

Rindean Quarries Pty Ltd

Air Quality and Meteorological Monitoring Monthly Summary

DECEMBER 2021

SITE INFORMATION	
EPL Number:	20548
EPA Website Link:	ViewPOEOLicence.aspx (nsw.gov.au)
Licensee:	Rindean Quarries Pty Ltd
Premises:	620 Wisemans Ferry Road, SOMERSBY NSW 2250
EPL Monitoring Points:	Points 8, 9 and 10
Sampling Period:	DECEMBER 2021
Obtained Date:	10/01/2022
Publication Date:	10/01/2022

1. Continuous PM₁₀ (EPL ID #9 and #10)

Table 1: Continuous PM₁₀ Monitoring Results (24hr Averages) – December 2021

DATE	PM ₁₀ 24hr Average (µg/m ³)	
	EPA ID# 9 (Zone 1)	EPA ID# 10 (Zone 2)
1/12/2021	33.9	5.4
2/12/2021		4.7
3/12/2021	24.9	13.6
4/12/2021	30.7	16.6
5/12/2021	24.2	12.0
6/12/2021	20.5	13.8
7/12/2021		9.1
8/12/2021		11.5
9/12/2021		6.9
10/12/2021		5.3
11/12/2021	5.0	4.7
12/12/2021	10.2	10.4
13/12/2021	13.0	13.3
14/12/2021	11.3	11.4
15/12/2021	14.1	12.6
16/12/2021	11.1	14.2
17/12/2021	13.3	13.8
18/12/2021	11.1	10.4
19/12/2021	9.3	10.9
20/12/2021	14.5	11.4
21/12/2021	19.5	16.6
22/12/2021	17.6	20.2
23/12/2021	14.4	11.9
24/12/2021	10.3	10.8
25/12/2021	10.9	9.4
26/12/2021	12.1	12.5
27/12/2021	6.7	7.7
28/12/2021	5.1	4.7
29/12/2021	5.1	6.9
30/12/2021	6.5	6.2
31/12/2021	11.5	7.6

Note: Validated data. Blank cells in table indicate insufficient valid data to provide a 24hr average PM₁₀ result.

