

**APPENDIX 3 – ENVIRONMENTAL  
PERFORMANCE**

**APPENDIX 3A – METEOROLOGICAL  
MONITORING DATA**

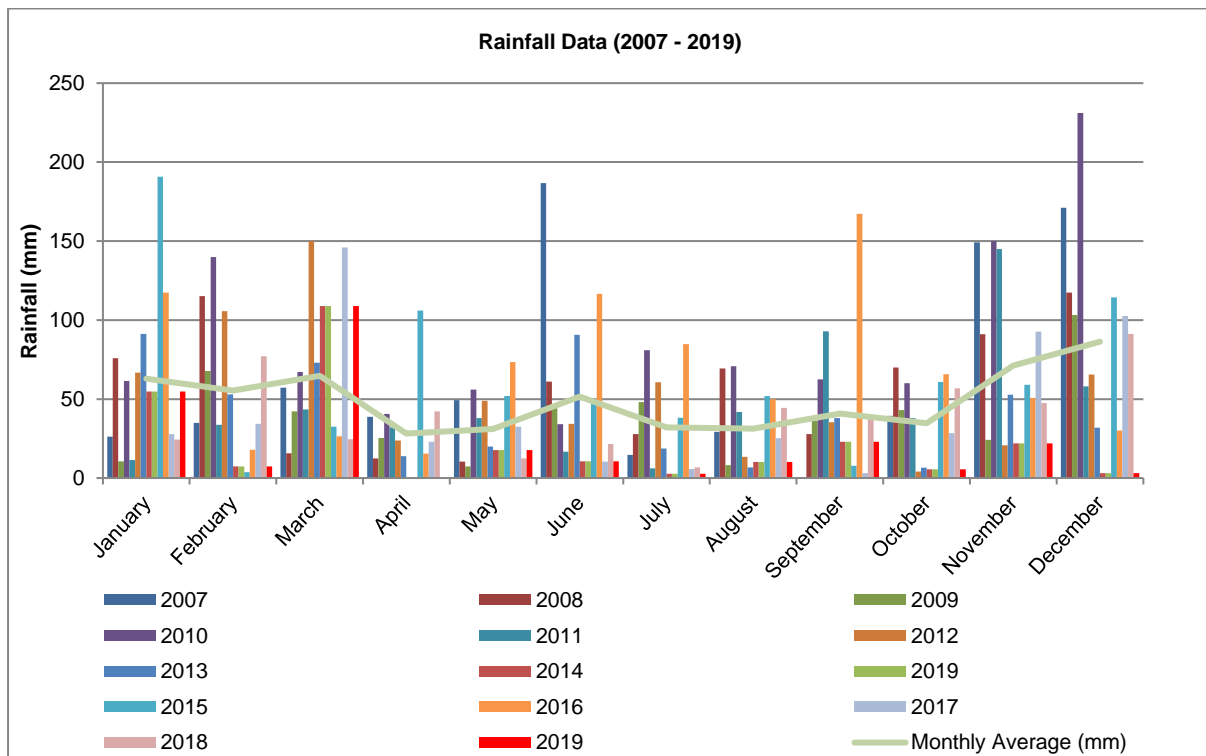
2019 Summary of Rainfall Data

	Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Rainfall (mm)	2019	54.8	7.4	108.8	0	17.6	10.6	2.6	10.2	23	5.6	22	3
Cumulative Rainfall (mm)	2019	54.8	62.2	171	171	188.6	199.2	201.8	212	235	240.6	262.6	265.6

