Lead T	mg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.18	0.001
	Lithium T	mg/L	0.00	0.00	0.00	0.00	0.00	0.03	0.01	0.000	-	0.001
	Manganese T	mg/L	0.00	0.05	0.18	0.23	0.33	0.81	0.19	0.016	-1.11	0.001
	Selenium T	mg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	0.01
	Silver T	mg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	0.001
	Strontium T	mg/L	0.00	0.00	0.00	0.00	0.01	0.03	0.01	0.006	0.51	0.001
	Zinc T	mg/L	0.00	0.00	0.01	0.00	0.01	0.01	0.00	0.009	1.33	0.005
	Boron T	mg/L	0.00	0.00	0.00	0.01	0.01	0.05	0.01	0.000	-	0.05
	Iron T	mg/L	0.00	0.00	0.00	0.32	0.16	3.67	0.84	11.978	13.91	0.05
	Mercury D	mg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	0.0001
	Mercury T	mg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	0.0001
	Reactive Silica	mg/L	0.00	0.00	0.20	0.37	0.70	1.20	0.38	0.700	0.88	0.05
	Fluoride	mg/L	0.00	0.00	0.00	0.01	0.00	0.20	0.04	0.020	0.21	0.1
	Nitrite as N	mg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	0.01
	Nitrate as N	mg/L	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.000	-	0.01
	Nitrite + Nitrate as N	mg/L	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.000	-	0.01
	Total Anions	meq/L	0.00	0.00	0.00	0.12	0.20	0.70	0.21	0.040	-0.39	0.01
	Total Cations	meq/L	0.00	0.00	0.00	0.33	0.10	3.00	0.75	0.060	-0.36	0.01
	Ionic Balance	%	0.00	0.00	0.16	0.69	0.76	3.76	1.05	1.280	0.56	0.01
Diss. pet. gases	Methane	mg/L	0.00	0.00	1.00	10.95	23.00	38.00	12.97	24.400	1.04	0.01
	Ethane	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	10
	Propane	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	10
PAH Suite **	Naphthalene	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	1
	Acenaphthylene	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	1
	Acenaphthene	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	1
	Fluorene	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	1
	Phenanthrene	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	1
	Anthracene	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	1
	Fluoranthene	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	1
	Pyrene	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	1
	Benz(a)anthracene	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	1
	Chrysene	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	1
	Benzo(b+j)fluoranthene	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	1
	Benzo(k)fluoranthene	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	1
	Benzo(a)pyrene	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	0.5
	Indeno(1.2.3.cd)pyrene	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	1
	Dibenz(a.h)anthracene	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	1
	Benzo(g.h.i)perylene	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	1
	Sum of polycyclic aromatic hydrocarbons	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	0.5
	Benzo(a)pyrene TEQ (zero)	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	0.5
Total Recoverable Hydrocarbons	C6 - C9 Fraction	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	20
	C10 - C14 Fraction	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	50
	C15 - C28 Fraction	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	100
	C29 - C36 Fraction	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	50
	C10 - C36 Fraction (sum)	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	50
	C6 - C10 Fraction	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	20
	C6 - C10 Fraction minus BTEX (F1)	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	20
	>C10 - C16 Fraction	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	100
	>C16 - C34 Fraction	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	100
	>C34 - C40 Fraction	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	100
	>C10 - C40 Fraction (sum)	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	100
	>C10 - C16 Fraction minus Naphthalene (F2)	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	100
BTEXN, Alpha/Beta, Surrogates	Benzene	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	1
	Toluene	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	2
	Ethylbenzene	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	2
	meta- & para-Xylene	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	2
	ortho-Xylene	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	2
	Total Xylenes	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	2
	Sum of BTEX	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	1
	Naphthalene **	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	1
	Gross alpha	Bq/L	0.00	0.00	0.00	0.02	0.05	0.11	0.03	0.040	0.48	0.05
	Gross beta activity - 40K	Bq/L	0.00	0.00	0.01	0.02	0.04	0.12	0.03	0.003	-0.61	0.1
	Phenol-d6	%	0.00	0.00	1.50	2.47	5.48	6.80	2.54	0.000	-	1
	2-Chlorophenol-D4	%	0.00	0.60	5.85	5.37	8.93	12.70	4.34	11.200	1.34	1
	2.4.6-Tribromophenol	%	0.00	0.00	5.85	7.97	11.98	35.50	9.80	13.000	0.51	1
	2-Fluorobiphenyl	%	0.00	0.00	0.30	3.40	6.00	11.70	3.87	5.840	0.63	1
	Anthracene-d10	%	0.00	0.00	2.60	4.25	7.40	18.10	5.17	2.200	-0.40	1
	4-Terphenyl-d14	%	0.00	0.00	0.00	4.14	7.60	20.20	5.96	2.300	-0.31	1
	1.2-Dichloroethane-D4	%	0.00	0.00	2.00	3.46	4.50	19.60	4.79	0.000	-	2
	Toluene-D8	%	0.00	0.00	1.00	3.06	4.10	16.30	4.29	0.000	-	2
	4-Bromofluorobenzene	%	0.00	0.00	2.00	4.74	7.00	19.30	5.69	0.000	-	2

CHEMICAL NAME	Baseline Data 3/11/2021	14/11/2021	17/11/2021	21/11/2021	24/11/2021	28/11/2021	1/12/2021	8/12/2021	9/01/2022	26/01/2022	9/02/2022	23/02/2022	9/03/2022	23/03/2022	6/04/2022	20/07/2022	6/11/2022	2/01/2023	26/04/2023	26/07/2023	Reporting Period 24/10/2023	14/01/2024	22/05/2024	24/07/2024	6/10/2024
pH - Lab	0.09	0.12	0.09	0.00	0.00	0.12	0.03	0.00	0.00	0.03	0.00	0.14	0.00	0.05	0.00	0.04	0.05	0.04	-	0.00	0.00	0.00	0.00	0.00	0.00
Electrical Conductivity @ 25°C	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	40.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	10.00	0.00
Total Dissolved Solids @180°C	0.00	5.00	16.00	0.00	30.00	0.00	0.00	0.00	0.00	0.00	16.00	0.00	0.00	0.00	0.00	0.00	0.00	10.00	-	0.00	0.00	0.00	0.00	0.00	9.00
Suspended Solids (SS)	-	2.00	1.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	2.00	0.00	0.00	8.00	0.00	0.00	0.00	-	0.00	0.00	31.00	52.00	39.00	40.00
Gross beta	0.03	0.14	0.00	0.08	0.05	0.09	0.02	0.10	0.00	0.00	0.00	0.01	0.02	-	0.00	0.07	0.08	0.00	-	0.02	0.00	-	0.00	0.00	0.01
Hydroxide Alkalinity as CaCO3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Carbonate Alkalinity as CaCO3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Bicarbonate Alkalinity as CaCO3	0.00	0.00	5.00	0.00	0.00	4.00	0.00	0.00	0.00	0.00	0.00	2.00	28.00	5.00	1.00	6.00	29.00	5.00	-	4.00	0.00	0.00	2.00	5.00	0.00
Total Alkalinity as CaCO3	0.00	0.00	5.00	0.00	0.00	4.00	0.00	0.00	0.00	0.00	0.00	2.00	28.00	5.00	1.00	6.00	29.00	5.00	-	4.00	0.00	0.00	2.00	5.00	0.00
Sulfate as SO4 2-	1.00	0.00	3.00	0.00	0.00	1.00	0.00	0.00	0.00	11.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	2.00	0.00	0.00	0.00	3.00	0.00
Chloride	1.00	2.00	2.00	1.00	2.00	0.00	0.00	0.00	0.00	21.00	2.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Calcium D	1.00	8.00	0.00	3.00	7.00	0.00	0.00	0.00	0.00	30.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00	-	0.00	0.00	3.00	0.00	0.00	0.00
Magnesium D	0.00	8.00	0.00	2.00	4.00	1.00	0.00	0.00	0.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Sodium D	0.00	12.00	3.00	5.00	6.00	2.00	2.00	2.00	0.00	9.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00	-	0.00	0.00	1.00	0.00	1.00	1.00
Potassium D	1.00	3.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	1.00	1.00	0.00
Calcium T	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	2.00	2.00	0.00	0.00	0.00	-	2.00	7.00	0.00	0.00	1.00	0.00
Magnesium T	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	-	0.00	2.00	0.00	0.00	0.00	0.00
Sodium T	0.00	3.00	4.00	2.00	4.00	2.00	2.00	2.00	2.00	0.00	0.00	1.00	1.00	1.00	2.00	0.00	1.00	0.00	-	1.00	2.00	0.00	0.00	1.00	0.00
Potassium T	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Arsenic D	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Barium D	0.00	0.27	0.07	0.05	0.15	0.07	0.10	0.12	0.06	0.03	0.05	0.04	0.03	0.03	0.04	0.02	0.05	0.02	-	0.00	0.00	0.01	0.01	0.01	0.02
Cadmium D	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Chromium D	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Copper D	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Lead D	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Lithium D	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Manganese D	0.01	0.86	0.37	0.32	0.40	0.31	0.34	0.28	0.24	0.16	0.19	0.17	0.13	0.08	0.03	0.04	0.26	0.05	-	0.00	0.00	0.00	0.01	0.00	0.03
Selenium D	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Silver D	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Strontium D	0.01	0.01	0.00	0.02	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.02	0.00	0.00	0.01	0.00	0.01
Zinc D	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	-	0.00	0.01	0.00	0.00	0.00	0.00
Boron D	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.01	0.00	0.00	0.00	0.00	0.01
Iron D	0.00	0.59	0.00	0.00	0.00	0.00	0.00	0.33	0.36	0.00	0.00	0.18	0.00	0.00	0.79	0.00	0.01	0.00	-	0.00	0.00	0.00	0.15	0.00	0.09
Arsenic T	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Barium T	0.01	0.24	0.08	0.03	0.15	0.08	0.10	0.13	0.06	0.03	0.03	0.05	0.04	0.04	0.05	0.02	0.07	0.02	-	0.00	0.01	0.03	0.04	0.04	0.02
Cadmium T	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Chromium T	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Copper T	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Lead T	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Lithium T	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Manganese T	0.01	0.81	0.40	0.29	0.42	0.33	0.35	0.27	0.26	0.16	0.15	0.18	0.15	0.09	0.04	0.04	0.31	0.05	-	0.00	0.00	0.01	0.02	0.01	0.04
Selenium T	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Silver T	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Strontium T	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.01	0.00	-	0.00	0.02	0.00	0.00	0.01	0.00
Zinc T	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.00	0.01	0.00	0.01	0.00	0.01	0.01	0.01	0.00	0.00	0.01	-	0.00	0.01	0.01	0.01	0.01	0.00
Boron T	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.02	0.01	0.02	0.01	0.02	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Iron T	0.00	0.00	0.00	0.00	0.16	0.00	0.00	1.09	0.28	0.00	0.00	0.70	0.00	0.00	3.67	0.01	0.15	0.00	-	0.00	3.28	11.63	19.95	16.26	8.77
Mercury D	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Mercury T	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Reactive Silica	1.10	0.00	0.30	0.00	0.00	0.00	0.00	0.80	1.20	0.80	0.30	0.20	0.50	0.20	0.20	0.20	0.50	0.00	-	0.70	2.10	0.10	0.20	0.00	1.10
Fluoride	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.10	0.00
Nitrite as N	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Nitrate as N	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.01	-	0.00	0.00	0.00	0.00	0.00	0.00
Nitrite + Nitrate as N	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.01	-	0.00	0.00	0.00	0.00	0.00	0.00
Total Anions	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.70	0.00	0.00	0.50	0.00	0.00	0.10	0.50	0.10	-	0.20	0.00	0.00	0.00	0.20	0.00
Total Cations	0.00	1.60	0.00	0.50	0.90	0.10	0.00	0.00	0.00	3.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	-	0.00	0.00	0.20	0.00	0.10	0.00
Ionic Balance	0.24	0.00	0.00	0.00	0.00	0.16	0.00	0.28	0.00	0.00	0.76	0.07	2.18	2.28	2.13	0.61	3.76	0.00	-	0.55	3.28	2.17	0.17	0.30	0.48
Methane	0.00	0.00	0.00	0.00	0.00	0.00	1.00	9.00	28.00	23.00	38.00	29.00	23.00	30.00	14.00	0.00	0.00	0.00	-	13.00	22.00	25.00	16.00	24.00	35.00
Ethane	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Propane	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Naphthalene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Acenaphthylene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Acenaphthene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Fluorene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Phenanthrene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Anthracene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Fluoranthene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Pyrene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Benz(a)anthracene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Chrysene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Benzo(b+j)fluoranthene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Benzo(k)fluoranthene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Benzo(a)pyrene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Indeno(1.2.3.cd)pyrene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Dibenz(a.h)anthracene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Benzo(g.h.i)perylene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Sum of polycyclic aromatic hydrocarbons	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Benzo(a)pyrene TEQ (zero)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
C6 - C9 Fraction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
C10 - C14 Fraction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
C15 - C28 Fraction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
C29 - C36 Fraction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
C10 - C36 Fraction (sum)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
C6 - C10 Fraction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
C6 - C10 Fraction minus BTEX (F1)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
>C10 - C16 Fraction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
>C16 - C34 Fraction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
>C34 - C40 Fraction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
>C10 - C40 Fraction (sum)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
>C10 - C16 Fraction minus Naphthalene (F2)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Benzene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Toluene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Ethylbenzene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
meta- & para-Xylene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
ortho-Xylene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Total Xylenes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Sum of BTEX	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Naphthalene **	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Gross alpha	0.00	0.07	0.00	0.11	0.00	0.06	0.01	0.04	0.04	0.02	0.00	0.00	0.00	-	0.00	0.00	0.00	0.08	-	0.00	0.00	-	0.00	0.16	0.00
Gross beta activity - 40K	0.00	0.12	0.00	0.07	0.03	0.02	0.01	0.06	0.00	0.00	0.00	0.02	0.02	-	0.00	0.05	0.00	0.00	-	0.00	0.00	-	0.00	0.01	0.00
Phenol-d6	6.80	2.90	0.00	0.00	1.20	3.00	1.20	1.80	6.30	0.00	6.40	0.00	-	-	-	-	-	-	-	-	-	-	-	-	0.00
2-Chlorophenol-D4	12.70	6.30	0.00	0.00	2.90	9.80	2.40	5.60	12.40	6.20	6.10	0.00	-	-	-	-	-	-	-	-	-	-	-	-	11.20
2.4.6-Tribromophenol	12.50	9.80	0.00	14.70	0.00	10.40	4.00	7.70	1.00	0.00	35.50	0.00	-	-	-	-	-	-	-	-	-	-	-	-	13.00
2-Fluorobiphenyl	4.40	8.30	0.00	0.30	6.00	11.70	0.00	0.00	10.00	0.00	6.50	0.00	5.50	6.00	5.90	0.00	0.00	0.00	-	0.00	0.00	10.90	0.50	0.00	17.80
Anthracene-d10	11.30	7.40	0.00	3.90	0.00	18.10	1.10	9.40	3.00	0.00	2.60	0.00	5.90	5.70	12.40	0.00	0.00	0.00	-	0.00	0.00	5.20	5.80	0.00	0.00
4-Terphenyl-d14	15.40	4.50	0.00	0.80	0.00	20.20	7.60	5.20	0.00	0.00	0.00	0.00	4.00	7.90	13.10	0.00	0.00	0.00	-	0.00	0.00	7.20	4.30	0.00	0.00
1.2-Dichloroethane-D4	2.00	0.00	0.00	4.00	7.00	0.00	0.00	2.00	1.70	0.30	0.00	8.00	2.70	4.50	4.30	19.60	0.00	0.00	-	9.60	0.00	0.00	0.00	0.00	0.00
Toluene-D8	6.00	0.00	0.00	3.00	0.00	0.00	0.00	4.00	1.00	1.00	0.00	1.00	2.00	0.00	6.00	16.30	2.00	4.10	-	11.70	0.00	0.00	0.00	0.00	0.00
4-Bromofluorobenzene	7.00	0.00	0.00	2.00	11.00	0.00	0.00	6.00	6.00	1.00	0.00	9.70	0.00	0.00	6.00	19.30	6.00	0.00	-	16.00	0.00	0.00	0.00	0.00	0.00

*All readings below the limit of detection (LOD) have been assumed to be equal to the limit of detection.
** Limit of detection has changed, all readings are equal to limit of detection (LOD)

