

ANNUAL AMBIENT AIR QUALITY MONITORING REPORT – 1 OCTOBER 2009 TO 30 SEPTEMBER 2010

Prepared by:



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TABLE OF CONTENTS

1.	INTRODUCTION.....	5	
2.	ASSESSMENT CRITERIA	6	
3.	MONITORING NETWORK.....	7	
3.1	PM₁₀ and TSP monitoring stations	7	
3.2	Metals Analysis	9	
3.3	Dust Deposition (Nuisance dust).....	9	
3.4	Rainwater Tank Monitoring	9	
4.	SAMPLING TIMES AND FREQUENCIES	11	
4.1	Monitoring Summary	12	
5.	METEOROLOGY.....	13	
5.1	Annual Wind Rose.....	13	
5.2	Seasonal Wind Roses	14	
5.3	Rainfall.....	16	
6.	ANNUAL PORT ACTIVITIES	17	
6.1	Imports and Exports	17	
7.	MONITORING RESULTS	18	
7.1	Dust as PM₁₀.....	18	
7.1.1	Summary of Exceedences	20	
7.2	Dust as TSP	20	
7.2.1	Summary of Exceedences	22	
7.3	TSP Metal Speciation Analysis.....	23	
7.3.1	Nickel	24	
7.3.2	Iron	24	
7.4	Dust Deposition.....	28	
7.5	Metals and Sulphur Speciation	31	
7.5.1	Nickel	31	
7.5.2	Iron	34	
7.6	Rainwater Tank Monitoring	37	
8.	CONCLUSIONS.....	40	
9.	REFERENCES.....	41	
	Appendix A	EPSL shipping Register	42
	Appendix B	24-hr Daily Average PM ₁₀	47
	Appendix C	Daily TSP Results	54
	Appendix D	HVAS Daily Average Metal Speciation Results	61
	Appendix E	Dust Deposition Results	68

Appendix F	Deposition Metal Speciation Results	69
Appendix G	Rainwater Tank Metal Results	73

FIGURES

Figure 1 Location of E-Sampler 7 meteorological station, Esperance Port, relative to E-Samplers 5, 6 and 8, TEOM/HVAS parameter monitoring sites 1 to 4 and HVAS community monitor site 5 8

Figure 2: Location of dust deposition gauges and monitored rainwater tanks..... 10

Figure 3: Annual wind rose from October 2009 to September 2010..... 13

Figure 4: October and November 2009 Wind roses 14

Figure 5: Summer 2009/2010 wind rose (December 2009 to February 2010)..... 14

Figure 6: Autumn 2010 wind rose (March to May 2010)..... 15

Figure 7: Winter 2010 wind rose (June to August 2010) 15

Figure 10: Daily TEOM PM₁₀ to September 2010..... 19

Figure 11: Daily HVAS TSP results to September 2010..... 21

Figure 12: HVAS metal speciation results for nickel to September 2010 26

Figure 13: Daily HVAS metal speciation results for iron to September 2010..... 27

Figure 14: Monthly deposition rates for monitors DG1 – DG13 to September 2010. NSW. 29

Figure 15: Monthly deposition rates for monitors DG14 to DG19 and onsite DG9 and DG10 to September 2010.. 30

Figure 16: Nickel deposition rates at DG1 to DG13 to September 2010. 32

Figure 17: Nickel deposition rates at DG14 to DG19 and onsite DG9 and DG10 to September 2010..... 33

Figure 18: Iron deposition rates at DG1 to DG13 to September 2010..... 35

Figure 19: Iron deposition rates at DG14 to DG19 and onsite DG9 and DG10 to September 2010 36

Figure 20: No relationship between Nickel in dust gauges and nickel in rainwater for measurements between 2008 and 2010..... 38

TABLES

Table 1: Summary of EPSL monitoring network 12

Table 2: Transport mode into Esperance Port by commodity..... 17

Table 3: Summary of 24-hour PM10 exceedance events during the reporting period 20

Table 4 Summary and description of exceedences of the 24-hour TSP assessment criterion 22

EXECUTIVE SUMMARY

This report fulfills the annual (1 October 2009 to 30 September 2010) ambient air quality reporting requirements of the Operating Licence issued to Esperance Ports Sea & Land (EPSL).

Compared to the previous year, offsite emissions of nickel in TSP have declined. The number of nickel values exceeding $0.03 \mu\text{g}/\text{m}^3$ in TSP declined from 17 in 2008/09 to zero in 2009/10. The maximum value of nickel in TSP was over five fold below the license limit for nickel. There were also reductions in nickel deposition rates at all community dust gauges. The reduction in offsite nickel dust is in contrast to increases in localised nickel dust within the Port at DG9 and DG10. This reflects the Ports' effective industrial hygiene to contain these emissions and drive a reduction in offsite nickel emissions. The effectiveness of the shiploading protocol for nickel has been demonstrated, raising the question of why it is necessary to submit shiploading reports for every nickel ship.

The number of TSP exceedances fell from 27 in 2008/09 to 13 in 2009/10. Twelve of the 13 TSP dust exceedances were due to activity on berth 1 that is under the direct control of CBH. The Port, DEC and CBH are planning and implementing actions to reduce dust emissions from both berth 1 activity and dust emissions from the CBH grain storage shed.

PM10 concentrations remain similar to last year with six exceedances in 2008/09 compared to five in 2009/10. Of these 11 exceedances, nine are due to climatic factors or inland activities.

Nickel and lead concentrations in community rainwater tanks were dominated by local sources of these metals between the roof and the rainwater tank. These contaminants have no correlation to levels measured in dust over the last two years. This raises questions on the purpose of continuing this study.

In 2009/10, the dust deposition rates recorded in the dust gauges had seven exceedances of the NSW EPA assessment criterion, compared to 16 in the 2008/09 reporting period. Note that this assessment criterion has been adopted for comparative purposes only and is not enforceable in WA. The majority of these exceedances were at DG4 explained by the predominant SE winds blowing sand from the beach located less than 50m away from this dust gauge. The increases in general dust were not associated with increased levels of nickel and iron. In 2009/10 declines in dust levels at DG6, DG11 and DG12 also appear to be unrelated to nickel and iron.

1. INTRODUCTION

Esperance Ports Sea & Land (EPSL) (previously Esperance Port Authority) was issued with Licence 5099/1974/12 ('the licence') on 6 January 2009 by the WA Department of Environment and Conservation (DEC). This licence was last amended on the 16 September 2010 and expires on 6 March 2011. The scope of this annual report is in compliance with condition 8 of the licence and constitutes the ambient air quality component of the wider environmental monitoring requirement.

"8. The licensee shall provide to the Director [DEC], prior to 1 November each year, an annual environmental monitoring report containing the data required by all conditions of this licence for the twelve month period beginning 1 October the previous year and ending on 30 September in that year."

(DEC 2010)

This report includes data analysis consistent with the parameter measurements specified in conditions 7(a) and 7(b) of the license. The wastewater data and report will be submitted separately as has been submitted to DEC previous years' reporting.

Copies of laboratory reports are available in each of the respective monthly ambient air quality monitoring reports available for download from the Ports' website at <http://www.esperanceport.com.au/envmon.asp>. In addition to monthly reports EPSL is also required to prepare exceedance reports for air quality. EPSL also submits exceedance reports for every bulk nickel ship despite only loading in an offshore wind blowing any potential dust away from the dust monitors.

For further information on the license, please refer to the EPSL license downloadable at the DEC website:

http://portal.environment.wa.gov.au/pls/portal/docs/PAGE/ADMIN_LICENSING/LICENCE_S/2006/TAB8118745/5099ESPERPA%20AM_4.PDF

2. ASSESSMENT CRITERIA

For the purposes of this report, the following criteria have been used for comparison to the measured concentrations of contaminants in air and dust deposition rates. The criteria are applicable at all sensitive receptors located outside the Port boundary. They are as follows:

- $50\mu\text{g}/\text{m}^3$ as a maximum 24-hour average concentration for PM_{10} (based on the NEPM PM_{10} Standard and Licence L5099/1974/12);
- $0.5\mu\text{g}/\text{m}^3$ as an annual concentration for lead (based on the NEPM Standard).
- $90\mu\text{g}/\text{m}^3$ as a maximum 24-hour average concentration target for TSP (from Licence L5099/1974/12);
- $0.14\mu\text{g}/\text{m}^3$ as a maximum 24-hour average concentration target for nickel (from Licence L5099/1974/12);

Note that although a TSP standard exists for lead and nickel none exist for sulphur or iron; and

- $4\ 000\ \text{mg}/\text{m}^2/\text{month}$ maximum allowable insoluble dust deposition rate (based on the NSW EPA Dust Deposition Standard for insoluble dust).

Note that although a dust deposition guideline exists for total deposited insoluble dust; there are no guidelines for other deposited contaminants such as lead, nickel, sulphur and iron.

In addition to the above, the following Drinking Water Guidelines (DWG) have been used for comparison of the results of the rainwater tank monitoring:

- $0.02\ \text{mg}/\text{L}$ for nickel in drinking water (Australian DWG (NHMRC/NRMMC, 2004));
- $0.01\ \text{mg}/\text{L}$ for lead in drinking water (NHMRC/NRMMC, 2004); and
- $2\ \text{mg}/\text{L}$ for iron in drinking water (WHO, 2006).

3. MONITORING NETWORK

3.1 PM₁₀ and TSP monitoring stations

Ambient air quality monitoring was undertaken at four locations (Sites 1-4) at the parameter of the Esperance Port and an additional site within the community approximately 1.6 km from the Port (Site 5). These locations were chosen in consultation with the Department of Environment and Conservation and the Department of Health. The monitors at sites 1 to 4 were positioned to record dust that is blown from the Port in the direction of Esperance town. Site 5 is a community monitor recording the TSP and nickel concentrations within the community (**Figure 1**).

The devices installed at these five locations consist of:

- a Tapered Element Oscillating Microbalance (TEOM) unit recording PM₁₀ at sites 1 to 4;
- a High Volume Air Sampler (HVAS) unit monitoring total suspended particulates (TSP) at sites 1 to 5. The filter papers from these are subsequently analysed for nickel, lead, iron and sulphur to enable an airborne concentration for these species to be determined.

In July 2008 EPSL installed three MetOne E-Samplers (EP5, EP6 and EP7) and an additional fourth E-Sampler (EP8) in September 2008. All Esamplers are within the Port precinct and estimate TSP in real time using light scatter. At its own initiative, the Port uses data from these stations to help correlate loading times to dust emissions for grain loading activities of berth 1 as part of its exceedance reporting.



Figure 1 Location of E-Sampler 7 meteorological station, Esperance Port, relative to E-Samplers 5, 6 and 8, TEOM/HVAS parameter monitoring sites 1 to 4 and HVAS community monitor site 5

3.2 Metals Analysis

Under requirements of Licence L5099/1974/12, EPSL is required to undertake analysis for metal speciation (nickel, iron, lead and sulphur) of every third HVAS filter paper or every filter if:

- nickel ship loading is occurring
- dust concentrations exceed a TSP reading of $90 \mu\text{g}/\text{m}^3$
- wind speed exceeds 10 m/s in three consecutive hours during a single day within the $45^\circ - 180^\circ$ wind arc such that emissions from the Port have the potential to impact on Esperance Town.

The metal speciation of the dust samples are undertaken by MPL Laboratories (NATA accreditation number 9804).

The latest amendment to the Licence requires the community monitor Site 5 to be assessed as for the Port boundary monitors (Sites 1-4). The site is approximately 1.6 Km from the Port presenting problems with associating the Port with TSP exceedances measured at this site. However, if we assume the Port is the main source of nickel, the community monitor can be used to determine ambient nickel concentration in TSP.

3.3 Dust Deposition (Nuisance dust)

EPSL also reports on air quality from sixteen dust deposition gauges (DG1, DG3 to DG8 and DG11 to DG19). The dust deposition gauges are used to assess total dust deposition (soluble and insoluble components) as well as nickel, lead, iron and sulphur deposition rates. Note that there is no 'DG2' gauge. The locations of these monitoring sites are shown in **Figure 2**. Two further dust deposition gauges (DG9 and DG10) are located within the Port facility and analysed as per the above gauges. The assessment criteria are not applicable to DG9 and DG10 as these are located within the Port site and are not ambient monitoring stations. ALS (NATA accreditation number 825) undertakes analyses of the dust deposition samples. Note that ALS also provides visual analysis of deposited dust samples which is not covered under the scope of the NATA accreditation.

3.4 Rainwater Tank Monitoring

EPSL reports on rainwater tanks situated alongside 11 out of the 18 dust gauges (DG3, DG5, DG8, DG11, DG12 and DG14 to DG19) see **Figure 2**. Sampling of the rainwater tanks is undertaken on a monthly basis and results are compared to the Australian Drinking Water Guidelines (ADWG) and the World Health Organisation (WHO) Guidelines. ALS undertakes analyses of the rainwater tank samples.



Figure 2: Location of dust deposition gauges and monitored rainwater tanks

4. SAMPLING TIMES AND FREQUENCIES

HVAS sampling times for TSP are approximately 24 hours from midday to midday and may vary (± 2 hrs) according to the times at which filter papers are changed at each monitor. As already described in section 3.2., the license specifies the TSP samples to be analysed for metals and sulphur every third day unless there is nickel ship loading occurring, a TSP exceedance or winds exceeding 10m/s for hours. Practically, these conditions necessitate EPSL to change the filter paper every day at all five sites.

The monitoring of PM₁₀ conducted by EPSL is based on averages from midnight to midnight between the 1 of September 2009 to the 31 of January 2010. From the 1st of February 2010, averages were calculated from midday to midday to coincide with HVAS sampling time.

Dust deposition gauges are changed on approximately the first day of each month (30 ± 2 days sampling time) varying slightly over the course of the monitoring period. The results from the sampling period are then corrected to a standard month and returned to EPSL for reporting. Total dust and associated species deposition rates are reported in mg/m²/month.

Rainwater tank samples are collected at the same frequency as the dust deposition gauge samples and are sent to the laboratory for analysis.

4.1 Monitoring Summary

The monitoring network is summarised below in **Table 1**.

Table 1: Summary of EPSL monitoring network

Monitoring station	Monitor type	Monitored contaminants	Location co-ordinates	Comments	
Sites 1-4	TEOM	PM ₁₀	33°52.058'S 121°53.620'E		
			33°52.175'S 121°53.569'E		
	HVAS	TSP, Ni, Fe, S, Pb	33°52.343'S 121°53.614'E		
			33°52.412'S 121°53.668'E		
Site 5	HVAS	TSP, Ni, Fe, S, Pb	33°52.396'S 121°53.765'E	This monitor was relocated on 13 July 2009 for Environmental Protection Notice compliance.	
DG1	Dust deposition gauges	Dust deposition	33°52.172'S 121°53.511'E	DG9 and DG10 are located within the Esperance Port. All others are 'community' monitors	
DG4			33°51.999'S 121°53.654'E		
DG6			33°52.589'S 121°53.016'E		
DG7		33°51.855'S 121°53.5006'E			
DG9		Ni, Fe, S, Pb	33°52.293'S 121°53.8562'E		
DG10		33°52.348'S 121°54.002'E			
DG13		33°51.934'S 121°53.745'E			
DG3	Dust deposition gauges	Dust deposition, Ni, Fe, S, Pb (dust)	33°52.404'S 121°53.723'E		
DG5			33°51.941'S 121°53.026'E		
DG8			33°52.3962'S 121°53.479'E		
DG11			33°52.251'S 121°53.522'E		
DG12			33°52.400'S 121°53.390'E		
DG14			33°52.379'S 121°52.821'E		
DG15		33°50.019'S 121°54.182'E			
DG16		Rainwater tanks	Ni, Fe, S, Pb (water)		33°51.932'S 121°53.497'E
DG17		33°51.777'S 121°53.52'E			
DG18		33°51.253'S 121°53.950'E			
DG19	33°52.142'S 121°53.167'E				

5. METEOROLOGY

This section summarises the meteorological conditions during the reporting period.

In mid-June 2009 EPSL commissioned an Australian Standards-compliant meteorological monitoring station at the E-Sampler 7 monitoring site adjacent to berth 3 at the Port (see **Figure 1**) principally for characterising the winds during the reporting period.

5.1 Annual Wind Rose

The annual wind rose measured during the reporting period indicates variable wind directions throughout the year, with winds recorded at each compass point ranging from 3% to 9% (refer to **Figure 3**). The annual wind rose for 2009/10 had similar distribution of wind direction to the 2008/09 reporting period with less than 5% difference between each quadrant. Therefore, overall wind conditions between the two years are comparable.

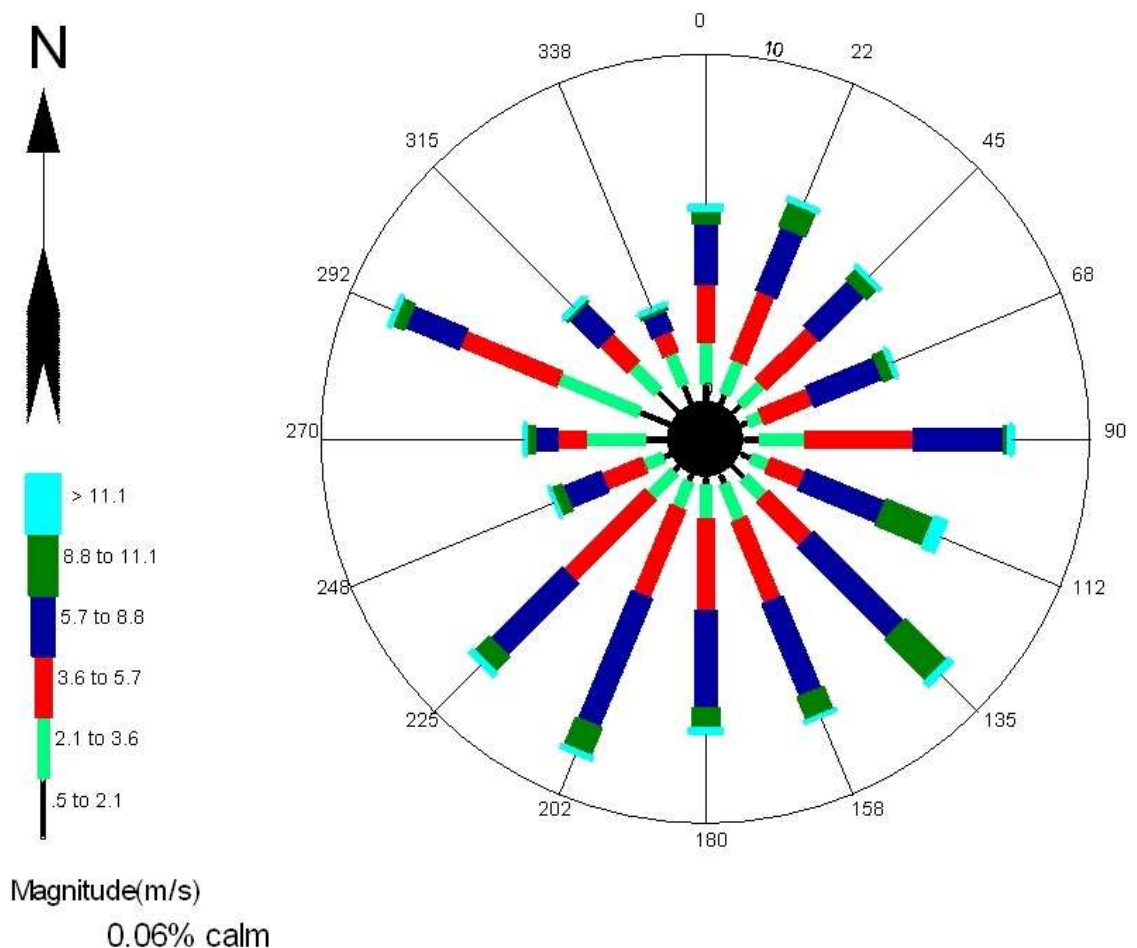


Figure 3: Annual wind rose from October 2009 to September 2010

5.2 Seasonal Wind Roses

The seasonal wind roses for the monitoring period are presented in **Figures 4, 5, 6** and **7**. Note that the spring 2009 wind rose incorporates data from September 2009 which is not within the monitoring period. The monthly wind roses are presented instead for October and November 2009.

These figures show that there is a clear shift in prevailing wind direction between the seasons, notably from the north east to south west in spring and summer to a more westerly and northerly aspect in autumn, to a stronger N to NW vector in winter.

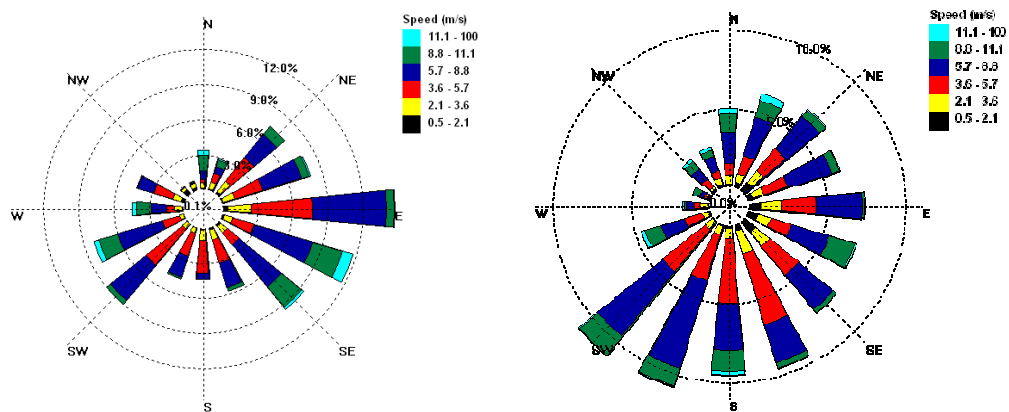


Figure 4: October and November 2009 Wind roses (downloadable from <http://www.esperanceport.com.au/envmon.asp>)

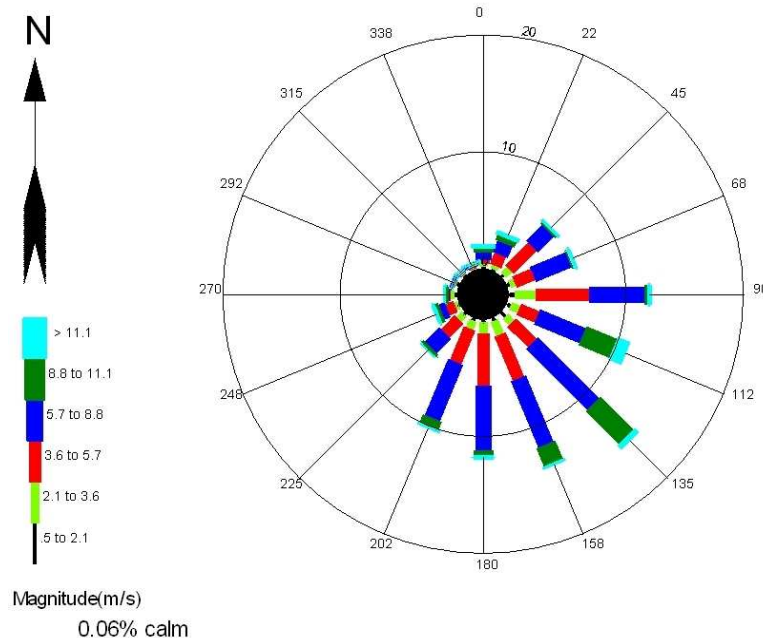


Figure 5: Summer 2009/2010 wind rose (December 2009 to February 2010)

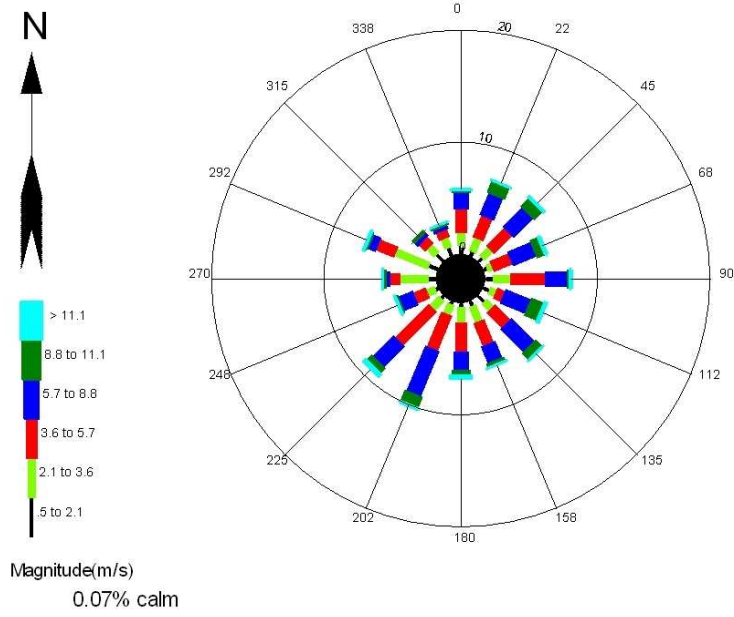


Figure 6: Autumn 2010 wind rose (March to May 2010)

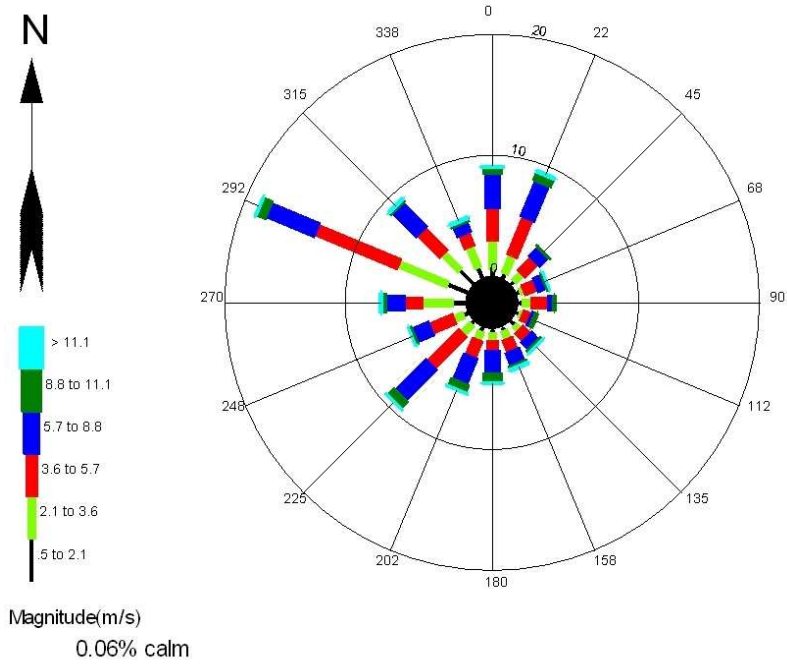


Figure 7: Winter 2010 wind rose (June to August 2010)

5.3 Rainfall

The monthly rainfall recorded at the Fairfield Street meteorological stations are shown in **Figure 8** for 2008/2009 and **Figure 9** for 2009/2010. The previous reporting period (2008/2009) show that the lowest rainfall was during February and March 2009 (8.6 mm and 11.6 mm respectively) while the current reporting period shows the lowest rainfall was between October 2009 to April 2010 (ranging between 4.2mm to 23.8mm) over seven months. Therefore the current reporting period experienced a longer period of dry weather compared to the previous year.

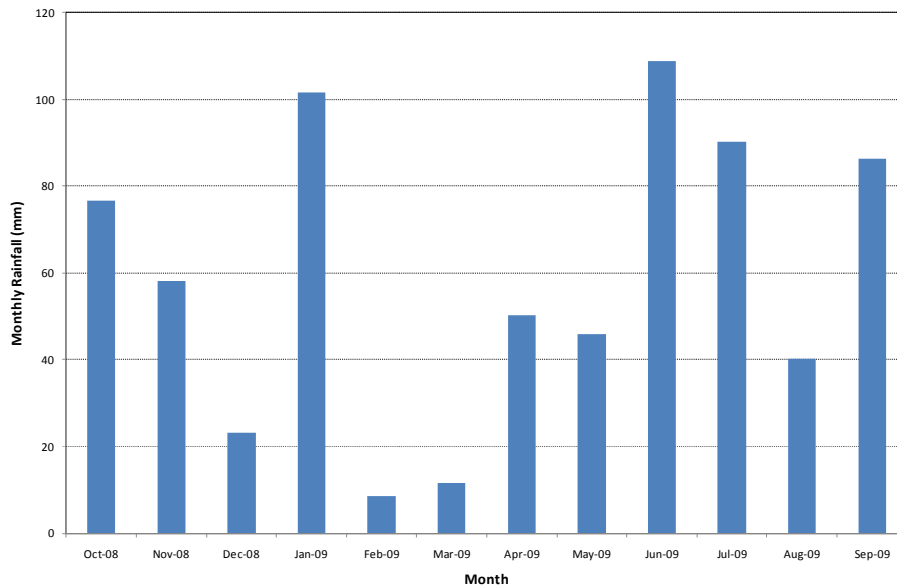


Figure 8: Monthly rainfall (Fairfield Street meteorological station) from Oct-08 to Sep-09 (SKM, 2009)

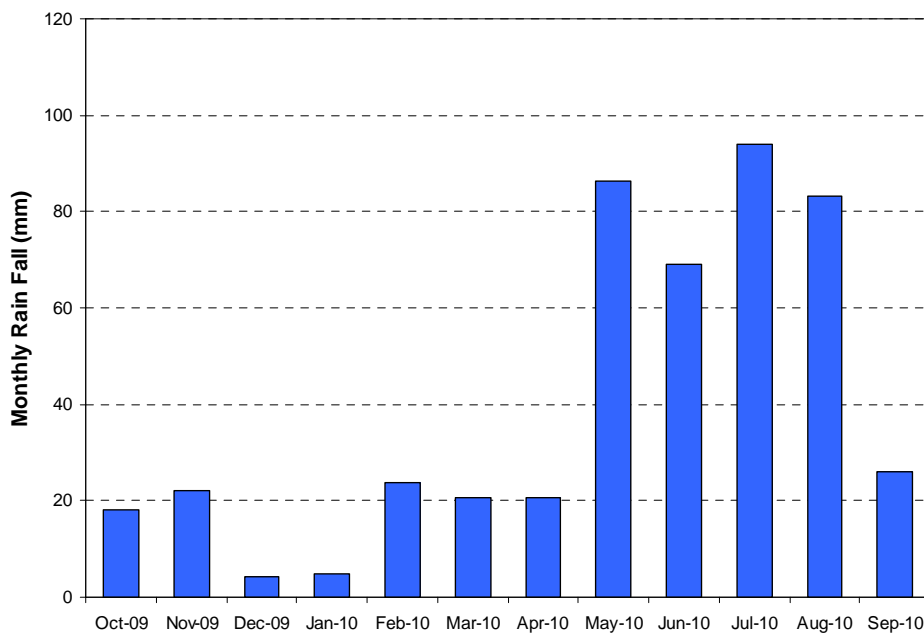


Figure 9: Monthly rainfall (Fairfield Street meteorological station) from Oct-09 to Sep-10

6. ANNUAL PORT ACTIVITIES

This section presents summary data of the Port's activities during the reporting period. Full details are reported EPSL shipping register (**Appendix A**).

6.1 Imports and Exports

During the reporting period EPSL observed a total throughput of 10.55 Mt of various commodities. Of this, approximately 8.5 Mt was iron ore, 0.16 Mt was nickel concentrate and 1.4 Mt was barley/wheat (**Appendix A**).

There was no export of sulphur and lead concentrate during the reporting period.

The terrestrial modes of transport into the Esperance Port are summarised by commodity in **Table 2**.

Table 2: Transport mode into Esperance Port by commodity

Stevedore	Product	Transport into Port	Transport from Port
Esperance Port Authority	Iron ore	Rail	Ship
	Gas oil	Ship	Pipeline
	Mixed (containers, magnesia oxide)	Ship	Road
	Nickel concentrate	Road/rail	Ship
	Sulphur	Ship	Road
	Nickel in bulker bags	Road	Ship
	Nickel (containers)	Road	Ship
Patrick's	Fertiliser (excluding urea)	Ship	Road
	Urea	Ship	Road
CBH	Peas	Road	Ship
	Canola	Road	Ship
	Barley	Road	Ship
	Wheat	Road	Ship
	Lupins	Road	Ship

7. MONITORING RESULTS

This section provides the ambient air quality and rainwater tank monitoring results measured during the annual reporting period. Month to month comparisons and discussion of more individual data points can be found in the respective monthly ambient air quality monitoring reports that also attach the laboratory reports (EPSL website). This annual report provides a broader view of the results with comparison to the previous year.

7.1 Dust as PM₁₀

Average daily PM₁₀ concentrations for the reporting period are presented as a time series scatter plot in **Figure 10**. Tabular results for average daily PM₁₀ and approximate Port throughput concentrations are available in **Appendix B**.