Historical Rainfall

Monthly	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Monthly Average (mm)
Jan	67	26.2	75.8	10.6	61.4	11.4	66.8	91.2	54.8	190.8	117.4	27.8	24.4	54.8	62.9
Feb	76.6	35	115.2	67.8	139.8	33.6	105.6	53	7.4	3.6	17.8	34.2	77	7.4	55.3
Mar	9.2	57.2	15.6	42.2	67.2	43.4	150	73	108.8	32.4	26.4	146	24.6	108.8	64.6
Apr	20.8	38.8	12.4	25.4	40.6	32	23.8	13.8	0	106	15.4	23	42.2	0	28.2
May	0.8	49.2	10.4	7.4	56	38	48.8	20	17.6	52	73.4	32.4	12.4	17.6	31.1
June	37.2	186.8	61	44.8	34	16.6	34.2	90.6	10.6	47.4	116.6	10.4	21.6	10.6	51.6
July	51	14.6	27.8	48	81	6.2	60.6	18.6	2.6	38.2	84.8	5.8	6.8	2.6	32.0
Aug	7	29.2	69.4	8.2	70.8	41.8	13.4	6.8	10.2	52	50	25.2	44.4	10.2	31.3
Sept	15.6	0.2	27.8	36.2	62.4	92.8	35.4	38	23	7.8	167.2	3	39	23	40.8
Oct	1.8	39.4	70	43	60	38	4.2	6.6	5.6	60.8	65.8	28.4	56.8	5.6	34.7
Nov	70	149.2	91	24.2	150	145	20.8	52.8	22	59	50.8	92.6	47.4	22	71.2
Dec	NA	171.2	117.4	103.2	231.2	58	65.6	31.8	3	114.4	30	102.6	91.2	3	86.4
<b>Total</b>	<b>357</b>	<b>797</b>	<b>693.8</b>	<b>461</b>	<b>1054.4</b>	<b>556.8</b>	<b>629.2</b>	<b>496.2</b>	<b>265.6</b>	<b>764.4</b>	<b>815.6</b>	<b>531.4</b>	<b>487.8</b>	<b>265.6</b>	<b>-</b>

