

# Interim Environmental Management Report

## 2011/2012

Reporting Period 1.7.11-31.12.11





**Contents**

1.	Introduction .....	3
1.1	Purpose	3
1.2	Scope	3
1.3	Methodology	3
2.	Monitoring .....	4
2.1	Noise	4
2.2	Transport	5
2.3	Air Quality	6
2.4	Meteorological Monitoring	7
2.5	Surface Water	8
2.6	Biodiversity	9
2.7	Greenhouse & Energy Efficiency	10
2.8	Waste	11
2.9	Hazards	11
3.	Community Relations.....	12
4.	Independent External Audit 2011- Status of Actions.....	12
5.	Conclusion.....	13
6.	References.....	13
	Attachment “A” Noise Monitoring Report- August 2011 .....	14
	Attachment “B” Summary of PKCT Throughput and Receivals .....	16
	Attachment “C” Road Transport Complaints & Incidents Summary .....	17
	Attachment “D” Road Transport Report- July-December 2011 .....	19
	Attachment “E” Air Quality- Monitoring Sites.....	20
	Attachment “F” Air Quality: Dust deposition .....	21
	Attachment “G” Air Quality: Continuous Dust Data.....	23
	Attachment “H” Weather Monitoring Summary- July- December 2011.....	26
	Attachment “I” Water Usage Report.....	28
	Attachment “J” Discharge Point P16 Performance Trend- Water Quality.....	30
	Attachment “K” Settlement Lagoon Discharges: July-December 2011 .....	31
	Attachment “L” Greenhouse Gas Report- July- December 2011 .....	32
	Attachment “M” Electricity Usage Report to January 2012.....	33
	Attachment “N” Waste Report July-December 2011.....	34

## **1. Introduction**

### **1.1 Purpose**

The purpose of the Interim Environment Management Report (IEMR) is to provide the community, Department of Planning and Infrastructure (DPI) and other stakeholders a summary of Port Kembla Coal Terminal (PKCT)'s monitoring results in accordance with Schedule 4 Condition 9(a) of DPI Approval 08\_0009.

### **1.2 Scope**

PKCT Major Project Approval 08\_0009 was granted on the 12<sup>th</sup> June 2009. The approval included a requirement of PKCT to prepare an Annual Environment Management Report(AEMR). Approval also requires an interim report covering the initial 6 months of the reporting period. Accordingly, the first PKCT AEMR was submitted to the DPI applies to the period of 1<sup>st</sup> July 2009 – 30<sup>th</sup> June 2010 (the reporting period).

PKCT also has an Environment Protection Authority (EPA) Environment Protection Licence 1625. EPA requires licencees to make monitoring results available to the public.

Accordingly, this IEMR will be published on PKCT website ([www.pkct.com.au](http://www.pkct.com.au)).

### **1.3 Methodology**

Section 2 provides a description of the various environmental aspects monitored by PKCT under its EPL and DPI approval conditions. Each aspect references applicable assessment criteria and provides a commentary on the monitoring undertaken. Monitoring results are included in the attachments herein.

## 2. Monitoring

### 2.1 Noise

#### 2.1.1 Assessment Criteria

EPL 1625 & Major Project Approval 08\_0009 control noise emissions from PKCT's premises. Noise criteria is outlined as follows:-

- The Proponent shall ensure that the noise generated by the project at any privately-owned residence does not exceed the criteria specified in Table 1 for the location nearest to that residence.

*Table 1: Noise impact assessment criteria dB(A)  $L_{Aeq}(15\ min)$*

Location	Time Period	Limits ( $L_{Aeq,15\ min}$ dB(A))
Cnr Swan St/Kembla St	Day	51
	Evening	50
	Night	49
Cnr Swan St/Corrimal St	Day	51
	Evening	50
	Night	49
Cnr Keira St/Fox St	Day	55
	Evening	49
	Night	45

**Notes:**

- To determine compliance with the  $L_{Aeq}(15\ minute)$  noise level limits in the above table, noise from the project is to be measured at the most affected point within the residential boundary. Where it can be demonstrated that direct measurement of noise from the project is impractical, the DECC may accept alternative means of determining compliance (see Chapter 11 of the NSW Industrial Noise Policy). The modification factors in Section 4 of the NSW Industrial Noise Policy shall also be applied to the measured noise levels where applicable.
- The noise emission limits identified in the above table apply under meteorological conditions of:
  - wind speeds of up to 3 m/s at 10 metres above ground level; or
  - temperature inversion conditions of up to 3°C/100m, plus a 2 m/s source-to-receiver component drainage flow wind at 10 metres above ground level for those receivers where applicable in accordance with the NSW Industrial Noise Policy.

However, if the Proponent has a written negotiated noise agreement with any landowner of the land listed in Table 1, and a copy of this agreement has been forwarded to the Department and DECC, then the Proponent may exceed the noise limits in Table 1 in accordance with the negotiated noise agreement.

#### 2.1.2 Monitoring and Results

A routine noise survey was undertaken in August 2011. Summary of monitoring data is provided in the Attachment "A". Noise surveys determined that PKCT noise levels were within the noise criteria in EPL 1625 and DPI Approval 08\_0009.

## 2.2 Transport

### 2.2.1 Assessment Criteria

#### Monitoring of Coal Transport

4. The Proponent shall keep records of the amount of coal and bulk products received at the site each year, and include these records in the AEMR.

#### Traffic Management

5. The Proponent shall ensure that vehicles waiting to deliver coal or bulk products to the site do not queue or park on public roads other than Port Kembla Road.

#### Driver's Code of Conduct

6. The Proponent shall, in consultation with affected mines and principal haulage operators, develop a program to implement the Driver's Code of Conduct (see Appendix 3) to the satisfaction of the Director-General. This program must:
  - (a) be submitted to the Director-General for approval within 6 months from the date of this approval, or as otherwise agreed by the Director-General;
  - (b) include a driver induction program to cover (but not be limited to) speed limits, compression braking, truck washing, load covering and queuing on local roads; and
  - (c) include measures to ensure the Driver's Code of Conduct is enforced.

### 2.2.2 Monitoring and Results

Attachment "B" provides a summary of receivals and shiploading throughput data for the reporting period.

PKCT received 1,139,452 tonnes (annualised 2,278,904 tonnes) by public road during the first half of reporting period which is less than 7.5 million. This accords with approval thresholds in Major Project Approval 08\_0009 and the EA. EPL 1625 has no criteria for product receival.

Attachments "C" and "D" provide a summary of monitoring results pertaining to road transport and the Drivers Code of Conduct. A Road Users Group (PKCT, truck companies and relevant coal and bulk products shippers) meet to review implementation and monitoring results. During this reporting period, a meeting was held on 21<sup>st</sup> July 2011. Weekly Shippers meetings are also held to coordinate shipping and receival plans. This is facilitated by PKCT with shippers in attendance and is a forum whether any issues can be raised. Outside of meetings, PKCT has communications with road transport providers where road and Drivers Code of Conduct matters can be raised and actioned.

## 2.3 Air Quality

### 2.3.1 Assessment Criteria

#### Impact Assessment Criteria

7. The Proponent shall ensure that dust generated by the project does not cause additional exceedances of the criteria listed in Tables 3 to 5 at any residence.

*Table 3: Long term impact assessment criteria for particulate matter*

Pollutant	Averaging Period	Criterion
Total suspended particulate (TSP) matter	Annual	90 µg/m <sup>3</sup>
Particulate matter < 10 µm (PM10)	Annual	30 µg/m <sup>3</sup>

*Table 4: Short term impact assessment criteria for particulate matter*

Pollutant	Averaging Period	Criterion
Particulate matter < 10 µm (PM10)	24 hour	50 µg/m <sup>3</sup>

*Table 5: Long term impact assessment criteria for deposited dust*

Pollutant	Averaging Period	Maximum Increase in Deposited Dust Level	Maximum Total Deposited Dust Level
Deposited Dust	Annual	2 g/m <sup>2</sup> /month	4 g/m <sup>2</sup> /month

*Note: Deposited dust is assessed as insoluble solids as defined by Standards Australia, 1991, AS 3580.10.1-1991: Methods for Sampling and Analysis of Ambient Air - Determination of Particulates - Deposited Matter - Gravimetric Method.*

However, if the Proponent has a written negotiated air quality agreement with any landowner to exceed the air quality limits in Table 3, 4 and/or 5, and a copy of this agreement has been forwarded to the Department and DECC, then the Proponent may exceed the air limits in Table 3, 4 and/or 5 in accordance with the negotiated air quality agreement.

EPL 1625 contains a requirement for dust monitoring but no specified limits for dust, or other air quality emissions. The EPL does require the following:

O3.1 The premises must be maintained in a condition which minimises or prevents the emission of dust from the premises.

O3.2 Activities occurring in or on the premises must be carried out in a manner that will minimise the generation or emission of wind blown, or traffic generated dust.

### 2.3.2 Monitoring and Results

PKCT monitors air quality using dust deposition gauges and continuous dust monitors located on site, adjacent port and residential areas as shown on Attachment “E”

Attachment “F” provides dust deposition results and trend graphs for PKCT’s residential sites. Dust deposition levels were within annual average of 4 grams per square metre per month for insoluble solids for 3 of 4 residential sites. Assessment of deposition data from 173 Corrimal Street has indicated the site is not ideally located and may be influenced by local effects or dust sources. On occasion, very high readings have been obtained which are inconsistent with the dust deposition levels at other residential monitoring sites. The resident has indicated that adjacent building works, which are now complete, may have contributed.

