Groundwater Interpretative Report

Imperial Oil and Gas Pty Ltd

Environmental Management Plan

Carpentaria 1 Work Program EP187

(15th of February 2023 to 28th of April 2024)

Date	Revision	Author	Approved
15/05/24	0	SR, AS	NF
16/05/24	0.1	-	NF
26/11/24	1	SR, AS	NF

Document title	Groundwater Interpretative Report
EMP title	2021 Carpentaria 1 Work Program EP187 IMP 3-4
Exploration Permit/Licence Number	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 / Terms	Definition
Code	Code of Practice: Onshore Petroleum Activities in the Northern Territory
CBM	Control Monitoring Bore
DENR	Department of Environment and Natural Resources
DEPWS	Department of Environment, Parks and Water Security (NT)
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
TDS	Total Dissolved Solids

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1 Introduction

The EMP IMP3-4 – 2021 Carpentaria 1 Work Program EP187, dated 1st February 2021 was approved on the 15th February 2021.

Ministerial Condition 10 of the EMP 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.

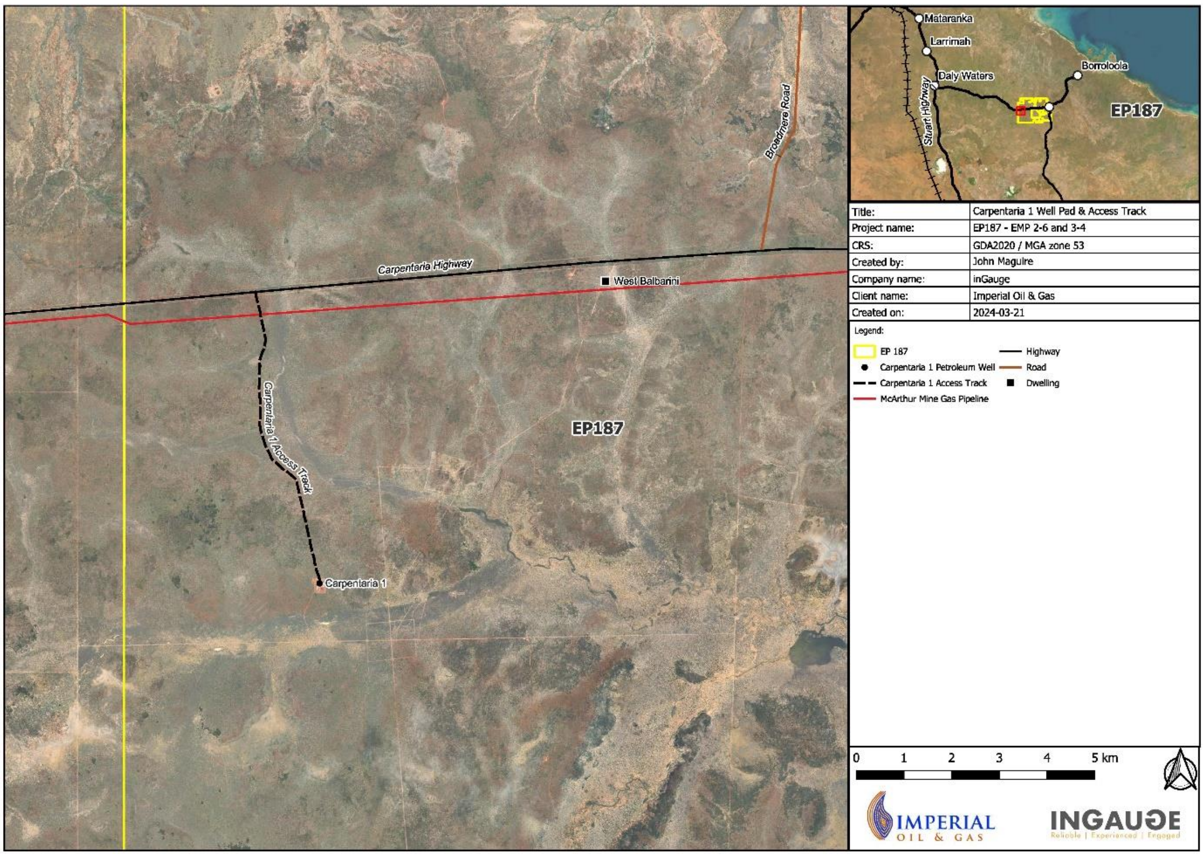
Ministerial Condition 10 of the Approval Notice is as follows:

> *"In support of clause B.4.17.2 of the Code, the interest holder must provide to DEPWS, via Onshoregas.DEPWS@nt.gov.au, groundwater monitoring data and 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. Groundwater data must be provided within one month of collection and be provided quarterly, in a format to be determined by DEPWS. The interpretative report must be provided annually within three 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."*

Groundwater monitoring for the Carpentaria 1 bores, as outlined in Section 2.1, has been ongoing since April 18, 2021. This Annual Groundwater Interpretive Report summarizes the ongoing sampling activities for Carpentaria 1 and includes the most recent samples since February 15, 2023, until April 28, 2024. has been ongoing since April 18, 2021. This Annual Groundwater Interpretive Report summarizes the sampling activities from February 15 until April 28, 2024. In accordance with the Department of Environment and Natural Resources (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. This report marks the end of the scheduled groundwater monitoring for the IMP3-4 and outlines site-specific performance standards for the impact monitoring bore RN041800.

The following report demonstrates that the activities under the EMP have not had any impact on groundwater quality.

The wellsite location is shown in Figure 1, for this well site two groundwater monitoring bores were installed.



Title:	Carpentaria 1 Well Pad & Access Track
Project name:	EP187 - EMP 2-6 and 3-4
CRS:	GDA2020 / MGA zone 53
Created by:	John Maguire
Company name:	inGauge
Client name:	Imperial Oil & Gas
Created on:	2024-03-21

Figure 1 – Location of the Capentaria-1 wellsite within EP187

2 Groundwater Monitoring Program Details

2.1 Water Monitoring Bores

As per the Guideline a Control Monitoring Bore (CMB) is located approximately 100 metres up-gradient from the petroleum well, and an Impact Monitoring Bore (IMB) is located approximately 20 metres down-gradient from the well. Details of the monitoring bores are presented in Table 1.

Table 1 – Monitoring bores information

Well site	Carpentaria 1	
Aquifer	Gum Ridge	
Bore Number	**RN041800**	**RN041678**
Category	IMB	CMB
Total Depth (m)	96	96
Length of slotted liner (m)	24	22
ID of casing (mm)	158	158
Total Vol. of bore (L)	1882	1882
Production rate (L/s)	4	10
Time of produce one full volume (min)	7.8	3.1

The locations of the monitoring bores relevant to IMP3-4 on the Carpentaria 1 wellsite are visualized in Figure 2 below.

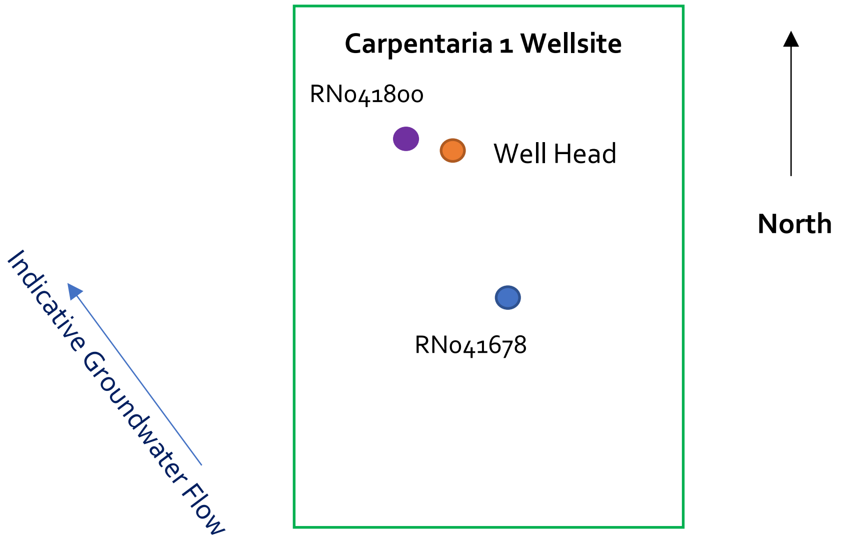


Figure 2 – Schematic of the monitoring bores locations in relation to Carpentaria -1 well

2.2 Water Sampling

Water sampling has been ongoing at Carpentaria 1 since April 2021 and a total of 31 samples from both bores have been 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). Hydraulic fracturing (HF) of the Carpentaria 1 well occurred on the 4th of June 2021 and finished on the 8th of June 2021. Below is a breakdown of dates the samples were taken:

- 16 samples were taken from both bores prior to initiating the HF activity to provide site-specific data baseline groundwater date between the dates of:
  - 18/04/2021 – 25/05/2021
- 15 samples were taken after HF activities were conducted:
  - 16/06/2021- 28/04/2024

A summary of is shown in Table 2.

Table 2 – Bore sampling summary

Year	Key Events	Sample Dates	Samples Analysed
2021	Bore sampling start date	18/04/2021	21
		21/04/2021	
		26/04/2021	
		27/04/2021	
		28/04/2021	
		4/05/2021	
		5/05/2021	
		9/05/2021	
		11/05/2021	
		12/05/2021	
		16/05/2021	
		17/05/2021	
		18/05/2021	
		19/05/2021	
		23/05/2021	
		25/05/2021	
	4/06/2021 - HF Start		
	8/06/2021 - HF End		
		16/06/2021	
		14/07/2021	
		14/08/2021	
		13/10/2021	
		14/11/2021	
2022		9/01/2022	4
		6/04/2022	
		17/07/2022	
		6/11/2022	
2023		17/01/2023	4

Year	Key Events	Sample Dates	Samples Analysed
		17/05/2023	
		19/07/2023	
		10/10/2023	
2024		10/01/2024	2
	Bore sampling finish date	28/04/2024	

3 Methodology

All analytes listed in Table 6 of the Code of Practice were assessed by analyzing 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 natural state of local groundwater quality. 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 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.

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

4 Results and Discussions

Statistical analysis was performed for all analytes, as shown in **Appendix A,** based on the methodology discussed in Section 3.

This section only discusses flagged analytes, which are those from the reporting period showing a positive difference greater than two standard deviations from the baseline mean (as reflected by the Z-score), indicating notable discrepancies between the IMB and CMB. Additionally, it discusses analytes of particular interest which the Preliminary Guideline: Groundwater Monitoring Bores for Exploration Petroleum Wells in the Beetaloo Sub-basin, lists as, Total Dissolved Solids, Chloride, Electrical Conductivity (E.C.), 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.

4.1 Gum Ridge Aquifer

4.1.1 Electrical Conductivity

The results of monitoring for Electrical Conductivity in Gum Ridge aquifer are presented in Figure 3.

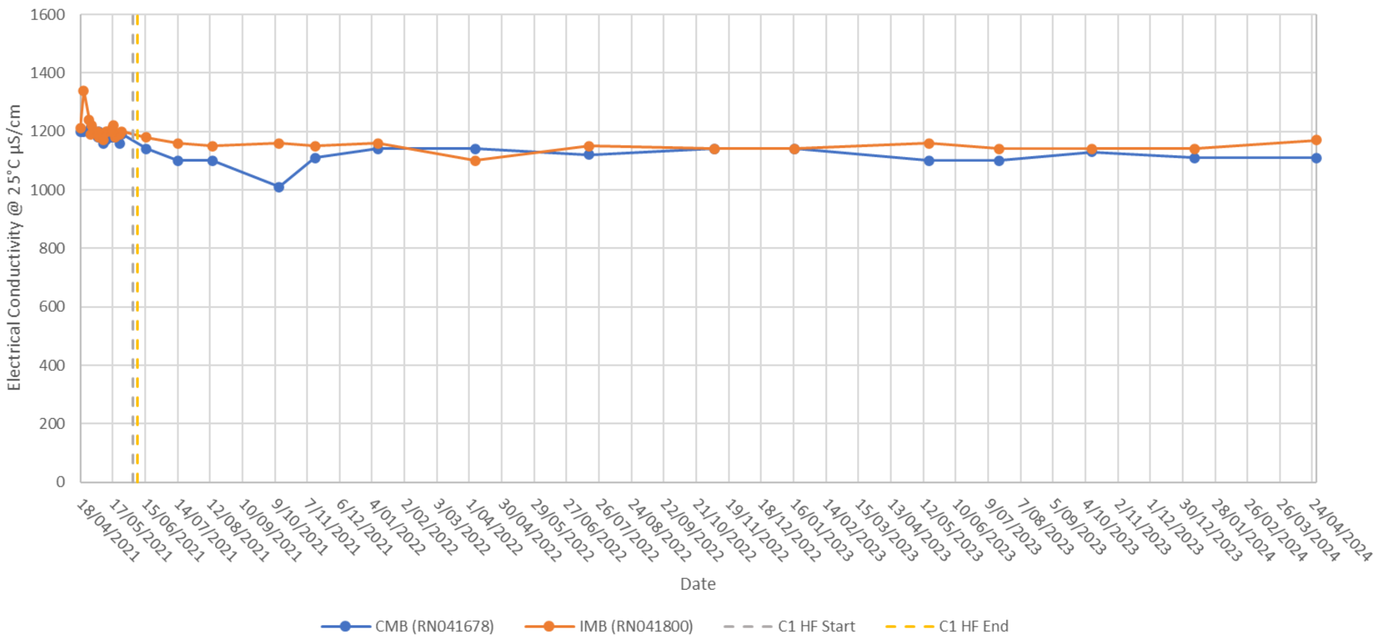


Figure 3 – Electrical Conductivity measurements in Gum Ridge aquifer

The data shows consistent trends between the IMB and CMB measurements. Both sets of data display a relatively stable trend throughout the reporting period and since the start of sampling. No statistical outliers were observed in the Electrical Conductivity measurements sampled within the reporting period.

The plot indicates a consistent range of Electrical Conductivity across both sites, showing minimal fluctuations over time, and likewise reveals no points outside the usual range. The results suggest that the observed activities have not adversely affected the groundwater quality at either site.

Table 3 and Figure 4 summarizes the site-specific (Baseline and reporting period) Electrical Conductivity standards for the Carpentaria 1 impact monitoring bore.