Figure 1: Continuous 24hr Averages – December 2021

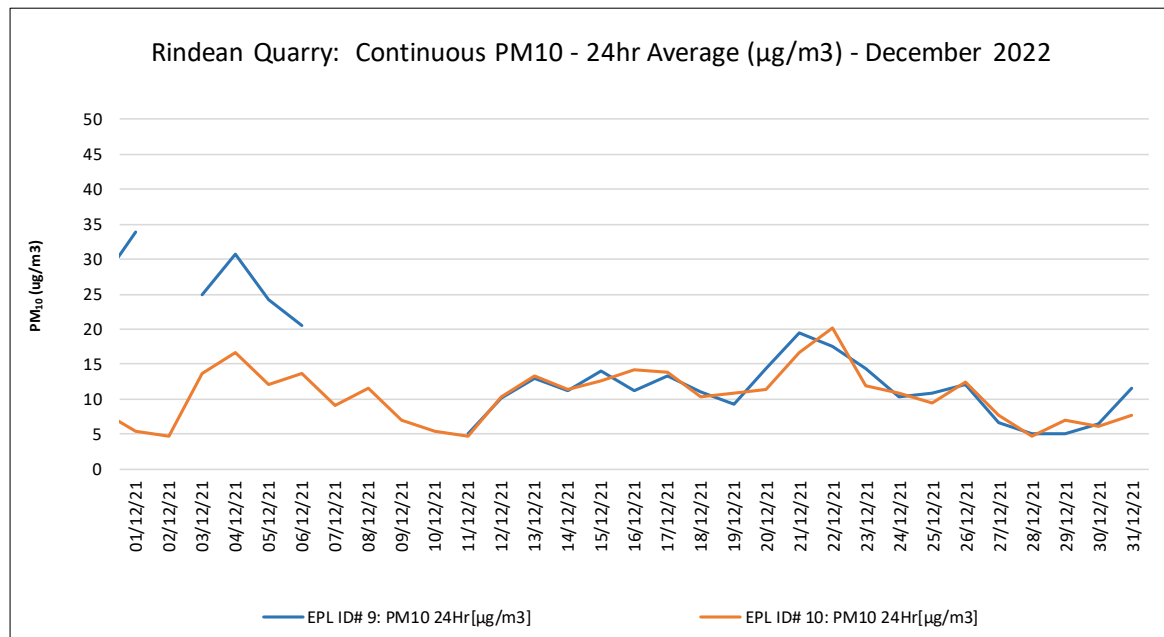


Table 2: PM₁₀ 24hr Average Monthly Summary Results – December 2021

EPL 20548 Sampling Point	Location ID	Pollutant	Unit	Monitoring Frequency Required by Licence	No. of times measured during month	Min Value (µg/m ³)	Mean Value (µg/m ³)	Max Value (µg/m ³)
9	Zone 1	PM ₁₀	µg/m ³	Continuous	Continuous	5.0	14.1	33.9
10	Zone 2	PM ₁₀	µg/m ³	Continuous	Continuous	4.7	10.5	20.2