Attachment “G” provides a summary of continuous dust data. Table 9 indicated annual PM10 and TSP were both well within the assessment criteria. Table 10 and 11 provides a report of 24 hour TSP and PM10 exceedances compared against the assessment criteria. Analysis of wind direction, up wind and district effects indicated that PKCT was a minor contributor.

## 2.4 Meteorological Monitoring

### 2.4.1 Assessment Criteria

11. During the life of the project, the Proponent shall ensure that there is a suitable meteorological station on or in the vicinity of the site that generally complies with the requirements in the *Approved Methods for Sampling of Air Pollutants in New South Wales* guideline.

### 2.4.2 Monitoring and Results

PKCT was compliant with this Condition during the reporting period. Meteorological monitoring is undertaken as follows:-

- Northern and southern continuous dust monitors are calibrated annually and measure PM10, PM2.5, TSP, wind speed and wind direction.
- PKCT also has an anemometer on the Central Control Tower. It measures wind speed and direction as well as rainfall, pressure, temperature and humidity.
- Summary data is provided in Attachment “H”

## 2.5 Surface Water

### 2.5.1 Assessment Criteria

The Protection of the Environment Operations (POEO) Act 1997 sets requirements and controls regarding pollution of the environment. Section 120 of this Act confirms it is an offence to cause or permit pollution of any waters. PKCT is required to comply with this requirement, however, PKCT's EPL 1625 provides site specific water pollution permissions and requirements relating to their activities.

#### EPL 1625 Water Quality Limits

Pollutant	Unit of Measure	100 Percentile Concentration Limit
Oil and Grease	Milligrams per litre	10
pH	pH	6.5-8.5
Total Suspended Solids (TSS)	Milligrams per litre	50

However, in the event that rainfall at the PKCT premises exceeds a total of 90mm over a consecutive 5 day period, the EPL permits exceedance of the TSS limit in Table 5.1, but only if the TSS discharge does not exceed a 5 day average of 100mg/l.

Condition 12 of Schedule 3 of Major Project Approval 08\_0009 also specifies a surface water standard for PKCT activities. The following extract identifies the control.

#### DPI Approval 08\_0009 Water Quality Condition

##### SURFACE WATER

##### Discharge Limits

12. Except as may be expressly provided in an EPL for the project, the Proponent shall comply with Section 120 of the *Protection of the Environment Operations Act 1997*.

This replicates PKCT's surface water requirement under the POEO Act and is therefore controlled by EPL 1625.

Energy Administration (Water and Energy Savings) Act 2005 sets out obligations for water use and conservation and requires PKCT to have a Water Savings Action Plan. PKCT has a Water Savings Action Plan in place and is continuing efforts to minimize overall and potable water usage.

### 2.5.2 Monitoring and Results

PKCT has a Water Management Plan which covers the use of water, collection of process and stormwater, treatment and control of water for reuse and discharge to harbour waters.

Attachment "I" provides data on potable and recycled water usage. Results indicate the excellent results in potable water reduction are continuing.

Attachment “J” and “K” provide water quality results from PKCT’s EPL licenced discharge point of harbor discharges. The results indicate the following:-

- (a) 100% compliance for total suspended solids and oil and grease.
- (b) Since commencement of recycled water use at PKCT, pH has been found, at times, to be outside EPL limits potentially due to increased nutrient levels in collected water. Algae is appearing in the lagoon from time to time and this is adding to the total suspended solids level in harbour discharges. Monitoring is continuing in consultation with EPA to ascertain the cause and determine appropriate actions. Consultant advice indicates that periodic discharge, usually during storm conditions, of water with elevated pH doesn’t adversely impact on receiving waters.

An Environment Protection Licence Pollution Reduction Plan is currently in place under which PKCT is investigating ways of improving system performance so that total suspended solids and pH is within EPL limits.

## 2.6 Biodiversity

### 2.6.1 Assessment Criteria

#### Green and Golden Bell Frog Management Plan

14. The Proponent shall prepare and implement a Green and Golden Bell Frog Management Plan for the project to the satisfaction of the Director-General. This program must:
- (a) be developed in consultation with DECC; and
  - (b) be submitted to the Director-General for approval within 12 months from the date of this approval, or as otherwise agreed by the Director-General.

Objective	PKCT Commitment
<ul style="list-style-type: none"> <li>• Management of Green and Golden Bell Frogs (GGBF).</li> </ul>	<ul style="list-style-type: none"> <li>• Implement Interim Management Plan.</li> <li>• Undertake a GGBF Survey and then develop a Long Term Plan of Management.</li> </ul>

### 2.6.2 Monitoring and Results

PKCT has a Green and Golden Bell Frog (GGBF) management plan in place. Internal and external (with consultant) surveys are undertaken periodically by PKCT. PKCT’s consultant, Biosphere, undertook a review of PKCT’s management plan in July 2011. Site inspections associated with the review failed to detect any GGBF on site, any signs of tadpole activity or croaking. The management plan has been reviewed and submitted to the Environment Protection Authority. Opportunities to further develop Greenhouse Park frog habitat are under consideration.

There have been no onsite sightings of Green and Golden Bell Frogs in this reporting period.

## 2.7 Greenhouse & Energy Efficiency

### 2.7.1 Assessment Criteria

#### Operating Conditions

17. The Proponent shall implement all reasonable and feasible measures to minimise:
- (a) energy use onsite; and
  - (b) greenhouse gas emissions from the project
- to the satisfaction of the Director-General.

#### Greenhouse and Energy Efficiency Plan

18. Within 12 months of this approval or as otherwise agreed by the Director-General, the Proponent shall prepare and implement a Greenhouse and Energy Efficiency Plan for the project. This plan must:
- (a) be prepared generally in accordance with the *Guidelines for Energy Savings Action Plans* (DEUS 2005, or its latest version);
  - (b) be submitted to the Director-General for approval;
  - (c) include a program to estimate/monitor greenhouse gas emissions and energy use generated by the project;
  - (d) include a framework for investigating and implementing measures to reduce greenhouse gas emissions and energy use at the project;
  - (e) describe how the performance of these measures would be monitored over time; and
  - (f) report on the project's greenhouse gas emissions and minimisation measures in the AEMR to the satisfaction of the Director-General.

EPL 1625 does not include any requirements relating to GHG emissions or energy use.

Major Project Approval 08\_0009 has requirements relating to GHG and energy efficiency but does not set any prescriptive controls. Condition 18 of Schedule 3 requires the following.

Objective	PKCT Commitment
<ul style="list-style-type: none"> <li>• Minimise the production of greenhouse gas emissions associated with PKCT operations.</li> </ul>	<ul style="list-style-type: none"> <li>• PKCT to review onsite electricity use and identify and implement economically viable opportunities for reduced electricity usage.</li> </ul>

### 2.7.2 Monitoring and Results

#### GHG & Energy Efficiency

Neither EPL 1625 nor DPI Approval 08\_0009 specifies criteria for GHG emissions or energy reduction. It is noted that Greenhouse Gases - Scope 1 and Scope 2 emissions are below the National Greenhouse and Energy Reporting (NGER) scheme reporting threshold.

Attachment “L” and “M” provides data covering the reporting period. Data shows efficiency, in terms of energy use per tonne, has reduced and is at baseline. Efficiency has been affected by lower throughput months and fluctuations.

## 2.8 Waste

### 2.8.1 Assessment Criteria

EPL 1625 does not include any standards or performance measures relating to waste.

Major Project Approval 08\_0009 has requirements relating to waste but does not set any prescriptive controls. Condition 19 of Schedule 3 requires the following.

#### Operating Conditions

19. The Proponent shall:
- (a) monitor the amount of waste generated by the project;
  - (b) investigate ways to minimise waste generated by the project;
  - (c) implement reasonable and feasible measures to minimise waste generated by the project; and
  - (d) report on waste management and minimisation in the AEMR to the satisfaction of the Director-General.

### 2.8.2 Monitoring and Results

PKCT has a Waste Management Plan in place. The plan contains waste monitoring, assessment, reporting, mitigation and management provisions to ensure necessary actions and that waste from PKCT premises comply with the criteria in the condition above.

Attachment “N” provides a waste report. A more detailed report will be provided in the 2012 Annual Environment Management Report providing a breakdown of waste into waste streams.

## 2.9 Hazards

### 2.9.1 Assessment Criteria

#### Dangerous Goods

20. The Proponent shall ensure that storage, handling and transport of dangerous goods are done in accordance with the relevant *Australian Standards*, particularly AS1940 and AS1596, and the *Dangerous Goods Code*.

### 2.9.2 Monitoring and Results

PKCT has two underground hydrocarbon tanks storing diesel and unleaded petrol. Routine ground water sampling and testing was undertaken in October 2011. No evidence of leaks was found. PKCT's consultant GHD has investigated this storage facility and provided a report in January 1012 on remedial and upgrade options to extend the service life of the facility in compliance with the regulations. The GHD report is under review. Further information will be provided in AEMR due in July 12.

## 3. Community Relations

### 3.1.1 Assessment Criteria

	PKCT Commitment
<ul style="list-style-type: none"> <li>PKCT to be regarded as a responsible corporate citizen by the community.</li> </ul>	<ul style="list-style-type: none"> <li>Continued operation of the PKCT Community Consultative Committee.</li> <li>Continued advertisement and operation of the telephone hotline.</li> </ul>

### 3.1.2 Monitoring and Results

Complaints received during the reporting period entail the following:

- (a) There were no community complaints received during the reporting period.
- (b) Complaints to road transport providers are outlined in Attachment "C" and "D".

