# Mt Piper Ash Placement Project Lamberts North– Air Quality Review September 2013 – August 2014

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## SUMMARY

The Lamberts North OEMP includes an Air Quality Management Plan, which contains monitoring and reporting requirements, including the operation of five dust deposition gauges in the vicinity.

The current report presents the dust data collected in the first year of operations of Lamberts North, from September 2013 to August 2014, and similarly reviews the results against the requirements of the OEMP. Conclusions and recommendations arising from the review of the air quality monitoring data collected during the first year of Lamberts North operations appear below. In undertaking this data review some comments and observations are made on the operation of the air quality management plan.

1. Annual average dust deposition results in the first year of the Mt Piper Ash Repository Lamberts North operations were below the criterion of 3.5 g/m2/month at 5 of the 5 Operation Environmental Management Plan (OEMP) gauges.
2. The dust gauge data from the first year of Lamberts North operations does not indicate that Lamberts North operations have resulted in dust deposition above the OEMP levels that trigger the requirement to implement additional control measures.
3. The TEOM at Mt Piper PM10 annual average maximum of 30µg/$m^3$ has not been exceeded in the reporting period of September 2013 to August 2014. The PM10 24 hour maximum of 50µg/$m^3$ has been greater on 5 days since September 2013. After investigations the likely source of PM10 on these days is not from ash placement at Lamberts North but due to other unrelated source/s.
4. The AQMS at Blackmans Flat PM10 annual average maximum of 30µg/$m^3$ has not been exceeded in the reporting period of September 2013 to August 2014. The PM10 24 hour maximum of 50µg/$m^3$ has been greater on 3 days since September 2013. After investigations the likely source of PM10 on these days is not from ash placement at Lamberts North but due to other unrelated source/s.
5. The guideline PM2.5 annual average maximum of 8µg/$m^3$ has not been exceeded in the reporting period of September 2013 to August 2014. The PM2.5 24 hour maximum guideline of 25µg/$m^3$ has been greater on 5 days since September 2013. After investigations the likely source of PM2.5 on these days is not from ash placement at Lamberts North but due to other unrelated source/s.
6. No complaints regarding dust emissions from Lamberts North were received by either EnergyAustralia NSW or the Lamberts North site contractor during the first year of Lamberts North operations.
7. It is considered that the monitoring and reporting requirements of the OEMP are being met.

# 1.0 Introduction

The OEMP includes an Air Quality Management and Monitoring Plan (AMMP), which contains monitoring and reporting requirements. The current report presents the dust deposition data collected in the first year of Lamberts North operations, from September 2013 to August 2014, and similarly reviews the results against the requirements of the OEMP.

# 2.0 The Lamberts North Air Quality Management Plan

The key objective of the Lamberts North air quality management plan is "*to manage resources effectively to ensure the prevention of conditions that may lead to visible dust emissions or exceedances of EnergyAustralia NSW's licence limits."* (OEMP, 2013)

The air quality management plan includes the following performance measures.

Targets:

• The local air quality in the vicinity of the sensitive receivers will not be impacted by Lamberts North Ash Placement operations; and

• Zero incidences of dust-related complaints for Lamberts North Ash Repository.

Indicators:

• Evidence of continuous improvement of dust suppression systems (including monitoring) in accordance with operational demands and meteorological conditions.

• Complaints register demonstrating zero occurrences of dust related complaints.

•That operational results are below the criteria of:

o Increase in Total Suspended Particulates (TSP) by > 2g/m2/month to a maximum of 3.5g/m2/month at dust deposition gauges outside the ash placement area; and

o PM10 annual average is <30µg/ m3 and 24 hour maximum does not exceed 50µg/m3

The Plan states that "*Through the use of dust suppression equipment and the implementation of air quality management procedures, dust events can be controlled*." (OEMP, 2013)

The detailed list of management and mitigation measures in the Plan is included in Table 1**.**

***Table 1: Mitigation measures***

| No. | Mitigation measures | Responsibility | Timing | Source/ Reference |
|---|---|---|---|---|
| **General work practices** | | | | |
| 1. | Water shall be primarily sourced from Lamberts North sediment or catchment ponds. Secondary water supplies maybe sourced from Mt Piper Power Station's existing water ponds located throughout the station precinct. | Contractor | At all times | D3 (d) (v) |
| 2. | Adequate dust suppression shall be ensured on a continuous basis, even outside operational hours. | Contractor | At all times | D3 (d) (iv) OEMP section 2.3.1 |
| 3. | The contractor shall use suitable dust suppression equipment/machinery onsite. This equipment/ machinery shall be regularly serviced and maintained.<br><br>The Contractor shall develop an irrigation operating protocol as detailed below in | Contractor | At all times | D3 (d) (iv)<br>D3 (d) (vi)<br>Irrigation operating protocol (in this plan) |
| 4. | Haul road and auxiliary roads shall be regularly watered to ensure dust suppression is maintained. Speed limits will be enforced by Delta Electricity. | Contractor | At all times | D3 (d) (iv) |
| 5. | In the event of meteorological conditions which increase the risk of a dust episode, additional suppression techniques will be used as per section of this plan. | Contractor | At all times | D3 (d) (iv) |
| 6. | In the event of visible dust emissions, personnel shall notify the Contractor immediately, who will direct the water cart to spray the area and review the location and application rate of the sprinkler system. | All staff | At all times | D3 (d) (iv) and (viii) |
| 7. | In the event of dust complaint, the contractor shall provide site activity log of their daily/ weekly operations as part of Delta Electricity investigations. The log shall include, but is not limited to; sprinkler management, daily water application rates, daily climatic conditions, haulage truck movements and hours of operation. | Contractor | As required | D3 (d) (iv) |
| 8. | In the event of exceeded dust levels at the sensitive receiver locations, Delta Electricity shall carry out an investigation of TSP and/or $PM_{10}$ to determine whether operations at Lamberts North were the potential cause of this exceedance. Specific criterion for $PM_{10}$ and TSP has been provide in Table 6-24 performance indicators | Delta | As required | D3 (d) (iv) |
| **Vehicle and machinery operations** | | | | |
| 9. | Vehicles not directly involved in ash placement or suppression activities will be restricted to haul and auxiliary roads and will obey speed limit at all times. | Contractor | At all times | D3 (d) (iv) |
| 10. | The contractor will ensure that all vehicles are regularly serviced, inspected and cleaned. | Contractor | As required | |
| **Diesel exhaust emissions** | | | | |
| 11. | Where necessary, the effect of diesel emissions should be considered as part of air quality. Consequently, Diesel fuelled equipment will be regularly serviced and cleaned to ensure compliance with appropriate design emission standards for in-service vehicles. | Contractor | As required | D3 (d) (iv) |

| No. | Mitigation measures | Responsibility | Timing | Source/ Reference |
|---|---|---|---|---|
| 12. | Diesel powered stationary plant will be serviced maintained and upgraded as required to minimize air emissions as far as possible and to ensure licensed levels of air emissions are not exceeded. | Contractor | As required | D3 (d) (iv) |
| **Ash placement** | | | | |
| 13. | Ash will be placed in layers and the conditioning of fly ash with water shall be undertaken, ensuring that the moisture content sits at a target rate of 15-20% (or as otherwise determined by climatic conditions and compaction requirements). | Contractor | At all times | D3 (d) (iv) D3 (d) (vi) |
| 14. | Optimal moisture content (OMC) for compaction will be maintained to achieve the target compaction ratio. | Contractor | At all times | D3 (d) (iv) |
| 15. | Records of ash moisture content at placement and water usage for ash conditioning will be maintained. | Contractor | Weekly | D3 (d) (iv) D3 (d) (vi) |
| **Capping and Rehabilitation** | | | | |
| 16. | To achieve permanent dust suppression on external batters, a permanent capping layer of no less than 0.75m shall be applied. Consequently, capping will occur progressively as each area reaches its design height in accordance with the ash placement strategy. | Contractor | As required | D3 (d) (iv) and Landscape and Rehabilitation Plan |
| 17. | Dust suppression techniques shall be maintained after capping until vegetation has been adequately established. | Contractor | As required | D3 (d) (iv) |

These measures are monitored by EnergyAustralia NSW's ash placement contractor, Lend Lease Infrastructure, and are reported at the Monthly Contract Review Meetings.

The measures include:

• Moisture conditioning of ash;

• Temporary capping of ash faces not currently in use and where irrigation systems are not in operation;

• Routine maintenance of truck washes, and washout/surface drainage pits;

• Use of water cart, as required.

### *2.1 Air quality monitoring*

The Air Quality Management and Monitoring Plan (AQMMP) include the following monitoring requirements (OEMP, 2013):

• Air quality monitoring will be undertaken during the life of the Project and include the following:

- Air quality monitoring stations and dust gauges indicated in the AQMMP and Figure 1, shall be used to monitor dust emissions at the perimeter of the Lamberts North; and
- Investigations shall be undertaken to assess whether additional monitoring stations are required on the southern perimeter of Lamberts North; this assessment is based on, but not limited to, local weather patterns and sensitivity of surrounding properties.

