



PORT KEMBLA COAL TERMINAL LTD.



Licencee:	Port Kembla Coal Terminal Limited
Environment Protection Licence:	1625
Licence URL:	http://www.environment.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=30847&SYSUID=1&LICID=1625
Location:	Port Kembla Road, Port Kembla Inner Harbour, Wollongong
Postal Address:	PO Box 823, Wollongong East 2502

PORT KEMBLA COAL TERMINAL DUST & WEATHER MONITOR LOCATIONS

30th October 2012



EPL No.	PKCT No.	Dust Monitor Location Description
1	P1	25m south of Bulk Products Berth (BPB)
2	P2	40m south of Bulk Products Berth stockyard
3	P3	40m east of Bulk Products Berth stockyard
4	P4	40m east Coal Berth stockyard
5	P5	Northern Pond (Pond No.1)
6	P6	40m west Coal Berth stockyard
7	P7	250m west of Coal Berth stockyard
8	P8	PKCT north truckwash
9	P9	Wollongong Wastewater Treatment Plant
15	P10	North of PKCT Planning Office
17	P11	Entry Gate to BlueScope Ro Ro (Berth 109)
12	R1	157 Church Street (two gauges)
19	R2	Vikings Oval, Wollongong (two gauges)
TBA	R3	Linkside Apartments, Ross Street
	C1	Continuous Dust Monitor 1
	C2	Continuous Dust Monitor 2

- # refer PKCT Environment Protection Licence(EPL) No. 1625 (EPA ID No.)
- Dust Gauges- Environment Protection Licence monitoring sites
Sites denoted "P": industrial; "R": residential
- Continuous Dust Monitor Sites- additional
- (a) BlueScope High Volume Sampler & dust gauge
(b) PKCT EPL Monitoring Site R2 (2 gauges)
- Weather stations
 - (a) at each continuous dust monitor site ●
 - (b) PKCT Main Control Room ●