RN042462

CARPENTARIA 2

Category	CHEMICAL NAME	FRACTION D/T/N	RESULT UNIT	LIMIT OF DETECTION	3/11/2021	14/11/2021	17/11/2021	21/11/2021	24/11/2021	28/11/2021	1/12/2021	8/12/2021	9/01/2022	26/01/2022	9/02/2022	23/02/2022	9/03/2022	23/03/2022	6/04/2022	20/07/2022	6/11/2022	2/01/2023	26/04/2023	26/07/2023	24/10/2023	14/01/2024	22/05/2024	24/07/2024	6/10/2024
General, anions, cations and metal	pH - Lab	N	pH Unit	0.01	7.66	7.55	7.51	7.1	7.56	7.78	7.58	7.3	7.75	7.48	7.51	7.8	7.32	7.40	7.13	7.45	7.75	7.10	7.69	7.21	7.72	7.55	7.62	7.3	7.79
	Electrical Conductivity @ 25°C	N	µS/cm	1	1090	1070	1070	1040	1060	1080	1060	1040	1120	960	823	971	1060.00	976.00	1000.00	1050.00	1050.00	910.00	1030.00	984	1010	961	929	962	964
	Total Dissolved Solids @180°C	T	mg/L	10	728	660	606	718	820	705	685	685	770	584	492	653	608.00	618.00	659.00	644.00	584.00	565.00	576.00	538	516	526	548	556	509
	Suspended Solids (SS)	N	mg/L	1	----	1	<1	1	<1	1	1	1	8	25	20	12	6.00	5.00	3.00	1.00	6.00	4.00	2.00	5	8	8	7	8	9
	Gross beta	T	Bq/L	0.1	0.35	0.45	0.48	0.47	0.38	0.4	0.49	0.48	0.64	0.44	0.36	0.48	0.42	---	0.43	0.55	0.51	0.69	0.42	0.52	0.52	---	0.42	0.39	0.39
	Hydroxide Alkalinity as CaCO3	T	mg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Carbonate Alkalinity as CaCO3	D	mg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Bicarbonate Alkalinity as CaCO3	D	mg/L	1	483	474	422	480	474	370	472	477	443	350	325	423	448.00	443.00	455.00	439.00	437.00	444.00	403.00	445	460	453	449	446	432
	Total Alkalinity as CaCO3	D	mg/L	1	483	474	422	480	474	370	472	477	443	350	325	423	448.00	443.00	455.00	439.00	437.00	444.00	403.00	445	460	453	449	446	432
	Sulfate as SO4 2-	N	mg/L	1	80	96	90	88	86	94	91	92	82	78	52	69	73.00	80.00	83.00	83.00	64.00	82.00	60.00	42	33	31	46	34	26
	Chloride	N	mg/L	1	59	55	50	57	51	54	57	51	94	76	43	56	55.00	61.00	53.00	58.00	55.00	54.00	56.00	71	55	57	53	51	52
	Calcium D	N	mg/L	1	115	118	108	116	112	113	122	117	105	94	91	108	108.00	112.00	112.00	106.00	108.00	85.00	90.00	98	99	103	75	73	92
	Magnesium D	N	mg/L	1	50	59	52	57	54	55	57	55	53	46	39	48	51.00	55.00	50.00	54.00	50.00	48.00	52.00	56.00	57	59	48	46	56
	Sodium D	N	mg/L	1	38	42	37	46	39	40	39	39	46	38	30	36	38.00	41.00	36.00	38.00	37.00	35.00	38.00	39	40	42	34	35	41
	Potassium D	D	mg/L	1	7	10	8	10	9	9	9	9	16	11	10	10	9.00	9.00	11.00	8.00	9.00	7.00	8.00	10	10	9	8	7	10
	Calcium T	D	mg/L	1	120	109	115	115	112	120	115	117	112	117	87	101	118.00	120.00	116.00	105.00	105.00	116.00	109.00	106	105	95	107	100	91
	Magnesium T	N	mg/L	1	60	52	55	56	55	56	57	57	54	56	38	50	53.00	62.00	56.00	57.00	60.00	54.00	57.00	60	54	57	61	53	60
	Sodium T	N	mg/L	1	37	39	39	40	39	40	42	40	46	45	30	36	39.00	43.00	40.00	40.00	42.00	40.00	41.00	42	38	41	44	42	42
	Potassium T	N	mg/L	1	7	9	9	9	9	10	9	9	17	13	9	9	10.00	11.00	10.00	8.00	10.00	10.00	10.00	12	9	11	11	10	9
	Arsenic D	N	mg/L	0.001	<0.001	0.001	<0.001	0.002	0.001	0.002	0.002	0.002	0.003	<0.001	0.001	0.001	0.00	0.00	0.00	0.00	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Barium D	N	mg/L	0.001	0.088	0.076	0.072	0.075	0.077	0.079	0.077	0.08	0.111	0.145	0.24	0.159	0.13	0.11	0.10	0.13	0.13	0.12	0.13	0.146	0.107	0.138	0.118	0.118	0.142
	Cadmium D	N	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	Chromium D	D	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Copper D	T	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Lead D	T	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Lithium D	D	mg/L	0.001	0.055	0.085	0.08	0.095	0.083	0.087	0.089	0.088	0.086	0.072	0.056	0.072	0.08	0.08	0.09	0.09	0.08	0.07	0.07	0.088	0.081	0.086	0.075	0.084	0.088
	Manganese D	T	mg/L	0.001	0.028	0.053	0.043	0.047	0.042	0.043	0.04	0.042	0.073	0.087	0.121	0.088	0.07	0.07	0.06	0.05	0.05	0.04	0.05	0.064	0.056	0.063	0.052	0.062	0.074
	Selenium D	T	mg/L	0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Silver D	D	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Strontium D	T	mg/L	0.001	0.495	0.517	0.498	0.477	0.535	0.548	0.528	0.528	0.479	0.459	0.366	0.451	0.49	0.47	0.49	0.52	0.45	0.44	0.52	0.495	0.45	0.555	0.399	0.459	0.565
	Zinc D	D	mg/L	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
	Boron D	T	mg/L	0.05	0.11	0.11	0.11	0.15	0.12	0.12	0.12	0.11	0.11	0.1	0.08	0.1	0.10	0.13	0.11	0.14	0.11	0.10	0.11	0.13	0.13	0.1	0.12	0.14	0.12
	Iron D	D	mg/L	0.05	0.43	<0.05	0.7	0.83	0.69	0.87	0.57	0.71	2.76	<0.05	2.64	2.37	2.05	1.88	0.84	0.76	0.42	0.44	1.57	1.98	0.57	3.72	1.02	1.32	4.5
	Arsenic T	T	mg/L	0.001	<0.001	<0.001	<0.001	0.001	0.001	0.001	0.001	0.002	0.001	0.002	0.001	0.002	0.00	0.00	0.00	0.00	0.00	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	0.001	0.001
	Barium T	D	mg/L	0.001	0.078	0.075	0.08	0.079	0.078	0.085	0.08	0.08	0.13	0.262	0.24	0.159	0.14	0.12	0.11	0.13	0.16	0.14	0.15	0.171	0.13	0.148	0.179	0.16	0.15
	Cadmium T	T	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	Chromium T	D	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001
	Copper T	T	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Lead T	D	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Lithium T	T	mg/L	0.001	0.057	0.089	0.09	0.084	0.084	0.103	0.095	0.091	0.085	0.08	0.052	0.073	0.09	0.08	0.09	0.09	0.09	0.08	0.10	0.09	0.079	0.082	0.094	0.077	0.101
	Manganese T	D	mg/L	0.001	0.026	0.051	0.047	0.048	0.044	0.044	0.041	0.041	0.081	0.133	0.12	0.092	0.08	0.07	0.06	0.05	0.06	0.05	0.06	0.065	0.066	0.068	0.071	0.07	0.074
	Selenium T	T	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Silver T	T	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Strontium T	D	mg/L	0.001	0.487	0.511	0.521	0.54	0.525	0.559	0.54	0.52	0.54	0.558	0.36	0.447	0.56	0.53	0.50	0.54	0.52	0.52	0.55	0.57	0.518	0.544	0.579	0.613	0.566
	Zinc T	T	mg/L	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.006	<0.005	0.011	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
	Boron T	T	mg/L	0.05	0.11	0.13	0.12	0.12	0.12	0.14	0.14	0.12	0.12	0.1	0.07	0.1	0.13	0.12	0.12	0.12	0.10	0.12	0.14	0.12	0.12	0.1	0.14	0.1	0.13
	Iron T	D	mg/L	0.05	0.54	1.18	0.86	0.91	0.61	0.94	0.65	0.78	3.48	10.7	3.55	3.13	2.57	2.03	1.89	0.93	1.61	1.29	1.63	3.21	2.11	3.59	4.98	4.26	4.96
	Mercury D	T	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	Mercury T	D	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	Reactive Silica	T	mg/L	0.05	28.2	24.5	27.6	25.9	26	27.1	26.4	26.7	24.7	21.6	18.2	21.7	24.10	25.10	24.60	25.50	24.60	25.10	26.80	24.90	24.3	23.8	24.1	22.7	23.8
	Fluoride	D	mg/L	0.1	0.5	0.8	0.7	0.1	0.8	0.8	0.8	0.6	0.8	0.8	0.6	0.7	0.60	0.80	0.80	0.80	0.80	0.80	0.80	0.70	0.8	0.8	0.7	0.7	0.6
	Nitrite as N	T	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Nitrate as N	T	mg/L	0.01	0.08	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.05	<0.01	0.02	<0.01	0.01	<0.01	0.03	<0.01	<0.01	<0.01	<0.01	<0.01
	Nitrite + Nitrate as N	D	mg/L	0.01	0.08	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.05	<0.01	0.02	<0.01	0.01	<0.01	0.03	<0.01	<0.01	<0.01	<0.01	<0.01
	Total Anions	T	meq/L	0.01	13	13	11.7	13	12.7	10.9	12.9	12.9	13.2	10.8	8.79	11.5	12.00	12.20	12.30	12.10	11.60	12.10	10.90	11.80	11.4	11.3	11.4	11	10.6
	Total Cations	T	meq/L	0.01	11.7	12.8	11.5	12.7	12	12.1	12.7	12.3	12	10.4	9.31	11.2	11.50	12.10	11.60	11.60	11.30	9.89	10.60	11.40	11.6	12	9.38	9.13	11.2
	Ionic Balance	N	%	0.01	5.25	0.75	1	1.14	3	5.49	0.89	2.36	4.75	1.65	2.88	1.35	2.35	0.44	3.20	2.29	1.18	10.00	1.17	1.36	0.86	3.2	9.84	9.55	2.74
Diss. pet. gases	Methane	N	µg/L	10	<10	<10	<10	<10	<10	<10	<10	<10	14	15	14	12	14.00	16.00	25.00	51.00	142.00	96.00	129.00	266.00	214	277	507	368	317
	Ethane	N	µg/L	10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
	Propane	N	µg/L	10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
PAH Suite	Naphthalene	N	µg/L	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<0.1	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Acenaphthylene	N	µg/L	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Acenaphthene	N	µg/L	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Fluorene	N	µg/L	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Phenanthrene	N	µg/L	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Anthracene	N	µg/L	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Fluoranthene	N	µg/L	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Pyrene	N	µg/L	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Benz(a)anthracene	N	µg/L	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Chrysene	N	µg/L	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Benzo(b+j)fluoranthene	N	µg/L	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Benzo(k)fluoranthene	N	µg/L	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Benzo(a)pyrene	N	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
	Indeno(1.2.3.cd)pyrene	N	µg/L	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Dibenz(a.h)anthracene	N	µg/L	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Benzo(g.h.i)perylene	N	µg/L	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Sum of polycyclic aromatic hydrocarbons	N	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
	Benzo(a)pyrene TEQ (zero)	N	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
Total Recoverable Hydrocarbons	C6 - C9 Fraction	N	µg/L	20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
	C10 - C14 Fraction	N	µg/L	50	<50	<50	<50	<50	<50	<50	<50	<50	50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
	C15 - C28 Fraction	N	µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100	100	<100	<100	110	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
	C29 - C36 Fraction	N	µg/L	50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
	C10 - C36 Fraction (sum)	N	µg/L	50	<50	<50	<50	<50	<50	<50	<50	<50	150	<50	<50	110	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
	C6 - C10 Fraction	N	µg/L	20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
	C6 - C10 Fraction minus BTEX (F1)	N	µg/L	20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
	>C10 - C16 Fraction	N	µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100	180	130	<100	160	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
	>C16 - C34 Fraction	N	µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
	>C34 - C40 Fraction	N	µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
	>C10 - C40 Fraction (sum)	N	µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100	180	130	<100	160	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
	>C10 - C16 Fraction minus Naphthalene (F2)	N	µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100	180	130	<100	160	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
BTEXN, Alpha/Beta, Surrogates	Benzene	N	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<20	<1	<1	<1	<1	<1	<1
	Toluene	N	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2	<2
	Ethylbenzene	N	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2	<2
	meta- & para-Xylene	N	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2	<2
	ortho-Xylene	N	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2	<2
	Total Xylenes	N	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2	<2	<2	<2
	Sum of BTEX	N	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Naphthalene	N	µg/L	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<0.1	<5	<0.1	<0.1	<5	<5	<5	<5	<5	<5
	Gross alpha	N	Bq/L	0.05	0.29	0.58	0.61	0.61	0.5	0.6	0.52	0.68	0.44	0.39	0.3	0.35	0.38	---	0.34	0.64	0.51	0.45	0.52	0.46	0.52	---	0.38	0.32	0.39
	Gross beta activity - 40K	N	Bq/L	0.1	0.13	0.21	0.23	0.22	0.15	0.17	0.24	0.25	0.21	<0.10	0.11	0.24	0.17	---	0.19	0.27	0.24	0.44	0.11	0.21	0.28	---	0.17	0.16	0.14
	Phenol-d6	N	%	1	26.6	27	27.2	18.3	23	28.7	18.7	22.3	37.4	15.1	17.5	20.9	---	---	---	---	---	---	---	---	---	---	---	---	33
	2-Chlorophenol-D4	N	%	1	52.9	57.4	55.9	41.1	53.2	58.3	46.9	53.5	70.7	38.5	35.2	44.2	---	---	---	---	---	---	---	---	---	---	---	---	67.3
	2.4.6-Tribromophenol	N	%	1	64.2	66.7	59.2	56.6	54.7	64.4	47.2	38.2	98.4	30.2	38.6	56.4	---	---	---	---	---	---	---	---	---	---	---	---	89.6
	2-Fluorobiphenyl	N	%	1	56.2	69.3	66	55.6	66	67.9	60	65.2	82.9	75	52.5	61.4	59.10	61.50	56.80	51.00	48.80	50.50	68.40	73	55.5	67.7	66.9	78.6	70.2
	Anthracene-d10	N	%	1	74.2	90.7	89.2	74.5	74.4	98.3	74	76.2	102	72	60.2	77.2	81.80	85.70	86.20	51.80	68.50	64.80	83.90	81.2	58.1	74.4	71.6	78.1	86.3
	4-Terphenyl-d14	N	%	1	87	98.3	92.8	95.1	75.5	95.6	96.6	90.7	103	91.9	66.7	84.3	70.40	74.20	75.90	55.60	70.40	72.60	96.10	81.1	60.3	74.7	75.3	81.2	73.7
	1.2-Dichloroethane-D4	N	%	2	115	93.3	86.9	119	121	107	119	110	95.7	92.8	109	125	96.60	85.80	107.00	110.00	85.10	109.00	101.00	89.2	102	109	83.5	107	109
	Toluene-D8	N	%	2	110	88.2	89.1	102	106	88.2	112	106	98.1	117	111	113	105.00	108.00	109.00	95.30	86.40	90.50	109.00	110	102	106	95.2	100	97.8
	4-Bromofluorobenzene	N	%	2	109	90.4	93.3	116	118	82.4	112	107	101	110	116	101	110.00	99.50	116.00	97.80	85.10	98.10	98.30	131	105	99.2	105	93.8	92.6