Rainfall Data 2007-2019



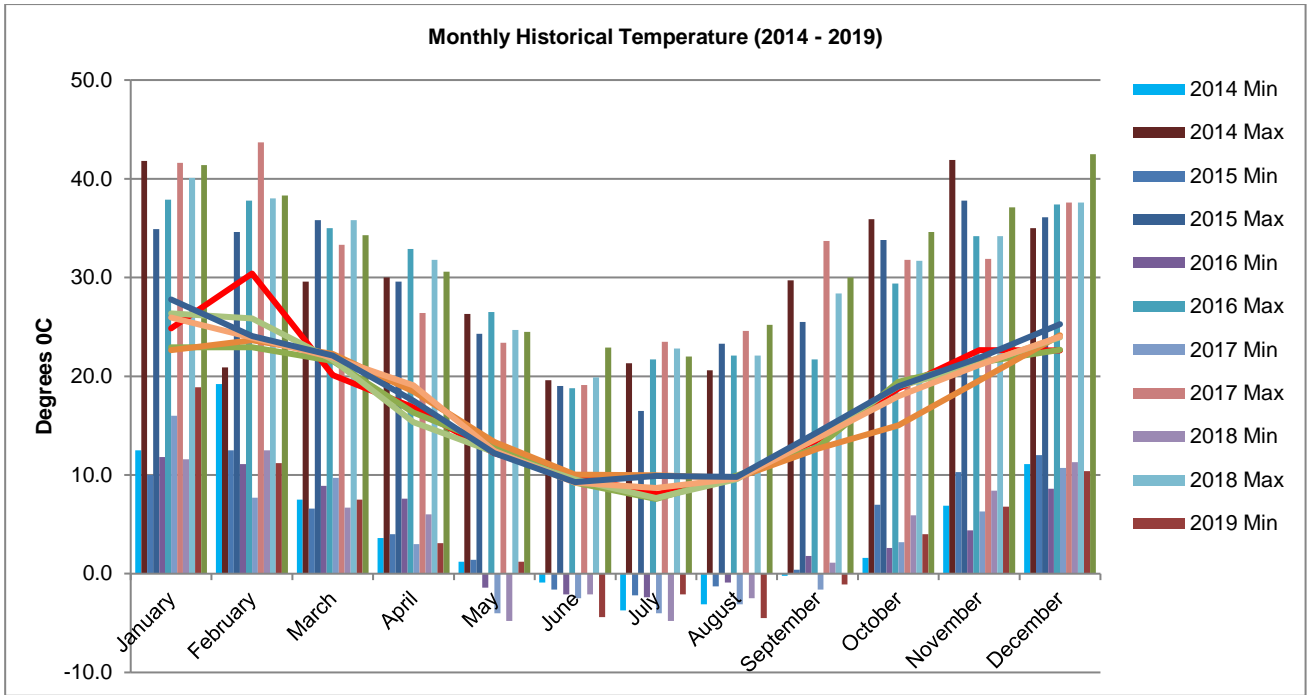
2018 Summary of Temperature Data

2019	Air Temperature (°C at 2 m)			Air Temperature (°C at 10 m)			Air Temperature (°C at 60 m)		
	Min	Max	Mean	Min	Max	Mean	Min	Max	Mean
January	18.9	41.4	27.8	18.8	40.8	27.8	18.2	39.5	27.4
February	11.2	38.3	24.1	12.3	37.2	24.0	13.4	36.1	23.5
March	7.5	34.3	12.8	7.7	33.7	22.0	8.1	32.7	21.7
April	3.1	30.6	13.3	4.0	30.0	17.6	5.4	29.3	17.9
May	1.2	24.5	7.2	1.8	23.7	12.4	3.0	23.0	13.0
June	-4.4	22.9	4.7	-3.6	22.1	9.4	-1.7	21.4	10.2
July	-2.1	22.0	6.1	-1.5	21.1	9.9	0.7	20.6	10.6
August	-4.5	25.2	5.5	-3.9	24.3	9.8	-1.6	23.4	10.6
September	-1.1	30.0	9.5	-0.3	29.4	14.3	2.1	28.4	14.9
October	4.0	34.6	12.8	3.9	33.9	18.7	5.5	33.0	19.0
November	6.8	37.1	14.6	5.8	36.0	21.6	8.0	34.8	21.7
December	10.4	42.5	14.9	11.0	41.7	24.8	10.8	41.0	24.8

Historical Temperature Data

	2013			2014			2015			2016		
	Min	Max	Mean	Min	Max	Mean	Min	Max	Mean	Min	Max	Mean
January	14.3	41.9	25.6	12.5	41.8	24.8	10.0	34.9	22.9	11.8	37.9	22.7
February	10.4	34.2	22.0	19.2	20.9	30.4	12.5	34.6	22.9	11.1	37.8	23.6
March	9.3	31.4	20.5	7.5	29.6	20.1	6.6	35.8	21.6	8.9	35.0	22.2
April	4.0	28.8	16.2	3.6	30.0	16.9	4.0	29.6	16.3	7.6	32.9	18.5
May	0.2	27.1	12.4	1.2	26.3	12.2	1.4	24.3	13.0	-1.4	26.5	13.3
June	-0.2	18.7	10.0	-0.9	19.6	9.9	-1.6	19.0	9.2	-2.1	18.8	10.0
July	-2.2	20.3	9.6	-3.7	21.3	8.0	-2.2	16.5	7.6	-2.4	21.7	10.0
August	1.6	25.0	12.9	-3.1	20.6	9.8	-1.3	23.3	9.9	-0.9	22.1	9.7
September	2.0	30.0	15.2	-0.2	29.7	13.6	0.4	25.5	12.8	1.8	21.7	12.7
October	1.5	33.6	17.7	1.6	35.9	18.8	7.0	33.8	19.4	2.6	29.4	15.0
November	5.9	35.2	19.6	6.9	41.9	22.7	10.3	37.8	21.4	4.4	34.2	19.6
December	5.1	38.5	23.1	11.1	35.0	22.6	12.0	36.1	22.7	8.6	37.4	24.1