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EPL MONITORING SITES- INDUSTRIAL			Calendar Year 2014												Annual average: grams per square metre.month					
EPL No.	Location Gauge Number	analysis: grams/square metre.month	MONTH												Samples collected	MIN	MEAN	MAX	rolling 12 month average	PKCT assessment criteria
			JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC						
1	P1 25m South BPB Coal Berth	Insoluble Solids	5.6	6.7	5.9	0.9	6.3	2.6	7.2	0.8	6.3	3.6	1.6	4.0	12	0.8	4.3	7.2	4.3	15.0
		Ash	2.7	1.3	2.1	0.3	4.2	1.4	4.9	0.4	3.9	0.7	0.6	1.2	12	0.3	2.0	4.9		
		Combustible Matter	2.9	5.4	3.8	0.6	2.1	1.2	2.3	0.4	2.4	2.9	1.0	2.8	12	0.4	2.3	5.4	2.3	12.0
2	P2 40m South of BPB Stockyard	Insoluble Solids	0.4	4.9	4.0	0.1	2.3	5.9	2.7	4.0	2.5	3.1	4.8	1.3	12	0.1	3.0	5.9	3.0	15.0
		Ash	0.2	1.8	0.9	0.1	1.6	3.5	1.6	1.7	1.0	1.5	1.2	0.3	12	0.1	1.3	3.5		
		Combustible Matter	0.2	3.1	3.1	0.0	0.7	2.4	1.1	2.3	1.5	1.6	3.6	1.0	12	0.0	1.7	3.6	1.7	12.0
3	P3 40m East of BPB Stockyard	Insoluble Solids	0.3	2.7	2.3	0.6	21.6	23.5	24.4	4.9	3.4	3.6	2.7	2.5	12	0.3	7.7	24.4	7.7	15.0
		Ash	0.1	0.4	0.9	0.5	14.7	16.9	16.0	3.3	2.3	1.0	1.3	1.3	12	0.1	4.9	16.9		
		Combustible Matter	0.2	2.3	1.4	0.1	6.9	6.6	8.4	1.6	1.1	2.6	1.4	1.2	12	0.1	2.8	8.4	2.8	12.0
4	P4 40m East Coal Berth Stockyard	Insoluble Solids	2.4	4.8	4.9	2.8	9.0	12.9	5.4	7.5	14.8	9.6	25.6	5.9	12	2.4	8.8	25.6	8.8	15.0
		Ash	1.2	1.8	1.3	0.7	3.6	3.8	1.1	2.2	3.3	1.3	7.5	2.4	12	0.7	2.5	7.5		
		Combustible Matter	1.2	3.0	3.6	2.1	5.4	9.1	4.3	5.3	11.5	8.3	18.1	3.5	12	1.2	6.3	18.1	6.3	12.0
5	P5 Northern Pond (No.1)	Insoluble Solids	8.6	7.0	7.8	3.1	10.2	10.4	9.3	5.4	14.8	12.9	8.8	8.5	12	3.1	8.9	14.8	8.9	15.0
		Ash	1.5	2.1	2.6	0.9	3.6	4.4	3.0	1.8	4.0	3.0	2.0	1.9	12	0.9	2.6	4.4		
		Combustible Matter	7.1	4.9	5.2	2.2	6.6	6.0	6.3	3.6	10.8	9.9	6.8	6.6	12	2.2	6.3	10.8	6.3	12.0
6	P6 40m West Coal Berth Stockyard	Insoluble Solids	5.3	17.8	7.8	2.3	7.6	8.2	3.3	5.0	5.2	8.2	31.5	9.1	12	2.3	9.3	31.5	9.3	15.0
		Ash	0.8	3.5	1.8	0.7	3.3	4.7	1.6	2.2	2.2	2.1	4.9	1.4	12	0.7	2.4	4.9		
		Combustible Matter	4.5	14.3	6.0	1.6	4.3	3.5	1.7	2.8	3.0	6.1	26.6	7.7	12	1.6	6.8	26.6	6.8	12.0
7	P7 260m West No.2 Coalberth	Insoluble Solids	0.7	2.2	1.6	0.8	4.4	2.9	55.5	1.6	3.8	2.6	3.7	2.1	12	0.7	6.8	55.5	6.8	15.0
		Ash	0.1	1.1	0.6	0.5	2.8	2.0	10.2	1.0	2.5	0.5	2.3	1.0	12	0.1	2.1	10.2		
		Combustible Matter	0.6	1.1	1.0	0.3	1.6	0.9	45.3	0.6	1.3	2.1	1.4	1.1	12	0.3	4.8	45.3	4.8	12.0
8	P8 PKCT North Truckwash	Insoluble Solids	1.7	5.9	2.5	2.5	27.4	30.9	3.6	11.8	18.7	7.2	2.9	11.4	12	1.7	10.5	30.9	10.5	15.0
		Ash	0.2	1.4	1.7	0.6	6.7	8.8	0.5	2.4	4.5	1.0	0.6	2.6	12	0.2	2.6	8.8		
		Combustible Matter	1.5	4.5	0.8	1.9	20.7	22.1	3.1	9.4	14.2	6.2	2.3	8.8	12	0.8	8.0	22.1	8.0	12.0
9	P9 Wollongong Wastewater TP.	Insoluble Solids	0.7	2.1	1.0	0.5	1.9	4.0	1.9	2.5	3.0	2.0	17.4	0.7	12	0.5	3.1	17.4	3.1	6.0
		Ash	0.1	0.7	0.3	0.2	1.2	0.6	0.8	1.4	1.6	0.7	4.7	0.1	12	0.1	1.0	4.7		
		Combustible Matter	0.6	1.4	0.7	0.3	0.7	3.4	1.1	1.1	1.4	1.3	12.7	0.6	12	0.3	2.1	12.7	2.1	4.0
15	P10 North of PKCT Planning Office	Insoluble Solids	10.1	14.8	8.7	7.1	9.4	16.0	8.0	6.9	18.0	12.5	5.8	14.5	12	5.8	11.0	18.0	11.0	15.0
		Ash	1.3	3.7	2.2	1.7	2.6	7.3	2.4	3.0	5.0	3.2	1.2	2.7	12	1.2	3.0	7.3		
		Combustible Matter	8.8	11.1	6.5	5.4	6.8	8.7	5.6	3.9	13.0	9.3	4.6	11.8	12	3.9	8.0	13.0	8.0	12.0
17	P11 Entry Gate BlueScope RO.RO Berth (109)	Insoluble Solids	1.0	2.0	3.9	1.1	4.6	3.2	7.8	8.9	2.8	2.8	2.0	2.5	12	1.0	3.6	8.9	3.6	6.0
		Ash	0.6	1.1	2.7	0.9	3.6	1.9	1.2	7.1	1.9	1.8	1.1	1.5	12	0.6	2.1	7.1		
		Combustible Matter	0.4	0.9	1.2	0.2	1.0	1.3	6.6	1.8	0.9	1.0	0.9	1.0	12	0.2	1.4	6.6	1.4	4.0