The following actions occurred during the reporting period:

- Community Consultative Committee has met on 12<sup>th</sup> October 2011.
- PKCT web site ([www.pkct.com.au](http://www.pkct.com.au)) continues to include e-mail and phone contact details ([communitylinks@pkct.com.au](mailto:communitylinks@pkct.com.au)).

## 4. Independent External Audit 2011- Status of Actions

Audit was carried out by consultant, AECOM P/L, in March 2011 and an audit report was submitted to the DPI on 10<sup>th</sup> May 2011.

PKCT submitted a report to the DPI on 10<sup>th</sup> August 2011 providing feedback on the audit findings and an action plan. Overall, audit findings were accepted. Some clarification was sought from the DPI on the interpretation of some aspects of the approval conditions. Clarification was provided by the DPI on 27<sup>th</sup> November 2011.

## Actions

- External lighting survey by Lightpoint Consulting Services completed in September 2011 checking compliance against the Australian Standard. Assessment concluded there were no obtrusive impacts.
- Speed hump on Port Kembla Road has been reconstructed and repainted.
- Actions are progressing on the water collection dosing unit upgrade and pH controls to address current EPL compliance issues.
- Drivers Code of Conduct Implementation strengthened to increase mine to PKCT monitoring and auditing.
- Underground fuel tanks- consultant review of the fuel system was completed by consultant, GHD, in December 2011. Integrity tests and routine ground water tests indicate the tanks are sound and no leaks have been detected. Options for ongoing on site fuel storage were presented and under review to determine further actions.
- Greenhouse Gas and Energy Efficiency and Landscaping Management Plan were approved by the DPI on 27<sup>th</sup> November 2011.
- Water, Noise and Green and Golden Bell Frog Management Plan was modified to include best practice guidelines and approved by the EPA on 5<sup>th</sup> December 2011.
- Further status report to be provided in 2012 AEMR.

## 5. Conclusion

Monitoring undertaken during the reporting period did not identify any notable adverse aspects. Further work to be finalised will be reported in the Annual Environmental Management Report due on 31<sup>st</sup> July 2012.

## 6. References

Environmental Protection Licence 1625 – Port Kembla Coal Terminal  
Major Project Approval 08\_0009 for the Port Kembla Coal Terminal Project



**Attachment “A” Noise Monitoring Report- August 2011**

**Table 5-1 Summary of Monitoring Results – Location 1 – Corner Swan & Kembla Streets**

Date & Start Time	Period	Criteria (dBA)	BarnOwl®	BarnOwl®	SLM L <sub>A90</sub> (dBA)	Wind Speed (m/s) and Direction	Stability Class	Compliance	Observations
			PKCT Direction L <sub>Aeq</sub> (dBA)	All Directions L <sub>Aeq</sub> (dBA)					
25 Aug 2011 11:30	Day	51	41	57	50	5.0 to 6.3 NNE to NE	C to D	YES Not Audible	At measurement location ambient noise primarily from road traffic with some domestic noise audible. PKCT activities not audible. On-site typically 10 truck movements witnessed and a broken down train.
24 Aug 2011 20:35	Evening	50	36	53	45	3.0 to 3.6 NW to N	D	YES Not Audible	At measurement location ambient noise primarily from road traffic. PKCT activities not audible. On-site typically 12 truck movements witnessed and a train leaving and one coming into receivals.
24 Aug 2011 20:50	Evening	50	35	53	44	3.0 to 3.6 NW to N	D	YES Not Audible	At measurement location ambient noise primarily from road traffic. PKCT activities not audible. On-site typically 12 truck movements witnessed.
24 Aug 2011 01:35	Night	49	31	44	42	4.0 to 5.1 NNW to N	D	YES	At measurement location ambient noise primarily from road traffic. Potential PKCT activities barely audible being truck and rail movements in the direction of PKCT. On-site typically 20 truck movements witnessed and a train unloading.
24 Aug 2011 01:50	Night	49	31	45	42	4.0 to 5.1 NNW to N	D	YES	At measurement location ambient noise primarily from road traffic. Some wind noise on occasion. Potential PKCT activities barely audible being rail movements in the direction of PKCT. On-site typically 14 truck movements witnessed.

**Table 5-2 Summary of Monitoring Results – Corner Swan & Corrimal Streets**

Start Date & Time	Period	Criteria (dBA)	BarnOwl®	BarnOwl®	SLM L <sub>A90</sub> (dBA)	Wind Speed (m/s) and Direction	Stability Class	Compliance	Observations
			PKCT Direction L <sub>Aeq</sub> (dBA)	All Directions L <sub>Aeq</sub> (dBA)					
25 Aug 2011 10:55	Day	51	41	56	53	5.0 to 6.3 NNE to NE	C to D	YES Not Audible	At measurement location ambient noise primarily from road traffic. PKCT activities not audible. On-site typically 18 truck movements witnessed and a train in idle at shed.
24 Aug 2011 19:45	Evening	50	37	54	49	3.0 to 3.6 NW to N	D	YES Not Audible	At measurement location ambient noise primarily from road traffic, insects also audible. PKCT activities not audible. On-site typically 11 truck movements witnessed.
24 Aug 2011 20:00	Evening	50	38	54	47	3.0 to 3.6 NW to N	D	YES Not Audible	At measurement location ambient noise primarily from road traffic, insects also audible. PKCT activities not audible. On-site typically 16 truck movements witnessed and a train moving at receivals.
24 Aug 2011 22:20	Night	49	39	54	45	3.3 to 5.1 NW to N	D	YES Not Audible	At measurement location ambient noise primarily from road traffic. PKCT activities not audible. On-site typically 13 truck movements witnessed
24 Aug 2011 22:55	Night	49	39	53	44	3.3 to 5.1 NW to N	D	YES Not Audible	At measurement location ambient noise primarily from road traffic. PKCT activities not audible. On-site typically 19 truck movements witnessed

This is a Controlled Document in SharePoint Controlled Documents Library

**UNCONTROLLED IF VIEWED OUTSIDE OF SHAREPOINT; valid for 48 Hours from time printed**

AUTHORISED BY Alex Chalk, Risk Manager

Date Authorised: 30.3.12

**Attachment “A” Noise Monitoring Report- August 2011(continued)**

**Table 5-3 Summary of Monitoring Results – Corner Keira & Fox Streets**

Start Date & Time	Period	Criteria (dBA)	BarnOwl® PKCT Direction L <sub>Aeq</sub> (dBA)	BarnOwl® All Directions L <sub>Aeq</sub> (dBA)	SLM L <sub>A90</sub> (dBA)	Wind Speed (m/s) and Direction	Stability Class	Compliance	Observations
25 Aug 2011 12:00	Day	51	43	62	54	5.0 to 6.3 NNE to NE	C to D	YES Not Audible	At measurement location ambient noise primarily from road traffic, insects also audible. PKCT activities not audible. On-site typically 11 truck movements witnessed.
24 Aug 2011 21:25	Evening	50	49	58	46	3.0 to 3.6 NW to N	D	YES Not Audible	At measurement location ambient noise primarily from road traffic. PKCT activities not audible. On-site typically 13 truck movements witnessed.
24 Aug 2011 21:40	Evening	50	49	58	46	3.0 to 3.6 NW to N	D	YES Not Audible	At measurement location ambient noise primarily from road traffic. PKCT activities not audible. On-site typically 16 truck movements witnessed.
24 Aug 2011 02:20 <sup>1</sup>	Night	49	42	50	39	4.0 to 5.1 NNW to N	D	YES Not Audible	At measurement location ambient noise primarily from road traffic. PKCT activities not audible. On-site typically 5 truck movements witnessed.
24 Aug 2011 02:30 <sup>2</sup>	Night	49	42	54	38	4.0 to 5.1 NNW to N	D	YES Not Audible	At measurement location ambient noise primarily from road traffic. PKCT activities not audible. On-site typically 4 truck movements witnessed.

Notes: 1. Due to limited battery life, only a 10 minute measurement was taken.  
 2. Due to limited battery life, only a 5 minute measurement was taken.