RN042462

CARPENTARIA 2

Statistics for All Data *

Category	CHEMICAL NAME	FRACTION D/T/N	RESULT UNIT	No. results	Min	Q1	Median	Mean	Q3	Max	20th Percentile	80th Percentile	Standard Deviation	LIMIT OF DETECTION	3/11/2021	14/11/2021	17/11/2021	21/11/2021	24/11/2021	28/11/2021	1/12/2021	8/12/2021	9/01/2022	26/01/2022	9/02/2022	23/02/2022	9/03/2022	23/03/2022	6/04/2022	20/07/2022	6/11/2022	2/01/2023	26/04/2023	26/07/2023	24/10/2023	14/01/2024	22/05/2024	24/07/2024	6/10/2024
General, anions, cations and metal	pH - Lab	N	pH Unit	25	7.10	7.31	7.55	7.50	7.71	7.80	7.30	7.74	0.22	0.01	7.66	7.55	7.51	7.1	7.56	7.78	7.58	7.3	7.75	7.48	7.51	7.8	7.32	7.4	7.13	7.45	7.75	7.1	7.69	7.21	7.72	7.55	7.62	7.3	7.79
	Electrical Conductivity @ 25°C	N	µS/cm	25	823.00	963.00	1030.00	1010.80	1060.00	1120.00	961.20	1068.00	65.66	1	1090	1070	1070	1040	1060	1080	1060	1040	1120	960	823	971	1060	976	1000	1050	1050	910	1030	984	1010	961	929	962	964
	Total Dissolved Solids @180°C	T	mg/L	25	492.00	552.00	608.00	622.12	685.00	820.00	540.00	701.00	83.99	10	728	660	606	718	820	705	685	685	770	584	492	653	608	618	659	644	584	565	576	538	516	526	548	556	509
	Suspended Solids (SS)	N	mg/L	24	1.00	1.00	5.00	6.00	8.00	25.00	1.00	8.00	5.95	1	-	1	1	1	1	1	1	1	8	25	20	12	6	5	3	1	6	4	2	5	8	8	7	8	9
	Gross beta	T	Bq/L	23	0.35	0.40	0.45	0.46	0.51	0.69	0.39	0.52	0.08	0.1	0.35	0.45	0.48	0.47	0.38	0.4	0.49	0.48	0.64	0.44	0.36	0.48	0.42	-	0.43	0.55	0.51	0.69	0.42	0.52	0.52	-	0.42	0.39	0.39
	Hydroxide Alkalinity as CaCO3	T	mg/L	25	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Carbonate Alkalinity as CaCO3	D	mg/L	25	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Bicarbonate Alkalinity as CaCO3	D	mg/L	25	325.00	427.50	445.00	437.88	466.00	483.00	422.20	473.60	38.66	1	483	474	422	480	474	370	472	477	443	350	325	423	448	443	455	439	437	444	403	445	460	453	449	446	432
	Total Alkalinity as CaCO3	D	mg/L	25	325.00	427.50	445.00	437.88	466.00	483.00	422.20	473.60	38.66	1	483	474	422	480	474	370	472	477	443	350	325	423	448	443	455	439	437	444	403	445	460	453	449	446	432
	Sulfate as SO4 2-	N	mg/L	25	26.00	49.00	80.00	69.40	87.00	96.00	42.80	89.60	21.90	1	80	96	90	88	86	94	91	92	82	78	52	69	73	80	83	83	64	82	60	42	33	31	46	34	26
	Chloride	N	mg/L	25	43.00	52.50	55.00	57.36	57.50	94.00	51.20	58.80	9.78	1	59	55	50	57	51	54	57	51	94	76	43	56	55	61	53	58	55	54	56	71	55	57	53	51	52
	Calcium D	N	mg/L	25	73.00	93.00	108.00	103.20	112.50	122.00	91.20	114.60	12.83	1	115	118	108	116	112	113	122	117	105	94	91	108	108	112	112	106	108	85	90	98	99	103	75	73	92
	Magnesium D	N	mg/L	25	39.00	49.00	53.00	52.28	56.00	59.00	48.00	56.80	4.65	1	50	59	52	57	54	55	57	55	53	46	39	48	51	55	50	54	50	48	52	56	57	59	48	46	56
	Sodium D	N	mg/L	25	30.00	36.50	38.00	38.56	40.50	46.00	36.00	41.00	3.41	1	38	42	37	46	39	40	39	39	46	38	30	36	38	41	36	38	37	35	38	39	40	42	34	35	41
	Potassium D	D	mg/L	25	7.00	8.00	9.00	9.32	10.00	16.00	8.00	10.00	1.76	1	7	10	8	10	9	9	9	9	16	11	10	10	9	9	11	8	9	7	8	10	10	9	8	7	10
	Calcium T	D	mg/L	25	87.00	105.00	112.00	109.32	116.50	120.00	101.80	117.00	8.95	1	120	109	115	115	112	120	115	117	112	117	87	101	118	120	116	105	105	116	109	106	105	95	107	100	91
	Magnesium T	N	mg/L	25	38.00	54.00	56.00	55.60	58.50	62.00	53.20	60.00	4.62	1	60	52	55	56	55	56	57	57	54	56	38	50	53	62	56	57	60	54	57	60	54	57	61	53	60
	Sodium T	N	mg/L	25	30.00	39.00	40.00	40.28	42.00	46.00	39.00	42.00	3.09	1	37	39	39	40	39	40	42	40	46	45	30	36	39	43	40	40	42	40	41	42	38	41	44	42	42
	Potassium T	N	mg/L	25	7.00	9.00	10.00	10.00	10.50	17.00	9.00	11.00	1.88	1	7	9	9	9	9	10	9	9	17	13	9	9	10	11	10	8	10	10	10	12	9	11	11	10	9
	Arsenic D	N	mg/L	25	0.001	0.001	0.001	0.001	0.002	0.003	0.001	0.002	0.001	0.001	0.001	0.001	0.001	0.002	0.001	0.002	0.002	0.002	0.003	0.001	0.001	0.001	0.001	0.002	0.001	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	Barium D	N	mg/L	25	0.072	0.080	0.117	0.116	0.136	0.240	0.077	0.141	0.036	0.001	0.088	0.076	0.072	0.075	0.077	0.079	0.077	0.08	0.111	0.145	0.24	0.159	0.126	0.114	0.099	0.125	0.128	0.117	0.133	0.146	0.107	0.138	0.118	0.118	0.142
	Cadmium D	N	mg/L	25	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
	Chromium D	D	mg/L	25	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	Copper D	T	mg/L	25	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	Lead D	T	mg/L	25	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	Lithium D	D	mg/L	25	0.055	0.074	0.083	0.080	0.088	0.095	0.072	0.088	0.010	0.001	0.055	0.085	0.08	0.095	0.083	0.087	0.089	0.088	0.086	0.072	0.056	0.072	0.079	0.083	0.086	0.091	0.079	0.072	0.072	0.088	0.081	0.086	0.075	0.084	0.088
	Manganese D	T	mg/L	25	0.028	0.043	0.054	0.059	0.073	0.121	0.042	0.074	0.020	0.001	0.028	0.053	0.043	0.047	0.042	0.043	0.04	0.042	0.073	0.087	0.121	0.088	0.073	0.074	0.056	0.05	0.054	0.04	0.048	0.064	0.056	0.063	0.052	0.062	0.074
	Selenium D	T	mg/L	25	0.010	0.010	0.010	0.010	0.010	0.020	0.010	0.010	0.002	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	Silver D	D	mg/L	25	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	Strontium D	T	mg/L	25	0.366	0.455	0.486	0.487	0.523	0.565	0.450	0.528	0.046	0.001	0.495	0.517	0.498	0.477	0.535	0.548	0.528	0.528	0.479	0.459	0.366	0.451	0.485	0.473	0.486	0.518	0.448	0.444	0.518	0.495	0.45	0.555	0.399	0.459	0.565
	Zinc D	D	mg/L	25	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005
	Boron D	T	mg/L	25	0.08	0.11	0.11	0.12	0.13	0.15	0.10	0.13	0.02	0.05	0.11	0.11	0.11	0.15	0.12	0.12	0.12	0.11	0.11	0.1	0.08	0.1	0.1	0.13	0.11	0.14	0.11	0.1	0.11	0.13	0.13	0.1	0.12	0.14	0.12
	Iron D	D	mg/L	25	0.05	0.57	0.84	1.35	2.02	4.50	0.47	2.31	1.11	0.05	0.43	0.05	0.7	0.83	0.69	0.87	0.57	0.71	2.76	0.05	2.64	2.37	2.05	1.88	0.84	0.76	0.42	0.44	1.57	1.98	0.57	3.72	1.02	1.32	4.5
	Arsenic T	T	mg/L	25	0.001	0.001	0.001	0.001	0.001	0.002	0.001	0.001	0	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.001	0.002	0.001	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	Barium T	D	mg/L	25	0.075	0.080	0.130	0.132	0.158	0.262	0.080	0.160	0.048	0.001	0.078	0.075	0.08	0.079	0.078	0.085	0.08	0.08	0.13	0.262	0.24	0.159	0.135	0.119	0.111	0.128	0.156	0.137	0.151	0.171	0.13	0.148	0.179	0.16	0.15
	Cadmium T	T	mg/L	25	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0000	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
	Chromium T	D	mg/L	25	0.001	0.001	0.001	0.001	0.001	0.005	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.005	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	Copper T	T	mg/L	25	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	Lead T	D	mg/L	25	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	Lithium T	T	mg/L	25	0.052	0.080	0.085	0.084	0.091	0.103	0.079	0.093	0.011	0.001	0.057	0.089	0.09	0.084	0.084	0.103	0.095	0.091	0.085	0.08	0.052	0.073	0.089	0.08	0.086	0.085	0.086	0.082	0.095	0.09	0.079	0.082	0.094	0.077	0.101
	Manganese T	D	mg/L	25	0.026	0.048	0.063	0.065	0.074	0.133	0.045	0.077	0.024	0.001	0.026	0.051	0.047	0.048	0.044	0.044	0.041	0.041	0.081	0.133	0.12	0.092	0.078	0.073	0.063	0.053	0.062	0.048	0.055	0.065	0.066	0.068	0.071	0.07	0.074
	Selenium T	T	mg/L	25	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	Silver T	T	mg/L	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	Strontium T	D	mg/L	25	0.36	0.52	0.54	0.53	0.56	0.61	0.51	0.56	0.05	0.001	0.487	0.511	0.521	0.54	0.525	0.559	0.54	0.52	0.54	0.558	0.36	0.447	0.56	0.528	0.498	0.54	0.522	0.515	0.547	0.567	0.518	0.544	0.579	0.613	0.566
	Zinc T	T	mg/L	25	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.006	0.005	0.011	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005
	Boron T	T	mg/L	25	0.07	0.11	0.12	0.12	0.13	0.14	0.10	0.13	0.02	0.05	0.11	0.13	0.12	0.12	0.12	0.14	0.14	0.12	0.12	0.1	0.07	0.1	0.13	0.12	0.12	0.12	0.1	0.12	0.14	0.12	0.12	0.1	0.14	0.1	0.13
	Iron T	D	mg/L	25	0.54	0.92	1.89	2.50	3.52	10.70	0.87	3.58	2.16	0.05	0.54	1.18	0.86	0.91	0.61	0.94	0.65	0.78	3.48	10.7	3.55	3.13	2.57	2.03	1.89	0.93	1.61	1.29	1.63	3.21	2.11	3.59	4.98	4.26	4.96
	Mercury D	T	mg/L	25	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
	Mercury T	D	mg/L	25	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
	Reactive Silica	T	mg/L	25	18.20	23.95	24.70	24.72	26.20	28.20	23.80	26.64	2.09	0.05	28.2	24.5	27.6	25.9	26	27.1	26.4	26.7	24.7	21.6	18.2	21.7	24.1	25.1	24.6	25.5	24.6	25.1	26.8	24.9	24.3	23.8	24.1	22.7	23.8
	Fluoride	D	mg/L	25	0.10	0.65	0.80	0.71	0.80	0.80	0.60	0.80	0.15	0.1	0.5	0.8	0.7	0.1	0.8	0.8	0.8	0.6	0.8	0.8	0.6	0.7	0.6	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.8	0.8	0.7	0.7	0.6
	Nitrite as N	T	mg/L	25	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	Nitrate as N	T	mg/L	25	0.01	0.01	0.01	0.02	0.01	0.08	0.01	0.01	0.02	0.01	0.08	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.05	0.01	0.02	0.01	0.01	0.01	0.03	0.01	0.01	0.01	0.01	0.01
	Nitrite + Nitrate as N	D	mg/L	25	0.01	0.01	0.01	0.02	0.01	0.08	0.01	0.01	0.02	0.01	0.08	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.05	0.01	0.02	0.01	0.01	0.01	0.03	0.01	0.01	0.01	0.01	0.01
	Total Anions	T	meq/L	25	8.79	11.15	11.80	11.80	12.80	13.20	10.92	12.90	0.99	0.01	13	13	11.7	13	12.7	10.9	12.9	12.9	13.2	10.8	8.79	11.5	12	12.2	12.3	12.1	11.6	12.1	10.9	11.8	11.4	11.3	11.4	11	10.6
	Total Cations	T	meq/L	25	9.13	10.90	11.60	11.36	12.05	12.80	10.44	12.10	1.02	0.01	11.7	12.8	11.5	12.7	12	12.1	12.7	12.3	12	10.4	9.31	11.2	11.5	12.1	11.6	11.6	11.3	9.89	10.6	11.4	11.6	12	9.38	9.13	11.2
	Ionic Balance	N	%	25	0.44	1.16	2.35	3.15	3.98	10.00	1.03	5.15	2.80	0.01	5.25	0.75	1	1.14	3	5.49	0.89	2.36	4.75	1.65	2.88	1.35	2.35	0.44	3.2	2.29	1.18	10	1.17	1.36	0.86	3.2	9.84	9.55	2.74
Diss. pet. gases	Methane	N	mg/L	25	10.00	10.00	15.00	102.28	178.00	507.00	10.00	255.60	137.98	0.01	10	10	10	10	10	10	10	10	14	15	14	12	14	16	25	51	142	96	129	266	214	277	507	368	317
	Ethane	N	µg/L	25	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	0	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
	Propane	N	µg/L	25	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	0	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
PAH Suite **	Naphthalene	N	µg/L	25	0.10	0.10	1.00	0.87	1.00	5.00	0.10	1.00	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.1	5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1
	Acenaphthylene	N	µg/L	25	0.10	0.10	1.00	0.68	1.00	1.00	0.10	1.00	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1
	Acenaphthene	N	µg/L	25	0.10	0.10	1.00	0.68	1.00	1.00	0.10	1.00	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1
	Fluorene	N	µg/L	25	0.10	0.10	1.00	0.68	1.00	1.00	0.10	1.00	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1
	Phenanthrene	N	µg/L	25	0.10	0.10	1.00	0.68	1.00	1.00	0.10	1.00	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1
	Anthracene	N	µg/L	25	0.10	0.10	1.00	0.68	1.00	1.00	0.10	1.00	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1
	Fluoranthene	N	µg/L	25	0.10	0.10	1.00	0.68	1.00	1.00	0.10	1.00	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1
	Pyrene	N	µg/L	25	0.10	0.10	1.00	0.68	1.00	1.00	0.10	1.00	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1
	Benz(a)anthracene	N	µg/L	25	0.10	0.10	1.00	0.68	1.00	1.00	0.10	1.00	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1
	Chrysene	N	µg/L	25	0.10	0.10	1.00	0.68	1.00	1.00	0.10	1.00	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1
	Benzo(b+j)fluoranthene	N	µg/L	25	0.10	0.10	1.00	0.68	1.00	1.00	0.10	1.00	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1
	Benzo(k)fluoranthene	N	µg/L	25	0.10	0.10	1.00	0.68	1.00	1.00	0.10	1.00	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1
	Benzo(a)pyrene	N	µg/L	25	0.05	0.05	0.50	0.34	0.50	0.50	0.05	0.50	0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.5
	Indeno(1.2.3.cd)pyrene	N	µg/L	25	0.10	0.10	1.00	0.71	1.00	1.00	0.10	1.00	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1
	Dibenz(a.h)anthracene	N	µg/L	25	0.10	0.10	1.00	0.71	1.00	1.00	0.10	1.00	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1
	Benzo(g.h.i)perylene	N	µg/L	25	0.10	0.10	1.00	0.71	1.00	1.00	0.10	1.00	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1
	Sum of polycyclic aromatic hydrocarbons	N	µg/L	25	0.05	0.05	0.50	0.34	0.50	0.50	0.05	0.50	0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.5
	Benzo(a)pyrene TEQ (zero)	N	µg/L	25	0.05	0.05	0.50	0.34	0.50	0.50	0.05	0.50	0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.05	0.05	0.1	0.05	0.05	0.05	0.05	0.05	0.05	0.5
Total Recoverable Hydrocarbons	C6 - C9 Fraction	N	µg/L	25	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	0	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
	C10 - C14 Fraction	N	µg/L	25	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	0	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
	C15 - C28 Fraction	N	µg/L	25	100.00	100.00	100.00	100.40	100.00	110.00	100.00	100.00	1.96	100	100	100	100	100	100	100	100	100	100	100	100	110	100	100	100	100	100	100	100	100	100	100	100	100	100
	C29 - C36 Fraction	N	µg/L	25	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	0	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
	C10 - C36 Fraction (sum)	N	µg/L	25	50.00	50.00	50.00	56.40	50.00	150.00	50.00	50.00	22.43	50	50	50	50	50	50	50	50	50	150	50	50	110	50	50	50	50	50	50	50	50	50	50	50	50	50
	C6 - C10 Fraction	N	µg/L	25	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	0	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
	C6 - C10 Fraction minus BTEX (F1)	N	µg/L	25	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	0	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
	>C10 - C16 Fraction	N	µg/L	25	100.00	100.00	100.00	106.80	100.00	180.00	100.00	100.00	19.74	100	100	100	100	100	100	100	100	100	180	130	100	160	100	100	100	100	100	100	100	100	100	100	100	100	100
	>C16 - C34 Fraction	N	µg/L	25	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	0	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	>C34 - C40 Fraction	N	µg/L	25	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	0.00	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	>C10 - C40 Fraction (sum)	N	µg/L	25	100.00	100.00	100.00	106.80	100.00	180.00	100.00	100.00	19.74	100	100	100	100	100	100	100	100	100	180	130	100	160	100	100	100	100	100	100	100	100	100	100	100	100	100
	>C10 - C16 Fraction minus Naphthalene (F2)	N	µg/L	25	100.00	100.00	100.00	106.80	100.00	180.00	100.00	100.00	19.74	100	100	100	100	100	100	100	100	100	180	130	100	160	100	100	100	100	100	100	100	100	100	100	100	100	100
BTEXN, Alpha/Beta, Surrogates	Benzene	N	µg/L	25	1.00	1.00	1.00	1.76	1.00	20.00	1.00	1.00	3.72	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	20	1	1	1	1	1	1
	Toluene	N	µg/L	25	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Ethylbenzene	N	µg/L	25	2.00	2.00	2.00	2.72	2.00	20.00	2.00	2.00	3.53	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	20	2	2	2	2	2	2
	meta- & para-Xylene	N	µg/L	25	2.00	2.00	2.00	2.72	2.00	20.00	2.00	2.00	3.53	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	20	2	2	2	2	2	2
	ortho-Xylene	N	µg/L	25	2.00	2.00	2.00	2.72	2.00	20.00	2.00	2.00	3.53	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	20	2	2	2	2	2	2
	Total Xylenes	N	µg/L	25	2.00	2.00	2.00	2.32	2.00	10.00	2.00	2.00	1.57	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	10	2	2	2	2	2	2
	Sum of BTEX	N	µg/L	25	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Naphthalene **	N	µg/L	25	0.10	1.00	1.00	2.01	5.00	5.00	1.00	5.00	1.88	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.1	5	0.1	0.1	5	5	5	5	5	5
	Gross alpha	N	Bq/L	23	0.29	0.38	0.46	0.47	0.58	0.68	0.35	0.60	0.11	0.05	0.29	0.58	0.61	0.61	0.5	0.6	0.52	0.68	0.44	0.39	0.3	0.35	0.38	-	0.34	0.64	0.51	0.45	0.52	0.46	0.52	-	0.38	0.32	0.39
	Gross beta activity - 40K	N	Bq/L	23	0.10	0.15	0.21	0.20	0.24	0.44	0.14	0.24	0.07	0.1	0.13	0.21	0.23	0.22	0.15	0.17	0.24	0.25	0.21	0.1	0.11	0.24	0.17	-	0.19	0.27	0.24	0.44	0.11	0.21	0.28	-	0.17	0.16	0.14
	Phenol-d6	N	%	13	15.10	18.50	23.00	24.28	27.95	37.40	18.14	29.56	6.22	1	26.6	27	27.2	18.3	23	28.7	18.7	22.3	37.4	15.1	17.5	20.9	-	-	-	-	-	-	-	-	-	-	-	-	33
	2-Chlorophenol-D4	N	%	13	35.20	42.65	53.20	51.93	57.85	70.70	40.58	60.10	10.16	1	52.9	57.4	55.9	41.1	53.2	58.3	46.9	53.5	70.7	38.5	35.2	44.2	-	-	-	-	-	-	-	-	-	-	-	-	67.3
	2.4.6-Tribromophenol	N	%	13	30.20	42.90	56.60	58.80	65.55	98.40	38.52	71.28	18.51	1	64.2	66.7	59.2	56.6	54.7	64.4	47.2	38.2	98.4	30.2	38.6	56.4	-	-	-	-	-	-	-	-	-	-	-	-	89.6
	2-Fluorobiphenyl	N	%	25	48.80	55.90	65.20	63.44	68.85	82.90	55.52	70.02	8.76	1	56.2	69.3	66	55.6	66	67.9	60	65.2	82.9	75	52.5	61.4	59.1	61.5	56.8	51	48.8	50.5	68.4	73	55.5	67.7	66.9	78.6	70.2
	Anthracene-d10	N	%	25	51.80	71.80	76.20	77.41	85.95	102.00	69.12	86.28	11.55	1	74.2	90.7	89.2	74.5	74.4	98.3	74	76.2	102	72	60.2	77.2	81.8	85.7	86.2	51.8	68.5	64.8	83.9	81.2	58.1	74.4	71.6	78.1	86.3
	4-Terphenyl-d14	N	%	25	55.60	73.15	81.10	81.56	93.95	103.00	70.84	95.50	12.42	1	87	98.3	92.8	95.1	75.5	95.6	96.6	90.7	103	91.9	66.7	84.3	70.4	74.2	75.9	55.6	70.4	72.6	96.1	81.1	60.3	74.7	75.3	81.2	73.7
	1.2-Dichloroethane-D4	N	%	25	83.50	93.05	107.00	103.52	110.00	125.00	89.92	114.00	11.82	2	115	93.3	86.9	119	121	107	119	110	95.7	92.8	109	125	96.6	85.8	107	110	85.1	109	101	89.2	102	109	83.5	107	109
	Toluene-D8	N	%	25	86.40	95.25	105.00	102.19	109.50	117.00	91.44	110.00	8.71	2	110	88.2	89.1	102	106	88.2	112	106	98.1	117	111	113	105	108	109	95.3	86.4	90.5	109	110	102	106	95.2	100	97.8
	4-Bromofluorobenzene	N	%	25	82.40	95.80	101.00	103.50	111.00	131.00	93.40	115.20	11.04	2	109	90.4	93.3	116	118	82.4	112	107	101	110	116	101	110	99.5	116	97.8	85.1	98.1	98.3	131	105	99.2	105	93.8	92.6

*All readings below the limit of detection (LOD) have been assumed to be equal to the limit of detection.