• Dust deposition and TSP will be measured using existing dust deposition gauges situated along the Castlereagh Highway, Boulder Road and at Blackmans Flat, and adjacent to residential properties at Blackmans

Flat. The results from these gauges will be used during the operation phase to monitor dust emissions (TSP and dust deposition). TSP will be calculated from dust deposition bottles.

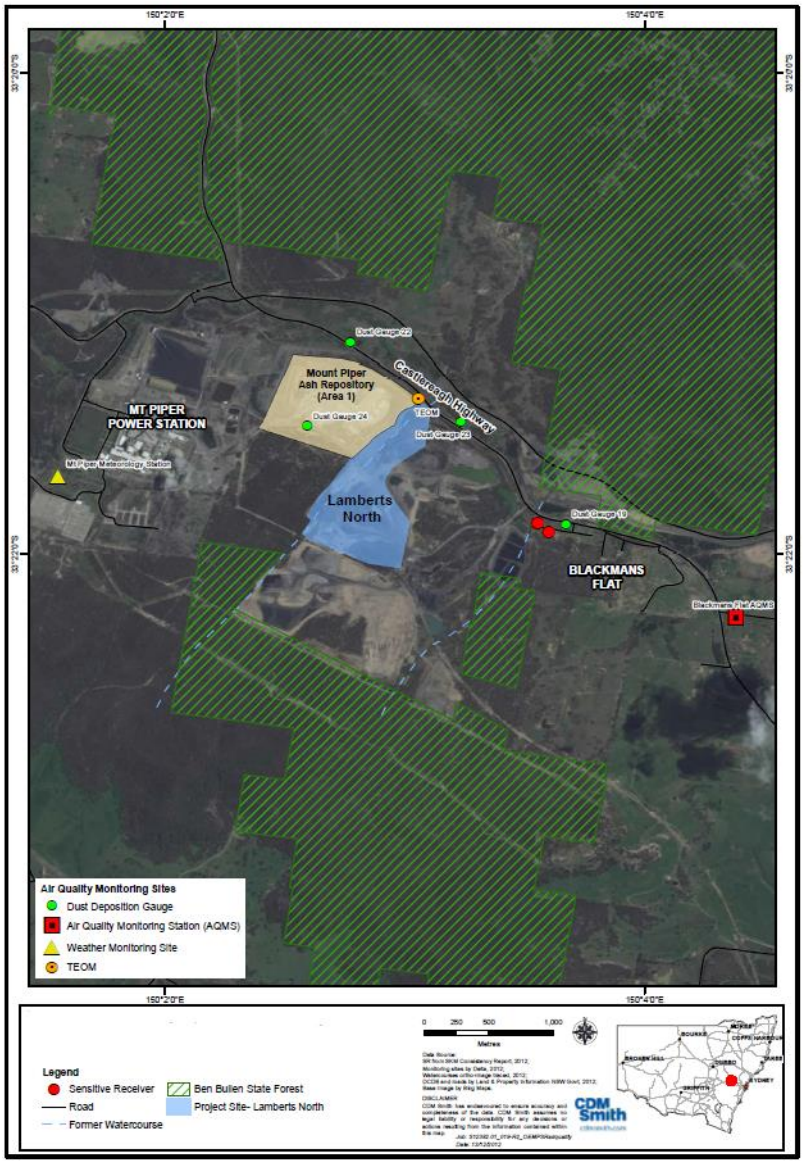
• Samples will be removed from the dust deposition gauges on a monthly basis by a NATA approved laboratory and compared to baseline dust deposition monitoring records from Mount Piper, and the DECC amenity based criteria for dust deposition of 3.5 g/m2/month (annual). PM10 will be measured using one Tapered Element Oscillating Microbalance (TEOM) automated continuous particle monitor. The TEOM is located within the Mount Piper Power Station.

- PM10 and PM2.5 will be measured using one ambient monitor (high volume) Air Quality Monitoring Station (AQMS). The AQMS is located at Blackmans Flat.

Seasonal weather monitoring will be also used as a means to verify any project related air quality impacts.

- Regional climatic conditions will be assessed in the early hours of the morning including but not limited to, temperature, humidity, wind speed and rainfall. This will determine water use for the day. Visual inspection of the site throughout the day, will determine if water application rates need adjusting to suit the climatic conditions occurring on site.

***Figure 1: Lamberts North Air Quality Monitoring Points***




## *2.2 Reporting*

The air quality management plan includes the following reporting requirements (OEMP, 2013):

- Air quality observations will be recorded in the Weekly Environmental Checklist;
- Environmental Incident report forms will be completed and forwarded to the Contract Administrator as/when required;
- Details of any air quality/dust management, monitoring and any complaints will be provided in a Monthly Environmental Report;
- An Annual Air Quality review will be undertaken to review the past year's air quality data, analysis of any trends and make recommendations based on investigations. This report will include a review of annual

PM10 exceedances of 20.5 $\mu/m^3$ which is predicted at sensitive receiver 1 as described in the EA (SKM, 2010). This report will be made available to NSW Public Health Unit and the EPA upon request, unless received as part of the Annual Environmental Management Report (AEMR) for the project; and

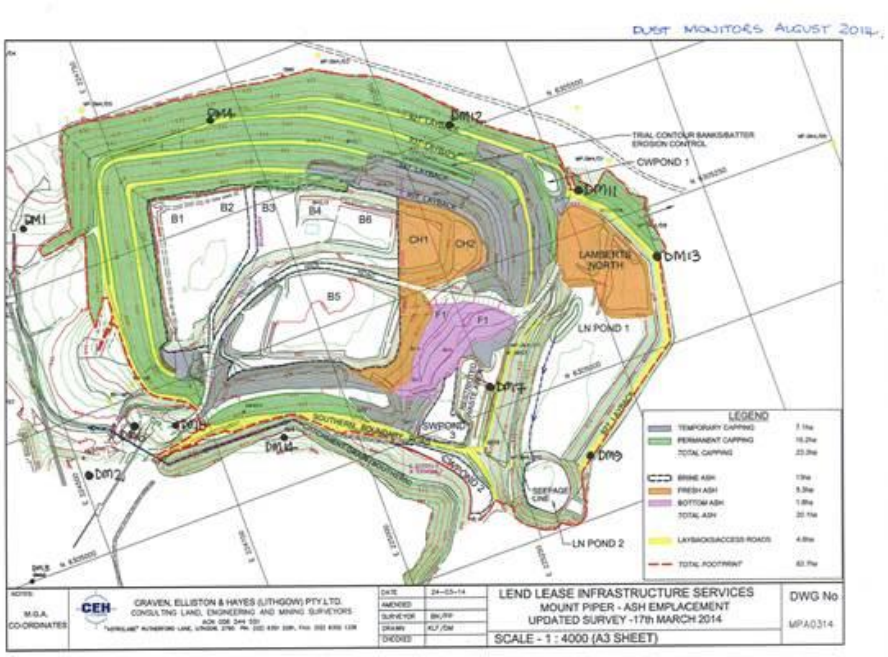
- The AEMR will be submitted to the Director-General complete with the Annual Air Quality data in the Annual Air Quality review and can be completed and/or overseen by the Environmental Representative.

# 3.0 The Air Quality Monitoring Program

## *3.1 OEMP dust gauge locations*

The locations of the 5 dust deposition gauges existing at the commencement of Lamberts North operations in 2013 required by the OEMP are shown in Figure 1. They are dust gauges number 19, 22 and 23 positioned on the Castlereagh Highway between Boulder Road and Blackmans Flat Village; number 20 on the corner of Boulder Road and Castlereagh Highway and number 21 at the entrance on Boulder Road. Lend Lease also has a network of dust deposition Gauges within the Lamberts North area shown in Figure 2.

***Figure 2: Lend Lease Lamberts North Air Quality Monitoring Points***



### *3.1.1 Frequency and methods*

***Table 2: Frequency of measurement and monitoring methods.***

| *Parameter* | *Frequency of Measurement* | *NSW Approved Methods (AM) and Australian Standard (AS)* |
|---|---|---|
| Dust Gauges | Monthly | AM-1 Guide for siting of sampling units (AS 2922-1987)<br>AM-10 Particulates- deposited matter-gravimetric method (AS 3580.10.1 1991) |

The collected samples are analysed in the laboratory according to AS 3580 for:

• Insoluble solids: this is the matter that does not dissolve in water.

• Incombustible (ash)[1] content: this is the matter that remains after the sample has been combusted in the laboratory.

Results for insoluble solids and incombustible material are expressed as $g/m^2$/month.

The insoluble solids and incombustible (ash) content of a collected dust sample can provide information on possible sources of the dust but due to the time-scale over which data are collected (monthly) and the fact that many disparate sources can contribute to deposited dust, it is often not possible to use dust gauge data to positively identify the contributing sources.

[1]Ash content does not refer to coal ash but could include ash from coal combustion and other mineral matter derived from soil, for example.

# 4.0 Results

In this section data are presented for the first year of ash placement at Lamberts North between September 2013 and August 2014.

## *4.1 OEMP dust gauges*

Dust deposition data collected during monitoring at Mount Piper between January 2010 to September 2012 at dust gauges 19, 20, 21 22, 23 and 24 provided baseline dust deposition levels as required by CoA D3 (d) (i) (Appendix A). An average of 1.5 g/m²/month for dust deposition was calculated from the data obtained from the six dust gauges around the site. This baseline level will be used for compliance assessment purposes during the operation of the Project. The operation of the Project shall aim to achieve compliance with this limit. In the event of exceedances of 2 g/m²/month (or more) above the baseline average of 1.5 g/m²/month, investigation will be undertaken to determine the likely cause.