MONTHLY REPORT: COMMENTARY ON RESULTS

Note 1: there are no EPL air quality limits in the EPL for industrial monitoring sites. Historical information provides baseline data and assessment criteria has been adopted to assess against actual results to facilitate performance improvement.

SAMPLE PERIOD	Date Sampled	Date Results Obtained	Date Published	COMMENTARY ON RESULTS
January 2014	28/01/2014	13/02/2014	14/02/2014	all sites within assessment criteria
February 2014	26/02/2014	13/03/2014	17/03/2014	all sites within assessment criteria
March 2014	28/03/2014	09/04/2014	14/04/2014	all sites within assessment criteria
April 2014	28/04/2014	05/05/2014	09/05/2014	all sites within assessment criteria
May 2014	27/05/2014	11/06/2014	11/06/2014	all sites within assessment criteria
June 2014	26/06/2014	07/07/2014	14/07/2014	One site, P8 Northern Truckwash, marginally outside assessment criteria in June. Increased dust levels recorded are likely a result of persistent, strong westerly winds across the month.
July 2014	28/07/2014	04/08/2014	11/08/2014	all sites within assessment criteria
August 2014	28/08/2014	09/09/2014	09/09/2014	all sites within assessment criteria
September 2014	01/10/2014	15/10/2014	22/10/2014	One site, P8 Northern Truckwash, marginally outside assessment criteria in September. Increased dust levels recorded are likely a result of persistent, strong westerly winds across the month.
October 2014	30/10/2014	14/11/2014	18/11/2014	all sites within assessment criteria
November 2014	01/12/2014	15/12/2014	18/12/2014	all sites within assessment criteria
December 2014	31/12/2014	12/01/2015	13/01/2015	all sites within assessment criteria



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EPL MONITORING SITES- RESIDENTIAL			Calendar Year 2014												annual average: grams per square metre.month					
MONTH			JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	No. samples collected	MIN	MEAN	MAX	rolling 12 month average	PKCT assessment criteria
EPL No.	Location Gauge Number	Analysis: grams/square metre.month																		
12	R1	Insoluble Solids	0.5	1.2	1.2	0.2	3.4	2.1	1.0	1.2	1.5	0.9	1.0	1.3	12	0.2	1.3	3.4	1.3	4.0
	157 Church St	Ash	0.2	0.6	0.4	0.1	2.1	1.5	0.4	0.9	0.8	0.4	0.2	0.6	12	0.1	0.7	2.1		
	Wollongong	Combustible Matter	0.3	0.6	0.8	0.1	1.3	0.6	0.6	0.3	0.7	0.5	0.8	0.7	12	0.1	0.6	1.3	0.6	2.0
19	R2	Insoluble Solids	1.0	1.6	1.7	0.1	2.5	0.6	1.0	1.8	1.2	0.3	0.4	1.5	12	0.1	1.1	2.5	1.1	4.0
	Vikings Oval	Ash	0.2	0.9	0.7	0.0	1.2	0.2	0.6	1.1	0.1	0.1	0.0	0.0	12	0.0	0.4	1.2		
	Wollongong	Combustible Matter	0.8	0.7	1.0	0.1	1.3	0.4	0.4	0.7	1.1	0.2	0.4	1.5	12	0.1	0.7	1.5	0.7	2.0
TBA	R3	Insoluble Solids	0.4	2.0	0.4	0.1	2.6	1.1	0.6	1.8	0.9	1.0	2.2	1.0	12	0.1	1.2	2.6	1.2	4.0
	Ross Street	Ash	0.0	0.9	0.0	0.0	1.5	0.6	0.3	1.1	0.4	0.5	0.7	0.3	12	0.0	0.5	1.5		
	Wollongong	Combustible Matter	0.4	1.1	0.4	0.1	1.1	0.5	0.3	0.7	0.5	0.5	1.5	0.7	12	0.1	0.7	1.5	0.7	2.0

