



Woodside Atmospheric Deposition Monitoring Program

Woodside Energy

Data Report – Year 4

70704 | 171,212A (Rev 1)

6 May 2026





We acknowledge the Traditional Custodians of Country throughout Australia and their connection to land, sea and community.

We pay our respect to Elders past, present and emerging and in the spirit of reconciliation we commit to working together for our shared future where every person is respected, valued and has strong sense of belonging.

Caring for Country The Journey of JBS&G
Artist: Patrick Caruso, Eastern Arrernte

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Appendices

Appendix A	Wind roses (Radiello sampling periods)
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Appendix C	Dust deposition data
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Abbreviations

Term	Definition
#N/A	Data not available
Insoluble fraction	Component of deposited dust that is not soluble in water. Deposited dust can comprise of aqueous soluble and insoluble materials depending on mechanisms and sources of dust emissions. The insoluble fraction is typically derived from crustal materials.
KBSF	King Bay Support Facility
NO ₂	Nitrogen dioxide, Gaseous air pollutant from combustion sources
NH ₃	Ammonia, Gaseous air pollutant from natural sources and industrial sources
NWS	North West Shelf Project
PQL	Practical quantification limit
RPD	Relative percent difference
Soluble fraction	Component of deposited dust that is soluble in water
SO ₂	Sulfur dioxide. Gaseous air pollutant from oxidation (combustion) of sulphur-containing substances
TKN	Total kjeldal nitrogen
WADMP	Woodside Atmospheric Deposition Monitoring Program

1. Introduction

JBS&G Australia Pty Ltd (JBS&G) is engaged by Woodside Energy (Woodside) to support the implementation and execution of the Woodside Atmospheric Deposition Monitoring Program (WADMP). The WADMP was established to proactively monitor for parameters, including atmospheric depositions, that has been hypothesised as a potential mechanism for risk of accelerated weathering of rock art on Murujuga (Burrup Peninsula).

The objectives of the WADMP are:

- Measure atmospheric deposition at four locations on Murujuga and one reference site;
- Be designed as such to align with requirements of Condition 11 of Ministerial Statement (MS) 757 for Woodside's Pluto Liquefied Natural Gas Development, which required the establishment of a nitrogen deposition monitoring program; and
- Compliment the work conducted by the State's Murujuga Rock Art Strategy and other industrial parties on Murujuga.

The WADMP commenced on 29 September 2021 with five monitoring stations (Acoem Ecotech 2021 and 2021a) – four lower Murujuga sites and one background site (Figure 2.1). The monitoring stations are provided and serviced by Acoem Ecotech under contract with JBS&G.

Details of the monitoring locations, program and results to 14 September 2025 (representing four years of the program or 50 rounds of sampling for a nominal 30-day duration) are presented herein. This Year 4 Annual Report supersedes all previous annual reports for the WADMP.

2. Methodology

2.1 Monitoring locations

The monitoring site locations for the WADMP are summarised below (Table 2.1) and illustrated in Figure 2.1. The KBSF Quarry monitoring station was moved in October 2023 to enable the use of the area as a rock dump. This relocation was a minor distance of approximately 20 m and, therefore, the monitoring station has not been renamed.

Table 2.1: Monitoring locations

Name	Nominal coordinates (GDA94_MGA_Zone50)		Description	Location ID
	Easting	Northing		
KBSF Quarry ¹	474514	7719281	King Bay Support Facility (KBSF) Quarry (NWSJV Lease) Station relocated 25 October 2023 (previous location 474590, 7719255)	WEL-1
Mt Wongama	480,045	7,724,310	Mount Wongama Communication Site (NWSJV Lease)	WEL-2
Visitor Centre	476,775	7,722,033	North West Shelf Project (NWS) Visitors Centre Carpark	WEL-3
RT Pastoral Lease (background)	450,093	7,689,580	Rio-Tinto Pastoral Lease (Background monitoring)	WEL-4
AAQ Station	476,660	7,721,042	Existing Ambient Air Quality (AAQ) Monitoring Station	WEL-5

(1) This is a naming convention selected for the site adjacent to the quarry site; the quarry was not active during the reporting period.

Further information on the siting of monitoring locations used for the WADMP, including assessment against the requirements of AS/NZS 3580.1.1:2016 *Methods for Sampling and Analysis of Ambient Air - Guide to Siting Air Monitoring Equipment*, is summarised in the Location Reconnaissance Trip Report (Strategen-JBS&G, 2021a).

The stations are ordered in the legend of the charts in this report according to distance to the nearest major air emission sources at the Karratha Gas Plant and Pluto LNG facilities. These are, from closest to most distant – Visitor Centre, AAQ station, KBSF Quarry, Mt Wongama, and RT Pastoral Lease (background). The exception to this order is the meteorology data where the stations are ordered in the charts to give best visualisation of the diurnal trends.

2.2 Monitoring program

The WADMP includes:

- Gases contributing to atmospheric deposition;
- Acid forming species in rainwater;
- Ammonium nitrate and sulfate atmospheric deposition in deposited dust; and
- Prevailing meteorology at each site (wind speed and direction).

Sampling duration is nominally 30-days for dust deposition and 15-days for gas (Radiello) sampling. Due to the variable length of the calendar month, sampling does not fit into a monthly regime. Therefore, the sampling is referred to by the sampling round or the sampling commencement date. A quarter is used

throughout the report to refer to a duration equalling three nominal 30-day sampling rounds or six nominal 15-day sampling rounds.

This Year 4 report covers up to the end of quarter 16 of the WADMP i.e., 50 x 30-day sampling rounds or 100 x 15-day sampling rounds (the reporting period). The dates for the sampling rounds are detailed in Table 2.2 and Table 2.3 below.

Table 2.2: 30-day sampling rounds (dust deposit gauge)

Sampling round	Start date	End date	Quarter	Reporting year
1	29/09/2021	01/11/2021	Q1	1
2	1/11/2021	29/11/2021		
3	29/11/2021	29/12/2021		
4	29/12/2021	25/01/2022	Q2	
5	25/01/2022	23/02/2022		
6	23/02/2022	23/03/2022		
7	23/03/2022	20/04/2022	Q3	
8	20/04/2022	19/05/2022		
9	19/05/2022	15/06/2022		
10	15/06/2022	18/07/2022	Q4	
11	18/07/2022	10/08/2022		
12	10/08/2022	4/09/2022		
13	4/09/2022	5/10/2022	Q5	
14	5/10/2022	2/11/2022		
15	2/11/2022	30/11/2022		
16	30/11/2022	27/12/2022	Q6	
17	27/12/2022	26/1/2023		
18	26/1/2023	23/2/2023		
19	23/2/2023	21/03/2023	Q7	
20	21/03/2023	16/04/2023		
21	16/04/2023	15/05/2023		
22	15/05/2023	13/06/2023	Q8	
23	13/06/2023	13/07/2023		
24	13/07/2023	13/08/2023		
25	13/08/2023	11/09/2023	Q9	
26	11/09/2023	13/10/2023		
27	13/10/2023	11/11/2023		
28	11/11/2023	10/12/2023	Q10	
29	10/12/2023	11/01/2024		
30	11/01/2024	9/02/2024		
31	9/02/2024	12/03/2024	Q11	
32	12/03/2024	10/04/2024		
33	10/04/2024	9/05/2024		
34	9/05/2024	5/06/2024		

Sampling round	Start date	End date	Quarter	Reporting year
35	5/06/2024	3/07/2024	Q12	4
36	3/07/2024	1/08/2024		
37	1/08/2024	31/08/2024		
38	31/08/2024	1/10/2024	Q13	
39	1/10/2024	31/10/2024		
40	31/10/2024	1/12/2024		
41	1/12/2024	29/12/2024	Q14	
42	29/12/2024	27/01/2025		
43	27/01/2025	24/02/2025		
44	24/02/2025	24/03/2025	Q15	
45	24/03/2025	22/04/2025		
46	22/04/2025	20/05/2025		
47	20/05/2025	17/06/2025	Q16	
48	17/06/2025	15/07/2025		
49	15/07/2025	14/08/2025		
50	14/08/2025	14/09/2025		

Table 2.3: 15-day sampling rounds (Radiello)

Sampling round	Start date	End date	Quarter	Reporting year
1	29/09/2021	14/10/2021	Q1	1
2	14/10/2021	01/11/2021		
3	01/11/2021	15/11/2021		
4	15/11/2021	29/11/2021		
5	29/11/2021	13/12/2021		
6	13/12/2021	29/12/2021		
7	29/12/2021	12/01/2022	Q2	
8	12/01/2022	25/01/2022		
9	25/01/2022	09/02/2022		
10	09/02/2022	23/02/2022		
11	23/02/2022	09/03/2022		
12	09/03/2022	23/03/2022	Q3	
13	23/03/2022	05/04/2022		
14	05/04/2022	20/04/2022		
15	20/04/2022	04/05/2022		
16	04/05/2022	19/05/2022		
17	19/05/2022	1/06/2022		
18	1/06/2022	15/06/2022	Q4	
19	15/06/2022	29/06/2022		
20	29/06/2022	18/07/2022		
21	18/07/2022	27/07/2022		
22	27/07/2022	10/08/2022		

Sampling round	Start date	End date	Quarter	Reporting year
23	10/08/2022	24/08/2022	Q5	2
24	24/08/2022	04/09/2022		
25	04/09/2022	20/09/2022		
26	20/09/2022	05/10/2022		
27*	05/10/2022	19/10/2022		
28*	19/10/2022	02/11/2022		
29	02/11/2022	16/11/2022	Q6	2
30	16/11/2022	30/11/2022		
31	30/11/2022	14/12/2022		
32	14/12/2022	27/12/2022		
33	27/12/2022	11/01/2023		
34	11/01/2023	26/01/2023		
35	26/01/2023	9/02/2023	Q7	2
36	09/02/2023	23/02/2023		
37	23/02/2023	08/03/2023		
38	08/03/2023	21/03/2023		
39	21/03/2023	04/04/2023		
40	04/04/2023	16/04/2023		
41	16/04/2023	01/05/2023	Q8	2
42	01/05/2023	15/05/2023		
43	15/05/2023	30/05/2023		
44	30/05/2023	13/06/2023		
45	13/06/2023	28/06/2023		
46	28/06/2023	13/07/2023		
47	13/07/2023	27/07/2023	Q9	3
48	27/07/2023	13/08/2023		
49	13/08/2023	27/08/2023		
50	27/08/2023	11/09/2023		
51	11/09/2023	28/09/2023		
52	28/09/2023	13/10/2023		
53	13/10/2023	28/10/2023	Q10	3
54	28/10/2023	11/11/2023		
55	11/11/2023	26/11/2023		
56	26/11/2023	10/12/2023		
57	10/12/2023	26/12/2023		
58	26/12/2023	11/01/2024		
59	11/01/2024	26/01/2024	Q10	3
60	26/01/2024	09/02/2024		
61	09/02/2024	25/02/2024		
62	25/02/2024	12/03/2024		

Sampling round	Start date	End date	Quarter	Reporting year
63	12/03/2024	29/03/2024	Q11	4
64	29/03/2024	10/04/2024		
65	10/04/2024	25/04/2024		
66	25/04/2024	09/05/2024		
67	09/05/2024	22/05/2024		
68	22/05/2024	05/06/2024	Q12	
69	05/06/2024	19/06/2024		
70	19/06/2024	03/07/2024		
71	03/07/2024	17/07/2024		
72	17/07/2024	01/08/2024		
73	01/08/2024	17/08/2024	Q13	
74	17/08/2024	31/08/2024		
75*	31/08/2024	14/09/2024		
76*	14/09/2024	1/10/2024		
77	1/10/2024	15/10/2024		
78	15/10/2024	31 /10/2024	Q14	
79	31/10/2024	15/11/2024		
80	15/11/2024	01/11/2024		
81	01/12/2024	15/12/2024		
82	15/12/2024	29/12/2024		
83	29/12/2024	12/01/2025	Q15	
84	12/01/2025	27/01/2025		
85	27/01/2025	10/02/2025		
86	10/02/2025	24/02/2025		
87	24/02/2025	10/03/2025		
88	10/03/2025	24/03/2025	Q16	
89	24/03/2025	07/04/2025		
90	07/04/2025	22/04/2025		
91	22/04/2025	06/05/2025		
92	06/05/2025	20/05/2025		
93	20/05/2025	03/06/2025	Q16	
94	03/06/2025	17/06/2025		
95	17/06/2025	01/07/2025		
96	01/07/2025	15/07/2025		
97	15/07/2025	29/07/2025		
98	29/07/2025	14/08/2025		
99	14/08/2025	30/08/2025		
100	30/08/2025	14/09/2025		

* Samples mislaid by courier, no results available

The monitoring conducted at each location is summarised in Table 2.4. Further information on the selected monitoring approach is detailed in the Project Technical Plan (Strategen JBS&G, 2021b).

Table 2.4: Instrumentation and infrastructure

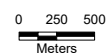
Parameter	KBSF Quarry	Mt Wongama	Visitor Centre	RT Pastoral Lease (Background)	AAQ Station
Passive air sampling for:	✓	✓	✓	✓	✓
- Nitrogen dioxide (NO₂); - Sulfur dioxide (SO₂); - Ammonia (NH₃); - Nitric acid (HNO₃).					
Rainwater analysed for:	✓	✓	✓	✓	✓
- pH; - Cations (Na⁺, K⁺, Mg²⁺, Ca²⁺); - Anions (Cl⁻, SO₄²⁻, Alkalinity [CO₃²⁻, HCO₃⁻, OH⁻, total alkalinity]); - Nitrogen species (TKN, NH₃, NO₂ NO₃⁻, total N, organic N, NO_x); - Phosphate (ortho PO₄³⁻); - Volatile carboxylic acid suite (incl. formic acid HCOO⁻, acetic acid CH₃COO⁻, propionic acid C₂H₅COO⁻).					
Deposited dust analysed for:	✓	✓	✓	✓	✓
- Cations (Na⁺, K⁺, Mg²⁺, Ca²⁺); - Anions (Cl⁻, SO₄²⁻, Alkalinity [CO₃²⁻, HCO₃⁻, OH⁻, total alkalinity]); - Nitrogen species (TKN, NH₃, NO₂ NO₃⁻, total N, organic N, NO_x); - Phosphate (ortho PO₄³⁻).					
Wind speed & direction	✓	✓	✓	✓	✓
Temperature				✓	✓
Humidity				✓	✓



Legend

⊕ Monitoring Locations

Scale: 1:50,000 at A4



Coord. Sys. GDA2020 MGA Zone 50



Job Number: 60257

Client: Woodside Energy

Version: A

Date: 28-Apr-2023

Drawn By: droberts

Checked By: JB

**Murujuga
Burrup Peninsula, WA**

**WOODSIDE ATMOSPHERIC
DEPOSITION MONITORING PROGRAM -
MONITORING LOCATIONS**

FIGURE 2.1



3. Results and discussion

3.1 Gaseous monitoring

3.1.1 NH₃, NO₂, SO₂ and HNO₃ Radiello monitoring results

Monitoring of gases NH₃, NO₂, SO₂ and HNO₃ using Radiello passive sampling was conducted on a nominal 15-day exposure cycle commencing 29 September 2021. A summary of the results obtained for 96¹ sampling rounds of the WADMP is presented below (Table 3.1 to Table 3.4).

Table 3.1: Summary of 15-day NO₂ concentration monitored by Radiello sampling

Year	Species	NO ₂ µg/m ³				
	Site	KBSF Quarry	Mt Wongama	Visitor Centre	RT Pastoral Lease	AAQ Station
Y1	Minimum	2.73	0.93	2.06	0.94	1.72
	Average	5.77	2.87	4.10	1.56	3.84
	Maximum	13.8	7.24	8.38	3.27	7.38
Y2	Minimum	1.22	0.39	1.48	0.30	1.29
	Average	4.27	2.36	3.48	1.06	3.37
	Maximum	7.66	5.97	5.67	2.95	5.96
Y3	Minimum	0.70	0.07	0.34	0.08	0.07
	Average	5.61	2.89	3.60	1.35	3.54
	Maximum	20.62	7.18	9.59	3.74	8.43
Y4	Minimum	2.37	0.90	1.70	0.31	1.75
	Average	5.98	2.35	3.69	1.25	3.97
	Maximum	10.61	5.23	7.88	2.68	8.45

Table 3.2: Summary of 15-day HNO₃ concentration monitored by Radiello sampling

Year	Species	HNO ₃ µg/m ³				
	Site	KBSF Quarry	Mt Wongama	Visitor Centre	RT Pastoral Lease	AAQ Station
Y1	Minimum	0.04	0.04	0.04	0.04	0.04
	Average	0.66	1.02	0.99	0.39	0.86
	Maximum	2.31	5.98	5.79	1.84	4.03
Y2	Minimum	0.05	0.05	0.05	0.02	0.05
	Average	0.81	1.19	1.03	0.97	1.12
	Maximum	3.35	5.20	8.84	5.92	3.67
Y3	Minimum	0.04	0.09	0.10	0.04	0.04
	Average	2.36	3.08	2.26	1.29	1.53
	Maximum	9.36	22.62	11.16	4.40	5.15
Y4	Minimum	0.08	0.05	0.05	0.07	0.07
	Average	1.73	2.65	2.00	1.06	1.86
	Maximum	4.50	14.29	10.25	5.71	7.21

¹ A total of 96 sets of results were compiled from 100 sampling cycles, with two sample sets being misplaced by the courier during transportation to the analytical laboratory.

Table 3.3: Summary of 15-day SO₂ concentration monitored by Radiello sampling

Year	Species	SO ₂ µg/m ³				
	Site	KBSF Quarry	Mt Wongama	Visitor Centre	RT Pastoral Lease	AAQ Station
Y1	Minimum	0.01	0.01	0.01	0.01	0.01
	Average	0.16	0.26	0.41	0.08	0.24
	Maximum	0.48	1.48	2.72	0.34	1.12
Y2	Minimum	0.03	0.03	0.03	0.01	0.01
	Average	0.21	0.60	0.45	0.18	0.59
	Maximum	0.71	6.18	2.41	1.22	3.55
Y3	Minimum	0.06	0.03	0.05	0.01	0.03
	Average	0.52	0.70	0.81	0.21	0.52
	Maximum	1.65	4.67	3.38	0.71	3.14
Y4	Minimum	0.03	0.03	0.01	0.01	0.03
	Average	0.51	0.72	0.57	0.16	0.86
	Maximum	1.47	2.01	2.56	0.46	8.23

Table 3.4: Summary of 15 day NH₃ concentrations monitored by Radiello sampling

Year	Species	NH ₃ µg/m ³				
	Site	KBSF Quarry	Mt Wongama	Visitor Centre	RT Pastoral Lease	AAQ Station
Y1	Minimum	0.22	0.06	0.07	0.07	0.20
	Average	1.30	0.37	0.46	0.28	0.54
	Maximum	4.07	1.45	1.23	0.54	1.78
Y2	Minimum	0.09	0.06	0.10	0.06	0.09
	Average	1.05	0.36	0.50	0.27	0.68
	Maximum	3.52	1.37	1.19	0.85	1.94
Y3	Minimum	0.12	0.05	0.06	0.05	0.06
	Average	0.70	0.37	0.35	0.30	0.51
	Maximum	1.87	1.76	0.83	1.40	1.80
Y4	Minimum	0.08	0.05	0.06	0.03	0.05
	Average	0.51	0.18	0.21	0.24	0.30
	Maximum	1.50	0.40	0.42	1.03	0.58

NO₂ concentrations (Figure 3.1 to Figure 3.5) were highest at the Murujuga monitoring sites in closest proximity to industrial emissions sources. The recorded NO₂ concentrations were generally higher in winter months (June and August) and lower in summer months (December to February). The Murujuga sites had similar trending throughout the annual reporting period implying they were representative of the broader airshed. The exception was the KBSF Quarry site, which in Year 1 and Year 4 diverged during May to July recording increased NO₂ compared to the other sites. During this period, prevailing winds were from the east.

An elevated concentration was detected at KBSF Quarry for Round 54 (commencing 28 October 2023). This was the period directly following relocation of the site to enable truck access to use the area in the vicinity of the monitoring station for laydown storage of materials. The station was relocated to adjacent to the entrance to the laydown area. The elevated NO₂ is, therefore, likely attributable to vehicle movements in

the area. While this data point is arguably not informative about industry emissions the concentration detected is a real result, albeit influenced by a local source, and is, therefore, retained in the data set.

NO₂ concentrations were determined throughout the four years to typically be lowest at the RT Pastoral Lease background site and at Mt Wongama, which is at an elevated position and furthest away from industry than the other Murujuga monitoring sites. The exceptions to this occurred during the sampling for Round 5 (29 November 2021), Round 14 (5 April 2022) and Round 31 (30 November 2022) when Mt Wongama experienced the highest concentrations. During these fortnightly monitoring periods, the site was influenced by winds more frequently from the southwest in the direction of nearby industrial activities than in the neighbouring monitoring periods (see wind roses in Appendix A). Mt Wongama occasionally experienced NO₂ concentrations exceeding some, but not all, other Murujuga sites occurring typically during November each year when the wind has a south-westerly component.

Seasonal variation of HNO₃ and SO₂ was not apparent and concentrations exhibited little relative trending of sites with sporadic peaks across all sites (Figure 3.6 to Figure 3.15). At the Visitor Centre and the RT Pastoral Lease background sites, the Year 4 HNO₃ median and 75th percentile values were lower than Year 3. At the AAQ Station and Mt Wongama sites, the 75th percentile was higher in Year 4 than Year 3, while the median was slightly lower at AAQ Station and higher at Mt Wongama. The Year 4 data spread was higher for HNO₃ than previous years at all sites; however, the AAQ Station median was only slightly higher than the previous two years. It is not possible to discern what is influencing the HNO₃ concentrations; however, the averages are influenced by data points above the 90th percentile range at all sites excluding AAQ Station (Figure 3.10). Recorded SO₂ concentrations were also more diffuse for Year 4 at KBSF Quarry and Mount Wongama (Figure 3.15). It is possible that HNO₃ and SO₂ are both influenced by local emissions sources, such as vehicle emissions² or, at Mt Wongama, generator emissions³, hence the spread in the datasets and lack of relative trending between sites.

Concentrations of NH₃ during the Year 1 and Year 2 were largely similar during corresponding periods (Figure 3.16 and Figure 3.20). Elevated concentrations detected at KBSF Quarry for some monitoring periods during both the first and second year of the program, suggest an elevated local ammonia source impacting this site. During Year 3, the average and the spread on the data was less than the two previous years, particularly at KBSF Quarry and to a lesser extent the other monitoring sites located at the southern end of Murujuga, while at the other sites (Mt Wongama and RT Pastoral Lease), the spread of data are comparable to the two years prior. Except for the RT Pastoral Lease background site, the spread on the data was less in Year 4 with lower 75th percentile values than prior years and comparable or lower medians at all sites.

Overall, the monitoring results for all four gases across the four years of reporting are within the same range with similar relative trending between sites.

² Trucks accessing the laydown area at KBSF Quarry and technicians attending to telecommunications and backup generator at Mt Wongama.

³ A generator, with exhaust located ~35 m to WNW at approximately 4 m high is tested nominally for one hour fortnightly and is used when power outage occurs.

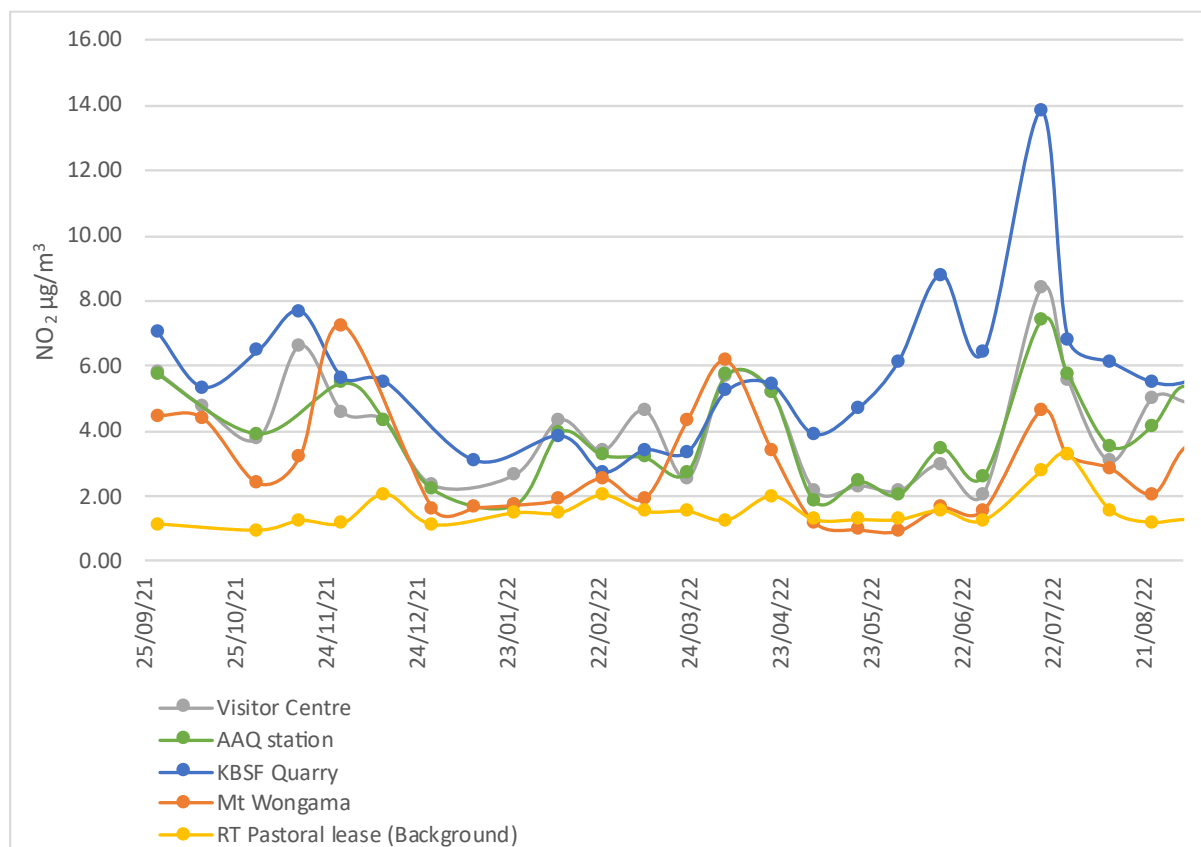


Figure 3.1: Measured 15-day average NO₂ by Radiello sampling Year 1

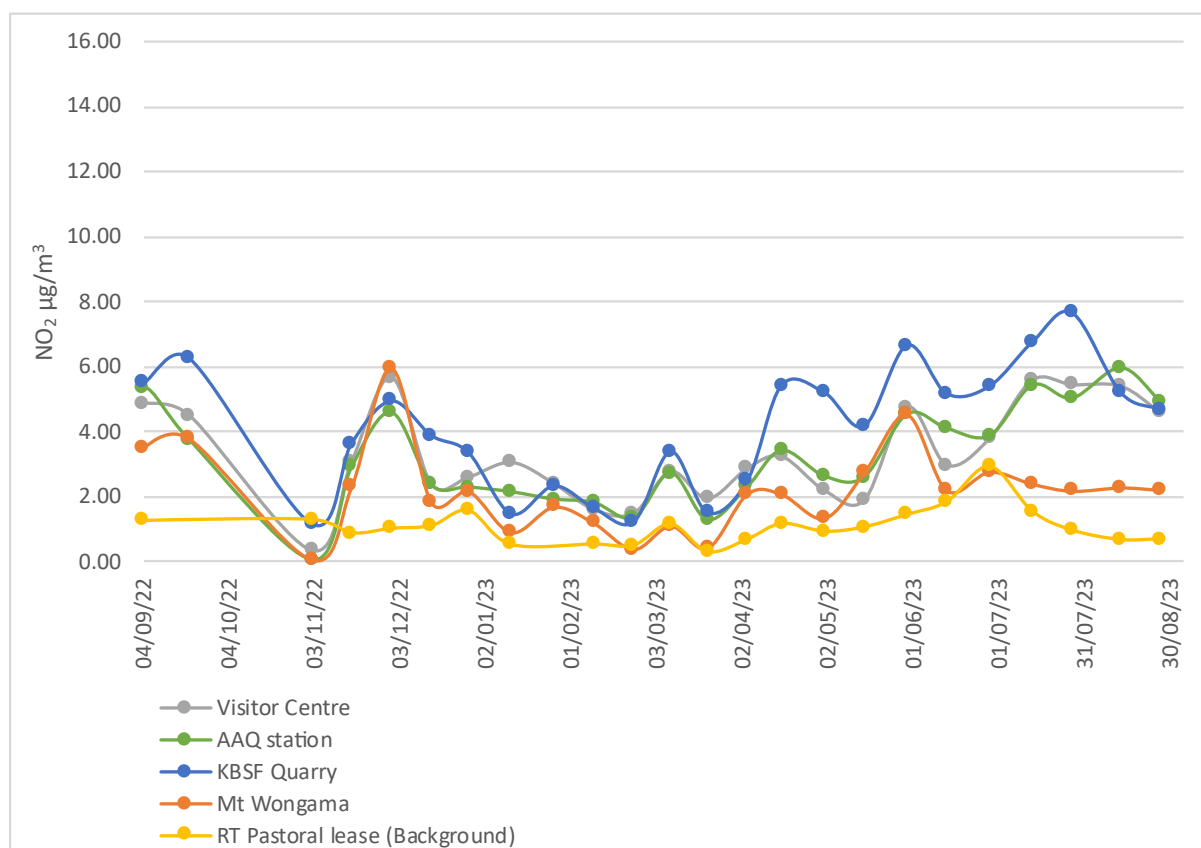


Figure 3.2: Measured 15-day average NO₂ by Radiello sampling Year 2

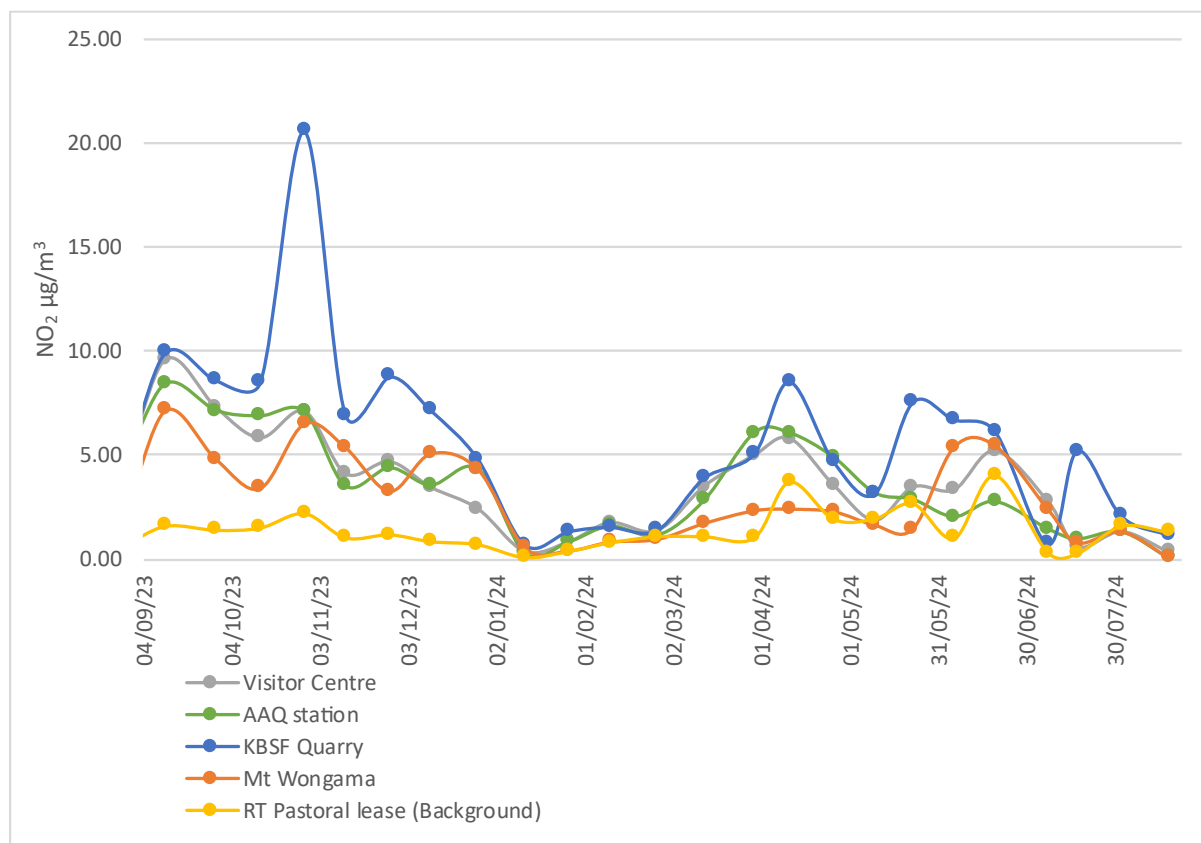


Figure 3.3: Measured 15-day average NO₂ by Radiello sampling Year 3

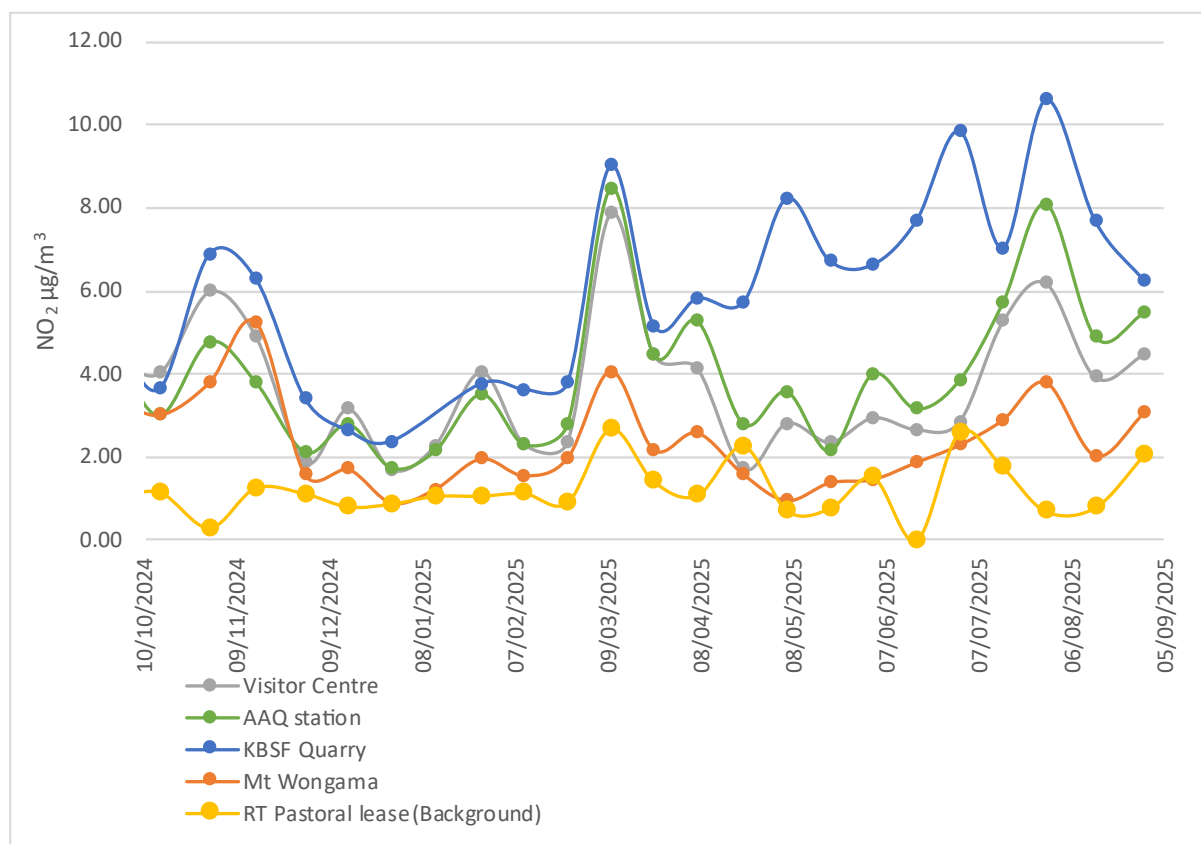


Figure 3.4: Measured 15-day average NO₂ by Radiello sampling Year 4

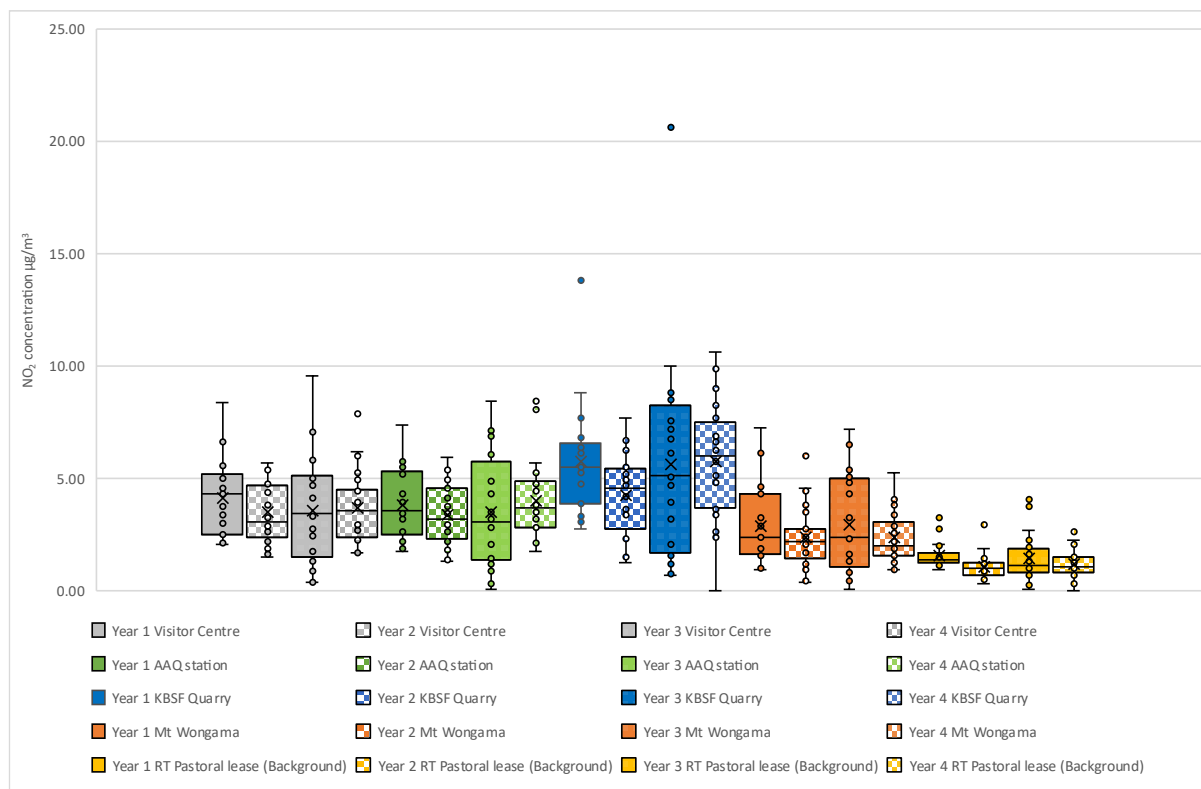


Figure 3.5: Year 12,3 and 4 NO₂ 15-day average by Radiello sampling

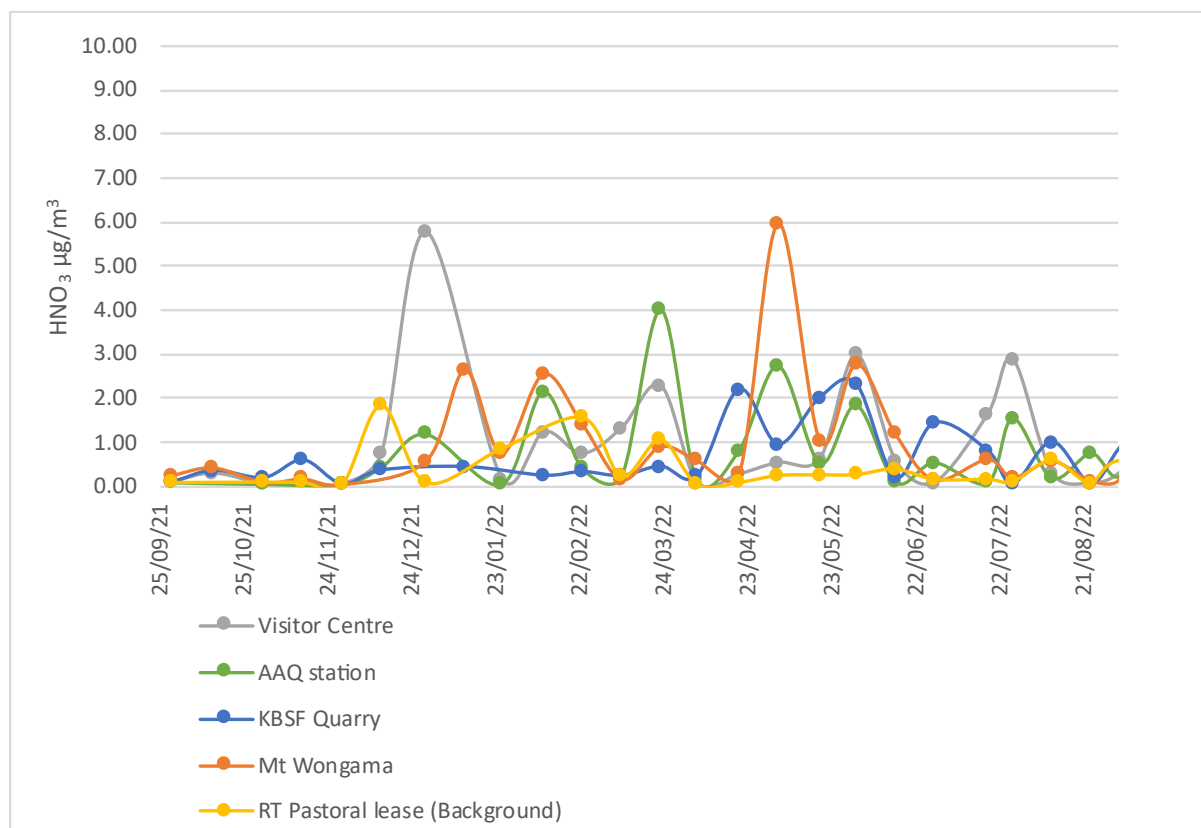


Figure 3.6: Measured 15-day average HNO₃ by Radiello sampling Year 1

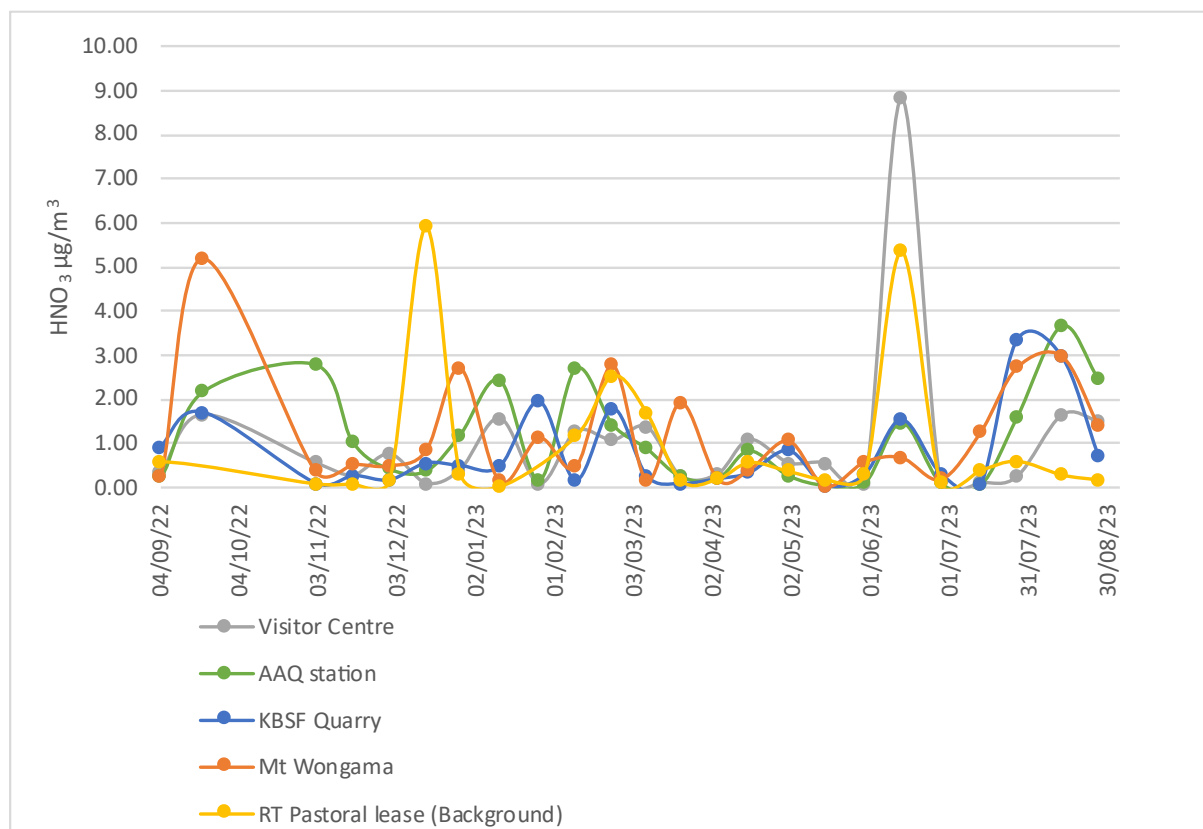


Figure 3.7: Measured 15-day average HNO_3 by Radiello sampling Year 2

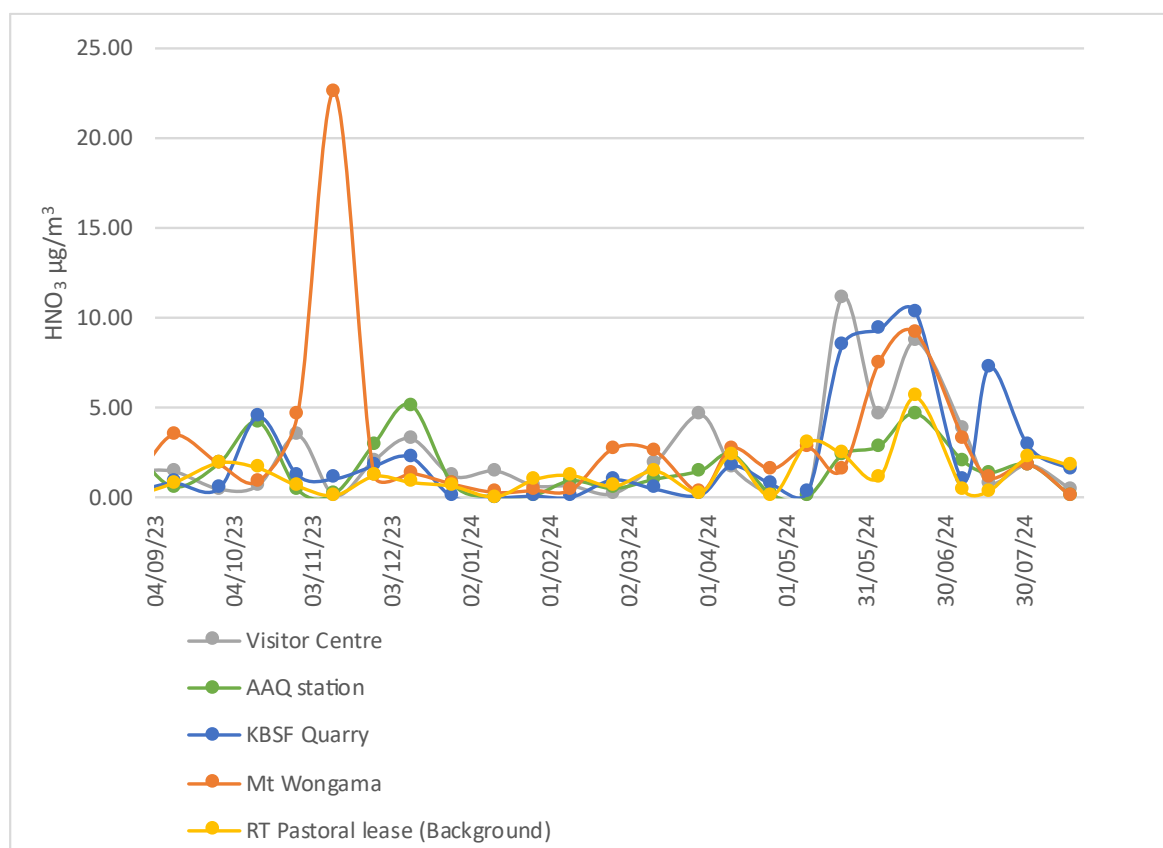


Figure 3.8: Measured 15-day average HNO_3 by Radiello sampling Year 3

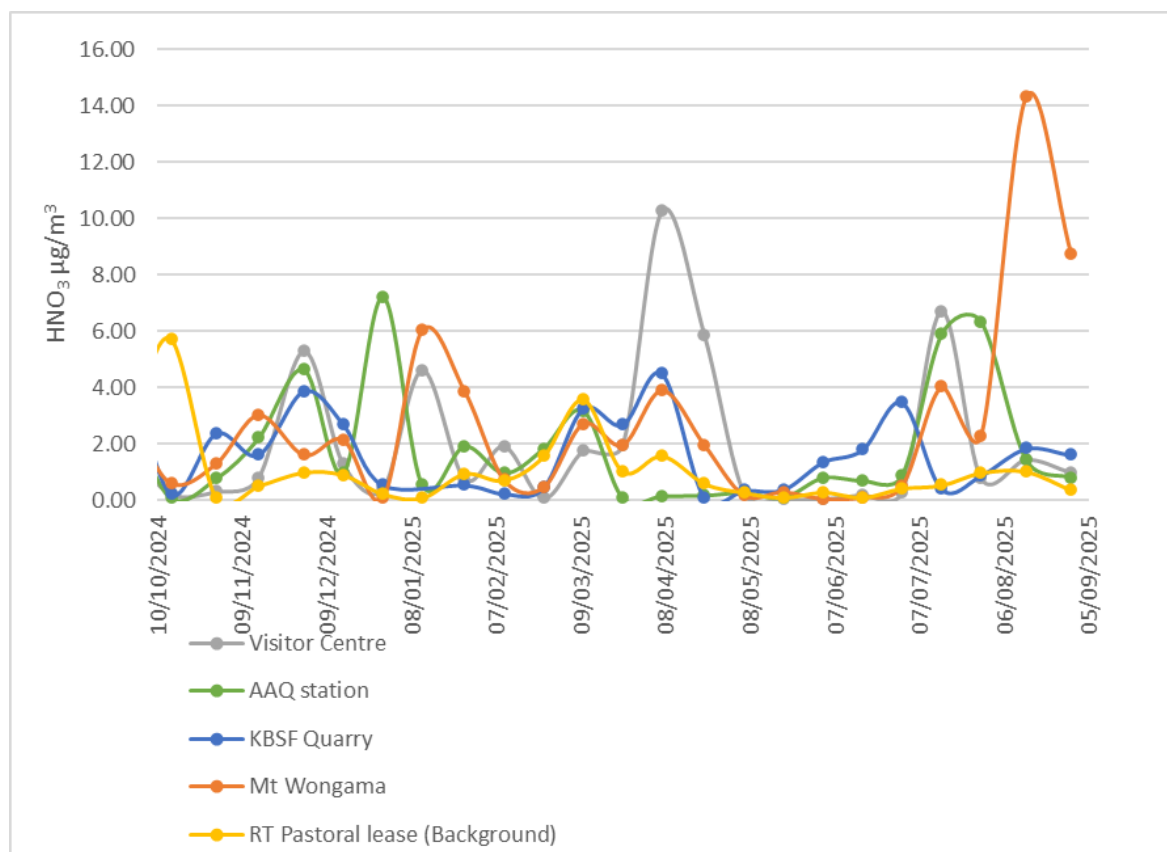


Figure 3.9: Measured 15-day average HNO₃ by Radiello sampling Year 4

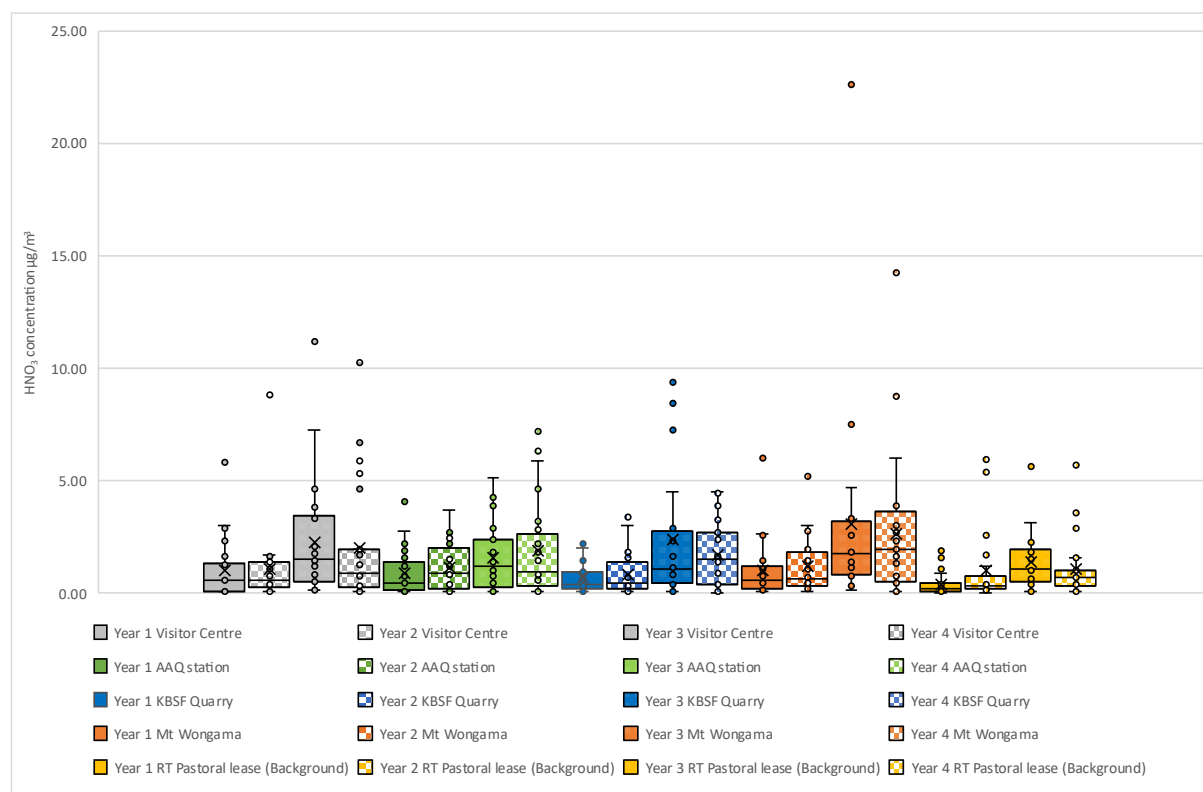


Figure 3.10: Year 1, 3 and 4 HNO₃ 15-day average by Radiello sampling

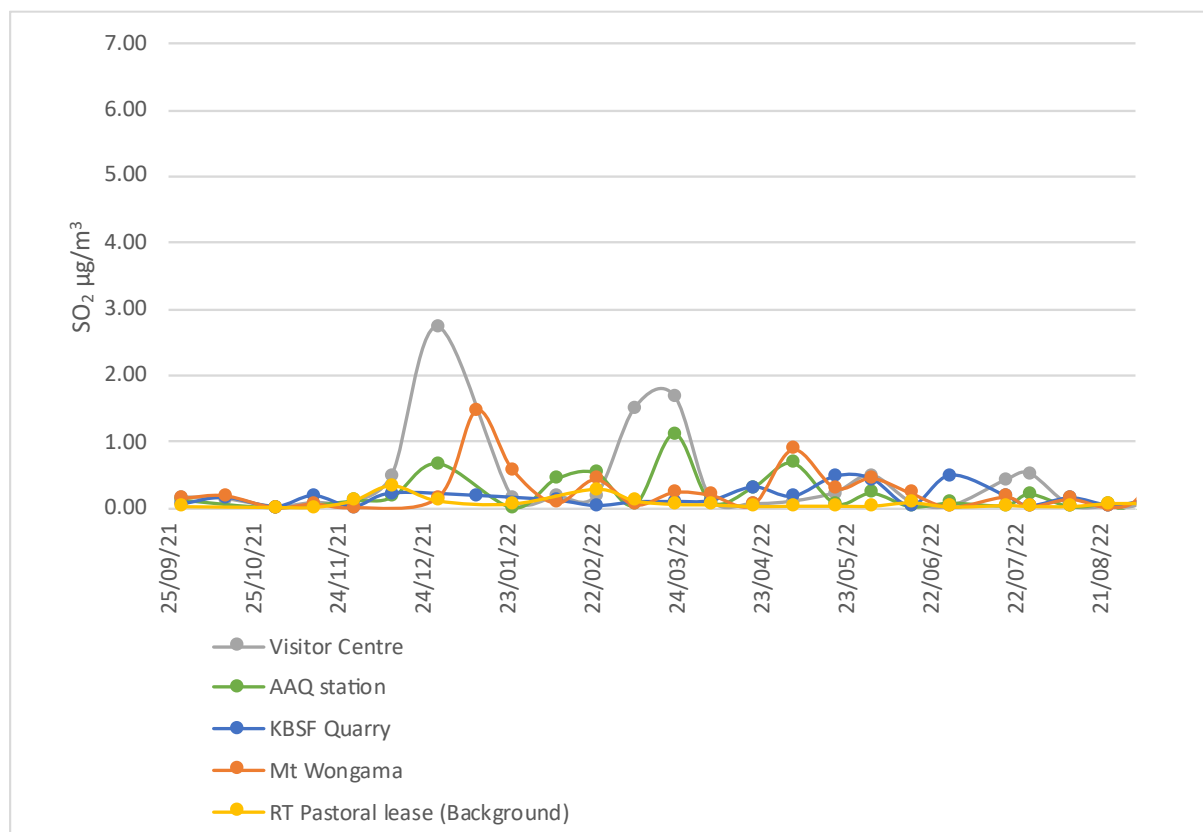


Figure 3.11: Measured 15-day average SO₂ by Radiello sampling Year 1

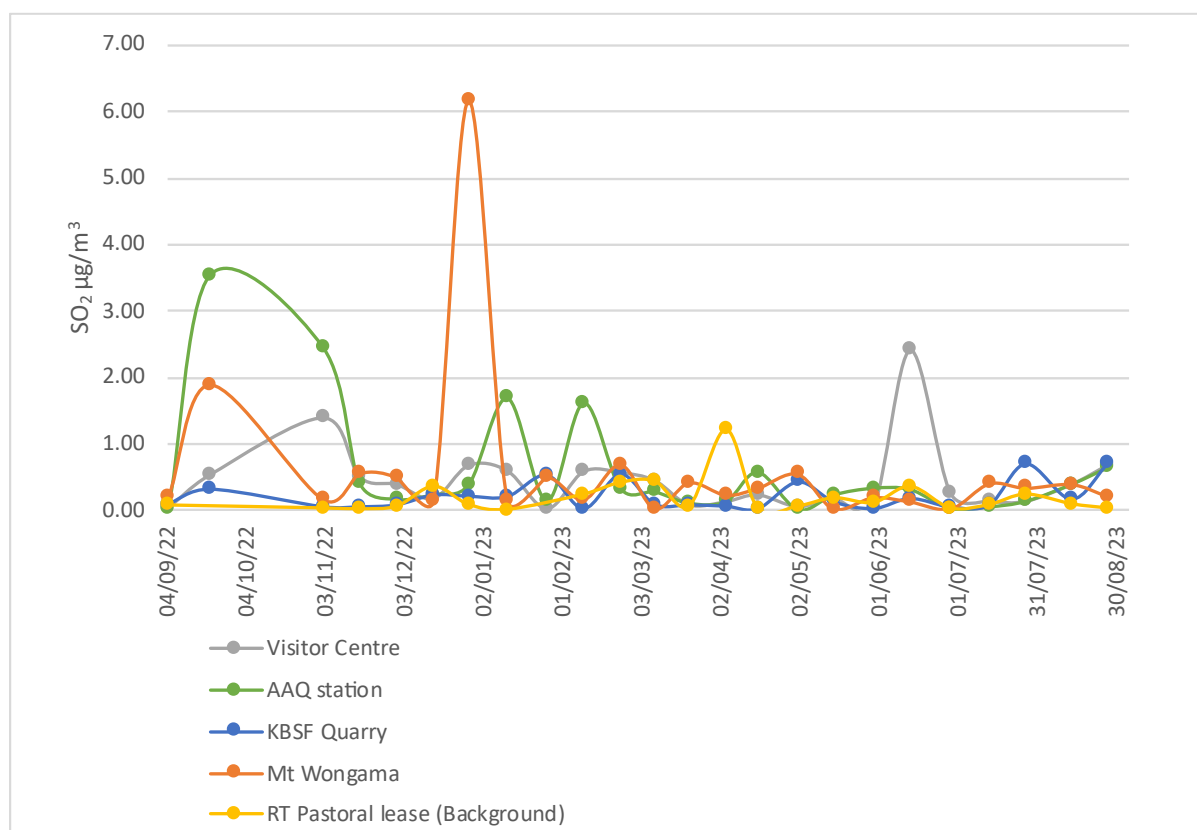


Figure 3.12: Measured 15-day average SO₂ by Radiello sampling Year 2

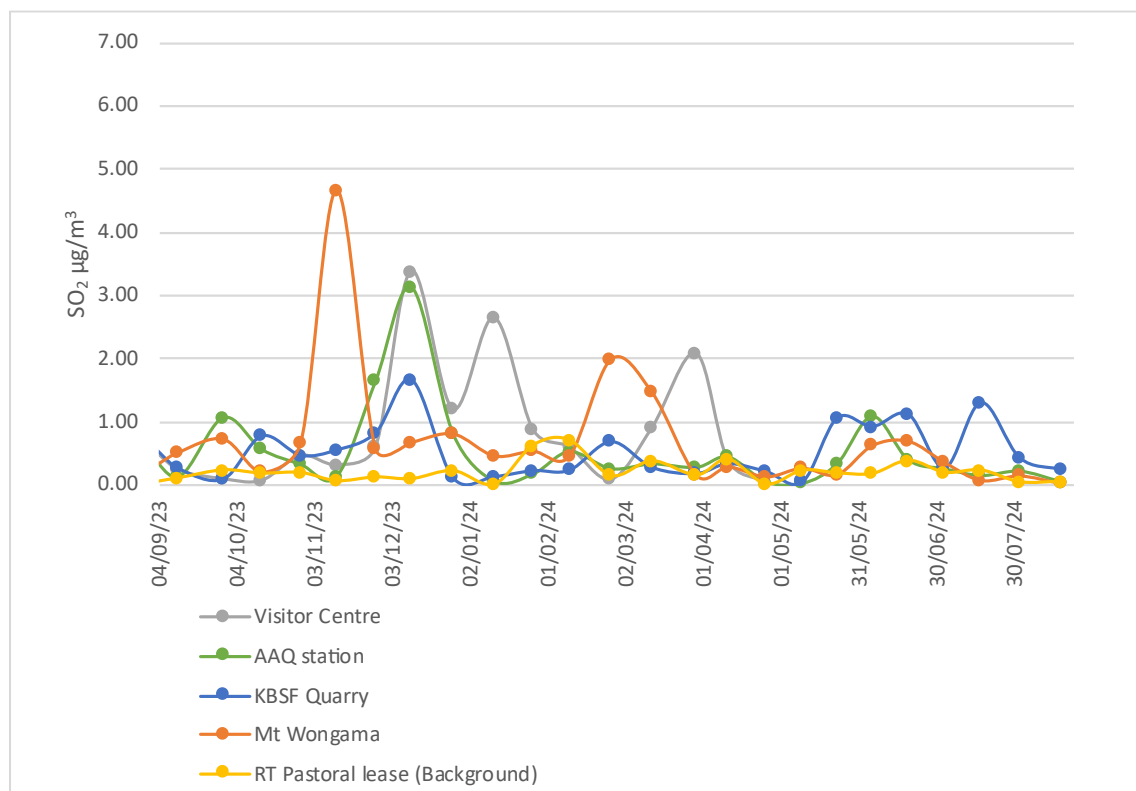


Figure 3.13: Measured 15-day average SO₂ by Radiello sampling Year 3

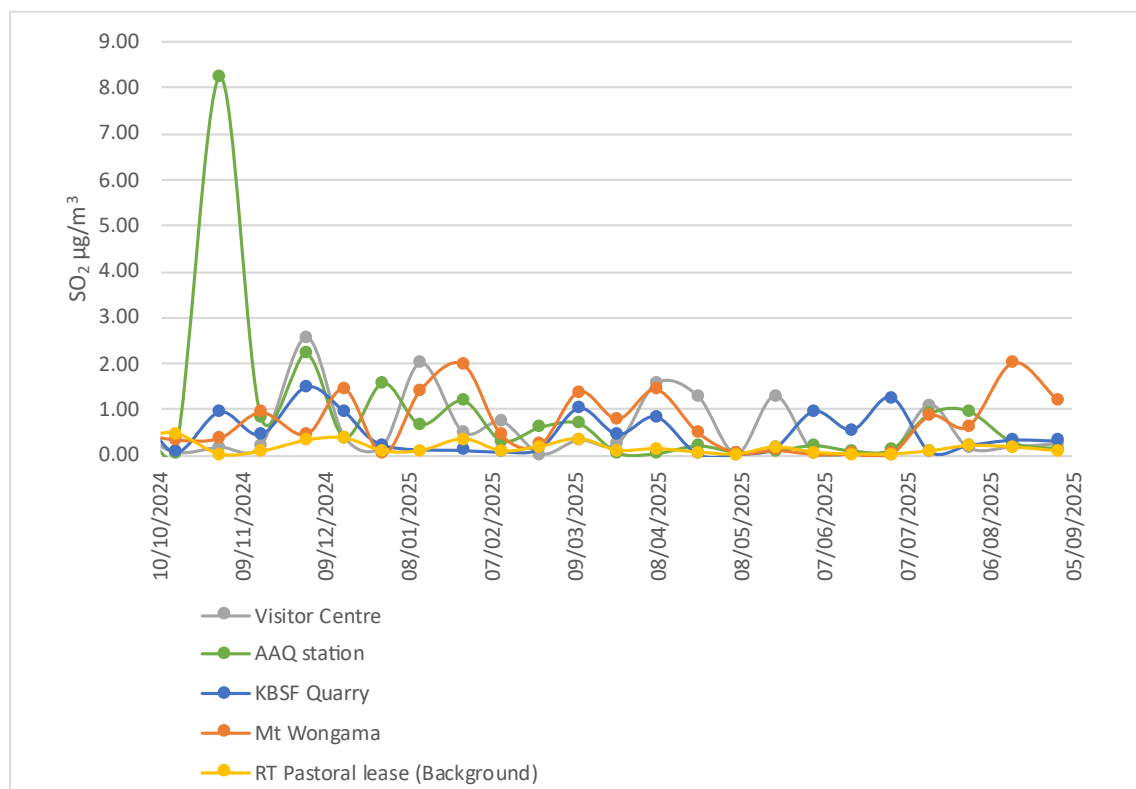


Figure 3.14: Measured 15-day average SO₂ by Radiello sampling Year 4

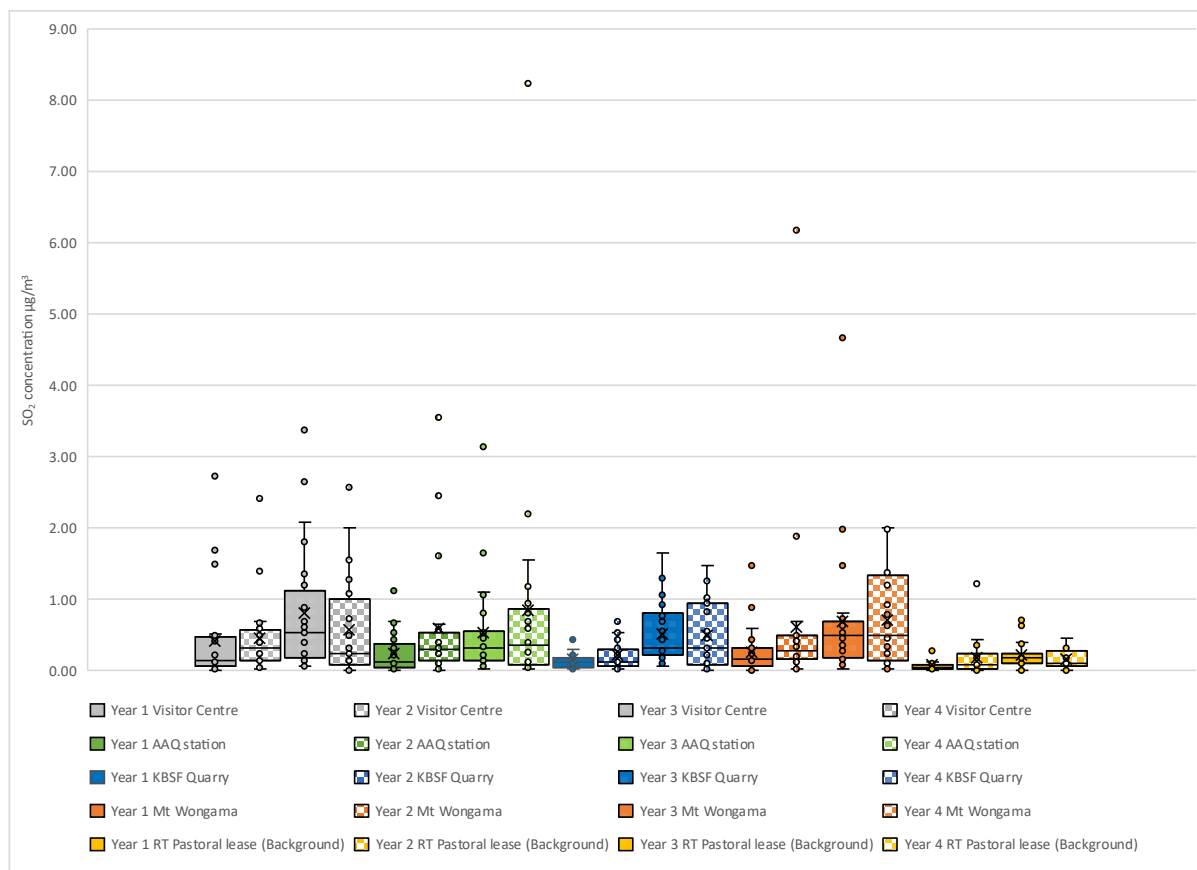


Figure 3.15: Year 1,2,3 and 4 SO₂ 15-day average by Radiello sampling

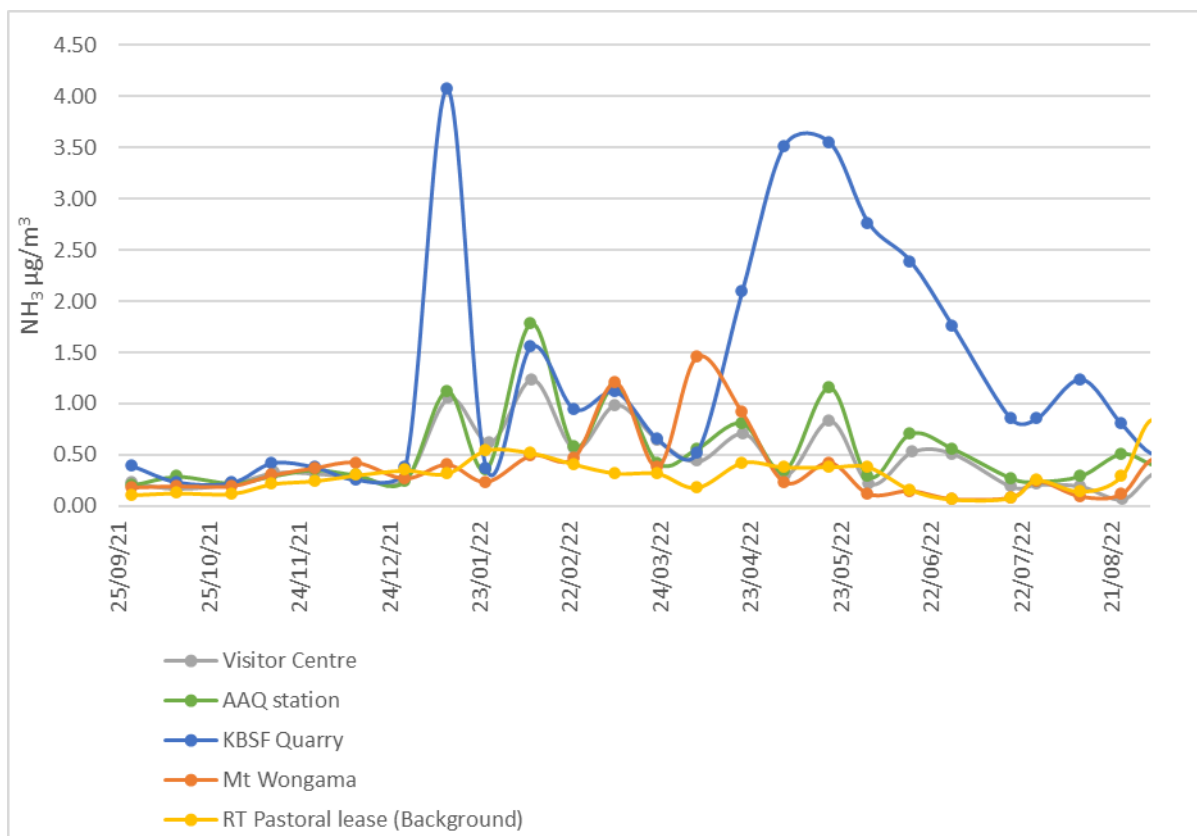


Figure 3.16: Measured 15-day average NH₃ by Radiello sampling Year 1

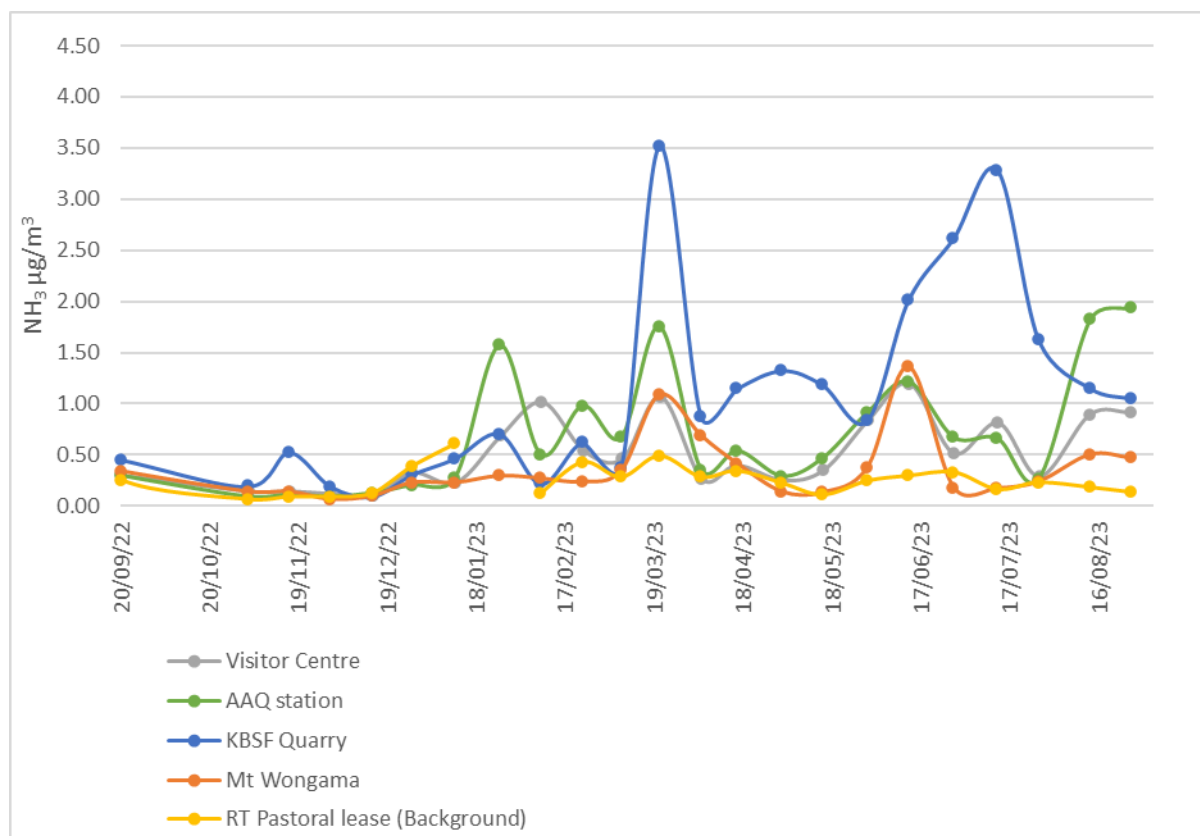


Figure 3.17: Measured 15-day average NH_3 by Radiello sampling Year 2

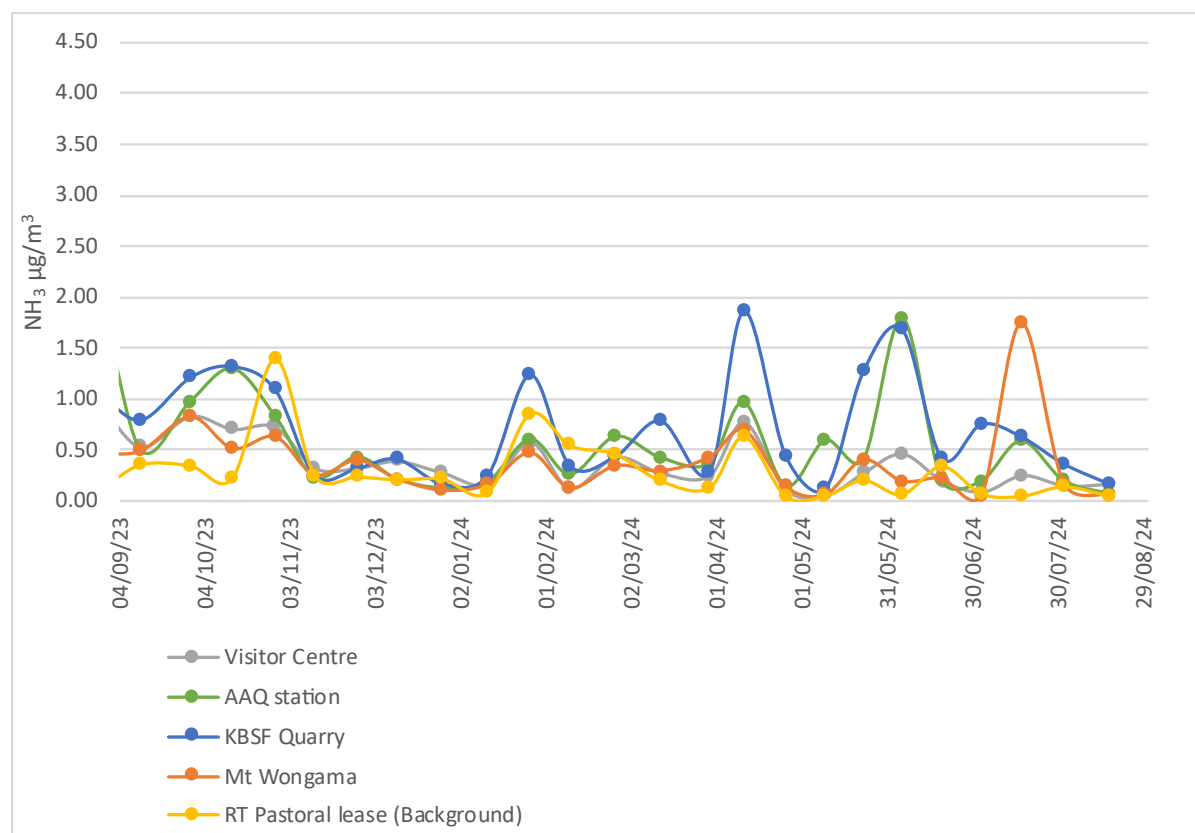


Figure 3.18: Measured 15-day average NH_3 by Radiello sampling Year 3

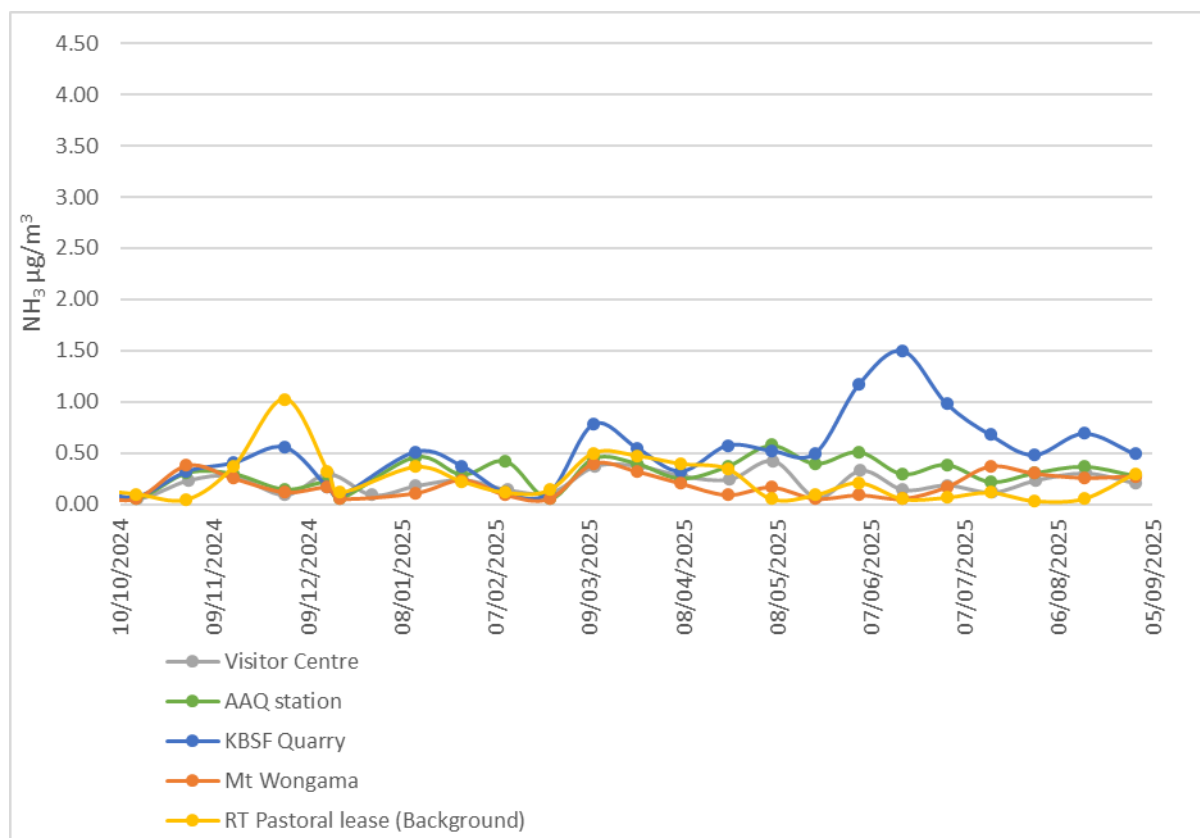


Figure 3.19: Measured 15-day average NH_3 by Radiello sampling Year 4

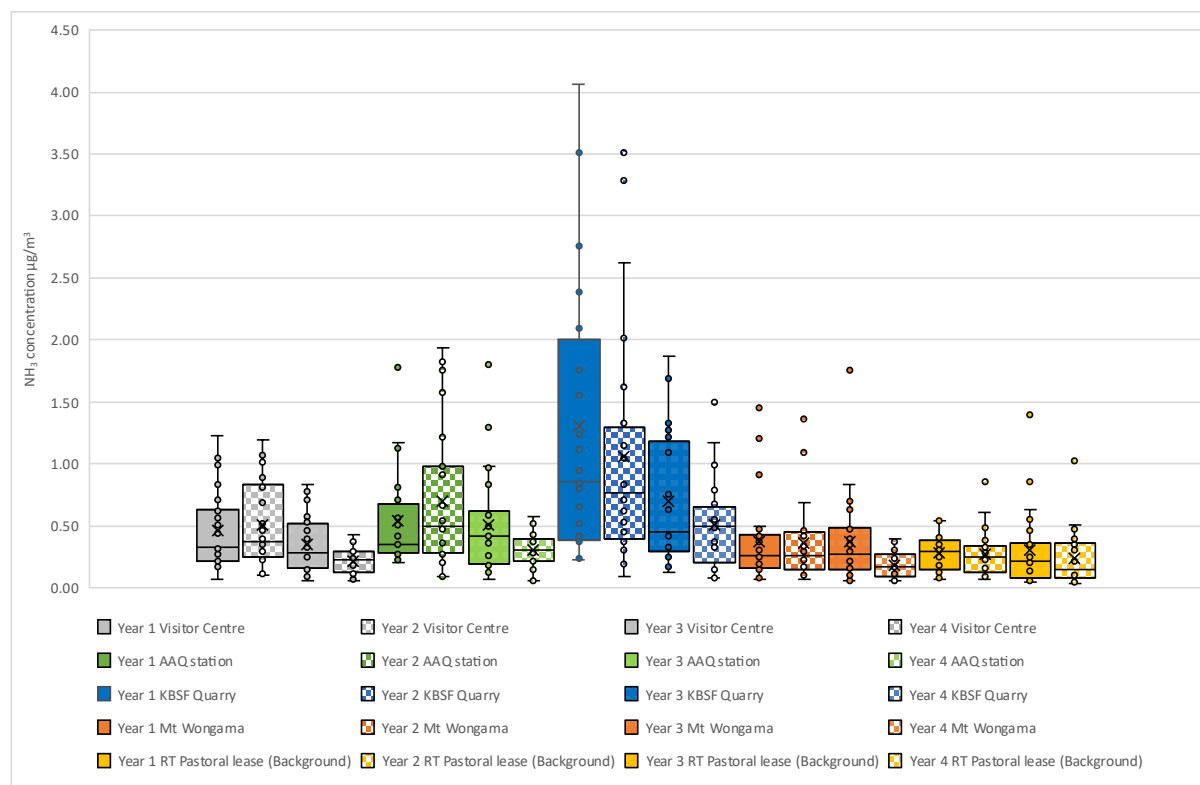


Figure 3.20: Year 1,2,3 and 4 NH_3 15-day average by Radiello sampling

3.1.2 Dry deposition rates – gases

Dry deposition rates of the acid gases were calculated from the gas concentrations determined by Radiello sampling at the five monitoring sites across the three year reporting period. To compare approximately equivalent time durations, the dry deposition data was summed for the periods detailed in Table 3.5.

Table 3.5 Deposition calculation periods

Period	Start	End	Duration (days)
2021-2022	29/09/2021	20/09/2022	356.0
2022-2023	20/09/2022	11/09/2023	355.8
2023-2024	11/09/2023	15/09/2024	370.4
2024-2025	15/09/2024	14/09/2025	363.9

The annual dry deposition calculated for each monitoring site is summarised in Table 3.6 and illustrated in Figure 3.21. Total annual deposition was calculated from the combined rates for NH₃, NO₂, SO₂ and HNO₃. The composition of the total annual dry deposition is illustrated in Figure 3.22.

Table 3.6: Annual dry deposition rates

Period	Annual deposition rates meq/m ² /year					
	Parameter	Visitor Centre	KBSF Quarry	AAQ station	Mt Wongama	RT Pastoral Lease
Year 1	NO ₃ ⁽⁻¹⁾	4.13	3.30	3.77	4.97	2.5
	SO ₄ ⁽⁻²⁾	1.0	0.51	0.72	0.68	0.3
	NH ₄ ⁽⁺¹⁾	7.8	21.5	9.1	6.5	7.1
	NO ₂ ⁽⁻¹⁾	5.7	8.1	5.4	4.2	2.8
	Total dry deposition	18.7	33.4	19.0	16.4	12.7
Year 2	NO ₃ ⁽⁻¹⁾	4.8	3.77	5.66	6.00	3.7
	SO ₄ ⁽⁻²⁾	1.3	0.60	2.21	1.72	0.4
	NH ₄ ⁽⁺¹⁾	8.4	17.7	11.0	5.9	4.4
	NO ₂ ⁽⁻¹⁾	5.0	6.2	4.7	3.5	1.5
	Total dry deposition	19.5	28.2	23.6	17.1	10.0
Year 3	NO ₃ ⁽⁻¹⁾	11.0	10.13	6.81	13.53	6.2
	SO ₄ ⁽⁻²⁾	2.54	1.41	1.43	1.94	0.6
	NH ₄ ⁽⁺¹⁾	6.4	11.8	8.6	6.4	5.2
	NO ₂ ⁽⁻¹⁾	6.4	7.9	4.9	4.2	2.0
	Total dry deposition	26.3	31.3	21.7	26.1	14.0
Year 4	NO ₃ ⁽⁻¹⁾	19.1	7.55	8.14	12.02	4.9
	SO ₄ ⁽⁻²⁾	3.41	1.33	2.27	1.96	0.4
	NH ₄ ⁽⁺¹⁾	3.7	8.6	5.1	3.1	4.6
	NO ₂ ⁽⁻¹⁾	11.6	8.2	5.5	3.4	1.9
	Total dry deposition	37.8	25.7	21.0	20.5	11.8

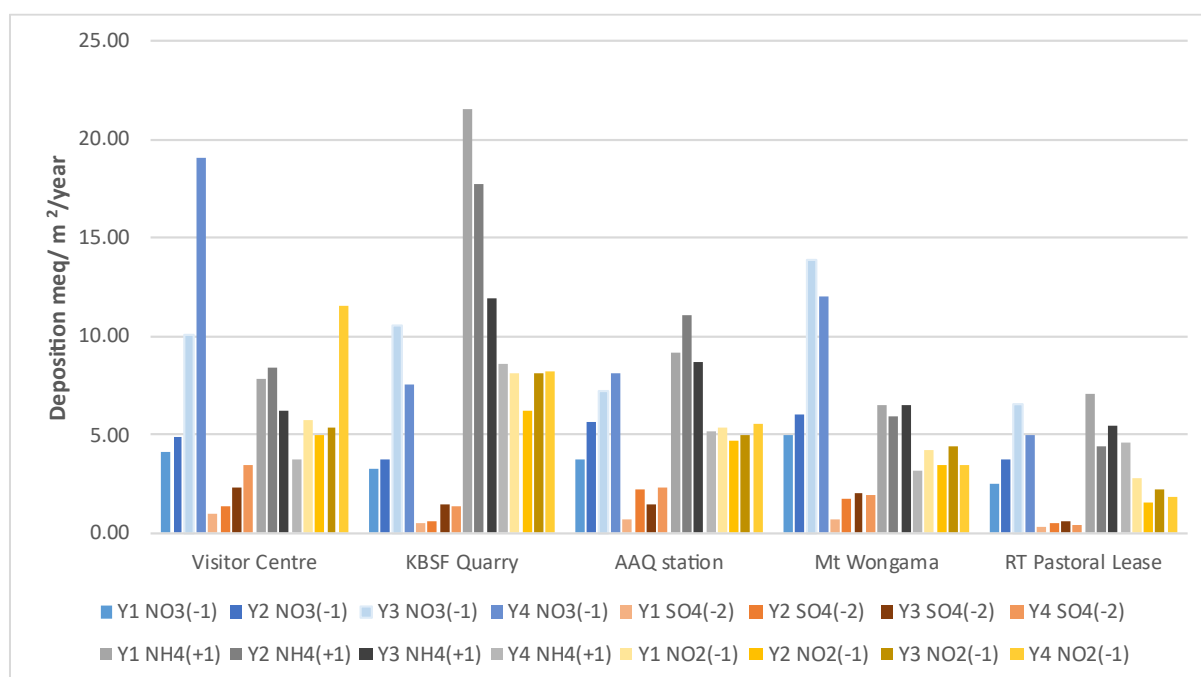


Figure 3.21: Annual deposition

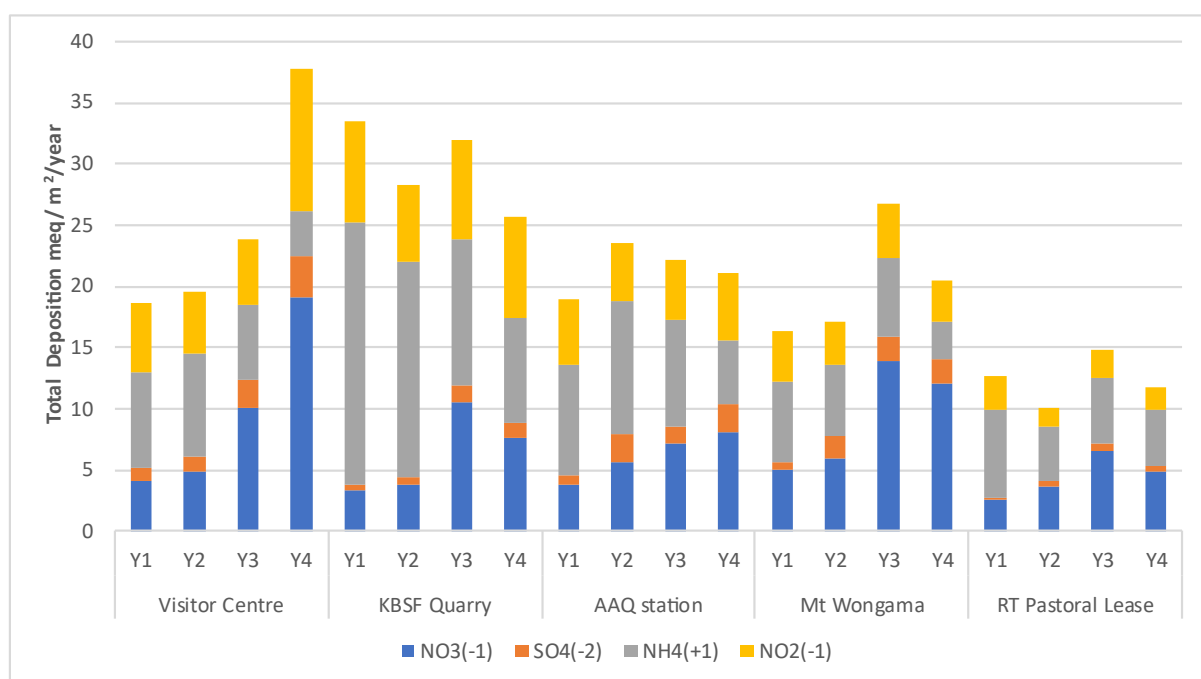


Figure 3.22: Total annual atmospheric deposition composition

As expected from the concentration data, the sites closest to industrial emissions sources recorded the highest dry deposition.

Deposition is greatest at KBSF Quarry across the first three years. The highest deposition contribution is from both NO_x and NH₃. Ammonia comprises the most significant contribution to the total deposition at all sites for Year 1 and Year 2; however, in both Year 3 and Year 4, HNO₃ became a larger contributor to acid dry deposition at the Visitor Centre, KBSF Quarry and Mt Wongama sites.

The NH₃ deposition at the RT Pastoral Lease site appears high across all years for a site anticipated not to have a significant nearby NH₃ source. While nearby cattle could contribute some NH₃ to atmosphere via microbial decomposition of uric acid, urea and undigested protein in faeces (expected to be negligible in grass fed cattle), this is expected to be very low in the predominantly dry conditions and given the land surrounding the monitoring site is unimproved pasture which is unlikely to receive any nitrogen fertiliser.

The apparent high contribution of ammonia to the acid species deposition, at all sites, may be driven by the adopted deposition velocity (0.0095 m sec⁻¹). Deposition velocities used for the calculations were as adopted for the Burrup Peninsula Air Pollution Study (CSIRO 2010, Gillet *et al* 2012). These deposition velocities are not specific to the Murujuga atmospheric environment or land use and may not be representative of the actual deposition of the gases occurring. Further investigation of this issue is outside the current scope of the WADMP; however, it is noted that the NH₃ deposition velocity appears to be derived from a forest environment⁴ and thus may be overly conservative leading to inflation of the actual atmospheric deposition number⁵.

The deposition rates calculated for the WADMP, reapportioned to represent the financial years (FY), have been compared to Yara Pilbara (publicly) reported (Strategen JBS&G 2022, 2023, 2024, 2025) annual deposition (Table 3.7) The annual deposition rates at the WADMP Murujuga sites are typically lower than all the Yara Pilbara sites in FY2022 and FY2023, with the exception of KBSF Quarry. In FY2024, deposition across the WADMP Murujuga sites, again excepting KBSF Quarry, exceeded that reported for Yara's Water Tanks site but remained below the Burrup Rd and Hearson Cove sites. In FY2025, the reported deposition at the Yara Pilbara sites was lower, with the Water Tanks site being below all WADMP Murujuga sites and the Burrup Road and Hearson Cove sites recording values lower than both KBSF Quarry and Visitor Centre.

At KBSF Quarry, higher deposition than the Yara Pilbara Water Tanks site and marginally higher but comparable with the deposition recorded by Yara Pilbara at Burrup Road was recorded across the first three years. Deposition at Hearson Cove was above all WADMP sites across the first three years but was below KBSF Quarry and Visitor Centre in Year 4. This is reflective of the similar influences, in particular the contribution of ammonia, to the overall deposition total at these sites. The contribution of ammonia to the total deposition at the WADMP Murujuga sites was reduced in the third and fourth years compared to the first two years of the program.

⁴ Ammonia deposition velocity referenced from Puxbaum H. and Gregori M., (1998) Seasonal and annual deposition rates of sulfur, nitrogen and chloride species to an oak forest in north-eastern Austria (Wolkersdorf, 240 m A.S.L.), *Atmospheric Environment*, 32, 3557 –3558. Deposition velocities for nitrogen dioxide, sulfur dioxide and nitric acid of 0.0090 m sec⁻¹, 0.0028 m sec⁻¹ and 0.0021 m sec⁻¹ respectively are from Manins, P.C.(1994) Modelling dry deposition in the Klang Valley. Workshop on acid rain network in South, East and Southeast Asia (ARNSESEA), 17 – 19 May 1994, Federal Hotel, Kuala Lumpur, Malaysia. Malaysian Scientific Association and others.

⁵ Comment informed by the relative deposition of forest deposition being higher relative to agricultural/urban land use reported by Schrader F, Brümmner C. (2014) Land Use Specific Ammonia Deposition Velocities: a Review of Recent Studies (2004-2013). *Water Air Soil Pollut.*;225(10):2114.

Table 3.7 Annual dry atmospheric deposition rates (financial year) comparison with published Yara Pilbara data

Annual dry atmospheric deposition rates meq/m ² /year								
Financial Year	WADMP					Yara Pilbara		
	Visitor Centre	KBSF Quarry	AAQ station	Mt Wongama	RT Pastoral Lease	Burrup Road	Water Tanks	Hearson Cove
2021-2022*	20.2	34.8	20.4	19.1	14.1	29.1	25.4	40.9
FY2022-2023	18.3	25.3	20.5	15.6	10.7	23.8	22.0	30.1
FY2023-2024	25.3	37.0	26.6	26.7	14.2	30.0	20.3	38.7
FY2024-2025	33.0	24.4	17.6	16.1	12.3	18.5	14.5	18.8

* WADMP commenced 29 September 2021, 12 month deposition estimated by scaling 9 month data.

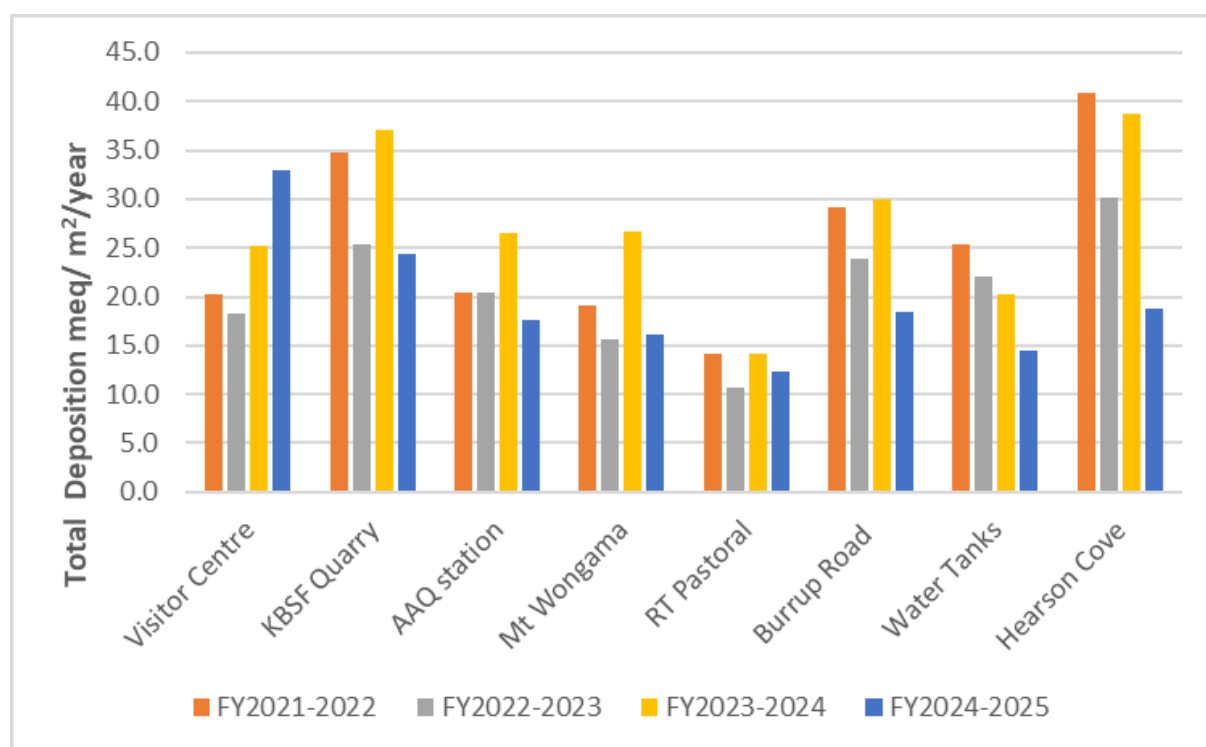


Figure 3.23: WADMP and Yara FY annual deposition at Murujuga sites

3.2 Meteorological parameters

3.2.1 Data capture

The valid data capture rates for the monitored meteorological parameters across the reporting period are presented below (Table 3.8) and were deemed to be acceptable.