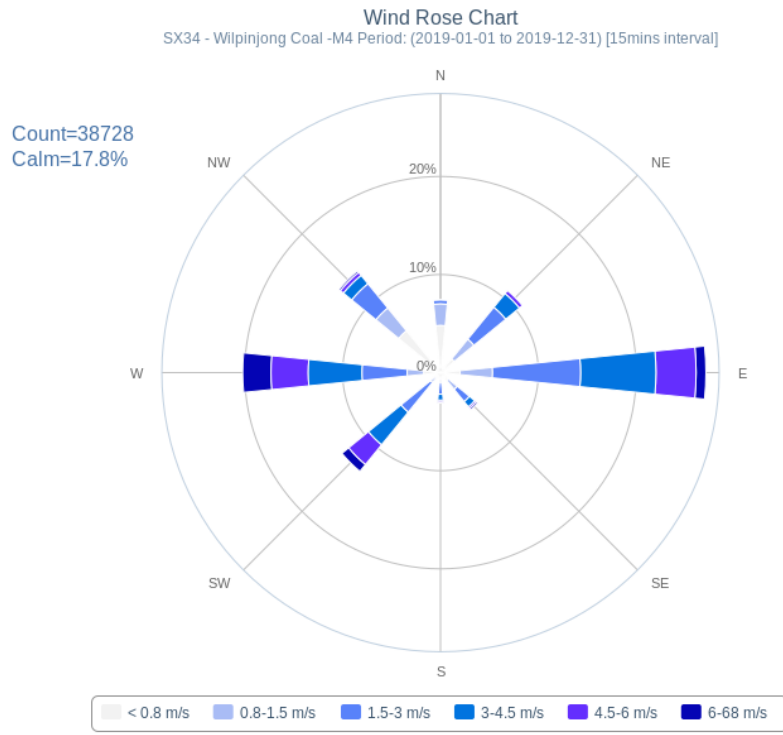
	2017			2018			2019		
	Min	Max	Mean	Min	Max	Mean	Min	Max	Mean
January	16.0	41.6	26.4	11.6	40.1	25.9	18.9	41.4	27.8
February	7.7	43.7	25.9	12.5	38.0	23.9	11.2	38.3	24.1
March	9.7	33.3	21.7	6.7	35.8	21.9	7.5	34.3	22.1
April	3.0	26.4	15.3	6.0	31.8	19.1	3.1	30.6	17.5
May	-4.0	23.4	12.3	-4.8	24.7	12.4	1.2	24.5	12.2
June	-2.5	19.1	9.5	-2.1	19.9	9.2	-4.4	22.9	9.3
July	-4.0	23.5	7.7	-4.8	22.8	8.7	-2.1	22.0	9.9
August	-3.1	24.6	9.6	-2.5	22.1	9.6	-4.5	25.2	9.8
September	-1.6	33.7	14.1	1.1	28.4	13.7	-1.1	30.0	14.3
October	3.2	31.8	19.0	5.9	31.7	18.0	4.0	34.6	19.0
November	6.3	31.9	21.2	8.4	34.2	21.2	6.8	37.1	21.9
December	10.7	37.6	23.9	11.3	37.6	24.0	10.4	42.5	25.3