The results show a seasonal trend with concentrations generally higher over the warmer, drier months of November through to April and lower in the wetter months of May through to September. The higher concentrations correlate with the prevalent south-south-easterly wind vector (onshore, with Port upwind of monitors) over this period (**Figure 5**) while the lower concentrations correlate to the prevalent south west to northerly wind vector (offshore, with Port downwind of monitors (**Figure 7**). Despite the higher PM₁₀ results being correlated to the Port being upwind, closer analysis of the results indicate high PM₁₀ results appear to more related to climatic factors including marine aerosols.

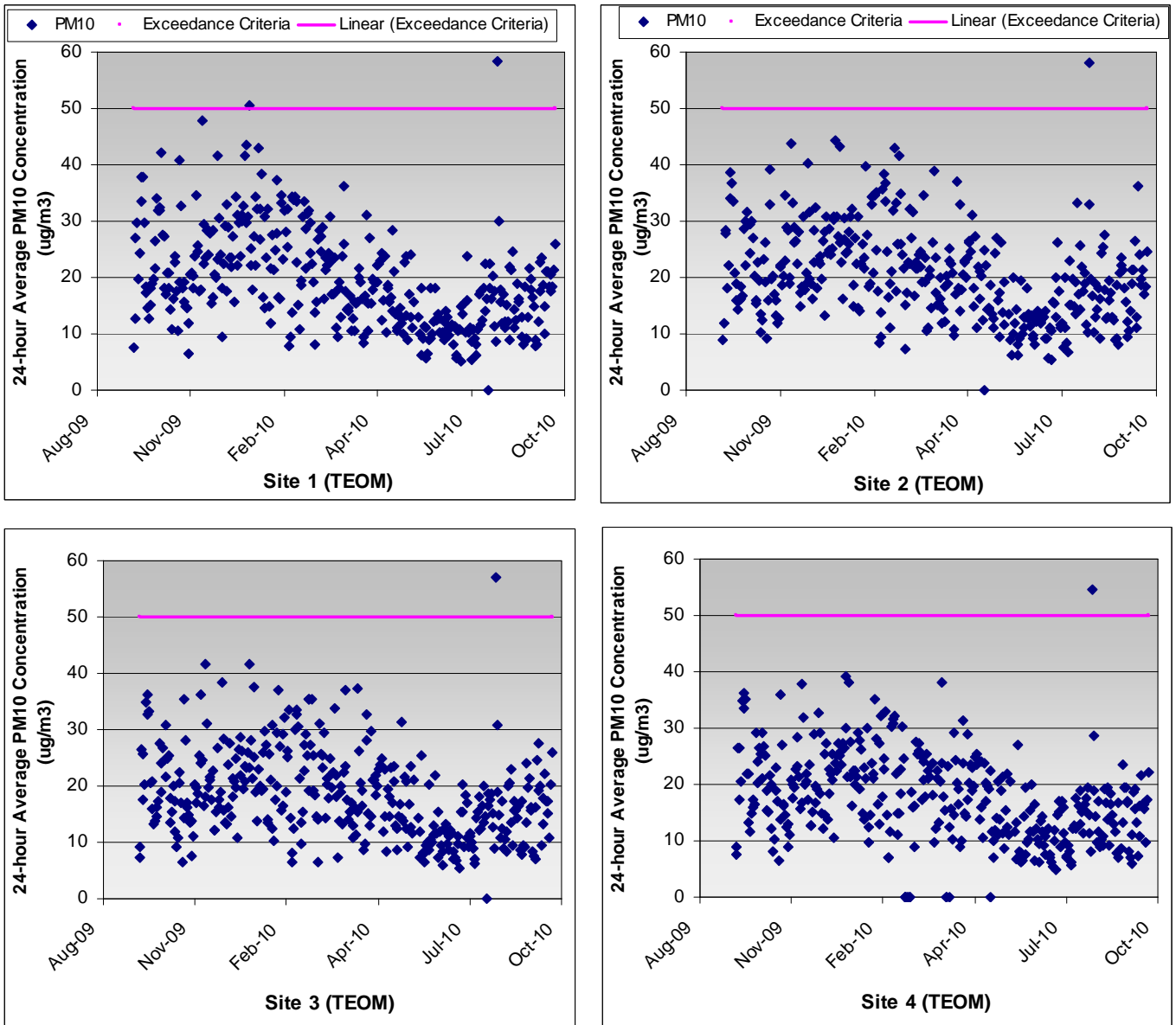


Figure 10: Daily TEOM PM₁₀ to September 2010

7.1.1 Summary of Exceedences

A summary of each recorded exceedance event is provided in **Table 3** and describes possible causes of these exceedences. It is noted that, with the available meteorological data, only one of the exceedences can be possibly attributed to Port activities. A more detailed discussion of the exceedance can be found in the exceedance reports on the EPSL website. PM10 exceedences were similar between both years with an improvement from six exceedences in 2008/09 to five in 2009/10. Of these 11 exceedences nine were due to climatic factors or inland activities.

Table 3: Summary of 24-hour PM10 exceedance events during the reporting period

Date	Location	Measured concentration (µg/m3)	Possible cause of exceedance
9/01/2010	Site 1	50.5	Loading of onto the marine vessel (MV) ID Black Sea at Berth1. Other possible sources were unsealed areas of the Port, background marine aerosols from Esperance foreshore located approx. 50m away from site 1. Refer to Exceedance Report for further information (EPSL website).
12/08/2010	Site 1	58.5	Non-Port source(s) as the wind direction was dominant from the south west to north-northeast (i.e. blowing from the town). Esperance Metrological station picked up a Haze event that would explain why all monitors where effected simultaneously. Refer to Exceedance Report for further information (EPSL website).
	Site 2	58.1	
	Site 3	57	
	Site 4	54.5	

7.2 Dust as TSP

Average daily TSP concentrations are presented in **Figure 11:** Daily HVAS TSP results to September 2010

11 as a time series scatter plot. Tabular results for daily TSP concentrations and Port throughput (tonnes) refer to **Appendix C**.

The results show a similar seasonal variation, with concentrations generally higher between November 2009 to March 2010 than from April 2010 to September 2010. The higher concentrations in the Summer correlate with the drier condition and the prevalent south-south-easterly wind vector (onshore, with Port upwind of gauges) (**Figure 5**). The the lower concentrations correlate with the wettest conditions and the prevalent south west to northerly wind vector (offshore, with Port downwind of gauges) (**Figure 7**).

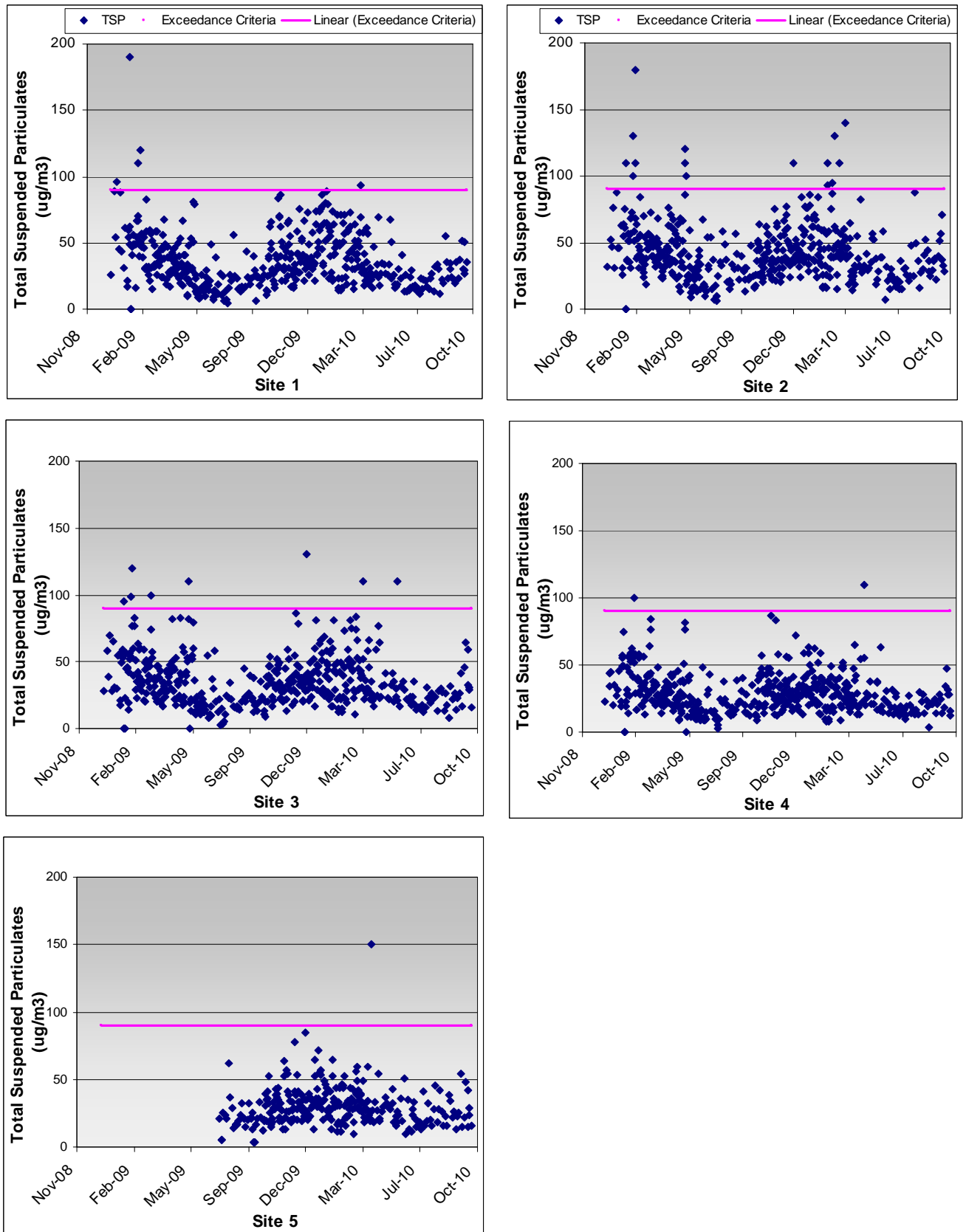


Figure 11: Daily HVAS TSP results to September 2010

7.2.1 Summary of Exceedences

A summary of each recorded TSP exceedance of the 24-hour assessment criterion is provided in **Table 4** and is intended to highlight the meteorological conditions and Port activities that contributed to these exceedences. The 24-hour TSP assessment criterion was exceeded 13 times in the reporting period compared to 27 times of the previous year. Each exceedance is accounted for each site, so there may be multiple exceedences in one 24 hour period. The reduction of exceedences compared to last year can be attributed to EPSL implementing dust suppression measures including application of a dust binding agent to the unsealed surfaces, improvements to the nickel handling circuit, and reductions in bulk nickel export.

Out of the 13 exceedance 12 are correlated to grain loading at Berth 1. Some of these correlations include significant relationships between real time TSP data from E-sampler 5, wind direction and grain loading times. The highest recorded concentration was $140\mu\text{g}/\text{m}^3$ (Site 2) on the 22 March 2010. Most of the exceedences are confined to February and March (**Figure 11**). Refer to the EPSL website for details information.

It is evident that operations at berth 1, which are not under the direct control of EPSL, have considerable impacts on dust results reported by EPSL. Further evidence of correlations between berth 1 activity and dust can be found in the most recent TSP exceedance reports on the EPSL website.

Table 4 Summary and description of exceedences of the 24-hour TSP assessment criterion

Start Date ¹	End Date	Location	Measured concentration ($\mu\text{g}/\text{m}^3$)	Possible cause of exceedance
13/12/2010	14/12/2010	Site 2	110	Loading of barley onto the MV Pollux at Berth 1. Prominent NNE to SE winds.
0	0	Site 3	130	
8/02/2010	9/02/2010	Site 2	93	Loading of barley onto the MV Amphion at Berth 1 and local erosion sources. Prominent SE to NE winds.
16/02/2010	17/02/2010	Site 2	93	Loading of barley onto the MV Mandarin Eagle at Berth 1. Prominent E to ESE winds.
17/02/2010	18/02/2010	Site 2	110	Loading of barley onto the MV Mandarin Eagle at Berth 1. Prominent NE to ESE

Start Date ¹	End Date	Location	Measured concentration ($\mu\text{g}/\text{m}^3$)	Possible cause of exceedance
				winds.
25/02/2010	26/02/2010	Site 2	95	Loading of pea and barley at berth 1 onto the MV Amsir. Prominent NE to ESE winds.
0	0			
1/03/2010	2/03/2010	Site 2	130	Loading of wheat at berth 1 on MV Filomena. Prominent NE to ESE winds.
10/03/2010	11/03/2010	Site 2	110	Loading of barley at berth 1 on MV Vosco Star. Prominent NE to ESE winds.
0	0			
19/03/2010	20/03/2010	Site 1	93	Loading of barley at berth 1 onto the MV Hong Yu. Prominent SE winds.
0	0			
22/03/2010	23/03/2010	Site 2	140	Loading of barley at berth 1 onto the MV Anenone. Prominent ENE to ESE winds.
0	0	Site 3	110	Unsealed surfaces/traffic activity, other possible sources from CBH shed located next to Power Station. Prominent NE to ESE winds.
19/04/2010	20/04/2010	Site 4	110	
0	0			
22/05/2010	23/05/2010	Site 3	110	Loading of barley at berth 1 onto the MV Crimson Forest. Prominent NE to E winds.
0	0			

¹ This refers to the 24-hour monitoring period ending at approximately 1200hr to 1200hrs.

7.3 TSP Metal Speciation Analysis

The complete metal speciation results from the five HVAS monitors and daily Port throughput for the reporting period are presented in **Appendix D**. No lead or sulphur was handled by the Port for the reporting period so the trends for these two elements are summarised only briefly:

- Lead concentrations were consistently low during the reporting period with 90% being under laboratory detection limits. The highest 24-hour average for the reporting period was $0.007\mu\text{g}/\text{m}^3$ which represents 0.018% of the TSP concentration recorded at site 3 for the period ($38\mu\text{g}/\text{m}^3$) on the 18 November 2009.
- Sulphur concentrations are also influenced by seasonal trends with higher concentration displayed in the summer months reaching levels above $4\mu\text{g}/\text{m}^3$ for 2.5% of the reporting period and in the winter months maintaining below $2\mu\text{g}/\text{m}^3$. The highest 24-hour average for the reporting period was $7.2\mu\text{g}/\text{m}^3$ which represents 15.7% of the TSP concentration recorded at Site 3 for the period ($46\mu\text{g}/\text{m}^3$) on the 2 April 2010.

The results for nickel and iron have been presented as time series scatter plots (refer to **Figures 12 and 13**).

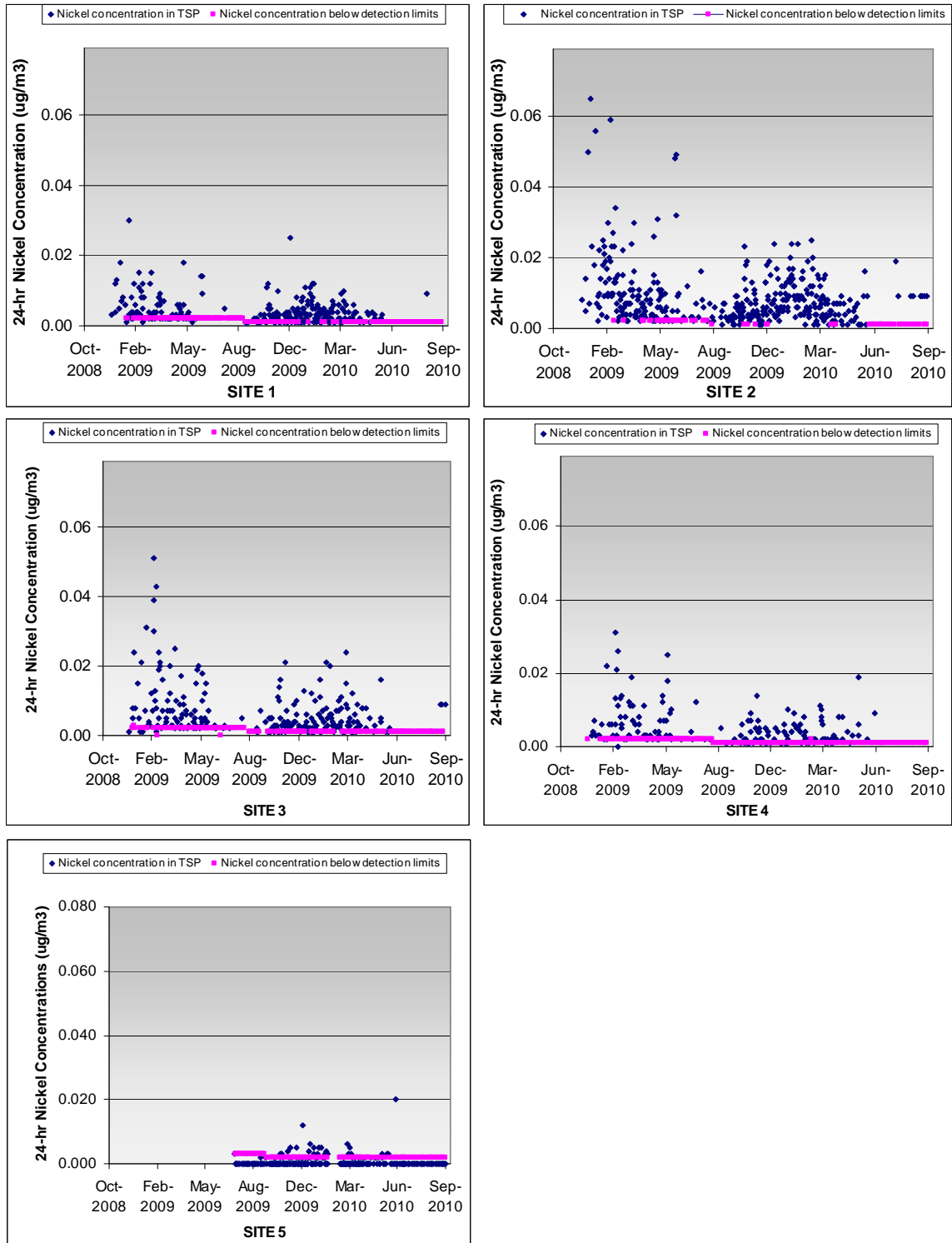
7.3.1 Nickel

The plot of nickel data commences after the wind loading protocol was implemented in December 2008. The results show that nickel concentrations are generally higher from December 2009 to March 2010, than from April to September (**Figure 12**). From June to September 2010, 92% of the nickel concentrations were below laboratory detection ($<0.002 \mu\text{g}/\text{m}^3$) for sites 1 to 5. These seasonal trends are also apparent across the previous years' data. Seventeen nickel values exceeded $0.03 \mu\text{g}/\text{m}^3$ between December 21st 2008 and 30th September 2009. For the full reporting period in 2009/10, the number of values exceeding $0.03 \mu\text{g}/\text{m}^3$ had fallen to zero. In fact, the maximum value of nickel of $0.026 \mu\text{g}/\text{m}^3$ recorded in 2009/10 (at site 1 from 1200hrs 6 December 2010 to 7 December 2010) was five times below the license criterion ($0.14 \mu\text{g}/\text{m}^3$). This indicates the reduction in nickel emissions following improvements in the nickel circuit, and demonstrates the effectiveness of the shiploading protocol. Furthermore, these facts support a change in the operating license to reporting by exception for the nickel shiploading events.

7.3.2 Iron

There are no assessment criteria for iron in air. The highest concentrations of iron in the reporting period occurred between November 2009 to February 2010. Measurements in the March to September 2010 period recorded lower concentrations of iron that are likely to be due to the more offshore wind direction in these months. These patterns are also evident in the previous years' data (also begins December 2008 after implementation of nickel wind loading arc) (**Figure 13**). A gradual reduction in iron concentrations has occurred since the previous year which may reflect the reduction in pyrrhotite and pyrite emissions in nickel concentrate.

The highest 24-hour average concentration of iron for the reporting period was $3.0\mu\text{g}/\text{m}^3$ recorded at Site 2 from 1200 on 2 August 2010 and 1200 hrs on 3 August 2010. There was no iron ore ship loading during these times. The concentration of $3.0\mu\text{g}/\text{m}^3$ represents 3.4% of the TSP concentration recorded at Site 2 for the period ($88\mu\text{g}/\text{m}^3$).



Concentrations of nickel in total suspended particulate measured in High Volume Air Samplers. Sites 1 to 4 are on the border of Esperance Port. Site 5 is located within the community at the Shire offices.

Figure 12: HVAS metal speciation results for nickel to September 2010

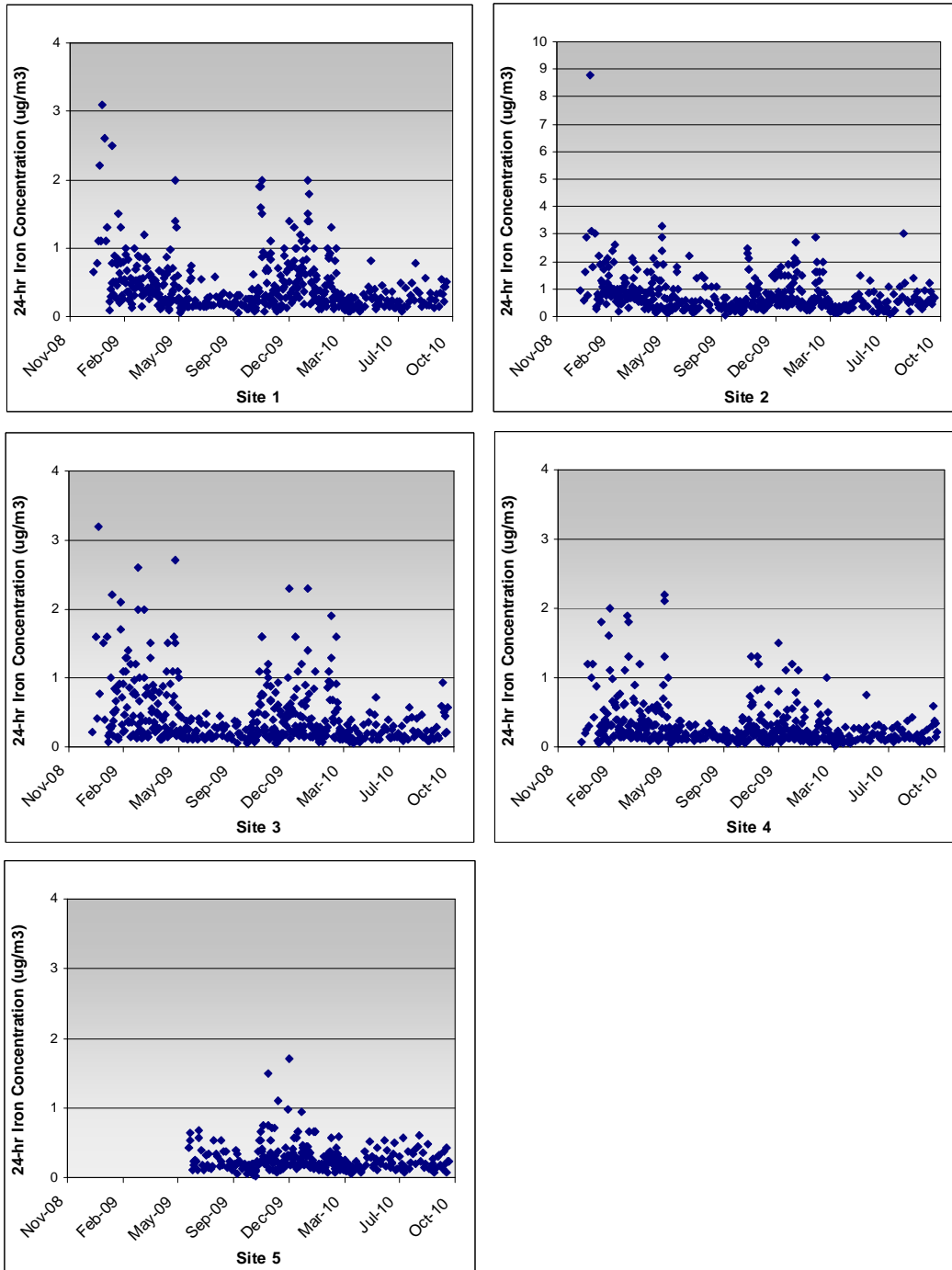


Figure 13: Daily HVAS metal speciation results for iron to September 2010

7.4 Dust Deposition

Raw data for the dust deposition measured by the dust gauges is contained in **Appendix E** but the main trends are discussed in the following section.

The highest deposition rates occurred at DG4 peaking in January and February 2010 (refer to **Figures 14** and **15**) due to the predominant SE winds blowing sand from the beach located less than 50m away from the dust gauge. This is also consistent with the 2008/09 reporting period where the same trend was observed. The highest insoluble deposition rate recorded was 34,500 mg/m²/month at DG4 during February 2010, a four fold increase in typical deposition rates at this site. This increase in general dust was not associated with increased levels of nickel and iron.

DG4 accounted for four of the seven exceedences of the NSW EPA assessment criterion compared to 16 in the 2008/09 reporting period. Note that this assessment criterion has been adopted for comparative purposes only and is not enforceable in WA.

The most significant changes in the community dust gauges compared to the annual reporting period for 2008/09 (refer to **Figure 14**) were the declines in dust levels at DG6, DG11 and DG12. Concentrations of nickel declined across all dust gauges and do not explain any changes in these particular gauges. There was also a decline in concentrations of iron in this period for DG12 but there does not appear to be any correlation to total dust (**Figures 14** and **15**). The decreases in dust at these gauges appear to be related to other events occurring in the community, natural events, or possibly grain loading activities of CBH on berth 1.

Deposition results from the two on-site gauges (DG9 and DG10) are not applicable to the licence conditions and are not community monitors so are not compared to the NSW criterion. DG9 and DG10 had higher deposition rates than the community monitors. This is with exception to the beach-side DG4 that had similar dust deposition rates to DG10. DG9 had the highest dust deposition rates since road trains and forklifts were unloading nickel kibbles within 4m of this gauge up to July 2010. After the cessation of this activity the levels of dust declined.

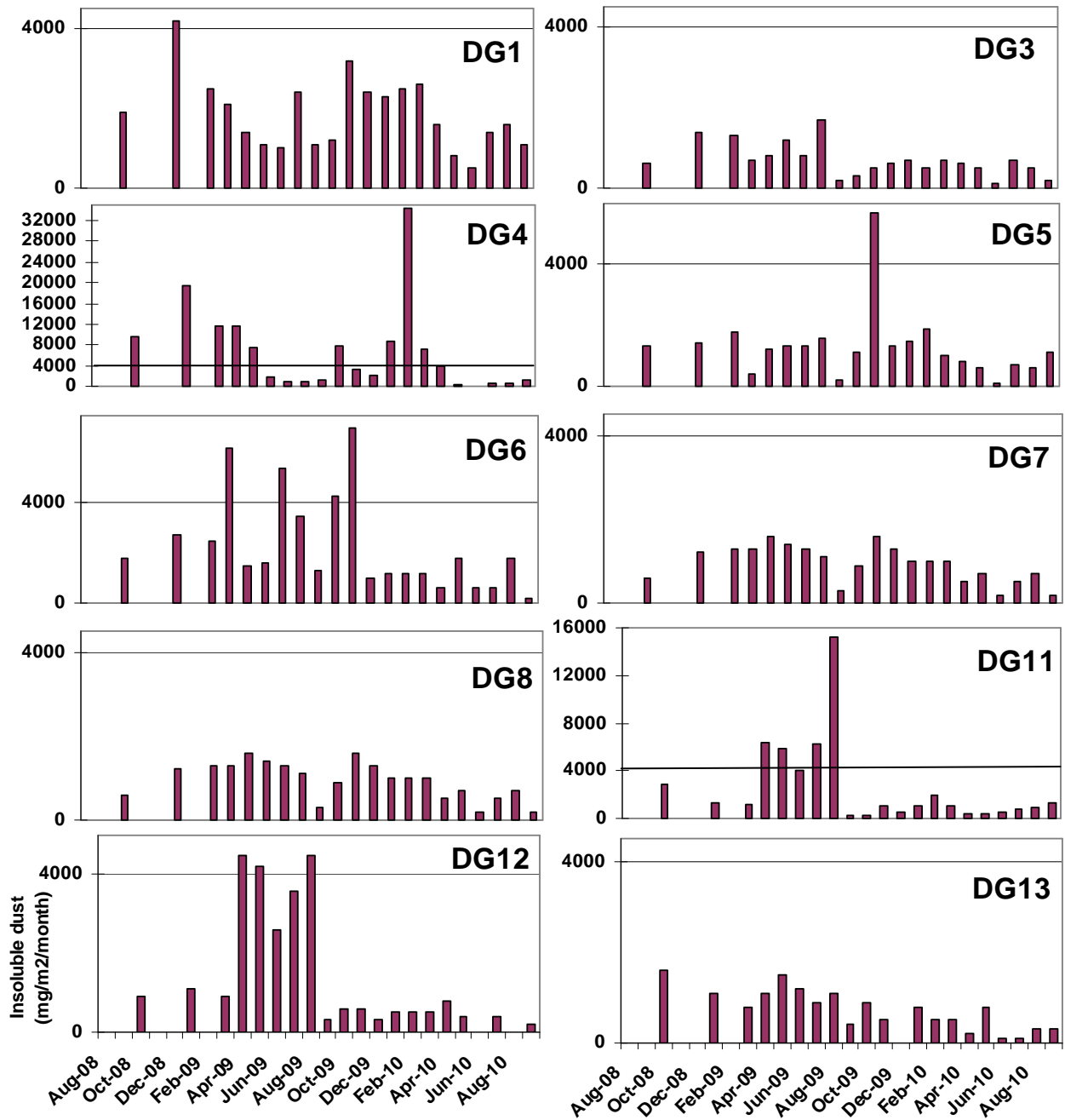


Figure 14: Monthly deposition rates for monitors DG1 – DG13 to September 2010. NSW EPA assessment criteria of 4000 mg/m²/month is shown on each dust gauge plot.

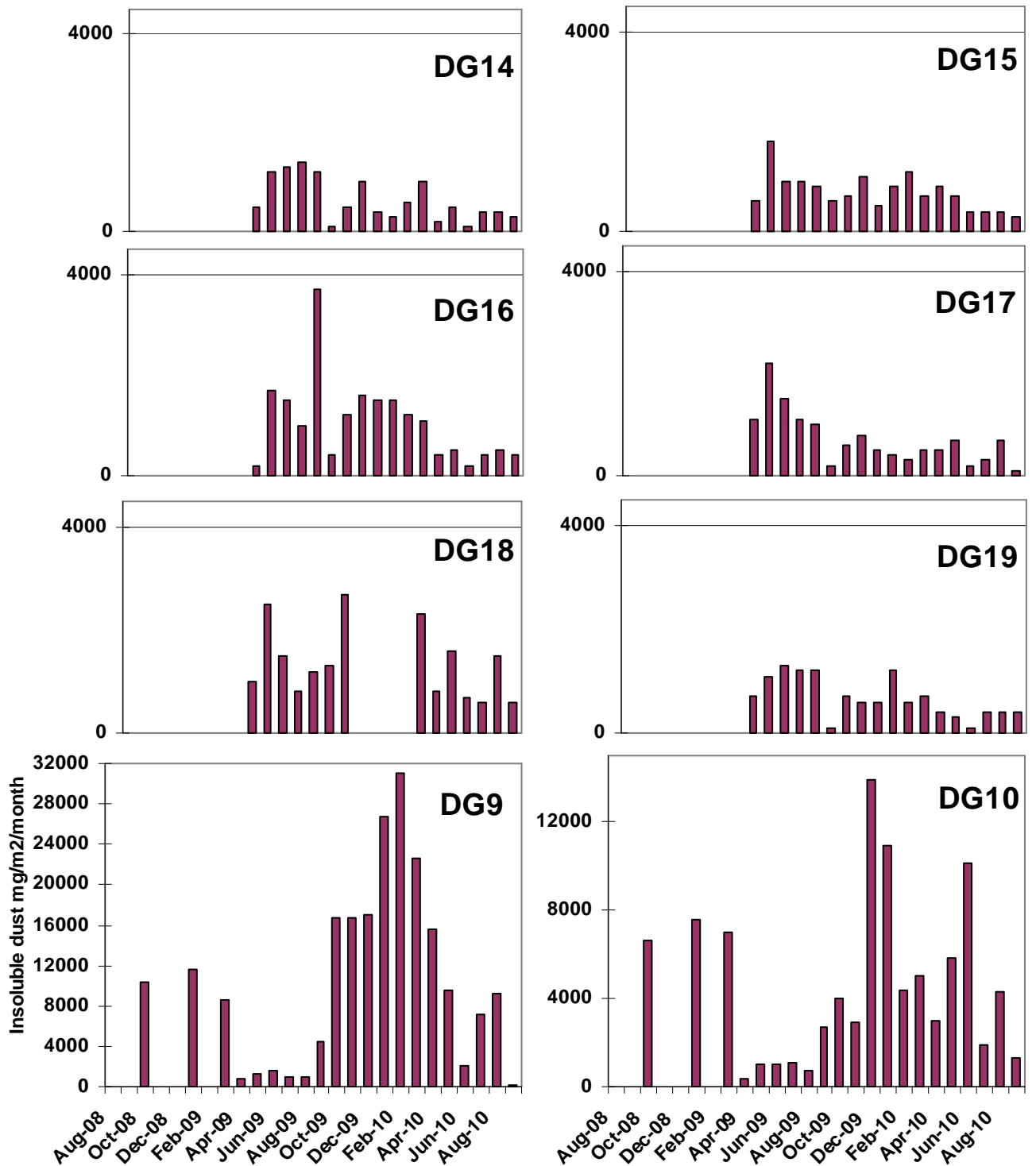


Figure 15: Monthly deposition rates for monitors DG14 to DG19 and onsite DG9 and DG10 to September 2010. The onsite or non-community dust gauges within the Port, DG9 and DG10 are also shown. NSW EPA assessment criteria of 4000 mg/m²/month is shown on each of the plots for the community dust gauge.