MONTHLY REPORT: COMMENTARY ON RESULTS

Note 1: Assessment criteria is based on an EPA guideline of annual average of 4 grams per square metre per month for residential areas. PKCT has adopted a level of 2 grams per square metre for combustible matter for assessment purposes.

SAMPLE PERIOD	Date Sampled	Date Results Obtained	Date Published	COMMENTARY
January 2014	28/01/2014	13/02/2014	14/02/2014	all sites within assessment criteria;
February 2014	26/02/2014	13/03/2014	17/03/2014	all sites within assessment criteria;
March 2014	28/03/2014	09/04/2014	14/04/2014	all sites within assessment criteria;
April 2014	28/04/2014	05/05/2014	09/05/2014	all sites within assessment criteria;
May 2014	27/05/2014	11/06/2014	11/06/2014	all sites within assessment criteria;
June 2014	26/06/2014	07/07/2014	14/07/2014	all sites within assessment criteria;
July 2014	28/07/2014	04/08/2014	11/08/2014	all sites within assessment criteria;
August 2014	28/08/2014	08/09/2014	09/09/2014	all sites within assessment criteria;
September 2014	01/10/2014	15/10/2014	22/10/2014	all sites within assessment criteria;
October 2014	30/10/2014	14/11/2014	18/11/2014	all sites within assessment criteria;
November 2014	01/12/2014	15/12/2014	18/12/2014	all sites within assessment criteria;
December 2014	31/12/2014	12/01/2015	13/01/2015	all sites within assessment criteria;



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SETTLEMENT LAGOON OVERFLOW: ENVIRONMENT PROTECTION LICENCE MONITORING: POINT 16

