



# PORT KEMBLA COAL TERMINAL LTD.



Licencee:	Port Kembla Coal Terminal Limited
Environment Protection Licence:	1625
Licence URL:	<a href="http://www.environment.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=30847&amp;SYSUID=1&amp;LICID=1625">http://www.environment.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=30847&amp;SYSUID=1&amp;LICID=1625</a>
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

30<sup>th</sup> 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 ●





# PORT KEMBLA COAL TERMINAL LTD.



EPL MONITORING SITES- INDUSTRIAL			Calendar Year 2013												Annual average: grams per square metre month					
			JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	MIN	MEAN	MAX	rolling 12 month average	PKCT assessment criteria	
EPL No.	Location Gauge Number	analyte: grams/square metre month													Sampler collected					
1	P1	Insoluble Solids	5.7	1.9	3.3	7.2	5.8	3.5	3.4	2.4	10.2	6.7	2.9	4.5	12	1.9	4.8	10.2	4.8	15.0
	25m South	Ash	2.2	0.8	1.1	1.7	3.7	2.1	2.3	1.7	7.0	4.4	1.5	2.2	12	0.8	2.6	7.0	2.6	12.0
	BPB Coal Berth	Combustible Matter	3.5	1.1	2.2	5.5	2.1	1.4	1.1	0.7	3.2	2.3	1.4	2.3	12	0.7	2.2	5.5	2.2	12.0
2	P2	Insoluble Solids	3.6	3.0	3.1	3.9	2.3	7.0	BB	4.0	5.3	5.1	4.4	5.8	11	2.3	4.9	3.6	4.9	15.0
	40m South of BPB Stockyard	Ash	4.2	1.5	1.2	2.1	1.1	4.4	BB	2.6	3.2	3.1	2.3	2.6	11	1.1	2.6	4.4	2.6	12.0
		Combustible Matter	5.4	1.5	1.9	1.8	1.2	2.6	BB	1.4	2.1	2.0	2.1	3.2	11	1.2	2.3	5.4	2.3	12.0
3	P3	Insoluble Solids	18.1	12.8	2.9	8.9	BB	8.9	17.8	23.5	BB	12.8	4.6	7.2	10	2.9	11.8	23.5	11.8	15.0
	40m East of BPB Stockyard	Ash	8.1	7.4	1.2	5.2	BB	5.9	13.5	17.8	BB	8.7	2.5	3.7	10	1.2	7.4	17.8	7.4	15.0
		Combustible Matter	10.0	5.4	1.7	5.7	BB	3.0	4.3	5.7	BB	4.1	2.1	3.5	10	1.7	4.6	10.0	4.4	12.0
4	P4	Insoluble Solids	1.7	3.2	3.7	BB	BB	7.9	8.5	17.4	25.6	8.7	4.2	6.1	10	1.7	8.7	25.6	8.7	15.0
	40m East Coal Berth Stockyard	Ash	0.4	1.3	1.6	BB	BB	3.3	3.3	4.6	6.0	2.5	1.2	2.1	10	0.4	2.6	6.0	2.6	12.0
		Combustible Matter	1.3	1.9	2.1	BB	BB	4.6	5.2	12.8	19.6	6.2	3.0	4.0	10	1.3	6.1	19.6	6.1	12.0
5	P5	Insoluble Solids	8.6	3.8	8.4	5.3	3.8	4.2	6.7	5.2	8.1	12.9	14.1	11.4	12	3.8	7.7	14.1	7.7	15.0
	Northern Pond (No.1)	Ash	2.2	1.3	3.2	2.3	1.1	2.1	3.8	1.5	2.8	4.8	3.0	3.4	12	1.1	2.6	4.8	2.6	12.0
		Combustible Matter	6.4	2.5	5.2	3.0	2.7	2.1	2.9	3.7	5.3	8.1	11.1	8.0	12	2.1	5.1	11.1	5.1	12.0
6	P6	Insoluble Solids	5.9	7.9	9.8	5.5	6.8	4.0	2.9	2.2	4.8	2.7	7.1	15.5	12	2.2	6.3	15.5	6.3	15.0
	40m West Coal Berth Stockyard	Ash	0.8	2.3	2.4	1.6	3.0	2.1	1.3	1.2	1.5	1.4	2.4	3.1	12	0.8	1.9	3.1	1.9	12.0
		Combustible Matter	5.1	5.6	7.4	3.9	3.8	1.9	1.6	1.0	3.3	1.3	4.7	12.4	12	1.0	4.3	12.4	4.3	12.0
7	P7	Insoluble Solids	10.0	0.6	2.9	3.5	16.4	4.2	2.5	0.6	1.5	2.2	1.7	2.2	12	0.6	4.0	16.4	4.0	15.0
	260m West No.2 Coalberth	Ash	6.8	0.1	1.1	2.0	14.4	2.7	1.7	0.4	0.7	1.4	0.7	1.1	12	0.1	2.8	14.4	2.8	12.0
		Combustible Matter	3.2	0.5	1.8	1.5	2.0	1.5	0.8	0.2	0.8	0.8	1.0	1.1	12	0.2	1.3	3.2	1.3	12.0
8	P8	Insoluble Solids	8.2	5.1	4.7	6.8	31.6	7.3	3.0	18.0	11.6	48.2	8.6	19.2	12	4.7	14.9	48.2	14.9	15.0
	PKCT North Truckwash	Ash	2.2	1.8	1.1	2.0	6.0	1.9	3.2	4.7	3.1	11.2	2.3	4.8	12	1.1	3.7	11.2	3.7	12.0
		Combustible Matter	6.0	3.3	3.6	4.8	25.6	5.4	5.8	13.3	8.5	37.0	6.3	14.4	12	3.3	11.2	37.0	11.1	12.0
9	P9	Insoluble Solids	4.8	1.3	1.6	3.3	1.8	5.0	1.3	1.1	2.3	4.0	3.9	3.8	12	1.1	2.9	5.0	2.9	6.0
	Wollongong Wastewater TP.	Ash	2.0	0.5	0.7	1.7	0.7	3.2	0.6	0.5	1.3	2.4	1.7	1.6	12	0.5	1.4	3.2	1.4	4.0
		Combustible Matter	2.8	0.8	0.9	1.6	1.1	1.8	0.7	0.6	1.0	1.6	2.2	2.2	12	0.6	1.4	2.8	1.4	4.0
15	P10	Insoluble Solids	22.4	11.3	14.4	8.8	9.1	7.9	5.8	5.5	10.5	11.8	18.0	11.7	12	5.5	11.9	22.4	11.9	15.0
	North of PKCT Planning Office	Ash	2.7	3.6	4.6	3.6	3.9	3.1	2.7	2.1	4.4	4.2	5.3	5.1	12	2.1	3.8	5.3	3.8	12.0
		Combustible Matter	19.7	7.7	9.8	5.2	5.2	4.8	3.1	3.4	6.1	7.6	12.7	12.6	12	3.1	8.2	19.7	8.2	12.0
17	P11	Insoluble Solids	3.3	4.0	5.3	8.1	4.9	5.4	1.9	2.5	4.8	3.6	6.1	2.7	12	1.9	4.4	8.1	4.4	6.0
	Entry Gate BlueScope	Ash	2.0	2.7	3.6	6.0	3.2	3.8	1.2	1.9	3.4	2.6	4.6	2.1	12	1.2	3.1	6.0	3.1	6.0
	RO.RO Berth (103)	Combustible Matter	1.3	1.3	1.7	2.1	1.7	1.6	0.7	0.6	1.4	1.0	1.5	0.6	12	0.6	1.3	2.1	1.3	4.0