2. Meteorological (EPL ID #8)

Table 3: Monthly Meteorological Data Summary – December 2021

Date	Temp 2m Min	Temp 2m Ave	Temp 2m Max	10m Temp Min	10m Temp Ave	10m Temp Max	Humidity Min	Humidity Ave	Humidity Max	Wind Speed Min	Wind Speed Ave	Wind Speed Max	Rain (mm)	Solar Rad Min	Solar Rad Ave	Solar Rad Max	Delta Temp Min	Delta Temp Ave	Delta Temp Max	Sigma Theta Min	Sigma Theta Ave	Sigma Theta Max
1/12/2021	17.6	19.6	23.2	17.7	19.4	22.2	73.5	90.0	99.9	0.1	1.5	4.2	0.4	0.0	149.4	1020.8	-0.2	0.2	1.2	18.8	33.9	75.5
2/12/2021	16.1	19.9	24.5	16.6	19.8	23.7	69.0	87.9	100.0	0.0	1.4	4.8	0.0	0.0	184.5	1185.0	-0.8	0.1	1.4	6.2	36.2	89.2
3/12/2021	16.1	20.3	30.3	16.7	20.1	29.6	46.6	88.0	100.0	0.0	1.2	5.4	1.8	0.0	239.0	1094.8	-1.3	0.2	1.6	16.2	44.7	88.8
4/12/2021	15.2	17.3	19.0	15.2	17.3	18.8	81.3	95.6	100.0	0.2	1.2	4.0	3.4	0.0	51.6	246.5	-0.3	0.1	0.5	19.7	42.7	94.6
5/12/2021	14.1	15.5	17.6	14.2	15.5	17.0	67.3	80.8	99.6	0.1	1.6	4.1	1.8	0.0	80.0	404.6	-0.7	0.0	1.5	9.5	32.8	90.4
6/12/2021	11.7	16.6	19.8	13.2	16.8	19.3	62.4	72.4	84.9	0.0	1.1	4.2	0.2	0.0	123.8	715.2	-2.1	-0.1	1.2	2.9	31.1	86.6
7/12/2021	15.9	19.1	27.4	15.9	19.2	26.4	54.1	81.4	99.0	0.1	1.2	3.6	16.2	0.0	180.0	1124.2	-2.3	-0.1	1.6	7.8	44.6	95.2
8/12/2021	15.1	16.7	18.0	15.2	16.7	18.3	84.8	95.9	100.0	0.0	1.2	4.8	9.0	0.0	42.7	207.1	-1.0	0.0	0.5	10.0	41.6	90.0
9/12/2021	14.6	17.5	21.9	14.6	17.3	21.2	68.7	93.6	100.0	0.1	1.3	4.4	25.6	0.0	157.0	1174.2	-0.6	0.2	1.3	10.9	41.5	97.7
10/12/2021	11.0	15.6	20.8	11.3	15.5	19.6	43.6	77.5	100.0	0.1	1.4	4.7	4.4	0.0	197.2	942.6	-1.5	0.1	4.4	12.1	52.5	83.8
11/12/2021	13.7	15.9	19.0	13.7	15.8	18.7	59.0	69.7	83.0	0.1	1.4	4.6	0.0	0.0	104.4	760.3	-0.5	0.1	1.5	31.6	56.1	87.3
12/12/2021	12.2	16.4	20.8	12.6	16.2	19.8	62.1	78.4	97.2	0.1	1.5	4.7	0.4	0.0	229.2	1167.1	-0.8	0.2	1.6	23.3	44.5	81.5
13/12/2021	12.4	17.5	23.1	12.8	17.3	22.2	53.0	75.5	92.1	0.1	1.1	3.5	0.0	0.0	258.6	1143.2	-0.8	0.2	1.8	9.9	36.6	102.3
14/12/2021	12.3	17.9	24.0	13.3	17.9	23.1	57.6	81.2	97.5	0.2	1.3	4.8	0.0	0.0	246.6	1162.2	-1.1	0.0	1.6	3.4	25.9	89.0