Environment Protection Licence: 1625 Type of Monitoring: water quality Frequency: daily grab sample when discharging			water quality parameter		EPL Limit (100 percentile)	Commentary on Results
Sample Date	Date Results Obtained	Date Published	pH (pH units)	total suspended solids (milligrams per litre)	oil/ grease (milligrams per litre)	
08/01/2014	13/02/2014	14/02/2014	7.8	32	<5	EPL compliant
09/01/2014	13/02/2014	14/02/2014	7.8	13	<5	EPL compliant
10/01/2014	13/02/2014	14/02/2014	8.8	8	<5	EPL compliant
13/01/2014	13/02/2014	14/02/2014	7.6	8	<5	EPL compliant
30/01/2014	13/02/2014	14/02/2014	7.8	16	<5	EPL compliant
31/01/2014	13/02/2014	14/02/2014	8.1	11	<5	EPL compliant
01/02/2014	13/03/2014	17/03/2014	8.7	16	<5	EPL compliant
02/02/2014	13/03/2014	17/03/2014	9.0	15	<5	EPL compliant
03/02/2014	13/03/2014	17/03/2014	9.2	22	<5	EPL compliant
04/02/2014	13/03/2014	17/03/2014	9.3	36	<5	EPL compliant
10/02/2014	13/03/2014	17/03/2014	8.6	48	<5	EPL compliant
11/02/2014	13/03/2014	17/03/2014	8.2	50	<5	Higher TSS was due to Lagoon dewatering to enable sediment removal. Turbidity due to algae. Discharge pump was operated for a short duration to lower water as far as possible. Dosing unit was operational.
01/03/2014	09/04/2014	14/04/2014	7.9	13	<5	EPL compliant
02/03/2014	09/04/2014	14/04/2014	7.1	11	<5	EPL compliant
04/03/2014	09/04/2014	14/04/2014	7.1	<5	<5	EPL compliant
05/03/2014	09/04/2014	14/04/2014	7.1	<5	<5	EPL compliant
06/03/2014	09/04/2014	14/04/2014	7.2	<5	<5	EPL compliant
07/03/2014	09/04/2014	14/04/2014	6.5	<5	<5	EPL compliant
11/03/2014	09/04/2014	14/04/2014	7.8	10	<5	EPL compliant
25/03/2014	09/04/2014	14/04/2014	7.5	410	<5	TSS results due to extreme rainfall event in late March. All systems on site working as required and designed. Site systems overloaded by rainfall amount and intensity.
26/03/2014	09/04/2014	14/04/2014	7.2	190	<5	
27/03/2014	09/04/2014	14/04/2014	7.1	150	<5	
04/04/2014	05/05/2014	09/05/2014	8	110	<5	
06/04/2014	05/05/2014	09/05/2014	7.7	96	<5	
07/04/2014	05/05/2014	09/05/2014	7.8	50	<5	EPL compliant
11/04/2014	05/05/2014	09/05/2014	7.1	24	<5	EPL compliant
13/04/2014	05/05/2014	09/05/2014	7.4	24	<5	EPL compliant
16/04/2014	05/05/2014	09/05/2014	7.5	17	<5	EPL compliant
17/04/2014	05/05/2014	09/05/2014	7.4	8	<5	EPL compliant
No overflows from Settlement Lagoon During May 2014						
05/06/2014	07/07/2014	14/07/2014	9.2	11	<5	EPL compliant
06/06/2014	07/07/2014	14/07/2014	9.2	5	<5	EPL compliant
09/06/2014	07/07/2014	14/07/2014	8.7	6	<5	EPL compliant
10/06/2014	07/07/2014	14/07/2014	8.8	<5	<5	EPL compliant
24/06/2014	07/07/2014	14/07/2014	7.8	6	<5	EPL compliant
25/06/2014	07/07/2014	14/07/2014	7.8	6	<5	EPL compliant
01/07/2014	04/08/2014	11/08/2014	7.9	<5	<5	EPL compliant
09/07/2014	04/08/2014	11/08/2014	9.1	<5	<5	EPL compliant
10/07/2014	04/08/2014	11/08/2014	9.2	<5	<5	EPL compliant

* "Date Published" refers to this report.

NB TSS (total suspended solids) - under EPL, a TSS water quality limit of 50mg/litre pertains. Exceedance of this limit is permitted when discharge occurs solely as a result of rainfall measured at the premises. For discharge to be considered to occur solely as a result of rainfall, the rainfall must exceed a 5 day rainfall depth value of 90 mm over a consecutive 5 day period.



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SETTLEMENT LAGOON OVERFLOW: ENVIRONMENT PROTECTION LICENCE MONITORING: POINT 16