7.5 Metals and Sulphur Speciation

Patterns in nickel and iron are discussed in details within this section since these are the only bulk minerals handled at the Port for the reporting period. The results for lead and sulphur that are required to be reported are summarised below:

- Total lead (soluble and insoluble) was not detected at any of the community dust gauges (refer to raw data in Appendix F for more information on metals and Sulphur).
- Sulphur levels were variable across the community gauges which reflects the variety of natural sources of this element;
- Sulphur levels were elevated in the summer period at the onsite gauges DG9 and DG10 and have a high correlation to nickel, since the product being handled was nickel sulphide. A highly significant linear correlation between nickel and sulphur measurements at DG9, returned an R^2 value 0.80 for 24 monthly data points between 2008 and 2010.

7.5.1 Nickel

The nickel deposition rates at all community dust gauges have significantly declined since the 2008/09 reporting period (**Figures 16** and **17**). This trend is best shown at DG1 and DG11 since these gauges have the highest exposure to nickel. This is due to DG1 and DG11 being located either side of site 2, the HVAS monitoring location which records the highest concentrations of nickel in TSP. This trend is also supported by reductions in nickel concentrations recorded in TSP samples taken by the HVAS monitors.

Running against this trend of reduced nickel dust outside the Port, are the nickel deposition results for DG9 and DG10. These gauges reflect increased local nickel handling activity, particularly trucks unloading kibbles of nickel within four metres of DG9. The average number of trucks that passed through the Port between January and May 2010 was 110 trucks per month, 37 for June, none for July and 24 trucks for August. Nickel deposition rates have fallen accordingly since this reduction in truck activity. Although these onsite gauges indicate localised sources of nickel dust were a concern, the results of the external dust gauges and the HVAS monitoring stations indicate nickel dust was contained within the Port, due to effective industrial hygiene.

The overall value of community Dust Gauges has become extremely limited given that over 90% of all values are below detection for nickel in 2010. The Port may apply for a license amendment to remove sites from its license reporting that continually return values of nickel below detection.

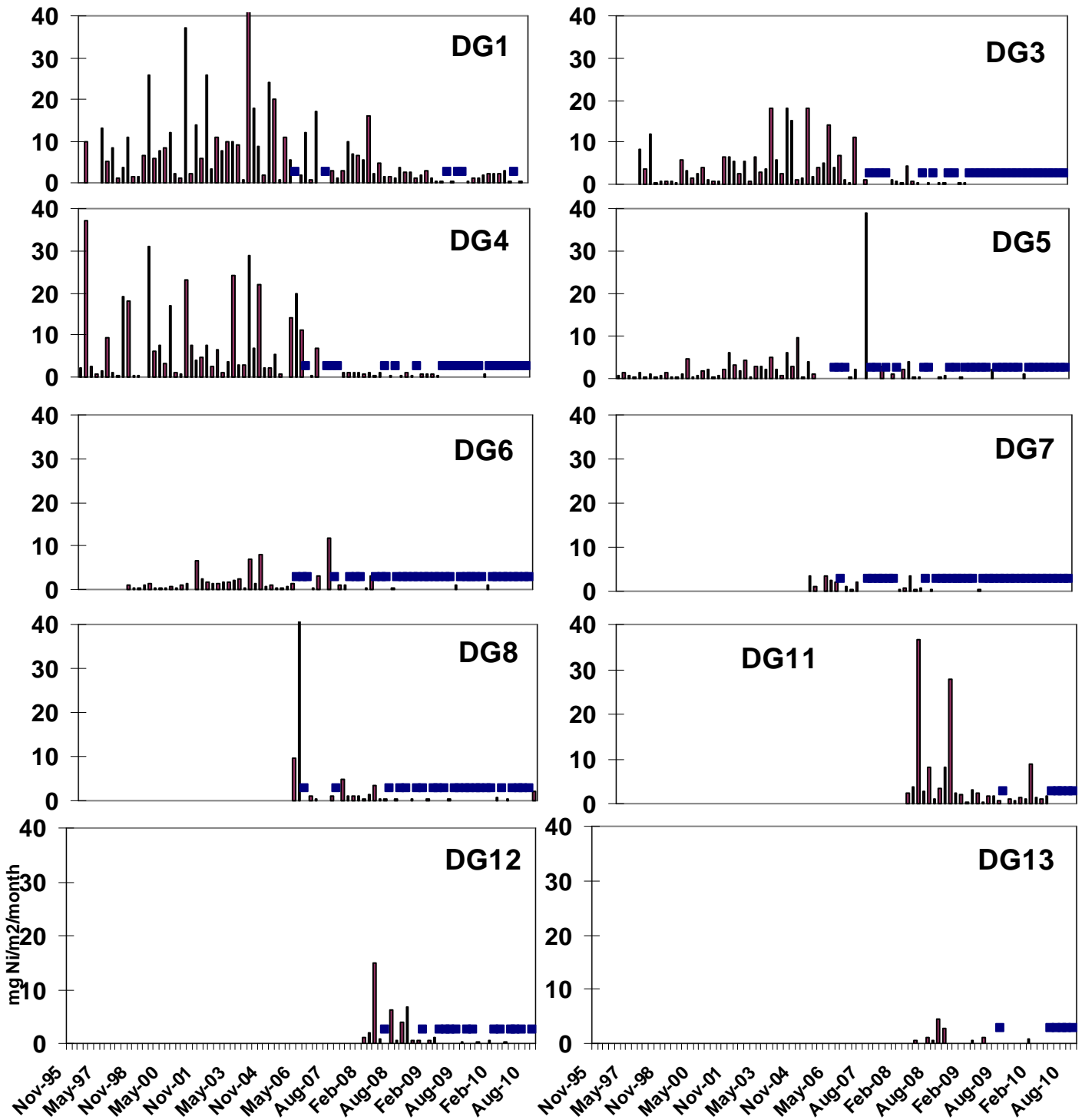


Figure 16: Nickel deposition rates at DG1 to DG13 to September 2010. Note: Total nickel is plotted which includes both soluble and insoluble nickel.

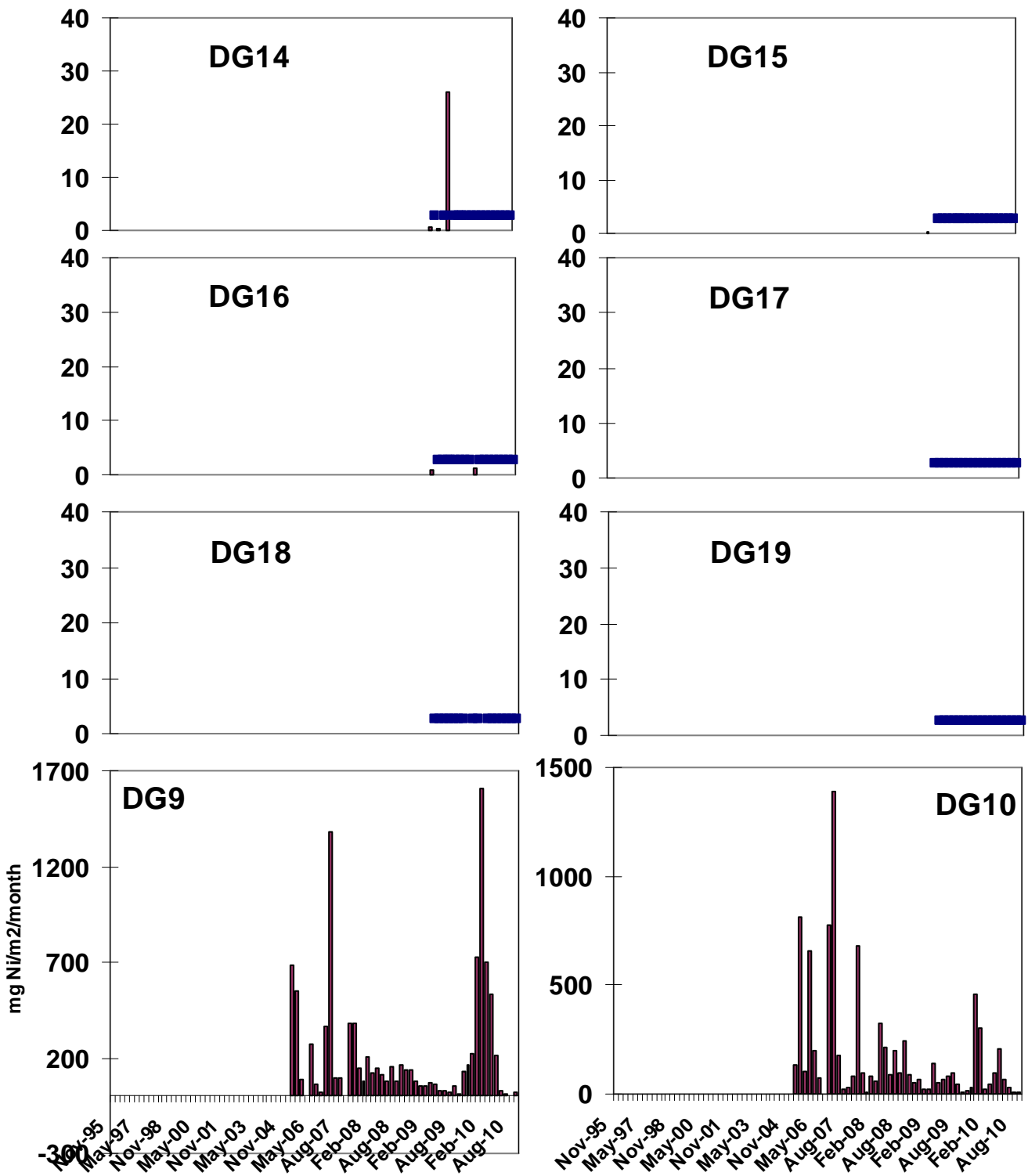


Figure 17: Nickel deposition rates at DG14 to DG19 and onsite DG9 and DG10 to September 2010

7.5.2 Iron

Iron deposition rates varied between a minimum of two and a maximum of 18 mg/m²/month for all community deposition gauges for the reporting period (refer to **Figures 18 and 19**). This is with exception to DG1 that had significantly higher (P=0.05) iron deposition rates (95% CI=26 to 39 mg/m²/month) than the other community gauges. The source of this higher iron level is possibly the nickel concentrate and iron ore handling operations of the Port, but may also be due to other sources as iron is a widespread element in the environment.

Comparison of the iron deposition rates to the previous year does not indicate many significant changes. DG12 shows a significant decline (P=0.05) in iron since the previous year, but considering the number of gauges, we would expect at least one significant trend (P=0.05 or one in twenty) due to chance alone.

The deposition of iron at the onsite gauges DG9 and DG10, like sulphur, were highly correlated to nickel deposition rates. The Leinster TSF2 nickel concentrate that was being exported contains a significant percentage of iron pyrrhotite and iron pyrite. An extremely significant linear correlation between nickel and iron measurements at DG9 returned an Rsq value 0.96 for 24 monthly data points between 2008 and 2010.

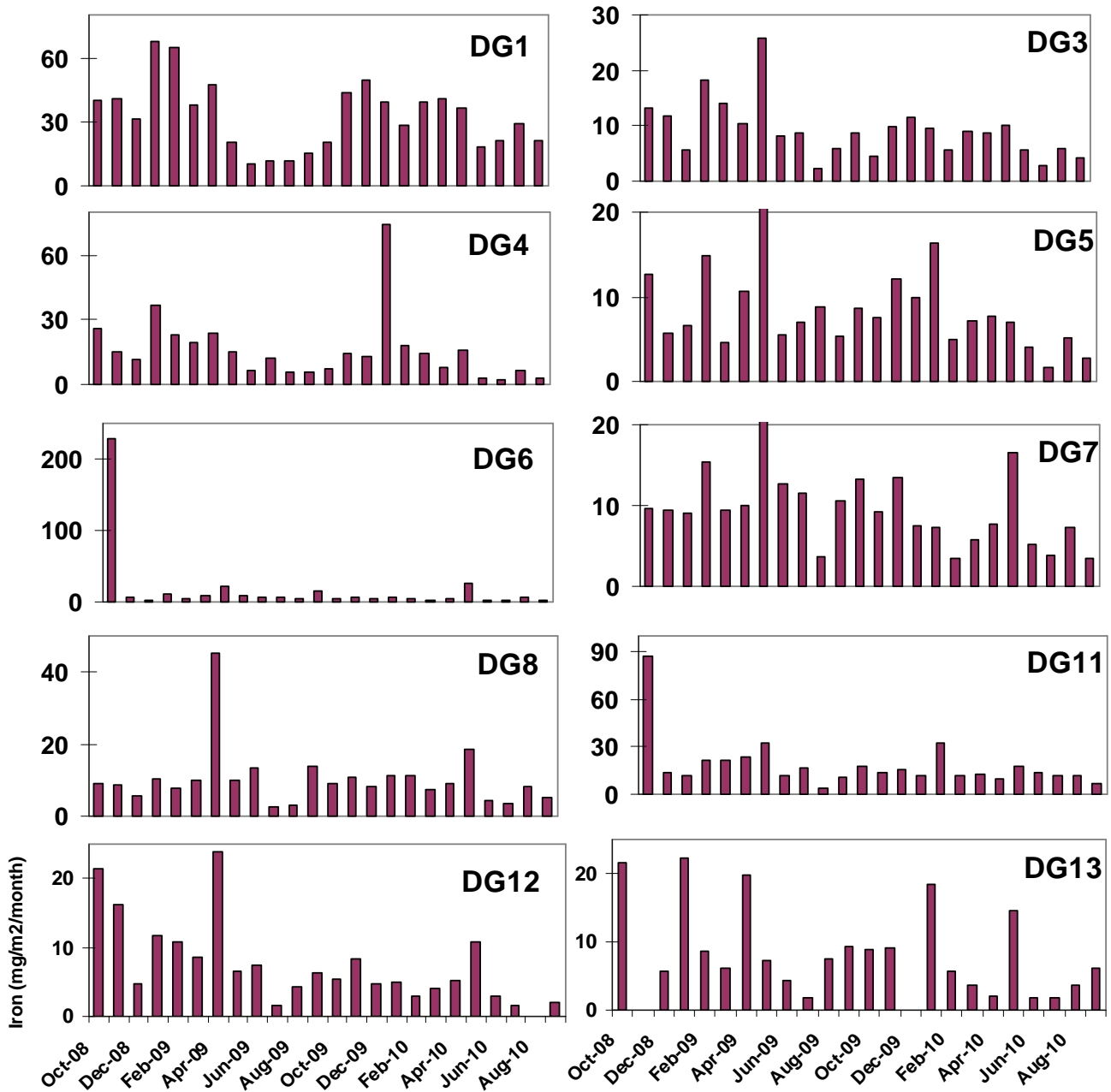


Figure 18: Iron deposition rates at DG1 to DG13 to September 2010

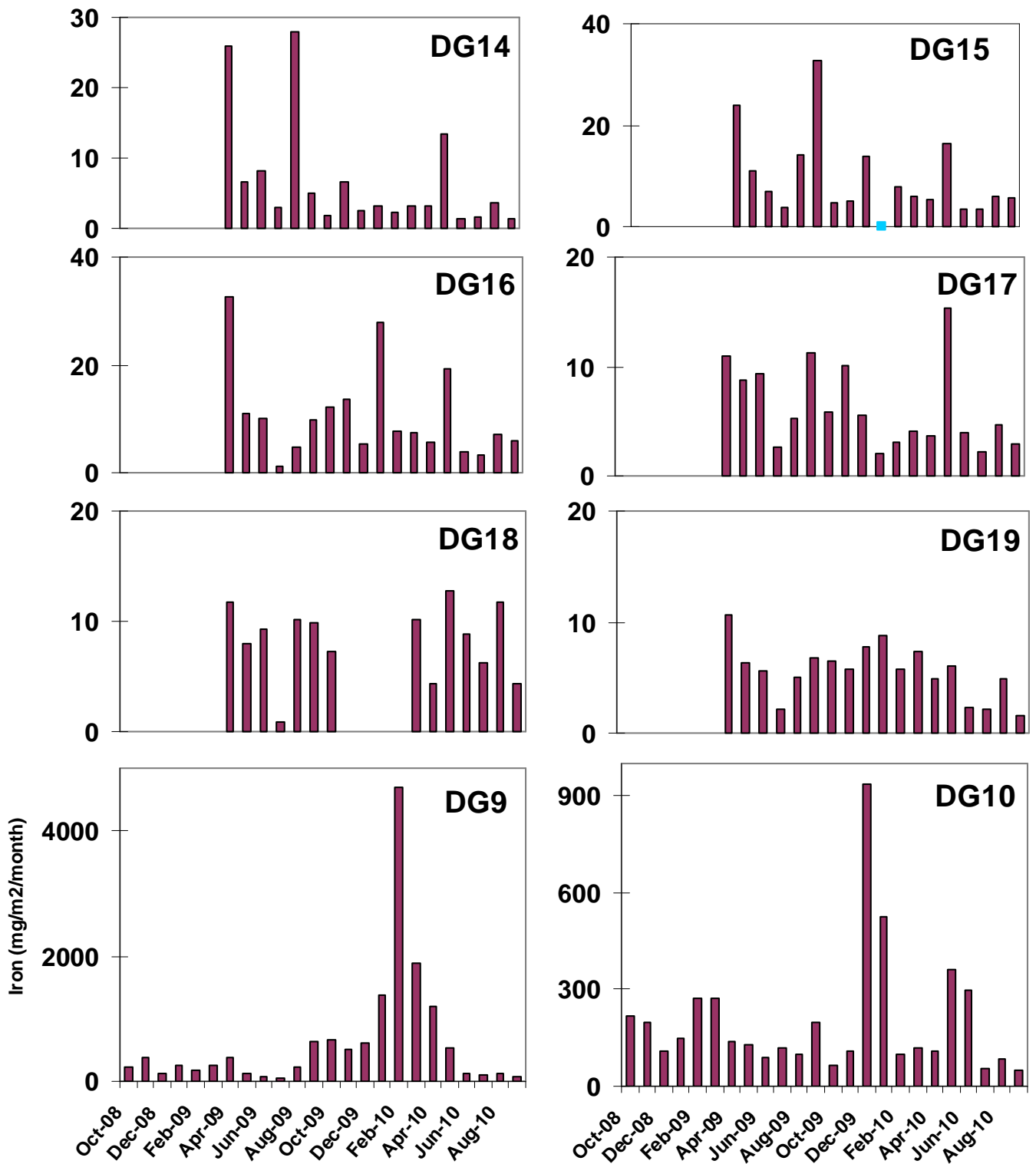


Figure 19: Iron deposition rates at DG14 to DG19 and onsite DG9 and DG10 to September 2010

7.6 Rainwater Tank Monitoring

Eleven residential rainwater tanks are monitored on a monthly basis, these tanks are located at DG3, DG5, DG8, DG11, DG12, and DG14 to DG19 (Figure 3). Raw data for the rainwater and co-located dust deposition gauges are presented in **Appendix G**.

Results from the rainwater tank monitoring are compared with the Australian Drinking Water Guidelines (ADWG) and the World Health Organisation (WHO) Guidelines.

- The ADWG for nickel (0.02 mg/L) was exceeded 16 times within the reporting period;
 - 11 of these being at DG8 and DG11;
 - Two occurred at DG12
 - One occurred at each of DG3 and DG18
- The ADWG for lead (0.01 mg/L) was exceeded 18 times within the reporting period;
 - 12 of these being at DG11 which exceeded in every monthly sample;
 - DG3, DG12, DG17, DG19, DG8a and DG8b all failed once each in the reporting period.
- The WHO drinking water guideline for iron (2 mg/L) was exceeded twice for the reporting period at DG8 and DG12;
- There are no assessment criteria for sulfur in drinking water. At all sites sulfur concentrations were less than 4 mg/L.

Exceedences at DG11 (lead)

As reported previously in the October 2009 report, the concentrations measured at DG11 (lead) may be due to localised sources of contamination within the tanks or the roofs. Lead at DG11 may be from lead flashing on the roof. The Esperance Cleanup Recovery Project is conducting isotopic analyses to determine if the lead is from the Magellan mine.

The Esperance Cleanup Recovery Project replaced the rainwater tank at DG8 in mid-July 2010. This is the likely explanation to the reductions in nickel and lead levels.

The Port has proposed to relocate DG11. Proposed locations to the DEC include either 5 or 7 Smith Street. However, continued monitoring of lead is becoming redundant since monitoring results for the last two years do not substantiate any environmental risk or continued significant emissions from the Port.

There is a general lack of correlation between the dust gauges and rainwater tanks across all locations (refer to **Figure 20**). This is based on data from the 2008/2009 annual report in addition to the 2009/2010 report. This indicates inputs of airborne

metals are likely to be a minor source of metals within the rainwater tanks for all sites. Localised sources of nickel dominate measured concentrations of nickel in the rainwater tanks.

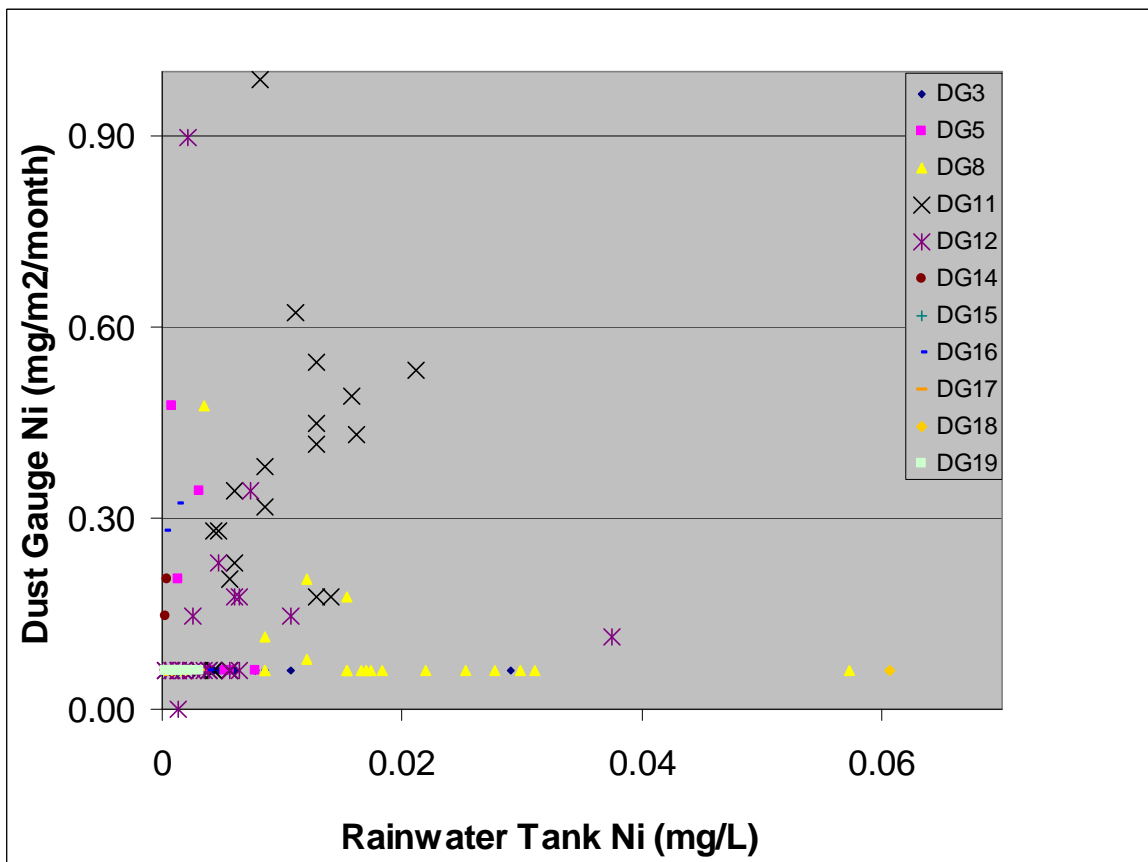


Figure 20: No relationship between Nickel in dust gauges and nickel in rainwater for measurements between 2008 and 2010

Some patterns of metal concentrations measured in the rainwater tanks may be explained by the following:

- potential difference in rainwater tank construction material (galvanized iron, concrete, etc.);
- differences in rainwater tank design may affect the sampling;
- differences in roof materials and roof construction methods (e.g. lead flashing) may affect concentrations;
- the ability and extent to which a tank may be ‘flushed’;
- cleanliness of the roof and gutters before sampling; and
- Rate of water change in each tank.

Huston *et al* (2009) quantified the impact of dry and wet atmospheric pollution deposition on rainwater tank contaminant concentrations in the greater Brisbane area. The deposition samplers were based on the Australian standard for dust

deposition (AS/NZS 3580.10.2 2003). Thirteen locations with concurrent dust deposition and rainwater tank monitoring were sampled for a period of one year. The study used the ADWG recommended levels as a maximum limit to assess potential health risk of consuming collected deposition. It was found that:

- lead concentrations in the deposition samples exceeded the ADWG in 10.3% of the samples;
- lead concentration in the rainwater tanks exceeded the ADWG in 14.2% of the samples;
- the highest lead concentration measured in a rainwater tank was 0.0847 mg/L exceeding the ADWG of 0.01 mg/L by more than eight times; and
- The bulk deposition concentrations were always less than the tank water concentrations.

Huston's study concluded that:

- roof tile lead flashing, old paint, lead-stabilized PVC drain pipes are often act a source of lead;
- atmospheric deposition may contribute to contaminants in rainwater in urban environments but the quality of water in a tank may not reflect that of the rainwater.

8. CONCLUSIONS

Compared to the previous year, offsite emissions of nickel in TSP have declined. The number of nickel values exceeding $0.03 \mu\text{g}/\text{m}^3$ in TSP declined from 17 in 2008/09 to zero in 2009/10. The maximum value of nickel in TSP was over five fold below the license limit for nickel. There were also reductions in nickel deposition rates at all community dust gauges. The reduction in offsite nickel dust is in contrast to increases in localised nickel dust within the Port at DG9 and DG10. This reflects the Ports' effective industrial hygiene to contain these emissions and drive a reduction in offsite nickel emissions. The effectiveness of the shiploading protocol for nickel has been demonstrated, raising the question of why it is necessary to submit shiploading reports for every nickel ship.

The number of TSP exceedances fell from 27 in 2008/09 to 13 in 2009/10. Twelve of the 13 TSP dust exceedances were due to activity on berth 1 that is under the direct control of CBH. The Port, DEC and CBH are planning and implementing actions to reduce dust emissions from both berth 1 activity and dust emissions from the CBH grain storage shed.

PM10 concentrations remain similar to last year with six exceedances in 2008/09 compared to five in 2009/10. Of these 11 exceedances, nine are due to climatic factors or inland activities.

Nickel and lead concentrations in community rainwater tanks were dominated by local sources of these metals between the roof and the rainwater tank. These contaminants have no correlation to levels measured in dust over the last two years. This raises questions on the purpose of continuing this study.

In 2009/10, the dust deposition rates recorded in the dust gauges had seven exceedances of the NSW EPA assessment criterion, compared to 16 in the 2008/09 reporting period. Note that this assessment criterion has been adopted for comparative purposes only and is not enforceable in WA. The majority of these exceedances were at DG4 explained by the predominant SE winds blowing sand from the beach located less than 50m away from this dust gauge. The increases in general dust were not associated with increased levels of nickel and iron. In 2009/10 declines in dust levels at DG6, DG11 and DG12 also appear to be unrelated to nickel and iron.

9. REFERENCES

Huston, R, Chan, YC, Gardner, T, Shaw, G & Chapman, H 2009, 'Characterisation of atmospheric deposition as a source of contaminants in urban rainwater tanks', Water Research, article in press.

NHMRC/NRMMC, 2004. National Health and Medical Research Council and Natural Resource Management Ministerial Council 2004, Australian Drinking Water Guidelines, viewed 30/10/2010,
<http://www.nhmrc.gov.au/publications/synopses/eh19syn.htm>

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WHO 2006, Guidelines for drinking-water quality - first addendum to third edition, vol 1, World Health Organisation Press, Geneva, Switzerland.