Some data loss at the RT Pastoral Lease site occurred during Year 1 due to a wind sensor malfunction from 18 May 2022 to 1 June 2022. The background site again experienced an intermittent wind sensor fault leading to data captures of below 50% from April 2024 to the end of June 2024.

KBSF Quarry experienced power failure following relocation leading to wind data loss from 27 October 2023 to the 15 November 2023. During Year 4, the power failed at the RT Pastoral Lease site on 24 January 2025; power was restored 10 February 2025 with no data recoverable for any parameter during the interim period. Also during Year 4, the wind sensor at Mt Wongama experienced a malfunction with unrealistic readings recorded from 10 October 2024 to 13 October 2024.

Data capture at AAQ Station is not reported as 100% due to scheduled maintenance carried out at the site interrupting the total data capture. In Year 1 and Year 4, the data capture was 100% of available data i.e., there were no equipment malfunctions leading to loss of data. In Year 2, a small amount of data (16.5 hours) was lost due to a logger flagging fault and approximately 20 hours were lost due to intermittent power interruptions. During Year 3, the station experienced intermittent power issues during January 2024 requiring unscheduled maintenance leading to data losses for all parameters. During April 2024 the AT/RH sensor failed and was replaced.

Table 3.8: Meteorological valid data capture

Year	KBSF Quarry	Mt Wongama	Visitor Centre	RT Pastoral Lease	AAQ Station
1	99%	100%	100%	97%	95%
2	100%	100%	100%	100%	99%
3	97%	99%	100%	91%	89%
4	100%	98%	100%	96%	99%

3.2.2 Meteorological conditions

Meteorological conditions can influence ambient air quality sampling. Specifically, passive sampling may be influenced by extreme humidity (<10% or > 90%), high temperatures (Radiello specify that sampling for gases is independent of temperature between 0-39 °C) and strong winds (>10m/s).

The measured weather data was examined to determine if these conditions had occurred during the reporting period.

3.2.2.1 Wind

Wind speed and direction were measured at all monitoring sites; wind roses are presented in Appendix A. The maximum wind speed detected at each site for the reporting period is detailed below (Table 3.9).

Table 3.9: Maximum recorded windspeeds

Start date	End date	WS max m/s				
		KBSF Quarry	Mt Wongama	Visitor Centre	RT Pastoral Lease	AAQ Station
05/10/2021	14/10/2021	7.6	11.2	8.4	9.1	9.7
14/10/2021	1/11/2021	6.8	12.4	7.9	8.9	8.7
01/11/2021	15/11/2021	8.1	11.7	8.6	8.9	10.0
15/11/2021	29/11/2021	7.7	13.0	8.0	9.7	9.5
29/11/2021	13/12/2021	6.9	11.2	6.9	9.2	8.8
13/12/2021	29/12/2021	7.4	14.1	7.6	11.0	9.2
29/12/2021	12/01/2022	6.2	13.5	7.4	12.5	9.4
12/01/2022	25/01/2022	7.1	12.0	8.7	9.7	8.9
25/01/2022	9/02/2022	8.2	13.6	8.5	9.2	9.9
09/02/2022	23/02/2022	7.7	18.1	10.7	11.3	12.1
23/02/2022	9/03/2022	7.7	14.2	8.4	10.6	9.9

Start date	End date	WS max m/s KBSF Quarry	Mt Wongama	Visitor Centre	RT Pastoral Lease	AAQ Station
09/03/2022	23/03/2022	6.3	13.9	7.8	9.0	9.0
23/03/2022	5/04/2022	5.9	12.8	9.1	9.1	8.8
05/04/2022	20/04/2022	7.5	11.1	8.3	8.9	9.7
20/04/2022	4/05/2022	6.6	10.0	7.8	7.6	9.1
04/05/2022	19/05/2022	8.8	11.3	9.6	8.0	11.7
19/05/2022	1/06/2022	9.8	17.2	11.6	-	14.3
01/06/2022	15/06/2022	8.3	10.6	9.3	6.8	11.5
15/06/2022	29/06/2022	6.8	10.6	7.0	7.1	8.7
29/06/2022	18/07/2022	8.9	11.9	9.2	8.4	11.2
18/07/2022	27/07/2022	7.2	10.4	7.8	6.4	8.8
27/07/2022	10/08/2022	6.7	11.5	6.9	8.7	8.3
10/08/2022	24/08/2022	8.1	10.7	9.1	8.5	11.2
24/08/2022	4/09/2022	8.5	10.8	8.7	10.0	10.4
04/09/2022	20/09/2022	6.9	10.7	7.8	9.1	8.9
20/09/2022	5/10/2022	7.7	11.0	8.8	8.7	10.1
05/10/2022	19/10/2022	8.9	12.4	9.7	9.5	11.3
19/10/2022	2/11/2022	8.0	12.9	9.0	11.6	10.1
02/11/2022	16/11/2022	7.7	12.2	7.8	8.4	8.7
16/11/2022	30/11/2022	7.4	12.3	8.6	8.0	9.8
30/11/2022	14/12/2022	6.7	11.5	7.0	9.2	9.1
14/12/2022	27/12/2022	7.2	11.8	7.7	12.6	9.0
27/12/2022	11/01/2023	8.7	14.4	8.3	12.0	10.2
11/01/2023	26/01/2023	8.7	13.5	8.8	9.3	10.2
26/01/2023	9/02/2023	8.8	13.2	10.3	8.9	13.0
09/02/2023	23/02/2023	7.0	13.9	8.0	11.0	9.1
23/02/2023	8/03/2023	6.5	13.2	9.4	10.5	10.8
08/03/2023	21/03/2023	5.4	11.6	6.2	7.9	7.2
21/03/2023	4/04/2023	9.8	18.8	10.4	10.6	12.4
04/04/2023	16/04/2023	6.7	9.5	8.4	8.1	10.5
16/04/2023	1/05/2023	8.1	10.8	9.8	8.6	11.8
01/05/2023	15/05/2023	7.3	10.4	8.1	8.1	9.1
15/05/2023	30/05/2023	8.9	14.2	9.6	11.0	12.1
30/05/2023	13/06/2023	5.8	9.1	7.2	7.3	9.0
13/06/2023	28/06/2023	7.6	10.2	8.6	7.7	10.5
28/06/2023	13/07/2023	8.1	11.8	9.8	8.7	11.9
13/07/2023	27/07/2023	8.4	15.2	9.3	11.5	10.7
27/07/2023	13/08/2023	6.5	14.3	8.2	9.2	9.9
13/08/2023	27/08/2023	7.8	13.2	8.1	9.7	10.5

Start date	End date	WS max m/s KBSF Quarry	Mt Wongama	Visitor Centre	RT Pastoral Lease	AAQ Station
27/08/2023	11/09/2023	6.9	16.7	7.9	9.3	9.0
11/09/2023	28/09/2023	7.1	13.1	8.0	9.3	8.4
28/09/2023	13/10/2023	6.9 *	11.2	8.2	9.1	9.1
13/10/2023	28/10/2023	7.7	13.3	9.3	9.6	10.0
28/10/2023	11/11/2023	6.5	16.3	10.7	13.5	12.5
11/11/2023	26/11/2023	6.0	16.0	7.6	9.1	8.7
26/11/2023	10/12/2023	6.7	15.7	8.0	10.9	9.3
10/12/2023	26/12/2023	7.8	12.6	8.4	10.4	10.0
26/12/2023	11/01/2024	7.1	13.0	7.1	10.7	9.6
11/01/2024	26/01/2024	7.3	19.3	8.0	10.7	9.0*
26/01/2024	9/02/2024	6.6	13.3	7.5	9.6	8.8
9/02/2024	25/02/2024	7.2	18.9	9.4	14.1	10.9
25/02/2024	12/03/2024	6.7	16.2	7.0	9.3	8.8
12/03/2024	29/03/2024	10.2	18.9	11.3	12.8	13.4
29/03/2024	10/04/2024	11.9	15.8	13.3	10.4 *	16.5
10/04/2024	25/04/2024	8.7	16.8	8.7	9.0 *	10.3
25/04/2024	9/05/2024	7.6	11.6	7.1	9.4 *	8.2
9/05/2024	22/05/2024	8.5	11.2	8.5	8.9 *	10.0
22/05/2024	5/06/2024	8.9	11.2	8.6	8.7 *	10.8
5/06/2024	19/06/2024	8.8	12.1	8.5	8.2 *	10.5
19/06/2024	3/07/2024	9.5	11.4	10.4	7.4 *	11.6
3/07/2024	17/07/2024	10.7	13.0	11.1	8.6	13.8
17/07/2024	1/08/2024	8.6	11.9	9.2	8.9	10.6
1/08/2024	17/08/2024	8.8	10.9	8.8	7.1	9.6
17/08/2024	31/08/2024	6.4	9.1	7.5	7.9	8.7
31/08/2024	15/09/2024	8.7	11.9	8.4	9.4	10.4
15/09/2024	1/10/2024	9.0	13.2	8.8	8.7	10.1
1/10/2024	15/10/2024	8.5	20.4	10.3	11.7	12.9
15/10/2024	31/10/2024	7.7	14.8	8.5	11.3	10.5
31/10/2024	15/11/2024	6.0	10.5	7.9	10.2	8.1
15/11/2024	1/12/2024	6.3	9.6	7.3	8.3	8.4
1/12/2024	15/12/2024	8.2	11.8	9.3	10.6	10.0
15/12/2024	29/12/2024	8.7	9.1	8.9	9.5	9.9
29/12/2024	12/01/2025	12.8	17.3	11.8	11.8	14.5
12/01/2025	27/01/2025	12.9	18.8	13.2	15.3	16.3
27/01/2025	10/02/2025	7.0	12.0	8.3	-	10.4
10/02/2025	24/02/2025	8.9	15.4	10.2	8.9	12.3
24/02/2025	10/03/2025	6.6	9.6	9.3	8.0	9.8

Start date	End date	WS max m/s KBSF Quarry	Mt Wongama	Visitor Centre	RT Pastoral Lease	AAQ Station
10/03/2025	24/03/2025	6.8	10.4	8.4	10.0	9.3
24/03/2025	7/04/2025	6.3	9.3	7.7	9.1	9.3
7/04/2025	22/04/2025	6.3	8.5	7.1	8.0	8.1
22/04/2025	6/05/2025	7.5	10.3	8.2	8.3	9.7
6/05/2025	20/05/2025	7.8	10.1	8.2	8.5	9.7
20/05/2025	3/06/2025	9.1	12.0	9.5	10.3	11.2
3/06/2025	17/06/2025	8.9	9.3	7.9	8.6	9.6
17/06/2025	1/07/2025	10.5	10.3	9.9	9.9	11.7
1/07/2025	15/07/2025	11.0	10.8	9.2	8.4	12.1
15/07/2025	29/07/2025	10.5	10.4	9.0	10.4	10.3
29/07/2025	14/08/2025	9.8	10.4	8.6	10.1	10.2
14/08/2025	30/08/2025	9.0	10.8	8.6	9.0	10.0
30/08/2025	14/09/2025	10.4	12.7	9.7	10.9	11.4

*Available data capture less than 52%

Winds exceeding speeds of 10 m/s, which may influence the passive sampling, occurred most frequently at Mt Wongama (Figure 3.24 to Figure 3.39), which is at an elevated and exposed position. The frequency of winds above 10 m/s occurred for 1.94% of the duration of the sampling period during the first year of sampling, 2.61% for the second year, 3% for the third year and 1% for Year 4. Therefore, it is unlikely that the results have been unduly influenced by elevated wind conditions.

The RT Pastoral Lease site, which is situated inland in an exposed position on open flat ground, also experienced occasional strong winds. However, prevailing conditions were typically comparable to the other monitoring sites. The RT Pastoral Lease and AAQ Station sites experienced similar wind speeds (Figure 3.40 to Figure 3.55), while KBSF Quarry and Visitor Centre experienced slightly lower wind speeds (not illustrated) due to them being located in more sheltered locations.

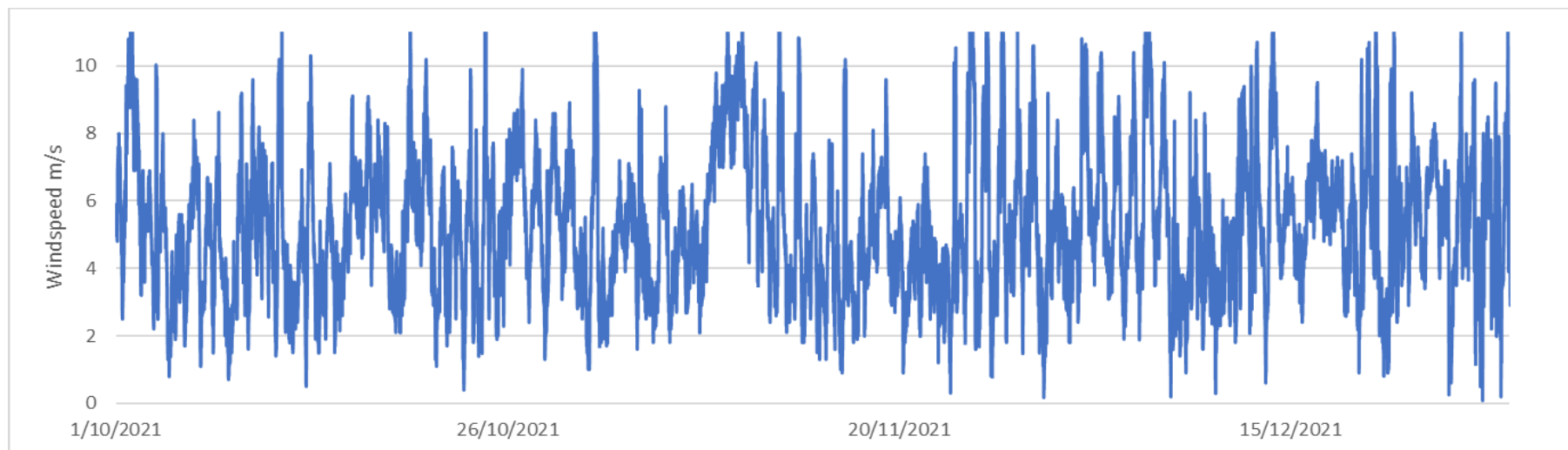


Figure 3.24: Wind speed recorded at Mt Wongama Quarter 1

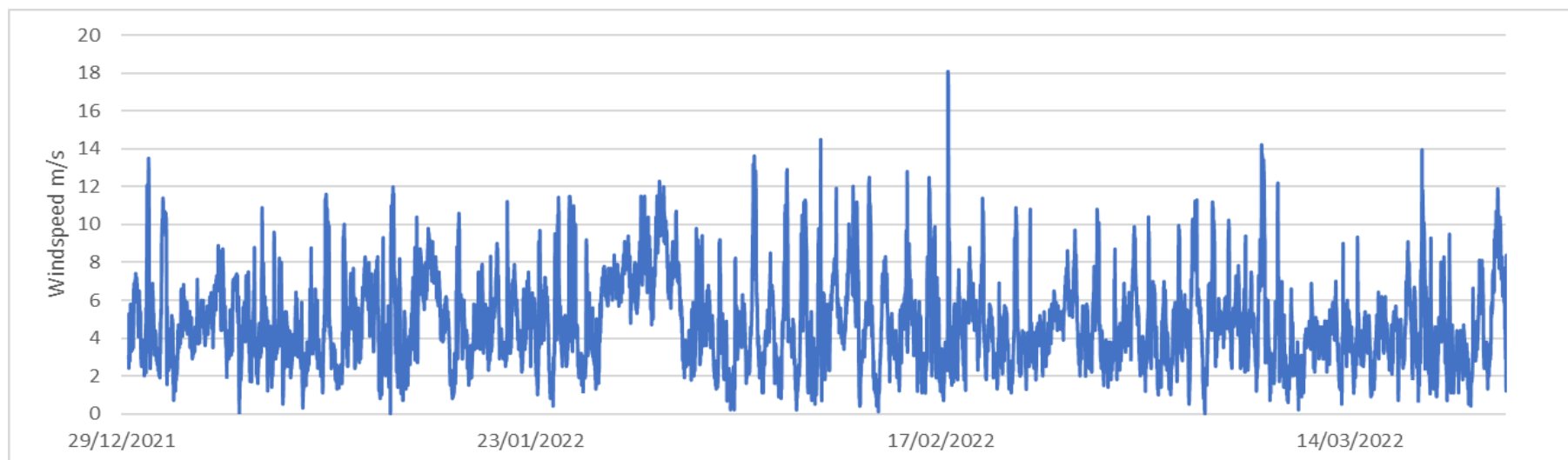


Figure 3.25: Wind speed recorded at Mt Wongama Quarter 2

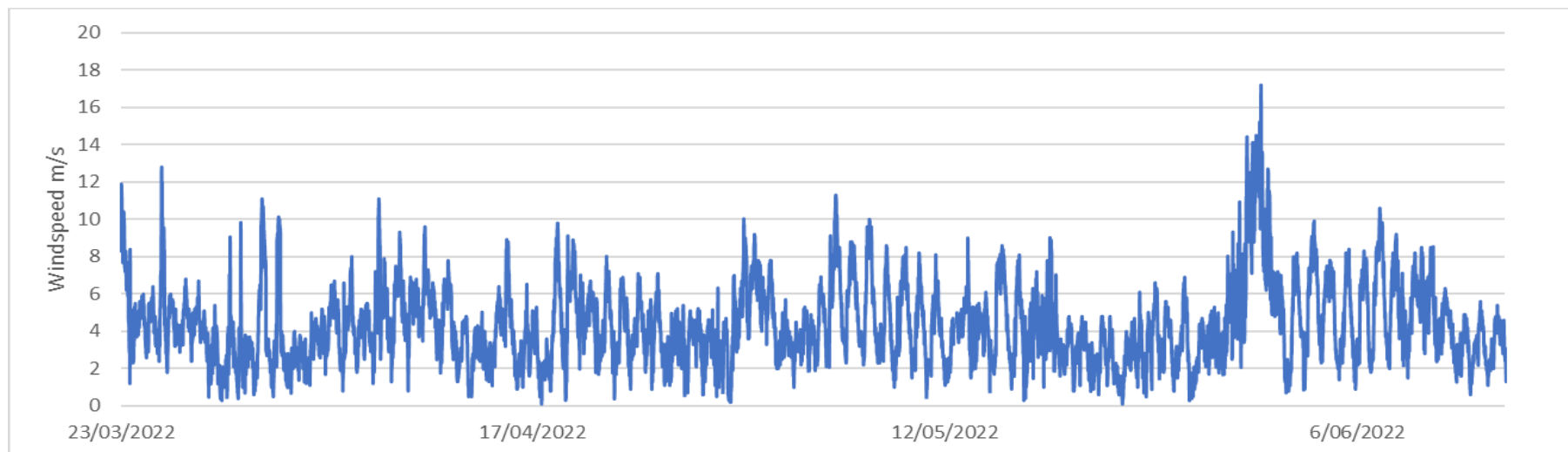


Figure 3.26: Wind speed recorded at Mt Wongama Quarter 3

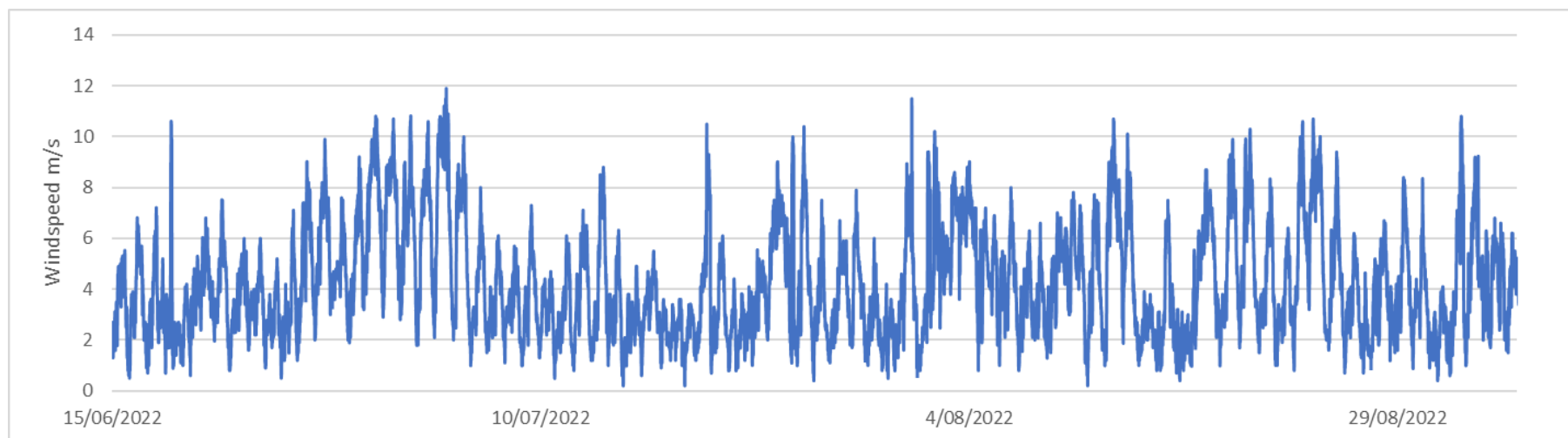


Figure 3.27: Wind speed recorded at Mt Wongama Quarter 4

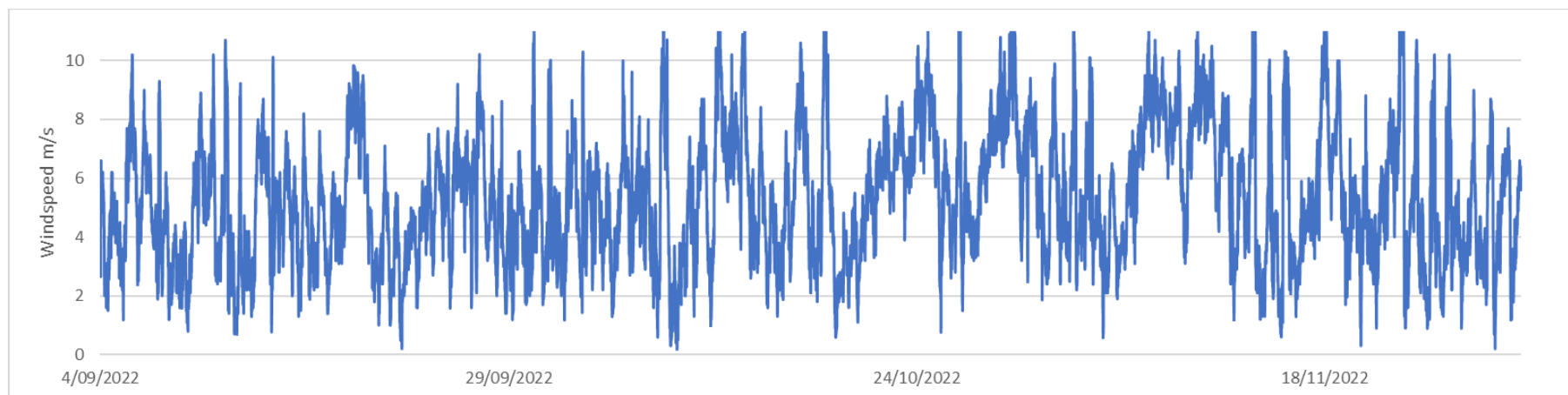


Figure 3.28: Wind speed recorded at Mt Wongama Quarter 5

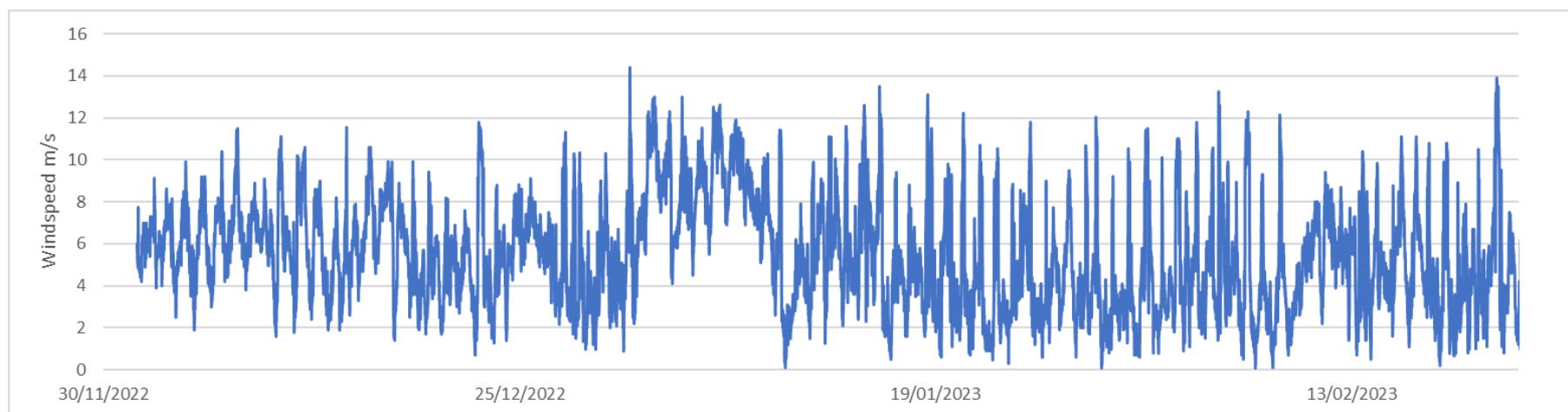


Figure 3.29: Wind speed recorded at Mt Wongama Quarter 6

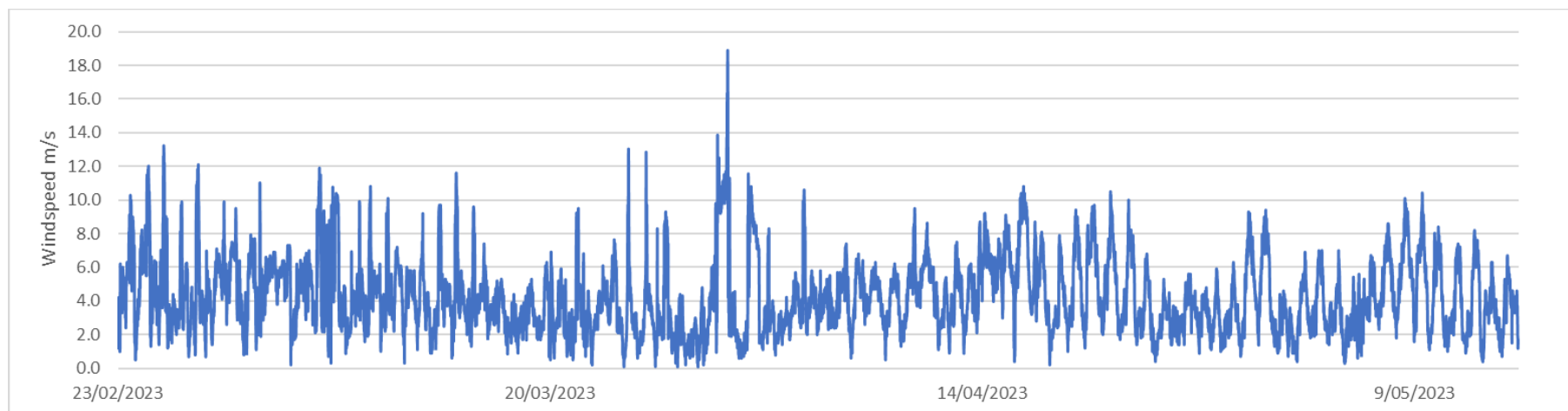


Figure 3.30: Wind speed recorded at Mt Wongama Quarter 7

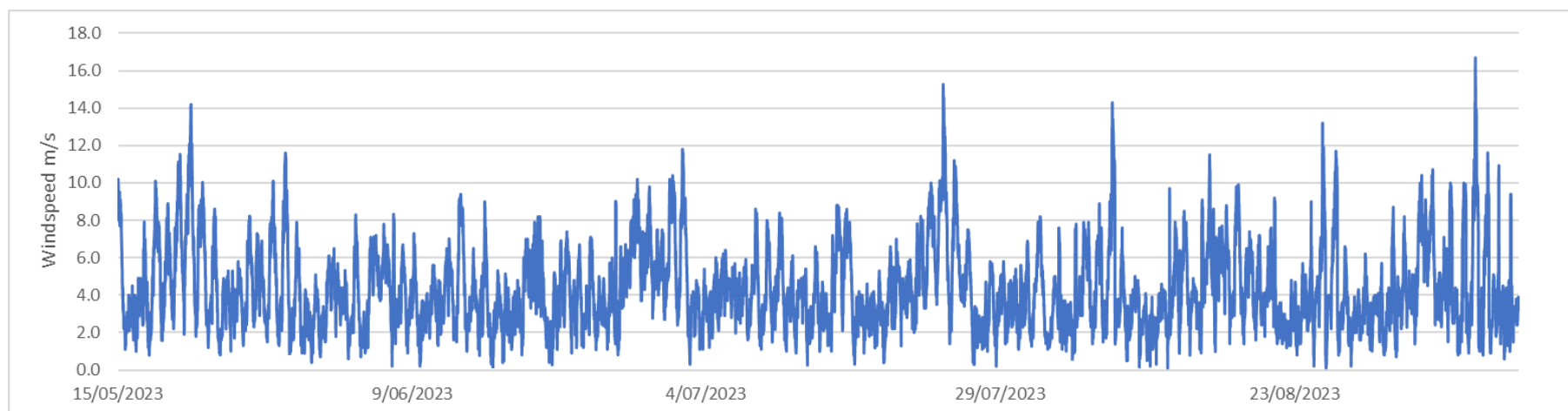


Figure 3.31: Wind speed recorded at Mt Wongama Quarter 8

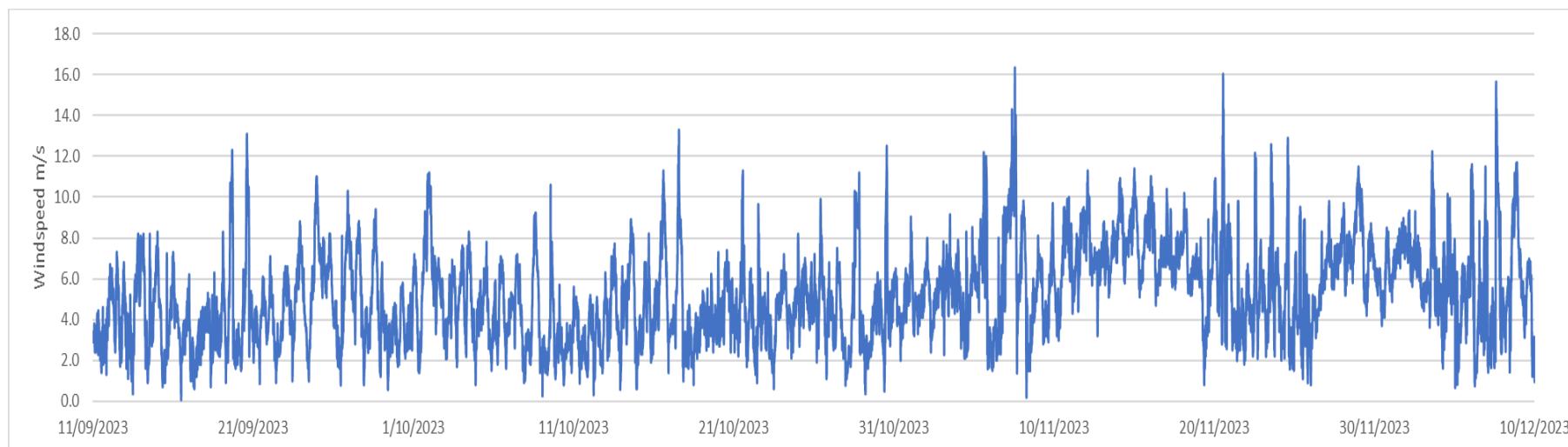


Figure 3.32: Wind speed recorded at Mt Wongama Quarter 9

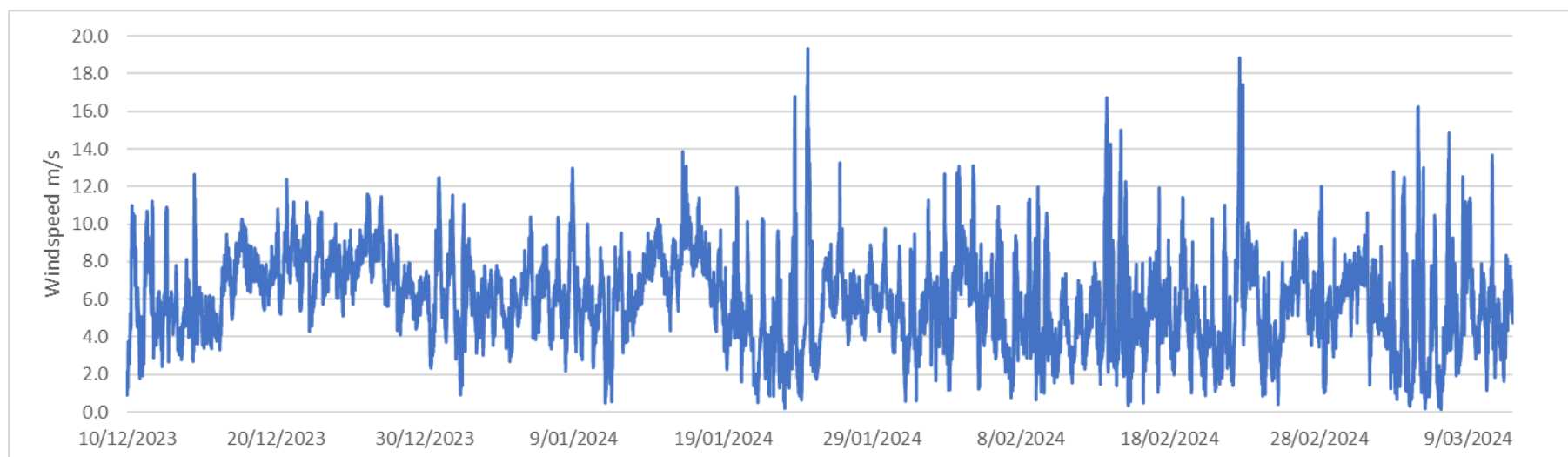


Figure 3.33: Wind speed recorded at Mt Wongama Quarter 10

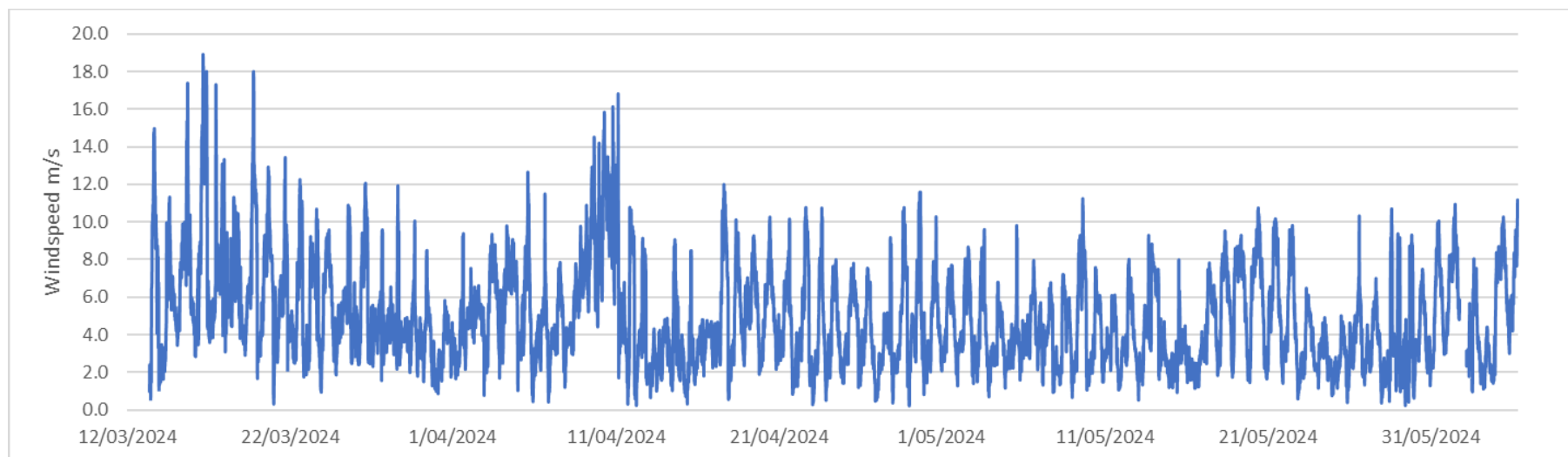


Figure 3.34: Wind speed recorded at Mt Wongama Quarter 11

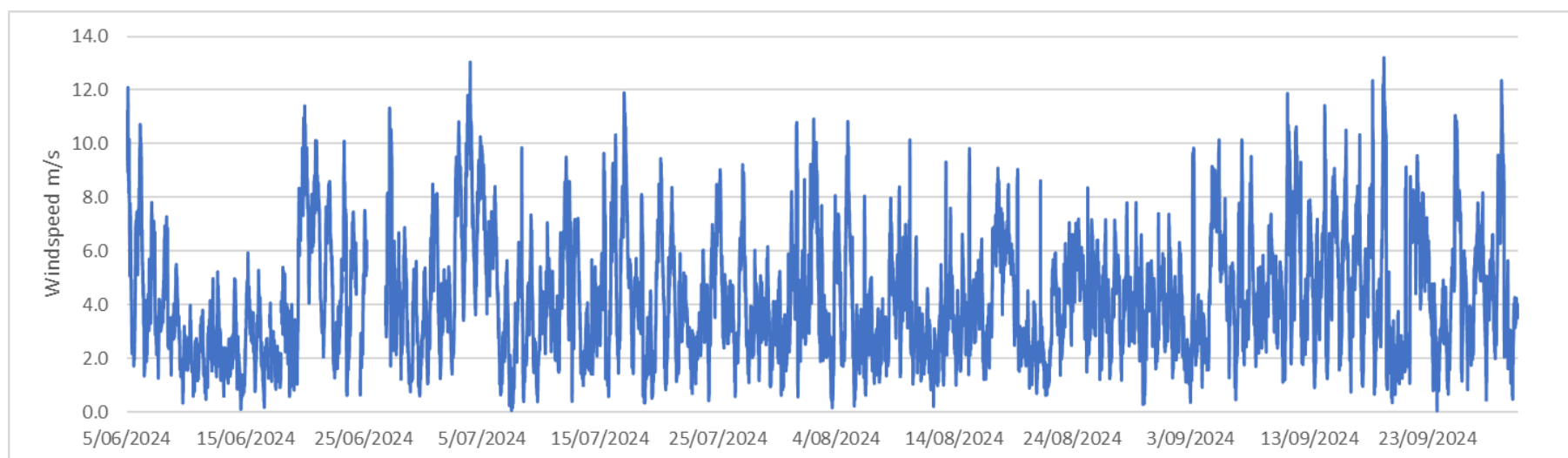


Figure 3.35: Wind speed recorded at Mt Wongama Quarter 12

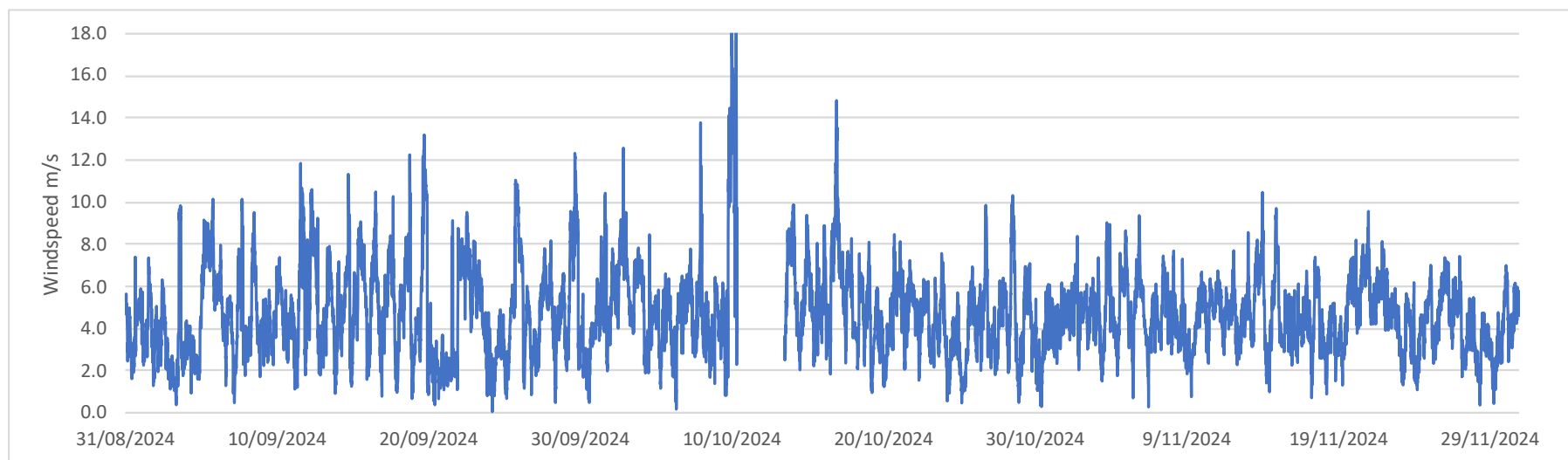


Figure 3.36: Wind speed recorded at Mt Wongama Quarter 13

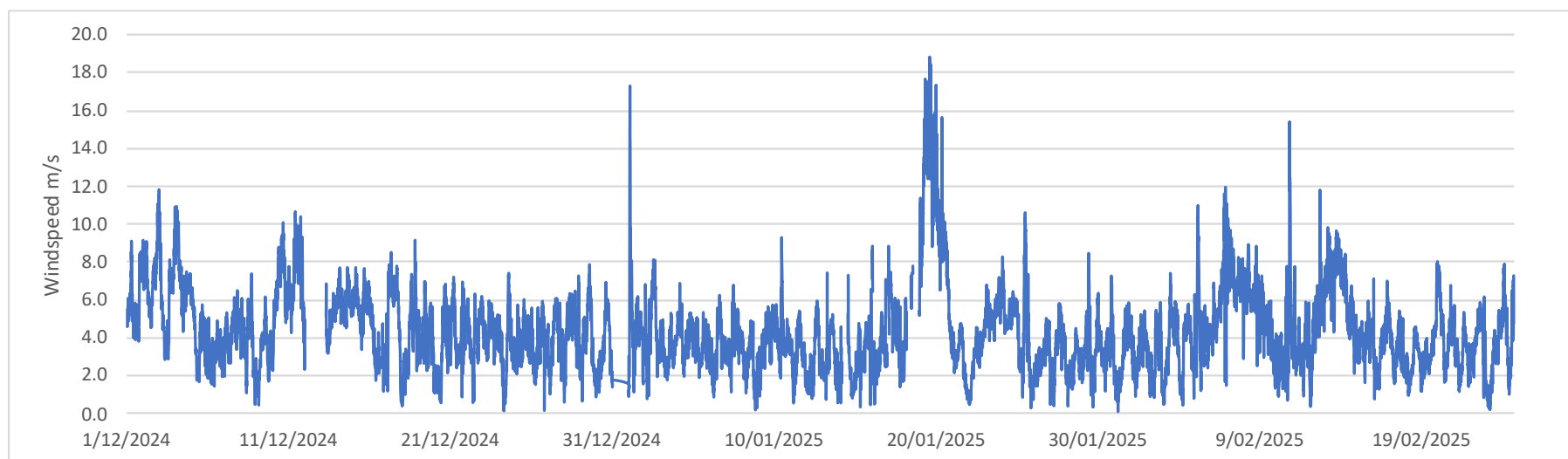


Figure 3.37: Wind speed recorded at Mt Wongama Quarter 14

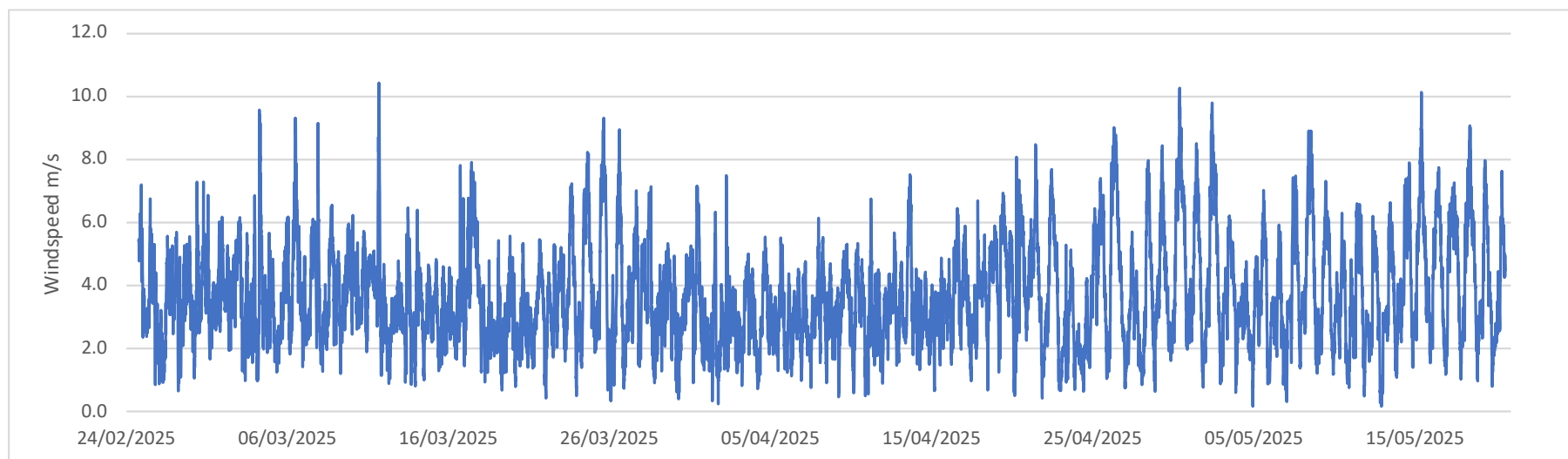


Figure 3.38: Wind speed recorded at Mt Wongama Quarter 15

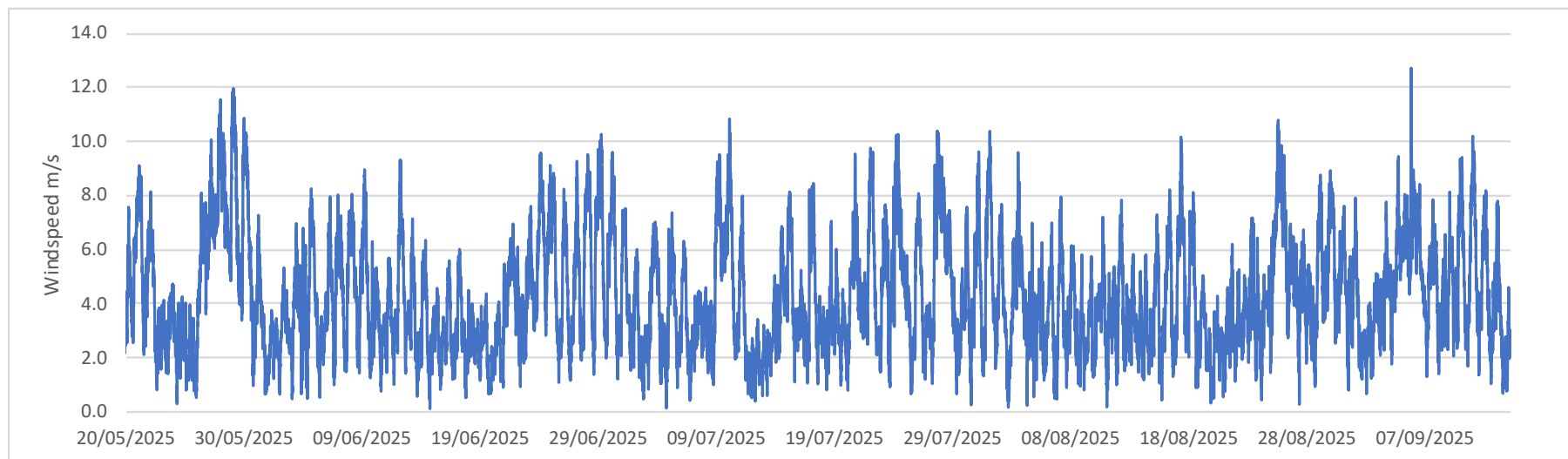


Figure 3.39: Wind speed recorded at Mt Wongama Quarter 16

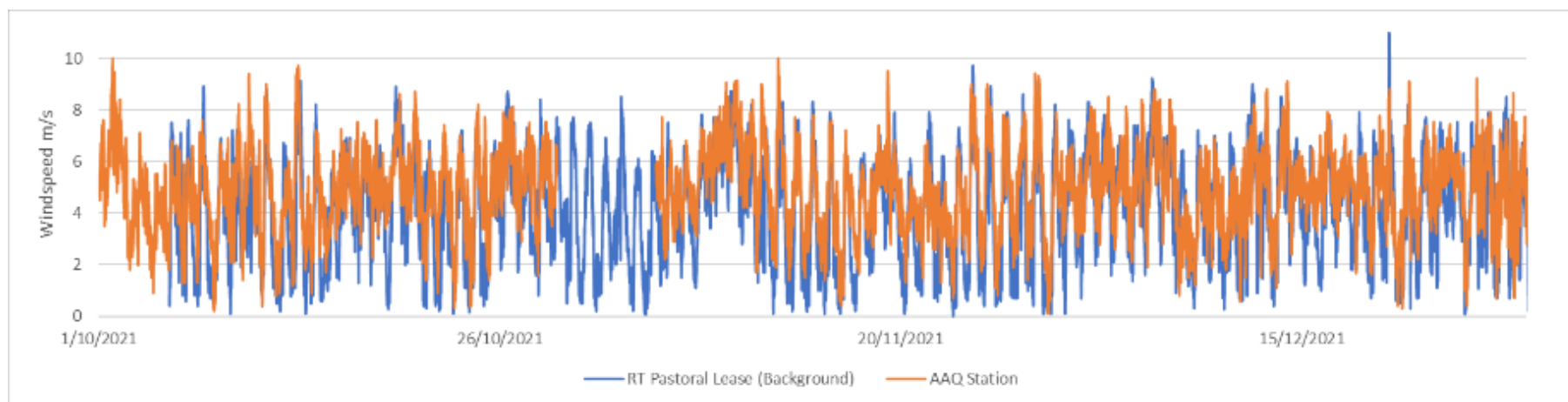


Figure 3.40: Wind speed at RT Pastoral Lease and AAQ Station Quarter 1

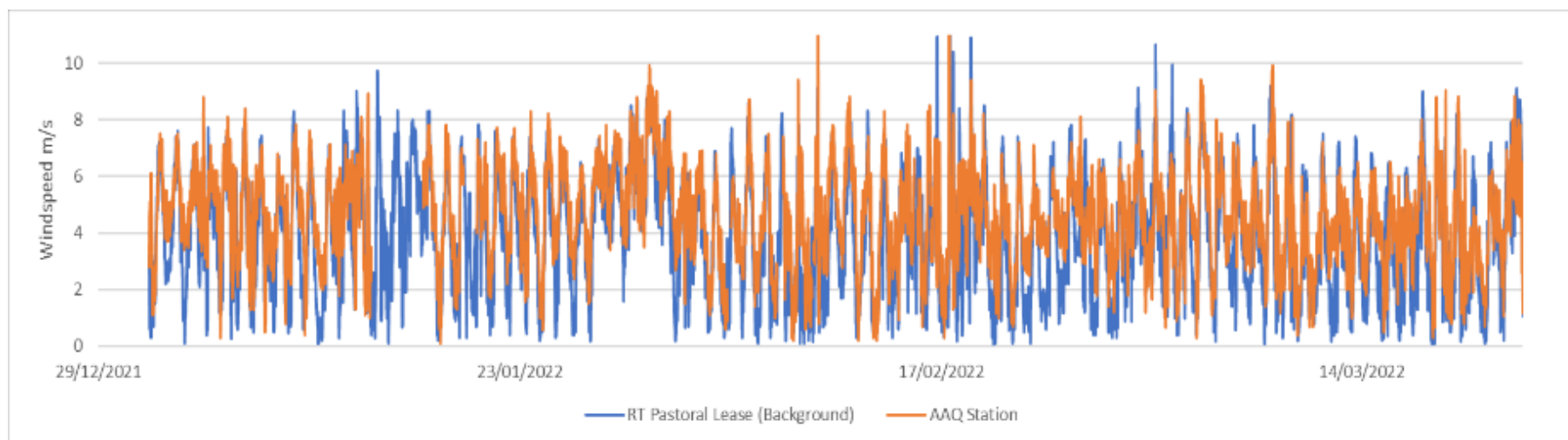


Figure 3.41: Wind speed at RT Pastoral Lease and AAQ Station Quarter 2

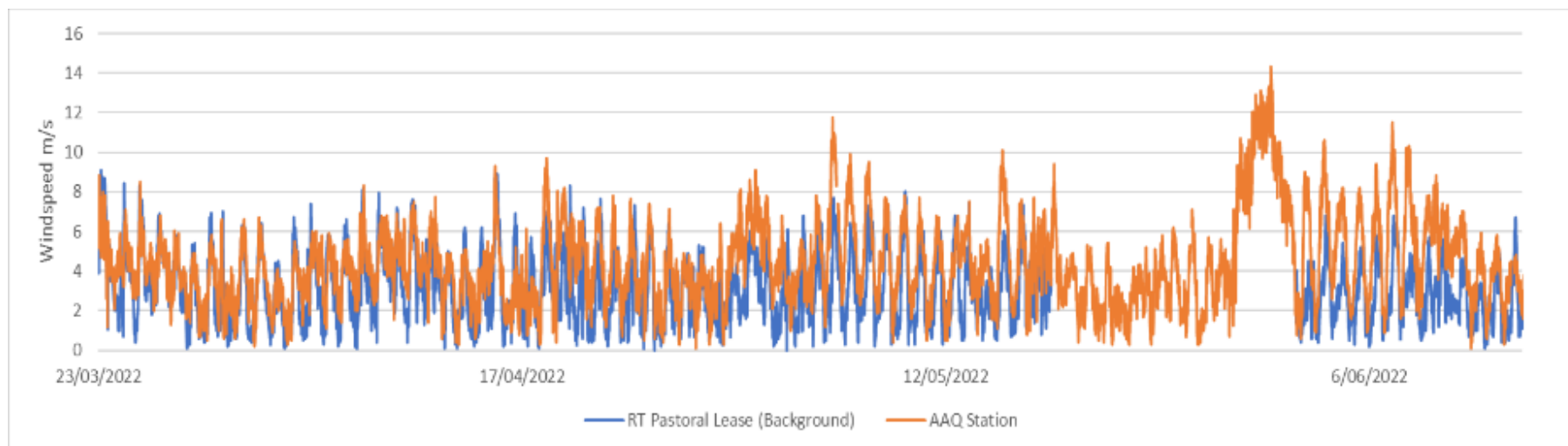


Figure 3.42: Wind speed at RT Pastoral Lease and AAQ Station Quarter 3

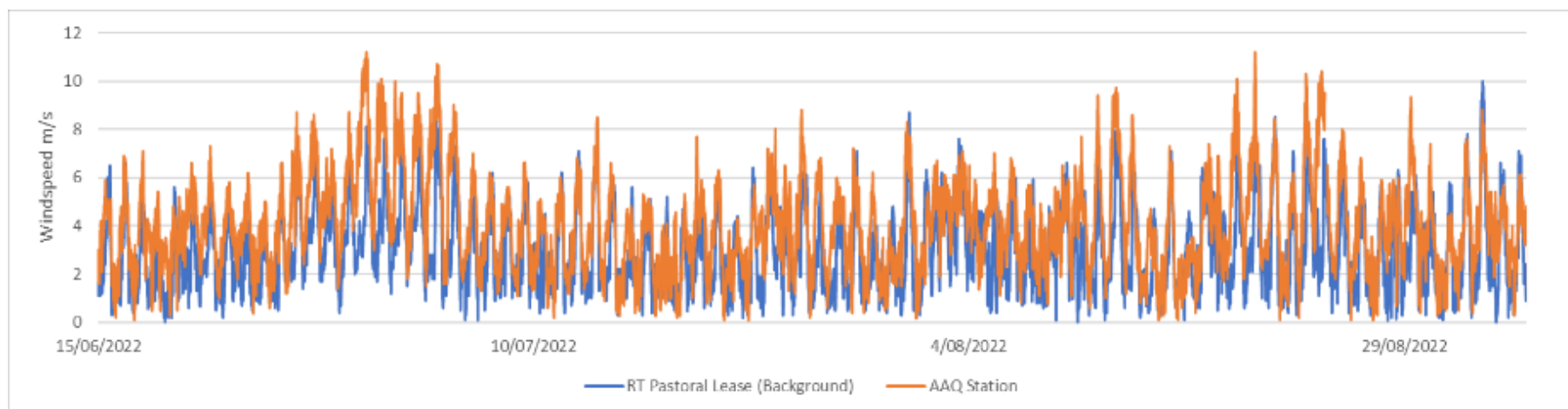


Figure 3.43: Wind speed at RT Pastoral Lease and AAQ Station Quarter 4

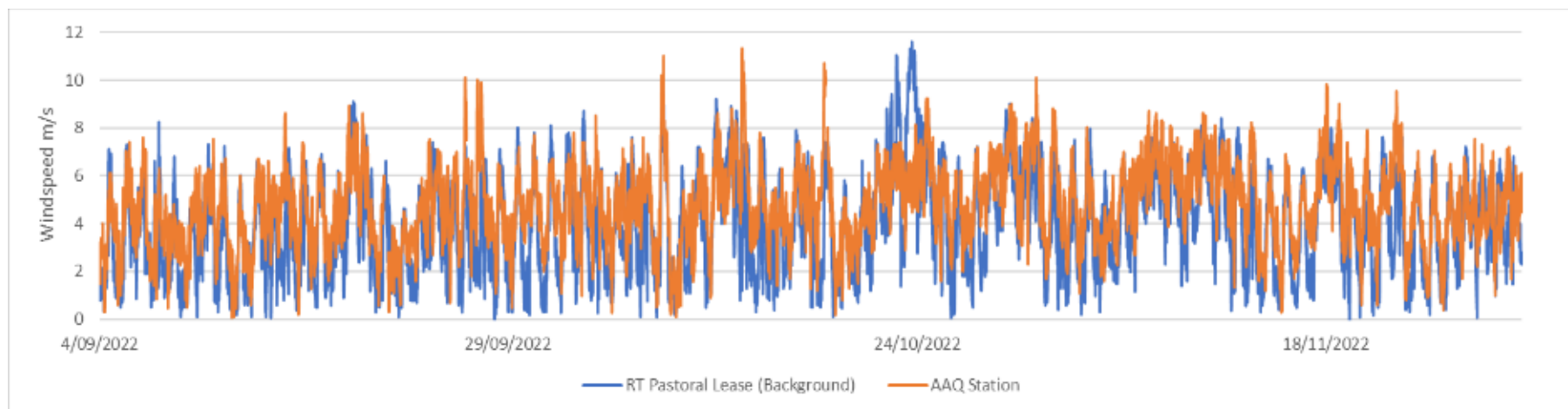


Figure 3.44: Wind speed at RT Pastoral Lease and AAQ Station Quarter 5

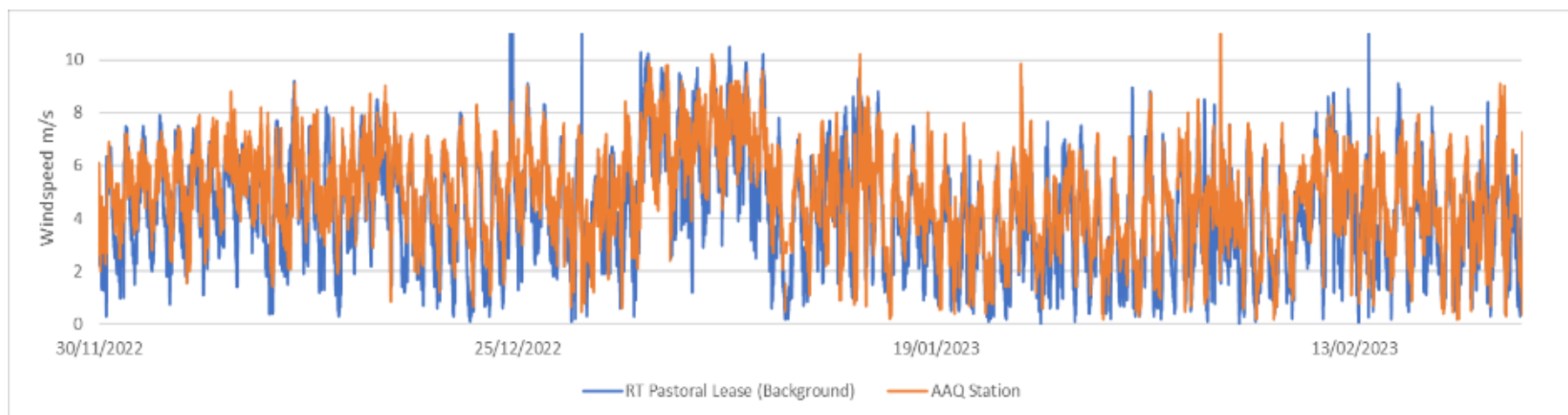


Figure 3.45: Wind speed at RT Pastoral Lease and AAQ Station Quarter 6

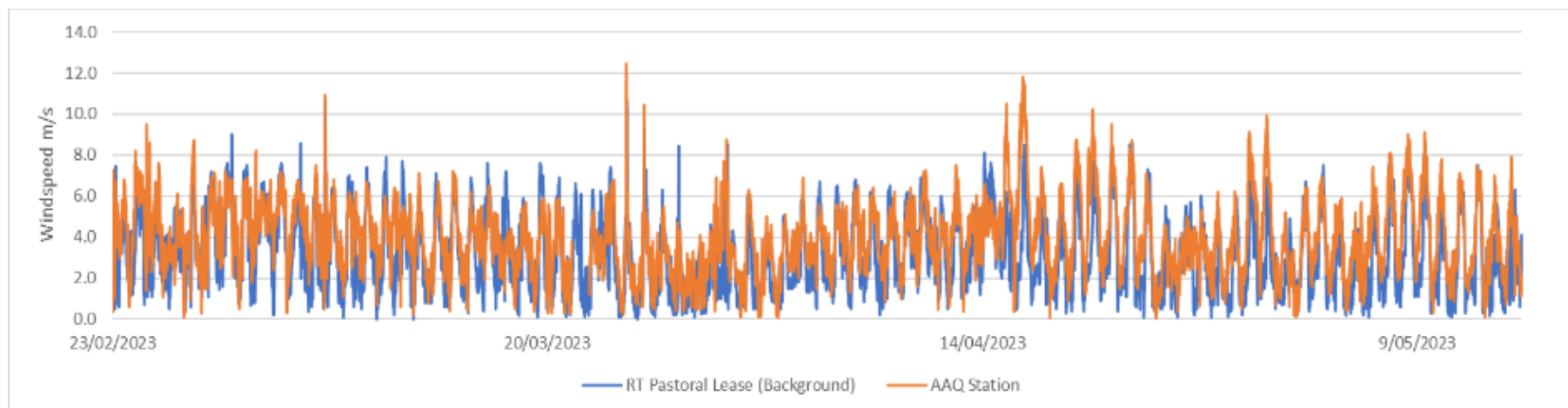


Figure 3.46: Wind speed at RT Pastoral Lease and AAQ Station Quarter 7

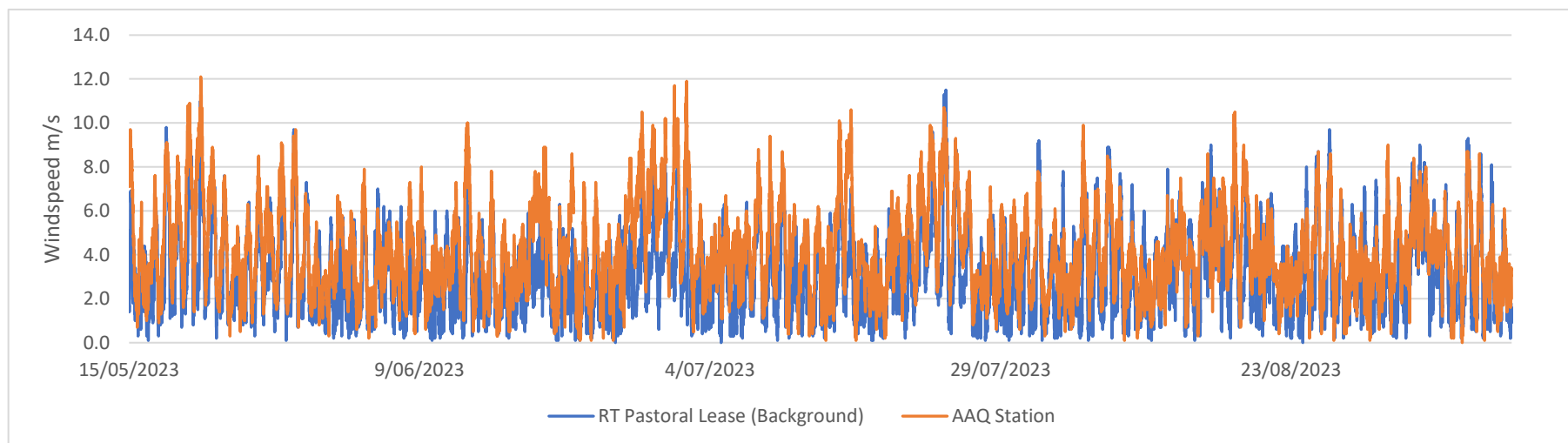


Figure 3.47: Wind speed at RT Pastoral Lease and AAQ Station Quarter 8

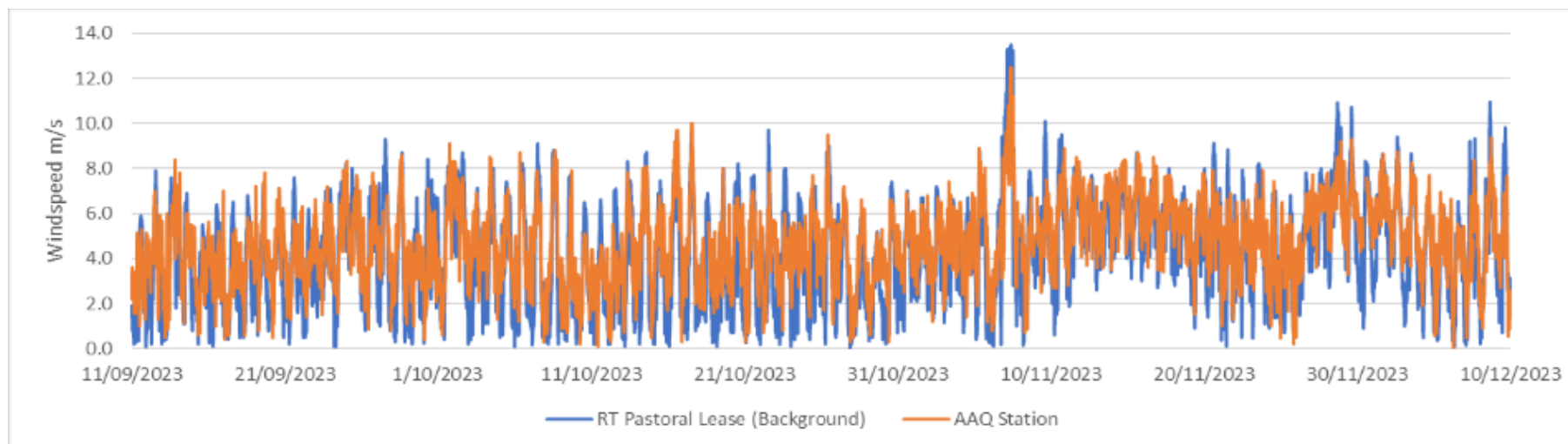


Figure 3.48: Wind speed at RT Pastoral Lease and AAQ Station Quarter 9

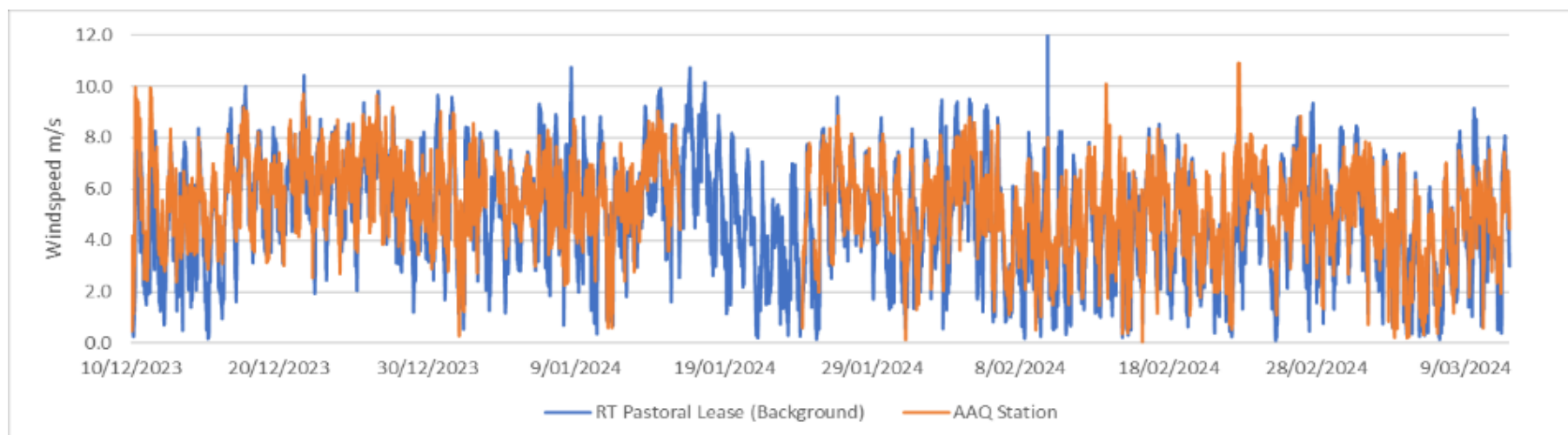


Figure 3.49: Wind speed at RT Pastoral Lease and AAQ Station Quarter 10

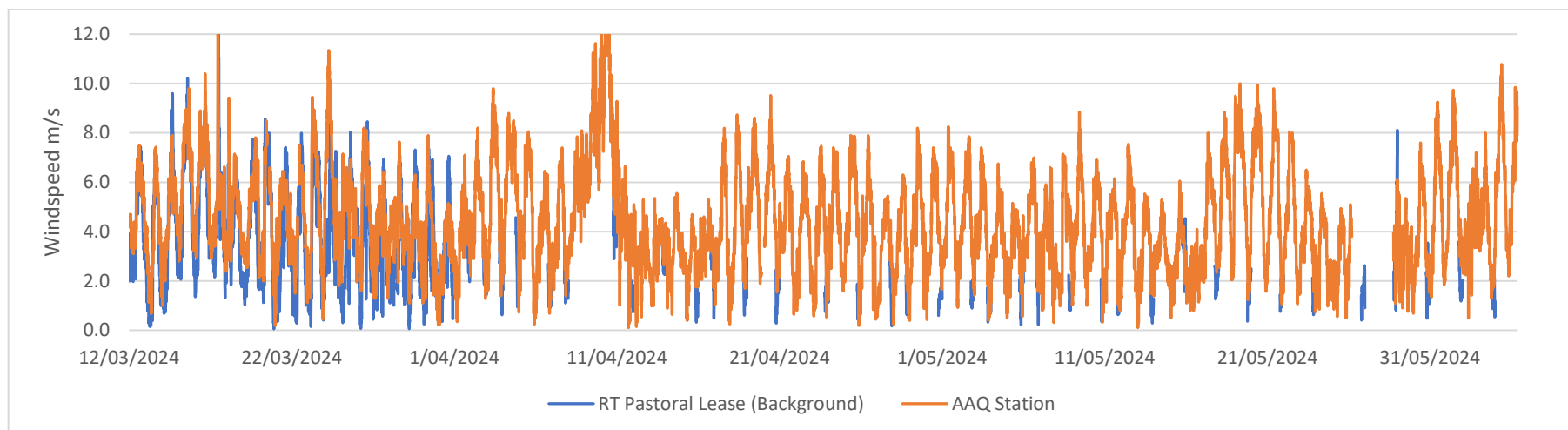


Figure 3.50: Wind speed at RT Pastoral Lease and AAQ Station Quarter 11

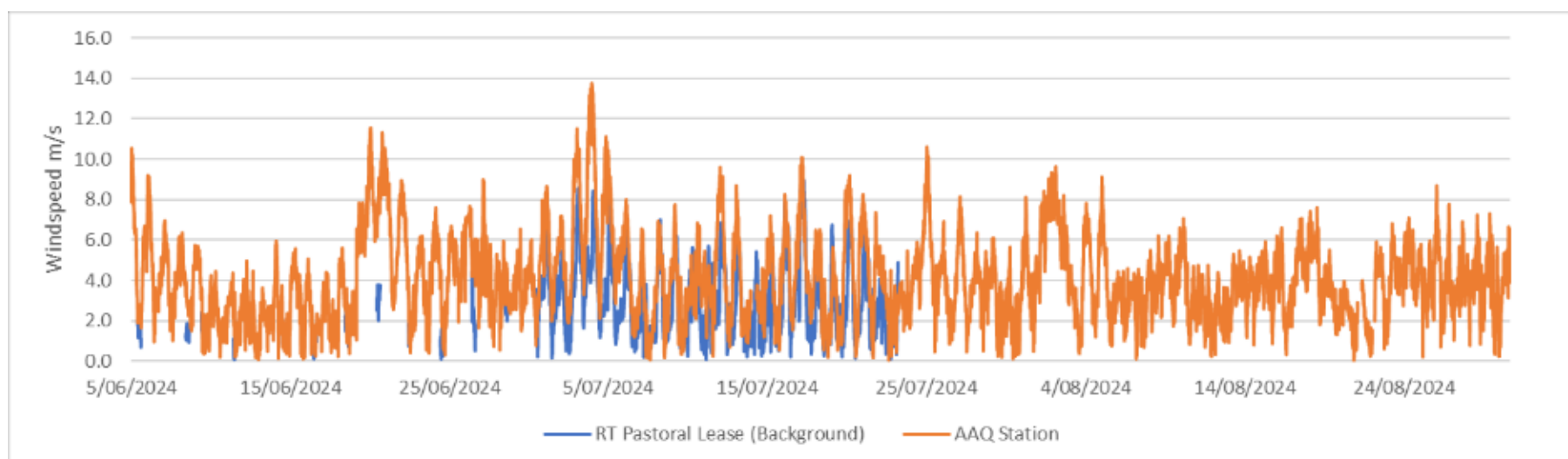


Figure 3.51: Wind speed at RT Pastoral Lease and AAQ Station Quarter 12

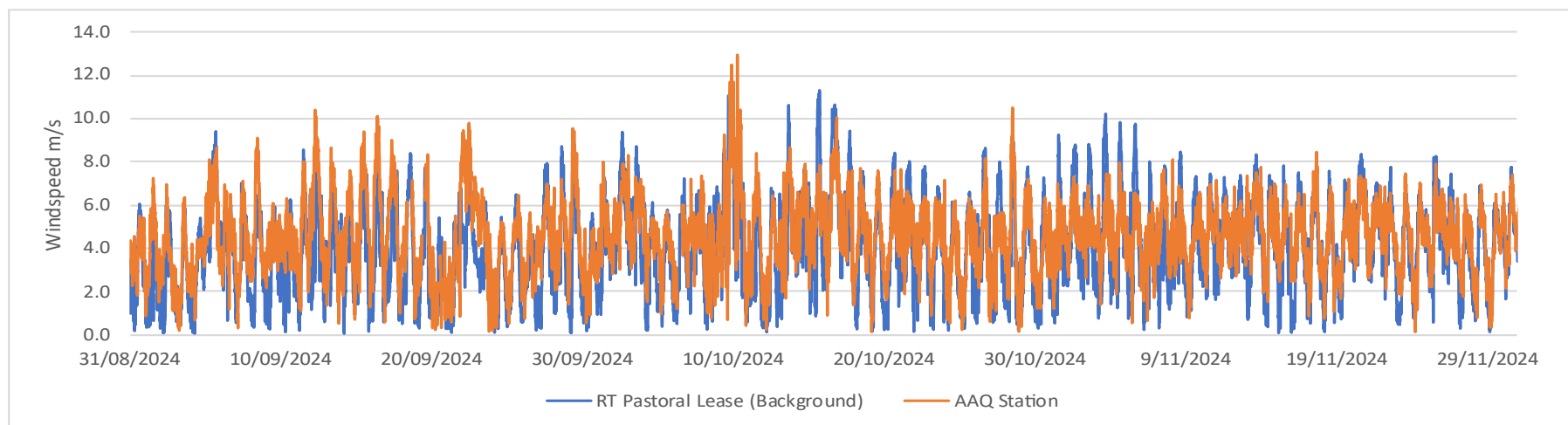


Figure 3.52: Wind speed at RT Pastoral Lease and AAQ Station Quarter 13

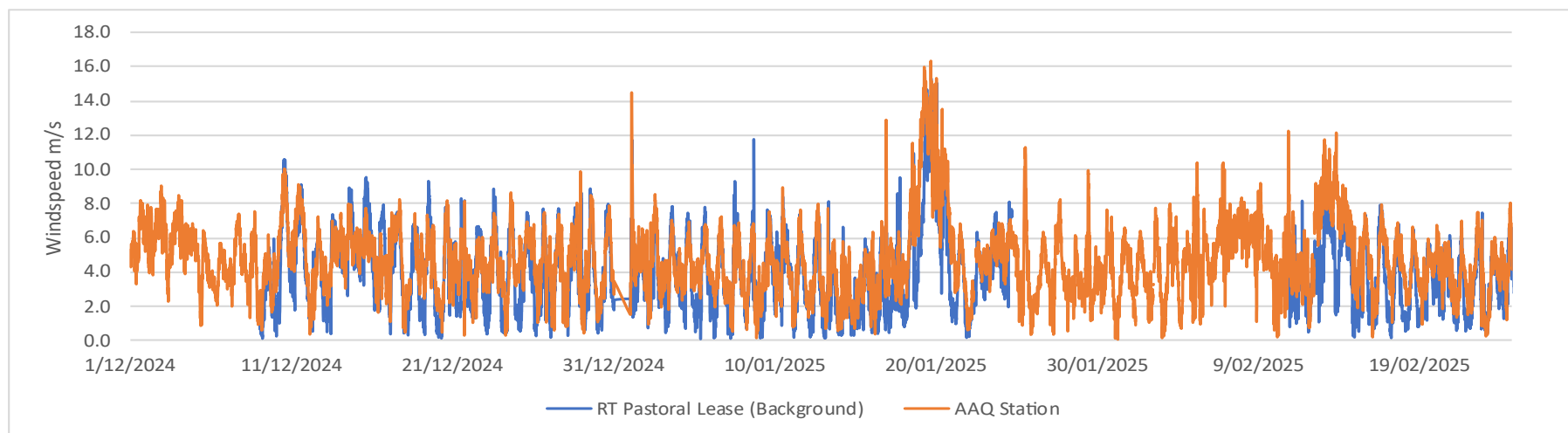


Figure 3.53: Wind speed at RT Pastoral Lease and AAQ Station Quarter 14

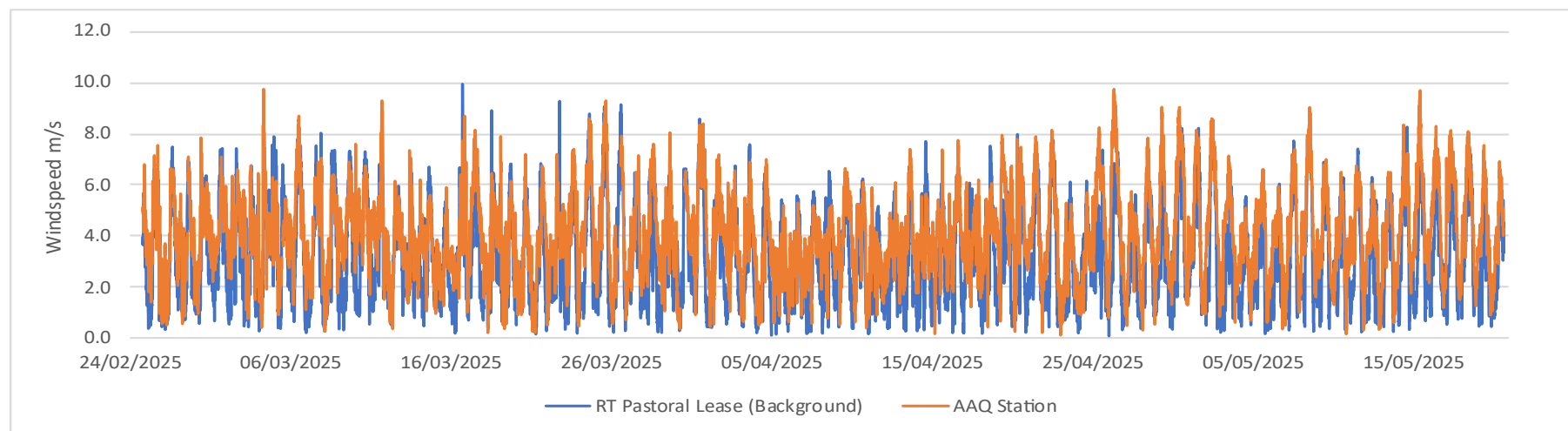


Figure 3.54: Wind speed at RT Pastoral Lease and AAQ Station Quarter 15

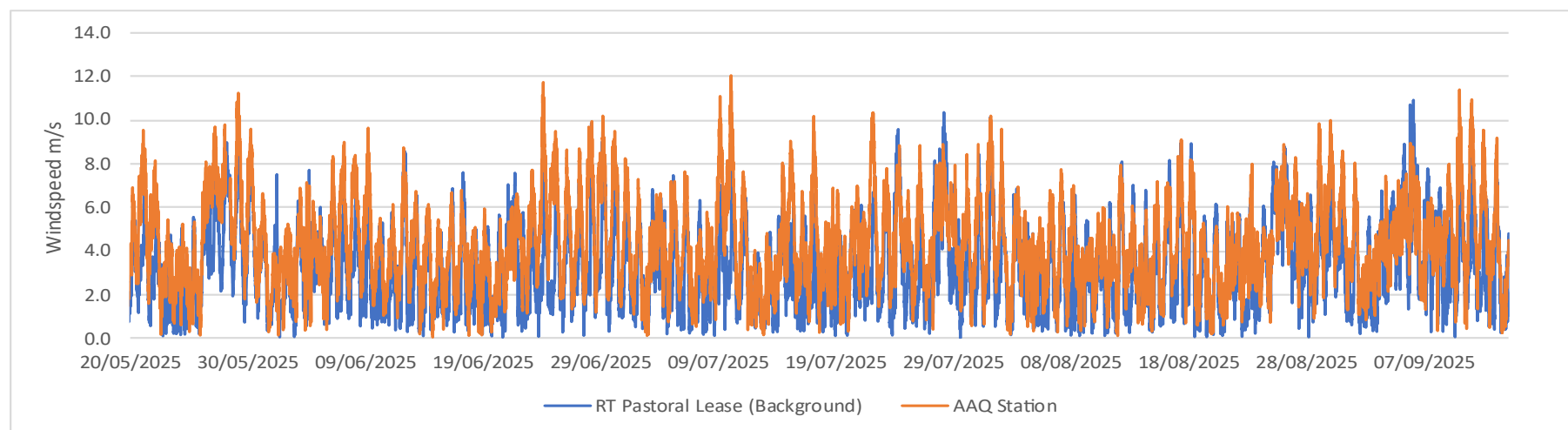


Figure 3.55: Wind speed at RT Pastoral Lease and AAQ Station Quarter 16

3.2.2.2 Temperature and relative humidity

Temperature was monitored at the AAQ Station, representative of conditions on lower Murujuga, and at RT Pastoral Lease, which is located inland and not subject to the coastal conditions experienced at the other sites. The temperature data was used to adjust the Radiello NO₂ data, which is subject to temperature-dependent uptake. The same correction was applied to HNO₃, which is assumed to have the same diffusion characteristics as NO₂. A summary of the average and maximum recorded temperatures is presented in Table 3.10.

Table 3.10: Average and maximum recorded temperature

Start date	End date	Temperature (°C)		AAQ Station	
		RT Pastoral Lease		Average	Maximum
		Average	Maximum		
5/10/2021	14/10/2021	26.3	38.0	25.5	33.4
14/10/2021	1/11/2021	26.3	39.7	25.7	37.1
1/11/2021	15/11/2021	26.0	37.2	25.6	32.7
15/11/2021	29/11/2021	29.5	42.5	28.3	37.5
29/11/2021	13/12/2021	33.5	46.6	30.7	41.8
13/12/2021	29/12/2021	31.9	44.7	29.6	38.4
29/12/2021	12/01/2022	30.5	42.9	28.9	35.7
12/01/2022	25/01/2022	32.4	50.4	20.9	46.2
25/01/2022	9/02/2022	30.3	39.0	27.7	35.6
9/02/2022	23/02/2022	32.2	45.0	30.4	38.6
23/02/2022	9/03/2022	33.2	45.9	31.1	38.6
9/03/2022	23/03/2022	33.5	45.6	32.3	41.4
23/03/2022	5/04/2022	30.0	40.9	29.5	38.2
5/04/2022	20/04/2022	30.6	39.9	29.9	37.5
20/04/2022	4/05/2022	27.6	38.8	27.0	35.0
4/05/2022	19/05/2022	25.0	36.5	24.8	32.5
19/05/2022	1/06/2022	22.8	32.1	22.5	28.9
1/06/2022	15/06/2022	21.7	30.9	21.4	26.1
15/06/2022	29/06/2022	22.4	32.3	23.2	28.4
29/06/2022	18/07/2022	18.2	30.2	19.7	26.1
18/07/2022	27/07/2022	20.3	30.6	21.7	28.4
27/07/2022	10/08/2022	21.1	31.6	21.6	27.3
10/08/2022	24/08/2022	22.1	33.2	22.9	29.6
24/08/2022	4/09/2022	22.0	31.7	22.2	28.4
4/09/2022	20/09/2022	22.6	33.5	22.7	30.4
20/09/2022	5/10/2022	24.7	36.0	24.0	31.7
5/10/2022	19/10/2022	26.0	38.0	25.2	32.6
19/10/2022	2/11/2022	25.5	36.1	24.4	32.3
2/11/2022	16/11/2022	25.5	38.6	24.6	33.0
16/11/2022	30/11/2022	28.1	40.2	26.4	33.7

Start date	End date	Temperature (°C)		AAQ Station	
		RT Pastoral Lease Average	Maximum	Average	Maximum
30/11/2022	14/12/2022	31.4	43.4	28.9	38.2
14/12/2022	27/12/2022	28.6	38.3	27.1	33.1
27/12/2022	11/01/2023	30.4	44.0	28.1	40.5
11/01/2023	26/01/2023	31.2	45.9	28.7	39.4
26/01/2023	9/02/2023	32.2	42.2	30.4	35.6
9/02/2023	23/02/2023	32.6	45.8	31.3	40.8
23/02/2023	8/03/2023	30.3	38.9	29.4	34.0
8/03/2023	21/03/2023	32.4	44.4	31.3	39.3
21/03/2023	4/04/2023	30.0	41.8	28.8	38.9
4/04/2023	16/04/2023	29.1	37.2	29.0	34.8
16/04/2023	1/05/2023	26.5	36.3	26.3	31.8
1/05/2023	15/05/2023	25.5	35.0	25.6	31.8
15/05/2023	30/05/2023	21.5	31.9	22.6	28.6
30/05/2023	13/06/2023	20.9	31.9	22.1	29.1
13/06/2023	28/06/2023	19.7	31.8	19.6	28.0
28/06/2023	13/07/2023	18.5	31.2	18.6	26.4
13/07/2023	27/07/2023	20.7	33.6	21.2	29.7
27/07/2023	13/08/2023	22.9	33.3	23.1	29.7
13/08/2023	27/08/2023	23.0	35.2	23.4	32.0
27/08/2023	11/09/2023	23.9	37.3	24.3	33.8
11/09/2023	28/09/2023	27.5	40.1	26.2	35.4
28/09/2023	13/10/2023	29.3	42.2	28.9	38.0
13/10/2023	28/10/2023	31.1	43.8	30.5	40.2
28/10/2023	11/11/2023	30.4	42.9	28.6	39.0
11/11/2023	26/11/2023	29.3	44.2	27.6	40.3
26/11/2023	10/12/2023	29.4	45.6	27.2	42.4
10/12/2023	26/12/2023	28.5	41.0	26.6	34.8
26/12/2023	11/01/2024	31.8	46.6	27.6	41.5
11/01/2024	26/01/2024	30.5	40.2	28.7	34.7
26/01/2024	9/02/2024	30.4	44.4	27.5	41.0
9/02/2024	25/02/2024	31.4	47.6	29.8	41.4
25/02/2024	12/03/2024	31.0	43.9	29.2	36.1
12/03/2024	29/03/2024	30.8	40.1	29.0	34.7
29/03/2024	10/04/2024	31.0	41.8	30.2	38.1
10/04/2024	25/04/2024	27.5	37.5	25.7	26.5
25/04/2024	9/05/2024	27.3	36.9	25.5	32.6
9/05/2024	22/05/2024	25.5	34.8	25.2	31.0
22/05/2024	5/06/2024	23.0	34.1	21.2	31.0

Start date	End date	Temperature (°C)		AAQ Station	
		RT Pastoral Lease Average	Maximum	Average	Maximum
5/06/2024	19/06/2024	21.7	32.4	22.8	28.5
19/06/2024	3/07/2024	21.5	30.5	19.7	27.5
3/07/2024	17/07/2024	21.1	35.2	21.1	30.5
17/07/2024	1/08/2024	21.0	31.6	22.0	30.4
1/08/2024	17/08/2024	21.6	33.9	22.4	31.1
17/08/2024	31/08/2024	23.9	39.3	23.7	34.0
31/08/2024	15/09/2024	27.4	38.6	27.2	35.4
15/09/2024	1/10/2024	26.2	37.2	25.1	33.9
1/10/2024	15/10/2024	28.4	40.7	26.7	38.9
15/10/2024	31/10/2024	29.1	42.9	28.2	37.9
31/10/2024	15/11/2024	33.2	44.8	31.2	41.2
15/11/2024	1/12/2024	29.5	39.2	28.1	35.9
1/12/2024	15/12/2024	30.4	42.1	29.4	34.8
15/12/2024	29/12/2024	33.7	44.6	31.3	41.6
29/12/2024	12/01/2025	33.1	40.8	32.0	36.6
12/01/2025	27/01/2025	23.7	39.9	29.7	35.4
27/01/2025	10/02/2025	33.1	32.6	32.2	40.0
10/02/2025	24/02/2025	31.6	42.1	31.0	37.7
24/02/2025	10/03/2025	34.2	46.9	33.1	41.2
10/03/2025	24/03/2025	31.4	42.1	31.4	38.6
24/03/2025	7/04/2025	31.6	41.5	30.2	38.8
7/04/2025	22/04/2025	30.8	41.5	30.9	38.4
22/04/2025	6/05/2025	28.2	38.7	28.5	34.5
6/05/2025	20/05/2025	25.3	35.5	26.5	32.6
20/05/2025	3/06/2025	22.8	33.4	23.1	30.6
3/06/2025	17/06/2025	21.6	30.5	22.9	28.0
17/06/2025	1/07/2025	20.1	30.2	21.4	27.9
1/07/2025	15/07/2025	20.5	32.4	21.7	29.0
15/07/2025	29/07/2025	18.9	29.9	20.2	27.3
29/07/2025	14/08/2025	21.0	34.1	21.3	29.9
14/08/2025	30/08/2025	21.9	34.3	22.6	31.2
30/08/2025	14/09/2025	23.3	36.3	23.6	32.8

Temperatures, illustrated in Figure 3.56 to Figure 3.67, experience a broader diurnal swing at the inland RT Pastoral Lease (background) site relative to lower Murujuga, and temperature at the background site exceeded 39 °C on several days (3.4%, 1.7%, 3.2% and 3.1% of total time during the reporting period for Years 1,2,3 and 4, respectively).

Conditions at the sites located on lower Murujuga only experienced temperatures above 39 °C for 0.2%, 0.05%, 0.1% and 0.2% of the total monitoring duration for the first, second, third and fourth year of the reporting period, respectively.

Radiello reports a negligible effect of temperature between 2-39 °C for NH₃ and -10-40 °C for SO₂. Since the temperatures were largely within the range of invariant sampling rate, the Radiello data for NH₃ and SO₂ were not subject to temperature correction.

Relative humidity (RH) above 90% and below 10% can interfere with passive sampling methods. During the reporting period, RH was predominantly within the 10-90% range. The maximum RH was typically lower at the inland RT Pastoral Lease site (Figure 3.68 to Figure 3.75). Humidity was recorded above 90% for 2.7% and 2.5% of the monitoring period for RT Pastoral Lease site and AAQ Station, respectively, during Year 1, 1.3% and 1.1% of the monitoring duration in the second year of the program, 1.1% and 2.3% of the third year and 1.3% and 1.6% of the fourth year.