**Attachment “B” Summary of PKCT Throughput and Receivals**

**Shiploading: 2010/11- July- December 2011**

	Coal		Coke	Slag Sand	Total
	Coking	Steaming			
Berth 101: Bulk Products Berth	0	0	93,490	0	93,490
Berth 102: Coal Berth	3,753,426	3,273,423			7,026,849
				Total (tonnes)	7,120,339

**Receivals: 2010/11- July- December 2011**

Deliveries	private road	public road	Total
road receival	1,310,748	1,139,452	2,450,200
rail receival			4,679,663
		Total (tonnes)	7,129,863

**Attachment "C" Road Transport Complaints & Incidents Summary**

**Incidents: July-December 2011**

INCIDENTS/ACCIDENTS	Minor Damage						Major Damage					
	Transport Provider											
	BT	Ca	ME	Br	SCE	TR	BT	Ca	ME	Br	SCE	TR
<b>Westcliff/ PKCT (BHPB)</b>												
Appin Road							1					
Bulli Tops												
Mt Ousley							1					
Masters Road												
Springhill Road	1											
<b>NRE/PKCT</b>												
Bellambi Lane												
Northern distributor												
Masters Road												
Springhill Road												
<b>ICC/PKCT</b>												
Northern distributor												
Masters Road												
Springhill Road												
<b>Tom Thumb Road (private)</b>												
Port Kembla Road												
PKCT Road Receival												
PKCT site												

Key:

BT: Bulktrans P/L

Ca: Camsons P/L

ME: ME Transport Services

Br: Brindles P/L

SCE: South Coast Equipment P/L

TR: Trazblend/ Sada Group



**Complaints: July-December 2011**

COMPLAINTS	Noise						Dust						Speed						Other						Total				
	Transport Provider																												
	BT	Ca	ME	Br	SCE	TR	BT	Ca	ME	Br	SCE	TR	BT	Ca	ME	Br	SCE	TR	BT	Ca	ME	Br	SCE	TR					
<b>Westcliff/ PKCT (BHPB)</b>																													
Appin Road																									3				3
Bulli Tops																													
Mt Ousley													1												1				2
Masters Road																									1				1
Springhill Rd																									1				1
<b>NRE/ PKCT</b>																													
Bellambi Lane																													
Northern Distributor																													
Masters Road																													
Springhill Rd																													
<b>ICC/PKCT</b>																													
Northern Distributor																													
Masters Road																													
Springhill Rd																													
<b>Tom Thumb Road (private)</b>																													
Pt Kembla Rd																													
PKCT Road																													
Receival																													
PKCT Site																													
<b>Totals</b>													1											6				7	

**Attachment "D" Road Transport Report- July-December 2011**

<b>Monthly Reports Summary</b>	<b>Jul-11</b>	<b>Aug-11</b>	<b>Sep-11</b>	<b>Oct-11</b>	<b>Nov-11</b>	<b>Dec-11</b>	<b>YTD</b>
Tonnes - Public Road	230,139	312,866	204,958	128,866	102,844	159,779	1,139,452
Tonnes - Private Road	190,967	233,802	194,967	267,744	199,005	227,263	1,310,748
Total road tonnes	421,106	546,668	399,925	393,610	301,849	387,042	2,450,200
Spillage - Public Road	0	0	0	0	0	0	0
Incident - Other	0	0	0	0	0	0	0
Impact with other vehicle	0	1	0	0	0	0	1
Incidents Reported to RTA	0	0	1	1	0	0	2
Complaints	2	0	1	1	2	1	7
Inductions % drivers	100	100	100	100	100	100	100
Hours restrictions breach	0	0	0	0	0	0	0
Observations/ audits	4	4	0	2	2	5	17
Observations x No. of Drivers observed	56	35	19	39	39	70	258
PKCT CTO's	3	3	5	1	2	3	16

**Attachment “E” Air Quality- Monitoring Sites**



**Location of EPL Air Quality Monitoring Sites**

- Dust Gauges- EPA EPL sites ● Bluescope High Volume Sampler/ EPA EPL P11 ●
- Continuous Dust Monitor Sites ●
- PKCT Site Boundary

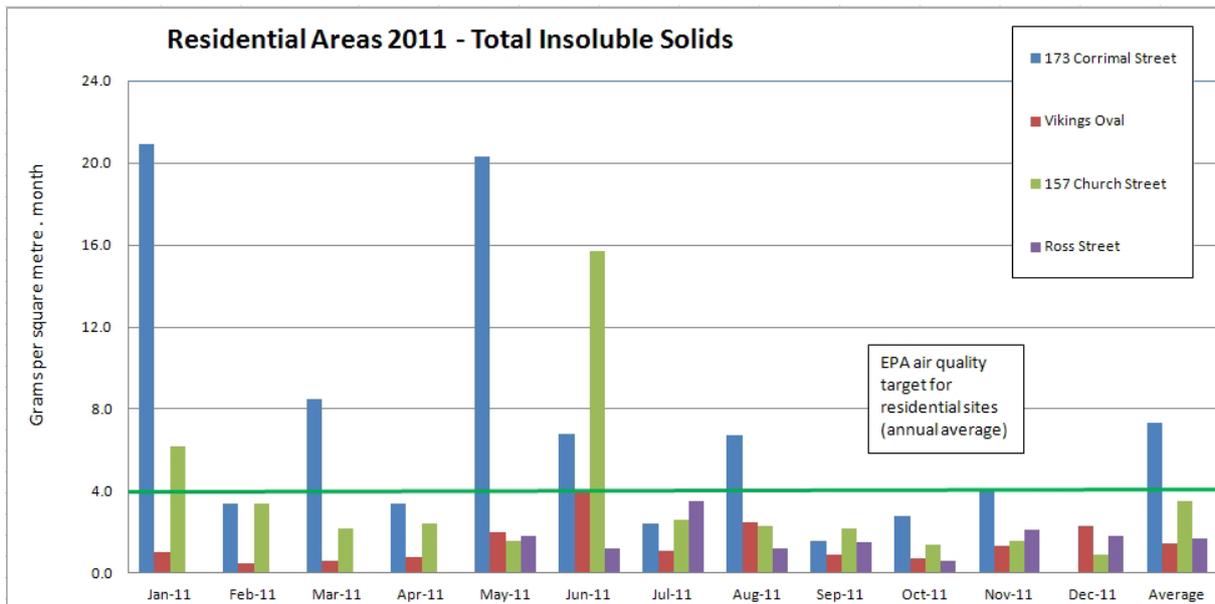
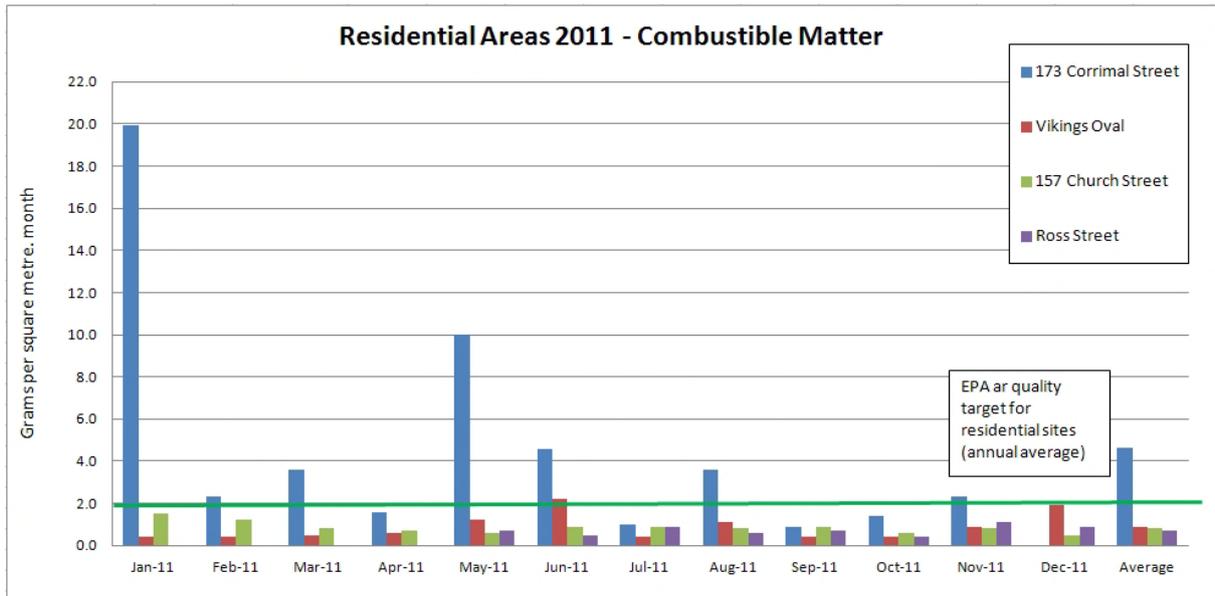
**Attachment "F" Air Quality: Dust deposition**