Environment Protection Licence: 1625 Type of Monitoring: water quality Frequency: daily grab sample when discharging			water quality parameter		EPL Limit (100 percentile)	Commentary on Results
Sample Date	Date Results Obtained	Date Published	pH (pH units)	total suspended solids (milligrams per litre)	monitoring only less than 50 not visible	
11/08/2014	08/09/2014	09/09/2014	9.6	33	<5	Period of controlled dewatering to facilitate emergency repair in overflow weir. pH marginally outside limits due to algae in Lagoon. TSS analysed by external lab and confirmed to be algal matter, not coal fines.
12/08/2014	08/09/2014	09/09/2014	9.7	34	<5	EPL compliant
13/08/2014	08/09/2014	09/09/2014	9.4	<5	<5	
14/08/2014	08/09/2014	09/09/2014	9.6	77	<5	
15/08/2014	08/09/2014	09/09/2014	9.4	19	<5	EPL compliant
17/08/2014	08/09/2014	09/09/2014	8.3	7	<5	EPL compliant
18/08/2014	08/09/2014	09/09/2014	7.9	<5	<5	EPL compliant
19/08/2014	08/09/2014	09/09/2014	7.5	<5	<5	EPL compliant
20/08/2014	08/09/2014	09/09/2014	7.2	12	<5	EPL compliant
22/08/2014	08/09/2014	09/09/2014	7	<5	<5	EPL compliant
23/08/2014	08/09/2014	09/09/2014	7	<5	<5	EPL compliant
25/08/2014	08/09/2014	09/09/2014	6.7	6	<5	EPL compliant
26/08/2014	08/09/2014	09/09/2014	6.7	<5	<5	EPL compliant
27/08/2014	08/09/2014	09/09/2014	7.1	<5	<5	EPL compliant
28/08/2014	08/09/2014	09/09/2014	8.2	<5	<5	EPL compliant
03/09/2014	15/10/2014	22/10/2014	7.7	10	<5	EPL compliant
08/09/2014	15/10/2014	22/10/2014	6.9	9	<5	EPL compliant
08/10/2014	14/11/2014	18/11/2014	10.0	35	<5	EPL compliant
14/10/2014	14/11/2014	18/11/2014	9.2	31	<5	EPL compliant
15/10/2014	14/11/2014	18/11/2014	9.2	22	<5	EPL compliant
16/10/2014	14/11/2014	18/11/2014	6.8	10	<5	EPL compliant
17/10/2014	14/11/2014	18/11/2014	6.9	<5	<5	EPL compliant
01/11/2014	15/12/2014	18/12/2014	9.6	10	<5	EPL compliant
02/11/2014	15/12/2014	18/12/2014	9.4	8	<5	EPL compliant
12/11/2014	15/12/2014	18/12/2014	9.7	31	BROKEN BOTTLE	EPL compliant
15/11/2014	15/12/2014	18/12/2014	9.2	27	<5	EPL compliant
17/11/2014	15/12/2014	18/12/2014	9.0	47	<5	EPL compliant
18/11/2014	15/12/2014	18/12/2014	9.8	69	<5	TSS analysed by external lab found algal matter contributed 60-70% of matter, further investigation is underway.
19/11/2014	15/12/2014	18/12/2014	9.9	23	<5	EPL compliant
20/11/2014	15/12/2014	18/12/2014	9.9	52	<5	TSS analysed by external lab found algal matter contributed 60-70% of matter, further investigation is underway.
27/11/2014	15/12/2014	18/12/2014	8.7	16	<5	EPL compliant
28/11/2014	15/12/2014	18/12/2014	8.3	13	<5	EPL compliant
02/12/2014	12/01/2015	13/01/2015	8.7	18	<5	EPL compliant
03/12/2014	12/01/2015	13/01/2015	8.8	27	<5	EPL compliant
04/12/2014	12/01/2015	13/01/2015	7.7	17	<5	EPL compliant
05/12/2014	12/01/2015	13/01/2015	8	6	<5	EPL compliant
06/12/2014	12/01/2015	13/01/2015	7.5	10	<5	EPL compliant
07/12/2014	12/01/2015	13/01/2015	7.3	<5	<5	EPL compliant
10/12/2014	12/01/2015	13/01/2015	7.3	<5	<5	EPL compliant
11/12/2014	12/01/2015	13/01/2015	7.5	<5	<5	EPL compliant
12/12/2014	12/01/2015	13/01/2015	7.2	<5	<5	EPL compliant
15/12/2014	12/01/2015	13/01/2015	7.6	<5	<5	EPL compliant
16/12/2014	12/01/2015	13/01/2015	8.6	<5	<5	EPL compliant
17/12/2014	12/01/2015	13/01/2015	9.0	14	<5	EPL compliant
23/12/2014	12/01/2015	13/01/2015	9.3	20	<5	EPL compliant
30/12/2014	12/01/2015	13/01/2015	9.3	20	<5	EPL compliant

* "Date Published" refers to this report.

NB TSS (total suspended solids) - under EPL, a TSS water quality limit of 50mg/litre pertains. Exceedance of this limit is permitted when discharge occurs solely as a result of rainfall measured at the premises. For discharge to be considered to occur solely as a result of rainfall, the rainfall must exceed a 5 day rainfall depth value of 90 mm over a consecutive 5 day period.