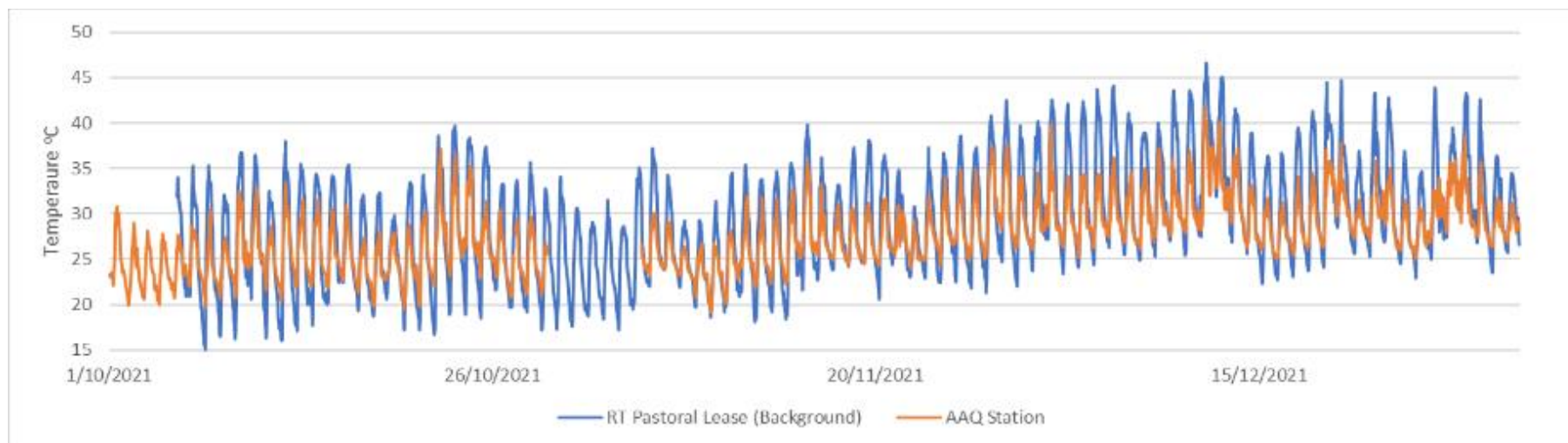


Figure 3.56: Ambient temperature at RT Pastoral Lease and AAQ Station Quarter 1

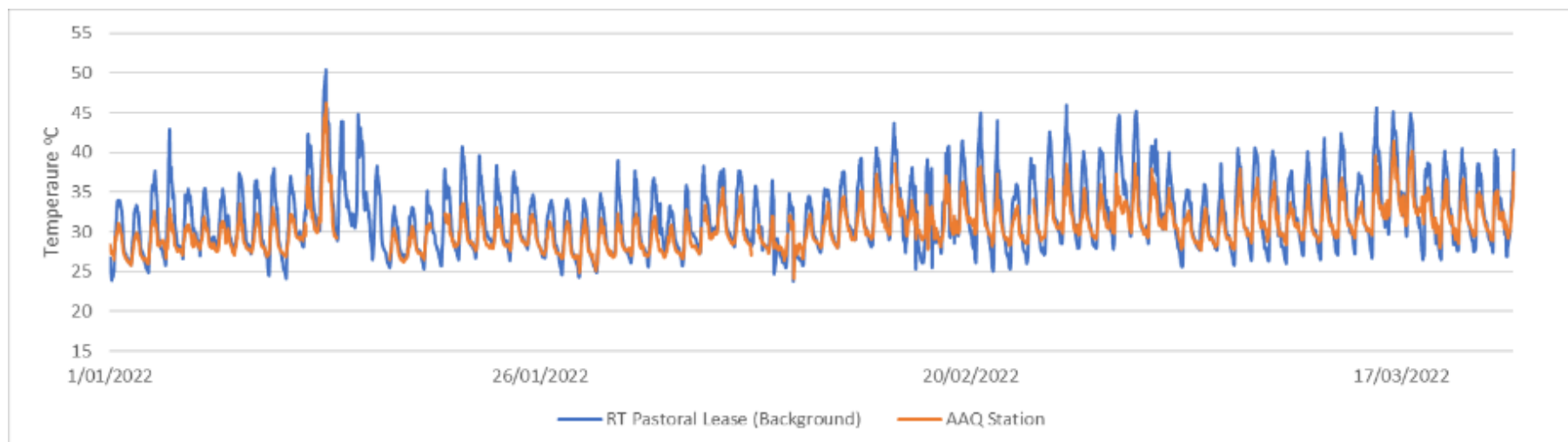


Figure 3.57: Ambient temperature at RT Pastoral Lease and AAQ Station Quarter 2

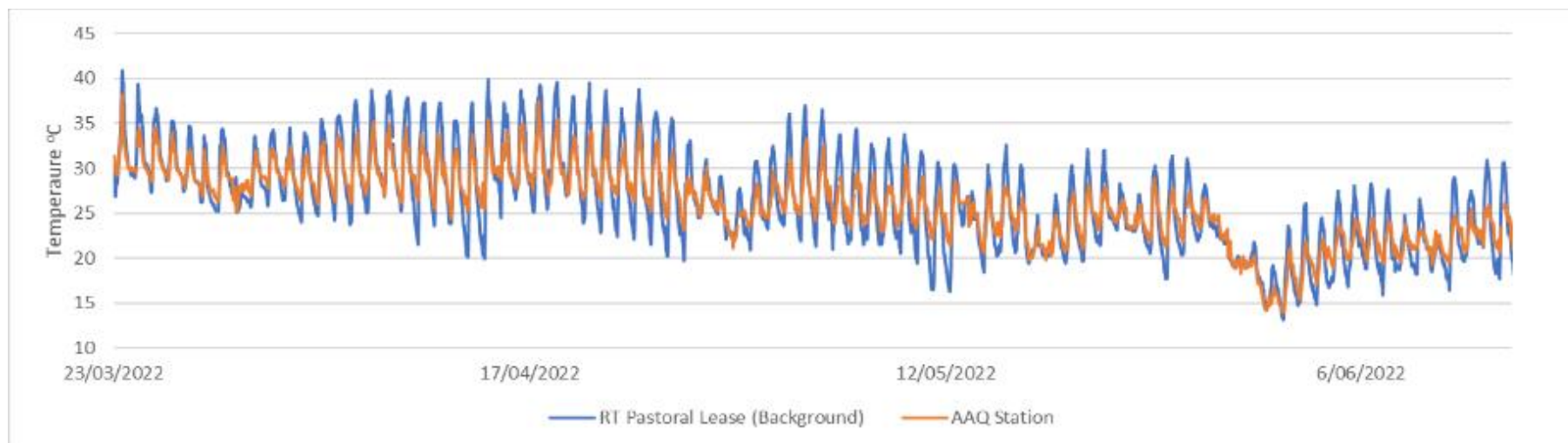


Figure 3.58: Ambient temperature at RT Pastoral Lease and AAQ Station Quarter 3

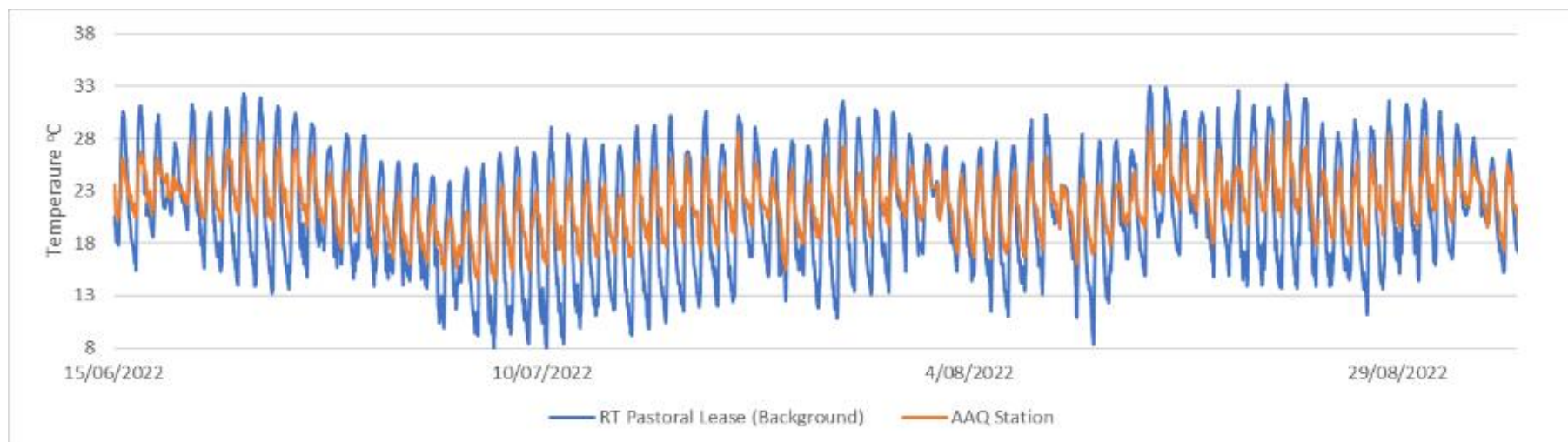


Figure 3.59: Ambient temperature at RT Pastoral Lease and AAQ Station Quarter 4

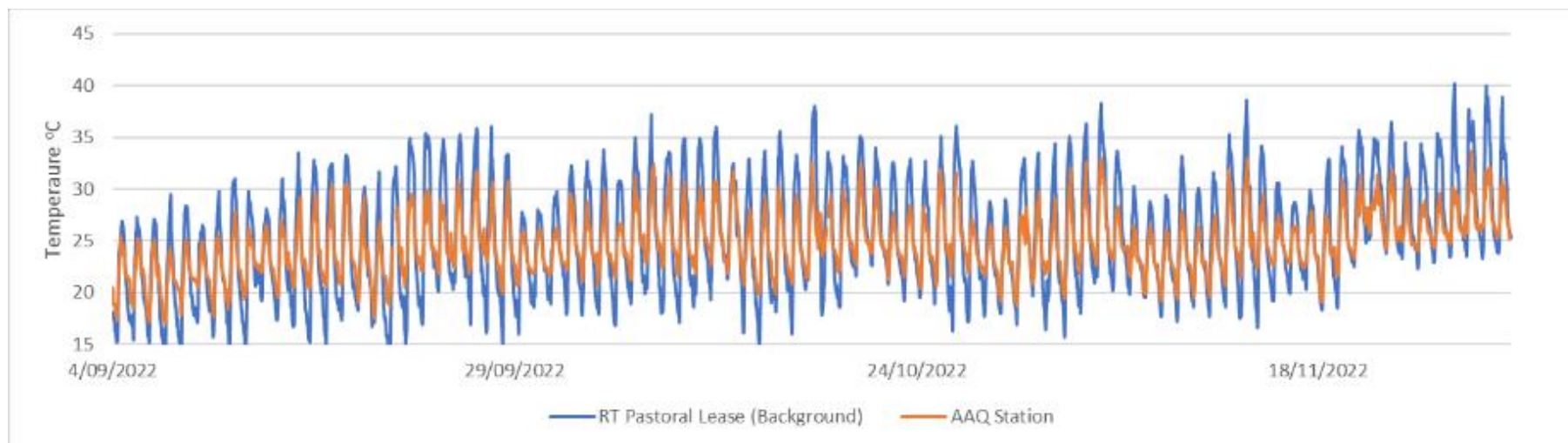


Figure 3.60: Ambient temperature at RT Pastoral Lease and AAQ Station Quarter 5

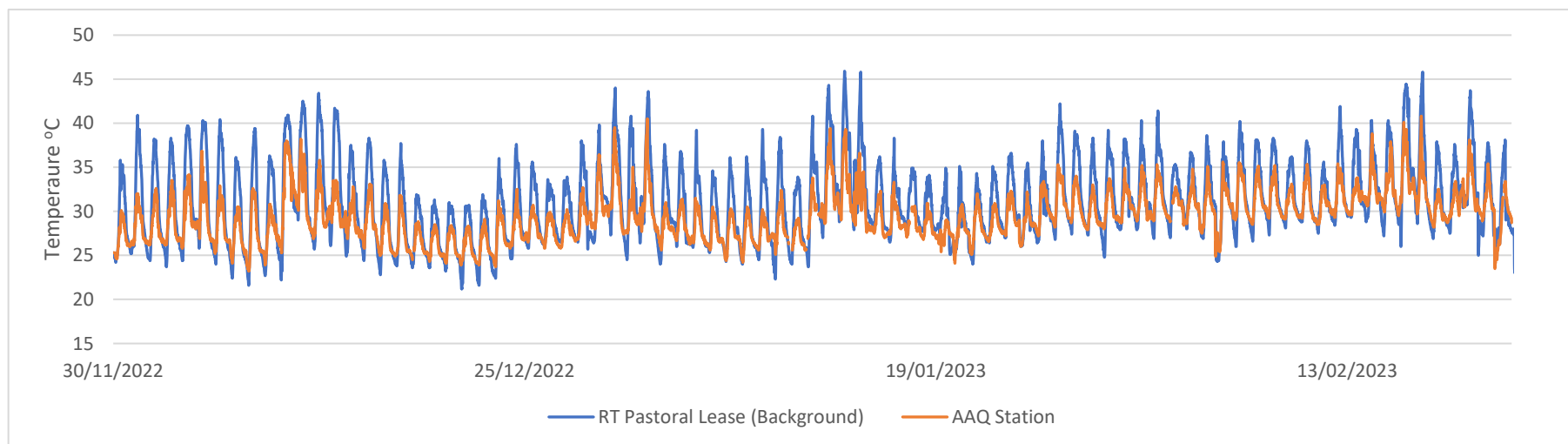


Figure 3.61: Ambient temperature at RT Pastoral Lease and AAQ Station Quarter 6

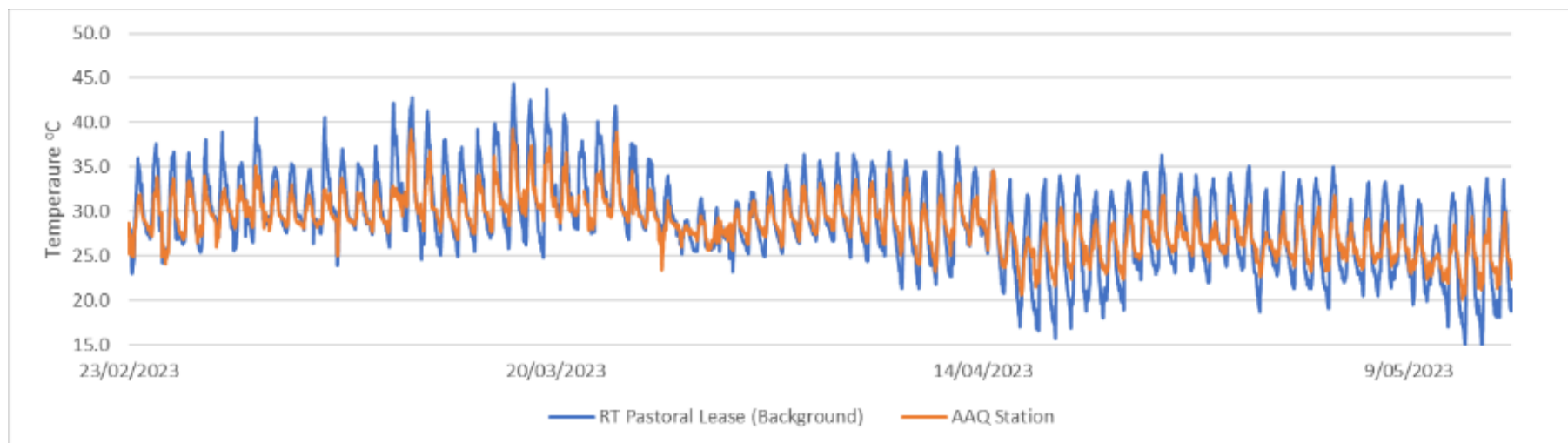


Figure 3.62: Ambient temperature at RT Pastoral Lease and AAQ Station Quarter 7

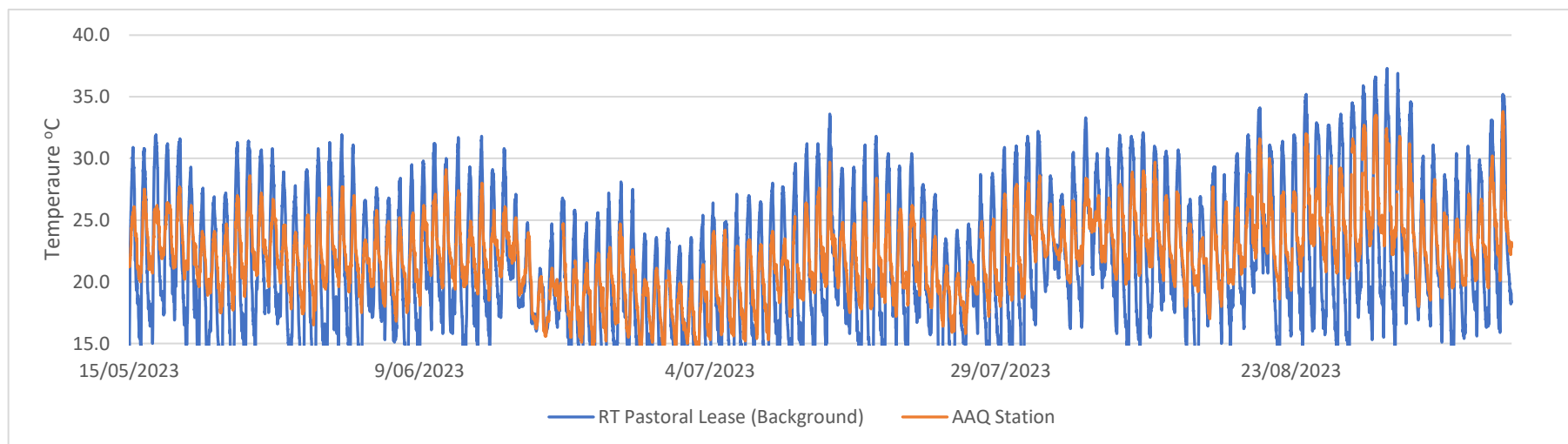


Figure 3.63: Ambient temperature at RT Pastoral Lease and AAQ Station Quarter 8 (plus 1 month)

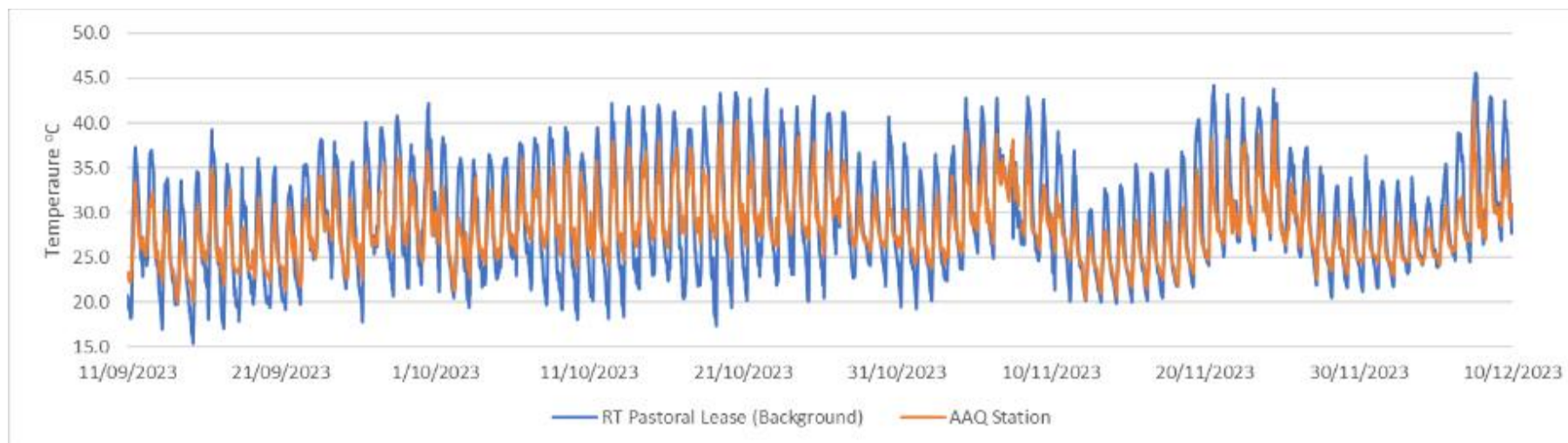


Figure 3.64: Ambient temperature at RT Pastoral Lease and AAQ Station Quarter 9

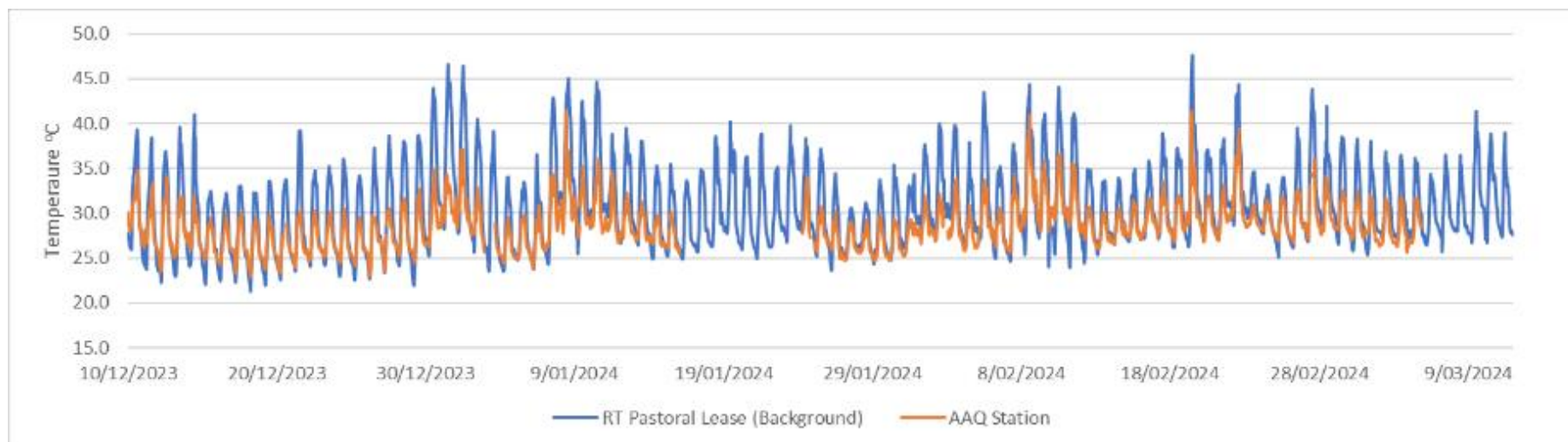


Figure 3.65: Ambient temperature at RT Pastoral Lease and AAQ Station Quarter 10

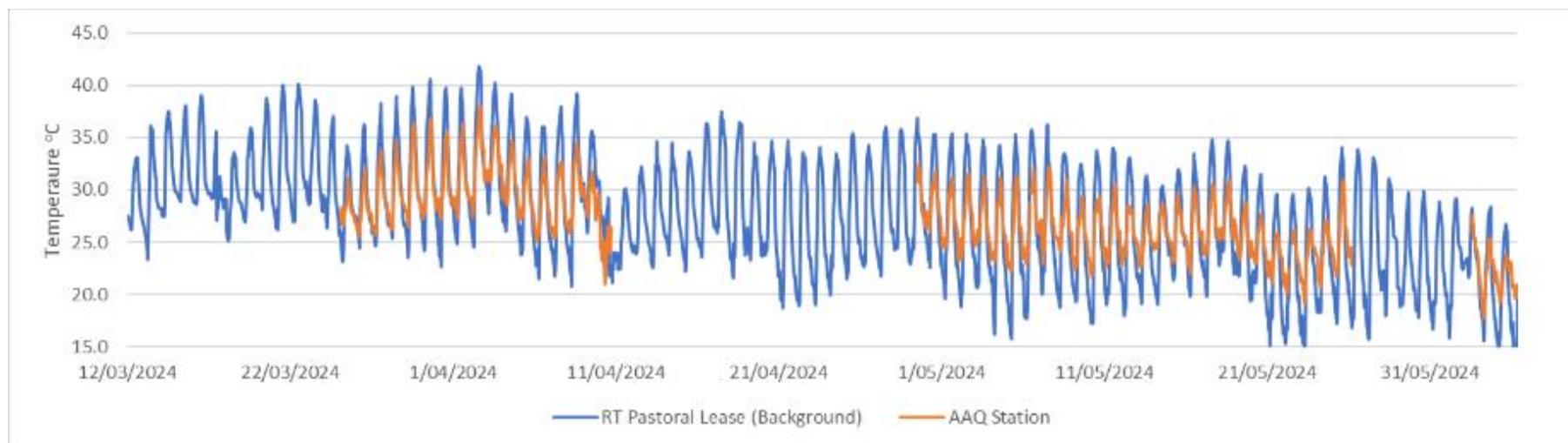


Figure 3.66: Ambient temperature at RT Pastoral Lease and AAQ Station Quarter 11

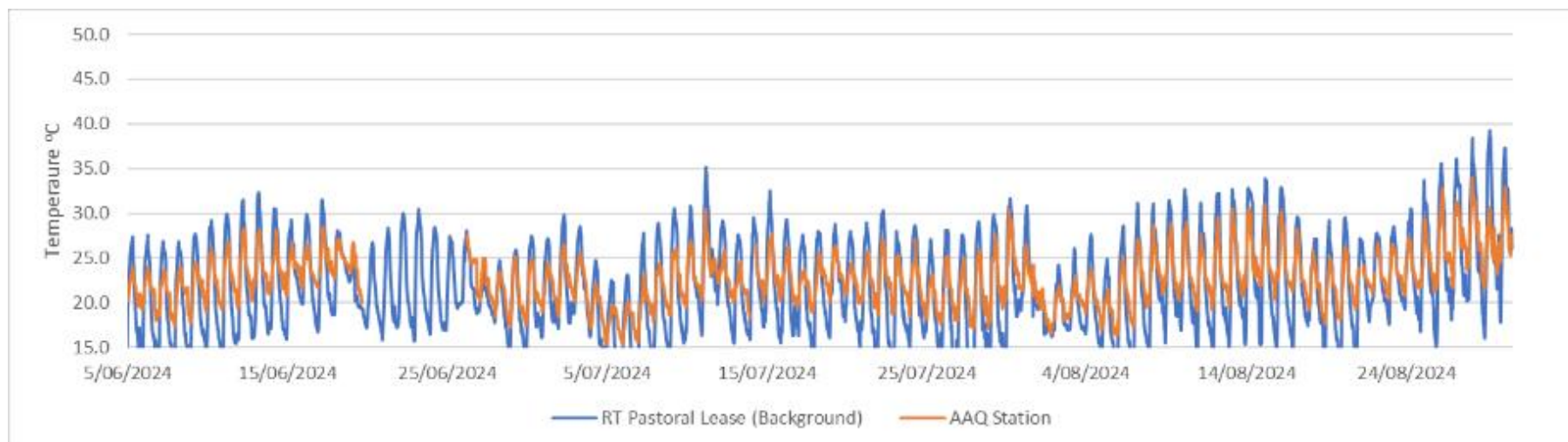


Figure 3.67: Ambient temperature at RT Pastoral Lease and AAQ Station Quarter 12

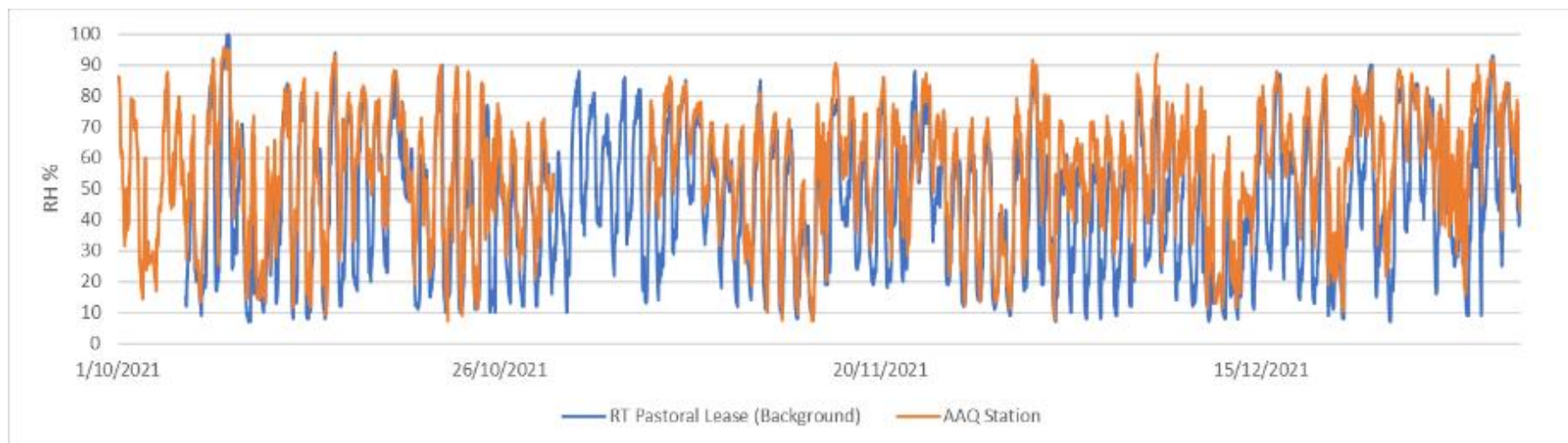


Figure 3.68: Relative humidity at RT Pastoral Lease and AAQ Station Quarter 1

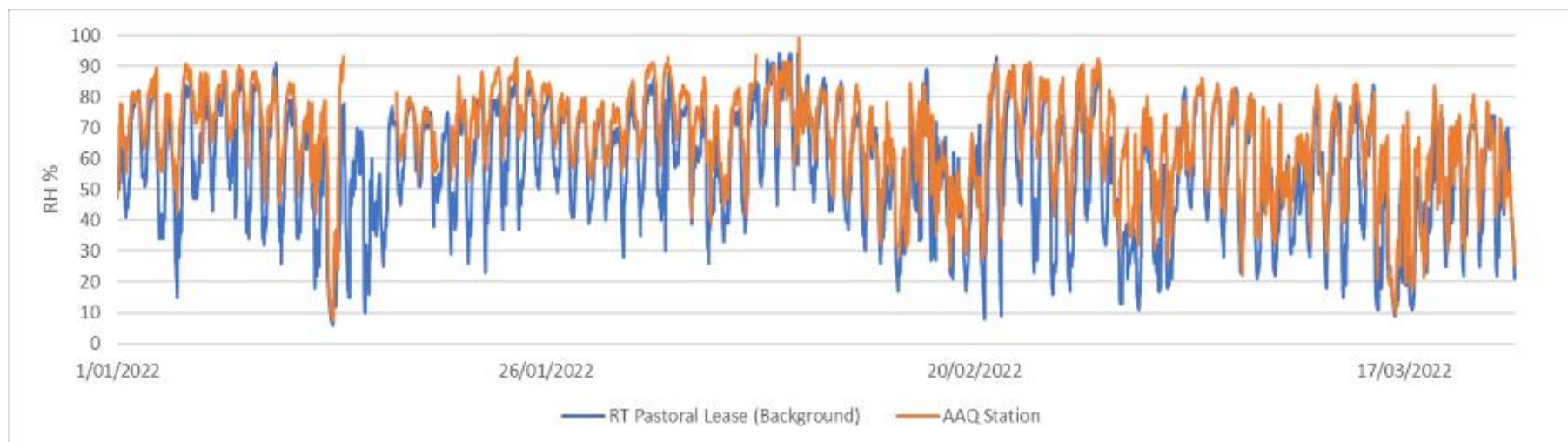


Figure 3.69: Relative humidity at RT Pastoral Lease and AAQ Station Quarter 2

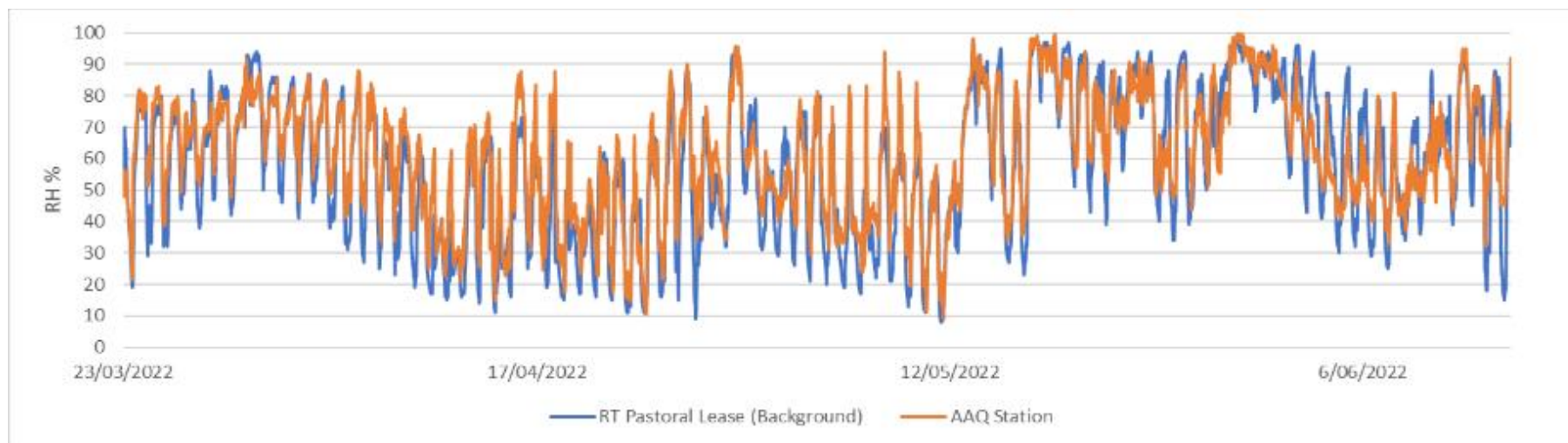


Figure 3.70: Relative humidity at RT Pastoral Lease and AAQ Station Quarter 3

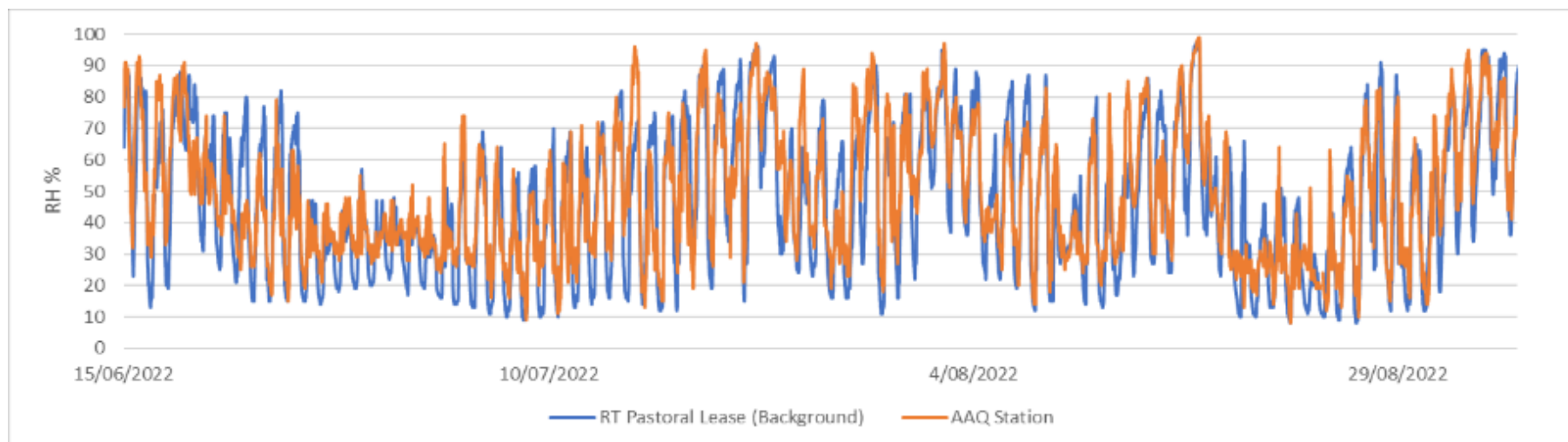


Figure 3.71: Relative humidity at RT Pastoral Lease and AAQ Station Quarter 4

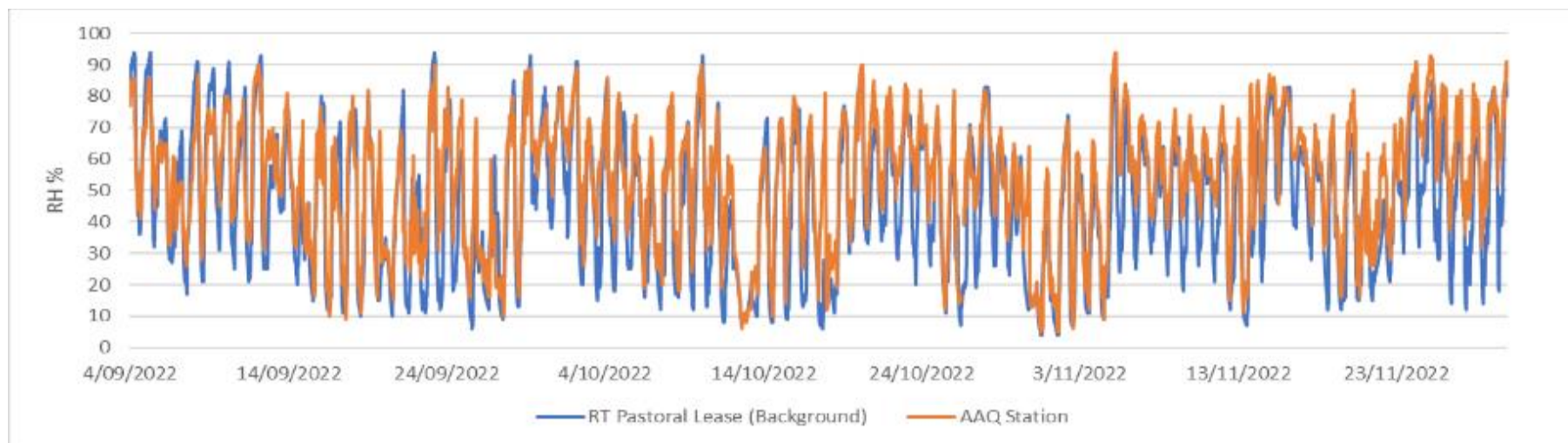


Figure 3.72: Relative humidity at RT Pastoral Lease and AAQ Station Quarter 5

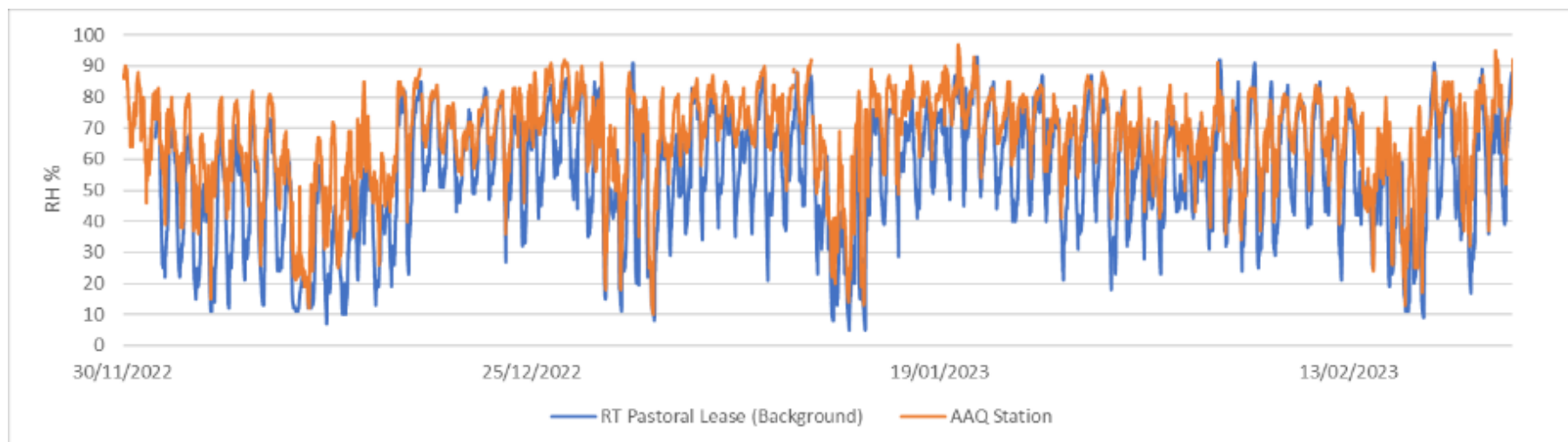


Figure 3.73: Relative humidity at RT Pastoral Lease and AAQ Station Quarter 6

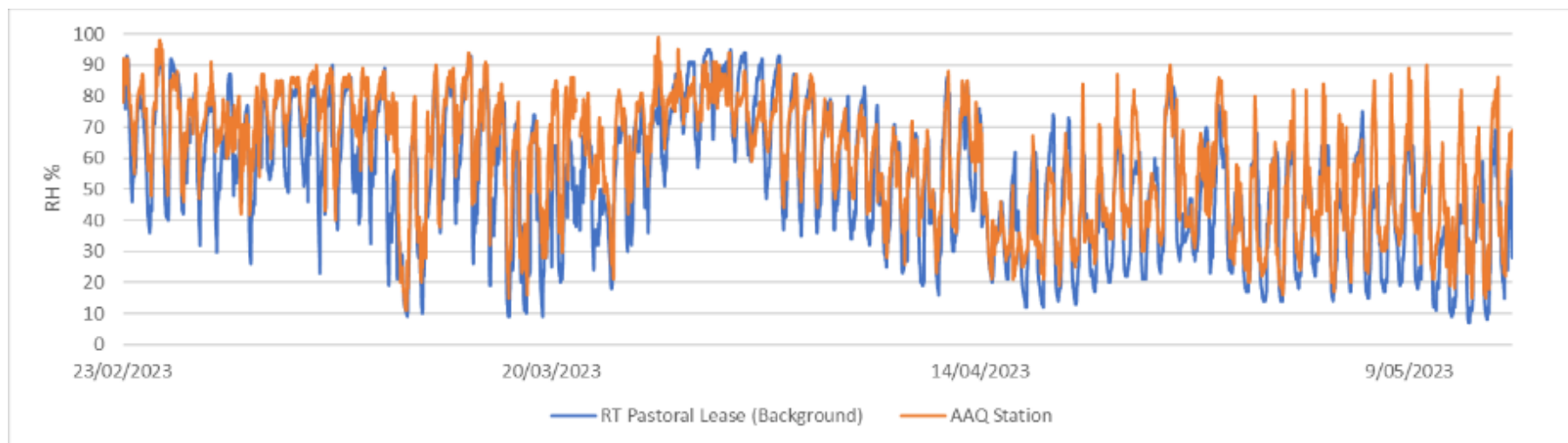


Figure 3.74: Relative humidity at RT Pastoral Lease and AAQ Station Quarter 7

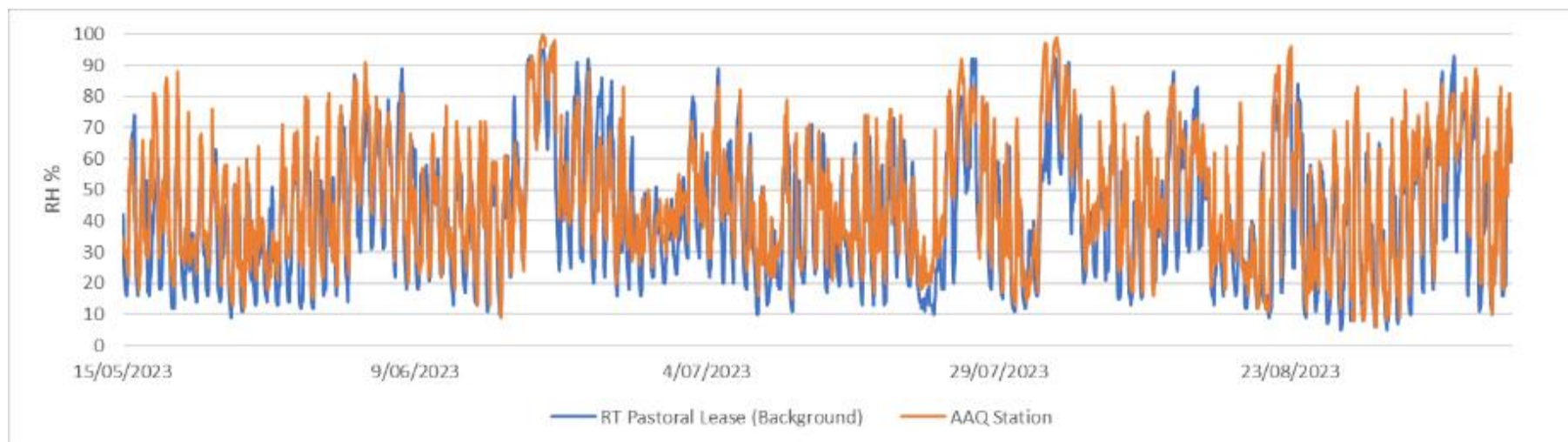


Figure 3.75: Relative humidity at RT Pastoral Lease and AAQ Station Quarter 8

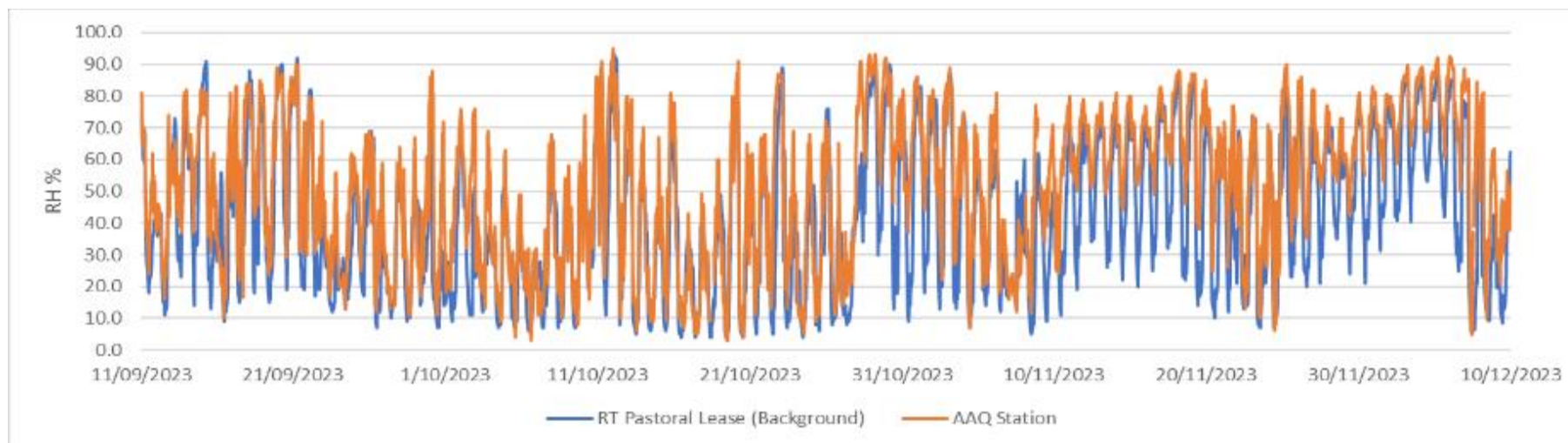


Figure 3.76: Relative humidity at RT Pastoral Lease and AAQ Station Quarter 9

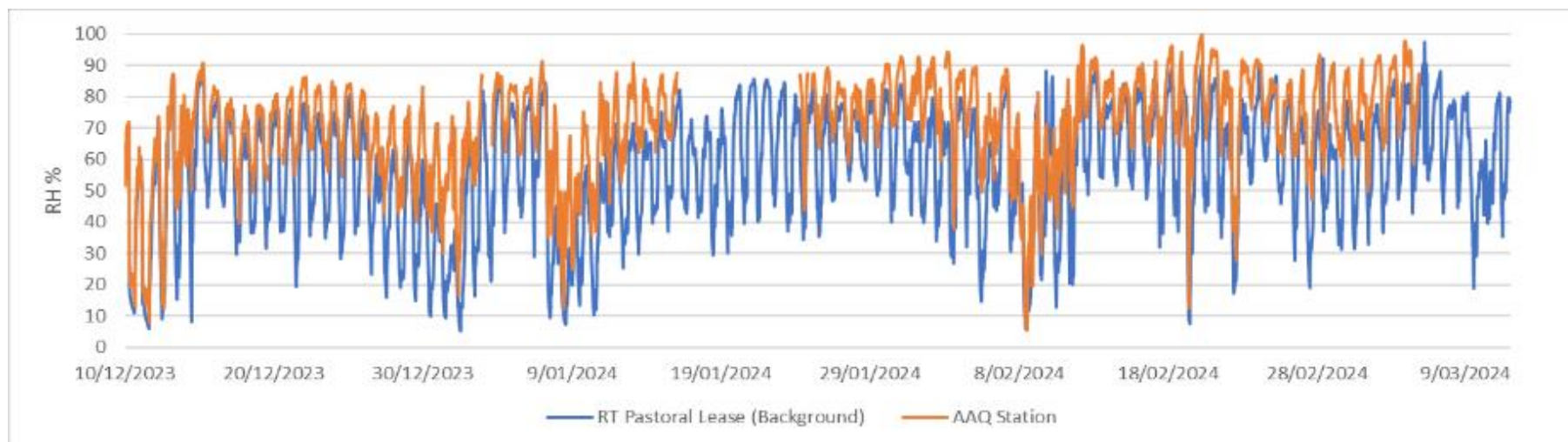


Figure 3.77: Relative humidity at RT Pastoral Lease and AAQ Station Quarter 10

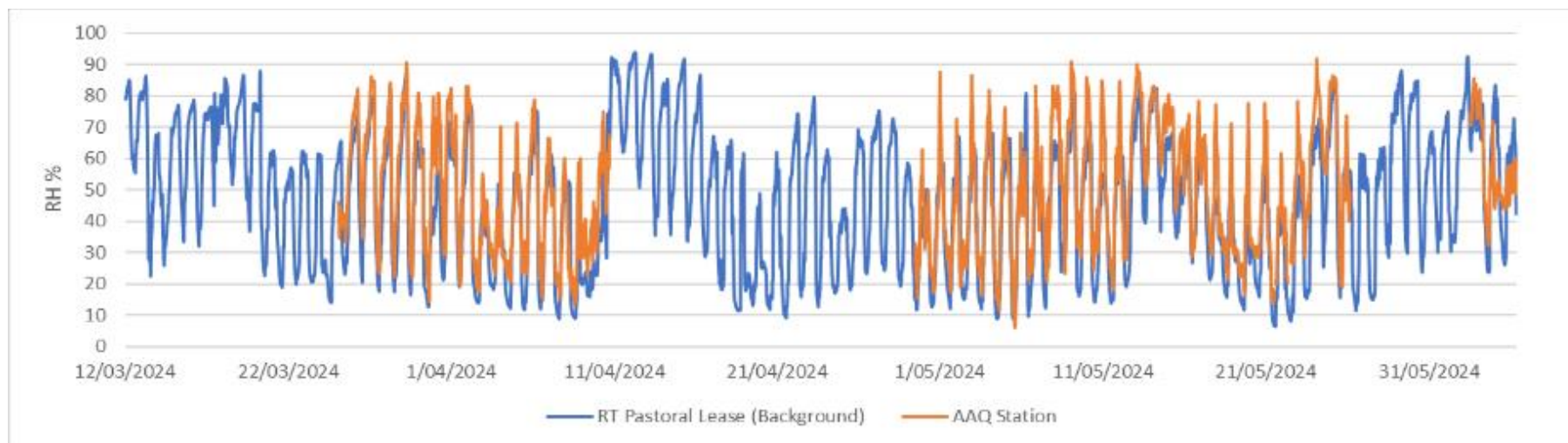


Figure 3.78: Relative humidity at RT Pastoral Lease and AAQ Station Quarter 11

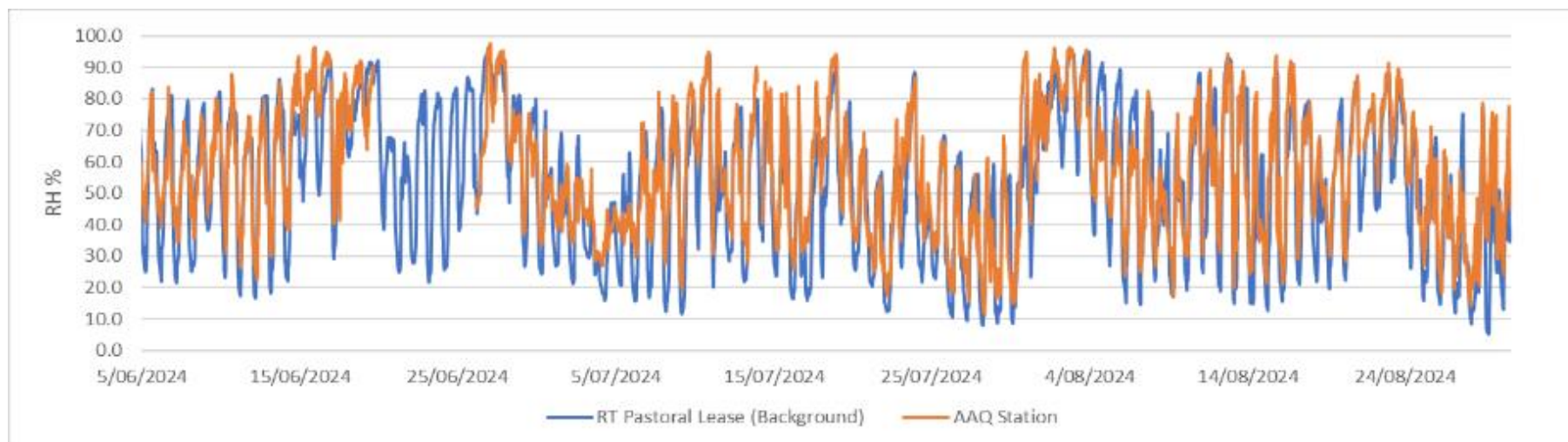


Figure 3.79: Relative humidity at RT Pastoral Lease and AAQ Station Quarter 12

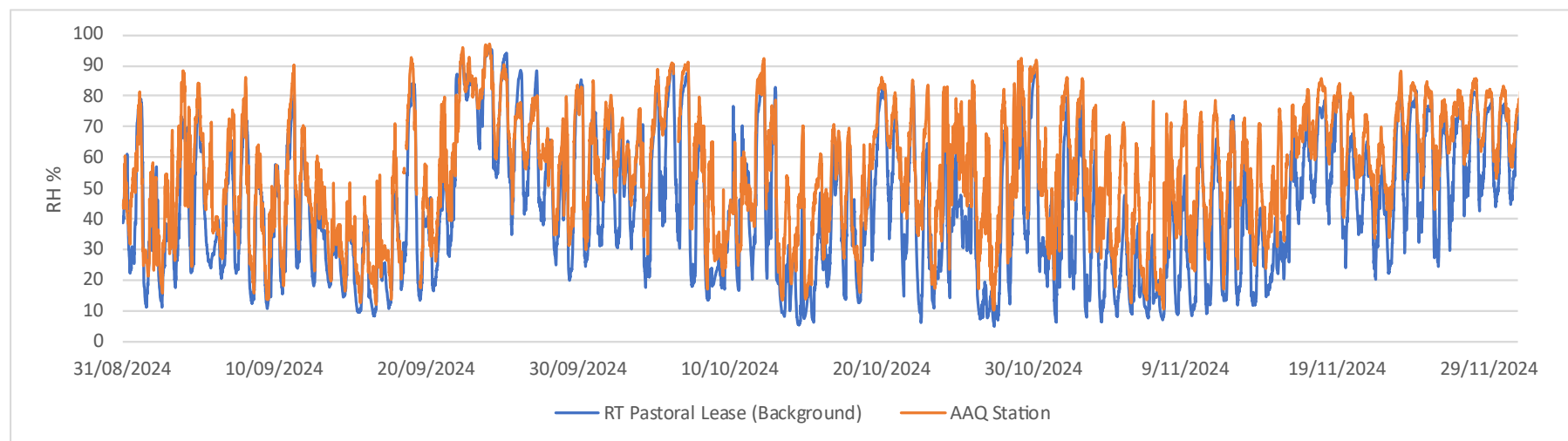


Figure 3.80: Relative humidity at RT Pastoral Lease and AAQ Station Quarter 13

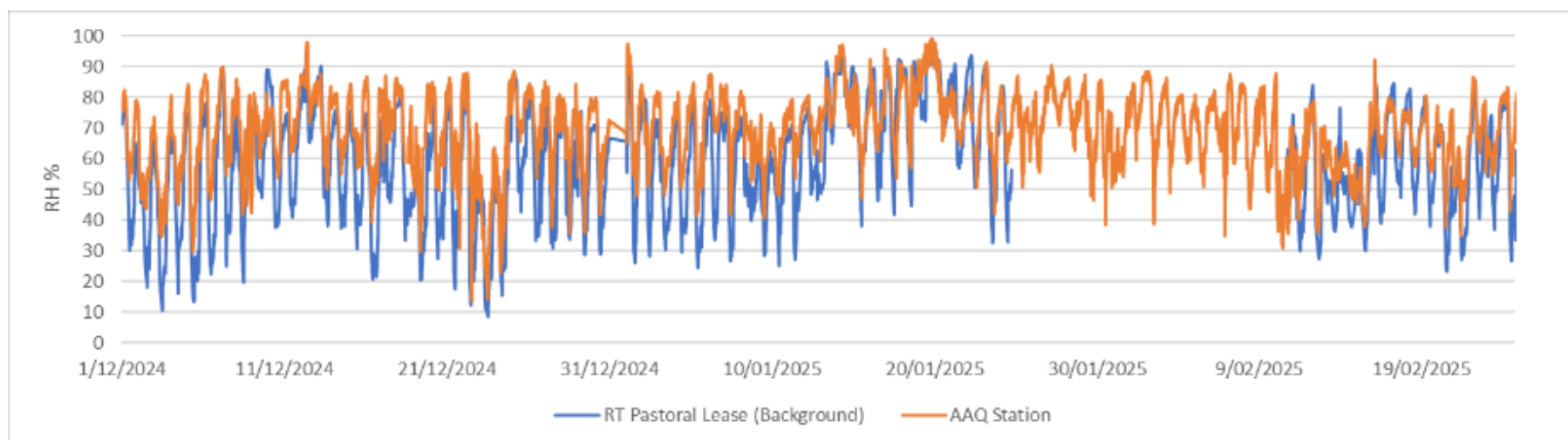


Figure 3.81: Relative humidity at RT Pastoral Lease and AAQ Station Quarter 14

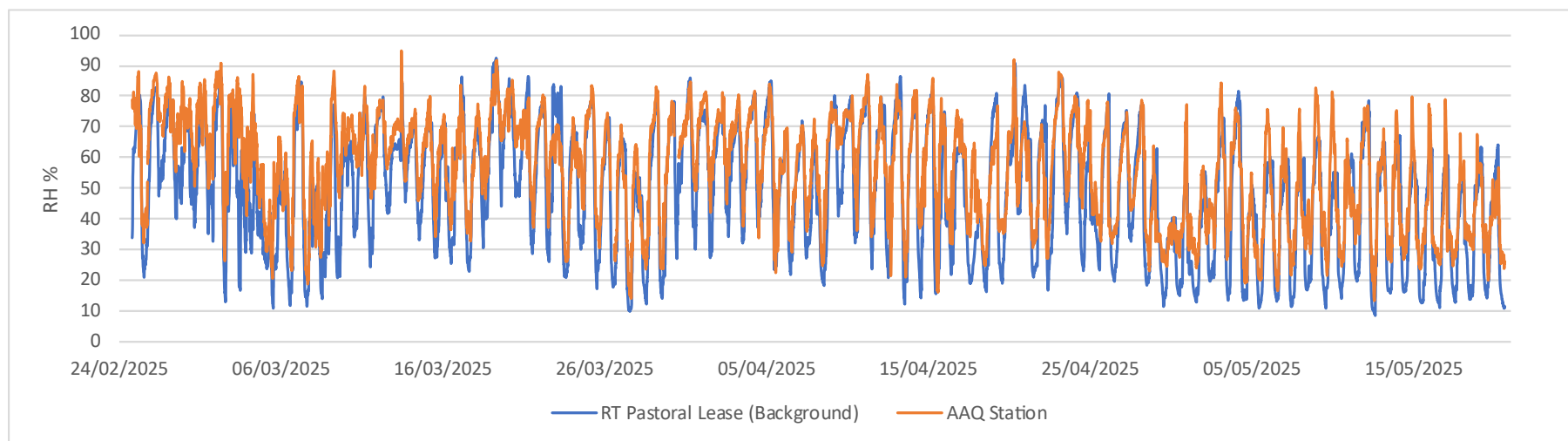


Figure 3.82: Relative humidity at RT Pastoral Lease and AAQ Station Quarter 15

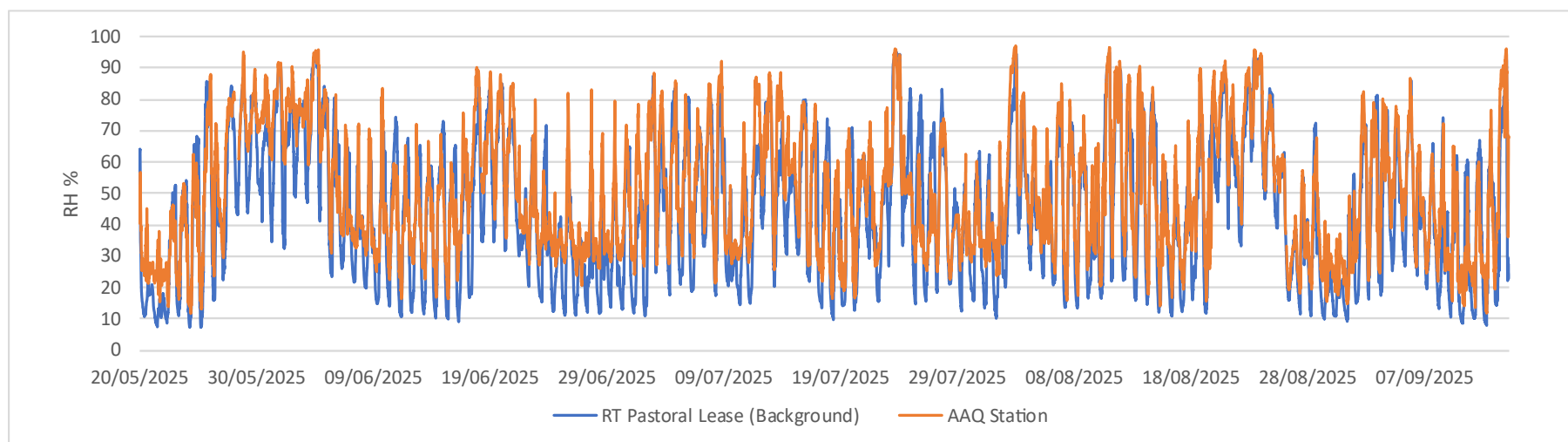


Figure 3.83: Relative humidity at RT Pastoral Lease and AAQ Station Quarter 16

3.3 Deposited dust

Results of dust deposition monitoring for the five sites are shown in Figure 3.84 to Figure 3.100, illustrating the contribution of the soluble and insoluble fractions. Whilst localised dust sources may influence the soluble to insoluble ratios, the five sites had similar ratios for most sampling periods across the monitoring to date, implying the sampling is typically representative of the broader airshed rather than near field sources.

The soluble solids data for KBSF Quarry from Round 19 (commencing 23 Feb 2023) is not included as the soluble fraction was determined to be 69 g/m²/month, which is a large outlier and likely not representative of the true ambient concentration.

The trends for each site across the annual monitoring periods are illustrated in Figure 3.101 to Figure 3.104.

The deposited dust recorded during the first year was largely within the range publicly reported by Yara Pilbara for the 2021/2022 period (maximum 7.9 g/m²/month at Hearson Cove). The exception was the maximum (7.4 g/m²/month) at the RT Pastoral Lease site, which occurred in February 2022 (Round 5) and had a high proportion of insoluble material likely to be crustal dust (i.e., particles of soil and rock lifted from the Earth's surface). Whilst rain occurred during this sampling period, a prolonged period of elevated winds was recorded prior (during the early part of the sampling). Furthermore, the monitoring station is in a stock paddock and, therefore, the movement of animals in the vicinity of the station during dry conditions or the action of elevated winds on dusty unvegetated ground could have further contributed to the high levels recorded. During the second and third years, the RT Pastoral Lease results continued to be occasionally higher than the Murujuga sites.

The Mt Wongama maximum (6.7 g/m²/month) was the highest recorded at the Murujuga monitoring sites during the first year and was contributed to by elevation of both soluble and insoluble fractions. This site is an elevated and exposed position compared to the other monitoring sites and, therefore, may be more exposed to marine aerosols and potential for wind-blown crustal dust from all directions.

KBSF Quarry experienced the next highest levels of deposited dust (5.8 g/m²/month), with a spike in insoluble component compared to other samples at this site for the sample collected in Round 9 (May to June 2022). This round included a period from the evening on 21 May 2022 to the evening of 29 May 2022 when winds were more than 10 m/s (peak illustrated at the AAQ Station in Figure 4.34).

During the second year, the Murujuga results were largely below the maximum dust deposition of 4.9 g/m²/month reported by Yara Pilbara (during the 2022-2023). The average recorded across the three Yara Pilbara sites was 2.03 g/m²/month compared to 3.3 g/m²/month at the WADMP Murujuga sites. This may reflect the location of the WADMP monitoring sites, which are closer to industry, including ground disturbance activities, that could have contributed localised dust sources; whereas the Yara Pilbara monitoring locations are situated on relatively undisturbed ground.

The highest dust deposition (total dust 15 g/m²/month) during Year 2 was recorded at KBSF Quarry for Round 17 (period commencing 27 December 2022). The second highest dust deposited was 14 g/m²/month recorded at AAQ Station during Round 22 (sampling period commencing 15 May 2023). These two sites may have been influenced by localised sources during these two monitoring periods as the other Murujuga sites did not exhibit similarly elevated deposited dust levels. In particular, the area surrounding the KBSF Quarry monitoring location is largely unstable material from the quarry with a higher potential for lift off by the wind than other sites.

During the third year, the Murujuga results were largely within the ranges seen prior and were predominantly below the maximum dust deposition of 4.6 g/m²/month reported by Yara Pilbara. The average recorded across the three Yara Pilbara sites was 2.4 g/m²/month compared to 3.5 g/m²/month at the WADMP Murujuga sites.

The highest dust deposition (total dust 11 g/m²/month) during Year 3 for the WADMP was recorded at AAQ Station for Round 37 (period commencing 1 August 2024), which is outside the period of comparison with the Yara Pilbara data, which is reported on a financial year basis). The second highest deposited dust was 9.8 g/m²/month recorded at KBSF Quarry for the same monitoring period; the other three Murujuga monitoring sites also exhibited their highest deposition during this period indicating elevated atmospheric particulate across the airshed.

Yara Pilbara reported a maximum dust deposition of 4.6 g/m²/month for the 2023/2024 period while the maximum at the WADMP sites was 8.6 g/m²/month recorded at KBSF Quarry for December 2023. The KBSF Quarry site may have been affected by nearby truck movements on the unsealed surface surrounding the monitoring station.

During Year 4 of the WADMP, the maximum dust deposition of 9.1 g/m²/month occurred at Mt Wongama (period commencing 20 May 2025). Other Murujuga sites also recorded elevated dust deposition for this sampling period compared to other sampling periods in the year.

Yara Pilbara reported a maximum dust deposition of 9.3 g/m²/month, occurring at the Water Tanks site for sampling commencing 6 March 2025, for the 2024/2025 period.

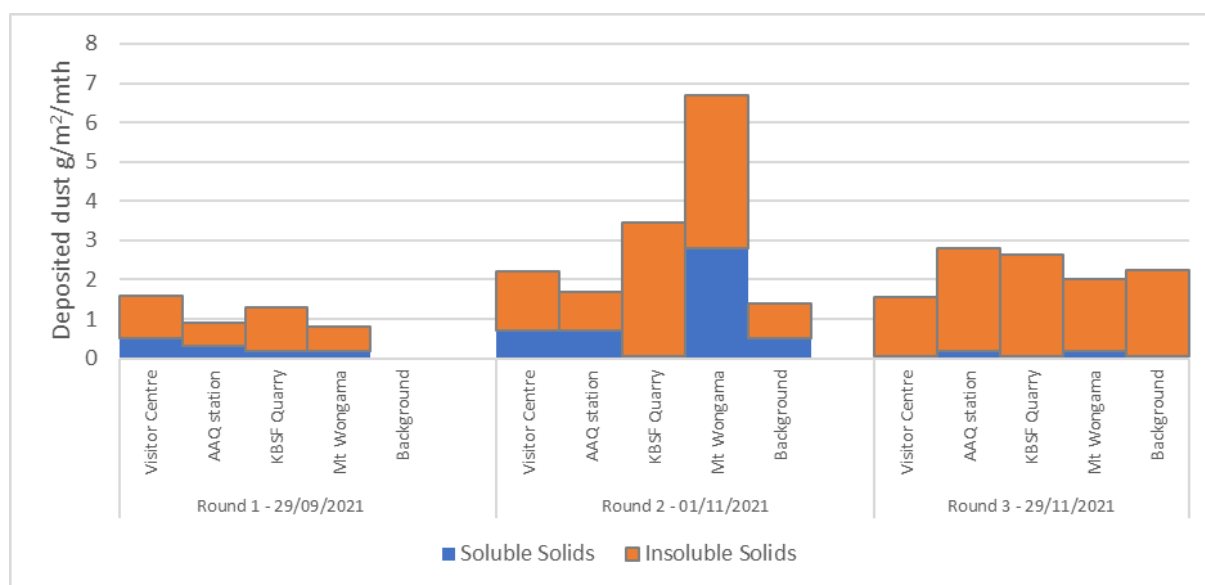


Figure 3.84: Deposited dust 29 September to 29 December 2021

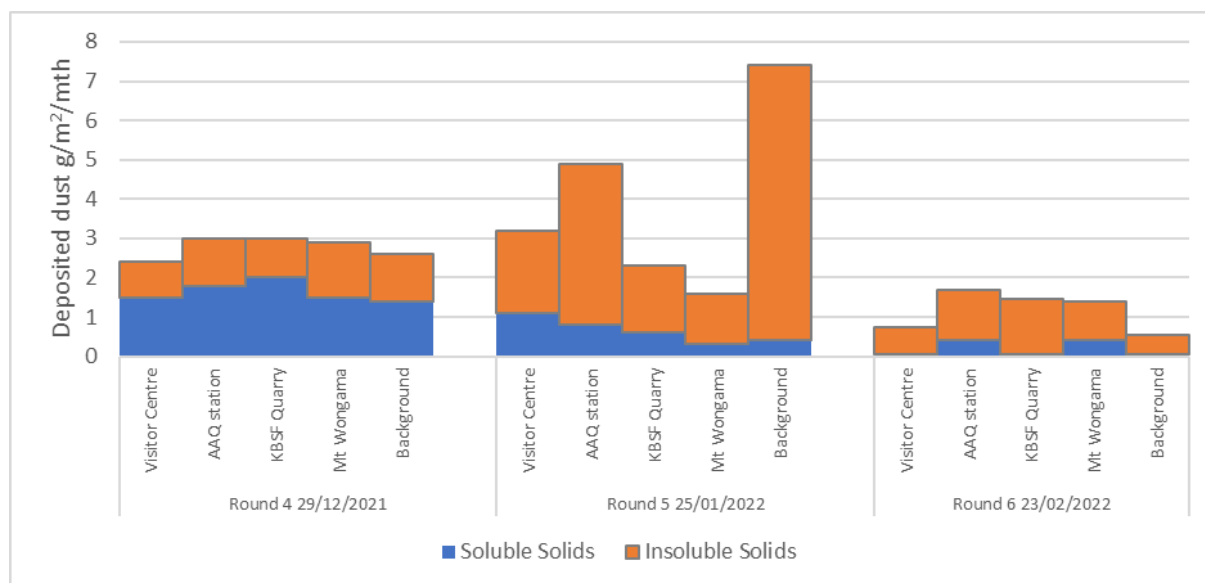


Figure 3.85: Deposited dust 29 November 2021 to 23 March 2022

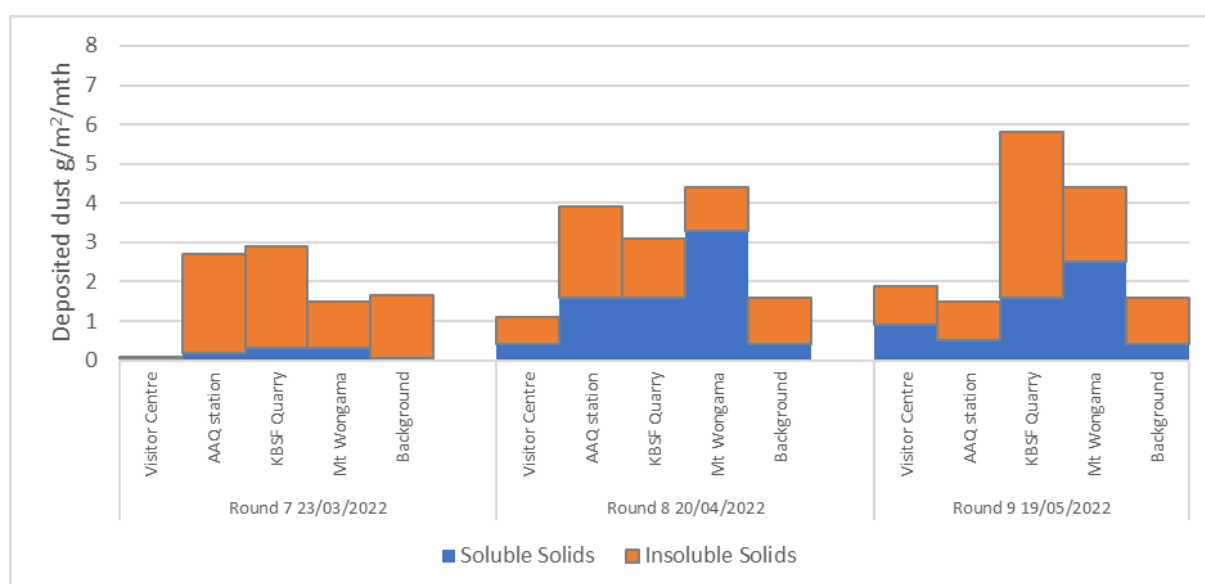


Figure 3.86: Deposited dust 23 March 2022 to 15 June 2022

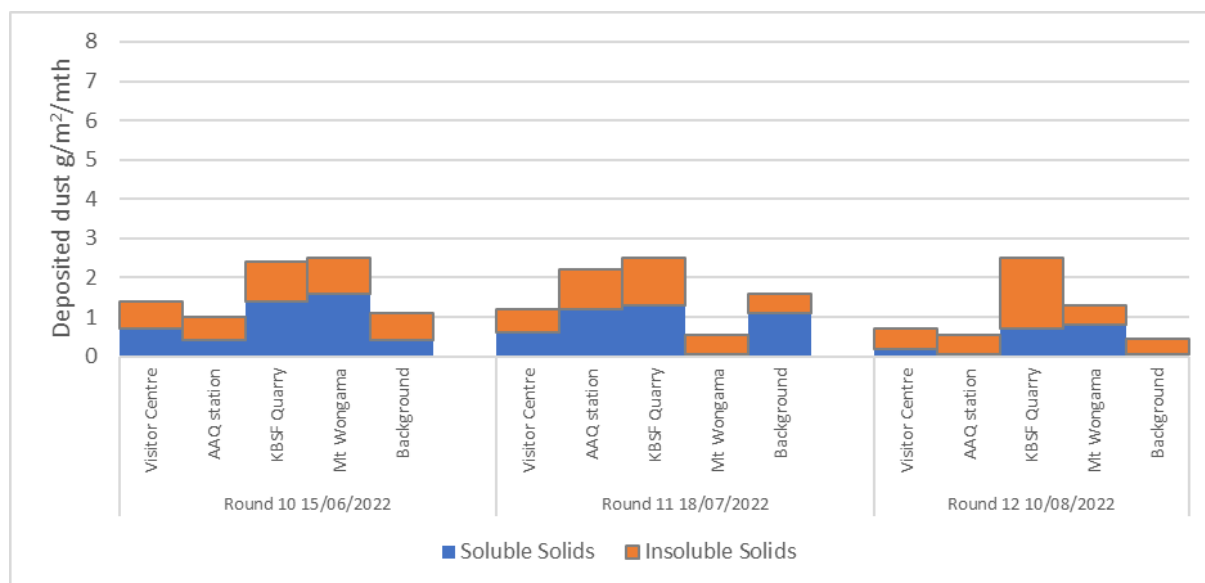


Figure 3.87: Deposited dust 15 June 2022 to 4 September 2022

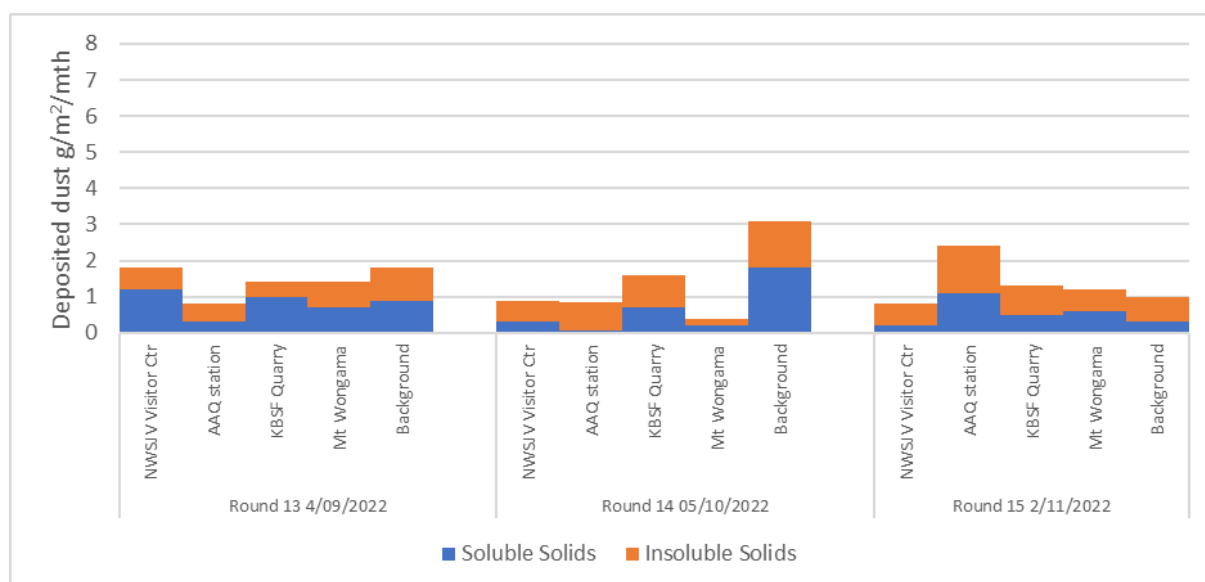


Figure 3.88: Deposited dust results 4 September 2022 to 30 November 2022

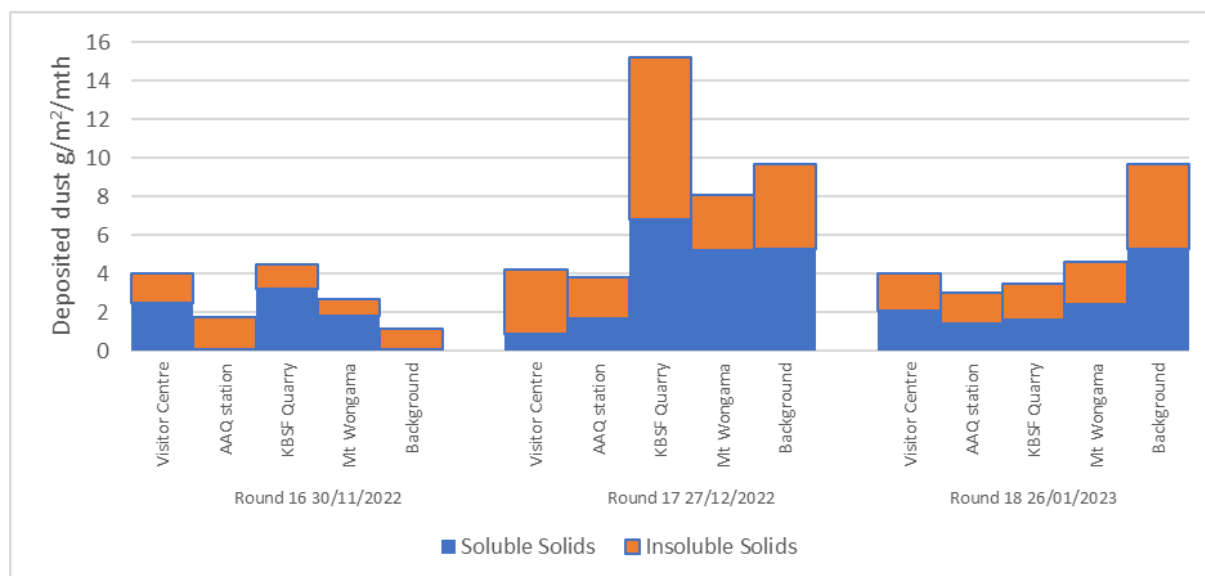


Figure 3.89: Deposited dust results 30 November 2022 to 23 February 2023

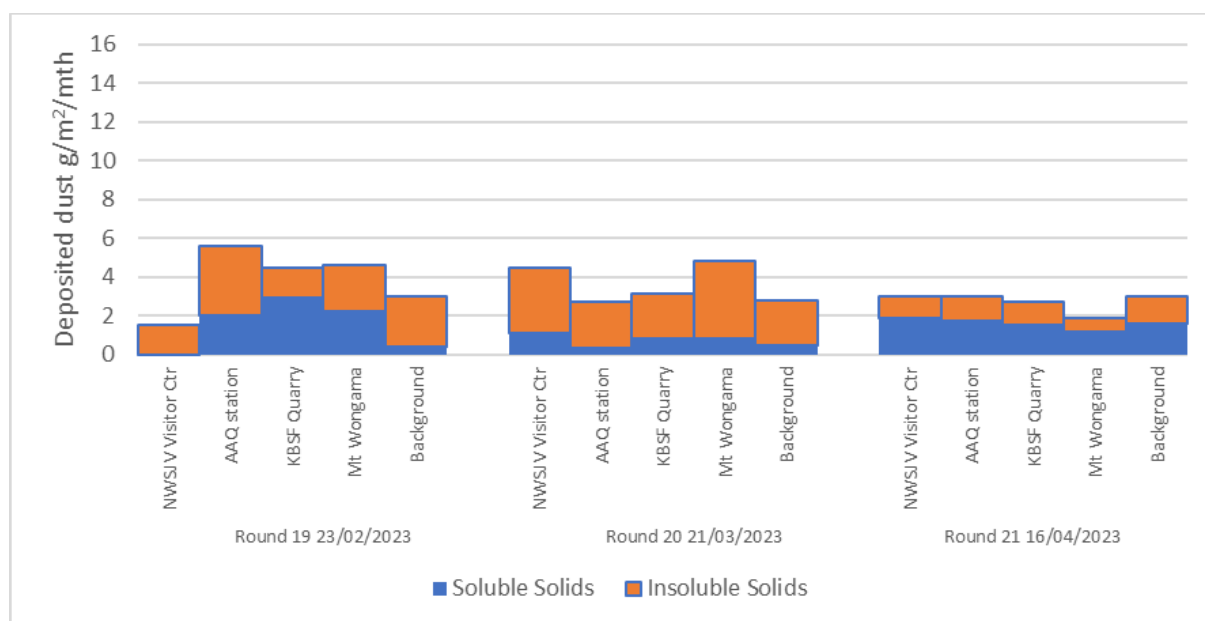


Figure 3.90: Deposited dust 23 February 2022 to 15 May 2023

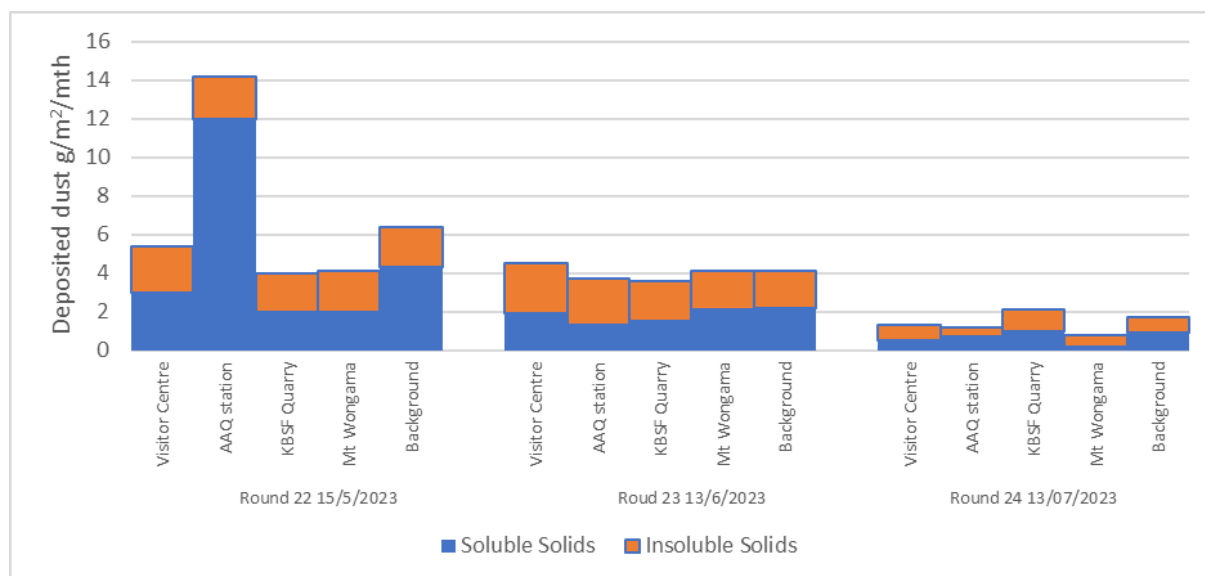


Figure 3.91: Deposited dust 15 May 2023 to 13 August 2023

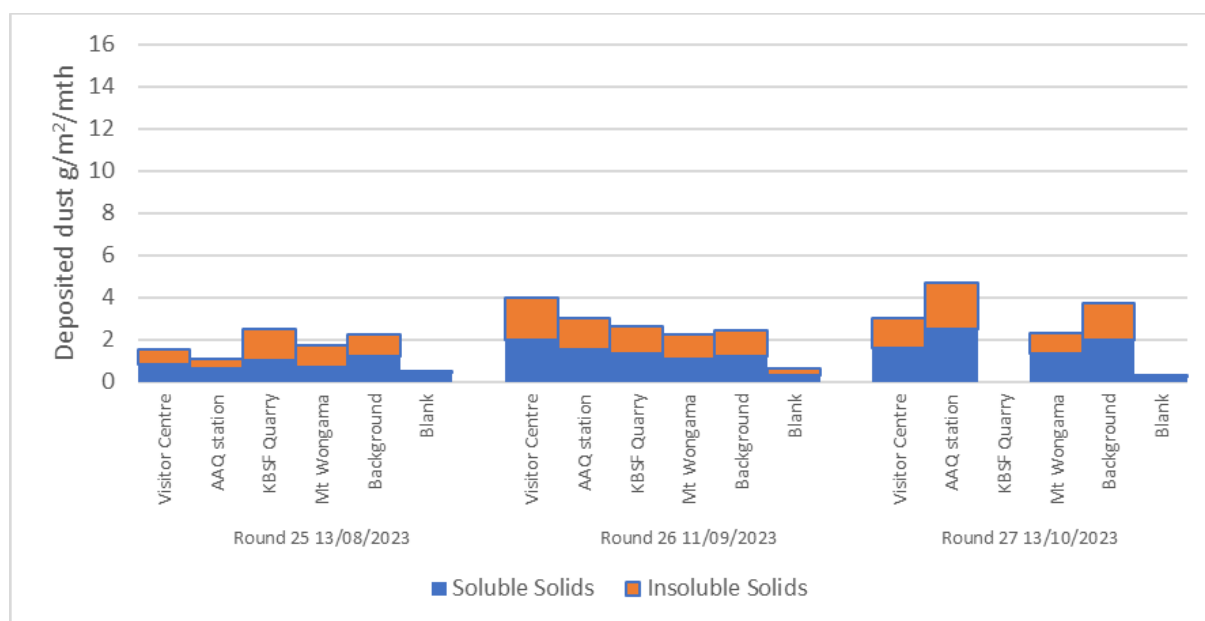


Figure 3.92: Deposited dust 13 August 2023 to 11 November 2023

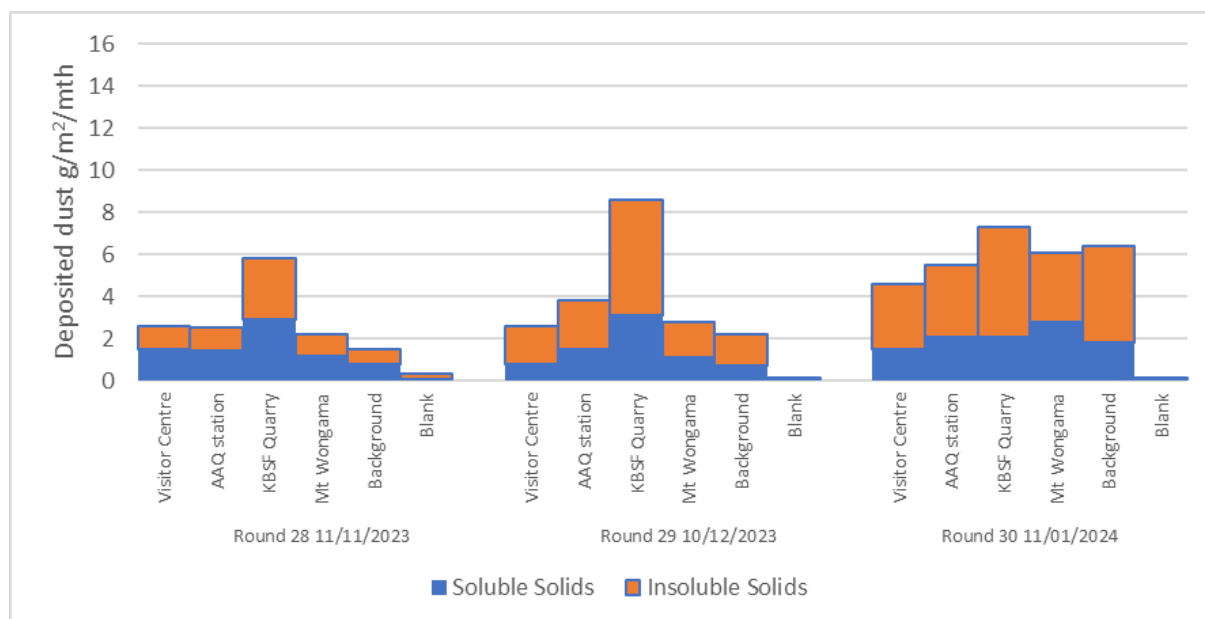


Figure 3.93: Deposited dust 11 November 2023 to 9 February 2024

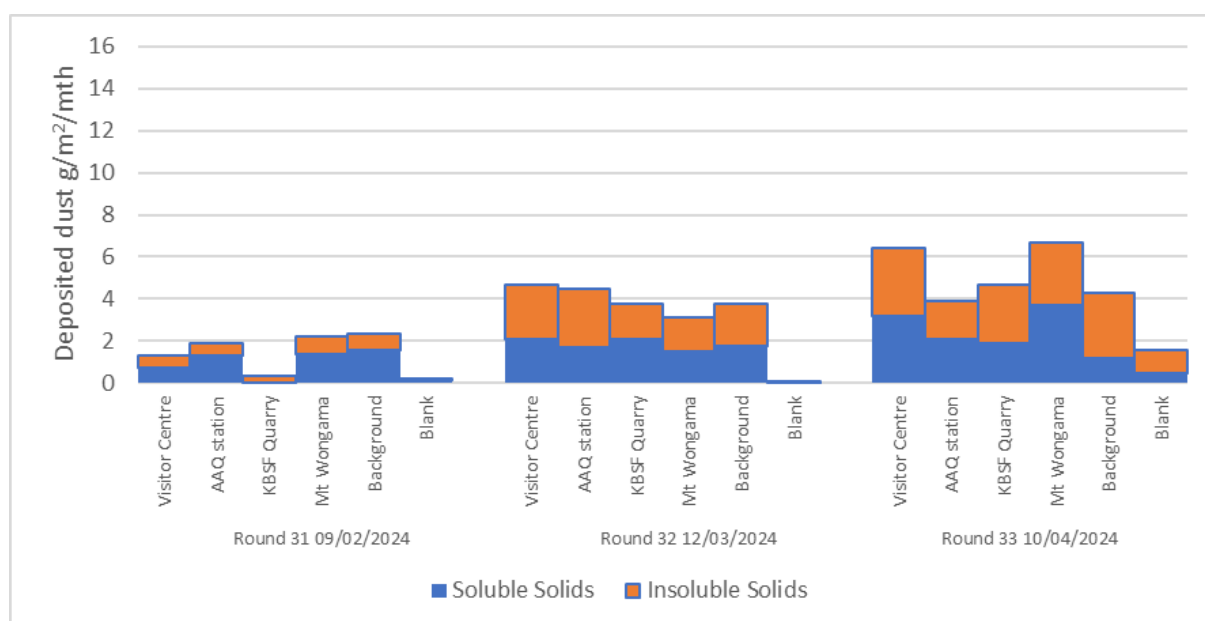


Figure 3.94: Deposited dust 9 February 2024 to 9 May 2024

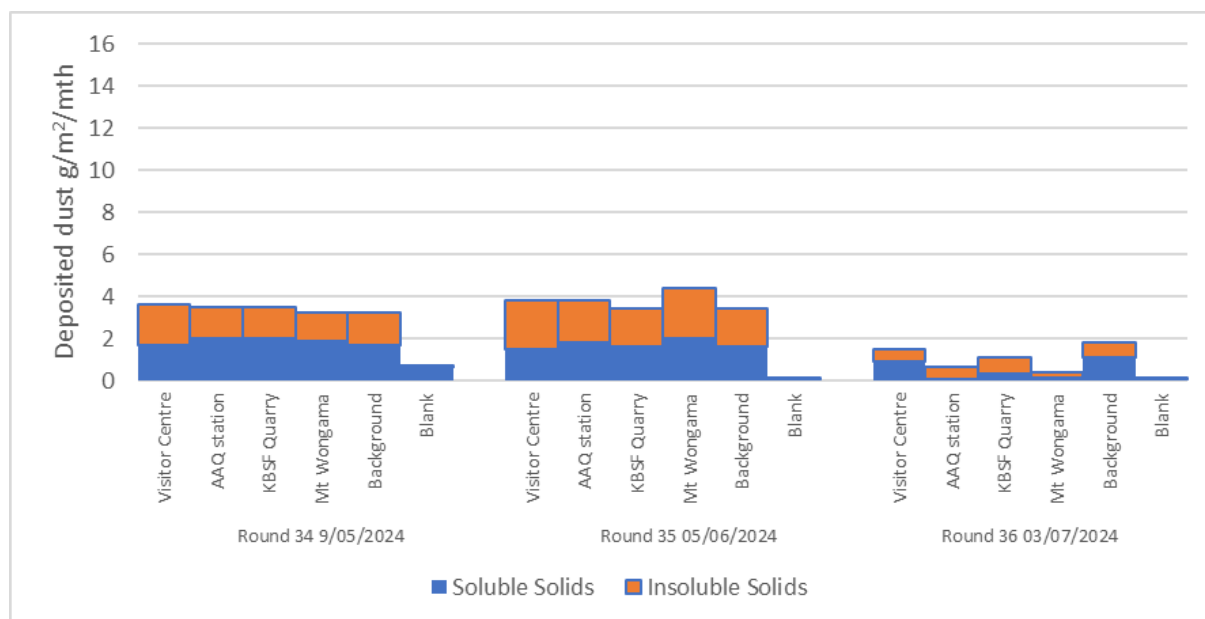


Figure 3.95: Deposited dust 9 May 2024 to 1 August 2024

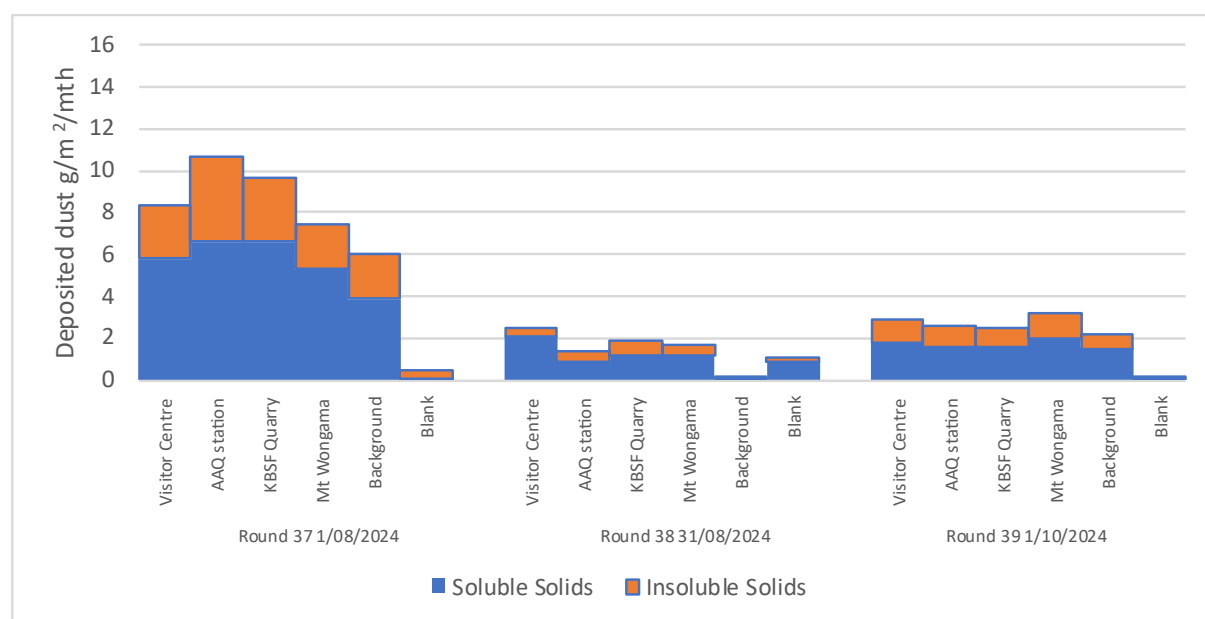


Figure 3.96: Deposited dust 1 August 2024 to 1 October 2024

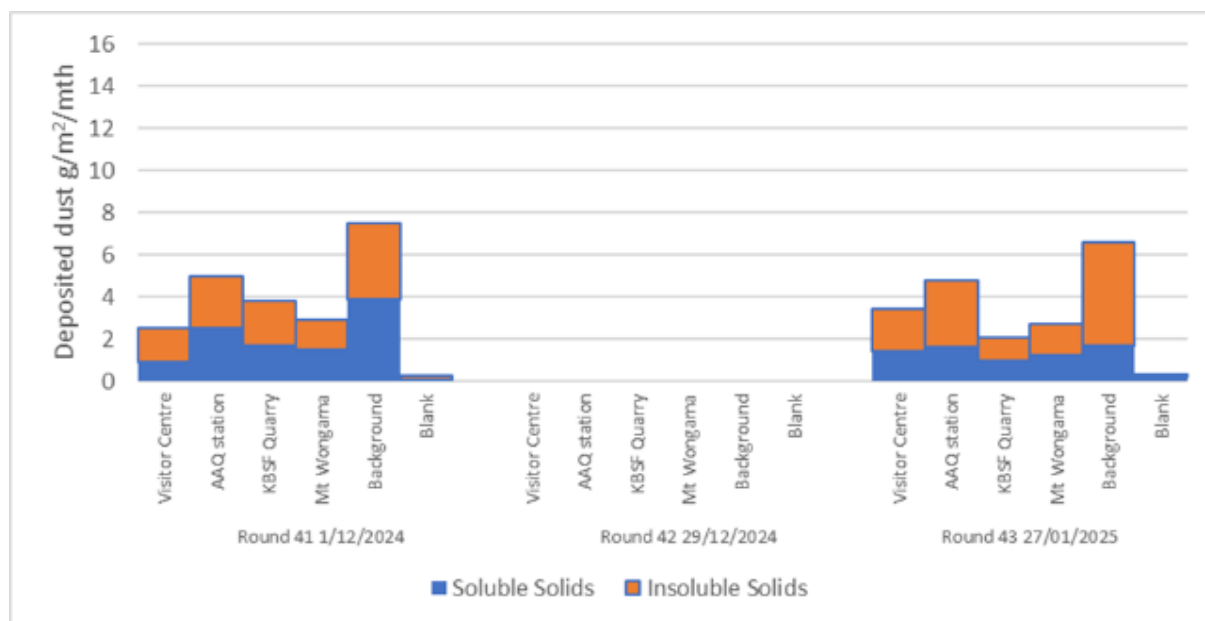


Figure 3.97: Deposited dust 1 December 2024 to 27 January 2025

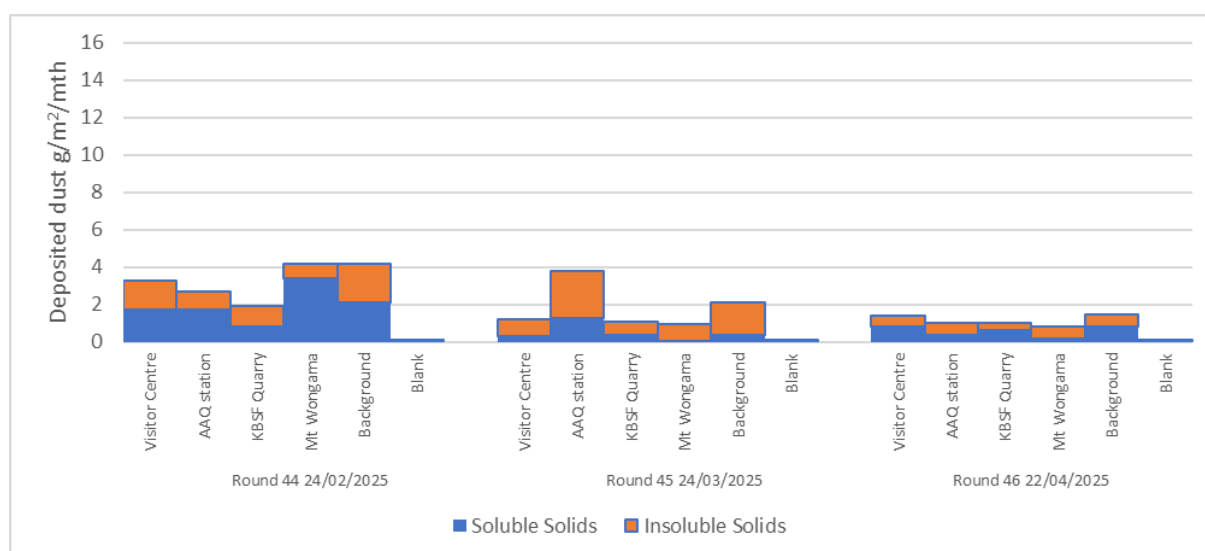


Figure 3.98: Deposited dust 24 February 2025 to 22 April 2025

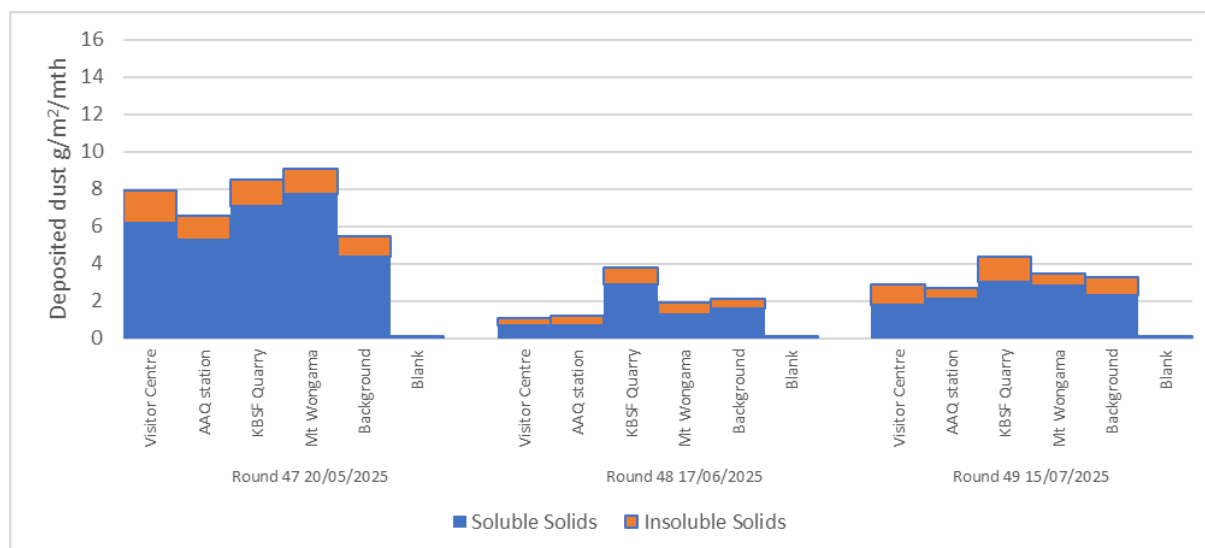


Figure 3.99: Deposited dust 20 May 2025 to 17 June 2025

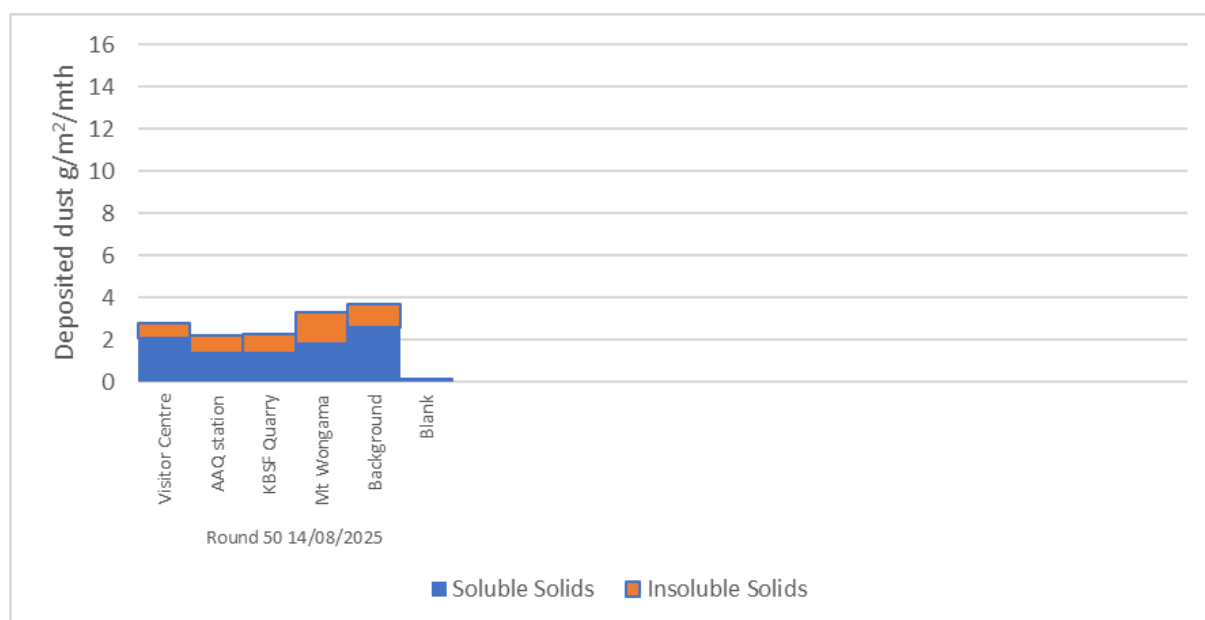


Figure 3.100: Deposited dust 14 August 2025

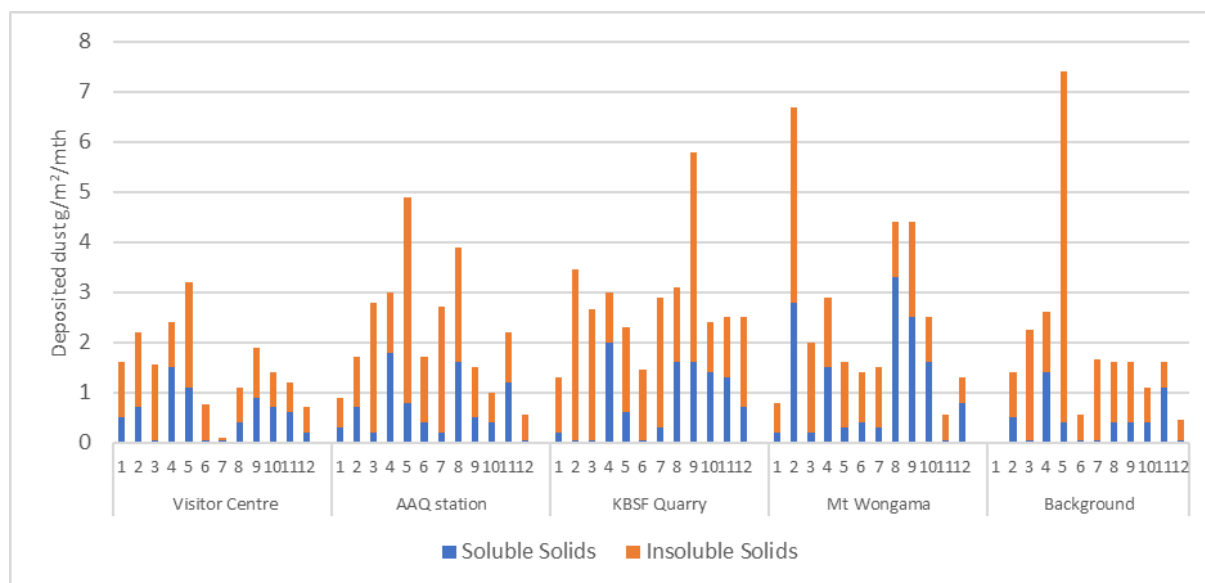


Figure 3.101: Deposited dust data – Year 1

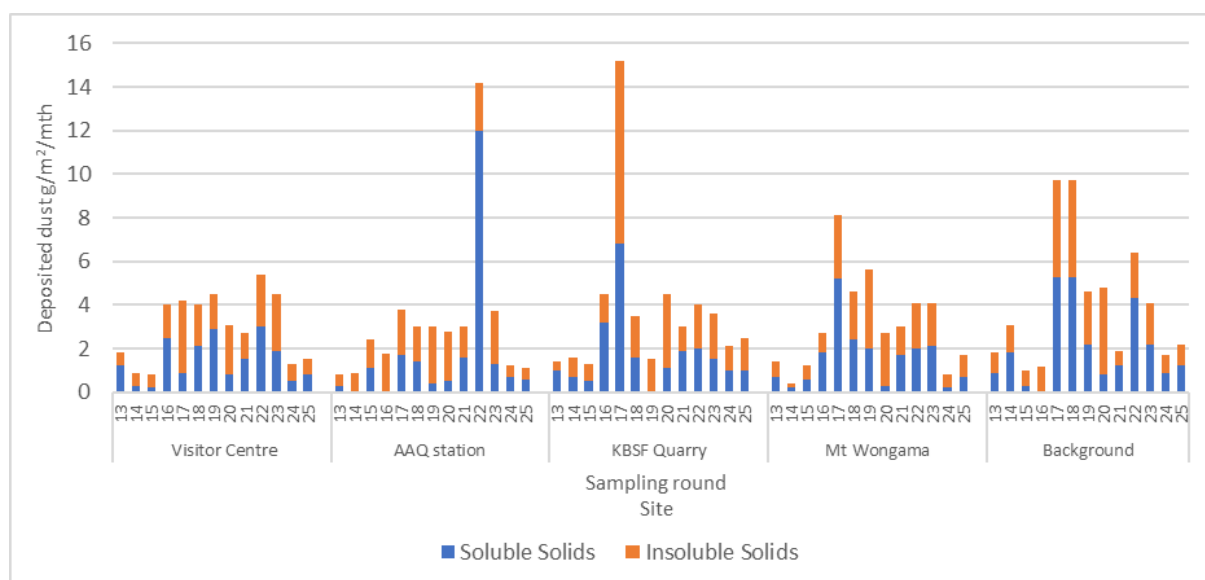


Figure 3.102: Deposited dust data – Year 2

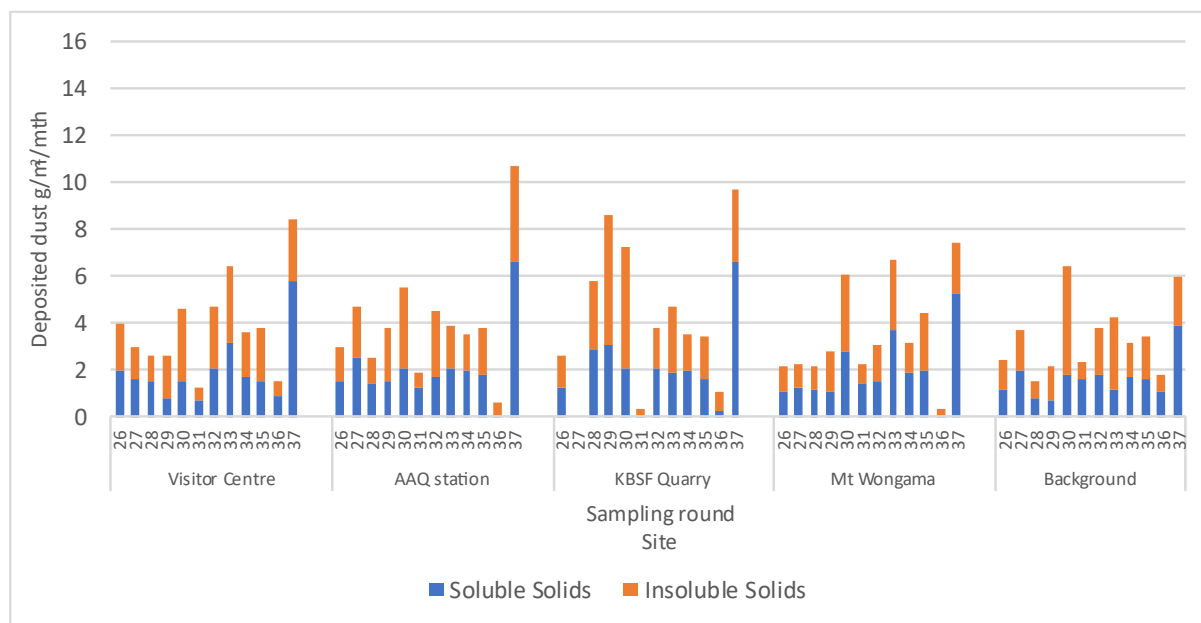


Figure 3.103: Deposited dust data – Year 3

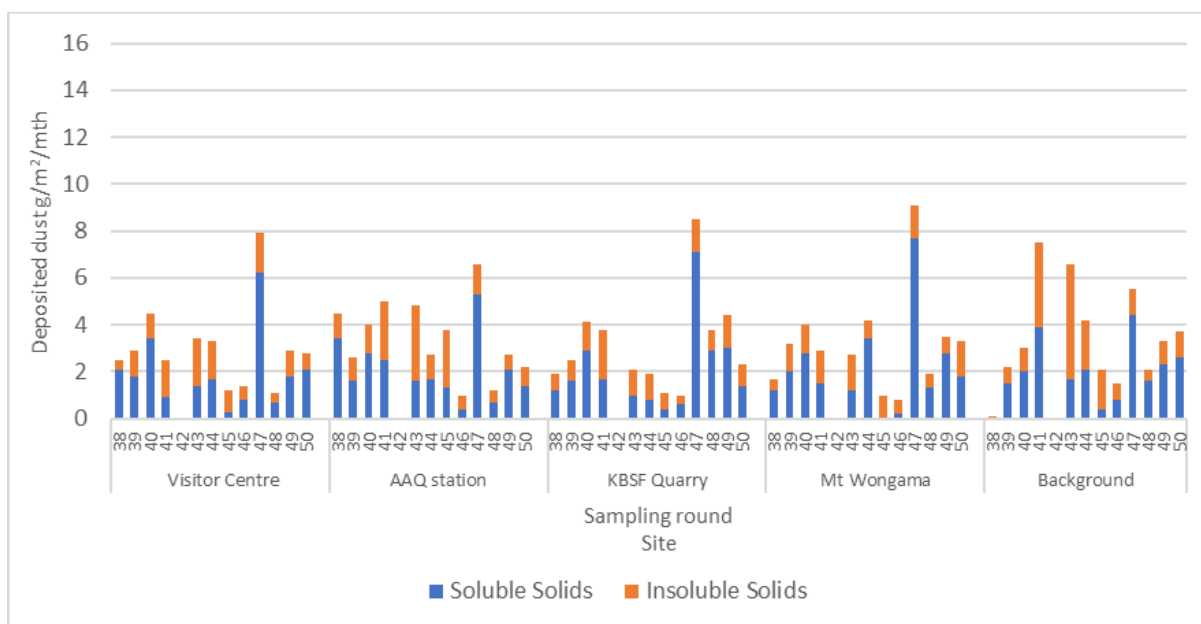


Figure 3.104: Deposited dust data – Year 4

The soluble fraction from the dust taken from the deposition gauges was analysed for deposition of anions and cations. A summary of the totals anion and cations across the sites is provided in Table 4.11. The anion and cation deposition is provided in Table 4.12 and Table 4.13, and the mass concentration data is presented in Appendix C.