**DUST DEPOSITION: July-December 2011**

GAUGE NO.	Analysis g/m <sup>2</sup> month	2011											
		MONTH	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
		DATE	Jan-11	Feb-11	Mar-11	Apr-11	May-11	Jun-11	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11
	Sampler												
P1	Insoluble Solids	13.7	11.0	5.6	6.4	6.8	12.3	24.4	3.6	7.1	6.2	3.2	7.1
	Ash	11.2	6.0	2.7	4.3	4.7	9.0	20.6	7.1	4.9	4.7	1.0	3.8
	Combustible Matter	2.5	5.0	2.9	2.1	2.1	3.3	3.8	2.5	2.2	1.5	2.2	3.3
P2	Insoluble Solids	3.1	5.8	7.4	4.5	4.7	12.4	5.6	7.4	15.3	6.7	1.7	BB
	Ash	1.2	0.3	4.3	2.9	3.1	8.7	3.3	5.2	10.8	4.8	0.8	BB
	Combustible Matter	1.9	5.5	3.1	1.6	1.6	3.7	1.7	2.2	4.5	1.3	0.9	BB
P3	Insoluble Solids	BF	8.3	BB	10.7	14.5	42.1	78.6	18.7	57.1	7.4	2.1	12.3
	Ash	BF	5.4	BB	7.1	10.4	30.7	66.1	14.9	25.6	5.0	0.9	6.2
	Combustible Matter	BF	2.9	BB	3.6	4.1	11.4	12.5	3.8	31.5	2.4	1.2	6.1
P4	Insoluble Solids	7.7	7.3	22.7	9.8	21.9	22.1	15.3	2.0	12.4	BF	3.7	6.7
	Ash	4.3	1.4	4.5	3.9	5.2	10.9	6.7	1.3	1.3	BF	2.0	1.9
	Combustible Matter	3.4	5.9	18.2	5.9	16.7	11.2	8.6	0.7	11.1	BF	1.7	4.8
P5	Insoluble Solids	46.4	8.2	14.2	10.8	10.5	11.7	11.9	12.0	15.3	1.9	6.2	BB
	Ash	18.1	1.2	4.8	4.0	4.6	5.2	6.4	5.4	6.1	0.4	1.6	BB
	Combustible Matter	28.3	7.0	3.4	6.8	5.9	6.5	5.5	6.6	3.2	1.5	4.6	BB
P6	Insoluble Solids	23.9	13.7	19.5	11.0	13.3	4.5	11.1	8.5	11.9	3.4	8.9	3.5
	Ash	7.8	5.7	6.7	6.4	8.5	1.7	8.5	4.5	6.1	1.0	2.6	0.9
	Combustible Matter	16.1	8.0	12.8	4.6	4.8	2.8	2.6	4.0	5.8	2.4	6.3	2.6
P7	Insoluble Solids	3.0	17.0	6.0	10.2	9.4	43.4	60.2	13.6	6.9	2.4	8.6	2.9
	Ash	1.4	13.0	4.1	1.0	6.5	37.9	56.2	11.4	5.1	1.2	1.3	1.4
	Combustible Matter	1.6	4.0	1.9	3.2	2.9	5.5	4.0	2.2	1.8	1.2	7.3	1.5
P8	Insoluble Solids	11.5	13.6	3.7	3.1	18.5	44.4	36.3	12.8	18.3	4.9	5.4	5.5
	Ash	5.8	6.4	3.4	3.2	6.3	9.4	11.2	4.3	4.3	1.2	1.8	1.7
	Combustible Matter	5.7	7.2	6.3	5.9	12.2	35.0	25.1	8.5	14.0	3.7	3.6	3.8
P9	Insoluble Solids	5.9	5.7	6.9	3.8	6.1	6.6	4.0	4.6	3.4	1.3	3.5	2.8
	Ash	2.1	3.2	3.9	2.4	4.1	4.1	3.1	3.0	1.9	0.6	2.0	1.2
	Combustible Matter	3.8	2.5	3.0	1.4	2.0	2.5	0.9	1.6	1.5	0.7	1.5	1.6
P10	Insoluble Solids	20.9	3.4	8.5	3.4	20.3	6.8	2.4	6.7	1.6	2.8	4.0	
	Ash	1.0	1.1	4.9	1.8	10.3	2.2	1.4	3.1	0.7	1.4	1.7	
	Combustible Matter	19.9	2.3	3.6	1.6	10.0	4.6	1.0	3.6	0.9	1.4	2.3	
P11	Insoluble Solids	1.0	0.5	0.6	0.8	2.0	4.0	1.1	2.5	0.9	0.7	1.3	2.3
	Ash	0.6	0.1	0.1	0.2	0.8	1.8	0.7	1.4	0.5	0.3	0.4	0.4
	Combustible Matter	0.4	0.4	0.5	0.6	1.2	2.2	0.4	1.1	0.4	0.4	0.9	1.9
P12	Insoluble Solids	6.2	3.4	2.2	2.4	1.6	15.7	2.6	2.3	2.2	1.4	1.6	0.9
	Ash	4.7	2.2	1.4	1.7	1.0	14.8	1.7	1.5	1.3	0.8	0.8	0.4
	Combustible Matter	1.5	1.2	0.8	0.7	0.6	0.9	0.9	0.8	0.9	0.6	0.8	0.5
P13	Insoluble Solids	11.9	5.9	3.2	7.3	5.2	7.9	8.8	10.2	5.9	6.1	1.0	3.5
	Ash	9.2	4.1	2.3	5.9	4.0	6.1	7.4	8.2	4.3	4.7	0.1	2.4
	Combustible Matter	2.7	1.8	0.9	1.4	1.2	1.8	1.4	2.0	1.6	1.4	0.9	1.1
P14	Insoluble Solids					1.8	1.2	3.5	1.2	1.5	0.6	2.1	1.8
	Ash					1.1	0.7	2.6	0.6	0.8	0.2	1.0	0.9
	Combustible Matter					0.7	0.5	0.9	0.6	0.7	0.4	1.1	0.9
P15	Insoluble Solids	31.4	16.8	19.2	26.5	5.9	15.1	17.5	11.7	20.8	5.2	11.4	10.6
	Ash	12.0	6.1	8.2	12.3	3.3	7.8	9.7	5.7	9.7	2.0	4.3	3.6
	Combustible Matter	19.4	10.7	11.0	14.2	2.6	7.3	7.8	6.0	11.1	3.2	7.1	7.0

**Attachment "F" Air Quality: Dust deposition (continued)**

**Residential Sites**





**Attachment “G” Air Quality: Continuous Dust Data**  
**July- December 2011**

**Table 9 Annual average concentrations of TSP and PM<sub>10</sub> recorded at the PKCT northern monitoring sites during July to December 2011**

<b>Pollutant</b>	<b>Standard/ trigger level (µg/m<sup>3</sup>)</b>	<b>Rolling annual average January – December 2011 (µg/m<sup>3</sup>)</b>	<b>Six-month average July – December 2011 (µg/m<sup>3</sup>)</b>
TSP	90	33.3	35.1
PM <sub>10</sub>	30	26.6	28.1



**Attachment “G” Air Quality: Continuous Dust Data (continued)**

**Table 10 Exceedances of 24-hour average TSP trigger level of 90 µg/m<sup>3</sup> during July to December 2011 at the northern PKCT monitoring site**

Date of exceedance	24-hour average TSP concentration (µg/m <sup>3</sup> )	Likelihood of PKCT contributing to exceedance levels <sup>1</sup>	Percentage of winds from direction of PKCT (south) during period	Contribution of PKCT to exceedance of trigger <sup>2</sup>			Wind speed (m/s) <sup>3</sup>		
							Maximum	Average	
5 September	91.3	Unlikely	3.5%	0.1 µg/m <sup>3</sup>	0.2 %	Minimal	3.2	1.5	
15 October	90.7	Unlikely	4.2%	2.9 µg/m <sup>3</sup>	3.2 %	Minimal	7.7	2.4	
24 October	100.4	Unlikely	20.8%	Data not available from southern monitoring site during exceedance period to allow analysis, see additional analysis in Table 13			5.8	2.4	
9 November	118.2	Unlikely	4.2%	0.3 µg/m <sup>3</sup>	0.2 %	Minimal	4.8	1.9	
26 November	172.9	Unlikely	0.7%	9.7 µg/m <sup>3</sup>	5.6 %	Minimal	9.0	4.1	
29 November	92.8	Unlikely	3.5%	0.1 µg/m <sup>3</sup>	0.1 %	Minimal	5.6	3.1	
30 November	291.2	Unlikely	12.5%	29.6 µg/m <sup>3</sup>	10.2 %	Minor	9.4	2.9	
11 December	91.7	Unlikely	22.2%	Reduced concentration after passing over coal terminal			No	4.3	2.3
26 December	114.8	Unlikely	23.6%	1.2 µg/m <sup>3</sup>	1.0 %	Minimal	7.8	3.3	

**Table note:**

- <sup>1</sup> Identified using scatter plots of 10-minute average TSP concentration versus wind speed and wind direction
- <sup>2</sup> Identified using scatter plots, percentage of winds from direction of PKCT (south) during exceedance period, and comparison of concurrent northern and southern TSP concentrations. Contribution based on percentage of total 24-hour average TSP concentration (0% = no cont, 0-10% = minimal, 10-30% = minor, 30-70% = moderate, >70% = major)
- <sup>3</sup> Maximum and average 10-minute average wind speed recorded at the northern PKCT monitoring site during 24-hour exceedance period



**Attachment “G” Air Quality: Continuous Dust Data (continued)**

**Table 11 Exceedances of the 24-hour average PM<sub>10</sub> air quality standard of 50 µg/m<sup>3</sup> during July to December 2011 at the northern PKCT monitoring site**

Date of exceedance	24-hour average PM <sub>10</sub> concentration (µg/m <sup>3</sup> )	Likelihood of PKCT contributing to exceedance levels <sup>1</sup>	Percentage of winds from direction of PKCT (south) during period	Contribution of PKCT to exceedance of standard <sup>2</sup>			Wind speed (m/s) <sup>3</sup>	
							Maximum	Average
5 September	68.7	Unlikely	3.5%	0.3 µg/m <sup>3</sup>	0.5 %	Minimal	3.2	1.5
6 September	57.3	Unlikely	1.4%	Reduced concentration after passing over coal terminal		No	7.8	3.2
18 September	52.4	Possible	77.1%	13.9 µg/m <sup>3</sup>	26.6 %	Minor	7.9	3.1
19 September	62.4	Unlikely	1.4%	1.7 µg/m <sup>3</sup>	2.8 %	Minimal	7.2	3.2
15 October	74.2	Unlikely	4.2%	2.0 µg/m <sup>3</sup>	2.7 %	Minimal	7.7	2.4
21 October	69.5	Unlikely	37.5%	Data not available from southern monitoring site during exceedance period to allow analysis, see additional analysis in Table 14			5.1	2.2
24 October	82.6	Unlikely	20.8%	Data not available from southern monitoring site during exceedance period to allow analysis, see additional analysis in Table 14			5.8	2.4
29 October	66.5	Unlikely	3.5%	Data not available from southern monitoring site during exceedance period to allow analysis, see additional analysis in Table 14			4.2	2.1
6 November	63.2	Unlikely	8.3%	Data not available from southern monitoring site during exceedance period to allow analysis, see additional analysis in Table 14			4.9	2.0

Note 1: PKCT assessed as “minor” contributor for 24 hour TSP, PM10 exceedances; monitor site C1 is off site but not on a residential site.