APPENDIX A

EPSL SHIPPING REGISTER

Ship Name	Date in	Time in	Date out	Time Out	Commodity	Tonnage	Import/Export	Berth
Cape Africa	8/10/2009	2100	11/10/2009	1206	Iron Ore Fines/Lumps	146943	Export	Berth 3
Furness Melbourne	9/10/2009	1850	11/10/2009	825	Nickel Concentrate	8007	Export	Berth 2
Ocean Spirit	11/10/2009	1400	13/10/2009	750	Iron Ore Fines	72145	Export	Berth 3
Kyla Fortune	13/10/2009	1154	16/10/2009	818	Iron Ore Fines/Lumps	165000	Export	Berth 3
Castillo DeGormaz	21/10/2009	1100	24/10/2009	212	Iron Ore Fines/Lumps	151436	Export	Berth 3
Torm Pacific	24/10/2009	425	25/10/2009	1435	Iron Ore Fines/Lumps	75406	Export	Berth 3
Singelgracht	24/10/2009	800	28/10/2009	1010	Nickel in Bulker Bags	13288	Export	Berth 2
Wei Chi	29/10/2009	900	30/10/2009	106	Gas Oil	6691	Import	Berth 2
Sho chang hai	29/10/2009	1110	30/10/2009	1530	Wheat	17961	Export	Berth 1
Bai Chi	31/10/2009	710	31/10/2009	1810	Gas Oil	22909	Import	Berth 2
Pan Bless	2/11/2009	642	2/11/2009	1957	wheat	12680	Export	Berth 1
CHS Star	2/11/2009	1212	5/11/2009	650	iron ore fines	147026	Export	Berth 3
STX Young Endeavour	3/11/2009	400	7/11/2009	600	-	0	-	Berth 1
Bright Ocean 2	8/11/2009	936	9/11/2009	1606	lupins	19205	Export	Berth 1
Union Ranger	9/11/2009	1513	12/11/2009	1120	nickel concentrate	8886	Export	Berth 2
CIC Pride	11/11/2009	559	14/11/2009	805	Iron Ore Fines/Lumps	169190	Export	Berth 3
British Liberty	15/11/2009	2112	16/11/2009	906	gas oil	3379	Import	Berth 2
Cape Enterprise	22/11/2009	512	25/11/2009	1204	iron ore lump	154482	Export	Berth 3
Dong Thanh	26/11/2009	530	1/12/2009	1650	barley	25750	Export	Berth 1
Jin Cang	26/11/2009	1216	27/11/2009	753	Nickel concentrate	8796	Export	Berth 2
Leonardo Lembo	27/11/2009	130	28/11/2009	1424	iron ore lump	73510	Export	Berth 3
Italic G	28/11/2009	1616	30/11/2009	600	iron ore fines	90443	Export	Berth 3
Golden Heiwa	30/11/2009	640	1/12/2009	1500	iron ore lump	71171	Export	Berth 3
ASASHIO MARU	5-Dec-09	23:05	7-Dec-09	10:15	GAS OIL	25618	IMPORT	Berth 2
PACIFIC ROYAL	6-Dec-09	16:12	7-Dec-09	12:54	WHEAT	7210	EXPORT	Berth 1
FURNESS AUSTRALIA	10-Dec-09	12:42	12-Dec-09	9:12	NIL	0	N/A	Berth 2
MOUNT TRAVERS	12-Dec-09	13:55	13-Dec-09	17:45	D.A.P.	1037	IMPORT	Berth 2
					MMAP	3005		
GREAT SUNRISE	12-Dec-09	16:00	15-Dec-09	10:30	IRON ORE LUMP	149283	EXPORT	Berth 3
POLLUX	13-Dec-09	11:50	15-Dec-09	4:12	BARLEY	27300	EXPORT	Berth 1
FURNESS AUSTRALIA	13-Dec-09	19:06	15-Dec-09	16:00	NICKEL CONCENTRATE	12573	EXPORT	Berth 2
F.D.LUIGI D'AMATO	16-Dec-09	8:36	19-Dec-09	14:06	Iron Ore Fines/Lumps	174696	EXPORT	Berth 3
CHS BRIGHT	19-Dec-09	16:06	22-Dec-09	1:36	Iron Ore Fines/Lumps	147480	EXPORT	Berth 3
ARCHANGELGRACHT	21-Dec-09	19:50	28-Dec-09	9:10	NICKEL IN BULKER BAGS	10827	EXPORT	Berth 2
GIOVANNI	22-Dec-09	13:00	23-Dec-09	20:24	IRON ORE LUMP	70232	EXPORT	Berth 3
ETERNAL POWER	23-Dec-09	22:24	27-Dec-09	7:48	IRON ORE FINES	94617	EXPORT	Berth 3
JEAN LD	27-Dec-09	9:42	30-Dec-09	12:10	Iron Ore Fines/Lumps	168341	EXPORT	Berth 3
COREOCEAN OL	28-Dec-09	10:26	30-Dec-09	17:46	NICKEL CONCENTRATE	9966	EXPORT	Berth 2
MAHA AARTI	29-Dec-09	11:52	4-Jan-10	4:24	CANOLA	57750	EXPORT	Berth 1
British Fidelity	2-Jan-10	1758	3-Jan-10	911	gas oil	4909	Import	Berth 2
Voge Renate	4-Jan-10	606	6-Jan-10	600	canola	20780	Export	Berth 1
Aquabreeze	5-Jan-10	455	8-Jan-10	515	iron ore fines	168445	Export	Berth 3
MCP Goteborg	5-Jan-10	718	7-Jan-10	642	containers empty	626	Import	Berth 2
					Nickel Containers	1060		

EPSL – ANNUAL AMBIENT AIR QUALITY MONITORING REPORT – 1 OCTOBER 2009 to 30 SEPTEMBER 2010

STX Pioneer	7-Jan-10	810	8-Jan-10	1700	urea	2000	Import	Berth 2
ID Black Sea	8-Jan-10	657	10-Jan-10	1220	wheat	26512	Export	Berth 1
STX Edelweiss	12-Jan-10	1905	14-Jan-10	1155	barley	16107	Export	Berth 1
Fonthinda Naree	12-Jan-10	2054	14-Jan-10	1430	nickel concentrate	8684	Export	Berth 2
Pan Bless	14-Jan-10	1535	15-Jan-10	545	barley	5556	Export	Berth 1
Merit Land	8-Jan-10	930	11-Jan-10	857	iron ore fines	145244	Export	Berth 3
Topaz Express	14-Jan-10	1930	16-Jan-10	1012	Gas oil	24951	Import	Berth 1
Pharos SW	15-Jan-10	714	18-Jan-10	1529	canola	28814	Export	Berth 1
Admiralengracht	16-Jan-10	1136	19-Jan-10	2000	nickel in bulker bags	8377	Export	Berth 2
JA Frontier	18-Jan-10	1630	21-Jan-10	2000	wheat	15520	Export	Berth 1
Aster K	23-Jan-10	454	25-Jan-10	1436	barley	29870	Export	Berth 1
F.D. Luigi D'Amato	24-Jan-10	1136	27-Jan-10	1010	Iron Ore Fines/Lumps	175643	Export	Berth 3
Anangel Ambition	27-Jan-10	1156	30-Jan-10	803	iron ore fines	159401	Export	Berth 3
South Fortune	28-Jan-10	825	31-Jan-10	2124	barley	6000	Export	Berth 1
					canola	25581		
Fonthinda Naree	31-Jan-10	1842	3-Feb-10	1824	nickel concentrate	13319	Export	Berth 2
FONTHIDA NAREE	31-Jan-10	18:42	3-Feb-10	18:24	NICKEL CONCENTRATE	13319	EXPORT	Berth 2
AZALEA ISLAND	3-Feb-10	16:54	5-Feb-10	13:56	IRON ORE LUMP	105090	EXPORT	Berth 3
MCP BLANKENESE	6-Feb-10	18:48	8-Feb-10	5:06	CONTAINERS EMPTY	647	IMPORT	Berth 2
					Nickel Containers	6980	EXPORT	
AMPHION	8-Feb-10	8:25	9-Feb-10	6:00	BARLEY	14152	EXPORT	Berth 1
CHS STAR	10-Feb-10	7:30	12-Feb-10	19:21	IRON ORE FINES	145860	EXPORT	Berth 3
BRITISH FIDELITY	10-Feb-10	10:20	11-Feb-10	5:00	GAS OIL	8092	IMPORT	Berth 2
COPPER QUEEN ATHENA (CRUISE SHIP)	11-Feb-10	8:05	12-Feb-10	11:55	BARLEY	21795	EXPORT	Berth 1
	12-Feb-10	6:48	12-Feb-10	14:26	(NIL) CRUISE VESSEL	0		Berth 2
NORD STEEL	12-Feb-10	21:06	15-Feb-10	23:54	Iron Ore Fines/Lumps	177623	EXPORT	Berth 3
MANDARIN EAGLE	16-Feb-10	7:50	17-Feb-10	20:14	BARLEY	31226	EXPORT	Berth 1
STELLA JABBAH	18-Feb-10	13:18	20-Feb-10	14:20	WHEAT	33915	EXPORT	Berth 1
FRONTIER ANGEL	18-Feb-10	15:20	20-Feb-10	6:00	NICKEL CONCENTRATE	10894	EXPORT	Berth 2
EL CONDOR PASA	20-Feb-10	7:24	20-Feb-10	19:08	NICKEL CONCENTRATE	5614	EXPORT	Berth 2
MINERAL CHINA	20-Feb-10	13:07	23-Feb-10	12:40	Iron Ore Fines/Lumps	167166	EXPORT	Berth 3
AMSIR	20-Feb-10	15:57	26-Feb-10	22:54	PEAS	10046	EXPORT	Berth 1
BLACK FOREST	21-Feb-10	6:48	23-Feb-10	13:50	UREA	6307	IMPORT	Berth 2
FEI CHI	23-Feb-10	15:20	25-Feb-10	15:00	GAS OIL	29416	IMPORT	Berth 2
EVER BLOSSOM	25-Feb-10	9:36	26-Feb-10	18:15	IRON ORE LUMP	71110	EXPORT	Berth 3
CLIPPER KIKUSHIO	25-Feb-10	16:45	26-Feb-10	21:48	UREA	4216	IMPORT	Berth 2
FILOMENA L	1-Mar-10	7:00	2-Mar-10	12:00	BARLEY	20003	EXPORT	Berth 1
AURORA D	2-Mar-10	13:42	3-Mar-10	17:12	CANOLA	19123	EXPORT	Berth 1
MCP GOTEBORG	2-Mar-10	15:36	4-Mar-10	14:54	CONTAINERS EMPTY	921	IMPORT	Berth 2
					Nickel Conc. (cont)	6976	EXPORT	Berth 2
CLIPPER EMPEROR	3-Mar-10	18:48	6-Mar-10	10:00	WHEAT	43848	EXPORT	Berth 1
HARMONY CARRIER	8-Mar-10	7:00	11-Mar-10	7:15	IRON ORE FINES	151208	EXPORT	Berth 3
VOSCO STAR	9-Mar-10	6:55	10-Mar-10	21:22	BARLEY	14407	EXPORT	Berth 1
EMERALD	10-Mar-10	22:56	16-Mar-10	14:36	BARLEY	39800	EXPORT	Berth 1
E.R.BAVARIA	11-Mar-10	12:25	14-Mar-10	6:00	IRON ORE LUMP	149283	EXPORT	Berth 3
RUBY STAR	14-Mar-10	13:12	15-Mar-10	6:00	MOP	1426	IMPORT	Berth 2

EPSL – ANNUAL AMBIENT AIR QUALITY MONITORING REPORT – 1 OCTOBER 2009 to 30 SEPTEMBER 2010

BAY RANGER	15-Mar-10	8:00	16-Mar-10	11:40	NICKEL CONCENTRATE	10609	EXPORT	Berth 2
TIAN SHENG 17	16-Mar-10	13:05	18-Mar-10	5:47	IRON ORE FINES	92833	EXPORT	Berth 1
FREE KNIGHT	16-Mar-10	16:30	17-Mar-10	17:00	BARLEY	10300	EXPORT	Berth 1
HONG YU CARIBBEAN FRONTIER	17-Mar-10	18:09	21-Mar-10	22:58	BARLEY	60500	EXPORT	Berth 1
ANEMONE	18-Mar-10	2:48	18-Mar-10	21:06	NICKEL CONCENTRATE	9096	EXPORT	Berth 2
	22-Mar-10	6:20	23-Mar-10	17:00	BARLEY	27153	EXPORT	Berth 1
ATLANTIC FRONTIER	23-Mar-10	10:45	24-Mar-10	18:24	GAS OIL	18813	IMPORT	Berth 2
DD VICTORY	23-Mar-10	18:00	25-Mar-10	16:05	WHEAT	23485	EXPORT	Berth 1
ROYAL OASIS	24-Mar-10	7:00	26-Mar-10	22:24	Iron Ore Fines/Lumps	158553	EXPORT	Berth 3
UGLJAN	24-Mar-10	19:48	26-Mar-10	5:00	UREA	3206	IMPORT	Berth 2
VOLENDAM	26-Mar-10	7:55	26-Mar-10	17:55	(NIL) CRUISE VESSEL	0		Berth 2
GOYA	27-Mar-10	0:10	28-Mar-10	12:18	IRON ORE LUMP	70194	EXPORT	Berth 3
CAPE HOPE	28-Mar-10	14:00	31-Mar-10	12:55	IRON ORE LUMP	168543	EXPORT	Berth 3
TIAN LU HAI	1-Apr-10	16:20	4-Apr-10	10:05	IRON ORE FINES/LUMPS	169349	EXPORT	Berth 3
LOWLANDS BEILUN	6-Apr-10	7:06	9-Apr-10	5:18	IRON ORE FINES/LUMPS	165000	EXPORT	Berth 3
TRI ARROWS	6-Apr-10	14:18	7-Apr-10	21:55	CANOLA	25326	EXPORT	Berth 1
FRISIA INN	6-Apr-10	23:06	9-Apr-10	7:12	CONTAINERS EMPTY	1052	IMPORT	Berth 2
					Nickel Conc. (cont)	11042	EXPORT	Berth 2
EQUATOR	9-Apr-10	8:24	10-Apr-10	4:50	NICKEL CONCENTRATE	8832	EXPORT	Berth 2
HORTA	10-Apr-10	7:00	16-Apr-10	6:10	IRON ORE FINES	164806	EXPORT	Berth 3
BRITISH LIBERTY	11-Apr-10	13:36	12-Apr-10	7:12	GAS OIL	6917	IMPORT	Berth 2
OCEAN MINERVA	12-Apr-10	6:00	13-Apr-10	23:45	BARLEY	31675	EXPORT	Berth 1
TIMARU STAR	12-Apr-10	10:00	14-Apr-10	15:30	MAPSZC	5027	IMPORT	Berth 2
					MONO-AMMONIUM PHOSPHATE	3510	IMPORT	Berth 2
TOUCAN ARROW	14-Apr-10	17:12	16-Apr-10	12:00	D.A.P.	2176	IMPORT	Berth 2
					MONO-AMMONIUM PHOSPHATE	2328	IMPORT	Berth 2
WADOWICE II	19-Apr-10	13:00	21-Apr-10	19:50	NICKEL CONCENTRATE	10579	EXPORT	Berth 2
NORD SHANGHAI	19-Apr-10	16:50	21-Apr-10	0:08	BARLEY	15559	EXPORT	Berth 1
CAPE LAMBERT	20-Apr-10	12:18	23-Apr-10	7:12	IRON ORE FINES/LUMPS	164996	EXPORT	Berth 3
LIGARU	21-Apr-10	15:05	21-Apr-10	23:45	CANOLA	8666	EXPORT	Berth 1
GOURNIATI	22-Apr-10	16:18	25-Apr-10	20:00	WHEAT	26777	EXPORT	Berth 1
CSC PEACE	25-Apr-10	9:12	26-Apr-10	21:12	GAS OIL	24984	IMPORT	Berth 2
TIAN BAO HAI	26-Apr-10	3:15	28-Apr-10	20:10	IRON ORE FINES/LUMPS	165000	EXPORT	Berth 3
CLIPPER KIKUSHIO	30-Apr-10	6:52	1-May-10	14:50	UREA	3600	IMPORT	Berth 2
ELEFThERIA	2-May-10	14:27	4-May-10	6:08	IRON ORE LUMP	74131	EXPORT	Berth 3
BULK TITAN	7-May-10	13:06	11-May-10	11:06	D.A.P.	2885	IMPORT	Berth 2
					MONO-AMMONIUM PHOSPHATE	2561	IMPORT	Berth 2
					NPK	987	IMPORT	Berth 2
					NPS	1647	IMPORT	Berth 2
ANANGEL VISION	9-May-10	17:44	12-May-10	9:18	IRON ORE FINES/LUMPS	165000	EXPORT	Berth 3
MAHA JACQUELINE	11-May-10	12:10	14-May-10	15:48	BARLEY	45173	EXPORT	Berth 1
GRANDE SOLARIS	12-May-10	11:20	15-May-10	19:00	IRON ORE LUMP	151150	EXPORT	Berth 3
E.R. BERGAMO	14-May-10	19:06	15-May-10	21:30	NICKEL CONCENTRATE	9983	EXPORT	Berth 2

EPSL – ANNUAL AMBIENT AIR QUALITY MONITORING REPORT – 1 OCTOBER 2009 to 30 SEPTEMBER 2010

SVETI NIKOLA	16-May-10	6:40	17-May-10	16:50	BARLEY	22711	EXPORT	Berth 1
RANUNCULUS	19-May-10	14:00	21-May-10	14:25	NICKEL CONCENTRATE	9821	EXPORT	Berth 1
CRIMSON FOREST	21-May-10	5:42	24-May-10	15:54	BARLEY IRON ORE	28552	EXPORT	Berth 1
BULK PEACE	21-May-10	7:45	25-May-10	6:18	FINES/LUMPS	82500	EXPORT	Berth 3
SEA AMITY	24-May-10	17:36	26-May-10	18:30	WHEAT	26915	EXPORT	Berth 1
DD VICTORY	26-May-10	19:40	28-May-10	19:45	CANOLA	21000	EXPORT	Berth 1
FRISIA ALLER	29-May-10	13:12	31-May-10	17:24	CONTAINERS EMPTY	913	IMPORT	Berth 2
					Nickel Conc. (cont) IRON ORE	7390	EXPORT	Berth 2
CAPE SUN	30-May-10	8:15	2-Jun-10	2:20	FINES/LUMPS	165000	EXPORT	Berth 3
BOGASARI EMPAT CHANG HANG ZUAN SHI	30-May-10	10:21	9-Jun-10	14:08	WHEAT	32601	EXPORT	Berth 1
	31-May-10	18:30	1-Jun-10	4:12	NIL	0		Berth 2
FRISIA ALLER CHANG HANG ZUAN SHI	1-Jun-10	5:42	2-Jun-10	1:18	Nickel Conc. (cont)	4589	EXPORT	Berth 2
	2-Jun-10	4:05	3-Jun-10	10:00	GAS OIL IRON ORE	21531	IMPORT	Berth 2
IRON KING	2-Jun-10	6:12	4-Jun-10	23:03	FINES/LUMPS	158705	EXPORT	Berth 3
CARIBBEAN ID	3-Jun-10	11:00	6-Jun-10	19:12	UREA	9981	IMPORT	Berth 2
GREAT FRIENDSHIP	7-Jun-10	6:42	13-Jun-10	22:45	PEAS IRON ORE	21500	EXPORT	Berth 1
TIAN LI HAI	13-Jun-10	7:15	15-Jun-10	15:10	FINES/LUMPS	144667	EXPORT	Berth 3
JIN CANG	18-Jun-10	5:15	19-Jun-10	14:25	NICKEL CONCENTRATE IRON ORE	14158	EXPORT	Berth 2
BAO SHAN	21-Jun-10	9:15	24-Jun-10	1:54	FINES/LUMPS	165000	EXPORT	Berth 3
CHANG HANG FEI CUI	25-Jun-10	1:07	26-Jun-10	17:46	GAS OIL IRON ORE	27577	IMPORT	Berth 2
CAPE PROVIDENCE	27-Jun-10	7:32	30-Jun-10	8:00	FINES/LUMPS	82500	EXPORT	Berth 3
RATU TEMBAGA	29-Jun-10	15:35	30-Jun-10	7:00	NIL	0		Berth 2
AS FRANCONIA	30-Jun-10	9:20	3-Jul-10	10:05	CONTAINERS EMPTY	2036	IMPORT	Berth 2
					Nickel Conc. (cont)	10739	EXPORT	Berth 2
RUBIN LAUREL	30-Jun-10	10:05	3-Jul-10	6:30	IRON ORE LUMP	164940	EXPORT	Berth 3
NAVISION ALLIANCE	1-Jul-10	6:54	6-Jul-10	6:20	CANOLA PEAS	5500	EXPORT	Berth 1
					16270	EXPORT	Berth 1	
RATU TEMBAGA	3-Jul-10	11:45	5-Jul-10	13:25	NICKEL CONCENTRATE	6993	EXPORT	Berth 2
TIWAI POINT	5-Jul-10	15:42	6-Jul-10	21:54	UREA	3309	IMPORT	Berth 2
RIBBON	6-Jul-10	8:12	9-Jul-10	16:06	CANOLA WHEAT	33000	EXPORT	Berth 1
					31964	EXPORT	Berth 1	
BRITISH LIBERTY	6-Jul-10	23:42	7-Jul-10	16:06	GAS OIL	3472	IMPORT	Berth 2
					UNLEADED PETROL	1097	IMPORT	Berth 2
GLOBAL VICTORY	7-Jul-10	1:24	9-Jul-10	15:18	IRON ORE FINES IRON ORE	146864	EXPORT	Berth 3
IRON QUEEN	9-Jul-10	18:00	12-Jul-10	17:00	FINES/LUMPS	158055	EXPORT	Berth 3
COSCO WUYISHAN	9-Jul-10	21:05	12-Jul-10	5:10	WHEAT	30440	EXPORT	Berth 1
GADWALL	12-Jul-10	6:35	14-Jul-10	13:40	WHEAT	27374	EXPORT	Berth 1
MCP GOTEBORG	15-Jul-10	19:54	17-Jul-10	3:42	CONTAINERS EMPTY IRON ORE	1244	IMPORT	Berth 2
SA FORTIUS	18-Jul-10	16:40	21-Jul-10	9:08	FINES/LUMPS	165000	EXPORT	Berth 3
NEW LAUREL	21-Jul-10	10:15	24-Jul-10	10:55	BARLEY LUPINS	17647	EXPORT	Berth 1
					11797	EXPORT	Berth 1	
MCP GOTEBORG	26-Jul-10	17:12	28-Jul-10	3:42	Nickel Conc. (cont)	6970	EXPORT	Berth 2
GREAT SUNRISE	30-Jul-10	7:50	1-Aug-10	22:00	IRON ORE LUMP	154643	EXPORT	Berth 3

EPSL – ANNUAL AMBIENT AIR QUALITY MONITORING REPORT – 1 OCTOBER 2009 to 30 SEPTEMBER 2010

NEW SPIRIT	2-Aug-10	8:54	5-Aug-10	13:54	UREA	10215	IMPORT	Berth 2
OCEAN GLOBE	5-Aug-10	14:55	7-Aug-10	6:15	GAS OIL	29096	IMPORT	Berth 2
AEOLOS	7-Aug-10	7:30	9-Aug-10	15:45	UREA	5003	IMPORT	Berth 2
HEBEI FOREST	7-Aug-10	21:10	10-Aug-10	9:15	IRON ORE FINES/LUMPS	144967	EXPORT	Berth 3
HAL PATRIOT	9-Aug-10	17:24	12-Aug-10	6:54	CONTAINERS EMPTY	1250	IMPORT	Berth 2
					Nickel Conc. (cont)	12490	EXPORT	Berth 2
SHEKO SEA	12-Aug-10	8:50	15-Aug-10	21:30	WHEAT IRON ORE	57750	EXPORT	Berth 1
ALPHA MILLENNIUM	12-Aug-10	22:20	16-Aug-10	10:42	FINES/LUMPS IRON ORE	165000	EXPORT	Berth 3
GENEROUS	16-Aug-10	12:30	19-Aug-10	20:30	FINES/LUMPS	82500	EXPORT	Berth 3
MADRISA	17-Aug-10	16:54	19-Aug-10	15:48	CANOLA	21000	EXPORT	Berth 1
CHS BRIGHT	19-Aug-10	22:18	22-Aug-10	7:15	IRON ORE FINES/LUMPS	146855	EXPORT	Berth 3
CHINA PROGRESS	22-Aug-10	9:18	25-Aug-10	7:12	IRON ORE FINES/LUMPS	165000	EXPORT	Berth 3
BIRCH 4	23-Aug-10	6:18	25-Aug-10	13:00	WHEAT	24171	EXPORT	Berth 1
OPAL ADVANCE	26-Aug-10	3:05	27-Aug-10	15:00	CONTAINERS EMPTY	6	EXPORT	Berth 2
					Nickel Conc. (cont)	9973	EXPORT	Berth 2
OCEAN PHOENIX	28-Aug-10	9:18	29-Aug-10	20:18	WHEAT	33600	EXPORT	Berth 1
PACIFIC RAINBOW	30-Aug-10	11:36	30-Aug-10	23:24	GAS OIL	2488	IMPORT	Berth 2
					UNLEADED PETROL	1272	IMPORT	Berth 2
SEA GRACE	07-Sep-10	7:20	09-Sep-10	21:54	Iron Ore Fines/Lumps	153543	EXPORT	Berth 3
QUI CHI	11-Sep-10	18:50	13-Sep-10	17:10	GAS OIL	30027	IMPORT	Berth 2
MCP GOTEBOG	13-Sep-10	18:12	14-Sep-10	11:54	CONTAINERS EMPTY	1020	IMPORT	Berth 2
CAPE SOPHIA	15-Sep-10	6:20	16-Sep-10	22:25	IRON ORE LUMP	97378	EXPORT	Berth 3
HAL PENDANT	16-Sep-10	11:47	18-Sep-10	8:06	Nickel Conc. (cont)	9951	EXPORT	Berth 2
HEBEI GENIUS	17-Sep-10	1:15	19-Sep-10	11:12	IRON ORE FINES/LUMPS	145425	EXPORT	Berth 3
FRISIA ALLER	18-Sep-10	9:48	19-Sep-10	22:00	CONTAINERS EMPTY	1577	IMPORT	Berth 2
MARY F	20-Sep-10	0:15	21-Sep-10	20:10	WHEAT IRON ORE	40463	EXPORT	Berth 1
AEOLIAN GLORY	20-Sep-10	8:08	23-Sep-10	1:30	FINES/LUMPS	156226	EXPORT	Berth 3
ATLANTIC FRONTIER.	22-Sep-10	11:50	23-Sep-10	21:00	WHEAT	27181	EXPORT	Berth 1
EASTERN AMBER	24-Sep-10	1:23	24-Sep-10	22:29	NICKEL CONCENTRATE	5966	EXPORT	Berth 2
TAMPA	24-Sep-10	13:10	27-Sep-10	9:26	IRON ORE FINES/LUMPS	168138	EXPORT	Berth 3
FRISIA ALLER	28-Sep-10	19:06	30-Sep-10	13:57	CONTAINERS EMPTY	7	EXPORT	Berth 2
					Nickel Conc. (cont)	11949	EXPORT	Berth 2

APPENDIX B 24-HR DAILY AVERAGE PM10

Start Date	End Date	Site 1 PM10 (µg/m ³)	Site 2 PM10 (µg/m ³)	Site 3 PM10 (µg/m ³)	Site 4 PM10 (µg/m ³)	Daily port throughput (tonnes)
1-Oct-09	2-Oct-09	7.6	9	7.3	7.6	0
2-Oct-09	3-Oct-09	12.7	11.9	9.1	8.9	0
3-Oct-09	4-Oct-09	27	28.4	26.5	26.4	0
4-Oct-09	5-Oct-09	29.7	27.8	25.8	26.6	0
5-Oct-09	6-Oct-09	19.6	18.2	17.7	17.4	0
6-Oct-09	7-Oct-09	24.2	22.2	20.4	20.6	0
7-Oct-09	8-Oct-09	37.9	38.6	34.8	35	0
8-Oct-09	9-Oct-09	33.6	34	32.8	33.6	146943
9-Oct-09	10-Oct-09	37.8	36.7	36.1	36.3	8007
10-Oct-09	11-Oct-09	29.7	33.4	33.3	35.1	0
11-Oct-09	12-Oct-09	18.5	20.7	20.5	22	72145
12-Oct-09	13-Oct-09	17.2	19	20.8	21.8	0
13-Oct-09	14-Oct-09	14.6	16	16	13.2	165000
14-Oct-09	15-Oct-09	12.8	14.4	13.3	11.7	0
15-Oct-09	16-Oct-09	15.2	15.9	13.8	14.8	0
16-Oct-09	17-Oct-09	18.1	16.3	14.7	16	0
17-Oct-09	18-Oct-09	19	18.5	16.3	17.4	0
18-Oct-09	19-Oct-09	19.8	16.7	17.2	16.5	0
19-Oct-09	20-Oct-09	26.6	28.6	27.6	29.3	0
20-Oct-09	21-Oct-09	21.6	22.1	18.8	20.3	0
21-Oct-09	22-Oct-09	34	29.9	24.1	24.1	151436
22-Oct-09	23-Oct-09	31.9	31.7	26.8	26.5	0
23-Oct-09	24-Oct-09	31.8	29.5	24.5	25.3	0
24-Oct-09	25-Oct-09	32.5	24.4	21.6	21.2	88694
25-Oct-09	26-Oct-09	42.2	29.4	30.7	29.1	0
26-Oct-09	27-Oct-09	27.5	29.9	25	26.7	0
27-Oct-09	28-Oct-09	27.3	27.1	25.3	25.2	0
28-Oct-09	29-Oct-09	18.2	20.3	17.9	18.9	0
29-Oct-09	30-Oct-09	16.9	15.9	13.4	15.3	24652
30-Oct-09	31-Oct-09	20.8	15.5	15.5	15.2	0
31-Oct-09	1-Nov-09	20.8	22.6	20	21.5	22909
1-Nov-09	2-Nov-09	18.1	19.4	17.3	20.1	0
2-Nov-09	3-Nov-09	14.4	13.6	11.8	12.1	159706
3-Nov-09	4-Nov-09	10.7	10.4	9.3	8	0
4-Nov-09	5-Nov-09	16.1	12.3	10.7	10.3	0
5-Nov-09	6-Nov-09	22.8	23.2	20.6	18.9	0
6-Nov-09	7-Nov-09	23.7	26.2	22.4	23.1	0
7-Nov-09	8-Nov-09	17.6	19.1	16.9	16.9	0
8-Nov-09	9-Nov-09	10.5	9.3	6.6	6.5	19205
9-Nov-09	10-Nov-09	19.2	16	14.2	13.9	8886
10-Nov-09	11-Nov-09	40.8	39.1	35.5	36	0
11-Nov-09	12-Nov-09	32.8	32.9	28	26.9	169190
12-Nov-09	13-Nov-09	18.1	19.7	16.9	16.5	0
13-Nov-09	14-Nov-09	19.1	20.2	16.3	16.1	0
14-Nov-09	15-Nov-09	15.7	17.1	14.8	14.6	0
15-Nov-09	16-Nov-09	15	13.3	13.6	12.3	3379
16-Nov-09	17-Nov-09	14.7	16	13.8	12.9	0

EPSL – ANNUAL AMBIENT AIR QUALITY MONITORING REPORT – 1 OCTOBER 2009 to 30 SEPTEMBER 2010

17-Nov-09	18-Nov-09	6.6	11.9	7.6	8.9	0
18-Nov-09	19-Nov-09	12	12.8	11.1	11.1	0
19-Nov-09	20-Nov-09	20.5	22.1	20.2	20.9	0
20-Nov-09	21-Nov-09	20.9	21.9	19.8	20.1	0
21-Nov-09	22-Nov-09	18	18.7	17.1	17.7	0
22-Nov-09	23-Nov-09	20.2	20.3	18.6	19.4	154482
23-Nov-09	24-Nov-09	23.7	23	25.4	22.8	0
24-Nov-09	25-Nov-09	34.5	34.6	36.2	28.5	0
25-Nov-09	26-Nov-09	25.6	28.8	24.1	23.3	0
26-Nov-09	27-Nov-09	24.6	28.3	24.6	21.4	34546
27-Nov-09	28-Nov-09	17.6	20	16.4	15.7	73510
28-Nov-09	29-Nov-09	17.8	18.8	18	16.8	90443
29-Nov-09	30-Nov-09	47.8	43.7	41.5	37.8	0
30-Nov-09	1-Dec-09	29.5	33.2	31.1	31.8	71171
1-Dec-09	2-Dec-09	22.5	28.8	19.8	20	0
2-Dec-09	3-Dec-09	23.5	26.2	21	22	0
3-Dec-09	4-Dec-09	28.3	26.4	21.6	20.6	0
4-Dec-09	5-Dec-09	24	22.3	17.7	17.4	0
5-Dec-09	6-Dec-09	28.5	28.2	22.8	23.4	25618
6-Dec-09	7-Dec-09	27.9	17.2	12.1	12.7	7210
7-Dec-09	8-Dec-09	15.3	14.8	12.2	12.7	0
8-Dec-09	9-Dec-09	16.6	18.4	15.3	15.2	0
9-Dec-09	10-Dec-09	28.4	30.7	26.7	28.9	0
10-Dec-09	11-Dec-09	20.5	18.6	17.5	19.6	0
11-Dec-09	12-Dec-09	19.9	17.8	16.3	16.8	0
12-Dec-09	13-Dec-09	23.2	20.9	19	19.3	153325
13-Dec-09	14-Dec-09	41.5	40.3	38.3	32.8	39873
14-Dec-09	15-Dec-09	30.5	31.5	28.4	29.2	0
15-Dec-09	16-Dec-09	24.1	19.7	15.8	18.5	0
16-Dec-09	17-Dec-09	18	18.8	13.4	14.9	174696
17-Dec-09	18-Dec-09	9.5	16.2	13.3	12.2	0
18-Dec-09	19-Dec-09	22.4	22.6	16.2	14.5	0
19-Dec-09	20-Dec-09	29.3	28.3	23.9	25.3	147480
20-Dec-09	21-Dec-09	32.9	32.4	27.7	27.3	0
21-Dec-09	22-Dec-09	17.5	18.2	14.5	13.8	10827
22-Dec-09	23-Dec-09	28.8	23.1	18	18.3	70232
23-Dec-09	24-Dec-09	23.4	23.8	21.4	22.8	94617
24-Dec-09	25-Dec-09	23.5	22.5	20.9	21.8	0
25-Dec-09	26-Dec-09	21.8	19.7	19.6	20.8	0
26-Dec-09	27-Dec-09	27.2	26.6	24.9	25.3	0
27-Dec-09	28-Dec-09	15.7	13.2	10.7	10.5	168341
28-Dec-09	29-Dec-09	34.3	28	26.6	23.8	9966
29-Dec-09	30-Dec-09	31.1	30.8	28.6	25.1	57750
30-Dec-09	31-Dec-09	22.1	24.2	21.9	22.4	0
31-Dec-09	1-Jan-10	29.6	28.6	26.2	27.4	0
1-Jan-10	2-Jan-10	23.7	24.8	19.5	25.0	0
2-Jan-10	3-Jan-10	31.2	23.9	23.5	23.6	4909
3-Jan-10	4-Jan-10	29.9	25.1	20.9	26.1	0
4-Jan-10	5-Jan-10	32.7	30.1	23.2	27.3	20780
5-Jan-10	6-Jan-10	41.6	30.8	25.8	26.6	170131
6-Jan-10	7-Jan-10	43.4	44.2	23.3	39.1	0
7-Jan-10	8-Jan-10	29.6	30.9	41.6	30.1	2000
8-Jan-10	9-Jan-10	30.8	27.4	28.2	21.4	171756
9-Jan-10	10-Jan-10	50.5	43.2	21.3	38.1	0