MONTHLY REPORT: COMMENTARY ON RESULTS				
SAMPLE PERIOD	Date Sampled	Date Results Obtained	Date Published	COMMENTARY ON RESULTS
January 2013	23/01/2013	15/2/2013	21/2/2013	all sites within assessment criteria
February 2013	22/02/2013	15/3/2013	28/3/2013	all sites within assessment criteria
March 2013	26/03/2013	3/4/2013	4/4/2013	all sites within assessment criteria
April 2013	24/04/2013	13/05/2013	17/05/2013	all sites within assessment criteria
May 2013	24/05/2013	12/06/2013	18/06/2013	Monitoring Site P8 - Likely influenced by truckwash upgrade and strong westerly winds in May
June 2013	24/06/2013	11/07/2013	13/07/2013	all sites within assessment criteria
July 2013	25/07/2013	12/08/2013	15/08/2013	all sites within assessment criteria
August 2013	26/08/2013	13/09/2013	17/09/2013	all sites within assessment criteria
September 2013	25/09/2013	09/10/2013	14/10/2013	all sites within assessment criteria
October 2013	25/10/2013	04/11/2013	11/11/2013	Monitoring site P8 - Significant fires and strong dry winds occurred in the region during October which likely contributed to background dust levels. There were 6 days during October where Regional PM10 or PM2.5 exceeded the NSW OEH standards. Additionally, 5 days were recorded where visibility standards for NSW were exceeded. The PKCT northern truckwash was operational during the month, however some further commissioning work was being undertaken. The predominant wind was from the NW during the month and it is likely that all of the above factors contributed to the higher than average dust levels recorded at the gauge.
November 2013	26/11/2013	09/12/2013	16/12/2013	all sites within assessment criteria
December 2013	24/12/2013	13/01/2014	15/01/2014	Sites P6 and P10 remain within the 12-month rolling average assessment criteria, but were outside the monthly assessment criteria. These two sites are located near the office buildings at PKCT and are influenced by strong north-east winds. Persistent and strong north-east winds during December required significant watering of the stockpiles to minimize dust generation. Addition of water during the month caused stockpile slumping and some sprays were isolated to allow cleaning of the slumps. It is likely that isolation of some spray heads near the dust gauges contributed to the higher than normal readings. Site P8 is located at the Northern Truckwash. The Truckwash upgrade continues to progress and additional traffic and work near the dust gauge may have contributed to the high reading.