** Limit of detection has changed, all readings are equal to limit of detection (LOD)

RN042463

CARPENTARIA 2

Category	CHEMICAL NAME	FRACTION D/T/N	RESULT UNIT	LIMIT OF DETECTION	3/11/2021	14/11/2021	17/11/2021	21/11/2021	24/11/2021	28/11/2021	1/12/2021	8/12/2021	9/01/2022	26/01/2022	9/02/2022	23/02/2022	9/03/2022	23/03/2022	6/04/2022	20/07/2022	6/11/2022	2/01/2023	26/04/2023	26/07/2023	24/10/2023	14/01/2024	22/05/2024	24/07/2024	6/10/2024
General, anions, cations and metal	pH - Lab	N	pH Unit	0.01	7.65	7.45	7.46	7.04	7.55	7.6	7.52	7.26	7.74	7.39	7.5	7.57	7.29	7.35	7.11	7.52	7.71	7.1	7.70	7.19	7.65	7.46	7.55	7.23	7.64
	Electrical Conductivity @ 25°C	N	µS/cm	1	1090	1070	1080	1050	1080	1090	1080	1020	1060	1060	1030	1070	1080	976	1010	1030	1030	897	1010.00	998.00	1050	1000	967	1000	1010
	Total Dissolved Solids @180°C	T	mg/L	10	701	607	632	802	768	704	694	663	721	666	665	760	657	618	646	575	567	506	594.00	562.00	528	564	605	597	534
	Suspended Solids (SS)	N	mg/L	1	----	17	10	13	11	12	12	13	9	7	6	6	8	6	8	8	4	9	9.00	7.00	10	8	9	9	8
	Gross beta	T	Bq/L	0.1	0.45	0.38	0.31	0.32	0.32	0.36	0.27	0.33	0.26	0.22	0.23	0.31	0.33	---	0.33	0.35	0.35	0.69	0.39	0.29	0.31	---	0.29	0.33	0.3
	Hydroxide Alkalinity as CaCO3	T	mg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Carbonate Alkalinity as CaCO3	D	mg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Bicarbonate Alkalinity as CaCO3	D	mg/L	1	473	476	347	484	484	426	483	481	474	459	400	481	459	467	472	454	466	444	421.00	457.00	470	464	462	465	446
	Total Alkalinity as CaCO3	D	mg/L	1	473	476	347	484	484	426	483	481	474	459	400	481	459	467	472	454	466	444	421.00	457.00	470	464	462	465	446
	Sulfate as SO4 2-	N	mg/L	1	84	91	82	81	79	84	81	80	75	65	68	67	55	59	56	37	54	53	37.00	41.00	40	41	58	35	37
	Chloride	N	mg/L	1	56	58	53	59	53	60	58	52	56	53	52	61	56	62	54	60	55	53	57.00	69.00	55	56	55	52	52
	Calcium D	N	mg/L	1	105	110	109	119	111	118	129	121	111	103	110	126	116	115	117	101	110	86	91.00	112.00	110	131	109	94	100
	Magnesium D	N	mg/L	1	51	50	48	54	49	53	55	52	51	48	51	53	51	54	49	51	46	46	48.00	54.00	53	58	53	46	48
	Sodium D	N	mg/L	1	44	36	35	39	36	38	39	38	38	36	38	39	38	39	36	38	36	35	37.00	39.00	40	43	39	38	36
	Potassium D	D	mg/L	1	8	7	7	8	7	8	8	8	8	7	7	8	8	7	9	6	8	6	6.00	9.00	8	8	8	7	7
	Calcium T	D	mg/L	1	114	113	120	119	117	126	118	126	120	114	118	118	126	122	119	100	109	114	114.00	115.00	116	115	129	121	110
	Magnesium T	N	mg/L	1	63	51	54	53	52	54	54	57	53	52	51	54	53	58	55	54	56	50	55.00	54.00	50	54	58	50	56
	Sodium T	N	mg/L	1	38	39	39	39	38	38	41	41	38	36	39	39	39	41	40	40	41	39	41.00	41.00	37	40	43	41	41
	Potassium T	N	mg/L	1	8	8	8	8	8	8	8	8	8	7	7	7	8	9	8	7	9	8	8.00	10.00	7	10	9	9	8
	Arsenic D	N	mg/L	0.001	<0.001	<0.001	0.002	0.007	0.001	0.001	0.003	0.002	0.003	0.002	0.002	0.004	0.004	0.002	0.002	0.002	0.003	0.003	0.00	0.00	<0.001	0.001	0.001	<0.001	0.001
	Barium D	N	mg/L	0.001	0.084	0.173	0.15	0.154	0.128	0.145	0.148	0.152	0.196	0.165	0.159	0.17	0.174	0.169	0.166	0.239	0.187	0.193	0.18	0.17	0.125	0.166	0.156	0.135	0.143
	Cadmium D	N	mg/L	0.0001	<0.0001	<0.0001	<0.0001	0.0002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	Chromium D	D	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Copper D	T	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Lead D	T	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Lithium D	D	mg/L	0.001	0.082	0.056	0.049	0.06	0.05	0.053	0.054	0.054	0.051	0.036	0.055	0.051	0.049	0.051	0.051	0.05	0.044	0.041	0.04	0.05	0.048	0.05	0.049	0.049	0.048
	Manganese D	T	mg/L	0.001	0.116	0.202	0.156	0.166	0.141	0.158	0.176	0.155	0.197	0.166	0.133	0.125	0.133	0.124	0.111	0.092	0.055	0.058	0.06	0.06	0.045	0.051	0.047	0.046	0.043
	Selenium D	T	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Silver D	D	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Strontium D	T	mg/L	0.001	0.521	0.475	0.457	0.452	0.469	0.502	0.5	0.499	0.454	0.44	0.441	0.486	0.474	0.462	0.478	0.471	0.42	0.424	0.47	0.47	0.406	0.514	0.462	0.463	0.472
	Zinc D	D	mg/L	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
	Boron D	T	mg/L	0.05	0.11	0.11	0.1	0.11	0.1	0.11	0.11	0.11	0.1	0.09	0.12	0.1	0.09	0.12	0.1	0.13	0.09	0.09	0.10	0.12	0.12	0.1	0.12	0.13	0.11
	Iron D	D	mg/L	0.05	4.11	3.01	4.57	6.21	2.82	6.17	6.89	6.26	4.93	3.96	2.85	2.69	4.19	4.07	1.84	4.94	0.53	<0.05	2.25	3.48	0.54	4.98	4.38	1.28	2.04
	Arsenic T	T	mg/L	0.001	<0.001	<0.001	0.001	0.002	0.002	0.003	0.002	0.002	0.002	0.002	0.002	0.003	0.003	0.002	0.003	0.002	0.004	0.002	0.01	0.00	<0.001	0.001	0.002	0.001	0.002
	Barium T	D	mg/L	0.001	0.078	0.195	0.176	0.158	0.142	0.158	0.152	0.16	0.214	0.186	0.167	0.17	0.19	0.174	0.178	0.25	0.234	0.216	0.22	0.19	0.152	0.169	0.184	0.169	0.168
	Cadmium T	T	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	Chromium T	D	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Copper T	T	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.00	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Lead T	D	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.00	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Lithium T	T	mg/L	0.001	0.09	0.057	0.056	0.052	0.051	0.063	0.054	0.056	0.053	0.084	0.046	0.05	0.055	0.048	0.05	0.048	0.051	0.047	0.06	0.05	0.046	0.048	0.053	0.046	0.056
	Manganese T	D	mg/L	0.001	0.124	0.206	0.178	0.165	0.153	0.168	0.177	0.164	0.223	0.181	0.145	0.123	0.146	0.123	0.122	0.091	0.064	0.064	0.07	0.06	0.051	0.052	0.055	0.05	0.046
	Selenium T	T	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Silver T	T	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Strontium T	D	mg/L	0.001	0.51	0.493	0.508	0.511	0.496	0.527	0.507	0.526	0.522	0.515	0.47	0.487	0.553	0.492	0.486	0.492	0.499	0.478	0.53	0.52	0.479	0.483	0.556	0.575	0.514
	Zinc T	T	mg/L	0.005	<0.005	0.021	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.006	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.02	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
	Boron T	T	mg/L	0.05	0.1	0.12	0.11	0.12	0.11	0.12	0.12	0.11	0.11	0.15	0.1	0.11	0.12	0.1	0.11	0.12	0.09	0.11	0.14	0.10	0.12	0.09	0.13	0.1	0.13
	Iron T	D	mg/L	0.05	5.22	9.61	6.91	6.67	4.92	6.56	8.23	6.66	5.43	4.03	2.9	3.07	4.14	3.52	4.92	4.92	2.28	3.42	5.20	4.08	1.82	4.41	4.87	4.82	3.91
	Mercury D	T	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	Mercury T	D	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	Reactive Silica	T	mg/L	0.05	25	26.5	27.2	27.6	27.8	28.9	28.2	28.1	29.3	28.4	29.3	28.3	28	28.4	27.4	27.6	27.8	26.4	30.10	29.90	28.2	29.5	29.1	27.7	29.5
	Fluoride	D	mg/L	0.1	0.8	0.5	0.6	0.6	0.5	0.5	0.5	0.4	0.5	0.5	0.5	0.5	0.4	0.5	0.5	0.5	0.6	0.5	0.50	0.50	0.5	0.5	0.5	0.5	0.4
	Nitrite as N	T	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Nitrate as N	T	mg/L	0.01	0.06	0.02	0.01	0.02	0.02	0.01	0.01	0.02	0.02	0.03	0.02	0.02	0.03	0.07	0.01	0.03	0.01	0.02	0.02	0.04	0.02	0.02	<0.01	0.01	0.03
	Nitrite + Nitrate as N	D	mg/L	0.01	0.06	0.02	0.01	0.02	0.02	0.01	0.01	0.02	0.02	0.03	0.02	0.02	0.03	0.07	0.01	0.03	0.01	0.02	0.02	0.04	0.02	0.02	<0.01	0.01	0.03
	Total Anions	T	meq/L	0.01	12.8	13	10.1	13	12.8	12	13	12.7	12.6	12	10.9	12.7	11.9	12.3	12.1	11.5	12	11.5	10.80	11.90	11.8	11.7	12	11.5	11.1
	Total Cations	T	meq/L	0.01	11.6	11.3	11.1	12.3	11.3	12.1	12.9	12.2	11.6	10.8	11.5	12.6	11.8	12	11.7	11	11	9.75	10.20	12.00	11.8	13.4	11.7	10.3	10.7
	Ionic Balance	N	%	0.01	5.03	6.94	4.5	2.91	6.19	0.64	0.42	2.28	4.2	5.18	2.88	0.69	0.22	1.02	1.9	2.17	4.08	8.09	2.54	0.12	0.09	6.7	1.21	5.4	2.12
Diss. pet. gases	Methane	N	µg/L	10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	13	15	23	126	58	60	117.00	75.00	134	100	97	91	88
	Ethane	N	µg/L	10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
	Propane	N	µg/L	10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
PAH Suite	Naphthalene	N	µg/L	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<0.1	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Acenaphthylene	N	µg/L	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Acenaphthene	N	µg/L	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Fluorene	N	µg/L	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Phenanthrene	N	µg/L	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Anthracene	N	µg/L	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Fluoranthene	N	µg/L	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Pyrene	N	µg/L	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Benz(a)anthracene	N	µg/L	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Chrysene	N	µg/L	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Benzo(b+j)fluoranthene	N	µg/L	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Benzo(k)fluoranthene	N	µg/L	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Benzo(a)pyrene	N	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
	Indeno(1.2.3.cd)pyrene	N	µg/L	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Dibenz(a.h)anthracene	N	µg/L	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Benzo(g.h.i)perylene	N	µg/L	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Sum of polycyclic aromatic hydrocarbons	N	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
	Benzo(a)pyrene TEQ (zero)	N	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
Total Recoverable Hydrocarbons	C6 - C9 Fraction	N	µg/L	20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
	C10 - C14 Fraction	N	µg/L	50	<50	160	100	50	70	70	110	60	60	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
	C15 - C28 Fraction	N	µg/L	100	<100	130	140	<100	<100	120	100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
	C29 - C36 Fraction	N	µg/L	50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
	C10 - C36 Fraction (sum)	N	µg/L	50	<50	290	240	50	70	190	210	60	60	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
	C6 - C10 Fraction	N	µg/L	20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
	C6 - C10 Fraction minus BTEX (F1)	N	µg/L	20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
	>C10 - C16 Fraction	N	µg/L	100	<100	270	180	140	110	150	160	130	160	150	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
	>C16 - C34 Fraction	N	µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
	>C34 - C40 Fraction	N	µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
	>C10 - C40 Fraction (sum)	N	µg/L	100	<100	270	180	140	110	150	160	130	160	150	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
	>C10 - C16 Fraction minus Naphthalene (F2)	N	µg/L	100	<100	270	180	140	110	150	160	130	160	150	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
BTEXN, Alpha/Beta, Surrogates	Benzene	N	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Toluene	N	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	Ethylbenzene	N	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	meta- & para-Xylene	N	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	ortho-Xylene	N	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	Total Xylenes	N	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	Sum of BTEX	N	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Naphthalene	N	µg/L	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<0.1	<5	<0.1	<0.1	<5	<5	<5	<5	<5	<5
	Gross alpha	N	Bq/L	0.05	0.45	0.32	0.29	0.3	0.3	0.31	0.27	0.25	0.25	0.18	0.2	0.2	0.19	---	0.17	0.22	0.27	0.23	0.18	0.15	0.21	---	0.17	0.15	0.19
	Gross beta activity - 40K	N	Bq/L	0.1	0.22	0.17	0.11	<0.10	0.12	0.16	<0.10	0.13	<0.10	<0.10	<0.10	0.11	0.12	---	0.13	0.12	0.12	0.48	0.12	<0.10	0.1	---	<0.10	<0.10	<0.10
	Phenol-d6	N	%	1	23.7	29.3	28.7	20.9	23.3	24.7	17.2	23.1	26.5	17.8	20.8	25.2	---	---	---	---	---	---	---	---	---	---	---	---	33.7
	2-Chlorophenol-D4	N	%	1	46.5	60.1	56.1	47.3	51.1	49.1	41.7	53.3	49.6	39.5	37.6	51.7	---	---	---	---	---	---	---	---	---	---	---	---	84.8
	2.4.6-Tribromophenol	N	%	1	71.2	65.7	37.6	59.1	63.2	59.9	41	45	61.6	38.3	65.5	69.9	---	---	---	---	---	---	---	---	---	---	---	---	85.2
	2-Fluorobiphenyl	N	%	1	50.1	73.5	67.1	54.8	70	55.6	56.3	69.2	59	77.5	57.6	67.1	67	49.2	66.8	58.2	55.4	69.8	52.60	71.10	65.5	61.4	63.8	84.2	94.9
	Anthracene-d10	N	%	1	79.4	87.2	84.4	83.2	76.7	69.7	69.4	79.2	71	63.3	68.3	85.4	87.3	74.4	89.6	70.7	81.2	90.9	57.60	82.10	67.9	67.1	64.8	85.3	89.5
	4-Terphenyl-d14	N	%	1	91.8	90	89.8	92.9	78.8	80.9	83	93.6	72.4	84.5	70.4	93.1	74.3	68.3	79.3	81	83.8	107	62.60	83.70	70.6	68.8	66.3	89.6	65
	1.2-Dichloroethane-D4	N	%	2	114	87	87.4	116	124	116	118	130	102	90.6	96.6	128	103	82.8	101	116	101	118	102.00	90.80	81.8	110	107	109	108
	Toluene-D8	N	%	2	109	87.8	86.2	100	108	100	104	106	110	111	96.8	110	116	102	108	104	104	98.5	111.00	105.00	77.6	104	106	102	95.6
	4-Bromofluorobenzene	N	%	2	104	81.5	90.9	112	119	93.8	107	105	109	106	101	98.8	117	95.2	115	100	101	105	98.10	130.00	82.1	95.9	112	95.1	96.2