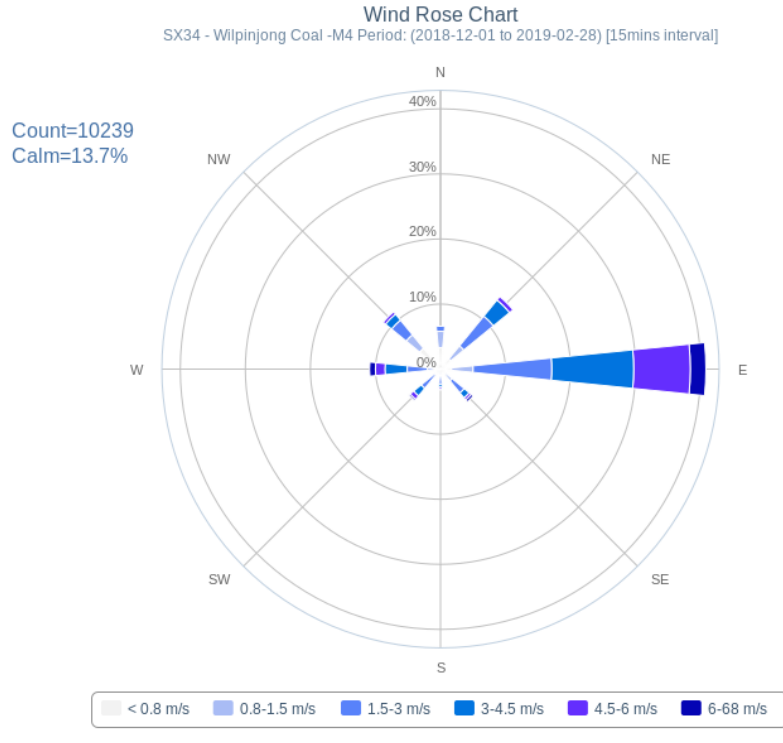
**2019 Average Wind Speeds & Directions**

Month	Ave Wind Speed (m/s)	Max Wind Speed (m/s)	Ave Wind Dir.
January	1.5	9.9	159.68
February	3.0	9.9	141.64
March	1.9	9.3	153.77
April	1.5	8.0	119.67
May	1.4	9.5	214.77
June	1.1	6.7	201.57
July	2.0	9.7	214.97
August	1.9	9.6	222.90
September	1.9	10.8	225.50
October	1.8	9.4	176.90
November	2.2	11.9	244.57
December	2.4	10.7	164.03