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EPL MONITORING SITES- RESIDENTIAL			Calendar Year 2013															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	2.3	1.4	0.5	1.2	1.0	0.9	0.6	1.1	1.2	2.9	2.1	2.3	12	0.5	1.5	2.9	1.5	4.0
	157 Church St	Ash	1.1	0.8	0.2	0.6	0.6	0.4	0.4	0.7	0.7	2.0	1.0	1.5	12	0.2	0.8	2.0	0.8	
	Wollongong	Combustible Matter	1.2	0.6	0.3	0.6	0.4	0.5	0.2	0.4	0.5	0.9	1.1	0.8	12	0.2	0.6	1.2	0.6	2.0
19	R2	Insoluble Solids	9.3	1.9	1.1	1.5	1.9	0.7	1.0	0.3	0.8	0.9	2.2	1.8	12	0.3	2.0	9.3	2.0	4.0
	Vikings Oval	Ash	6.4	1.1	0.6	0.9	1.1	0.3	0.6	0.1	0.4	0.4	0.9	0.9	12	0.1	1.1	6.4	1.1	
	Wollongong	Combustible Matter	2.9	0.8	0.5	0.6	0.8	0.4	0.4	0.2	0.4	0.5	1.3	0.9	12	0.2	0.8	2.9	0.8	2.0
TBA	R3	Insoluble Solids	2.5	1.2	1.3	1.6	1.4	1.0	1.2	0.6	0.8	1.3	4.3	1.6	12	0.6	1.6	4.3	1.6	4.0
	Ross Street	Ash	1.3	0.8	0.8	0.9	1.2	0.6	0.7	0.3	0.3	0.7	2.5	0.7	12	0.3	0.9	2.5	0.9	
	Wollongong	Combustible Matter	1.2	0.4	0.5	0.7	0.2	0.4	0.5	0.3	0.5	0.6	1.8	0.9	12	0.2	0.7	1.8	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 2013	23/01/2013	15/02/2013	21/02/2013	all sites within assessment criteria; site "19" above- petrography test indicated high reading due to insects/ plant matter
February 2013	22/02/2013	15/03/2013	28/03/2013	all sites within assessment criteria
March 2013	26/03/2013	03/04/2013	04/04/2013	all sites within assessment criteria
April 2013	24/04/2013	13/05/2013	17/05/2013	all sites within assessment criteria
May 2013	24/05/2013	12/06/2013	18/06/2013	all sites within assessment criteria
June 2013	24/06/2013	11/07/2013	19/07/2013	all sites within assessment criteria
July 2013	25/07/2013	12/08/2013	15/08/2013	all sites within assessment criteria
August 2013	26/08/2013	13/09/2013	17/09/2013	all sites within assessment criteria
September 2012	25/09/2013	09/10/2013	14/10/2013	all sites within assessment criteria
October 2013	25/10/2013	04/11/2013	11/11/2013	all sites within assessment criteria
November 2013	26/11/2013	09/12/2013	16/12/2013	all sites within assessment criteria
December 2013	24/12/2013	13/01/2014	15/01/2014	all sites within assessment criteria



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.