When the dust gauge material is analysed on a monthly basis for insoluble solids, ash and combustible fractions, the analysts provide a description of the collected material, based on visual inspection including colour, size (fine, coarse etc.) and if possible the composition of the collected material, which might typically include the following: bugs, organics, plant material, spiders, bird droppings – as well as the more generic

"dust". The colour of the collected dust is variously described as black, brown, grey and green (perhaps due to biological activity). If coal ash from Lamberts North were making a significant contribution to deposited dust levels, it might be expected that the collected ash would be described as grey (the colour of the coal-ash varies from light to dark grey), on a regular basis.

The monthly dust deposition data for the five OEMP dust gauges during the first year of operation between September 2013 and August 2014 is shown in Table 3. The annual average dust deposition at 4 of the 5 dust gauges was greater than the baseline of 1.5 g/m$^2$/month (gauges 20, 21, 22 and 23). The annual average dust deposition at 0 of the 5 gauges in the OEMP network was greater than the DECC assessment criteria total dust deposition of 3.5 g/m$^2$/month. No exceedances of the criteria at all five dust deposition gauges occurred during the first year of operations between September 2013 and August 2014. No investigations are therefore deemed necessary in the first year of operations.

***Table 3: Dust gauge data from OEMP for the first year of operations at Lamberts North (September 2013- August 2014). Insol – Insoluble solids, g/m2/month, Frac. – Incombustible (ash) fraction of insoluble solids.Insoluble solid results of 0.1 g/m2/month are reported Limit of Detection, in which case ash fraction not determined.***

That operational results are below the criteria of :

- Increase in Total Suspended Particulates (TSP) by > 2g/m$^2$/month to a maximum of 3.5g/m$_2$/month at dust deposition gauges outside the ash placement area; and
- PM10 annual average is <30µg/ m$_3$ and 24 hour maximum does not exceed 50µg/m$^3$

| Gauge | 19 | | 20 | | 21 | | 22 | | 23 | |
|---|---|---|---|---|---|---|---|---|---|---|
| Month | Insol. | Frac. | Insol. | Frac. | Insol. | Frac. | Insol. | Frac. | Insol. | Frac. |
| Sep-13 | 1.3 | 0.8 | 0.8 | 0.3 | 1.5 | 0.6 | 0.7 | 0.2 | 0.3 | 0 |
| Oct-13 | 0.5 | 0.1 | 0.6 | 0 | 0.8 | 0.2 | 1.1 | 0.6 | 1.1 | 0.6 |
| Nov-13 | 1 | 0.6 | 1.1 | 0.5 | 1.7 | 0.8 | 2.5 | 1.1 | 1.7 | 1.1 |
| Dec-13 | 1.2 | 0.8 | 1.1 | 0.5 | 1.2 | 0.6 | 1.2 | 0.6 | 1.5 | 0.8 |
| Jan-14 | 1 | 0.6 | 0.8 | 0.3 | 1.7 | 0.6 | 0.6 | 0.3 | 0.6 | 0.3 |
| Feb-14 | 0.8 | 0.5 | 0.8 | 0.3 | 3.4 | 1.1 | 1 | 0.6 | 0.3 | 0 |
| Mar-14 | 0 | 0 | 0.5 | 0.1 | 0.9 | 0.4 | 0.4 | 0.1 | 0.2 | 0 |
| Apr-14 | 0.1 | 0.1 | 0.2 | 0.1 | 0.5 | 0.1 | 0.2 | 0.1 | 0.9 | 0.6 |
| May-14 | 1.3 | 1 | 0.8 | 0.5 | 1 | 0.5 | 1.4 | 0.9 | 1.3 | 0.7 |
| Jun-14 | 0.9 | 0.5 | 1.1 | 0.4 | 1 | 0.4 | 0.9 | 0.5 | 0.7 | 0.2 |
| Jul-14 | 0.6 | 0.3 | 1.6 | 0.3 | 3.4 | 0 | 0.5 | 0.2 | 0.7 | 0.2 |
| Aug-14 | 0.7 | 0.4 | 1.9 | 0.8 | 0.4 | 0.1 | 0.6 | 0.3 | 0.4 | 0.2 |
| *Average1* | **0.8** | **0.5** | **0.9** | **0.3** | **1.5** | **0.5** | **0.9** | **0.5** | **0.8** | **0.4** |
| *Months >3.5** | 0 | | 0 | | 0 | | 0 | | 0 | |
| *Months >1.5#* | 0 | | 2 | | 4 | | 1 | | 1 | |

1. Average of monthly incombustible fractions

**DECC assessment criteria of total dust deposition of 2 g/m2/month as a maximum monthly increase above baseline*

*#Baseline level (g/m2/month)*

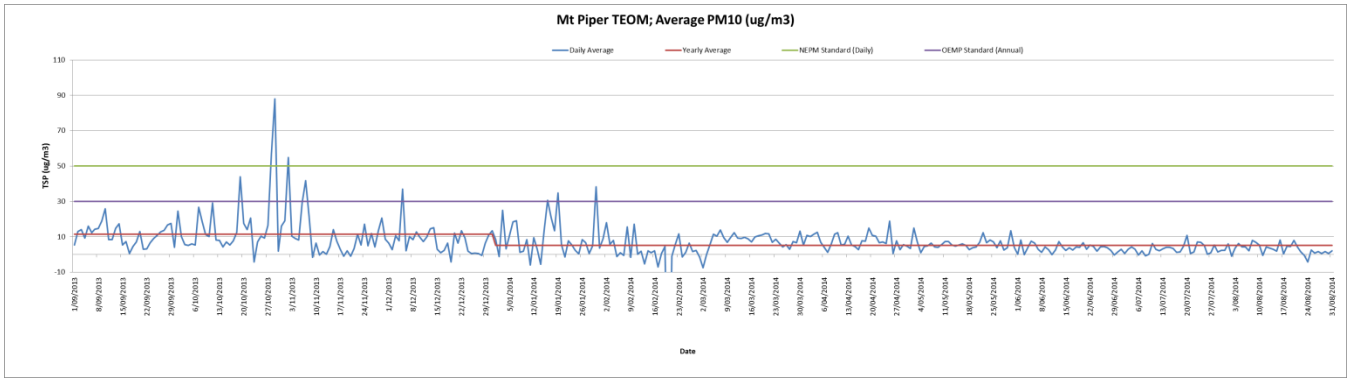
### *4.2 PM10*

This Annual Air Quality review also requires the review of the annual PM10. The operational results are required to be below the criteria of PM10 annual average of <30µg/ m$^3$ and 24 hour maximum does not exceed 50µg/m$^3$. Coarse fraction PM10 has the potential to exacerbate asthma in sensitive people and can

result in other adverse health effects predominantly on respiratory conditions. Any exposure of local residents to particulate emissions should be minimised as far as possible.

PM10 is measured using one Tapered Element Oscillating Microbalance (TEOM) automated continuous particle monitor. The TEOM is located within the Mount Piper Power Station. The PM10 annual average maximum of 30µg/m$^3$ has not been exceeded in the reporting period of September 2013 to August 2014 with the annual average at 11.5µg/m$^3$. However, the PM10 24 hour maximum of 50µg/m$^3$ has been greater on 3 days since September 2013 (Figure 3). Results were greater than 50µg/m$^3$ on the 28$^{th}$ and 29ty October 2013 (57µg/m$^3$ and 88µg/m$^3$ respectively); and 2$^{nd}$ November 2013 (55µg/m$^3$) (raw data available in Appendix B). On 28 October 2013 the wind direction was in a NE direction with no rainfall, similarly for 29 October 2013 the wind direction was in a SE direction with no rain. The weather station for 02 November 2013 was not logging data correctly so no data is available for this day. Lend Lease operations for the abovementioned days were focused at Mt Piper Stage 1 at areas B5 and F1 (see Figure 2) and not in Lamberts North and no dust events were logged within their reporting system for these days. Sprinkler's become operational under Lend Lease procedures when wind speed is at 20 km/hr, wind speed is also the indicator for continuing and/or increased operations of sprinklers.

***Figure 3: PM10 information from TEOM Mt Piper for September 2013 to August 2014.***




During the same period, Lend Lease dust deposition gauges 11, 12 and 13 situated at the northern end of Lamberts North and EnergyAustralia NSW dust gauge 22 which is located in a north-west direction from Lamberts North, all reported fine brown and moderate coarse brown/black dust, not indicative of ash (Table 4). If coal ash from Lamberts North were making a significant contribution to deposited dust levels, it might be expected that the collected ash would be described as grey (the colour of the coal-ash varies from light to dark grey). It is reasonable to conclude that the PM10 exceedances at the TEOM located in the northern corner of Lamberts North were not a result of ash placement but from other unknown sources.