This is a Controlled Document in SharePoint Controlled Documents Library

**UNCONTROLLED IF VIEWED OUTSIDE OF SHAREPOINT; valid for 48 Hours from time printed**

AUTHORISED BY Alex Chalk, Risk Manager

Date Authorised: 30.3.12



**Attachment “H” Weather Monitoring Summary- July- December 2011**

year/month	Rainfall (mm)	Max Temperature degrees C	Min Temperature degrees C	WIND Max. Speed metres/ sec	WIND Average Speed metres/sec
2011/07	197	20	8.2	32.5	6.2
2011/08	57	24.9	9.9	24.3	4.5
2011/09	67	29.7	8.6	31.8	5.5
2011/10	185	30.9	11.4	22.8	4.7
2011/11	115	35.9	13.1	24.2	4.6
2011/12	47	23.7	12.1	22.6	5.3

This is a Controlled Document in SharePoint Controlled Documents Library

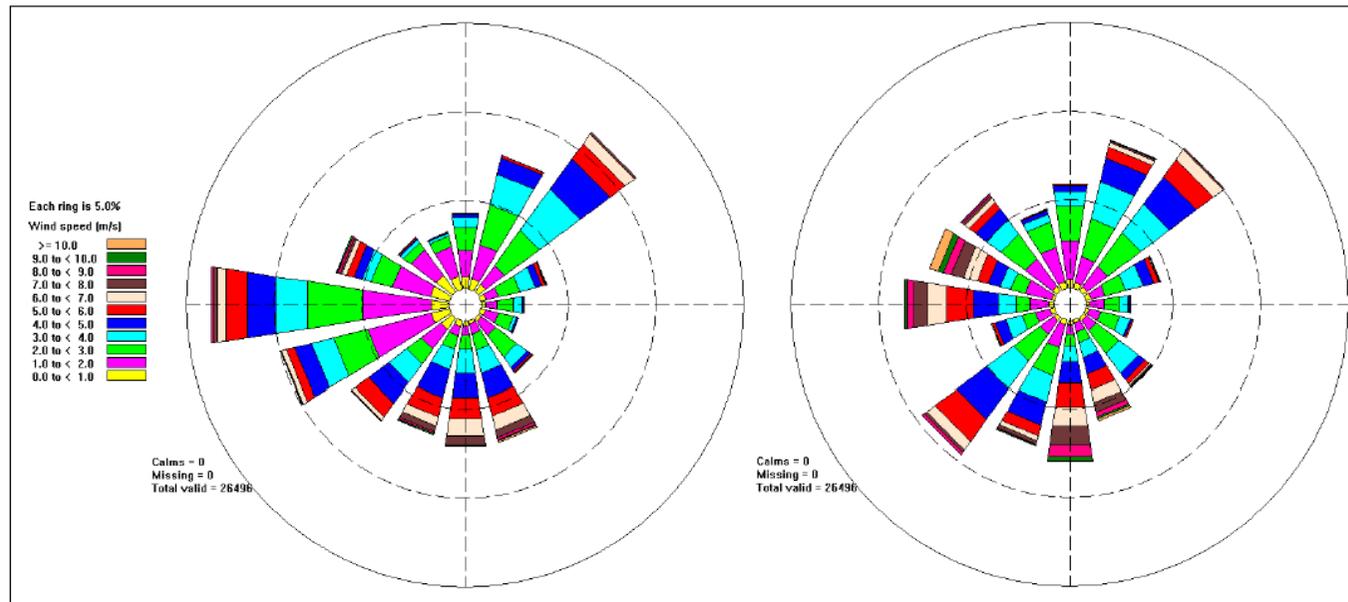
**UNCONTROLLED IF VIEWED OUTSIDE OF SHAREPOINT; valid for 48 Hours from time printed**

AUTHORISED BY Alex Chalk, Risk Manager

Date Authorised: 30.3.12

**Attachment “H”- Weather Monitoring Summary- July-December 2011 (continued)**

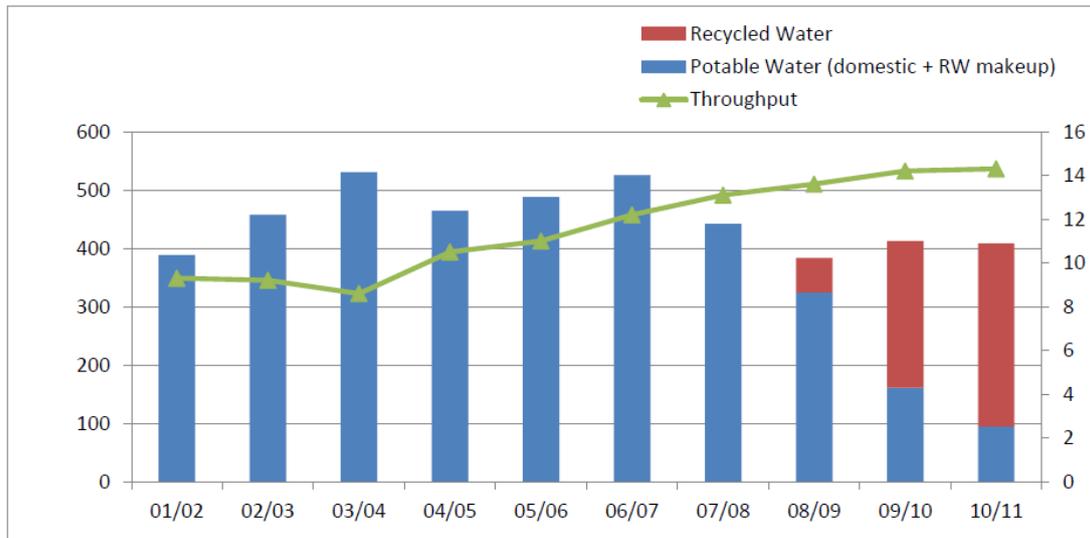
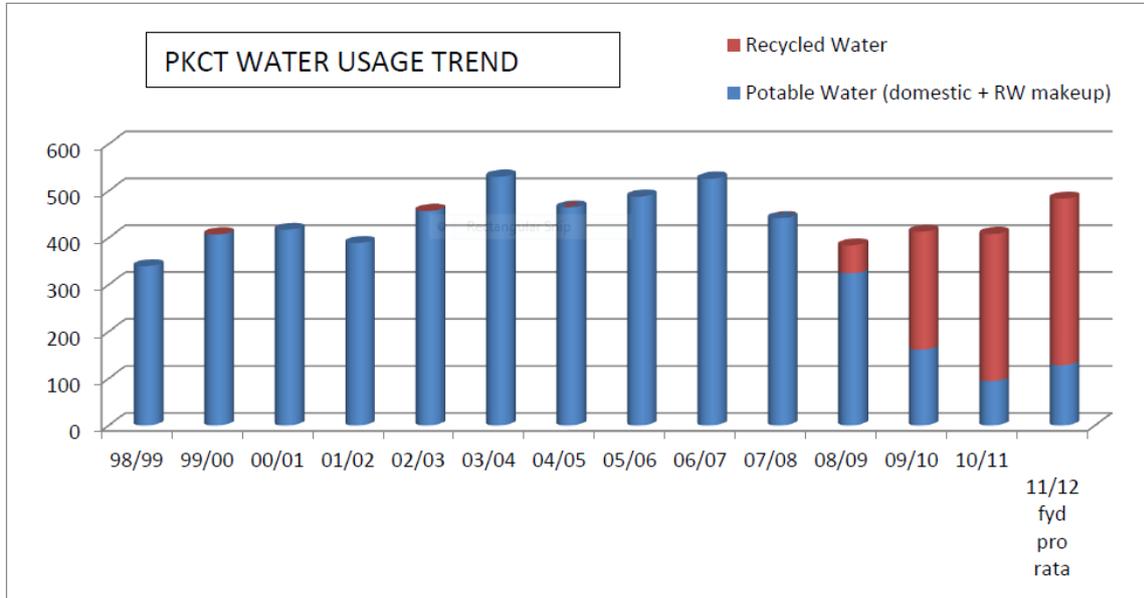
**Wind Rose – Monitors C1 &C2 (refer Atatchment “E” for locations)**



**Figure 2 Annual wind roses for the 10-minute average winds recorded at the PKCT northern (left) and southern (right) monitoring sites during July to December 2011**

<b>Location:</b> PKCT northern and southern	<b>Period:</b> July – December 2011	<b>Data source:</b> PKCT	<b>Units:</b> m/s and °
<b>Type:</b> Annual wind rose	26,496 10-minute average records	<b>Prepared by:</b> Sarah Menzel	<b>Date:</b> January 2012

**Attachment "I" Water Usage Report**



**ATTACHMENT “I” Water Usage Report (continued)**

Chart “E1” Historical Water usage

1. Chart shows the trend in potable water reduction.
2. Chart shows a trend in overall water usage reduction.

Usage- megalitres	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Total FY12 YTD	Total FY11 YTD
recycled water	34255	26525	18479	29692	22491	37,460	168,902	161,186
potable water- process	9,188	2982	24041	893	11895	7,741	56740	27755
potable water- domestic	1526	1575	1203	1721	1632	1458	9115	7622
<b>Total</b>	<b>44969</b>	<b>31082</b>	<b>43723</b>	<b>32306</b>	<b>36018</b>	<b>46659</b>	<b>234,757</b>	<b>196,563</b>
% recycled water/ total	78.9	89.9	43.5	97.1	65.4	82.9	74.9	85.3

Notes: significant main break by downstream user resulted in a 30 megalire loss of potable water (not included in above figures). Low recycled water supply in September 11 due to Sydney Water water quality controls restricting supply.