# PORT KEMBLA COAL TERMINAL LTD.



SETTLEMENT LAGOON OVERFLOW: ENVIRONMENT PROTECTION LICENCE MONITORING: POINT 16						
Environment Protection Licence: 1625 Type of Monitoring: water quality Frequency: daily grab sample when			water quality parameter		EPL Limit (100 percentile)	
			pH	total suspended solids	6.5-9.5*	
			oil/ grease (milligrams per litre)		less than 50	
			oil/ grease (milligrams per litre)		less than 10	
Sample Date	Date Results Obtained	Date Published	pH (pH units)	total suspended solids (milligrams per litre)	oil/ grease (milligrams per litre)	Commentary on Results
11/01/2013	15/02/2013	21/02/2013	7.8	12	less than 5	EPL compliant
13/01/2013	15/02/2013	21/02/2013	8.9	19	less than 5	EPL compliant
14/01/2013	15/02/2013	21/02/2013	7.9	15	less than 5	EPL compliant
16/01/2013	15/02/2013	21/02/2013	8.4	5	less than 5	EPL compliant
22/01/2013	15/02/2013	21/02/2013	8.0	9	9	EPL compliant
27/01/2013	15/02/2013	21/02/2013	7.5	200	less than 5	TSS EPL exceedance- EPL limit average 100 mg/l across significant rain event though some dosing unit problems occurred (* refer note below)
28/01/2013	15/02/2013	21/02/2013	7.4	47	less than 5	EPL compliant; across significant rain event (* refer note below)
29/01/2013	15/02/2013	21/02/2013	6.7	51	less than 5	EPL compliant; across significant rain event (* refer note below)
30/01/2013	17/03/2013	28/03/2013	6.9	140	<5	TSS EPL exceedance- EPL limit average 100 mg/l across significant rain event though some dosing unit problems occurred(* refer note below)
31/01/2013	17/03/2013	28/03/2013	7.2	80	<5	EPL compliant; across significant rain event (* refer note below)
01/02/2013	17/03/2013	28/03/2013	7.2	60	<5	EPL compliant; across significant rain event (* refer note below)
01/02/2013	17/03/2013	28/03/2013	7.1	47	<5	EPL compliant
02/02/2013	17/03/2013	28/03/2013	7.2	5	<5	EPL compliant
03/02/2013	17/03/2013	28/03/2013	7.3	<5	<5	EPL compliant
04/02/2013	17/03/2013	28/03/2013	6.8	<5	<5	EPL compliant
12/02/2013	17/03/2013	28/03/2013	7.5	<5	<5	EPL compliant
13/02/2013	17/03/2013	28/03/2013	9.4	14	<5	EPL compliant
17/02/2013	17/03/2013	28/03/2013	7	10	<5	EPL compliant
23/02/2013	17/03/2013	28/03/2013	7.5	14	<5	EPL compliant
24/02/2013	17/03/2013	28/03/2013	7.6	12	<5	EPL compliant
pkct to advise	17/03/2013	28/03/2013	7.4	20	<5	EPL compliant
25/02/2013	17/03/2013	28/03/2013	7	11	<5	EPL compliant
27/02/2013	17/03/2013	28/03/2013	6.8	7	<5	EPL compliant
01/03/2013	03/04/2013	04/04/2013	6.9	14	<5	EPL compliant
02/03/2013	03/04/2013	04/04/2013	7.0	21	<5	EPL compliant
03/03/2013	03/04/2013	04/04/2013	7.0	20	<5	EPL compliant
06/03/2013	03/04/2013	04/04/2013	7.5	6	<5	EPL compliant
07/03/2013	03/04/2013	04/04/2013	7.2	11	<6	EPL compliant