EPSL – ANNUAL AMBIENT AIR QUALITY MONITORING REPORT – 1 OCTOBER 2009 to 30 SEPTEMBER 2010

10-Jan-10	11-Jan-10	25.1	26.1	37.7	27.5	0
11-Jan-10	12-Jan-10	22.3	22.6	25.2	21.4	0
12-Jan-10	13-Jan-10	17.8	16.2	18.8	16.1	24791
13-Jan-10	14-Jan-10	27.4	26.7	13.7	22.4	0
14-Jan-10	15-Jan-10	34.2	30.6	23.0	19.9	30507
15-Jan-10	16-Jan-10	22.2	24.3	19.5	22.5	28814
16-Jan-10	17-Jan-10	32.3	24.5	19.9	21.5	8377
17-Jan-10	18-Jan-10	43.1	28.2	19.1	29.1	0
18-Jan-10	19-Jan-10	26.7	25.8	26.0	19.2	15520
19-Jan-10	20-Jan-10	32.1	30.9	19.4	28.0	0
20-Jan-10	21-Jan-10	38.4	32.2	29.7	26.2	0
21-Jan-10	22-Jan-10	16.5	18.6	27.4	14.8	0
22-Jan-10	23-Jan-10	14.7	14.9	14.2	13.7	0
23-Jan-10	24-Jan-10	30.9	27.0	13.5	23.0	29870
24-Jan-10	25-Jan-10	23.4	22.4	25.8	21.0	175643
25-Jan-10	26-Jan-10	32.1	30.7	20.9	30.1	0
26-Jan-10	27-Jan-10	14.8	14.7	30.8	12.4	0
27-Jan-10	28-Jan-10	12.0	14.1	12.3	9.7	159401
28-Jan-10	29-Jan-10	21.6	22.4	10.2	14.6	31581
29-Jan-10	30-Jan-10	27.5	25.9	17.5	23.7	0
30-Jan-10	31-Jan-10	21.4	23.4	29.4	21.8	0
31-Jan-10	1-Feb-10	24.9	21.6	20.1	21.0	13319
1-Feb-10	2-Feb-10	37.4	39.7	36.9	35.1	4440
2-Feb-10	3-Feb-10	27.8	27.6	27.1	28.1	4440
3-Feb-10	4-Feb-10	16.6	18.5	15.6	16.6	4440
4-Feb-10	5-Feb-10	16.3	19	16.6	13.1	52545
5-Feb-10	6-Feb-10	34.7	32.9	29.1	27.2	52545
6-Feb-10	7-Feb-10	33.3	34.3	32.2	32.1	3814
7-Feb-10	8-Feb-10	23.2	20.8	18.8	17.8	3814
8-Feb-10	9-Feb-10	31.8	34.6	26.1	24.6	14152
9-Feb-10	10-Feb-10	28.1	24.9	25.1	22.7	0
10-Feb-10	11-Feb-10	32.1	35.1	33.5	33	81022
11-Feb-10	12-Feb-10	25.3	17.7	14.2	14.6	94725
12-Feb-10	13-Feb-10	7.8	8.3	6.6	7.1	59208
13-Feb-10	14-Feb-10	9.4	9.4	8.1	7.1	59208
14-Feb-10	15-Feb-10	13.7	13.9	12.5	11.7	59208
15-Feb-10	16-Feb-10	34.2	35.6	30.1	30.3	0
16-Feb-10	17-Feb-10	33.7	38.5	32.6	31.5	31226
17-Feb-10	18-Feb-10	34.2	36.7	33.5	30.9	0
18-Feb-10	19-Feb-10	33.4	33.5	30.5	32.2	22405
19-Feb-10	20-Feb-10	22.7	24.5	21.3	21.9	22405
20-Feb-10	21-Feb-10	15.2	16.5	13.4	14.9	63010
21-Feb-10	22-Feb-10	10.7	11.2	9.8	11	60550
22-Feb-10	23-Feb-10	19.4	18.9	15.5	15	60550
23-Feb-10	24-Feb-10	18.6	21.2	22.6	18.3	16382
24-Feb-10	25-Feb-10	30.9	31.9	27.2	22.6	16382
25-Feb-10	26-Feb-10	33.4	43.1	29.2	30.4	77000
26-Feb-10	27-Feb-10	28.7	33.2	25.4	24.6	0
27-Feb-10	28-Feb-10	21.6	17.5	19.3	*	0
28-Feb-10	28-Feb-10	31.3	25.9	35.3	*	0
28-Feb-10	1-Mar-10	31.3	25.9	35.3	*	0
1-Mar-10	2-Mar-10	31.9	41.7	27.4	*	40241
2-Mar-10	3-Mar-10	29.7	34.8	35.3	*	80485
3-Mar-10	4-Mar-10	24.3	26	25.3	*	40243

EPSL – ANNUAL AMBIENT AIR QUALITY MONITORING REPORT – 1 OCTOBER 2009 to 30 SEPTEMBER 2010

4-Mar-10	5-Mar-10	22.3	24.1	19.1	*	13415
5-Mar-10	6-Mar-10	19.3	21.5	18.4	18.7	13415
6-Mar-10	7-Mar-10	13.9	15.1	14.7	16	13415
7-Mar-10	8-Mar-10	8.1	7.4	6.5	8.8	0
8-Mar-10	9-Mar-10	15.7	17.2	14.1	16.2	0
9-Mar-10	10-Mar-10	26.7	22.8	31.2	27.7	33538
10-Mar-10	11-Mar-10	28.4	32.2	25.7	25.5	33538
11-Mar-10	12-Mar-10	24.5	22.5	25.4	27.4	33539
12-Mar-10	13-Mar-10	27.3	27	23.3	25.9	20123
13-Mar-10	14-Mar-10	29	31.7	29.4	25.1	20123
14-Mar-10	15-Mar-10	16.3	16.8	14.4	17.3	46956
15-Mar-10	16-Mar-10	21.4	22.8	20.4	20.9	46957
16-Mar-10	17-Mar-10	23.4	21.7	21.4	24	67085
17-Mar-10	18-Mar-10	22.2	21.7	17.9	17.9	20126
18-Mar-10	19-Mar-10	24.2	24	24.8	25.3	50316
19-Mar-10	20-Mar-10	30.7	24.7	22.2	22.5	10062
20-Mar-10	21-Mar-10	22.7	22	19.7	21	10062
21-Mar-10	22-Mar-10	17.1	19.3	22.3	21.3	10062
22-Mar-10	23-Mar-10	17.1	34.7	33.7	23.5	40256
23-Mar-10	24-Mar-10	23.4	23.4	21.8	23.9	40257
24-Mar-10	25-Mar-10	17.4	19.2	18.1	18	60385
25-Mar-10	26-Mar-10	11.1	10.5	7.2	9.7	80515
26-Mar-10	27-Mar-10	9.4	11	13.7	12.2	20130
27-Mar-10	28-Mar-10	18.2	20.4	18.8	21.2	40263
28-Mar-10	29-Mar-10	19.1	21.3	20	22.3	0
29-Mar-10	30-Mar-10	13.1	14.5	13.3	13.2	13419
30-Mar-10	31-Mar-10	23.7	26.1	22.4	20.5	13419
31-Mar-10	1-Apr-10	36.2	38.8	37	38.2	13419
1-Apr-10	2-Apr-10	25.9	23.4	23.4	23.7	19747
2-Apr-10	3-Apr-10	17.6	17.2	17.6	17.9	61816
3-Apr-10	4-Apr-10	14.2	15.1	14.1	15.4	61816
4-Apr-10	5-Apr-10	14.1	15.4	15.4	*	25971
5-Apr-10	6-Apr-10	14.7	16.2	15.3	*	0
6-Apr-10	7-Apr-10	16.8	19.9	17.1	23.2	50247
7-Apr-10	8-Apr-10	10.5	11.8	10.7	^	77547
8-Apr-10	9-Apr-10	12.8	14.2	13.1	12.5	60792
9-Apr-10	10-Apr-10	15.6	18.4	16.2	15.7	20577
10-Apr-10	11-Apr-10	10.6	12.2	11.4	10.4	21659
11-Apr-10	12-Apr-10	15.5	20.2	15.5	14.5	31715
12-Apr-10	13-Apr-10	15.6	18.8	37.2	29.3	46347
13-Apr-10	14-Apr-10	21.7	25.2	26.3	24.2	49476
14-Apr-10	15-Apr-10	20.1	23.1	20.5	20.2	30816
15-Apr-10	16-Apr-10	19.1	22.4	19.3	19.2	30153
16-Apr-10	17-Apr-10	16.2	20.8	16.6	16.5	8362
17-Apr-10	18-Apr-10	9.5	10.7	8.6	8.8	0
18-Apr-10	19-Apr-10	8.4	9.8	9.6	9.9	0
19-Apr-10	20-Apr-10	16.8	17	28.1	23.7	5685
20-Apr-10	21-Apr-10	31.2	37.1	32.6	31.4	45416
21-Apr-10	22-Apr-10	15.3	18.1	15.1	15	71750
22-Apr-10	23-Apr-10	10.5	14.1	13.1	14.3	61915
23-Apr-10	24-Apr-10	27.1	33.1	29.6	28.9	26247
24-Apr-10	25-Apr-10	15.3	17.8	14.7	17.3	8489
25-Apr-10	26-Apr-10	17.8	20.5	21	20.4	17346

EPSL – ANNUAL AMBIENT AIR QUALITY MONITORING REPORT – 1 OCTOBER 2009 to 30 SEPTEMBER 2010

26-Apr-10	27-Apr-10	19.6	22.9	21.1	23.5	67453
27-Apr-10	28-Apr-10	19.2	22.6	21.9	22.9	61001
28-Apr-10	29-Apr-10	19.3	19.9	18.4	18.8	51258
29-Apr-10	30-Apr-10	19.3	23.5	20	19.6	0
30-Apr-10	1-May-10	22.2	26.5	22.9	25	1930
1-May-10	2-May-10	22.3	26.2	23.3	25.3	0
2-May-10	3-May-10	23	24.7	23.7	23.4	17840
3-May-10	4-May-10	24.2	31	25	24.4	44834
4-May-10	5-May-10	12.5	15	11.9	13.8	11457
5-May-10	6-May-10	16	18.2	14.7	16	0
6-May-10	7-May-10	23.8	27.2	23.1	24.1	0
7-May-10	8-May-10	10.4	11	8.4	10.6	937
8-May-10	9-May-10	18.2	21.8	19.5	23.8	2063
9-May-10	10-May-10	18.6	21.2	18	20.3	18329
10-May-10	11-May-10	15.6	16.2	14.7	16.9	64359
11-May-10	12-May-10	16.4	20.2	23.3	19.8	70318
12-May-10	13-May-10	14	12.3	17.1	19.1	62507
13-May-10	14-May-10	28.4	*	23.6	*	59869
14-May-10	15-May-10	21	25	20.9	22.4	56824
15-May-10	16-May-10	13.4	22.1	12.9	11.7	44178
16-May-10	17-May-10	10.6	14.4	8.7	6.9	11522
17-May-10	18-May-10	11.2	14.5	12.4	10.1	11189
18-May-10	19-May-10	13.6	14.3	14.7	11.9	0
19-May-10	20-May-10	14.6	18.6	16.8	14.1	2028
20-May-10	21-May-10	11.8	13.4	14.4	11	4868
21-May-10	22-May-10	12.8	12.8	31.4	20.5	23460
22-May-10	23-May-10	9.9	11.1	13.9	13.7	29278
23-May-10	24-May-10	22.8	24.4	21.5	18.9	29278
24-May-10	25-May-10	23.9	26.9	20.8	21.3	29987
25-May-10	26-May-10	13.3	15.9	12.4	11.4	18707
26-May-10	27-May-10	8.9	9.4	9.3	8.6	12075
27-May-10	28-May-10	17	17.3	16.7	15.3	10482
28-May-10	29-May-10	24.1	26.2	23.5	22	8626
29-May-10	30-May-10	12.9	13.7	12.6	12.3	1718
30-May-10	31-May-10	11.1	11.6	11.5	11	45168
31-May-10	1-Jun-10	15.8	19.3	21	20.6	66252
4-Jun-10	5-Jun-10	13	13.5	14.3	11.6	59396
5-Jun-10	6-Jun-10	9.9	8.8	11.9	13.3	2987
6-Jun-10	7-Jun-10	6.3	6.1	7.2	6.8	2389
7-Jun-10	8-Jun-10	18.2	20	25.4	27	2324
8-Jun-10	9-Jun-10	9.2	9.9	8.1	8.2	3224
9-Jun-10	10-Jun-10	11.4	11.9	8	7.8	3224
10-Jun-10	11-Jun-10	11	14.2	6.6	6.2	3224
11-Jun-10	12-Jun-10	5.6	6.3	9.5	6.4	3224
12-Jun-10	13-Jun-10	6.4	8.2	10	14.2	3224
13-Jun-10	14-Jun-10	9	9.1	8.7	7.7	46391
14-Jun-10	15-Jun-10	18.1	19.4	20.3	19.5	62093
15-Jun-10	16-Jun-10	9.2	9.9	10.6	9.6	39239
16-Jun-10	17-Jun-10	10.1	11	10.1	10.4	0
17-Jun-10	18-Jun-10	12.2	13	11.3	11.5	0
18-Jun-10	19-Jun-10	12.4	13	13.1	15.4	8004
19-Jun-10	20-Jun-10	18	18.2	22	20.1	6154
20-Jun-10	21-Jun-10	12.5	12.8	11.5	11.5	0

EPSL – ANNUAL AMBIENT AIR QUALITY MONITORING REPORT – 1 OCTOBER 2009 to 30 SEPTEMBER 2010

21-Jun-10	22-Jun-10	13.6	13.6	15.3	16.4	37645
22-Jun-10	23-Jun-10	10.2	11.4	7.3	6.4	61253
23-Jun-10	24-Jun-10	12.8	13.2	11.8	12.1	61253
24-Jun-10	25-Jun-10	9.9	9.7	9.4	10.4	4849
25-Jun-10	26-Jun-10	10.2	9.3	8.4	9.4	15524
26-Jun-10	27-Jun-10	8.9	8	6	6.2	12053
27-Jun-10	28-Jun-10	12.1	12.1	12.4	13.6	18747
28-Jun-10	29-Jun-10	14.1	14.1	13.3	14.4	27323
29-Jun-10	30-Jun-10	13	13.6	12	11.7	27323
30-Jun-10	1-Jul-10	11	12.7	9.7	9.2	45086
1-Jul-10	2-Jul-10	9.6	12.2	8.7	7.5	65191
2-Jul-10	3-Jul-10	11.1	11.8	11.2	10.9	66449
3-Jul-10	4-Jul-10	11.7	12.7	12.1	11.8	23688
4-Jul-10	5-Jul-10	11.3	13.1	11.6	12.1	7754
5-Jul-10	6-Jul-10	8.2	9.3	8.3	7.7	7173
6-Jul-10	7-Jul-10	11.3	14	6.9	6.9	16484
7-Jul-10	8-Jul-10	6.2	9.3	7.2	6.2	77620
8-Jul-10	9-Jul-10	5.8	5.7	6.7	5.3	76456
9-Jul-10	10-Jul-10	10.6	11.1	11.2	12	64331
10-Jul-10	11-Jul-10	10.7	10.6	9.8	10	66453
11-Jul-10	12-Jul-10	5.2	5.3	5.3	5	66453
12-Jul-10	13-Jul-10	14.9	15.7	15.3	14.7	49304
13-Jul-10	14-Jul-10	13.6	15.4	15.5	15.2	11927
14-Jul-10	15-Jul-10	15.5	20.1	20.4	16.9	6792
15-Jul-10	16-Jul-10	10.2	13.1	9.1	8.9	160
16-Jul-10	17-Jul-10	23.7	26.3	18.3	16.9	939
17-Jul-10	18-Jul-10	16	17.6	17.1	15.9	145
18-Jul-10	19-Jul-10	10.4	11.2	10.7	11.4	18769
19-Jul-10	20-Jul-10	11	11.6	9.1	9.7	61427
20-Jul-10	21-Jul-10	8.6	11.9	11	7.2	61427
21-Jul-10	22-Jul-10	5.5	7.7	11.6	6.9	31695
22-Jul-10	23-Jul-10	10.9	20	10.1	9.3	14520
23-Jul-10	24-Jul-10	9.2	11.2	9	8.2	6605
24-Jul-10	25-Jul-10	8	8.5	6.3	5.7	0
25-Jul-10	26-Jul-10	6.2	6.8	7.1	6.3	0
26-Jul-10	27-Jul-10	10.7	15.1	14.2	12.1	1374
27-Jul-10	28-Jul-10	17.1	23	15.5	12.6	4849
28-Jul-10	29-Jul-10	11.5	15.1	12.1	12.2	748
29-Jul-10	30-Jul-10	17.5	19.6	18.2	17.6	0
30-Jul-10	31-Jul-10	12.4	15	12.3	12.3	40215
31-Jul-10	1-Aug-10	18.1	19.1	16.4	16.1	59701
1-Aug-10	2-Aug-10	14.1	13.5	13.5	12.9	54726
2-Aug-10	3-Aug-10	22.5	33.3	20	19	2003
3-Aug-10	4-Aug-10	16.1	17	14.7	15.1	3184
4-Aug-10	5-Aug-10	*	14.4	*	11.3	3184
5-Aug-10	6-Aug-10	22.5	25.6	18.6	16.4	8563
6-Aug-10	7-Aug-10	18.1	21.9	16.5	15.3	17753
7-Aug-10	8-Aug-10	16.3	17.6	17.7	17.7	12927
8-Aug-10	9-Aug-10	20.2	20.7	18.7	19.5	60041
9-Aug-10	10-Aug-10	17.7	18.9	15.2	14.6	60782
10-Aug-10	11-Aug-10	11.3	11.5	12.7	11.4	27680
11-Aug-10	12-Aug-10	8.7	10.2	8.8	8.2	5362
12-Aug-10	13-Aug-10	58.5	58.1	57	54.5	15146

EPSL – ANNUAL AMBIENT AIR QUALITY MONITORING REPORT – 1 OCTOBER 2009 to 30 SEPTEMBER 2010

13-Aug-10	14-Aug-10	30.1	33	30.9	28.6	63308
14-Aug-10	15-Aug-10	17.9	19.7	18.9	19	63308
15-Aug-10	16-Aug-10	15.8	16.8	14.8	14.2	61603
16-Aug-10	17-Aug-10	12	10.3	10.8	9.8	32786
17-Aug-10	18-Aug-10	17.1	18.8	17.3	17.1	26853
18-Aug-10	19-Aug-10	12.1	12.9	12.5	11.5	31859
19-Aug-10	20-Aug-10	11.2	14.2	8.9	8.9	32633
20-Aug-10	21-Aug-10	15.1	18	10.6	10.4	66568
21-Aug-10	22-Aug-10	12.2	16.1	11.9	10.7	61888
22-Aug-10	23-Aug-10	9	9.3	8.5	9.2	53395
23-Aug-10	24-Aug-10	21.8	24.3	20	19.3	64474
24-Aug-10	25-Aug-10	21.3	25.3	20.6	16.7	67658
25-Aug-10	26-Aug-10	24.6	27.5	23	19.5	22740
26-Aug-10	27-Aug-10	14.2	17.9	13.6	13.9	5811
27-Aug-10	28-Aug-10	11.1	12.6	9.4	9.1	4168
28-Aug-10	29-Aug-10	12.5	13.1	15.6	18.3	14112
29-Aug-10	30-Aug-10	18.8	19.5	17.2	16.4	19488
30-Aug-10	31-Aug-10	15.7	15.9	15.6	14.6	3760
31-Aug-10	1-Sep-10	16.1	17.2	14.3	13.1	0
1-Sep-10	2-Sep-10	13.0	12.9	16.5	11.5	0
2-Sep-10	3-Sep-10	9.4	12.5	8.6	7.7	0
3-Sep-10	4-Sep-10	8.0	8.9	7.8	7.0	0
4-Sep-10	5-Sep-10	18.4	18.5	17.4	16.7	0
5-Sep-10	6-Sep-10	9.2	9.3	9.5	8.5	0
6-Sep-10	7-Sep-10	8.9	8.0	9.1	8.6	0
7-Sep-10	8-Sep-10	13.1	20.8	13.6	13.4	40901
8-Sep-10	9-Sep-10	21.6	23.4	24.2	23.4	58898
9-Sep-10	10-Sep-10	19.8	22.0	19.6	19.5	53744
10-Sep-10	11-Sep-10	17.9	21.3	21.4	19.4	0
11-Sep-10	12-Sep-10	16.5	18.0	16.1	16.9	3348
12-Sep-10	13-Sep-10	14.8	15.6	15.7	16.9	15554
13-Sep-10	14-Sep-10	8.9	9.5	8.4	8.1	11459
14-Sep-10	15-Sep-10	8.0	12.3	7.7	6.9	686
15-Sep-10	16-Sep-10	8.1	10.6	7.1	5.9	42919
16-Sep-10	17-Sep-10	12.2	14.1	16.1	11.2	57202
17-Sep-10	18-Sep-10	22.8	21.3	24.7	18.7	62480
18-Sep-10	19-Sep-10	17.5	18.9	19.1	15.7	62665
19-Sep-10	20-Sep-10	23.6	21.3	27.6	19.1	29065
20-Sep-10	21-Sep-10	18.8	26.6	19.9	13.2	59804
21-Sep-10	22-Sep-10	14.8	11.0	9.6	7.3	75941
22-Sep-10	23-Sep-10	9.9	12.9	17.9	16.2	67331
23-Sep-10	24-Sep-10	21.1	36.3	13.3	10.8	20795
24-Sep-10	25-Sep-10	21.2	24.2	22.3	21.7	32648
25-Sep-10	26-Sep-10	18.3	19.6	17.4	16.6	59111
26-Sep-10	27-Sep-10	17.6	18.6	15.3	15.8	59111
27-Sep-10	28-Sep-10	20.6	21.2	17.3	16.6	23234
28-Sep-10	29-Sep-10	18.3	17.0	10.8	9.7	1
29-Sep-10	30-Sep-10	21.5	18.4	20.2	17.4	6696
30-Sep-10	1-Oct-10	26.0	24.6	25.9	22.0	1090

¹ Average data based on number of loading/unloading days and total tonnes loaded/unloaded.

* Data either not available or non-validated due to technical problems. Full details can be found in the relevant monthly ambient air quality monitoring report.

Exceedences of 50µg/m³ assessment criteria (Licence L5099/10974/12) are highlighted in red and bold.

APPENDIX C DAILY TSP RESULTS

Sampling start date ¹	Sampling finish date ¹	Site 1 TSP (µg/m ³)	Site 2 TSP (µg/m ³)	Site 3 TSP (µg/m ³)	Site 4 TSP (µg/m ³)	Site 5 TSP (µg/m ³)	Daily port throughput (tonnes) ²
1/10/2009 0:00	2/10/2009 0:00	13	18	9.1	8.9	19	0
2/10/2009 0:00	3/10/2009 0:00	25	26	20	18	20	0
3/10/2009 0:00	4/10/2009 0:00	40	44	39	39	39	0
4/10/2009 0:00	5/10/2009 0:00	38	36	32	31	31	0
5/10/2009 0:00	6/10/2009 0:00	26	26	20	21	19	0
6/10/2009 0:00	7/10/2009 0:00	62	50	38	42	35	0
7/10/2009 0:00	8/10/2009 0:00	50	51	40	41	41	0
8/10/2009 0:00	9/10/2009 0:00	45	44	47	44	36	146943
9/10/2009 0:00	10/10/2009 0:00	66	64	54	57	52	8007
10/10/2009 0:00	11/10/2009 0:00	30	46	47	47	32	0
11/10/2009 0:00	12/10/2009 0:00	29	36	37	43	25	72145
12/10/2009 0:00	13/10/2009 0:00	27	33	34	32	19	0
13/10/2009 0:00	14/10/2009 0:00	21	27	24	18	17	165000
14/10/2009 0:00	15/10/2009 0:00	16	20	17	14	15	0
15/10/2009 0:00	16/10/2009 0:00	19	23	21	20	18	0
16/10/2009 0:00	17/10/2009 0:00	29	25	21	21	21	0
17/10/2009 0:00	18/10/2009 0:00	41	31	33	29	29	0
18/10/2009 0:00	19/10/2009 0:00	38	41	43	43	33	0
19/10/2009 0:00	20/10/2009 0:00	30	36	31	33	29	0
20/10/2009 0:00	21/10/2009 0:00	33	39	30	29	28	0
21/10/2009 0:00	22/10/2009 0:00	84	62	52	47	38	151436
22/10/2009 0:00	23/10/2009 0:00	69	62	41	38	43	0
23/10/2009 0:00	24/10/2009 0:00	70	50	31	30	37	0
24/10/2009 0:00	25/10/2009 0:00	62	47	48	35	30	88694
25/10/2009 0:00	26/10/2009 0:00	86	57	45	47	39	0
26/10/2009 0:00	27/10/2009 0:00	40	43	34	33	35	0
27/10/2009 0:00	28/10/2009 0:00	51	56	49	44	44	0
28/10/2009 0:00	29/10/2009 0:00	21	28	23	87	22	0
29/10/2009 0:00	30/10/2009 0:00	30	26	22	18	19	24652
30/10/2009 0:00	31/10/2009 0:00	47	36	32	28	28	0
31/10/2009 0:00	1/11/2009 0:00	29	34	27	28	32	22909
1/11/2009 0:00	2/11/2009 0:00	32	38	30	34	27	0
2/11/2009 0:00	3/11/2009 0:00	39	23	20	19	19	159706
3/11/2009 0:00	4/11/2009 0:00	21	22	21	13	13	0
4/11/2009 0:00	5/11/2009 0:00	44	30	28	25	20	0
5/11/2009 0:00	6/11/2009 0:00	47	52	45	39	64	0
6/11/2009 0:00	7/11/2009 0:00	65	75	45	83	52	0
7/11/2009 0:00	8/11/2009 0:00	25	29	22	21	22	0
8/11/2009 0:00	9/11/2009 0:00	31	21	13	12	13	19205
9/11/2009 0:00	10/11/2009 0:00	49	35	33	27	26	8886
10/11/2009 0:00	11/11/2009 0:00	67	65	59	58	57	0
11/11/2009 0:00	12/11/2009 0:00	55	62	52	44	54	169190
12/11/2009 0:00	13/11/2009 0:00	38	44	36	33	41	0
13/11/2009 0:00	14/11/2009 0:00	42	49	37	35	38	0
14/11/2009 0:00	15/11/2009 0:00	17	37	29	24	26	0
15/11/2009 0:00	16/11/2009 0:00	29	26	34	26	19	3379
16/11/2009 0:00	17/11/2009 0:00	26	31	28	24	34	0
17/11/2009 0:00	18/11/2009 0:00	16	20	18	15	18	0

EPSL – ANNUAL AMBIENT AIR QUALITY MONITORING REPORT – 1 OCTOBER 2009 to 30 SEPTEMBER 2010

18/11/2009 0:00	19/11/2009 0:00	18	55	39	17	20	0
19/11/2009 0:00	20/11/2009 0:00	28	36	35	28	27	0
20/11/2009 0:00	21/11/2009 0:00	34	37	29	31	33	0
21/11/2009 0:00	22/11/2009 0:00	22	25	20	19	21	0
22/11/2009 0:00	23/11/2009 0:00	29	31	28	24	29	154482
23/11/2009 0:00	24/11/2009 0:00	42	44	55	39	41	0
24/11/2009 0:00	25/11/2009 0:00	59	66	86	56	78	0
25/11/2009 0:00	26/11/2009 0:00	42	56	41	34	39	0
26/11/2009 0:00	27/11/2009 0:00	42	59	48	36	38	34546
27/11/2009 0:00	28/11/2009 0:00	28	39	26	21	28	73510
28/11/2009 0:00	29/11/2009 0:00	28	35	39	28	20	90443
29/11/2009 0:00	30/11/2009 0:00	76	77	78	55	53	0
30/11/2009 0:00	1/12/2009 0:00	36	71	46	39	41	71171
30/11/2009 0:00	1/12/2009 0:00	36	71	46	39	41	0
1/12/2009 0:00	2/12/2009 0:00	38	61	33	27	33	0
2/12/2009 0:00	3/12/2009 0:00	53	51	35	31	33	0
3/12/2009 0:00	4/12/2009 0:00	52	50	38	28	30	0
4/12/2009 0:00	5/12/2009 0:00	41	36	32	25	28	
5/12/2009 0:00	6/12/2009 0:00	41	48	38	31	31	25618
6/12/2009 0:00	7/12/2009 0:00	67	33	20	18	38	7210
7/12/2009 0:00	8/12/2009 0:00	21	24	21	16	19	0
8/12/2009 0:00	9/12/2009 0:00	30	44	30	26	29	0
9/12/2009 0:00	10/12/2009 0:00	36	46	39	41	35	0
10/12/2009 0:00	11/12/2009 0:00	35	37	28	25	25	0
11/12/2009 0:00	12/12/2009 0:00	34	35	34	25	23	0
12/12/2009 0:00	13/12/2009 0:00	39	36	38	26	35	153325
13/12/2009 0:00	14/12/2009 0:00	73	110	130	72	85	39873
14/12/2009 0:00	15/12/2009 0:00	33	47	41	32	35	0
15/12/2009 0:00	16/12/2009 0:00	49	35	29	24	26	0
16/12/2009 0:00	17/12/2009 0:00	26	38	21	19	22	174696
17/12/2009 0:00	18/12/2009 0:00	32	52	34	17	20	0
18/12/2009 0:00	19/12/2009 0:00	38	41	40	29	22	0
19/12/2009 0:00	20/12/2009 0:00	36	39	49	35*	39	147480
20/12/2009 0:00	21/12/2009 0:00	39	49	35		36	0
21/12/2009 0:00	22/12/2009 0:00	30	37	24	15	23	10827
22/12/2009 0:00	23/12/2009 0:00	58	45	32	27	29	70232
23/12/2009 0:00	24/12/2009 0:00	36	44	36	33	36	94617
24/12/2009 0:00	25/12/2009 0:00	33	42	31	27	31	0
25/12/2009 0:00	26/12/2009 0:00	35	32	42	35	34	0
26/12/2009 0:00	27/12/2009 0:00	35	37	52	29	31	0
27/12/2009 0:00	28/12/2009 0:00	21	24	17	13	13	168341
28/12/2009 0:00	29/12/2009 0:00	74	61	60	40	52	9966
29/12/2009 0:00	30/12/2009 0:00	64	84	81	59	65	57750
30/12/2009 0:00	31/12/2009 0:00	41	41	43	31	33	
31/12/2009 0:00	1/01/2010 0:00	42	50	48	40	36	
31/12/2009 0:00	1/01/2010 0:00	42	50	48	40	36	0
1/01/2010 0:00	2/01/2010 0:00	46	35	29	28	30	0
2/01/2010 0:00	3/01/2010 0:00	51	39	41	33	31	4909
3/01/2010 0:00	4/01/2010 0:00	60	56	47	43	43	0
4/01/2010 0:00	5/01/2010 0:00	74	58	35	32	36	20780
5/01/2010 0:00	6/01/2010 0:00	76	77	63	63	72	170131
6/01/2010 0:00	7/01/2010 0:00	62	76	66	59	55	0
7/01/2010 0:00	8/01/2010 0:00	45	39	27	20	30	2000
8/01/2010 0:00	9/01/2010 0:00	77	68	51	32	53	171756

EPSL – ANNUAL AMBIENT AIR QUALITY MONITORING REPORT – 1 OCTOBER 2009 to 30 SEPTEMBER 2010

9/01/2010 0:00	10/01/2010 0:00	86	76	56	50	57	0
10/01/2010 0:00	11/01/2010 0:00	33	39	30	28	33	0
11/01/2010 0:00	12/01/2010 0:00	35	34	28	26	28	0
12/01/2010 0:00	13/01/2010 0:00	27	28	25	22	20	24791
13/01/2010 0:00	14/01/2010 0:00	65	78	69	46	34	0
14/01/2010 0:00	15/01/2010 0:00	80	86	38	33	35	30507
15/01/2010 0:00	16/01/2010 0:00	52	54	40	33	49	28814
16/01/2010 0:00	17/01/2010 0:00	65	46	49	40	39	8377
17/01/2010 0:00	18/01/2010 0:00	89	68	58	62	46	0
18/01/2010 0:00	19/01/2010 0:00	53	62	44	37	44	15520
19/01/2010 0:00	20/01/2010 0:00	79	62	48	36	40	0
20/01/2010 0:00	21/01/2010 0:00	61	49	27	24	26	0
21/01/2010 0:00	22/01/2010 0:00	23	37	22	20	23	0
22/01/2010 0:00	23/01/2010 0:00	55	36	37	32	23	0
23/01/2010 0:00	24/01/2010 0:00	40	71	65	52	29	29870
24/01/2010 0:00	25/01/2010 0:00	59	67	56	36	41	175643
25/01/2010 0:00	26/01/2010 0:00	28	29	25	21	27	0
26/01/2010 0:00	27/01/2010 0:00	24	24	17	14	20	0
27/01/2010 0:00	28/01/2010 0:00	27	34	20	14	21	159401
28/01/2010 0:00	29/01/2010 0:00	47	59	68	33	24	31581
29/01/2010 0:00	30/01/2010 0:00	59	63	65	42	38	0
30/01/2010 0:00	31/01/2010 0:00	45	46	39	36	38	0
31/01/2010 0:00	1/02/2010 0:00	55	47	36	30	32	13319
1/02/2010 12:00	2/02/2010 12:00	60	72	63	48	48	4440
2/02/2010 12:00	3/02/2010 12:00	42	48	41	39	39	4440
3/02/2010 12:00	4/02/2010 12:00	33	43	33	28	31	4440
4/02/2010 12:00	5/02/2010 12:00	31	45	44	30	25	52545
5/02/2010 12:00	6/02/2010 12:00	86	81	72	63	51	52545
6/02/2010 12:00	7/02/2010 12:00	40	45	40	35	41	3814
7/02/2010 12:00	8/02/2010 12:00	37	33	31	24	27	3814
8/02/2010 12:00	9/02/2010 12:00	75	93	51	37	37	14152
9/02/2010 12:00	10/02/2010 12:00	50	45	42	32	33	0
10/02/2010 12:00	11/02/2010 12:00	48	59	49	38	44	81022
11/02/2010 12:00	12/02/2010 12:00	71	33	22	18	31	94725
12/02/2010 12:00	13/02/2010 12:00	14	17	12	10	17	59208
13/02/2010 12:00	14/02/2010 12:00	16	16	15	8.3	11	59208
14/02/2010 12:00	15/02/2010 12:00	23	26	24	16	18	59208
15/02/2010 12:00	16/02/2010 12:00	51	57	40	36	46	0
16/02/2010 12:00	17/02/2010 12:00	65	93	46	35	45	31226
17/02/2010 12:00	18/02/2010 12:00	71	110	73	49	44	0
18/02/2010 12:00	19/02/2010 12:00	57	58	46	41	52	22405
19/02/2010 12:00	20/02/2010 12:00	32	46	33	26	31	22405
20/02/2010 12:00	21/02/2010 12:00	24	30	22	19	22	63010
21/02/2010 12:00	22/02/2010 12:00	19	24	19	15	16	60550
22/02/2010 12:00	23/02/2010 12:00	38	40	28	18	22	60550
23/02/2010 12:00	24/02/2010 12:00	31	39	51	27	23	16382
24/02/2010 12:00	25/02/2010 12:00	60	75	59	33	34	16382
25/02/2010 12:00	26/02/2010 12:00	59	95	52	39	33	77000
26/02/2010 12:00	27/02/2010 12:00	61	87	48	29	28	0
27/02/2010 12:00	28/02/2010 12:00	43	39	36	33	24	0
28/02/2010 12:00	28/02/2010 12:00	70	48	81	*	40	0
28/02/2010 0:00	1/03/2010 0:00	70	48	81	*	40	0
1/03/2010 0:00	2/03/2010 0:00	73	130	75	*	32	40241
2/03/2010 0:00	3/03/2010 0:00	44	62	45	*	36	80485