**Attachment “J” Discharge Point P16 Performance Trend- Water Quality**

	EPL Limit	unit	Compliant Samples	Total Samples	% compliance	average
pH	6.5-8.5		42	46	91	not appliable
Total Suspended Solids	less 50	mg/litre	41	46	89	20
Oil/grease	less 10	mg/litre	46	46	100	less 5



**Attachment "K" Settlement Lagoon Discharges: July-December 2011**

SETTLEMENT LAGOON OVERFLOW													
		2011	2011	2011	2011	2011	2011	2011	2011	2011	2011	2011	2011
		JULY											
WATER QUALITY PARAMETER	DATE	16-7-11	17-7-11	18-7-11	19-7-11	20-7-11	21-7-11	22-7-11	24-7-11	25-7-11	26-7-11	27-7-11	28-7-11
	Time	12:45PM	11:00AM	13:00PM	15:30PM	8:30AM	2:30AM	8:00AM	15:30PM	11:50AM	12:00PM	7:00AM	14:00PM
	Sampler	FG	AB	AB	AB	AB	AB	AC	AC	AC	KG	KG	KG
	Report No	SE88798	SE88915	SE88915	SE88798	SE89134	SE89134						
(pH)mg/L	6.5-8.5	7.3	7.1	7.4	7.1	7.3	7.3	7.2	7.1	7.2	7.2	7.0	7.1
(TSS)mg/L	< 50 mg/l	7.0	5.0	<5.0	<5.0	10	<5.0	7.0	8.5	10.0	10	10.0	6.5
OIL & GREASE mg/L	<10 mg/l	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
AMMONIA mg/L		0.16	0.22	0.13	0.29	0.06	0.10	0.08	0.08	0.11	0.05	0.07	0.04
TOTAL NITROGEN mg/L		4.7	6.1	5.5	4.7	4.2	2.3	0.97	1.3	0.92	1.1	1.6	2.2
TKN mg/L		0.790	2.00	0.950	0.270	0.290	0.270	0.240	0.360	0.280	0.372	0.771	1.04
TON mg/L		0.6	1.8	0.8	<0.2	0.20	<0.2	<0.2	0.3	<0.2	0.3	0.7	1.0
FILTERABLE PHOSPHORUS mg/L		0.25	0.45	0.36	0.34	0.30	0.23	0.14	0.12	0.096	0.11	0.11	0.12
TOTAL PHOSPHORUS mg/L		0.32	0.48	0.39	0.14	0.15	0.12	0.11	0.10	0.10	0.13	0.15	0.19

		2011	2011	2011	2011	2011	2011	2011	2011	2011	2011	2011	2011
		JULY	AUGUST	AUGUST	AUGUST	AUGUST	AUGUST	AUGUST	SEPTEMBER	SEPTEMBER	SEPTEMBER	OCTOBER	OCTOBER
WATER QUALITY PARAMETER	DATE	29-7-11	10-8-11	11-8-11	12-8-11	14-8-11	17-8-11	18-8-11	PKCT TO ADVISE	PKCT TO ADVISE	PKCT TO ADVISE	2-10-11	10:00AM
	Time	17:00PM	11:30AM	10:00AM	8:30AM	14:00PM	7:45AM	08:30AM	SE89178	SE89448	SE89448	SE89524	SE89524
	Sampler	JH	JH	FG	KG	SDG	SDG	SDG	SE89522	SE102235F0	SE102235F0	SE102235F0	SDG
	Report No	SE89178	SE89448	SE89448	SE89448	SE89524	SE89524	SE89522	SE102235F0	SE102235F0	SE102235F0	SE102506F0	SE102506F0
(pH)mg/L	6.5-8.5	7.0	7.2	7.2	7.2	7.2	7.2	7.1	8.0	9.0	7.7	6.7	6.7
(TSS)mg/L	< 50 mg/l	<5.0	<5.0	<5.0	73	22	43	19	23	75	<5	41.0	41.0
OIL & GREASE mg/L	<10 mg/l	6	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
AMMONIA mg/L		0.05	0.28	0.29	0.26	0.16	0.19	0.18	0.07	0.07	0.05	0.11	0.11
TOTAL NITROGEN mg/L		2.0	3.0	3.1	3.7	3.1	4.3	3.0	1.3	1.6	3.3	2.1	2.1
TKN mg/L		0.595	0.517	0.521	1.18	0.819	2.36	0.948	0.67	0.70	0.90	0.94	0.94
TON mg/L		0.5	0.2	0.2	0.92	0.7	2.2	0.8	0.60	0.62	0.85	0.83	0.83
FILTERABLE PHOSPHORUS mg/L		0.14	0.20	0.21	0.19	0.17	0.27	0.17	0.048	0.016	0.13	0.097	0.097
TOTAL PHOSPHORUS mg/L		0.5	0.20	0.21	0.24	0.20	0.23	0.22	0.16	0.13	0.18	<0.05	<0.05

		2011	2011	2011	2011	2011	2011	2011	2011	2011	2011	2011	2011
		OCTOBER	NOVEMBER	NOVEMBER	NOVEMBER	NOVEMBER							
WATER QUALITY PARAMETER	DATE	7-10-11	8-10-11	9-10-11	11-10-11	15-10-11	16-10-11	17-10-11	17-10-11	27-10-11	3-11-11	17-11-11	23-11-11
	Time	20:00PM	6:45AM	7:00AM	14:00PM	8:50AM	12:40PM	8:15AM	14:30PM	07:30AM	6:09AM	8:20AM	8:20AM
	Sampler	VB	KG	KG	SDG	VB	VB	VB	JH	VB	VB	VB	VB
	Report No	SE102506F0	SE102506F0	SE102506F0	SE102633F0	SE102633F0	SE102633F0	SE102633F0	SE103047F0	SE103047F0	SE103357F0	SE103605F0	SE103605F0
(pH)mg/L	6.5-8.5	7.0	7.2	7.3	7.0	7.2	7.2	7.2	6.7	7.0	9.4	8.2	8.2
(TSS)mg/L	< 50 mg/l	13	9	<5	<5	110	59	48	9.0	8	15	10	10
OIL & GREASE mg/L	<10 mg/l	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
AMMONIA mg/L		0.10	0.10	0.08	0.01	0.05	0.05	0.04	0.09	0.06	0.03	0.27	0.27
TOTAL NITROGEN mg/L		1.8	1.9	2.3	2.5	1.3	1.3	0.96	2.8	1.7	2.1	1.2	1.2
TKN mg/L		0.57	0.54	0.60	0.62	0.27	0.67	0.38	1.9	0.52	1.9	1.0	1.0
TON mg/L		0.47	0.44	0.52	0.61	0.22	0.62	0.34	1.8	0.46	1.9	0.97	0.97
FILTERABLE PHOSPHORUS mg/L		0.12	0.12	0.16	0.19	0.15	0.12	0.11	0.13	0.18	<0.002	0.056	0.056
TOTAL PHOSPHORUS mg/L		<0.05	0.06	0.14	0.20	0.24	0.16	0.16	0.29	0.17	0.22	0.08	0.08