***Table 4: Dust gauge information from Lamberts North OEMP and Lend Lease dust gauge information for October and November 2013.***

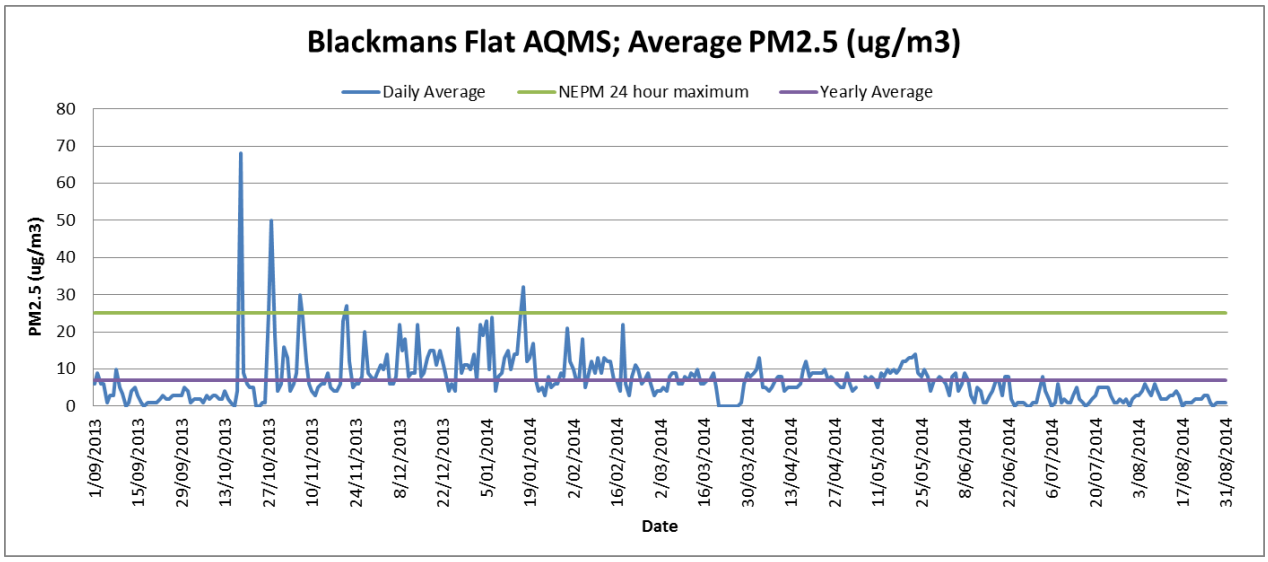
| DATE_FROM | DATE_TO | GAUGE NUMBER | COMMENTS |
|---|---|---|---|
| EnergyAustralia NSW | | | |
| 11/10/13 | 12/11/13 | 19 | Clear, bugs, plant matter, organics, small # fine brown & small # coarse brown dust |
| 11/10/13 | 12/11/13 | 20 | Clear, bugs, small # fine grey & small # coarse brown/black dust |
| 11/10/13 | 12/11/13 | 21 | Clear, bugs, plant matter, organics, mod # fine brown & mod # coarse brown/black dust |
| 11/10/13 | 12/11/13 | 22 | Clear, bugs, plant matter, mod # fine brown & mod # coarse brown/black dust |
| 11/10/13 | 12/11/13 | 23 | Clear, mod # fine grey & mod # coarse black dust |
| 11/10/13 | 12/11/13 | 24 | Clear, bugs, plant matter, mod # fine brown & mod # coarse black/green dust |
| Lendlease | | | |
| 3/10/13 | 14/11/13 | 11 | Clear, bugs, plant matter, organics, small # fine grey & small # coarse brown dust |
| 3/10/13 | 14/11/13 | 12 | Clear, organics, small # fine brown and small # coarse brown/black/orange dust |
| 3/10/13 | 14/11/13 | 13 | Clear, bugs, organics, stone, small # fine brown & small # coarse brown/ black dust |

PM10 and PM2.5 are measured using one ambient monitor (high volume) Air Quality Monitoring Station (AQMS). The AQMS is located at Blackmans Flat. At this stage the DECC has not set criteria for PM2.5 that are applied on a project-specific basis and the OEMP only currently requires that PM2.5 is measured. In the absence of criteria for reporting PM2.5 the National Environment Protection Council, the National Environment Measure for Ambient Air Quality (NEPM) have standards and goals for the maximum ambient concentrations. The Air NEPM sets the following advisory reporting standards and for particulates for PM2.5:

- Maximum daily ambient concentration is to 25 µg/m3; and
- An annual maximum ambient concentration of 8µg/m3.

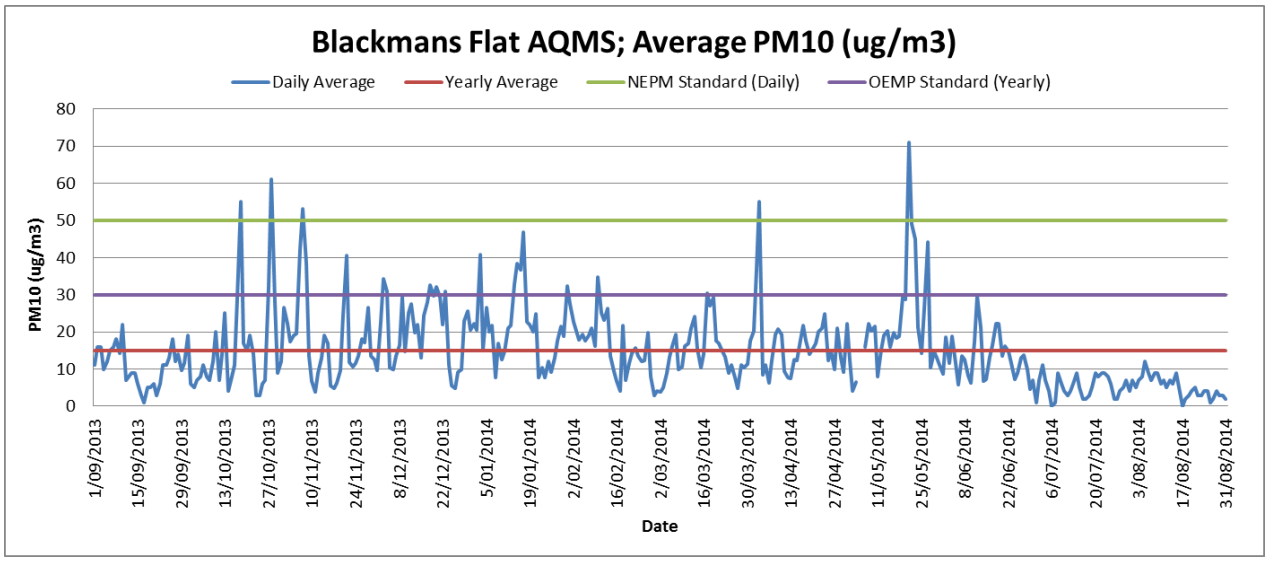
The PM2.5 annual average maximum of 8µg/$m^3$ has not been exceeded in the reporting period of September 2013 to August 2014 with the annual average at 7µg/$m^3$. The PM2.5 24 hour maximum of 25µg/$m^3$ has been greater on 5 days since September 2013 (Figure 4). Results were greater than 25µg/$m^3$ on the 18 and 28 October 2013 (68µg/$m^3$ and 50µg/$m^3$ respectively); and 06 and 21 November 2013 (30µg/$m^3$ and 27µg/$m^3$ respectively); and 17 January 2014 (32µg/$m^3$) (raw data available in Appendix B).

***Figure 4: PM2.5 information from AQMS Blackmans Flat for September 2013 to August 2014.***




The PM10 annual average maximum of 30µg/m$^3$ has not been exceeded in the reporting period of September 2013 to August 2014 with the annual average at 15µg/m$^3$. However, the PM10 24 hour maximum of 50µg/m$^3$ has been greater on 5 days since September 2013 (Figure 5). Results were greater than 50µg/m$^3$ on the 13 and 28 October 2013 (55µg/m$^3$ and 61µg/m$^3$ respectively); 07 November 2013 (53µg/m$^3$); on the 03 April 2014 (55µg/m$^3$) and 21 May 2014 (71.1µg/m$^3$) (raw data available in Appendix B).

***Figure 5: PM2.5 information from AQMS Blackmans Flat for September 2013 to August 2014.***



# 5.0 Discussion

Dust gauges are often positioned adjacent to dust generating activities to assess possible nuisance impacts at nearby receptors. As a passive collection system they are inexpensive to install and maintain but are subject to a number of limitations (Malfroy, 2012):

• They are more effective in collecting coarse particles than fine particles;

• Results are often influenced by things like insects, bird droppings and occasionally human interference;

• The collection period of a month makes the assessment of short-term, individual events impossible;

• Without further analysis, it is difficult, if not impossible, to use dust gauge results to discriminate between a number of possible sources.

Notwithstanding these limitations, dust gauge data, have the potential to provide some relevant information regarding the potential dust impacts arising from Lamberts North when used cautiously. It is noted that in relation to dust gauge samples, "ash" refers to the incombustible, inorganic fraction of the sample and the "ash" fraction of a sample cannot be directly related to coal-ash.