EPSL – ANNUAL AMBIENT AIR QUALITY MONITORING REPORT – 1 OCTOBER 2009 to 30 SEPTEMBER 2010

3/03/2010 0:00	4/03/2010 0:00	37	48	49	29	35	40243
4/03/2010 0:00	5/03/2010 0:00	45	59	43	40	43	13415
5/03/2010 0:00	6/03/2010 0:00	30	40	29	27	28	13415
6/03/2010 0:00	7/03/2010 0:00	20	26	23	20	18	13415
7/03/2010 0:00	8/03/2010 0:00	15	15	11	8.6	9.6	0
8/03/2010 0:00	9/03/2010 0:00	30	40	27	18	33	0
9/03/2010 0:00	10/03/2010 0:00	52	50	84	48	29	33538
10/03/2010 0:00	11/03/2010 0:00	64	110	74	49	56	33538
11/03/2010 0:00	12/03/2010 0:00	41	43	66	52	39	33539
12/03/2010 0:00	13/03/2010 0:00	48	57	53	47	59	20123
13/03/2010 0:00	14/03/2010 0:00	42	47	45	32	49	20123
14/03/2010 0:00	15/03/2010 0:00	37	38	29	25	38	46956
15/03/2010 0:00	16/03/2010 0:00	32	40	30	24	30	46957
16/03/2010 0:00	17/03/2010 0:00	52	48	51	36	42	67085
17/03/2010 0:00	18/03/2010 0:00	58	47	41	22	27	20126
18/03/2010 0:00	19/03/2010 0:00	47	42	43	37	35	50316
19/03/2010 0:00	20/03/2010 0:00	93	60	38	29	39	10062
20/03/2010 0:00	21/03/2010 0:00	69	51	31	28	38	10062
21/03/2010 0:00	22/03/2010 0:00	33	46	40	24	26	10062
22/03/2010 0:00	23/03/2010 0:00	28	140	110	18	26	40256
23/03/2010 0:00	24/03/2010 0:00	58	54	52	34	49	40257
24/03/2010 0:00	25/03/2010 0:00	29	38	29	22	32	60385
25/03/2010 0:00	26/03/2010 0:00	42	41	22	15	22	80515
26/03/2010 0:00	27/03/2010 0:00	18	46	36	18	18	20130
27/03/2010 0:00	28/03/2010 0:00	29	*	29	27	27	40263
28/03/2010 0:00	29/03/2010 0:00	26	*	30	27	29	0
29/03/2010 0:00	30/03/2010 0:00	21	19	26	23	20	13419
30/03/2010 0:00	31/03/2010 0:00	36	41	30	24	33	13419
31/03/2010 0:00	1/04/2010 0:00	61	65	58	47	59	13419
1/04/2010 12:00	2/04/2010 12:00	57	53	66	39	34	19747
2/04/2010 12:00	3/04/2010 12:00	24	25	46	65	22	61816
3/04/2010 12:00	4/04/2010 12:00	25	28	26	21	24	61816
4/04/2010 12:00	5/04/2010 12:00	19	22	22	*	19	25971
5/04/2010 12:00	6/04/2010 12:00	28	14	26	*	26	0
6/04/2010 12:00	7/04/2010 12:00	27	35	29	42	31	50247
7/04/2010 12:00	8/04/2010 12:00	22	25	21	13	150	77547
8/04/2010 12:00	9/04/2010 12:00	26	30	21	18	19	60792
9/04/2010 12:00	10/04/2010 12:00	25	33	23	18	27	20577
10/04/2010 12:00	11/04/2010 12:00	16	19	17	13	18	21659
11/04/2010 12:00	12/04/2010 12:00						31715
12/04/2010 12:00	13/04/2010 12:00						46347
13/04/2010 12:00	14/04/2010 12:00	47	55	59	54	33	49476
14/04/2010 12:00	15/04/2010 12:00						30816
15/04/2010 12:00	16/04/2010 12:00						30153
16/04/2010 12:00	17/04/2010 12:00	27	38	25	22	27	8362
17/04/2010 12:00	18/04/2010 12:00						0
18/04/2010 12:00	19/04/2010 12:00						0
19/04/2010 12:00	20/04/2010 12:00	34	33	77	110	20	5685
20/04/2010 12:00	21/04/2010 12:00	69	82	64	55	54	45416
21/04/2010 12:00	22/04/2010 12:00	24	31	23	20	21	71750
22/04/2010 12:00	23/04/2010 12:00	18	27	24	25	19	61915
23/04/2010 12:00	24/04/2010 12:00						26247
24/04/2010 12:00	25/04/2010 12:00						8489
25/04/2010 12:00	26/04/2010 12:00	27	30	32	29	26	17346

EPSL – ANNUAL AMBIENT AIR QUALITY MONITORING REPORT – 1 OCTOBER 2009 to 30 SEPTEMBER 2010

26/04/2010 12:00	27/04/2010 12:00						67453
27/04/2010 12:00	28/04/2010 12:00						61001
28/04/2010 12:00	29/04/2010 12:00	35	33	33	27	30	51258
29/04/2010 12:00	30/04/2010 12:00						0
30/04/2010 12:00	1/05/2010 12:00						1930
1/05/2010 12:00	2/05/2010 12:00	34	42	41	38	37	0
2/05/2010 12:00	3/05/2010 12:00						17840
3/05/2010 12:00	4/05/2010 12:00						44834
4/05/2010 12:00	5/05/2010 12:00	27	29	23	21	32	11457
5/05/2010 12:00	6/05/2010 12:00						0
6/05/2010 12:00	7/05/2010 12:00						0
7/05/2010 12:00	8/05/2010 12:00	26	31	22	21	29	937
8/05/2010 12:00	9/05/2010 12:00						2063
9/05/2010 12:00	10/05/2010 12:00						18329
10/05/2010 12:00	11/05/2010 12:00	34	35	33	27	28	64359
11/05/2010 12:00	12/05/2010 12:00						70318
12/05/2010 12:00	13/05/2010 12:00						62507
13/05/2010 12:00	14/05/2010 12:00	68	53	41	37	43	59869
14/05/2010 12:00	15/05/2010 12:00	51	57	35	38	32	56824
15/05/2010 12:00	16/05/2010 12:00	23	52	20	17	18	44178
16/05/2010 12:00	17/05/2010 12:00	19	33	15	9.4	19	11522
17/05/2010 12:00	18/05/2010 12:00						11189
18/05/2010 12:00	19/05/2010 12:00						0
19/05/2010 12:00	20/05/2010 12:00	26	38	30	17	23	2028
20/05/2010 12:00	21/05/2010 12:00	16	19	24	16	16	4868
21/05/2010 12:00	22/05/2010 12:00	19	*	110	63	26	23460
22/05/2010 12:00	23/05/2010 12:00	17	22	21	19	18	29278
23/05/2010 12:00	24/05/2010 12:00						29278
24/05/2010 12:00	25/05/2010 12:00						29987
25/05/2010 12:00	26/05/2010 12:00	19	28	17	15	24	18707
26/05/2010 12:00	27/05/2010 12:00						12075
27/05/2010 12:00	28/05/2010 12:00						10482
28/05/2010 12:00	29/05/2010 12:00	30	39	32	25	36	8626
29/05/2010 12:00	30/05/2010 12:00						1718
30/05/2010 12:00	31/05/2010 12:00						45168
31/05/2010 12:00	1/06/2010 12:00	23	39	35	31	19	66252
1/06/2010 12:00	2/06/2010 12:00						4285
2/06/2010 12:00	3/06/2010 12:00						58200
3/06/2010 12:00	4/06/2010 12:00	41	58	29	22	51	67549
4/06/2010 12:00	5/06/2010 12:00						59396
5/06/2010 12:00	6/06/2010 12:00						2987
6/06/2010 12:00	7/06/2010 12:00	13	6.9	22	14	9.5	2389
7/06/2010 12:00	8/06/2010 12:00						2324
8/06/2010 12:00	9/06/2010 12:00						3224
9/06/2010 12:00	10/06/2010 12:00	26	32	21	18	35	3224
10/06/2010 12:00	11/06/2010 12:00						3224
11/06/2010 12:00	12/06/2010 12:00						3224
12/06/2010 12:00	13/06/2010 12:00	13	21	24	32	13	3224
13/06/2010 12:00	14/06/2010 12:00						46391
14/06/2010 12:00	15/06/2010 12:00						62093
15/06/2010 12:00	16/06/2010 12:00	14	15	18	13	11	39239
16/06/2010 12:00	17/06/2010 12:00						0
17/06/2010 12:00	18/06/2010 12:00	16	25	19	18	24	0
18/06/2010 12:00	19/06/2010 12:00	24	26	24	26	28	8004

EPSL – ANNUAL AMBIENT AIR QUALITY MONITORING REPORT – 1 OCTOBER 2009 to 30 SEPTEMBER 2010

19/06/2010 12:00	20/06/2010 12:00	29	30	35	29	33	6154
20/06/2010 12:00	21/06/2010 12:00						0
21/06/2010 12:00	22/06/2010 12:00	17	24	18	16	21	37645
22/06/2010 12:00	23/06/2010 12:00						61253
23/06/2010 12:00	24/06/2010 12:00						61253
24/06/2010 12:00	25/06/2010 12:00	16	20	14	12	15	4849
25/06/2010 12:00	26/06/2010 12:00						15524
26/06/2010 12:00	27/06/2010 12:00						12053
27/06/2010 12:00	28/06/2010 12:00	18	17	16	19	19	18747
28/06/2010 12:00	29/06/2010 12:00						27323
29/06/2010 12:00	30/06/2010 12:00						27323
30/06/2010 12:00	1/07/2010 12:00	13	22	15	15	18	45086
1/07/2010 12:00	2/07/2010 12:00						65191
2/07/2010 12:00	3/07/2010 12:00	14	16	15	13	13	66449
3/07/2010 12:00	4/07/2010 12:00	15	20	18	17	15	23688
4/07/2010 12:00	5/07/2010 12:00	13	20	14	14	15	7754
5/07/2010 12:00	6/07/2010 12:00	12	15	12	10	16	7173
6/07/2010 12:00	7/07/2010 12:00	23	36	15	12	41	16484
7/07/2010 12:00	8/07/2010 12:00						77620
8/07/2010 12:00	9/07/2010 12:00						76456
9/07/2010 12:00	10/07/2010 12:00	15	15	16	19	16	64331
10/07/2010 12:00	11/07/2010 12:00						66453
11/07/2010 12:00	12/07/2010 12:00						66453
12/07/2010 12:00	13/07/2010 12:00	22	30	31	27	19	49304
13/07/2010 12:00	14/07/2010 12:00						11927
14/07/2010 12:00	15/07/2010 12:00						6792
15/07/2010 12:00	16/07/2010 12:00	21	31	23	20	32	160
16/07/2010 12:00	17/07/2010 12:00						939
17/07/2010 12:00	18/07/2010 12:00						145
18/07/2010 12:00	19/07/2010 12:00	17	26	19	14	20	18769
19/07/2010 12:00	20/07/2010 12:00						61427
20/07/2010 12:00	21/07/2010 12:00						61427
21/07/2010 12:00	22/07/2010 12:00	15	21	26	17	16	31695
22/07/2010 12:00	23/07/2010 12:00						14520
23/07/2010 12:00	24/07/2010 12:00						6605
24/07/2010 12:00	25/07/2010 12:00	23	25	23	13	28	0
25/07/2010 12:00	26/07/2010 12:00						0
26/07/2010 12:00	27/07/2010 12:00						1374
27/07/2010 12:00	28/07/2010 12:00	27	48	24	17	45	4849
28/07/2010 12:00	29/07/2010 12:00						748
29/07/2010 12:00	30/07/2010 12:00						0
30/07/2010 12:00	31/07/2010 12:00	13	25	13	13	18	40215
31/07/2010 12:00	1/08/2010 12:00						59701
1/08/2010 12:00	2/08/2010 12:00						54726
2/08/2010 12:00	3/08/2010 12:00	32	88	28	30	28	2003
3/08/2010 12:00	4/08/2010 12:00						3184
4/08/2010 12:00	5/08/2010 12:00						3184
5/08/2010 12:00	6/08/2010 12:00	34	50	30	23	42	8563
6/08/2010 12:00	7/08/2010 12:00						17753
7/08/2010 12:00	8/08/2010 12:00						12927
8/08/2010 12:00	9/08/2010 12:00	30	36	27	28	26	60041
9/08/2010 12:00	10/08/2010 12:00						60782
10/08/2010 12:00	11/08/2010 12:00						27680
11/08/2010 12:00	12/08/2010 12:00	12	16	13	14	16	5362

EPSL – ANNUAL AMBIENT AIR QUALITY MONITORING REPORT – 1 OCTOBER 2009 to 30 SEPTEMBER 2010

12/08/2010 12:00	13/08/2010 12:00						15146
13/08/2010 12:00	14/08/2010 12:00						63308
14/08/2010 12:00	15/08/2010 12:00	22	27	26	24	23	63308
15/08/2010 12:00	16/08/2010 12:00						61603
16/08/2010 12:00	17/08/2010 12:00						32786
17/08/2010 12:00	18/08/2010 12:00	20	30	18	19	16	26853
18/08/2010 12:00	19/08/2010 12:00						31859
19/08/2010 12:00	20/08/2010 12:00						32633
20/08/2010 12:00	21/08/2010 12:00	55	41	7.5	3.1	38	66568
21/08/2010 12:00	22/08/2010 12:00						61888
22/08/2010 12:00	23/08/2010 12:00						53395
23/08/2010 12:00	24/08/2010 12:00	36	52	32	21	34	64474
24/08/2010 12:00	25/08/2010 12:00						67658
25/08/2010 12:00	26/08/2010 12:00						22740
26/08/2010 12:00	27/08/2010 12:00	23	44	22	21	22	5811
27/08/2010 12:00	28/08/2010 12:00						4168
28/08/2010 12:00	29/08/2010 12:00						14112
29/08/2010 12:00	30/08/2010 12:00	35	36	23	23	26	19488
30/08/2010 12:00	31/08/2010 12:00	30	28	26	25	25	3760
31/08/2010 12:00	1/09/2010 12:00						0

¹ This date represents the day that the filter paper was removed from the HVAS.

* Invalidated or unavailable data due to instrument failure

Note that the laboratory reports these results to two significant figures. In other words, analysed concentrations above 99 µg/m³ are reported to the nearest 'ten'. For example, 101 µg/m³ will be reported as 100 µg/m³.

APPENDIX D HVAS DAILY AVERAGE METAL SPECIATION RESULTS

Sampling start date ¹	Sampling finish date ¹	Site 1 µg/m ³				Site 2 µg/m ³				Site 3 µg/m ³				Site 4 µg/m ³				Site 5 µg/m ³			
		Fe	Ni	Pb	S	Fe	Ni	Pb	S	Fe	Ni	Pb	S	Fe	Ni	Pb	S	Fe	Ni	Pb	S
1/10/2009 12:00	2/10/2009 12:00	0.25	0.002	<0.003	0.6	0.57	0.005	<0.003	0.66	0.09	<0.002	<0.003	0.62	0.07	<0.002	<0.003	0.61	0.18	<0.002	<0.003	0.63
2/10/2009 12:00	3/10/2009 12:00	0.25	0.003	<0.003	0.78	0.38	0.004	<0.003	0.8	0.15	0.002	<0.003	0.7	0.15	<0.002	<0.003	0.74	0.17	<0.002	<0.003	0.87
3/10/2009 12:00	4/10/2009 12:00	0.12	<0.002	<0.003	0.99	0.31	0.002	<0.003	1.1	0.11	<0.002	<0.003	1.1	0.08	<0.002	<0.003	1.1	0.11	<0.002	<0.003	1.1
4/10/2009 12:00	5/10/2009 12:00	0.25	0.002	<0.003	1.1	0.3	0.004	<0.003	1	0.19	0.002	<0.003	1	0.16	<0.002	<0.003	1	0.12	<0.002	<0.003	0.97
5/10/2009 12:00	6/10/2009 12:00	0.16	<0.002	<0.003	0.74	0.4	0.007	0.004	0.76	0.29	0.006	0.003	0.78	0.15	<0.002	<0.003	0.76	0.092	<0.002	<0.003	0.61
6/10/2009 12:00	7/10/2009 12:00	0.4	0.002	0.003	1	0.44	0.01	0.005	1.1	0.27	0.006	<0.003	1.1	0.2	0.002	0.003	1.1	0.15	<0.002	<0.003	0.99
7/10/2009 12:00	8/10/2009 12:00	0.23	<0.002	<0.003	1.2	0.37	0.01	<0.003	1.2	0.17	0.002	<0.003	1.2	0.1	<0.002	<0.003	1.1	0.13	0.002	<0.003	1.2
8/10/2009 12:00	9/10/2009 12:00	0.26	0.002	<0.003	1	0.54	0.008	0.003	1.3	0.49	0.006	<0.003	3.1	0.42	0.004	<0.003	1.9	0.19	<0.002	<0.003	0.95
9/10/2009 12:00	10/10/2009 12:00	0.61	0.004	<0.003	2.6	0.56	0.007	<0.003	1.5	0.46	0.006	<0.003	2.6	0.37	0.007	<0.003	3.1	0.04	<0.002	<0.003	0.12
10/10/2009 12:00	11/10/2009 12:00	0.2	<0.002	<0.003	0.83	0.45	0.006	<0.003	0.8	0.35	0.003	<0.003	0.85	0.16	<0.002	<0.003	0.92	0.19	<0.002	<0.003	0.78
11/10/2009 12:00	12/10/2009 12:00	0.07	<0.002	<0.003	0.7	0.15	0.002	<0.003	0.86	0.09	<0.002	<0.003	0.9	0.07	<0.002	<0.003	0.85	0.09	0.002	<0.003	0.7
12/10/2009 12:00	13/10/2009 12:00	0.084	<0.002	<0.003	0.9	0.17	0.007	<0.003	0.88	0.079	<0.002	<0.003	0.9	0.085	<0.002	<0.003	0.91	0.075	<0.002	<0.003	0.72
13/10/2009 12:00	14/10/2009 12:00	0.09	<0.002	<0.003	0.7	0.18	0.004	<0.003	0.75	0.09	0.002	<0.003	0.77	0.06	<0.002	<0.003	0.66	0.09	<0.002	<0.003	0.67
14/10/2009 12:00	15/10/2009 12:00	0.13	<0.002	<0.003	0.69	0.23	0.003	<0.003	0.79	0.1	<0.002	<0.003	0.74	0.08	0.002	<0.003	0.66	0.1	<0.002	<0.003	0.67
15/10/2009 12:00	16/10/2009 12:00	0.24	0.003	<0.003	0.8	0.32	0.005	<0.003	1	0.26	0.004	<0.003	1.5	0.2	0.003	<0.003	1.5	0.02	<0.002	<0.003	0.09
16/10/2009 12:00	17/10/2009 12:00	0.37	0.004	<0.003	0.61	0.42	0.008	<0.003	0.62	0.22	0.003	<0.003	0.54	0.21	0.003	<0.003	0.57	0.23	<0.002	<0.003	0.58
17/10/2009 12:00	18/10/2009 12:00	0.29	<0.002	<0.003	0.61	0.47	0.007	<0.003	0.65	0.36	0.004	<0.003	0.81	0.29	0.003	<0.003	0.7	0.2	<0.002	<0.003	0.56
18/10/2009 12:00	19/10/2009 12:00	0.42	0.002	0.003	1.2	0.56	0.004	<0.003	1.2	0.51	0.004	0.004	1.1	0.29	0.002	<0.003	1.2	0.37	<0.002	<0.003	1.1
19/10/2009 12:00	20/10/2009 12:00	0.21	<0.002	<0.003	1	0.61	0.006	<0.003	1.1	0.18	<0.002	<0.003	1.1	0.1	<0.002	<0.003	1.1	0.18	<0.002	<0.003	1
20/10/2009 12:00	21/10/2009 12:00	0.37	0.002	<0.003	0.93	0.62	0.007	0.003	1.1	0.62	0.003	<0.003	0.9	0.39	<0.002	<0.003	0.92	0.21	0.002	<0.003	0.9
21/10/2009 12:00	22/10/2009 12:00	1.9	0.012	0.004	1.6	2.5	0.024	0.007	2	1.1	0.012	<0.003	3.5	0.74	0.008	<0.003	2.7	0.54	0.003	<0.003	1.5
22/10/2009 12:00	23/10/2009 12:00	1.9	0.013	0.004	2.6	2.3	0.015	0.004	1.7	0.74	0.002	<0.003	1	0.32	0.002	<0.003	1.1	0.65	0.003	0.003	2.1
23/10/2009 12:00	24/10/2009 12:00	1.6	0.006	0.003	2.5	2.1	0.012	0.003	1.3	0.61	0.002	<0.003	0.96	0.22	<0.002	<0.003	0.95	0.53	0.003	<0.003	1.7
24/10/2009 12:00	25/10/2009 12:00	1.5	0.004	<0.003	2.4	1.7	0.019	0.004	3.5	1.6	0.011	0.003	3.9	0.59	0.002	<0.003	1.4	0.25	<0.002	<0.003	0.93
25/10/2009 12:00	26/10/2009 12:00	2	0.007	0.005	2	1.7	0.02	0.006	2.7	1.6	0.015	0.004	1.7	1.3	0.01	0.005	1.5	0.38	<0.002	0.003	1.3
26/10/2009 12:00	27/10/2009 12:00	0.87	0.006	0.004	1.9	1.1	0.009	0.007	1.5	0.77	0.006	<0.003	1.7	0.65	0.005	<0.003	1.6	0.41	0.002	<0.003	1.6
27/10/2009 12:00	28/10/2009 12:00	0.94	0.006	<0.003	1.9	1.1	0.009	0.003	1.5	0.76	0.017	<0.003	2	0.61	0.008	<0.003	1.6	0.75	<0.002	<0.003	1.5
28/10/2009 12:00	29/10/2009 12:00	0.22	<0.002	<0.003	1	0.43	0.005	<0.003	1.1	0.23	<0.002	<0.003	1	0.31	<0.002	<0.003	1.4	0.31	<0.002	<0.003	1.1
29/10/2009 12:00	30/10/2009 12:00	0.29	0.003	<0.003	1.6	0.36	0.004	<0.003	1	0.28	0.002	<0.003	1	0.16	<0.002	<0.003	0.91	0.2	<0.002	<0.003	1.2
30/10/2009 12:00	31/10/2009 12:00	0.07	<0.002	<0.003	0.11	0.84	<0.002	0.003	1.1	0.47	0.004	<0.003	0.89	0.29	0.002	<0.003	1.1	0.29	<0.002	<0.003	0.97
1/11/2009 12:00	2/11/2009 12:00	0.31	<0.002	<0.003	0.88	0.58	0.008	<0.003	0.92	0.24	<0.002	<0.003	0.87	0.17	<0.002	<0.003	0.9	0.19	<0.002	<0.003	0.84
2/11/2009 12:00	3/11/2009 12:00	0.67	0.004	<0.003	0.94	0.78	0.004	<0.003	0.83	0.47	<0.002	<0.003	0.89	0.25	<0.002	<0.003	0.87	0.29	<0.002	<0.003	0.9
3/11/2009 12:00	4/11/2009 12:00	0.48	0.002	<0.003	0.76	0.75	0.005	<0.003	0.84	1.1	0.005	<0.003	2	0.29	<0.002	<0.003	1.2	0.26	<0.002	<0.003	0.69
4/11/2009 12:00	5/11/2009 12:00	0.71	0.003	0.003	1.5	1.4	0.014	0.005	0.9	0.9	0.004	<0.003	1.1	1.3	0.006	<0.003	1.1	0.24	<0.002	<0.003	0.99
5/11/2009 12:00	6/11/2009 12:00	0.88	0.002	<0.003	0.67	0.95	0.004	<0.003	0.69	1.2	0.004	<0.003	0.67	0.82	0.003	<0.003	0.68	1.5	0.004	0.003	0.7
6/11/2009 12:00	7/11/2009 12:00	0.67	0.002	<0.003	0.7	1.1	0.006	0.004	0.82	1	0.022	0.006	0.78	1.2	0.015	0.005	0.83	0.74	<0.002	0.001	0.64
7/11/2009 12:00	8/11/2009 12:00	0.17	<0.002	<0.003	0.84	0.28	<0.002	<0.003	0.87	0.16	0.002	<0.003	0.85	0.22	<0.002	<0.003	0.88	0.12	<0.002	<0.003	0.95
8/11/2009 12:00	9/11/2009 12:00	0.26	0.004	<0.003	2.7	0.26	0.005	<0.003	0.93	0.1	<0.002	<0.003	0.56	0.1	<0.002	<0.003	0.66	0.1	0.002	<0.003	1.3
9/11/2009 12:00	10/11/2009 12:00	0.84	0.005	<0.003	1.6	0.81	0.011	<0.003	1.3	0.66	0.008	<0.003	2	0.39	0.008	<0.003	1.2	0.35	<0.002	<0.003	0.93
10/11/2009 12:00	11/11/2009 12:00	1.1	0.003	<0.003	1.4	1.2	0.012	0.003	2.1	0.87	0.005	<0.003	2.1	0.84	0.005	<0.003	2	0.53	<0.002	<0.003	1.2
11/11/2009 12:00	12/11/2009 12:00	0.93	0.011	<0.003	1.9	1	0.009	<0.003	1.8	0.69	0.005	<0.003	1.7	0.46	0.005	<0.003	1.5	0.71	0.005	<0.003	2.1
12/11/2009 12:00	13/11/2009 12:00	0.32	0.004	<0.003	1.4	0.52	0.008	<0.003	1.5	0.26	0.004	<0.003	1.3	0.2	0.006	<0.003	1.4	0.28	0.002	<0.003	1.3
13/11/2009 12:00	14/11/2009 12:00	0.26	0.004	<0.003	1.6	0.39	0.006	<0.003	0.93	0.18	0.003	<0.003	1.6	0.14	0.002	<0.003	1.6	0.22	0.002	<0.003	1.3
14/11/2009 12:00	15/11/2009 12:00	0.24	0.002	<0.003	0.74	0.55	0.006	<0.003	0.77	0.14	0.003	<0.003	0.83	0.08	<0.002	<0.003	0.77	0.11	<0.002	<0.003	0.83
15/11/2009 12:00	16/11/2009 12:00	0.38	<0.002	<0.003	0.7	0.33	0.004	<0.003	0.67	0.39	0.004	<0.003	1.7	0.21	0.003	<0.003	2.3	0.22	<0.002	<0.003	0.71
16/11/2009 12:00	17/11/2009 12:00	0.46	0.002	<0.003	0.66	0.61	0.005	<0.003	0.65	0.55	0.004	<0.003	0.72	0.36	0.003	<0.003	0.68	0.72	<0.002	<0.003	0.69
17/11/2009 12:00	18/11/2009 12:00	0.22	<0.002	<0.003	0.66	0.5	0.004	<0.003	0.69	0.27	<0.002	<0.003	0.67	0.13	<0.002	<0.003	0.56	0.21	<0.002	<0.003	0.62
18/11/2009 12:00	19/11/2009 12:00	0.17	<0.002	<0.003	0.51	0.25	0.002	<0.003	0.5	0.79	0.004	0.007	1.5	0.12	<0.002	<0.003	0.55	0.32	<0.002	<0.003	0.55