Table 3.11: Soluble dust fraction total anions and cations summary

Site	Min Σ anions mEq/m ²	Max Σ anions mEq/m ²	Min Σ cations mEq/m ²	Max Σ cations mEq/m ²
KBSF Quarry				
Year 1 total	59.44	181.59	192.75	196.12
Year 2 total	197.89	221.24	475.82	478.45
Year 3 total*	235.77	236.16	412.00 [§]	414.83 [§]
Year 4 total*	156.20	156.71	320.21	320.27
Visitor Centre				
Year 1 total	27.96	143.89	146.95	150.74
Year 2 total	168.74	182.04	382.73	388.98
Year 3 total*	267.06	270.32	466.6	466.62
Year 4 total*	146.04	149.15	297.80	297.85
AAQ Station				
Year 1 total	8.68	135.18	162.69	168.2
Year 2 total	150.41	167.7	378.18	383.38
Year 3 total*	244.25	244.57	474.41	474.44
Year 4 total*	158.69	160.03	314.00	314.05
Mt Wongama				
Year 1 total	101.6	173.57	221.24	225.5
Year 2 total	168.74	182.04	479.01	484.9
Year 3 total*	298.82	299.18	504.28	504.35
Year 4 total*	166.18	166.75	317.35	317.41
RT Pastoral Lease				
Year 1 total	25.55	145.18	115.49	122.02
Year 2 total	270.72	283.83	374.42	380.19
Year 3 total*	216.90 [§]	224.04 [§]	428.03	437.31
Year 4 total*	84.34	113.82	275.66	275.69
Blank				
Year 1 total	0.12	43.79	7.68	26
Year 2 total	0.03	80.27	116.83	136.22
Year 3 total*	0.01	46.51	5.33	28.43
Year 4 total*	0.05	48.50	5.16	24.27

*Year 3 was missing one month of data due to a laboratory error and Year 4 is missing 1 month of data due to cyclone activity resulting DDG overflowing at all sites. Total ions have not been adjusted to account for this. Therefore, the Year 3 and 4 totals are an underestimates of the actual annual ion deposition.

[§] Calculation error detected, number updated between Y3 and Y4 report.



Figure 3.105: Soluble dust fraction total anions and cations

Total anions and cations are converted to deposition using the area of the funnel (0.018 m^2) and the recorded volumes of liquid in the deposition gauges. The non-sea salt sulfate (NSS SO_4^{2-}), derived using the methodology provided by the World Data Centre for Precipitation Chemistry⁶, was used in the anion total. Where the analyte concentration was below the limit of reporting, the limit of reporting was reported and used in the calculation of the maximum total cation and anion sums. The minimum sum was calculated from the detect values only. The true total is somewhere between the minimum and maximum deposition values in the tables.

In summary, the deposited total anion and cations across were lower in the fourth year than the third year at all the Murujuga sites with some seasonal pattern (typically higher concentrations during the summer months). The dominant anions and cations are sodium and chloride followed by $\text{HCO}_3^{(-1)}$, $\text{Ca}^{(+2)}$ and $\text{Mg}^{(+2)}$. Sodium and chloride are also the dominant ion at the RT Pastoral Lease background site, where temporal and seasonal trends are not evident.

⁶ The NSS SO_4 was derived using the following equation $[\text{NSS SO}_4] = [\text{SO}_4] - (2.09 \times [\text{Mg}])$, which assumes that the reported magnesium has a marine source. This assumption was consistent with CSIRO's prior approach; however, the exact method employed by CSIRO was not detailed (CSIRO 2010).

Table 3.12: Soluble fraction cation deposition

Start date	End Date	NH ₄ ⁽⁺¹⁾ mEq/m ²	Ca ⁽⁺²⁾ mEq/m ²	Mg ⁽⁺²⁾ mEq/m ²	K ⁽⁺¹⁾ mEq/m ²	Na ⁽⁺¹⁾ mEq/m ²	Min Σ cations mEq/m ²	Max Σ cations mEq/m ²
KBSF Quarry								
29/09/2021	1/11/2021	< 0.15	11.34	1.87	0.32	6.56	20.08	20.23
29/11/2021	29/12/2021	< 0.11	8.44	1.50	0.20	7.47	17.62	17.73
29/12/2021	25/01/2022	< 0.13	4.12	1.01	< 0.23	8.77	13.90	14.26
25/01/2022	23/02/2022	0.15	3.89	1.42	< 0.22	3.77	9.23	9.46
23/02/2022	23/03/2022	< 0.04	2.45	1.19	0.07	5.15	8.86	8.90
23/03/2022	20/04/2022	< 0.05	7.47	1.76	0.27	7.60	17.10	17.16
20/04/2022	19/05/2022	< 0.16	9.04	2.79	< 0.29	12.31	24.14	24.59
19/05/2022	15/06/2022	0.79	8.99	3.42	0.71	29.55	43.47	43.47
15/06/2022	18/07/2022	< 0.04	4.85	1.69	< 0.38	7.68	14.22	14.64
18/07/2022	10/08/2022	< 0.04	4.38	< 1.16	< 0.36	4.55	8.93	10.50
10/08/2022	4/09/2022	0.04	6.21	3.03	0.51	5.42	15.20	15.20
<i>Total</i>							192.75	196.12
4/09/2022	5/10/2022	0.03	2.15	1.30	< 0.29	7.19	10.67	10.96
5/10/2022	2/11/2022	< 0.041	2.85	2.12	< 0.37	5.97	10.94	11.34
2/11/2022	30/11/2022	< 0.041	2.14	< 1.18	< 0.37	6.34	8.48	10.06
30/11/2022	27/12/2022	< 0.029	4.21	0.99	< 0.26	8.04	13.24	13.53
27/12/2022	26/01/2023	< 0.068	14.00	11.34	1.22	55.83	82.38	82.45
26/01/2023	23/02/2023	0.19	5.93	4.19	0.52	16.25	27.08	27.08
23/02/2023	21/03/2023	1.32	2.91	15.22	2.24	55.04	76.73	76.73
21/03/2023	16/04/2023	0.33	8.31	15.42	1.33	27.17	52.58	52.58
16/04/2023	15/05/2023	1.54	10.66	12.08	1.45	25.76	51.49	51.49
15/05/2023	13/06/2023	4.16	7.89	5.48	1.28	16.89	35.68	35.68

Start date	End Date	NH ₄ ⁽⁺¹⁾ mEq/m ²	Ca ⁽⁺²⁾ mEq/m ²	Mg ⁽⁺²⁾ mEq/m ²	K ⁽⁺¹⁾ mEq/m ²	Na ⁽⁺¹⁾ mEq/m ²	Min Σ cations mEq/m ²	Max Σ cations mEq/m ²
13/06/2023	13/07/2023	0.90	9.71	10.41	1.49	22.02	44.54	44.54
13/07/2023	13/08/2023	0.06	5.51	4.89	0.65	16.00	27.11	27.11
13/08/2023	11/09/2023	0.25	7.06	7.36	1.40	18.83	34.90	34.90
<i>Total</i>							475.82	478.45
11/09/2023	13/10/2023	0.10	10.73	10.94	1.37	24.61	47.76	47.76
13/10/2023	11/11/2023	-	-	-	-	-	-	-
11/11/2023	10/12/2023	0.07	6.10	7.54	0.82	15.82	30.35	30.35
10/12/2023	11/01/2024	-	-	-	-	-	-	-
11/01/2024	09/02/2024	0.03	10.27	7.34	0.81	19.70	38.15	38.15
9/02/2024	12/03/2024	0.34	1.27	< 1.397	0.36	3.94	5.91	7.31
12/03/2024	10/04/2024	< 0.033	7.06	8.21	1.01	20.18	36.46	36.50
10/04/2024	09/05/2024	0.24	6.40	10.95	1.22	20.68	39.49	39.49
9/05/2024	05/06/2024	0.34	1.27	< 1.397	0.36	3.94	5.91	7.31
5/06/2024	3/07/2024	0.66	5.99	5.96	0.98	17.72	31.32	31.32
3/07/2024	11/08/2024	0.11	2.62	3.50	0.48	7.32	14.04	14.04
11/08/2024	31/08/2024	0.58	21.74	32.78	5.25	81.23	141.59	141.59
31/08/2024	01/10/2024	0.76	6.52	2.82	0.64	10.29	21.02	21.02
<i>Total</i>							412.00	414.83
1/10/2024	31/10/2024	0.32	5.84	7.27	1.08	27.61	42.13	42.13
31/10/2024	1/12/2024	0.06	6.56	13.96	1.60	36.30	58.48	58.48
1/12/2024	29/12/2024	< 0.016	5.86	7.83	0.86	18.70	33.25	33.27
29/12/2024	27/01/2025	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27/01/2025	24/02/2025	0.15	3.25	3.46	0.52	11.62	19.01	19.01
24/02/2025	24/03/2025	0.28	7.92	5.86	1.03	20.68	35.77	35.77

Start date	End Date	NH ₄ ⁽⁺¹⁾ mEq/m ²	Ca ⁽⁺²⁾ mEq/m ²	Mg ⁽⁺²⁾ mEq/m ²	K ⁽⁺¹⁾ mEq/m ²	Na ⁽⁺¹⁾ mEq/m ²	Min Σ cations mEq/m ²	Max Σ cations mEq/m ²
24/03/2025	22/04/2025	1.12	7.30	3.09	0.61	17.72	29.84	29.84
22/04/2025	20/05/2025	< 0.021	2.80	1.94	0.44	10.36	15.54	15.56
20/05/2025	17/06/2025	0.19	3.49	1.97	0.36	9.31	15.32	15.32
17/06/2025	15/07/2025	0.10	4.99	2.00	0.44	9.32	16.84	16.84
15/07/2025	14/08/2025	< 0.020	13.40	3.51	0.94	22.60	40.47	40.49
14/08/2025	14/09/2025	0.05	3.68	1.68	0.39	7.75	13.56	13.56
Total							320.21	320.27
Visitor Centre								
29/09/2021	1/11/2021	0.40	9.04	1.96	0.38	8.07	19.85	19.85
29/11/2021	29/12/2021	0.46	7.14	2.36	0.33	15.85	26.15	26.15
29/12/2021	25/01/2022	< 0.122	2.85	1.18	0.22	8.08	12.33	12.45
25/01/2022	23/02/2022	0.24	6.99	3.49	0.43	12.92	24.08	24.08
23/02/2022	23/03/2022	0.31	1.68	0.75	0.16	4.39	7.28	7.28
23/03/2022	20/04/2022	0.09	1.52	1.01	0.16	2.13	4.90	4.90
20/04/2022	19/05/2022	1.24	3.25	1.79	< 0.278	4.73	11.01	11.29
19/05/2022	15/06/2022	0.50	8.47	2.33	0.36	14.15	25.82	25.82
15/06/2022	18/07/2022	0.36	1.84	< 1.164	0.72	2.09	5.02	6.18
18/07/2022	10/08/2022	< 0.040	3.67	< 1.164	< 0.362	5.54	9.21	10.78
10/08/2022	4/09/2022	< 0.017	0.95	< 0.489	< 0.152	0.36	1.31	1.97
Total							146.95	150.74
4/09/2022	5/10/2022	< 0.047	2.13	< 1.350	< 0.420	8.42	10.55	12.37
5/10/2022	2/11/2022	< 0.042	2.37	< 1.222	< 0.380	5.30	7.67	9.32
2/11/2022	30/11/2022	0.25	1.64	< 1.129	< 0.351	5.73	7.63	9.11
30/11/2022	27/12/2022	1.40	4.24	1.47	0.63	9.63	17.37	17.37

Start date	End Date	NH ₄ ⁽⁺¹⁾ mEq/m ²	Ca ⁽⁺²⁾ mEq/m ²	Mg ⁽⁺²⁾ mEq/m ²	K ⁽⁺¹⁾ mEq/m ²	Na ⁽⁺¹⁾ mEq/m ²	Min Σ cations mEq/m ²	Max Σ cations mEq/m ²
27/12/2022	26/01/2023	0.35	6.35	3.49	< 0.905	17.85	28.05	28.95
26/01/2023	23/02/2023	0.11	5.99	4.69	0.69	18.26	29.74	29.74
23/02/2023	21/03/2023	10.91	4.02	6.64	1.63	25.85	49.04	49.04
21/03/2023	16/04/2023	0.66	8.18	16.43	1.28	30.08	56.63	56.63
16/04/2023	15/05/2023	1.96	7.34	11.64	1.52	22.15	44.62	44.62
15/05/2023	13/06/2023	0.16	9.41	1.41	< 0.37	13.67	24.66	25.03
13/06/2023	13/07/2023	0.32	10.26	13.98	2.97	24.50	52.03	52.03
13/07/2023	13/08/2023	< 0.042	4.85	4.60	0.75	15.36	25.56	25.60
13/08/2023	11/09/2023	0.14	5.33	6.65	0.74	16.32	29.18	29.18
<i>Total</i>							382.73	388.98
11/09/2023	13/10/2023	0.30	11.97	10.86	1.30	24.79	49.22	49.22
13/10/2023	11/11/2023	0.16	9.32	10.01	1.16	25.85	46.50	46.50
11/11/2023	10/12/2023	3.99	4.26	6.54	2.52	16.64	33.95	33.95
10/12/2023	11/01/2024	-	-	-	-	-	-	-
11/01/2024	09/02/2024	< 0.018	6.04	6.39	0.72	17.72	30.87	30.88
9/02/2024	12/03/2024	0.30	3.11	2.79	0.36	8.00	14.56	14.56
12/03/2024	10/04/2024	0.25	7.86	8.20	1.07	21.27	38.64	38.64
10/04/2024	09/05/2024	0.82	10.75	14.96	1.89	32.22	60.65	60.65
9/05/2024	05/06/2024	0.30	3.11	2.79	0.36	8.00	14.56	14.56
5/06/2024	3/07/2024	0.08	6.52	6.30	1.15	16.25	30.30	30.30
3/07/2024	11/08/2024	0.04	3.79	6.66	0.99	12.46	23.93	23.93
11/08/2024	31/08/2024	0.40	20.33	23.28	3.76	59.08	106.86	106.86
31/08/2024	01/10/2024	0.20	4.85	2.46	0.41	8.66	16.58	16.58
<i>Total</i>							466.60	466.62

Start date	End Date	NH ₄ ⁽⁺¹⁾ mEq/m ²	Ca ⁽⁺²⁾ mEq/m ²	Mg ⁽⁺²⁾ mEq/m ²	K ⁽⁺¹⁾ mEq/m ²	Na ⁽⁺¹⁾ mEq/m ²	Min Σ cations mEq/m ²	Max Σ cations mEq/m ²
1/10/2024	31/10/2024	0.24	5.36	7.14	1.02	21.76	35.50	35.50
31/10/2024	1/12/2024	< 0.010	6.28	12.80	1.41	32.00	52.50	52.51
1/12/2024	29/12/2024	0.09	5.41	7.26	1.21	19.20	33.18	33.18
29/12/2024	27/01/2025	-	-	-	-	-	-	0.00
27/01/2025	24/02/2025	0.47	4.16	4.89	0.65	15.38	25.55	25.55
24/02/2025	24/03/2025	0.07	5.43	5.60	0.88	20.68	32.66	32.66
24/03/2025	22/04/2025	1.47	7.72	3.35	0.66	17.58	30.79	30.79
22/04/2025	20/05/2025	0.14	2.72	2.01	0.49	10.86	16.22	16.22
20/05/2025	17/06/2025	0.34	3.77	1.80	1.87	7.20	14.99	14.99
17/06/2025	15/07/2025	< 0.019	2.85	1.33	0.49	8.75	13.42	13.44
15/07/2025	14/08/2025	< 0.020	10.07	3.09	0.81	16.57	30.53	30.55
14/08/2025	14/09/2025	0.09	2.96	1.54	0.44	7.44	12.47	12.47
<i>Total</i>							297.80	297.85
AAQ Station								
29/09/2021	1/11/2021	< 0.114	2.95	1.44	0.20	4.03	8.62	8.73
29/11/2021	29/12/2021	< 0.117	7.09	1.80	0.28	17.83	27.00	27.12
29/12/2021	25/01/2022	< 0.128	5.69	1.48	0.23	10.31	17.70	17.83
25/01/2022	23/02/2022	0.91	9.21	2.70	0.31	12.67	25.81	25.81
23/02/2022	23/03/2022	< 0.043	2.39	1.23	0.08	5.35	9.05	9.10
23/03/2022	20/04/2022	< 0.041	9.41	1.88	0.22	8.45	19.97	20.01
20/04/2022	19/05/2022	< 0.166	6.95	1.91	< 0.297	9.08	17.94	18.40
19/05/2022	15/06/2022	1.68	6.92	3.42	0.35	8.44	20.82	20.82
15/06/2022	18/07/2022	< 0.036	1.78	< 1.048	< 0.326	2.22	3.99	5.40
18/07/2022	10/08/2022	< 0.040	3.53	< 1.164	< 0.362	3.94	7.47	9.03

Start date	End Date	NH ₄ ⁽⁺¹⁾ mEq/m ²	Ca ⁽⁺²⁾ mEq/m ²	Mg ⁽⁺²⁾ mEq/m ²	K ⁽⁺¹⁾ mEq/m ²	Na ⁽⁺¹⁾ mEq/m ²	Min Σ cations mEq/m ²	Max Σ cations mEq/m ²
10/08/2022	4/09/2022	< 0.042	2.64	< 1.211	< 0.376	1.66	4.31	5.94
<i>Total</i>							162.69	168.20
4/09/2022	5/10/2022	0.13	1.16	< 1.059	< 0.329	5.15	6.44	7.83
5/10/2022	2/11/2022	< 0.041	0.58	< 1.187	< 0.369	5.52	6.10	7.70
2/11/2022	30/11/2022	0.41	2.57	1.41	< 0.365	8.95	13.34	13.70
30/11/2022	27/12/2022	0.04	5.07	1.71	< 0.333	10.98	17.80	18.13
27/12/2022	26/01/2023	0.16	4.46	3.31	< 0.572	17.31	25.24	25.81
26/01/2023	23/02/2023	0.17	4.57	4.75	0.52	14.77	24.78	24.78
23/02/2023	21/03/2023	1.26	3.73	10.62	1.74	41.35	58.69	58.69
21/03/2023	16/04/2023	0.89	4.48	11.36	< 0.883	20.12	36.85	37.73
16/04/2023	15/05/2023	4.08	10.13	11.76	1.53	23.62	51.12	51.12
15/05/2023	13/06/2023	< 0.024	6.86	4.19	0.78	14.77	26.60	26.63
13/06/2023	13/07/2023	0.40	7.92	11.52	1.67	21.93	43.45	43.45
13/07/2023	13/08/2023	< 0.040	5.81	8.90	1.06	22.92	38.69	38.73
13/08/2023	11/09/2023	0.04	4.55	7.02	0.83	16.64	29.08	29.08
<i>Total</i>							378.18	383.38
11/09/2023	13/10/2023	0.85	10.79	15.29	1.63	28.95	57.51	57.51
13/10/2023	11/11/2023	1.05	12.14	10.71	1.23	27.08	52.21	52.21
11/11/2023	10/12/2023	0.18	4.11	6.13	0.71	16.77	27.91	27.91
10/12/2023	11/01/2024	-	-	-	-	-	-	-
11/01/2024	09/02/2024	0.14	6.60	7.68	0.88	20.31	35.61	35.61
9/02/2024	12/03/2024	1.13	2.40	2.33	0.51	8.86	15.23	15.23
12/03/2024	10/04/2024	< 0.025	7.92	7.92	0.96	20.16	36.95	36.98
10/04/2024	09/05/2024	0.21	6.48	11.03	1.29	23.68	42.68	42.68

Start date	End Date	NH ₄ ⁽⁺¹⁾ mEq/m ²	Ca ⁽⁺²⁾ mEq/m ²	Mg ⁽⁺²⁾ mEq/m ²	K ⁽⁺¹⁾ mEq/m ²	Na ⁽⁺¹⁾ mEq/m ²	Min Σ cations mEq/m ²	Max Σ cations mEq/m ²
9/05/2024	05/06/2024	1.13	2.40	2.33	0.51	8.86	15.23	15.23
5/06/2024	3/07/2024	0.11	6.03	6.19	0.86	18.09	31.29	31.29
3/07/2024	11/08/2024	0.04	1.92	1.49	0.22	3.45	7.11	7.11
11/08/2024	31/08/2024	0.27	24.85	31.76	4.94	75.81	137.62	137.62
31/08/2024	01/10/2024	0.08	4.41	2.10	0.35	8.12	15.06	15.06
Total							474.41	474.44
1/10/2024	31/10/2024	0.52	5.72	8.50	1.27	25.85	41.86	41.86
31/10/2024	1/12/2024	0.06	6.56	13.96	1.49	35.69	57.76	57.76
1/12/2024	29/12/2024	11.59	3.86	6.85	3.60	17.23	43.14	43.14
29/12/2024	27/01/2025	-	-	-	-	-	0.00	-
27/01/2025	24/02/2025	0.09	4.26	5.91	0.66	16.61	27.53	27.53
24/02/2025	24/03/2025	0.18	4.05	4.86	0.74	17.58	27.40	27.40
24/03/2025	22/04/2025	1.18	6.24	3.53	0.64	17.04	28.63	28.63
22/04/2025	20/05/2025	< 0.018	2.47	1.72	0.39	10.54	15.12	15.14
20/05/2025	17/06/2025	0.19	2.96	1.99	0.35	10.29	15.78	15.78
17/06/2025	15/07/2025	< 0.018	2.55	1.25	0.38	8.53	12.71	12.72
15/07/2025	14/08/2025	< 0.017	7.58	3.33	0.78	16.73	28.43	28.44
14/08/2025	14/09/2025	0.06	4.78	1.36	0.30	9.13	15.64	15.64
Total							314.00	314.05
Mt Wongama								
29/09/2021	1/11/2021	0.23	4.73	1.08	0.25	8.11	14.40	14.40
29/11/2021	29/12/2021	< 0.133	8.67	1.79	0.32	18.88	29.65	29.79
29/12/2021	25/01/2022	< 0.118	5.48	1.36	0.28	15.52	22.63	22.75
25/01/2022	23/02/2022	0.08	6.37	1.71	0.23	12.92	21.32	21.32

Start date	End Date	NH ₄ ⁽⁺¹⁾ mEq/m ²	Ca ⁽⁺²⁾ mEq/m ²	Mg ⁽⁺²⁾ mEq/m ²	K ⁽⁺¹⁾ mEq/m ²	Na ⁽⁺¹⁾ mEq/m ²	Min Σ cations mEq/m ²	Max Σ cations mEq/m ²
23/02/2022	23/03/2022	< 0.043	1.65	0.74	0.08	4.57	7.03	7.07
23/03/2022	20/04/2022	0.07	5.75	1.28	0.24	5.82	13.15	13.15
20/04/2022	19/05/2022	0.85	8.40	4.89	0.76	18.52	33.42	33.42
19/05/2022	15/06/2022	< 0.198	6.92	6.85	0.71	41.01	55.48	55.68
15/06/2022	18/07/2022	< 0.042	3.23	1.45	< 0.376	6.14	10.83	11.25
18/07/2022	10/08/2022	< 0.044	3.73	< 1.281	< 0.398	4.20	7.92	9.65
10/08/2022	4/09/2022	< 0.042	3.08	< 1.211	< 0.376	2.30	5.39	7.02
<i>Total</i>							221.24	225.50
4/09/2022	5/10/2022	0.80	1.21	< 1.25	< 0.39	7.51	9.51	11.15
5/10/2022	2/11/2022	0.20	1.82	< 1.15	< 0.36	3.53	5.55	7.06
2/11/2022	30/11/2022	< 0.04	2.30	< 1.19	< 0.37	7.78	10.09	11.69
30/11/2022	27/12/2022	0.06	4.20	2.38	< 0.34	12.59	19.23	19.57
27/12/2022	26/01/2023	0.09	9.63	12.63	1.46	62.95	86.76	86.76
26/01/2023	23/02/2023	0.04	7.78	2.01	< 0.39	15.95	25.78	26.17
23/02/2023	21/03/2023	1.90	6.01	11.47	1.95	49.62	70.95	70.95
21/03/2023	16/04/2023	0.35	7.09	15.73	1.26	26.13	50.55	50.55
16/04/2023	15/05/2023	2.97	8.44	11.41	1.42	22.92	47.15	47.15
15/05/2023	13/06/2023	0.11	9.54	2.42	< 0.38	14.08	26.15	26.53
13/06/2023	13/07/2023	1.53	10.72	17.67	2.39	39.80	72.11	72.11
13/07/2023	13/08/2023	< 0.04	4.09	4.66	0.65	14.77	24.17	24.21
13/08/2023	11/09/2023	0.30	5.53	7.07	1.21	16.89	31.00	31.00
<i>Total</i>							479.01	484.90
11/09/2023	13/10/2023	0.12	9.04	10.71	1.37	25.85	47.09	47.09
13/10/2023	11/11/2023	0.46	12.00	10.71	1.37	25.11	49.66	49.66

Start date	End Date	NH ₄ ⁽⁺¹⁾ mEq/m ²	Ca ⁽⁺²⁾ mEq/m ²	Mg ⁽⁺²⁾ mEq/m ²	K ⁽⁺¹⁾ mEq/m ²	Na ⁽⁺¹⁾ mEq/m ²	Min Σ cations mEq/m ²	Max Σ cations mEq/m ²
11/11/2023	10/12/2023	0.14	4.38	6.98	0.87	17.72	30.09	30.09
10/12/2023	11/01/2024	-	-	-	-	-	-	-
11/01/2024	09/02/2024	< 0.018	6.99	8.80	1.01	28.80	45.60	45.62
9/02/2024	12/03/2024	0.55	4.25	6.55	0.80	16.10	28.25	28.25
12/03/2024	10/04/2024	< 0.027	6.81	8.74	1.07	21.44	38.05	38.08
10/04/2024	09/05/2024	2.65	9.94	13.78	1.85	33.48	61.70	61.70
9/05/2024	05/06/2024	0.55	4.25	6.55	0.80	16.10	28.25	28.25
5/06/2024	3/07/2024	< 0.025	8.05	8.81	1.17	22.89	40.92	40.94
3/07/2024	11/08/2024	0.04	1.44	1.96	0.29	4.18	7.91	7.91
11/08/2024	31/08/2024	0.16	19.25	24.14	3.61	59.08	106.23	106.23
31/08/2024	01/10/2024	0.08	5.60	3.03	0.36	11.45	20.51	20.51
<i>Total</i>							504.28	504.35
1/10/2024	31/10/2024	0.17	6.35	8.23	1.17	25.11	41.03	41.03
31/10/2024	1/12/2024	0.41	5.93	12.80	1.56	34.46	55.16	55.16
1/12/2024	29/12/2024	0.29	5.09	7.83	0.93	19.69	33.84	33.84
29/12/2024	27/01/2025	-	-	-	-	-	0.00	-
27/01/2025	24/02/2025	0.08	3.99	5.03	0.62	15.36	25.08	25.08
24/02/2025	24/03/2025	0.16	5.74	5.23	1.03	18.93	31.10	31.10
24/03/2025	22/04/2025	1.05	7.20	3.45	0.78	16.95	29.42	29.42
22/04/2025	20/05/2025	0.03	2.72	2.01	0.49	10.86	16.11	16.11
20/05/2025	17/06/2025	0.59	3.17	2.24	0.45	10.82	17.27	17.27
17/06/2025	15/07/2025	< 0.019	5.05	1.76	0.40	9.71	16.92	16.93
15/07/2025	14/08/2025	< 0.036	10.19	4.63	1.02	18.13	33.97	34.01

Start date	End Date	NH ₄ ⁽⁺¹⁾ mEq/m ²	Ca ⁽⁺²⁾ mEq/m ²	Mg ⁽⁺²⁾ mEq/m ²	K ⁽⁺¹⁾ mEq/m ²	Na ⁽⁺¹⁾ mEq/m ²	Min Σ cations mEq/m ²	Max Σ cations mEq/m ²
14/08/2025	14/09/2025	< 0.012	5.60	1.46	0.32	10.07	17.45	17.46
<i>Total</i>							317.35	317.41
RT Pastoral Lease								
29/09/2021	1/11/2021	-	-	-	-	-	-	-
29/11/2021	29/12/2021	0.10	9.42	7.60	0.72	13.98	31.83	31.83
29/12/2021	25/01/2022	0.26	6.44	0.80	0.19	7.83	15.52	15.52
25/01/2022	23/02/2022	1.64	8.88	1.83	0.38	7.09	19.82	19.82
23/02/2022	23/03/2022	0.78	1.81	1.25	0.85	2.37	7.06	7.06
23/03/2022	20/04/2022	0.24	5.13	0.94	0.22	4.35	10.89	10.89
20/04/2022	19/05/2022							
19/05/2022	15/06/2022	6.43	4.86	< 2.002	1.24	3.18	15.70	17.71
15/06/2022	18/07/2022	0.06	1.55	< 1.164	< 0.362	0.86	2.48	4.00
18/07/2022	10/08/2022	< 0.040	3.25	< 1.164	< 0.362	3.32	6.57	8.14
10/08/2022	4/09/2022	0.06	4.65	< 1.094	< 0.340	0.93	5.63	7.06
<i>Total</i>							115.49	122.02
4/09/2022	5/10/2022	0.29	1.71	< 1.281	< 0.398	5.82	7.82	9.50
5/10/2022	2/11/2022	22.89	2.62	< 1.199	4.03	7.99	37.51	38.71
2/11/2022	30/11/2022	0.30	1.96	< 1.152	< 0.358	5.00	7.25	8.76
30/11/2022	27/12/2022	0.18	4.10	< 1.024	< 0.318	6.82	11.10	12.44
27/12/2022	26/01/2023	2.69	7.10	3.80	1.38	15.40	30.37	30.37
25/01/2022	23/02/2022	-	-	-	-	-		
23/02/2023	21/03/2023	0.36	5.33	8.24	1.37	24.69	39.99	39.99
21/03/2023	16/04/2023	1.30	10.00	14.99	1.63	26.16	54.08	54.08
16/04/2023	15/05/2023	13.18	6.78	9.95	2.66	17.54	50.11	50.11

Start date	End Date	NH ₄ ⁽⁺¹⁾ mEq/m ²	Ca ⁽⁺²⁾ mEq/m ²	Mg ⁽⁺²⁾ mEq/m ²	K ⁽⁺¹⁾ mEq/m ²	Na ⁽⁺¹⁾ mEq/m ²	Min Σ cations mEq/m ²	Max Σ cations mEq/m ²
15/05/2023	13/06/2023	0.97	9.72	10.68	1.39	21.86	44.62	44.62
13/06/2023	13/07/2023	0.23	10.30	12.96	1.67	23.63	48.80	48.80
13/07/2023	13/08/2023	< 0.040	3.74	4.11	0.57	13.27	21.68	21.72
13/08/2023	11/09/2023	0.13	4.26	3.63	0.53	12.54	21.09	21.09
<i>Total</i>							374.42	380.19
11/09/2023	13/10/2023	< 0.036	10.55	9.22	1.11	22.15	43.03	43.06
13/10/2023	11/11/2023	1.24	8.79	11.16	1.62	26.36	49.17	49.17
11/11/2023	10/12/2023	0.28	3.32	7.11	0.92	21.40	33.03	33.03
10/12/2023	11/01/2024	-	-	-	-	-	-	-
11/01/2024	09/02/2024	0.04	5.90	6.79	0.84	16.92	30.49	30.49
9/02/2024	12/03/2024	0.10	4.67	8.23	1.03	14.73	28.76	28.76
12/03/2024	10/04/2024	0.04	6.59	8.64	1.04	20.22	36.52	36.52
10/04/2024	09/05/2024	0.76	2.83	4.91	0.74	9.21	18.44	18.44
9/05/2024	05/06/2024	0.10	4.67	8.23	1.03	14.73	28.76	28.76
5/06/2024	3/07/2024	0.07	6.28	6.81	0.85	15.84	29.84	29.84
3/07/2024	11/08/2024	0.07	5.15	8.38	1.11	16.54	31.25	31.25
11/08/2024	31/08/2024	0.31	17.40	23.05	3.82	54.15	98.73	98.73
31/08/2024	01/10/2024	< 0.040	< 7.060	< 1.164	< 0.362	< 0.615	0.00	9.24
<i>Total</i>							428.03	437.31
1/10/2024	31/10/2024	0.15	3.92	7.82	1.11	22.45	35.46	35.46
31/10/2024	1/12/2024	0.04	5.72	7.57	1.09	22.76	37.18	37.18
1/12/2024	29/12/2024	16.96	7.96	6.01	2.04	14.77	47.74	47.74
29/12/2024	27/01/2025	-	-	-	-	-	0.00	0.00
27/01/2025	24/02/2025	0.14	5.60	5.19	0.63	9.16	20.72	20.72

Start date	End Date	NH ₄ ⁽⁺¹⁾ mEq/m ²	Ca ⁽⁺²⁾ mEq/m ²	Mg ⁽⁺²⁾ mEq/m ²	K ⁽⁺¹⁾ mEq/m ²	Na ⁽⁺¹⁾ mEq/m ²	Min Σ cations mEq/m ²	Max Σ cations mEq/m ²
24/02/2025	24/03/2025	< 0.030	5.94	5.22	0.85	17.19	29.20	29.23
24/03/2025	22/04/2025	1.38	11.58	4.52	0.86	11.83	30.16	30.16
22/04/2025	20/05/2025	0.19	3.68	2.35	0.55	9.51	16.28	16.28
20/05/2025	17/06/2025	0.26	3.06	0.94	0.32	5.40	9.98	9.98
17/06/2025	15/07/2025	0.12	3.45	1.47	0.54	9.93	15.51	15.51
15/07/2025	14/08/2025	0.61	5.34	2.14	0.89	9.03	18.01	18.01
14/08/2025	14/09/2025	0.38	4.75	1.76	0.48	8.06	15.42	15.42
<i>Total</i>							275.66	275.69
Blank								
29/09/2021	1/11/2021	< 0.003	0.006	< 0.003	< 0.001	0.028	0.03	0.07
29/11/2021	29/12/2021	< 0.093	< 0.325	< 0.536	< 0.166	< 0.283	0.00	1.40
29/12/2021	25/01/2022	< 0.002	< 0.008	< 0.013	< 0.004	< 0.007	0.00	0.03
25/01/2022	23/02/2022	< 0.002	< 0.008	< 0.009	< 0.003	< 0.005	0.000	0.03
23/02/2022	23/03/2022	< 0.001	0.006	0.009	< 0.001	< 0.002	0.01	0.03
23/03/2022	20/04/2022	< 0.001	0.007	< 0.007	< 0.002	0.014	0.02	0.05
20/04/2022	19/05/2022	< 0.040	0.282	< 0.233	< 0.072	0.123	0.41	1.16
19/05/2022	15/06/2022	< 0.040	0.282	< 0.233	< 0.072	< 0.123	0.28	1.03
15/06/2022	18/07/2022	< 0.040	< 0.706	< 1.164	< 0.362	1.477	1.48	5.23
18/07/2022	10/08/2022	0.040	< 0.706	< 1.164	< 0.362	0.862	0.90	4.04
10/08/2022	4/09/2022	< 0.040	< 2.259	< 1.164	< 0.362	4.554	4.55	12.93
<i>Total</i>							7.68	26.00
4/09/2022	5/10/2022	< 0.04	0.99	< 1.16	< 0.36	2.71	3.70	5.26
5/10/2022	2/11/2022	< 0.04	0.85	< 1.16	< 0.36	2.58	3.43	5.00
2/11/2022	30/11/2022	< 0.04	1.27	< 1.16	< 0.36	5.29	6.56	8.13

Start date	End Date	NH ₄ ⁽⁺¹⁾ mEq/m ²	Ca ⁽⁺²⁾ mEq/m ²	Mg ⁽⁺²⁾ mEq/m ²	K ⁽⁺¹⁾ mEq/m ²	Na ⁽⁺¹⁾ mEq/m ²	Min Σ cations mEq/m ²	Max Σ cations mEq/m ²
30/11/2022	27/12/2022	< 0.04	1.84	< 1.16	< 0.36	5.05	6.88	8.45
27/12/2022	26/01/2023	< 0.04	0.99	< 1.16	< 0.36	9.60	10.59	12.15
26/01/2023	23/02/2023	< 0.04	< 0.71	< 1.16	< 0.36	4.31	4.31	6.58
23/02/2023	21/03/2023	< 0.04	1.41	2.33	0.43	14.77	18.94	18.98
21/03/2023	16/04/2023	< 0.04	1.55	< 1.16	< 0.36	5.91	7.46	9.03
16/04/2023	15/05/2023	1.37	1.69	< 1.16	< 0.36	4.18	7.25	8.78
15/05/2023	13/06/2023	< 0.04	2.97	5.36	1.74	34.46	44.52	44.56
13/06/2023	13/07/2023	< 0.04	0.85	< 1.16	< 0.36	1.11	1.95	3.52
13/07/2023	13/08/2023	< 0.04	< 0.706	< 1.16	< 0.36	0.62	0.62	2.89
13/08/2023	11/09/2023	< 0.04	< 0.706	< 1.16	< 0.36	0.62	0.62	2.89
Total							116.83	136.22
11/09/2023	13/10/2023	< 0.040	< 0.706	< 1.164	< 0.362	< 0.615	0.00	2.89
13/10/2023	11/11/2023	< 0.040	0.71	< 1.164	< 0.362	3.20	3.91	5.47
11/11/2023	10/12/2023	0.07	< 0.353	< 0.582	< 0.181	1.35	1.42	2.54
10/12/2023	11/01/2024	-	-	-	-	-	-	-
11/01/2024	09/02/2024	< 0.022	< 0.388	< 0.640	< 0.199	< 0.338	0.00	1.59
9/02/2024	12/03/2024	< 0.020	< 0.353	< 0.582	< 0.181	< 0.308	0.00	1.44
12/03/2024	10/04/2024	< 0.036	< 0.635	< 1.048	< 0.326	< 0.554	0.00	2.60
10/04/2024	09/05/2024	< 0.040	< 0.706	< 1.164	< 0.362	< 0.615	0.00	2.89
9/05/2024	05/06/2024	< 0.020	< 0.353	< 0.582	< 0.181	< 0.308	0.00	1.44
5/06/2024	3/07/2024	< 0.040	< 0.706	< 1.164	< 0.362	< 0.615	0.00	2.89
3/07/2024	11/08/2024	< 0.024	< 0.424	< 0.698	< 0.217	< 0.369	0.00	1.73
11/08/2024	31/08/2024	< 0.001	< 0.014	< 0.023	< 0.007	< 0.012	0.00	0.06
31/08/2024	01/10/2024	< 0.040	< 0.706	< 1.164	< 0.362	< 0.615	0.00	2.89

Start date	End Date	NH ₄ ⁽⁺¹⁾ mEq/m ²	Ca ⁽⁺²⁾ mEq/m ²	Mg ⁽⁺²⁾ mEq/m ²	K ⁽⁺¹⁾ mEq/m ²	Na ⁽⁺¹⁾ mEq/m ²	Min Σ cations mEq/m ²	Max Σ cations mEq/m ²
<i>Total</i>							5.33	28.43
1/10/2024	31/10/2024	< 0.020	< 0.035	< 0.581	< 0.181	< 0.307	0.00	1.12
31/10/2024	1/12/2024	< 0.020	< 0.035	< 0.581	< 0.181	< 0.307	0.00	1.12
1/12/2024	29/12/2024	< 0.024	< 0.042	< 0.698	< 0.217	< 0.368	0.00	1.35
29/12/2024	27/01/2025	-	-	-	< 0.000	-	-	-
27/01/2025	24/02/2025	< 0.022	< 0.040	< 0.651	< 0.203	< 0.344	0.00	1.26
24/02/2025	24/03/2025	< 0.048	< 0.085	< 1.395	< 0.435	< 0.737	0.00	2.70
24/03/2025	22/04/2025	< 0.048	< 0.085	< 1.395	< 0.435	< 0.737	0.00	2.70
22/04/2025	20/05/2025	< 0.040	< 0.071	< 1.163	< 0.362	< 0.614	0.00	2.25
20/05/2025	17/06/2025	< 0.024	< 0.042	< 0.698	< 0.217	< 0.368	0.00	1.35
17/06/2025	15/07/2025	< 0.040	< 0.071	< 1.163	< 0.362	< 0.614	0.00	2.25
15/07/2025	14/08/2025	< 0.048	1.02	< 1.395	< 0.435	4.14	5.16	7.04
14/08/2025	14/09/2025	< 0.020	< 0.035	< 0.581	< 0.181	< 0.307	0.00	1.12
1/10/2024	31/10/2024	< 0.020	< 0.035	< 0.581	< 0.181	< 0.307	0.00	1.12
31/10/2024	1/12/2024	< 0.020	< 0.035	< 0.581	< 0.181	< 0.307	0.00	1.12
<i>Total</i>							5.16	24.27
- Data not available								

Table 3.13: Soluble fraction anion deposition

Start date	End Date	HCO ₃ ⁽⁻¹⁾ mEq/m ²	Cl ⁽⁻¹⁾ mEq/m ²	PO ₄ ⁽⁻³⁾ mEq/m ²	NO ₃ ⁽⁻¹⁾ mEq/m ²	NO ₂ ⁽⁻¹⁾ mEq/m ²	NSS SO ₄ ⁽⁻²⁾ mEq/m ²	SO ₄ ⁽⁻²⁾ mEq/m ²	Min Σ anions mEq/m ²	Max Σ anions mEq/m ²
KBSF Quarry										
29/09/2021	1/11/2021	< 5.11	< 14.57	-	< 0.07	< 0.07	< 1.16	< 2.15	0.00	20.98
29/11/2021	29/12/2021	10.30	< 11.01	-	< 0.06	< 0.06	1.37	2.17	11.67	22.80
29/12/2021	25/01/2022	< 4.53	< 12.93	-	< 0.07	< 0.07	< 1.38	< 1.91	0.00	18.97
25/01/2022	23/02/2022	5.14	< 12.21	-	< 0.06	< 0.06	< 1.05	< 1.80	5.14	18.52
23/02/2022	23/03/2022	< 1.43	9.77	< 0.01	< 0.02	< 0.02	0.00	< 0.60	9.77	11.25
23/03/2022	20/04/2022	4.23	< 5.03	< 0.01	< 0.03	< 0.03	0.00	< 0.74	4.23	9.32
20/04/2022	19/05/2022	11.20	< 15.96	< 0.04	0.97	< 0.08	1.59	3.06	13.75	29.83
19/05/2022	15/06/2022	< 6.86	< 19.55	< 0.04	< 0.10	< 0.10	1.65	3.46	1.65	28.31
15/06/2022	18/07/2022	1.92	7.47	< 0.01	0.02	< 0.02	0.29	1.16	9.71	9.74
18/07/2022	10/08/2022	1.57	< 3.99	0.01	< 0.02	< 0.02	< 0.29	< 0.59	1.58	5.90
10/08/2022	4/09/2022	1.93	< 3.99	0.01	< 0.02	< 0.02	0.00	< 0.59	1.94	5.97
<i>Total</i>									59.44	181.59
4/09/2022	5/10/2022	1.50	5.36	< 0.01	< 0.02	< 0.02	0.25	0.94	7.12	7.16
5/10/2022	2/11/2022	1.72	< 4.03	< 0.01	< 0.02	< 0.03	< 0.57	< 0.57	1.72	6.38
2/11/2022	30/11/2022	2.71	< 4.03	< 0.01	< 0.02	< 0.03	< 0.09	0.71	2.71	6.89
30/11/2022	27/12/2022	1.73	3.40	< 0.01	< 0.01	< 0.02	0.00	0.46	5.13	5.17
27/12/2022	26/01/2023	4.14	44.25	< 0.02	< 0.03	< 0.05	2.12	8.12	50.50	50.60
26/01/2023	23/02/2023	4.03	5.17	< 0.01	< 0.02	< 0.03	0.00	1.20	9.20	9.27
23/02/2023	21/03/2023	10.59	< 13.73	0.06	0.07	< 0.10	0.00	2.84	10.72	24.55
21/03/2023	16/04/2023	7.72	16.15	< 0.02	0.04	< 0.05	0.00	3.14	23.92	23.98
16/04/2023	15/05/2023	5.60	16.70	< 0.01	0.15	< 0.03	0.00	3.32	22.45	22.49
15/05/2023	13/06/2023	2.58	5.87	0.41	< 0.02	< 0.03	0.00	2.02	8.86	8.90

Start date	End Date	HCO ₃ ⁽⁻¹⁾ mEq/m ²	Cl ⁽⁻¹⁾ mEq/m ²	PO ₄ ⁽⁻³⁾ mEq/m ²	NO ₃ ⁽⁻¹⁾ mEq/m ²	NO ₂ ⁽⁻¹⁾ mEq/m ²	NSS SO ₄ ⁽⁻²⁾ mEq/m ²	SO ₄ ⁽⁻²⁾ mEq/m ²	Min Σ anions mEq/m ²	Max Σ anions mEq/m ²
13/06/2023	13/07/2023	17.33	15.92	0.22	< 0.07	< 0.10	0.00	3.85	33.47	33.64
13/07/2023	13/08/2023	2.10	7.82	< 0.01	< 0.02	< 0.03	0.36	2.95	10.28	10.34
13/08/2023	11/09/2023	2.85	8.95	< 0.01	< 0.02	< 0.03	0.00	3.18	11.81	11.87
<i>Total</i>									197.89	221.24
11/09/2023	13/10/2023	47.58	9.58	< 0.009	< 0.020	< 0.020	0.00	3.71	57.16	57.21
13/10/2023	11/11/2023	-	-	-	-	-	-	-	-	-
11/11/2023	10/12/2023	2.57	8.62	< 0.010	< 0.011	< 0.011	0.00	2.39	11.19	11.22
10/12/2023	11/01/2024	-	-	-	-	-	-	-	-	-
11/01/2024	09/02/2024	4.62	15.10	< 0.004	0.27	< 0.010	0.00	3.71	19.99	20.00
9/02/2024	12/03/2024	2.49	4.71	< 0.009	0.16	< 0.020	0.09	0.82	7.45	7.48
12/03/2024	10/04/2024	5.74	11.13	0.01	0.03	< 0.017	0.00	2.85	16.90	16.92
10/04/2024	09/05/2024	9.40	18.77	0.02	< 0.034	< 0.034	0.00	3.96	28.19	28.26
9/05/2024	05/06/2024	2.49	4.71	< 0.009	0.16	< 0.020	0.09	0.82	7.45	7.48
5/06/2024	3/07/2024	3.36	9.58	< 0.007	< 0.016	< 0.016	0.00	2.12	12.94	12.98
3/07/2024	11/08/2024	1.47	5.59	0.00	0.01	< 0.007	0.00	1.18	7.07	7.08
11/08/2024	31/08/2024	14.16	45.65	< 0.020	0.13	< 0.044	0.00	9.20	59.95	60.01
31/08/2024	01/10/2024	2.31	5.09	0.03	< 0.022	< 0.022	0.07	1.56	7.50	7.54
<i>Total</i>									235.77	236.16
1/10/2024	31/10/2024	3.20	11.24	0.00	0.12	< 0.009	0.00	2.56	14.44	14.57
31/10/2024	1/12/2024	9.10	22.35	< 0.004	0.20	< 0.010	0.00	6.48	31.65	31.66
1/12/2024	29/12/2024	7.61	14.69	< 0.007	0.02	< 0.016	0.00	2.40	22.32	22.34
29/12/2024	27/01/2025	-	-	-	-	-	-	-	-	-
27/01/2025	24/02/2025	0.99	7.18	< 0.004	< 0.009	< 0.009	1.09	2.92	9.26	9.28
24/02/2025	24/03/2025	4.71	19.01	< 0.012	< 0.028	< 0.028	0.00	2.38	23.73	23.79

Start date	End Date	HCO ₃ ⁽⁻¹⁾ mEq/m ²	Cl ⁽⁻¹⁾ mEq/m ²	PO ₄ ⁽⁻³⁾ mEq/m ²	NO ₃ ⁽⁻¹⁾ mEq/m ²	NO ₂ ⁽⁻¹⁾ mEq/m ²	NSS SO ₄ ⁽⁻²⁾ mEq/m ²	SO ₄ ⁽⁻²⁾ mEq/m ²	Min Σ anions mEq/m ²	Max Σ anions mEq/m ²
24/03/2025	22/04/2025	2.34	8.25	< 0.010	< 0.024	< 0.024	0.00	1.43	10.59	10.65
22/04/2025	20/05/2025	1.53	6.15	< 0.009	< 0.021	< 0.021	0.00	0.79	7.68	7.73
20/05/2025	17/06/2025	2.62	6.78	< 0.007	< 0.017	< 0.017	0.36	1.39	9.76	9.80
17/06/2025	15/07/2025	2.24	5.01	< 0.007	< 0.017	< 0.017	0.00	0.66	7.25	7.29
15/07/2025	14/08/2025	2.34	11.29	0.03	< 0.020	< 0.020	0.00	1.77	13.66	13.70
14/08/2025	14/09/2025	0.83	5.03	< 0.004	< 0.009	< 0.009	0.00	0.76	5.86	5.88
<i>Total</i>									156.20	156.71
Visitor Centre										
29/09/2021	1/11/2021	< 2.80	< 7.98	-	< 0.04	< 0.04	< 0.14	< 1.18	0.00	11.00
29/11/2021	29/12/2021	< 3.86	< 11.01	-	< 0.06	< 0.06	< 0.38	< 1.63	0.00	15.37
29/12/2021	25/01/2022	< 4.24	< 12.09	-	< 0.06	< 0.06	< 1.16	< 1.78	0.00	17.62
25/01/2022	23/02/2022	2.56	14.37	-	< 0.06	< 0.06	0.72	2.56	17.64	17.76
23/02/2022	23/03/2022	< 1.51	< 4.31	< 0.02	0.20	< 0.02	< 0.24	< 0.64	0.20	6.30
23/03/2022	20/04/2022	< 3.02	< 4.31	< 0.04	0.07	0.04	< 0.10	< 0.64	0.07	7.58
20/04/2022	19/05/2022	< 5.37	< 15.32	< 0.03	0.93	< 0.08	< 1.32	< 2.26	0.93	23.06
19/05/2022	15/06/2022	< 7.00	< 19.95	< 0.04	0.71	< 0.10	< 1.71	< 2.95	0.71	29.52
15/06/2022	18/07/2022	1.57	< 3.99	< 0.01	< 0.02	< 0.02	< 0.59	< 0.59	1.57	6.20
18/07/2022	10/08/2022	2.16	4.07	< 0.01	< 0.02	< 0.02	< 0.65	0.65	6.23	6.92
10/08/2022	4/09/2022	0.62	< 1.68	< 0.00	< 0.01	< 0.01	< 0.25	< 0.25	0.62	2.57
<i>Total</i>									27.96	143.89
4/09/2022	5/10/2022	2.05	6.39	< 0.01	< 0.02	< 0.03	0.45	1.16	8.88	8.95
5/10/2022	2/11/2022	1.73	< 4.19	< 0.01	< 0.02	< 0.03	0.00	< 0.59	1.73	5.98
2/11/2022	30/11/2022	2.52	< 3.87	< 0.01	< 0.02	< 0.03	< 0.20	0.80	2.52	6.65
30/11/2022	27/12/2022	1.99	5.61	0.16	< 0.02	< 0.02	0.29	1.07	8.06	8.09

Start date	End Date	HCO ₃ ⁽⁻¹⁾ mEq/m ²	Cl ⁽⁻¹⁾ mEq/m ²	PO ₄ ⁽⁻³⁾ mEq/m ²	NO ₃ ⁽⁻¹⁾ mEq/m ²	NO ₂ ⁽⁻¹⁾ mEq/m ²	NSS SO ₄ ⁽⁻²⁾ mEq/m ²	SO ₄ ⁽⁻²⁾ mEq/m ²	Min Σ anions mEq/m ²	Max Σ anions mEq/m ²
27/12/2022	26/01/2023	3.99	10.97	0.04	< 0.05	< 0.07	0.22	2.06	15.22	15.34
26/01/2023	23/02/2023	2.70	7.28	< 0.01	< 0.02	< 0.03	0.00	1.37	9.98	10.04
23/02/2023	21/03/2023	6.30	10.77	0.07	< 0.03	< 0.04	0.00	2.47	17.14	17.21
21/03/2023	16/04/2023	9.17	16.29	< 0.02	< 0.05	< 0.07	0.00	3.71	25.46	25.60
16/04/2023	15/05/2023	7.84	16.76	< 0.01	< 0.02	< 0.03	0.00	2.95	24.60	24.65
15/05/2023	13/06/2023	1.41	< 4.03	0.09	< 0.02	< 0.03	0.00	< 0.57	1.50	5.58
13/06/2023	13/07/2023	14.15	21.44	0.28	< 0.06	< 0.09	0.00	6.14	35.87	36.02
13/07/2023	13/08/2023	2.04	4.57	< 0.01	< 0.02	< 0.03	0.00	1.72	6.60	6.66
13/08/2023	11/09/2023	2.23	8.95	< 0.01	< 0.02	< 0.03	0.00	2.76	11.18	11.24
<i>Total</i>									168.74	182.04
11/09/2023	13/10/2023	53.40	11.00	< 0.009	< 0.021	< 0.021	0.00	3.25	64.40	64.45
13/10/2023	11/11/2023	3.36	17.56	< 0.009	< 0.020	< 0.020	0.00	3.83	20.92	20.97
11/11/2023	10/12/2023	3.78	8.72	0.35	< 0.011	< 0.011	< 1.885	2.21	12.85	14.75
10/12/2023	11/01/2024	-	-	-	-	-	-	-	-	-
11/01/2024	09/02/2024	2.27	12.21	< 0.004	0.14	< 0.009	0.00	2.65	14.61	14.63
9/02/2024	12/03/2024	3.36	8.78	< 0.009	0.30	< 0.020	0.00	2.00	12.44	12.47
12/03/2024	10/04/2024	5.73	11.24	0.01	0.08	< 0.013	0.00	3.09	17.06	17.07
10/04/2024	09/05/2024	11.99	28.49	0.06	< 0.048	< 0.048	0.00	6.87	40.55	40.64
9/05/2024	05/06/2024	3.36	8.78	< 0.009	0.30	< 0.020	0.00	2.00	12.44	12.47
5/06/2024	3/07/2024	< 0.924	8.95	< 0.006	< 0.013	< 0.013	0.00	2.22	8.95	9.91
3/07/2024	11/08/2024	4.80	9.13	0.00	0.30	< 0.009	0.00	1.97	14.24	14.25
11/08/2024	31/08/2024	12.87	30.33	< 0.018	< 0.040	< 0.040	0.00	5.89	43.20	43.30
31/08/2024	01/10/2024	1.17	4.21	0.01	< 0.009	0.01	0.00	0.52	5.40	5.41
<i>Total</i>									267.06	270.32

Start date	End Date	HCO ₃ ⁽⁻¹⁾ mEq/m ²	Cl ⁽⁻¹⁾ mEq/m ²	PO ₄ ⁽⁻³⁾ mEq/m ²	NO ₃ ⁽⁻¹⁾ mEq/m ²	NO ₂ ⁽⁻¹⁾ mEq/m ²	NSS SO ₄ ⁽⁻²⁾ mEq/m ²	SO ₄ ⁽⁻²⁾ mEq/m ²	Min Σ anions mEq/m ²	Max Σ anions mEq/m ²
1/10/2024	31/10/2024	3.93	11.62	0.03	0.35	< 0.010	0.00	2.85	15.55	15.94
31/10/2024	1/12/2024	8.81	25.14	< 0.004	0.23	< 0.010	0.00	5.89	33.95	34.19
1/12/2024	29/12/2024	6.55	14.01	< 0.006	< 0.013	< 0.013	0.00	3.29	20.57	20.59
29/12/2024	27/01/2025	-	-	-	-	-	-	-	-	-
27/01/2025	24/02/2025	1.82	9.97	< 0.004	< 0.010	< 0.010	0.00	2.24	11.81	11.82
24/02/2025	24/03/2025	3.70	12.46	< 0.010	< 0.024	< 0.024	0.00	2.89	16.19	16.22
24/03/2025	22/04/2025	2.39	7.69	< 0.011	< 0.026	< 0.026	0.00	1.69	10.12	10.14
22/04/2025	20/05/2025	1.41	6.98	0.03	< 0.019	< 0.019	0.00	0.95	8.42	8.46
20/05/2025	17/06/2025	2.41	5.43	0.02	< 0.017	< 0.017	0.01	0.97	7.86	7.90
17/06/2025	15/07/2025	2.20	4.67	< 0.008	< 0.019	< 0.019	0.00	< 0.005	4.67	6.92
15/07/2025	14/08/2025	2.11	8.95	0.03	< 0.020	< 0.020	0.00	1.44	11.10	11.12
14/08/2025	14/09/2025	1.35	4.39	< 0.005	< 0.011	< 0.011	0.06	0.87	5.80	5.83
Total									146.04	149.15
AAQ Station										
29/09/2021	1/11/2021	< 0.03	< 11.25	-	< 0.06	< 0.06	< 0.90	< 1.66	0.00	12.30
29/11/2021	29/12/2021	< 4.06	< 11.56	-	< 0.06	< 0.06	< 0.76	< 1.71	0.00	16.49
29/12/2021	25/01/2022	< 4.45	< 8.46	-	< 0.06	< 0.06	< 1.09	< 1.87	0.00	14.13
25/01/2022	23/02/2022	2.19	< 5.79	-	< 0.06	< 0.06	1.31	2.73	3.50	9.40
23/02/2022	23/03/2022	< 1.48	< 4.23	< 0.01	< 0.02	< 0.02	0	0.62	0.00	5.77
23/03/2022	20/04/2022	< 2.83	< 4.03	< 0.01	0.02	0.02	0	< 0.59	0.04	6.91
20/04/2022	19/05/2022	< 5.74	< 16.36	< 0.04	< 0.08	< 0.08	< 1.41	< 2.42	0.00	23.71
19/05/2022	15/06/2022	< 6.86	< 19.55	< 0.04	< 0.10	< 0.10	< 1.08	< 2.89	0.00	27.73
15/06/2022	18/07/2022	1.61	< 3.59	< 0.01	< 0.02	< 0.02	< 0.53	< 0.53	1.61	5.78
18/07/2022	10/08/2022	1.88	< 3.99	< 0.01	< 0.02	< 0.02	< 0.59	< 0.59	1.88	6.50

Start date	End Date	HCO ₃ ⁽⁻¹⁾ mEq/m ²	Cl ⁽⁻¹⁾ mEq/m ²	PO ₄ ⁽⁻³⁾ mEq/m ²	NO ₃ ⁽⁻¹⁾ mEq/m ²	NO ₂ ⁽⁻¹⁾ mEq/m ²	NSS SO ₄ ⁽⁻²⁾ mEq/m ²	SO ₄ ⁽⁻²⁾ mEq/m ²	Min Σ anions mEq/m ²	Max Σ anions mEq/m ²
10/08/2022	4/09/2022	1.66	< 4.15	< 0.01	< 0.02	< 0.02	< 0.61	< 0.61	1.66	6.47
<i>Total</i>									8.68	135.18
4/09/2022	5/10/2022	1.88	< 3.63	< 0.01	< 0.02	< 0.03	< 0.08	0.64	1.88	5.65
5/10/2022	2/11/2022	1.43	5.13	< 0.01	< 0.02	< 0.03	0.00	< 0.58	6.56	6.61
2/11/2022	30/11/2022	2.26	5.56	< 0.01	< 0.02	< 0.03	0.27	1.01	8.09	8.15
30/11/2022	27/12/2022	1.88	7.34	< 0.01	< 0.02	< 0.03	0.00	0.76	9.22	9.27
27/12/2022	26/01/2023	2.79	11.85	< 0.01	< 0.03	< 0.04	0.00	1.58	14.64	14.73
26/01/2023	23/02/2023	2.89	6.23	< 0.01	< 0.02	< 0.03	0.00	0.99	9.11	9.18
23/02/2023	21/03/2023	6.72	10.15	< 0.02	< 0.05	< 0.07	0.00	2.83	16.87	17.01
21/03/2023	16/04/2023	7.51	< 9.93	< 0.02	< 0.05	< 0.07	0.00	1.72	7.51	17.58
16/04/2023	15/05/2023	5.09	16.12	< 0.01	0.20	< 0.03	0.00	3.03	21.21	21.45
15/05/2023	13/06/2023	1.02	< 2.39	0.04	< 0.01	< 0.02	0.00	0.49	1.02	3.49
13/06/2023	13/07/2023	12.01	19.75	0.27	< 0.07	< 0.09	0.00	5.05	32.02	32.19
13/07/2023	13/08/2023	3.02	7.82	< 0.01	< 0.02	< 0.03	0.00	2.83	10.84	10.89
13/08/2023	11/09/2023	2.30	9.13	< 0.01	< 0.02	< 0.03	0.00	2.76	11.43	11.49
<i>Total</i>									150.41	167.70
11/09/2023	13/10/2023	38.40	11.73	0.01	0.22	< 0.020	0.00	4.45	50.36	50.38
13/10/2023	11/11/2023	4.48	17.56	< 0.009	0.08	< 0.020	0.00	4.18	22.12	22.15
11/11/2023	10/12/2023	1.58	7.88	< 0.004	< 0.009	< 0.009	0.00	1.88	9.46	9.48
10/12/2023	11/01/2024	-	-	-	-	-	-	-	-	-
11/01/2024	09/02/2024	3.23	14.49	0.04	0.04	< 0.011	0.00	3.24	17.81	17.82
9/02/2024	12/03/2024	3.36	8.78	0.14	0.26	< 0.020	0.65	1.89	13.20	13.22
12/03/2024	10/04/2024	4.76	10.06	0.02	0.09	< 0.013	0.00	2.89	14.92	14.94
10/04/2024	09/05/2024	7.46	17.72	0.01	< 0.030	< 0.030	0.00	4.01	25.19	25.25

Start date	End Date	HCO ₃ ⁽⁻¹⁾ mEq/m ²	Cl ⁽⁻¹⁾ mEq/m ²	PO ₄ ⁽⁻³⁾ mEq/m ²	NO ₃ ⁽⁻¹⁾ mEq/m ²	NO ₂ ⁽⁻¹⁾ mEq/m ²	NSS SO ₄ ⁽⁻²⁾ mEq/m ²	SO ₄ ⁽⁻²⁾ mEq/m ²	Min Σ anions mEq/m ²	Max Σ anions mEq/m ²
9/05/2024	05/06/2024	3.36	8.78	0.14	0.26	< 0.020	0.65	1.89	13.20	13.22
5/06/2024	3/07/2024	2.74	9.50	< 0.006	< 0.014	< 0.014	0.00	2.35	12.24	12.27
3/07/2024	11/08/2024	0.53	2.39	0.00	0.00	< 0.004	0.00	0.53	2.93	2.94
11/08/2024	31/08/2024	16.63	40.38	< 0.020	0.13	< 0.044	0.00	8.03	57.14	57.21
31/08/2024	01/10/2024	1.54	4.12	0.03	< 0.012	< 0.012	0.00	1.10	5.70	5.72
Total									244.25	244.57
1/10/2024	31/10/2024	3.78	11.57	0.00	0.20	< 0.010	0.00	2.89	15.55	15.56
31/10/2024	1/12/2024	8.40	26.74	< 0.004	0.17	< 0.010	0.00	5.89	35.31	35.33
1/12/2024	29/12/2024	12.54	14.52	1.07	0.04	0.02	0.00	2.59	27.05	28.18
29/12/2024	27/01/2025	-	-	-	-	-	-	-	-	-
27/01/2025	24/02/2025	1.82	11.20	< 0.005	< 0.011	< 0.011	0.00	2.55	13.03	13.04
24/02/2025	24/03/2025	3.35	12.43	< 0.011	< 0.026	< 0.026	0.12	2.69	15.94	15.96
24/03/2025	22/04/2025	2.42	8.56	0.04	< 0.025	< 0.025	0.51	2.39	11.55	11.58
22/04/2025	20/05/2025	< 0.003	5.08	< 0.008	< 0.018	< 0.018	0.00	0.70	5.09	5.12
20/05/2025	17/06/2025	2.66	6.59	< 0.008	< 0.019	< 0.019	0.46	1.51	9.73	9.75
17/06/2025	15/07/2025	2.16	4.02	< 0.008	< 0.018	< 0.018	0.00	< 0.005	6.19	6.23
15/07/2025	14/08/2025	1.76	10.05	0.00	< 0.017	< 0.017	2.20	3.97	14.03	14.05
14/08/2025	14/09/2025	1.06	4.14	0.00	< 0.010	< 0.010	0.00	0.69	5.21	5.22
Total									158.69	160.03
Mt Wongama										
29/09/2021	1/11/2021	< 4.04	< 11.53	-	< 0.01	< 0.01	< 1.13	< 1.70	0.00	16.73
29/11/2021	29/12/2021	< 4.60	< 13.12	-	< 0.02	< 0.02	< 0.99	< 1.94	0.00	18.76
29/12/2021	25/01/2022	5.16	< 11.61	-	< 0.02	< 0.02	< 1.00	< 1.71	5.16	17.81
25/01/2022	23/02/2022	1.62	9.22	-	< 0.02	< 0.02	< 0.33	< 1.24	10.83	11.21

Start date	End Date	HCO ₃ ⁽⁻¹⁾ mEq/m ²	Cl ⁽⁻¹⁾ mEq/m ²	PO ₄ ⁽⁻³⁾ mEq/m ²	NO ₃ ⁽⁻¹⁾ mEq/m ²	NO ₂ ⁽⁻¹⁾ mEq/m ²	NSS SO ₄ ⁽⁻²⁾ mEq/m ²	SO ₄ ⁽⁻²⁾ mEq/m ²	Min Σ anions mEq/m ²	Max Σ anions mEq/m ²
23/02/2022	23/03/2022	< 1.48	< 4.23	< 0.01	< 0.02	< 0.02	< 0.23	< 0.62	0.00	6.00
23/03/2022	20/04/2022	3.39	< 4.39	< 0.01	< 0.02	< 0.02	0.00	< 0.65	3.39	7.83
20/04/2022	19/05/2022	7.35	20.95	< 0.03	1.70	< 0.07	2.98	5.57	32.97	33.08
19/05/2022	15/06/2022	< 6.86	29.33	< 0.04	< 0.10	< 0.10	2.15	5.77	31.48	38.58
15/06/2022	18/07/2022	2.65	6.64	< 0.01	< 0.02	< 0.02	0.09	0.86	9.38	9.43
18/07/2022	10/08/2022	2.19	< 4.39	< 0.01	< 0.02	< 0.02	< 0.65	< 0.65	2.19	7.28
10/08/2022	4/09/2022	1.72	4.48	< 0.01	< 0.02	< 0.02	< 0.61	< 0.61	6.20	6.86
<i>Total</i>									<i>101.60</i>	<i>173.57</i>
4/09/2022	5/10/2022	2.05	6.39	< 0.01	< 0.02	< 0.03	0.45	1.16	8.88	8.95
5/10/2022	2/11/2022	1.73	< 4.19	< 0.01	< 0.02	< 0.03	0.00	< 0.59	1.73	5.98
2/11/2022	30/11/2022	2.52	< 3.87	< 0.01	< 0.02	< 0.03	< 0.20	0.80	2.52	6.65
30/11/2022	27/12/2022	1.99	5.61	0.16	< 0.02	< 0.02	0.29	1.07	8.06	8.09
27/12/2022	26/01/2023	3.99	10.97	0.04	< 0.05	< 0.07	0.22	2.06	15.22	15.34
26/01/2023	23/02/2023	2.70	7.28	< 0.01	< 0.02	< 0.03	0.00	1.37	9.98	10.04
23/02/2023	21/03/2023	6.30	10.77	0.07	< 0.03	< 0.04	0.00	2.47	17.14	17.21
21/03/2023	16/04/2023	9.17	16.29	< 0.02	< 0.05	< 0.07	0.00	3.71	25.46	25.60
16/04/2023	15/05/2023	7.84	16.76	< 0.01	< 0.02	< 0.03	0.00	2.95	24.60	24.65
15/05/2023	13/06/2023	1.41	< 4.03	0.09	< 0.02	< 0.03	0.00	< 0.57	1.50	5.58
13/06/2023	13/07/2023	14.15	21.44	0.28	< 0.06	< 0.09	0.00	6.14	35.87	36.02
13/07/2023	13/08/2023	2.04	4.57	< 0.01	< 0.02	< 0.03	0.00	1.72	6.60	6.66
13/08/2023	11/09/2023	2.23	8.95	< 0.01	< 0.02	< 0.03	0.00	2.76	11.18	11.24
<i>Total</i>									<i>168.74</i>	<i>182.04</i>
11/09/2023	13/10/2023	39.18	8.78	< 0.009	< 0.020	< 0.020	0.00	3.48	47.96	48.01
13/10/2023	11/11/2023	5.32	18.36	< 0.009	0.18	< 0.020	0.00	4.30	23.86	23.88

Start date	End Date	HCO ₃ ⁽⁻¹⁾ mEq/m ²	Cl ⁽⁻¹⁾ mEq/m ²	PO ₄ ⁽⁻³⁾ mEq/m ²	NO ₃ ⁽⁻¹⁾ mEq/m ²	NO ₂ ⁽⁻¹⁾ mEq/m ²	NSS SO ₄ ⁽⁻²⁾ mEq/m ²	SO ₄ ⁽⁻²⁾ mEq/m ²	Min Σ anions mEq/m ²	Max Σ anions mEq/m ²
11/11/2023	10/12/2023	2.10	9.98	0.01	< 0.010	< 0.010	0.00	2.09	12.08	12.10
10/12/2023	11/01/2024	-	-	-	-	-	-	-	-	-
11/01/2024	09/02/2024	3.90	23.34	< 0.004	0.48	< 0.009	0.00	3.98	27.73	27.74
9/02/2024	12/03/2024	6.22	16.18	< 0.006	0.38	0.03	0.39	3.85	23.20	23.21
12/03/2024	10/04/2024	9.00	12.30	0.02	0.61	< 0.014	0.00	3.28	21.93	21.95
10/04/2024	09/05/2024	10.30	31.92	< 0.014	< 0.032	< 0.032	0.00	6.22	42.22	42.30
9/05/2024	05/06/2024	6.22	16.18	< 0.006	0.38	0.03	0.39	3.85	23.20	23.21
5/06/2024	3/07/2024	4.16	12.37	< 0.006	0.16	< 0.013	0.00	3.14	16.70	16.72
3/07/2024	11/08/2024	0.95	3.35	< 0.002	0.05	< 0.004	0.00	0.71	4.35	4.36
11/08/2024	31/08/2024	13.43	33.71	< 0.017	< 0.039	< 0.039	0.00	5.77	47.15	47.24
31/08/2024	01/10/2024	1.49	6.93	0.01	< 0.013	< 0.013	0.00	1.61	8.43	8.45
<i>Total</i>									298.82	299.18
1/10/2024	31/10/2024	5.21	12.44	0.02	0.15	< 0.012	0.00	3.07	17.66	17.84
31/10/2024	1/12/2024	9.38	25.14	< 0.004	0.16	< 0.010	0.00	5.89	34.67	34.69
1/12/2024	29/12/2024	6.72	14.06	< 0.007	< 0.016	< 0.016	0.00	2.83	20.79	20.82
29/12/2024	27/01/2025	-	-	-	-	-	-	-	-	-
27/01/2025	24/02/2025	1.62	9.96	0.01	< 0.010	< 0.010	0.00	2.15	11.58	11.60
24/02/2025	24/03/2025	3.68	13.39	< 0.012	< 0.028	< 0.028	0.00	2.46	17.13	17.14
24/03/2025	22/04/2025	1.65	4.47	0.06	< 0.021	< 0.021	0.00	1.05	6.20	6.22
22/04/2025	20/05/2025	1.60	6.82	< 0.008	< 0.019	< 0.019	0.00	0.79	8.42	8.47
20/05/2025	17/06/2025	2.15	7.65	< 0.007	< 0.016	< 0.016	0.09	1.27	9.92	9.93
17/06/2025	15/07/2025	1.94	5.40	0.00	< 0.019	< 0.019	0.00	0.56	7.36	7.38
15/07/2025	14/08/2025	6.57	17.21	0.05	1.48	< 0.036	0.11	2.55	25.37	25.45
14/08/2025	14/09/2025	1.37	5.53	< 0.005	0.11	< 0.012	0.19	0.96	7.09	7.21

Start date	End Date	HCO ₃ ⁽⁻¹⁾ mEq/m ²	Cl ⁽⁻¹⁾ mEq/m ²	PO ₄ ⁽⁻³⁾ mEq/m ²	NO ₃ ⁽⁻¹⁾ mEq/m ²	NO ₂ ⁽⁻¹⁾ mEq/m ²	NSS SO ₄ ⁽⁻²⁾ mEq/m ²	SO ₄ ⁽⁻²⁾ mEq/m ²	Min Σ anions mEq/m ²	Max Σ anions mEq/m ²
<i>Total</i>									166.18	166.75
RT Pastoral Lease										
29/09/2021	1/11/2021	-	-	-	-	-	-	-	-	-
29/11/2021	29/12/2021	3.58	< 8.50	-	< 0.04	< 0.04	0.16	4.18	3.74	12.32
29/12/2021	25/01/2022	< 3.61	< 10.30	-	< 0.05	< 0.05	1.10	1.52	1.10	15.11
25/01/2022	23/02/2022	9.53	< 20.91	-	< 0.11	< 0.11	< 2.12	< 3.09	9.53	32.77
23/02/2022	23/03/2022	1.80	< 4.27	0.03	0.17	< 0.02	0.00	< 0.63	2.00	6.29
23/03/2022	20/04/2022	2.83	< 4.03	< 0.01	0.04	0.04	< 0.10	< 0.59	2.91	7.05
20/04/2022	19/05/2022	-	-	-	-	-	-	-	-	-
19/05/2022	15/06/2022	< 12.03	< 34.32	0.38	< 0.17	< 0.17	< 5.07	< 5.07	0.38	52.15
15/06/2022	18/07/2022	2.04	< 3.99	< 0.01	< 0.02	< 0.02	< 0.59	< 0.59	2.04	6.67
18/07/2022	10/08/2022	2.24	< 3.99	< 0.01	< 0.02	< 0.02	< 0.59	< 0.59	2.24	6.87
10/08/2022	4/09/2022	1.60	< 3.75	0.01	< 0.02	< 0.02	< 0.55	< 0.55	1.61	5.96
<i>Total</i>									25.55	145.18
4/09/2022	5/10/2022	1.98	5.47	0.52	< 0.02	< 0.03	0.00	0.63	7.96	8.01
5/10/2022	2/11/2022	1.39	< 3.95	< 0.01	0.04	< 0.03	0.00	< 0.56	1.39	5.41
2/11/2022	30/11/2022	2.48	< 4.07	< 0.01	< 0.02	< 0.03	0.21	0.84	2.70	6.83
30/11/2022	27/12/2022	2.32	11.13	< 0.01	< 0.02	< 0.03	0.00	0.88	13.45	13.50
27/12/2022	26/01/2023	3.69	86.59	< 0.01	< 0.03	< 0.04	1.63	8.31	91.91	92.00
26/01/2023	23/02/2023	1.90	5.17	< 0.01	< 0.02	< 0.03	0.00	0.70	7.08	7.14
23/02/2023	21/03/2023	8.78	17.88	< 0.02	0.05	< 0.06	0.00	3.69	26.65	26.78
21/03/2023	16/04/2023	7.56	13.09	< 0.02	0.04	< 0.05	0.00	2.16	20.69	20.77
16/04/2023	15/05/2023	6.31	17.21	0.18	0.06	< 0.03	0.00	3.00	23.76	23.79
15/05/2023	13/06/2023	1.66	< 4.15	0.07	< 0.02	< 0.03	0.00	< 0.59	1.72	5.92

Start date	End Date	HCO ₃ ⁽⁻¹⁾ mEq/m ²	Cl ⁽⁻¹⁾ mEq/m ²	PO ₄ ⁽⁻³⁾ mEq/m ²	NO ₃ ⁽⁻¹⁾ mEq/m ²	NO ₂ ⁽⁻¹⁾ mEq/m ²	NSS SO ₄ ⁽⁻²⁾ mEq/m ²	SO ₄ ⁽⁻²⁾ mEq/m ²	Min Σ anions mEq/m ²	Max Σ anions mEq/m ²
13/06/2023	13/07/2023	15.70	36.87	0.21	< 0.07	< 0.09	0.00	5.05	52.78	52.94
13/07/2023	13/08/2023	1.88	7.98	0.04	< 0.02	< 0.03	0.00	2.18	9.89	9.94
13/08/2023	11/09/2023	2.14	8.60	< 0.01	< 0.02	< 0.03	0.00	2.71	10.74	10.80
<i>Total</i>									270.72	283.83
11/09/2023	13/10/2023	35.27	7.90	< 0.008	< 0.018	< 0.018	0.00	3.29	43.17	43.21
13/10/2023	11/11/2023	5.14	16.28	< 0.009	0.04	< 0.021	0.00	3.73	21.46	21.49
11/11/2023	10/12/2023	1.97	6.38	0.01	< 0.009	< 0.009	0.00	1.58	8.36	8.38
10/12/2023	11/01/2024	-	-	-	-	-	-	-	-	-
11/01/2024	09/02/2024	3.85	10.53	< 0.005	0.08	< 0.011	0.00	2.33	14.46	14.48
9/02/2024	12/03/2024	7.42	13.71	< 0.005	0.31	< 0.012	0.00	1.85	21.44	21.45
12/03/2024	10/04/2024	3.26	8.88	< 0.005	0.20	< 0.011	0.00	2.50	12.35	12.36
10/04/2024	09/05/2024	3.62	< 1.357	< 0.003	< 0.007	< 0.007	0.21	2.80	3.82	5.20
9/05/2024	05/06/2024	7.50	13.65	< 0.005	0.31	< 0.012	0.00	1.85	21.46	21.47
5/06/2024	3/07/2024	3.60	9.34	< 0.010	< 0.024	< 0.024	0.00	2.27	12.94	13.00
3/07/2024	11/08/2024	2.55	10.73	0.00	0.06	< 0.010	0.00	2.43	13.34	13.35
11/08/2024	31/08/2024	16.01	28.09	< 0.020	< 0.044	< 0.044	0.00	9.46	44.10	44.21
31/08/2024	01/10/2024	< 1.399	< 3.990	< 0.009	< 0.020	< 0.020	0.00	0.59	0.00	5.44
<i>Total</i>									216.9	224.0
1/10/2024	31/10/2024	7.25	10.73	0.01	0.15	0.01	0.00	2.72	7.25	18.16
31/10/2024	1/12/2024	5.32	15.96	< 0.004	0.11	0.03	0.00	2.80	5.43	21.42
1/12/2024	29/12/2024	14.28	12.44	0.12	< 0.012	< 0.012	0.32	3.50	14.40	27.19
29/12/2024	27/01/2025	-	-	-	-	-	-	-	-	-
27/01/2025	24/02/2025	2.95	5.93	< 0.005	< 0.012	< 0.012	0.00	1.21	8.89	8.91
24/02/2025	24/03/2025	5.05	10.31	< 0.013	< 0.030	< 0.030	0.32	3.10	15.72	

Start date	End Date	HCO ₃ ⁽⁻¹⁾ mEq/m ²	Cl ⁽⁻¹⁾ mEq/m ²	PO ₄ ⁽⁻³⁾ mEq/m ²	NO ₃ ⁽⁻¹⁾ mEq/m ²	NO ₂ ⁽⁻¹⁾ mEq/m ²	NSS SO ₄ ⁽⁻²⁾ mEq/m ²	SO ₄ ⁽⁻²⁾ mEq/m ²	Min Σ anions mEq/m ²	Max Σ anions mEq/m ²
24/03/2025	22/04/2025	2.20	< 0.009	0.06	< 0.021	< 0.021	0.00	< 0.006	2.23	2.31
22/04/2025	20/05/2025	1.24	5.23	< 0.007	< 0.017	< 0.017	0.00	0.78	1.24	6.51
20/05/2025	17/06/2025	1.92	2.73	< 0.005	< 0.011	< 0.011	0.48	0.97	5.14	5.15
17/06/2025	15/07/2025	2.31	4.83	< 0.009	< 0.021	< 0.021	0.00	< 0.006	7.14	7.19
15/07/2025	14/08/2025	2.71	6.67	0.03	< 0.020	< 0.020	0.07	1.21	9.50	9.52
14/08/2025	14/09/2025	1.78	5.42	0.02	< 0.017	< 0.017	0.21	1.14	7.41	7.47
Total									84.34	113.82
Blank										
29/09/2021	1/11/2021	< 0.00	< 0.28	-	< 0.00	< 0.00	< 0.04	< 0.04	0.00	0.32
29/11/2021	29/12/2021	< 3.22	< 9.18	-	< 0.05	< 0.05	< 1.07	< 1.35	0.00	13.56
29/12/2021	25/01/2022	< 0.08	< 0.22	-	< 0.00	< 0.00	< 0.03	< 0.03	0.00	0.32
25/01/2022	23/02/2022	< 0.03	< 0.16	-	< 0.00	< 0.00	< 0.02	< 0.02	0.00	0.21
23/02/2022	23/03/2022	< 0.03	< 0.08	0.0007	< 0.00	< 0.00	< 0.01	< 0.01	0.0007	0.12
23/03/2022	20/04/2022	< 0.04	< 0.06	0.0003	0.001	0.001	< 0.01	< 0.01	0.0003	0.12
20/04/2022	19/05/2022	< 1.40	< 3.99	0.12	< 0.02	< 0.02	< 0.47	< 0.59	0.1162	6.01
19/05/2022	15/06/2022	< 1.40	< 3.99	< 0.01	< 0.20	< 0.20	< 0.47	< 0.59	0.00	6.27
15/06/2022	18/07/2022	< 1.40	< 3.99	< 0.01	< 0.02	< 0.20	< 0.00	< 0.59	0.00	5.62
18/07/2022	10/08/2022	< 1.40	< 3.99	< 0.01	< 0.02	< 0.20	< 0.00	< 0.59	0.00	5.62
10/08/2022	4/09/2022	< 1.40	< 3.99	< 0.01	< 0.02	< 0.20	< 0.00	< 0.59	0.00	5.62
Total									0.12	43.79
4/09/2022	5/10/2022	< 1.40	< 3.99	< 0.01	< 0.02	< 0.02	0.00	< 0.59	0.00	6.03
5/10/2022	2/11/2022	< 1.40	< 3.99	< 0.01	< 0.02	< 0.02	0.00	< 0.59	0.00	5.44
2/11/2022	30/11/2022	< 1.40	< 3.99	< 0.01	< 0.02	< 0.02	0.00	< 0.59	0.00	5.44
30/11/2022	27/12/2022	< 1.40	< 3.99	< 0.01	< 0.02	< 0.02	0.00	< 0.59	0.00	5.44

Start date	End Date	HCO ₃ ⁽⁻¹⁾ mEq/m ²	Cl ⁽⁻¹⁾ mEq/m ²	PO ₄ ⁽⁻³⁾ mEq/m ²	NO ₃ ⁽⁻¹⁾ mEq/m ²	NO ₂ ⁽⁻¹⁾ mEq/m ²	NSS SO ₄ ⁽⁻²⁾ mEq/m ²	SO ₄ ⁽⁻²⁾ mEq/m ²	Min Σ anions mEq/m ²	Max Σ anions mEq/m ²
27/12/2022	26/01/2023	< 1.40	< 3.99	< 0.01	< 0.02	< 0.02	0.00	< 0.59	0.00	5.44
26/01/2023	23/02/2023	< 1.40	< 3.99	< 0.01	< 0.02	< 0.02	0.00	< 0.59	0.00	5.44
23/02/2023	21/03/2023	< 1.40	< 3.99	< 0.01	< 0.02	< 0.02	0.00	< 0.59	0.00	5.44
21/03/2023	16/04/2023	< 1.40	< 3.99	< 0.01	< 0.02	< 0.02	0.00	< 0.59	0.00	5.44
16/04/2023	15/05/2023	10.36	< 3.99	< 0.01	< 0.02	< 0.02	0.00	< 0.59	0.00	14.40
15/05/2023	13/06/2023	< 1.40	< 3.99	0.03	< 0.02	< 0.02	0.00	< 0.59	0.03	5.46
13/06/2023	13/07/2023	1.40	< 3.99	< 0.01	< 0.02	< 0.02	0.00	< 0.59	0.00	5.44
13/07/2023	13/08/2023	< 1.40	< 3.99	< 0.01	< 0.02	< 0.02	0.00	< 0.59	0.00	5.44
13/08/2023	11/09/2023	< 1.40	< 3.99	< 0.01	< 0.02	< 0.02	0.00	< 0.59	0.00	5.44
Total									0.03	80.27
11/09/2023	13/10/2023	< 1.399	< 3.990	< 0.009	< 0.020	< 0.020	< 0.000	< 0.589	0.00	6.03
13/10/2023	11/11/2023	< 1.399	< 3.990	< 0.009	< 0.020	< 0.020	< 0.000	< 0.589	0.00	5.44
11/11/2023	10/12/2023	< 0.010	< 1.995	0.0045	< 0.010	< 0.010	< 0.000	< 0.295	0.00	2.03
10/12/2023	11/01/2024	-	-	-	-	-	-	-	-	-
11/01/2024	09/02/2024	< 0.770	< 2.195	< 0.005	< 0.011	< 0.011	< 0.000	0.32	0.00	2.99
9/02/2024	12/03/2024	< 0.700	< 1.995	< 0.004	< 0.010	< 0.010	< 0.000	0.29	0.00	2.72
12/03/2024	10/04/2024	< 1.259	< 3.591	< 0.008	< 0.018	< 0.018	< 0.000	0.53	0.00	4.90
10/04/2024	09/05/2024	< 1.399	< 3.990	< 0.009	< 0.020	< 0.020	< 0.000	0.59	0.00	5.44
9/05/2024	05/06/2024	< 0.700	< 1.995	< 0.004	< 0.010	< 0.010	< 0.000	0.29	0.00	2.72
5/06/2024	3/07/2024	< 1.399	< 3.990	< 0.009	< 0.020	< 0.020	< 0.000	0.59	0.01	5.44
3/07/2024	11/08/2024	< 0.840	< 2.394	< 0.005	< 0.012	< 0.012	< 0.000	0.35	0.00	3.26
11/08/2024	31/08/2024	< 0.028	< 0.080	< 0.000	< 0.000	< 0.000	< 0.000	0.01	0.00	0.11
31/08/2024	01/10/2024	< 1.399	< 3.990	< 0.009	< 0.020	< 0.020	< 0.000	0.59	0.00	5.44
Total									0.01	46.51

Start date	End Date	HCO ₃ ⁽⁻¹⁾ mEq/m ²	Cl ⁽⁻¹⁾ mEq/m ²	PO ₄ ⁽⁻³⁾ mEq/m ²	NO ₃ ⁽⁻¹⁾ mEq/m ²	NO ₂ ⁽⁻¹⁾ mEq/m ²	NSS SO ₄ ⁽⁻²⁾ mEq/m ²	SO ₄ ⁽⁻²⁾ mEq/m ²	Min Σ anions mEq/m ²	Max Σ anions mEq/m ²
1/10/2024	31/10/2024	< 0.699	< 1.995	< 0.004	< 0.010	< 0.010	< 0.003	< 0.294	0.00	3.02
31/10/2024	1/12/2024	< 0.699	< 1.995	< 0.004	< 0.010	< 0.010	< 0.003	< 0.294	0.00	2.72
1/12/2024	29/12/2024	< 0.839	< 2.394	< 0.005	< 0.012	< 0.012	< 0.003	< 0.353	0.00	3.26
29/12/2024	27/01/2025	-	-	-	-	-	-	-	-	-
27/01/2025	24/02/2025	< 0.783	< 2.234	< 0.005	< 0.011	< 0.011	< 0.003	< 0.330	0.00	3.05
24/02/2025	24/03/2025	< 1.677	< 4.787	< 0.010	< 0.024	< 0.024	< 0.007	< 0.706	0.01	6.53
24/03/2025	22/04/2025	< 1.677	< 4.787	< 0.010	< 0.024	< 0.024	< 0.007	< 0.706	0.01	6.53
22/04/2025	20/05/2025	< 1.398	< 3.989	< 0.008	< 0.020	< 0.020	< 0.006	< 0.589	0.01	5.44
20/05/2025	17/06/2025	< 0.839	< 2.394	< 0.005	< 0.012	< 0.012	< 0.003	< 0.353	0.00	3.26
17/06/2025	15/07/2025	< 1.398	< 3.989	< 0.008	< 0.020	< 0.020	< 0.006	< 0.589	0.01	5.44
15/07/2025	14/08/2025	< 1.677	< 4.787	< 0.010	< 0.024	< 0.024	< 0.007	< 0.706	0.01	6.53
14/08/2025	14/09/2025	< 0.699	< 1.995	< 0.004	< 0.010	< 0.010	< 0.003	< 0.294	0.00	2.72
<i>Total</i>									0.05	48.50

3.4 Rainfall

The rainfall collected across the reporting period was analysed for cations and anions. The ion concentrations are provided in Table 4.14 and Table 4.15 along with the deposition per square metre (area of gauge mouth 0.066 m²).

The non-sea salt sulfate (NSS SO₄⁽²⁻⁾), derived using the methodology provided by the World Data Centre for Precipitation Chemistry, was used in the anion total. Where the analyte concentration was below the limit of reporting, the limit of reporting was reported and used in the calculation of the NSS and maximum total cation and anion sums. The minimum sum was calculated from the detect values only. The true total is somewhere between the minimum and maximum deposition values in the tables.

Mass concentration data is tabulated in Appendix D.