RN042463

CARPENTARIA 2

Statistics for All Data *

Category	CHEMICAL NAME	FRACTION D/T/N	RESULT UNIT	No. results	Min	Q1	Median	Mean	Q3	Max	20th Percentile	80th Percentile	Standard Deviation	LIMIT OF DETECTION	3/11/2021	14/11/2021	17/11/2021	21/11/2021	24/11/2021	28/11/2021	1/12/2021	8/12/2021	9/01/2022	26/01/2022	9/02/2022	23/02/2022	9/03/2022	23/03/2022	6/04/2022	20/07/2022	6/11/2022	2/01/2023	26/04/2023	26/07/2023	24/10/2023	14/01/2024	22/05/2024	24/07/2024	6/10/2024
General, anions, cations and metal	pH - Lab	N	pH Unit	25	7.04	7.28	7.50	7.45	7.62	7.74	7.24	7.65	0.20	0.01	7.65	7.45	7.46	7.04	7.55	7.6	7.52	7.26	7.74	7.39	7.5	7.57	7.29	7.35	7.11	7.52	7.71	7.1	7.7	7.19	7.65	7.46	7.55	7.23	7.64
	Electrical Conductivity @ 25°C	N	µS/cm	25	897.00	1005.00	1030.00	1033.52	1075.00	1090.00	1000.00	1080.00	45.34	1	1090	1070	1080	1050	1080	1090	1080	1020	1060	1060	1030	1070	1080	976	1010	1030	1030	897	1010	998	1050	1000	967	1000	1010
	Total Dissolved Solids @180°C	T	mg/L	25	506.00	571.00	632.00	637.44	697.50	802.00	564.60	703.40	76.50	10	701	607	632	802	768	704	694	663	721	666	665	760	657	618	646	575	567	506	594	562	528	564	605	597	534
	Suspended Solids (SS)	N	mg/L	24	4.00	7.25	9.00	9.13	10.75	17.00	7.00	12.00	2.77	1	-	17	10	13	11	12	12	13	9	7	6	6	8	6	8	8	4	9	9	7	10	8	9	9	8
	Gross beta	T	Bq/L	23	0.22	0.29	0.32	0.34	0.35	0.69	0.29	0.36	0.09	0.1	0.45	0.38	0.31	0.32	0.32	0.36	0.27	0.33	0.26	0.22	0.23	0.31	0.33	-	0.33	0.35	0.35	0.69	0.39	0.29	0.31	-	0.29	0.33	0.3
	Hydroxide Alkalinity as CaCO3	T	mg/L	25	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Carbonate Alkalinity as CaCO3	D	mg/L	25	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Bicarbonate Alkalinity as CaCO3	D	mg/L	25	347.00	450.00	465.00	456.60	475.00	484.00	444.40	480.00	30.21	1	473	476	347	484	484	426	483	481	474	459	400	481	459	467	472	454	466	444	421	457	470	464	462	465	446
	Total Alkalinity as CaCO3	D	mg/L	25	347.00	450.00	465.00	456.60	475.00	484.00	444.40	480.00	30.21	1	473	476	347	484	484	426	483	481	474	459	400	481	459	467	472	454	466	444	421	457	470	464	462	465	446
	Sulfate as SO4 2-	N	mg/L	25	35.00	41.00	59.00	61.60	80.50	91.00	40.20	81.00	17.89	1	84	91	82	81	79	84	81	80	75	65	68	67	55	59	56	37	54	53	37	41	40	41	58	35	37
	Chloride	N	mg/L	25	52.00	53.00	56.00	56.28	58.50	69.00	53.00	59.80	3.92	1	56	58	53	59	53	60	58	52	56	53	52	61	56	62	54	60	55	53	57	69	55	56	55	52	52
	Calcium D	N	mg/L	25	86.00	104.00	110.00	110.56	117.50	131.00	101.40	118.80	10.74	1	105	110	109	119	111	118	129	121	111	103	110	126	116	115	117	101	110	86	91	112	110	131	109	94	100
	Magnesium D	N	mg/L	25	46.00	48.00	51.00	50.88	53.00	58.00	48.00	53.80	3.02	1	51	50	48	54	49	53	55	52	51	48	51	53	51	54	49	51	46	46	48	54	53	58	53	46	48
	Sodium D	N	mg/L	25	35.00	36.00	38.00	38.00	39.00	44.00	36.00	39.00	2.14	1	44	36	35	39	36	38	39	38	38	36	38	39	38	39	36	38	36	35	37	39	40	43	39	38	36
	Potassium D	D	mg/L	25	6.00	7.00	8.00	7.52	8.00	9.00	7.00	8.00	0.81	1	8	7	7	8	7	8	8	8	8	7	7	8	8	7	9	6	8	6	6	9	8	8	8	7	7
	Calcium T	D	mg/L	25	100.00	114.00	118.00	117.32	120.50	129.00	114.00	121.80	6.06	1	114	113	120	119	117	126	118	126	120	114	118	118	126	122	119	100	109	114	114	115	116	115	129	121	110
	Magnesium T	N	mg/L	25	50.00	52.00	54.00	54.04	55.50	63.00	51.20	56.00	2.89	1	63	51	54	53	52	54	54	57	53	52	51	54	53	58	55	54	56	50	55	54	50	54	58	50	56
	Sodium T	N	mg/L	25	36.00	38.50	39.00	39.56	41.00	43.00	38.00	41.00	1.55	1	38	39	39	39	38	38	41	41	38	36	39	39	39	41	40	40	41	39	41	41	37	40	43	41	41
	Potassium T	N	mg/L	25	7.00	8.00	8.00	8.12	8.50	10.00	7.20	9.00	0.82	1	8	8	8	8	8	8	8	8	8	7	7	7	8	9	8	7	9	8	8	10	7	10	9	9	8
	Arsenic D	N	mg/L	25	0.001	0.001	0.002	0.002	0.003	0.007	0.001	0.003	0.001	0.001	0.001	0.001	0.002	0.007	0.001	0.001	0.003	0.002	0.003	0.002	0.002	0.004	0.004	0.002	0.002	0.002	0.003	0.003	0.001	0.002	0.001	0.001	0.001	0.001	0.001
	Barium D	N	mg/L	25	0.084	0.147	0.165	0.161	0.174	0.239	0.143	0.176	0.028	0.001	0.084	0.173	0.15	0.154	0.128	0.145	0.148	0.152	0.196	0.165	0.159	0.17	0.174	0.169	0.166	0.239	0.187	0.193	0.177	0.17	0.125	0.166	0.156	0.135	0.143
	Cadmium D	N	mg/L	25	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0001	0.0001	0.00002	0.0001	0.0001	0.0001	0.0001	0.0002	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
	Chromium D	D	mg/L	25	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	Copper D	T	mg/L	25	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	Lead D	T	mg/L	25	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	Lithium D	D	mg/L	25	0.036	0.049	0.050	0.051	0.054	0.082	0.048	0.054	0.008	0.001	0.082	0.056	0.049	0.06	0.05	0.053	0.054	0.054	0.051	0.036	0.055	0.051	0.049	0.051	0.051	0.05	0.044	0.041	0.037	0.05	0.048	0.05	0.049	0.049	0.048
	Manganese D	T	mg/L	25	0.043	0.056	0.124	0.113	0.157	0.202	0.052	0.164	0.052	0.001	0.116	0.202	0.156	0.166	0.141	0.158	0.176	0.155	0.197	0.166	0.133	0.125	0.133	0.124	0.111	0.092	0.055	0.058	0.056	0.061	0.045	0.051	0.047	0.046	0.043
	Selenium D	T	mg/L	25	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	Silver D	D	mg/L	25	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	Strontium D	T	mg/L	25	0.406	0.453	0.469	0.467	0.482	0.521	0.443	0.496	0.027	0.001	0.521	0.475	0.457	0.452	0.469	0.502	0.5	0.499	0.454	0.44	0.441	0.486	0.474	0.462	0.478	0.471	0.42	0.424	0.469	0.472	0.406	0.514	0.462	0.463	0.472
	Zinc D	D	mg/L	25	0.005	0.005	0.005	0.005	0.005	0.010	0.005	0.005	0.001	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.01	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005
	Boron D	T	mg/L	25	0.09	0.10	0.11	0.11	0.12	0.13	0.10	0.12	0.01	0.05	0.11	0.11	0.1	0.11	0.1	0.11	0.11	0.11	0.1	0.09	0.12	0.1	0.09	0.12	0.1	0.13	0.09	0.09	0.1	0.12	0.12	0.1	0.12	0.13	0.11
	Iron D	D	mg/L	25	0.05	2.15	3.96	3.56	4.94	6.89	1.88	4.97	1.85	0.05	4.11	3.01	4.57	6.21	2.82	6.17	6.89	6.26	4.93	3.96	2.85	2.69	4.19	4.07	1.84	4.94	0.53	0.05	2.25	3.48	0.54	4.98	4.38	1.28	2.04
	Arsenic T	T	mg/L	25	0.001	0.002	0.002	0.002	0.003	0.007	0.001	0.003	0.001	0.001	0.001	0.001	0.001	0.002	0.002	0.003	0.002	0.002	0.002	0.002	0.002	0.003	0.003	0.002	0.003	0.002	0.004	0.002	0.007	0.002	0.001	0.001	0.002	0.001	0.002
	Barium T	D	mg/L	25	0.078	0.159	0.174	0.178	0.193	0.250	0.158	0.210	0.033	0.001	0.078	0.195	0.176	0.158	0.142	0.158	0.152	0.16	0.214	0.186	0.167	0.17	0.19	0.174	0.178	0.25	0.234	0.216	0.22	0.188	0.152	0.169	0.184	0.169	0.168
	Cadmium T	T	mg/L	25	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
	Chromium T	D	mg/L	25	0.001	0.001	0.001	0.001	0.001	0.005	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.005	0.001	0.001	0.001	0.001	0.001	0.001
	Copper T	T	mg/L	25	0.001	0.001	0.001	0.001	0.001	0.004	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.004	0.001	0.001	0.001	0.001	0.001	0.001
	Lead T	D	mg/L	25	0.001	0.001	0.001	0.001	0.001	0.004	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.004	0.001	0.001	0.001	0.001	0.001	0.001
	Lithium T	T	mg/L	25	0.046	0.048	0.052	0.055	0.056	0.090	0.048	0.056	0.010	0.001	0.09	0.057	0.056	0.052	0.051	0.063	0.054	0.056	0.053	0.084	0.046	0.05	0.055	0.048	0.05	0.048	0.051	0.047	0.055	0.05	0.046	0.048	0.053	0.046	0.056
	Manganese T	D	mg/L	25	0.046	0.061	0.123	0.120	0.167	0.223	0.056	0.175	0.054	0.001	0.124	0.206	0.178	0.165	0.153	0.168	0.177	0.164	0.223	0.181	0.145	0.123	0.146	0.123	0.122	0.091	0.064	0.064	0.074	0.058	0.051	0.052	0.055	0.05	0.046
	Selenium T	T	mg/L	25	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	Silver T	T	mg/L	25	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	Strontium T	D	mg/L	25	0.470	0.490	0.508	0.509	0.524	0.575	0.486	0.526	0.025	0.001	0.51	0.493	0.508	0.511	0.496	0.527	0.507	0.526	0.522	0.515	0.47	0.487	0.553	0.492	0.486	0.492	0.499	0.478	0.526	0.518	0.479	0.483	0.556	0.575	0.514
	Zinc T	T	mg/L	25	0.005	0.005	0.005	0.006	0.005	0.024	0.005	0.005	0.005	0.005	0.005	0.021	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.006	0.005	0.005	0.005	0.005	0.005	0.005	0.024	0.005	0.005	0.005	0.005	0.005	0.005
	Boron T	T	mg/L	25	0.09	0.10	0.11	0.11	0.12	0.15	0.10	0.12	0.01	0.05	0.1	0.12	0.11	0.12	0.11	0.12	0.12	0.11	0.11	0.15	0.1	0.11	0.12	0.1	0.11	0.12	0.09	0.11	0.14	0.1	0.12	0.09	0.13	0.1	0.13
	Iron T	D	mg/L	25	1.82	3.72	4.87	4.90	6.00	9.61	3.44	6.64	1.76	0.05	5.22	9.61	6.91	6.67	4.92	6.56	8.23	6.66	5.43	4.03	2.9	3.07	4.14	3.52	4.92	4.92	2.28	3.42	5.2	4.08	1.82	4.41	4.87	4.82	3.91
	Mercury D	T	mg/L	25	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
	Mercury T	D	mg/L	25	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
	Reactive Silica	T	mg/L	25	25.00	27.60	28.20	28.17	29.20	30.10	27.44	29.30	1.15	0.05	25	26.5	27.2	27.6	27.8	28.9	28.2	28.1	29.3	28.4	29.3	28.3	28	28.4	27.4	27.6	27.8	26.4	30.1	29.9	28.2	29.5	29.1	27.7	29.5
	Fluoride	D	mg/L	25	0.40	0.50	0.50	0.51	0.50	0.80	0.50	0.50	0.08	0.1	0.8	0.5	0.6	0.6	0.5	0.5	0.5	0.4	0.5	0.5	0.5	0.5	0.4	0.5	0.5	0.5	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4
	Nitrite as N	T	mg/L	25	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	Nitrate as N	T	mg/L	25	0.01	0.01	0.02	0.02	0.03	0.07	0.01	0.03	0.01	0.01	0.06	0.02	0.01	0.02	0.02	0.01	0.01	0.02	0.02	0.03	0.02	0.02	0.03	0.07	0.01	0.03	0.01	0.02	0.02	0.04	0.02	0.02	0.01	0.01	0.03
	Nitrite + Nitrate as N	D	mg/L	25	0.01	0.01	0.02	0.02	0.03	0.07	0.01	0.03	0.01	0.01	0.06	0.02	0.01	0.02	0.02	0.01	0.01	0.02	0.02	0.03	0.02	0.02	0.03	0.07	0.01	0.03	0.01	0.02	0.02	0.04	0.02	0.02	0.01	0.01	0.03
	Total Anions	T	meq/L	25	10.10	11.50	12.00	11.99	12.70	13.00	11.50	12.78	0.74	0.01	12.8	13	10.1	13	12.8	12	13	12.7	12.6	12	10.9	12.7	11.9	12.3	12.1	11.5	12	11.5	10.8	11.9	11.8	11.7	12	11.5	11.1
	Total Cations	T	meq/L	25	9.75	11.00	11.60	11.55	12.05	13.40	10.84	12.18	0.83	0.01	11.6	11.3	11.1	12.3	11.3	12.1	12.9	12.2	11.6	10.8	11.5	12.6	11.8	12	11.7	11	11	9.75	10.2	12	11.8	13.4	11.7	10.3	10.7
	Ionic Balance	N	%	25	0.09	0.86	2.54	3.10	5.11	8.09	0.65	5.36	2.34	0.01	5.03	6.94	4.5	2.91	6.19	0.64	0.42	2.28	4.2	5.18	2.88	0.69	0.22	1.02	1.9	2.17	4.08	8.09	2.54	0.12	0.09	6.7	1.21	5.4	2.12
Diss. pet. gases	Methane	N	mg/L	25	10.00	10.00	13.00	44.68	89.50	134.00	10.00	95.80	43.71	0.01	10	10	10	10	10	10	10	10	10	10	10	10	13	15	23	126	58	60	117	75	134	100	97	91	88
	Ethane	N	µg/L	25	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	0	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
	Propane	N	µg/L	25	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	0	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
PAH Suite **	Naphthalene	N	µg/L	25	0.10	0.10	1.00	0.87	1.00	5.00	0.10	1.00	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.1	5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1
	Acenaphthylene	N	µg/L	25	0.10	0.10	1.00	0.68	1.00	1.00	0.10	1.00	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1
	Acenaphthene	N	µg/L	25	0.10	0.10	1.00	0.68	1.00	1.00	0.10	1.00	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1
	Fluorene	N	µg/L	25	0.10	0.10	1.00	0.68	1.00	1.00	0.10	1.00	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1
	Phenanthrene	N	µg/L	25	0.10	0.10	1.00	0.68	1.00	1.00	0.10	1.00	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1
	Anthracene	N	µg/L	25	0.10	0.10	1.00	0.68	1.00	1.00	0.10	1.00	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1
	Fluoranthene	N	µg/L	25	0.10	0.10	1.00	0.68	1.00	1.00	0.10	1.00	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1
	Pyrene	N	µg/L	25	0.10	0.10	1.00	0.68	1.00	1.00	0.10	1.00	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1
	Benz(a)anthracene	N	µg/L	25	0.10	0.10	1.00	0.68	1.00	1.00	0.10	1.00	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1
	Chrysene	N	µg/L	25	0.10	0.10	1.00	0.68	1.00	1.00	0.10	1.00	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1
	Benzo(b+j)fluoranthene	N	µg/L	25	0.10	0.10	1.00	0.68	1.00	1.00	0.10	1.00	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1
	Benzo(k)fluoranthene	N	µg/L	25	0.10	0.10	1.00	0.68	1.00	1.00	0.10	1.00	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1
	Benzo(a)pyrene	N	µg/L	25	0.05	0.05	0.50	0.34	0.50	0.50	0.05	0.50	0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.5
	Indeno(1.2.3.cd)pyrene	N	µg/L	25	0.10	0.10	1.00	0.71	1.00	1.00	0.10	1.00	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1
	Dibenz(a.h)anthracene	N	µg/L	25	0.10	0.10	1.00	0.71	1.00	1.00	0.10	1.00	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1
	Benzo(g.h.i)perylene	N	µg/L	25	0.10	0.10	1.00	0.71	1.00	1.00	0.10	1.00	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1
	Sum of polycyclic aromatic hydrocarbons	N	µg/L	25	0.05	0.05	0.50	0.34	0.50	0.50	0.05	0.50	0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.5
	Benzo(a)pyrene TEQ (zero)	N	µg/L	25	0.05	0.05	0.50	0.34	0.50	0.50	0.05	0.50	0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.05	0.05	0.1	0.05	0.05	0.05	0.05	0.05	0.05	0.5
Total Recoverable Hydrocarbons	C6 - C9 Fraction	N	µg/L	25	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	0	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
	C10 - C14 Fraction	N	µg/L	25	50.00	50.00	50.00	61.20	60.00	160.00	50.00	68.00	25.35	50	50	160	100	50	70	70	110	60	60	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
	C15 - C28 Fraction	N	µg/L	25	100.00	100.00	100.00	103.60	100.00	140.00	100.00	100.00	10.15	100	100	130	140	100	100	120	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	C29 - C36 Fraction	N	µg/L	25	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	0	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
	C10 - C36 Fraction (sum)	N	µg/L	25	50.00	50.00	50.00	80.80	60.00	290.00	50.00	68.00	68.05	50	50	290	240	50	70	190	210	60	60	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
	C6 - C10 Fraction	N	µg/L	25	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	0	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
	C6 - C10 Fraction minus BTEX (F1)	N	µg/L	25	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	0	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
	>C10 - C16 Fraction	N	µg/L	25	100.00	100.00	100.00	122.00	145.00	270.00	100.00	150.00	38.99	100	100	270	180	140	110	150	160	130	160	150	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	>C16 - C34 Fraction	N	µg/L	25	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	0	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	>C34 - C40 Fraction	N	µg/L	25	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	0	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	>C10 - C40 Fraction (sum)	N	µg/L	25	100.00	100.00	100.00	122.00	145.00	270.00	100.00	150.00	38.99	100	100	270	180	140	110	150	160	130	160	150	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	>C10 - C16 Fraction minus Naphthalene (F2)	N	µg/L	25	100.00	100.00	100.00	122.00	145.00	270.00	100.00	150.00	38.99	100	100	270	180	140	110	150	160	130	160	150	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
BTEXN, Alpha/Beta, Surrogates	Benzene	N	µg/L	25	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Toluene	N	µg/L	25	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Ethylbenzene	N	µg/L	25	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	meta- & para-Xylene	N	µg/L	25	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	ortho-Xylene	N	µg/L	25	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Total Xylenes	N	µg/L	25	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Sum of BTEX	N	µg/L	25	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Naphthalene **	N	µg/L	25	0.10	1.00	1.00	2.01	5.00	5.00	1.00	5.00	1.88	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.1	5	0.1	0.1	5	5	5	5	5	5
	Gross alpha	N	Bq/L	23	0.15	0.18	0.22	0.24	0.29	0.45	0.18	0.30	0.07	0.05	0.45	0.32	0.29	0.3	0.3	0.31	0.27	0.25	0.25	0.18	0.2	0.2	0.19	-	0.17	0.22	0.27	0.23	0.18	0.15	0.21	-	0.17	0.15	0.19
	Gross beta activity - 40K	N	Bq/L	23	0.10	0.10	0.11	0.14	0.13	0.48	0.10	0.14	0.08	0.1	0.22	0.17	0.11	0.1	0.12	0.16	0.1	0.13	0.1	0.1	0.1	0.11	0.12	-	0.13	0.12	0.12	0.48	0.12	0.1	0.1	-	0.1	0.1	0.1
	Phenol-d6	N	%	13	17.20	20.85	23.70	24.22	27.60	33.70	20.20	28.82	4.45	1	23.7	29.3	28.7	20.9	23.3	24.7	17.2	23.1	26.5	17.8	20.8	25.2	-	-	-	-	-	-	-	-	-	-	-	-	33.7
	2-Chlorophenol-D4	N	%	13	37.60	44.10	49.60	51.42	54.70	84.80	41.26	56.90	11.41	1	46.5	60.1	56.1	47.3	51.1	49.1	41.7	53.3	49.6	39.5	37.6	51.7	-	-	-	-	-	-	-	-	-	-	-	-	84.8
	2.4.6-Tribromophenol	N	%	13	37.60	43.00	61.60	58.71	67.80	85.20	40.46	70.16	13.79	1	71.2	65.7	37.6	59.1	63.2	59.9	41	45	61.6	38.3	65.5	69.9	-	-	-	-	-	-	-	-	-	-	-	-	85.2
	2-Fluorobiphenyl	N	%	25	49.20	55.95	65.50	64.71	69.90	94.90	55.44	70.88	10.48	1	50.1	73.5	67.1	54.8	70	55.6	56.3	69.2	59	77.5	57.6	67.1	67	49.2	66.8	58.2	55.4	69.8	52.6	71.1	65.5	61.4	63.8	84.2	94.9
	Anthracene-d10	N	%	25	57.60	68.85	79.20	77.02	85.35	90.90	67.98	86.84	9.31	1	79.4	87.2	84.4	83.2	76.7	69.7	69.4	79.2	71	63.3	68.3	85.4	87.3	74.4	89.6	70.7	81.2	90.9	57.6	82.1	67.9	67.1	64.8	85.3	89.5
	4-Terphenyl-d14	N	%	25	62.60	70.50	81.00	80.86	89.90	107.00	69.12	91.44	10.90	1	91.8	90	89.8	92.9	78.8	80.9	83	93.6	72.4	84.5	70.4	93.1	74.3	68.3	79.3	81	83.8	107	62.6	83.7	70.6	68.8	66.3	89.6	65
	1.2-Dichloroethane-D4	N	%	25	81.80	93.70	107.00	105.60	116.00	130.00	90.64	117.60	13.48	2	114	87	87.4	116	124	116	118	130	102	90.6	96.6	128	103	82.8	101	116	101	118	102	90.8	81.8	110	107	109	108
	Toluene-D8	N	%	25	77.60	99.25	104.00	102.50	108.50	116.00	97.14	109.80	8.47	2	109	87.8	86.2	100	108	100	104	106	110	111	96.8	110	116	102	108	104	104	98.5	111	105	77.6	104	106	102	95.6
	4-Bromofluorobenzene	N	%	25	81.50	95.55	101.00	102.82	110.50	130.00	95.12	112.00	10.89	2	104	81.5	90.9	112	119	93.8	107	105	109	106	101	98.8	117	95.2	115	100	101	105	98.1	130	82.1	95.9	112	95.1	96.2

*All readings below the limit of detection (LOD) have been assumed to be equal to the limit of detection.

** Limit of detection has changed, all readings are equal to limit of detection (LOD)

Bores;
RN042462 **Difference in Bores (IMB - CMB)**
RN042463

CARPENTARIA 2

Category	CHEMICAL NAME	RESULT UNIT	Baseline Statistics*: Min	Q1	Median	Mean	Q3	Max	Standard Deviation	Average from reporting period (17/10/23 - 16/10/24)	Flag if above 2: Z Score	LIMIT OF DETECTION
General, anions, cations and metal	pH - Lab	pH Unit	0.00	0.01	0.04	0.05	0.06	0.23	0.06	0.090	0.67	0.01
	Electrical Conductivity @ 25°C	µS/cm	0.00	0.00	0.00	7.65	18.25	60.00	14.49	0.000	-	1
	Total Dissolved Solids @180°C	mg/L	0.00	0.00	0.50	18.10	43.50	69.00	23.74	0.000	-	10
	Suspended Solids (SS)	mg/L	0.00	0.00	0.00	2.11	0.00	18.00	5.00	0.200	-0.38	1
	Gross beta	Bq/L	0.00	0.06	0.15	0.14	0.20	0.38	0.09	0.123	-0.14	0.1
	Hydroxide Alkalinity as CaCO3	mg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	1
	Carbonate Alkalinity as CaCO3	mg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	1
	Bicarbonate Alkalinity as CaCO3	mg/L	0.00	0.00	0.00	4.25	0.00	75.00	16.38	0.000	-	1
	Total Alkalinity as CaCO3	mg/L	0.00	0.00	0.00	4.25	0.00	75.00	16.38	0.000	-	1
	Sulfate as SO4 2-	mg/L	0.00	5.50	10.00	12.80	20.25	46.00	11.31	0.000	-	1
	Chloride	mg/L	0.00	0.00	0.00	3.35	0.75	38.00	9.39	0.200	-0.34	1
	Calcium D	mg/L	0.00	0.00	0.00	1.20	0.00	10.00	2.84	0.000	-	1
	Magnesium D	mg/L	0.00	0.25	2.00	2.35	3.75	9.00	2.15	2.600	0.12	1
	Sodium D	mg/L	0.00	0.00	1.00	1.75	2.00	8.00	2.41	1.000	-0.31	1
	Potassium D	mg/L	0.00	1.00	2.00	2.00	2.00	8.00	1.64	1.200	-0.49	1
	Calcium T	mg/L	0.00	0.00	0.00	0.80	0.00	6.00	1.75	0.000	-	1
	Magnesium T	mg/L	0.00	0.25	2.00	2.10	3.75	6.00	1.73	3.400	0.75	1
	Sodium T	mg/L	0.00	0.00	0.50	1.35	1.00	9.00	2.48	1.000	-0.14	1
	Potassium T	mg/L	0.00	1.00	2.00	2.05	2.00	9.00	1.96	1.400	-0.33	1
	Arsenic D	mg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	0.001
	Barium D	mg/L	0.00	0.00	0.00	0.00	0.00	0.08	0.02	0.000	-	0.001
	Cadmium D	mg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	0.0001
	Chromium D	mg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	0.001
	Copper D	mg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	0.001
	Lead D	mg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	0.001
	Lithium D	mg/L	0.00	0.03	0.03	0.03	0.04	0.04	0.01	0.034	0.37	0.001
	Manganese D	mg/L	0.0000	0.0000	0.0000	0.0002	0.0000	0.0030	0.0007	0.0150	22.71	0.00
	Selenium D	mg/L	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.000	-	0.01
	Silver D	mg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	0.001
	Strontium D	mg/L	0.00	0.01	0.03	0.03	0.04	0.07	0.02	0.036	0.54	0.001
	Zinc D	mg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	0.005
	Boron D	mg/L	0.00	0.00	0.01	0.01	0.01	0.04	0.01	0.006	-0.45	0.05
	Iron D	mg/L	0.0000	0.0000	0.0000	0.0195	0.0000	0.3900	0.0850	0.5060	5.72	0.05
	Arsenic T	mg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	0.001
	Barium T	mg/L	0.00	0.00	0.00	0.01	0.00	0.08	0.02	0.000	-	0.001
	Cadmium T	mg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	0.0001
	Chromium T	mg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	0.001
	Copper T	mg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	0.001
	Lead T	mg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	0.001
	Lithium T	mg/L	0.00	0.03	0.03	0.03	0.04	0.04	0.01	0.037	0.56	0.001
	Manganese T	mg/L	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.019	12.22	0.001
	Selenium T	mg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	0.01
	Silver T	mg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	0.001
	Strontium T	mg/L	0.00	0.01	0.02	0.02	0.04	0.05	0.02	0.043	1.28	0.001
	Zinc T	mg/L	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.000	-	0.005
	Boron T	mg/L	0.00	0.00	0.01	0.01	0.01	0.02	0.01	0.004	-0.71	0.05
	Iron T	mg/L	0.00	0.00	0.00	0.37	0.00	6.67	1.45	0.290	-0.05	0.05
	Mercury D	mg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	0.0001
	Mercury T	mg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	0.0001
	Reactive Silica	mg/L	0.00	0.00	0.00	0.18	0.00	3.20	0.70	0.000	-	0.05
	Fluoride	mg/L	0.00	0.20	0.30	0.23	0.30	0.30	0.10	0.240	0.15	0.1
	Nitrite as N	mg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	0.01
	Nitrate as N	mg/L	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.000	-	0.01
	Nitrite + Nitrate as N	mg/L	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.000	-	0.01
	Total Anions	meq/L	0.00	0.00	0.00	0.21	0.20	1.60	0.38	0.000	-	0.01
	Total Cations	meq/L	0.00	0.00	0.10	0.26	0.40	1.50	0.36	0.100	-0.44	0.01
	Ionic Balance	%	0.00	0.00	0.10	0.68	1.10	4.85	1.16	2.834	1.86	0.01
Diss. pet. gases	Methane	mg/L	0.00	0.00	1.00	17.10	4.75	191.00	44.27	234.600	4.91	0.01
	Ethane	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	10
	Propane	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	10
PAH Suite **	Naphthalene	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	1
	Acenaphthylene	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	1
	Acenaphthene	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	1
	Fluorene	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	1
	Phenanthrene	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	1
	Anthracene	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	1
	Fluoranthene	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	1
	Pyrene	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	1
	Benz(a)anthracene	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	1
	Chrysene	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	1
	Benzo(b+j)fluoranthene	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	1
	Benzo(k)fluoranthene	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	1
	Benzo(a)pyrene	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	0.5
	Indeno(1.2.3.cd)pyrene	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	1
	Dibenz(a.h)anthracene	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	1
	Benzo(g.h.i)perylene	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	1
	Sum of polycyclic aromatic hydrocarbons	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	0.5
	Benzo(a)pyrene TEQ (zero)	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	0.5
Total Recoverable Hydrocarbons	C6 - C9 Fraction	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	20
	C10 - C14 Fraction	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	50
	C15 - C28 Fraction	µg/L	0.00	0.00	0.00	0.50	0.00	10.00	2.18	0.000	-	100
	C29 - C36 Fraction	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	50
	C10 - C36 Fraction (sum)	µg/L	0.00	0.00	0.00	7.50	0.00	90.00	22.99	0.000	-	50
	C6 - C10 Fraction	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	20
	C6 - C10 Fraction minus BTEX (F1)	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	20
	>C10 - C16 Fraction	µg/L	0.00	0.00	0.00	4.00	0.00	60.00	13.56	0.000	-	100
	>C16 - C34 Fraction	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	100
	>C34 - C40 Fraction	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	100
	>C10 - C40 Fraction (sum)	µg/L	0.00	0.00	0.00	4.00	0.00	60.00	13.56	0.000	-	100
	>C10 - C16 Fraction minus Naphthalene (F2)	µg/L	0.00	0.00	0.00	4.00	0.00	60.00	13.56	0.000	-	100
BTEXN, Alpha/Beta, Surrogates	Benzene	µg/L	0.00	0.00	0.00	0.95	0.00	19.00	4.14	0.000	-	1
	Toluene	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	2
	Ethylbenzene	µg/L	0.00	0.00	0.00	0.90	0.00	18.00	3.92	0.000	-	2
	meta- & para-Xylene	µg/L	0.00	0.00	0.00	0.90	0.00	18.00	3.92	0.000	-	2
	ortho-Xylene	µg/L	0.00	0.00	0.00	0.90	0.00	18.00	3.92	0.000	-	2
	Total Xylenes	µg/L	0.00	0.00	0.00	0.40	0.00	8.00	1.74	0.000	-	2
	Sum of BTEX	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	1
	Naphthalene **	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	1
	Gross alpha	Bq/L	0.00	0.19	0.24	0.24	0.31	0.43	0.10	0.223	-0.19	0.05
	Gross beta activity - 40K	Bq/L	0.00	0.01	0.06	0.07	0.12	0.15	0.06	0.088	0.33	0.1
	Phenol-d6	%	0.00	0.00	0.00	1.61	2.55	10.90	3.09	0.000	-	1
	2-Chlorophenol-D4	%	0.00	0.00	0.10	3.68	6.10	21.10	6.05	0.000	-	1
	2.4.6-Tribromophenol	%	0.00	0.00	0.00	5.84	5.78	36.80	11.07	4.400	-0.13	1
	2-Fluorobiphenyl	%	0.00	0.00	0.00	3.84	5.50	23.90	6.65	1.880	-0.29	1
	Anthracene-d10	%	0.00	0.00	0.00	5.94	7.73	31.00	10.06	2.820	-0.31	1
	4-Terphenyl-d14	%	0.00	0.00	0.00	5.96	8.08	33.50	9.80	4.720	-0.13	1
	1.2-Dichloroethane-D4	%	0.00	0.00	0.00	1.75	2.80	12.40	3.11	4.240	0.80	2
	Toluene-D8	%	0.00	0.00	0.70	2.48	4.50	14.20	3.63	5.720	0.89	2
	4-Bromofluorobenzene	%	0.00	0.00	1.50	2.75	4.23	15.00	3.67	5.240	0.68	2