19/11/2009 12:00	20/11/2009 12:00	0.11	<0.002	<0.003	0.81	0.3	0.003	<0.003	0.85	0.12	<0.002	<0.003	1	0.1	<0.002	<0.003	0.8	0.11	<0.002	<0.003	0.77
20/11/2009 12:00	21/11/2009 12:00	0.13	<0.002	<0.003	0.78	0.24	0.002	<0.003	0.77	0.06	<0.002	<0.003	0.69	0.07	<0.001	<0.003	0.77	0.1	<0.002	<0.003	0.79
21/11/2009 12:00	22/11/2009 12:00	0.08	<0.002	<0.003	0.76	0.22	<0.002	<0.003	0.72	0.06	<0.002	<0.003	0.68	0.05	<0.002	<0.003	0.6	0.07	<0.002	<0.003	0.77
22/11/2009 12:00	23/11/2009 12:00	0.33	<0.002	<0.003	1.5	0.26	0.002	<0.003	1.2	0.22	<0.002	<0.003	1.1	0.15	<0.002	<0.003	0.9	0.24	<0.002	<0.003	0.83
23/11/2009 12:00	24/11/2009 12:00	0.4	0.002	<0.003	0.97	0.44	0.003	<0.003	1.1	0.61	0.005	<0.003	1.6	0.3	0.002	<0.003	1.1	0.38	0.002	<0.003	1.2
24/11/2009 12:00	25/11/2009 12:00	0.71	0.004	<0.003	1.6	0.85	0.006	<0.003	1.6	0.94	0.01	<0.003	1.6	0.6	0.006	<0.003	1.3	1.1	0.005	<0.003	0.97
25/11/2009 12:00	26/11/2009 12:00	0.14	<0.002	<0.003	1.1	0.38	0.005	<0.003	1.2	0.1	<0.002	<0.003	1.1	0.06	0.002	<0.003	0.65	0.13	<0.002	<0.003	1.1
26/11/2009 12:00	27/11/2009 12:00	0.13	<0.002	<0.003	0.98	0.4	0.007	<0.003	1	0.17	0.005	<0.003	0.94	0.11	<0.002	<0.003	0.95	0.15	<0.002	<0.003	0.99
27/11/2009 12:00	28/11/2009 12:00	0.11	0.002	<0.003	0.82	0.52	0.006	<0.003	0.89	0.12	<0.002	<0.003	0.78	0.07	<0.002	<0.003	0.71	0.1	<0.002	<0.003	0.7
28/11/2009 12:00	29/11/2009 12:00	0.28	0.003	<0.003	1.7	0.4	0.006	<0.003	2.2	0.47	0.007	<0.003	3.2	0.18	0.004	<0.003	2.9	0.17	<0.002	<0.003	0.9
29/11/2009 12:00	30/11/2009 12:00	0.6	0.005	<0.003	2	0.79	0.014	0.003	2	0.52	0.011	<0.003	3.6	0.32	0.005	<0.003	3	0.22	0.002	<0.003	1.2
30/11/2009 12:00	1/12/2009 12:00	0.17	0.002	<0.003	1.1	0.77	0.014	0.004	1.2	0.2	<0.002	<0.003	1.1	0.17	<0.002	<0.003	0.98	0.15	<0.002	<0.003	0.9
1/12/2009 12:00	2/12/2009 12:00	0.17	<0.002	<0.003	0.86	0.68	0.007	<0.003	1	0.14	<0.002	<0.003	0.95	0.08	<0.002	<0.003	0.78	0.13	<0.002	<0.003	0.87
2/12/2009 12:00	3/12/2009 12:00	0.4	0.003	0.009	0.92	0.5	0.005	0.003	0.86	0.19	<0.002	<0.003	0.81	0.1	<0.002	<0.003	0.73	0.15	<0.002	<0.003	0.87
3/12/2009 12:00	4/12/2009 12:00	0.53	0.004	0.004	0.8	0.83	0.019	0.005	0.88	0.35	0.003	<0.003	0.81	0.12	<0.002	<0.003	0.78	0.12	<0.002	<0.003	0.7
5/12/2009 12:00	6/12/2009 12:00	0.44	0.003	<0.003	1.2	0.69	0.009	0.003	1.7	0.37	0.002	<0.003	1.3	0.2	<0.002	<0.003	1.2	0.22	0.002	<0.003	1.7
6/12/2009 12:00	7/12/2009 12:00	1	0.026	0.003	4.6	1.5	0.02	0.003	2.2	0.47	0.003	<0.003	1	0.11	<0.002	<0.003	0.69	0.43	0.012	<0.003	5.3
7/12/2009 12:00	8/12/2009 12:00	0.48	0.003	<0.003	0.88	0.67	0.003	<0.003	0.87	0.43	<0.002	<0.003	0.85	0.15	<0.002	<0.003	0.67	0.21	<0.002	<0.003	0.88
8/12/2009 12:00	9/12/2009 12:00	0.27	0.002	<0.003	1.1	0.73	0.006	<0.003	1.1	0.18	<0.002	<0.003	1	0.22	<0.002	<0.003	0.97	0.2	<0.002	<0.003	1
9/12/2009 12:00	10/12/2009 12:00	0.12	<0.002	<0.003	1.1	0.66	0.006	<0.003	1.2	0.3	<0.002	<0.003	1.2	0.26	<0.002	<0.003	1.2	0.18	<0.002	<0.003	1.1
10/12/2009 12:00	11/12/2009 12:00	0.66	0.006	<0.003	1.9	1.4	0.016	0.003	1.2	0.58	0.003	<0.003	1.3	0.34	0.003	<0.003	1.1	0.3	0.002	<0.003	1.3
11/12/2009 12:00	12/12/2009 12:00	0.68	<0.002	<0.003	1.7	1.4	0.008	0.003	1.9	1	<0.002	<0.003	1.7	0.49	<0.002	<0.003	1.7	0.32	<0.002	<0.003	0.99
12/12/2009 12:00	13/12/2009 12:00	0.77	<0.002	<0.003	1.9	0.59	<0.002	0.003	2.1	0.46	<0.002	<0.003	2.4	0.8	<0.002	<0.003	1.8	0.98	<0.002	<0.003	1.9
13/12/2009 12:00	14/12/2009 12:00	1.4	<0.002	<0.003	3	1.6	<0.002	0.003	2.9	2.3	0.014	0.005	3.6	1.5	0.006	0.004	3.4	1.7	<0.002	0.003	1.3
14/12/2009 12:00	15/12/2009 12:00	0.29	0.002	<0.003	1.3	0.72	0.008	0.003	1.2	0.44	<0.002	<0.003	1.2	0.26	<0.002	<0.003	1.1	0.3	<0.002	<0.003	1.2
15/12/2009 12:00	16/12/2009 12:00	0.5	0.005	<0.003	0.91	0.42	0.005	<0.003	0.97	0.24	<0.002	<0.003	0.86	0.11	<0.002	<0.003	1.1	0.18	<0.002	<0.003	0.98
16/12/2009 12:00	17/12/2009 12:00	0.35	0.003	<0.003	0.75	0.69	0.009	0.003	0.9	0.13	<0.002	<0.003	0.92	0.08	<0.002	<0.003	0.83	0.18	<0.002	<0.003	0.84
17/12/2009 12:00	18/12/2009 12:00	0.74	0.009	<0.003	0.8	1.6	0.025	0.005	1.3	0.62	0.004	<0.003	0.93	0.24	<0.002	<0.003	0.84	0.29	0.002	<0.003	0.88
18/12/2009 12:00	19/12/2009 12:00	0.73	0.004	<0.003	1.1	0.9	0.011	0.003	1.4	0.52	0.005	<0.003	1.5	0.38	0.005	<0.003	1.7	0.29	0.002	<0.003	0.95
19/12/2009 12:00	20/12/2009 12:00	0.79	0.007	<0.003	1.9	0.86	0.015	<0.003	2.7	0.56	0.005	<0.003	2	0.36*	0.004*	<0.003*	1.9*	0.35	0.004	<0.003	1.3
20/12/2009 12:00	21/12/2009 12:00	0.39	0.004	<0.003	1.1	0.56	0.007	<0.003	0.82	0.22	<0.002	<0.003	1.1					0.2	0.002	<0.003	1.1
21/12/2009 12:00	22/12/2009 12:00	0.75	0.006	0.003	1.3	1.5	0.018	0.004	1.1	0.48	0.002	<0.003	0.88	0.18	<0.002	<0.003	0.76	0.41	0.002	<0.003	1.4
22/12/2009 12:00	23/12/2009 12:00	1.3	0.005	0.004	2	1.8	0.015	0.004	1.5	0.71	0.003	<0.003	1.3	0.43	0.002	<0.003	1.1	0.56	0.006	<0.003	1.6
23/12/2009 12:00	24/12/2009 12:00	0.25	<0.002	<0.003	1	0.48	0.006	<0.003	1.1	0.19	<0.002	<0.003	1.1	0.13	<0.002	<0.003	0.89	0.2	<0.002	<0.003	1.2
24/12/2009 12:00	25/12/2009 12:00	0.81	0.004	<0.003	1.7	0.75	0.005	<0.003	1.4	0.49	0.002	<0.003	1.4	0.33	0.002	<0.003	1.3	0.28	<0.002	<0.003	1.4
25/12/2009 12:00	26/12/2009 12:00	0.49	0.002	<0.003	1.5	0.67	0.003	<0.003	1.1	1.6	0.003	<0.003	2.4	1.1	0.002	<0.003	1.6	0.3	<0.002	<0.003	1.3
26/12/2009 12:00	27/12/2009 12:00	1	0.002	<0.003	1.1	0.66	0.006	<0.003	1.2	0.31	<0.002	<0.003	1.1	0.27	<0.002	<0.003	1.2	0.57	<0.002	<0.003	1.2
27/12/2009 12:00	28/12/2009 12:00	0.33	0.003	<0.003	1.4	0.41	0.007	<0.003	1.8	0.25	0.003	<0.003	1	0.14	<0.002	<0.003	0.84	0.12	<0.002	<0.003	1.1
28/12/2009 12:00	29/12/2009 12:00	1	0.008	0.003	3.9	0.91	0.011	0.003	2.9	0.84	0.013	0.003	2.5	0.42	0.005	<0.003	1.5	0.65	0.003	<0.003	1.4
29/12/2009 12:00	30/12/2009 12:00	0.68	0.009	0.003	1.6	1.5	0.013	0.009	1.5	1.1	0.006	0.005	1.9	0.54	0.007	0.003	1.6	0.65	0.005	0.003	1.6
30/12/2009 12:00	31/12/2009 12:00	0.41	0.006	<0.003	1.9	0.54	0.007	<0.003	0.96	0.24	0.002	<0.003	1.3	0.14	<0.002	<0.003	0.98	0.18	<0.002	<0.003	1.2
31/12/2009 12:00	1/01/2010 12:00	0.27	0.002	<0.003	1.5	0.45	0.006	<0.003	1.8	0.22	0.002	<0.003	2.6	0.12	0.002	<0.003	1.5	0.16	<0.002	<0.003	1
1/01/2010 12:00	2/01/2010 12:00	0.54	0.005	<0.003	2.4	0.4	0.006	<0.003	1.1	0.16	0.003	<0.003	1.4	0.12	0.002	<0.003	1.3	0.16	0.002	<0.003	1.6
2/01/2010 12:00	3/01/2010 12:00	0.59	0.006	<0.003	1.9	0.36	0.009	<0.003	2.6	0.3	0.005	<0.003	4.1	0.23	0.004	<0.003	3.1	0.17	0.002	<0.003	1.5
3/01/2010 12:00	4/01/2010 12:00	0.63	0.004	<0.003	2	0.64	0.007	<0.003	2.1	0.45	0.002	<0.003	2	0.23	0.002	<0.003	2.5	0.25	<0.002	<0.003	1.1
4/01/2010 12:00	5/01/2010 12:00	1.2	0.012	0.003	3.3	1.5	0.013	<0.003	3.1	0.45	0.002	<0.003	1	0.22	0.002	<0.003	0.98	0.36	0.002	<0.003	1.4
5/01/2010 12:00	6/01/2010 12:00	1.1	0.003	<0.003	1.1	1.9	0.011	0.005	2.7	1.2	0.011	0.003	2.2	1.2	0.011	0.003	1.8	0.95	0.002	<0.003	0.9
6/01/2010 12:00	7/01/2010 12:00	0.72	0.004	<0.003	1.5	1.1	0.009	0.003	1.5	0.63	0.003	<0.003	1.5	0.55	0.003	<0.003	1.3	0.46	0.002	<0.003	1.2
8/01/2010 12:00	9/01/2010 12:00	0.82	0.007	<0.003	4.6	1	0.014	<0.003	4.3	0.43	0.004	<0.003	3.9	0.24	<0.002	<0.003	1.3	0.43	0.005	<0.003	2.8
9/01/2010 12:00	10/01/2010 12:00	0.7	0.004	<0.003	3.5	0.92	0.009	0.003	2.5	0.31	<0.002	<0.003	1.6	0.26	<0.002	<0.003	1.6	0.35	<0.002	<0.003	2.3
10/01/2010 12:00	11/01/2010 12:00	0.19	<0.002	<0.003	1.2	0.47	0.006	<0.003	1.2	0.15	<0.002	<0.003	1.2	0.11</							

14/01/2010 12:00	15/01/2010 12:00	0.84	0.01	<0.003	3.2	1.9	0.018	<0.003	3.1	0.33	<0.002	<0.003	1.2	0.27	<0.002	<0.003	1.1	0.31	<0.002	<0.003	1.6
15/01/2010 12:00	16/01/2010 12:00	1.1	0.007	<0.003	3.3	2.1	0.021	0.004	2.8	0.69	0.002	<0.003	1.2	0.19	<0.002	<0.003	1	0.39	0.002	<0.003	2.6
16/01/2010 12:00	17/01/2010 12:00	1.5	0.008	0.003	1.8	1.4	0.014	0.003	2	1.4	0.012	<0.003	4.1	0.65	0.007	0.003	2.8	0.44	0.002	0.003	1.3
17/01/2010 12:00	18/01/2010 12:00	2	0.009	0.005	1.8	2.7	0.025	0.005	2.2	2.3	0.017	0.004	2.2	1.1	0.01	0.003	2.4	0.66	0.002	<0.003	1.1
18/01/2010 12:00	19/01/2010 12:00	1.4	0.006	<0.003	1.9	2	0.016	<0.003	2	0.39	0.002	<0.003	0.99	0.24	<0.002	<0.003	0.97	0.34	0.002	<0.003	1.2
19/01/2010 12:00	20/01/2010 12:00	1.8	0.013	0.004	2.4	2	0.018	0.004	2.3	0.78	0.006	<0.003	1.3	0.22	<0.002	<0.003	0.86	0.3	0.002	<0.003	1.1
20/01/2010 12:00	21/01/2010 12:00	1.4	0.013	<0.003	2.8	1.6	0.015	0.003	1	0.16	<0.002	<0.003	0.88	0.12	<0.002	<0.003	0.81	0.35	0.003	<0.003	1
21/01/2010 12:00	22/01/2010 12:00	0.19	0.002	<0.003	1.1	0.61	0.013	0.004	1.2	0.15	<0.002	<0.003	1.1	0.09	<0.002	<0.003	1.1	0.15	<0.002	<0.003	1.3
22/01/2010 12:00	23/01/2010 12:00	0.64	0.006	0.003	2.6	0.5	0.01	<0.003	1.4	0.33	0.008	<0.003	3.3	0.18	0.006	<0.003	4.5	0.22	0.002	<0.003	1.3
23/01/2010 12:00	24/01/2010 12:00	0.48	0.003	<0.003	2.4	0.55	0.013	0.005	4.8	0.29	0.005	<0.003	6.2	0.34	0.006	<0.003	6.6	0.17	<0.002	<0.003	1.2
24/01/2010 12:00	25/01/2010 12:00	0.5	0.004	<0.003	3.7	0.97	0.009	<0.003	5.8	0.42	0.005	<0.003	5.7	0.19	<0.002	<0.003	1.5	0.25	<0.002	<0.003	1.7
25/01/2010 12:00	26/01/2010 12:00	0.22	0.002	<0.003	1.3	0.38	0.004	<0.003	1.3	0.14	<0.002	<0.003	1.3	0.1	<0.002	<0.003	1.3	0.21	0.004	<0.003	3.1
26/01/2010 12:00	27/01/2010 12:00	0.34	0.003	<0.003	1.8	0.33	0.01	0.003	1.2	0.15	<0.002	<0.003	1.1	0.085	<0.002	<0.003	0.99	0.19	0.003	<0.003	2.5
27/01/2010 12:00	28/01/2010 12:00	0.52	0.006	<0.003	1.8	0.88	0.023	<0.003	1.3	0.2	<0.002	<0.003	1	0.12	<0.002	<0.003	1	0.32	0.003	<0.003	2.3
28/01/2010 12:00	29/01/2010 12:00	0.68	0.007	0.003	2.4	1.5	0.025	0.003	3.2	1.2	0.022	0.003	5.6	0.5	0.007	<0.003	3.3	0.23	0.002	<0.003	1.4
29/01/2010 12:00	30/01/2010 12:00	0.84	0.006	0.003	2.6	0.64	0.01	<0.003	1.8	0.6	0.009	<0.003	4.4	0.25	0.005	<0.003	2.6	0.21	0.002	<0.003	1.2
30/01/2010 12:00	31/01/2010 12:00	0.26	0.006	<0.003	2.2	0.36	0.007	<0.003	1	0.14	<0.002	<0.003	0.89	0.12	<0.002	<0.003	0.91	0.13	0.002	<0.003	1.4
31/01/2010 12:00	1/02/2010 12:00	0.43	0.005	<0.003	1.7	0.32	0.01	<0.003	1.7	0.3	0.006	<0.003	1.2	0.12	<0.002	<0.003	0.79	0.13	<0.002	<0.003	0.83
1/02/2010 12:00	2/02/2010 12:00	0.42	0.004	<0.003	2.2	0.53	0.009	0.005	1.9	0.36	0.004	<0.003	1.6	0.22	0.002	<0.003	1.5	0.18	0.002	<0.003	1.3
2/02/2010 12:00	3/02/2010 12:00	0.08	0.002	<0.003	0.69	0.23	0.005	0.003	0.83	0.06	<0.002	<0.003	0.83	0.04	<0.002	<0.003	0.85	0.08	<0.002	<0.003	0.82
3/02/2010 12:00	4/02/2010 12:00	0.11	0.002	<0.003	0.68	0.23	0.005	<0.003	0.75	0.06	<0.002	<0.003	0.69	0.04	<0.002	<0.003	0.62	0.08	<0.002	<0.003	0.79
4/02/2010 12:00	5/02/2010 12:00	0.23	0.002	<0.003	1.3	0.4	0.01	0.003	1.2	0.38	0.007	<0.003	2.6	0.22	0.004	<0.003	1.5	0.19	<0.002	<0.003	1.1
5/02/2010 12:00	6/02/2010 12:00	0.48	0.005	0.003	1.1	0.64	0.015	0.006	1.3	0.48	0.021	0.005	1.1	0.37	0.009	0.003	1.1	0.34	0.002	<0.003	1.1
6/02/2010 12:00	7/02/2010 12:00	0.2	<0.002	<0.003	1.3	0.35	0.005	<0.003	1.4	0.14	<0.002	<0.003	1.2	0.13	<0.002	<0.003	1.2	0.05	<0.002	<0.003	0.41
7/02/2010 12:00	8/02/2010 12:00	0.2	0.005	<0.003	1.8	0.33	0.017	0.003	1.2	0.21	0.006	<0.003	1.2	0.1	0.003	<0.003	0.96	0.14	<0.002	<0.003	1.2
8/02/2010 12:00	9/02/2010 12:00	0.36	0.006	<0.003	4.1	0.42	0.015	<0.003	5.4	0.27	0.007	<0.003	3.4	0.18	0.005	<0.003	2.8	0.14	<0.002	<0.003	1.3
9/02/2010 12:00	10/02/2010 12:00	0.38	0.003	<0.003	0.92	0.32	0.005	<0.003	0.87	0.28	0.004	<0.003	0.85	0.17	0.002	<0.003	0.67	0.15	0.002	<0.003	0.97
11/02/2010 12:00	12/02/2010 12:00	0.21	0.005	<0.003	3.4	0.35	0.006	<0.003	1.1	0.1	<0.002	<0.003	1	0.09	<0.002	<0.003	0.95	0.15	0.003	<0.003	2.1
12/02/2010 12:00	13/02/2010 12:00	0.11	<0.002	<0.003	0.67	0.21	0.002	<0.003	0.69	0.08	<0.002	<0.003	0.7	0.07	<0.002	<0.003	0.65	0.11	<0.002	<0.003	0.74
13/02/2010 12:00	14/02/2010 12:00	0.25	0.004	<0.003	1.4	0.3	0.006	<0.003	1.1	0.15	0.002	<0.003	1.1	0.09	0.002	<0.003	0.78	0.13	<0.002	<0.003	0.82
14/02/2010 12:00	15/02/2010 12:00	0.21	0.003	<0.003	1.1	0.31	0.007	<0.003	1.8	0.23	0.003	<0.003	1.4	0.15	0.002	<0.003	0.96	0.13	<0.002	<0.003	0.93
15/02/2010 12:00	16/02/2010 12:00	0.32	0.005	<0.003	1.3	0.56	0.012	<0.003	1.1	0.22	0.004	<0.003	1.1	0.17	0.003	<0.003	1.1	0.3	0.004	<0.003	1.7
16/02/2010 12:00	17/02/2010 12:00	0.17	0.003	<0.003	1.7	0.3	0.011	<0.003	3.7	0.17	0.004	<0.003	1.1	0.09	<0.002	<0.003	0.9	0.15	<0.002	<0.003	1.1
17/02/2010 12:00	18/02/2010 12:00	0.46	0.004	<0.003	1.2	0.63	0.02	0.005	4.2	0.37	0.008	<0.003	1.2	0.21	0.003	<0.003	0.92	0.21	<0.002	<0.003	0.87
18/02/2010 12:00	19/02/2010 12:00	0.36	0.002	<0.003	0.97	0.48	0.004	<0.003	1.2	0.23	<0.002	<0.003	1	0.14	<0.002	<0.003	0.91	0.31	0.002	<0.003	1.10
19/02/2010 12:00	20/02/2010 12:00	0.22	0.002	<0.003	0.97	0.55	0.006	<0.003	1	0.23	<0.002	<0.003	0.93	0.08	<0.002	<0.003	0.75	0.21	<0.002	<0.003	1.00
20/02/2010 12:00	21/02/2010 12:00	0.15	0.002	<0.003	0.78	0.49	0.005	<0.003	0.81	0.16	<0.002	<0.003	0.85	0.11	<0.002	<0.003	0.75	0.08	<0.002	<0.003	0.86
21/02/2010 12:00	22/02/2010 12:00	0.46	0.003	<0.003	0.97	0.67	0.007	<0.003	0.85	0.29	<0.002	<0.003	0.93	0.15	<0.002	<0.003	0.78	0.26	<0.002	<0.003	0.77
22/02/2010 12:00	23/02/2010 12:00	1	0.005	<0.003	1.8	1.6	0.013	0.003	2	0.86	0.004	<0.003	1.8	0.63	0.003	<0.003	1.4	0.36	<0.002	<0.003	1.00
23/02/2010 12:00	24/02/2010 12:00	0.56	0.003	<0.003	1.3	1.2	0.011	0.003	1.7	1.1	0.008	<0.003	4.5	0.31	0.002	<0.003	2.1	0.21	<0.002	<0.003	0.99
24/02/2010 12:00	25/02/2010 12:00	0.89	0.006	<0.003	1.8	2.9	0.026	0.006	1.5	0.95	0.011	<0.003	3.8	0.36	0.003	<0.003	1.6	0.3	<0.002	<0.003	1.20
25/02/2010 12:00	26/02/2010 12:00	0.85	0.005	<0.003	2.8	2	0.018	0.003	4.3	0.69	0.003	<0.003	1.4	0.38	<0.002	<0.003	0.91	0.29	<0.002	<0.003	1.20
26/02/2010 12:00	27/02/2010 12:00	0.92	0.008	0.003	3.3	1.6	0.021	0.004	3.3	0.94	0.004	0.003	0.9	0.34	<0.002	<0.003	0.81	0.37	<0.002	<0.003	1.40
27/02/2010 12:00	28/02/2010 12:00	0.48	<0.002	<0.003	0.76	0.94	0.013	0.003	0.76	0.9	0.005	<0.003	0.76	0.46	0.003	<0.003	0.91	0.21	<0.002	<0.003	0.70
28/02/2010 12:00	28/02/2010 12:00	0.44	<0.002	<0.003	0.87	1.1	0.015	0.004	0.96	1.9	0.012	0.003	2	*	*	*	*	0.22	<0.002	<0.003	0.81
1/03/2010 12:00	2/03/2010 12:00	0.44	0.002	<0.003	1.4	1.6	0.008	<0.003	2.4	1.3	0.009	0.003	3.3	*	*	*	*	0.28	<0.002	<0.003	0.80
2/03/2010 12:00	3/03/2010 12:00	0.57	0.002	<0.003	1.6	1.3	0.007	<0.003	1.7	0.68	0.002	<0.003	1.6	*	*	*	*	0.28	<0.002	<0.003	0.98
3/03/2010 12:00	4/03/2010 12:00	0.21	<0.002	<0.003	1.1	0.55	0.005	<0.003	1	0.41	<0.002	<0.003	0.98	0.15	<0.002	<0.003	0.96	0.17	<0.002	<0.003	1.00
4/03/2010 12:00	5/03/2010 12:00	0.28	<0.002	<0.003	1.1	0.84	0.01	0.003	1.4	0.36	<0.002	<0.003	1.1	0.25	<0.002	<0.003	0.93	0.24	<0.002	<0.003	1.00
5/03/2010 12:00	6/03/2010 12:00	0.1	<0.002	<0.003	0.95	0.52	0.005	<0.003	1	0.15	<0.002	<0.003	0.93	0.11	<0.002	<0.003	0.88	0.08	<0.002	<0.003	0.81
6/03/2010 12:00	7/03/2010 12:00	0.16	<0.002	<0.003	0.85	0.34	0.003	<0.003	0.95	0.51	0.002	<0.003	<0.01	0.1	<0.002	<0.003	0.8	0.13			

10/03/2010 12:00	11/03/2010 12:00	0.63	0.007	<0.003	3.8	0.85	0.015	0.004	3.9	0.91	0.025	0.003	4.5	0.36	0.008	<0.003	3.5	0.33	<0.002	<0.003	1.20
11/03/2010 12:00	12/03/2010 12:00	0.28	0.003	<0.003	1.9	0.54	0.013	<0.003	2.3	0.64	0.01	<0.003	3.9	0.5	0.009	<0.003	4	0.33	<0.002	<0.003	1.10
12/03/2010 12:00	13/03/2010 12:00	0.34	0.002	<0.003	1.7	0.57	0.009	0.003	1.8	0.56	0.009	<0.003	3	0.38	0.007	<0.003	3.6	0.59	0.003	<0.003	1.20
13/03/2010 12:00	14/03/2010 12:00	0.32	0.002	<0.003	2	0.42	0.007	<0.003	1.9	0.38	0.004	<0.003	1.7	0.25	0.003	<0.003	1.1	0.27	<0.002	<0.003	1.10
14/03/2010 12:00	15/03/2010 12:00	0.26	0.01	<0.003	2.5	0.39	0.008	<0.003	2.1	0.19	0.004	<0.003	1.8	0.15	0.003	<0.003	1.6	0.27	0.005	<0.003	1.60
15/03/2010 12:00	16/03/2010 12:00	0.15	0.002	<0.003	1.1	0.45	0.004	<0.003	1.1	0.11	<0.002	<0.003	1.1	0.09	<0.002	<0.003	0.93	0.11	<0.002	<0.003	0.93
17/03/2010 12:00	18/03/2010 12:00	0.31	0.006	<0.003	2.5	0.63	0.01	<0.003	1.4	0.27	0.006	<0.003	2.6	0.18	0.003	<0.003	1.6	0.19	<0.002	<0.003	0.94
18/03/2010 12:00	19/03/2010 12:00	0.25	0.002	<0.003	1.5	0.48	0.003	<0.003	1.4	0.23	0.004	<0.003	1.5	0.16	0.003	<0.003	1.7	0.21	<0.002	<0.003	1.20
19/03/2010 12:00	20/03/2010 12:00	0.33	0.011	<0.003	4.5	0.55	0.015	0.003	1.6	0.22	<0.002	<0.003	1.2	0.09	<0.002	<0.003	0.82	0.22	0.002	<0.003	1.60
20/03/2010 12:00	21/03/2010 12:00	0.22	0.008	<0.003	4	0.31	0.008	<0.003	2.4	0.11	<0.002	<0.003	1.2	0.08	<0.002	<0.003	0.87	0.13	0.002	<0.003	1.70
21/03/2010 12:00	22/03/2010 12:00	0.14	0.003	<0.003	2.3	0.16	0.009	<0.003	3.9	0.13	0.002	<0.003	2	0.08	<0.002	<0.003	0.98	0.1	<0.002	<0.003	1.20
22/03/2010 12:00	23/03/2010 12:00	0.16	<0.002	<0.003	1.5	0.44	0.016	<0.003	4.7	0.21	0.013	<0.003	4.9	0.14	0.005	<0.003	3	0.14	<0.002	<0.003	1.20
23/03/2010 12:00	24/03/2010 12:00	0.24	0.005	<0.003	3.9	0.32	0.004	<0.003	2.2	0.17	0.002	<0.003	4.4	0.16	0.002	<0.003	1.5	0.25	0.002	<0.003	2.30
24/03/2010 12:00	25/03/2010 12:00	0.18	<0.002	<0.003	1.1	0.36	0.005	<0.003	1.1	0.18	<0.002	<0.003	1.2	0.13	<0.002	<0.003	1.1	0.25	<0.002	<0.003	1.30
25/03/2010 12:00	26/03/2010 12:00	0.18	0.007	<0.003	4.8	0.27	0.008	<0.003	3.8	0.16	0.002	<0.003	2.2	0.01	<0.002	<0.003	0.1	0.12	0.002	<0.003	2.00
26/03/2010 12:00	27/03/2010 12:00	0.09	<0.002	<0.003	1.4	0.24	0.009	<0.003	6.3	0.18	0.005	<0.003	2.2	0.09	<0.002	<0.003	0.97	0.09	<0.002	<0.003	0.81
27/03/2010 12:00	28/03/2010 12:00	0.15	<0.002	<0.003	1.2	^	^	^	^	0.1	<0.002	<0.003	1.3	0.08	<0.002	<0.003	0.95	0.11	<0.002	<0.003	0.97
28/03/2010 12:00	29/03/2010 12:00	0.16	<0.002	<0.003	0.86	^	^	^	^	0.12	<0.002	<0.003	1.1	0.08	<0.002	<0.003	0.92	0.15	<0.002	<0.003	1.00
29/03/2010 12:00	30/03/2010 12:00	0.13	<0.002	<0.003	1.4	0.14	0.002	<0.003	1.7	0.32	0.007	<0.003	1.5	0.24	0.003	<0.003	1.5	0.13	<0.002	<0.003	1.30
30/03/2010 12:00	31/03/2010 12:00	0.19	0.005	<0.003	1.2	0.36	0.003	<0.003	1.6	0.22	0.003	<0.003	1.4	0.16	0.002	<0.003	1.6	0.2	<0.002	<0.003	1.50
31/03/2010 12:00	1/04/2010 12:00	0.2	0.003	<0.003	2.9	0.31	0.006	<0.003	1.9	0.16	0.002	<0.003	2.2	0.07	<0.002	<0.003	1.5	0.18	0.002	<0.003	2.00
1/04/2010 12:00	2/04/2010 12:00	0.28	<0.002	<0.003	1.9	0.3	0.006	0.003	2.9	0.21	0.005	<0.003	3.6	0.13	0.002	<0.003	1.9	0.11	<0.002	<0.003	1.30
2/04/2010 12:00	3/04/2010 12:00	0.08	<0.002	<0.003	1.3	0.15	<0.002	<0.003	1.5	0.26	0.01	<0.003	7.2	0.19	0.004	<0.003	3.9	0.1	<0.002	<0.003	1.20
3/04/2010 12:00	4/04/2010 12:00	0.1	<0.002	<0.003	1.2	0.19	<0.002	<0.003	1.3	0.1	<0.002	<0.003	1.3	0.07	<0.002	<0.003	1	0.1	<0.002	<0.003	1.20
4/04/2010 12:00	5/04/2010 12:00	0.08	<0.002	<0.003	1.4	0.13	<0.002	<0.003	1.2	0.07	<0.002	<0.003	1.3	*	*	*	*	0.06	<0.002	<0.003	1.20
5/04/2010 12:00	6/04/2010 12:00	0.1	<0.002	<0.003	1.2	0.24	0.003	<0.003	1.3	0.09	<0.002	<0.003	1.3	*	*	*	*	0.08	<0.002	<0.003	1.20
6/04/2010 12:00	7/04/2010 12:00	0.23	0.002	<0.003	1.3	0.4	0.004	<0.003	1.4	0.15	<0.002	<0.003	1.6	0.15	0.003	<0.003	2.4	0.29	0.003	<0.003	1.80
7/04/2010 12:00	8/04/2010 12:00	0.23	0.007	<0.003	2.6	0.37	0.008	<0.003	2.3	0.12	0.004	<0.003	1.7	0.09	0.003	<0.003	1.7	0.16	0.002	<0.003	1.80
8/04/2010 12:00	9/04/2010 12:00	0.16	0.004	<0.003	2	0.33	0.005	<0.003	1.4	0.08	<0.002	<0.003	1.3	0.07	<0.002	<0.003	1.3	0.13	<0.002	<0.003	1.50
9/04/2010 12:00	10/04/2010 12:00	0.12	<0.002	<0.003	1	0.33	0.003	<0.003	0.94	0.06	<0.002	<0.003	1	0.06	<0.002	<0.003	0.93	0.09	<0.002	<0.003	0.87
10/04/2010 12:00	11/04/2010 12:00	0.1	<0.002	<0.003	0.91	0.19	<0.002	<0.003	0.81	0.09	<0.002	<0.003	0.91	0.07	<0.002	<0.003	0.87	0.11	<0.002	<0.003	0.91
11/04/2010 12:00	12/04/2010 12:00																				
12/04/2010 12:00	13/04/2010 12:00																				
13/04/2010 12:00	14/04/2010 12:00	0.28	0.005	<0.003	3.3	0.35	0.008	<0.003	3.5	0.27	0.009	<0.003	3.6	0.29	0.009	<0.003	3.1	0.24	0.002	<0.003	1.1
14/04/2010 12:00	15/04/2010 12:00																				
15/04/2010 12:00	16/04/2010 12:00																				
16/04/2010 12:00	17/04/2010 12:00	0.15	<0.002	<0.003	1.1	0.41	0.005	<0.003	1.2	0.09	<0.002	<0.003	1.1	0.07	<0.002	<0.003	1.1	0.16	<0.002	<0.003	1.1
17/04/2010 12:00	18/04/2010 12:00																				
18/04/2010 12:00	19/04/2010 12:00																				
20/04/2010 12:00	21/04/2010 12:00	0.19	0.003	<0.003	2.9	0.39	0.01	<0.003	3.7	0.13	0.003	<0.003	3.1	0.1	0.003	<0.003	3.1	0.16	<0.002	<0.003	2.1
21/04/2010 12:00	22/04/2010 12:00	0.09	<0.002	<0.003	0.83	0.26	0.003	<0.003	1	0.07	<0.002	<0.003	1.1	0.05	<0.002	<0.003	1.1	0.08	<0.002	<0.003	1
22/04/2010 12:00	23/04/2010 12:00	0.08	<0.002	<0.003	0.93	0.22	0.002	<0.003	0.97	0.08	<0.002	<0.003	0.87	0.06	<0.002	<0.003	0.89	0.09	<0.002	<0.003	1.1
23/04/2010 12:00	24/04/2010 12:00																				
24/04/2010 12:00	25/04/2010 12:00																				
25/04/2010 12:00	26/04/2010 12:00	0.12	<0.002	<0.003	0.94	0.22	0.008	<0.003	1.1	0.12	<0.002	<0.003	1.2	0.09	<0.002	<0.003	1.1	0.13	<0.002	<0.003	1
26/04/2010 12:00	27/04/2010 12:00																				
27/04/2010 12:00	28/04/2010 12:00																				
28/04/2010 12:00	29/04/2010 12:00	0.33	0.002	<0.003	1.1	0.43	0.005	<0.003	1.4	0.33	0.006	<0.003	1.5	0.26	0.005	<0.003	1.2	0.37	0.002	<0.003	1
29/04/2010 12:00	30/04/2010 12:00																				
30/04/2010 12:00	1/05/2010 12:00																				
1/05/2010 12:00	2/05/2010 12:00	0.15	<0.002	<0.003	1.1	0.3	0.002	<0.003	1.2	0.12	<0.002	<0.003	1.1	0.084	<0.002	<0.003	1.1	0.18	<0.002	<0.003	1.1
2/05/2010 12:00	3/05/2010 12:00																				
3/05/2010 12:00	4/05/2010 12:00																				
4/05/2010 12:00	5/05/2010 12:00	0.27	0.005	<0.003	1.2	0.54	0.006	<0.003	1.2	0.2	0.002	<0.003	1.2	0.11	0.002	<0.003	1	0.28	0.002	<0.003	1.2