Table 3.14: Rainfall cation tables

Start date	End date	Volume mL	Rainfall mm	NH ₄ ⁽⁺¹⁾ mEq/L	Ca ⁽⁺²⁾ mEq/L	Mg ⁽⁺²⁾ mEq/L	H ⁽⁺¹⁾ mEq/L	K ⁽⁺¹⁾ mEq/L	Na ⁽⁺¹⁾ mEq/L	Min Σ cations mEq/L	Max Σ cations mEq/L	Min Σ cations mEq/m ²	Max Σ cations mEq/m ²
KBSF Quarry													
29/09/2021	11/02/2022	1000	15	0.002	0.17	0.041	0.0008	0.013	0.213	0.444	0.444	6.7	6.7
20/04/2022	19/05/2022	9000	136	0.005	0.01	0.0082	0.0016	0.005	-	0.033	0.033	4.5	4.5
19/05/2022	15/06/2022	8000	121	0.012	0.02	0.016	0.0004	0.005	0.052	0.106	0.106	12.8	12.8
27/12/2022	26/01/2023	1490	22.56	0.00004	0.01071	0.11	0.074	<0.0128	0.409	0.603	0.616	13.6	13.9
23/02/2023	21/03/2023	6350	96.14	0.0005	0.00857	<0.0250	<0.0411	<0.0128	0.057	0.065	0.144	6.3	13.8
21/03/2023	16/04/2023	1790	27.1	0.004	0.04783	<0.0250	<0.0411	<0.0128	0.035	0.083	0.162	2.2	4.4
16/04/2023	28/06/2023	3805	57.61	0.0025	0.00714	<0.0250	<0.0411	<0.0128	0.244	0.251	0.33	14.4	19
9/02/2024	12/03/2024	5630	85.24	0.00214	0.05	0.041	0.00025	<0.0357	0.039	0.133	0.168	11.3	14.3
12/03/2024	13/04/2024	4895	74.11	0.00357	<0.0250	<0.0411	0.00501	<0.0357	0.030	0.039	0.141	2.9	10.4
13/04/2024	5/06/2024	1250	18.92	0.01999	<0.0649	<0.0411	0.00251	<0.0357	0.096	0.118	0.260	2.2	4.9
5/06/2024	3/07/2024	1200	18.17	0.00143	<0.0250	<0.0411	0.00631	<0.0357	0.078	0.086	0.188	1.6	3.4
3/07/2024	11/08/2024	1030	15.59	0.01713	<0.2096	<0.0741	0.00316	<0.0128	0.178	0.199	0.495	3.1	7.7
11/08/2024	15/12/2024	810	12.26	0.002	0.002	0.15	0.05	<0.04	0.10	0.299	0.334	3.7	4.1
15/12/2024	6/01/2025	3850	58.29	0.008	0.001	<0.025	<0.041	<0.04	0.05	0.057	0.159	3.3	9.3
6/01/2025	27/01/2025	15000	227.09	0.003	0.003	<0.025	<0.041	<0.04	0.06	0.066	0.168	15.0	38.2
27/01/2025	24/03/2025	550	8.33	0.001	0.020	0.10	0.05	<0.04	0.21	0.388	0.424	3.2	3.5
24/03/2025	17/06/2025	1450	21.95	0.003	0.003	<0.025	<0.041	<0.04	<0.02	0.025	0.130	0.5	2.8
17/06/2025	30/08/2025	600	9.08	0.002	0.012	0.29	0.07	<0.04	0.18	0.552	0.587	5.0	5.3
Visitor Centre													
29/09/2021	11/02/2022	1200	18	0.01	0.02	0.008	0.0016	<0.003	0.07	0.113	0.115	2	2.1
20/04/2022	19/05/2022	9000	136	0.004	0.01	0.016	0.0032	<0.003	0.083	0.118	0.121	16.1	16.5
19/05/2022	15/06/2022	9000	136	0.004	0.005	0.0082	0.002	<0.003	0.043	0.06	0.063	8.2	8.6
27/12/2022	26/01/2023	3450	52.23	0.0025	0.005	<0.0250	<0.0411	<0.0128	0.126	0.131	0.21	6.8	11
23/02/2023	21/03/2023	3450	52.23	0.0025	0.014	<0.0250	<0.0411	<0.0128	0.126	0.14	0.219	7.3	11.4
21/03/2023	16/04/2023	2450	37.09	0.0032	0.01	<0.0250	<0.0411	<0.0128	0.03	0.04	0.119	1.5	4.4
16/04/2023	28/06/2023	3320	50.26	0.0032	0.007	<0.0250	<0.0411	<0.0128	<0.0217	0.007	0.108	0.4	5.4
9/02/2024	12/03/2024	2100	31.79	<0.0014	0.07	<0.041	0.00100	<0.036	0.091	0.167	0.245	5.3	7.8
12/03/2024	13/04/2024	3215	48.67	<0.0014	<0.025	<0.041	0.00398	<0.036	0.074	0.078	0.181	3.8	8.8
13/04/2024	5/06/2024	1315	19.91	0.00928	0.04	0.148	0.00794	<0.036	0.478	0.689	0.724	13.7	14.4
5/06/2024	3/07/2024	1050	15.90	0.00428	<0.025	<0.041	0.00398	0.02046	0.078	0.107	0.173	1.7	2.8
3/07/2024	15/12/2024	1050	15.90	0.005	0.001	0.07	0.07	<0.04	0.19	0.339	0.374	5.4	5.9
15/12/2024	6/01/2025	3650	55.26	0.005	0.001	<0.025	<0.041	<0.04	0.14	0.150	0.252	8.3	13.9
6/01/2025	27/01/2025	15000	227.09	0.004	0.001	<0.025	<0.041	<0.04	0.04	0.049	0.151	11.1	34.2
27/01/2025	24/03/2025	400	6.06	0.002	0.031	0.15	0.22	0.12	1.22	1.749	1.749	10.6	10.6
24/03/2025	17/06/2025	1350	20.44	0.003	0.010	0.03	0.06	0.04	0.20	0.346	0.346	7.1	7.1

Start date	End date	Volume mL	Rainfall mm	NH ₄ ⁽⁺¹⁾ mEq/L	Ca ⁽⁺²⁾ mEq/L	Mg ⁽⁺²⁾ mEq/L	H ⁽⁺¹⁾ mEq/L	K ⁽⁺¹⁾ mEq/L	Na ⁽⁺¹⁾ mEq/L	Min Σ cations mEq/L	Max Σ cations mEq/L	Min Σ cations mEq/m ²	Max Σ cations mEq/m ²
AAQ Station													
29/09/2021	11/02/2022	1800	27	0.027	0.02	0.0165	0.002	0.003	0.057	0.123	0.123	3.3	3.3
20/04/2022	19/05/2022	9000	136	0.003	<0.0050	0.0082	0.004	<0.003	0.026	0.037	0.045	5.1	6.1
19/05/2022	15/06/2022	8000	121	0.004	<0.0050	0.0082	0.004	<0.003	0.039	0.052	0.059	6.3	7.2
27/12/2022	26/01/2023	1150	17.41	0.004	0.01	<0.0250	<0.0411	<0.0128	0.113	0.123	0.202	2.1	3.5
23/02/2023	21/03/2023	3595	54.43	0.004	0.013	<0.0250	<0.0411	<0.0128	0.022	0.035	0.113	1.9	6.2
21/03/2023	16/04/2023	3405	51.55	0.004	0.016	<0.0250	<0.0411	<0.0128	<0.0217	0.016	0.116	0.8	6
16/04/2023	28/06/2023	3300	49.96	0.0032	0.002	<0.0250	<0.0411	<0.0128	<0.0217	0.002	0.103	0.1	5.1
9/02/2024	12/03/2024	3900	59.04	<0.0014	<0.025	<0.041	0.00032	<0.036	<0.021	0.000	0.124	0.0	7.3
12/03/2024	13/04/2024	3150	47.69	<0.0014	<0.025	<0.041	0.00398	<0.036	<0.021	0.004	0.128	0.2	6.1
13/04/2024	5/06/2024	1260	19.08	0.01571	<0.025	<0.041	0.00631	<0.036	0.035	0.051	0.159	1.0	3.0
5/06/2024	3/07/2024	1100	16.65	0.00143	<0.025	<0.041	0.00501	<0.036	0.039	0.041	0.147	0.7	2.5
3/07/2024	11/08/2024	1650	24.98	0.01499	<0.025	<0.041	0.00251	<0.036	<0.021	0.018	0.140	0.4	3.5
11/08/2024	15/12/2024	1250	18.92	0.006	0.002	<0.025	<0.041	<0.04	0.07	0.082	0.184	1.6	3.5
15/12/2024	6/01/2025	3500	52.99	0.004	0.001	<0.025	0.05	<0.04	0.31	0.368	0.429	19.5	22.7
6/01/2025	27/01/2025	15000	227.09	0.006	0.004	<0.025	<0.041	<0.04	0.05	0.058	0.160	13.1	36.2
27/01/2025	24/03/2025	1100	16.65	0.001	0.010	<0.025	<0.041	<0.04	0.07	0.076	0.178	1.3	3.0
24/03/2025	17/06/2025	1250	18.92	0.003	0.004	<0.025	<0.041	<0.04	<0.02	0.007	0.131	0.1	2.5
17/06/2025	30/08/2025	750	11.35	0.003	0.014	<0.025	<0.041	<0.04	0.09	0.107	0.209	1.2	2.4
Mt Wongama													
29/09/2021	13/02/2022	260	4	0.004	0.08	0.033	0.0013	0.008	0.165	0.289	0.289	1.1	1.1
20/04/2022	19/05/2022	9000	136	0.004	0.01	0.033	0.0025	0.008	0.126	0.185	0.185	25.2	25.2
19/05/2022	15/06/2022	9000	136	0.002	0.01	0.033	0.0016	0.005	0.113	0.168	0.168	22.9	22.9
27/12/2022	26/01/2023	1550	23.47	0.0025	0.002	<0.0250	<0.0411	<0.0128	0.213	0.002	0.294	0.1	6.9
23/02/2023	21/03/2023	9000	136.26	0.0016	0.004	0.06	0.058	<0.0128	0.209	0.122	0.343	16.6	46.8
21/03/2023	16/04/2023	1650	24.98	0.0032	0.004	<0.0250	<0.0411	<0.0128	<0.0217	0.004	0.105	0.1	2.6
16/04/2023	28/06/2023	4215	63.81	0.0032	0.002	<0.0250	<0.0411	<0.0128	<0.0217	0.002	0.103	0.1	6.6
9/02/2024	12/03/2024	1100	16.65	0.003	<0.0898	<0.0741	0.00398	<0.0357	0.248	0.255	0.454	4.2	7.6
12/03/2024	13/04/2024	3200	48.45	0.002	<0.0250	<0.0411	0.00126	<0.0357	0.183	0.186	0.288	9.0	13.9
13/04/2024	5/06/2024	1150	17.41	0.016	<0.0250	<0.0411	0.00398	<0.0357	0.065	0.086	0.187	1.5	3.3
3/07/2024	11/08/2024	2150	32.55	0.004	<0.0399	<0.0494	0.00794	<0.0357	<0.1783	0.012	0.315	0.4	10.2
30/08/2025	15/12/2024	950	14.38	0.013	0.001	<0.025	<0.041	<0.04	<0.02	0.014	0.138	0.2	2.0
15/12/2024	6/01/2025	4010	60.71	0.005	0.001	<0.025	0.05	<0.04	0.20	0.260	0.321	15.8	19.5
6/01/2025	27/01/2025	15000	227.09	0.004	0.001	<0.025	<0.041	<0.04	0.13	0.140	0.242	31.9	55.0
27/01/2025	24/03/2025	570	8.63	0.001	0.001	0.17	0.12	0.04	0.48	0.809	0.809	7.0	7.0

Start date	End date	Volume mL	Rainfall mm	NH ₄ ⁽⁺¹⁾ mEq/L	Ca ⁽⁺²⁾ mEq/L	Mg ⁽⁺²⁾ mEq/L	H ⁽⁺¹⁾ mEq/L	K ⁽⁺¹⁾ mEq/L	Na ⁽⁺¹⁾ mEq/L	Min Σ cations mEq/L	Max Σ cations mEq/L	Min Σ cations mEq/m ²	Max Σ cations mEq/m ²
RT Pastoral Lease													
29/09/2021	23/02/2022	3000	45	0.011	0.03	0.033	0	0.015	0.191	0.286	0.286	13	13
20/04/2022 ¹	15/06/2022	18000 ⁵	272	0.004	<0.0050	<0.008	0.0025	0.005	0.026	0.035	0.048	9.5	13.1
27/12/2023	10/02/2023	3810	57.68	0.005	0.006	<0.0250	<0.0411	<0.0128	0.03	0.036	0.115	2.1	6.6
23/02/2023	21/03/2023	1345	20.36	0.1	0.009	<0.0250	<0.0411	<0.0128	0.035	0.044	0.123	0.9	2.5
21/03/2023	16/04/2023	3950	59.8	0.004	0.002	<0.0050	<0.0411	<0.0128	<0.0217	0.002	0.083	0.1	5
16/04/2023	28/06/2023	1900	28.77	0.0032	0.009	<0.0050	<0.0411	<0.0128	<0.0217	0.009	0.09	0.3	2.6
11/01/2024	9/02/2024	400	6.06	0.00500	0.09	0.049	0.00631	<0.036	0.065	0.216	0.251	1.3	1.5
12/03/2024	13/04/2024	500	7.57	0.00928	0.04	0.049	0.00501	<0.036	0.122	0.225	0.261	1.7	2.0
13/04/2024	15/12/2024	1150	17.41	0.006	0.006	<0.025	<0.041	<0.04	0.09	0.099	0.201	1.7	3.5
15/12/2024	6/01/2025	300	4.54	0.005	0.004	<0.025	<0.041	<0.04	0.03	0.035	0.136	0.2	0.6
6/01/2025	27/01/2025	15000	227.09	0.006	0.001	<0.025	<0.041	<0.04	<0.02	0.008	0.131	1.8	29.8
27/01/2025	17/06/2025	650	9.84	0.003	0.009	<0.025	<0.041	<0.04	<0.02	0.012	0.135	0.1	1.3
17/06/2025	30/08/2025	1550	23.47	0.003	0.009	<0.025	<0.041	<0.04	0.02	0.033	0.135	0.8	3.2

(1) Bucket overflowed due to no access to collect after first rainfall event; volume estimated as 18,000 mL, which is the maximum sum of recorded volumes for last two rainfall events at the other monitoring sites.

Table 3.15: Rainfall anions tables

Start date	End date	Volume mL	Rain mm	Cl ⁽⁻¹⁾ mEq/L	PO ₄ ⁽⁻³⁾ mEq/L	NO ₃ ⁽⁻¹⁾ mEq/L	NO ₂ ⁽⁻¹⁾ mEq/L	SO ₄ ⁽⁻²⁾ mEq/L	NSS SO ₂ ⁽⁻²⁾ mEq/L	HCO ₃ ⁽⁻¹⁾ mEq/L	CH ₃ COO ⁽⁻¹⁾ mEq/L	HCOO ⁽⁻¹⁾ mEq/L	Min Σ anions mEq/L	Max Σ anions mEq/L	Min Σ anions mEq/m ²	Max Σ anions mEq/m
KBSF Quarry																
29/09/2021	11/02/2022	1000	15	0.175	<0.0003	0.021	<0.001	0.058	0.037	0.12	0.102	0.044	0.50	0.50	7.52	7.54
20/04/2022	19/05/2022	9000	136	0.155	<0.0003	0.009	<0.001	0.029	0.020	<0.05	<0.017	<0.022	0.18	0.27	25.04	37.25
19/05/2022	15/06/2022	8000	121	<0.14	<0.0003	<0.0007	<0.001	<0.021	<0.016	<0.05	0.254	<0.022	0.25	0.48	30.77	58.74
27/12/2022	26/01/2023	1490	22.56	0.423	<0.0003	0.019	<0.0007	0.069	0.030	0.13	<0.017	<0.022	0.601	0.641	13.5	14.5
23/02/2023	21/03/2023	6350	96.14	<0.14	<0.0003	<0.0007	<0.0007	0.033	0.012	0.07	0.044	<0.022	0.123	0.288	11.8	27.7
21/03/2023	16/04/2023	1790	27.1	<0.14	0.004	<0.0007	<0.0007	<0.021	0.00	0.05	<0.017	<0.022	0.055	0.236	1.5	6.4
16/04/2023	28/06/2023	3805	57.61	<0.14	<0.0003	<0.0007	<0.0007	<0.021	0.00	0.05	<0.017	<0.022	0.054	0.235	3.1	13.6
9/02/2024	12/03/2024	5630	85.24	<0.141	<0.0003	0.015	<0.001	0.023	0.00	0.06	<0.08	-	0.074	0.300	6.3	25.6
12/03/2024	13/04/2024	4895	74.11	<0.141	<0.0003	<0.001	<0.001	<0.021	0.00	<0.05	<0.08	-	0.000	0.276	0.0	20.5
13/04/2024	5/06/2024	1250	18.92	<0.141	<0.0003	<0.001	<0.001	0.046	0.02	0.05	<0.08	-	0.077	0.305	1.5	5.8
5/06/2024	3/07/2024	1200	18.17	<0.141	<0.0003	<0.001	<0.001	<0.021	0.00	<0.05	<0.08	-	0.000	0.276	0.0	5.0
3/07/2024	11/08/2024	1030	15.59	0.186	<0.0003	<0.001	<0.001	0.054	0.01	0.08	0.10	-	0.281	0.385	4.4	6.0
11/08/2024	15/12/2024	810	12.26	<0.141	<0.0003	0.01	<0.001	<0.02	0.0	0.08	<0.08	-	0.090	0.311	1.1	3.8
15/12/2024	6/01/2025	3850	58.29	<0.141	<0.0003	<0.001	<0.001	<0.02	0.0	<0.05	<0.08	-	0.000	0.276	0.0	16.1
6/01/2025	27/01/2025	15000	227.09	<0.141	<0.0003	<0.001	<0.001	<0.02	0.0	<0.05	<0.08	-	0.000	0.276	0.0	62.7
27/01/2025	24/03/2025	550	8.33	0.28	<0.0003	<0.001	<0.001	0.05	0.022	0.13	<0.08	-	0.427	0.513	3.6	4.3
24/03/2025	17/06/2025	1450	21.95	<0.141	<0.0003	<0.001	<0.001	<0.02	0.0	0.06	<0.08	-	0.058	0.285	1.3	6.3
17/06/2025	30/08/2025	600	9.08	0.18	0.0003	<0.001	<0.001	0.06	0.021	0.08	<0.08	-	0.284	0.370	2.6	3.4

Start date	End date	Volume mL	Rain mm	Cl ⁽⁻¹⁾ mEq/L	PO ₄ ⁽⁻³⁾ mEq/L	NO ₃ ⁽⁻¹⁾ mEq/L	NO ₂ ⁽⁻¹⁾ mEq/L	SO ₄ ⁽⁻²⁾ mEq/L	NSS SO ₂ ⁽⁻²⁾ mEq/L	HCO ₃ ⁽⁻¹⁾ mEq/L	CH ₃ COO ⁽⁻¹⁾ mEq/L	HCOO ⁽⁻¹⁾ mEq/L	Min Σ anions mEq/L	Max Σ anions mEq/L	Min Σ anions mEq/m ²	Max Σ anions mEq/m
Visitor Centre																
29/09/2021	11/02/2022	1200	18	<0.14	<0.0003	0.015	<0.001	<0.021	<0.016	<0.05	0.085	0.044	0.14	0.35	2.62	6.40
20/04/2022	19/05/2022	9000	136	<0.14	<0.0003	0.0014	<0.001	<0.021	<0.012	<0.05	<0.017	<0.022	0.00	0.24	0.19	33.28
19/05/2022	15/06/2022	9000	136	<0.14	<0.0003	<0.0007	<0.001	<0.021	<0.016	<0.05	0.254	<0.022	0.25	0.48	34.62	66.08
27/12/2022	26/01/2023	3450	52.23	<0.14	<0.0003	0.013	<0.0007	<0.021	0.00	<0.049	<0.017	<0.022	0.013	0.243	0.7	12.7
23/02/2023	21/03/2023	3450	52.23	<0.14	<0.0003	<0.0007	<0.0007	0.027	0.005	0.06	0.049	<0.022	0.111	0.276	5.8	14.4
21/03/2023	16/04/2023	2450	37.09	<0.14	<0.0003	<0.0007	<0.0007	<0.021	0.00	0.05	<0.017	<0.022	0.052	0.233	1.9	8.7
16/04/2023	28/06/2023	3320	50.26	<0.14	<0.0003	<0.0007	<0.0007	<0.0208	0.00	<0.049	<0.017	<0.022	0.000	0.230	0.0	11.6
9/02/2024	12/03/2024	2100	31.79	0.240	<0.0003	0.014	<0.001	0.046	0.024	0.07	<0.08	-	0.348	0.433	11.1	13.8
12/03/2024	13/04/2024	3215	48.67	<0.141	<0.0003	<0.001	<0.001	<0.021	0.0	<0.05	<0.08	-	0.000	0.276	0.0	13.4
13/04/2024	5/06/2024	1315	19.91	0.164	0.0003	<0.001	<0.001	0.046	0.0	<0.05	<0.08	-	0.131	0.267	2.6	5.3
5/06/2024	3/07/2024	1050	15.90	<0.141	<0.0003	<0.001	<0.001	0.029	0.007	0.05	<0.08	-	0.058	0.285	0.9	4.5
3/07/2024	15/12/2024	1050	15.90	0.25	<0.0003	0.0014	<0.001	0.06	0.026	<0.05	<0.08	-	0.277	0.413	4.4	6.6
15/12/2024	6/01/2025	3650	55.26	0.16	<0.0003	<0.001	<0.001	<0.02	0.0	<0.05	<0.08	-	0.155	0.290	8.6	16.0
6/01/2025	27/01/2025	15000	227.09	<0.141	<0.0003	<0.001	<0.001	<0.02	0.0	<0.05	<0.08	-	0.000	0.276	0.0	62.7
27/01/2025	24/03/2025	400	6.06	1.30	<0.0003	<0.001	<0.001	0.21	0.091	0.09	<0.08	-	1.473	1.560	8.9	9.4
24/03/2025	17/06/2025	1350	20.44	0.21	0.001	<0.001	<0.001	0.03	0.0	0.06	<0.08	-	0.265	0.351	5.4	7.2
AAQ Station																
29/09/2021	11/02/2022	1800	27	<0.14	<0.0003	0.016	<0.001	<0.021	<0.012	<0.05	0.102	0.044	0.16	0.37	4.41	9.96
20/04/2022	19/05/2022	9000	136	<0.14	<0.0003	<0.0007	<0.001	<0.021	<0.016	<0.05	<0.017	<0.022	0.00	0.25	0.00	33.77
19/05/2022	15/06/2022	8000	121	<0.14	<0.0003	<0.001	<0.001	<0.021	<0.016	<0.05	0.237	<0.022	0.24	0.47	28.72	56.69
27/12/2022	26/01/2023	1150	17.41	<0.14	<0.0003	<0.0007	<0.0007	<0.021	0.00	0.06	<0.017	<0.022	0.055	0.236	1.0	4.1
23/02/2023	21/03/2023	3595	54.43	<0.14	<0.0003	<0.0007	<0.0007	<0.021	0.00	<0.049	0.042	<0.022	0.042	0.256	2.3	13.9
21/03/2023	16/04/2023	3405	51.55	<0.14	<0.0003	<0.0007	<0.0007	<0.021	0.00	<0.049	<0.017	<0.022	0.000	0.230	0.0	11.9
16/04/2023	28/06/2023	3300	49.96	<0.14	<0.0003	<0.0007	<0.0007	<0.021	0.00	0.05	<0.017	<0.022	0.050	0.231	2.5	11.6
9/02/2024	12/03/2024	3900	59.04	<0.141	<0.0003	0.003	<0.001	<0.021	0.00	<0.05	<0.08	-	0.003	0.278	0.2	16.4
12/03/2024	13/04/2024	3150	47.69	<0.141	<0.0003	<0.001	<0.001	<0.021	0.00	<0.05	<0.08	-	0.000	0.276	0.0	13.2
13/04/2024	5/06/2024	1260	19.08	<0.141	<0.0003	<0.001	<0.001	0.029	0.007	<0.05	<0.08	-	0.007	0.284	0.1	5.4
5/06/2024	3/07/2024	1100	16.65	<0.141	<0.0003	<0.001	<0.001	0.042	0.020	<0.05	<0.08	-	0.020	0.297	0.3	4.9
3/07/2024	11/08/2024	1650	24.98	<0.141	<0.0003	<0.001	<0.001	<0.021	0.00	0.07	<0.08	-	0.065	0.293	1.6	7.3
11/08/2024	15/12/2024	1250	18.92	<0.141	<0.0003	<0.001	<0.001	0.02	0.0	<0.05	<0.08	-	0.00	0.276	0.0	5.2
15/12/2024	6/01/2025	3500	52.99	0.23	<0.0003	<0.001	<0.001	<0.02	0.0	0.06	<0.08	-	0.226	0.362	12.0	19.2
6/01/2025	27/01/2025	15000	227.09	<0.141	<0.0003	<0.001	<0.001	<0.02	0.0	<0.05	<0.08	-	0.000	0.276	0.0	62.7
27/01/2025	24/03/2025	1100	16.65	<0.141	<0.0003	<0.001	<0.001	0.03	0.0	0.07	<0.08	-	0.069	0.302	1.2	5.0
24/03/2025	17/06/2025	1250	18.92	<0.141	<0.0003	<0.001	<0.001	<0.02	0.0	<0.05	<0.08	-	0.000	0.276	0.0	5.2
17/06/2025	30/08/2025	750	11.35	<0.141	0.001	<0.001	<0.001	0.03	0.029	<0.05	<0.08	-	0.030	0.306	0.3	3.5

Start date	End date	Volume mL	Rain mm	Cl ⁽⁻¹⁾ mEq/L	PO ₄ ⁽⁻³⁾ mEq/L	NO ₃ ⁽⁻¹⁾ mEq/L	NO ₂ ⁽⁻¹⁾ mEq/L	SO ₄ ⁽⁻²⁾ mEq/L	NSS SO ₂ ⁽⁻²⁾ mEq/L	HCO ₃ ⁽⁻¹⁾ mEq/L	CH ₃ COO ⁽⁻¹⁾ mEq/L	HCOO ⁽⁻¹⁾ mEq/L	Min Σ anions mEq/L	Max Σ anions mEq/L	Min Σ anions mEq/m ²	Max Σ anions mEq/m
Mt Wongama																
29/09/2021	13/02/2022	260	3	<0.14	<0.0003	0.0286	<0.001	0.037	0.005	0.05	0.068	0.044	0.20	0.34	0.78	1.34
20/04/2022	19/05/2022	9000	136	<0.14	<0.0003	0.0043	<0.001	0.027	0.012	<0.05	<0.017	<0.022	0.02	0.25	2.23	33.67
19/05/2022	15/06/2022	9000	136	<0.14	<0.0003	0.0007	<0.001	0.033	0.012	<0.05	0.254	<0.022	0.27	0.48	36.36	65.49
27/12/2022	26/01/2023	1550	23.47	0.192	<0.0003	0.01	<0.0007	0.027	0.005	<0.049	<0.017	<0.022	0.224	0.297	5.3	7.0
23/02/2023	21/03/2023	9000	136.26	0.251	<0.0003	<0.0007	<0.0007	0.037	0.007	0.07	0.039	<0.022	0.361	0.386	49.2	52.6
21/03/2023	16/04/2023	1650	24.98	<0.14	<0.0003	<0.0007	<0.0007	<0.021	0.00	0.05	<0.017	<0.022	0.053	0.234	1.3	5.9
16/04/2023	28/06/2023	4215	63.81	0.144	<0.0003	<0.0007	<0.0007	<0.021	0.00	<0.049	<0.017	<0.022	0.144	0.233	9.2	14.9
9/02/2024	12/03/2024	1100	16.65	0.480	<0.0003	0.004	<0.001	0.073	0.034	<0.05	<0.08	-	0.518	0.653	8.6	10.9
12/03/2024	13/04/2024	3200	48.45	0.195	<0.0003	<0.001	<0.001	<0.021	0.00	<0.05	<0.08	-	0.195	0.330	9.4	16.0
13/04/2024	5/06/2024	1150	17.41	<0.141	<0.0003	<0.001	<0.001	0.040	0.00	<0.05	<0.08	-	0.000	0.276	0.0	4.8
3/07/2024	11/08/2024	2150	32.55	0.209	<0.0003	<0.001	<0.001	0.044	0.018	0.06	0.14	-	0.419	0.421	13.6	13.7
11/08/2024	15/12/2024	950	14.38	<0.141	0.0009	<0.001	<0.001	<0.02	0.0	<0.05	<0.08	-	0.001	0.277	0.0	4.0
15/12/2024	6/01/2025	4010	60.71	0.19	<0.0003	<0.001	<0.001	<0.02	0.0	<0.05	<0.08	-	0.000	0.317	0.0	19.2
6/01/2025	27/01/2025	15000	227.09	0.18	<0.0003	0.0007	<0.001	<0.02	0.0	<0.05	<0.08	-	0.181	0.315	41.2	71.6
27/01/2025	24/03/2025	570	8.63	0.54	<0.0003	0.0079	<0.001	0.10	0.035	0.07	<0.08	-	0.642	0.735	5.5	6.3
RT Pastoral Lease																
29/09/2021	23/02/2022	3000	45	0.2	<0.0003	0.0164	0.0014	0.023	0.005	0.07	0.102	0.044	0.24	0.44	11.02	20.13
20/04/2022 ¹	15/06/2022	18000 ⁵	272	<0.14	<0.0003	0.0021	<0.001	<0.021	<0.016	<0.05	0.305	<0.022	0.31	0.54	83.66	146.40
27/12/2023	10/02/2023	3810	57.68	<0.14	<0.0003	<0.0007	<0.0007	0.027	0.005	<0.049	<0.017	<0.022	0.032	0.237	1.9	13.7
23/02/2023	21/03/2023	1345	20.36	<0.14	<0.0003	<0.0007	<0.0007	<0.021	0.00	<0.049	0.036	<0.022	0.036	0.249	0.7	5.1
21/03/2023	16/04/2023	3950	59.8	<0.14	<0.0003	<0.0007	<0.0007	<0.021	0.00	<0.049	<0.017	<0.022	0.000	0.230	0.0	13.8
16/04/2023	28/06/2023	1900	28.77	<0.14	<0.0003	<0.0007	<0.0007	<0.021	0.00	0.05	<0.017	<0.022	0.052	0.233	1.5	6.7
11/01/2024	9/02/2024	400	6.06	<0.141	0.0063	0.001	<0.001	0.048	0.022	0.07	-	-	0.103	0.245	0.6	1.5
12/03/2024	13/04/2024	500	7.57	<0.141	0.0028	0.002	<0.001	<0.021	0.000	<0.05	<0.08	-	0.005	0.281	0.0	2.1
13/04/2024	15/12/2024	1150	17.41	<0.141	<0.0003	<0.001	<0.001	0.02	0.0	<0.05	<0.08	-	0.000	0.276	0.0	4.8
15/12/2024	6/01/2025	300	4.54	<0.141	<0.0003	<0.001	<0.001	<0.02	0.0	0.05	<0.08	-	0.000	0.276	0.0	1.3
6/01/2025	27/01/2025	15000	227.09	<0.141	<0.0003	0.0014	<0.001	<0.02	0.0	<0.05	<0.08	-	0.001	0.277	0.3	62.8
27/01/2025	17/06/2025	650	9.84	<0.141	<0.0003	<0.001	<0.001	<0.02	0.0	<0.05	<0.08	-	0.000	0.276	0.0	2.7
17/06/2025	30/08/2025	1550	23.47	<0.141	0.001	<0.001	<0.001	<0.02	0.0	<0.05	<0.08	-	0.001	0.276	0.0	6.5

3.5 Murujuga Rock Art Monitoring Program

The Murujuga Rock Art Monitoring Program (MRAMP) is a multi-year scientific program under the Murujuga Rock Art Strategy. The MRAMP is jointly led by Murujuga Aboriginal Corporation and the WA Department of Water and Environmental Regulation (DWER), with universities and consultants delivering the technical studies.

The objective of the MRAMP is to determine whether the Murujuga rock art is experiencing accelerated change or degradation due to air emissions from industry and other human activities, and to define an environmental quality management framework including air-quality limits that aim to prevent such damage. The program includes extensive monitoring and analysis of changes in rock art condition over time.

The monitoring across the first two years of the program were reported in 2025 (DWER 2025).

The DWER (2025) report has proposed interim Environmental Quality Criteria (EQCs) as preliminary Guideline and Standard values based on controlled exposure studies and field observations obtained to date from the MRAMP. Woodside has supported the MRAMP research team and provided previously collected results from WADMP. However, the MRAMP team has not yet been able to incorporate industry data into its analysis.

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Limitations

Scope of services

This report ("the report") has been prepared by JBS&G in accordance with the scope of services set out in the contract, or as otherwise agreed, between the Client and JBS&G. In some circumstances, a range of factors such as time, budget, access and/or site disturbance constraints may have limited the scope of services. This report is strictly limited to the matters stated in it and is not to be read as extending, by implication, to any other matter in connection with the matters addressed in it.

Reliance on data

In preparing the report, JBS&G has relied upon data and other information provided by the Client and other individuals and organisations, most of which are referred to in the report ("the data"). Except as otherwise expressly stated in the report, JBS&G has not verified the accuracy or completeness of the data. To the extent that the statements, opinions, facts, information, conclusions and/or recommendations in the report ("conclusions") are based in whole or part on the data, those conclusions are contingent upon the accuracy and completeness of the data. JBS&G has also not attempted to determine whether any material matter has been omitted from the data. JBS&G will not be liable in relation to incorrect conclusions should any data, information or condition be incorrect or have been concealed, withheld, misrepresented or otherwise not fully disclosed to JBS&G. The making of any assumption does not imply that JBS&G has made any enquiry to verify the correctness of that assumption.

The report is based on conditions encountered and information received at the time of preparation of this report or the time that site investigations were carried out. JBS&G disclaims responsibility for any changes that may have occurred after this time. This report and any legal issues arising from it are governed by and construed in accordance with the law as at the date of this report.

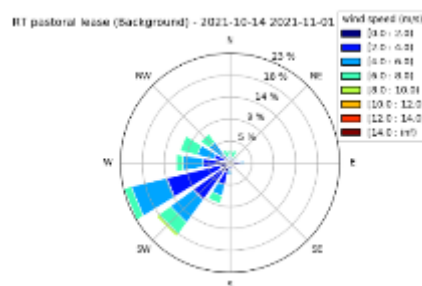
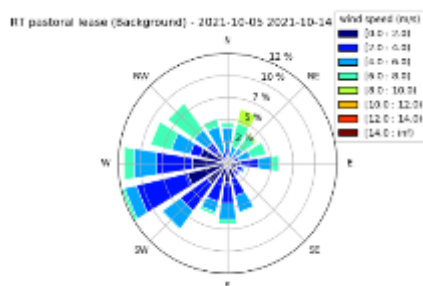
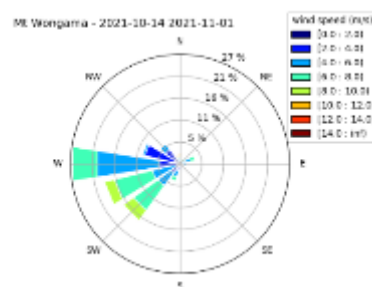
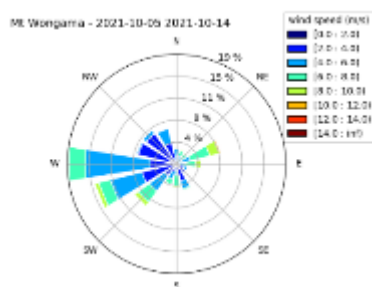
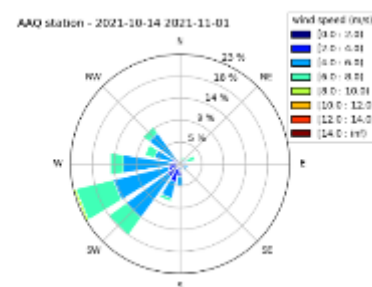
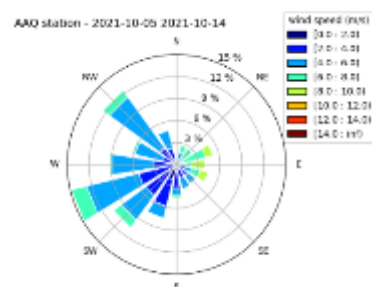
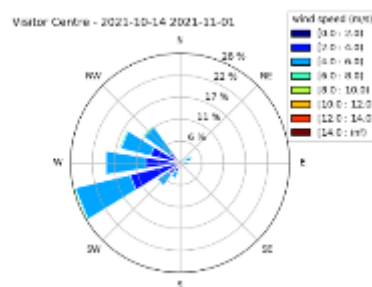
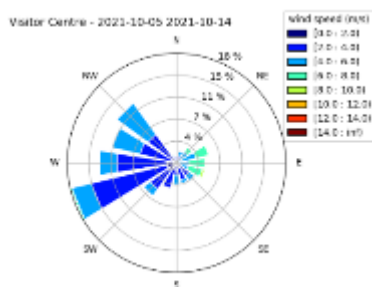
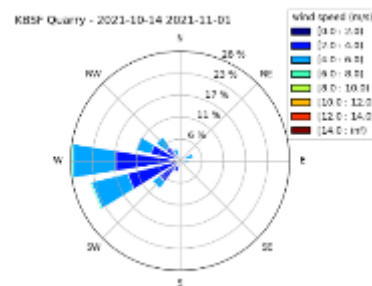
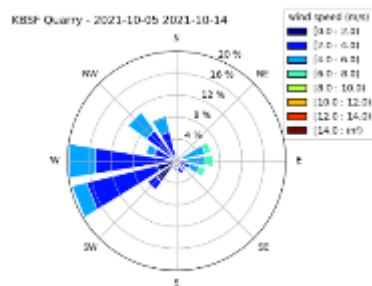
Environmental conclusions

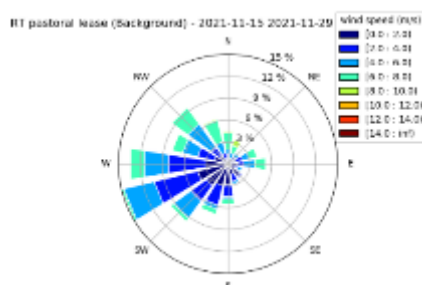
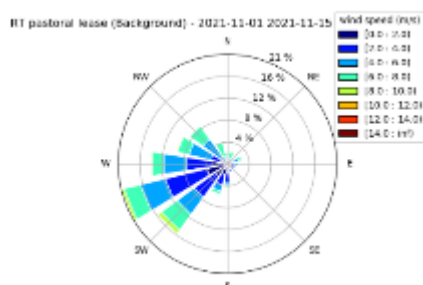
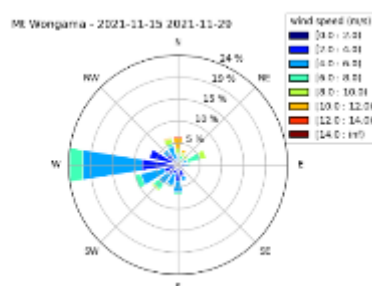
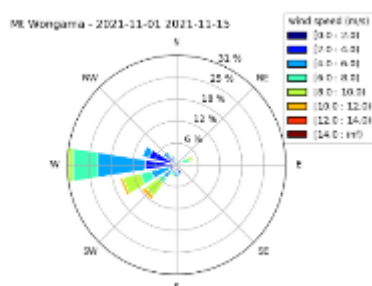
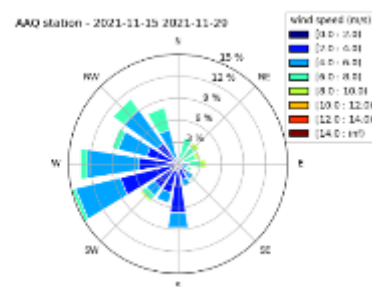
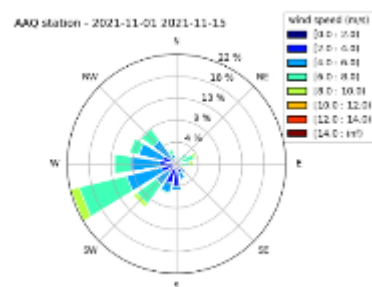
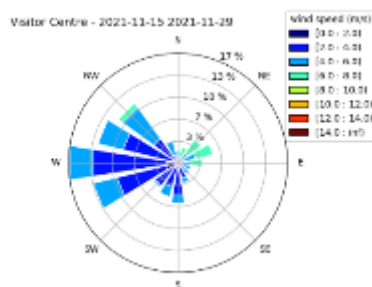
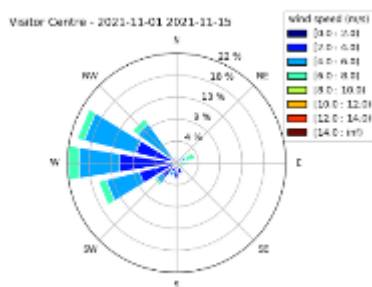
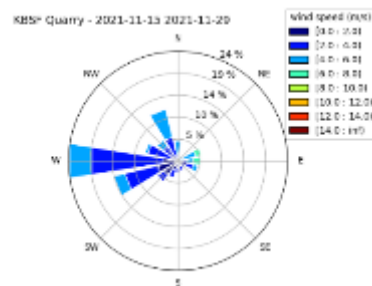
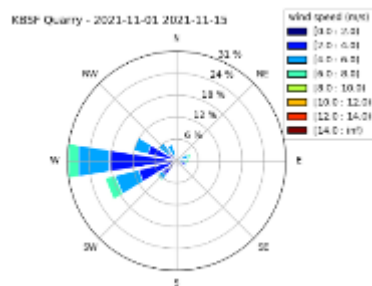
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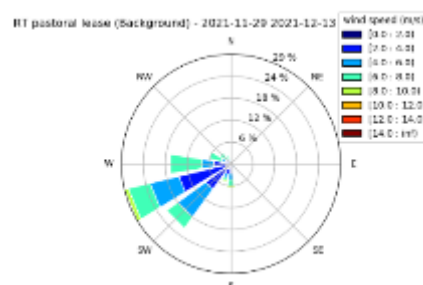
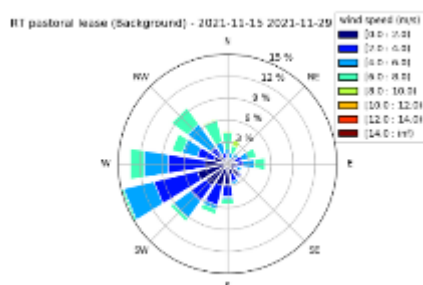
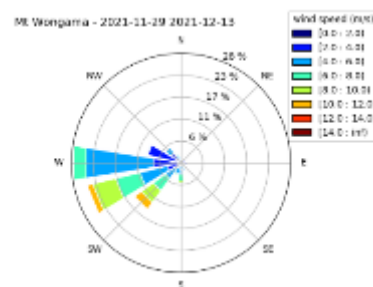
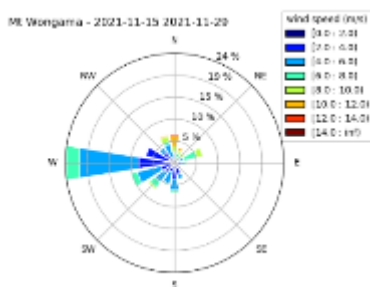
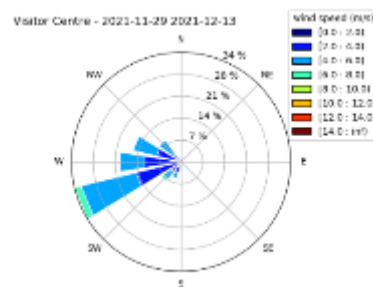
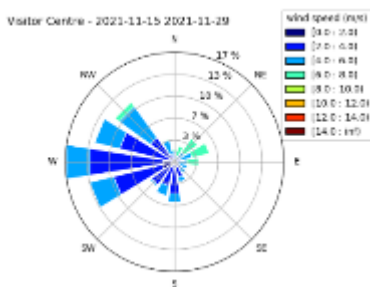
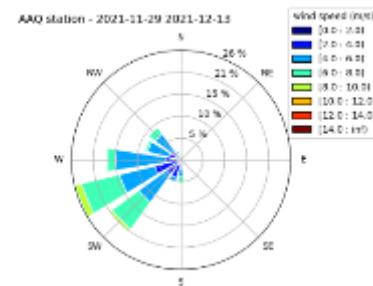
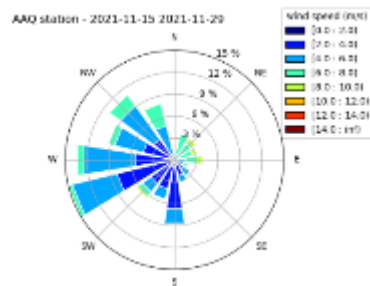
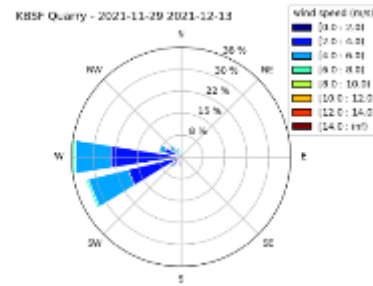
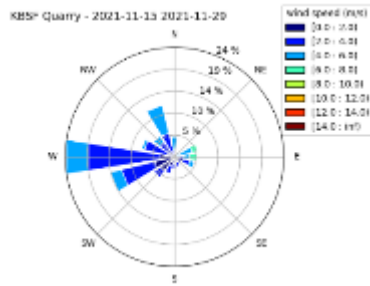
The advice herein relates only to this project and all results conclusions and recommendations made should be reviewed by a competent person with experience in environmental investigations, before being used for any other purpose.

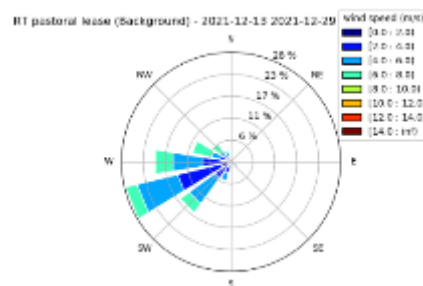
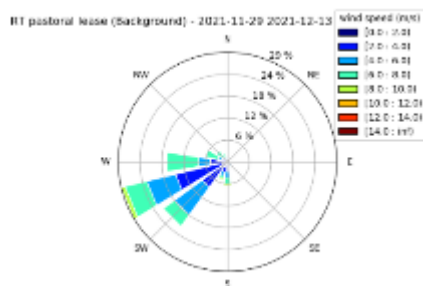
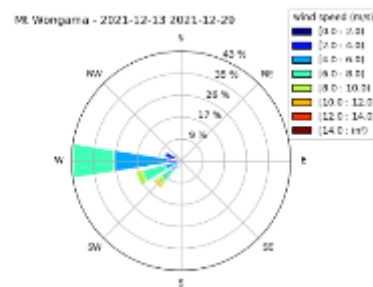
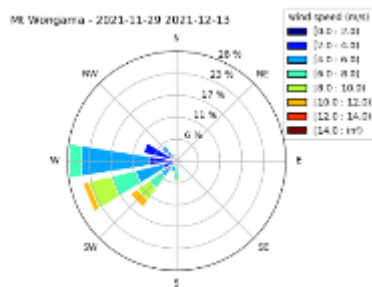
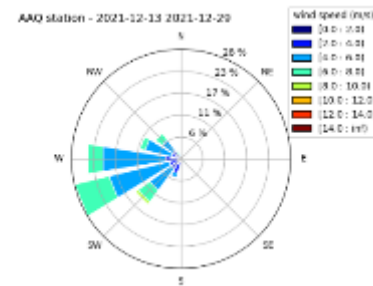
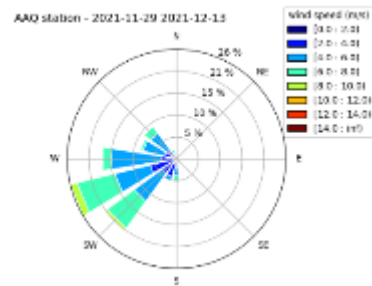
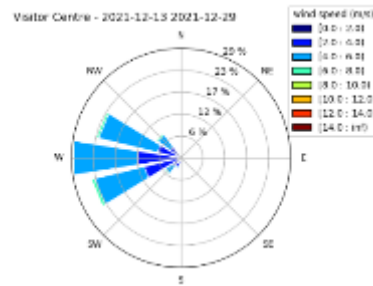
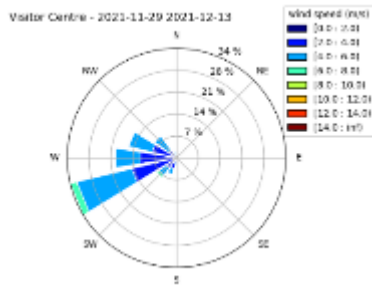
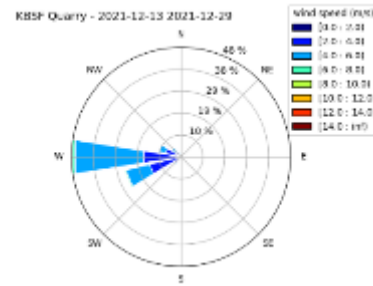
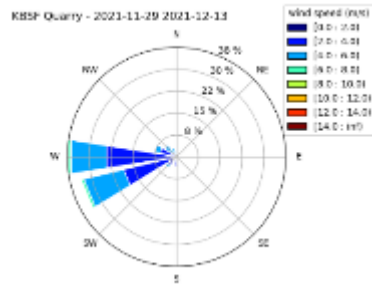
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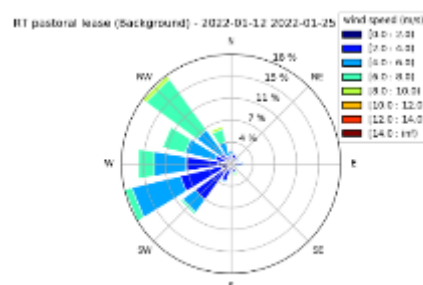
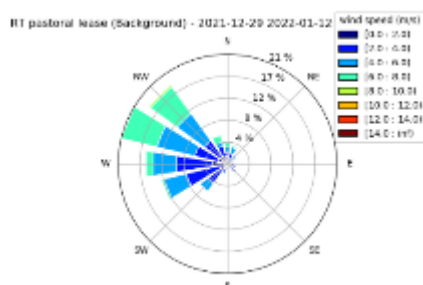
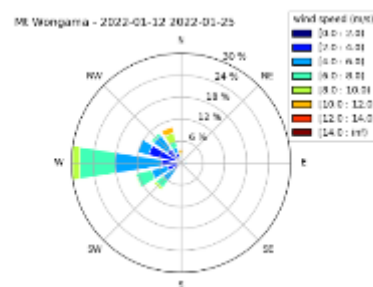
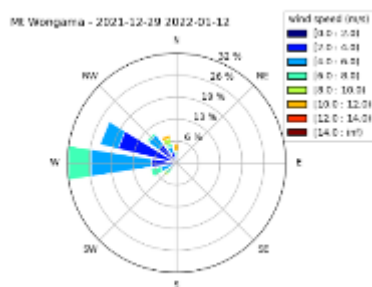
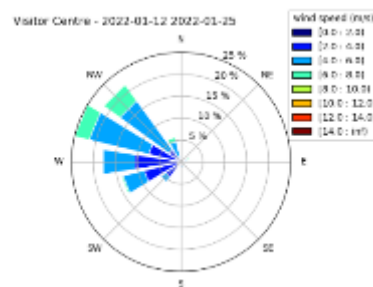
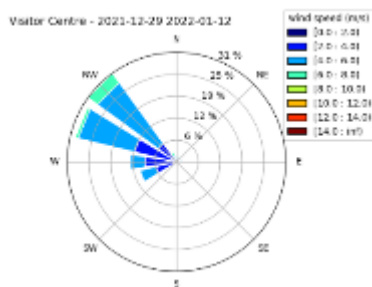
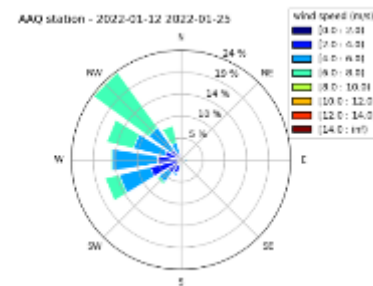
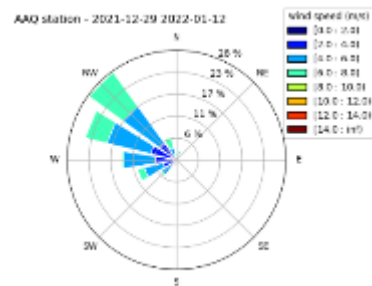
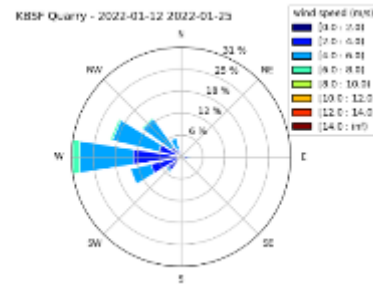
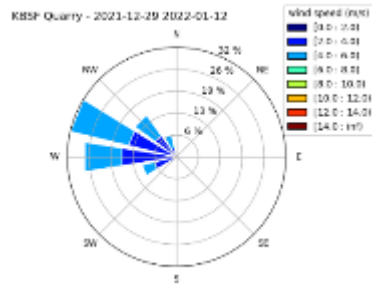
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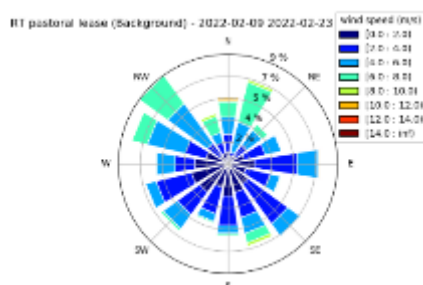
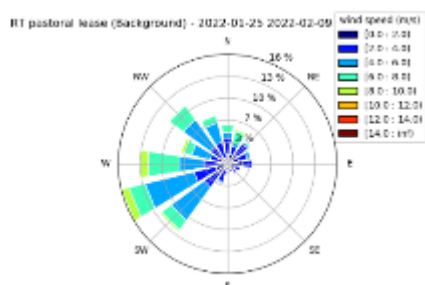
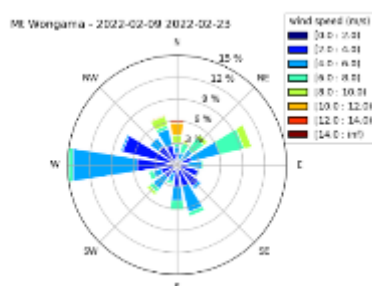
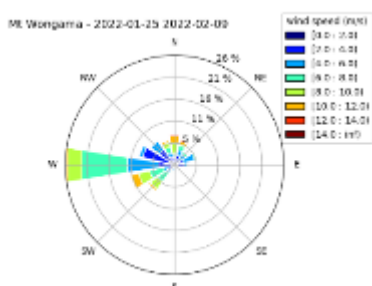
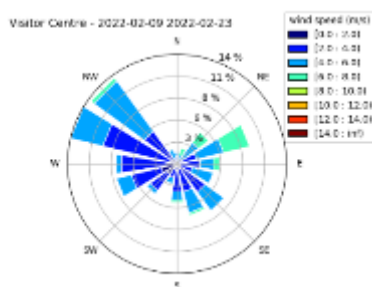
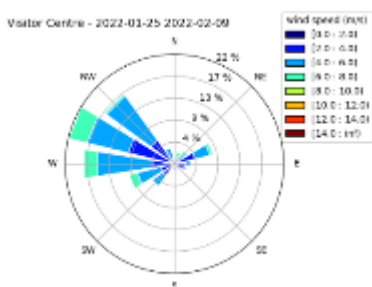
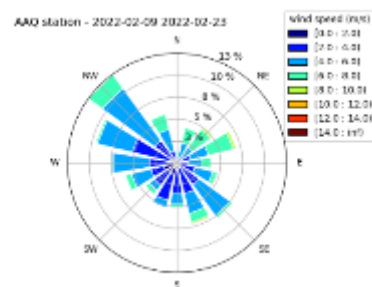
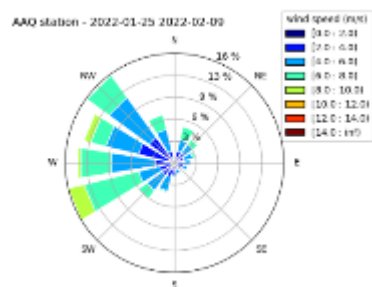
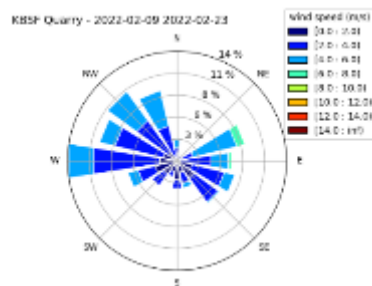
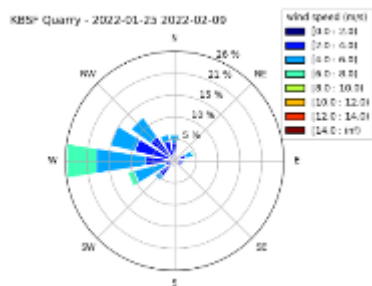


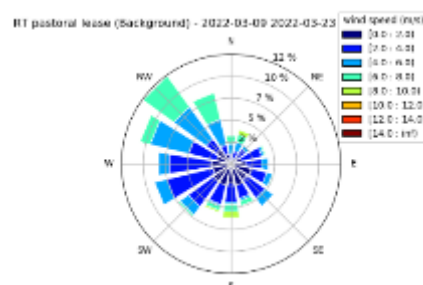
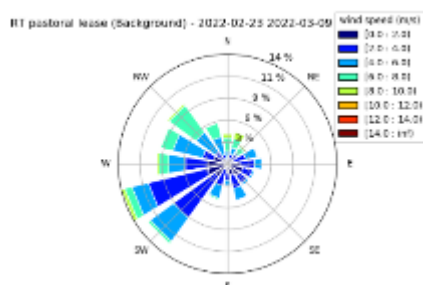
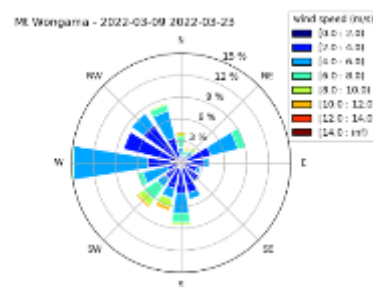
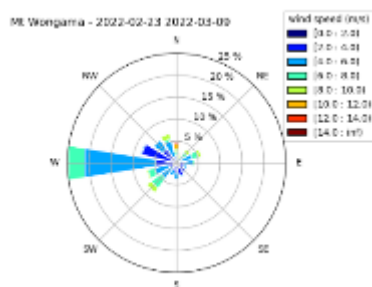
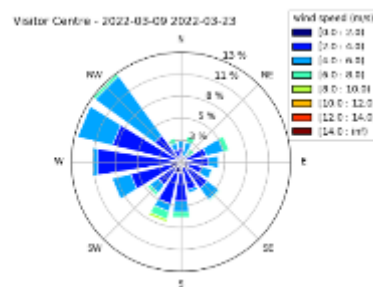
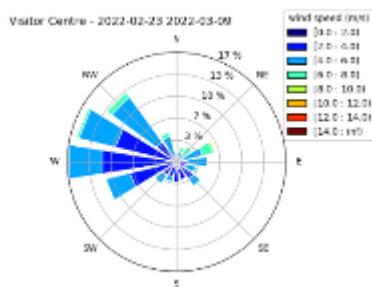
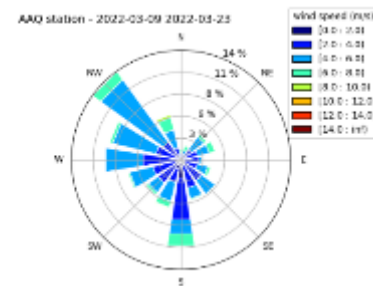
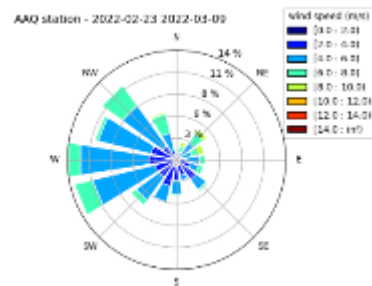
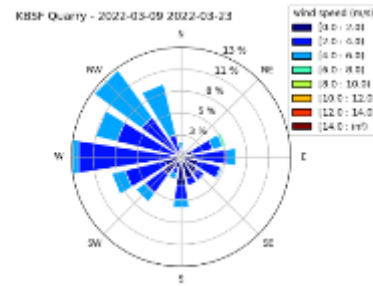
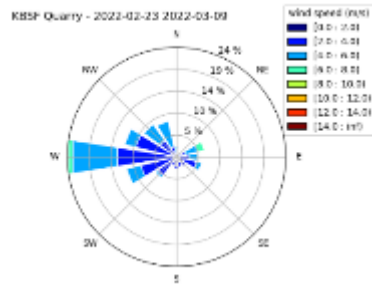


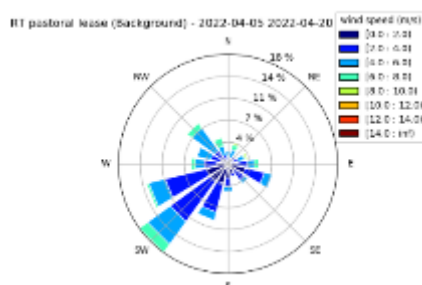
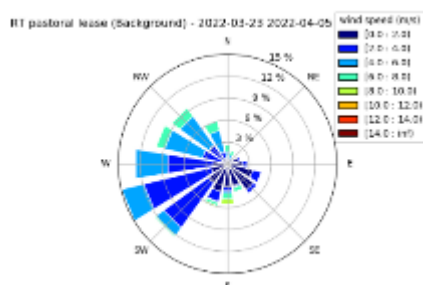
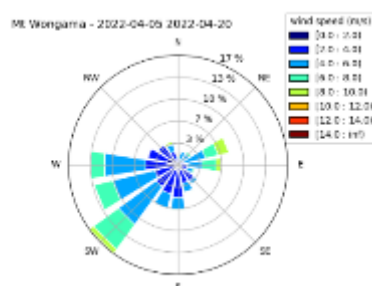
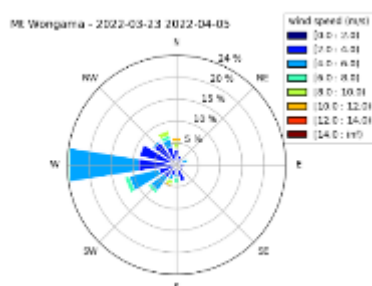
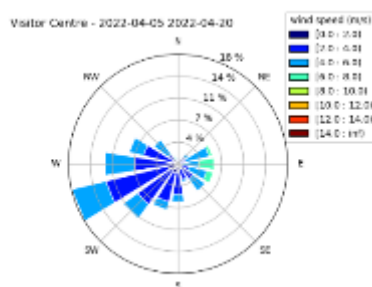
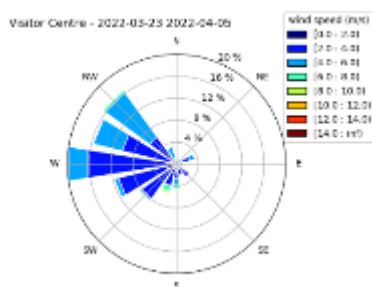
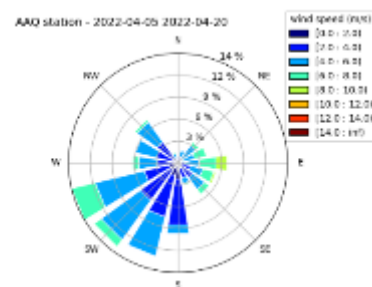
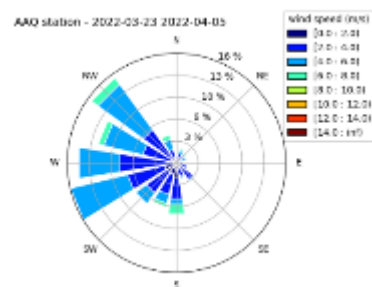
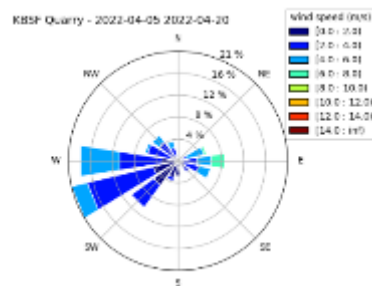
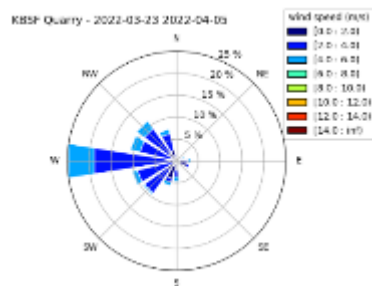


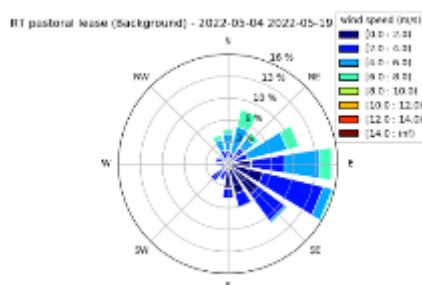
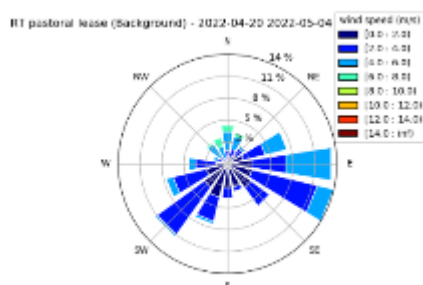
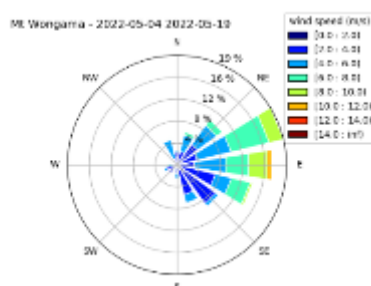
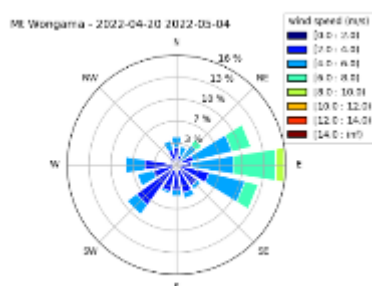
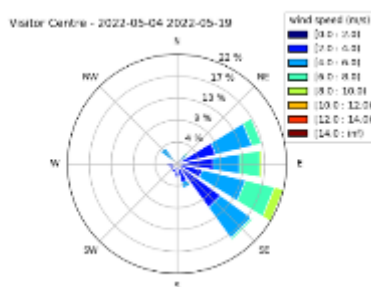
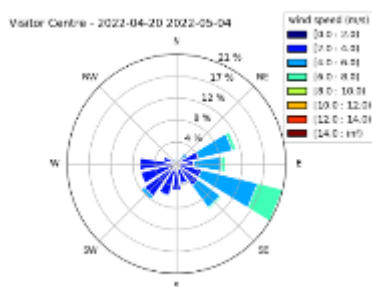
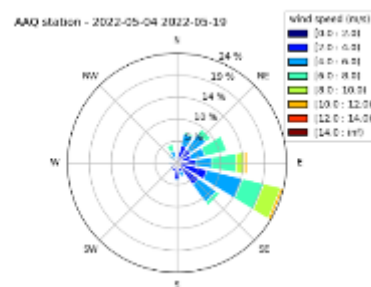
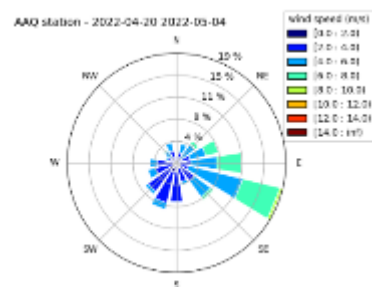
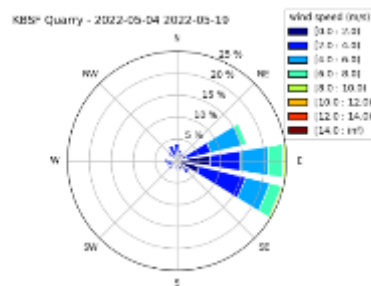
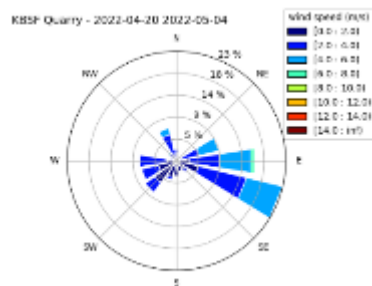


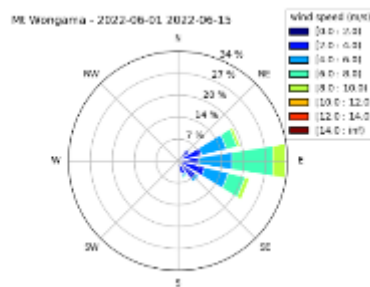
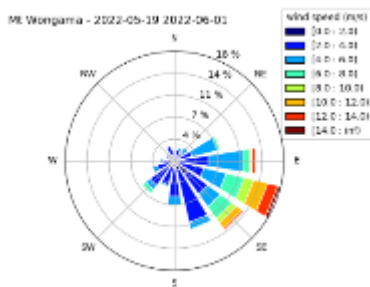
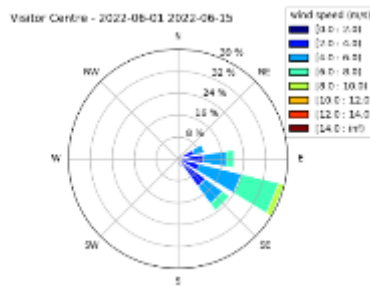
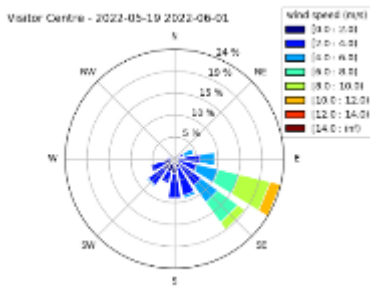
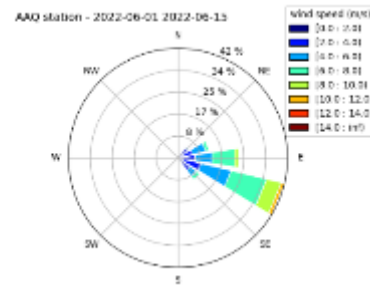
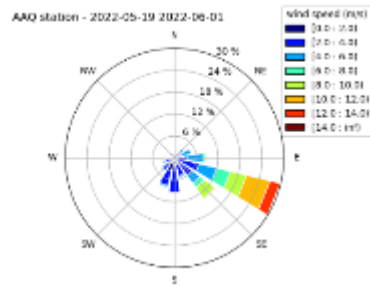
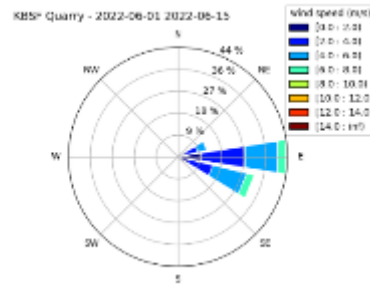
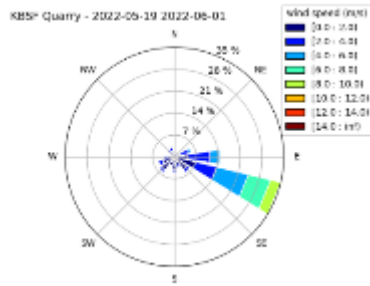




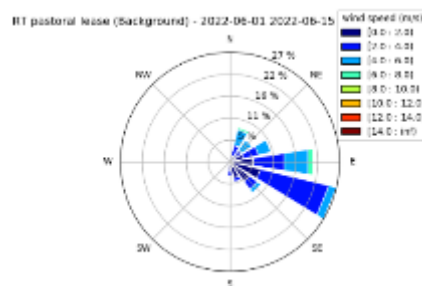


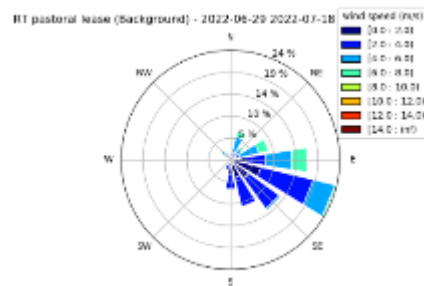
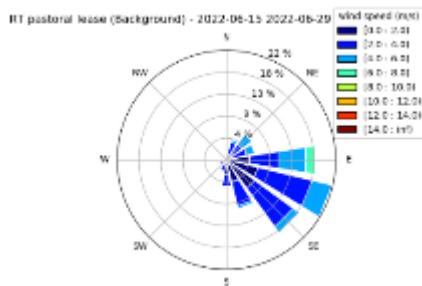
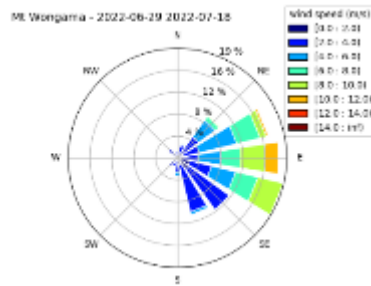
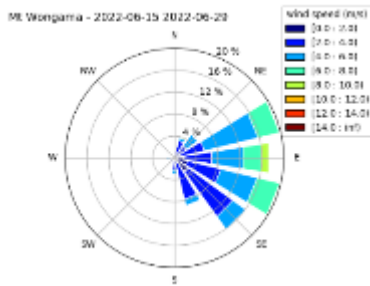
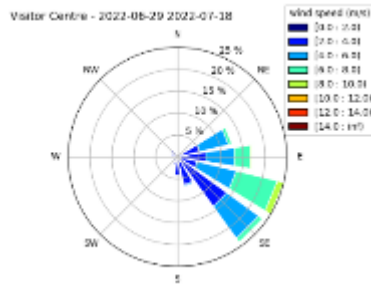
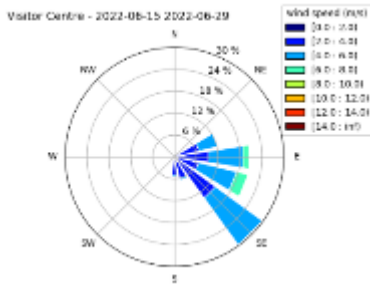
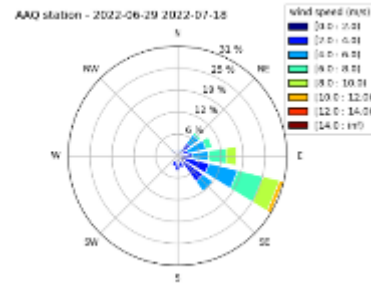
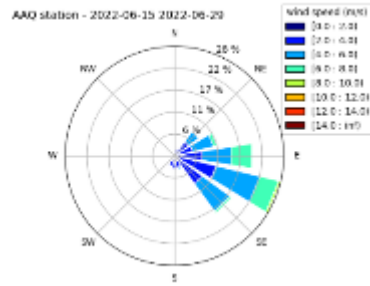
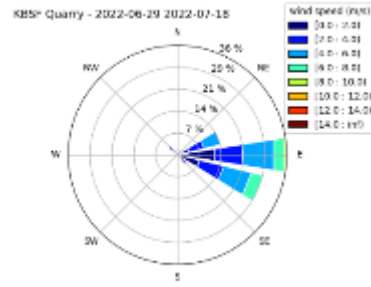
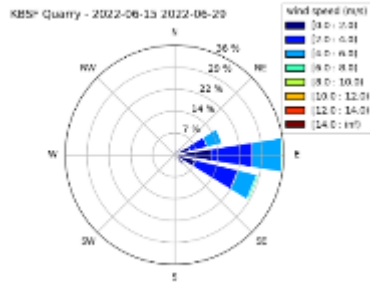


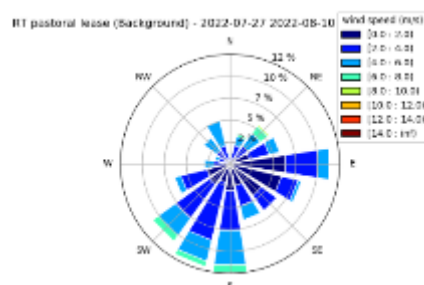
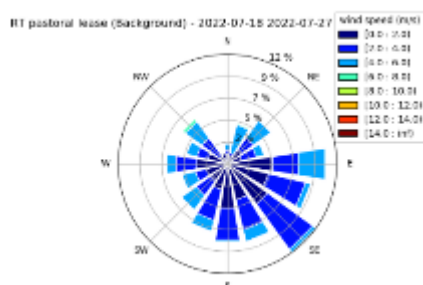
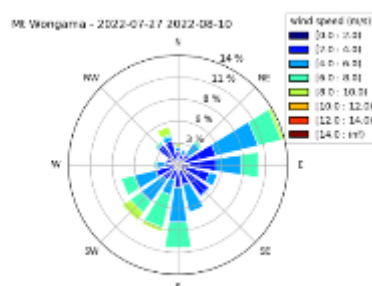
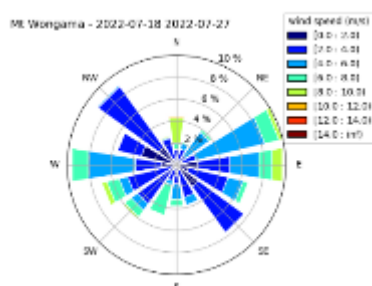
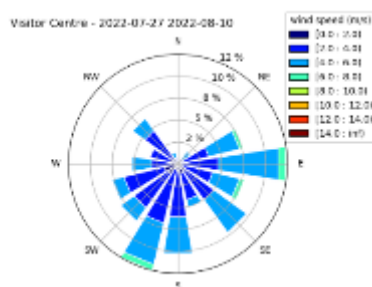
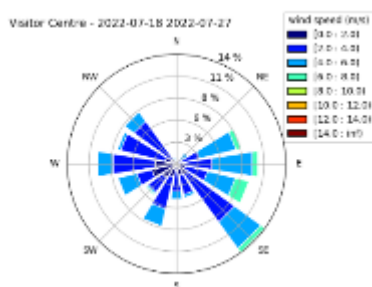
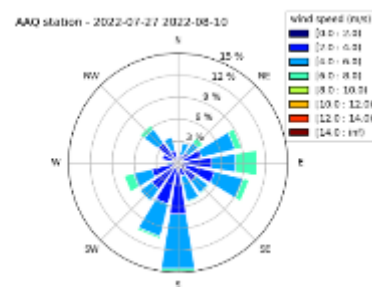
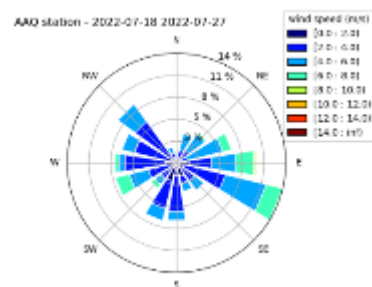
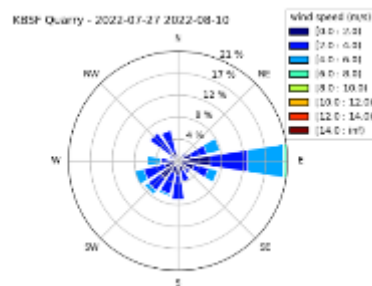
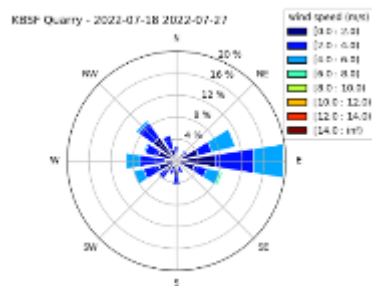


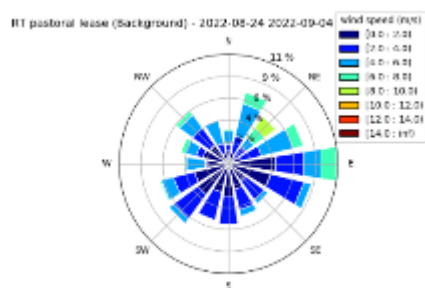
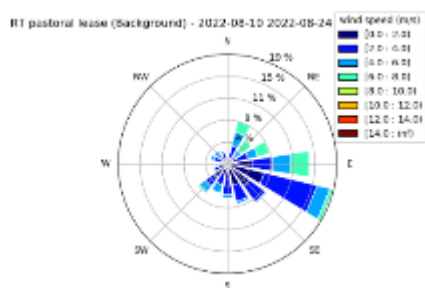
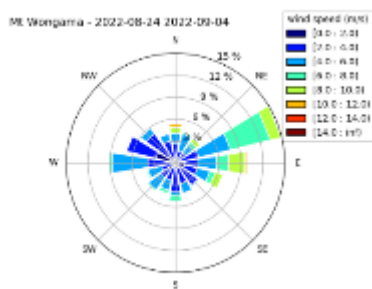
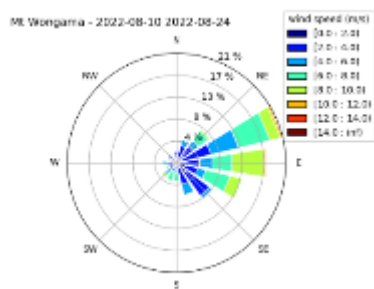
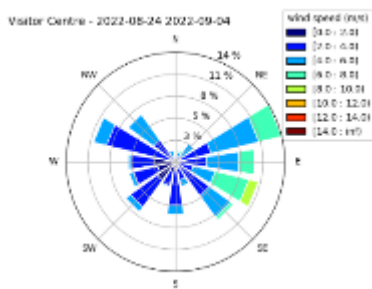
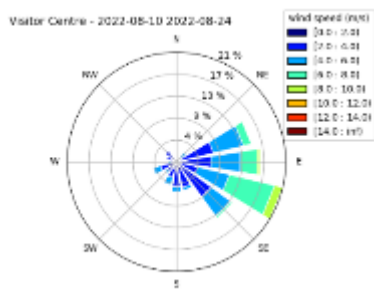
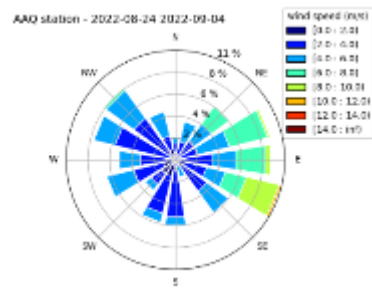
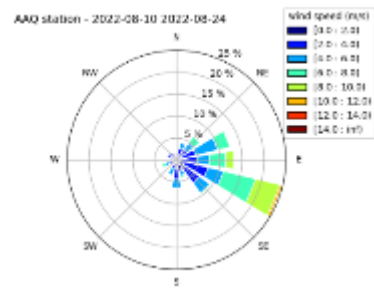
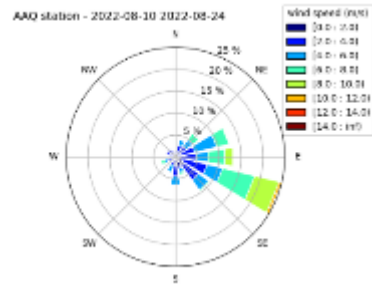
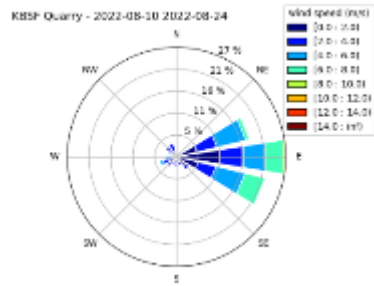


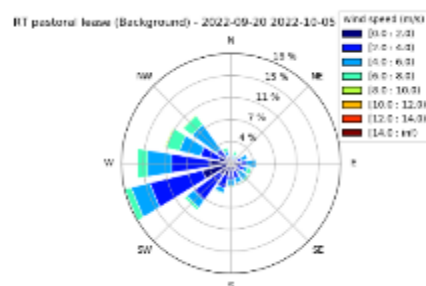
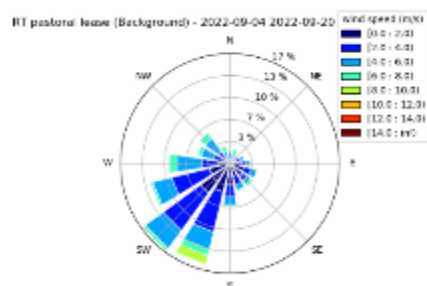
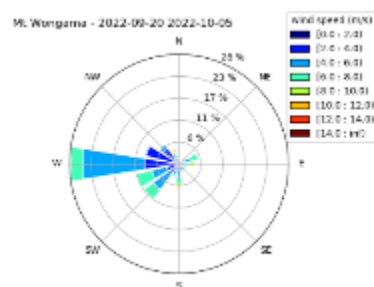
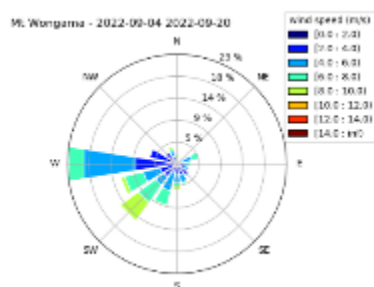
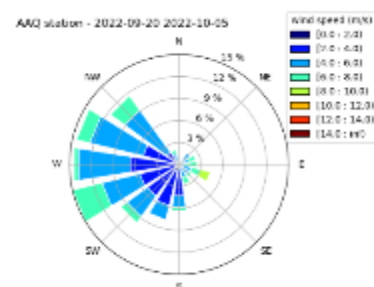
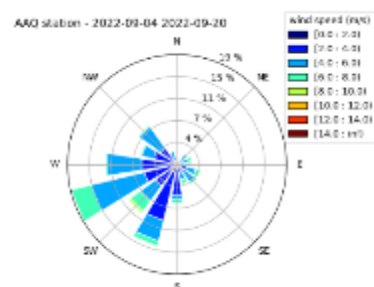
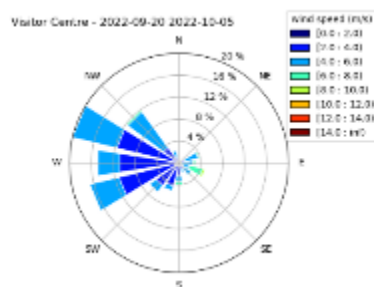
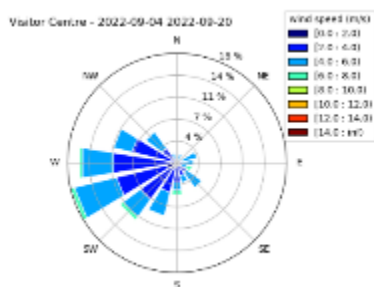
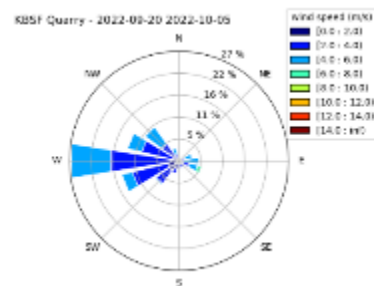
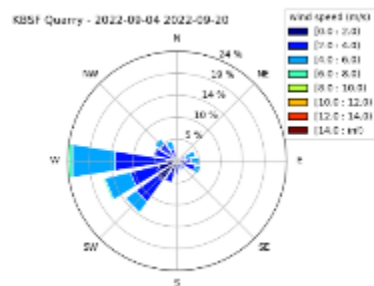
RT Pastoral lease wind sensor malfunction
18 May 2022 to 1 June 2022

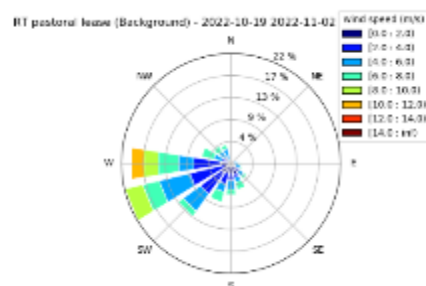
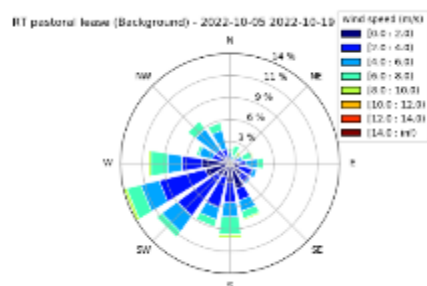
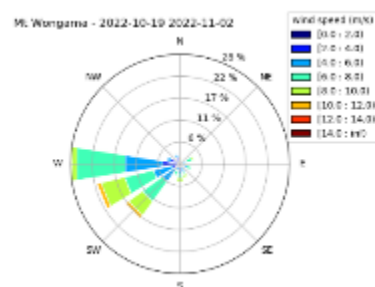
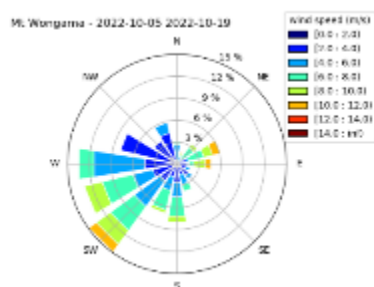
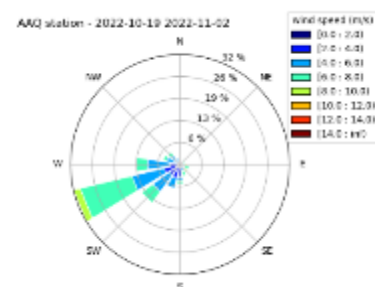
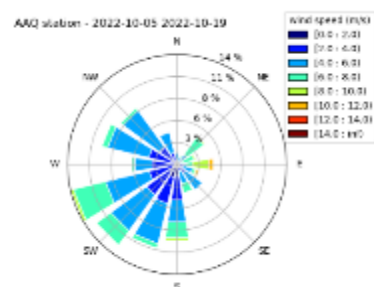
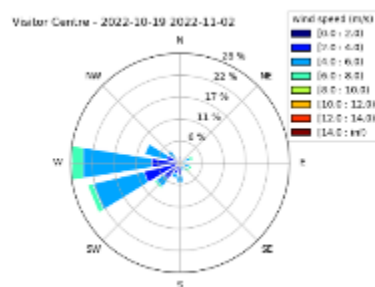
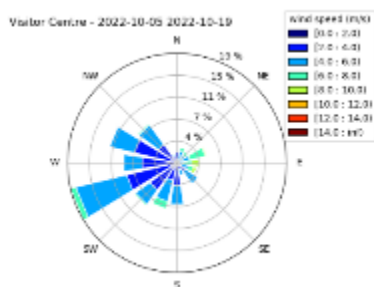
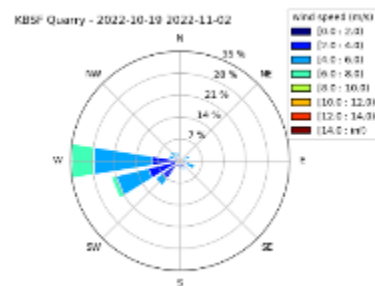
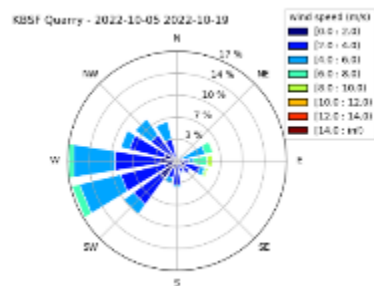


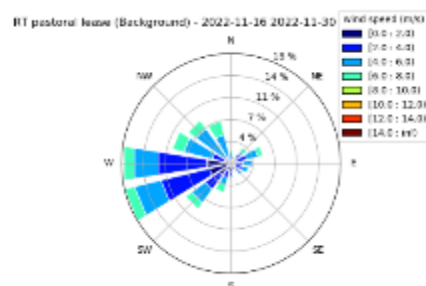
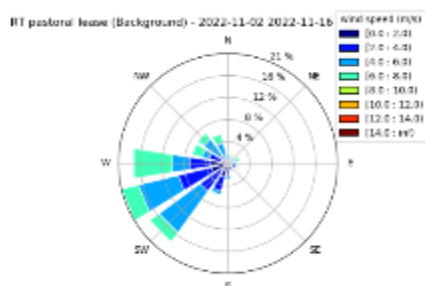
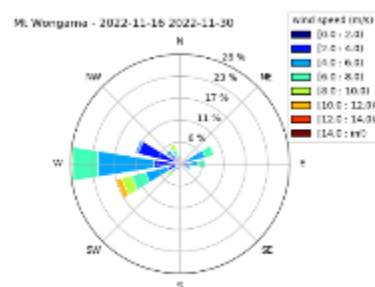
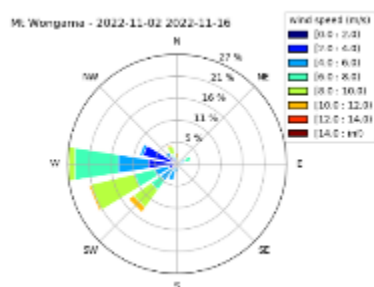
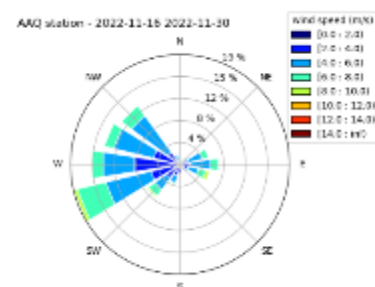
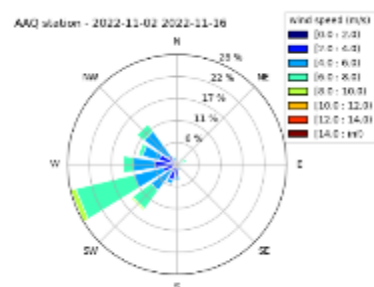
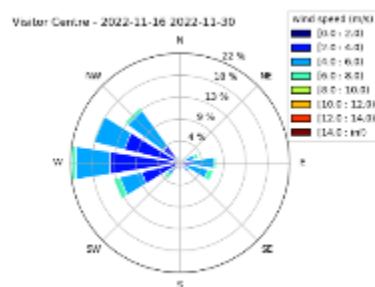
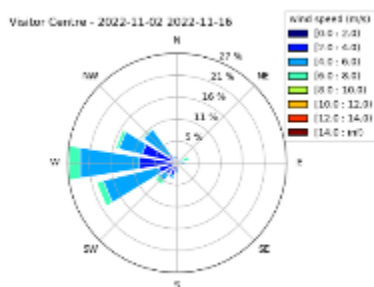
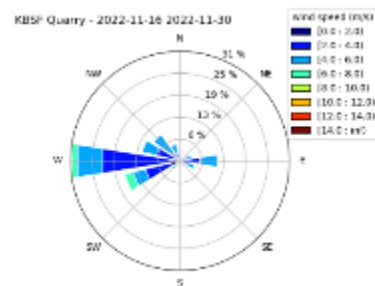
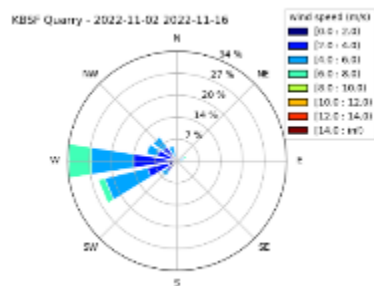


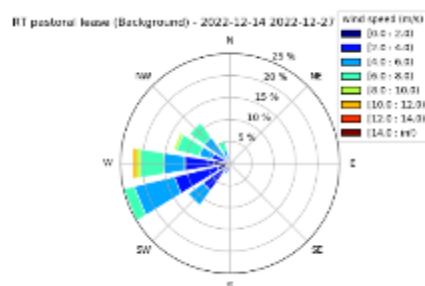
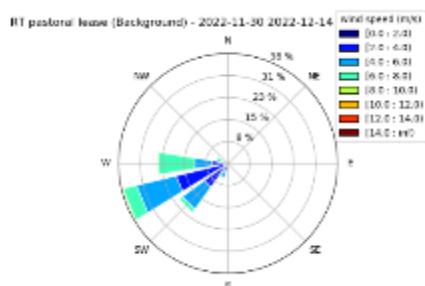
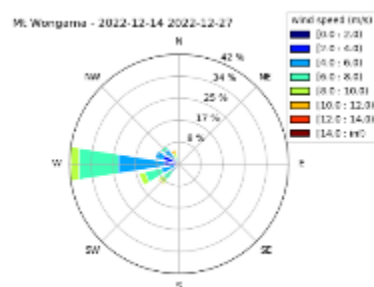
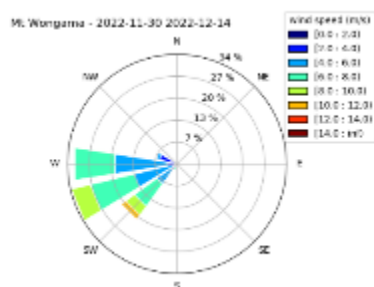
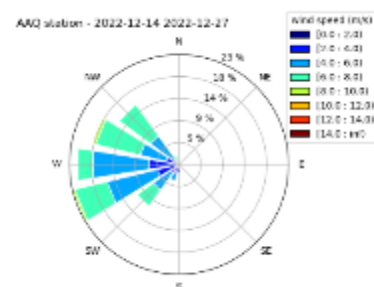
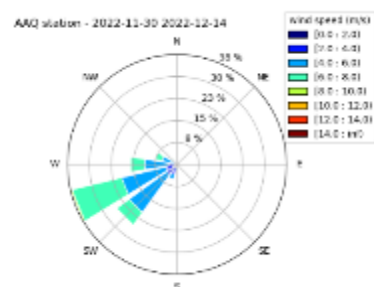
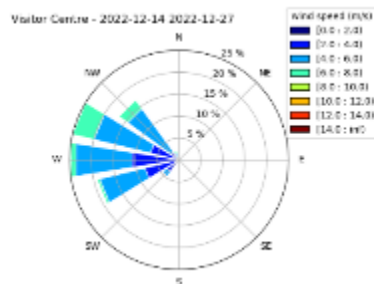
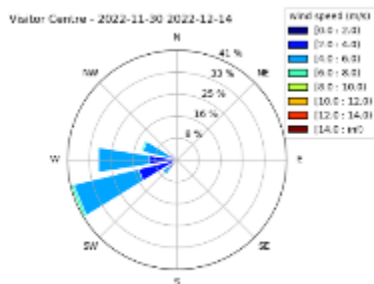
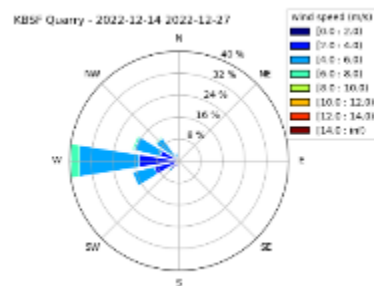
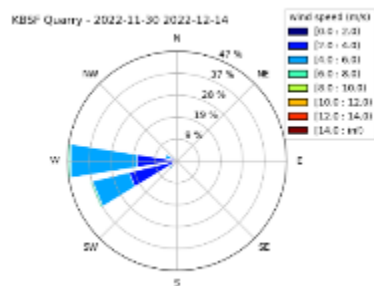


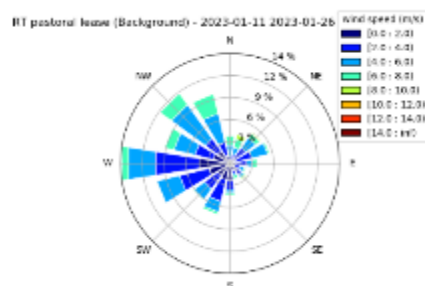
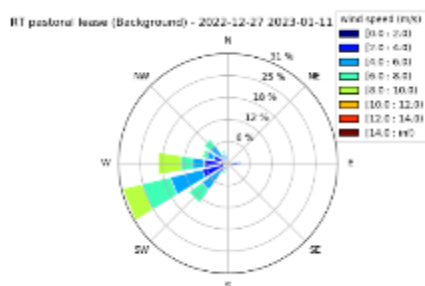
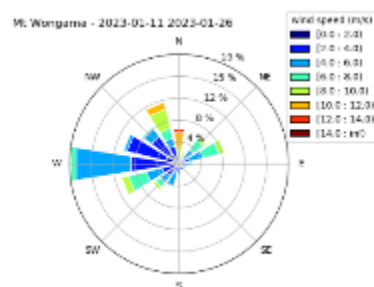
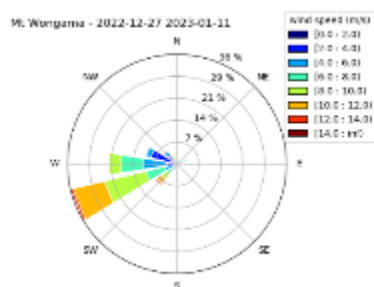
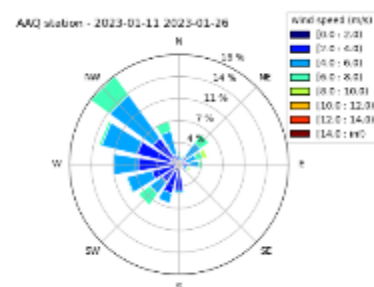
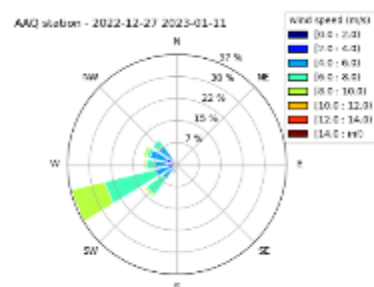
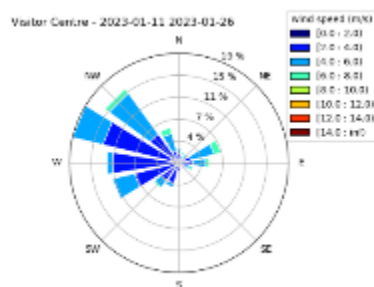
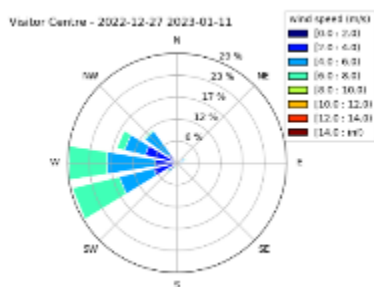
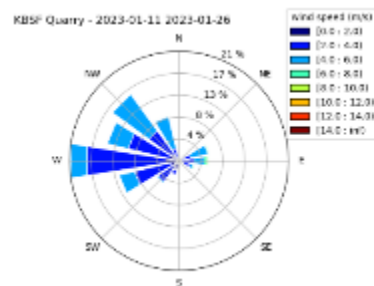
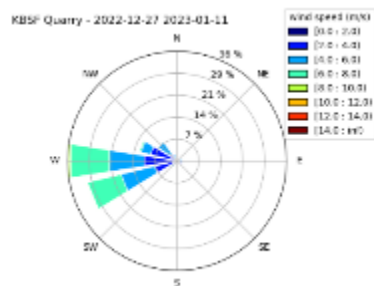