CHEMICAL NAME	Baseline Data: 3/11/2021	14/11/2021	17/11/2021	21/11/2021	24/11/2021	28/11/2021	1/12/2021	8/12/2021	9/01/2022	26/01/2022	9/02/2022	23/02/2022	9/03/2022	23/03/2022	6/04/2022	20/07/2022	6/11/2022	2/01/2023	26/04/2023	26/07/2023	Reporting Period: 24/10/2023	14/01/2024	22/05/2024	24/07/2024	6/10/2024
pH - Lab	0.01	0.10	0.05	0.06	0.01	0.18	0.06	0.04	0.01	0.09	0.01	0.23	0.03	0.05	0.02	0.00	0.04	0.00	0.00	0.02	0.07	0.09	0.07	0.07	0.15
Electrical Conductivity @ 25°C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.00	60.00	0.00	0.00	0.00	0.00	0.00	0.00	20.00	20.00	13.00	20.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Dissolved Solids @180°C	27.00	53.00	0.00	0.00	52.00	1.00	0.00	22.00	49.00	0.00	0.00	0.00	0.00	0.00	13.00	69.00	17.00	59.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Suspended Solids (SS)	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18.00	14.00	6.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
Gross beta	0.00	0.07	0.17	0.15	0.06	0.04	0.22	0.15	0.38	0.22	0.13	0.17	0.09	-	0.10	0.20	0.16	0.00	0.03	0.23	0.21	-	0.13	0.06	0.09
Hydroxide Alkalinity as CaCO3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Carbonate Alkalinity as CaCO3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bicarbonate Alkalinity as CaCO3	10.00	0.00	75.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Alkalinity as CaCO3	10.00	0.00	75.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sulfate as SO4 2-	0.00	5.00	8.00	7.00	7.00	10.00	10.00	12.00	7.00	13.00	0.00	2.00	18.00	21.00	27.00	46.00	10.00	29.00	23.00	1.00	0.00	0.00	0.00	0.00	0.00
Chloride	3.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	38.00	23.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	2.00	0.00	1.00	0.00	0.00	0.00
Calcium D	10.00	8.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Magnesium D	0.00	9.00	4.00	3.00	5.00	2.00	2.00	3.00	2.00	0.00	0.00	0.00	0.00	1.00	1.00	3.00	4.00	2.00	4.00	2.00	4.00	1.00	0.00	0.00	8.00
Sodium D	0.00	6.00	2.00	7.00	3.00	2.00	0.00	1.00	8.00	2.00	0.00	0.00	0.00	2.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	5.00
Potassium D	0.00	3.00	1.00	2.00	2.00	1.00	1.00	1.00	8.00	4.00	3.00	2.00	1.00	2.00	2.00	2.00	1.00	1.00	2.00	1.00	2.00	1.00	0.00	0.00	3.00
Calcium T	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.00	0.00	0.00	0.00	0.00	0.00	5.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Magnesium T	0.00	1.00	1.00	3.00	3.00	2.00	3.00	0.00	1.00	4.00	0.00	0.00	0.00	4.00	1.00	3.00	4.00	4.00	2.00	6.00	4.00	3.00	3.00	3.00	4.00
Sodium T	0.00	0.00	0.00	1.00	1.00	2.00	1.00	0.00	8.00	9.00	0.00	0.00	0.00	2.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Potassium T	0.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	9.00	6.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	2.00	2.00	2.00	2.00	1.00	2.00	1.00	1.00
Arsenic D	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barium D	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cadmium D	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chromium D	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Copper D	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lead D	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lithium D	0.00	0.03	0.03	0.04	0.03	0.03	0.04	0.03	0.04	0.04	0.00	0.02	0.03	0.03	0.04	0.04	0.04	0.03	0.04	0.04	0.03	0.04	0.03	0.04	0.04
Manganese D	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.02	0.03
Selenium D	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Silver D	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Strontium D	0.00	0.04	0.04	0.03	0.07	0.05	0.03	0.03	0.03	0.02	0.00	0.00	0.01	0.01	0.01	0.05	0.03	0.02	0.05	0.02	0.04	0.04	0.00	0.00	0.09
Zinc D	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Boron D	0.00	0.00	0.01	0.04	0.02	0.01	0.01	0.00	0.01	0.01	0.00	0.00	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.00	0.00	0.01	0.01
Iron D	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.39	0.00	0.00	0.03	0.00	0.00	0.04	2.46
Arsenic T	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barium T	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cadmium T	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chromium T	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Copper T	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lead T	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lithium T	0.00	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.03	0.00	0.01	0.02	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.03	0.03	0.04	0.03	0.05
Manganese T	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.02	0.02	0.02	0.03
Selenium T	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Silver T	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Strontium T	0.00	0.02	0.01	0.03	0.03	0.03	0.03	0.00	0.02	0.04	0.00	0.00	0.01	0.04	0.01	0.05	0.02	0.04	0.02	0.05	0.04	0.06	0.02	0.04	0.05
Zinc T	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Boron T	0.01	0.01	0.01	0.00	0.01	0.02	0.02	0.01	0.01	0.00	0.00	0.00	0.01	0.02	0.01	0.00	0.01	0.01	0.00	0.02	0.00	0.01	0.01	0.00	0.00
Iron T	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.67	0.65	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.29	0.00	0.11	0.00	1.05
Mercury D	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mercury T	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Reactive Silica	3.20	0.00	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fluoride	0.00	0.30	0.10	0.00	0.30	0.30	0.30	0.20	0.30	0.30	0.10	0.20	0.20	0.30	0.30	0.30	0.20	0.30	0.30	0.20	0.30	0.30	0.20	0.20	0.20
Nitrite as N	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Nitrate as N	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Nitrite + Nitrate as N	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Anions	0.20	0.00	1.60	0.00	0.00	0.00	0.00	0.20	0.60	0.00	0.00	0.00	0.10	0.00	0.20	0.60	0.00	0.60	0.10	0.00	0.00	0.00	0.00	0.00	0.00
Total Cations	0.10	1.50	0.40	0.40	0.70	0.00	0.00	0.10	0.40	0.00	0.00	0.00	0.00	0.10	0.00	0.60	0.30	0.14	0.40	0.00	0.00	0.00	0.00	0.00	0.50
Ionic Balance	0.22	0.00	0.00	0.00	0.00	4.85	0.47	0.08	0.55	0.00	0.00	0.66	2.13	0.00	1.30	0.12	0.00	1.91	0.00	1.24	0.77	0.00	8.63	4.15	0.62
Methane	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.00	5.00	4.00	2.00	1.00	1.00	2.00	0.00	84.00	36.00	12.00	191.00	80.00	177.00	410.00	277.00	229.00
Ethane	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Propane	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Naphthalene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Acenaphthylene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Acenaphthene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fluorene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phenanthrene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Anthracene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fluoranthene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pyrene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Benz(a)anthracene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chrysene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Benzo(b+j)fluoranthene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Benzo(k)fluoranthene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Benzo(a)pyrene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Indeno(1.2.3.cd)pyrene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dibenz(a.h)anthracene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Benzo(g.h.i)perylene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sum of polycyclic aromatic hydrocarbons	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Benzo(a)pyrene TEQ (zero)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C6 - C9 Fraction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C10 - C14 Fraction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C15 - C28 Fraction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C29 - C36 Fraction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C10 - C36 Fraction (sum)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	90.00	0.00	0.00	60.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C6 - C10 Fraction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C6 - C10 Fraction minus BTEX (F1)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
>C10 - C16 Fraction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.00	0.00	0.00	60.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
>C16 - C34 Fraction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
>C34 - C40 Fraction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
>C10 - C40 Fraction (sum)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.00	0.00	0.00	60.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
>C10 - C16 Fraction minus Naphthalene (F2)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.00	0.00	0.00	60.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Benzene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.00	0.00	0.00	0.00	0.00	0.00	0.00
Toluene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ethylbenzene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18.00	0.00	0.00	0.00	0.00	0.00	0.00
meta- & para-Xylene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18.00	0.00	0.00	0.00	0.00	0.00	0.00
ortho-Xylene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Xylenes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.00	0.00	0.00	0.00	0.00	0.00	0.00
Sum of BTEX	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Naphthalene **	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Gross alpha	0.00	0.26	0.32	0.31	0.20	0.29	0.25	0.43	0.19	0.21	0.10	0.15	0.19	-	0.17	0.42	0.24	0.22	0.34	0.31	0.31	-	0.21	0.17	0.20
Gross beta activity - 40K	0.00	0.04	0.12	0.12	0.03	0.01	0.14	0.12	0.11	0.00	0.01	0.13	0.05	-	0.06	0.15	0.12	0.00	0.00	0.11	0.18	-	0.07	0.06	0.04
Phenol-d6	2.90	0.00	0.00	0.00	0.00	4.00	1.50	0.00	10.90	0.00	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	0.00
2-Chlorophenol-D4	6.40	0.00	0.00	0.00	2.10	9.20	5.20	0.20	21.10	0.00	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	0.00
2.4.6-Tribromophenol	0.00	1.00	21.60	0.00	0.00	4.50	6.20	0.00	36.80	0.00	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	4.40
2-Fluorobiphenyl	6.10	0.00	0.00	0.80	0.00	12.30	3.70	0.00	23.90	0.00	0.00	0.00	0.00	12.30	0.00	0.00	0.00	0.00	15.80	1.90	0.00	6.30	3.10	0.00	0.00
Anthracene-d10	0.00	3.50	4.80	0.00	0.00	28.60	4.60	0.00	31.00	8.70	0.00	0.00	0.00	11.30	0.00	0.00	0.00	0.00	26.30	0.00	0.00	7.30	6.80	0.00	0.00
4-Terphenyl-d14	0.00	8.30	3.00	2.20	0.00	14.70	13.60	0.00	30.60	7.40	0.00	0.00	0.00	5.90	0.00	0.00	0.00	0.00	33.50	0.00	0.00	5.90	9.00	0.00	8.70
1.2-Dichloroethane-D4	1.00	6.30	0.00	3.00	0.00	0.00	1.00	0.00	0.00	2.20	12.40	0.00	0.00	3.00	6.00	0.00	0.00	0.00	0.00	0.00	20.20	0.00	0.00	0.00	1.00
Toluene-D8	1.00	0.40	2.90	2.00	0.00	0.00	8.00	0.00	0.00	6.00	14.20	3.00	0.00	6.00	1.00	0.00	0.00	0.00	0.00	5.00	24.40	2.00	0.00	0.00	2.20
4-Bromofluorobenzene	5.00	8.90	2.40	4.00	0.00	0.00	5.00	2.00	0.00	4.00	15.00	2.20	0.00	4.30	1.00	0.00	0.00	0.00	0.20	1.00	22.90	3.30	0.00	0.00	0.00

*All readings below the limit of detection (LOD) have been assumed to be equal to the limit of detection.

** Limit of detection has changed, all readings are equal to limit of detection (LOD)

RN043012
CARPENTARIA 4

Category	CHEMICAL NAME	FRACTION D/T/N	RESULT UNIT	LIMIT OF DETECTION	29/08/2022	11/09/2022	25/09/2022	9/10/2022	23/10/2022	17/01/2023	17/05/2023	19/07/2023	10/10/2023	10/01/2024	28/04/2024	17/07/2024	8/10/2024
General, anions, cations and metal	pH - Lab	N	pH Unit	0.01	7.16	7.56	7.46	7.11	7.46	6.97	6.97	7.11	7.38	7.09	7.08	6.88	7.09
	Electrical Conductivity @ 25°C	N	µS/cm	1	1050	1130	1120	1100	1120	1130	1110	1120	1130	1110	1140	1140	1070
	Total Dissolved Solids @180°C	T	mg/L	10	---	648	656	641	664	702	702	672	628	677	653	637	693
	Suspended Solids (SS)	N	mg/L	1	<1	<1	<1	<1	1	<1	5	4	63	2	2	3	<1
	Gross beta	T	Bq/L	0.1	0.22	0.28	0.35	0.31	<0.10	0.28	0.39	0.34	0.43	---	0.3	0.29	0.31
	Hydroxide Alkalinity as CaCO3	T	mg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Carbonate Alkalinity as CaCO3	D	mg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Bicarbonate Alkalinity as CaCO3	D	mg/L	1	433	496	485	440	401	472	461	474	489	488	476	450	469
	Total Alkalinity as CaCO3	D	mg/L	1	433	496	485	440	401	472	461	474	489	488	476	450	469
	Sulfate as SO4 2-	N	mg/L	1	81	81	81	86	79	86	90	80	94	78	92	52	78
	Chloride	N	mg/L	1	62	67	62	66	57	62	64	79	60	58	62	59	74
	Calcium D	N	mg/L	1	140	143	136	122	136	135	116	135	138	123	139	127	132
	Magnesium D	N	mg/L	1	50	49	50	50	53	46	43	54	52	52	51	47	51
	Sodium D	N	mg/L	1	41	40	44	40	43	40	37	45	42	42	44	39	43
	Potassium D	D	mg/L	1	9	8	8	7	8	9	9	9	8	8	9	8	8
	Calcium T	D	mg/L	1	140	141	136	140	138	147	160	128	145	136	136	131	149
	Magnesium T	N	mg/L	1	52	52	48	51	55	52	45	53	52	52	57	40	52
	Sodium T	N	mg/L	1	45	40	39	38	45	44	39	44	42	42	44	37	42
	Potassium T	N	mg/L	1	9	8	8	8	9	9	8	8	9	8	9	8	9
	Arsenic D	N	mg/L	0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Barium D	N	mg/L	0.001	0.08	0.083	0.083	0.078	0.08	0.074	0.056	0.084	0.085	0.084	0.08	0.076	0.072
	Cadmium D	N	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	Chromium D	D	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Copper D	T	mg/L	0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Lead D	T	mg/L	0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Lithium D	D	mg/L	0.001	0.041	0.044	0.039	0.039	0.041	0.034	0.035	0.042	0.037	0.04	0.038	0.038	0.043
	Manganese D	T	mg/L	0.001	0.056	0.008	0.008	0.007	0.005	0.008	0.005	0.006	0.006	0.008	0.006	0.006	0.004
	Selenium D	T	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Silver D	D	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Strontium D	T	mg/L	0.001	0.54	0.535	0.532	0.499	0.522	0.486	0.385	0.543	0.548	0.527	0.496	0.48	0.46
	Zinc D	D	mg/L	0.005	0.007	<0.005	0.007	0.016	0.008	0.011	0.01	0.019	0.028	0.031	0.018	0.046	0.022
	Boron D	T	mg/L	0.05	0.11	0.12	0.08	0.1	0.08	0.09	0.11	0.1	0.08	0.1	0.12	0.12	0.14
	Iron D	D	mg/L	0.05	0.36	0.1	0.08	<0.05	0.1	0.49	0.18	0.29	0.36	0.35	0.19	0.44	0.35
	Arsenic T	T	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Barium T	D	mg/L	0.001	0.08	0.083	0.073	0.08	0.082	0.08	0.12	0.079	0.084	0.086	0.086	0.077	0.092
	Cadmium T	T	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.0001	<0.0001	<0.0001	<0.0001
	Chromium T	D	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001
	Copper T	T	mg/L	0.001	0.002	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	0.008	<0.001	<0.001	<0.001
	Lead T	D	mg/L	0.001	0.004	<0.001	<0.001	<0.001	0.007	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Lithium T	T	mg/L	0.001	0.038	0.039	0.04	0.038	0.038	0.044	0.044	0.049	0.04	0.04	0.037	0.039	0.043
	Manganese T	D	mg/L	0.001	0.052	0.007	0.007	0.007	0.005	0.008	0.398	0.005	0.007	0.009	0.009	0.006	0.005
	Selenium T	T	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Silver T	T	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Strontium T	D	mg/L	0.001	0.522	0.53	0.486	0.514	0.518	0.516	0.533	0.512	0.525	0.526	0.506	0.479	0.563
	Zinc T	T	mg/L	0.005	0.007	<0.005	<0.005	0.008	0.008	0.011	0.027	0.018	0.03	0.036	0.018	0.025	0.027
	Boron T	T	mg/L	0.05	0.12	0.12	0.07	0.07	0.11	0.11	0.14	0.11	0.09	0.1	0.11	0.12	0.12
	Iron T	D	mg/L	0.05	0.72	0.34	0.5	0.45	0.76	0.17	1.72	2.86	1.83	1.68	0.44	0.75	1.11
	Mercury D	T	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	Mercury T	D	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	Reactive Silica	T	mg/L	0.05	30.6	32	31.6	33.8	31.6	30.8	28.8	29.5	31	30.5	30.4	31.4	31
	Fluoride	D	mg/L	0.1	0.4	0.5	0.3	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	Nitrite as N	T	mg/L	0.01	0.01	<0.01	<0.01	0.03	<0.01	<0.01	0.09	<0.01	<0.01	<0.01	<0.01	0.01	<0.01
	Nitrate as N	T	mg/L	0.01	0.04	0.11	0.11	0.11	0.11	0.08	0.09	1.34	0.12	0.11	0.09	0.1	0.1
	Nitrite + Nitrate as N	D	mg/L	0.01	0.05	0.11	0.11	0.14	0.11	0.08	0.09	1.34	0.12	0.11	0.09	0.11	0.1
	Total Anions	T	meq/L	0.01	12.1	13.5	13.1	12.4	11.3	13	12.9	13.4	13.4	13	13.2	11.7	13.1
	Total Cations	T	meq/L	0.01	13.1	13.1	13	12.1	13.2	12.5	11.2	13.4	13.2	12.4	13.3	12.1	12.8
	Ionic Balance	N	%	0.01	4.08	1.4	0.4	1.31	8	1.88	7.16	0.01	0.84	2.2	0.39	1.55	0.86
Diss. pet. gases	Methane	N	µg/L	10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
	Ethane	N	µg/L	10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
	Propane	N	µg/L	10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
PAH Suite	Naphthalene	N	µg/L	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Acenaphthylene	N	µg/L	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Acenaphthene	N	µg/L	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Fluorene	N	µg/L	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Phenanthrene	N	µg/L	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Anthracene	N	µg/L	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Fluoranthene	N	µg/L	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Pyrene	N	µg/L	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Benz(a)anthracene	N	µg/L	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Chrysene	N	µg/L	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Benzo(b+j)fluoranthene	N	µg/L	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Benzo(k)fluoranthene	N	µg/L	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
	Benzo(a)pyrene	N	µg/L	0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
	Indeno(1.2.3.cd)pyrene	N	µg/L	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<10	<0.1	<1.0
	Dibenz(a.h)anthracene	N	µg/L	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<10	<0.1	<1.0
	Benzo(g.h.i)perylene	N	µg/L	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<10	<0.1	<1.0
	Sum of polycyclic aromatic hydrocarbons	N	µg/L	0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
	Benzo(a)pyrene TEQ (zero)	N	µg/L	0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
Total Recoverable Hydrocarbons	C6 - C9 Fraction	N	µg/L	20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
	C10 - C14 Fraction	N	µg/L	50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
	C15 - C28 Fraction	N	µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
	C29 - C36 Fraction	N	µg/L	50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
	C10 - C36 Fraction (sum)	N	µg/L	50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
	C6 - C10 Fraction	N	µg/L	20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
	C6 - C10 Fraction minus BTEX (F1)	N	µg/L	20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
	>C10 - C16 Fraction	N	µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
	>C16 - C34 Fraction	N	µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
	>C34 - C40 Fraction	N	µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
	>C10 - C40 Fraction (sum)	N	µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
	>C10 - C16 Fraction minus Naphthalene (F2)	N	µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
BTEXN, Alpha/Beta, Surrogates	Benzene	N	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Toluene	N	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	Ethylbenzene	N	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	meta- & para-Xylene	N	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	ortho-Xylene	N	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	Total Xylenes	N	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	Sum of BTEX	N	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Naphthalene	N	µg/L	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<5	<5	<5	<5	<5	<5
	Gross alpha	N	Bq/L	0.05	0.23	0.25	0.22	0.25	<0.05	0.21	0.22	0.28	0.33	---	0.21	0.28	0.18
	Gross beta activity - 40K	N	Bq/L	0.1	<0.10	<0.10	0.13	<0.10	<0.10	<0.10	0.13	<0.10	0.14	---	<0.10	<0.10	<0.10
	Phenol-d6	N	%	1	43	---	---	---	---	---	---	---	---	---	---	---	---
	2-Chlorophenol-D4	N	%	1	75.2	---	---	---	---	---	---	---	---	---	---	---	---
	2.4.6-Tribromophenol	N	%	1	77.4	---	---	---	---	---	---	---	---	---	---	---	---
	2-Fluorobiphenyl	N	%	1	77.5	66.9	63.5	73.4	72.1	60.8	51.7	59.4	76.2	63.4	90	88.7	67.4
	Anthracene-d10	N	%	1	77.1	80.9	66.7	83.3	81.1	74.9	71.6	67.4	87.4	67.4	95.3	94.3	73.6
	4-Terphenyl-d14	N	%	1	83.7	80.2	69.2	84.2	81.2	77.7	87.2	70.1	97.8	69.9	94.8	102	73.6
	1.2-Dichloroethane-D4	N	%	2	104	98.5	104	101	110	102	108	110	107	127	118	108	81.8
	Toluene-D8	N	%	2	109	88.2	111	120	100	116	108	114	92.9	119	109	97.5	77.4
	4-Bromofluorobenzene	N	%	2	102	79.6	102	121	99.6	114	90.7	105	107	121	111	96.1	87.1