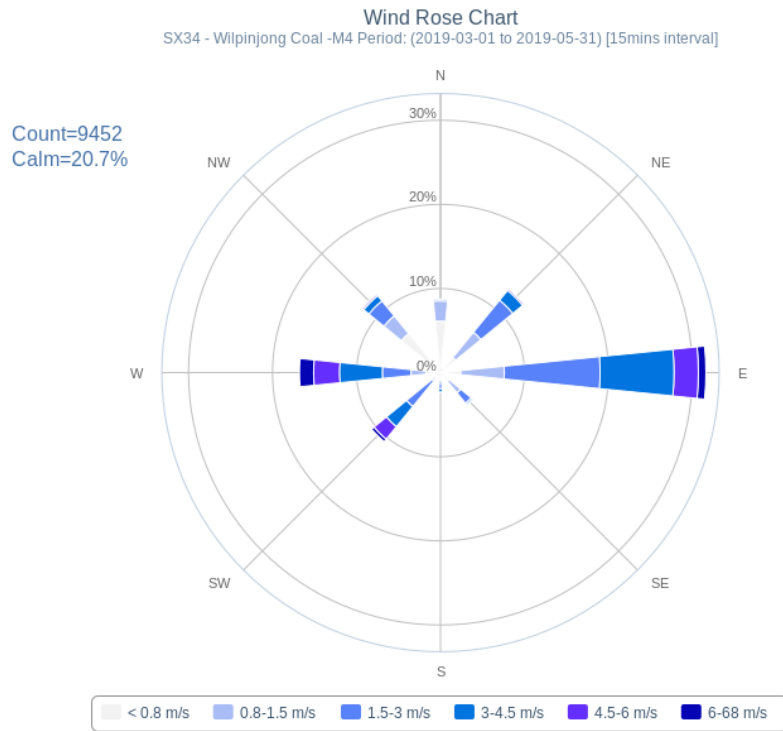
Annual Wind Rose 2019



Summer Wind Rose December 2018 - February 2019

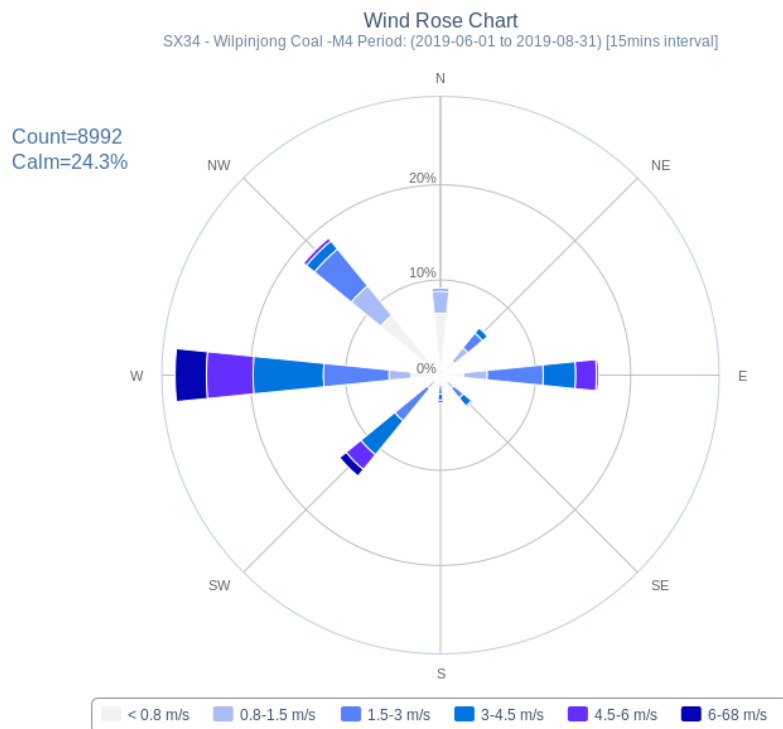


**Autumn Wind Rose 2019**



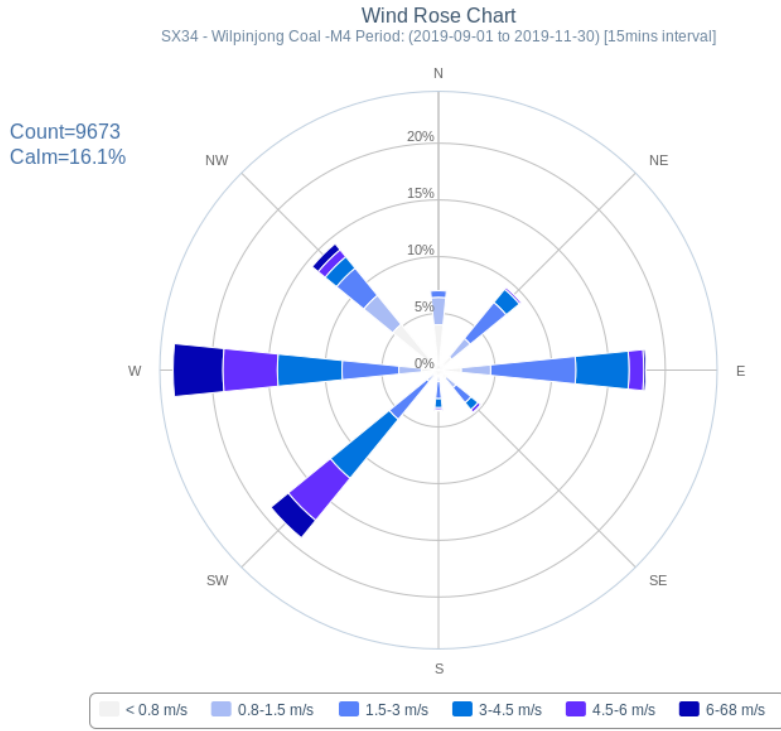
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**Winter Wind Rose 2019**