Table 3 – Summary statistics of the Electrical Conductivity measurements in Gum Ridge aquifer

Electrical Conductivity @ 25°C µS/cm	CMB (RN041678)	IMB (RN041800)
Minimum	1010.000	1100.000
Maximum	1210.000	1340.000
Average	1158.462	1186.154
20th percentile	1128.000	1150.000
80th percentile	1200.000	1210.000
Limit of detection	1.000	1.000
STD	44.962	44.279

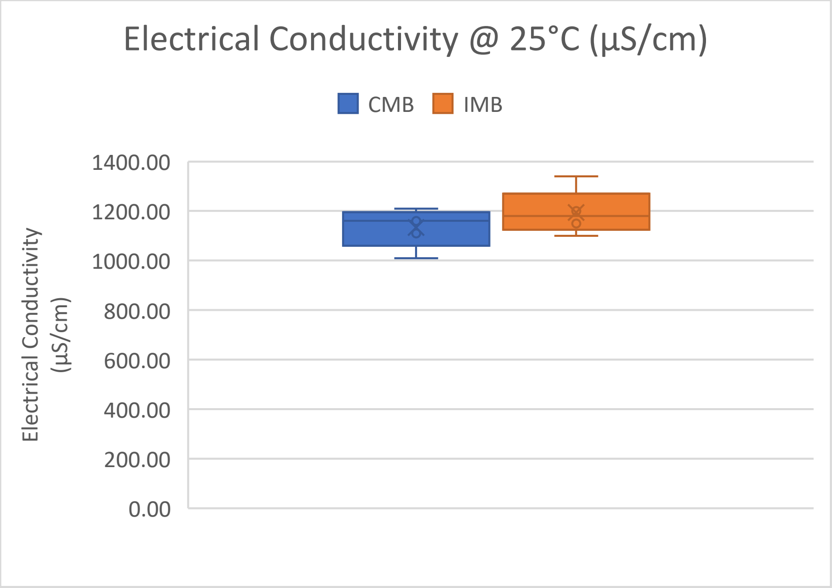


Figure 4 – Electrical Conductivity measurement in Gum Ridge aquifer – Comparison

As visualized in Figure 4 the IMB shows slightly higher electrical conductivity than the CMB, but both have low variability, indicating stable and controlled conditions.

4.1.2 Total Dissolved Solids

The results of monitoring for Total Dissolved Solids in Gum Ridge aquifer are presented in Figure 5

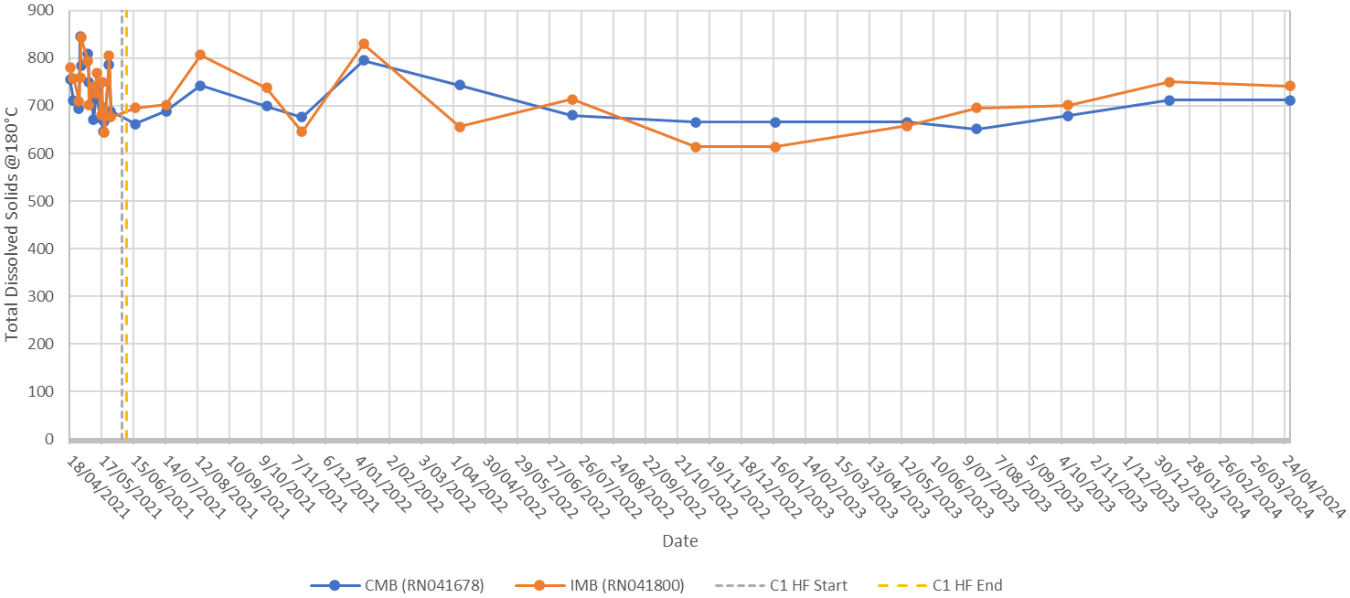


Figure 5 – Total Dissolved Solids measurements in Gum Ridge aquifer

The data shows consistent trends between the IMB and CMB measurements. Both sets of data display a relatively stable trend throughout the reporting period, which aligns with historic concentration levels. No statistical outliers were observed in Total Dissolved Solid measurements sampled within the reporting period.

The plot indicates a consistent range of total dissolved solids across both sites, showing minimal fluctuations over time, and likewise reveals no points outside the usual range. The results suggest that the observed activities have not adversely affected the groundwater quality at either site.

Table 4 and Figure 6 summarizes the site-specific Total Dissolved Solids standards for the Carpentaria 1 impact monitoring bore.

Table 4 – Summary statistics of the Total Dissolved Solids measurements in Gum Ridge aquifer

Total Dissolved Solids @180°C mg/L	**CMB (RN041678)**	**IMB (RN041800)**
Minimum	646.000	614.000
Maximum	846.000	844.000
Average	717.115	725.038
20th percentile	669.200	664.000
80th percentile	773.000	789.000
Limit of detection	10.000	10.000
STD	53.091	63.737

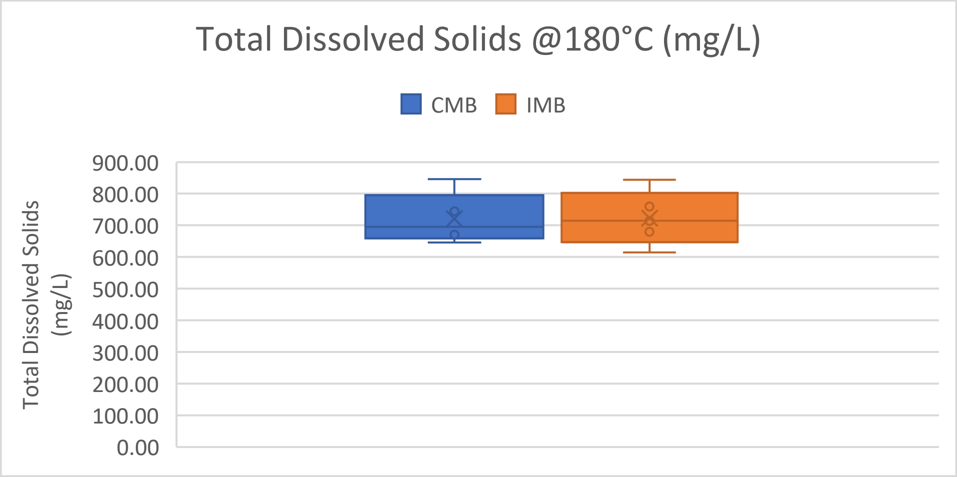


Figure 6 – Total Dissolved Solids measurement in Gum Ridge aquifer – Comparison

As shown in Figure 6, the total dissolved solids in the IMB and CMB have relatively strong correlation and low variability, indicating stable and controlled conditions.

4.1.3 Chloride

The results of monitoring for Chloride in Gum Ridge aquifer are presented in Figure 7.

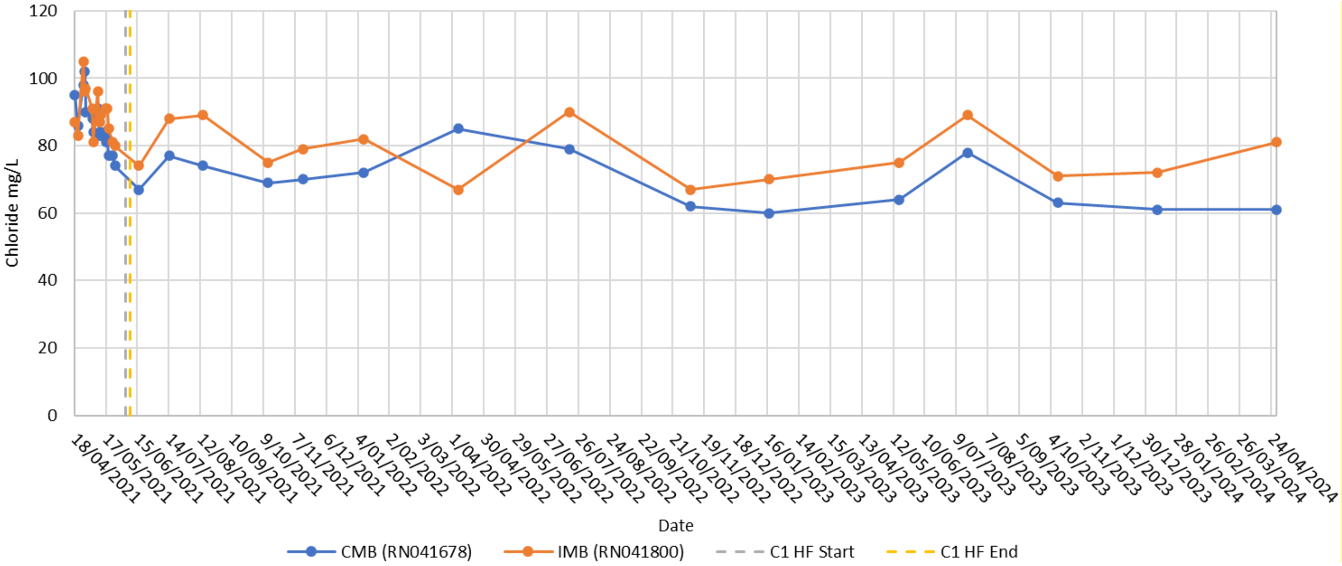


Figure 7 – Chloride measurements in Gum Ridge aquifer

The data shows consistent trends between the IMB and CMB measurements. Both sets of data display a relatively stable trend throughout the reporting period, which is slightly lower than historic concentration levels. No statistical outliers were observed in the Chloride measurements sampled within the reporting period.

The plot indicates a consistent range of Chloride across both sites, with levels slightly lower than historical averages, and likewise reveals no points outside the usual range. The results suggest that the observed activities have not adversely affected the groundwater quality at either site.

Table 5 and Figure 8 summarizes the site-specific Chloride standards for the Carpentaria 1 impact monitoring bore.

Table 5 – Summary statistics of the Chloride measurements in Gum Ridge aquifer

Chloride mg/L	CMB (RN041678)	IMB (RN041800)
Minimum	60.000	67.000
Maximum	102.000	105.000
Average	80.423	85.077
20th percentile	70.800	76.600
80th percentile	89.200	91.000
Limit of detection	1.000	1.000
STD	10.420	9.389

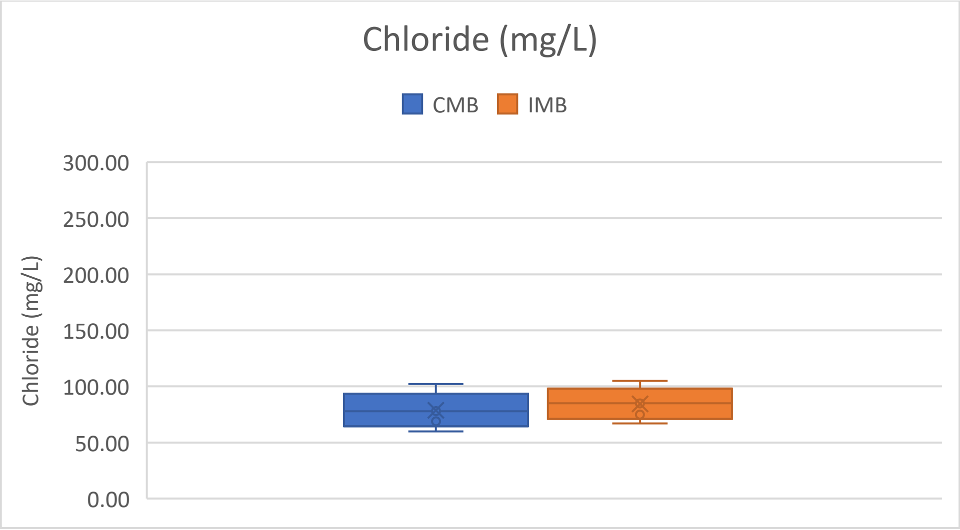


Figure 8 – Chloride measurements in Gum Ridge aquifer – Comparison

As shown in Figure 8, the IMB shows slightly higher Chloride concentration than the CMB, but both have low variability, indicating stable and controlled conditions.

4.1.4 Barium

The results of monitoring for Barium in Gum Ridge aquifer are presented in Figure 9.

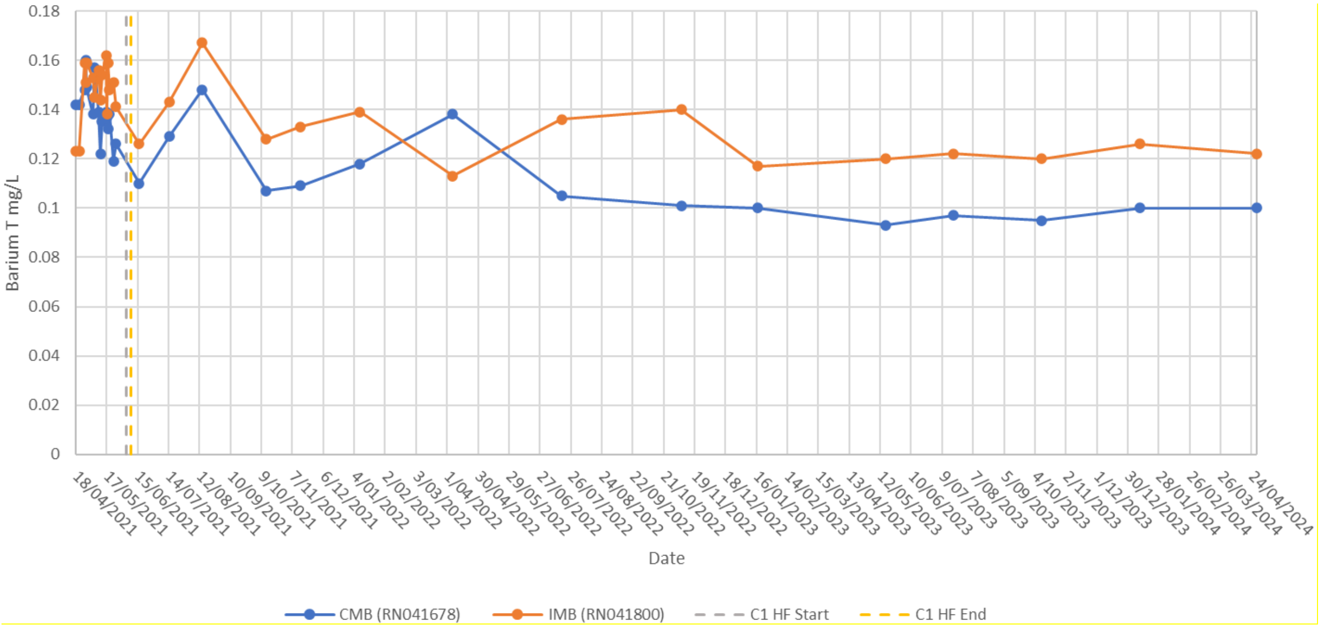


Figure 9 – Total Barium measurements in Gum Ridge aquifer

The data shows consistent trends between the IMB and CMB measurements. Both sets of data display a relatively stable trend throughout the reporting period, which aligns with historic concentration levels. The Total Barium measurements sampled during the reporting period showed no statistical outliers and had a relatively low standard deviation.