RN043012
CARPENTARIA 4

Statistics for All Data *

Category	CHEMICAL NAME	FRACTION D/T/N	RESULT UNIT	No. results	Min	Q1	Median	Mean	Q3	Max	20th Percentile	80th Percentile	Standard Deviation	LIMIT OF DETECTION	29/08/2022	11/09/2022	25/09/2022	9/10/2022	23/10/2022	17/01/2023	17/05/2023	19/07/2023	10/10/2023	10/01/2024	28/04/2024	17/07/2024	8/10/2024
General, anions, cations and metal	pH - Lab	N	pH Unit	13	6.88	7.03	7.11	7.18	7.42	7.56	6.97	7.46	0.21	0.01	7.16	7.56	7.46	7.11	7.46	6.97	6.97	7.11	7.38	7.09	7.08	6.88	7.09
	Electrical Conductivity @ 25°C	N	µS/cm	13	1050.00	1105.00	1120.00	1113.08	1130.00	1140.00	1094.00	1132.00	25.54	1	1050.00	1130.00	1120.00	1100.00	1120.00	1130.00	1110.00	1120.00	1130.00	1110.00	1140.00	1140.00	1070.00
	Total Dissolved Solids @180°C	T	mg/L	12	628.00	642.75	660.00	664.42	689.00	702.00	639.40	696.60	24.07	10	-	648.00	656.00	641.00	664.00	702.00	702.00	672.00	628.00	677.00	653.00	637.00	693.00
	Suspended Solids (SS)	N	mg/L	13	1.00	1.00	1.00	6.62	3.50	63.00	1.00	4.20	16.33	1	1.00	1.00	1.00	1.00	1.00	1.00	5.00	4.00	63.00	2.00	2.00	3.00	1.00
	Gross beta	T	Bq/L	12	0.10	0.28	0.31	0.30	0.35	0.43	0.26	0.37	0.08	0.1	0.22	0.28	0.35	0.31	0.10	0.28	0.39	0.34	0.43	-	0.30	0.29	0.31
	Hydroxide Alkalinity as CaCO3	T	mg/L	13	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0	1	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	Carbonate Alkalinity as CaCO3	D	mg/L	13	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0	1	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	Bicarbonate Alkalinity as CaCO3	D	mg/L	13	401.00	445.00	472.00	464.15	486.50	496.00	438.60	488.20	25.88	1	433.00	496.00	485.00	440.00	401.00	472.00	461.00	474.00	489.00	488.00	476.00	450.00	469.00
	Total Alkalinity as CaCO3	D	mg/L	13	401.00	445.00	472.00	464.15	486.50	496.00	438.60	488.20	25.88	1	433.00	496.00	485.00	440.00	401.00	472.00	461.00	474.00	489.00	488.00	476.00	450.00	469.00
	Sulfate as SO4 2-	N	mg/L	13	52.00	78.50	81.00	81.38	88.00	94.00	78.00	90.40	9.93	1	81.00	81.00	81.00	86.00	79.00	86.00	90.00	80.00	94.00	78.00	92.00	52.00	78.00
	Chloride	N	mg/L	13	57.00	59.50	62.00	64.00	66.50	79.00	58.80	68.40	6.08	1	62.00	67.00	62.00	66.00	57.00	62.00	64.00	79.00	60.00	58.00	62.00	59.00	74.00
	Calcium D	N	mg/L	13	116.00	125.00	135.00	132.46	138.50	143.00	122.80	139.20	7.74	1	140.00	143.00	136.00	122.00	136.00	135.00	116.00	135.00	138.00	123.00	139.00	127.00	132.00
	Magnesium D	N	mg/L	13	43.00	48.00	50.00	49.85	52.00	54.00	46.80	52.20	2.90	1	50.00	49.00	50.00	50.00	53.00	46.00	43.00	54.00	52.00	52.00	51.00	47.00	51.00
	Sodium D	N	mg/L	13	37.00	40.00	42.00	41.54	43.50	45.00	39.80	44.00	2.21	1	41.00	40.00	44.00	40.00	43.00	40.00	37.00	45.00	42.00	42.00	44.00	39.00	43.00
	Potassium D	D	mg/L	13	7.00	8.00	8.00	8.31	9.00	9.00	8.00	9.00	0.61	1	9.00	8.00	8.00	7.00	8.00	9.00	9.00	9.00	8.00	8.00	9.00	8.00	8.00
	Calcium T	D	mg/L	13	128.00	136.00	140.00	140.54	146.00	160.00	135.00	147.40	7.99	1	140.00	141.00	136.00	140.00	138.00	147.00	160.00	128.00	145.00	136.00	136.00	131.00	149.00
	Magnesium T	N	mg/L	13	40.00	49.50	52.00	50.85	52.50	57.00	47.40	53.40	4.19	1	52.00	52.00	48.00	51.00	55.00	52.00	45.00	53.00	52.00	52.00	57.00	40.00	52.00
	Sodium T	N	mg/L	13	37.00	39.00	42.00	41.62	44.00	45.00	38.80	44.20	2.65	1	45.00	40.00	39.00	38.00	45.00	44.00	39.00	44.00	42.00	42.00	44.00	37.00	42.00
	Potassium T	N	mg/L	13	8.00	8.00	8.00	8.46	9.00	9.00	8.00	9.00	0.50	1	9.00	8.00	8.00	8.00	9.00	9.00	8.00	8.00	9.00	8.00	9.00	8.00	9.00
	Arsenic D	N	mg/L	13	0.001	0.001	0.001	0.001	0.001	0.002	0.001	0.001	0.0003	0.001	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Barium D	N	mg/L	13	0.056	0.075	0.080	0.078	0.084	0.085	0.074	0.084	0.007	0.001	0.08	0.08	0.08	0.08	0.08	0.07	0.06	0.08	0.09	0.08	0.08	0.08	0.07
	Cadmium D	N	mg/L	13	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0	0.0001	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chromium D	D	mg/L	13	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0	0.001	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Copper D	T	mg/L	13	0.001	0.001	0.001	0.001	0.001	0.002	0.001	0.001	0.0003	0.001	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Lead D	T	mg/L	13	0.001	0.001	0.001	0.001	0.001	0.002	0.001	0.001	0.0003	0.001	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Lithium D	D	mg/L	13	0.034	0.038	0.039	0.039	0.042	0.044	0.037	0.042	0.003	0.001	0.04	0.04	0.04	0.04	0.04	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.04
	Manganese D	T	mg/L	13	0.004	0.006	0.006	0.010	0.008	0.056	0.005	0.008	0.013	0.001	0.06	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00
	Selenium D	T	mg/L	13	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	Silver D	D	mg/L	13	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0	0.001	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Strontium D	T	mg/L	13	0.385	0.483	0.522	0.504	0.538	0.548	0.476	0.541	0.043	0.001	0.54	0.54	0.53	0.50	0.52	0.49	0.39	0.54	0.55	0.53	0.50	0.48	0.46
	Zinc D	D	mg/L	13	0.005	0.008	0.016	0.018	0.025	0.046	0.007	0.029	0.011	0.005	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.02	0.03	0.03	0.02	0.05	0.02
	Boron D	T	mg/L	13	0.08	0.09	0.10	0.10	0.12	0.14	0.08	0.12	0.02	0.05	0.11	0.12	0.08	0.10	0.08	0.09	0.11	0.10	0.08	0.10	0.12	0.12	0.14
	Iron D	D	mg/L	13	0.05	0.10	0.29	0.26	0.36	0.49	0.10	0.38	0.14	0.05	0.36	0.10	0.08	0.05	0.10	0.49	0.18	0.29	0.36	0.35	0.19	0.44	0.35
	Arsenic T	T	mg/L	13	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0	0.001	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Barium T	D	mg/L	13	0.073	0.080	0.082	0.085	0.086	0.120	0.079	0.087	0.011	0.001	0.08	0.08	0.07	0.08	0.08	0.08	0.12	0.08	0.08	0.09	0.09	0.08	0.09
	Cadmium T	T	mg/L	13	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0	0.0001	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chromium T	D	mg/L	13	0.001	0.001	0.001	0.001	0.001	0.002	0.001	0.001	0.0003	0.001	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Copper T	T	mg/L	13	0.001	0.001	0.001	0.002	0.002	0.008	0.001	0.002	0.002	0.001	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00
	Lead T	D	mg/L	13	0.001	0.001	0.001	0.002	0.001	0.007	0.001	0.002	0.002	0.001	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Lithium T	T	mg/L	13	0.037	0.038	0.040	0.041	0.044	0.049	0.038	0.044	0.003	0.001	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.05	0.04	0.04	0.04	0.04	0.04
	Manganese T	D	mg/L	13	0.005	0.006	0.007	0.040	0.009	0.398	0.005	0.018	0.104	0.001	0.05	0.01	0.01	0.01	0.01	0.01	0.40	0.01	0.01	0.01	0.01	0.01	0.01
	Selenium T	T	mg/L	13	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	Silver T	T	mg/L	13	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0	0.001	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Strontium T	D	mg/L	13	0.479	0.509	0.518	0.518	0.528	0.563	0.502	0.531	0.020	0.001	0.52	0.53	0.49	0.51	0.52	0.52	0.53	0.51	0.53	0.53	0.51	0.48	0.56
	Zinc T	T	mg/L	13	0.005	0.008	0.018	0.017	0.027	0.036	0.007	0.028	0.010	0.005	0.01	0.01	0.01	0.01	0.01	0.01	0.03	0.02	0.03	0.04	0.02	0.03	0.03
	Boron T	T	mg/L	13	0.07	0.10	0.11	0.11	0.12	0.14	0.09	0.12	0.02	0.05	0.12	0.12	0.07	0.07	0.11	0.11	0.14	0.11	0.09	0.10	0.11	0.12	0.12
	Iron T	D	mg/L	13	0.17	0.45	0.75	1.03	1.70	2.86	0.42	1.74	0.75	0.05	0.72	0.34	0.50	0.45	0.76	0.17	1.72	2.86	1.83	1.68	0.44	0.75	1.11
	Mercury D	T	mg/L	13	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0	0.0001	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Mercury T	D	mg/L	13	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0	0.0001	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Reactive Silica	T	mg/L	13	28.80	30.45	31.00	31.00	31.60	33.80	30.22	31.68	1.16	0.05	30.60	32.00	31.60	33.80	31.60	30.80	28.80	29.50	31.00	30.50	30.40	31.40	31.00
	Fluoride	D	mg/L	13	0.30	0.40	0.40	0.39	0.40	0.50	0.38	0.40	0.05	0.1	0.40	0.50	0.30	0.40	0.40	0.30	0.40	0.40	0.40	0.40	0.40	0.40	0.40
	Nitrite as N	T	mg/L	13	0.01	0.01	0.01	0.02	0.01	0.09	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.03	0.01	0.01	0.09	0.01	0.01	0.01	0.01	0.01	0.01
	Nitrate as N	T	mg/L	13	0.04	0.09	0.11	0.19	0.11	1.34	0.09	0.11	0.33	0.01	0.04	0.11	0.11	0.11	0.11	0.08	0.09	1.34	0.12	0.11	0.09	0.10	0.10
	Nitrite + Nitrate as N	D	mg/L	13	0.05	0.09	0.11	0.20	0.12	1.34	0.09	0.12	0.33	0.01	0.05	0.11	0.11	0.14	0.11	0.08	0.09	1.34	0.12	0.11	0.09	0.11	0.10
	Total Anions	T	meq/L	13	11.30	12.25	13.00	12.78	13.30	13.50	12.02	13.40	0.66	0.01	12.10	13.50	13.10	12.40	11.30	13.00	12.90	13.40	13.40	13.00	13.20	11.70	13.10
	Total Cations	T	meq/L	13	11.20	12.25	13.00	12.72	13.20	13.40	12.10	13.22	0.61	0.01	13.10	13.10	13.00	12.10	13.20	12.50	11.20	13.40	13.20	12.40	13.30	12.10	12.80
	Ionic Balance	N	%	13	0.01	0.62	1.40	2.31	3.14	8.00	0.40	4.70	2.46	0.01	4.08	1.40	0.40	1.31	8.00	1.88	7.16	0.01	0.84	2.20	0.39	1.55	0.86
Diss. pet. gases	Methane	N	mg/L	13	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	0	0.01	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
	Ethane	N	µg/L	13	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	0	10	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
	Propane	N	µg/L	13	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	0	10	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
PAH Suite **	Naphthalene	N	µg/L	13	0.10	0.10	0.10	0.17	0.10	1.00	0.10	0.10	0	1	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	1.00
	Acenaphthylene	N	µg/L	13	0.10	0.10	0.10	0.17	0.10	1.00	0.10	0.10	0	1	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	1.00
	Acenaphthene	N	µg/L	13	0.10	0.10	0.10	0.17	0.10	1.00	0.10	0.10	0	1	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	1.00
	Fluorene	N	µg/L	13	0.10	0.10	0.10	0.17	0.10	1.00	0.10	0.10	0	1	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	1.00
	Phenanthrene	N	µg/L	13	0.10	0.10	0.10	0.17	0.10	1.00	0.10	0.10	0	1	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	1.00
	Anthracene	N	µg/L	13	0.10	0.10	0.10	0.17	0.10	1.00	0.10	0.10	0	1	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	1.00
	Fluoranthene	N	µg/L	13	0.10	0.10	0.10	0.17	0.10	1.00	0.10	0.10	0	1	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	1.00
	Pyrene	N	µg/L	13	0.10	0.10	0.10	0.17	0.10	1.00	0.10	0.10	0	1	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	1.00
	Benz(a)anthracene	N	µg/L	13	0.10	0.10	0.10	0.17	0.10	1.00	0.10	0.10	0	1	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	1.00
	Chrysene	N	µg/L	13	0.10	0.10	0.10	0.17	0.10	1.00	0.10	0.10	0	1	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	1.00
	Benzo(b+j)fluoranthene	N	µg/L	13	0.10	0.10	0.10	0.17	0.10	1.00	0.10	0.10	0	1	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	1.00
	Benzo(k)fluoranthene	N	µg/L	13	0.10	0.10	0.10	0.17	0.10	1.00	0.10	0.10	0	1	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	1.00
	Benzo(a)pyrene	N	µg/L	13	0.05	0.05	0.05	0.08	0.05	0.50	0.05	0.05	0	0.5	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.50
	Indeno(1.2.3.cd)pyrene	N	µg/L	13	0.10	0.10	0.10	0.93	0.10	10.00	0.10	0.28	3	1	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	10.00	0.10	1.00
	Dibenz(a.h)anthracene	N	µg/L	13	0.10	0.10	0.10	0.93	0.10	10.00	0.10	0.28	3	1	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	10.00	0.10	1.00
	Benzo(g.h.i)perylene	N	µg/L	13	0.10	0.10	0.10	0.93	0.10	10.00	0.10	0.28	3	1	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	10.00	0.10	1.00
	Sum of polycyclic aromatic hydrocarbons	N	µg/L	13	0.05	0.05	0.05	0.08	0.05	0.50	0.05	0.05	0	0.5	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.50
	Benzo(a)pyrene TEQ (zero)	N	µg/L	13	0.05	0.05	0.05	0.08	0.05	0.50	0.05	0.05	0	0.5	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.50
Total Recoverable Hydrocarbons	C6 - C9 Fraction	N	µg/L	13	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	0	20	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00
	C10 - C14 Fraction	N	µg/L	13	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	0	50	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
	C15 - C28 Fraction	N	µg/L	13	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	0	100	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
	C29 - C36 Fraction	N	µg/L	13	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	0	50	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
	C10 - C36 Fraction (sum)	N	µg/L	13	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	0	50	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
	C6 - C10 Fraction	N	µg/L	13	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	0	20	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00
	C6 - C10 Fraction minus BTEX (F1)	N	µg/L	13	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	0	20	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00
	>C10 - C16 Fraction	N	µg/L	13	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	0	100	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
	>C16 - C34 Fraction	N	µg/L	13	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	0	100	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
	>C34 - C40 Fraction	N	µg/L	13	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	0	100	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
	>C10 - C40 Fraction (sum)	N	µg/L	13	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	0	100	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
	>C10 - C16 Fraction minus Naphthalene (F2)	N	µg/L	13	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	0	100	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
BTEXN, Alpha/Beta, Surrogates	Benzene	N	µg/L	13	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0	1	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	Toluene	N	µg/L	13	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0	2	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
	Ethylbenzene	N	µg/L	13	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0	2	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
	meta- & para-Xylene	N	µg/L	13	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0	2	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
	ortho-Xylene	N	µg/L	13	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0	2	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
	Total Xylenes	N	µg/L	13	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0	2	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
	Sum of BTEX	N	µg/L	13	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0	1	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	Naphthalene **	N	µg/L	13	0.10	0.10	0.10	2.36	5.00	5.00	0.10	5.00	2.44	1	0.10	0.10	0.10	0.10	0.10	0.10	0.10	5.00	5.00	5.00	5.00	5.00	5.00
	Gross alpha	N	Bq/L	12	0.05	0.21	0.23	0.23	0.27	0.33	0.20	0.28	0.07	0.05	0.23	0.25	0.22	0.25	0.05	0.21	0.22	0.28	0.33	-	0.21	0.28	0.18
	Gross beta activity - 40K	N	Bq/L	12	0.10	0.10	0.10	0.11	0.12	0.14	0.10	0.13	0.01	0.1	0.10	0.10	0.13	0.10	0.10	0.10	0.13	0.10	0.14	-	0.10	0.10	0.10
	Phenol-d6	N	%	1	43.00	-	43.00	43.00	-	43.00	---	---	0.00	1	43.00	-	-	-	-	-	-	-	-	-	-	-	-
	2-Chlorophenol-D4	N	%	1	75.20	-	75.20	75.20	-	75.20	---	---	0.00	1	75.20	-	-	-	-	-	-	-	-	-	-	-	-
	2.4.6-Tribromophenol	N	%	1	77.40	-	77.40	77.40	-	77.40	---	---	0.00	1	77.40	-	-	-	-	-	-	-	-	-	-	-	-
	2-Fluorobiphenyl	N	%	13	51.70	62.10	67.40	70.08	76.85	90.00	60.52	79.74	10.72	1	77.50	66.90	63.50	73.40	72.10	60.80	51.70	59.40	76.20	63.40	90.00	88.70	67.40
	Anthracene-d10	N	%	13	66.70	69.50	77.10	78.54	85.35	95.30	67.40	88.78	9.28	1	77.10	80.90	66.70	83.30	81.10	74.90	71.60	67.40	87.40	67.40	95.30	94.30	73.60
	4-Terphenyl-d14	N	%	13	69.20	71.85	81.20	82.43	91.00	102.00	70.06	95.40	10.34	1	83.70	80.20	69.20	84.20	81.20	77.70	87.20	70.10	97.80	69.90	94.80	102.00	73.60
	1.2-Dichloroethane-D4	N	%	13	81.80	101.50	107.00	106.10	110.00	127.00	100.50	111.60	10.06	2	104.00	98.50	104.00	101.00	110.00	102.00	108.00	110.00	107.00	127.00	118.00	108.00	81.80
	Toluene-D8	N	%	13	77.40	95.20	109.00	104.77	115.00	120.00	91.96	116.60	12.31	2	109.00	88.20	111.00	120.00	100.00	116.00	108.00	114.00	92.90	119.00	109.00	97.50	77.40
	4-Bromofluorobenzene	N	%	13	79.60	93.40	102.00	102.78	112.50	121.00	89.98	115.40	11.98	2	102.00	79.60	102.00	121.00	99.60	114.00	90.70	105.00	107.00	121.00	111.00	96.10	87.10

*All readings below the limit of detection (LOD) have been assumed to be equal to the limit of detection.