15/12/2021	13.9	21.5	29.4	14.8	21.5	28.5	40.9	71.9	100.0	0.2	1.4	4.5	1.0	0.0	264.1	1117.7	-1.8	0.0	1.7	2.9	32.2	91.6
16/12/2021	16.7	19.0	23.3	16.7	19.0	22.3	76.0	92.4	100.0	0.1	1.3	3.7	0.4	0.0	102.1	1064.6	-0.4	0.1	1.4	13.3	35.3	82.4
17/12/2021	16.3	19.3	23.4	16.4	19.2	22.4	65.0	80.6	93.1	0.1	1.5	5.8	0.2	0.0	105.7	524.0	-0.4	0.2	1.1	10.8	35.4	99.7
18/12/2021	16.0	26.5	35.1	16.5	26.5	34.3	35.7	62.7	97.0	0.0	1.3	4.4	0.0	0.0	265.4	1098.6	-4.2	-0.1	1.4	4.3	51.9	92.1
19/12/2021	18.9	24.6	32.9	19.0	24.7	32.5	36.7	66.2	97.8	0.1	1.7	6.9	9.2	0.0	191.6	1061.1	-3.0	-0.2	1.2	5.2	51.3	100.8
20/12/2021	18.3	23.1	27.6	19.4	23.2	26.9	66.5	79.1	91.3	0.3	1.6	4.5	0.0	0.0	220.3	1096.1	-2.2	-0.1	1.4	5.2	29.0	71.9
21/12/2021	19.8	24.5	32.2	20.0	24.3	31.6	49.1	84.2	100.0	0.1	1.3	6.0	0.0	0.0	255.8	1091.2	-1.0	0.3	3.2	6.4	40.2	99.8
22/12/2021	20.2	22.2	26.5	20.0	21.9	25.7	69.6	88.7	100.0	0.2	1.4	4.3	0.0	0.0	211.0	1131.7	-0.2	0.3	1.5	18.6	34.7	71.4
23/12/2021	19.4	21.4	24.9	19.4	21.2	23.8	77.8	95.1	100.0	0.3	1.2	3.4	41.8	0.0	108.4	580.3	-0.4	0.2	1.9	7.6	37.5	92.8
24/12/2021	18.0	21.4	25.0	18.4	21.2	24.4	75.6	91.3	100.0	0.0	1.4	4.8	1.0	0.0	189.9	1112.8	-0.7	0.1	1.9	15.2	33.8	100.3
25/12/2021	18.9	22.9	27.9	19.5	22.7	27.2	50.3	83.9	99.7	0.2	1.7	5.2	0.0	0.0	263.4	1102.5	-0.7	0.2	1.3	11.4	34.8	74.1
26/12/2021	17.3	21.2	25.8	18.1	21.1	25.1	70.6	87.6	98.6	0.1	1.4	7.7	2.0	0.0	198.1	885.5	-1.5	0.1	1.5	6.5	38.8	90.4
27/12/2021	15.5	16.7	20.0	15.5	16.6	19.4	75.8	96.0	100.0	0.1	1.3	4.6	16.2	0.0	65.8	420.4	-0.5	0.1	1.4	16.1	44.2	77.6
28/12/2021	13.8	15.4	18.9	13.7	15.3	18.3	71.6	95.3	100.0	0.1	1.3	3.3	21.2	0.0	101.9	579.6	-0.3	0.1	1.5	12.1	41.3	82.5
29/12/2021	12.2	16.6	21.5	12.1	16.6	21.0	63.0	83.5	100.0	0.1	1.3	4.4	0.4	0.0	160.7	1273.3	-1.8	0.0	1.3	11.3	34.0	85.8
30/12/2021	13.2	19.0	24.0	14.3	19.2	23.1	60.3	75.0	92.3	0.3	1.7	4.9	0.0	0.0	237.1	1244.2	-2.2	-0.2	1.7	2.9	28.4	74.4
31/12/2021	16.5	20.9	26.0	16.8	20.7	25.1	54.2	75.6	92.0	0.1	2.2	6.5	0.0	0.0	249.7	1178.2	-0.6	0.2	1.7	19.1	32.5	77.6
Monthly	11.0	19.4	35.1	11.3	19.3	34.3	36	83.1	100	0.0	1.4	7.7	156.6	0.0	175.3	1273.3	-4.2	0.1	4.4	2.90	38.7	102.30