<b>SETTLEMENT LAGOON OVERFLOW: ENVIRONMENT PROTECTION LICENCE MONITORING: POINT 16..... Continued</b>						
<b>Environment Protection Licence: 1625</b>			<b>water quality parameter</b>		<b>EPL Limit (100 percentile)</b>	
Type of Monitoring: water quality Frequency: daily grab sample when discharging			pH total suspended solids oil/ grease (milligrams per litre)		6.5-9.5* less than 50 less than 10	
Sample Date	Date Results Obtained	Date Published	pH (pH units)	total suspended solids (milligrams per litre)	oil/ grease (milligrams per litre)	Commentary on Results
03/04/2013	13/05/2013	17/05/2013	7	38	<5	EPL compliant
04/04/2013	13/05/2013	17/05/2013	7.4	33	<5	EPL compliant
05/04/2013	13/05/2013	17/05/2013	6.8	19	<5	EPL compliant
06/04/2013	13/05/2013	17/05/2013	7	11	<5	EPL compliant
07/04/2013	13/05/2013	17/05/2013	6.4	6	<5	marginal pH exceedance, likely influenced by algae in lagoon
08/04/2013	13/05/2013	17/05/2013	6.2	7	<5	marginal pH exceedance, likely influenced by algae in lagoon
16/04/2013	13/05/2013	17/05/2013	7.4	17	<5	EPL compliant
19/04/2013	13/05/2013	17/05/2013	7.4	7	<5	EPL compliant
20/04/2013	13/05/2013	17/05/2013	7.5	15	<5	EPL compliant
21/04/2013	13/05/2013	17/05/2013	7.3	10	<5	EPL compliant
27/04/2013	13/05/2013	17/05/2013	8.1	<5	<5	EPL compliant
20/05/2013	12/06/2013	18/06/2013	8.6	8	<5	EPL compliant
23/05/2013	12/06/2013	18/06/2013	8.5	28	<5	EPL compliant
24/05/2013	12/06/2013	18/06/2013	7.5	16	<5	EPL compliant
25/05/2013	12/06/2013	18/06/2013	7.2	8	<5	EPL compliant
28/05/2013	12/06/2013	18/06/2013	7.7	<5	<5	EPL compliant
28/05/2013	12/06/2013	18/06/2013	7.7	8	<5	EPL compliant
29/05/2013	12/06/2013	18/06/2013	7.6	7	<5	EPL compliant
02/06/2013	11/07/2013	19/07/2013	7.5	<5	<5	EPL compliant
03/06/2013	11/07/2013	19/07/2013	7.7	<5	<5	EPL compliant
12/06/2013	11/07/2013	19/07/2013	7.5	8	<5	EPL compliant
23/06/2013	11/07/2013	19/07/2013	7.9	6	<5	EPL compliant
24/06/2013	11/07/2013	19/07/2013	7.3	5	<5	EPL compliant
25/06/2013	11/07/2013	19/07/2013	7	19	<5	EPL compliant
26/06/2013	11/07/2013	19/07/2013	7	6	<5	EPL compliant
27/06/2013	11/07/2013	19/07/2013	7.1	5	<5	EPL compliant
28/06/2013	11/07/2013	19/07/2013	6.9	24	<5	EPL compliant
29/06/2013	11/07/2013	19/07/2013	6.9	27	<5	EPL compliant
15/07/2013	12/08/2013	15/08/2013	7	<5	<5	EPL compliant
21/07/2013	12/08/2013	15/08/2013	6.8	<5	<5	EPL compliant
31/07/2013	12/08/2013	15/08/2013	7.1	5	<5	EPL compliant
01/08/2013	13/09/2013	17/09/2013	7.6	5	<5	EPL compliant
05/08/2013	13/09/2013	17/09/2013	7.3	<5	<5	EPL compliant
13/08/2013	13/09/2013	17/09/2013	8.5	<5	<5	EPL compliant
15/08/2013	13/09/2013	17/09/2013	7.8	6	<5	EPL compliant
16/08/2013	13/09/2013	17/09/2013	8.1	6	<5	EPL compliant
17/08/2013	13/09/2013	17/09/2013	8.4	<5	<5	EPL compliant
19/08/2013	13/09/2013	17/09/2013	8.0	<5	<5	EPL compliant
29/08/2013	13/09/2013	17/09/2013	9.4	11	<5	EPL compliant
03/09/2013	09/10/2013	14/10/2013	9.7	10	<5	marginal pH exceedance, influenced by algae in lagoon.
14/09/2013	09/10/2013	14/10/2013	8.7	12	<5	EPL compliant
15/09/2013	09/10/2013	14/10/2013	8.8	10	<5	EPL compliant
16/09/2013	09/10/2013	14/10/2013	8.6	10	<5	EPL compliant
17/09/2013	09/10/2013	14/10/2013	8.6	21	<5	EPL compliant
18/09/2013	09/10/2013	14/10/2013	8.2	23	<5	EPL compliant
19/09/2013	09/10/2013	14/10/2013	6.5	<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 provided a 5 day average of 100 mg/litre isn't exceeded providing this occurs solely due to excessive rainfall of at least 90mm over any consecutive 5 day period. With regard to the storm event commencing 27th January 2013, 264 mm of rain was recorded and the average TSS across the period was 96 mg/litre. The event identified some further commissioning adjustments to the settlement lagoon dosing unit which was needed and carried out.