Water Collection System- Aerial View



Nb South, Tower 3, Central, Workshop, North, TS1 pond and C7 pump collect site runoff for transfer to the settlement lagoon for treatment, reuse and harbour discharge.

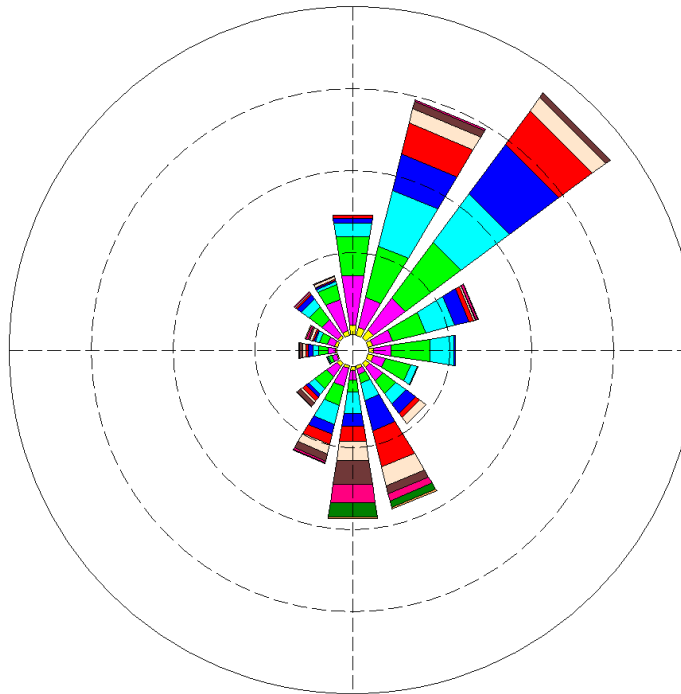
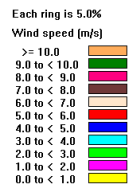


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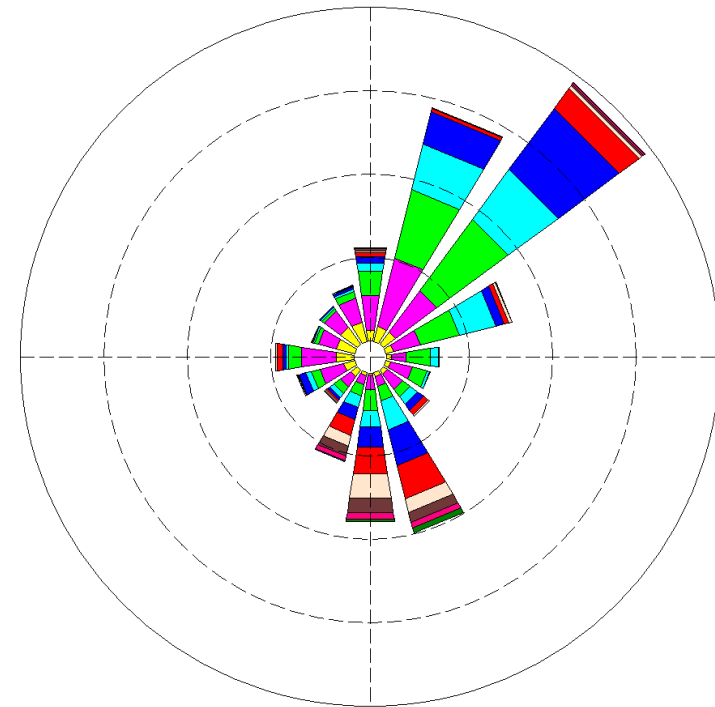
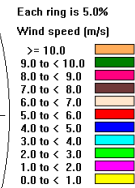
WIND ROSES - December 2014

Southern monitor



Calms = 0
Missing = 0
Total valid = 4464

Northern monitor



Calms = 0
Missing = 0
Total valid = 4464



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RAINFALL (PKCT site gauge)