Related to discussion is the OEMP's requirement that:

*In the event of exceedances of 2 g/m²/month (or more) above the baseline average of 1.5 g/m²/month, investigation will be undertaken to determine the likely cause.*

This requirement appears to be based on the simplistic assumption that any measured increase in dust deposition at OEMP gauges is the result of emissions from Lamberts North. A diverse range of sources (including regional dust storms) can contribute to dust gauge results. Care must be exercised in attempting to relate dust deposition results to potential dust sources. The contributing source, or sources, to an elevated result cannot always simply or easily be determined. As noted above dust gauges are most commonly used adjacent to, or in close proximity to, potentially "dusty" activities. With respect to the location of the OEMP gauges it should be noted that data obtained from gauges located at some distance from Lamberts North are unlikely to provide robust, useful information regarding potential impacts from the Lamberts North. Of the existing 5 OEMP gauges it is considered that Gauge 23, which is adjacent to Lamberts North and Gauges 19 and 22 (Figure 1) are likely to provide information which is useful in assessing potential impacts from Lamberts North Ash Repository. In 2013 – 2014 the annual average deposition at these 3 sites was, at most, 0.9 $g/m^2$/month and was not exceeded in any of the individual months.

When the dust gauge material is analysed on a monthly basis for insoluble solids, ash and combustible fractions, the analysts provide a description of the collected material, based on visual inspection including colour, size (fine, coarse etc) and if possible the composition of the collected material, which might typically include the following: bugs, organics, plant material, spiders, bird droppings – as well as the more generic

"dust". The colour of the collected dust is variously described as black, brown, grey and green (perhaps due to biological activity). If coal ash from Lamberts North were making a significant contribution to deposited dust levels, it might be expected that the collected ash would be described as grey (the colour of the coal-ash varies from light to dark grey), on a regular basis.

According to the National Environment Protection Council, the National Environment Measure for Ambient Air Quality (NEPM) is as follows the PM10 24 hour maximum of 50ug/$m^3$ can have five allowable exceedances per year. The PM10 TEOM results indicate three exceedances of the 24 hour maximum and the PM10 AQMS results indicate five exceedances of the 24 hour maximum.

PM10 measured at TEOM and PM10 and PM2.5 measured at AQMS on the 28 October 2013 all had exceedances for the 24 hour maximum. As previously mentioned the wind direction for this particular day was in a NE direction, with no rainfall recorded. Lend Lease operations for the abovementioned day were focused at Mt Piper Stage 1 at areas B5 and F1 (see Figure 2) and not in Lamberts North and no dust events were logged within their reporting system for these days. Sprinklers become operational under Lend Lease procedures when wind speed is at 20 km/hr, wind speed is also the indicator for continuing and/or increased operations of sprinklers. No internal plant failures or operational changes were reported for this day. Figure 6 highlights the wind rose information for October 2013 and Figure7 highlights the months that recorded the highest wind speed and the wind directions. It is clear that the wind speed for October 2013 was predominately in a NE direction which would indicate that the source of PM2.5 particulates would not be from Lamberts North. Lamberts North is west of the AQMS and therefore the PM2.5 particulates must be from another source or sources.

Warm, dry and windy conditions in September and October led to severe early season bushfire activity in Western Sydney, Blue Mountains and the Lithgow region. On 16 October 2013 a bushfire started at the Marrangaroo Army Range Training Area which quickly grew in size and intensity was pushed by westerly winds in to the State Mine Gully Area. Smoke from bushfires can lead to significant deterioration in air quality, with high concentrations of particles. During extreme events such as bushfires very high Air Quality Indexes (AQI) can be recorded (OEH, 2014). In the bushfires of September to October 2013, AQI values in the hazardous category were observed on a number of days in NSW. PM10 particle levels above the national standard were recorded at most monitoring stations in NSW; higher levels of particles were observed across much of NSW during 2013. The 24 hour maximum PM10 of 145ug/m3 was recorded at the Bathurst region monitoring station on 18 October 2013 during the bushfire emergency. Similarly, PM10 levels recorded at the Mt Piper TEOM and PM10 and PM2.5 at the Blackmans Flat AQMS during the bushfire emergency. The AQMS PM10 24 hour maximum of 50µg/$m^3$ were greater on the 18 and 28 October 2013 (55µg/$m^3$ and 61µg/$m^3$ respectively);

07 November 2013 (53µg/m$^3$). The AQMS PM2.5 24 hour maximum of 25µg/m$^3$ were greater on the 18 and 28 October 2013 (68µg/m$^3$ and 50µg/m$^3$ respectively); and 06 and 21 November 2013 (30µg/m$^3$ and 27µg/m$^3$ respectively). The TEOM PM10 24 hour maximum of 50µg/m$^3$ has been greater on 3 days since September 2013 (Figure 3). Results were greater than 50µg/m$^3$ on the 28 and 29 October 2013 (57µg/m$^3$ and 88µg/m$^3$ respectively); and 2 November 2013 (55µg/m$^3$).

NSW experienced extremely poor air quality during 2013 due to the impacts of bushfires in September, October and November. During the bushfire emergency relatively high levels were recorded at most monitoring stations. During October and November 2013 the wind direction was predominately in a NE direction at the Mt Piper Weather Monitoring station and given the extremity of the bushfire emergency it is expected that the exceedances recorded for PM10 at the TEOM and AQMS and the PM2.5 were a result of the bushfire emergency that affected NSW during September, October and November 2013. After investigations the likely source of PM10 and PM2.5 on these days is not from ash placement at Lamberts North but due to high pollution events from bushfire.

***Figure 6: Wind rose information from Blackmans Flat for October 2013.***

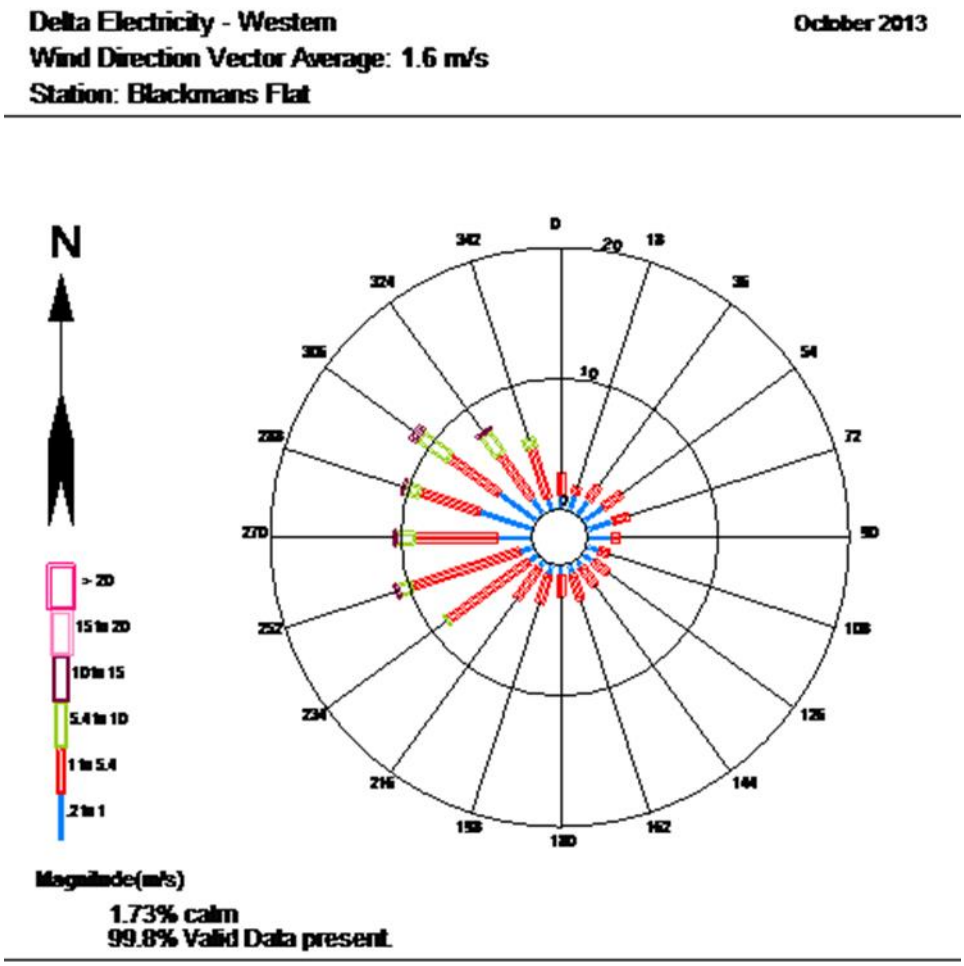
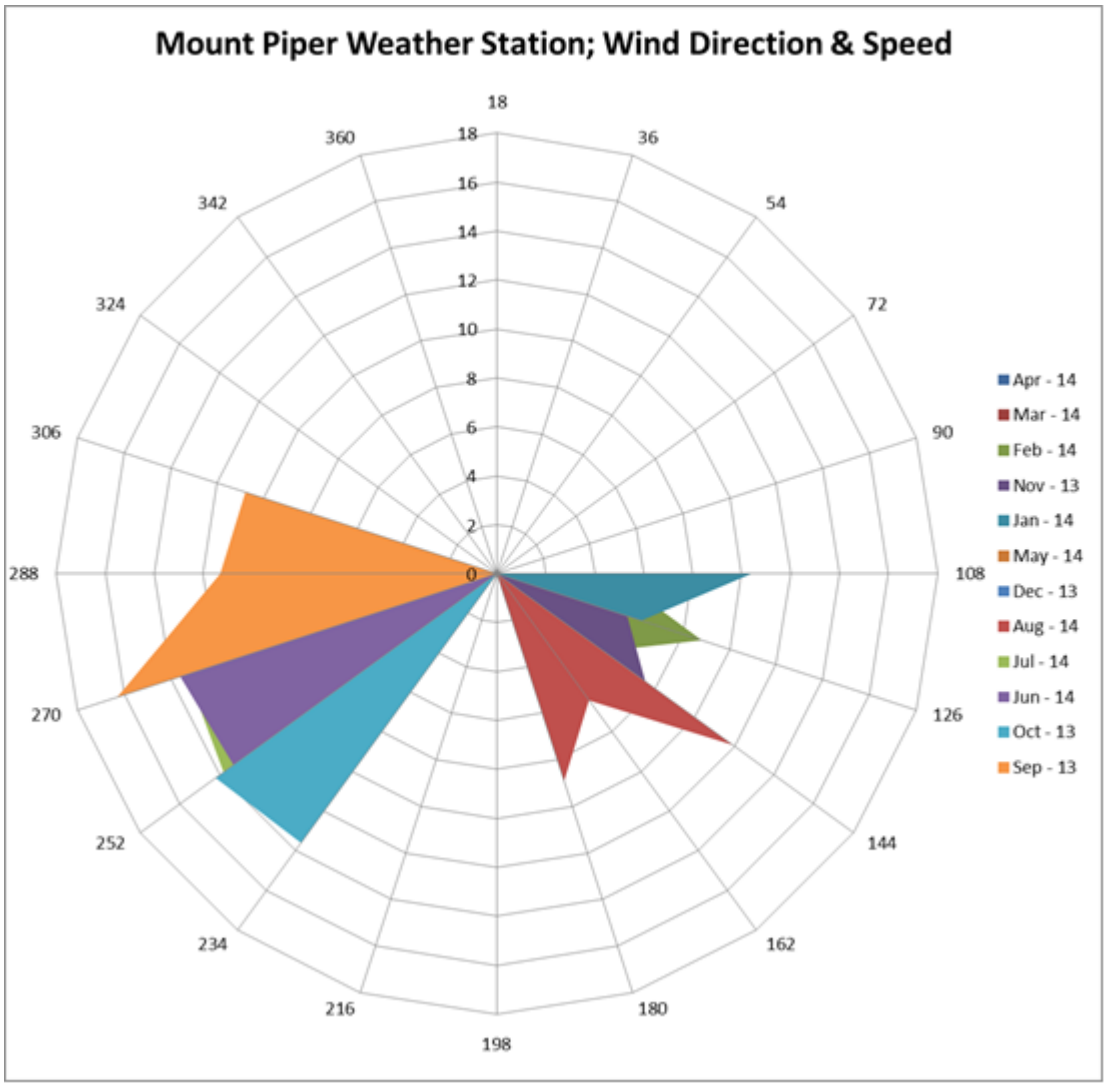