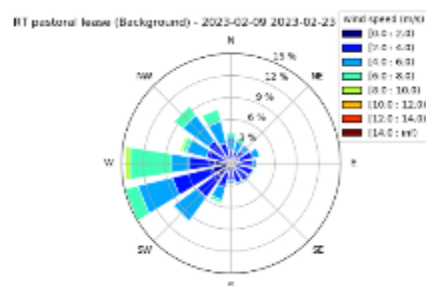
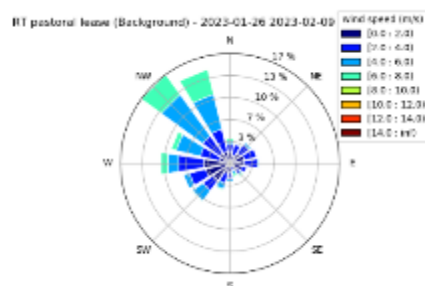
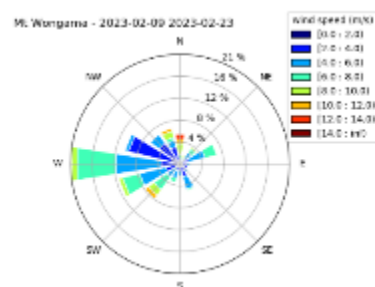
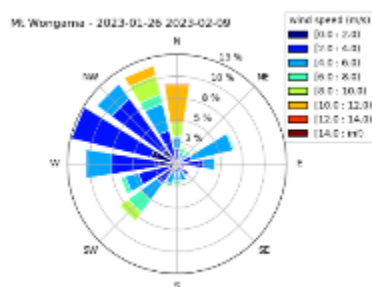
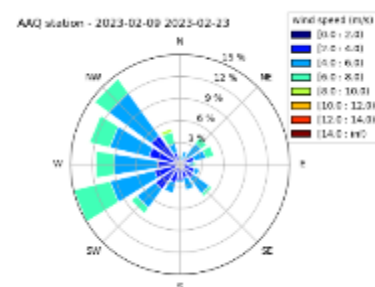
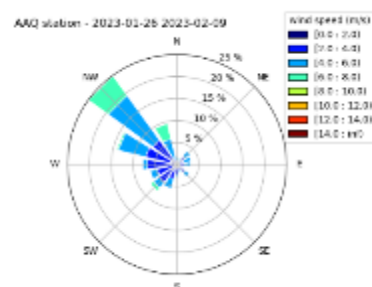
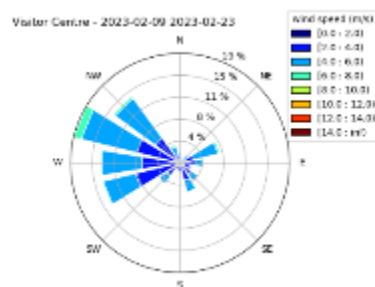
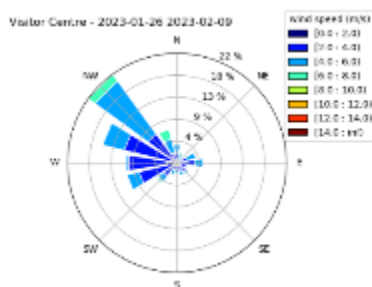
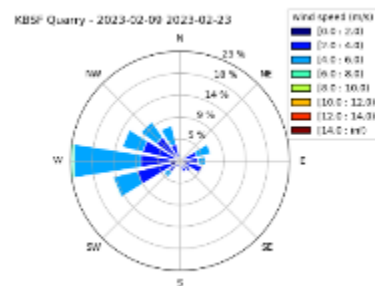
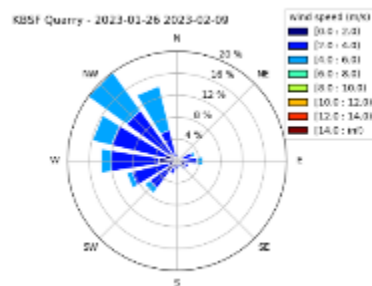


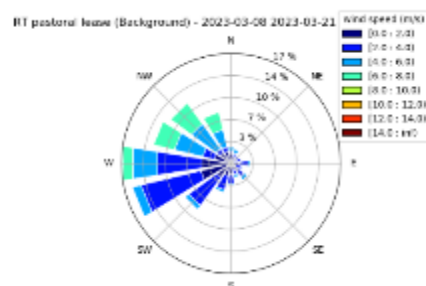
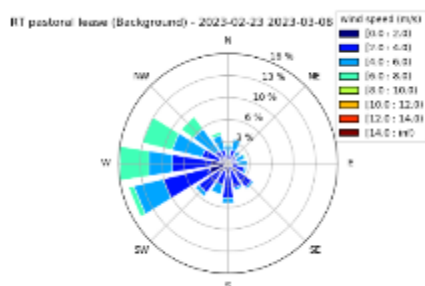
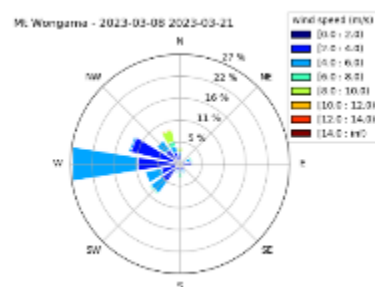
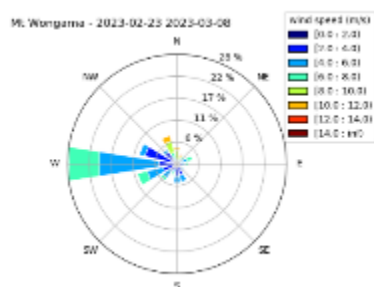
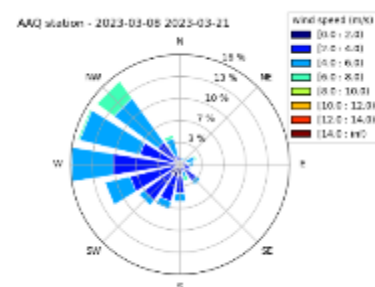
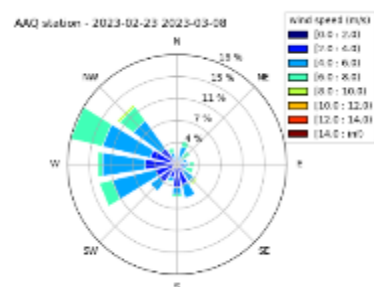
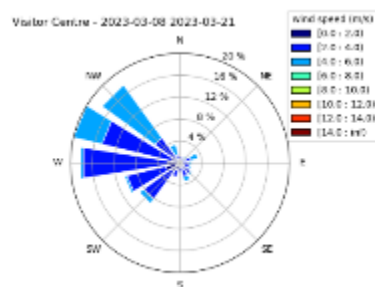
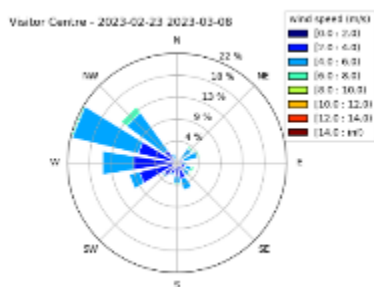
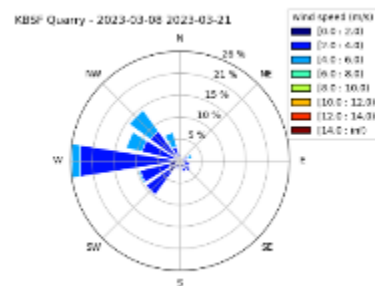
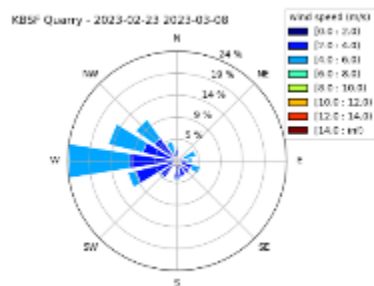


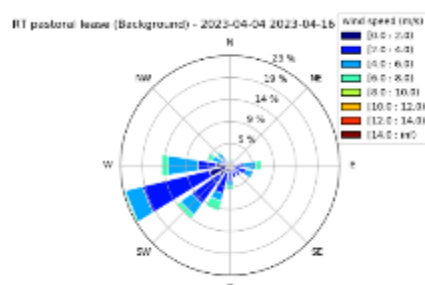
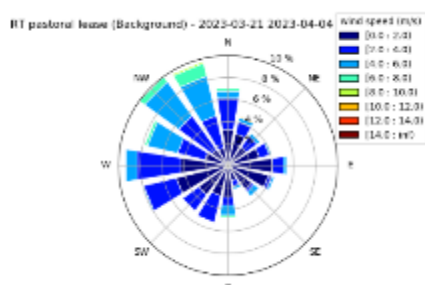
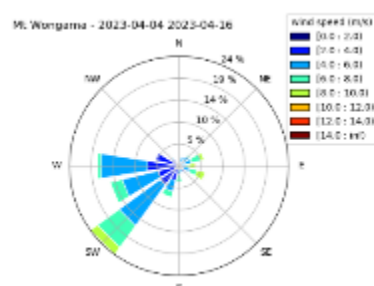
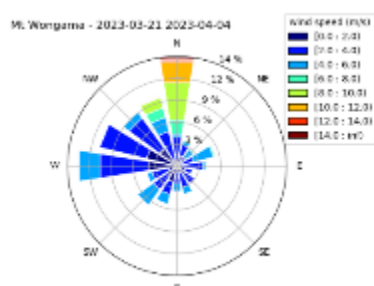
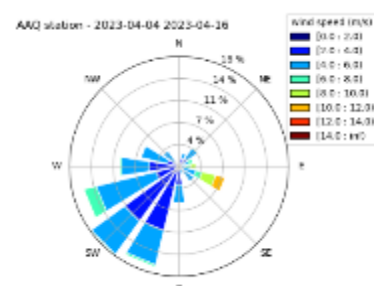
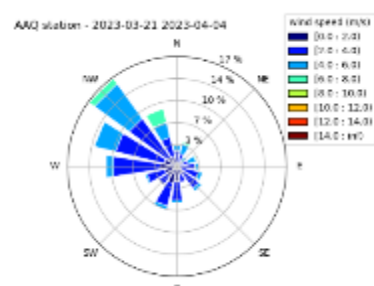
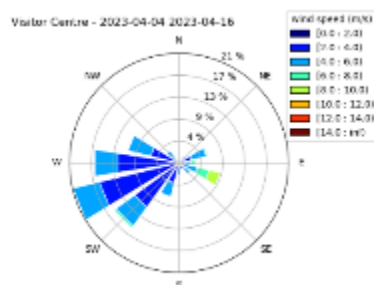
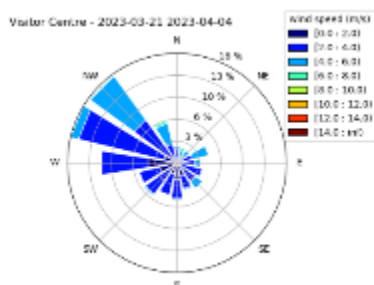
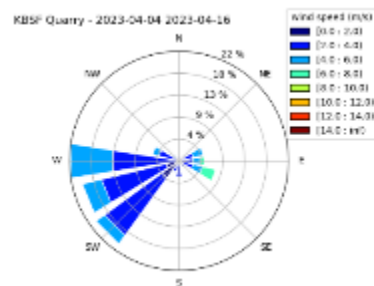
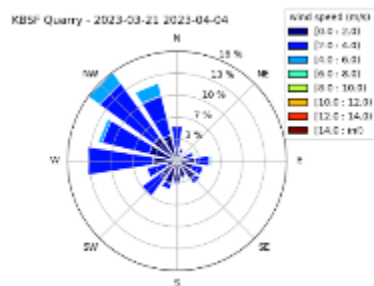


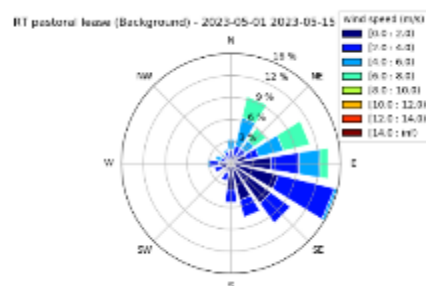
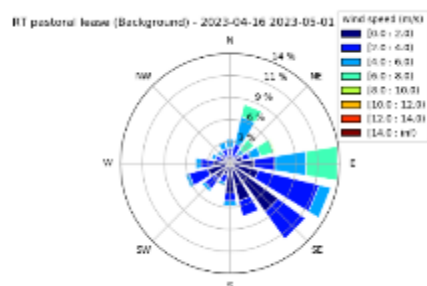
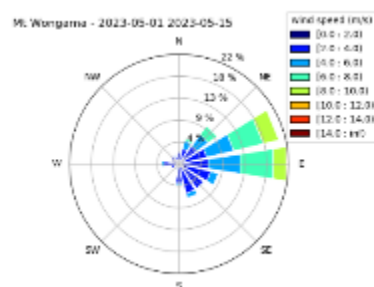
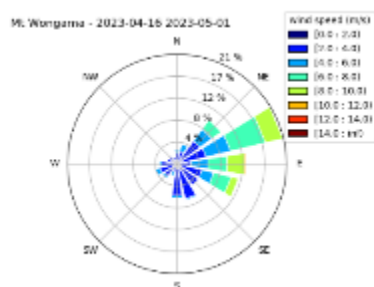
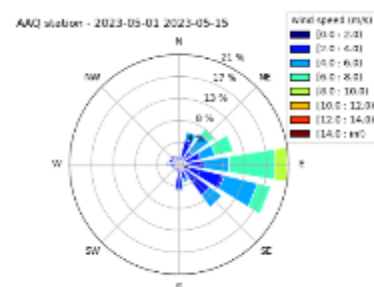
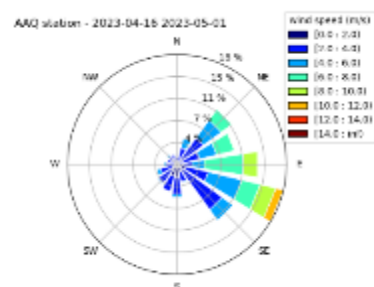
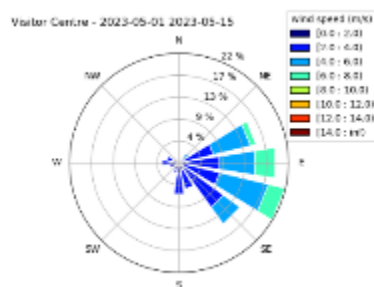
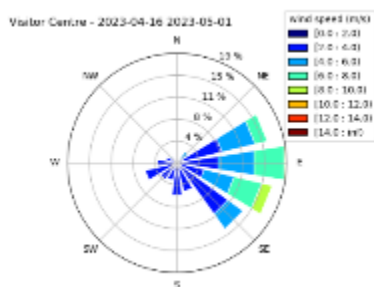
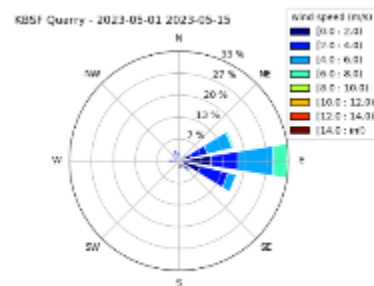
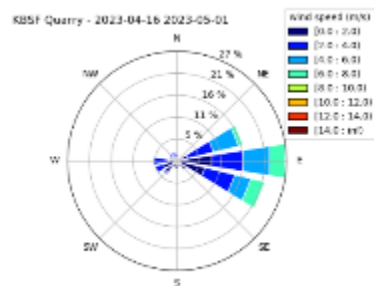


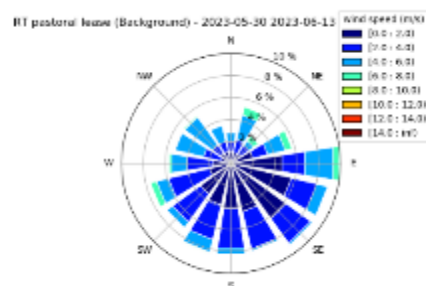
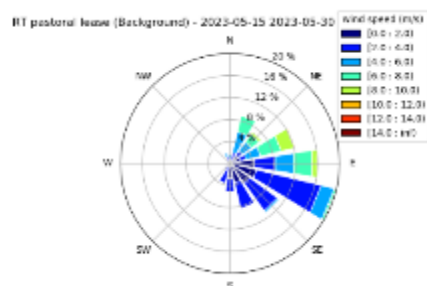
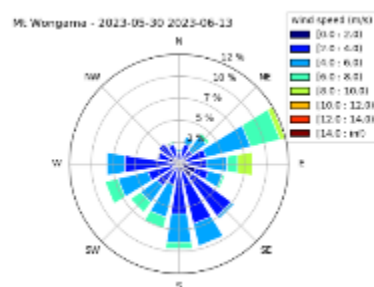
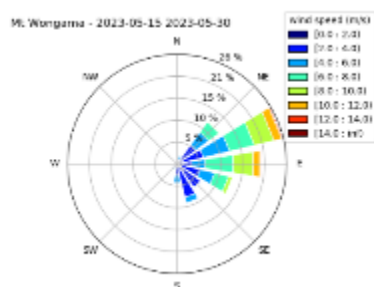
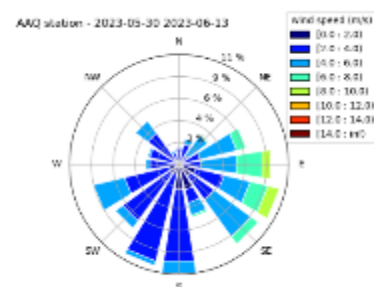
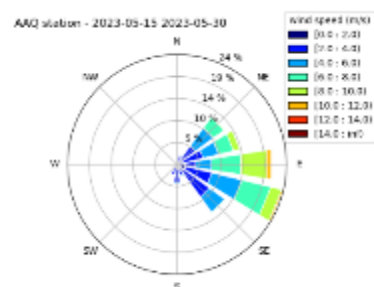
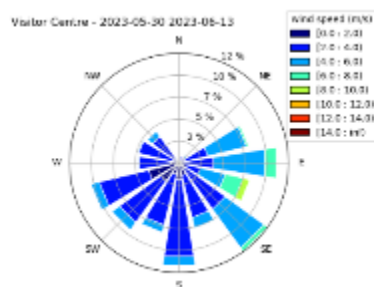
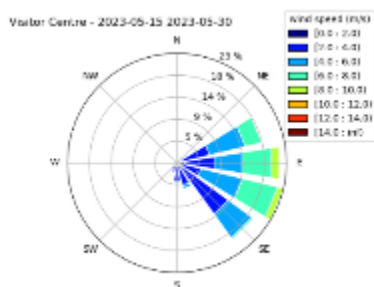
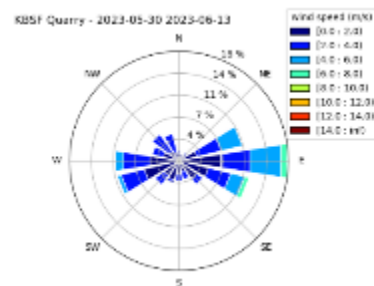
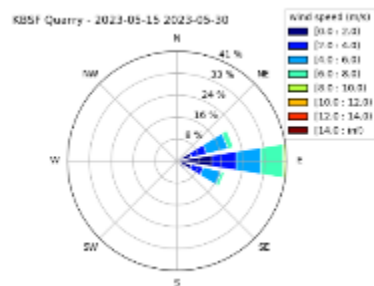


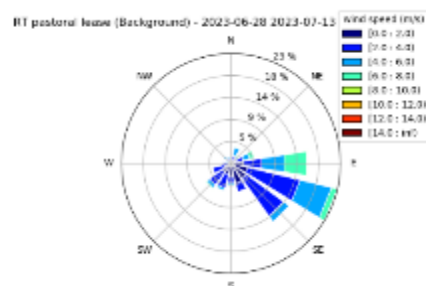
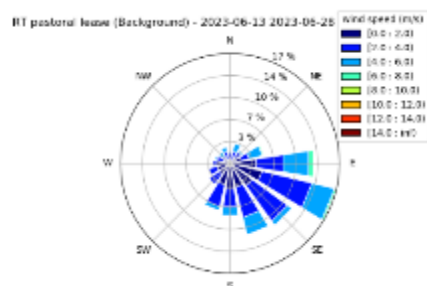
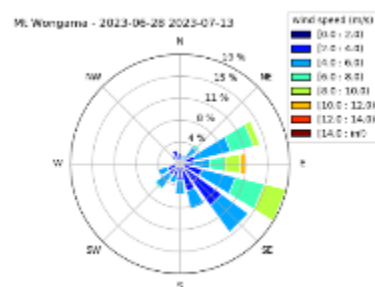
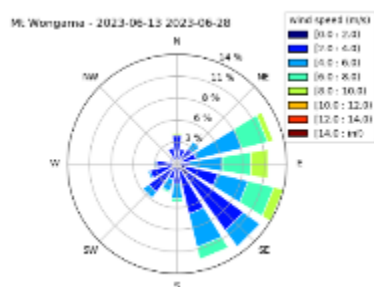
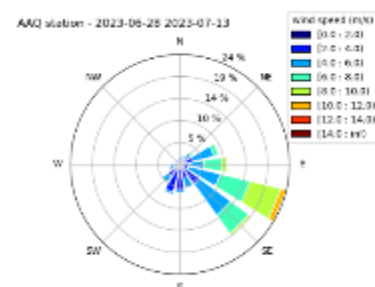
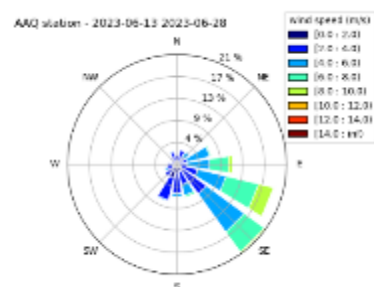
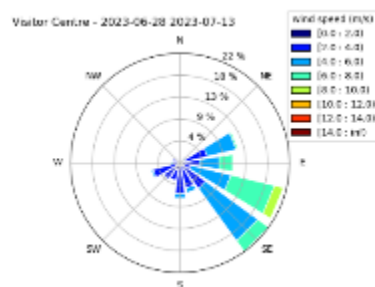
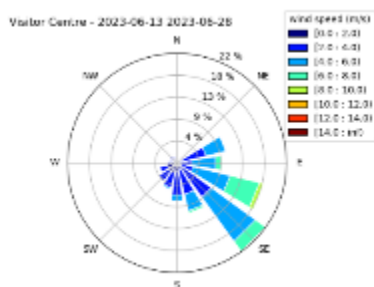
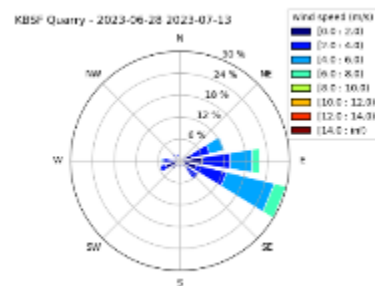
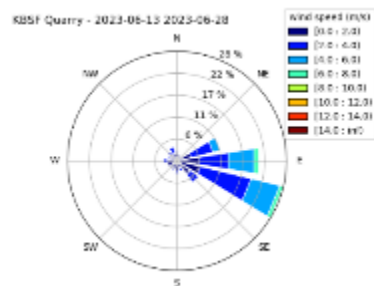


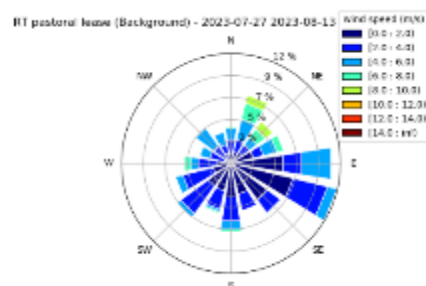
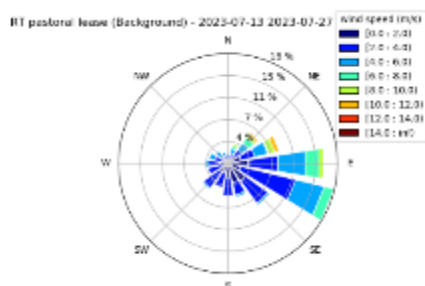
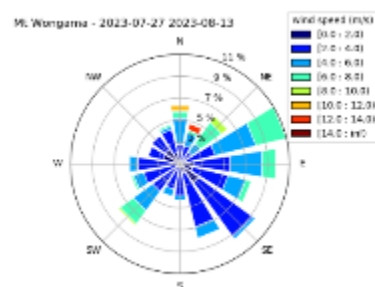
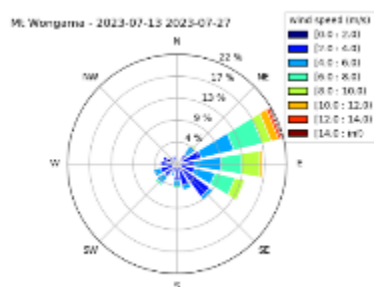
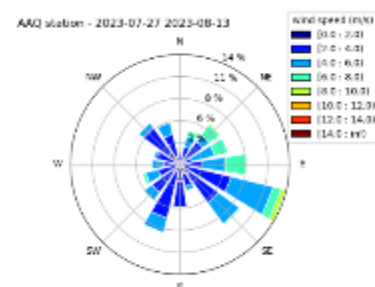
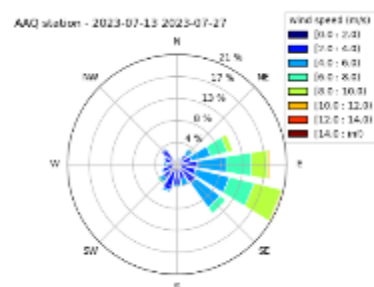
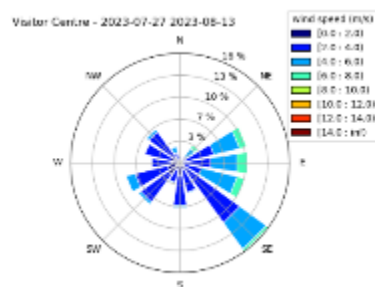
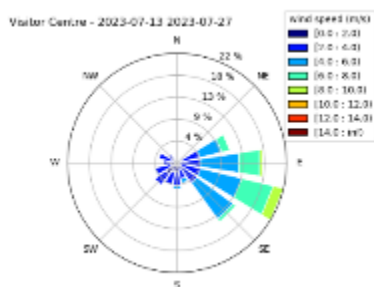
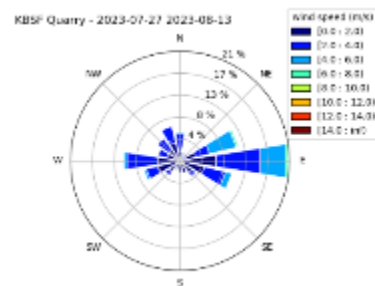
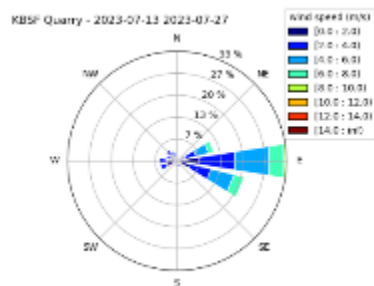


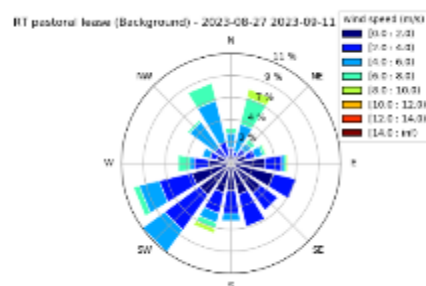
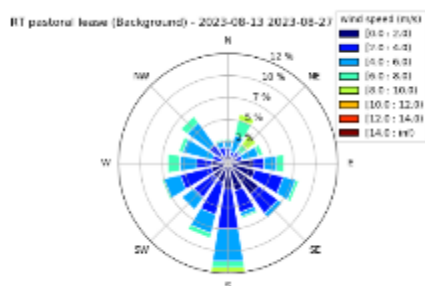
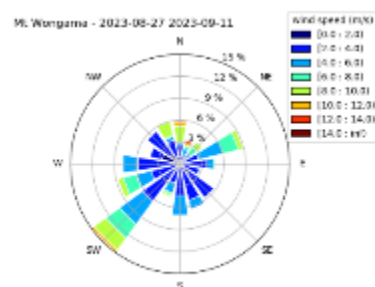
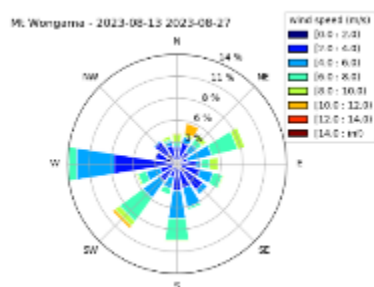
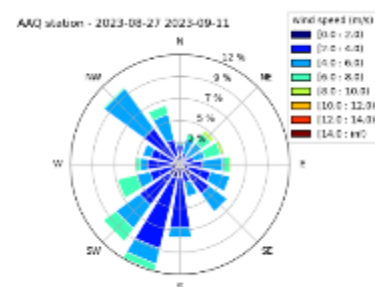
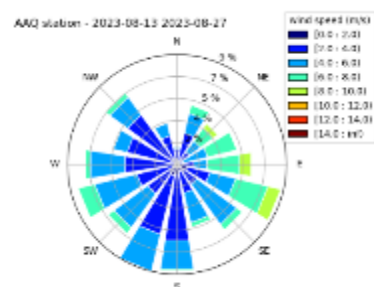
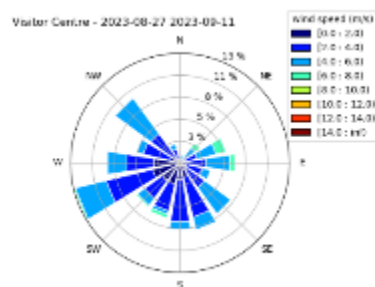
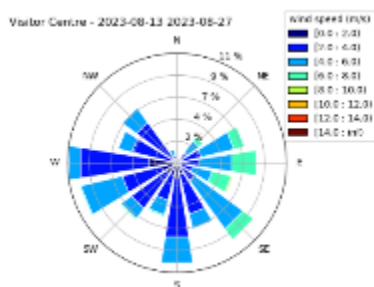
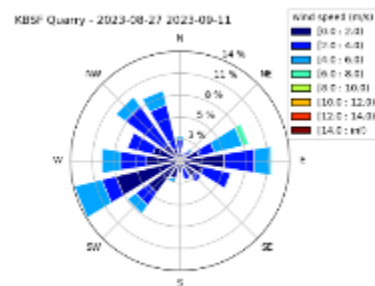
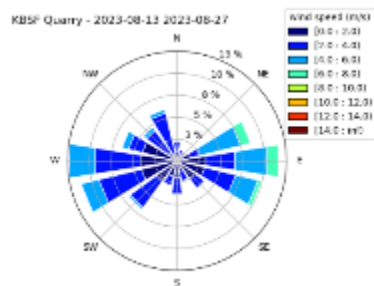




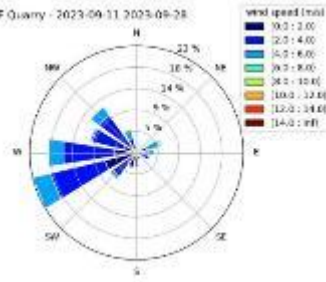




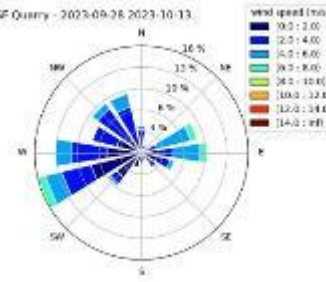




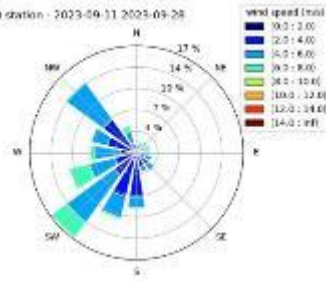
KBSF Quarry - 2023-09-11 2023-09-28



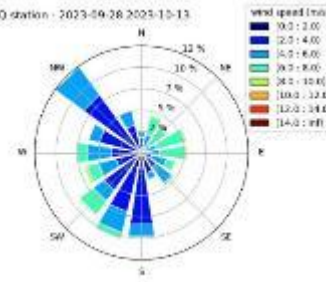
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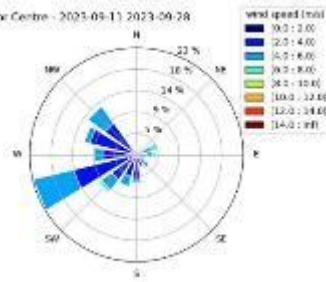
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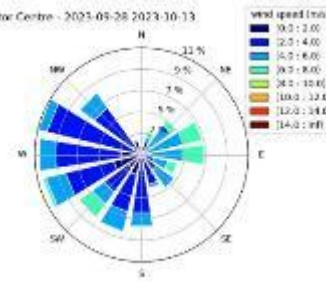
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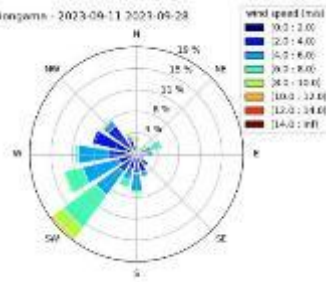
Victor Centre - 2023-09-11 2023-09-28



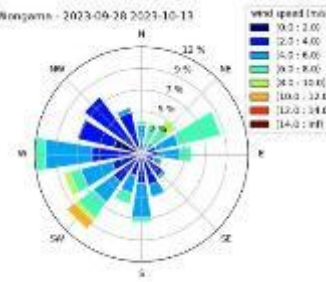
Victor Centre - 2023-09-28 2023-10-13



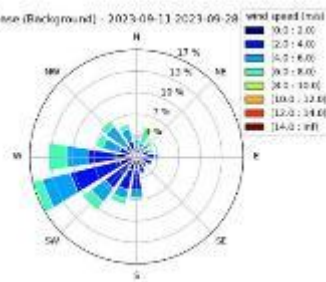
Mr Wongam - 2023-09-11 2023-09-28



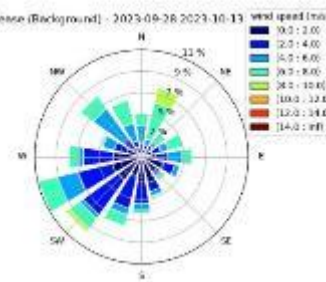
Mr Wongam - 2023-09-28 2023-10-13



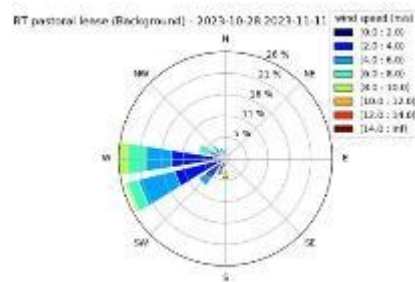
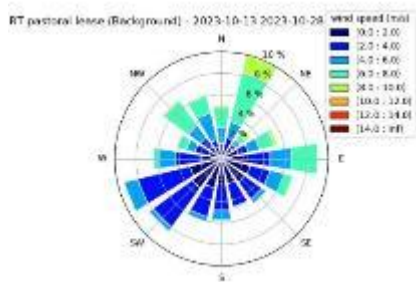
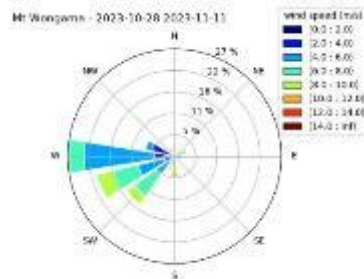
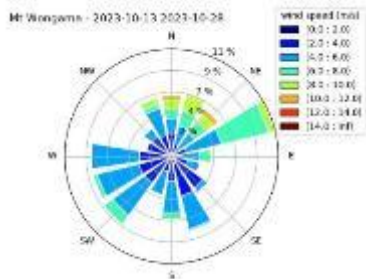
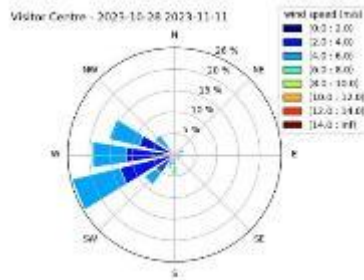
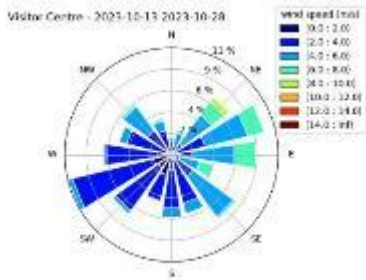
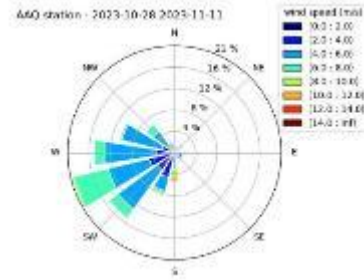
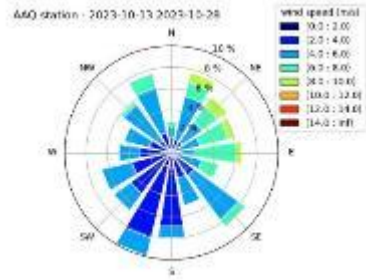
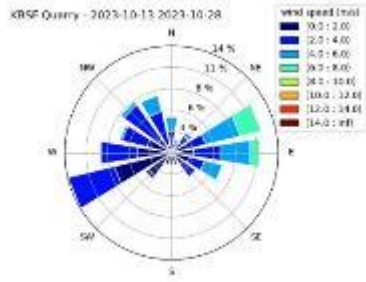
RT pastoral lease (Background) - 2023-09-11 2023-09-28



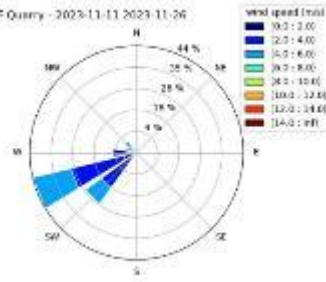
RT pastoral lease (Background) - 2023-09-28 2023-10-13



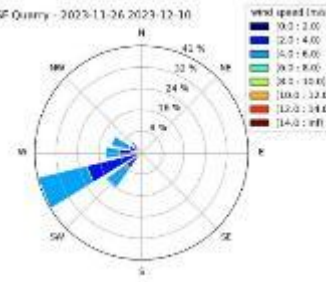
KBSF Quarry – insufficient data capture



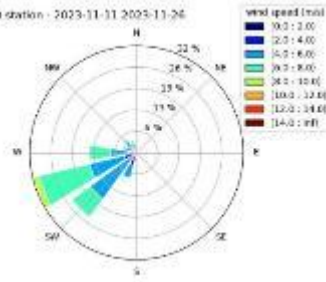
KBSF Quarry - 2023-11-11 2023-11-26



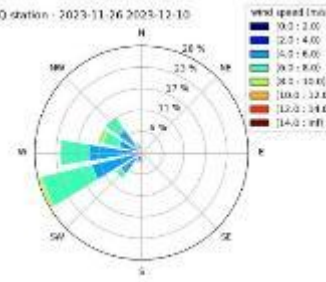
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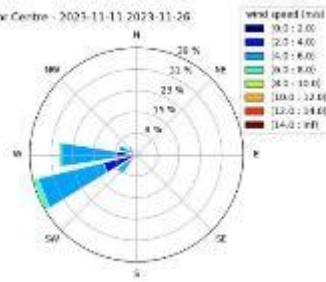
AGG station - 2023-11-11 2023-11-26



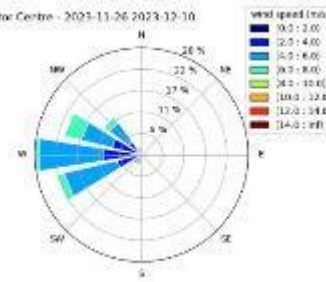
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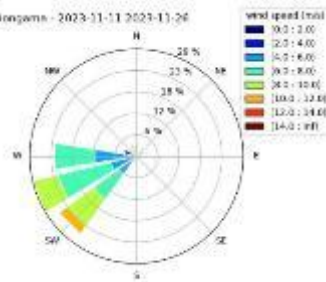
Victor Centre - 2023-11-11 2023-11-26



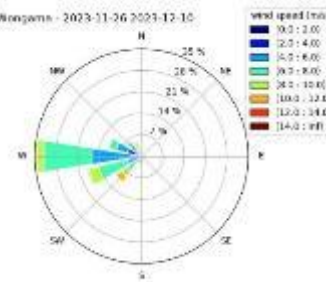
Victor Centre - 2023-11-26 2023-12-10



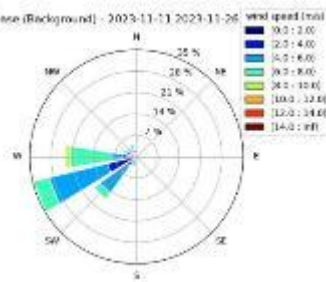
Mr Wongam - 2023-11-11 2023-11-26



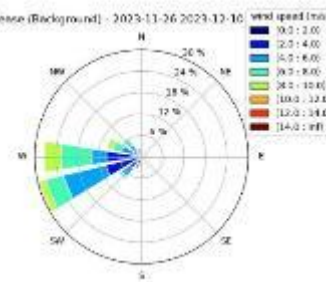
Mr Wongam - 2023-11-26 2023-12-10



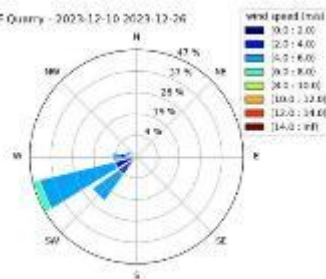
RT pastoral lease (Background) - 2023-11-11 2023-11-26



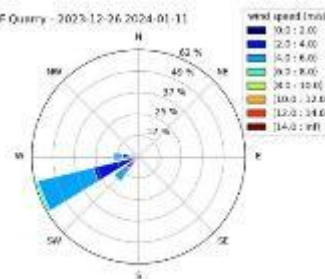
RT pastoral lease (Background) - 2023-11-26 2023-12-10



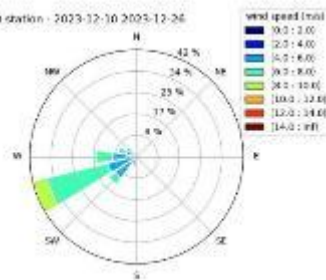
KBSF Quarry - 2023-12-10 2023-12-26



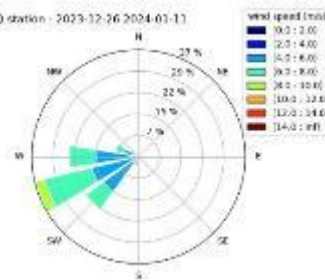
KBSF Quarry - 2023-12-26 2024-01-11



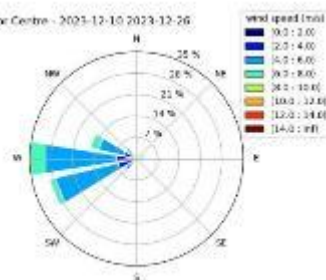
AGG station - 2023-12-10 2023-12-26



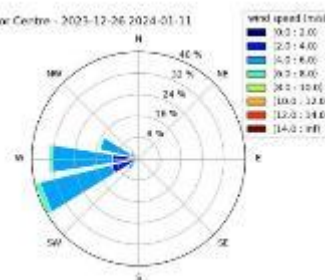
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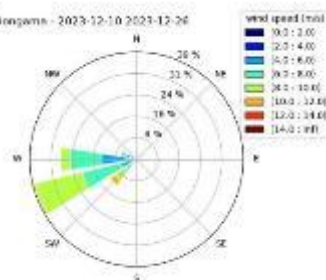
Victor Centre - 2023-12-10 2023-12-26



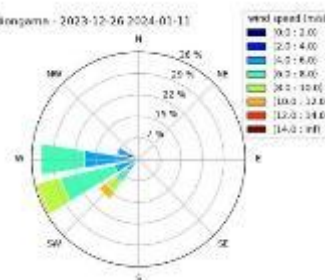
Victor Centre - 2023-12-26 2024-01-11



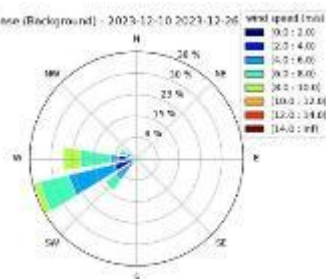
Mr Wongam - 2023-12-10 2023-12-26



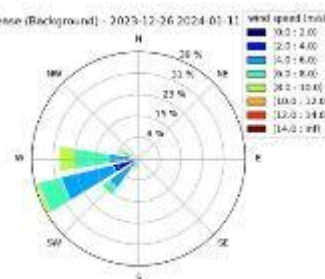
Mr Wongam - 2023-12-26 2024-01-11

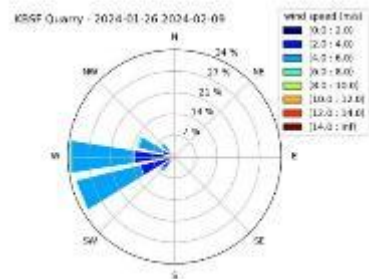
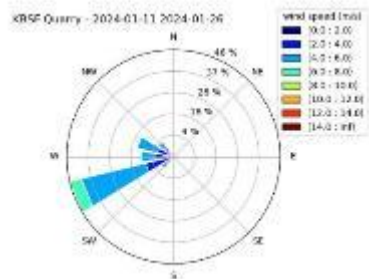


RT pastoral lease (Background) - 2023-12-10 2023-12-26

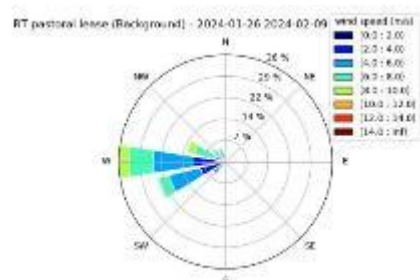
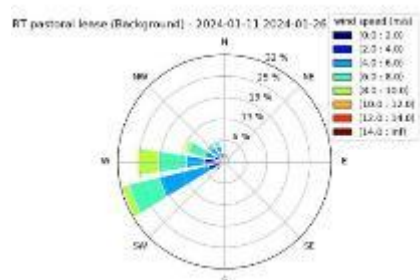
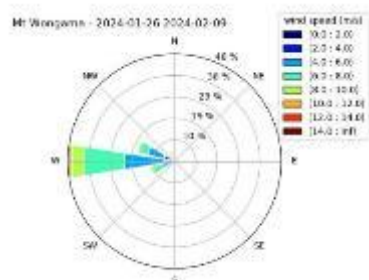
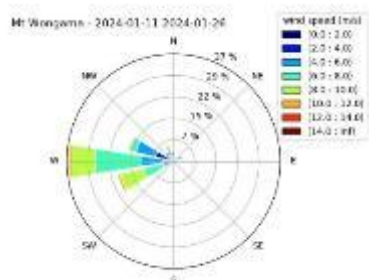
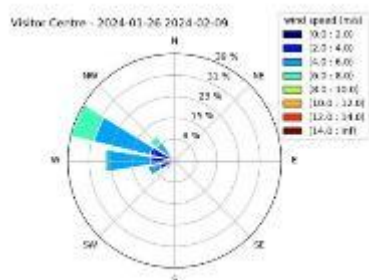
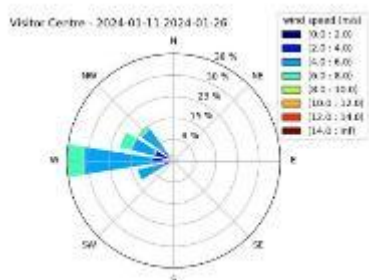
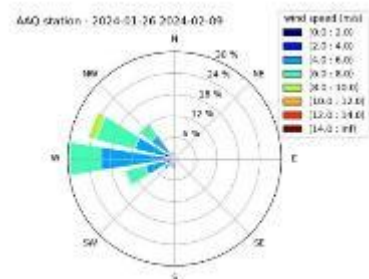


RT pastoral lease (Background) - 2023-12-26 2024-01-11

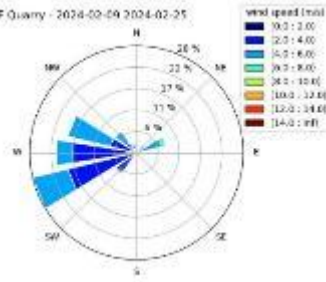




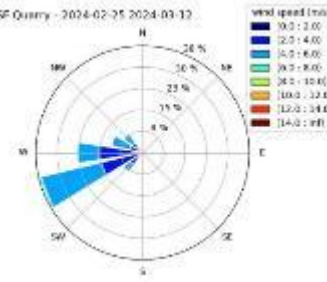
AAQ station – insufficient data capture



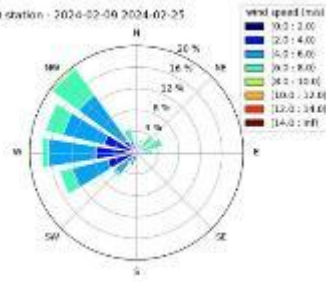
KBSF Quarry - 2024-02-09 2024-02-25



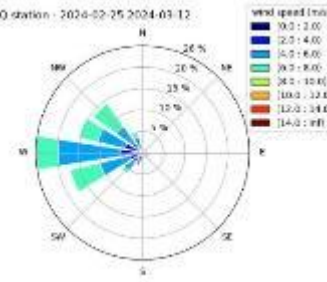
KBSF Quarry - 2024-02-25 2024-03-12



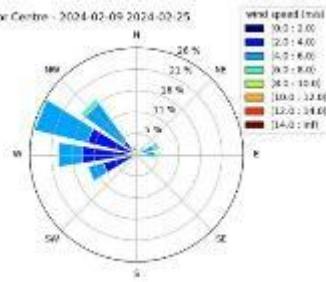
AGG station - 2024-02-09 2024-02-25



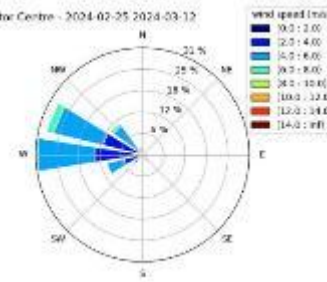
AGG station - 2024-02-25 2024-03-12



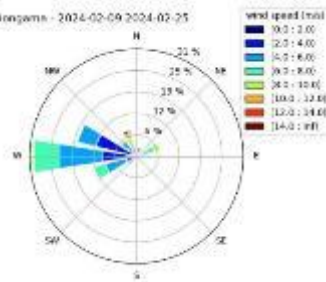
Vicite Centre - 2024-02-09 2024-02-25



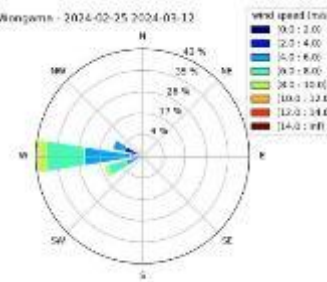
Vicite Centre - 2024-02-25 2024-03-12



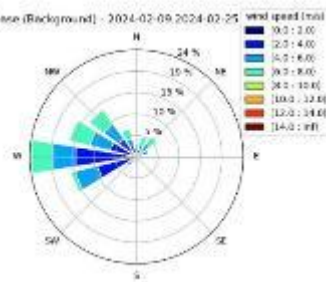
Mr Wongam - 2024-02-09 2024-02-25



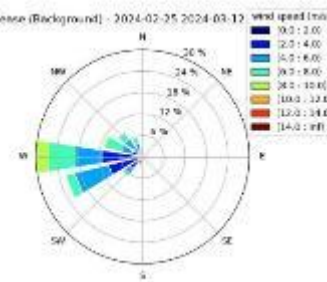
Mr Wongam - 2024-02-25 2024-03-12

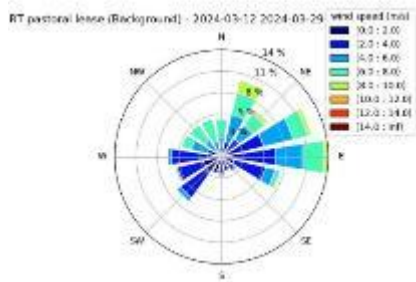
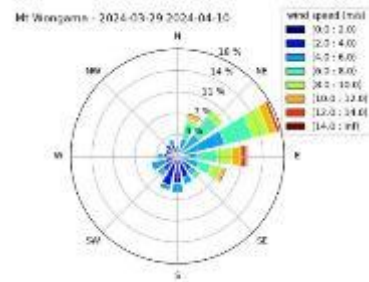
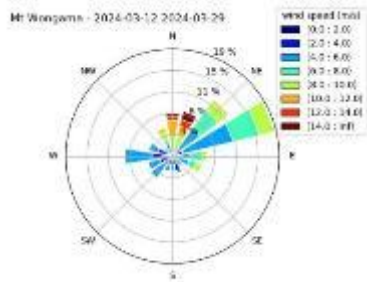
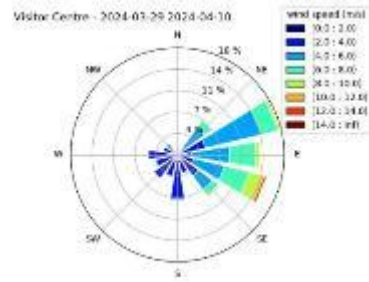
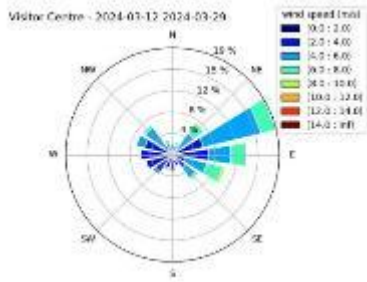
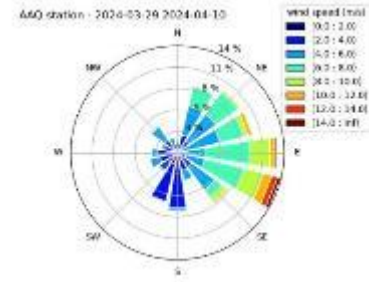
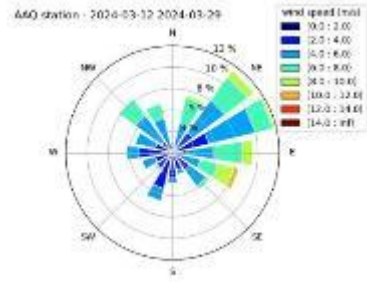
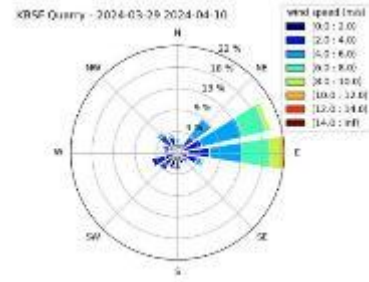
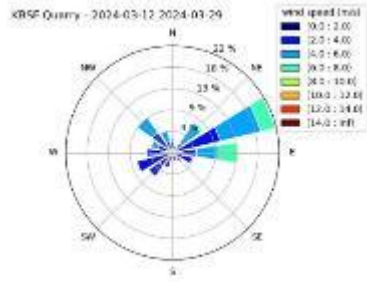


RT pastoral lease (Background) - 2024-02-09 2024-02-25

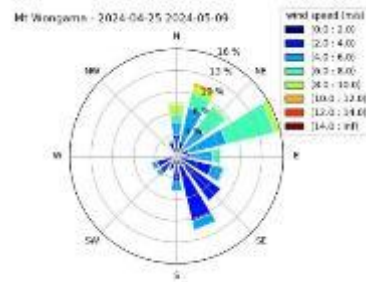
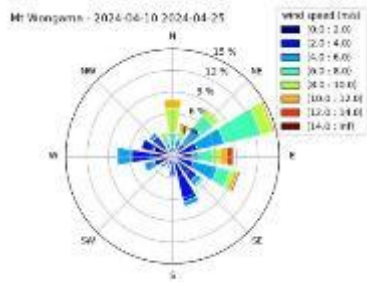
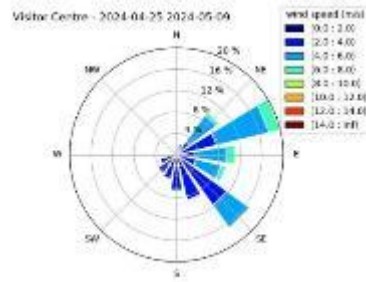
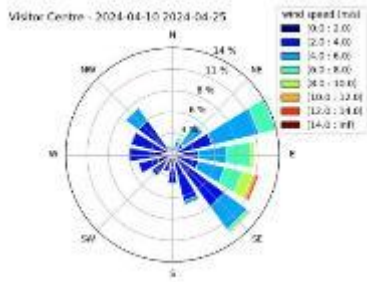
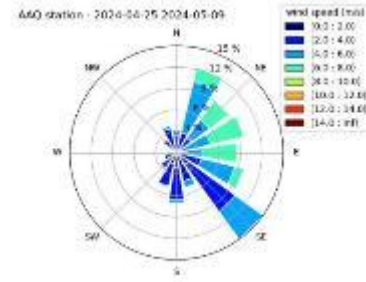
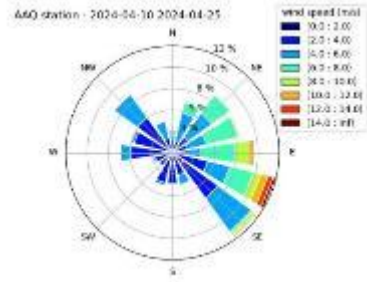
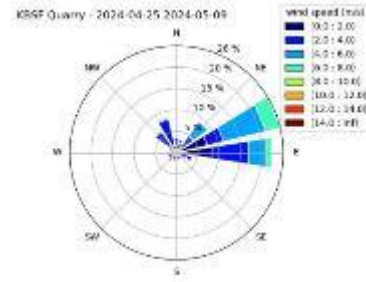
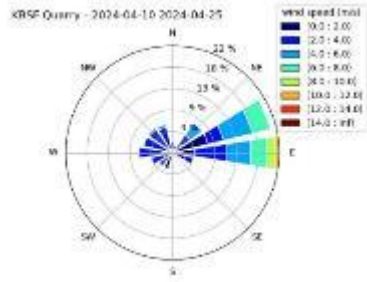


RT pastoral lease (Background) - 2024-02-25 2024-03-12



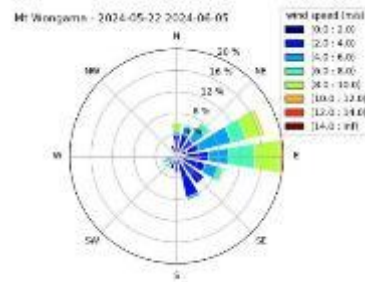
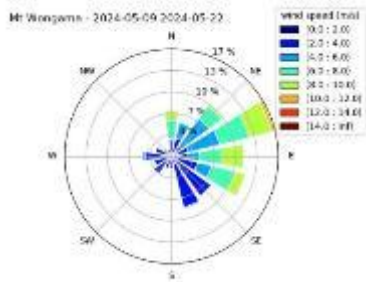
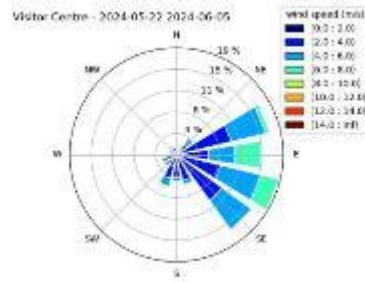
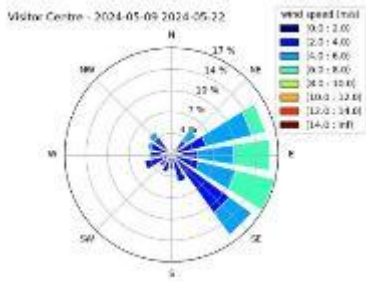
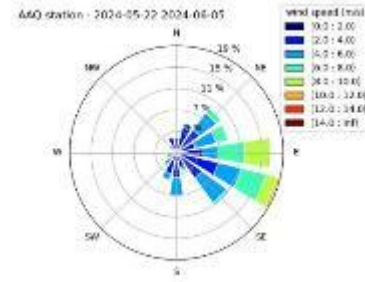
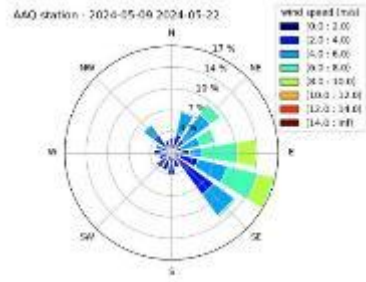
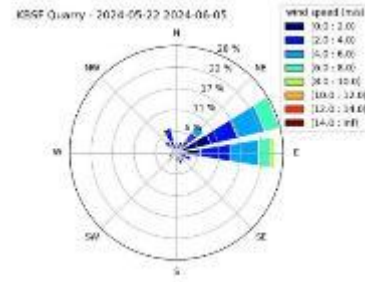
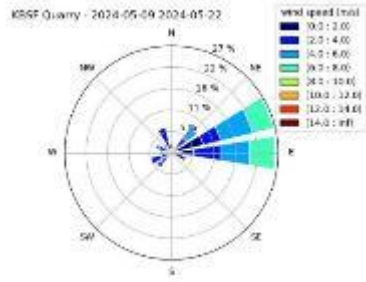


Pastoral lease - insufficient data capture



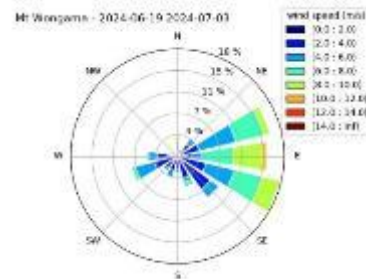
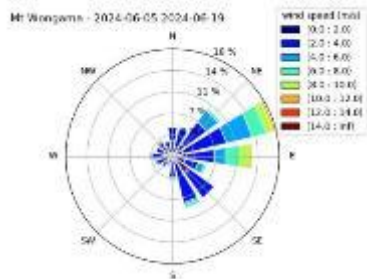
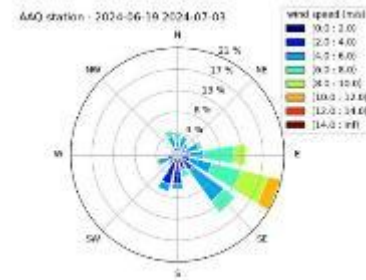
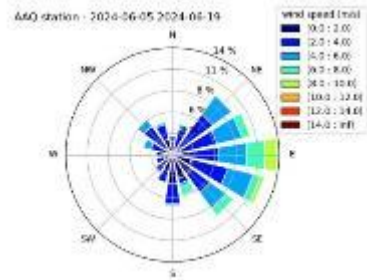
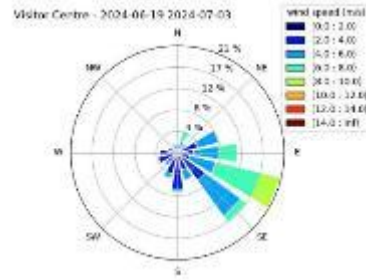
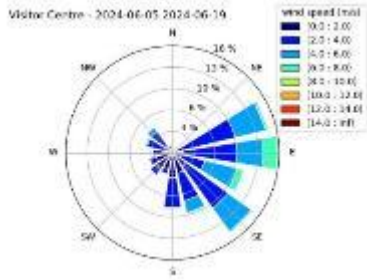
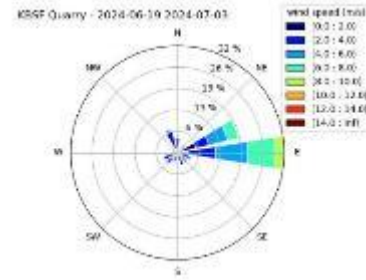
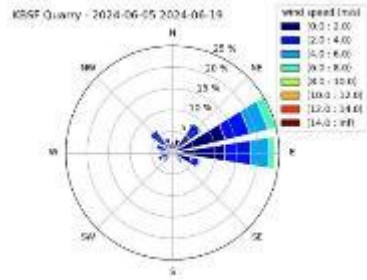
Pastoral lease - insufficient data capture

Pastoral lease - insufficient data capture



Pastoral lease - insufficient data capture

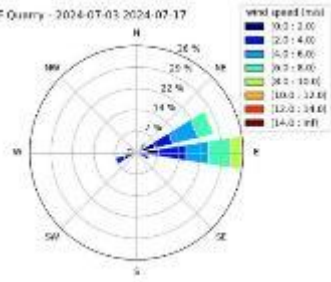
Pastoral lease - insufficient data capture



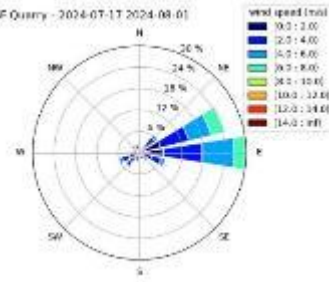
Pastoral lease - insufficient data capture

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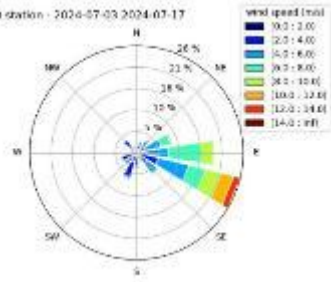
KBSF Quarry - 2024-07-03 2024-07-17



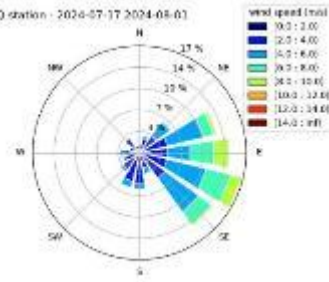
KBSF Quarry - 2024-07-17 2024-08-01



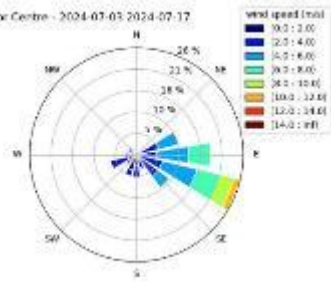
AGG station - 2024-07-03 2024-07-17



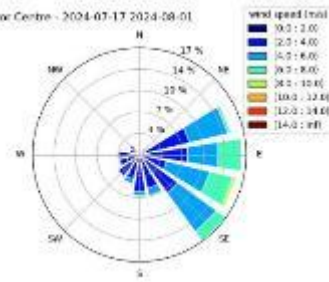
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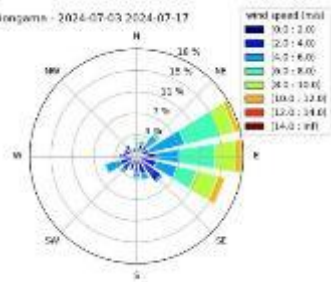
Vicite Centre - 2024-07-03 2024-07-17



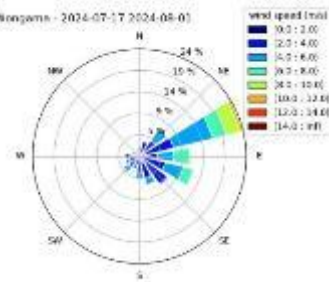
Vicite Centre - 2024-07-17 2024-08-01



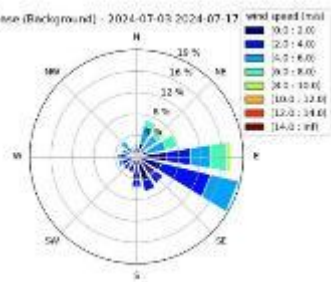
Mt Wongam - 2024-07-03 2024-07-17



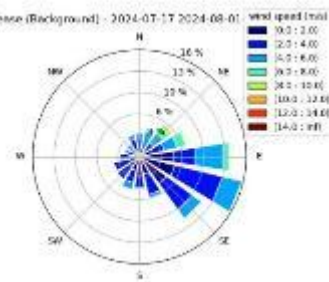
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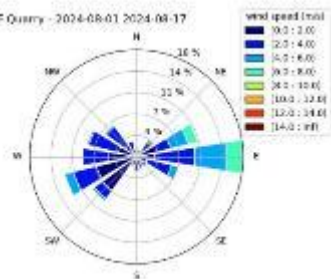
RT pastoral lease (Background) - 2024-07-03 2024-07-17



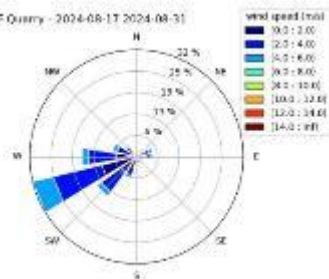
RT pastoral lease (Background) - 2024-07-17 2024-08-01



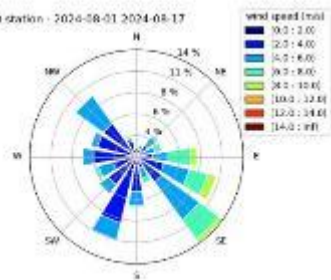
KBSF Quarry - 2024-08-01 2024-08-17



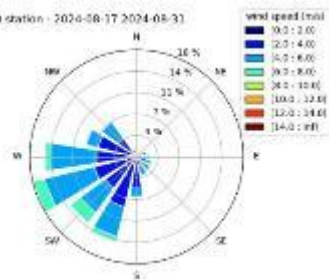
KBSF Quarry - 2024-08-17 2024-08-31



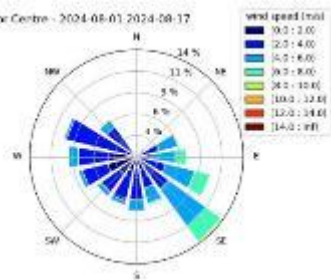
AGG station - 2024-08-01 2024-08-17



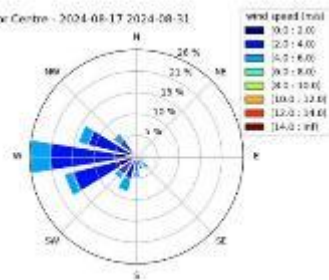
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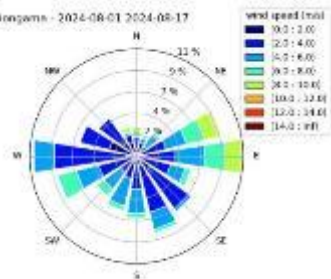
Vicite Centre - 2024-08-01 2024-08-17



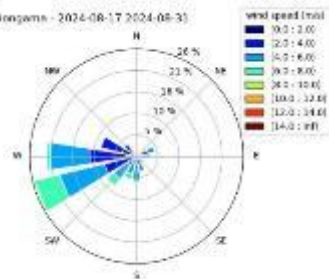
Vicite Centre - 2024-08-17 2024-08-31



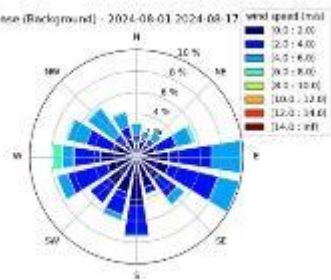
Mr Wongam - 2024-08-01 2024-08-17



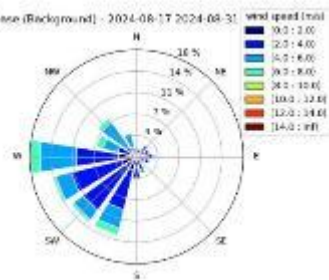
Mr Wongam - 2024-08-17 2024-08-31

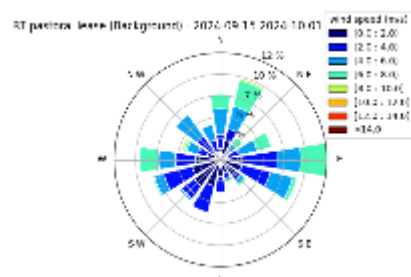
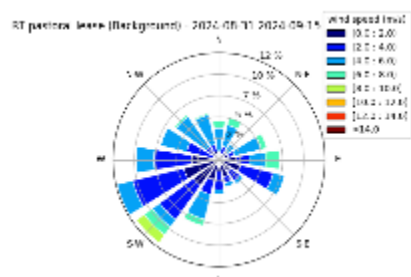
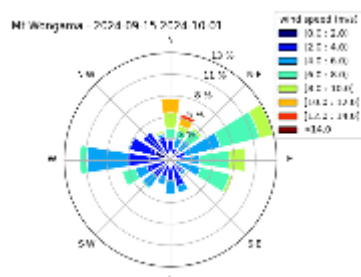
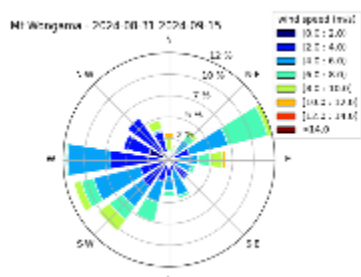
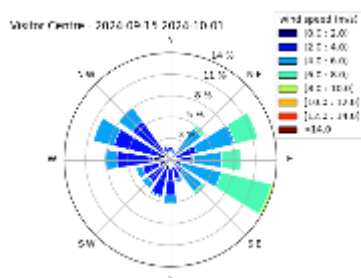
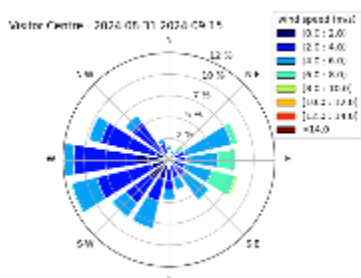
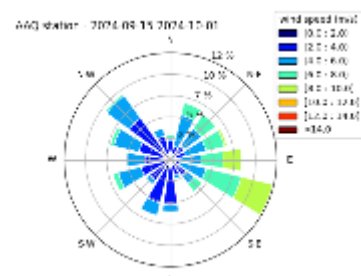
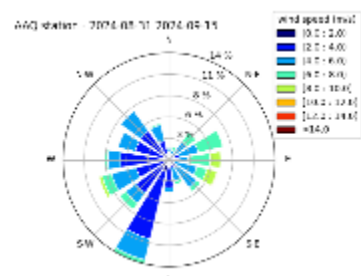
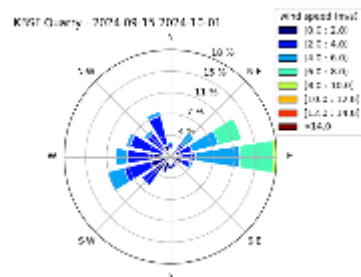
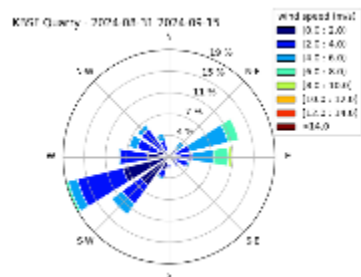


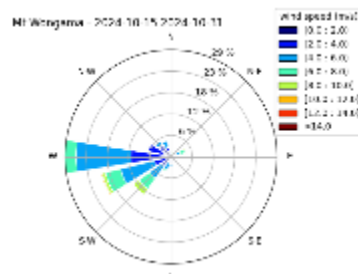
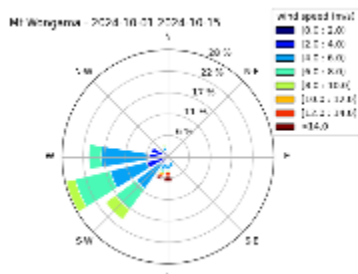
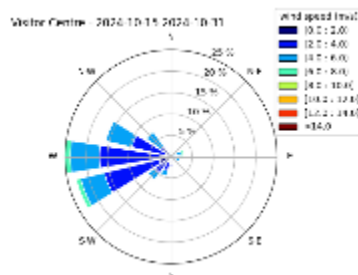
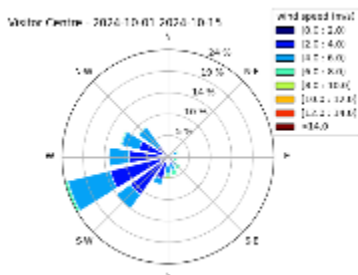
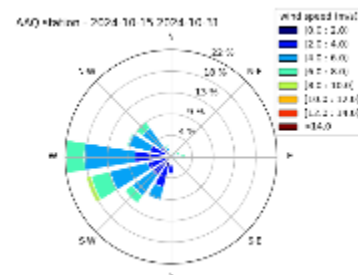
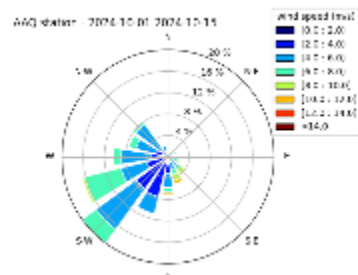
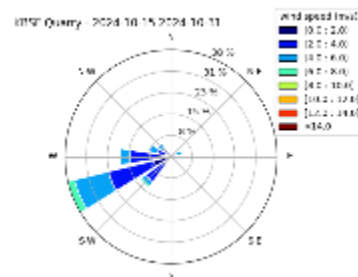
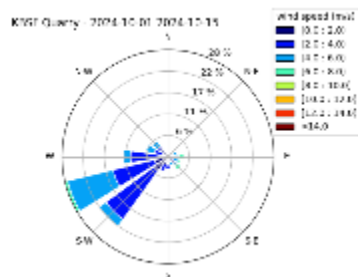
RT pastoral lease (Background) - 2024-08-01 2024-08-17



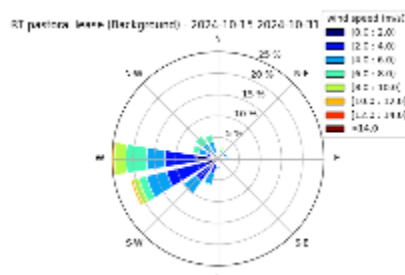
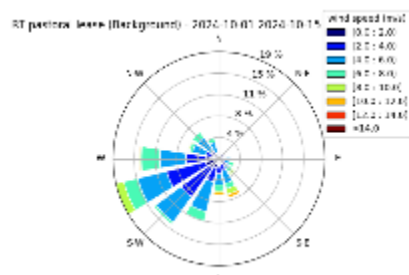
RT pastoral lease (Background) - 2024-08-17 2024-08-31

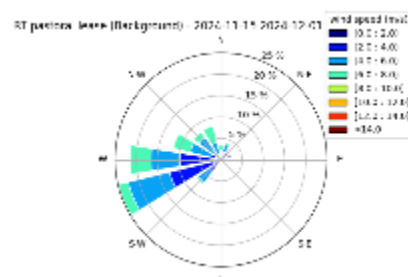
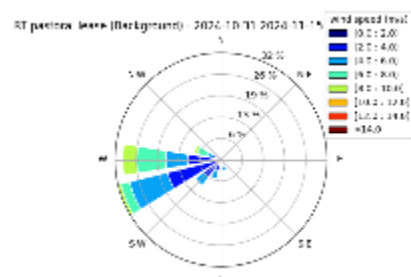
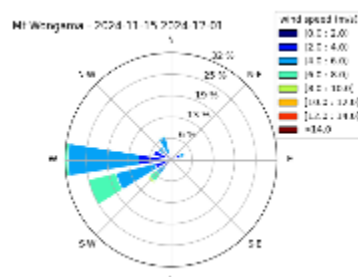
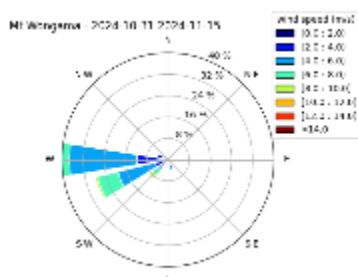
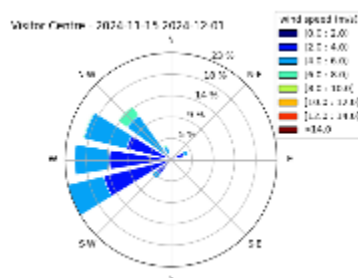
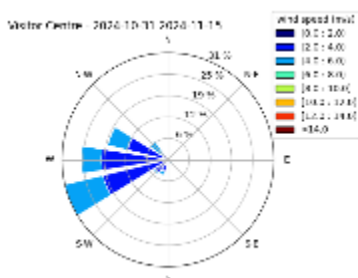
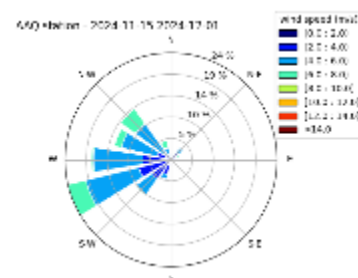
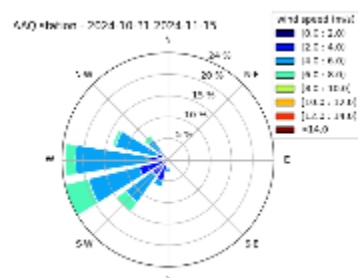
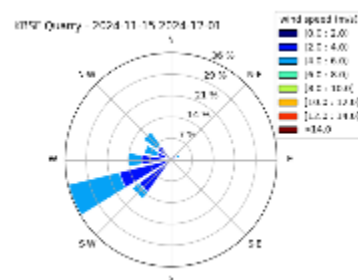
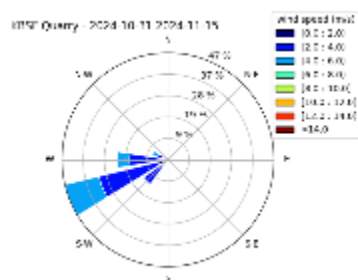


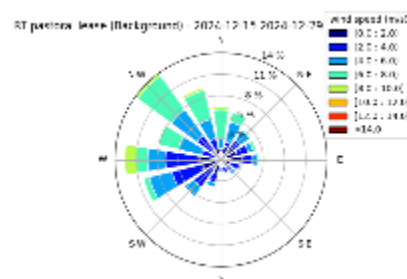
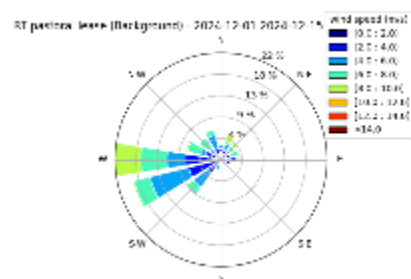
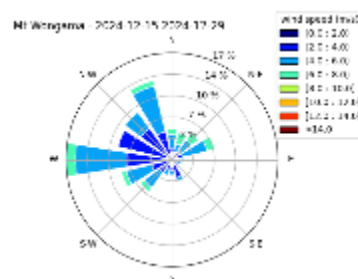
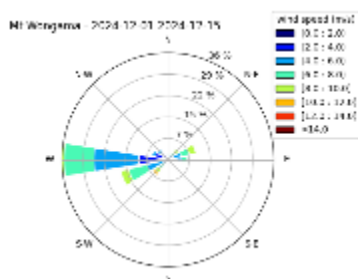
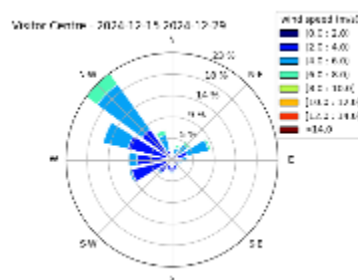
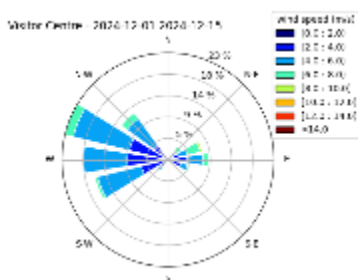
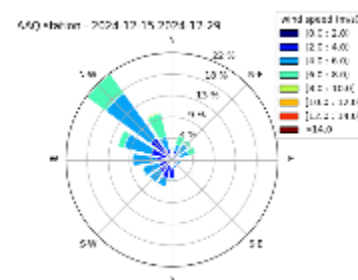
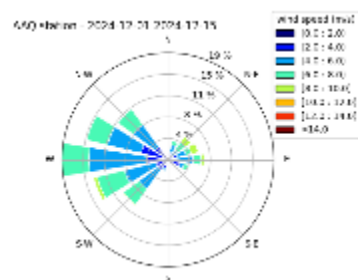
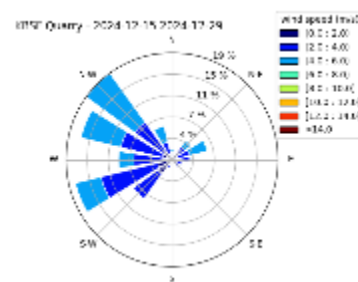
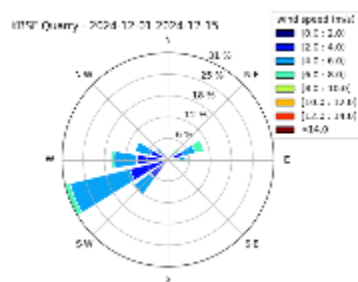


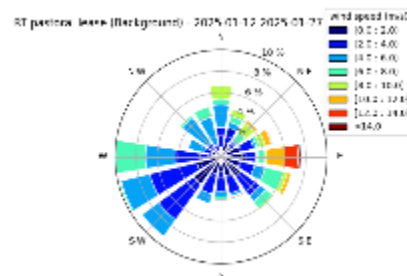
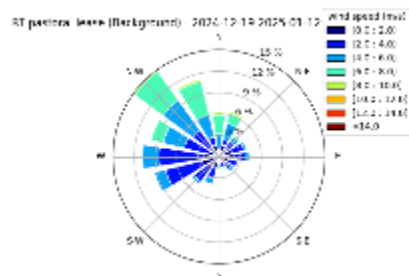
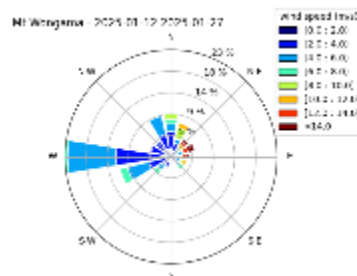
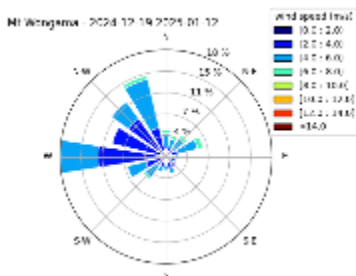
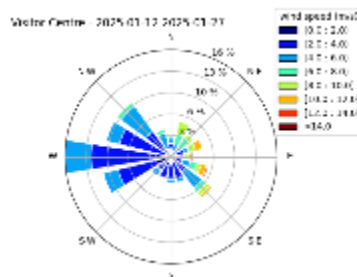
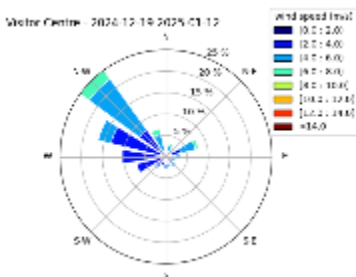
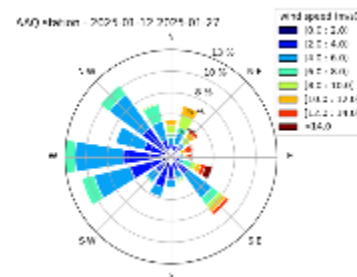
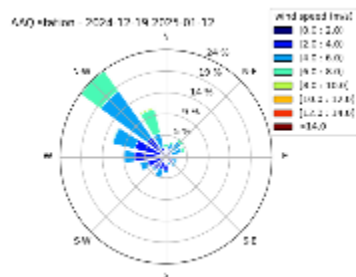
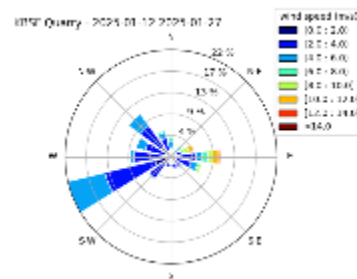
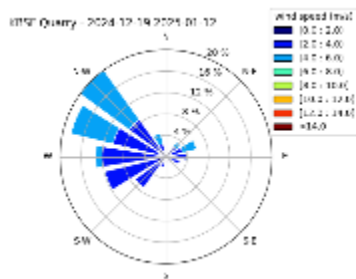


77% data capture

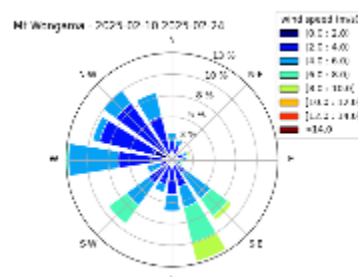
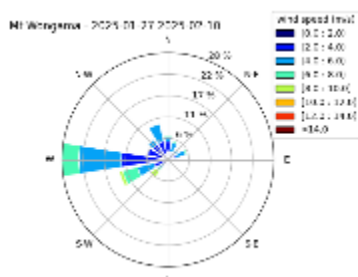
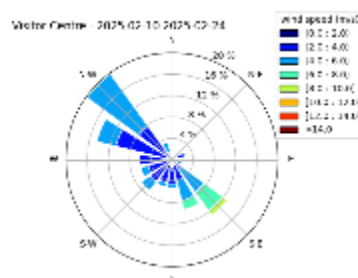
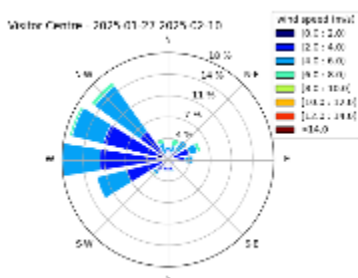
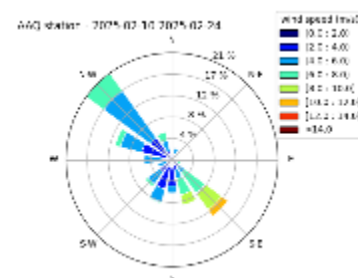
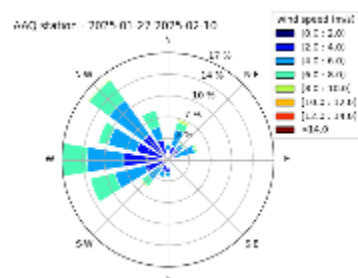
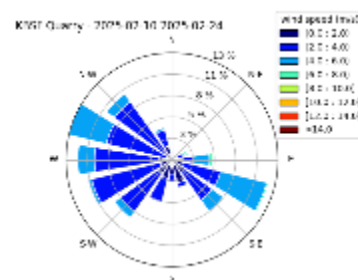
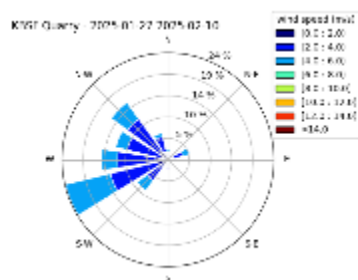




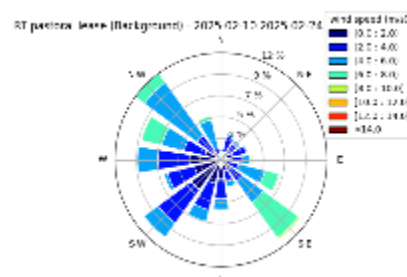


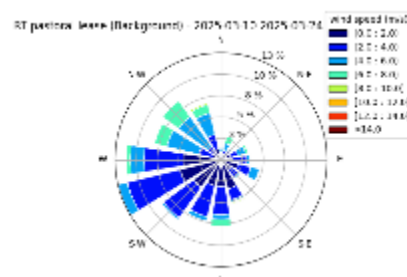
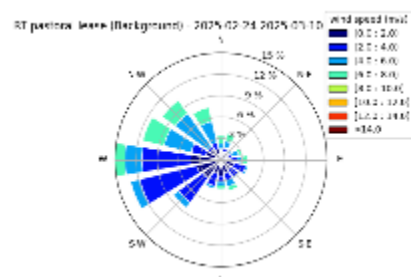
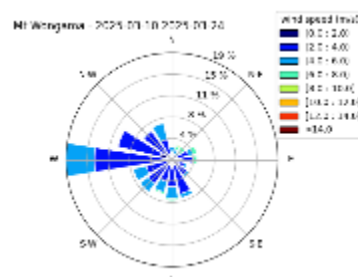
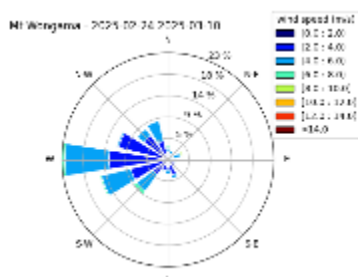
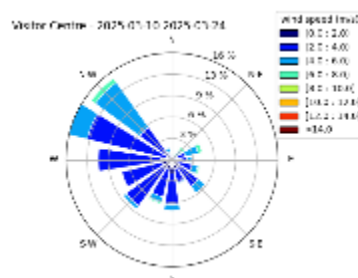
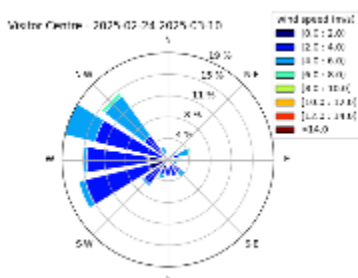
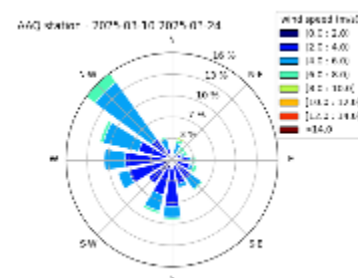
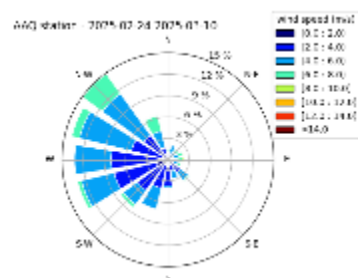
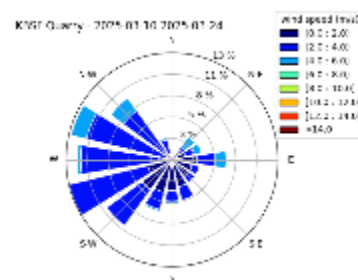
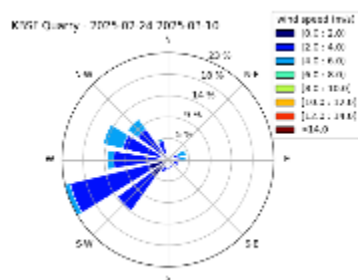


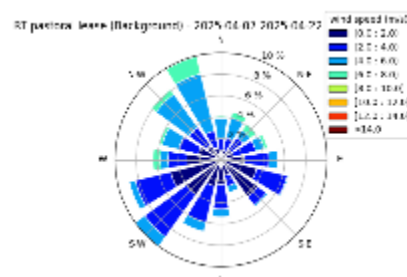
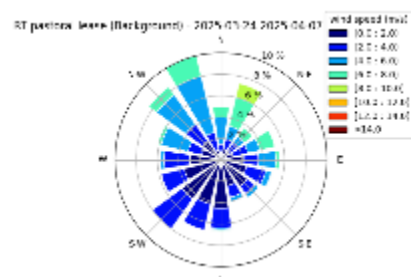
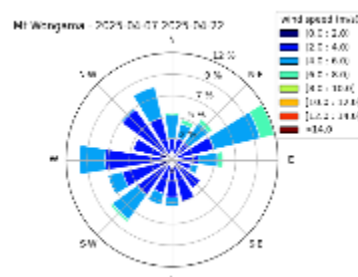
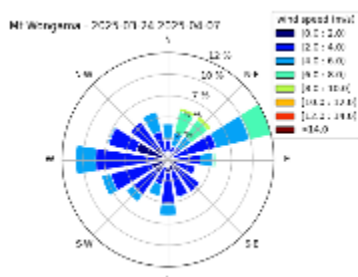
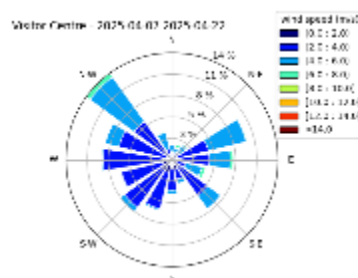
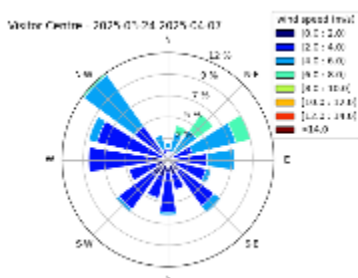
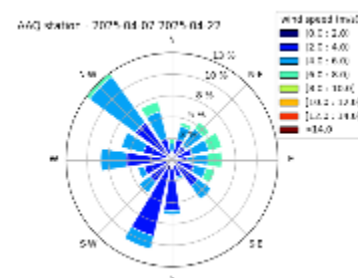
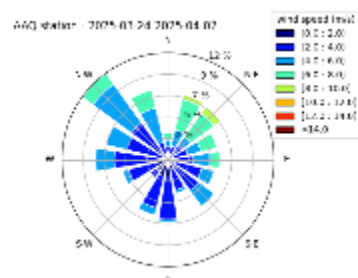
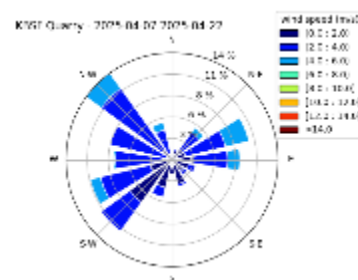
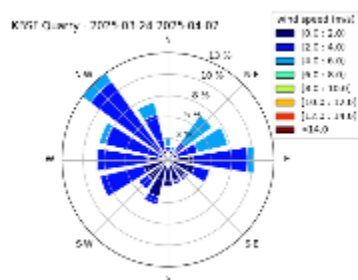
82% data capture

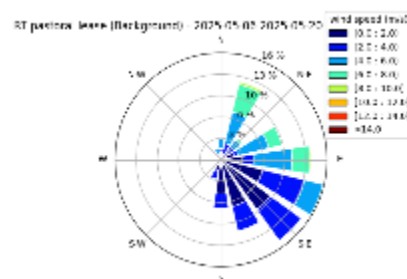
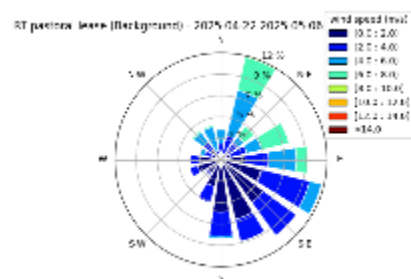
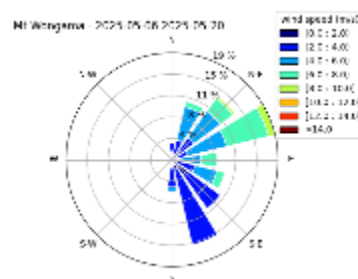
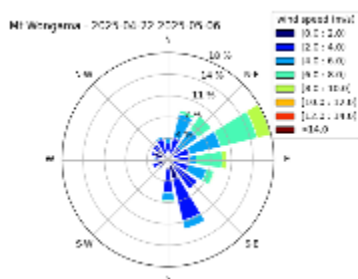
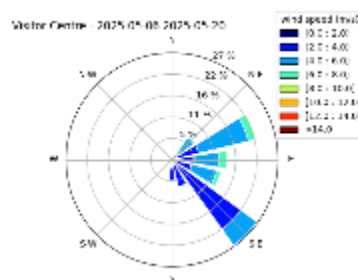
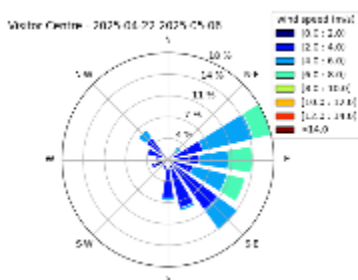
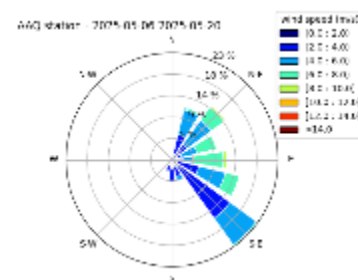
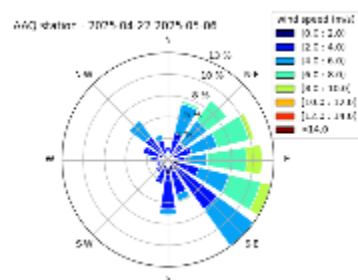
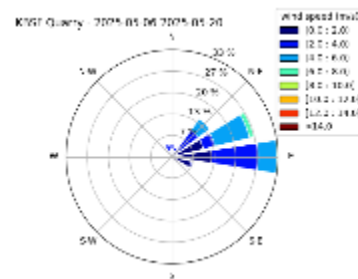
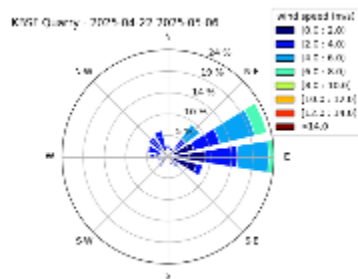