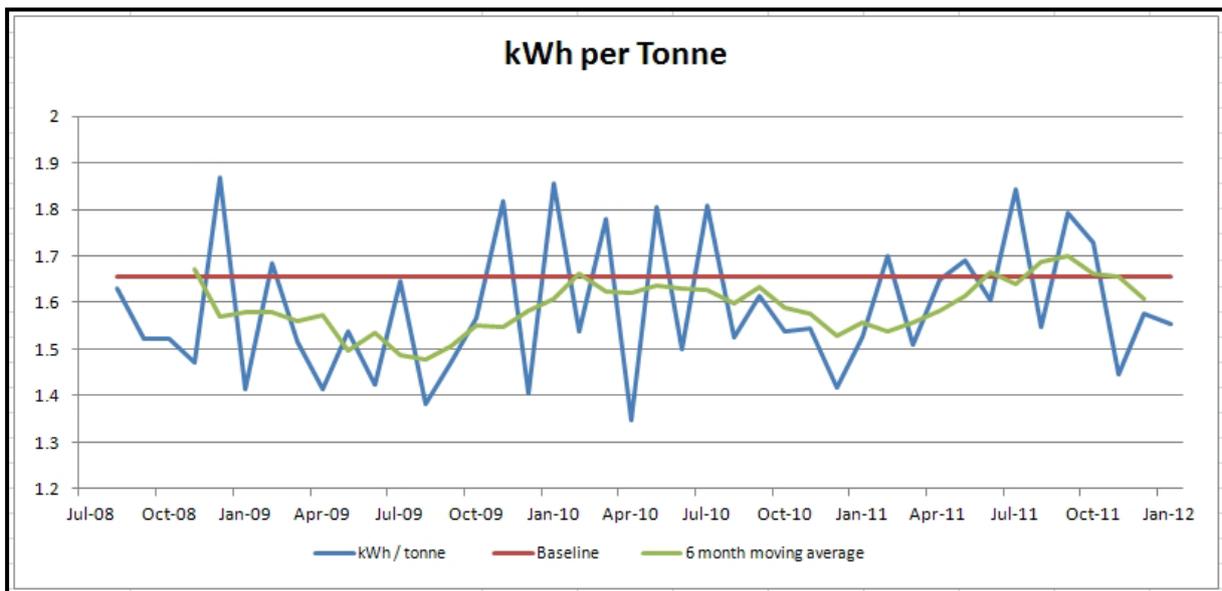
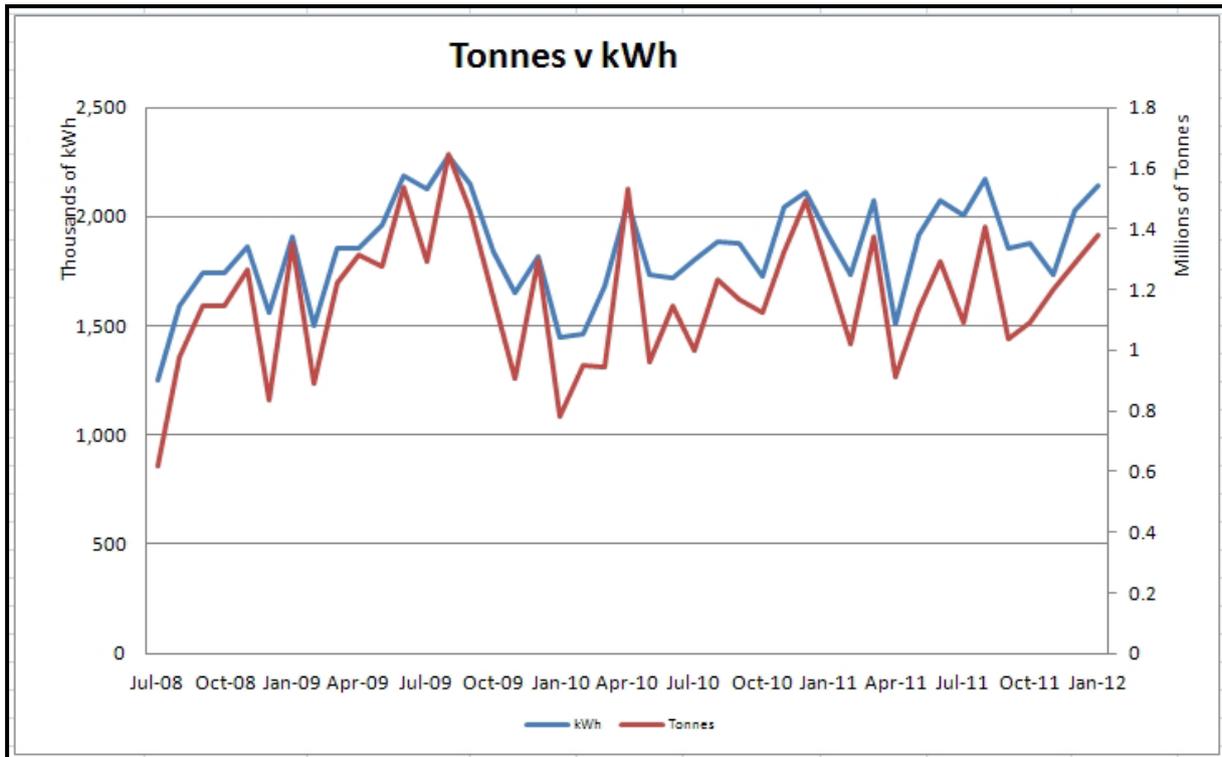
		2011	2011	2011	2011	2011	2011	2011	2011	2011	2011	2011	2011
		NOVEMBER	NOVEMBER	NOVEMBER	NOVEMBER	DECEMBER							
WATER QUALITY PARAMETER	DATE	25-11-11	26-11-11	27-11-11	28-11-11	6-12-11	8-12-11	28-11-11	11-12-11	12-12-11	15-12-11	22-12-11	24-12-11
	Time	7:30AM	7:30AM	8:30AM	PKCT TO ADVISE	10:00AM	8:30AM	6:20PM	3:00AM	15:50PM	11:05AM	7:05AM	6:45AM
	Sampler	SDG	SDG	SDG	FG	AB	AB	FG	AC	AC	AC	AB	AB
	Report No	SE103605F0	SE103605F0	SE103605F0	SE103919F0	SE103919F0	SE104240F0	SE104240F0	SE104240F0	SE104332F0	SE104332F0	SE104332F0	SE104332F0
(pH)mg/L	6.5-8.5	7.2	6.8	6.9	7.3	7.5	7.0	7.1	7.0	8.9	8.7	8.2	8.5
(TSS)mg/L	< 50 mg/l	<5	9	6	6	<5	18	44	63	11	30	12	13
OIL & GREASE mg/L	<10 mg/l	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
AMMONIA mg/L		0.04	0.01	0.01	0.20	0.10	0.30	0.38	0.29	0.12	0.21	0.23	0.20
TOTAL NITROGEN mg/L		1.6	1.0	0.86	1.3	1.3	1.1	1.3	1.6	1.2	1.5	2.4	4.1
TKN mg/L		0.79	0.55	0.43	0.74	0.72	0.47	0.940	1.30	0.89	1.0	1.0	1.8
TON mg/L		1.56	0.99	0.85	1.10	1.2	0.80	0.92	1.31	1.08	1.29	2.17	3.9
FILTERABLE PHOSPHORUS mg/L		0.064	0.048	0.063	0.052	0.031	0.030	0.032	0.041	<0.002	0.003	0.002	8.60
TOTAL PHOSPHORUS mg/L		<0.05	0.35	<0.05	0.23	0.09	<0.05	0.08	0.39	<0.05	<0.05	0.08	0.16

Nb introduction of recycled water use on site (in April 2009) has increased the nutrient levels in run off water together with algal growth particularly in the settlement lagoon. Increased pH has been detected during this period. Investigation is in progress and is being undertaken by PKCT in consultation with EPA.

**Attachment "L" Greenhouse Gas Report- July- December 2011**

2011/2012 YTD (July-December)	A		B		C	D	E
	Reporting unit	Amount consumed (reporting unit)	Energy content (GJ per reporting unit)	Emissions factor (kg CO2-e per GJ)	Reportable energy (GJ)	Reportable emissions (tonnes CO2-e)	
<b>Scope 1 – direct emissions</b>							
Diesel oil(transport)	kL	75	38.60	69.90	2895	202	
Diesel oil(stationary energy)	kL		38.60	69.50	0	0	
Petrol (transport)	kL	12	34.20	69.60	410	29	
Petroleum based oils	kL		38.80	27.90	0	0	
Petroleum based greases	kL		38.80	27.90	0	0	
Acetylene	m3 *		0.0393	51.33	0	0	
<b>Scope 2 – indirect emissions</b>							
	Reporting unit		Energy content (GJ per kWh)	Emissions factor (kg CO2-e per kWh)			
Electricity	kWh	11,683,229	0.0036	0.89	42060	10398	
<b>Total</b>					45365	10629	
<b>Threshold</b>					100,000	25,000	

**Attachment "M" Electricity Usage Report to January 2012**

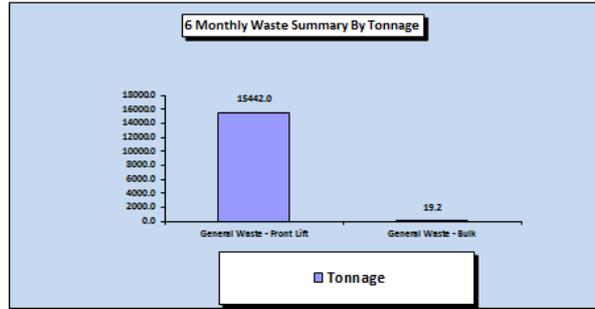


	kw hr per tonne	Baseline	Improvement of Baseline
FY10	1.593	1.655	3.8%
FY11	1.594	1.655	3.7%
FY12 ytd	1.665	1.655	0.0%

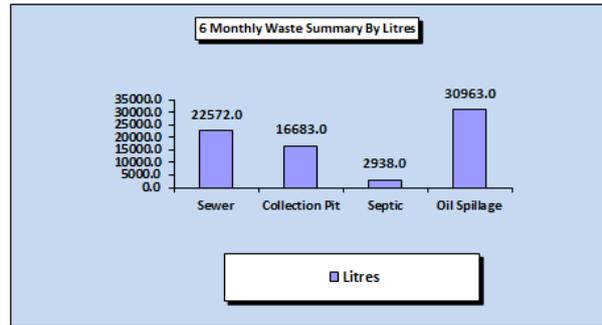
**Attachment "N" Waste Report July-December 2011**

**PORT KEMBLA COAL TERMINAL WASTE REPORT**

Waste Stream - Cleanaway	Tonnage
General Waste - Front Lift	15442.0
General Waste - Bulk	19.2



Waste Stream - Industrial Solutions	Litres
Sewer	22572.0
Collection Pit	16683.0
Septic	2938.0
Oil Spillage	30963.0



Waste Stream - ERS	No of Services
Parts Washers - 12600206	4
Parts Washer - 12600208	4
rags - 205 Drum	3
Pit Sludge - 205 Drum	1
Grease Cartridges - 205 Drums	2
Grease 20 Litre	1
Cooling Tower Additive - 20 Litre	1
Spill Kit Hydrocarbon - 240 Litre	8
Spill Kit Vehicle Maint 50-60 Litre	1
Spill Kit Chemical - 240 Litre	1