The plot indicates a consistent range of Barium across both sites, showing minimal fluctuations over time, and likewise reveals no points outside the usual range. The results suggest that the observed activities have not adversely affected the groundwater quality at either site. Since the standard deviation is comparatively low, the box plot shows that the variation in Barium levels is small, indicating stable measurements.

Table 6 and Figure 10 summarizes the site-specific Barium standards for the Carpentaria 1 impact monitoring bore.

Table 6 – Summary statistics of the Total Barium measurements in Gum Ridge aquifer

Barium T mg/L	**CMB (RN041678)**	**IMB (RN041800)**
Minimum	0.100	0.113
Maximum	0.160	0.167
Average	0.130	0.143
20th percentile	0.109	0.127
80th percentile	0.146	0.158
Limit of detection	0.001	0.001
STD	0.017	0.015

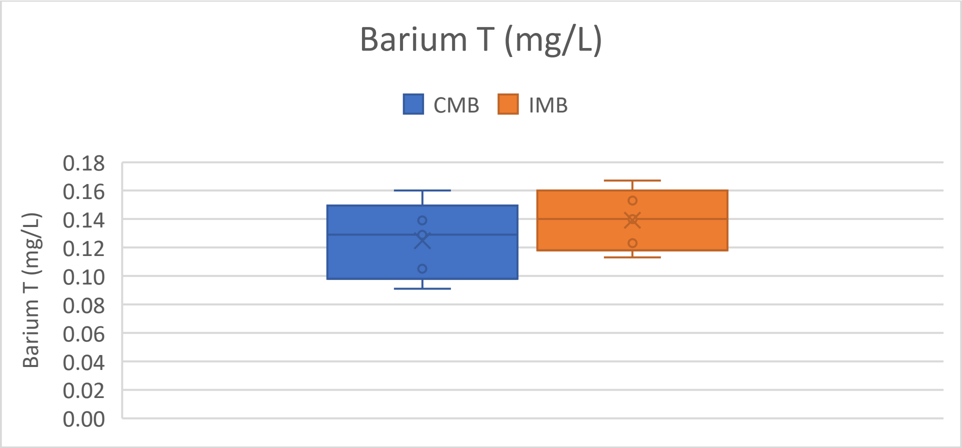


Figure 10 – Barium measurements in Gum Ridge aquifer — Comparison

As shown in Figure 11, the barium in the IMB and CMB have a relatively strong correlation and low variability, indicating stable and controlled conditions.

4.1.5 Strontium

The results of monitoring for Strontium in Gum Ridge aquifer are presented in Figure 11

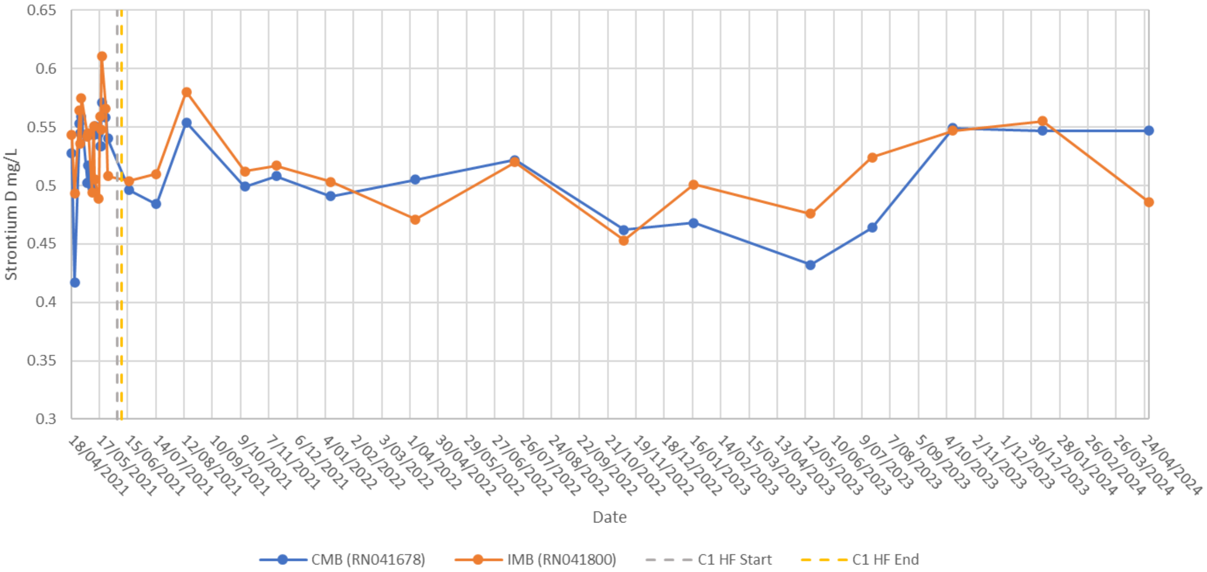


Figure 11 – Dissolved Strontium measurements in Gum Ridge aquifer

The data shows consistent trends between the IMB and CMB measurements. Both sets of data display a relatively stable trend throughout the reporting period, which aligns with historic concentration levels. The Dissolved Strontium measurements sampled during the reporting period showed no statistical outliers and had a relatively low standard deviation.

The plot indicates a consistent range of Strontium across both sites, closely matching historical data, and reveals no points outside the usual range. The results suggest that the observed activities have not adversely affected the groundwater quality at either site. Since the standard deviation is comparatively low, the box plot demonstrates that the variation in Strontium levels is small, indicating stable measurements.

Table 7 and Figure 12 summarizes the site-specific Strontium standards for the Carpentaria 1 impact monitoring bore.

Table 7 – Summary statistics of the Dissolved Strontium measurements in Gum Ridge aquifer

Strontium D mg/L	CMB (RN041678)	IMB (RN041800)
Minimum	0.417	0.453
Maximum	0.571	0.611
Average	0.519	0.527
20th percentile	0.493	0.497
80th percentile	0.552	0.562
Limit of detection	0.001	0.001
STD	0.036	0.037

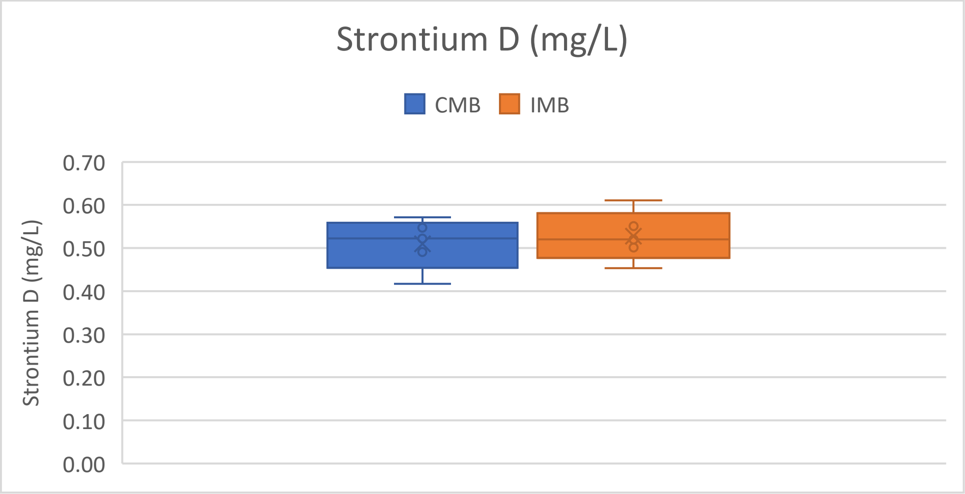


Figure 12 – Total Strontium measurements in Gum Ridge aquifer – Comparison

As shown in Figure 12, the IMB shows a marginally higher Strontium concentration than the CMB, but both have low variability, indicating stable and controlled conditions.

4.1.6 Methane

The results of monitoring for Methane in Gum Ridge aquifer are presented in Figure 13. Measurements with values below the Limit of Detection (LOD) of 0.01 mg/L were assumed to be equal to 0.01 mg/L.

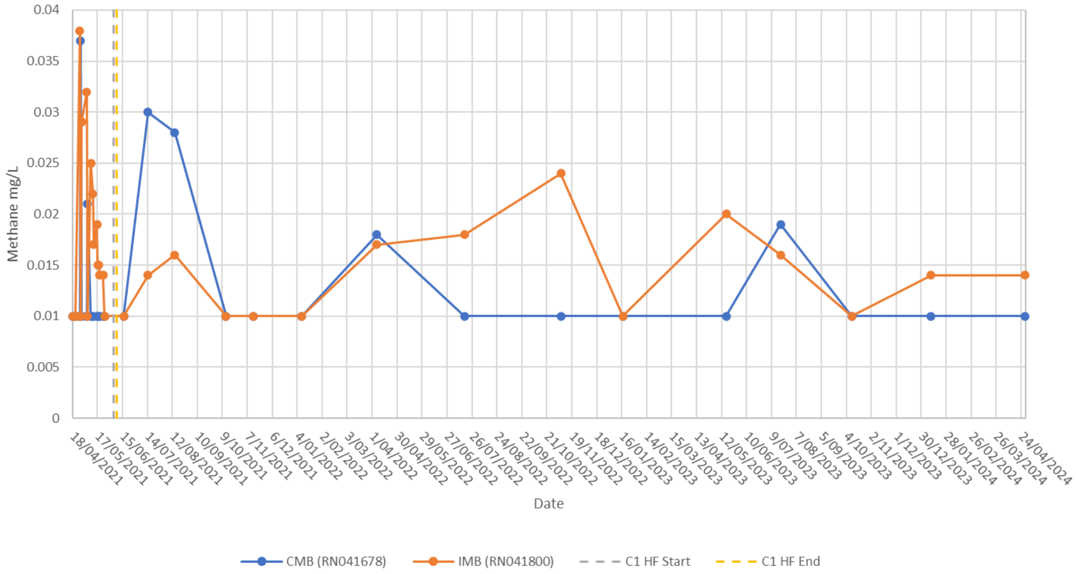


Figure 13 – Methane measurements in Gum Ridge aquifer

The data shows consistent trends between the IMB and CMB measurements. Both sets of data display a relatively stable trend throughout the reporting period, which aligns with historic concentration levels. No statistical outliers were observed in Methane measurements sampled within the reporting period.

The plot indicates a consistent range of Methane across both sites, closely matching historical data, and reveals no points outside the usual range. The results suggest that the observed activities have not adversely affected the groundwater quality at either site. Since the standard deviation is comparatively low the box plot demonstrates that the variation in Methane levels is small, indicating stable measurements.

Table 8 and Figure 14 summarizes the site-specific Methane standards for the Carpentaria 1 impact monitoring bore.

Table 8 – Summary statistics of the Methane measurements in Gum Ridge aquifer

Methane µg/L	**CMB (RN041678)**	**IMB (RN041800)**
Minimum	0.010	0.010
Maximum	0.037	0.038
Average	0.013	0.017
20th percentile	0.010	0.010
80th percentile	0.015	0.023
Limit of detection	0.010	0.010
STD	0.007	0.008

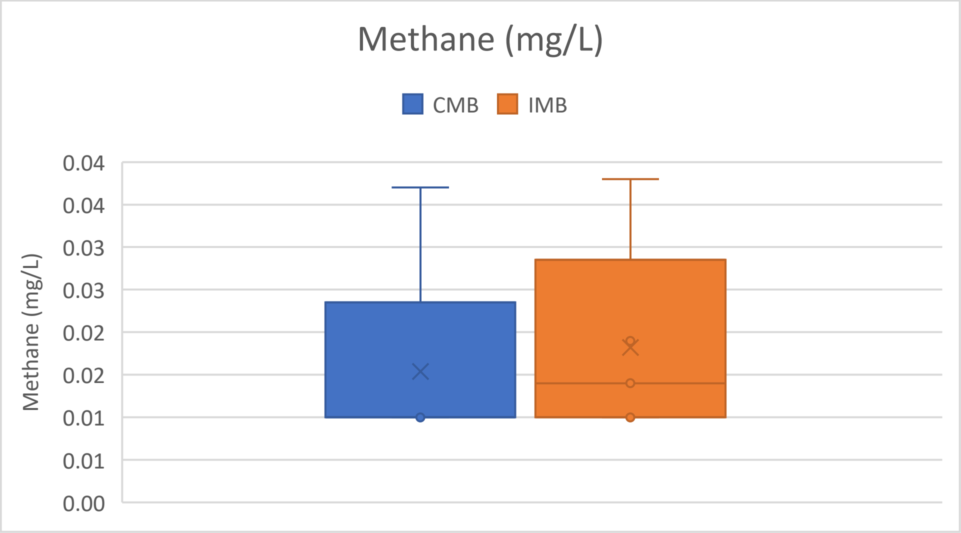


Figure 14 – Methane measurements in Gum Ridge aquifer – Comparison

As shown in Figure 14,the IMB shows a slightly higher dissolved Methane concentration than the CMB, but it is stable and both bores show a consistent trend across sampling events.

4.2 Analysis of All Flagged Analytes

As outlined in the analysis method in Section 3 and detailed in Appendix A, seven 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 9 – Summary of flagged analytes

Chemical Name	Z Score
Sodium D	2.78
Potassium D	4.50
Potassium T	6.61
Zinc D	7.10
Zinc T	6.34
Nitrate as N	8.99
Nitrite + Nitrate as N	8.99

It is important to note that some analytes appear in duplicate forms, such as Zinc D and Zinc 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.

Additionally, since nitrite levels remain below the limit of reporting for both bores across all tests (baseline and reporting period), it can be concluded that nitrate is the primary contributor to the combined "Nitrite + Nitrate as N" values. Therefore, only "Nitrate as N" will be subject to further analysis.

Therefore, the following analytes will be discussed:

Table 10 – Summary of analytes requiring analysis

Chemical Name	Z Score
Sodium D	2.78
Potassium D	4.50
Zinc D	7.10
Nitrate as N	8.99

4.2.1 Sodium D

As seen in Table 9, Sodium D had a Z-score of 2.78. The raw data of IMB and CMB have been graphed in Figure 15. Despite the difference between IMB and CMB being larger than normal the data shows an overall downward trend, and therefore demonstrates the change is not greater than historic observations and within the natural range.