5/05/2010 12:00	6/05/2010 12:00																				
6/05/2010 12:00	7/05/2010 12:00																				
7/05/2010 12:00	8/05/2010 12:00	0.43	0.004	<0.003	1.7	0.71	0.009	<0.003	1.3	0.35	0.004	<0.003	1.8	0.27	0.004	<0.003	2.3	0.51	0.002	<0.003	1.2
8/05/2010 12:00	9/05/2010 12:00																				
9/05/2010 12:00	10/05/2010 12:00																				
10/05/2010 12:00	11/05/2010 12:00	0.36	0.002	<0.003	1.7	0.66	0.003	<0.003	1.6	0.51	<0.002	<0.003	1.5	0.25	<0.002	<0.003	1.4	0.28	<0.002	<0.003	1.3
11/05/2010 12:00	12/05/2010 12:00																				
12/05/2010 12:00	13/05/2010 12:00																				
13/05/2010 12:00	14/05/2010 12:00	0.81	0.005	0.003	1.8	0.68	0.006	<0.003	1.7	0.2	<0.002	<0.003	1.7	0.15	<0.002	<0.003	1.5	0.3	0.002	<0.003	1.8
14/05/2010 12:00	15/05/2010 12:00	0.27	<0.002	<0.003	1.3	0.79	0.003	<0.003	1.3	0.11	<0.002	<0.003	1.3	0.1	<0.002	<0.003	1.2	0.14	<0.002	<0.003	1.2
15/05/2010 12:00	16/05/2010 12:00	0.26	<0.002	<0.003	0.95	1.5	0.007	<0.003	1.1	0.19	<0.002	<0.003	0.99	0.13	<0.002	<0.003	0.92	0.17	<0.002	<0.003	0.89
16/05/2010 12:00	17/05/2010 12:00	0.35	<0.002	<0.003	0.97	0.9	0.006	0.003	0.88	0.21	<0.002	<0.003	0.88	0.14	<0.002	<0.003	0.77	0.3	<0.002	<0.003	0.84
17/05/2010 12:00	18/05/2010 12:00																				
18/05/2010 12:00	19/05/2010 12:00																				
19/05/2010 12:00	20/05/2010 12:00	0.39	0.004	<0.003	1.9	0.52	0.004	<0.003	1.1	0.46	0.005	<0.003	1.2	0.22	0.004	<0.003	1.3	0.27	0.002	<0.003	1.1
20/05/2010 12:00	21/05/2010 12:00	0.29	0.003	<0.003	1.2	0.38	0.008	<0.003	2	0.33	0.006	<0.003	1.9	0.28	0.007	<0.003	1.9	0.23	0.003	<0.003	1.3
21/05/2010 12:00	22/05/2010 12:00	0.17	<0.002	<0.003	0.98	*	*	*	*	0.71	0.017	<0.003	4.9	0.75	0.02	<0.003	5.1	0.42	0.002	<0.003	1
22/05/2010 12:00	23/05/2010 12:00	0.1	0.002	<0.003	0.79	0.37	0.002	<0.003	0.95	0.11	<0.002	<0.003	0.82	0.1	<0.002	<0.003	0.85	0.1	<0.002	<0.003	0.76
24/05/2010 12:00	25/05/2010 12:00																				
25/05/2010 12:00	26/05/2010 12:00	0.21	<0.002	<0.003	0.76	0.41	0.002	<0.003	0.77	0.16	<0.002	<0.003	0.81	0.12	<0.002	<0.003	0.69	0.22	<0.002	<0.003	0.83
26/05/2010 12:00	27/05/2010 12:00																				
27/05/2010 12:00	28/05/2010 12:00																				
28/05/2010 12:00	29/05/2010 12:00	0.18	<0.002	<0.003	0.89	0.34	0.002	<0.003	0.89	0.11	<0.002	<0.003	0.89	0.09	<0.002	<0.003	0.79	0.2	<0.002	<0.003	0.89
29/05/2010 12:00	30/05/2010 12:00																				
30/05/2010 12:00	31/05/2010 12:00																				
31/05/2010 12:00	1/06/2010 12:00	0.28	0.003	<0.003	1.3	0.87	0.01	<0.003	1.3	0.21	0.002	<0.003	1.3	0.19	<0.002	<0.003	1.3	0.26	0.003	<0.003	1.5
1/06/2010 12:00	2/06/2010 12:00																				
2/06/2010 12:00	3/06/2010 12:00																				
3/06/2010 12:00	4/06/2010 12:00	0.45	0.004	<0.003	0.99	1.3	0.017	0.005	1.1	0.23	0.002	<0.003	0.98	0.17	<0.002	<0.003	0.81	0.54	0.003	0.004	1.1
4/06/2010 12:00	5/06/2010 12:00																				
5/06/2010 12:00	6/06/2010 12:00																				
6/06/2010 12:00	7/06/2010 12:00	0.15	<0.002	<0.003	0.52	0.2	0.002	<0.003	1.3	0.28	0.003	<0.003	1.9	0.3	0.003	<0.003	2.2	0.16	<0.002	<0.003	0.8
7/06/2010 12:00	8/06/2010 12:00																				
8/06/2010 12:00	9/06/2010 12:00																				
9/06/2010 12:00	10/06/2010 12:00	0.37	<0.002	<0.003	0.96	0.9	0.01	<0.003	0.83	0.25	<0.002	<0.003	0.81	0.18	<0.002	<0.003	0.74	0.39	<0.002	<0.003	0.87
10/06/2010 12:00	11/06/2010 12:00																				
11/06/2010 12:00	12/06/2010 12:00																				
12/06/2010 12:00	13/06/2010 12:00	0.24	<0.002	<0.003	0.88	0.52	<0.002	<0.003	0.92	0.39	<0.002	<0.003	0.92	0.33	<0.002	<0.003	1	0.26	<0.002	<0.003	0.69
13/06/2010 12:00	14/06/2010 12:00																				
14/06/2010 12:00	15/06/2010 12:00																				
15/06/2010 12:00	16/06/2010 12:00	0.14	<0.002	<0.003	0.66	0.15	<0.002	<0.003	0.66	0.14	<0.002	<0.003	0.63	0.12	<0.002	<0.003	0.62	0.14	<0.002	<0.003	0.63
16/06/2010 12:00	17/06/2010 12:00																				
17/06/2010 12:00	18/06/2010 12:00	0.19	<0.002	<0.003	0.57	0.41	<0.002	<0.003	0.62	0.13	<0.002	<0.003	0.62	0.11	<0.002	<0.003	0.6	0.2	<0.002	<0.003	0.57
18/06/2010 12:00	19/06/2010 12:00	0.18	<0.002	<0.003	0.76	0.36	<0.002	<0.003	0.71	0.15	<0.002	<0.003	0.81	0.12	<0.002	<0.003	0.79	0.21	0.02	<0.003	0.7
19/06/2010 12:00	20/06/2010 12:00	0.24	<0.002	<0.003	0.75	0.49	<0.002	<0.003	0.93	0.25	<0.002	<0.003	1.1	0.19	0.01	<0.003	0.86	0.33	<0.002	<0.003	0.81
20/06/2010 12:00	21/06/2010 12:00																				
21/06/2010 12:00	22/06/2010 12:00	0.37	<0.002	<0.003	0.82	0.75	<0.002	<0.003	0.89	0.3	<0.002	<0.003	1.7	0.27	<0.002	<0.003	2	0.49	<0.002	<0.003	0.82
22/06/2010 12:00	23/06/2010 12:00																				
23/06/2010 12:00	24/06/2010 12:00																				
24/06/2010 12:00	25/06/2010 12:00	0.12	<0.002	<0.003	0.7	0.28	<0.002	<0.003	0.69	0.14	<0.002	<0.003	0.8	0.09	<0.002	<0.003	0.84	0.1	<0.002	<0.003	0.6
25/06/2010 12:00	26/06/2010 12:00																				
27/06/2010 12:00	28/06/2010 12:00	0.13	<0.002	<0.003	0.68	0.2	<0.002	<0.003	0.74	0.14	<0.002	<0.003	1	0.1	<0.002	<0.003	0.76	0.13	<0.002	<0.003	0.73
28/06/2010 12:00	29/06/2010 12:00																				
29/06/2010 12:00	30/06/2010 12:00																				

30/06/2010 12:00	1/07/2010 12:00	0.22	<0.002	<0.003	0.97	0.51	<0.002	<0.003	0.64	0.19	<0.002	<0.003	0.62	0.13	<0.002	<0.003	0.62	0.3	<0.002	<0.003	1.3
1/07/2010 12:00	2/07/2010 12:00																				
2/07/2010 12:00	3/07/2010 12:00	0.14	<0.002	<0.003	0.7	0.2	<0.002	<0.003	0.68	0.15	<0.002	<0.003	0.71	0.13	<0.002	<0.003	0.74	0.15	<0.002	<0.003	0.65
3/07/2010 12:00	4/07/2010 12:00	0.15	<0.002	<0.003	0.8	0.2	<0.002	<0.003	0.82	0.15	<0.002	<0.003	0.9	0.12	<0.002	<0.003	0.83	0.13	<0.002	<0.003	0.77
4/07/2010 12:00	5/07/2010 12:00	0.22	<0.002	<0.003	0.69	0.52	<0.002	<0.003	0.78	0.16	<0.002	<0.003	0.74	0.14	<0.002	<0.003	0.76	0.2	<0.002	<0.003	0.77
5/07/2010 12:00	6/07/2010 12:00	0.12	<0.002	<0.003	0.49	0.3	<0.002	<0.003	0.56	0.13	<0.002	<0.003	0.58	0.1	<0.002	<0.003	0.51	0.16	<0.002	<0.003	0.58
6/07/2010 12:00	7/07/2010 12:00	0.48	<0.002	<0.003	0.56	1.1	<0.002	<0.003	0.6	0.3	<0.002	<0.003	0.55	0.27	<0.002	<0.003	0.6	0.56	<0.002	<0.003	0.68
7/07/2010 12:00	8/07/2010 12:00																				
8/07/2010 12:00	9/07/2010 12:00																				
9/07/2010 12:00	10/07/2010 12:00	0.08	<0.002	<0.003	0.61	0.09	<0.002	<0.003	0.64	0.09	<0.002	<0.003	0.66	0.08	<0.002	<0.003	0.7	0.08	<0.002	<0.003	0.57
10/07/2010 12:00	11/07/2010 12:00																				
11/07/2010 12:00	12/07/2010 12:00																				
12/07/2010 12:00	13/07/2010 12:00	0.15	<0.002	<0.003	0.62	0.15	<0.002	<0.003	0.62	0.16	<0.002	<0.003	0.65	0.16	<0.002	<0.003	0.72	0.14	<0.002	<0.003	0.65
13/07/2010 12:00	14/07/2010 12:00																				
14/07/2010 12:00	15/07/2010 12:00																				
15/07/2010 12:00	16/07/2010 12:00	0.42	<0.002	<0.003	0.75	0.8	<0.002	<0.003	0.76	0.4	<0.002	<0.003	1	0.32	<0.002	<0.003	0.9	0.38	<0.002	<0.003	0.76
16/07/2010 12:00	17/07/2010 12:00																				
17/07/2010 12:00	18/07/2010 12:00																				
18/07/2010 12:00	19/07/2010 12:00	0.14	<0.002	<0.003	0.68	0.23	<0.002	<0.003	0.7	0.11	<0.002	<0.003	0.68	0.1	<0.002	<0.003	0.7	0.12	<0.002	<0.003	0.62
19/07/2010 12:00	20/07/2010 12:00																				
20/07/2010 12:00	21/07/2010 12:00																				
21/07/2010 12:00	22/07/2010 12:00	0.21	<0.002	<0.003	0.99	0.55	<0.002	<0.003	0.93	0.57	<0.002	<0.003	1.1	0.25	<0.002	<0.003	0.85	0.22	<0.002	<0.003	0.62
22/07/2010 12:00	23/07/2010 12:00																				
23/07/2010 12:00	24/07/2010 12:00																				
24/07/2010 12:00	25/07/2010 12:00	0.31	<0.002	<0.003	0.62	0.55	<0.002	<0.003	0.66	0.43	<0.002	<0.003	0.66	0.25	<0.002	<0.003	0.61	0.33	<0.002	<0.003	0.58
25/07/2010 12:00	26/07/2010 12:00																				
26/07/2010 12:00	27/07/2010 12:00																				
27/07/2010 12:00	28/07/2010 12:00	0.49	<0.002	<0.003	0.95	1.1	<0.002	<0.003	0.92	0.23	<0.002	<0.003	1	0.17	<0.002	<0.003	0.88	0.39	<0.002	<0.003	0.98
28/07/2010 12:00	29/07/2010 12:00																				
29/07/2010 12:00	30/07/2010 12:00																				
31/07/2010 12:00	1/08/2010 12:00																				
1/08/2010 12:00	2/08/2010 12:00																				
2/08/2010 12:00	3/08/2010 12:00	0.77	<0.002	<0.003	0.64	3	0.02	<0.003	0.82	0.41	<0.002	<0.003	1	0.37	<0.002	<0.003	2.1	0.45	<0.002	<0.003	0.69
3/08/2010 12:00	4/08/2010 12:00																				
4/08/2010 12:00	5/08/2010 12:00																				
5/08/2010 12:00	6/08/2010 12:00	0.38	<0.002	<0.003	0.91	1.2	0.01	<0.003	1.1	0.22	<0.002	<0.003	0.99	0.18	<0.002	<0.003	0.92	0.61	<0.002	<0.003	0.85
6/08/2010 12:00	7/08/2010 12:00																				
7/08/2010 12:00	8/08/2010 12:00																				
8/08/2010 12:00	9/08/2010 12:00	0.35	<0.002	<0.003	0.79	0.59	<0.002	<0.003	0.84	0.2	<0.002	<0.003	0.89	0.13	<0.002	<0.003	0.82	0.24	<0.002	<0.003	0.84
9/08/2010 12:00	10/08/2010 12:00																				
10/08/2010 12:00	11/08/2010 12:00																				
11/08/2010 12:00	12/08/2010 12:00	0.24	<0.002	<0.003	0.54	0.48	<0.002	<0.003	0.66	0.47	<0.002	<0.003	0.91	0.42	<0.002	<0.003	1.2	0.35	<0.002	<0.003	0.52
12/08/2010 12:00	13/08/2010 12:00																				
13/08/2010 12:00	14/08/2010 12:00																				
14/08/2010 12:00	15/08/2010 12:00	0.15	<0.002	<0.003	0.76	0.16	<0.002	<0.003	0.57	0.15	<0.002	<0.003	0.73	0.13	<0.002	<0.003	0.73	0.15	<0.002	<0.003	0.67
15/08/2010 12:00	16/08/2010 12:00																				
16/08/2010 12:00	17/08/2010 12:00																				
17/08/2010 12:00	18/08/2010 12:00	0.2	<0.002	<0.003	0.96	0.55	<0.002	<0.003	0.9	0.15	<0.002	<0.003	0.86	0.15	<0.002	<0.003	0.89	0.19	<0.002	<0.003	0.97
18/08/2010 12:00	19/08/2010 12:00																				
19/08/2010 12:00	20/08/2010 12:00																				
20/08/2010 12:00	21/08/2010 12:00	0.57	<0.002	<0.003	0.8	1.4	<0.002	<0.003	0.67	0.23	<0.002	<0.003	0.69	0.17	<0.002	<0.003	0.77	0.48	<0.002	<0.003	0.81
21/08/2010 12:00	22/08/2010 12:00																				
22/08/2010 12:00	23/08/2010 12:00																				
23/08/2010 12:00	24/08/2010 12:00	0.17	<0.002	<0.003	1	0.7	<0.002	<0.003	1.1	0.09	<0.002	<0.003	0.94	0.09	<0.002	<0.003	0.94	0.12	<0.002	<0.003	0.96

24/08/2010 12:00	25/08/2010 12:00																				
25/08/2010 12:00	26/08/2010 12:00																				
26/08/2010 12:00	27/08/2010 12:00	0.16	<0.002	<0.003	0.77	0.91	<0.002	<0.003	0.89	0.09	<0.002	<0.003	0.79	0.08	<0.002	<0.003	0.77	0.14	<0.002	<0.003	0.78
27/08/2010 12:00	28/08/2010 12:00																				
28/08/2010 12:00	29/08/2010 12:00																				
29/08/2010 12:00	30/08/2010 12:00	0.34	0.01	<0.003	1.2	0.56	0.01	<0.003	1	0.24	<0.002	<0.003	0.96	0.19	<0.002	<0.003	1.3	0.26	<0.002	<0.003	1
30/08/2010 12:00	31/08/2010 12:00	0.25	<0.002	<0.003	1.4	0.4	<0.002	<0.003	0.9	0.15	<0.002	<0.003	0.74	0.13	<0.002	<0.003	0.83	0.2	<0.002	<0.003	0.96
31/08/2010 12:00	1/09/2010 12:00																				

All measurements are in $\mu\text{g}/\text{m}^3$

¹ This date represents the day that the filter paper was removed from the HVAS.

* Unvalidated or unavailable data due to instrument failure

APPENDIX E DUST DEPOSITION RESULTS

		October	November	December	January	February	March	April	May	June	July	August	September
Off-site "neighbourhood"	DG1	1200	3200	2400	2300	2500	2600	1600	800	500	1400	1600	1100
	DG3	300	500	600	700	500	700	600	500	100	700	500	200
	DG4	7900	3300	2200	8600	34500	7300	3900	300	100	500	700	1200
	DG5	1100	5700	1300	1500	1900	1000	800	600	100	700	600	1100
	DG6	4300	7000	1000	1200	1200	1200	600	1800	600	600	1800	200
	DG7	700	1200	800	700	600	700	500	500	800	600	700	1200
	DG8	900	1600	1300	1000	1000	1000	500	700	200	500	700	200
	DG11	300	1100	500	1100	1900	1000	400	400	500	800	900	1300
	DG12	600	600	300	500	500	500	800	400	BDL	400		200
	DG13	900	500	N/A	800	500	500	200	800	100	100	300	300
	DG14	500	1000	400	300	600	1000	200	500	100	400	400	300
	DG15	700	1100	500	900	1200	700	900	700	400	400	400	300
	DG16	1200	1600	1500	1500	1200	1100	400	500	200	400	500	400
	DG17	600	800	500	400	300	500	500	700	200	300	700	100
	DG18	2700					2300	800	1600	700	600	1500	600
DG19	700	600	600	1200	600	700	400	300	100	400	400	400	
On-site "peak" ¹	DG9	16700	16700	17000	26800	31000	22600	15600	9600	2000	7200	9200	200
	DG10	4000	2900	13900	10900	4400	5000	3000	5800	10100	1900	4300	1300
NSW EPA Criteria		4 000	4 000	4 000	4 000	4 000	4 000	4 000	4 000	4 000	4 000	4 000	4 000

Exceedences of the NSW EPA criteria for 'off-site' monitors are highlighted in red.

¹ Conditions of the licence are not applicable to the on-site monitors and therefore exceedences of the NSW EPA criteria are not noted in this table.

APPENDIX F DEPOSITION METAL SPECIATION RESULTS

Nickel Deposition results (mg/m²/month)

		October	November	December	January	February	March	April	May	June	July	August	September	
Off-site "neighbourhood"	DG1	0.5	1.1	1.2	1.8	2.1	2.3	2.2	2.8	0.3	BDL	0.4	0.8	
	DG3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
	DG4	BDL	BDL	BDL	0.8	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
	DG5	BDL	BDL	BDL	1.2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
	DG6	BDL	BDL	BDL	1.0	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
	DG7	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
	DG8	BDL	BDL	BDL	BDL	0.6	0.3	BDL	BDL	BDL	BDL	BDL	0.2	2
	DG11	0.6	1.2	0.9	8.7	1.4	1.1	1.6	BDL	BDL	BDL	BDL	BDL	
	DG12	BDL	0.3	BDL	0.5	BDL	BDL	0.4	BDL	BDL	BDL	BDL	*	BDL
	DG13	BDL	BDL	N/A	0.8	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	DG14	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	DG15	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	DG16	BDL	BDL	BDL	1.1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	DG17	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	DG18	BDL	N/A	N/A	N/A	N/A	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
DG19	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
On-site "peak" ¹	DG9	126.7	165.9	217.1	729.0	1609.0	696.0	534.0	213.0	23.8	9.3	27.0	16.42	
	DG10	11.2	30.4	461.0	306.5	20.0	45.0	98.1	207.6	67.9	26.8	17.6	8.56	

Lead Deposition Results (mg/m²/month)

		October	November	December	January	February	March	April	May	June	July	August	September	
Off-site "neighbourhood"	DG1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
	DG3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
	DG4	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
	DG5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
	DG6	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
	DG7	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
	DG8	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
	DG11	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
	DG12	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	*	BDL
	DG13	BDL	BDL	N/A	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	DG14	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	DG15	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	DG16	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	DG17	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
DG18	BDL	N/A	N/A	N/A	N/A	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
DG19	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
On-site "peak" ¹	DG9	2.515	1.9	1.292	1.7	2.4	1.03	1.2	0.7	BDL	BDL	BDL	0.22	
	DG10	0.8	1.68	2.44	1.5	BDL	3.47	0.7	2.8	0.7	BDL	BDL	0.99	

Iron Deposition Results (mg/m²/month)

		October	November	December	January	February	March	April	May	June	July	August	September
Off-site "neighbourhood"	DG1	20.4	43.8	49.6	39.6	28.3	39.2	40.5	36.5	18.4	21.3	29	21.1
	DG3	4.5	9.8	11.6	9.4	5.7	8.9	8.8	10.1	5.6	2.9	5.9	4.1
	DG4	7.15	14.2	12.8	74.1	18	14.6	7.8	16.2	2.6	1.9	6.5	3
	DG5	7.5	12.2	9.9	16.4	4.9	7.1	7.7	6.9	4.1	1.6	5.1	2.8
	DG6	5.3	7.4	3.5	5.7	4	3.1	3.4	26.3	2.5	1.8	6.3	2.2
	DG7	9.2	13.4	7.47	7.4	3.5	5.8	7.6	16.5	5.1	3.9	7.3	3.5
	DG8	9.1	10.6	8.09	11	11.2	7.3	9	18.7	4.4	3.3	8.3	5.1
	DG11	14.2	15.4	12.2	32.7	12.1	12.4	9.5	18.1	14.1	11.5	11.9	6.4
	DG12	5.4	8.3	4.8	5	2.9	4.1	5.1	10.8	2.9	1.6		2
	DG13	8.8	9.1		18.3	5.6	3.7	2.1	14.6	1.8	1.8	3.7	6.1
	DG14	1.9	6.5	2.6	3.2	2.2	3.2	3.2	13.3	1.4	1.5	3.6	1.4
	DG15	4.8	4.9	13.9		7.9	5.9	5.3	16.5	3.4	3.4	6	5.8
	DG16	12.2	13.5	5.38	27.9	7.7	7.5	5.5	19.2	4	3.3	7	5.9
	DG17	5.9	10.1	5.55	2.1	3	4.1	3.6	15.3	4	2.2	4.6	2.9
DG18	7.2					10.2	4.3	12.8	8.8	6.2	11.7	4.3	
DG19	6.5	5.7	7.75	8.8	5.7	7.3	4.9	6.1	2.3	2.2	4.9	1.553	
On-site "peak" ¹	DG9	660	499	617	1380	4699	1878	1208	526.7	134	93.4	133	76.7
	DG10	65.1	111	937	525	97.8	118	109	360.9	299	56.5	86	50.4

Sulphur Deposition Results (mg/m²/month)

		October	November	December	January	February	March	April	May	June	July	August	September
Off-site "neighbourhood"	DG1	48.3	20.8	16.3	26.5	43.2	1859.8	27.1	100.0	BDL	BDL	BDL	16.8
	DG3	310.0	39.8	16.4	44.7	24.1	492.7	26.3	BDL	BDL	BDL	BDL	47.4
	DG4	52.0	56.9	450.0	BDL	974.0	2465.0	609.0	93.4	BDL	BDL	BDL	46.1
	DG5	77.0	26.6	BDL	29.2	BDL	400.0	BDL	BDL	BDL	BDL	BDL	50.1
	DG6	380.0	BDL	20.7	105.0	19.0	538.5	54.3	221.0	147.0	118.0	118.0	66.6
	DG7	44.0	30.2	20.0	147.0	37.5	545.3	20.0	90.6	BDL	BDL	71.8	40.9
	DG8	310.0	26.2	29.0	80.9	BDL	643.8	29.4	104.0	BDL	BDL	BDL	42.6
	DG11	340.0	22.5	43.5	37.5	115.0	860.8	53.9	39.4	79.2	BDL	82.2	44.7
	DG12	220.0	16.6	45.8	93.6	39.1	568.8	58.0	122.0	BDL	BDL	*	36.6
	DG13	84.2	25.7	N/A	165.0	71.2	480.1	43.6	437.0	90.6	246.0	161.0	92.5
	DG14	300.0	29.7	34.6	90.6	41.1	1247.0	50.0	185.0	77.0	BDL	140.0	74.1
	DG15	23.2	20.7	26.5	83.2	39.5	348.3	24.5	71.3	BDL	BDL	BDL	35.2
	DG16	76.1	37.0	32.6	94.4	42.7	544.8	BDL	97.4	BDL	BDL	BDL	45
	DG17	28.6	11.4	14.3	22.8	BDL	346.3	BDL	205.0	BDL	BDL	80.0	21.7
DG18	36.0	N/A	N/A	N/A	N/A	771.1	7.7	87.7	74.7	BDL	73.9	13.8	
DG19	48.4	35.0	18.1	126.0	BDL	463.6	54.8	46.9	BDL	BDL	BDL	11.1	
On-site "peak" ¹	DG9	670.0	201.0	428.0	447.0	2340.0	1366.0	947.0	540.0	79.8	BDL	71.8	44.1
	DG10	458.0	8.0	833.0	160.0	121.3	217.0	208.1	509.0	148.0	114.0	157.0	74.3

APPENDIX G RAINWATER TANK METAL RESULTS

Nickel results (mg/L)

	October	November	December	January	February	March	April	May	June	July	August	September
DG3 (Ni in rainwater tanks)	0.006	0.008	0.001	0.011	0.011	0.010	0.012	0.069	0.007	0.006	0.009	0.002
DG5 (Ni in rainwater tanks)	0.005	0.005	0.001	0.007	0.006	0.005	0.005	0.007	0.003	0.002	0.003	0.003
DG8 (Ni in rainwater tanks)	0.040	0.052	0.040	0.036	0.028	0.020	0.020	0.020	0.004	0.003	0.028	0.008
DG8a (Ni in rainwater tanks)	0.078	0.045	0.04	0.005	0.005	0.006	0.005					
DG11 (Ni in rainwater tanks)	0.013	0.014	0.010	0.019	0.020	0.020	0.030	0.010	0.009	0.007	0.013	0.010
DG12 (Ni in rainwater tanks)	0.009	0.090	0.001	0.014	0.015	0.008	0.025	0.004	0.003	0.002	0.003	0.004
DG14 (Ni in rainwater tanks)	0.001	0.002	0.001	0.003	0.003	0.003	0.003	0.002	0.002	0.002	0.002	0.002
DG15 (Ni in rainwater tanks)	0.001	0.002	0.001	0.002	0.003	0.002	0.003	0.001	0.002	0.002	0.002	0.003
DG16 (Ni in rainwater tanks)	0.001	0.001	0.001	0.003	0.004	0.004	0.004	0.002	0.004	0.005	0.002	0.009
DG17 (Ni in rainwater tanks)	0.001	0.004	0.001	0.005	0.006	0.006	0.006	0.004	0.005	0.006	0.006	0.007
DG18 (Ni in rainwater tanks)	0.001	0.001	0.001	0.002	0.002	0.002	0.002	BDL	0.002	0.001	0.001	0.001
DG19 (Ni in rainwater tanks)	0.003	0.004	0.001	0.007	0.006	0.005	0.005	0.002	0.003	0.003	0.003	0.005

* Insufficient water level in rainwater tank for sampling

Lead Results (mg/L)

	October	November	December	January	February	March	April	May	June	July	August	September
DG3 (Pb in rainwater tanks)	0.006	0.007	<0.01	0.009	0.011	0.008	0.008	0.004	0.004	0.006	0.006	0.001
DG5 (Pb in rainwater tanks)	0.001	0.002	<0.01	BDL	0.001	0.001	0.002	BDL	0.001	0.001	0.003	<0.001
DG8 (Pb in rainwater tanks)	0.001	0.006	<0.01	0.003	0.005	0.001	0.002	BDL	0.017	0.002	BDL	0.001
DG8a (Pb in rainwater tanks)	0.016	0.008	<0.01	BDL	BDL	BDL	BDL					
DG11 (Pb in rainwater tanks)	0.019	0.017	0.02	0.016	0.024	0.02	0.02	0.016	0.016	0.017	0.016	0.018
DG12 (Pb in rainwater tanks)	0.001	0.016	<0.01	0.001	0.002	BDL	0.001	BDL	BDL	BDL	BDL	<0.001
DG14 (Pb in rainwater tanks)	<0.001	<0.001	<0.01	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	<0.001
DG15 (Pb in rainwater tanks)	0.002	0.004	<0.01	0.001	0.002	BDL	0.001	BDL	BDL	BDL	BDL	<0.001
DG16 (Pb in rainwater tanks)	<0.001	<0.001	<0.01	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.002
DG17 (Pb in rainwater tanks)	0.003	0.012	<0.01	0.002	0.001	0.001	0.001	BDL	BDL	BDL	BDL	0.002
DG18 (Pb in rainwater tanks)	<0.001	<0.001	<0.01	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	<0.001
DG19 (Pb in rainwater tanks)	0.001	0.002	<0.01	0.003	0.015	0.006	0.008	0.002	0.001	BDL	0.002	0.001

* Insufficient water level in rainwater tank for sampling

Iron Results (mg/L)

	October	November	December	January	February	March	April	May	June	July	August	September
DG3 (Fe in rainwater tanks)	<0.05	<0.05	<0.05	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	<0.05
DG5 (Fe in rainwater tanks)	<0.05	<0.05	<0.05	BDL	0.06	BDL	0.13	BDL	0.07	0.06	0.54	<0.05
DG8 (Fe in rainwater tanks)	1.22	2.51	1.1	1.35	1.76	0.28	1.66	0.67	BDL	BDL	0.51	<0.05
DG8a (Fe in rainwater tanks)	0.37	1.68	1.1	0.13	0.1	0.14	0.09					
DG11 (Fe in rainwater tanks)	<0.05	<0.05	<0.05	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	<0.05
DG12 (Fe in rainwater tanks)	<0.05	3.15	<0.05	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	<0.05
DG14 (Fe in rainwater tanks)	<0.05	<0.05	<0.05	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	<0.05
DG15 (Fe in rainwater tanks)	<0.05	<0.05	<0.05	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	<0.05
DG16 (Fe in rainwater tanks)	<0.05	<0.05	<0.05	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	<0.05
DG17 (Fe in rainwater tanks)	<0.05	<0.05	<0.05	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	<0.05
DG18 (Fe in rainwater tanks)	<0.05	<0.05	<0.05	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	<0.05
DG19 (Fe in rainwater tanks)	<0.05	<0.05	<0.05	0.16	0.39	0.26	0.22	BDL	BDL	BDL	BDL	<0.05

* Insufficient water level in rainwater tank for sampling

Sulphur Results (mg/L)

	October	November	December	January	February	March	April	May	June	July	August	September
DG3 (S in rainwater tanks)	1	2	2	2	2	2	4	1	BDL	BDL	2	1
DG5 (S in rainwater tanks)	1	1	1	1	1	1	2	BDL	BDL	BDL	BDL	<1
DG8 (S in rainwater tanks)	1	1	1	2	1	2	2	1	1	BDL	1	1
DG8a (S in rainwater tanks)	1	1	1	1	1	1	2					
DG11 (S in rainwater tanks)	1	1	1	1	1	2	2	BDL	BDL	BDL	1	<1
DG12 (S in rainwater tanks)	2	2	2	3	1	2	2	BDL	BDL	BDL	1	<1
DG14 (S in rainwater tanks)	2	2	2	2	2	4	4	2	1	2	3	2
DG15 (S in rainwater tanks)	<1	1	<1	2	BDL	1	2	1	1	1	2	1
DG16 (S in rainwater tanks)	1	1	1	2	2	1	1	BDL	BDL	BDL	BDL	1
DG17 (S in rainwater tanks)	1	1	1	1	2	2	2	BDL	BDL	BDL	1	1
DG18 (S in rainwater tanks)	<1	<1	<1	2	BDL	1	1	BDL	1	1	1	1
DG19 (S in rainwater tanks)	1	2	2	2	2	2	2	BDL	BDL	BDL	BDL	<1

* Insufficient water level in rainwater tank for sampling