***Figure 7: Wind direction and wind speed information from Blackmans Flat for September 2013 to August 2014.***




# 6.0 Conclusions

1. Annual average dust deposition results in the first year of the Mt Piper Ash Repository Lamberts North operations were below the criterion of 3.5 g/m2/month at 5 of the 5 Operation Environmental Management Plan (OEMP) gauges.
2. The dust gauge data from the first year of Lamberts North operations does not indicate that Lamberts North operations have resulted in dust deposition above the OEMP levels that trigger the requirement to implement additional control measures.
3. The TEOM at Mt Piper PM10 annual average maximum of 30µg/$m^3$ has not been exceeded in the reporting period of September 2013 to August 2014. The PM10 24 hour maximum of 50µg/$m^3$ has

been greater on 5 days since September 2013. After investigations the likely source of PM10 on these days is not from ash placement at Lamberts North but due to other unrelated source/s.

4. The AQMS at Blackmans Flat PM10 annual average maximum of 30µg/$m^3$ has not been exceeded in the reporting period of September 2013 to August 2014. The PM10 24 hour maximum of 50µg/$m^3$ has been greater on 3 days since September 2013. After investigations the likely source of PM10 on these days is not from ash placement at Lamberts North but due to other unrelated source/s.
5. The guideline PM2.5 annual average maximum of 8µg/$m^3$ has not been exceeded in the reporting period of September 2013 to August 2014. The PM2.5 24 hour maximum guideline of 25µg/$m^3$ has been greater on 5 days since September 2013. After investigations the likely source of PM2.5 on these days is not from ash placement at Lamberts North but due to other unrelated source/s.
6. No complaints regarding dust emissions from Lamberts North were received by either EnergyAustralia NSW or the Lamberts North site contractor during the first year of Lamberts North operations.
7. It is considered that the monitoring and reporting requirements of the OEMP are being met.

# 7.0 References

CDM Smith (2013). Lamberts North Ash Placement Project- Operational Management Plan.

SKM (2010). Mt Piper Ash Placement Project Environmental Assessment.

OEH (2014). New South Wales Air Quality Statement 2013.

# Appendix A

***Air Quality data and summary for Lamberts North OEMP dust gauges***

| DATE_FROM | DATE_TO | GAUGE NUMBER | INSOLUBLES | ASH | COMBUSTS | COMMENTS |
|---|---|---|---|---|---|---|
| 16/12/11 | 17/01/12 | 19 | 0.9 | 0.5 | 0.4 | Clear, organic matter, small # fine black/grey & small # coarse black dust |
| 19/01/12 | 16/02/12 | 19 | 0.3 | BD | 0.3 | Clear, small # fine grey & small # coarse black dust |
| 16/02/12 | 19/03/12 | 19 | 1.2 | 0.6 | 0.6 | Clear, bugs, organic matter, small # fine grey & small # coarse grey dust |
| 19/03/12 | 16/04/12 | 19 | 1.9 | 1.1 | 0.8 | Clear, bugs, small # fine grey/green & small # coarse black dust |
| 16/04/12 | 15/05/12 | 19 | 0.9 | 0.6 | 0.3 | Clear, organics, small # fine grey & small # coarse grey/black dust |
| 15/05/12 | 15/06/12 | 19 | 4.2 | 2.8 | 1.4 | Clear, spider, large # fine green/silver & large # coarse silver/black dust |
| 15/06/12 | 17/07/12 | 19 | 0.8 | 0.5 | 0.3 | Clear, bugs, spider, small # fine grey & small # coarse black dust |
| 17/07/12 | 15/08/12 | 19 | 1.3 | 0.8 | 0.5 | Clear, plant matter, small # fine green/black & small # coarse grey/black dust |
| 15/08/12 | 14/09/12 | 19 | 1.7 | 1.1 | 0.6 | Clear, bugs, plant matter, mod # fine brown/black & mod # coarse brown/black dust |
| 14/09/12 | 15/10/12 | 19 | 1.2 | 0.6 | 0.6 | Clear, plant matter, small # fine brown & small # coarse brown/black/grey dust |
| 15/10/12 | 14/11/12 | 19 | 0.8 | 0.5 | 0.3 | Clear, plant matter, small # fine grey/green & small # coarse black/green dust |
| 14/11/12 | 14/12/12 | 19 | 0.8 | 0.5 | 0.3 | Clear, small # fine grey & small # coarse black dust |
| 14/12/12 | 15/01/13 | 19 | 1.2 | 0.6 | 0.6 | Clear, bugs, organics, small # fine brown & small # coarse brown/black dust |
| 15/01/13 | 15/02/13 | 19 | 3.6 | 1.1 | 2.5 | Clear, spider, large # fine green & large # coarse black dust |
| 15/02/13 | 15/03/13 | 19 | 1.0 | 0.6 | 0.4 | Clear, spider, small # fine grey & small # coarse brown/grey/black dust |
| 15/03/13 | 12/04/13 | 19 | 1.2 | 0.7 | 0.5 | Clear, spider, small # fine grye & small # coarse black dust |
| 12/04/13 | 13/05/13 | 19 | 1.5 | 1.1 | 0.4 | Clear, bugs, mod # fine brown/black & mod # coarse grey/black dust |