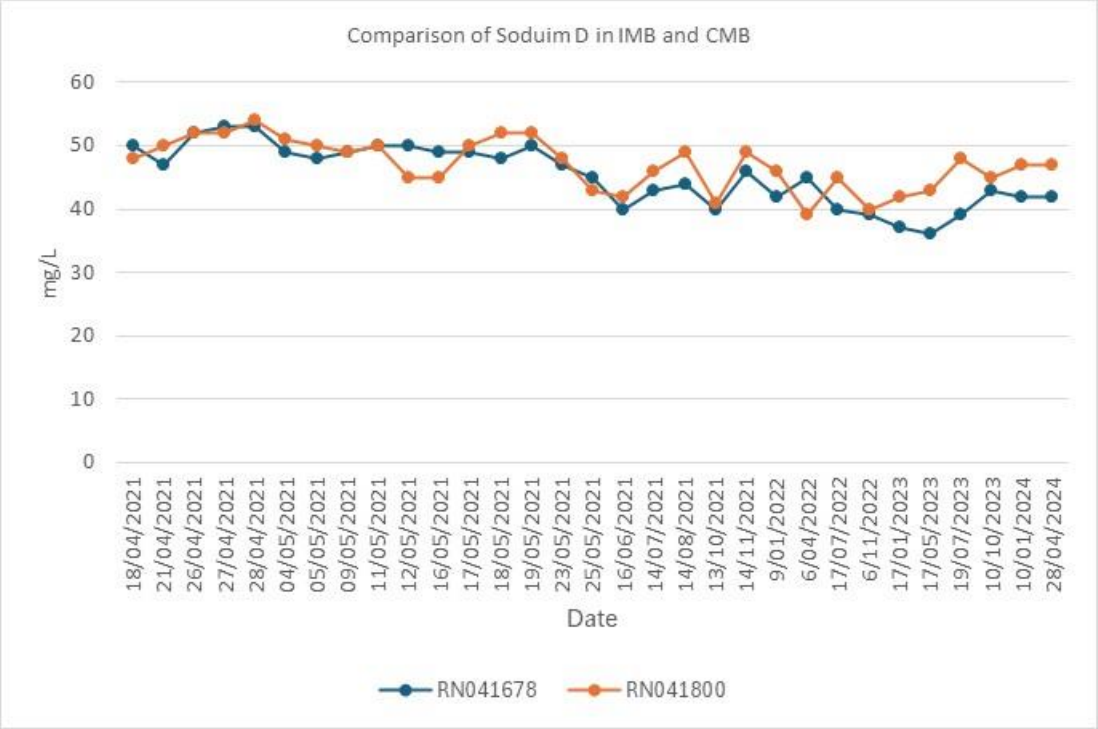


Figure 15 – Comparison of Sodium D in IMB and CMB

4.2.2 Potassium D

As seen in Table 9, Potassium D had a Z-score of 7.10. The raw data of IMB and CMB have been graphed as seen below in Figure 16. Despite the difference between IMB and CMB being larger than normal the figure shows an overall downward trend, and therefore demonstrates the change is not greater than historic observations and within the natural range.

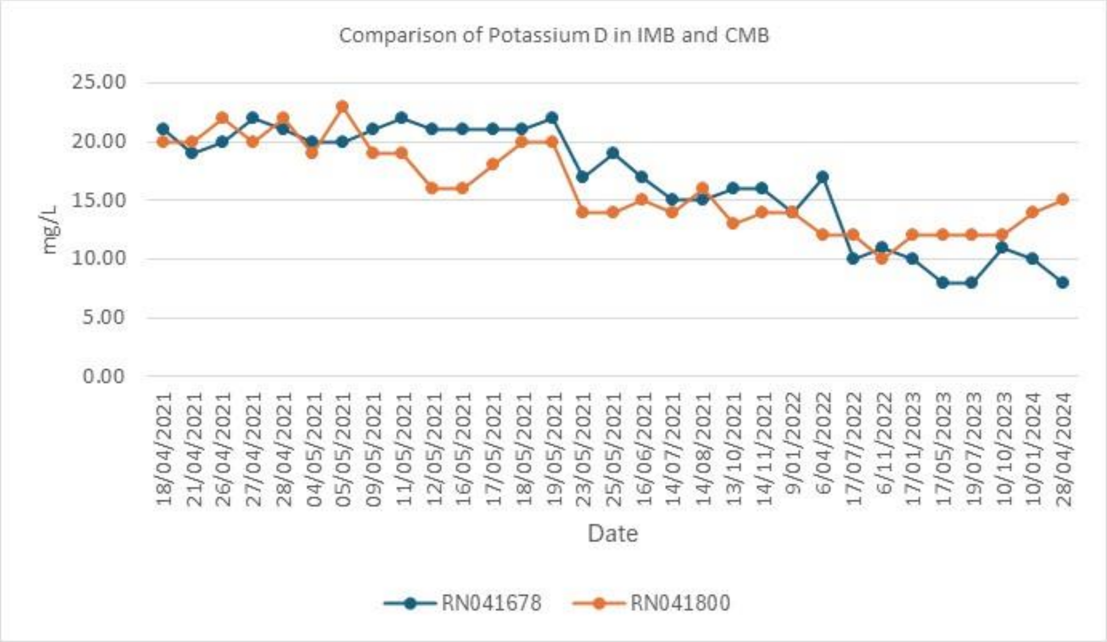


Figure 16 — Comparison of Potassium D in IMB and CMB

4.2.3 Zinc D

As seen in Table 9 Zinc D, had a Z-score of 4.50. The raw data of IMB and CMB have been graphed in Figure 17. This figure shows an increase in the IMB; however, this increase is very marginal. The CMB, which is hydraulically upgradient of the IMB, is observing an increase in a similar pattern to the IMB, which therefore indicates natural progression of zinc through the aquifer rather than a potential independent impact.

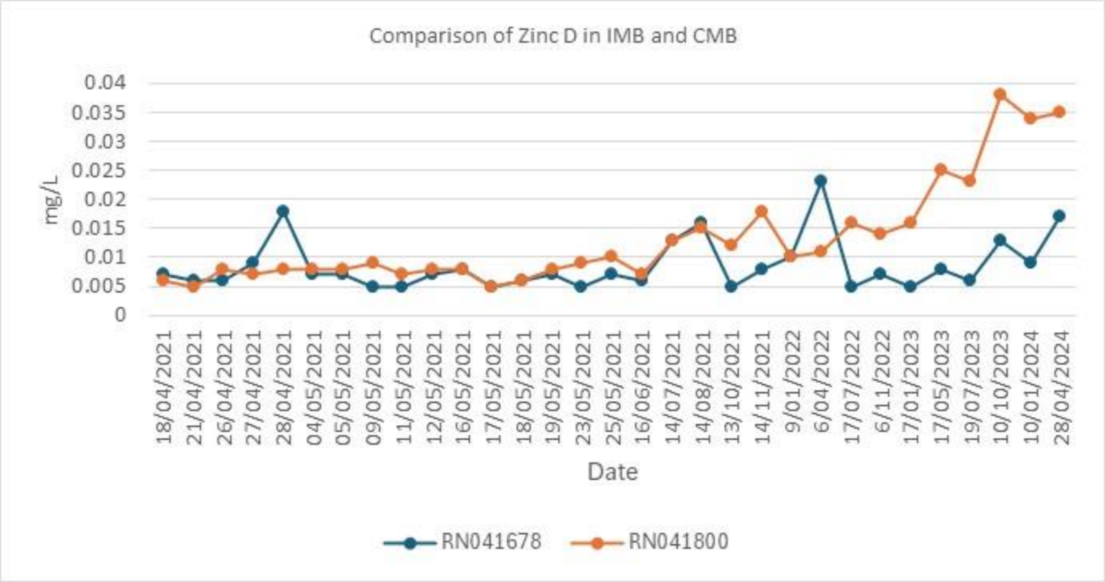


Figure 17 – Comparison of Zinc D in IMB and CMB

4.2.4 Nitrate as N

As seen in Table 9, Nitrate as N had a Z-score of 8.99. The raw data of IMB and CMB have been graphed in Figure 18, which clearly highlights an outlier on the 19/07/2023. This outlier significantly impacted the Z-score calculation. This is supported by the fact all other observations are very stable, while the outlier's value is 6 times higher than the next highest data point. Furthermore, the IMB does not increase or decrease from this data point and returns to expected values immediately after. Based on this, the outlier can be excluded from further analysis.

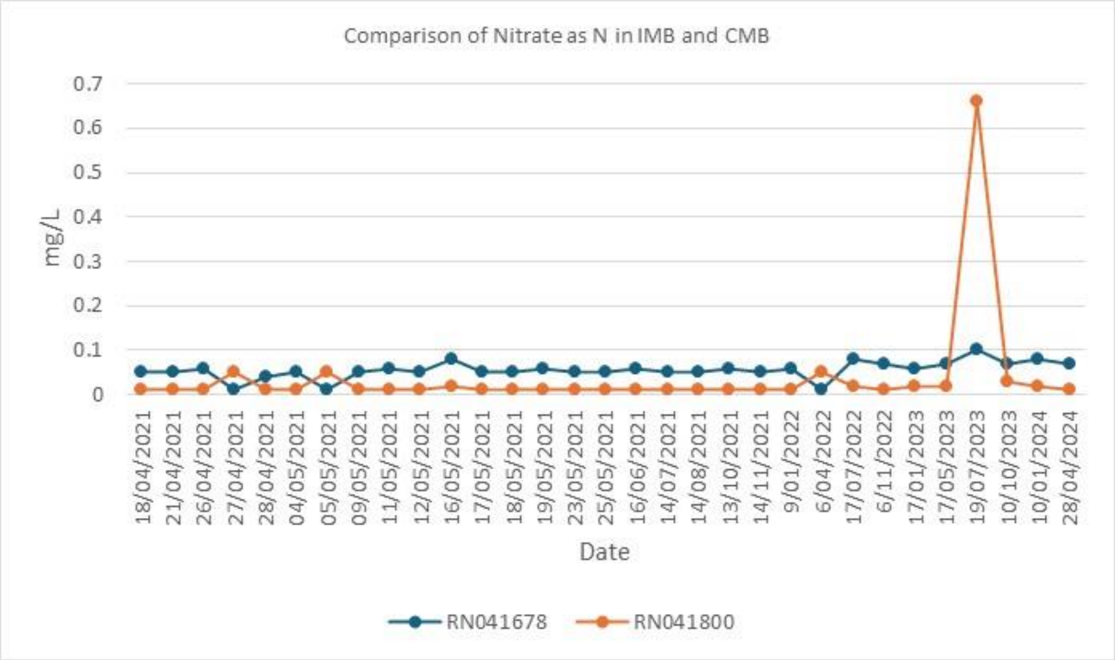


Figure 18 – Comparison of Nitrate as N in IMB and CMB

5 Conclusion

It is important to note that there are 106 different analytes analysed, of those only 7 were flagged to have a notable increase in the IMB compared to the CMB, when compared to the typical differences observed during the baseline period. Of those 7, there were 3 matching analytes and thus a total of 4 were further evaluated. The raw results were graphed for each of these 4 analytes and revealed that Sodium and Potassium had downward trending data, Zinc had elevated results in the IMB compared to the CMB and baseline data, however the scale of these increases was minimal and both bores followed a similar upward trend. Finally, Nitrate as N had an outlier in the reporting period that skewed the data. 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.

The analysis of all Carpentaria 1 bore samples, conducted in accordance with Section B.4.17.2 of the Code (see **Appendix A**), reveals consistent trends between impact and control monitoring bores that align with the expected concentrations for each respective analyte. Therefore, this report establishes fit-for-purpose, site-specific standards as recommended by the Guideline for the groundwater at the Carpentaria 1 well site. It also marks the conclusion of the groundwater monitoring program at this location, as mandated by IMP3-4 Ministerial Condition 10.