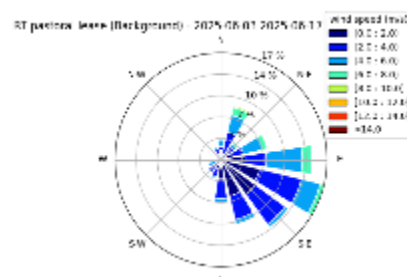
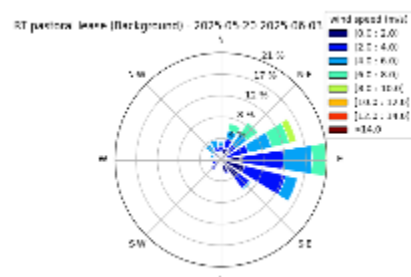
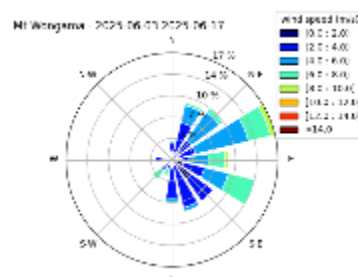
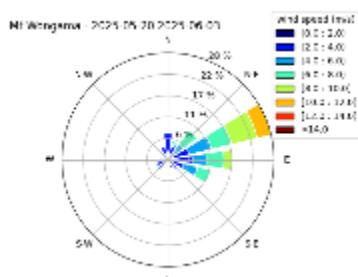
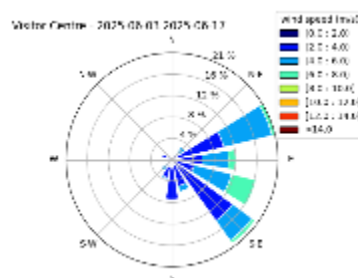
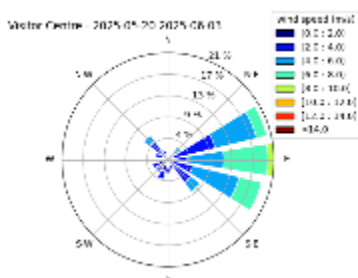
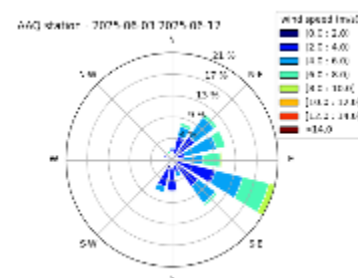
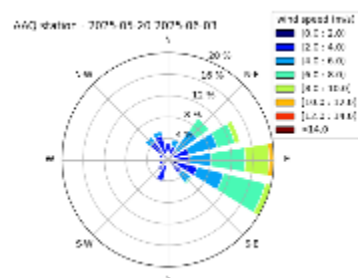
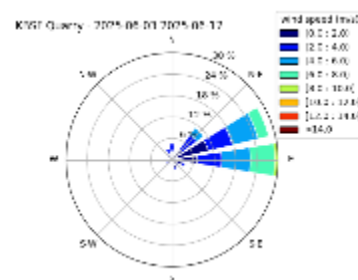
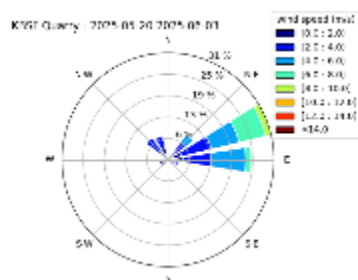
Pastoral lease - insufficient data capture

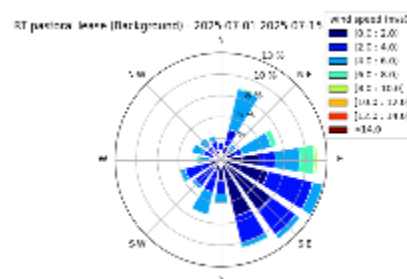
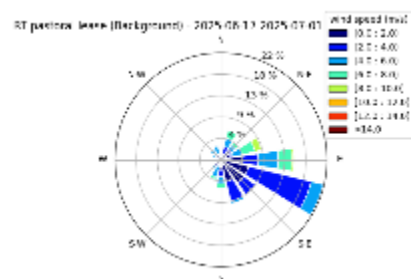
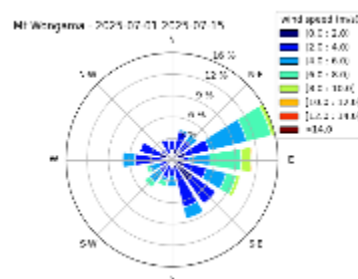
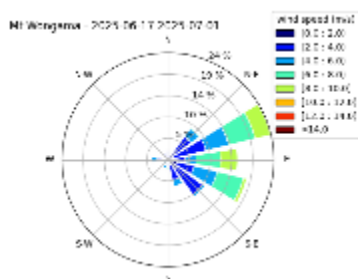
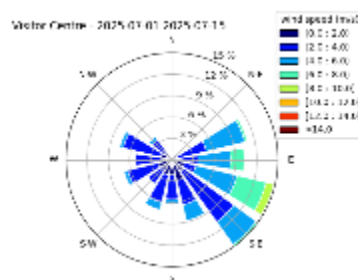
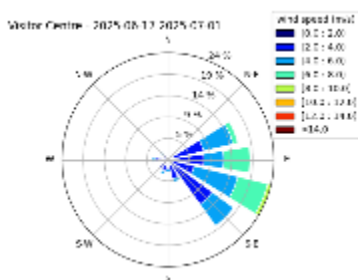
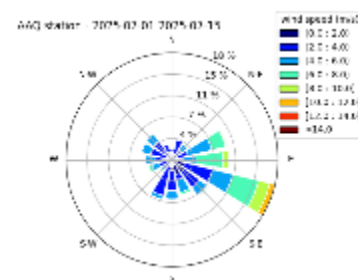
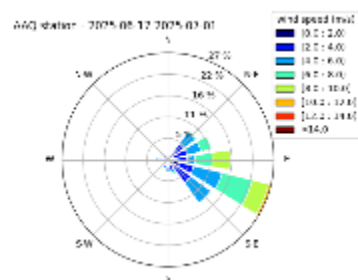
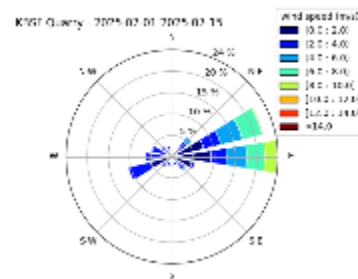
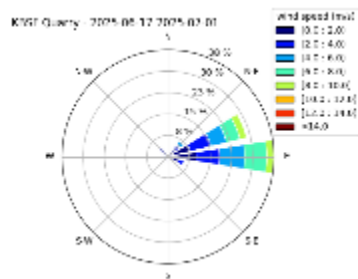


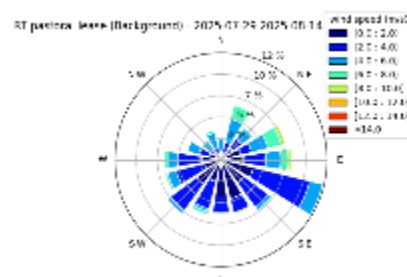
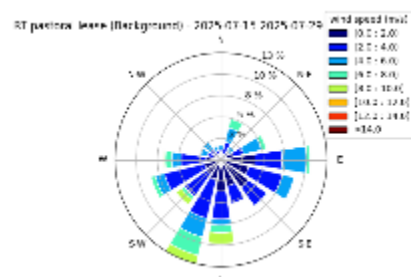
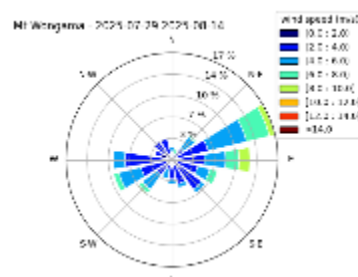
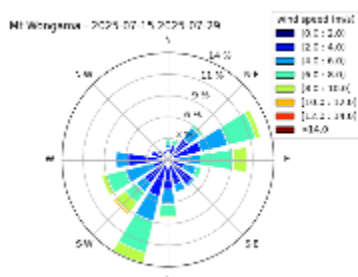
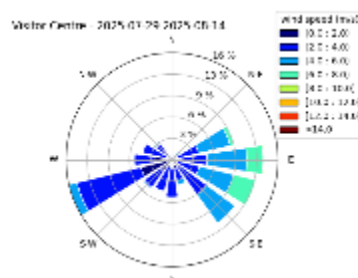
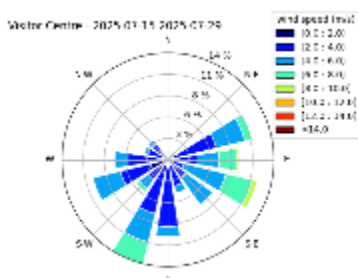
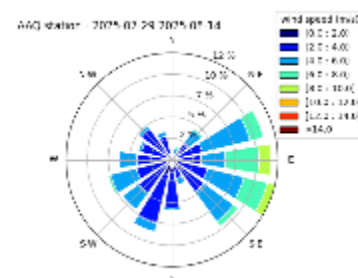
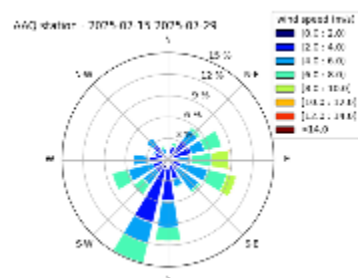
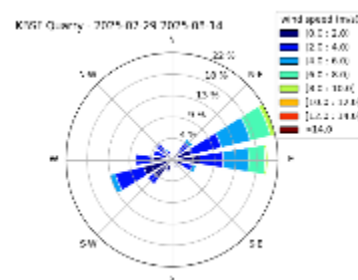
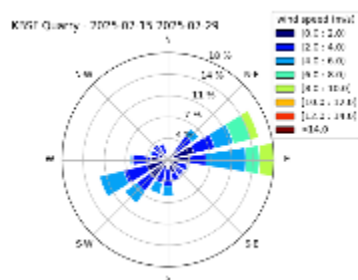


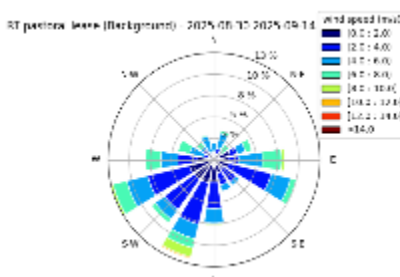
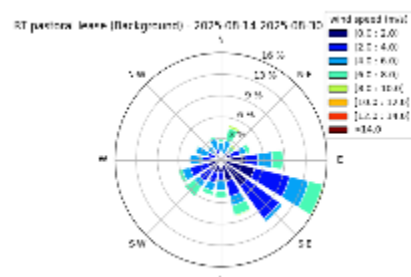
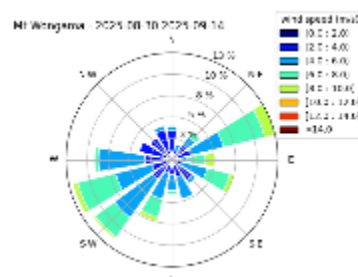
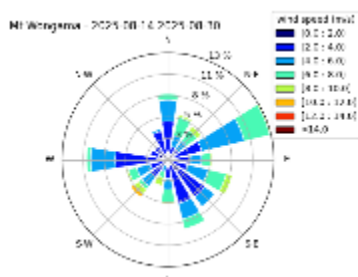
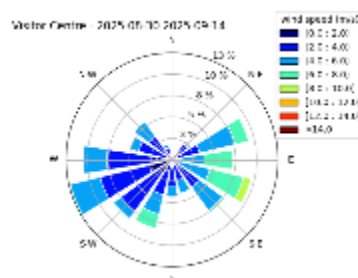
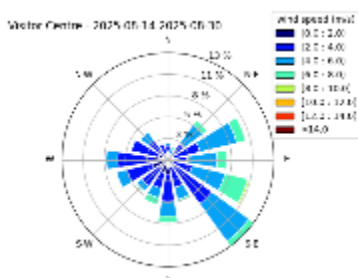
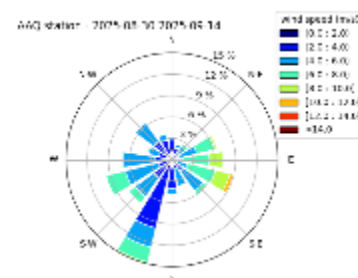
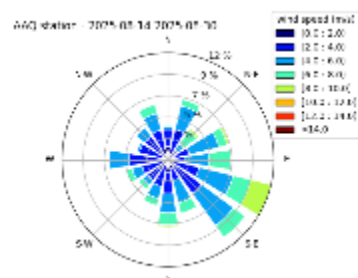
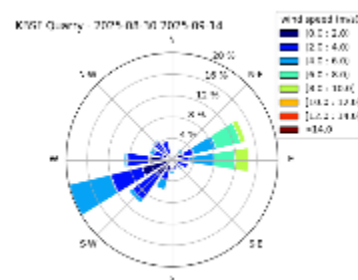
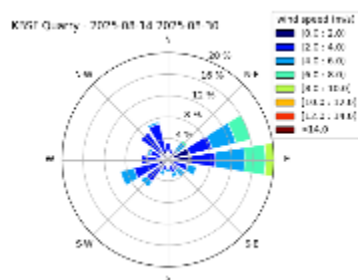












Appendix B Gaseous data Radiello sample

Sampling dates	NO ₂ µg/m ³ nominal 15 day average										RPD%				
	KBSF Quarry	KBSF Quarry - Dup	Mt Wongam a	Mt Wongam a - Dup	Visitor Centre	Visitor Centre - Dup	RT Pastoral Lease	RT Pastoral Lease - Dup	AAQ Station	AAQ Station - Dup	KBSF Quarry	Mt Wongama	Visitor Centre	RT Pastoral Lease	AAQ Station
29 Sep 21 - 14 Oct 21	7.02	5.81	4.42	4.47	5.80	#N/A	#N/A	1.14	5.74	5.74	19	1	#N/A	#N/A	0
14 Oct 21 - 1 Nov 21	5.34	4.83	4.38	3.97	#N/A	4.74	#N/A	#N/A	#N/A	#N/A	10	10	#N/A	#N/A	#N/A
1 Nov 21 - 15 Nov 21	5.04	6.45	0.03	2.40	3.68	3.75	0.81	0.94	3.91	3.78	25	195	2	15	3
15 Nov 21 - 29 Nov 21	#N/A	7.69	3.22	#N/A	#N/A	6.63	1.24	1.24	#N/A	#N/A	#N/A	#N/A	#N/A	0	#N/A
29 Nov 21 - 13 Dec 21	5.63	5.28	6.68	7.24	4.58	#N/A	0.03	1.15	4.65	5.47	6	8	#N/A	191	16
13 Dec 21 - 29 Dec 21	5.52	5.01	#N/A	#N/A	4.32	4.00	2.06	1.67	4.33	4.28	10	#N/A	8	21	1
29 Dec 21 - 12 Jan 22	#N/A	#N/A	1.60	#N/A	2.32	#N/A	1.11	#N/A	2.20	1.77	#N/A	#N/A	#N/A	#N/A	22
12 Jan 22 - 25 Jan 22	3.08	#N/A	1.65	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
25 Jan 22 - 9 Feb 22	#N/A	#N/A	1.72	1.54	2.58	2.64	1.48	1.34	1.72	1.66	#N/A	11	2	10	4
9 Feb 22 - 23 Feb 22	#N/A	3.85	1.89	0.03	4.01	4.33			3.96	2.85	#N/A	194	8	10	33
23 Feb 22 - 9 Mar 22	2.73	2.67	2.55	2.55	3.39	#N/A	1.12	2.02	3.26	#N/A	2	0	#N/A	57	#N/A
9 Mar 22-23 Mar 22	3.41	#N/A	1.93	0.03	4.57	4.63	1.47	1.52	3.18	2.79	#N/A	194	1	4	13
23 Mar 22 -5 Apr 22	3.08	3.34	1.56	4.30	2.40	2.53	1.52	#N/A	2.71	2.52	8	93	5	#N/A	7
5 Apr 22 - 20 Apr 22	5.22	5.22	6.14	3.85	5.68	5.68	1.19	1.25	5.18	5.72	0	46	0	4	10
20 Apr 22 - 4 May 22	5.42	5.36	2.91	3.41	5.18	#N/A	1.99	#N/A	4.55	5.20	1	16	#N/A	#N/A	13
4 May 22 - 19 May 22	2.60	3.89	0.82	1.20	2.17	1.26	1.27	0.62	1.85	1.66	40	38	53	68	11
19 May 22 - 1 Jun 22	4.72	4.19	0.97	#N/A	0.52	2.31			1.68	2.44	12	#N/A	126	68	37
1 Jun 22 - 15 Jun 22	6.14	3.03	0.93	0.86	2.15	1.79			1.75	2.03	68	8	18	68	15
15 Jun 22 - 29 Jun 22	6.74	8.80	1.50	1.64	2.98	1.52	1.55	1.48	3.18	3.45	27	9	65	5	8
29 Jun 22 - 18 Jul 22	5.86	6.40	1.57	1.24	1.78	2.06	1.13	1.24	2.60	2.38	9	23	14	10	9
18 Jul 2022 - 27 Jul 22	12.66	13.82	3.72	4.61	8.38	6.97	2.75	2.53	5.99	7.38	9	21	18	9	21
27 Jul 2022 - 10 Aug 22	6.40	6.82	3.26	3.11	5.58	#N/A	3.20	3.27	5.74	4.35	6	4	#N/A	2	28
10 Aug 22 - 24 Aug 22	6.05	6.12	2.85	2.36	2.58	3.06	1.34	1.56	3.53	3.53	1	19	17	15	0
24 Aug 22 - 4 Sep 22	5.49	5.49	1.80	2.07	3.14	5.02	1.17	1.17	4.07	4.16	0	14	46	0	2
4 Sep 22- 20 Sep 22	4.55	5.51	3.52	3.46	4.14	4.89	1.15	1.27	5.37	4.14	19	2	16	10	26
20 Sep 22 - 5 Oct 22	6.26	6.26	3.73	3.80	4.50	#N/A	#N/A	#N/A	3.37	3.75	0	2	#N/A	#N/A	11

NO ₂ µg/m ³ nominal 15 day average											RPD%				
2 Nov 22 - 16 Nov 22	4.41	3.14	2.68	4.42	2.40	4.40	0.89	0.89	3.54	2.81	34	49	59	0	23
16 Nov 22 - 30 Nov 22	3.65	2.88	2.31	2.18	3.08	2.50	0.89	0.82	2.92	2.80	24	6	21	7	4
30 Nov 22 - 14 Dec 22	4.95	3.86	5.13	5.97	5.67	3.02	1.03	0.97	4.23	4.59	25	15	61	6	8
14 Dec 22- 27 Dec 22	3.88	2.57	1.15	1.83	2.37	1.29	1.11	1.05	2.03	2.37	41	45	59	6	15
27 Dec 2 - 11 Jan 23	2.89	3.36	2.18	1.84	1.56	2.59	1.53	1.58	2.30	#N/A	15	17	50	4	#N/A
11 Jan 23 - 26 Jan 23	1.47	1.47	0.51	0.91	3.05	1.19	0.53	#N/A	1.36	2.15	0	56	88	0	45
26 Jan 23 - 9 Feb 23	2.34	1.87	0.93	1.69	2.40	#N/A			1.93	#N/A	22	58	#N/A	#N/A	#N/A
9 Feb 23 - 23 Feb 23	1.66	1.14	1.20	#N/A	1.49	1.60	0.54	0.42	1.83	#N/A	37	#N/A	7	25	#N/A
23 Feb 23 - 8 Mar 23	1.22	0.96	0.39	0.32	1.16	1.48	0.50	0.50	1.03	1.35	24	18	24	0	27
8 Mar 23 - 21 Mar 23	3.39	3.02	1.05	1.11	2.77	2.34	1.16	0.99	2.73	#N/A	12	6	17	16	#N/A
21 Mar 23 - 4 Apr 23	1.51	1.51	0.42	0.36	1.76	1.94	0.06	0.30	1.06	1.29	0	15	10	133	20
4 Apr 23 - 16 Apr 23	2.30	2.51	1.95	2.09	2.87	2.80	0.63	0.70	1.96	2.32	9	7	3	11	17
16 Apr 23 - 1 May 23	4.37	5.44	1.91	2.08	3.23	1.26	0.82	1.18	2.94	3.43	22	9	88	35	15
1 May 23 - 15 May 23	5.21	4.07	1.35	1.15	2.12	2.19	0.94	0.80	2.12	2.63	24	15	3	15	22
15 May 23 - 30 May 23	4.18	3.07	1.24	2.74	1.89	1.83	1.01	1.07	2.61	2.48	31	75	4	6	5
30 May 23 - 13 Jun 23	5.25	6.66	2.98	4.54	3.97	4.75	1.46	1.38	4.47	4.54	24	42	18	5	2
13 Jun 23 - 28 Jun 23	5.17	3.79	1.98	2.20	0.99	2.97	1.86	1.17	2.76	4.10	31	10	100	45	39
28 Jun 23 - 13 Jul 23	5.41	4.60	1.99	2.77	3.79	3.29	2.95	1.39	3.59	3.88	16	33	14	72	8
13 Jul 23 - 27 Jul 23	6.77	5.97	2.25	2.40	5.59	3.85	1.44	1.56	5.42	3.03	13	6	37	8	57
27 Jul 23 – 13 Aug 23 ^L	5.98	7.66	2.18	1.68	4.81	5.44	0.92	0.97	5.03	4.12	25	26	12	6	20
13 Aug 23 – 27 Aug 23	4.65	5.21	2.29	2.22	5.40	4.84	0.68	0.45	5.96	4.37	11	3	11	40	31
27 Aug 23 - 11 Sep 23	4.68	4.49	2.21	2.09	4.58	4.14	0.70	0.45	4.93	3.92	4	6	10	44	23
11 Sep 23 – 28 Sep 23	9.98	0.03	7.18	7.02	9.59	9.23	1.61	1.46	8.43	8.43	199	2	4	10	0
28 Sep 23 – 13 Oct 23	8.61	#N/A	4.64	4.81	7.26	#N/A	1.40	#N/A	7.14	6.85	#N/A	4	#N/A	#N/A	4
13 Oct 23 – 28 Oct 23	0.03	8.52	2.98	3.42	5.82	5.82	1.52	#N/A	6.88	5.25	199	14	0	#N/A	27
28 Oct 23 – 11 Nov 23	20.62	13.28	6.53	6.53	7.09	6.48	2.04	2.22	7.08	6.47	43	0	9	8	9
11 Nov 23 – 26 Nov 23	6.95	5.44	5.38	4.91	4.10	3.98	1.03	1.03	2.70	3.52	24	9	3	0	26
26 Nov 23 – 10 Dec 23	8.17	8.80	3.09	3.27	4.68	4.24	1.18	1.12	4.39	4.07	7	6	10	5	8
10 Dec 23 - 26 Dec 23	6.62	7.18	4.87	5.08	3.28	3.45	0.85	0.80	3.56	3.56	8	4	5	6	0

NO ₂ µg/m ³ nominal 15 day average											RPD%				
26 Dec 23 - 11 Jan 24	4.83	4.50	4.33	3.37	2.20	2.42	0.71	0.66	4.34	2.79	7	25	9	7	44
11 Jan 24 – 26 Jan 24	0.70	0.70	0.43	0.55	0.38	0.32	0.08	0.08	0.32	0.26	0	24	17	0	20
26 Jan 24 - 9 Feb 2024	1.34	#N/A	0.34	0.40	0.84	0.78	0.38	0.38	0.84	#N/A	#N/A	17	8	0	#N/A
9 Feb 24 - 25 Feb 24	1.55	1.50	0.83	0.67	1.75	#N/A	0.80	0.80	1.50	1.60	3	21	#N/A	0	7
25 Feb 24 - 12 Mar 24	1.40	1.19	0.85	0.96	1.16	1.37	0.94	1.09	1.16	1.11	16	11	16	15	5
12 Mar 24 - 29 Mar 24	2.58	3.91	1.67	1.72	3.50	3.20	1.09	1.05	2.43	2.84	41	3	9	4	15
29 Mar - 10 Apr 24	5.07	2.93	2.34	1.70	4.98	4.65	1.03	0.84	6.06	5.80	53	32	7	21	4
10 Apr 24 - 25 Apr 24	7.32	8.56	2.41	1.92	5.79	5.11	3.74	2.48	6.07	6.07	16	23	13	41	0
25 Apr 24 - 9 May 24	4.70	3.14	2.23	2.29	3.55	2.47	1.94	1.76	2.90	4.90	40	3	36	10	51
9 May 24 - 22 May 24	3.16	2.13	1.64	1.64	1.86	1.36	1.96	1.82	1.77	3.19	39	0	31	7	57
22 May 24 - 5 Jun 24	4.90	7.57	1.47	1.32	3.46	1.69	2.69	2.58	2.88	2.88	43	11	69	4	0
5 Jun 24 - 19 June 24	6.72	1.40	2.94	5.40	2.78	3.33	1.01	0.18	0.34	2.05	131	59	18	138	143
19 June 24 - 3 July 24	0.15	6.15	5.47	1.72	3.61	5.19	1.85	4.06	2.78	1.31	190	104	36	75	72
3 July 24 - 17 July 24	0.29	0.72	2.39	1.23	2.75	1.01	0.10	0.31	1.46	0.05	86	64	92	100	187
17 July 24 - 1 Aug 24	5.23	1.32	0.79	0.46	0.53	0.60	0.03	0.27	0.99	0.66	119	53	12	156	40
1 Aug 24 - 17 Aug 24	2.07	0.73	1.01	1.32	0.31	1.32	1.60	0.49	0.63	1.32	96	27	123	106	71
17 Aug 24 - 31 Aug 24	0.07	1.16	0.07	0.07	0.07	0.34	0.82	1.31	0.07	0.07	178	0	133	45	0
31 Aug 24 - 15 Sep 24	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
15 Sep 24 - 1 Oct 24	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
01 Oct 24 - 15 Oct 24	4.05	4.83	3.40	2.26	4.16	4.42	0.82	1.01	3.82	4.44	18	40	6	21	15
15 Oct 24 - 31 Oct 24	3.65	2.79	2.95	3.01	3.49	4.03	1.16	0.95	2.90	3.01	27	2	14	20	4
31 Oct 24 - 15 Nov 24	6.89	6.36	3.78	3.67	5.98	5.10	0.26	0.31	4.77	4.12	8	3	16	18	15
15 Nov 24 - 01 Dec 24	6.29	5.76	3.28	5.23	4.92	4.33	1.26	#N/A	3.49	3.81	9	46	13	#N/A	9
01 Dec 24 - 15 Dec 24	3.15	3.39	0.91	1.58	0.90	1.87	1.12	0.70	1.88	2.12	7	54	70	47	12
15 Dec 24 - 29 Dec 24	2.34	2.62	1.60	1.71	3.15	2.58	0.81	#N/A	2.80	2.80	11	7	20	#N/A	0
29 Dec 24 - 12 Jan 25	2.37	1.41	0.85	0.90	1.64	1.70	0.88	0.88	1.52	1.75	51	6	3	0	14
12 Jan 25 - 27 Jan 25	#N/A	#N/A	1.22	0.83	2.26	2.26	0.69	1.06	2.15	1.87	#N/A	38	0	43	14
27 Jan 25 - 10 Feb 25	3.65	3.76	1.96	1.85	3.56	4.05	1.07	0.85	3.52	2.75	3	6	13	24	25
10 Feb 25 - 24 Feb 25	3.51	3.63	1.55	1.44	2.30	0.35	0.85	1.13	2.30	2.07	3	8	148	29	11

NO ₂ µg/m ³ nominal 15 day average											RPD%				
24 Feb 25 - 10 Mar 25	3.78	3.61	1.70	1.97	2.36	2.36	0.86	0.91	2.74	2.79	4	15	0	6	2
10 Mar 25 - 24 Mar 25	9.02	8.45	4.06	3.54	7.88	7.88	2.57	2.68	8.45	8.45	7	14	0	4	0
24 Mar 25 - 07 Apr 25	5.15	4.97	1.70	2.17	4.28	4.46	1.42	1.42	3.52	4.45	3	24	4	0	24
07 Apr 25 - 22 Apr 25	5.81	5.81	2.58	1.77	4.14	3.87	1.08	0.97	5.27	4.09	0	37	7	11	25
22 Apr 25 - 06 May 25	3.29	5.73	1.22	1.58	1.71	1.58	2.27	1.47	2.80	2.37	54	26	7	43	16
06 May 25 - 20 May 25	8.23	5.93	0.96	0.83	2.81	2.68	0.66	0.72	1.53	3.58	32	14	5	10	80
20 May 25 - 03 Jun 25	6.71	4.08	1.38	0.97	2.35	1.32	0.56	0.77	2.15	2.01	49	35	57	32	7
03 Jun 25 - 17 Jun 25	4.61	6.63	0.84	1.46	1.87	2.94	#N/A	1.52	4.00	2.64	36	55	45	#N/A	41
17 Jun 25 - 01 Jul 25	6.83	7.69	0.86	1.87	0.86	2.66	0.04	0.97	2.80	3.16	12	74	102	185	12
01 Jul 25 - 15 Jul 25	9.86	5.57	2.29	2.07	1.88	2.85	1.30	2.60	3.85	3.36	56	10	41	67	14
15 Jul 25 - 29 Jul 25	7.03	5.70	2.89	2.81	5.11	5.26	1.76	1.30	4.59	5.70	21	3	3	30	22
29 Jul 25 - 14 Aug 25	10.61	7.45	3.79	3.03	6.19	6.19	0.70	0.64	8.08	5.94	35	22	0	10	31
14 Aug 25 - 30 Aug 25	7.07	7.67	2.03	1.84	2.69	3.92	0.55	0.79	3.11	4.88	8	10	37	36	44
30 Aug 25 - 14 Sep 25	5.52	6.22	3.07	2.94	4.48	4.36	1.42	2.07	5.48	5.35	12	4	3	37	2

¹ Background sample change over on 14 August 2023 due to access restriction

Sampling dates	HNO ₃ µg/m ³ Nominal 15 day average										RPD%				
	KBSF Quarry	KBSF Quarry - Dup	Mt Wongama	Mt Wongama - Dup	Visitor Centre	Visitor Centre - Dup	RT Pastoral Lease	RT Pastoral Lease - Dup	AAQ Station	AAQ Station - Dup	KBSF Quarry	Mt Wongama	Visitor Centre	RT Pastoral Lease	AAQ Station
29 Sep 21 - 14 Oct 21	0.08	0.04	0.17	0.25	0.08	#N/A	#N/A	0.08	0.08	0.08	67	40	#N/A	#N/A	0
14 Oct 21 - 1 Nov 21	0.35	0.07	0.14	0.43	#N/A	0.28	#N/A	#N/A	#N/A	#N/A	133	100	#N/A	#N/A	#N/A
1 Nov 21 - 15 Nov 21	0.19	0.09	#N/A	0.09	0.04	0.04	0.05	0.09	0.05	0.05	67	#N/A	0	67	0
15 Nov 21 - 29 Nov 21	#N/A	0.59	0.17	#N/A	#N/A	0.09	0.08	0.08	#N/A	#N/A	#N/A	#N/A	#N/A	0	#N/A
29 Nov 21 - 13 Dec 21	0.04	0.04	0.04	0.04	0.04	#N/A	0.04	0.04	0.04	0.04	0	0	#N/A	0	0
13 Dec 21 - 29 Dec 21	0.04	0.36	#N/A	#N/A	0.73	0.73	1.84	0.27	0.43	#N/A	164	#N/A	0	148	#N/A
29 Dec 21 - 12 Jan 22	#N/A	#N/A	0.58	#N/A	5.79	#N/A	0.08	#N/A	1.19	0.25	#N/A	#N/A	#N/A	#N/A	129
12 Jan 22 - 25 Jan 22	0.44	#N/A	2.64	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
25 Jan 22 - 9 Feb 22	#N/A	#N/A	0.74	0.08	0.17	0.09	0.04	0.85	0.04	0.04	#N/A	160	67	183	0
9 Feb 22 - 23 Feb 22	0.24	#N/A	0.32	2.55	1.23	0.49			2.16	1.04	#N/A	156	86	#N/A	70
23 Feb 22 - 9 Mar 22	0.32	0.24	1.42	0.63	0.73	#N/A	0.08	1.56	0.40	#N/A	29	77	#N/A	181	#N/A
9 Mar 22 - 23 Mar 22	0.23	#N/A	0.16	0.04	0.85	1.32	0.23	0.23	0.23	0.16	#N/A	121	43	0	40
23 Mar 22 - 5 Apr 22	0.09	0.45	0.36	0.91	1.32	2.29	1.06	#N/A	4.03	0.35	133	86	54	#N/A	168
5 Apr 22 - 20 Apr 22	0.23	0.23	0.52	0.59	0.04	0.08	0.04	0.04	0.15	0.08	0	13	67	0	67
20 Apr 22 - 4 May 22	2.19	0.18	0.09	0.26	0.26	#N/A	0.09	#N/A	0.81	0.72	170	100	#N/A	#N/A	12
4 May 22 - 19 May 22	0.52	0.95	5.98	2.82	0.17	0.53	0.12	0.25	2.74	0.43	59	72	102	67	146
19 May 22 - 1 Jun 22	2.01	0.32	1.04	#N/A	0.21	0.62	0.13	0.26	0.53	0.42	145	#N/A	100	67	22
1 Jun 22 - 15 Jun 22	0.90	2.31	1.89	2.79	0.80	2.99	0.10	0.27	0.10	1.85	88	38	116	91	180
15 Jun 22 - 29 Jun 22	0.19	0.19	1.19	0.10	0.58	0.05	0.39	0.20	0.10	0.10	0	169	169	67	0
29 Jun 22 - 18 Jul 22	0.08	1.43	0.08	0.15	0.08	0.08	0.16	0.08	0.39	0.54	180	67	0	67	33
18 Jul 2022 - 27 Jul 22	0.08	0.80	0.46	0.62	0.16	1.63	0.16	0.16	0.08	0.08	164	29	164	0	0
27 Jul 2022 - 10 Aug 22	0.05	0.05	0.05	0.20	2.89	#N/A	0.10	0.05	1.55	0.77	0	120	#N/A	67	67
10 Aug 22 - 24 Aug 22	1.00	0.20	0.19	0.58	0.10	0.29	0.59	0.39	0.19	0.19	133	100	100	40	0
24 Aug 22 - 4 Sep 22	0.06	0.06	0.06	0.12	0.06	0.06	0.06	0.06	0.50	0.76	0	67	0	0	40
4 Sep 22 - 20 Sep 22	0.92	0.33	0.26	0.26	0.26	0.34	0.17	0.59	0.26	0.17	93	0	29	111	40

HNO ₃ µg/m ³ Nominal 15 day average											RPD%				
20 Sep 22 - 5 Oct 22	0.63	1.71	5.20	1.39	1.65	#N/A	#N/A	#N/A	0.52	2.17	92	116	#N/A	#N/A	123
2 Nov 22 - 16 Nov 22	0.05	0.09	0.28	0.37	0.56	0.46	0.09	0.04	0.09	2.79	67	29	18	67	187
16 Nov 22 - 30 Nov 22	0.04	0.27	0.18	0.54	0.27	0.27	0.09	0.04	1.04	0.35	143	100	0	67	100
30 Nov 22 - 14 Dec 22	0.17	0.08	0.50	0.08	0.50	0.76	0.08	0.16	0.42	0.08	67	143	40	67	133
14 Dec 22 - 27 Dec 22	0.37	0.55	0.28	0.85	0.09	0.09	5.92	0.27	0.38	0.09	40	100	0	182	120
27 Dec 22 - 11 Jan 23	0.25	0.49	54.79	2.72	0.40	0.32	0.16	0.31	1.20	#N/A	67	181	22	67	#N/A
11 Jan 23 - 26 Jan 23	0.47	0.04	0.08	0.16	1.57	0.31	0.02	#N/A	0.79	2.44	169	67	133	0	102
26 Jan 23 - 9 Feb 23	1.95	0.57	1.14	0.24	0.08	#N/A			0.17	#N/A	110	129	#N/A	#N/A	#N/A
9 Feb 23 - 23 Feb 23	0.08	0.16	0.48	#N/A	1.27	0.79	1.16	0.08	2.70	0.08	67	#N/A	46	173	#N/A
23 Feb 23 - 8 Mar 23	1.34	1.79	2.78	0.99	0.90	1.07	2.54	1.66	0.81	1.43	29	95	18	42	56
8 Mar 23 - 21 Mar 23	0.26	0.26	0.17	0.17	1.37	1.37	0.81	1.70	0.88	#N/A	0	0	0	71	#N/A
21 Mar 23 - 4 Apr 23	0.08	0.08	1.94	0.42	0.25	0.25	0.17	0.08	0.08	0.25	0	129	0	67	100
4 Apr 23 - 16 Apr 23	0.10	0.19	0.10	0.20	0.30	0.10	0.19	0.10	0.10	0.20	67	67	100	67	67
16 Apr 23 - 1 May 23	0.16	0.33	0.25	0.41	1.08	0.04	0.08	0.57	0.08	0.84	67	50	185	150	164
1 May 23 - 15 May 23	0.84	0.28	1.07	0.18	0.55	0.18	0.37	0.09	0.09	0.27	100	143	100	120	100
15 May 23 - 30 May 23	0.05	0.05	0.05	0.05	0.54	0.36	0.19	0.05	0.05	0.05	0	0	40	120	7
30 May 23 - 13 Jun 23	0.30	0.05	0.20	0.59	0.05	0.05	0.30	0.05	0.05	0.10	143	100	0	143	73
13 Jun 23 - 28 Jun 23	1.54	0.77	0.69	0.59	8.84	0.59	5.36	4.69	1.48	0.79	67	15	175	13	61
28 Jun 23 - 13 Jul 23	0.10	0.31	0.10	0.20	0.10	0.10	0.05	0.10	0.10	0.10	100	67	0	67	0
13 Jul 23 - 27 Jul 23	0.05	0.05	1.25	0.05	0.10	0.05	0.05	0.39	0.05	0.05	0	184	67	156	0
27 Jul 23 - 13 Aug 23 L	3.35	0.39	2.34	2.73	0.04	0.24	0.60	0.53	0.95	1.59	158	15	143	13	50
13 Aug 23 - 27 Aug 23 L	0.19	2.97	0.39	2.99	1.64	0.10	0.21	0.29	3.67	0.05	176	154	178	33	195
27 Aug 23 - 11 Sep 23	0.70	0.38	1.23	1.41	1.51	0.18	0.18	0.04	2.46	0.62	60	13	158	120	120
11 Sep 23 - 28 Sep 23	0.87	0.14	0.73	3.50	1.45	1.09	0.70	0.84	0.58	0.58	143	131	29	18	0
28 Sep 23 - 13 Oct 23	0.55	#N/A	1.73	1.89	0.47	#N/A	1.95	#N/A	0.47	1.89	#N/A	9	#N/A	#N/A	120
13 Oct 23 - 28 Oct 23	0.08	4.53	0.60	0.91	0.08	0.68	1.66	#N/A	4.22	1.21	193	40	160	#N/A	111
28 Oct 23 - 11 Nov 23	1.28	0.94	1.02	4.67	3.46	0.34	0.65	0.08	0.42	0.25	31	128	164	156	50
11 Nov 23 - 26 Nov 23	0.28	1.09	22.62	13.72	0.12	0.12	0.12	0.12	0.20	0.12	118	49	0	0	50

HNO ₃ µg/m ³ Nominal 15 day average											RPD%				
26 Nov 23 – 10 Dec 23	1.81	1.45	0.92	1.27	2.07	0.31	0.29	1.19	2.97	1.73	22	32	148	122	53
10 Dec 23 - 26 Dec 23	0.19	2.28	0.58	1.36	3.29	0.35	0.85	0.04	1.51	5.15	169	80	162	183	109
26 Dec 23 - 11 Jan 24	0.04	0.08	0.74	0.07	0.22	1.20	0.63	0.04	0.75	0.52	67	164	137	179	35
11 Jan 24 – 26 Jan 24	0.04	0.04	0.04	0.28	1.49	0.04	0.04	0.04	0.04	0.04	0	150	189	0	0
26 Jan 24 - 9 Feb 2024	0.13	#N/A	0.39	0.30	0.13	0.65	1.01	0.04	0.13	#N/A	#N/A	25	133	185	#N/A
9 Feb 24 - 25 Feb 24	0.04	0.07	0.04	0.43	0.65	#N/A	0.62	1.25	0.93	0.29	67	169	#N/A	67	106
25 Feb 24 - 12 Mar 24	0.22	1.03	2.73	0.50	0.07	0.22	0.21	0.64	0.50	0.29	129	138	100	100	55
12 Mar 24 - 29 Mar 24	0.52	0.31	2.58	1.31	1.38	1.94	1.49	0.17	1.02	0.18	50	65	34	160	141
29 Mar - 10 Apr 24	0.05	0.19	0.09	0.32	0.05	4.62	0.04	0.27	0.19	1.48	120	110	196	143	156
10 Apr 24 - 25 Apr 24	1.47	1.81	2.76	0.78	1.04	1.73	2.35	0.76	0.86	2.41	21	112	50	103	95
25 Apr 24 - 9 May 24	0.18	0.82	0.53	1.59	0.18	0.04	0.04	0.09	0.18	0.09	127	100	120	67	64
9 May 24 - 22 May 24	0.38	0.05	2.78	0.99	0.10	0.05	3.10	0.05	0.05	0.05	156	95	67	194	0
22 May 24 - 5 Jun 24	1.24	8.47	1.53	1.02	11.16	2.87	0.57	2.44	2.36	1.23	149	40	118	124	63
5 Jun 24 - 19 June 24	9.36	1.95	4.09	7.52	3.87	4.63	1.10	0.26	0.48	2.85	131	59	18	125	143
19 June 24 - 3 July 24	0.21	8.56	7.61	2.40	5.03	7.23	2.58	5.65	3.87	1.83	190	104	36	75	72
3 July 24 - 17 July 24	0.40	1.01	1.71	3.32	3.83	1.41	0.14	0.43	2.04	0.07	86	64	92	100	187
17 July 24 - 1 Aug 24	7.28	1.84	1.11	0.64	0.74	0.83	0.05	0.38	1.38	0.92	119	53	12	156	40
1 Aug 24 - 17 Aug 24	2.88	1.02	1.84	1.40	0.44	1.84	2.23	0.69	0.88	1.84	96	27	123	106	71
17 Aug 24 - 31 Aug 24	0.10	1.62	0.09	0.09	0.09	0.47	1.15	1.82	0.09	0.09	178	0	133	45	0
31 Aug 24 - 15 Sep 24	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
15 Sep 24 - 1 Oct 24	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
1 Oct 24 - 15 Oct 24	2.91	4.45	1.14	2.80	1.67	0.61	0.18	2.90	0.87	2.79	42	84	92	177	105
15 Oct 24 - 31 Oct 24	0.22	0.22	0.07	0.60	0.22	0.07	5.71	0.80	0.07	0.07	0	156	100	151	0
31 Oct 24 - 15 Nov 24	2.38	0.15	0.69	1.30	0.31	0.23	0.07	0.07	0.76	0.31	176	62	29	0	86
15 Nov 24 - 1 Dec 24	1.62	0.81	0.81	3.02	0.81	0.44	0.51	#N/A	0.44	2.21	67	115	59	#N/A	133
01 Dec 24 - 15 Dec 24	0.17	3.88	1.60	0.76	0.25	5.29	0.99	#N/A	4.13	4.64	183	71	182	#N/A	12
15 Dec 24 - 29 Dec 24	2.70	0.56	0.04	2.14	1.28	0.56	0.60	0.90	0.95	0.24	132	193	78	40	120
29 Dec 24 - 12 Jan 25	0.55	0.55	0.08	0.08	0.08	0.39	0.23	0.23	1.25	7.21	0	0	133	0	141
12 Jan 25 - 27 Jan 25	#N/A	#N/A	0.31	6.02	0.04	4.61	0.09	0.04	0.54	0.54	#N/A	180	197	67	0
27 Jan 25 - 10 Feb 25	0.55	0.31	1.67	3.86	0.08	0.76	0.94	0.31	1.15	1.91	55	79	164	100	50

HNO ₃ µg/m ³ Nominal 15 day average											RPD%				
10 Feb 25 - 24 Feb 25	0.24	0.16	0.40	0.72	1.92	0.04	0.71	0.08	0.24	0.96	40	57	192	160	120
24 Feb 25 - 10 Mar 25	0.15	0.46	0.46	0.31	0.08	0.08	0.89	1.56	0.46	1.83	100	40	0	55	120
10 Mar 25 - 24 Mar 25	3.26	0.48	0.56	2.70	1.19	1.75	2.78	3.57	3.18	0.16	149	132	38	25	181
24 Mar 25 - 07 Apr 25	2.69	0.57	1.96	0.24	1.31	1.96	0.16	1.03	0.08	0.08	130	156	40	147	0
07 Apr 25 - 22 Apr 25	4.50	1.80	0.97	3.89	0.67	10.25	1.58	0.90	0.07	0.15	86	120	175	55	67
22 Apr 25 - 06 May 25	0.08	0.08	1.95	0.04	5.85	0.17	0.09	0.60	0.17	0.17	0	191	189	150	0
06 May 25 - 20 May 25	0.27	0.35	0.18	0.09	0.27	0.18	0.18	0.27	0.09	0.27	29	67	40	40	100
20 May 25 - 03 Jun 25	0.39	0.05	0.29	0.05	0.05	0.05	0.05	0.10	0.05	0.10	156	143	0	67	67
03 Jun 25 - 17 Jun 25	1.36	0.05	0.05	0.05	0.05	0.05	#N/A	0.29	0.80	0.05	186	0	0	#N/A	176
17 Jun 25 - 01 Jul 25	1.80	0.10	0.05	0.10	0.05	0.20	0.05	0.10	0.10	0.70	179	67	120	67	150
01 Jul 25 - 15 Jul 25	0.10	3.48	0.40	0.50	0.05	0.29	0.21	0.43	0.88	0.19	189	22	143	67	127
15 Jul 25 - 29 Jul 25	0.31	0.41	4.02	1.85	6.70	0.41	0.53	0.43	2.06	5.87	29	74	177	22	96
29 Jul 25 - 14 Aug 25	0.61	0.88	2.29	0.18	0.53	0.79	0.09	0.97	6.33	0.35	35	171	40	167	179
14 Aug 25 - 30 Aug 25	1.84	1.84	8.30	14.29	0.43	1.45	0.17	1.02	1.44	1.19	0	53	109	143	19
30 Aug 25 - 14 Sep 25	1.61	0.36	6.41	8.73	0.18	0.98	0.18	0.36	0.18	0.81	127	31	138	67	127

¹ Background sample change over on 14 August 2023 due to access restriction

Sampling dates	SO ₂ µg/m ³ Nominal 15 day average										RPD%				
	KBSF Quarry	KBSF Quarry - Dup	Mt Wongama	Mt Wongama - Dup	Visitor Centre	Visitor Centre - Dup	RT Pastoral Lease	RT Pastoral Lease - Dup	AAQ Station	AAQ Station - Dup	KBSF Quarry	Mt Wongama	Visitor Centre	RT Pastoral Lease	AAQ Station
29 Sep 21 - 14 Oct 21	0.05	0.03	0.13	0.15	0.15	#N/A	#N/A	0.03	0.13	0.10	67	18	#N/A	#N/A	22
14 Oct 21 - 1 Nov 21	0.15	0.07	0.20	0.13	#N/A	0.13	#N/A	#N/A	#N/A	#N/A	80	40	#N/A	#N/A	#N/A
1 Nov 21 - 15 Nov 21	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0	0	0	0	0
15 Nov 21 - 29 Nov 21	#N/A	0.18	0.07	#N/A	#N/A	0.07	0.01	0.01	#N/A	#N/A	#N/A	#N/A	#N/A	0	#N/A
29 Nov 21 - 13 Dec 21	0.01	0.01	0.01	0.01	#N/A	0.08	0.11	0.11	0.08	0.11	0	0	#N/A	0	29
13 Dec 21 - 29 Dec 21	0.05	0.22	#N/A	#N/A	0.49	0.42	0.34	0.12	0.17	#N/A	127	#N/A	16	95	#N/A
29 Dec 21 - 12 Jan 22	#N/A	#N/A	0.16	#N/A	2.72	#N/A	0.11	#N/A	0.68	0.11	#N/A	#N/A	#N/A	#N/A	143
12 Jan 22 - 25 Jan 22	0.18	#N/A	1.48	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
25 Jan 22 - 9 Feb 22	#N/A	#N/A	0.59	0.05	0.14	0.03	0.03	0.07	0.01	0.01	#N/A	167	133	86	0
9 Feb 22 - 23 Feb 22	0.11	#N/A	0.08	0.08	0.17	0.14			0.38	0.44	#N/A	0	19	#N/A	13
23 Feb 22 - 9 Mar 22	0.03	0.03	0.44	0.14	0.17	#N/A	0.06	0.29	0.54	#N/A	0	105	#N/A	133	#N/A
9 Mar 22 - 23 Mar 22	0.08	#N/A	0.06	0.01	0.47	1.50	0.06	0.11	0.06	0.03	#N/A	119	104	67	67
23 Mar 22 - 5 Apr 22	0.03	0.09	0.09	0.24	0.33	1.68	0.06	#N/A	1.12	0.03	100	91	135	#N/A	190
5 Apr 22 - 20 Apr 22	0.10	0.10	0.20	0.18	0.13	0.08	0.05	0.05	0.10	0.10	0	13	50	0	0
20 Apr 22 - 4 May 22	0.31	0.06	0.03	0.06	0.06	#N/A	0.03	#N/A	0.20	0.32	138	67	#N/A	#N/A	44
4 May 22 - 19 May 22	0.17	0.14	0.89	0.60	0.04	0.09	0.005	0.03	0.68	0.09	17	39	82	150	153
19 May 22 - 1 Jun 22	0.47	0.05	0.31	#N/A	0.22	0.10			0.08	0.08	165	#N/A	73	150	0
1 Jun 22 - 15 Jun 22	0.15	0.43	0.04	0.46	0.15	0.48			0.01	0.23	95	167	104	150	178
15 Jun 22 - 29 Jun 22	0.03	0.03	0.23	0.01	0.08	0.03	0.08	0.01	0.03	0.01	0	176	100	143	67
29 Jun 22 - 18 Jul 22	0.48	0.02	0.02	0.02	0.01	0.02	0.02	0.01	0.08	0.08	184	0	67	67	0
18 Jul 2022 - 27 Jul 22	0.05	0.18	0.09	0.17	0.05	0.41	0.04	0.04	0.02	0.05	120	67	160	0	67
27 Jul 2022 - 10 Aug 22	0.03	0.03	0.01	0.03	0.51	#N/A	0.03	0.03	0.22	0.16	0	67	#N/A	0	29
10 Aug 22 - 24 Aug 22	0.14	0.03	0.03	0.14	0.01	0.03	0.03	0.03	0.03	0.01	133	133	67	0	67
24 Aug 22 - 4 Sep 22	0.04	0.02	0.02	0.02	0.02	0.02	0.04	0.07	0.07	0.07	67	0	0	67	0
4 Sep 22 - 20 Sep 22	0.10	0.02	0.20	0.02	0.05	0.05	0.01	0.07	0.02	0.02	120	156	0	143	0

SO ₂ µg/m ³ Nominal 15 day average											RPD%				
20 Sep 22 - 5 Oct 22	0.32	0.13	1.90	0.46	0.54	#N/A	#N/A	#N/A	3.55	0.13	82	122	#N/A	#N/A	186
2 Nov 22 - 16 Nov 22	0.03	0.06	0.17	0.08	1.39	0.17	0.03	0.01	0.03	2.45	67	67	157	67	196
16 Nov 22 - 30 Nov 22	0.06	0.01	0.08	0.56	0.50	0.03	0.01	0.01	0.14	0.41	120	148	179	0	100
30 Nov 22 - 14 Dec 22	0.06	0.08	0.50	0.03	0.39	0.33	0.03	0.06	0.17	0.06	40	179	15	67	100
14 Dec 22 - 27 Dec 22	0.23	0.17	#N/A	0.15	0.18	0.06	0.69	0.03	0.24	0.06	29	#N/A	100	183	120
27 Dec 22 - 11 Jan 23	0.05	0.21	#N/A	6.18	0.68	0.65	0.08	0.08	0.39	#N/A	120	#N/A	4	0	#N/A
11 Jan 23 - 26 Jan 23	0.21	0.03	0.16	0.10	0.60	0.23	0.01	#N/A	1.69	0.21	156	40	88	#N/A	156
26 Jan 23 - 9 Feb 23	0.17	0.53	0.06	0.50	0.03	#N/A			0.14	#N/A	104	160	#N/A	#N/A	#N/A
9 Feb 23 - 23 Feb 23	0.03	0.03	0.17	#N/A	0.42	0.59	0.24	0.06	1.62	#N/A	0	#N/A	33	120	#N/A
23 Feb 23 - 8 Mar 23	0.33	0.54	0.69	0.27	0.27	0.57	0.36	0.42	0.21	0.33	48	88	71	15	44
8 Mar 23 - 21 Mar 23	0.09	0.09	0.03	0.03	0.39	0.45	0.44	0.38	0.28	#N/A	0	0	14	14	#N/A
21 Mar 23 - 4 Apr 23	0.08	0.06	0.42	0.17	0.08	0.08	0.03	0.06	0.03	0.11	40	86	0	67	120
4 Apr 23 - 16 Apr 23	0.06	0.03	0.10	0.23	0.13	39.71	1.22	0.03	0.13	0.10	67	80	199	190	29
16 Apr 23 - 1 May 23	0.03	0.03	0.34	0.13	0.23	0.01	0.01	0.03	0.57	0.01	0	89	179	67	191
1 May 23 - 15 May 23	0.06	0.43	0.27	0.55	0.03	0.06	0.06	0.01	0.01	0.01	153	67	67	120	0
15 May 23 - 30 May 23	0.03	0.13	0.03	0.03	0.18	0.08	0.18	0.03	0.01	0.23	133	0	80	150	179
30 May 23 - 13 Jun 23	0.03	0.01	0.11	0.20	0.06	0.06	0.11	0.11	0.01	0.33	67	55	0	0	184
13 Jun 23 - 28 Jun 23	0.18	0.15	0.03	0.13	2.41	0.03	0.28	0.36	0.31	0.18	15	133	196	24	53
28 Jun 23 - 13 Jul 23	0.03	0.05	0.01	0.03	0.05	0.26	0.01	0.03	0.03	0.01	67	67	133	67	67
13 Jul 23 - 27 Jul 23	0.06	0.08	0.40	0.17	0.08	0.14	0.08	0.01	0.05	0.05	40	80	50	143	0
27 Jul 23 - 13 Aug 23 L	0.07	0.70	0.20	0.34	0.02	0.14	0.24	0.07	0.14	0.12	165	50	143	114	18
13 Aug 23 - 27 Aug 23	0.17	0.11	0.39	0.14	0.39	0.08	0.09	0.03	0.13	0.39	40	95	129	100	100
27 Aug 23 - 11 Sep 23	0.71	0.16	0.21	0.16	0.69	0.08	0.01	0.03	0.65	0.08	127	29	159	67	154
11 Sep 23 - 28 Sep 23	0.27	0.01	0.16	0.52	0.25	0.18	0.09	0.11	0.11	0.14	184	107	32	22	18
28 Sep 23 - 13 Oct 23	0.10	#N/A	0.39	0.73	0.10	#N/A	0.24	#N/A	0.10	1.07	#N/A	60	#N/A	#N/A	164
13 Oct 23 - 28 Oct 23	0.03	0.78	0.10	0.21	0.08	0.08	0.18	#N/A	0.57	0.31	187	67	0	#N/A	59
28 Oct 23 - 11 Nov 23	0.25	0.48	0.39	0.67	0.47	0.19	0.01	0.20	0.33	0.22	62	53	83	173	40
11 Nov 23 - 26 Nov 23	0.56	0.12	4.41	4.67	0.33	0.09	0.07	0.01	0.14	0.04	131	6	113	133	114

SO ₂ µg/m ³ Nominal 15 day average											RPD%				
26 Nov 23 – 10 Dec 23	0.83	0.77	0.57	0.29	0.60	0.15	0.12	0.10	1.65	0.44	7	65	119	25	116
10 Dec 23 - 26 Dec 23	0.07	1.65	0.32	0.68	3.38	0.19	0.10	0.01	0.56	3.14	183	73	178	156	139
26 Dec 23 - 11 Jan 24	0.12	0.01	0.81	0.29	0.05	1.20	0.22	0.01	0.81	0.31	164	96	185	179	89
11 Jan 24 – 26 Jan 24	0.14	0.06	0.12	0.47	2.64	0.04	0.01	0.01	0.07	0.04	75	118	194	0	50
26 Jan 24 - 9 Feb 2024	0.24	#N/A	0.54	0.49	0.10	0.88	0.63	0.01	0.18	#N/A	#N/A	11	160	191	#N/A
9 Feb 24 - 25 Feb 24	0.24	0.17	0.05	0.46	0.61	#N/A	0.46	0.71	0.24	0.53	35	162	#N/A	42	75
25 Feb 24 - 12 Mar 24	0.69	0.25	0.31	1.99	0.02	0.10	0.15	0.10	0.26	0.14	95	146	120	40	59
12 Mar 24 - 29 Mar 24	0.15	0.29	0.69	1.47	0.27	0.90	0.38	0.13	0.08	0.34	63	72	108	100	122
29 Mar - 10 Apr 24	0.19	0.03	0.11	0.16	2.08	0.03	0.16	0.09	0.29	0.06	143	36	194	50	127
10 Apr 24 - 25 Apr 24	0.35	0.29	0.21	0.29	0.21	0.40	0.40	0.13	0.16	0.45	17	32	61	100	96
25 Apr 24 - 9 May 24	0.08	0.22	0.14	0.08	0.05	0.03	0.01	0.01	0.01	0.06	91	50	67	0	122
9 May 24 - 22 May 24	0.06	0.03	0.27	0.18	0.06	0.02	0.23	0.06	0.03	0.02	67	40	120	120	67
22 May 24 - 5 Jun 24	0.23	1.06	0.17	0.14	1.81	0.40	0.05	0.19	0.34	0.20	129	18	128	120	53
5 Jun 24 - 19 June 24	0.93	0.25	0.25	0.63	0.52	0.54	0.18	0.11	1.09	0.36	114	88	5	50	102
19 June 24 - 3 July 24	0.22	1.12	0.70	0.19	0.67	0.70	0.36	0.39	0.40	0.17	133	113	4	7	80
3 July 24 - 17 July 24	0.08	0.28	0.19	0.36	0.42	0.53	0.20	0.04	0.26	0.04	108	60	24	133	150
17 July 24 - 1 Aug 24	1.30	0.34	0.08	0.03	0.31	0.03	0.01	0.23	0.16	0.13	117	100	169	179	18
1 Aug 24 - 17 Aug 24	0.43	0.14	0.07	0.15	0.07	0.15	0.05	0.02	0.07	0.22	100	67	67	67	100
17 Aug 24 - 31 Aug 24	0.03	0.25	0.01	0.03	1.36	0.06	0.06	0.06	0.03	0.06	160	67	184	0	67
31 Aug 24 - 15 Sep 24	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
15 Sep 24 - 1 Oct 24	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
01 Oct 24 - 15 Oct 24	0.94	1.09	0.25	0.50	0.50	0.11	0.09	0.35	0.25	0.82	14	67	127	120	108
15 Oct 24 - 31 Oct 24	0.05	0.07	0.02	0.34	0.05	0.05	0.46	0.17	0.05	0.01	40	173	0	92	120
31 Oct 24 - 15 Nov 24	0.94	0.01	0.32	0.37	0.16	0.08	0.01	0.01	0.32	8.23	195	15	67	0	185
15 Nov 24 - 01 Dec 24	0.22	0.46	0.31	0.93	0.19	0.17	0.07	#N/A	0.12	0.81	71	100	13	#N/A	149
01 Dec 24 - 15 Dec 24	0.03	1.47	0.45	0.42	0.28	2.56	0.31	0.22	1.44	2.21	192	6	160	33	42
15 Dec 24 - 29 Dec 24	0.95	0.33	0.03	1.44	0.36	0.39	0.36	#N/A	0.39	0.22	96	192	7	#N/A	55
29 Dec 24 - 12 Jan 25	0.20	0.22	0.03	0.03	0.06	0.20	0.06	0.08	0.28	1.56	13	0	111	40	139
12 Jan 25 - 27 Jan 25	#N/A	#N/A	0.30	1.42	0.09	2.01	0.04	0.09	0.66	0.25	#N/A	130	183	80	91
27 Jan 25 - 10 Feb 25	0.08	0.11	0.81	1.98	0.49	0.25	0.34	0.14	1.18	0.60	29	83	67	82	65

SO ₂ µg/m ³ Nominal 15 day average											RPD%				
10 Feb 25 - 24 Feb 25	0.08	0.03	0.17	0.45	0.72	0.03	0.08	0.03	0.06	0.31	100	91	185	100	138
24 Feb 25 - 10 Mar 25	0.15	0.07	0.24	0.15	0.01	0.01	0.10	0.18	0.15	0.60	75	43	0	60	119
10 Mar 25 - 24 Mar 25	1.02	0.15	1.38	0.18	0.32	0.29	0.35	0.27	0.07	0.68	148	154	9	27	163
24 Mar 25 - 07 Apr 25	0.13	0.46	0.80	0.07	0.15	0.24	0.07	0.10	0.04	0.01	114	168	43	33	100
07 Apr 25 - 22 Apr 25	0.83	0.39	0.18	1.43	1.56	0.18	0.13	0.08	0.03	0.03	72	155	158	50	0
22 Apr 25 - 06 May 25	0.01	0.03	0.50	0.03	1.28	0.06	0.03	0.06	0.08	0.19	67	179	183	67	80
06 May 25 - 20 May 25	0.01	0.03	0.06	0.01	0.01	0.01	0.01	0.01	0.01	0.06	67	120	0	0	120
20 May 25 - 03 Jun 25	0.17	0.01	0.11	0.06	0.08	1.28	0.17	0.03	0.08	0.06	169	67	176	143	40
03 Jun 25 - 17 Jun 25	0.06	0.95	0.01	0.03	0.01	0.03	0.05	#N/A	0.01	0.20	178	67	67	#N/A	173
17 Jun 25 - 01 Jul 25	0.14	0.56	0.01	0.03	0.01	0.03	0.08	0.01	0.08	0.03	120	67	67	143	100
01 Jul 25 - 15 Jul 25	1.25	0.01	0.01	0.03	0.01	0.01	0.01	0.01	0.01	0.11	196	67	0	0	156
15 Jul 25 - 29 Jul 25	0.06	0.08	0.86	0.36	1.09	0.08	0.06	0.08	0.89	0.36	40	82	171	40	84
29 Jul 25 - 14 Aug 25	0.22	0.17	0.63	0.05	0.12	0.15	0.01	0.20	0.05	0.95	25	171	18	176	180
14 Aug 25 - 30 Aug 25	0.33	0.26	0.78	2.01	0.07	0.17	0.02	0.17	0.27	0.22	24	88	80	150	20
30 Aug 25 - 14 Sep 25	0.05	0.31	1.20	1.15	0.05	0.23	0.05	0.08	0.13	0.03	143	4	127	40	133

¹ Background sample change over on 14 August 2023 due to access restriction

Sampling dates	NH3 µg/m3 Nominal 15 day average										RPD%				
	KBSF Quarry	KBSF Quarry - Dup	Mt Wongama	Mt Wongama - Dup	Visitor Centre	Visitor Centre - Dup	RT Pastoral Lease	RT Pastoral Lease - Dup	AAQ Station	AAQ Station - Dup	KBSF Quarry	Mt Wongama	Visitor Centre	RT Pastoral Lease	AAQ Station
29 Sep 21 - 14 Oct 21	0.39	0.34	0.18	0.18	0.20	0.23	0.11	0.11	0.20	0.20	13	0	11	0	0
14 Oct 21 - 1 Nov 21	0.23	0.23	0.19	#N/A	0.15	0.17	0.13	0.11	0.29	0.29	0	#N/A	13	17	0
1 Nov 21 - 15 Nov 21	0.22	0.20	0.19	0.19	0.22	0.19	0.12	0.07	0.20	0.22	13	0	13	57	13
15 Nov 21 - 29 Nov 21	0.42	0.42	#N/A	0.30	0.32	0.32	0.19	0.22	0.29	0.29	0	#N/A	0	13	0
29 Nov 21 - 13 Dec 21	0.38	0.32	0.37	0.37	0.32	0.32	0.25	0.22	0.35	0.35	15	0	0	11	0
13 Dec 21 - 29 Dec 21	0.26	0.23	0.42	0.40	0.26	0.28	0.30	0.30	0.30	0.28	9	6	8	0	8
29 Dec 21 - 12 Jan 22	0.37	#N/A	0.26	#N/A	0.27	#N/A	0.35	#N/A	0.25	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
12 Jan 22 - 25 Jan 22	4.07	#N/A	0.40	#N/A	1.05	#N/A	0.32	#N/A	1.07	1.12	#N/A	#N/A	#N/A	#N/A	5
25 Jan 22 - 9 Feb 22	0.37	0.37	0.23	0.23	0.60	0.62	0.52	0.54	0.35	0.35	0	0	4	5	0
9 Feb 22 - 23 Feb 22	1.55	#N/A	0.49	0.49	1.23	1.21			1.78	1.70	#N/A	0	2	#N/A	4
23 Feb 22 - 9 Mar 22	0.95	0.95	0.47	0.47	0.56	0.56	0.36	0.41	0.58	0.56	0	0	0	14	5
9 Mar 22-23 Mar 22	1.11	1.09	1.16	1.20	0.99	0.99	0.32	0.32	1.16	1.16	2	4	0	0	0
23 Mar 22 - 5 Apr 22	0.57	0.65	0.38	0.38	0.64	0.64	0.29	0.32	0.42	0.37	14	0	0	9	14
5 Apr 22 - 20 Apr 22	0.51	0.49	1.45	1.41	0.44	0.44	0.18	0.18	0.44	0.56	5	3	0	0	24
20 Apr 22 - 4 May 22	2.09	0.05	0.86	0.91	0.71	0.71	0.42	0.42	0.78	0.81	190	6	0	0	3
4 May 22 - 19 May 22	1.65	3.51	0.23	0.21	0.30	0.26	0.38	0.33	0.34	0.34	72	11	17	14	0
19 May 22 - 1 Jun 22	3.55	3.55	0.42	0.31	0.83	0.83			1.16	0.77	0	30	0	#N/A	41
1 Jun 22 - 15 Jun 22	2.76	2.50	0.11	0.05	0.22	0.19			0.29	0.26	10	74	13	#N/A	9
15 Jun 22 - 29 Jun 22	2.39	2.36	0.15	0.12	0.42	0.53	0.16	0.14	0.71	0.71	1	20	22	13	0
29 Jun 22 - 18 Jul 22	1.68	1.75	0.06	0.06	0.51	0.49	0.07	0.07	0.56	0.54	4	0	4	0	3
18 Jul 22 - 27 Jul 22	0.85	0.77	0.08	0.08	0.15	0.19	0.08	0.08	0.27	#N/A	10	0	25	0	#N/A
27 Jul 22 - 10 Aug 22	0.80	0.85	0.24	0.22	0.21	0.21	0.23	0.25	0.16	0.24	6	11	0	11	38
10 Aug 22 - 24 Aug 22	1.24	1.18	0.05	0.09	0.19	0.17	0.12	0.14	0.29	0.29	4	52	14	20	0
24 Aug 22 - 4 Sep 22	0.70	0.80	0.11	0.07	0.06	0.07	1.91*	0.29	0.37	0.35	13	52	9	147	6
4 Sep 22 - 20 Sep 22	0.49	0.43	0.44	0.46	0.33	0.31	0.54	0.85	0.40	0.40	14	5	7	44	0
20 Sep 22 - 5 Oct 22	0.40	0.45	0.34	0.27	0.25	0.30	0.25	0.25	0.27	0.30	11	23	17	0	8
2 Nov 22 - 16 Nov 22	0.19	0.09	0.06	0.14	0.09	0.14	0.06	#N/A	0.05	0.09	73	75	44	#N/A	52

NH3 µg/m3 Nominal 15 day average											RPD%				
16 Nov 22 - 30 Nov 22	0.53	0.45	0.14	0.14	0.14	0.14	0.05	0.09	0.11	0.11	16	0	0	52	0
30 Nov 22 - 14 Dec 22	0.19	0.06	0.06	0.06	0.12	0.06	0.09	0.09	0.09	0.09	100	0	57	0	0
14 Dec 22- 27 Dec 22	0.07	0.09	0.07	0.10	0.07	0.10	0.12	0.12	0.12	0.07	33	33	33	0	57
27 Dec 2 - 11 Jan 23	0.31	0.23	0.23	0.18	0.23	0.32	0.26	0.39	0.20	0.20	27	24	35	38	0
11 Jan 23 - 26 Jan 23	0.47	0.47	0.23	0.20	0.23	0.23	0.61	0.44	0.25	0.27	0	11	0	31	9
26 Jan 23 - 9 Feb 23	0.71	0.68	0.29	0.27	0.05	0.68			1.57	1.50	4	9	171	#N/A	5
9 Feb 23 - 23 Feb 23	0.19	0.22	0.24	0.27	1.01	0.24	0.12	0.12	0.47	0.50	13	10	122	0	5
23 Feb 23 - 8 Mar 23	0.62	0.62	0.21	0.23	0.45	0.54	0.41	0.43	0.93	0.98	0	9	17	4	5
8 Mar 23 - 21 Mar 23	0.37	0.37	0.26	0.35	0.46	0.35	0.20	0.28	0.67	0.50	0	27	28	33	29
21 Mar 23 - 4 Apr 23	3.52	0.88	1.09	0.81	1.06	1.01	0.49	0.33	1.43	1.76	120	30	5	39	20
4 Apr 23 - 16 Apr 23	0.87	0.67	0.63	0.69	0.26	0.23	0.22	0.28	0.35	0.29	27	9	13	24	19
16 Apr 23 - 1 May 23	1.05	1.15	0.42	0.42	0.39	0.39	0.34	0.32	0.49	0.54	9	0	0	7	9
1 May 23 - 15 May 23	1.22	1.32	0.14	0.14	0.25	0.22	0.14	0.22	0.29	0.26	8	0	11	43	9
15 May 23 – 30 May 23	1.18	1.16	0.13	0.08	0.35	0.35	0.11	0.08	0.47	0.44	2	44	0	25	5
30 May 23 – 13 Jun 23	0.83	0.78	0.05	0.37	0.83	0.78	0.17	0.24	0.88	0.91	6	150	6	38	3
13 Jun 23 – 28 Jun 23	1.75	2.01	1.37	1.32	1.14	1.19	0.29	0.29	1.22	1.19	14	4	4	0	2
28 Jun 23 – 13 Jul 23	2.62	2.37	0.18	0.18	0.42	0.51	0.30	0.33	0.65	0.67	10	0	21	8	4
13 Jul 23 – 27 Jul 23	3.28	3.28	0.17	0.15	0.65	0.81	0.14	0.16	0.61	0.66	0	17	21	17	8
27 Jul 23 – 13 Aug 23 ^L	1.63	1.07	0.18	0.24	0.29	0.27	0.23	0.22	0.26	0.24	42	30	8	3	8
13 Aug 23 – 27 Aug 23 ^L	1.15	0.89	0.50	0.14	0.66	0.89	0.18	0.06	1.82	0.56	25	112	30	95	107
27 Aug 23 – 11 Sep 23	1.05	0.98	0.47	0.18	0.64	0.91	0.05	0.13	1.94	0.47	7	89	34	91	122
11 Sep 23 – 28 Sep 23	0.74	0.80	0.49	0.49	0.53	0.51	0.34	0.36	0.49	0.49	8	0	4	6	0
28 Sep 23 – 13 Oct 23	1.14	1.22	0.80	0.83	0.78	0.83	0.35	0.32	0.95	0.97	6	3	6	7	2
13 Oct 23 – 28 Oct 23	1.32	1.28	0.49	0.51	0.71	0.68	0.23	0.21	1.30	0.87	4	5	3	11	40
28 Oct 23 – 11 Nov 23	1.10	1.10	0.63	0.63	0.73	0.70	1.40	0.45	0.75	0.83	0	0	4	103	10
11 Nov 23 – 26 Nov 23	0.25	0.23	0.25	0.25	0.32	0.25	0.20	0.25	0.23	0.23	10	0	25	21	0
26 Nov 23 – 10 Dec 23	0.27	0.32	0.40	0.40	0.30	0.32	0.22	0.24	0.43	0.40	17	0	8	11	6
10 Dec 23 - 26 Dec 23	0.32	0.41	0.19	0.21	0.39	0.21	0.17	0.21	0.17	0.21	24	11	59	24	24
26 Dec 23 - 11 Jan 24	0.10	0.17	0.10	0.10	0.10	0.28	0.19	0.22	0.12	0.10	50	0	94	11	20
11 Jan 24 – 26 Jan 24	0.23	0.25	0.16	0.09	0.16	0.16	0.05	0.08	0.11	0.18	10	60	0	52	50

NH ₃ µg/m ³ Nominal 15 day average											RPD%				
26 Jan 24 - 9 Feb 2024	1.24	1.01	0.37	0.47	0.47	0.58	0.86	0.86	0.60	0.52	20	24	20	0	14
9 Feb 24 - 25 Feb 24	0.30	0.35	0.12	0.12	0.12	0.10	0.50	0.55	0.17	0.26	14	0	20	9	42
25 Feb 24 - 12 Mar 24	0.44	0.40	0.34	0.30	0.41	0.43	0.46	0.44	0.52	0.63	11	14	5	5	19
12 Mar 24 - 29 Mar 24	0.79	0.64	0.29	0.21	0.27	0.27	0.20	0.18	0.42	0.36	21	35	0	11	17
29 Mar - 10 Apr 24	0.28	0.28	0.34	0.42	0.25	0.22	0.13	0.06	0.36	0.34	0	23	13	74	8
10 Apr 24 - 25 Apr 24	1.87	1.53	0.70	0.65	0.65	0.77	0.63	0.43	0.84	0.96	20	7	17	37	14
25 Apr 24 - 9 May 24	0.45	0.37	0.05	0.14	0.09	0.11	0.05	0.05	0.11	0.14	19	91	25	0	23
9 May 24 - 22 May 24	0.09	0.12	0.06	0.06	0.06	0.06	0.05	0.05	0.59	0.57	25	0	0	0	5
22 May 24 - 5 Jun 24	1.28	1.06	0.40	0.32	0.27	0.25	0.21	0.21	0.41	0.41	18	21	10	0	0
5 Jun 24 - 19 June 24	1.61	1.69	0.19	0.16	0.44	0.46	0.07	0.07	1.80	1.19	5	14	6	0	40
19 June 24 - 3 July 24	0.42	0.24	0.22	0.05	0.12	0.19	0.34	0.32	0.20	0.12	54	122	50	8	50
3 July 24 - 17 July 24	0.76	0.63	0.05	0.05	0.06	0.09	0.07	0.07	0.16	0.19	19	0	33	0	20
17 July 24 - 1 Aug 24	0.54	0.63	0.13	1.76	0.20	0.25	0.05	0.05	0.25	0.59	16	172	21	0	80
1 Aug 24 - 17 Aug 24	0.37	0.28	0.17	0.15	0.15	0.15	0.14	0.10	0.20	0.13	28	14	0	36	43
17 Aug 24 - 31 Aug 24	0.14	0.17	0.05	0.05	0.17	0.09	0.05	0.05	0.06	0.05	17	0	60	0	19
31 Aug 24 - 15 Sep 24	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
15 Sep 24 - 1 Oct 24	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
01 Oct 24 - 15 Oct 24	0.14	0.09	0.06	0.09	0.11	0.14	0.15	0.12	0.16	0.14	44	33	20	20	17
15 Oct 24 - 31 Oct 24	0.08	0.08	0.05	0.06	0.05	0.06	0.10	0.05	0.05	0.06	0	19	19	74	19
31 Oct 24 - 15 Nov 24	0.25	0.32	0.38	0.33	0.23	0.21	0.05	0.05	0.31	0.23	25	14	11	0	27
15 Nov 24 - 01 Dec 24	0.32	0.41	0.21	0.25	0.28	0.17	0.37	0.33	0.30	0.21	24	19	50	13	35
01 Dec 24 - 15 Dec 24	0.56	0.48	0.12	0.05	0.05	0.09	0.25	1.03	0.09	0.14	15	74	52	123	44
15 Dec 24 - 29 Dec 24	0.17	0.17	0.17	0.14	0.19	0.30	0.14	0.32	0.12	0.22	0	17	42	78	62
29 Dec 24 - 12 Jan 25	0.08	0.04	0.05	0.05	0.09	0.05	0.12	#N/A	0.05	0.05	75	0	52	#N/A	0
12 Jan 25 - 27 Jan 25	0.51	0.49	0.11	0.05	0.18	0.18	0.36	#N/A	0.46	0.05	5	74	0	#N/A	162
27 Jan 25 - 10 Feb 25	0.37	0.22	0.24	0.16	0.24	0.11	0.22	0.22	0.05	0.29	52	38	71	0	139
10 Feb 25 - 24 Feb 25	0.12	0.09	0.05	0.09	0.05	0.14	0.12	0.12	0.42	0.05	25	52	91	0	156
24 Feb 25 - 10 Mar 25	0.12	0.06	0.05	0.05	0.05	0.12	0.14	0.06	0.05	0.05	57	0	74	75	0
10 Mar 25 - 24 Mar 25	0.53	0.78	0.40	0.27	0.35	0.37	0.50	#N/A	0.05	0.45	39	38	7	#N/A	158
24 Mar 25 - 07 Apr 25	0.50	0.55	0.27	0.32	0.24	0.37	0.47	#N/A	0.06	0.40	10	17	42	#N/A	144

NH ₃ µg/m ³ Nominal 15 day average											RPD%				
07 Apr 25 - 22 Apr 25	0.28	0.32	0.16	0.20	0.20	0.27	0.39	0.28	0.18	0.25	16	27	30	36	33
22 Apr 25 - 06 May 25	0.53	0.58	0.05	0.09	0.22	0.24	0.19	0.35	0.37	0.12	9	52	11	57	105
06 May 25 - 20 May 25	0.45	0.53	0.12	0.17	0.32	0.42	0.05	0.05	0.58	0.58	16	36	28	0	0
20 May 25 - 03 Jun 25	0.50	0.50	0.05	0.05	0.05	0.06	0.05	0.09	0.40	0.06	0	0	19	52	144
03 Jun 25 - 17 Jun 25	1.17	0.96	0.09	0.05	0.20	0.33	0.21	0.16	0.22	0.51	19	52	50	27	79
17 Jun 25 - 01 Jul 25	0.50	1.50	0.05	0.05	0.14	0.12	0.05	0.05	0.12	0.29	100	0	20	0	88
01 Jul 25 - 15 Jul 25	0.91	0.98	0.17	0.17	0.19	0.14	0.05	0.07	0.39	0.36	8	0	31	19	7
15 Jul 25 - 29 Jul 25	0.53	0.68	0.29	0.37	0.12	0.12	0.12	0.12	0.22	0.22	26	23	0	0	0
29 Jul 25 - 14 Aug 25	0.48	0.41	0.30	0.26	0.24	0.21	0.03	0.03	0.30	0.30	15	16	10	0	0
14 Aug 25 - 30 Aug 25	0.69	0.69	0.26	0.24	0.30	0.26	0.05	0.05	0.37	0.37	0	9	16	0	0
30 Aug 25 - 14 Sep 25	0.37	0.49	0.20	0.28	0.18	0.20	0.30	0.30	0.23	0.28	28	30	13	0	19

Non-detect values presented as 0.5 times limit of detection

* Probable outlier excluded from compiled dataset

¹ Background sample change over on 14 August 2023 due to access restriction

Appendix C Dust deposition data

KB Quarry						
Sampling Start Date	Sample Start Time	Sample Finish Date	Sample Finish Time	Insoluble Solids g/m ² /month	Soluble Solids g/m ² /month	Total Solids g/m ² /month
29/09/2021	14:45	1/11/2021	15:50	1.1	0.2	1.3
1/11/2021	15:50	29/11/2021	10:20	3.4	< 0.1	3.5
29/11/2021	10:20	29/12/2021	9:15	2.6	< 0.1	2.5
29/12/2021	9:15	25/01/2021	6:30	1	2	3
25/01/2021	6:30	23/02/2022	10:00	1.7	0.6	2.3
23/02/2022	10:00	23/03/2022	6:15	1.4	< 0.1	1.4
23/03/2022	6:15	20/04/2022	6:30	2.6	0.3	2.8
20/04/2022	6:30	19/05/2022	8:00	1.5	1.6	3.2
19/05/2022	8:00	15/06/2022	5:00	4.2	1.6	5.8
15/06/2022	5:00	18/07/2022	14:30	1	1.4	2.4
18/07/2022	14:30	10/08/2022	18:45	1.2	1.3	2.5
10/08/2022	18:45	4/09/2022	6:30	1.8	0.7	2.5
4/09/2022	6:30	5/10/2022	6:30	0.4	1	1.3
5/10/2022	6:30	2/11/2022	6:30	0.9	0.7	1.5
2/11/2022	6:30	30/11/2022	6:35	0.8	0.5	1.4
30/11/2022	06:40	27/12/2022	16:00	1.3	3.2	4.5
27/12/2022	16:00	26/01/2023	06:30	8.4	6.8	15
26/01/2023	06:30	23/02/2023	06:30	1.9	1.6	3.4
23/02/2023	06:30	21/03/2023	06:00	1.5	69*	71*
21/03/2023	06:00	16/04/2023	09:30	3.4	1.1	4.5
16/04/2023	09:30	15/05/2023	06:30	1.1	1.9	3
15/05/2023	06:30	13/06/2023	06:30	2	2	4
13/06/2023	06:30	13/07/2023	06:40	2.1	1.5	3.6
13/07/2023	06:40	13/08/2023	13:00	1.1	1	2.1
13/08/2023	13:00	11/09/2023	06:15	1.5	1	2.5
11/09/2023	6:50	13/10/2023	11:25	1.3	1.3	2.3
13/10/2023	12:00	0/01/1900	12:00			
11/11/2023	10:30	10/12/2023	8:00	2.9	2.9	5.8
10/12/2023	8:00	11/01/2024	6:20	5.5	3.1	8.6
11/01/2024	6:20	9/02/2024	8:00	5.2	2.1	7.2
9/02/2024	8:00	12/03/2024	6:15	0.32	0.04	0.36
12/03/2024	6:15	10/04/2024	14:00	1.7	2.1	3.9
10/04/2024	14:00	9/05/2024	6:30	2.8	1.9	4.7
9/05/2024	6:30	5/06/2024	8:30	1.5	2	3.5
5/06/2024	8:30	3/07/2024	6:15	1.8	1.6	3.5
3/07/2024	6:15	1/08/2024	6:30	0.8	0.3	1.1
1/08/2024	6:30	31/08/2024	8:40	3.1	6.6	9.8
31/08/2024	8:40	1/10/2024	15:30	0.7	1.2	1.9
1/10/2024	15:00	31/10/2024	6:20	0.9	1.6	2.5
31/10/2024	6:20	1/12/2024	13:15	1.2	2.9	4.1
1/12/2024	13:15	29/12/2024	8:50	2.1	1.7	3.8

KB Quarry						
Sampling Start Date	Sample Start Time	Sample Finish Date	Sample Finish Time	Insoluble Solids g/m ² /month	Soluble Solids g/m ² /month	Total Solids g/m ² /month
29/12/2024		27/01/2025		#N/A	#N/A	#N/A
27/01/2025	8:00	24/02/2025	6:30	1.1	1	2.1
24/02/2025	6:30	24/03/2025	6:30	1.1	0.8	1.9
24/03/2025	6:30	22/04/2025	6:20	0.7	0.4	1.1
22/04/2025	6:20	20/05/2025	6:30	0.4	0.6	1.1
20/05/2025	6:30	17/06/2025	5:00	1.4	7.1	8.4
17/06/2025	5:00	15/07/2025	6:15	0.9	2.9	3.8
15/07/2025	6:15	14/08/2025	6:30	1.4	3	4.4
14/08/2025	6:30	14/09/2025	12:30	0.9	1.4	2.3

*Outlier sample excluded from analysis

Mt Wongama						
Sampling Start Date	Sample Start Time	Sample Finish Date	Sample Finish Time	Insoluble Solids g/m ² /month	Soluble Solids g/m ² /month	Total Solids g/m ² /month
29/09/2021	14:20	1/11/2021	14:40	0.6	0.2	0.8
1/11/2021	14:40	29/11/2021	14:00	3.9	2.8	6.7
29/11/2021	14:00	29/12/2021	11:35	1.8	0.2	1.9
29/12/2021	11:35	25/01/2021	14:20	1.4	1.5	2.9
25/01/2021	14:20	23/02/2022	11:45	1.3	0.3	1.7
23/02/2022	11:45	23/03/2022	11:30	1	0.4	1.4
23/03/2022	11:30	20/04/2022	17:15	1.2	0.3	1.5
20/04/2022	17:15	19/05/2022	9:45	1.1	3.3	4.4
19/05/2022	9:45	15/06/2022	17:50	1.9	2.5	4.4
15/06/2022	17:50	18/07/2022	16:00	0.9	1.6	2.5
18/07/2022	16:00	10/08/2022	17:10	0.5	< 0.1	0.6
10/08/2022	17:10	4/09/2022	17:30	0.5	0.8	1.3
4/09/2022	17:30	5/10/2022	18:30	0.7	0.7	1.4
5/10/2022	18:30	2/11/2022	17:45	0.2	0.2	0.4
2/11/2022	17:45	30/11/2022	16:55	0.6	0.6	1.1
30/11/2022	16:55	27/12/2022	17:15	0.9	1.8	2.7
27/12/2022	17:15	26/01/2023	17:30	2.9	5.2	8.1
26/01/2023	17:30	23/02/2023	17:45	2.2	2.4	4.6
23/02/2023	17:45	21/03/2023	17:40	3.6	2	5.6
21/03/2023	17:40	16/04/2023	10:15	2.4	0.3	2.7
16/04/2023	10:15	15/05/2023	18:00	1.3	1.7	3
15/05/2023	18:00	13/06/2023	18:00	2.1	2	4.1
13/06/2023	18:00	13/07/2023	18:00	2	2.1	4.2
13/07/2023	18:00	13/08/2023	13:45	0.6	0.2	0.8
13/08/2023	13:45	11/09/2023	08:15	1	0.7	1.6
11/09/2023	7:30	13/10/2023	10:45	1.1	1.1	2.1
13/10/2023	10:45	11/11/2023	11:10	1	1.3	2.3
11/11/2023	11:10	10/12/2023	10:30	1	1.2	2.3
10/12/2023	10:35	11/01/2024	17:40	1.7	1.1	2.8
11/01/2024	17:40	9/02/2024	10:45	3.3	2.8	6.1
9/02/2024	10:45	12/03/2024	17:40	0.84	1.4	2.2
12/03/2024	17:40	10/04/2024	15:30	1.6	1.5	3.1
10/04/2024	15:30	9/05/2024	17:50	3	3.7	6.7
9/05/2024	17:50	5/06/2024	11:00	1.3	1.9	3.2
5/06/2024	11:00	3/07/2024	17:10	2.4	2	4.4
3/07/2024	17:10	1/08/2024	17:15	0.3	0.1	0.4
1/08/2024	17:10	31/08/2024	12:36	2.1	5.3	7.4
31/08/2024	10:15	1/10/2024	14:00	0.5	1.2	1.6
1/10/2024	14:00	31/10/2024	17:50	1.2	2	3.2
31/10/2024	17:50	1/12/2024	15:10	1.2	2.8	4
1/12/2024	0:00	29/12/2024	10:45	1.4	1.5	2.9

Mt Wongama						
Sampling Start Date	Sample Start Time	Sample Finish Date	Sample Finish Time	Insoluble Solids g/m ² /month	Soluble Solids g/m ² /month	Total Solids g/m ² /month
29/12/2024		27/01/2025		#N/A	#N/A	#N/A
27/01/2025	9:00	24/02/2025	18:20	1.5	1.2	2.7
24/02/2025	18:20	24/03/2025	17:45	0.8	3.4	4.2
24/03/2025	17:45	22/04/2025	17:20	0.9	0.05	0.9
22/04/2025	17:15	20/05/2025	17:15	0.6	0.2	0.8
20/05/2025	17:15	17/06/2025	16:30	1.4	7.7	9.1
17/06/2025	16:30	15/07/2025	17:00	0.6	1.3	1.9
15/07/2025	17:00	14/08/2025	17:00	0.7	2.8	3.5
14/08/2025	17:00	14/09/2025	14:15	1.5	1.8	3.4

Visitor Centre						
Sampling Start Date	Sample Start Time	Sample Finish Date	Sample Finish Time	Insoluble Solids g/m ² /month	Soluble Solids g/m ² /month	Total Solids g/m ² /month
29/09/2021	13:00	1/11/2021	13:16	1.1	0.5	1.6
1/11/2021	13:16	29/11/2021	13:00	1.5	0.7	2.2
29/11/2021	13:00	29/12/2021	12:20	1.5	< 0.1	1.5
29/12/2021	12:20	25/01/2021	13:00	0.9	1.5	2.4
25/01/2021	13:00	23/02/2022	12:40	2.1	1.1	3.2
23/02/2022	12:40	23/03/2022	7:15	0.7	< 0.1	0.7
23/03/2022	7:15	20/04/2022	17:15	< 0.1	< 0.1	< 0.1
20/04/2022	19:00	19/05/2022	11:00	0.7	0.4	1.1
19/05/2022	11:00	15/06/2022	18:15	1	0.9	1.9
15/06/2022	18:15	18/07/2022	16:45	0.7	0.7	1.4
18/07/2022	16:45	10/08/2022	17:50	0.6	0.6	1.2
10/08/2022	17:50	4/09/2022	18:00	0.5	0.2	0.7
4/09/2022	18:00	5/10/2022	17:30	0.6	1.2	1.9
5/10/2022	17:30	2/11/2022	17:20	0.6	0.3	0.9
2/11/2022	17:20	30/11/2022	17:35	0.6	0.2	0.8
30/11/2022	17:35	27/12/2022	18:00	1.5	2.5	3.9
27/12/2022	18:00	26/01/2023	18:00	3.3	0.9	4.1
26/01/2023	18:00	23/02/2023	17:00	1.9	2.1	4
23/02/2023	17:00	21/03/2023	17:00	1.6	2.9	4.6
21/03/2023	17:00	16/04/2023	11:30	2.3	0.8	3.1
16/04/2023	11:30	15/05/2023	17:20	1.2	1.5	2.8
15/05/2023	17:20	13/06/2023	17:15	2.4	3	5.5
13/06/2023	17:15	13/07/2023	17:00	2.6	1.9	4.5
13/07/2023	17:00	13/08/2023	14:40	0.8	0.5	1.3
13/08/2023	14:40	11/09/2023	6:50	0.7	0.8	1.5
11/09/2023	6:15	13/10/2023	10:10	2	2	4
13/10/2023	10:10	11/11/2023	11:50	1.4	1.6	3
11/11/2023	11:50	10/12/2023	9:40	1.1	1.5	2.6
10/12/2023	9:45	11/01/2024	17:00	1.8	0.8	2.6
11/01/2024	17:00	9/02/2024	9:40	3.1	1.5	4.6
9/02/2024	9:40	12/03/2024	16:55	0.58	0.71	1.3
12/03/2024	16:55	10/04/2024	16:20	2.6	2.1	4.7
10/04/2024	16:20	9/05/2024	17:15	3.2	3.2	6.4
9/05/2024	17:15	5/06/2024	9:15	1.9	1.7	3.6
5/06/2024	9:15	3/07/2024	16:30	2.3	1.5	3.9
3/07/2024	16:30	1/08/2024	17:00	0.6	0.9	1.5
1/08/2024	17:00	31/08/2024	9:30	2.6	5.8	8.3
31/08/2024	9:30	1/10/2024	14:30	0.4	2.1	2.6
1/10/2024	14:30	31/10/2024	17:10	1.1	1.8	2.9
31/10/2024	17:10	1/12/2024	14:50	1.1	3.4	4.5
1/12/2024	14:20	29/12/2024	10:00	1.6	0.9	2.6

Visitor Centre						
Sampling Start Date	Sample Start Time	Sample Finish Date	Sample Finish Time	Insoluble Solids g/m ² /month	Soluble Solids g/m ² /month	Total Solids g/m ² /month
29/12/2024		27/01/2025		#N/A	#N/A	#N/A
27/01/2025	10:00	24/02/2025	17:15	2	1.4	3.4
24/02/2025	17:15	24/03/2025	17:00	1.6	1.7	3.3
24/03/2025	17:00	22/04/2025	16:40	0.9	0.3	1.1
22/04/2025	16:30	20/05/2025	16:30	0.6	0.8	1.4
20/05/2025	16:30	17/06/2025	5:40	1.7	6.2	7.9
17/06/2025	5:40	15/07/2025	16:30	0.4	0.7	1
15/07/2025	16:30	14/08/2025	16:10	1.1	1.8	2.9
14/08/2025	16:10	14/09/2025	13:40	0.7	2.1	2.8

RT Pastoral Lease						
Sampling Start Date	Sample Start Time	Sample Finish Date	Sample Finish Time	Insoluble Solids g/m ² /month	Soluble Solids g/m ² /month	Total Solids g/m ² /month
1/11/2021	17:35	29/11/2021	8:30	0.9	0.5	1.3
29/11/2021	8:30	29/12/2021	7:45	2.2	< 0.1	2
29/12/2021	7:45	25/01/2021	5:00	1.2	1.4	2.6
25/01/2021	5:00	23/02/2022	14:30	7	0.4	7.4
23/02/2022	14:30	23/03/2022	5:20	0.5	< 0.1	0.5
23/03/2022	5:20	20/04/2022	5:30	1.6	< 0.1	1.6
20/04/2022	5:30	15/06/2022	6:00	1.2	0.4	1.6
20/05/2022	5:30	15/06/2022	6:00			
15/06/2022	6:00	18/07/2022	12:30	0.7	0.4	1.1
18/07/2022	12:30	10/08/2022	5:30	0.5	1.1	1.6
10/08/2022	5:30	4/09/2022	5:30	0.4	< 0.1	0.4
4/09/2022	5:30	5/10/2022	5:30	0.9	0.9	1.8
5/10/2022	5:30	2/11/2022	5:30	1.3	1.8	3.1
2/11/2022	5:30	30/11/2022	5:40	0.7	0.3	1.1
30/11/2022	05:40	27/12/2022	18:50	1.1	< 0.1	<1.2
27/12/2023	17:00	23/02/2023	05:30	4.4	5.3	9.6
27/12/2023	17:00	23/02/2023	05:30			
23/02/2023	05:30	21/03/2023	15:30	2.4	2.2	4.6
21/03/2023	15:30	16/04/2023	08:00	4	0.8	4.8
16/04/2023	08:00	15/05/2023	05:30	0.7	1.2	1.9
15/05/2023	5:30	13/06/2023	5:35	2.1	4.3	6.4
13/06/2023	5:35	13/07/2023	5:30	1.9	2.2	4.2
13/07/2023	5:30	13/08/2023	17:30	0.8	0.9	1.7
13/08/2023	17:30	11/09/2023	5:00	1	1.2	2.2
11/09/2023	8:15	13/10/2023	12:50:	1.2	1.2	2.7
13/10/2023	12:50	11/11/2023	9:00	1.7	2	3.8
11/11/2023	9:00	10/12/2023	12:00	0.7	0.8	1.5
10/12/2023	12:00	11/01/2024	5:00	1.5	0.7	2.2
11/01/2024	5:00	9/02/2024	7:00	4.6	1.8	6.4
9/02/2024	7:00	12/03/2024	5:15	0.76	1.6	2.4
12/03/2024	5:15	10/04/2024	18:00	2	1.8	3.8
10/04/2024	18:00	9/05/2024	5:00	3.1	1.2	4.3
9/05/2024	5:00	8/06/2024	8:00	1.5	1.7	3.2
5/06/2024	8:00	7/07/2024	8:30	1.8	1.6	3.4
3/07/2024	8:30	1/08/2024	5:30	0.7	1.1	1.9
1/08/2024	5:30	31/08/2024	6:45	2.1	3.9	6
31/08/2024	6:45	1/10/2024	16:15	< 0.1	< 0.1	0.1
1/10/2024	16:15	31/10/2024	16:40	0.7	1.5	2.2
31/10/2024	5:20	1/12/2024	12:00	1	2	3
1/12/2024	12:00	29/12/2024	7:30	3.6	3.9	7.5
29/12/2024		27/01/2025		#N/A	#N/A	#N/A

RT Pastoral Lease						
Sampling Start Date	Sample Start Time	Sample Finish Date	Sample Finish Time	Insoluble Solids g/m ² /month	Soluble Solids g/m ² /month	Total Solids g/m ² /month
27/01/2025	12:30	24/02/2025	5:15	4.9	1.7	6.6
24/02/2025	5:15	24/03/2025	5:00	2.1	2.1	4.2
24/03/2025	5:00	22/04/2025	5:00	1.7	0.4	2
22/04/2025	5:15	20/05/2025	5:15	0.7	0.8	1.5
20/05/2025	5:15	17/06/2025	17:45	1.1	4.4	5.5
17/06/2025	17:45	15/07/2025	5:00	0.5	1.6	2.1
15/07/2025	5:00	14/08/2025	5:30	1	2.3	3.3
14/08/2025	5:30	14/09/2025	11:00	1.1	2.6	3.7

AAQ Station						
Sampling Start Date	Sample Start Time	Sample Finish Date	Sample Finish Time	Insoluble Solids g/m ² /month	Soluble Solids g/m ² /month	Total Solids g/m ² /month
29/09/2021	11:40	1/11/2021	11:30	0.6	0.3	0.9
1/11/2021	11:30	29/11/2021	11:40	1	0.7	1.7
29/11/2021	11:40	29/12/2021	10:15	2.6	0.2	2.7
29/12/2021	10:15	25/01/2022	13:30	1.2	1.8	3
25/01/2022	13:30	23/02/2022	10:45	4.1	0.8	4.8
23/02/2022	10:45	23/03/2022	6:50	1.3	0.4	1.6
23/03/2022	6:50	20/04/2022	16:15	1.3	0.4	1.6
20/04/2022	16:15	19/05/2022	8:50	2.5	0.2	2.7
19/05/2022	8:45	15/06/2022	16:40	2.3	1.6	3.8
15/06/2022	16:40	18/07/2022	15:20	0.6	0.4	1
18/07/2022	15:20	10/08/2022	16:30	1	1.2	2.2
10/08/2022	16:30	4/09/2022	16:30	0.5	< 0.1	0.1
4/09/2022	16:30	5/10/2022	16:30	0.5	0.3	0.8
5/10/2022	16:30	2/11/2022	16:30	0.8	< 0.1	0.2
2/11/2022	16:30	30/11/2022	16:15	1.3	1.1	2.4
30/11/2022	16:15	27/12/2022	16:45	1.7	< 0.1	<1.8
27/12/2022	16:45	26/01/2023	16:30	2.1	1.7	3.7
26/01/2023	16:30	23/02/2023	16:30	1.6	1.4	3
23/02/2023	16:30	21/03/2023	06:40	2.6	0.4	3
21/03/2023	06:40	16/04/2023	12:30	2.3	0.5	2.9
16/04/2023	12:30	15/05/2023	16:30	1.4	1.6	3
15/05/2023	16:30	13/06/2023	16:30	2.2	12	14
13/06/2023	16:30	13/07/2023	16:30	2.4	1.3	3.7
13/07/2023	16:30	13/08/2023	15:30	0.5	0.7	1.2
13/08/2023	15:30	11/09/2023	07:30	0.5	0.6	1.1
11/09/2023	5:00	13/10/2023	9:30	1.5	1.5	3.3
13/10/2023	9:30	11/11/2023	13:00	2.2	2.5	4.7
11/11/2023	13:00	10/12/2023	8:45	1.1	1.4	2.5
10/12/2023	8:45	11/01/2024	16:30	2.3	1.5	3.7
11/01/2024	16:30	9/02/2024	8:40	3.4	2.1	5.4
9/02/2024	8:40	12/03/2024	16:15	0.59	1.3	1.9
12/03/2024	16:15	10/04/2024	14:45	2.8	1.7	4.4
10/04/2024	14:45	9/05/2024	16:30	1.8	2.1	3.9
9/05/2024	16:30	5/06/2024	10:00	1.5	2	3.5
5/06/2024	10:00	3/07/2024	6:50	2	1.8	3.8
7/07/2024	6:50	1/08/2024	16:40	0.6	< 0.1	0.6
1/08/2024	16:40	31/08/2024	8:10	4.1	6.6	11
31/08/2024	8:10	1/10/2024	11:20	0.5	0.9	1.4
1/10/2024	11:20	31/10/2024	16:40	1	1.6	2.6
31/10/2024	16:40	1/12/2024	13:50	1.2	2.8	3.9
1/12/2024	13:50	29/12/2024	9:30	2.5	2.5	5