| | | | | | | |
|---|---|---|---|---|---|---|
| 13/05/13 | 11/06/13 | 19 | BD | BD | BD | Clear, bugs, spider, small # fine grey & small # coarse black dust |
| 11/06/13 | 12/07/13 | 19 | 0.5 | 0.3 | 0.2 | Clear, bugs, organics, small # fine grey & small # coarse black dust |
| 12/07/13 | 9/08/13 | 19 | 0.2 | BD | 0.2 | Clear, bugs, small # fine grey & small # coarse brown/grey dust |
| 9/08/13 | 9/09/13 | 19 | 1.3 | 0.8 | 0.5 | Clear, bugs, organics, small # fine black & small # coarse grey/blue/blakc dust |
| 9/09/13 | 11/10/13 | 19 | 0.5 | 0.1 | 0.4 | Clear, bugs, plant matter, organics, small # fine brown/grey/green/black & small # coarse black dust |
| 11/10/13 | 12/11/13 | 19 | 1.0 | 0.6 | 0.4 | Clear, bugs, plant matter, organics, small # fine brown & small # coarse brown dust |
| 12/11/13 | 13/12/13 | 19 | 1.2 | 0.8 | 0.4 | Clear, bugs, organics, small # fine black & small # coarse brown/black dust |
| 13/12/13 | 14/01/14 | 19 | 1.0 | 0.6 | 0.4 | Clear, organics, small # fine brown/grey/black & small # coarse grey/black dust |
| 14/01/14 | 14/02/14 | 19 | 0.8 | 0.5 | 0.3 | Clear, bugs, plant matter, small # fine grey & small # coarse grey/black dust |
| 14/02/14 | 18/03/14 | 19 | BD | BD | BD | Clear, bugs, small # fine brown/black & small # coarse brown/black dust |
| 18/03/14 | 15/04/14 | 19 | 0.1 | <0.1 | 0.1 | Clear, plant matter, small # fine brown & small # coarse brown/black dust |
| 15/04/14 | 16/05/14 | 19 | 1.3 | 1.0 | 0.3 | Clear, bugs, small # fine brown & small # coarse brown/black dust |
| 16/05/14 | 17/06/14 | 19 | 0.9 | 0.5 | 0.4 | Clear, bugs, small # fine grey & small # coarse brown/black dust |
| 17/06/14 | 18/07/14 | 19 | 0.6 | 0.3 | 0.3 | Clear, bugs, small # fine grey & small # coarse grey dust |
| 18/07/14 | 19/08/14 | 19 | 0.7 | 0.4 | 0.3 | Clear, bugs, small # fine grey & small # coarse black dust |
| 19/08/14 | 19/09/14 | 19 | 0.8 | 0.3 | 0.5 | Clear, bugs, small # fine grey/green & small # coarse brown dust |
| 16/12/11 | 17/01/12 | 20 | 0.8 | 0.3 | 0.5 | Clear, bugs, organic matter, small # fine black/grey & small # coarse black dust |
| 19/01/12 | 16/02/12 | 20 | 0.9 | 0.3 | 0.6 | Clear, bugs, organic matter, small # fine grey & small # coarse black dust |
| 16/02/12 | 19/03/12 | 20 | 2.0 | 0.8 | 1.2 | Clear, bugs, organic matter, spider, mod # fine brown/green & mod # coarse brown dust |
| 19/03/12 | 16/04/12 | 20 | 2.0 | 1.0 | 1.0 | Clear, bugs, mod # fine black & mod # coarse black dust |
| 16/04/12 | 15/05/12 | 20 | 3.5 | 2.1 | 1.4 | Clear, plant matter, small # fine black & small # coarse black dust |
| 15/05/12 | 15/06/12 | 20 | 1.2 | 0.8 | 0.4 | Clear, bugs, small # fine grey & small # coarse grey dust |
| 15/06/12 | 17/07/12 | 20 | 3.3 | 1.8 | 1.5 | Clear, bugs, large # fine black & large # coarse black dust |
| 17/07/12 | 15/08/12 | 20 | 4.3 | 2.4 | 1.9 | Slightly cloudy, bugs, large # fine black & large # coarse brown/black dust |
| 15/08/12 | 14/09/12 | 20 | 4.2 | 2.3 | 1.9 | Clear, bugs, plant matter, large # fine black & large # coarse grey/black dust |
| 14/09/12 | 15/10/12 | 20 | 1.8 | 1.0 | 0.8 | Clear, bugs, mod # fine brown & mod # coarse brown/grey/black/green dust |
| 15/10/12 | 14/11/12 | 20 | 1.6 | 0.9 | 0.7 | Clear, bugs, plant matter, mod # fine black & mod # coarse grey dust |

| | | | | | | |
|---|---|---|---|---|---|---|
| 14/11/12 | 14/12/12 | 20 | 1.7 | 0.9 | 0.8 | Clear, bugs, mod # fine grey/black & mod # coarse black dust |
| 14/12/12 | 15/01/13 | 20 | 1.4 | 0.7 | 0.7 | Clear, bugs, spider, organics, mod # fine black & mod # coarse brown/black/glass dust |
| 15/01/13 | 15/02/13 | 20 | 1.0 | 0.4 | 0.6 | Clear, small # fine brown & small # coarse black dust |
| 15/02/13 | 15/03/13 | 20 | 1.8 | 0.9 | 0.9 | Clear, bugs, mod # fine black & mod # coarse brown/black dust |
| 15/03/13 | 12/04/13 | 20 | 2.1 | 1.1 | 1.0 | Clear, bugs, mod # fine black & mod # coarse black dust |
| 12/04/13 | 13/05/13 | 20 | 3.1 | 1.4 | 1.7 | Slightly cloudy, bugs, organics, bird droppings, large # fine black & large # coarse brown/black dust |
| 13/05/13 | 11/06/13 | 20 | 1.2 | 0.8 | 0.4 | Clear, plant matter, small # fine black & small # coarse black dust |
| 11/06/13 | 12/07/13 | 20 | 3.5 | 1.4 | 2.1 | Clear, bugs, plant matter, bird droppings, organics, large # fine black & large # coarse brown/black dust |
| 12/07/13 | 9/08/13 | 20 | 1.0 | 0.2 | 0.8 | Clear, bugs, organics, small # fine black & small # coarse brown/black dust |
| 9/08/13 | 9/09/13 | 20 | 0.8 | 0.3 | 0.5 | Clear, bugs, organics, small # fine black & small # coarse blakc dust |
| 9/09/13 | 11/10/13 | 20 | 0.6 | BD | 0.6 | Clear, bugs, plant matter, organics, small # fine brown/grey/black & small # coarse grey/black dust |
| 11/10/13 | 12/11/13 | 20 | 1.1 | 0.5 | 0.6 | Clear, bugs, small # fine grey & small # coarse brown/black dust |
| 12/11/13 | 13/12/13 | 20 | 1.1 | 0.5 | 0.6 | Clear, bugs, plant matter, organics, small # fine black & small # coarse brown/black dust |
| 13/12/13 | 14/01/14 | 20 | 0.8 | 0.3 | 0.5 | Clear, bugs, organics, small # fine brown/grey/black & small # coarse brown/black dust |
| 14/01/14 | 14/02/14 | 20 | 0.8 | 0.3 | 0.5 | Clear, bugs, spider, small # fine grey & small # coarse grey/brown/black dust |
| 14/02/14 | 18/03/14 | 20 | 0.5 | 0.1 | 0.4 | Clear, small # fine brown/black & small # coarse brown/black |
| 18/03/14 | 15/04/14 | 20 | 0.2 | 0.1 | 0.1 | Clear, bugs, organics, small # fine brown & small # coarse brown/black dust |
| 15/04/14 | 16/05/14 | 20 | 0.8 | 0.5 | 0.3 | Clear, bugs, small # fine brown & small # coarse brown/black dust |
| 16/05/14 | 17/06/14 | 20 | 1.1 | 0.4 | 0.7 | Clear, bugs, small # fine black & small # coarse brown/grey dust |
| 17/06/14 | 18/07/14 | 20 | 1.6 | 0.3 | 1.3 | Clear, bugs, plant matter, organics, mod # fine grey & mod # coarse brown/black dust |
| 18/07/14 | 19/08/14 | 20 | 1.9 | 0.8 | 1.1 | Clear, bugs, organics, mod # fine black & mod # coarse brown/black dust |
| 19/08/14 | 19/09/14 | 20 | 1.0 | 0.3 | 0.7 | Clear, bugs, organics, small # fine grey/black & small # coarse grey/black dust |
| 16/12/11 | 17/01/12 | 21 | 0.9 | 0.4 | 0.5 | Clear, bugs, small # fine grey/black & small # coarse black dust |
| 19/01/12 | 16/02/12 | 21 | 1.1 | 0.4 | 0.7 | Clear, small # fine grey & small # coarse black dust |
| 16/02/12 | 19/03/12 | 21 | 1.1 | 0.3 | 0.8 | Clear, bugs, plant matter, organic matter, small # fine brown/black & small # coarse brown/black dust |
| 19/03/12 | 16/04/12 | 21 | 1.6 | 0.6 | 1.0 | Clear, bugs, organic matter, spider, mod # fine grey & mod # coarse black dust |
| 16/04/12 | 15/05/12 | 21 | 1.0 | 0.3 | 0.7 | Clear, plant matter, small # fine black/grey & small # coarse black dust |