Appendix A – Carpentaria 1 Groundwater Monitoring Data Tables

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RN041678 - raw data

CARPENTARIA 1

				Baseline																										Reporting Period				
Category	CHEMICAL NAME	RESULT UNIT	LIMIT OF DETECTION	18/04/2021	21/04/2021	26/04/2021	27/04/2021	28/04/2021	04/05/2021	05/05/2021	09/05/2021	11/05/2021	12/05/2021	16/05/2021	17/05/2021	18/05/2021	19/05/2021	23/05/2021	25/05/2021	16/06/2021	14/07/2021	14/08/2021	13/10/2021	14/11/2021	9/01/2022	6/04/2022	17/07/2022	6/11/2022	17/01/2023	17/05/2023	19/07/2023	10/10/2023	10/01/2024	28/04/2024
General, anions, cations and metal	pH - Lab	pH Unit	0.01	7.09	6.82	7.33	7.4	7.17	7.23	7.57	7.46	7.25	7.37	7.24	7.32	7.37	7.02	7.06	7.29	7.32	7.12	7.06	7.08	7.61	7.76	7.04	7.37	7.65	6.94	6.9	7.06	7.34	7.07	7.12
	Electrical Conductivity @ 25°C	µS/cm	1	1200	1200	1200	1210	1210	1180	1200	1160	1170	1180	1180	1180	1180	1180	1160	1190	1140	1100	1100	1010	1110	1140	1140	1120	1140	1140	1100	1100	1130	1110	1110
	Total Dissolved Solids @180°C	mg/L	10	755	712	695	846	785	809	750	671	713	730	673	696	646	668	786	689	662	689	743	699	676	796	744	680	666	666	666	651	679	712	689
	Suspended Solids (SS)	mg/L	1	2	3	4	2	6	3	4	4	6	3	<1	<1	4	3	4	6	<1	2	3	1	1	1	5	<1	<1	<1	2	2	1	2	<1
	Gross beta	Bq/L	0.1	0.67	0.76	0.69	0.87	0.79	0.73	0.76	0.24	0.37	0.7	0.68	0.68	0.68	0.73	0.75	0.79	0.53	0.59	0.51	0.55	0.51	<0.66	0	0.58	0.38	0.38	0.4	0.35	0.46		0.33
	Hydroxide Alkalinity as CaCO3	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	<1	<1	<1	<1	<1	<1
	Carbonate Alkalinity as CaCO3	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	<1	<1	<1	<1	<1	<1
	Bicarbonate Alkalinity as CaCO3	mg/L	1	458	438	461	467	468	456	472	436	433	442	483	478	483	509	508	534	431	438	514	434	483	482	472	455	498	472	472	475	478	480	478
	Total Alkalinity as CaCO3	mg/L	1	458	438	461	467	468	456	472	436	433	442	483	478	483	509	508	534	431	438	514	434	483	482	472	455	498	472	472	475	478	480	478
	Sulfate as SO4 2-	mg/L	1	86	85	88	104	84	82	101	86	88	89	89	88	85	88	85	86	78	73	79	80	85	82	96	84	84	79	79	76	94	78	86
	Chloride	mg/L	1	95	86	98	102	90	88	84	91	83	84	84	81	82	77	77	74	67	77	74	69	70	72	85	79	62	60	64	78	63	61	64
	Calcium D	mg/L	1	136	120	133	148	135	141	142	129	134	127	132	133	132	136	127	126	128	128	129	134	138	126	128	117	142	126	118	114	133	123	128
	Magnesium D	mg/L	1	48	46	51	54	52	50	50	48	52	49	49	50	50	52	49	48	46	49	47	46	52	47	47	50	44	41	40	45	49	49	46
	Sodium D	mg/L	1	50	47	52	53	53	49	48	49	50	50	49	49	48	50	47	45	40	43	44	40	46	42	45	40	39	37	36	39	43	42	42
	Potassium D	mg/L	1	21	19	20	22	21	20	20	21	22	21	21	21	21	22	17	19	17	15	15	16	16	14	17	10	11	10	8	8	11	10	8
	Calcium T	mg/L	1	139	139	132	150	145	146	152	142	138	146	126	133	130	135	122	127	128	146	131	140	130	133	136	122	140	146	128	131	142	136	130
	Magnesium T	mg/L	1	53	54	49	57	50	53	56	50	49	50	49	51	50	54	48	48	50	48	48	48	46	48	53	50	54	50	44	50	50	50	51
	Sodium T	mg/L	1	54	55	50	54	51	51	53	50	47	48	48	49	48	52	43	45	44	45	44	42	42	43	50	44	45	44	39	44	44	44	41
	Potassium T	mg/L	1	23	22	20	22	23	21	21	22	20	21	20	22	21	22	18	20	16	15	16	17	14	14	15	12	13	11	10	9	12	10	9
	Arsenic D	mg/L	0.001	<0.001	<0.001	<0.001	0.003	<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	<0.001	<0.001	<0.001	<0.001	<0.001
	Barium D	mg/L	0.001	0.147	0.12	0.149	0.157	0.145	0.134	0.142	0.124	0.135	0.131	0.127	0.12	0.124	0.131	0.134	0.127	0.107	0.124	0.145	0.104	0.106	0.106	0.132	0.113	0.084	0.088	0.076	0.084	0.096	0.1	0.082
	Cadmium D	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<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	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	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Copper 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	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Lead 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	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<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	mg/L	0.001	0.037	0.035	0.035	0.042	0.044	0.04	0.036	0.038	0.04	0.037	0.039	0.04	0.042	0.043	0.041	0.038	0.036	0.013	0.038	0.031	0.034	0.036	0.038	0.034	0.031	0.028	0.031	0.035	0.035	0.036	0.032
	Manganese D	mg/L	0.001	0.488	0.528	0.552	0.802	0.533	0.431	0.73	0.4	0.398	0.387	0.375	0.406	0.401	0.405	0.373	0.356	0.222	0.323	0.359	0.21	0.233	0.242	0.55	0.164	0.139	0.149	0.13	0.13	0.141	0.158	0.113
	Selenium D	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	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Silver 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	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Strontium D	mg/L	0.001	0.528	0.417	0.553	0.545	0.559	0.502	0.517	0.498	0.543	0.551	0.544	0.534	0.534	0.571	0.558	0.54	0.496	0.484	0.554	0.499	0.508	0.491	0.505	0.522	0.462	0.468	0.432	0.464	0.549	0.547	0.473
	Zinc D	mg/L	0.005	0.007	0.006	0.006	0.009	0.018	0.007	0.007	<0.005	<0.005	0.007	0.008	0.005	0.006	0.007	0.005	0.007	0.006	0.013	0.016	0.005	0.008	0.01	0.023	<0.005	0.007	<0.005	0.008	0.006	0.013	0.009	0.017
	Boron D	mg/L	0.05	0.1	0.11	0.1	0.14	0.12	0.12	0.1	0.1	0.1	0.11	0.15	0.14	0.12	0.22	0.12	0.12	0.13	0.08	0.12	0.1	0.1	0.1	0.12	0.13	0.09	0.08	0.1	0.1	0.08	0.11	0.14
	Iron D	mg/L	0.05	0.32	0.38	0.45	0.99	0.33	0.22	0.92	0.22	0.13	0.13	0.18	0.17	0.18	0.18	0.09	0.15	0.44	0.5	0.92	0.22	0.53	0.52	0.9	0.4	0.06	0.21	0.16	0.13	0.07	0.12	0.05
	Arsenic T	mg/L	0.001	<0.001	<0.001	<0.001	0.003	<0.001	<0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<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	mg/L	0.001	0.142	0.142	0.148	0.16	0.149	0.138	0.157	0.139	0.122	0.135	0.139	0.137	0.132	0.138	0.119	0.126	0.11	0.129	0.148	0.107	0.109	0.118	0.138	0.105	0.101	0.1	0.093	0.097	0.095	0.1	0.091
	Cadmium T	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<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 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	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Copper T	mg/L	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	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Lead 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	<0.001	<0.001	<0.001	<0.001	0.002	<0.001
	Lithium T	mg/L	0.001	0.036	0.036	0.041	0.044	0.038	0.04	0.042	0.038	0.04	0.038	0.042	0.042	0.043	0.041	0.041	0.038	0.034	0.032	0.037	0.038	0.034	0.038	0.038	0.033	0.036	0.037	0.033	0.035	0.036	0.037	0.031
	Manganese T	mg/L	0.001	0.491	0.502	0.553	0.823	0.536	0.449	0.768	0.422	0.369	0.432	0.378	0.418	0.409	0.398	0.325	0.35	0.226	0.326	0.351	0.214	0.237	0.261	0.611	0.229	0.158	0.165	0.151	0.16	0.137	0.152	0.114
	Selenium 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	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Silver 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	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Strontium T	mg/L	0.001	0.533	0.538	0.528	0.546	0.545	0.518	0.547	0.539	0.516	0.53	0.542	0.507	0.517	0.574	0.565	0.532	0.495	0.499	0.565	0.513	0.528	0.543	0.524	0.519	0.536	0.533	0.511	0.524	0.533	0.538	0.491
	Zinc T	mg/L	0.005	0.006	0.008	0.012	0.008	0.022	0.007	0.008	<0.005	0.006	0.022	0.009	0.009	0.009	0.01	<0.005	0.011	0.014	0.013	0.016	<0.005	0.006	0.009	0.027	0.006	0.006	0.008	0.008	0.007	0.008	0.01	0.014
	Boron T	mg/L	0.05	0.1	0.1	0.12	0.15	0.11	0.12	0.12	0.09	0.12	0.11	0.12	0.14	0.13	0.14	0.11	0.12	0.08	0.1	0.11	0.1	0.1	0.11	0.13	0.11	0.09	0.1	0.12	0.08	0.08	0.11	0.1
	Iron T	mg/L	0.05	0.31	0.34	0.5	1.16	0.48	0.3	1.04	0.2	0.09	0.23	0.21	0.27	0.23	0.23	0.11	0.15	0.64	0.79	1.1	0.19	0.58	0.62	2.02	0.39	0.2	0.2	0.7	0.53	0.12	0.57	0.18
	Mercury 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	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	Mercury 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	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	Reactive Silica	mg/L	0.05	30	29.9	29.3	29.5	29.9	31.1	29.8	30.4	30.4	31.9	30.3	31	31	29.7	32	31.6	30.8	30.5	30.7	31.4	28.5	29.4	28.9	32.1	30.3	33.5	31.7	32.1	33	31.1	32.1
	Fluoride	mg/L	0.1	0.4	0.4	0.4	0.4	0.3	0.3	0.4	0.4	0.3	0.4	0.3	0.4	0.4	0.4	0.3	0.3	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.3	0.3	0.3	0.4	0.4
	Nitrite as N	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	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Nitrate as N	mg/L	0.01	0.05	0.05	0.06	<0.01	0.04	0.05	<0.01	0.05	0.06	0.05	0.08	0.05	0.05	0.06	0.05	0.05	0.06	0.05	0.05	0.06	0.05	0.06	<0.01	0.08	0.07	0.06	0.07	<0.10	0.07	0.08	0.07
	Nitrite + Nitrate as N	mg/L	0.01	0.05	0.05	0.06	<0.01	0.04	0.05	<0.01	0.05	0.06	0.05	0.08	0.05	0.05	0.06	0.05	0.05	0.06	0.05	0.05	0.06	0.05	0.06	<0.01	0.08	0.07	0.06	0.07	<0.10	0.07	0.08	0.07
	Total Anions	meq/L	0.01	13.6	12.9	13.8	14.4	13.6	13.3	13.9	13.1	12.8	13	13.9	13.7	13.7	14.2	14.1	14.5	12.1	12.4	14	12.3	13.4	13.4	13.8	13.1	13.4	12.8	12.9	13.3	13.3	12.9	13.1
	Total Cations	meq/L	0.01	13.4	12.3	13.6	14.7	13.8	13.8	13.8	13	13.7	13.1	13.3	13.4	13.3	13.8	12.8	12.7	12.3	12.7	12.6	12.6	13.6	12.3	12.6	11.9	12.7	11.5	11	11.3	12.8	12.2	12.2
	Ionic Balance	%	0.01	0.64	2.54	0.73	1.12	0.8	1.82	0.37	0.05	3.31	0.11	2.15	0.91	1.5	1.32	4.61	6.85	0.91	0.92	5.26	1.36	0.67	4	4.45	4.47	2.92	5.11	8.1	8.06	1.77	2.71	3.71
Diss. pet. gases	Methane	µg/L	10	10	<10	<10	37	<10	<10	21	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	30	28	<10	<10	<10	18	<10	<10	<10	<10	19	<10	<10	<10
	Ethane	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	<10	<10	<10	<10	<10	<10
	Propane	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	<10	<10	<10	<10	<10	<10
PAH Suite	Naphthalene	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	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.1	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Acenaphthylene	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	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Acenaphthene	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	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Fluorene	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	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Phenanthrene	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	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Anthracene	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	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Fluoranthene	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	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Pyrene	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	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Benz(a)anthracene	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	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Chrysene	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	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Benzo(b+j)fluoranthene	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	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Benzo(k)fluoranthene	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	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Benzo(a)pyrene	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	<0.5	<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
	Indeno(1.2.3.cd)pyrene	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	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Dibenz(a.h)anthracene	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	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Benzo(g.h.i)perylene	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	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Sum of polycyclic aromatic hydrocarbo	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	<0.5	<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
	Benzo(a)pyrene TEQ (zero)	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	<0.5	<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
Total Recoverable Hydrocarbons	C6 - C9 Fraction	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	<20	<20	<20	<20	<20	<20
	C10 - C14 Fraction	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	<50	<50	<50	<50	<50	<50
	C15 - C28 Fraction	µg/L	100	<100	<100	150	<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	<100	<100
	C29 - C36 Fraction	µg/L	50	<50	<50	140	<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	<50	<50
	C10 - C36 Fraction (sum)	µg/L	50	<50	<50	290	<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	<50	<50
	C6 - C10 Fraction	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	<20	<20	<20	<20	<20	<20
	C6 - C10 Fraction minus BTEX (F1)	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	<20	<20	<20	<20	<20	<20
	>C10 - C16 Fraction	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	<100	<100	<100	<100	<100	<100
	>C16 - C34 Fraction	µg/L	100	<100	<100	260	<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	<100	<100
	>C34 - C40 Fraction	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	<100	<100	<100	<100	<100	<100
	>C10 - C40 Fraction (sum)	µg/L	100	<100	<100	260	<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	<100	<100
	>C10 - C16 Fraction minus Naphthaler	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	<100	<100	<100	<100	<100	<100
BTEXN, Alpha/Beta, Surrogates	Benzene	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	<1	<1	<1	<1	<1	<1
	Toluene	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	<2	3	<2	<2	<2	<2
	Ethylbenzene	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	<2	<2	<2	<2	<2	<2
	meta- & para-Xylene	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	<2	<2	<2	<2	<2	<2
	ortho-Xylene	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	<2	<2	<2	<2	<2	<2
	Total Xylenes	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	<2	<2	<2	<2	<2	<2
	Sum of BTEX	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	<1	3	<1	<1	<1	<1
	Naphthalene	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	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.1	<5	<0.1	<0.1	<5	<5	<5	<0.1
	Gross alpha	Bq/L	0.05	0.19	0.17	0.27	0.32	0.24	0.21	0.29	0.1	0.11	0.19	0.21	0.23	0.22	0.2	0.23	0.21	0.05	0.19	0.26	0.22	0.22	<0.33	0	0.24	0.18	0.18	0.17	0.22	0.18	---	0.22
	Gross beta activity - 40K	Bq/L	0.1	<0.10	0.19	0.13	0.27	0.23	0.17	0.3	<0.10	<0.10	0.14	0.14	0.11	0.12	0.14	0.15	0.23	<0.10	0.16	0.11	0.13	0.14	<0.66	0	0.14	<0.10	<0.10	0.11	<0.10	<0.10	---	<0.10
	Phenol-d6	%	1	18.4	26.5	19.5	24.4	21.7	29.5	24.1	29.3	27.8	23.6	23.8	25.6	25.5	26.6	25.2	28.4	25.8	23.4	17.6	27.3	20.7	31	0	---	---	0	0	---	---	---	---
	2-Chlorophenol-D4	%	1	40.7	54.2	35.9	53.1	45.1	54.4	51.9	46.5	51.7	45.2	56.4	58.2	62.2	54	48	58.7	48.1	58.9	42.5	58.6	45.1	60.4	0	---	---	0	0	---	---	---	---
	2.4.6-Tribromophenol	%	1	38.6	54.1	55.5	65.6	51.2	34.4	58.3	37.5	61.1	36.6	69	56.1	55.6	51	42.2	72.7	52.9	42.7	45	60.5	60.1	75.1	0	---	---	0	0	---	---	---	---
	2-Fluorobiphenyl	%	1	54.4	51.1	54.4	59.9	59.6	61.3	63.8	54.6	55	59.6	66.8	76.2	75.1	70.2	56.4	80.3	51.2	77.8	53.4	79	58	64	64.7	55.8	46.8	36.8	36.7	84.6	72.8	61.1	80.1
	Anthracene-d10	%	1	78.6	61.2	61.1	77	71.1	61.7	72.8	55.9	69.2	62.8	73.1	75.2	75.9	74	87.9	106	68.7	78.3	69.8	86.8	82.2	89.6	91.8	64.8	76.3	36.7	48.6	110	83.5	65.5	93.7
	4-Terphenyl-d14	%	1	104	73.8	65.2	80.6	85.9	85	81.4	63	78	82.8	89.2	82.1	82.5	73.4	88.4	95.5	69.1	94.2	88.2	97.2	99.3	92.3	81.4	72.1	80.4	35.5	56.3	117	92.7	68.1	95
	1.2-Dichloroethane-D4	%	2	131	123	122	107	109	96.7	107	74	85	82.9	110	111	113	107	92.1	108	98.6	101	116	117	101	104	107	120	102	102	101	108	106	105	114
	Toluene-D8	%	2	108	119	116	109	108	97.5	97.5	110	92.9	119	106	111	118	118	103	117	100	109	119	116	107	101	108	111	106	112	112	112	96.3	95	107
	4-Bromofluorobenzene	%	2	115	115	120	108	106	97.7	95.8	111	87.6	113	111	102	108	123	103	110	96.8	115	116	106	99.1	105	115	105	104	113	90.3	104	109	112	110