AAQ Station						
Sampling Start Date	Sample Start Time	Sample Finish Date	Sample Finish Time	Insoluble Solids g/m ² /month	Soluble Solids g/m ² /month	Total Solids g/m ² /month
29/12/2024	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
27/01/2025	11:00	24/02/2025	16:30	3.2	1.6	4.8
24/02/2025	16:30	24/03/2025	16:20	1	1.7	2.7
24/03/2025	16:20	22/04/2025	16:00	2.5	1.3	3.8
22/04/2025	15:50	20/05/2025	15:50	0.6	0.4	1.1
20/05/2025	15:50	17/06/2025	6:30	1.3	5.3	6.6
17/06/2025	6:30	15/07/2025	15:45	0.5	0.7	1.2
15/07/2025	15:45	14/08/2025	15:30	0.6	2.1	2.8
14/08/2025	15:30	14/09/2025	13:00	0.8	1.4	2.1

Blank Sampling Start Date	Sample Start Time	Insoluble Solids g/m ² /month	Soluble Solids g/m ² /month	Total Solids g/m ² /month
29/09/2021	14:45	<0.1	<0.1	<0.1
1/11/2021	15:30	0.3	< 0.1	0.3
29/11/2021	10:20	0.4	0.1	0.5
29/12/2021	9:15	< 0.1	< 0.1	< 0.1
25/01/2021	6:30	< 0.1	< 0.1	< 0.1
23/02/2022	10:45	< 0.1	< 0.1	< 0.1
23/03/2022	6:15	< 0.1	< 0.1	< 0.1
20/04/2022	6:30	< 0.1	1.8	1.8
19/05/2022	8:00	0.4	0.3	0.7
15/06/2022	5:00	< 0.1	< 0.1	< 0.1
18/07/2022	14:30	< 0.1	< 0.1	< 0.1
10/08/2022	18:45	1.3	1.1	2.4
4/09/2022	6:30	1.2	0.3	1.4
5/10/2022	6:30	0.3	< 0.1	< 0.1
2/11/2022	6:40	1	1.4	2.4
30/11/2022	6:40	1.4	0.6	2.1
27/12/2022	16:00	0.7	0.9	1.6
26/01/2023	6:30	< 0.1	< 0.1	< 0.1
23/02/2023	6:30	2.1	< 0.1	2.2
21/03/2023	6:00	1.1	0.2	1.3
16/04/2023	9:30	< 0.1	0.7	0.7
15/05/2023	6:20	1.1	0.4	1.5
13/06/2023	6:30	< 0.1	< 0.1	< 0.1
13/07/2023	6:40	0.2	0.5	0.7
13/08/2023	13:00	< 0.1	0.4	< 0.1
11/09/2023	6:15	0.3	0.3	< 0.1
13/10/2023	11:25	< 0.1	0.2	0.2
11/11/2023	10:30	0.3	< 0.1	0.4
10/12/2023	8:00	< 0.1	< 0.1	< 0.1
11/01/2024	6:20	< 0.1	< 0.1	< 0.1
9/02/2024	8:00	0.1	0.13	0.23
12/03/2024	6:15	< 0.1	< 0.1	< 0.1
10/04/2024	14:00	1.1	0.46	1.5
9/05/2024	6:30	< 0.1	0.63	0.62
5/06/2024	8:30	< 0.1	< 0.1	< 0.1
3/07/2024	6:15	< 0.1	< 0.1	< 0.1
1/08/2024	6:30	0.4	< 0.1	< 0.1

Blank Sampling Start Date	Sample Start Time	Insoluble Solids g/m ² /month	Soluble Solids g/m ² /month	Total Solids g/m ² /month
31/08/2024	8:40	0.2	0.9	1.1
1/10/2024	15:00	0.05	< 0.1	< 0.1
31/10/2024	6:20	1.1	0.8	1.9
1/12/2024	13:15	0.2	< 0.1	< 0.1
29/12/2024	Not analysed bottles overflowed	#N/A	#N/A	#N/A
27/01/2025	8:00	0.1	0.2	0.3
24/02/2025	6:30	< 0.1	< 0.1	< 0.1
24/03/2025	6:30	< 0.1	< 0.1	< 0.1
22/04/2025	6:20	< 0.1	< 0.1	< 0.1
20/05/2025	6:30	< 0.1	< 0.1	< 0.1
17/06/2025	6:15	< 0.1	< 0.1	< 0.1
15/07/2025	6:15	< 0.1	< 0.1	< 0.1
14/08/2025	12:30	< 0.1	< 0.1	< 0.1

KBSF Quarry soluble fraction	Units	29/09/2021 - 1/11/2021	29/11/2021 - 29/12/2021	29/12/21 - 25/01/22	25/01/22 - 23/02/22	23/02/22 - 23/03/22	23/03/2022 - 20/04/2022	20/04/2021 - 19/05/2021	19/05/2022 - 15/06/2022	15/06/2022 - 18/07/2022	18/07/2022 - 10/08/2022	10/08/2022 - 4/09/2022
Soluble fraction volume	mL	365	460	540	765	510	630	2000	2450	520	500	500
Alkalinity	mg CaCO ₃ /L	< 25	40	< 15	12	< 5	12	10	< 5	6.6	5.6	6.9
Ammonia-N	mg/L	< 0.1	< 0.06	< 0.06	0.05	< 0.02	< 0.02	< 0.02	0.08	< 0.02	< 0.02	0.02
Bicarbonate	mg CaCO ₃ /L	< 25	40	< 15	12	< 5	12	10	< 5	6.6	5.6	6.9
Calcium - Total	mg/L	11	6.5	2.7	1.8	1.7	4.2	1.6	1.3	3.3	3.1	4.4
Carbonate	mg CaCO ₃ /L	< 25	< 15	< 15	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloride	mg/L	< 25	< 15	< 15	< 10	12	< 5	< 5	< 5	9	< 5	< 5
Filterable Reactive Phosphorus	mg/L	-	-	-	-	< 0.01	< 0.01	< 0.01	-	< 0.01	0.01	0.01
Hydroxide	mg CaCO ₃ /L	< 25	< 15	< 15	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Magnesium - Total	mg/L	1.1	0.7	0.4	0.4	0.5	0.6	0.3	0.3	0.7	< 0.5	1.3
Nitrate-N	mg/L	< 0.05	< 0.03	< 0.03	< 0.02	< 0.01	< 0.01	0.12	< 0.01		< 0.01	< 0.01
Nitrite-N	mg/L	< 0.05	< 0.03	< 0.03	< 0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
NOx-N	mg/L	< 0.05	< 0.03	< 0.03	< 0.02	< 0.01	< 0.01	0.12	< 0.01	< 0.01	< 0.01	< 0.01
Organic Nitrogen	mg/L	< 1	< 0.6	< 0.6	< 0.35	< 0.58	< 0.40	< 0.48	0.52	< 0.40	< 0.28	< 0.2
Potassium - Total	mg/L	0.6	0.3	< 0.3	< 0.2	0.1	0.3	< 0.1	0.2	< 0.5	< 0.5	0.7
Sodium - Total	mg/L	8.9	6.6	6.6	2	4.1	5.6	2.6	4.9	7.2	4.4	8.1
Sulfate	mg/L	< 5	4	< 3	< 2	< 1	< 1	1.3	1.2	1.9	< 1	< 1
Total Kjeldahl Nitrogen*	mg/L	< 1	< 0.6	< 0.6	< 0.4	0.6	< 0.4	0.5	0.6	0.4	0.3	< 0.2
Total Nitrogen	mg/L	< 1	< 0.6	< 0.6	< 0.4	0.6	< 0.4	0.6	0.6	0.4	0.3	< 0.2

KBSF Quarry soluble fraction	Units	4/09/2022 - 5/10/2022	5/10/2022 - 2/11/2022	2/11/2022 - 30/11/2022	30/11/2022 - 27/12/2022	27/12/2022 - 26/01/2023	26/01/2023 - 23/02/2023	23/02/2023 - 21/03/2023	21/03/2023 - 16/04/2023	16/04/2023 - 15/05/2023	15/05/2023 - 13/06/2023	13/06/2023 - 13/07/2023	13/07/2023 - 13/08/2023	13/08/2023 - 11/09/2023
Soluble fraction volume	mL	400	505	505	355	840	600	1720	920	455	490	1720	500	510
Alkalinity	mg CaCO ₃ /L	6.7	6.1	9.6	8.7	8.8	12	11	15	22	9.4	18	7.5	10
Ammonia-N	mg/L	0.02	< 0.02	< 0.02	< 0.02	< 0.02	0.08	0.19	0.09	0.84	2.1	0.13	0.03	0.12
Bicarbonate	mg CaCO ₃ /L	6.7	6.1	9.6	8.7	8.8	12	11	15	22	9.4	18	7.5	10
Calcium - Total	mg/L	2.6	2.7	2.2	4.9	6.6	4.2	1.3	3.9	9	6.4	2.7	4.6	5.6
Carbonate	mg CaCO ₃ /L	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloride	mg/L	8.4	< 5	< 5	6	33	5.4	< 5	11	23	7.5	5.8	9.8	11
Filterable Reactive Phosphorus	mg/L	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.02	< 0.01	< 0.01	0.47	0.07	< 0.01	< 0.01
Hydroxide	mg CaCO ₃ /L	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Magnesium - Total	mg/L	0.7	0.9	< 0.5	0.6	2.9	1.5	1.9	3.6	5.7	2.4	1.3	2.1	3.1
Nitrate-N	mg/L	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01			0.08	< 0.01	< 0.01	< 0.01	< 0.01
Nitrite-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
NOx-N	mg/L	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.09	< 0.01	< 0.01	< 0.01	< 0.01
Organic Nitrogen	mg/L	0.18	< 0.2	< 0.2	< 0.2	0.9	< 0.12	0.01	0.71	< 0.01	4.7	0.57	0.57	2.78
Potassium - Total	mg/L	< 0.5	< 0.5	< 0.5	< 0.5	1	0.6	0.9	1	2.2	1.8	0.6	0.9	1.9
Sodium - Total	mg/L	7.3	4.8	5.1	9.2	27	11	13	12	23	14	5.2	13	15
Sulfate	mg/L	2	< 1	1.2	1.1	8.2	1.7	1.4	2.9	6.2	3.5	1.9	5	5.3
Total Kjeldahl Nitrogen*	mg/L	< 0.2	< 0.2	< 0.2	< 0.2	0.9	< 0.2	0.2	0.8	0.7	6.8	0.7	0.6	2.9
Total Nitrogen	mg/L	< 0.2	< 0.2	< 0.2	< 0.2	0.9	< 0.2	0.2	0.8	0.8	6.8	0.7	0.6	2.9

KBSF Quarry soluble fraction	Units	11/9/2023 - 13/10/2023	11/11/23- 10/12/23	11/01/2024 - 09/02/2024	9/02/2024 - 12/03/2024	12/03/2024- 10/04/2024	10/04/2024 - 09/05/2024	09/05/24 - 05/06/24	05/06/2024- 03/07/2024	03/07/2024 - 1/08/2024	1/08/2024 - 31/08/2024	31/08/2024 - 01/10/2024
Soluble fraction volume	mL	500	270	242.5	500	410	840	500	400	175	1100	550
Alkalinity	mg CaCO ₃ /L	170	17	34	8.9	25	20	8.9	15	15	23	7.5
Ammonia-N	mg/L	0.05	0.06	0.03	0.17	< 0.02	0.07	0.17	0.41	0.16	0.13	0.34
Bicarbonate	mg CaCO ₃ /L	170	17	34	8.9	25	20	8.9	15	15	23	7.5
Calcium - Total	mg/L	7.6	8	15	0.9	6.1	2.7	0.9	5.3	5.3	7	4.2
Carbonate	mg CaCO ₃ /L	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloride	mg/L	12	20	39	5.9	17	14	5.9	15	20	26	5.8
Filterable Reactive Phosphorus	mg/L	< 0.01	0.02	< 0.01	< 0.01	0.01	0.01	< 0.01	< 0.01	0.01	< 0.01	0.03
Hydroxide	mg CaCO ₃ /L	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Magnesium - Total	mg/L	4.7	6	6.5	0.6	4.3	2.8	0.6	3.2	4.3	6.4	1.1
Nitrate-N	mg/L	< 0.01	< 0.01	0.28	0.08	0.02	< 0.01	0.08	< 0.01	0.02	0.03	< 0.01
Nitrite-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
NOx-N	mg/L	< 0.01	< 0.01	0.29	0.08	0.02	< 0.01	0.08	< 0.01	0.03	0.04	< 0.01
Organic Nitrogen	mg/L	<0.15	0.94	<0.17	0.13	0.5	0.53	0.13	0.79	0.64	0.37	1.26
Potassium - Total	mg/L	1.9	2.1	2.3	< 0.5	1.7	1	< 0.5	1.7	1.9	3.3	0.8
Sodium - Total	mg/L	20	26	33	3.2	20	10	3.2	18	17	30	7.6
Sulfate	mg/L	6.3	7.5	13	1.4	5.9	4	1.4	4.5	5.7	7.1	2.4
Total Kjeldahl Nitrogen*	mg/L	< 0.2	1	< 0.2	0.3	0.5	0.6	0.3	1.2	0.8	0.5	1.6
Total Nitrogen	mg/L	< 0.2	1	0.3	0.4	0.5	0.6	0.4	1.2	0.8	0.5	1.6

KBSF Quarry soluble fraction	Units	1/10/2024 - 31/10/2024	31/10/2024 - 1/12/2024	1/12/2024 - 29/12/2024	27/01/25 - 24/02/25	24/02/2025 - 24/03/25	24/02/2025 - 24/03/25	22/04/25 - 20/05/25	20/05/25 - 17/06/25	17/06/25 - 15/07/25	15/07/25 - 14/08/25
Soluble fraction volume	mL	220	250	400	225	700	600	520	425	430	505
Alkalinity	mg CaCO ₃ /L	26	65	34	7.9	12	7	5.3	11	9.3	8.3
Ammonia-N	mg/L	0.36	0.05	< 0.02	0.17	0.1	0.46	< 0.02	0.11	0.06	< 0.02
Bicarbonate	mg CaCO ₃ /L	26	65	34	7.9	12	7	5.3	11	9.3	8.3
Calcium - Total	mg/L	9.4	9.3	5.2	5.1	4	4.3	1.9	2.9	4.1	10
Carbonate	mg CaCO ₃ /L	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloride	mg/L	32	56	23	20	17	8.6	7.4	10	7.3	14
Filterable Reactive Phosphorus	mg/L	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.03
Hydroxide	mg CaCO ₃ /L	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Magnesium - Total	mg/L	7.1	12	4.2	3.3	1.8	1.1	0.8	1	1	1.5
Nitrate-N	mg/L	0.14	0.2	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Nitrite-N	mg/L	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
NOx-N	mg/L	0.15	0.21	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Organic Nitrogen	mg/L	0.04	0.45	0.6	0.23	0.7	0.24	1.7	1.7	<0.14	2.2
Potassium - Total	mg/L	3.4	4.4	1.5	1.6	1	0.7	0.6	0.6	0.7	1.3
Sodium - Total	mg/L	51	59	19	21	12	12	8.1	8.9	8.8	21
Sulfate	mg/L	9.9	22	5.1	11	2.9	2	1.3	2.8	1.3	3
Total Kjeldahl Nitrogen*	mg/L	0.4	0.5	0.6	0.4	0.8	0.7	1.7	1.5	< 0.2	2.2
Total Nitrogen	mg/L	0.5	0.7	0.6	0.4	0.8	0.7	1.7	1.5	< 0.2	2.2

Mt Wongama soluble fraction	Units	29/09/2021 - 1/11/2021	29/11/2021 - 29/12/2021	29/12/21 - 25/01/22	25/01/22 - 23/02/22	23/02/22 - 23/03/22	23/03/2022 - 20/04/2022	20/04/2021 - 19/05/2021	19/05/2022 - 15/06/2022	15/06/2022 - 18/07/2022	18/07/2022 - 10/08/2022	10/08/2022 - 4/09/2022
Soluble fraction volume	mL	289	548	485	525	530	550	1750	2450	520	550	520
Alkalinity	mg CaCO ₃ /L	< 25	< 15	19	5.5	< 5	11	7.5	<5	9.1	7.1	5.9
Ammonia-N	mg/L	0.2	< 0.06	< 0.06	0.04	< 0.02	0.03	0.12	<0.02	< 0.02	< 0.02	< 0.02
Bicarbonate	mg CaCO ₃ /L	< 25	< 15	19	5.5	< 5	11	7.5	<5	9.1	7.1	5.9
Calcium - Total	mg/L	5.8	5.6	4	4.3	1.1	3.7	1.7	1	2.2	2.4	2.1
Carbonate	mg CaCO ₃ /L	< 25	< 15	< 15	< 5	< 5	<5	< 5	<5	< 5	< 5	< 5
Chloride	mg/L	< 25	< 15	< 15	11	< 5	<5	7.5	7.5	8	< 5	5.4
Filterable Reactive Phosphorus	mg/L	-	-	-	-	<0.01	<0.01	< 0.01	<0.01	< 0.01	< 0.01	< 0.01
Hydroxide	mg CaCO ₃ /L	< 25	< 15	< 15	< 5	< 5	<5	< 5	<5	< 5	< 5	< 5
Magnesium - Total	mg/L	0.8	0.7	0.6	0.7	0.3	0.5	0.6	0.6	0.6	< 0.5	< 0.5
Nitrate-N	mg/L	< 0.05	< 0.03	< 0.03	< 0.02	< 0.01	<0.01	0.24	<0.01	<0.01	< 0.01	< 0.01
Nitrite-N	mg/L	< 0.05	< 0.03	< 0.03	< 0.02	< 0.01	<0.01	< 0.01	<0.01	< 0.01	< 0.01	< 0.01
NOx-N	mg/L	< 0.05	< 0.03	< 0.03	< 0.02	< 0.01	<0.01	0.24	<0.01	< 0.01	< 0.01	< 0.01
Organic Nitrogen	mg/L	< 0.8	< 0.6	< 0.6	< 0.36	< 0.4	< 0.37	1.08	< 0.3	< 0.2	< 0.2	< 0.2
Potassium - Total	mg/L	0.6	0.4	0.4	0.3	0.1	0.3	0.3	0.2	< 0.5	< 0.5	< 0.5
Sodium - Total	mg/L	13	14	13	10	3.5	5	4.4	6.8	6	3.8	5.5
Sulfate	mg/L	< 5	< 3	< 3	< 2	< 1	<1	2.7	2	1.4	< 1	< 1
Total Kjeldahl Nitrogen*	mg/L	< 1	< 0.6	< 0.6	< 0.4	< 0.4	<0.4	1.2	0.3	< 0.2	0.2	< 0.2
Total Nitrogen	mg/L	< 1	< 0.6	< 0.6	< 0.4	< 0.4	<0.4	1.4	0.3	< 0.2	0.2	< 0.2

Mt Wongama soluble fraction	Units	4/9/2022 - 5/10/2022	5/10/2022 - 2/11/2022	2/11/2022 - 30/11/2022	30/11/2022 - 27/12/2022	27/12/2022 - 26/01/2023	26/01/2023 - 23/02/2023	23/02/2023 - 21/03/2023	21/03/2023 - 16/04/2023	16/04/2023 - 15/05/2023	15/05/2023 - 13/06/2023	13/06/2023 - 13/07/2023	13/07/2023 - 13/08/2023	13/08/2023 - 11/09/2023
Soluble fraction volume	mL	495	510	465	775	540	1120	965	490	520	1650	500	490	495
Alkalinity	mg CaCO ₃ /L	6.6	5	8.7	8.9	8.5	6.3	14	14	23	5.7	17	6.7	7.8
Ammonia-N	mg/L	0.37	0.1	< 0.02	0.03	0.03	0.02	0.42	0.09	1.5	0.05	0.23	< 0.02	0.15
Bicarbonate	mg CaCO ₃ /L	6.6	5	8.7	8.9	8.5	6.3	14	14	23	5.7	17	6.7	7.8
Calcium - Total	mg/L	1.5	2	2.3	3.9	5.1	5.8	2.6	3.3	6.8	7.2	3	3.6	4.7
Carbonate	mg CaCO ₃ /L	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloride	mg/L	6.4	< 5	< 5	15	70	6	10	8.5	22	< 5	14	10	11
Filterable Reactive Phosphorus	mg/L	0.54	< 0.01	< 0.01	< 0.01	< 0.01	0.01	< 0.01	< 0.01	0.21	0.07	0.07	0.04	< 0.01
Hydroxide	mg CaCO ₃ /L	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Magnesium - Total	mg/L	< 0.5	< 0.5	< 0.5	1.1	3.5	0.8	2.2	3.5	5	1	2.3	2	3.1
Nitrate-N	mg/L	< 0.01	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.03	< 0.01	< 0.01	< 0.01	< 0.01
Nitrite-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
NOx-N	mg/L	< 0.01	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.01	0.04	< 0.01	< 0.01	< 0.01	< 0.01
Organic Nitrogen	mg/L	0	0.2	< 0.2	< 0.17	0.67	< 0.18	0.08	0.31	< 0.01	0.25	0.27	0.4	0.95
Potassium - Total	mg/L	< 0.5	< 0.5	< 0.5	< 0.5	1.3	< 0.5	1.2	0.9	2	< 0.5	1	0.9	1.7
Sodium - Total	mg/L	5.7	2.9	6.2	11	33	12	18	11	19	11	9.8	12	14
Sulfate	mg/L	1	< 1	1.4	1.6	9.1	1.1	2.8	1.9	5.2	< 1	2.6	3.7	4.7
Total Kjeldahl Nitrogen*	mg/L	0.3	0.3	< 0.2	< 0.2	0.7	< 0.2	0.5	0.4	1	0.3	0.5	0.4	1.1
Total Nitrogen	mg/L	0.3	0.3	< 0.2	< 0.2	0.7	< 0.2	0.5	0.4	1	0.3	0.5	0.4	1.1

Mt Wongama soluble fraction	Units	13/10/2023- 11/11/2023	11/11/23- 10/12/23	11/01/2024 - 09/02/2024	9/02/2024 - 12/03/2024	12/03/2024- 10/04/2024	10/04/2024 - 09/05/2024	09/05/24 - 05/06/24	05/06/2024- 03/07/2024	03/07/2024 - 1/08/2024	1/08/2024 - 31/08/2024	31/08/2024 - 01/10/2024
Soluble fraction volume	mL	500	250	225	327	335	800	327	310	100	960	310
Alkalinity	mg CaCO ₃ /L	19	15	31	34	48	23	34	24	17	25	8.6
Ammonia-N	mg/L	0.23	0.14	< 0.02	0.42	< 0.02	0.82	0.42	< 0.02	0.11	0.04	0.06
Bicarbonate	mg CaCO ₃ /L	19	15	31	34	48	23	34	24	17	25	8.6
Calcium - Total	mg/L	9	6.2	11	4.6	7.2	4.4	4.6	9.2	5.1	7.1	6.4
Carbonate	mg CaCO ₃ /L	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloride	mg/L	23	25	65	31	23	25	31	25	21	22	14
Filterable Reactive Phosphorus	mg/L	< 0.01	0.02	< 0.01	< 0.01	0.04	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.01
Hydroxide	mg CaCO ₃ /L	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Magnesium - Total	mg/L	4.6	6	8.4	4.3	5.6	3.7	4.3	6.1	4.2	5.4	2.1
Nitrate-N	mg/L	0.09	< 0.01	0.53	0.29	0.45	< 0.01	0.29	0.13	0.12	< 0.01	< 0.01
Nitrite-N	mg/L	< 0.01	< 0.01	< 0.01	0.02	< 0.01	< 0.01	0.02	< 0.01	< 0.01	< 0.01	< 0.01
NOx-N	mg/L	0.1	< 0.01	0.53	0.31	0.46	< 0.01	0.31	0.14	0.13	< 0.01	< 0.01
Organic Nitrogen	mg/L	0	0.26	<0.2	1.58	0.2	1.88	1.58	0.7	2.39	0.36	1.24
Potassium - Total	mg/L	1.9	2.4	3.1	1.7	2.2	1.6	1.7	2.6	2	2.6	0.8
Sodium - Total	mg/L	23	31	52	20	26	17	20	30	17	25	15
Sulfate	mg/L	7.3	7.1	15	10	8.3	6.6	10	8.6	6	5.1	4.4
Total Kjeldahl Nitrogen*	mg/L	0.2	0.4	< 0.2	2	0.2	2.7	2	0.7	2.5	0.4	1.3
Total Nitrogen	mg/L	0.3	0.4	0.7	2.3	0.7	2.7	2.3	0.8	2.6	0.4	1.3

Mt Wongama soluble fraction	Units	1/10/2024 - 31/10/2024	31/10/2024 - 1/12/2024	1/12/2024 - 29/12/2024	27/01/25 - 24/02/25	24/202/2025 - 24/03/25	24/202/2025 - 24/03/25	22/04/25 - 20/05/25	20/05/25 - 17/06/25	17/06/25 - 15/07/25	15/07/25 - 14/08/25
Soluble fraction volume	mL	300	250	400	240	700	530	480	400	470	900
Alkalinity	mg CaCO ₃ /L	31	67	30	12	9.4	5.6	6	9.6	7.4	13
Ammonia-N	mg/L	0.14	0.4	0.18	0.08	0.05	0.49	0.02	0.36	< 0.02	< 0.02
Bicarbonate	mg CaCO ₃ /L	31	67	30	12	9.4	5.6	6	9.6	7.4	13
Calcium - Total	mg/L	7.5	8.4	4.5	5.9	2.9	4.8	2	2.8	3.8	4.6
Carbonate	mg CaCO ₃ /L	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloride	mg/L	26	63	22	26	12	5.3	8.9	12	7.2	12
Filterable Reactive Phosphorus	mg/L	0.02	< 0.01	< 0.01	0.02	< 0.01	0.07	< 0.01	< 0.01	0.01	0.02
Hydroxide	mg CaCO ₃ /L	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Magnesium - Total	mg/L	5.9	11	4.2	4.5	1.6	1.4	0.9	1.2	0.8	1.1
Nitrate-N	mg/L	0.12	0.15	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.4
Nitrite-N	mg/L	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
NOx-N	mg/L	0.12	0.16	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.4
Organic Nitrogen	mg/L	0.36	0.6	0.72	0.52	0.55	0.11	6.18	0.64	<0.02	1.8
Potassium - Total	mg/L	2.7	4.3	1.6	1.8	1	1	0.7	0.8	0.6	0.8
Sodium - Total	mg/L	34	56	20	26	11	13	9.2	11	8.4	11
Sulfate	mg/L	8.7	20	6	7.6	3	1.7	1.4	2.7	1	2.4
Total Kjeldahl Nitrogen*	mg/L	0.5	1	0.9	0.6	0.6	0.6	6.2	1	< 0.2	1.8
Total Nitrogen	mg/L	0.6	1.2	0.9	0.6	0.6	0.6	6.2	1	< 0.2	2.2

Visitor Centre soluble fraction	Units	29/09/2021 - 1/11/2021	29/11/2021 - 29/12/2021	29/12/21 - 25/01/22	25/01/22 - 23/02/22	23/02/22 - 23/03/22	23/03/2022 - 20/04/2022	20/04/2021 - 19/05/2021	19/05/2022 - 15/06/2022	15/06/2022 - 18/07/2022	18/07/2022 - 10/08/2022	10/08/2022 - 4/09/2022
Soluble fraction volume	mL	200	460	505	750	540	540	1920	2500	500	500	210
Alkalinity	mg CaCO ₃ /L	< 25	< 15	< 15	6.1	< 5	<10	< 5	<5	5.6	7.7	5.3
Ammonia-N	mg/L	0.5	0.25	< 0.06	0.08	0.14	0.04	0.16	0.05	0.18	< 0.02	< 0.02
Bicarbonate	mg CaCO ₃ /L	< 25	< 15	< 15	6.1	< 5	<10	< 5	<5	5.6	7.7	5.3
Calcium - Total	mg/L	16	5.5	2	3.3	1.1	1	0.6	1.2	1.3	2.6	1.6
Carbonate	mg CaCO ₃ /L	< 25	< 15	< 15	< 5	< 5	<5	< 5	<5	< 5	< 5	< 5
Chloride	mg/L	< 25	< 15	< 15	12	< 5	<5	< 5	<5	< 5	5.1	< 5
Filterable Reactive Phosphorus	mg/L					0.02	0.04	< 0.01	<0.01	< 0.01	< 0.01	< 0.01
Hydroxide	mg CaCO ₃ /L	< 25	< 15	< 15	< 5	< 5	<5	< 5	<5	< 5	< 5	< 5
Magnesium - Total	mg/L	2.1	1.1	0.5	1	0.3	0.4	0.2	0.2	< 0.5	< 0.5	< 0.5
Nitrate-N	mg/L	< 0.05	< 0.03	< 0.03	< 0.02	0.09	0.03	0.12	0.07	< 0.01	< 0.01	< 0.01
Nitrite-N	mg/L	< 0.05	< 0.03	< 0.03	< 0.02	< 0.01	0.02	< 0.01	<0.01	< 0.01	< 0.01	< 0.01
NOx-N	mg/L	< 0.05	< 0.03	< 0.03	< 0.02	0.09	0.04	0.12	0.07	< 0.01	< 0.01	< 0.01
Organic Nitrogen	mg/L	< 0.5	0.75	< 0.6	< 0.32	1.26	1.36	0.64	0.45	0.02	< 0.70	< 0.2
Potassium - Total	mg/L	1.3	0.5	0.3	0.4	0.2	0.2	< 0.1	0.1	1	< 0.5	< 0.5
Sodium - Total	mg/L	18	14	6.5	7	3.3	2.3	1.1	2.3	2.9	5.2	4.4
Sulfate	mg/L	< 5	< 3	< 3	2.9	< 1	<1	< 1	<1	< 1	1.1	< 1
Total Kjeldahl Nitrogen*	mg/L	< 1	1	< 0.6	< 0.4	1.4	1.4	0.8	0.5	0.2	0.7	< 0.2
Total Nitrogen	mg/L	< 1	1	< 0.6	< 0.4	1.5	1.4	0.9	0.6	0.2	0.7	< 0.2

Visitor Centre soluble fraction	Units	4/09/2022 - 5/10/2022	5/10/2022 - 2/11/2022	2/11/2022 - 30/11/2022	30/11/2022 - 27/12/2022	27/12/2022 - 26/01/2023	26/01/2023 - 23/02/2023	23/02/2023 - 21/03/2023	21/03/2023 - 16/04/2023	16/04/2023 - 15/05/2023	15/05/2023 - 13/06/2023	13/06/2023 - 13/07/2023	13/07/2023 - 13/08/2023	13/08/2023 - 11/09/2023
Soluble fraction volume	mL	580	525	485	395	1250	530	750	1260	500	505	1580	520	510
Alkalinity	mg CaCO ₃ /L	6.3	5.9	9.3	9	5.7	9.1	15	13	28	< 5	16	7	7.8
Ammonia-N	mg/L	< 0.02	< 0.02	0.13	0.88	0.07	0.05	3.6	0.13	0.97	0.08	0.05	< 0.02	0.07
Bicarbonate	mg CaCO ₃ /L	6.3	5.9	9.3	9	5.7	9.1	15	13	28	< 5	16	7	7.8
Calcium - Total	mg/L	2	2.3	1.9	4.5	2.5	4.7	2.6	3	5.9	7.3	3	4	4.4
Carbonate	mg CaCO ₃ /L	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloride	mg/L	6.9	< 5	< 5	8.9	5.5	8.6	9	8.1	21	< 5	8.5	5.5	11
Filterable Reactive Phosphorus	mg/L	< 0.01	< 0.01	< 0.01	0.23	0.02	< 0.01	0.05	< 0.01	< 0.01	0.1	0.1	< 0.01	< 0.01
Hydroxide	mg CaCO ₃ /L	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Magnesium - Total	mg/L	0.5	< 0.5	< 0.5	0.8	0.6	1.9	1.9	2.8	5	0.6	1.9	1.9	2.8
Nitrate-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
Nitrite-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
NOx-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
Organic Nitrogen	mg/L	0.3	0.7	0.17	1.02	0.23	<0.15	< 0.01	0.77	< 0.01	<0.12	0.75	0.3	0.33
Potassium - Total	mg/L	< 0.5	< 0.5	< 0.5	1.1	< 0.5	0.9	1.5	0.7	2.1	< 0.5	1.3	1	1
Sodium - Total	mg/L	5.9	4.1	4.8	9.9	5.8	14	14	9.7	18	11	6.3	12	13
Sulfate	mg/L	1.7	< 1	1.4	2.3	1.4	2.2	2.8	2.5	5	< 1	3.3	2.8	4.6
Total Kjeldahl Nitrogen*	mg/L	0.3	0.7	0.3	1.9	0.3	< 0.2	3.2	0.9	0.6	< 0.2	0.8	0.3	0.4
Total Nitrogen	mg/L	0.3	0.7	0.3	1.9	0.3	< 0.2	3.2	0.9	0.6	< 0.2	0.8	0.3	0.4

Visitor Centre soluble fraction	Units	11/9/2023 - 13/10/2023	13/10/2023- 11/11/2023	11/11/2023- 10/12/2023	11/01/2024 - 09/02/2024	9/02/2024 - 12/03/2024	12/03/2024- 10/04/2024	10/04/2024 - 09/05/2024	09/05/2024 - 05/06/2024	05/06/2024- 03/07/2024	03/07/2024 - 1/08/2024	1/08/2024 - 31/08/2024	31/08/2024 - 01/10/2024
Soluble fraction volume	mL	530	500	260	225	500	320	1190	500	330	220	1000	220
Alkalinity	mg CaCO ₃ /L	180	12	26	18	12	32	18	12	15	39	23	9.5
Ammonia-N	mg/L	0.14	0.08	3.8	< 0.02	0.15	0.19	0.17	0.15	0.06	0.04	0.1	0.22
Bicarbonate	mg CaCO ₃ /L	180	12	26	18	12	32	18	12	15	39	23	9.5
Calcium - Total	mg/L	8	7.1	5.8	9.5	2.2	8.7	3.2	2.2	7	6.1	7.2	7.8
Carbonate	mg CaCO ₃ /L	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloride	mg/L	13	22	21	34	11	22	15	11	17	26	19	12
Filterable Reactive Phosphorus	mg/L	< 0.01	< 0.01	0.75	< 0.01	< 0.01	0.02	0.03	< 0.01	< 0.01	0.01	< 0.01	0.02
Hydroxide	mg CaCO ₃ /L	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Magnesium - Total	mg/L	4.4	4.3	5.4	6.1	1.2	5.5	2.7	1.2	4.1	6.5	5	2.4
Nitrate-N	mg/L	< 0.01	< 0.01	< 0.01	0.15	0.15	0.06	< 0.01	0.15	< 0.01	0.34	< 0.01	< 0.01
Nitrite-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
NO _x -N	mg/L	< 0.01	0.01	< 0.01	0.16	0.16	0.07	< 0.01	0.16	< 0.01	0.35	< 0.01	< 0.01
Organic Nitrogen	mg/L	0.26	-	2.5	0.3	2.05	0.51	1.13	2.05	0.94	0.36	0.2	2.48
Potassium - Total	mg/L	1.7	1.6	6.7	2.2	0.5	2.3	1.1	0.5	2.4	3.1	2.6	1.3
Sodium - Total	mg/L	19	21	26	32	6.5	27	11	6.5	20	23	24	16
Sulfate	mg/L	5.2	6.5	7.2	10	3.4	8.2	4.9	3.4	5.7	7.6	5	2
Total Kjeldahl Nitrogen*	mg/L	0.4	-	6.3	0.3	2.2	0.7	1.3	2.2	1	0.4	0.3	2.7
Total Nitrogen	mg/L	0.4	< 0.2	6.3	0.5	2.4	0.8	1.3	2.4	1	0.7	0.3	2.7

Visitor Centre soluble fraction	Units	1/10/2024 - 31/10/2024	31/10/2024 - 1/12/2024	1/12/2024 - 29/12/2024	27/01/2025 - 24/02/2025	24/202/2025 - 24/03/2025	24/202/2025 - 24/03/2025	22/04/2025 - 20/05/2025	20/05/2025 - 17/06/2025	17/06/2025 - 15/07/2025	15/07/2025 - 14/08/2025	14/08/2025 - 14/09/2025
Soluble fraction volume	mL	260	250	325	250	600	650	480	430	480	510	275
Alkalinity	mg CaCO3/L	27	63	36	13	11	6.6	5.3	10	8.2	7.4	8.8
Ammonia-N	mg/L	0.22	< 0.02	0.07	0.46	0.03	0.56	0.07	0.2	< 0.02	< 0.02	0.09
Bicarbonate	mg CaCO3/L	27	63	36	13	11	6.6	5.3	10	8.2	7.4	8.8
Calcium - Total	mg/L	7.3	8.9	5.9	5.9	3.2	4.2	2	3.1	2.1	7.6	3.8
Carbonate	mg CaCO3/L	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloride	mg/L	28	63	27	25	13	7.4	9.1	7.9	6.1	11	10
Filterable Reactive Phosphorus	mg/L	0.05	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.04	0.03	< 0.01	0.04	< 0.01
Hydroxide	mg CaCO3/L	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Magnesium - Total	mg/L	5.9	11	4.8	4.2	2	1.1	0.9	0.9	0.6	1.3	1.2
Nitrate-N	mg/L	0.33	0.22	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Nitrite-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
NOx-N	mg/L	0.34	0.22	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Organic Nitrogen	mg/L	0.18	0.3	2.03	1.04	0.67	0.14	1.33	1.3	<0.02	2.1	1.11
Potassium - Total	mg/L	2.7	3.9	2.6	1.8	1	0.7	0.7	3	0.7	1.1	1.1
Sodium - Total	mg/L	34	52	24	25	14	11	9.2	6.8	7.4	16	11
Sulfate	mg/L	9.3	20	8.6	7.6	4.1	2.2	1.7	1.9	< 1	2.4	2.7
Total Kjeldahl Nitrogen*	mg/L	0.4	0.3	2.1	1.5	0.7	0.7	1.4	1.5	< 0.2	2.1	1.2
Total Nitrogen	mg/L	0.7	0.5	2.1	1.5	0.7	0.7	1.4	1.5	< 0.2	2.1	1.2

RT Pastoral Lease soluble fraction	Units	29/11/2021 - 2029/12/2021	29/12/2021 - 25/01/2022	25/01/2022 - 23/02/2022	23/02/2022 - 23/03/2022	23/03/2022 - 20/04/2022	20/04/2022 - 15/06/2022	15/06/2022 - 18/07/2022	18/07/2022 - 10/08/2022	10/08/2022 - 4/09/2022
Soluble fraction volume	mL	355	430	1310	535	505	4300	500	500	470
Alkalinity	mg CaCO ₃ /L	18	< 15	13	6	10	<5	7.3	8	6.1
Ammonia-N	mg/L	0.07	0.15	0.31	0.36	0.12	0.37	0.03	< 0.02	0.03
Bicarbonate	mg CaCO ₃ /L	18	< 15	13	6	10	<5	7.3	8	6.1
Calcium - Total	mg/L	9.4	5.3	2.4	1.2	3.6	0.4	1.1	2.3	3.5
Carbonate	mg CaCO ₃ /L	< 15	< 15	< 5	< 5	<5	<5	< 5	< 5	< 5
Chloride	mg/L	< 15	< 15	< 10	< 5	<5	<5	< 5	< 5	< 5
Filterable Reactive Phosphorus	mg/L	-	-	-	0.03	<0.01	0.05	< 0.01	< 0.01	0.01
Hydroxide	mg CaCO ₃ /L	< 15	< 15	< 5	< 5	<5	<5	< 5	< 5	< 5
Magnesium - Total	mg/L	4.6	0.4	0.3	0.5	0.4	<0.1	< 0.5	< 0.5	< 0.5
Nitrate-N	mg/L	< 0.03	< 0.03	< 0.02	0.08	0.02	<0.01	< 0.01	< 0.01	< 0.01
Nitrite-N	mg/L	< 0.03	< 0.03	< 0.02	< 0.01	0.02	<0.01	< 0.01	< 0.01	< 0.01
NOx-N	mg/L	< 0.03	< 0.03	< 0.02	0.08	0.02	<0.01	< 0.01	< 0.01	< 0.01
Organic Nitrogen	mg/L	0.63	< 0.45	3.59	2.94	< 0.28	0.13	< 0.17	< 0.2	< 0.17
Potassium - Total	mg/L	1.4	0.3	0.2	1.1	0.3	0.2	< 0.5	< 0.5	< 0.5
Sodium - Total	mg/L	16	7.4	2.2	1.8	4.2	0.3	1.9	3.4	4.5
Sulfate	mg/L	10	3	< 2	< 1	<1	< 1	< 1	< 1	< 1
Total Kjeldahl Nitrogen*	mg/L	0.7	< 0.6	3.9	3.3	<0.4	0.5	< 0.2	< 0.2	< 0.2
Total Nitrogen	mg/L	0.7	< 0.6	3.9	3.4	<0.4	0.5	< 0.2	< 0.2	< 0.2

RT Pastoral Lease soluble fraction	Units	4/09/2022 - 5/10/2022	5/10/2022 - 2/11/2022	2/11/2022 - 30/11/2022	30/11/2022 - 27/12/2022	27/12/2022 - 23/02/2023	23/02/2023 - 21/03/2023	21/03/2023 - 16/04/2023	16/04/2023 - 15/05/2023	15/05/2023 - 13/06/2023	13/06/2023 - 13/07/2023	13/07/2023 - 13/08/2023	13/08/2023 - 11/09/2023
Soluble fraction volume	mL	550	515	495	440	680	590	1610	375	370	960	490	520
Alkalinity	mg CaCO ₃ /L	7.4	45	8.4	7.3	12	14	11	66	13	23	7	6.4
Ammonia-N	mg/L	0.13	11	0.15	0.1	0.98	0.15	0.2	8.7	0.65	0.06	< 0.02	0.06
Bicarbonate	mg CaCO ₃ /L	7.4	45	8.4	7.3	12	14	11	57	13	23	7	6.4
Calcium - Total	mg/L	1.8	2.5	2.1	4	4.4	3.9	2.9	7.1	10	4.5	3.4	3.6
Carbonate	mg CaCO ₃ /L	< 5	< 5	< 5	< 5	< 5	< 5	< 5	8.7	< 5	< 5	< 5	< 5
Chloride	mg/L	< 5	< 5	< 5	< 5	7.8	11	< 5	22	17	14	6.8	5.5
Filterable Reactive Phosphorus	mg/L	< 0.01	0.82	< 0.01	0.01	0.12	< 0.01	< 0.01	0.39	0.07	0.14	< 0.01	< 0.01
Hydroxide	mg CaCO ₃ /L	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Magnesium - Total	mg/L	< 0.5	< 0.5	< 0.5	< 0.5	1.2	3	2	5.7	6.2	2.9	1.8	1.5
Nitrate-N	mg/L	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.09	< 0.01	< 0.01	< 0.01	< 0.01
Nitrite-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
NOx-N	mg/L	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.1	< 0.01	< 0.01	< 0.01	< 0.01
Organic Nitrogen	mg/L	< 0.07	18	< 0.05	0.2	0.42	5.15	0.8	3.3	0.75	0.84	< 0.2	< 0.14
Potassium - Total	mg/L	< 0.5	5.4	< 0.5	< 0.5	1.4	1.6	0.7	4.9	2.6	1.2	0.8	0.7
Sodium - Total	mg/L	4.3	6.3	4.1	6.3	9.2	17	6.6	19	24	10	11	9.8
Sulfate	mg/L	1.2	< 1	1	< 1	3.1	< 1	1.6	5.3	5.1	4.6	3.2	2.4
Total Kjeldahl Nitrogen*	mg/L	< 0.2	29	< 0.2	0.3	1.4	5.3	1	12	1.4	0.9	< 0.2	< 0.2
Total Nitrogen	mg/L	< 0.2	29	< 0.2	0.3	1.4	5.3	1	12	1.4	0.9	< 0.2	< 0.2

RT Pastoral Lease soluble fraction	mL	11/9/2023 - 13/10/2023	13/10/2023 - 11/11/2023	11/11/23 - 10/12/23	11/01/2024 - 09/02/2024	9/02/2024 - 12/03/2024	12/03/2024 - 10/04/2024	10/04/2024 - 09/05/2024	09/05/24 - 05/06/24	05/06/2024 - 03/07/2024	03/07/2024 - 1/08/2024	1/08/2024 - 31/08/2024	31/08/2024 - 01/10/2024
Soluble fraction volume	mL	450	510	235	275	285	265	170	285	585	240	1100	500
Alkalinity	mg CaCO ₃ /L	140	18	15	25	47	22	38	47	11	19	26	< 5
Ammonia-N	mg/L	< 0.02	0.6	0.29	0.04	0.09	0.04	1.1	0.09	0.03	0.07	0.07	< 0.02
Bicarbonate	mg CaCO ₃ /L	140	18	15	25	47	22	38	47	11	19	26	< 5
Calcium - Total	mg/L	8.3	6.6	5	7.6	5.8	8.8	5.9	5.8	3.8	7.6	5.6	< 0.5
Carbonate	mg CaCO ₃ /L	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloride	mg/L	11	20	17	24	30	21	23	30	10	28	16	< 5
Filterable Reactive Phosphorus	mg/L	< 0.01	< 0.01	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.01	< 0.01	< 0.01
Hydroxide	mg CaCO ₃ /L	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Magnesium - Total	mg/L	4.4	4.7	6.5	5.3	6.2	7	6.2	6.2	2.5	7.5	4.5	< 0.5
Nitrate-N	mg/L	< 0.01	0.02	< 0.01	0.07	0.27	0.19	< 0.01	0.27	< 0.01	0.06	< 0.01	< 0.01
Nitrite-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
NOx-N	mg/L	< 0.01	0.03	< 0.01	0.08	0.28	0.2	< 0.01	0.28	< 0.01	0.07	< 0.01	< 0.01
Organic Nitrogen	mg/L	< 0.07	18	< 0.05	0.2	0.42	5.15	0.8	3.3	0.75	0.84	< 0.2	< 0.14
Potassium - Total	mg/L	< 0.5	5.4	< 0.5	< 0.5	1.4	1.6	0.7	4.9	2.6	1.2	0.8	0.7
Sodium - Total	mg/L	4.3	6.3	4.1	6.3	9.2	17	6.6	19	24	10	11	9.8
Sulfate	mg/L	1.2	< 1	1	< 1	3.1	< 1	1.6	5.3	5.1	4.6	3.2	2.4
Total Kjeldahl Nitrogen*	mg/L	< 0.2	29	< 0.2	0.3	1.4	5.3	1	12	1.4	0.9	< 0.2	< 0.2
Total Nitrogen	mg/L	< 0.2	29	< 0.2	0.3	1.4	5.3	1	12	1.4	0.9	< 0.2	< 0.2

RT Pastoral Lease soluble fraction	mL	1/10/2024 - 31/10/2024	31/10/2024 - 1/12/2024	1/12/2024 - 29/12/2024	27/01/2025 - 24/02/2025	24/02/2025 - 24/03/2025	24/02/2025 - 24/03/2025	22/04/2025 - 20/05/2025	20/05/2025 - 17/06/2025	17/06/2025 - 15/07/2025	15/07/2025 - 14/08/2025	14/08/2025 - 14/09/2025
Soluble fraction volume	mL	240	250	300	310	750	540	420	285	530	510	420
Alkalinity	mg CaCO ₃ /L	54	38	85	17	12	7.3	5.3	12	7.8	9.5	7.6
Ammonia-N	mg/L	0.15	0.04	14	0.11	< 0.02	0.63	0.11	0.23	0.06	0.3	0.22
Bicarbonate	mg CaCO ₃ /L	54	38	85	17	12	7.3	5.3	12	7.8	9.5	7.6
Calcium - Total	mg/L	5.8	8.1	9.4	6.4	2.8	7.6	3.1	3.8	2.3	4.3	4
Carbonate	mg CaCO ₃ /L	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloride	mg/L	28	40	26	12	8.6	< 5	7.8	6	5.7	8.2	8.1
Filterable Reactive Phosphorus	mg/L	0.04	< 0.01	0.22	< 0.01	< 0.01	0.05	< 0.01	< 0.01	< 0.01	0.04	0.02
Hydroxide	mg CaCO ₃ /L	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Magnesium - Total	mg/L	7	6.5	4.3	3.6	1.5	1.8	1.2	0.7	0.6	0.9	0.9
Nitrate-N	mg/L	0.15	0.11	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Nitrite-N	mg/L	0.02	0.03	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
NOx-N	mg/L	0.17	0.14	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Organic Nitrogen	mg/L	0.45	0.26	24	0.49	0.9	0.9	0.9	0.9	7.54	2.2	0.78
Potassium - Total	mg/L	3.2	3	4.7	1.4	0.8	1.1	0.9	0.8	0.7	1.2	0.8
Sodium - Total	mg/L	38	37	20	12	9.3	8.9	9.2	7.7	7.6	10	7.8
Sulfate	mg/L	9.6	9.5	9.9	3.3	3.5	< 1	1.6	2.9	< 1	2	2.3
Total Kjeldahl Nitrogen*	mg/L	0.6	0.3	38	0.6	0.9	1.4	1.4	1.2	7.6	2.5	1
Total Nitrogen	mg/L	0.8	0.4	38	0.6	0.9	1.4	1.4	1.2	7.6	2.5	1

AAQ Station soluble fraction	Units	29/09/2021 - 1/11/2021	29/11/2021 - 29/12/2021	29/12/2021 - 25/1/2022	25/01/2022 - 23/02/2022	23/02/2022 - 23/03/2022	23/03/2022 - 20/04/2022	20/04/2021 - 19/05/2021	19/05/2022 - 15/06/2022	15/06/2022 - 18/07/2022	18/07/2022 - 10/08/2022	10/08/2022 - 4/09/2022
Soluble fraction volume	mL	282	483	530	725	530	505	2050	2450	450	500	520
Alkalinity	mg CaCO ₃ /L	< 25	< 15	< 15	5.4	< 5	<10	< 5	< 5	6.4	6.7	5.7
Ammonia-N	mg/L	< 0.1	< 0.06	< 0.06	0.31	< 0.02	<0.02	< 0.02	0.17	< 0.02	< 0.02	< 0.02
Bicarbonate	mg CaCO ₃ /L	< 25	< 15	< 15	5.4	< 5	<10	< 5	< 5	6.4	6.7	5.7
Calcium - Total	mg/L	3.7	5.2	3.8	4.5	1.6	6.6	1.2	1	1.4	2.5	1.8
Carbonate	mg CaCO ₃ /L	< 25	< 15	< 15	< 5	< 5	<5	< 5	< 5	< 5	< 5	< 5
Chloride	mg/L	< 25	< 15	< 15	< 10	< 5	<5	< 5	< 5	< 5	< 5	< 5
Filterable Reactive Phosphorus	mg/L	-	-	-	-	<0.01	<0.01	< 0.01	<0.01	< 0.01	< 0.01	< 0.01
Hydroxide	mg CaCO ₃ /L	< 25	< 15	< 15	< 5	< 5	<5	< 5	< 5	< 5	< 5	< 5
Magnesium - Total	mg/L	1.1	0.8	0.6	0.8	0.5	0.8	0.2	0.3	< 0.5	< 0.5	< 0.5
Nitrate-N	mg/L	< 0.05	< 0.03	< 0.03	< 0.02	< 0.01	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Nitrite-N	mg/L	< 0.05	< 0.03	< 0.03	< 0.02	< 0.01	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
NOx-N	mg/L	< 0.05	< 0.03	< 0.03	< 0.02	< 0.01	0.01	< 0.01	0.01	< 0.01	< 0.01	< 0.01
Organic Nitrogen	mg/L	< 1	< 0.6	< 0.6	< 0.09	< 0.4	<0.4	< 0.2	0.43	< 0.2	< 0.28	< 0.2
Potassium - Total	mg/L	0.5	0.4	0.3	0.3	0.1	0.3	< 0.1	0.1	< 0.5	< 0.5	< 0.5
Sodium - Total	mg/L	7.4	15	7.9	7.1	4.1	7.5	1.9	1.4	3.2	3.9	5
Sulfate	mg/L	< 5	< 3	< 3	3.2	1	<1	< 1	<1	< 1	< 1	< 1
Total Kjeldahl Nitrogen*	mg/L	< 1	< 0.6	< 0.6	< 0.4	< 0.4	<0.4	< 0.2	0.6	< 0.2	0.3	< 0.2
Total Nitrogen	mg/L	< 1	< 0.6	< 0.6	< 0.4	< 0.4	<0.4	< 0.2	0.6	< 0.2	0.3	< 0.2

AAQ Station soluble fraction	Units	4/09/2022 - 5/10/2022	5/10/2022 - 2/11/2022	2/11/2022 - 30/11/2022	30/11/2022 - 27/12/2022	27/12/2022 - 26/01/2023	26/01/2023 - 23/02/2023	23/02/2023 - 21/03/2023	21/03/2023 - 16/04/2023	16/04/2023 - 15/05/2023	15/05/2023 - 13/06/2023	13/06/2023 - 13/07/2023	13/07/2023 - 13/08/2023	13/08/2023 - 11/09/2023
Soluble fraction volume	mL	455	510	505	460	790	600	1200	1220	505	300	1650	490	520
Alkalinity	mg CaCO ₃ /L	7.4	< 5	8	7.3	6.3	8.6	10	11	42	6.1	13	11	7.9
Ammonia-N	mg/L	0.07	< 0.02	0.2	0.02	0.05	0.07	0.26	0.18	2	< 0.02	0.06	< 0.02	0.02
Bicarbonate	mg CaCO ₃ /L	7.4	< 5	8	7.3	6.3	8.6	10	11	18	6.1	13	11	7.9
Calcium - Total	mg/L	1.6	1.1	2.5	4.6	2.7	3.4	1.8	2	7.8	8.8	2.4	4.9	3.8
Carbonate	mg CaCO ₃ /L	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	24	< 5	< 5	< 5	< 5
Chloride	mg/L	< 5	6.3	6.9	10	9.4	6.5	5.3	5.1	20	< 5	7.5	10	11
Filterable Reactive Phosphorus	mg/L	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.08	0.09	< 0.01	< 0.01
Hydroxide	mg CaCO ₃ /L	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Magnesium - Total	mg/L	< 0.5	0.5	0.6	0.8	0.9	1.7	1.9	2	5	3	1.5	3.9	2.9
Nitrate-N	mg/L	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.1	< 0.01	< 0.01	< 0.01	< 0.01
Nitrite-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
NO _x -N	mg/L	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.11	< 0.01	< 0.01	< 0.01	< 0.01
Organic Nitrogen	mg/L	< 0.13	0.4	0	0.28	0.25	0.23	0.24	0.32	<0.01	< 0.2	0.54	0.4	0.18
Potassium - Total	mg/L	< 0.5	< 0.5	0.5	< 0.5	< 0.5	0.6	1	0.5	2.1	1.8	0.7	1.5	1.1
Sodium - Total	mg/L	4.6	4.4	7.2	9.7	8.9	10	14	6.7	19	20	5.4	19	13
Sulfate	mg/L	1.2	< 1	1.7	1.4	1.7	1.4	2	1.2	5.1	1.4	2.6	4.9	4.5
Total Kjeldahl Nitrogen*	mg/L	< 0.2	0.4	< 0.2	0.3	0.3	0.3	0.5	0.5	0.9	< 0.2	0.6	0.4	0.2
Total Nitrogen	mg/L	< 0.2	0.4	< 0.2	0.3	0.3	0.3	0.5	0.5	1	< 0.2	0.6	0.4	0.2

AAQ Station soluble fraction	Units	11/9/2023 - 13/10/2023	13/10/2023 - 11/11/2023	11/11/23 - 10/12/23	11/01/2024 - 09/02/2024	9/02/2024 - 12/03/2024	12/03/2024 - 10/04/2024	10/04/2024 - 09/05/2024	09/05/24 - 05/06/24	05/06/2024 - 03/07/2024	03/07/2024 - 1/08/2024	1/08/2024 - 31/08/2024	31/08/2024 - 01/10/2024
Soluble fraction volume	mL	490	500	235	275	500	315	740	500	350	100	1100	300
Alkalinity	mg CaCO3/L	140	16	12	21	12	27	18	12	14	9.5	27	9.2
Ammonia-N	mg/L	0.43	0.52	0.19	0.13	0.56	< 0.02	0.07	0.56	0.08	0.1	0.06	0.07
Bicarbonate	mg CaCO3/L	140	16	12	21	12	27	18	12	14	9.5	27	9.2
Calcium - Total	mg/L	7.8	9.1	6.2	8.5	1.7	8.9	3.1	1.7	6.1	6.8	8	5.2
Carbonate	mg CaCO3/L	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloride	mg/L	15	22	21	33	11	20	15	11	17	15	23	8.6
Filterable Reactive Phosphorus	mg/L	0.01	< 0.01	< 0.01	0.09	0.16	0.03	0.01	0.16	< 0.01	0.02	< 0.01	0.06
Hydroxide	mg CaCO3/L	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Magnesium - Total	mg/L	6.7	4.6	5.6	6	1	5.4	3.2	1	3.8	3.2	6.2	1.5
Nitrate-N	mg/L	0.11	0.04	< 0.01	0.04	0.13	0.07	< 0.01	0.13	< 0.01	0.01	0.03	< 0.01
Nitrite-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
NOx-N	mg/L	0.11	0.05	< 0.01	0.04	0.13	0.07	< 0.01	0.13	< 0.01	0.02	0.03	< 0.01
Organic Nitrogen	mg/L	0.97	0	0.11	0.37	1.24	< 0.02	0.63	1.24	0.52	0.5	-	7.23
Potassium - Total	mg/L	2.3	1.7	2.1	2.2	0.7	2.1	1.2	0.7	1.7	1.5	3.1	0.8
Sodium - Total	mg/L	24	22	29	30	7.2	26	13	7.2	21	14	28	11
Sulfate	mg/L	7.7	7.1	6.8	10	3.2	7.8	4.6	3.2	5.7	4.5	6.2	3.1
Total Kjeldahl Nitrogen*	mg/L	1.4	0.5	0.3	0.5	1.8	0.4	0.7	1.8	0.6	0.6	-	7.3
Total Nitrogen	mg/L	1.5	0.5	0.3	0.5	1.9	0.5	0.7	1.9	0.6	0.6	< 0.2	7.3

AAQ Station soluble fraction	Units	1/10/2024 - 31/10/2024	31/10/2024 - 1/12/2024	1/12/2024 - 29/12/2024	27/01/2025 - 24/02/2025	24/02/2025 - 24/03/2025	24/02/2025 - 24/03/2025	22/04/2025 - 20/05/2025	20/05/2025 - 17/06/2025	17/06/2025 - 15/07/2025	15/07/2025 - 14/08/2025	14/08/2025 - 14/09/2025
Soluble fraction volume	mL	250	250	350	270	650	630	460	475	450	420	265
Alkalinity	mg CaCO ₃ /L	27	60	64	12	9.2	6.9	< 5	10	8.6	7.5	7.2
Ammonia-N	mg/L	0.52	0.05	8.2	0.09	0.07	0.46	< 0.02	0.1	< 0.02	< 0.02	0.05
Bicarbonate	mg CaCO ₃ /L	27	60	64	12	9.2	6.9	< 5	10	8.6	7.5	7.2
Calcium - Total	mg/L	8.1	9.3	3.9	5.6	2.2	3.5	1.9	2.2	2	7	6.4
Carbonate	mg CaCO ₃ /L	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloride	mg/L	29	67	26	26	12	8.5	6.9	8.7	5.6	15	9.8
Filterable Reactive Phosphorus	mg/L	0.01	< 0.01	1.7	< 0.01	< 0.01	0.04	< 0.01	< 0.01	< 0.01	0.01	0.01
Hydroxide	mg CaCO ₃ /L	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Magnesium - Total	mg/L	7.3	12	4.2	4.7	1.6	1.2	0.8	0.9	0.6	1.7	1.1
Nitrate-N	mg/L	0.2	0.17	0.03	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Nitrite-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
NOx-N	mg/L	0.2	0.18	0.04	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Organic Nitrogen	mg/L	1.38	0.35	4.8	0.51	0.63	0.24	1.2	1.2	< 0.02	2.1	0.55
Potassium - Total	mg/L	3.5	4.1	7.1	1.7	0.8	0.7	0.6	0.5	0.6	1.3	0.8
Sodium - Total	mg/L	42	58	20	25	11	11	9.3	8.8	7.7	19	14
Sulfate	mg/L	9.8	20	6.3	8	3.5	3.2	1.3	2.7	< 1	8	2.2
Total Kjeldahl Nitrogen*	mg/L	1.9	0.4	13	0.6	0.7	0.7	1.2	0.5	< 0.2	2.1	0.6
Total Nitrogen	mg/L	2.1	0.6	13	0.6	0.7	0.7	1.2	0.5	< 0.2	2.1	0.6

Blank soluble fraction	Units	29/09/2021 - 1/11/2021	29/11/2021 - 29/12/2021	29/12/2021 - 25/1/2022	25/01/2022 - 23/02/2022	23/02/2022 - 23/03/2022	23/03/2022 - 20/04/2022	20/04/2021 - 19/05/2021	19/05/2022 - 15/06/2022	15/06/2022 - 18/07/2022	18/07/2022 - 10/08/2022	10/08/2022 - 4/09/2022
Soluble fraction volume	mL	500	500	500	500	500	500	500	500	500	500	500
Alkalinity	mg CaCO ₃ /L	< 25	< 500	< 15	< 5	< 5	<10	< 5	< 5	< 5	< 5	< 5
Ammonia-N	mg/L	< 0.1	< 2	< 0.06	< 0.04	< 0.02	<0.02	< 0.02	<0.02	< 0.02	0.02	< 0.02
Bicarbonate	mg CaCO ₃ /L	< 25	< 500	< 15	< 5	< 5	<10	< 5	<5	< 5	< 5	< 5
Calcium - Total	mg/L	0.3	< 10	< 0.3	< 0.2	0.2	0.3	0.2	0.2	< 0.5	< 0.5	1.6
Carbonate	mg CaCO ₃ /L	< 25	< 500	< 15	< 5	< 5	<5	< 5	< 5	< 5	< 5	< 5
Chloride	mg/L	< 25	< 500	< 15	< 10	< 5	<5	< 5	< 5	< 5	< 5	< 5
Filterable Reactive Phosphorus	mg/L	-	-	-	-	0.04	0.02	0.13	<0.01	< 0.01	< 0.01	< 0.01
Hydroxide	mg CaCO ₃ /L	< 25	< 500	< 15	< 5	< 5	<5	< 5	< 5	< 5	< 5	< 5
Magnesium - Total	mg/L	< 0.1	< 10	< 0.3	< 0.2	0.2	<0.2	< 0.1	<0.1	< 0.5	< 0.5	< 0.5
Nitrate-N	mg/L	< 0.05	< 1	< 0.03	< 0.02	< 0.01	0.04	< 0.01	<0.1	< 0.01	< 0.01	< 0.01
Nitrite-N	mg/L	< 0.05	< 1	< 0.03	< 0.02	< 0.01	0.02	< 0.01	<0.1	< 0.01	< 0.01	< 0.01
NOx-N	mg/L	< 0.05	< 1	< 0.03	< 0.02	< 0.01	0.05	< 0.01	<0.1	< 0.01	< 0.01	< 0.01
Organic Nitrogen	mg/L	< 1	< 200	< 0.6	< 0.4	< 0.4	<0.4	1.1	<0.2	< 0.2	< 0.2	< 0.2
Potassium - Total	mg/L	< 0.1	< 10	< 0.3	< 0.2	< 0.1	<0.2	< 0.1	<0.1	< 0.5	< 0.5	< 0.5
Sodium - Total	mg/L	1.6	< 10	< 0.3	< 0.2	< 0.1	0.7	0.1	<0.1	1.2	0.7	3.7
Sulfate	mg/L	< 5	< 100	< 3	< 2	< 1	<1	< 1	<1	< 1	< 1	< 1
Total Kjeldahl Nitrogen*	mg/L	< 1	< 200	< 0.6	< 0.4	< 0.4	<0.4	1.1	<0.2	< 0.2	< 0.2	< 0.2
Total Nitrogen	mg/L	< 1	< 200	< 0.6	< 0.4	< 0.4	<0.4	1.1	<0.2	< 0.2	< 0.2	< 0.2

Blank soluble fraction	Units	4/09/2022 - 5/10/2022	5/10/2022 - 2/11/2022	2/11/2022 - 30/11/2022	30/11/2022 - 27/12/2022	27/12/2022 - 26/01/2023	26/01/2023 - 23/02/2023	23/02/2023 - 21/03/2023	21/03/2023 - 16/04/2023	16/04/2023 - 15/05/2023	15/05/2023 - 13/06/2023	13/06/2023 - 13/07/2023	13/07/2023 - 13/08/2023	13/08/2023 - 11/09/2023
Soluble fraction volume	mL	500	500	500	500	500	500	500	500	500	500	500	500	500
Alkalinity	mg CaCO ₃ /L	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	37	< 5	< 5	< 5	< 5
Ammonia-N	mg/L	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	0.68	< 0.02	0.02	< 0.02	< 0.02
Bicarbonate	mg CaCO ₃ /L	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	37	< 5	< 5	< 5	< 5
Calcium - Total	mg/L	0.7	0.6	0.9	1.3	0.7	< 0.5	1	1.1	1.2	2.1	0.6	< 0.5	< 0.5
Carbonate	mg CaCO ₃ /L	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloride	mg/L	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Filterable Reactive Phosphorus	mg/L	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.03	< 0.01	< 0.01	< 0.01
Hydroxide	mg CaCO ₃ /L	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Magnesium - Total	mg/L	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	1	< 0.5	< 0.5	2.3	< 0.5	< 0.5	< 0.5
Nitrate-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
Nitrite-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
NOx-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
Organic Nitrogen	mg/L	< 0.2	0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	1.2	< 0.2	< 0.2	0.38	< 0.2	< 0.2
Potassium - Total	mg/L	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.6	< 0.5	< 0.5	2.4	< 0.5	< 0.5	< 0.5
Sodium - Total	mg/L	2.2	2.1	4.3	4.1	7.8	3.5	12	4.8	3.4	28	0.9	< 0.5	< 0.5
Sulfate	mg/L	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Total Kjeldahl Nitrogen*	mg/L	< 0.2	0.2	< 0.2	3	< 0.2	< 0.2	< 1	< 1	< 1	< 0.2	0.4	< 0.2	< 0.2
Total Nitrogen	mg/L	< 0.2	0.2	< 0.2	3	< 0.2	< 0.2	< 0.2	1.2	< 0.2	< 0.2	0.4	< 0.2	< 0.2

Blank soluble fraction	Units	11/9/2023 - 13/10/2023	13/10/2023- 11/11/2023	11/11/2023- 10/12/2023	11/01/2024 - 09/02/2024	9/02/2024 - 12/03/2024	12/03/2024- 10/04/2024	10/04/2024 - 09/05/2024	09/05/24 - 05/06/24	05/06/2024- 03/07/2024	03/07/2024 - 1/08/2024	1/08/2024 - 31/08/2024	31/08/2024 - 01/10/2024
Soluble fraction volume	mL	500	500	250	275	250	450	500	250	500	300	10	500
Alkalinity	mg CaCO ₃ /L	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Ammonia-N	mg/L	< 0.02	< 0.02	0.07	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Bicarbonate	mg CaCO ₃ /L	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Calcium - Total	mg/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
Carbonate	mg CaCO ₃ /L	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloride	mg/L	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Filterable Reactive Phosphorus	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
Hydroxide	mg CaCO ₃ /L	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Magnesium - Total	mg/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
Nitrate-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
Nitrite-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
NO _x -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
Organic Nitrogen	mg/L	<0.18	<0.18	<0.2	<0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Potassium - Total	mg/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
Sodium - Total	mg/L	< 0.5	2.6	2.2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Sulfate	mg/L	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Total Kjeldahl Nitrogen*	mg/L	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Total Nitrogen	mg/L	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2

Blank soluble fraction	Units	1/10/2024 - 31/10/2024	31/10/2024 - 1/12/2024	1/12/2024 - 29/12/2024	27/01/2025 - 24/02/2025	24/202/2025 - 24/03/2025	24/202/2025 - 24/03/2025	22/04/2025 - 20/05/2025	20/05/2025 - 17/06/2025	17/06/2025 - 15/07/2025	15/07/2025 - 14/08/2025	14/08/2025 - 14/09/2025
Soluble fraction volume	mL	250	250	300	280	600	600	500	300	500	600	250
Alkalinity	mg CaCO ₃ /L	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Ammonia-N	mg/L	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Bicarbonate	mg CaCO ₃ /L	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Calcium - Total	mg/L	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.6	< 0.5
Carbonate	mg CaCO ₃ /L	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloride	mg/L	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Filterable Reactive Phosphorus	mg/L	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Hydroxide	mg CaCO ₃ /L	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Magnesium - Total	mg/L	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Nitrate-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
Nitrite-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
NO _x -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
Organic Nitrogen	mg/L	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.02	0.9	< 0.2
Potassium - Total	mg/L	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Sodium - Total	mg/L	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	2.8	< 0.5
Sulfate	mg/L	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Total Kjeldahl Nitrogen*	mg/L	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	1.2	< 0.2	< 0.2	0.9	< 0.2
Total Nitrogen	mg/L	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	1.2	< 0.2	< 0.2	0.9	< 0.2

Appendix D Rainwater data

KBSF Quarry Rainwater *Not NATA accredited	Units	12/03/2024	13/04/2024	5/06/2024	3/07/2024	11/08/2024
Volume	mL	5630	4895	1250	1200	1030
Ammonia-N	mg/L	0.03	0.05	0.28	< 0.02	0.24
Calcium (filtered)	mg/L	1	< 0.5	1.3	0.5	4.2
Chloride	mg/L	< 5	< 5	< 5	< 5	6.6
Filterable Reactive Phosphorus	mg/L	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Magnesium (filtered)	mg/L	< 0.5	< 0.5	< 0.5	< 0.5	0.9
Nitrate-N	mg/L	0.21	< 0.01	< 0.01	< 0.01	< 0.01
Nitrite-N	mg/L	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
NOx-N	mg/L	0.22	< 0.01	< 0.01	< 0.01	< 0.01
pH	pH units	6.6	5.3	5.6	5.2	5.5
Potassium (filtered)	mg/L	< 0.5	< 0.5	< 0.5	< 0.5	0.5
Sodium (filtered)	mg/L	0.9	0.7	2.2	1.8	4.1
Sulfate	mg/L	1.1	< 1	2.2	< 1	2.6
TKN	mg/L	< 0.2	0.3	0.3	0.5	1.3
Total Nitrogen	mg/L	0.3	0.3	0.3	0.5	1.3
Alkalinity	mg CaCO ₃ /L	5.8	< 5		< 5	8.1
Bicarbonate	mg CaCO ₃ /L	5.8	< 5	5.4	< 5	8.1
Carbonate	mg CaCO ₃ /L	< 5	< 5	< 5	< 5	< 5
Hydroxide	mg CaCO ₃ /L	< 5	< 5	< 5	< 5	< 5
Acetic Acid*	mg/L	< 5	< 5	< 5	< 5	6
Butyric Acid*	mg/L	< 5	< 5	< 5	< 5	< 5
Caproic Acid*	mg/L	< 5	< 5	< 5	< 5	< 5
Formic Acid*	mg/L					
Heptanoic Acid*	mg/L	< 5	< 5	< 5	< 5	< 5
Isobutyric Acid*	mg/L	< 5	< 5	< 5	< 5	< 5
Isocaproic Acid*	mg/L	< 5	< 5	< 5	< 5	< 5
Isovaleric Acid*	mg/L	< 5	< 5	< 5	< 5	< 5
Propionic Acid*	mg/L	< 5	< 5	< 5	< 5	< 5
Total VFA (as acetic acid)	mg/L	< 5	< 5	< 5	< 5	6
Valeric Acid*	mg/L	< 5	< 5	< 5	< 5	< 5

KBSF Quarry Rainwater *Not NATA accredited	Units	15/12/2024	6/01/2025	27/01/2025	24/03/2025	17/06/2025	30/08/2025
Volume	mL	810	3850	15000	550	1,450	600
Ammonia-N	mg/L	0.03	< 0.02	0.04	0.28	0.04	0.17
Calcium (filtered)	mg/L	3	< 0.5	< 0.5	2.1	< 0.5	5.8
Chloride	mg/L	< 5	< 5	< 5	9.8	< 5	6.5
Filterable Reactive Phosphorus	mg/L	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.01
Magnesium (filtered)	mg/L	0.6	< 0.5	< 0.5	0.6	< 0.5	0.8
Nitrate-N	mg/L	0.12	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Nitrite-N	mg/L	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
NOx-N	mg/L	0.13	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
pH	pH units	0.37	<0.2	<0.2	0.02	1.46	0.33
Potassium (filtered)	mg/L	5.8	5.1	5.6	6.2	5.5	5.8
Sodium (filtered)	mg/L	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Sulfate	mg/L	2.2	1.1	1.4	4.9	< 0.5	4.2
TKN	mg/L	< 1	< 1	< 1	2.3	< 1	2.7
Total Nitrogen	mg/L	0.4	< 0.2	< 0.2	0.3	1.5	0.5
Alkalinity	mg CaCO ₃ /L	0.5	< 0.2	< 0.2	0.3	1.5	0.5
Bicarbonate	mg CaCO ₃ /L	8.2	< 5	< 5	13	5.9	8
Carbonate	mg CaCO ₃ /L	8.2	< 5	< 5	13	5.9	8
Hydroxide	mg CaCO ₃ /L	< 5	< 5	< 5	< 5	< 5	< 5
Acetic Acid*	mg/L	< 5	< 5	< 5	< 5	< 5	< 5
Butyric Acid*	mg/L	< 5	< 5	< 5	< 5	< 5	< 5
Caproic Acid*	mg/L	< 5	< 5	< 5	< 5	< 5	< 5
Formic Acid*	mg/L	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Heptanoic Acid*	mg/L	< 5	< 5	< 5	< 5	< 5	< 5
Isobutyric Acid*	mg/L	< 5	< 5	< 5	< 5	< 5	< 5
Isocaproic Acid*	mg/L	< 5	< 5	< 5	< 5	< 5	< 5
Isovaleric Acid*	mg/L	< 5	< 5	< 5	< 5	< 5	< 5
Propionic Acid*	mg/L	< 5	< 5	< 5	< 5	< 5	< 5
Total VFA (as acetic acid)	mg/L	< 5	< 5	< 5	< 5	< 5	< 5
Valeric Acid*	mg/L	< 5	< 5	< 5	< 5	< 5	< 5

Mt Wongama Rainwater *Not NATA accredited	Units	12/03/2024	13/04/2024	5/06/2024	11/08/2024
Volume	mL	1100	3200	1150	2150
Ammonia-N	mg/L	0.04	0.03	0.23	0.05
Calcium (filtered)	mg/L	1.8	< 0.5	< 0.5	0.8
Chloride	mg/L	17	6.9	< 5	7.4
Filterable Reactive Phosphorus	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Magnesium (filtered)	mg/L	0.9	< 0.5	< 0.5	0.6
Nitrate-N	mg/L	0.06	< 0.01	< 0.01	< 0.01
Nitrite-N	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
NOx-N	mg/L	0.07	< 0.01	< 0.01	< 0.01
pH	pH units	6	5.4	5.1	5.4
Potassium (filtered)	mg/L	< 0.5	< 0.5	< 0.5	< 0.5
Sodium (filtered)	mg/L	5.7	4.2	1.5	4.1
Sulfate	mg/L	3.5	< 1	1.9	2.1
TKN	mg/L	0.4	0.9	< 0.2	0.3
Total Nitrogen	mg/L	0.5	0.9	< 0.2	0.3
Alkalinity	mg CaCO ₃ /L	< 5	< 5		5.8
Bicarbonate	mg CaCO ₃ /L	< 5	< 5	< 5	5.8
Carbonate	mg CaCO ₃ /L	< 5	< 5	< 5	< 5
Hydroxide	mg CaCO ₃ /L	< 5	< 5	< 5	< 5
Acetic Acid*	mg/L	< 5	< 5	< 5	8
Butyric Acid*	mg/L	< 5	< 5	< 5	< 5
Caproic Acid*	mg/L	< 5	< 5	< 5	< 5
Formic Acid*	mg/L	-	-	-	
Heptanoic Acid*	mg/L	< 5	< 5	< 5	< 5
Isobutyric Acid*	mg/L	< 5	< 5	< 5	< 5
Isocaproic Acid*	mg/L	< 5	< 5	< 5	< 5
Isovaleric Acid*	mg/L	< 5	< 5	< 5	< 5
Propionic Acid*	mg/L	< 5	< 5	< 5	< 5
Total VFA (as acetic acid)	mg/L	< 5	< 5	< 5	8
Valeric Acid*	mg/L	< 5	< 5	< 5	< 5

Mt Wongama Rainwater *Not NATA accredited	Units	15/12/2024	6/01/2025	27/01/2025	24/03/2025
Volume	mL	950	4010	15000	570
Ammonia-N	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
Calcium (filtered)	mg/L	< 0.5	< 0.5	< 0.5	3.4
Chloride	mg/L	< 5	6.6	6.4	19
Filterable Reactive Phosphorus	mg/L	0.03	< 0.01	< 0.01	< 0.01
Magnesium (filtered)	mg/L	< 0.5	0.6	< 0.5	1.5
Nitrate-N	mg/L	< 0.01	< 0.01	0.01	0.11
Nitrite-N	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
NOx-N	mg/L	< 0.01	< 0.01	0.02	0.12
pH	pH units	4.9	5.3	5.4	6.1
Potassium (filtered)	mg/L	< 0.5	< 0.5	< 0.5	0.5
Sodium (filtered)	mg/L	< 0.5	4.7	3.1	11
Sulfate	mg/L	< 1	< 1	< 1	4.8
TKN	mg/L	0.3	< 0.2	< 0.2	0.3
Total Nitrogen	mg/L	0.3	< 0.2	< 0.2	0.4
Alkalinity	mg CaCO3/L	< 5	< 5	< 5	7.2
Bicarbonate	mg CaCO3/L	< 5	< 5	< 5	7.2
Carbonate	mg CaCO3/L	< 5	< 5	< 5	< 5
Hydroxide	mg CaCO3/L	< 5	< 5	< 5	< 5
Acetic Acid*	mg/L	< 5	< 5	< 5	< 5
Butyric Acid*	mg/L	< 5	< 5	< 5	< 5
Caproic Acid*	mg/L	< 5	< 5	< 5	< 5
Formic Acid*	mg/L	#N/A	#N/A	#N/A	#N/A
Heptanoic Acid*	mg/L	< 5	< 5	< 5	< 5
Isobutyric Acid*	mg/L	< 5	< 5	< 5	< 5
Isocaproic Acid*	mg/L	< 5	< 5	< 5	< 5
Isovaleric Acid*	mg/L	< 5	< 5	< 5	< 5
Propionic Acid*	mg/L	< 5	< 5	< 5	< 5
Total VFA (as acetic acid)	mg/L	< 5	< 5	< 5	< 5
Valeric Acid*	mg/L	< 5	< 5	< 5	< 5

Visitor Centre Rainwater *Not NATA accredited	Units	12/03/2024	13/04/2024	5/06/2024	3/07/2024
Volume	mL	2100	3215	1315	1050
Ammonia-N	mg/L	< 0.02	< 0.02	0.13	0.06
Calcium (filtered)	mg/L	1.5	< 0.5	0.9	< 0.5
Chloride	mg/L	8.5	< 5	5.8	< 5
Filterable Reactive Phosphorus	mg/L	< 0.01	< 0.01	0.01	< 0.01
Magnesium (filtered)	mg/L	< 0.5	< 0.5	1.8	< 0.5
Nitrate-N	mg/L	0.19	< 0.01	< 0.01	< 0.01
Nitrite-N	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
NOx-N	mg/L	0.2	< 0.01	< 0.01	0.01
pH	pH units	6.5	5.4	5.2	5.3
Potassium (filtered)	mg/L	< 0.5	< 0.5	< 0.5	0.8
Sodium (filtered)	mg/L	2.1	1.7	11	1.8
Sulfate	mg/L	2.2	< 1	2.2	1.4
TKN	mg/L	0.3	< 0.2	0.5	2.8
Total Nitrogen	mg/L	0.5	< 0.2	0.5	2.8
Alkalinity	mg CaCO ₃ /L	7.1	< 5	< 5	5.1
Bicarbonate	mg CaCO ₃ /L	7.1	< 5	< 5	5.1
Carbonate	mg CaCO ₃ /L	< 5	< 5	< 5	< 5
Hydroxide	mg CaCO ₃ /L	< 5	< 5	< 5	< 5
Acetic Acid*	mg/L	< 5	< 5	< 5	< 5
Butyric Acid*	mg/L	< 5	< 5	< 5	< 5
Caproic Acid*	mg/L	< 5	< 5	< 5	< 5
Formic Acid*	mg/L	-	-	-	-
Heptanoic Acid*	mg/L	< 5	< 5	< 5	< 5
Isobutyric Acid*	mg/L	< 5	< 5	< 5	< 5
Isocaproic Acid*	mg/L	< 5	< 5	< 5	< 5
Isovaleric Acid*	mg/L	< 5	< 5	< 5	< 5
Propionic Acid*	mg/L	< 5	< 5	< 5	< 5
Total VFA (as acetic acid)	mg/L	< 5	< 5	< 5	< 5
Valeric Acid*	mg/L	< 5	< 5	< 5	< 5

Visitor Centre Rainwater *Not NATA accredited	Units	15/12/2024	6/01/2025	27/01/2025	24/03/2025	17/06/2025
Volume	mL	1050	3650	15000	400	1350.00
Ammonia-N	mg/L	0.02	< 0.02	< 0.02	0.44	0.14
Calcium (filtered)	mg/L	1.5	< 0.5	< 0.5	3.1	0.7
Chloride	mg/L	8.9	5.5	< 5	46	7.5
Filterable Reactive Phosphorus	mg/L	< 0.01	< 0.01	< 0.01	< 0.01	0.02
Magnesium (filtered)	mg/L	0.8	< 0.5	< 0.5	2.7	0.7
Nitrate-N	mg/L	0.02	< 0.01	< 0.01	< 0.01	< 0.01
Nitrite-N	mg/L	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
NOx-N	mg/L	0.03	< 0.01	< 0.01	< 0.01	< 0.01
pH	pH units	5.3	5.3	5.4	5.8	5.5
Potassium (filtered)	mg/L	< 0.5	< 0.5	< 0.5	1.7	0.5
Sodium (filtered)	mg/L	4.4	3.3	1	28	4.7
Sulfate	mg/L	2.9	< 1	< 1	10	1.3
TKN	mg/L	1	< 0.2	< 0.2	2.2	1
Total Nitrogen	mg/L	1	< 0.2	< 0.2	2.2	1
Alkalinity	mg CaCO ₃ /L	< 5	< 5	< 5	8.6	5.7
Bicarbonate	mg CaCO ₃ /L	< 5	< 5	< 5	8.6	5.7
Carbonate	mg CaCO ₃ /L	< 5	< 5	< 5	< 5	< 5
Hydroxide	mg CaCO ₃ /L	< 5	< 5	< 5	< 5	< 5
Acetic Acid*	mg/L	< 5	< 5	< 5	< 5	< 5
Butyric Acid*	mg/L	< 5	< 5	< 5	< 5	< 5
Caproic Acid*	mg/L	< 5	< 5	< 5	< 5	< 5
Formic Acid*	mg/L	#N/A	#N/A	#N/A	#N/A	#N/A
Heptanoic Acid*	mg/L	< 5	< 5	< 5	< 5	< 5
Isobutyric Acid*	mg/L	< 5	< 5	< 5	< 5	< 5
Isocaproic Acid*	mg/L	< 5	< 5	< 5	< 5	< 5
Isovaleric Acid*	mg/L	< 5	< 5	< 5	< 5	< 5
Propionic Acid*	mg/L	< 5	< 5	< 5	< 5	< 5
Total VFA (as acetic acid)	mg/L	< 5	< 5	< 5	< 5	< 5
Valeric Acid*	mg/L	< 5	< 5	< 5	< 5	< 5

RT Pastoral Lease rainwater *Not NATA accredited	Units	23/02/2022	15/06/2022	27/12/2022- 10/2/2023	21/03/2023	16/04/2023	28/06/2023
Volume	mL	3000	>15,000	3810	1345	3950	1900
Ammonia-N	mg/L	0.16	0.05	0.08	0.13	0.03	0.13
Calcium (filtered)	mg/L	0.7	< 0.1	< 0.5	< 0.5	< 0.5	< 0.5
Chloride	mg/L	7.1	< 5	< 5	< 5	< 5	< 5
Filterable Reactive Phosphorus	mg/L	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Magnesium (filtered)	mg/L	0.4	< 0.1	< 0.5	< 0.5	< 0.5	< 0.5
Nitrate-N	mg/L	0.23	0.03	< 0.01	< 0.01	< 0.01	< 0.01
Nitrite-N	mg/L	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
NOx-N	mg/L	0.24	0.03	< 0.01	< 0.01	< 0.01	< 0.01
pH	pH units	8.6	5.6	5.3	4	5.4	5.5
Potassium (filtered)	mg/L	0.6	0.2	< 0.5	< 0.5	< 0.5	< 0.5
Sodium (filtered)	mg/L	4.4	0.6	0.7	0.8	< 0.5	< 0.5
Sulfate	mg/L	1.1	< 1	1.3	< 1	< 1	< 1
TKN	mg/L	0.5	2.1	0.5	2	< 0.2	1.3
Total Nitrogen	mg/L	0.7	2.1	0.5	2	< 0.2	1.3
Alkalinity	mg CaCO3/L	11	< 5	< 5	< 5	< 5	5.3
Bicarbonate	mg CaCO3/L	7.4	< 5	< 5	< 5	< 5	5.3
Carbonate	mg CaCO3/L	< 5	< 5	< 5	< 5	< 5	< 5
Hydroxide	mg CaCO3/L	< 5	< 5	< 5	< 5	< 5	< 5
Acetic Acid*	mg/L	6	18	< 1	2.1	< 1	< 5
Butyric Acid*	mg/L	< 2	< 2	< 2	< 2	< 2	< 5
Caproic Acid*	mg/L	< 5	< 5	< 5	< 5	< 5	< 5
Formic Acid*	mg/L	2	< 1	< 1	< 10	< 1	< 5
Heptanoic Acid*	mg/L	< 5	< 5	< 5	< 5	< 5	< 5
Isobutyric Acid*	mg/L	< 2	< 2	< 2	< 2	< 2	< 5
Isocaproic Acid*	mg/L	< 5	< 5	< 5	< 5	< 5	< 5
Isovaleric Acid*	mg/L	< 2	< 2	< 2	< 2	< 2	< 5
Propionic Acid*	mg/L	< 2	< 2	< 2	< 10	< 2	< 5
Total VFA (as acetic acid)	mg/L	< 18	18	< 18	< 18	< 18	< 5
Valeric Acid*	mg/L	< 5	< 5	< 5	< 5	< 5	< 5

RT Pastoral Lease rainwater *Not NATA accredited	Units	09/02/2024	13/04/2024
Volume	mL	400	500
Ammonia-N	mg/L	0.07	0.13
Calcium (filtered)	mg/L	1.8	0.8
Chloride	mg/L	< 5	< 5
Filterable Reactive Phosphorus	mg/L	0.2	0.09
Magnesium (filtered)	mg/L	0.6	0.6
Nitrate-N	mg/L	0.01	0.03
Nitrite-N	mg/L	< 0.01	< 0.01
NOx-N	mg/L	0.02	0.03
pH	pH units	5.6	5.4
Potassium (filtered)	mg/L	< 0.5	< 0.5
Sodium (filtered)	mg/L	1.5	2.8
Sulfate	mg/L	2.3	< 1
TKN	mg/L	0.9	0.6
Total Nitrogen	mg/L	0.9	0.6
Alkalinity	mg CaCO ₃ /L	7.5	< 5
Bicarbonate	mg CaCO ₃ /L	7.5	< 5
Carbonate	mg CaCO ₃ /L	< 5	< 5
Hydroxide	mg CaCO ₃ /L	< 5	< 5
Acetic Acid*	mg/L	Fatty acid analysis omitted by laboratory	< 5
Butyric Acid*	mg/L		< 5
Caproic Acid*	mg/L		< 5
Formic Acid*	mg/L		-
Heptanoic Acid*	mg/L		< 5
Isobutyric Acid*	mg/L		< 5
Isocaproic Acid*	mg/L		< 5
Isovaleric Acid*	mg/L		< 5
Propionic Acid*	mg/L		< 5
Total VFA (as acetic acid)	mg/L		< 5
Valeric Acid*	mg/L		< 5

RT Pastoral Lease rainwater *Not NATA accredited	Units	15/12/2024	6/01/2025	27/01/2025	17/06/2025	30/08/2025
Volume	mL	1150	300	15000	650.00	1550
Ammonia-N	mg/L	0.08	0.05	< 0.02	0.12	0.12
Calcium (filtered)	mg/L	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Chloride	mg/L	< 5	< 5	< 5	< 5	< 5
Filterable Reactive Phosphorus	mg/L	< 0.01	< 0.01	< 0.01	< 0.01	0.02
Magnesium (filtered)	mg/L	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Nitrate-N	mg/L	< 0.01	< 0.01	0.02	< 0.01	< 0.01
Nitrite-N	mg/L	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
NOx-N	mg/L	< 0.01	< 0.01	0.03	< 0.01	< 0.01
pH	pH units	5.2	5.3	5.2	5.5	5.5
Potassium (filtered)	mg/L	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Sodium (filtered)	mg/L	2	0.6	< 0.5	< 0.5	0.5
Sulfate	mg/L	1	< 1	< 1	< 1	< 1
TKN	mg/L	0.7	0.3	< 0.2	0.4	< 0.2
Total Nitrogen	mg/L	0.7	0.3	< 0.2	0.4	< 0.2
Alkalinity	mg CaCO ₃ /L	< 5	5	< 5	< 5	< 5
Bicarbonate	mg CaCO ₃ /L	< 5	5	< 5	< 5	< 5
Carbonate	mg CaCO ₃ /L	< 5	< 5	< 5	< 5	< 5
Hydroxide	mg CaCO ₃ /L	< 5	< 5	< 5	< 5	< 5
Acetic Acid*	mg/L	< 5	< 5	< 5	< 5	< 5
Butyric Acid*	mg/L	< 5	< 5	< 5	< 5	< 5
Caproic Acid*	mg/L	< 5	< 5	< 5	< 5	< 5
Formic Acid*	mg/L	#N/A	#N/A	#N/A	#N/A	#N/A
Heptanoic Acid*	mg/L	< 5	< 5	< 5	< 5	< 5
Isobutyric Acid*	mg/L	< 5	< 5	< 5	< 5	< 5
Isocaproic Acid*	mg/L	< 5	< 5	< 5	< 5	< 5
Isovaleric Acid*	mg/L	< 5	< 5	< 5	< 5	< 5
Propionic Acid*	mg/L	< 5	< 5	< 5	< 5	< 5
Total VFA (as acetic acid)	mg/L	< 5	< 5	< 5	< 5	< 5
Valeric Acid*	mg/L	< 5	< 5	< 5	< 5	< 5

Rainwater Parameter *Not NATA accredited	Units	AAQ Station 11/02/2022	AAQ Station duplicate 11/02/2022	AAQ Station 19/05/2022	AAQ Station duplicate 19/05/2022	AAQ Station 15/06/2022
Volume	mL	1800	1800	8000-9000	8000-9000	8000
Ammonia-N	mg/L	0.38	0.37	0.04	0.06	0.06
Calcium (filtered)	mg/L	0.4	0.4	< 0.1	< 0.1	< 0.1
Chloride	mg/L	< 5	< 5	< 5	< 5	< 5
Filterable Reactive Phosphorus	mg/L	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Magnesium (filtered)	mg/L	0.2	0.2	0.1	0.1	0.1
Nitrate-N	mg/L	0.22	< 0.01	< 0.01	0.02	< 0.01
Nitrite-N	mg/L	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
NOx-N	mg/L	0.22	0.23	< 0.01	0.02	< 0.01
pH	pH units	5.7	5.7	5.4	5.3	5.4
Potassium (filtered)	mg/L	0.1	0.1	< 0.1	< 0.1	< 0.1
Sodium (filtered)	mg/L	1.3	1.3	0.6	0.6	0.9
Sulfate	mg/L	< 1	1	< 1	< 1	< 1
TKN	mg/L	0.9	0.8	< 0.2	< 0.2	0.2
Total Nitrogen	mg/L	1.1	1	< 0.2	< 0.2	0.2
Alkalinity	mg CaCO ₃ /L	< 5	< 5	< 5	< 5	< 5
Bicarbonate	mg CaCO ₃ /L	< 5	< 5	< 5	< 5	< 5
Carbonate	mg CaCO ₃ /L	< 5	< 5	< 5	< 5	< 5
Hydroxide	mg CaCO ₃ /L	< 5	< 5	< 5	< 5	< 5
Acetic Acid*	mg/L	6	4	< 1	< 1	14
Butyric Acid*	mg/L	< 2	< 2	< 2	< 2	< 2
Caproic Acid*	mg/L	< 5	< 5	< 5	< 5	< 5
Formic Acid*	mg/L	2	3	< 1	< 1	< 1
Heptanoic Acid*	mg/L	< 5	< 5	< 5	< 5	< 5
Isobutyric Acid*	mg/L	< 2	< 2	< 2	< 2	< 2
Isocaproic Acid*	mg/L	< 5	< 5	< 5	< 5	< 5
Isovaleric Acid*	mg/L	< 2	< 2	< 2	< 2	< 2
Propionic Acid*	mg/L	< 2	< 2	< 2	< 2	< 2
Total VFA (as acetic acid)	mg/L	< 18	< 18	< 18	< 18	< 18
Valeric Acid*	mg/L	< 5	< 5	< 5	< 5	< 5

Parameter *Not NATA accredited	Units	AAQ Station duplicate 15/06/2022	AAQ Station 26/1/2023	AAQ Station 21/03/2023	AAQ Station 16/04/2023	AAQ Station 28/06/2023
Volume	mL	8000	1490	3595	3405	3300
Ammonia-N	mg/L	0.07	0.15	0.18	0.22	0.03
Calcium (filtered)	mg/L	0.1	2.2	< 0.5	< 0.5	< 0.5
Chloride	mg/L	< 5	15	< 5	< 5	< 5
Filterable Reactive Phosphorus	mg/L	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Magnesium (filtered)	mg/L	< 0.1	0.9	< 0.5	< 0.5	< 0.5
Nitrate-N	mg/L	< 0.01	0.27	< 0.01	< 0.01	< 0.01
Nitrite-N	mg/L	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
NOx-N	mg/L	< 0.01	0.27	< 0.01	< 0.01	< 0.01
pH	pH units	5.5	5.4	5.4	5.4	5.5
Potassium (filtered)	mg/L	< 0.1	< 0.5	< 0.5	< 0.5	< 0.5
Sodium (filtered)	mg/L	0.9	9.4	0.5	< 0.5	< 0.5
Sulfate	mg/L	< 1	3.3	< 1	< 1	< 1
TKN	mg/L	0.2	< 0.2	< 0.2	0.3	0.3
Total Nitrogen	mg/L	0.2	0.4	< 0.2	0.3	0.3
Alkalinity	mg CaCO3/L	< 5	13	< 5	< 5	5.1
Bicarbonate	mg CaCO3/L	< 5	13	< 5	< 5	5.1
Carbonate	mg CaCO3/L	< 5	< 5	< 5	< 5	< 5
Hydroxide	mg CaCO3/L	< 5	< 5	< 5	< 5	< 5
Acetic Acid*	mg/L	12	< 1	2.5	< 1	< 5
Butyric Acid*	mg/L	< 2	< 2	< 2	< 2	< 5
Caproic Acid*	mg/L	< 5	< 5	< 5	< 5	< 5
Formic Acid*	mg/L	< 1	< 1	< 1	< 1	< 5
Heptanoic Acid*	mg/L	< 5	< 5	< 5	< 5	< 5
Isobutyric Acid*	mg/L	< 2	< 2	< 2	< 2	< 5
Isocaproic Acid*	mg/L	< 5	< 5	< 5	< 5	< 5
Isovaleric Acid*	mg/L	< 2	< 2	< 2	< 2	< 5
Propionic Acid*	mg/L	< 2	< 2	< 2	< 2	< 5
Total VFA (as acetic acid)	mg/L	< 18	< 18	< 18	< 18	< 5
Valeric Acid*	mg/L	< 5	< 5	< 5	< 5	< 5

Parameter *Not NATA accredited	Units	AAQ Station 12/03/2024	AAQ Station 13/04/2024	AAQ Station 5/06/2024	AAQ Station 3/07/2024	AAQ Station 11/08/2024
Volume	mL	3900	3150	1260	1100	1650
Ammonia-N	mg/L	< 0.02	< 0.02	0.22	0.02	0.21
Calcium (filtered)	mg/L	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Chloride	mg/L	< 5	< 5	< 5	< 5	< 5
Filterable Reactive Phosphorus	mg/L	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Magnesium (filtered)	mg/L	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Nitrate-N	mg/L	0.04	< 0.01	< 0.01	< 0.01	< 0.01
Nitrite-N	mg/L	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
NOx-N	mg/L	0.05	< 0.01	< 0.01	< 0.01	< 0.01
pH	pH units	5.9	5.4	5.1	5.2	5.3
Potassium (filtered)	mg/L	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Sodium (filtered)	mg/L	< 0.5	< 0.5	0.8	0.9	< 0.5
Sulfate	mg/L	< 1	< 1	1.4	2	< 1
TKN	mg/L	< 0.2	< 0.2	0.5	0.5	0.2
Total Nitrogen	mg/L	< 0.2	< 0.2	0.5	0.5	0.2
Alkalinity	mg CaCO ₃ /L	< 5	< 5	< 5	< 5	6.7
Bicarbonate	mg CaCO ₃ /L	< 5	< 5	< 5	< 5	6.7
Carbonate	mg CaCO ₃ /L	< 5	< 5	< 5	< 5	< 5
Hydroxide	mg CaCO ₃ /L	< 5	< 5	< 5	< 5	< 5
Acetic Acid*	mg/L	< 5	< 5	< 5	< 5	< 5
Butyric Acid*	mg/L	< 5	< 5	< 5	< 5	< 5
Caproic Acid*	mg/L	< 5	< 5	< 5	< 5	< 5
Formic Acid*	mg/L	-	-	-	-	-
Heptanoic Acid*	mg/L	< 5	< 5	< 5	< 5	< 5
Isobutyric Acid*	mg/L	< 5	< 5	< 5	< 5	< 5
Isocaproic Acid*	mg/L	< 5	< 5	10	< 5	< 5
Isovaleric Acid*	mg/L	< 5	< 5	< 5	< 5	< 5
Propionic Acid*	mg/L	< 5	< 5	< 5	< 5	< 5
Total VFA (as acetic acid)	mg/L	< 5	< 5	5.2	< 5	< 5
Valeric Acid*	mg/L	< 5	< 5	< 5	< 5	< 5

Parameter *Not NATA accredited	Units	AAQ Station 15/12/2024	AAQ Station 6/01/2025	AAQ Station 27/01/2025	AAQ Station 24/03/2025	AAQ Station 17/06/2025	AAQ Station 30/08/2025
Volume	mL	1250	3500	15000	1,100	1250.00	750
Ammonia-N	mg/L	0.03	< 0.02	0.05	0.14	0.06	0.19
Calcium (filtered)	mg/L	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Chloride	mg/L	< 5	8	< 5	< 5	< 5	< 5
Filterable Reactive Phosphorus	mg/L	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.02
Magnesium (filtered)	mg/L	< 0.5	0.6	< 0.5	< 0.5	< 0.5	< 0.5
Nitrate-N	mg/L	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Nitrite-N	mg/L	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
NOx-N	mg/L	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
pH	pH units	5.2	5.4	5.2	5.9	5.5	5.6
Potassium (filtered)	mg/L	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Sodium (filtered)	mg/L	1.7	7.2	1.1	1.5	< 0.5	2.1
Sulfate	mg/L	1	< 1	< 1	1.3	< 1	1.4
TKN	mg/L	0.6	< 0.2	0.3	< 0.2	< 0.2	0.3
Total Nitrogen	mg/L	0.6	< 0.2	0.3	< 0.2	< 0.2	0.3
Alkalinity	mg CaCO ₃ /L	< 5	5.6	< 5	7	< 5	< 5
Bicarbonate	mg CaCO ₃ /L	< 5	5.6	< 5	7	< 5	< 5
Carbonate	mg CaCO ₃ /L	< 5	< 5	< 5	< 5	< 5	< 5
Hydroxide	mg CaCO ₃ /L	< 5	< 5	< 5	< 5	< 5	< 5
Acetic Acid*	mg/L	< 5	< 5	< 5	< 5	< 5	< 5
Butyric Acid*	mg/L	< 5	< 5	< 5	< 5	< 5	< 5
Caproic Acid*	mg/L	< 5	< 5	< 5	< 5	< 5	< 5
Formic Acid*	mg/L	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Heptanoic Acid*	mg/L	< 5	< 5	< 5	< 5	< 5	< 5
Isobutyric Acid*	mg/L	< 5	< 5	< 5	< 5	< 5	< 5
Isocaproic Acid*	mg/L	< 5	< 5	< 5	< 5	< 5	< 5
Isovaleric Acid*	mg/L	< 5	< 5	< 5	< 5	< 5	< 5
Propionic Acid*	mg/L	< 5	< 5	< 5	< 5	< 5	< 5
Total VFA (as acetic acid)	mg/L	< 5	< 5	< 5	< 5	< 5	< 5
Valeric Acid*	mg/L	< 5	< 5	< 5	< 5	< 5	< 5

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