SETTLEMENT LAGOON OVERFLOW: ENVIRONMENT PROTECTION LICENCE MONITORING: POINT 16.... Continued						
Environment Protection Licence: 1625			water quality parameter		EPL Limit (100 percentile)	
Type of Monitoring: water quality			pH		6.5-9.5*	
Frequency: daily grab sample when discharging			total suspended solids		less than 50	
			oil/grease (milligrams per litre)		less than 10	
Sample Date	Date Results Obtained	Date Published	pH (pH units)	total suspended solids (milligrams per litre)	oil/grease (milligrams per litre)	Commentary on Results
01/10/2013	04/11/2013	11/11/2013	9.3	11	<5	EPL compliant
03/10/2013	04/11/2013	11/11/2013	9.0	8	6	EPL compliant
05/10/2013	04/11/2013	11/11/2013	9.0	<5	<5	EPL compliant
06/10/2013	04/11/2013	11/11/2013	9.2	<5	<5	EPL compliant
07/10/2013	04/11/2013	11/11/2013	9.4	<5	<5	EPL compliant
08/10/2013	04/11/2013	11/11/2013	9.3	<5	<5	EPL compliant
09/10/2013	04/11/2013	11/11/2013	9.6	8	<5	marginal pH exceedance, influenced by algae in lagoon.
10/10/2013	04/11/2013	11/11/2013	9.8	8	<5	marginal pH exceedance, influenced by algae in lagoon.
11/10/2013	04/11/2013	11/11/2013	9.6	<5	<5	marginal pH exceedance, influenced by algae in lagoon.
12/10/2013	04/11/2013	11/11/2013	9.6	8	<5	marginal pH exceedance, influenced by algae in lagoon.
04/11/2013	09/12/2013	16/12/2013	9.8	23	<5	marginal pH exceedance, influenced by algae in lagoon.
10/11/2013	09/12/2013	16/12/2013	8.5	24	<5	EPL compliant
11/11/2013	09/12/2013	16/12/2013	8.3	16	<5	EPL compliant
12/11/2013	09/12/2013	16/12/2013	7.7	7	<5	EPL compliant
14/11/2013	09/12/2013	16/12/2013	7.5	11	<5	EPL compliant
15/11/2013	09/12/2013	16/12/2013	7.6	<5	<5	EPL compliant
17/11/2013	09/12/2013	16/12/2013	7.4	22	<5	EPL compliant
18/11/2013	09/12/2013	16/12/2013	7.5	13	<5	EPL compliant
19/11/2013	09/12/2013	16/12/2013	6.7	8	<5	EPL compliant
19/11/2013	09/12/2013	16/12/2013	6.7	12	<5	EPL compliant
21/11/2013	09/12/2013	16/12/2013	7.3	11	<5	EPL compliant
25/11/2013	09/12/2013	16/12/2013	7.1	<5	<5	EPL compliant
27/11/2013	09/12/2013	16/12/2013	6.5	<5	<5	EPL compliant
29/11/2013	09/12/2013	16/12/2013	6.9	8	<5	EPL compliant
30/11/2013	09/12/2013	16/12/2013	6.9	5	<5	EPL compliant
04/12/2013	13/01/2014	15/01/2014	8.1	<5	<5	EPL compliant
05/12/2013	13/01/2014	15/01/2014	7.8	<5	<5	EPL compliant
06/12/2013	13/01/2014	15/01/2014	8.2	6	<5	EPL compliant
10/12/2013	13/01/2014	15/01/2014	7.5	7	<5	EPL compliant
11/12/2013	13/01/2014	15/01/2014	8.6	11	<5	EPL compliant
17/12/2013	13/01/2014	15/01/2014	8.6	14	<5	EPL compliant
25/12/2013	13/01/2014	15/01/2014	9.2	9	<5	EPL compliant
26/12/2013	13/01/2014	15/01/2014	8.7	9	<5	EPL compliant
27/12/2013	13/01/2014	15/01/2014	8.1	<5	<5	EPL compliant
28/12/2013	13/01/2014	15/01/2014	7.5	12	<5	EPL compliant
30/12/2013	13/01/2014	15/01/2014	8.2	<5	<5	EPL compliant
31/12/2013	13/01/2014	15/01/2014	7.7	11	<5	EPL compliant