RN041800 - raw data

CARPENTARIA 1

				Baseline																										Reporting Period				
Category	CHEMICAL NAME	RESULT UNIT	LIMIT OF DETECTION	18/04/2021	21/04/2021	26/04/2021	27/04/2021	28/04/2021	04/05/2021	05/05/2021	09/05/2021	11/05/2021	12/05/2021	16/05/2021	17/05/2021	18/05/2021	19/05/2021	23/05/2021	25/05/2021	16/06/2021	14/07/2021	14/08/2021	13/10/2021	14/11/2021	9/01/2022	6/04/2022	17/07/2022	6/11/2022	17/01/2023	17/05/2023	19/07/2023	10/10/2023	10/01/2024	28/04/2024
General, anions, cations and metal	pH - Lab	pH Unit	0.01	7.28	7.03	7.39	7.41	7.13	7.22	7.68	7.50	7.21	7.25	7.24	7.35	7.41	7.03	7.23	7.55	7.29	6.91	7.07	7.16	7.75	7.60	7.07	7.25	7.71	6.94	6.89	7.09	7.46	7.11	7.11
	Electrical Conductivity @ 25°C	µS/cm	1	1210.00	1340.00	1240.00	1190.00	1220.00	1200.00	1180.00	1170.00	1200.00	1200.00	1200.00	1210.00	1220.00	1180.00	1190.00	1200.00	1180.00	1160.00	1150.00	1160.00	1150.00	1160.00	1100.00	1150.00	1140.00	1140.00	1160.00	1140.00	1140.00	1140.00	1170.00
	Total Dissolved Solids @180°C	mg/L	10	780.00	758.00	710.00	760.00	844.00	795.00	702.00	740.00	726.00	770.00	680.00	750.00	692.00	645.00	806.00	676.00	696.00	702.00	807.00	738.00	646.00	830.00	656.00	714.00	614.00	614.00	658.00	696.00	701.00	750.00	742.00
	Suspended Solids (SS)	mg/L	1	----	----	8.00	2.00	<5	----	<1	8.00	6.00	3.00	<1	<1	6.00	3.00	5.00	6.00	4.00	3.00	3.00	3.00	4.00	3.00	1.00	6.00	4.00	4.00	3.00	4.00	2.00	5.00	3.00
	Gross beta	Bq/L	0.1	0.88	0.98	0.87	0.72	0.83	0.68	0.66	0.20	0.76	0.67	0.69	0.67	0.83	0.78	0.77	0.69	0.63	0.66	0.61	0.51	0.52	0.64	0.00	0.68	0.49	0.49	0.58	0.58	0.61	---	0.57
	Hydroxide Alkalinity as CaCO3	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	<1	<1	<1	<1	<1	<1
	Carbonate Alkalinity as CaCO3	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	<1	<1	<1	<1	<1	<1
	Bicarbonate Alkalinity as CaCO3	mg/L	1	432.00	478.00	458.00	475.00	464.00	472.00	491.00	430.00	468.00	476.00	478.00	461.00	476.00	480.00	464.00	510.00	427.00	426.00	494.00	475.00	481.00	466.00	481.00	463.00	457.00	458.00	460.00	469.00	472.00	470.00	471.00
	Total Alkalinity as CaCO3	mg/L	1	432.00	478.00	458.00	475.00	464.00	472.00	491.00	430.00	468.00	476.00	478.00	461.00	476.00	480.00	464.00	510.00	427.00	426.00	494.00	475.00	481.00	466.00	481.00	463.00	457.00	458.00	460.00	469.00	472.00	470.00	471.00
	Sulfate as SO4 2-	mg/L	1	129.00	123.00	102.00	87.00	100.00	99.00	85.00	100.00	101.00	107.00	104.00	104.00	100.00	106.00	97.00	103.00	97.00	93.00	101.00	96.00	98.00	129.00	80.00	95.00	87.00	96.00	93.00	93.00	96.00	88.00	91.00
	Chloride	mg/L	1	87.00	83.00	105.00	96.00	97.00	91.00	81.00	96.00	87.00	89.00	91.00	91.00	91.00	85.00	81.00	80.00	74.00	88.00	89.00	75.00	79.00	82.00	67.00	90.00	67.00	70.00	75.00	89.00	71.00	72.00	81.00
	Calcium D	mg/L	1	137.00	134.00	131.00	148.00	133.00	147.00	149.00	128.00	135.00	119.00	117.00	134.00	139.00	140.00	130.00	119.00	131.00	127.00	132.00	135.00	139.00	127.00	119.00	122.00	135.00	128.00	126.00	124.00	131.00	120.00	128.00
	Magnesium D	mg/L	1	53.00	53.00	53.00	52.00	56.00	54.00	50.00	51.00	53.00	47.00	46.00	53.00	55.00	55.00	52.00	46.00	49.00	53.00	50.00	48.00	54.00	50.00	44.00	49.00	44.00	45.00	46.00	52.00	51.00	52.00	51.00
	Sodium D	mg/L	1	48.00	50.00	52.00	52.00	54.00	51.00	50.00	49.00	50.00	45.00	45.00	50.00	52.00	52.00	48.00	43.00	42.00	46.00	49.00	41.00	49.00	46.00	39.00	45.00	40.00	42.00	43.00	48.00	45.00	47.00	47.00
	Potassium D	mg/L	1	20.00	20.00	22.00	20.00	22.00	19.00	23.00	19.00	19.00	16.00	16.00	18.00	20.00	20.00	14.00	14.00	15.00	14.00	16.00	13.00	14.00	14.00	12.00	12.00	10.00	12.00	12.00	12.00	12.00	14.00	15.00
	Calcium T	mg/L	1	151.00	144.00	132.00	148.00	147.00	147.00	152.00	146.00	143.00	150.00	131.00	128.00	143.00	135.00	130.00	129.00	126.00	147.00	142.00	144.00	127.00	134.00	120.00	121.00	135.00	148.00	163.00	131.00	142.00	133.00	123.00
	Magnesium T	mg/L	1	61.00	61.00	51.00	53.00	53.00	55.00	52.00	53.00	53.00	54.00	52.00	51.00	56.00	56.00	54.00	50.00	51.00	50.00	54.00	56.00	47.00	51.00	44.00	52.00	55.00	53.00	47.00	55.00	53.00	53.00	52.00
	Sodium T	mg/L	1	52.00	54.00	51.00	52.00	51.00	51.00	52.00	50.00	50.00	50.00	49.00	48.00	53.00	52.00	48.00	46.00	46.00	48.00	52.00	50.00	44.00	46.00	41.00	48.00	47.00	47.00	43.00	49.00	47.00	48.00	45.00
	Potassium T	mg/L	1	21.00	21.00	21.00	20.00	24.00	18.00	22.00	20.00	18.00	19.00	18.00	18.00	21.00	19.00	17.00	16.00	14.00	15.00	18.00	14.00	12.00	13.00	12.00	13.00	11.00	14.00	13.00	13.00	14.00	14.00	15.00
	Arsenic D	mg/L	0.001	0.002	0.002	0.003	<0.001	0.003	0.003	<0.001	0.003	0.003	0.002	0.002	0.003	0.003	0.002	0.002	0.002	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
	Barium D	mg/L	0.001	0.117	0.126	0.161	0.150	0.154	0.155	0.140	0.137	0.154	0.128	0.124	0.134	0.145	0.140	0.152	0.133	0.125	0.139	0.156	0.122	0.134	0.125	0.111	0.129	0.111	0.108	0.104	0.111	0.119	0.126	0.112
	Cadmium D	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<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	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	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Copper 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	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Lead 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	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<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	mg/L	0.001	0.046	0.042	0.036	0.041	0.044	0.041	0.037	0.039	0.041	0.036	0.037	0.046	0.041	0.046	0.043	0.037	0.040	0.018	0.042	0.033	0.038	0.040	0.034	0.044	0.032	0.031	0.036	0.033	0.039	0.038	0.034
	Manganese D	mg/L	0.001	0.564	0.630	0.830	0.544	0.806	0.797	0.462	0.747	0.792	0.672	0.618	0.724	0.748	0.712	0.752	0.650	0.575	0.645	0.707	0.498	0.560	0.528	0.252	0.547	0.422	0.366	0.360	0.353	0.370	0.394	0.406
	Selenium D	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	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Silver 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	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Strontium D	mg/L	0.001	0.543	0.493	0.564	0.536	0.575	0.542	0.545	0.494	0.551	0.505	0.489	0.559	0.548	0.611	0.566	0.508	0.504	0.510	0.580	0.512	0.517	0.503	0.471	0.520	0.453	0.501	0.476	0.524	0.547	0.555	0.486
	Zinc D	mg/L	0.005	0.006	0.005	0.008	0.007	0.008	0.008	0.008	0.009	0.007	0.008	0.008	0.005	0.006	0.008	0.009	0.010	0.007	0.013	0.015	0.012	0.018	0.010	0.011	0.016	0.014	0.016	0.025	0.023	0.038	0.034	0.035
	Boron D	mg/L	0.05	0.13	0.13	0.10	0.13	0.14	0.14	0.10	0.12	0.12	0.12	0.14	0.14	0.14	0.15	0.17	0.13	0.14	0.10	0.13	0.11	0.11	0.12	0.10	0.16	0.10	0.08	0.12	0.10	0.11	0.12	0.13
	Iron D	mg/L	0.05	0.42	0.50	1.04	0.45	1.06	1.29	0.23	1.19	1.43	0.44	0.86	1.05	1.17	0.88	1.13	0.85	0.67	1.05	1.41	1.14	0.06	1.05	0.66	1.48	0.57	1.08	1.02	1.08	1.58	1.39	0.41
	Arsenic T	mg/L	0.001	0.002	0.002	0.002	<0.001	0.003	0.003	<0.001	0.003	0.003	0.003	0.002	0.003	0.002	0.002	0.002	0.002	0.001	0.002	0.003	<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	mg/L	0.001	0.123	0.123	0.159	0.151	0.159	0.153	0.145	0.156	0.144	0.154	0.162	0.138	0.159	0.148	0.151	0.141	0.126	0.143	0.167	0.128	0.133	0.139	0.113	0.136	0.140	0.117	0.120	0.122	0.120	0.126	0.122
	Cadmium 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	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	Chromium T	mg/L	0.001	0.003	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<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	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	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Lead T	mg/L	0.001	0.006	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<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	mg/L	0.001	0.046	0.043	0.043	0.040	0.040	0.041	0.040	0.040	0.041	0.041	0.043	0.044	0.042	0.044	0.043	0.040	0.039	0.034	0.043	0.056	0.037	0.042	0.029	0.038	0.038	0.040	0.044	0.047	0.039	0.040	0.032
	Manganese T	mg/L	0.001	0.581	0.604	0.830	0.548	0.809	0.803	0.460	0.778	0.759	0.779	0.708	0.738	0.817	0.704	0.684	0.691	0.597	0.668	0.727	0.525	0.551	0.574	0.254	0.548	0.501	0.394	0.398	0.401	0.390	0.392	0.382
	Selenium 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	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Silver 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	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Strontium T	mg/L	0.001	0.548	0.539	0.540	0.530	0.562	0.525	0.517	0.545	0.546	0.557	0.563	0.506	0.585	0.609	0.487	0.549	0.494	0.505	0.607	0.508	0.522	0.567	0.472	0.535	0.543	0.548	0.533	0.556	0.548	0.556	0.505
	Zinc T	mg/L	0.005	0.009	0.008	0.010	0.007	0.009	0.008	0.006	0.006	0.013	0.012	0.009	0.008	0.012	0.009	0.010	0.008	<0.005	0.013	0.016	0.013	0.018	0.015	0.012	0.017	0.019	0.017	0.027	0.024	0.038	0.036	0.038
	Boron T	mg/L	0.05	0.13	0.13	0.13	0.13	0.12	0.14	0.10	0.11	0.13	0.12	0.13	0.16	0.10	0.15	0.13	0.13	0.11	0.10	0.13	0.15	0.12	0.13	0.09	0.12	0.10	0.11	0.14	0.14	0.10	0.13	0.11
	Iron T	mg/L	0.05	2.10	2.98	1.18	0.50	1.17	1.24	0.28	1.22	1.57	1.24	1.19	1.06	1.40	0.94	1.05	1.10	0.80	1.28	1.87	1.42	1.50	1.32	0.86	1.80	2.09	1.34	1.72	1.70	2.04	2.08	1.34
	Mercury 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	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	Mercury 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	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	Reactive Silica	mg/L	0.05	26.10	27.00	30.30	30.30	30.70	30.30	31.10	30.10	30.00	31.30	29.80	29.80	30.00	29.30	30.80	30.50	29.90	29.60	29.90	29.90	28.40	28.70	29.50	30.10	28.80	31.60	31.00	31.40	31.00	30.20	32.30
	Fluoride	mg/L	0.1	0.50	0.60	0.40	0.40	0.40	0.30	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
	Nitrite as N	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	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Nitrate as N	mg/L	0.01	<0.01	<0.01	<0.01	0.05	<0.01	<0.01	0.05	<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	0.05	0.02	<0.01	0.02	0.02	0.66	0.03	0.02	0.01
	Nitrite + Nitrate as N	mg/L	0.01	<0.01	<0.01	<0.01	0.05	<0.01	<0.01	0.05	<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	0.05	0.02	<0.01	0.02	0.02	0.66	0.03	0.02	0.01
	Total Anions	meq/L	0.01	13.80	14.40	14.20	14.00	14.10	14.00	13.90	13.40	13.90	14.20	14.30	13.90	14.20	14.20	13.60	14.60	12.60	12.90	14.50	13.60	13.90	14.30	13.20	13.80	12.80	13.10	13.20	13.80	13.40	13.20	13.60
	Total Cations	meq/L	0.01	13.80	13.70	13.70	14.40	14.20	14.50	14.30	13.20	13.80	12.20	12.00	13.70	14.20	14.30	13.20	12.00	12.80	13.00	13.20	12.80	13.90	12.80	11.60	12.40	12.40	12.20	12.20	12.90	13.00	12.70	13.00
	Ionic Balance	%	0.01	0.10	2.54	1.83	1.51	0.24	1.49	1.59	0.67	0.54	7.86	8.72	0.94	0.27	0.32	1.35	9.94	0.56	0.49	4.48	3.04	0.03	5.52	6.48	5.29	1.90	3.55	3.89	3.58	1.64	2.25	2.17
Diss. pet. gases	Methane	µg/L	10	<10	<10	38.00	<10	29.00	32.00	<10	25.00	22.00	17.00	19.00	15.00	15.00	14.00	14.00	10.00	<10	14.00	16.00	<10	<10	<10	17.00	18.00	24.00	<10	20.00	16.00	<10	14.00	14.00
	Ethane	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	<10	<10	<10	<10	<10	<10
	Propane	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	<10	<10	<10	<10	<10	<10
PAH Suite	Naphthalene	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	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Acenaphthylene	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	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Acenaphthene	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	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Fluorene	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	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Phenanthrene	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	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Anthracene	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	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Fluoranthene	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	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Pyrene	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	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Benz(a)anthracene	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	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Chrysene	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	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Benzo(b+j)fluoranthene	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	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Benzo(k)fluoranthene	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	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Benzo(a)pyrene	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	<0.5	<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
	Indeno(1.2.3.cd)pyrene	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	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Dibenz(a.h)anthracene	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	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Benzo(g.h.i)perylene	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	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Sum of polycyclic aromatic hydrocarb	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	<0.5	<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
	Benzo(a)pyrene TEQ (zero)	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	<0.5	<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
Total Recoverable Hydrocarbons	C6 - C9 Fraction	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	<20	<20	<20	<20	<20	<20
	C10 - C14 Fraction	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	<50	<50	<50	<50	<50	<50
	C15 - C28 Fraction	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	<100	<100	<100	<100	<100	<100
	C29 - C36 Fraction	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	<50	<50	<50	<50	<50	<50
	C10 - C36 Fraction (sum)	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	<50	<50	<50	<50	<50	<50
	C6 - C10 Fraction	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	<20	<20	<20	<20	<20	<20
	C6 - C10 Fraction minus BTEX (F1)	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	<20	<20	<20	<20	<20	<20
	>C10 - C16 Fraction	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	<100	<100	<100	<100	<100	<100
	>C16 - C34 Fraction	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	<100	<100	<100	<100	<100	<100
	>C34 - C40 Fraction	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	<100	<100	<100	<100	<100	<100
	>C10 - C40 Fraction (sum)	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	<100	<100	<100	<100	<100	<100
	>C10 - C16 Fraction minus Naphthal	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	<100	<100	<100	<100	<100	<100
BTEXN, Alpha/Beta, Surrogates	Benzene	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	<1	<1	<1	<1	<1	<1
	Toluene	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	<2	<2	<2	<2	<2	<2
	Ethylbenzene	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	<2	<2	<2	<2	<2	<2
	meta- & para-Xylene	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	<2	<2	<2	<2	<2	<2
	ortho-Xylene	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	<2	<2	<2	<2	<2	<2
	Total Xylenes	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	<2	<2	<2	<2	<2	<2
	Sum of BTEX	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	<1	<1	<1	<1	<1	<1
	Naphthalene	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	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.1	<5	<0.1	<0.1	<5	<5	<5	<0.1
	Gross alpha	Bq/L	0.05	0.54	0.51	0.35	0.25	0.36	0.30	0.21	0.12	0.35	0.29	0.34	0.35	0.37	0.36	0.28	0.27	0.11	0.29	0.37	0.27	0.34	0.32	0.00	0.34	0.25	0.25	0.23	0.37	0.25	---	0.24
	Gross beta activity - 40K	Bq/L	0.1	0.33	0.42	0.26	0.17	0.23	0.23	0.12	<0.10	0.28	0.19	0.23	0.19	0.34	0.29	0.30	0.24	0.25	0.25	0.18	0.19	0.19	0.30	0.00	0.24	0.19	0.19	0.17	0.13	0.17	---	0.12
	Phenol-d6	%	1	19.50	20.00	25.80	27.40	24.40	24.70	22.00	27.60	25.20	26.80	25.60	24.40	23.50	26.20	24.60	29.40	28.10	24.20	25.80	25.70	24.30	32.10	0.00	---	---	---	---	---	---	---	---
	2-Chlorophenol-D4	%	1	39.90	38.30	46.50	46.00	52.90	62.10	57.20	44.30	52.70	48.70	54.70	57.90	66.40	55.30	65.40	56.00	53.40	59.20	59.70	50.90	64.80	62.00	0.00	---	---	---	---	---	---	---	---
	2.4.6-Tribromophenol	%	1	42.90	62.50	51.40	54.10	55.60	46.80	40.30	35.80	56.10	35.00	72.00	47.30	58.00	50.50	47.20	68.70	58.30	54.40	67.80	51.30	66.60	79.80	0.00	---	---	---	---	---	---	---	---
	2-Fluorobiphenyl	%	1	61.70	50.60	54.50	59.10	69.80	69.00	60.90	52.90	55.00	66.00	65.70	63.50	75.80	67.60	70.70	71.00	55.00	69.50	71.90	63.30	78.70	67.20	66.60	46.70	39.80	45.30	48.10	61.60	81.30	56.50	70.60
	Anthracene-d10	%	1	87.80	66.00	67.50	64.30	77.80	69.50	64.10	55.50	64.40	66.40	70.80	67.20	76.00	73.40	99.50	80.80	71.80	78.60	93.70	73.20	94.20	92.40	91.80	58.00	68.00	59.20	63.90	65.80	90.90	63.60	74.90
	4-Terphenyl-d14	%	1	98.30	93.50	81.70	65.70	86.50	99.60	95.50	63.50	77.40	86.70	78.90	76.80	82.20	75.00	93.50	91.10	73.60	98.70	96.70	83.00	95.50	97.00	82.80	61.80	73.40	60.30	69.90	67.00	99.40	64.80	74.10
	1.2-Dichloroethane-D4	%	2	127.00	122.00	123.00	108.00	110.00	94.10	102.00	78.60	96.70	76.10	112.00	114.00	113.00	108.00	84.10	98.20	99.70	99.20	119.00	120.00	99.50	98.80	107.00	119.00	105.00	101.00	108.00	103.00	93.60	90.40	124.00
	Toluene-D8	%	2	103.00	122.00	116.00	108.00	108.00	93.40	96.00	115.00	106.00	105.00	109.00	117.00	117.00	122.00	97.90	106.00	101.00	105.00	122.00	116.00	106.00	96.30	106.00	103.00	110.00	111.00	107.00	107.00	83.90	82.40	115.00
	4-Bromofluorobenzene	%	2	105.00	115.00	119.00	108.00	106.00	92.40	94.30	112.00	102.00	101.00	113.00	108.00	109.00	124.00	95.50	106.00	97.90	112.00	120.00	106.00	96.50	98.00	113.00	105.00	109.00	114.00	89.80	99.70	94.80	97.50	116.00