** Limit of detection has changed, all readings are equal to limit of detection (LOD)

9 Appendix B – Site Specific Standards

Page left blank intentionally.

Site-Specific Performance Standards for RN042461, RN042462, RN042463, and RN042464

			Gum Ridge								Anthony Lagoon							
Category	**CHEMICAL NAME**	**RESULT UNIT**	No. results	Min	Q1	Median	Mean	Q3	Max	IQR	No. results	Min	Q1	Median	Mean	Q3	Max	IQR
General, anions, cations and metal	pH - Lab	pH Unit	49	6.96	7.23	7.44	7.38	7.55	7.70	0.32	50	7.04	7.30	7.52	7.48	7.65	7.80	0.35
	Electrical Conductivity @ 25°C	µS/cm	49	962.00	1070.00	1090.00	1083.43	1110.00	1120.00	40.00	50	823.00	982.00	1030.00	1022.16	1070.00	1120.00	88.00
	Total Dissolved Solids @180°C	mg/L	49	562.00	635.00	682.00	683.86	724.50	820.00	89.50	50	492.00	564.75	618.00	629.78	687.25	820.00	122.50
	Suspended Solids (SS)	mg/L	47	1.00	1.00	2.00	7.85	6.00	53.00	5.00	48	1.00	4.25	8.00	7.56	9.00	25.00	4.75
	Gross beta	Bq/L	45	0.19	0.29	0.31	0.31	0.34	0.45	0.06	46	0.22	0.32	0.39	0.40	0.47	0.69	0.15
	Hydroxide Alkalinity as CaCO3	mg/L	49	1.00	1.00	1.00	1.00	1.00	1.00	0.00	50	1.00	1.00	1.00	1.00	1.00	1.00	0.00
	Carbonate Alkalinity as CaCO3	mg/L	49	1.00	1.00	1.00	1.00	1.00	1.00	0.00	50	1.00	1.00	1.00	1.00	1.00	1.00	0.00
	Bicarbonate Alkalinity as CaCO3	mg/L	49	369.00	462.50	478.00	468.22	484.00	501.00	21.50	50	325.00	438.50	456.00	447.24	473.25	484.00	34.75
	Total Alkalinity as CaCO3	mg/L	49	369.00	462.50	478.00	468.22	484.00	501.00	21.50	50	325.00	438.50	456.00	447.24	473.25	484.00	34.75
	Sulfate as SO4 2-	mg/L	49	77.00	81.00	83.00	85.10	86.00	122.00	5.00	50	26.00	45.00	68.50	65.50	82.25	96.00	37.25
	Chloride	mg/L	49	52.00	54.00	57.00	58.43	60.00	79.00	6.00	50	43.00	53.00	55.00	56.82	58.00	94.00	5.00
	Calcium D	mg/L	49	102.00	121.00	129.00	127.71	136.00	155.00	15.00	50	73.00	99.75	109.50	106.88	115.25	131.00	15.50
	Magnesium D	mg/L	49	43.00	45.00	48.00	47.94	50.00	57.00	5.00	50	39.00	48.00	51.50	51.58	54.25	59.00	6.25
	Sodium D	mg/L	49	34.00	37.00	39.00	38.63	40.00	48.00	3.00	50	30.00	36.00	38.00	38.28	39.00	46.00	3.00
	Potassium D	mg/L	49	6.00	7.00	8.00	7.82	8.00	10.00	1.00	50	6.00	7.00	8.00	8.42	9.00	16.00	2.00
	Calcium T	mg/L	49	118.00	129.00	135.00	135.76	142.00	164.00	13.00	50	87.00	109.00	115.00	113.32	119.00	129.00	10.00
	Magnesium T	mg/L	49	47.00	49.00	50.00	51.02	52.50	58.00	3.50	50	38.00	53.00	54.50	54.82	57.00	63.00	4.00
	Sodium T	mg/L	49	36.00	39.50	41.00	40.67	42.00	48.00	2.50	50	30.00	39.00	40.00	39.92	41.00	46.00	2.00
	Potassium T	mg/L	49	6.00	8.00	8.00	8.33	9.00	10.00	1.00	50	7.00	8.00	9.00	9.06	10.00	17.00	2.00
	Arsenic D	mg/L	49	0.001	0.001	0.001	0.001	0.001	0.004	0.000	50	0.001	0.001	0.001	0.002	0.002	0.007	0.001
	Barium D	mg/L	49	0.07	0.09	0.11	0.15	0.16	0.55	0.07	50	0.07	0.11	0.14	0.14	0.17	0.24	0.05
	Cadmium D	mg/L	49	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0000	50	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0000
	Chromium D	mg/L	49	0.001	0.001	0.001	0.001	0.001	0.002	0.000	50	0.001	0.001	0.001	0.001	0.001	0.001	0.000
	Copper D	mg/L	49	0.001	0.001	0.001	0.001	0.001	0.001	0.000	50	0.001	0.001	0.001	0.001	0.001	0.001	0.000
	Lead D	mg/L	49	0.001	0.001	0.001	0.001	0.001	0.001	0.000	50	0.001	0.001	0.001	0.001	0.001	0.001	0.000
	Lithium D	mg/L	49	0.03	0.04	0.04	0.04	0.04	0.05	0.00	50	0.04	0.05	0.06	0.07	0.08	0.10	0.03
	Manganese D	mg/L	49	0.01	0.03	0.11	0.22	0.31	1.32	0.27	50	0.03	0.05	0.06	0.09	0.12	0.20	0.08
	Selenium D	mg/L	49	0.01	0.01	0.01	0.01	0.01	0.01	0.00	50	0.01	0.01	0.01	0.01	0.01	0.02	0.00
	Silver D	mg/L	49	0.001	0.001	0.001	0.001	0.001	0.001	0.000	50	0.001	0.001	0.001	0.001	0.001	0.001	0.000
	Strontium D	mg/L	49	0.40	0.46	0.49	0.48	0.50	0.54	0.04	50	0.37	0.45	0.47	0.48	0.50	0.57	0.05
	Zinc D	mg/L	49	0.01	0.01	0.01	0.01	0.01	0.01	0.00	50	0.01	0.01	0.01	0.01	0.01	0.01	0.00
	Boron D	mg/L	49	0.09	0.10	0.11	0.11	0.12	0.13	0.02	50	0.08	0.10	0.11	0.11	0.12	0.15	0.02
	Iron D	mg/L	49	0.05	0.19	0.41	0.49	0.77	1.37	0.59	50	0.05	0.71	2.05	2.46	4.08	6.89	3.37
	Arsenic T	mg/L	49	0.001	0.001	0.001	0.001	0.001	0.002	0.000	50	0.001	0.001	0.001	0.002	0.002	0.007	0.001
	Barium T	mg/L	49	0.09	0.10	0.13	0.16	0.17	0.53	0.07	50	0.08	0.13	0.16	0.15	0.18	0.26	0.05
	Cadmium T	mg/L	49	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0000	50	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0000
	Chromium T	mg/L	49	0.001	0.001	0.001	0.001	0.001	0.001	0.000	50	0.001	0.001	0.001	0.001	0.001	0.005	0.000
	Copper T	mg/L	49	0.001	0.001	0.001	0.001	0.001	0.008	0.000	50	0.001	0.001	0.001	0.001	0.001	0.004	0.000
	Lead T	mg/L	49	0.001	0.001	0.001	0.001	0.002	0.002	0.001	50	0.001	0.001	0.001	0.001	0.001	0.004	0.000
	Lithium T	mg/L	49	0.04	0.04	0.04	0.04	0.04	0.07	0.00	50	0.05	0.05	0.07	0.07	0.09	0.10	0.03
	Manganese T	mg/L	49	0.01	0.04	0.13	0.23	0.31	1.28	0.27	50	0.03	0.05	0.07	0.09	0.13	0.22	0.07
	Selenium T	mg/L	49	0.01	0.01	0.01	0.01	0.01	0.01	0.00	50	0.01	0.01	0.01	0.01	0.01	0.01	0.00
	Silver T	mg/L	49	0.001	0.001	0.001	0.001	0.001	0.001	0.000	50	0.001	0.001	0.001	0.001	0.001	0.001	0.000
	Strontium T	mg/L	49	0.46	0.51	0.53	0.53	0.54	0.61	0.04	50	0.36	0.50	0.52	0.52	0.54	0.61	0.05
	Zinc T	mg/L	49	0.01	0.01	0.01	0.01	0.02	0.14	0.01	50	0.01	0.01	0.01	0.01	0.01	0.02	0.00
	Boron T	mg/L	49	0.09	0.11	0.12	0.11	0.12	0.16	0.02	50	0.07	0.10	0.12	0.12	0.12	0.15	0.02
	Iron T	mg/L	49	0.05	0.70	1.42	3.02	2.83	22.00	2.14	50	0.54	1.77	3.54	3.70	4.93	10.70	3.16
	Mercury D	mg/L	49	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0000	50	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0000
	Mercury T	mg/L	49	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0000	50	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0000
	Reactive Silica	mg/L	49	28.90	30.35	31.00	31.05	31.70	33.60	1.35	50	18.20	24.68	26.95	26.44	28.20	30.10	3.53
	Fluoride	mg/L	49	0.30	0.40	0.40	0.39	0.40	0.60	0.00	50	0.10	0.50	0.60	0.61	0.80	0.80	0.30
	Nitrite as N	mg/L	49	0.01	0.01	0.01	0.01	0.01	0.01	0.00	50	0.01	0.01	0.01	0.01	0.01	0.01	0.00
	Nitrate as N	mg/L	49	0.01	0.02	0.03	0.04	0.05	0.08	0.03	50	0.01	0.01	0.01	0.02	0.02	0.08	0.01
	Nitrite + Nitrate as N	mg/L	49	0.01	0.02	0.03	0.04	0.05	0.08	0.03	50	0.01	0.01	0.01	0.02	0.02	0.08	0.01
	Total Anions	meq/L	49	10.90	12.60	12.90	12.78	13.20	13.80	0.60	50	8.79	11.40	12.00	11.90	12.70	13.20	1.30
	Total Cations	meq/L	49	10.30	11.55	12.20	12.19	12.90	14.10	1.35	50	9.13	11.00	11.60	11.45	12.03	13.40	1.03
	Ionic Balance	%	49	0.16	1.30	3.38	3.74	5.45	9.97	4.15	50	0.09	1.11	2.36	3.12	4.82	10.00	3.71
Diss. pet. gases	Methane	mg/L	49	10.00	10.00	10.00	16.73	23.50	48.00	13.50	50	10.00	10.00	14.50	73.48	97.75	507.00	87.75
	Ethane	µg/L	49	10.00	10.00	10.00	10.00	10.00	10.00	0.00	50	10.00	10.00	10.00	10.00	10.00	10.00	0.00
	Propane	µg/L	49	10.00	10.00	10.00	10.00	10.00	10.00	0.00	50	10.00	10.00	10.00	10.00	10.00	10.00	0.00
PAH Suite **	Naphthalene	µg/L	49	0.10	0.10	1.00	0.89	1.00	5.00	0.90	50	0.10	0.10	1.00	0.87	1.00	5.00	0.90
	Acenaphthylene	µg/L	49	0.10	0.10	1.00	0.69	1.00	1.00	0.90	50	0.10	0.10	1.00	0.68	1.00	1.00	0.90
	Acenaphthene	µg/L	49	0.10	0.10	1.00	0.69	1.00	1.00	0.90	50	0.10	0.10	1.00	0.68	1.00	1.00	0.90
	Fluorene	µg/L	49	0.10	0.10	1.00	0.69	1.00	1.00	0.90	50	0.10	0.10	1.00	0.68	1.00	1.00	0.90
	Phenanthrene	µg/L	49	0.10	0.10	1.00	0.69	1.00	1.00	0.90	50	0.10	0.10	1.00	0.68	1.00	1.00	0.90
	Anthracene	µg/L	49	0.10	0.10	1.00	0.69	1.00	1.00	0.90	50	0.10	0.10	1.00	0.68	1.00	1.00	0.90
	Fluoranthene	µg/L	49	0.10	0.10	1.00	0.69	1.00	1.00	0.90	50	0.10	0.10	1.00	0.68	1.00	1.00	0.90
	Pyrene	µg/L	49	0.10	0.10	1.00	0.69	1.00	1.00	0.90	50	0.10	0.10	1.00	0.68	1.00	1.00	0.90
	Benz(a)anthracene	µg/L	49	0.10	0.10	1.00	0.69	1.00	1.00	0.90	50	0.10	0.10	1.00	0.68	1.00	1.00	0.90
	Chrysene	µg/L	49	0.10	0.10	1.00	0.69	1.00	1.00	0.90	50	0.10	0.10	1.00	0.68	1.00	1.00	0.90
	Benzo(b+j)fluoranthene	µg/L	49	0.10	0.10	1.00	0.69	1.00	1.00	0.90	50	0.10	0.10	1.00	0.68	1.00	1.00	0.90
	Benzo(k)fluoranthene	µg/L	49	0.10	0.10	1.00	0.69	1.00	1.00	0.90	50	0.10	0.10	1.00	0.68	1.00	1.00	0.90
	Benzo(a)pyrene	µg/L	49	0.05	0.05	0.50	0.34	0.50	0.50	0.45	50	0.05	0.05	0.50	0.34	0.50	0.50	0.45
	Indeno(1.2.3.cd)pyrene	µg/L	49	0.10	0.10	1.00	0.72	1.00	1.00	0.90	50	0.10	0.10	1.00	0.71	1.00	1.00	0.90
	Dibenz(a.h)anthracene	µg/L	49	0.10	0.10	1.00	0.72	1.00	1.00	0.90	50	0.10	0.10	1.00	0.71	1.00	1.00	0.90
	Benzo(g.h.i)perylene	µg/L	49	0.10	0.10	1.00	0.72	1.00	1.00	0.90	50	0.10	0.10	1.00	0.71	1.00	1.00	0.90
	Sum of polycyclic aromatic hydrocarbons	µg/L	49	0.05	0.05	0.50	0.34	0.50	0.50	0.45	50	0.05	0.05	0.50	0.34	0.50	0.50	0.45
	Benzo(a)pyrene TEQ (zero)	µg/L	49	0.05	0.05	0.50	0.35	0.50	0.50	0.45	50	0.05	0.05	0.50	0.34	0.50	0.50	0.45
Total Recoverable Hydrocarbons	C6 - C9 Fraction	µg/L	49	20.00	20.00	20.00	20.00	20.00	20.00	0.00	50	20.00	20.00	20.00	20.00	20.00	20.00	0.00
	C10 - C14 Fraction	µg/L	49	50.00	50.00	50.00	50.00	50.00	50.00	0.00	50	50.00	50.00	50.00	55.60	50.00	160.00	0.00
	C15 - C28 Fraction	µg/L	49	100.00	100.00	100.00	100.00	100.00	100.00	0.00	50	100.00	100.00	100.00	102.00	100.00	140.00	0.00
	C29 - C36 Fraction	µg/L	49	50.00	50.00	50.00	50.00	50.00	50.00	0.00	50	50.00	50.00	50.00	50.00	50.00	50.00	0.00
	C10 - C36 Fraction (sum)	µg/L	49	50.00	50.00	50.00	50.00	50.00	50.00	0.00	50	50.00	50.00	50.00	68.60	50.00	290.00	0.00
	C6 - C10 Fraction	µg/L	49	20.00	20.00	20.00	20.00	20.00	20.00	0.00	50	20.00	20.00	20.00	20.00	20.00	20.00	0.00
	C6 - C10 Fraction minus BTEX (F1)	µg/L	49	20.00	20.00	20.00	20.00	20.00	20.00	0.00	50	20.00	20.00	20.00	20.00	20.00	20.00	0.00
	>C10 - C16 Fraction	µg/L	49	100.00	100.00	100.00	100.00	100.00	100.00	0.00	50	100.00	100.00	100.00	114.40	102.50	270.00	2.50
	>C16 - C34 Fraction	µg/L	49	100.00	100.00	100.00	100.00	100.00	100.00	0.00	50	100.00	100.00	100.00	100.00	100.00	100.00	0.00
	>C34 - C40 Fraction	µg/L	49	100.00	100.00	100.00	100.00	100.00	100.00	0.00	50	100.00	100.00	100.00	100.00	100.00	100.00	0.00
	>C10 - C40 Fraction (sum)	µg/L	49	100.00	100.00	100.00	100.00	100.00	100.00	0.00	50	100.00	100.00	100.00	114.40	102.50	270.00	2.50
	>C10 - C16 Fraction minus Naphthalene (F2)	µg/L	49	100.00	100.00	100.00	100.00	100.00	100.00	0.00	50	100.00	100.00	100.00	114.40	102.50	270.00	2.50
BTEXN, Alpha/Beta, Surrogates	Benzene	µg/L	49	1.00	1.00	1.00	1.00	1.00	1.00	0.00	50	1.00	1.00	1.00	1.38	1.00	20.00	0.00
	Toluene	µg/L	49	2.00	2.00	2.00	2.00	2.00	2.00	0.00	50	2.00	2.00	2.00	2.00	2.00	2.00	0.00
	Ethylbenzene	µg/L	49	2.00	2.00	2.00	2.00	2.00	2.00	0.00	50	2.00	2.00	2.00	2.36	2.00	20.00	0.00
	meta- & para-Xylene	µg/L	49	2.00	2.00	2.00	2.00	2.00	2.00	0.00	50	2.00	2.00	2.00	2.36	2.00	20.00	0.00
	ortho-Xylene	µg/L	49	2.00	2.00	2.00	2.00	2.00	2.00	0.00	50	2.00	2.00	2.00	2.36	2.00	20.00	0.00
	Total Xylenes	µg/L	49	2.00	2.00	2.00	2.00	2.00	2.00	0.00	50	2.00	2.00	2.00	2.16	2.00	10.00	0.00
	Sum of BTEX	µg/L	49	1.00	1.00	1.00	1.00	1.00	1.00	0.00	50	1.00	1.00	1.00	1.00	1.00	1.00	0.00
	Naphthalene **	µg/L	49	0.10	1.00	1.00	1.95	5.00	5.00	4.00	50	0.10	1.00	1.00	2.01	5.00	5.00	4.00
	Gross alpha	Bq/L	45	0.14	0.19	0.21	0.22	0.24	0.36	0.05	46	0.15	0.22	0.32	0.35	0.47	0.68	0.25
	Gross beta activity - 40K	Bq/L	45	0.10	0.10	0.10	0.12	0.13	0.22	0.03	46	0.10	0.11	0.14	0.17	0.21	0.48	0.11
	Phenol-d6	%	27	0.00	19.70	23.70	23.09	26.60	34.80	6.90	26	15.10	20.28	23.50	24.25	27.58	37.40	7.30
	2-Chlorophenol-D4	%	27	0.00	43.50	53.00	50.46	55.60	79.30	12.10	26	35.20	43.58	51.40	51.67	56.43	84.80	12.85
	2.4.6-Tribromophenol	%	27	0.00	45.50	57.50	55.56	65.40	94.60	19.90	26	30.20	44.00	59.55	58.75	65.95	98.40	21.95
	2-Fluorobiphenyl	%	49	43.70	54.90	62.40	62.44	68.00	94.90	13.10	50	48.80	56.05	65.35	64.07	69.43	94.90	13.38
	Anthracene-d10	%	49	52.20	71.70	78.50	77.98	84.85	105.00	13.15	50	51.80	69.63	76.95	77.22	85.48	102.00	15.85
	4-Terphenyl-d14	%	49	54.00	72.55	81.50	81.48	91.60	100.00	19.05	50	55.60	71.95	81.05	81.21	91.83	107.00	19.88
	1.2-Dichloroethane-D4	%	49	83.50	97.25	105.00	105.64	115.50	132.00	18.25	50	81.80	93.18	107.00	104.56	115.25	130.00	22.08
	Toluene-D8	%	49	84.00	98.70	106.00	103.63	110.00	116.00	11.30	50	77.60	97.55	104.00	102.35	109.00	117.00	11.45
	4-Bromofluorobenzene	%	49	80.70	95.80	104.00	104.96	113.50	130.00	17.70	50	81.50	95.73	101.00	103.16	110.50	131.00	14.78