Figure 2: Windrose – December 2021

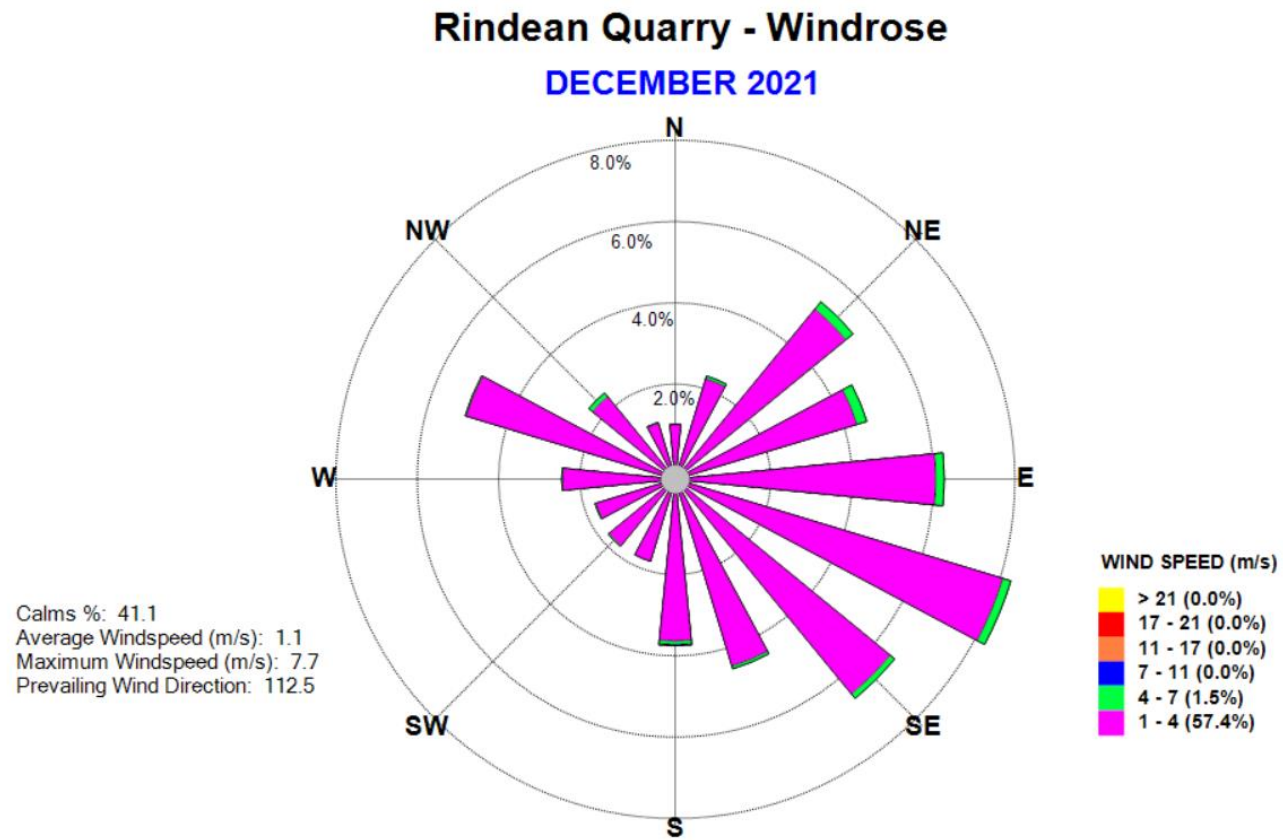


Figure 3-5: Daily (minimum, average, maximum) 2m & 10m Temperature and Delta Temperature