CARPENTARIA 1 - IMB & CMB Difference

				Baseline Statistics*							Flag if above 2		Baseline																										Reporting Period				
Category	CHEMICAL NAME	RESULT UNIT	No. results	Min	Q1	Mean	Q3	Max	Standard Deviation	Average from reporting period (15/2/23 -28/4/24)	Z Score	LIMIT OF DETECTION	18/04/2021	21/04/2021	26/04/2021	27/04/2021	28/04/2021	04/05/2021	05/05/2021	09/05/2021	11/05/2021	12/05/2021	16/05/2021	17/05/2021	18/05/2021	19/05/2021	23/05/2021	25/05/2021	16/06/2021	14/07/2021	14/08/2021	13/10/2021	14/11/2021	9/01/2022	6/04/2022	17/07/2022	6/11/2022	17/01/2023	17/05/2023	19/07/2023	10/10/2023	10/01/2024	28/04/2024
General, anions, cations and metal	pH - Lab	pH Unit	31	<0.01	0.000	0.06	0.125	0.26	0.08	0.04	-0.33	0.01	0.19	0.21	0.06	0.01	0	0	0.11	0.04	0	0	0	0.03	0.04	0.01	0.17	0.26	0	0	0.01	0.08	0.14	0	0.03	0	0.06	0	0	0.03	0.12	0.04	0
	Electrical Conductivity @ 25°C	µS/cm	31	<1	10.000	35.71	40.000	150.00	40.07	40.00	0.11	1	10	140	40	0	10	20	0	10	30	20	20	30	40	0	30	10	40	60	50	150	40	20	0	30	0	0	60	40	10	30	60
	Total Dissolved Solids @180°C	mg/L	31	<10	0.000	25.90	46.000	69.00	23.78	31.60	0.24	10	25	46	15	0	59	0	0	69	13	40	7	54	46	0	20	0	34	13	64	39	0	34	0	34	0	0	0	45	22	38	53
	Suspended Solids (SS)	mg/L	28	<1	0.000	1.11	2.250	4.00	1.49	1.80	0.46	1	-	-	4	0	0	-	0	4	0	0	0	0	2	0	1	0	3	1	0	2	3	2	0	5	3	3	1	2	1	3	2
	Gross beta	Bq/L	30	<0.1	0.000	0.07	0.125	0.39	0.10	0.20	1.22	0.1	0.21	0.22	0.18	0	0.04	0	0	0	0.39	0	0.01	0	0.15	0.05	0.02	0	0.1	0.07	0.1	0	0.01	0	0	0.1	0.11	0.11	0.18	0.23	0.15	-	0.24
	Hydroxide Alkalinity as CaCO3	mg/L	31	<1	0.000	0.00	0.000	<1	0.00	0.00	*	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Carbonate Alkalinity as CaCO3	mg/L	31	<1	0.000	0.00	0.000	<1	0.00	0.00	*	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Bicarbonate Alkalinity as CaCO3	mg/L	31	<1	0.000	9.19	17.500	41.00	15.11	0.00	*	1	0	40	0	8	0	16	19	0	35	34	0	0	0	0	0	0	0	0	0	41	0	0	9	8	0	0	0	0	0	0	0
	Total Alkalinity as CaCO3	mg/L	31	<1	0.000	9.19	17.500	41.00	15.11	0.00	*	1	0	40	0	8	0	16	19	0	35	34	0	0	0	0	0	0	0	0	0	41	0	0	9	8	0	0	0	0	0	0	0
	Sulfate as SO4 2-	mg/L	31	<1	13.500	16.95	18.500	43.00	9.54	9.60	-0.77	1	43	38	14	0	16	17	0	14	13	18	15	16	15	18	12	17	19	20	22	16	13	47	0	11	3	17	14	17	2	10	5
	Chloride	mg/L	31	<1	3.500	5.86	8.500	15.00	3.94	11.60	1.46	1	0	0	7	0	7	3	0	5	4	5	7	10	9	8	4	6	7	11	15	6	9	10	0	11	5	10	11	11	8	11	17
	Calcium D	mg/L	31	<1	0.000	2.48	3.500	14.00	3.53	3.60	0.32	1	1	14	0	0	0	6	7	0	1	0	0	1	7	4	3	0	3	0	3	1	1	1	0	5	0	2	8	10	0	0	0
	Magnesium D	mg/L	31	<1	0.500	2.57	4.000	7.00	1.94	4.60	1.05	1	5	7	2	0	4	4	0	3	1	0	0	3	5	3	3	0	3	4	3	2	2	3	0	0	0	4	6	7	2	3	5
	Sodium D	mg/L	31	<1	0.000	1.43	2.500	5.00	1.50	5.60	2.78	1	0	3	0	0	1	2	2	0	0	0	0	1	4	2	1	0	2	3	5	1	3	4	0	5	1	5	7	9	2	5	5
	Potassium D	mg/L	31	<1	0.000	0.38	0.500	3.00	0.80	4.00	4.50	1	0	1	2	0	1	0	3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	0	2	4	4	1	4	7
	Calcium T	mg/L	31	<1	0.000	3.67	5.000	13.00	4.18	7.00	0.80	1	12	5	0	0	2	1	0	4	5	4	5	0	13	0	8	2	0	1	11	4	0	1	0	0	0	2	35	0	0	0	0
	Magnesium T	mg/L	31	<1	1.500	3.33	6.000	8.00	2.58	3.00	-0.13	1	8	7	2	0	3	2	0	3	4	4	3	0	6	2	6	2	1	2	6	8	1	3	0	2	1	3	3	5	3	3	1
	Sodium T	mg/L	31	<1	0.000	1.95	3.000	8.00	2.56	4.00	0.80	1	0	0	1	0	0	0	0	0	3	2	1	0	5	0	5	1	2	3	8	8	2	3	0	4	2	3	4	5	3	4	4
	Potassium T	mg/L	31	<1	0.000	0.24	0.000	2.00	0.54	3.80	6.61	1	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	1	0	3	3	4	2	4	6
	Arsenic D	mg/L	31	<0.001	0.001	0.00	0.002	0.00	0.00	0.00	*	0.001	0.001	0.001	0.002	0	0.002	0.002	0	0.002	0.002	0.001	0.001	0.002	0.002	0.001	0.001	0.001	0.001	0.001	0	0	0	0	0	0	0	0	0	0	0	0	0
	Barium D	mg/L	31	<0.001	0.003	0.01	0.018	0.03	0.01	0.03	1.85	0.001	0	0.006	0.012	0	0.009	0.021	0	0.013	0.019	0	0	0.014	0.021	0.009	0.018	0.006	0.018	0.015	0.011	0.018	0.028	0.019	0	0.016	0.027	0.02	0.028	0.027	0.023	0.026	0.03
	Cadmium D	mg/L	31	<0.0001	0.000	0.00	0.000	<0.0001	0.00	0.00	*	0.0001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Chromium D	mg/L	31	<0.001	0.000	0.00	0.000	<0.001	0.00	0.00	*	0.001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Copper D	mg/L	31	<0.001	0.000	0.00	0.000	<0.001	0.00	0.00	*	0.001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Lead D	mg/L	31	<0.001	0.000	0.00	0.000	<0.001	0.00	0.00	*	0.001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Lithium D	mg/L	31	<0.001	0.000	0.00	0.004	0.01	0.00	0.00	0.07	0.001	0.009	0.007	0.001	0	0	0.001	0.001	0.001	0.001	0	0	0.006	0	0.003	0.002	0	0.004	0.005	0.004	0.002	0.004	0.004	0	0.01	0.001	0.003	0.005	0	0.004	0.002	0.002
	Manganese D	mg/L	31	<0.001	0.258	0.27	0.348	0.39	0.12	0.24	-0.22	0.001	0.076	0.102	0.278	0	0.273	0.366	0	0.347	0.394	0.285	0.243	0.318	0.347	0.307	0.379	0.294	0.353	0.322	0.348	0.288	0.327	0.286	0	0.383	0.283	0.217	0.23	0.223	0.229	0.236	0.293
	Selenium D	mg/L	31	<0.01	0.000	0.00	0.000	<0.01	0.00	0.00	*	0.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Silver D	mg/L	31	<0.001	0.000	0.00	0.000	<0.001	0.00	0.00	*	0.001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Strontium D	mg/L	31	<0.001	0.004	0.02	0.026	0.08	0.02	0.03	0.42	0.001	0.015	0.076	0.011	0	0.016	0.04	0.028	0	0.008	0	0	0.025	0.014	0.04	0.008	0	0.008	0.026	0.026	0.013	0.009	0.012	0	0	0	0.033	0.044	0.06	0	0.008	0.013
	Zinc D	mg/L	31	<0.005	0.000	0.00	0.003	0.01	0.00	0.02	7.10	0.005	0	0	0.002	0	0	0.001	0.001	0.004	0.002	0.001	0	0	0	0.001	0.004	0.003	0.001	0	0	0.007	0.01	0	0	0.011	0.007	0.011	0.017	0.017	0.025	0.025	0.018
	Boron D	mg/L	31	<0.05	0.000	0.01	0.020	0.05	0.01	0.01	-0.11	0.05	0.03	0.02	0	0	0.02	0.02	0	0.02	0.02	0.01	0	0	0.02	0	0.05	0.01	0.01	0.02	0.01	0.01	0.01	0.02	0	0.03	0.01	0	0.02	0	0.03	0.01	0
	Iron D	mg/L	31	<0.05	0.175	0.59	0.945	1.30	0.40	0.99	1.00	0.05	0.1	0.12	0.59	0	0.73	1.07	0	0.97	1.3	0.31	0.68	0.88	0.99	0.7	1.04	0.7	0.23	0.55	0.49	0.92	0	0.53	0	1.08	0.51	0.87	0.86	0.95	1.51	1.27	0.36
	Arsenic T	mg/L	31	<0.001	0.001	0.00	0.002	0.00	0.00	0.00	*	0.001	0.001	0.001	0.001	0	0.002	0.002	0	0.002	0.002	0.002	0.001	0.002	0.001	0.001	0.001	0.001	0	0.001	0.002	0	0	0	0	0	0	0	0	0	0	0	0
	Barium T	mg/L	31	<0.001	0.005	0.01	0.022	0.03	0.01	0.03	1.32	0.001	0	0	0.011	0	0.01	0.015	0	0.017	0.022	0.019	0.023	0.001	0.027	0.01	0.032	0.015	0.016	0.014	0.019	0.021	0.024	0.021	0	0.031	0.039	0.017	0.027	0.025	0.025	0.026	0.031
	Cadmium T	mg/L	31	<0.0001	0.000	0.00	0.000	<0.0001	0.00	0.00	*	0.0001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Chromium T	mg/L	31	<0.001	0.000	0.00	0.000	0.00	0.00	0.00	*	0.001	0.002	0.002	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Copper T	mg/L	31	<0.001	0.000	0.00	0.000	<0.001	0.00	0.00	*	0.001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Lead T	mg/L	31	<0.001	0.000	0.00	0.000	0.01	0.00	0.00	*	0.001	0.005	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Lithium T	mg/L	31	<0.001	0.001	0.00	0.004	0.02	0.00	0.01	0.62	0.001	0.01	0.007	0.002	0	0.002	0.001	0	0.002	0.001	0.003	0.001	0.002	0	0.003	0.002	0.002	0.005	0.002	0.006	0.018	0.003	0.004	0	0.005	0.002	0.003	0.011	0.012	0.003	0.003	0.001
	Manganese T	mg/L	31	<0.001	0.275	0.28	0.358	0.41	0.12	0.25	-0.28	0.001	0.09	0.102	0.277	0	0.273	0.354	0	0.356	0.39	0.347	0.33	0.32	0.408	0.306	0.359	0.341	0.371	0.342	0.376	0.311	0.314	0.313	0	0.319	0.343	0.229	0.247	0.241	0.253	0.24	0.268
	Selenium T	mg/L	31	<0.01	0.000	0.00	0.000	<0.01	0.00	0.00	*	0.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Silver T	mg/L	31	<0.001	0.000	0.00	0.000	<0.001	0.00	0.00	*	0.001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Strontium T	mg/L	31	<0.001	0.000	0.01	0.024	0.07	0.02	0.02	0.32	0.001	0.015	0.001	0.012	0	0.017	0.007	0	0.006	0.03	0.027	0.021	0	0.068	0.035	0	0.017	0	0.006	0.042	0	0	0.024	0	0.016	0.007	0.015	0.022	0.032	0.015	0.018	0.014
	Zinc T	mg/L	31	<0.005	0.000	0.00	0.003	0.01	0.00	0.02	6.34	0.005	0.003	0	0	0	0	0.001	0	0.001	0.007	0	0	0	0.003	0	0.005	0	0	0	0	0.008	0.012	0.006	0	0.011	0.013	0.009	0.019	0.017	0.03	0.026	0.024
	Boron T	mg/L	31	<0.05	0.010	0.02	0.020	0.05	0.01	0.03	0.82	0.05	0.03	0.03	0.01	0	0.01	0.02	0	0.02	0.01	0.01	0.01	0.02	0	0.01	0.02	0.01	0.03	0	0.02	0.05	0.02	0.02	0	0.01	0.01	0.01	0.02	0.06	0.02	0.02	0.01
	Iron T	mg/L	31	<0.05	0.685	0.92	1.095	2.64	0.59	1.36	0.74	0.05	1.79	2.64	0.68	0	0.69	0.94	0	1.02	1.48	1.01	0.98	0.79	1.17	0.71	0.94	0.95	0.16	0.49	0.77	1.23	0.92	0.7	0	1.41	1.89	1.14	1.02	1.17	1.92	1.51	1.16