\* "Date Published" refers to this report.

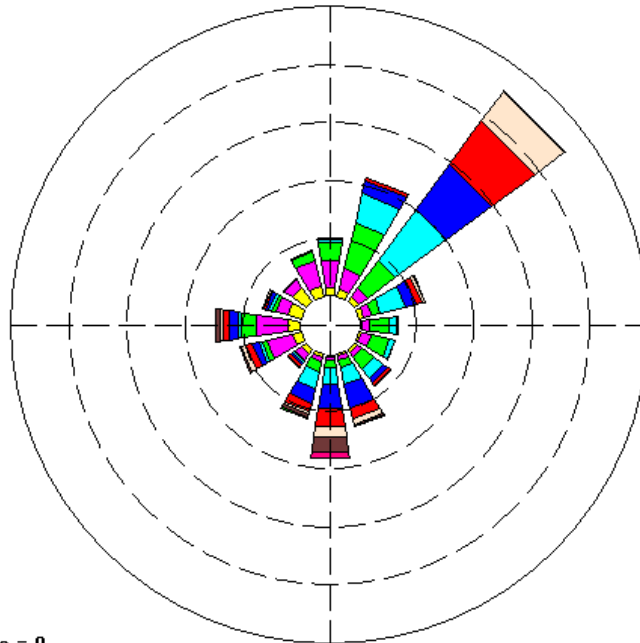
NB TSS (total suspended solids)- under EPL, a TSS water quality limit of 50mg/litre pertains. Exceedance of this limit is permitted provided a 5 day average of 100 mg/litre isn't exceeded providing this occurs solely due to excessive rainfall of at least 90mm over any consecutive 5 day period. With regard to the storm event commencing 27th January 2013, 264 mm of rain was recorded and the average TSS across the period was 96 mg/litre. The event identified some further commissioning adjustments to the settlement lagoon dosing unit which was needed and carried out.



## WIND ROSES- December 2013

Northern monitor

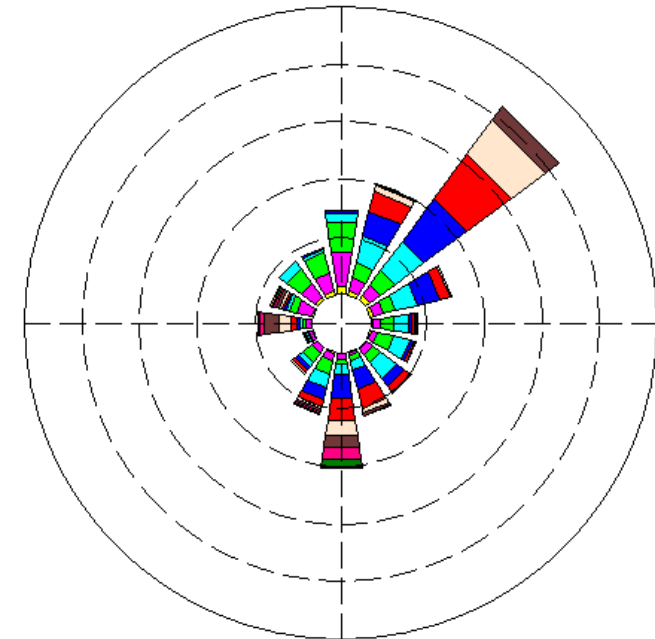
Each ring is 5.0%  
Wind speed (m/s)



Calms = 0  
Missing = 151  
Total valid = 4313

Southern monitor

Each ring is 5.0%  
Wind speed (m/s)



Calms = 0  
Missing = 147  
Total valid = 4317



# PORT KEMBLA COAL TERMINAL LTD.



RAINFALL (PKCT site gauge)