Figure 6-8: Daily (minimum, average, maximum) Wind Speed & Humidity and Rainfall

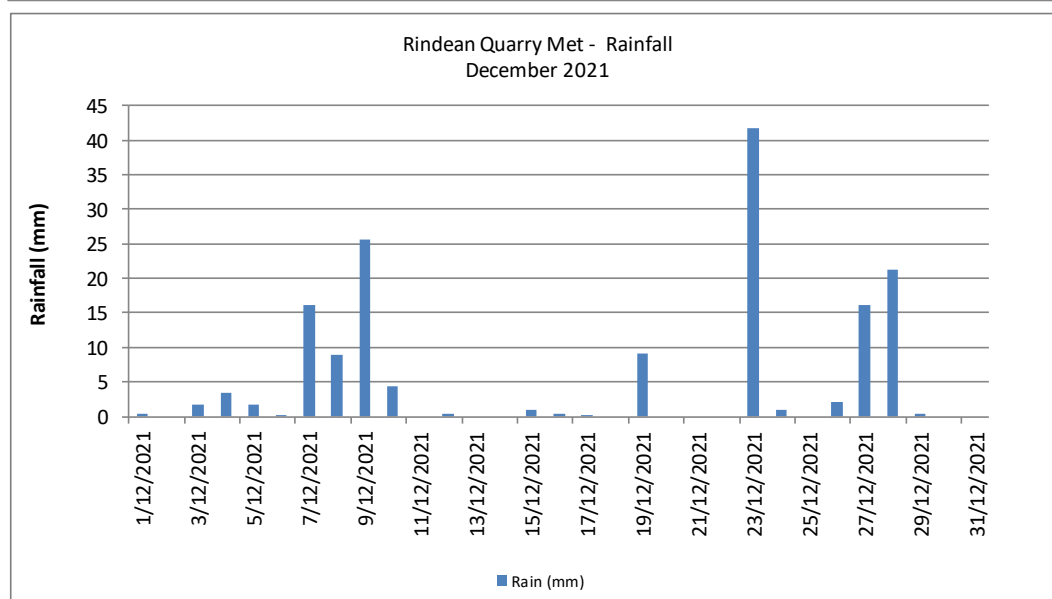
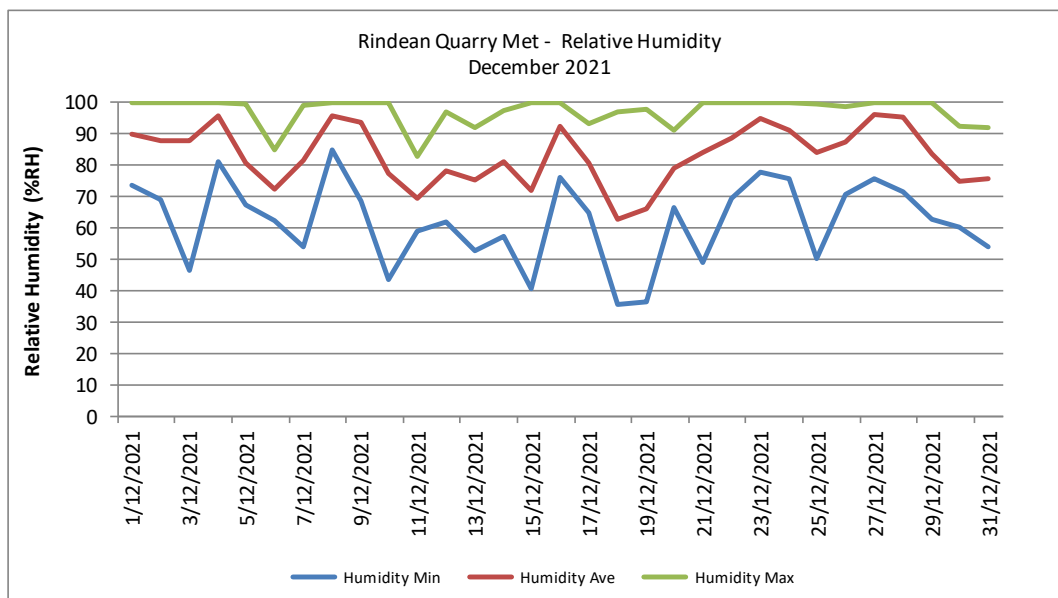
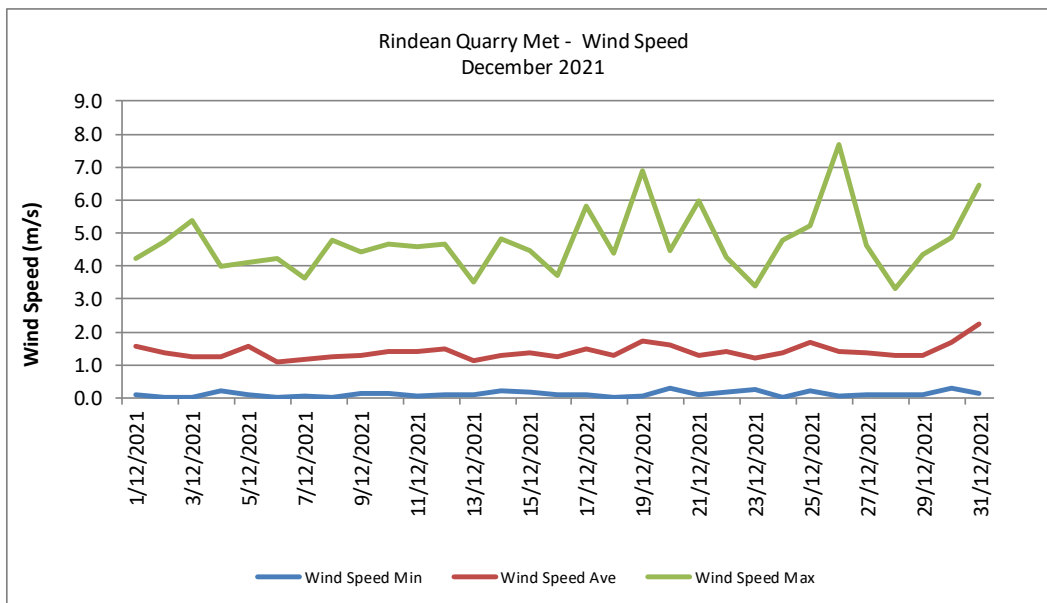


Figure 9-10: Daily (minimum, average, maximum) Solar Radiation and Sigma Theta