	Mercury D	mg/L	31	<0.0001	0.000	0.00	0.000	<0.0001	0.00	0.00	*	0.0001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Mercury T	mg/L	31	<0.0001	0.000	0.00	0.000	<0.0001	0.00	0.00	*	0.0001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Reactive Silica	mg/L	31	<0.05	0.000	0.19	0.000	1.30	0.40	0.04	-0.36	0.05	0	0	1	0.8	0.8	0	1.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.6	0	0	0	0	0	0	0	0.2
	Fluoride	mg/L	31	<0.1	0.000	0.05	0.100	0.20	0.06	0.06	0.21	0.1	0.1	0.2	0	0	0.1	0	0	0	0.1	0	0.1	0	0	0	0.1	0.1	0	0.1	0.1	0	0	0	0	0	0	0	0.1	0.1	0.1	0	0
	Nitrite as N	mg/L	31	<0.01	0.000	0.00	0.000	<0.01	0.00	0.00	*	0.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Nitrate as N	mg/L	31	<0.01	0.000	0.00	0.000	0.04	0.01	0.11	8.99	0.01	0	0	0	0.04	0	0	0.04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.04	0	0	0	0	0.56	0	0	0
	Nitrite + Nitrate as N	mg/L	31	<0.01	0.000	0.00	0.000	0.04	0.01	0.11	8.99	0.01	0	0	0	0.04	0	0	0.04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.04	0	0	0	0	0.56	0	0	0
	Total Anions	meq/L	31	<0.01	0.150	0.50	0.600	1.50	0.44	0.34	-0.35	0.01	0.2	1.5	0.4	0	0.5	0.7	0	0.3	1.1	1.2	0.4	0.2	0.5	0	0	0.1	0.5	0.5	0.5	1.3	0.5	0.9	0	0.7	0	0.3	0.3	0.5	0.1	0.3	0.5
	Total Cations	meq/L	31	<0.01	0.100	0.37	0.500	1.40	0.34	0.86	1.43	0.01	0.4	1.4	0.1	0	0.4	0.7	0.5	0.2	0.1	0	0	0.3	0.9	0.5	0.4	0	0.5	0.3	0.6	0.2	0.3	0.5	0	0.5	0	0.7	1.2	1.6	0.2	0.5	0.8
	Ionic Balance	%	31	<0.01	0.000	1.07	1.160	7.75	2.18	0.00	*	0.01	0	0	1.1	0.39	0	0	1.22	0.62	0	7.75	6.57	0.03	0	0	0	3.09	0	0	0	1.68	0	1.52	2.03	0.82	0	0	0	0	0	0	0
Diss. pet. gases	Methane	µg/L	31	<10	0.000	0.01	0.011	0.03	0.01	0.00	-0.31	10	0	0	0.028	0	0.019	0.022	0	0.015	0.012	0.007	0.009	0.005	0.005	0.004	0.004	0	0	0	0	0	0	0	0	0.008	0.014	0	0.01	0	0	0.004	0.004
	Ethane	µg/L	31	<10	0.000	0.00	0.000	<10	0.00	0.00	*	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Propane	µg/L	31	<10	0.000	0.00	0.000	<10	0.00	0.00	*	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PAH Suite	Naphthalene	µg/L	31	<1	0.000	0.00	0.000	<1	0.00	0.00	*	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Acenaphthylene	µg/L	31	<1	0.000	0.00	0.000	<1	0.00	0.00	*	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Acenaphthene	µg/L	31	<1	0.000	0.00	0.000	<1	0.00	0.00	*	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Fluorene	µg/L	31	<1	0.000	0.00	0.000	<1	0.00	0.00	*	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Phenanthrene	µg/L	31	<1	0.000	0.00	0.000	<1	0.00	0.00	*	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Anthracene	µg/L	31	<1	0.000	0.00	0.000	<1	0.00	0.00	*	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Fluoranthene	µg/L	31	<1	0.000	0.00	0.000	<1	0.00	0.00	*	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Pyrene	µg/L	31	<1	0.000	0.00	0.000	<1	0.00	0.00	*	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Benz(a)anthracene	µg/L	31	<1	0.000	0.00	0.000	<1	0.00	0.00	*	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Chrysene	µg/L	31	<1	0.000	0.00	0.000	<1	0.00	0.00	*	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Benzo(b+j)fluoranthene	µg/L	31	<1	0.000	0.00	0.000	<1	0.00	0.00	*	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Benzo(k)fluoranthene	µg/L	31	<1	0.000	0.00	0.000	<1	0.00	0.00	*	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Benzo(a)pyrene	µg/L	31	<0.5	0.000	0.00	0.000	<0.5	0.00	0.00	*	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Indeno(1.2.3.cd)pyrene	µg/L	31	<1	0.000	0.00	0.000	<1	0.00	0.00	*	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Dibenz(a.h)anthracene	µg/L	31	<1	0.000	0.00	0.000	<1	0.00	0.00	*	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Benzo(g.h.i)perylene	µg/L	31	<1	0.000	0.00	0.000	<1	0.00	0.00	*	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sum of polycyclic aromatic hydrocar	µg/L	31	<0.5	0.000	0.00	0.000	<0.5	0.00	0.00	*	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Benzo(a)pyrene TEQ (zero)	µg/L	31	<0.5	0.000	0.00	0.000	<0.5	0.00	0.00	*	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Recoverable Hydrocarbons	C6 - C9 Fraction	µg/L	31	<20	0.000	0.00	0.000	<20	0.00	0.00	*	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	C10 - C14 Fraction	µg/L	31	<50	0.000	0.00	0.000	<50	0.00	0.00	*	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	C15 - C28 Fraction	µg/L	31	<100	0.000	0.00	0.000	<100	0.00	0.00	*	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	C29 - C36 Fraction	µg/L	31	<50	0.000	0.00	0.000	<50	0.00	0.00	*	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	C10 - C36 Fraction (sum)	µg/L	31	<50	0.000	0.00	0.000	<50	0.00	0.00	*	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	C6 - C10 Fraction	µg/L	31	<20	0.000	0.00	0.000	<20	0.00	0.00	*	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	C6 - C10 Fraction minus BTEX (F1)	µg/L	31	<20	0.000	0.00	0.000	<20	0.00	0.00	*	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	>C10 - C16 Fraction	µg/L	31	<100	0.000	0.00	0.000	<100	0.00	0.00	*	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	>C16 - C34 Fraction	µg/L	31	<100	0.000	0.00	0.000	<100	0.00	0.00	*	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	>C34 - C40 Fraction	µg/L	31	<100	0.000	0.00	0.000	<100	0.00	0.00	*	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	>C10 - C40 Fraction (sum)	µg/L	31	<100	0.000	0.00	0.000	<100	0.00	0.00	*	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	>C10 - C16 Fraction minus Naphtha	µg/L	31	<100	0.000	0.00	0.000	<100	0.00	0.00	*	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BTEXN, Alpha/Beta, Surrogates	Benzene	µg/L	31	<1	0.000	0.00	0.000	<1	0.00	0.00	*	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Toluene	µg/L	31	<2	0.000	0.00	0.000	<2	0.00	0.00	*	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Ethylbenzene	µg/L	31	<2	0.000	0.00	0.000	<2	0.00	0.00	*	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	meta- & para-Xylene	µg/L	31	<2	0.000	0.00	0.000	<2	0.00	0.00	*	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	ortho-Xylene	µg/L	31	<2	0.000	0.00	0.000	<2	0.00	0.00	*	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total Xylenes	µg/L	31	<2	0.000	0.00	0.000	<2	0.00	0.00	*	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sum of BTEX	µg/L	31	<1	0.000	0.00	0.000	<1	0.00	0.00	*	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Naphthalene	µg/L	31	<1	0.000	0.00	0.000	<1	0.00	0.00	*	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Gross alpha	Bq/L	29	<0.05	0.055	0.12	0.140	0.35	0.09	0.08	-0.44	0.05	0.35	0.34	0.08	0	0.12	0.09	0	0.02	0.24	0.1	0.13	0.12	0.15	0.16	0.05	0.06	0.06	0.1	0.11	0.05	0.12	0	-	0.1	0.07	0.07	0.06	0.15	0.07	-	0.02
	Gross beta activity - 40K	Bq/L	29	<0.1	0.030	0.10	0.150	0.23	0.08	0.05	-0.65	0.1	0.23	0.23	0.13	0	0	0.06	0	0	0.18	0.05	0.09	0.08	0.22	0.15	0.15	0.01	0.15	0.09	0.07	0.06	0.05	0	-	0.1	0.09	0.09	0.06	0.03	0.07	-	0.02
	Phenol-d6	%	22	<1	0.000	1.62	2.850	8.20	2.27	-	*	1	1.1	0	6.3	3	2.7	0	0	0	0	3.2	1.8	0	0	0	0	1	2.3	0.8	8.2	0	3.6	1.1	-	-	-	-	-	-	-	-	-
	2-Chlorophenol-D4	%	22	<1	0.000	4.82	7.750	19.70	6.40	-	*	1	0	0	10.6	0	7.8	7.7	5.3	0	1	3.5	0	0	4.2	1.3	17.4	0	5.3	0.3	17.2	0	19.7	1.6	-	-	-	-	-	-	-	-	-
	2.4.6-Tribromophenol	%	22	<1	0.000	4.11	5.950	22.80	5.81	-	*	1	4.3	8.4	0	0	4.4	12.4	0	0	0	0	3	0	2.4	0	5	0	5.4	11.7	22.8	0	6.5	4.7	-	-	-	-	-	-	-	-	-
	2-Fluorobiphenyl	%	31	<1	0.000	4.27	7.500	20.70	6.57	3.98	-0.04	1	7.3	0	0.1	0	10.2	7.7	0	0	0	6.4	0	0	0.7	0	14.3	0	3.8	0	18.5	0	20.7	3.2	1.9	0	0	8.5	11.4	0	8.5	0	0
	Anthracene-d10	%	31	<1	0.000	4.26	7.250	23.90	6.10	4.54	0.05	1	9.2	4.8	6.4	0	6.7	7.8	0	0	0	3.6	0	0	0.1	0	11.6	0	3.1	0.3	23.9	0	12	2.8	0	0	0	22.5	15.3	0	7.4	0	0
	4-Terphenyl-d14	%	31	<1	0.000	4.48	6.800	19.70	6.36	4.06	-0.07	1	0	19.7	16.5	0	0.6	14.6	14.1	0.5	0	3.9	0	0	0	1.6	5.1	0	4.5	4.5	8.5	0	0	4.7	1.4	0	0	24.8	13.6	0	6.7	0	0
	1.2-Dichloroethane-D4	%	31	<2	0.000	1.54	2.500	11.70	2.69	3.40	0.69	2	0	0	1	1	1	0	0	4.6	11.7	0	2	3	0	1	0	0	1.1	0	3	3	0	0	0	0	3	0	7	0	0	0	10
	Toluene-D8	%	31	<2	0.000	1.81	3.000	13.10	3.22	1.60	-0.07	2	0	3	0	0	0	0	0	5	13.1	0	3	6	0	4	0	0	1	0	3	0	0	0	0	0	4	0	0	0	0	0	8
	4-Bromofluorobenzene	%	31	<2	0.000	1.45	1.050	14.40	3.34	1.20	-0.08	2	0	0	0	0	0	0	0	1	14.4	0	2	6	1	1	0	0	1.1	0	4	0	0	0	0	0	5	1	0	0	0	0	6

* The differential average from the basline and reporting period is Zero so there is no Z score