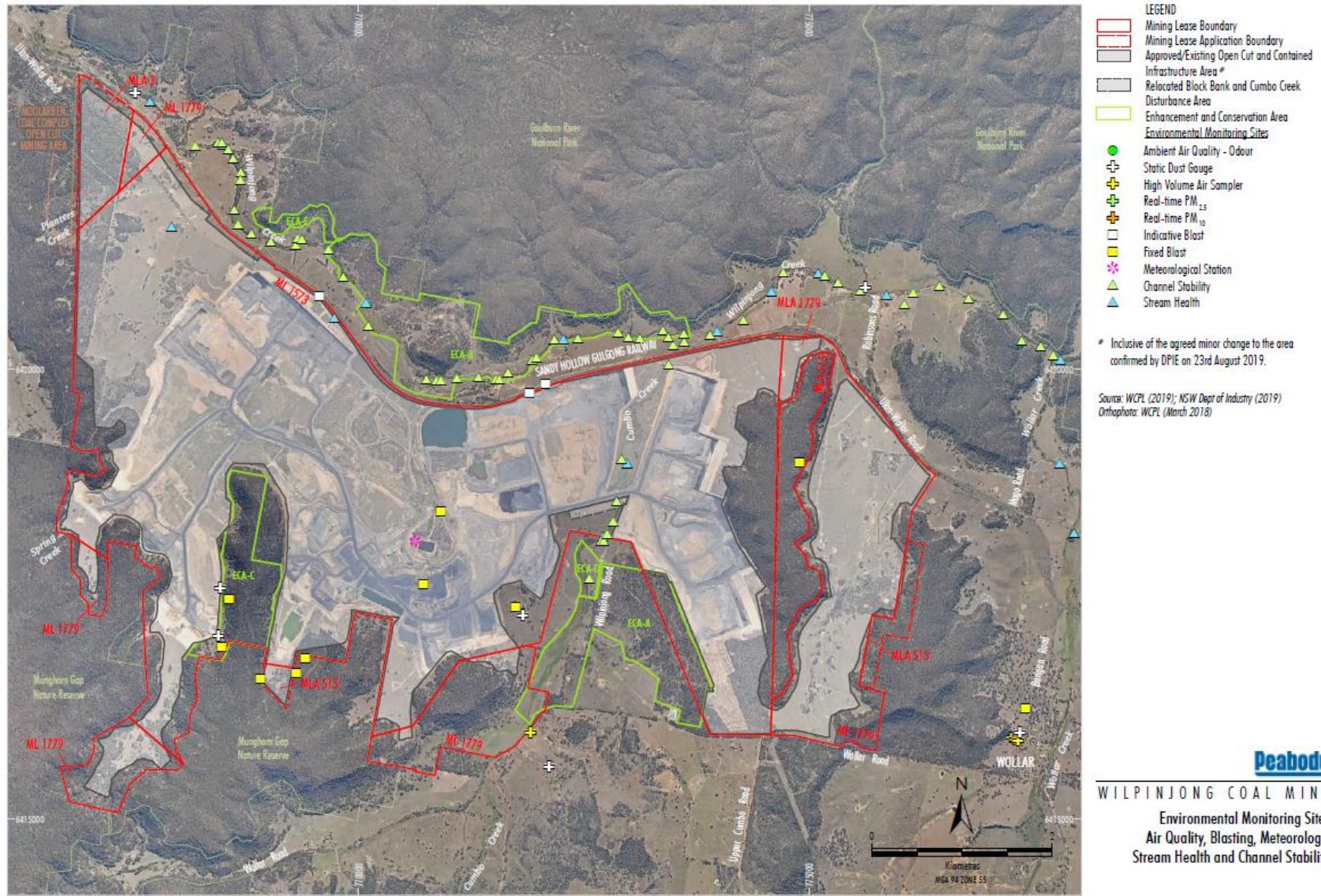
Novecom.com.au

### Spring Wind Rose 2019





Location of WCPL's Meteorological Station



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