| | | | | | | |
|---|---|---|---|---|---|---|
| 15/05/12 | 15/06/12 | 21 | 3.9 | 1.8 | 2.1 | Clear, plant matter, bird droppings, large # fine black & large # coarse brown/grey/black dust |
| 15/06/12 | 17/07/12 | 21 | 1.2 | 0.6 | 0.6 | Clear, small # fine grey & small # coarse brown/white/black dust |
| 17/07/12 | 15/08/12 | 21 | 1.9 | 0.7 | 1.2 | Clear, plant matter, organics, mod # fine brown/black & mod # coarse brown/black dust |
| 15/08/12 | 14/09/12 | 21 | 1.3 | 0.7 | 0.6 | Clear, bugs, plant matter, small # fine brown & small # coarse brown/grey/black dust |
| 14/09/12 | 15/10/12 | 21 | 1.0 | 0.5 | 0.5 | Clear, bugs, small # fine brown & small # coarse brown/grey/black/green dust |
| 15/10/12 | 14/11/12 | 21 | 0.9 | 0.2 | 0.7 | Clear, plant matter, small # fine black/green & small # coarse black dust |
| 14/11/12 | 14/12/12 | 21 | 2.4 | 0.9 | 1.5 | Clear, bugs, plant matter, mod # fine grey & small # coarse black dust |
| 14/12/12 | 15/01/13 | 21 | 1.7 | 1.2 | 0.5 | Clear, bugs, mod # fine brown/grey & mod # coarse black dust |
| 15/01/13 | 15/02/13 | 21 | 2.9 | 0.7 | 2.2 | Clear, bugs, plant matter, organics, mod # fine brown/green & mod # coarse brown/black dust |
| 15/02/13 | 15/03/13 | 21 | 1.7 | 0.6 | 1.1 | Clear, bugs, mod # fine black & mod # coarse brown/black dust |
| 15/03/13 | 12/04/13 | 21 | 3.4 | 1.2 | 2.2 | Clear, bugs, plant matter, large # fine grey & large # coarse brown/black dust |
| 12/04/13 | 13/05/13 | 21 | 2.2 | 0.8 | 1.4 | Clear, bugs, plant matter, bird droppings, mod # fine brown/black & mod # coarse brown/grey/black dust |
| 13/05/13 | 11/06/13 | 21 | 1.2 | 0.5 | 0.7 | Clear, bugs, plant matter, small # fine brown & small # coarse brown/black dust |
| 11/06/13 | 12/07/13 | 21 | 1.9 | 0.7 | 1.2 | Clear, bugs, plant matter, organics, mod # fine brown/black & mod # coarse brown/black dust |
| 12/07/13 | 9/08/13 | 21 | 4.1 | 1.1 | 3.0 | Clear, bugs, bird droppings, organics, large # fine brown & large # coarse brown/black dust |
| 9/08/13 | 9/09/13 | 21 | 1.5 | 0.6 | 0.9 | Slightly cloudy, bugs, organics, mod # fine black/green & mod # coarse brown/black dust |
| 9/09/13 | 11/10/13 | 21 | 0.8 | 0.2 | 0.6 | Clear, bugs, organics, small # fine brown & small # coarse brown/black dust |
| 11/10/13 | 12/11/13 | 21 | 1.7 | 0.8 | 0.9 | Clear, bugs, plant matter, organics, mod # fine brown & mod # coarse brown/black dust |
| 12/11/13 | 13/12/13 | 21 | 1.2 | 0.6 | 0.6 | Clear, bugs, spider, organics, small # fine brown & small # coarse brown/black dust |
| 13/12/13 | 14/01/14 | 21 | 1.7 | 0.6 | 1.1 | Clear, bugs, organics, mod # fine brown/green/black & mod # coarse brown/green/black dust |
| 14/01/14 | 14/02/14 | 21 | 3.4 | 1.1 | 2.3 | Slightly cloudy, bugs, spider, organics, large # fine brown/black & large # coarse brown/black dust |
| 14/02/14 | 18/03/14 | 21 | 0.9 | 0.4 | 0.5 | Clear, bugs, organics, small # fine greyblack & small # coarse grey/black dust |
| 18/03/14 | 15/04/14 | 21 | 0.5 | 0.1 | 0.4 | Clear, bugs, plant matter, small # fine brown & small # coarse brown/black dust |
| 15/04/14 | 16/05/14 | 21 | 1.0 | 0.5 | 0.5 | Slightly cloudy, plant matter, small # fine brown & small # coarse black dust |
| 16/05/14 | 17/06/14 | 21 | 1.0 | 0.4 | 0.6 | Clear, bugs, small # fine black & small # coarse brown/black dust |
| 17/06/14 | 18/07/14 | 21 | 3.4 | BD | 3.4 | Clear, bugs, organics, large # fine grey & large # coarse brown/black dust |
| 18/07/14 | 19/08/14 | 21 | 0.4 | 0.1 | 0.3 | Clear, small # fine grey & small # coarse black dust |

| | | | | | | |
|---|---|---|---|---|---|---|
| 19/08/14 | 19/09/14 | 21 | 0.9 | 0.3 | 0.6 | Clear, bugs, plant matter, organics, small # fine grey/green & small # coarse brown/black dust |
| 16/12/11 | 17/01/12 | 22 | 1.3 | 0.5 | 0.8 | Clear, organic matter, plant matter, mod # fine brown/grey & mod # coarse brown/black dust |
| 19/01/12 | 16/02/12 | 22 | 1.0 | 0.3 | 0.7 | Clear, bugs, organic matter, small # fine grey & small # coarse black dust |
| 16/02/12 | 19/03/12 | 22 | 0.8 | 0.3 | 0.5 | Clear, organic matter, small # fine brown/grey & small # coarse brown/black dust |
| 19/03/12 | 16/04/12 | 22 | 1.3 | 0.6 | 0.7 | Clear, plant matter, spider, mod # fine grey & mod # coarse black/white dust |
| 16/04/12 | 15/05/12 | 22 | 0.8 | 0.4 | 0.4 | Clear, plant matter, small # fine grey & small # coarse grey/black dust |
| 15/05/12 | 15/06/12 | 22 | 0.4 | 0.2 | 0.2 | Clear, small # fine brown & small # coarse brown dust |
| 15/06/12 | 17/07/12 | 22 | 1.0 | 0.4 | 0.6 | Clear, bugs, small # fine grey & small # coarse green/black dust |
| 17/07/12 | 15/08/12 | 22 | 1.2 | 0.6 | 0.6 | Clear, bugs, small # fine brown/grey & small # coarse black dust |
| 15/08/12 | 14/09/12 | 22 | 1.5 | 0.9 | 0.6 | Clear, plant matter, mod # fine brown & mod # coarse brown/grey/black dust |
| 14/09/12 | 15/10/12 | 22 | 0.8 | 0.4 | 0.4 | Clear, bugs, plant matter, small # fine brown/black & small # coarse brown/grey/black dust |
| 15/10/12 | 14/11/12 | 22 | 0.5 | 0.2 | 0.3 | Clear, plant matter, small # fine grey & small # coarse brown/green/black dust |
| 14/11/12 | 14/12/12 | 22 | 1.2 | 0.6 | 0.6 | Clear, small # fine grey & small # coarse black dust |
| 14/12/12 | 15/01/13 | 22 | 1.7 | 0.6 | 1.1 | Clear, bugs, organics, mod # fine brown & mod # coarse brown/black dust |
| 15/01/13 | 15/02/13 | 22 | 1.2 | 0.4 | 0.8 | Clear, bugs, small # fine gey & small # coarse black dust |
| 15/02/13 | 15/03/13 | 22 | 1.5 | 0.6 | 0.9 | Clear, bugs, plant matter, mod # fine brown & mod # coarse brown/black/grey dust |
| 15/03/13 | 12/04/13 | 22 | 1.6 | 0.9 | 0.7 | Clear, bugs, mod # fine grey & mod # coarse black dust |
| 12/04/13 | 13/05/13 | 22 | 0.9 | 0.5 | 0.4 | Clear, bugs, organics, small # fine brown & small # coarse brown/grey/black dust |
| 13/05/13 | 11/06/13 | 22 | 0.5 | 0.3 | 0.2 | Clear, bugs, small # fine brown & small # caorse brown/black dust |
| 11/06/13 | 12/07/13 | 22 | 0.6 | 0.3 | 0.3 | Clear, bugs, organics, small # fine brown/grey & small # coarse black dust |
| 12/07/13 | 9/08/13 | 22 | 0.2 | BD | 0.2 | Clear, bugs, plant matter, small # fine brown & small # coarse brown/black dust |
| 9/08/13 | 9/09/13 | 22 | 0.7 | 0.2 | 0.5 | Clear, bugs, small # fine black/green & small # coarse black dust |
| 9/09/13 | 11/10/13 | 22 | 1.1 | 0.6 | 0.5 | Clear, bugs, small # fine brown & small # coarse brown/grey/black dust |
| 11/10/13 | 12/11/13 | 22 | 2.5 | 1.1 | 1.4 | Clear, bugs, plant matter, mod # fine brown & mod # coarse brown/black dust |
| 12/11/13 | 13/12/13 | 22 | 1.2 | 0.6 | 0.6 | Clear, bugs, organics, small # fine brown & small # coarse brown/black dust |
| 13/12/13 | 14/01/14 | 22 | 0.6 | 0.3 | 0.3 | Clear, organics, small # fine brown & small # coarse brown/black dust |
| 14/01/14 | 14/02/14 | 22 | 1.0 | 0.6 | 0.4 | Clear, bugs, small # fine grey & small # coarse grey/black dust |

| | | | | | | |
|---|---|---|---|---|---|---|
| 14/02/14 | 18/03/14 | 22 | 0.4 | 0.1 | 0.3 | Clear, bugs, small # fine brown/black & small # coarse brown/black dust |
| 18/03/14 | 15/04/14 | 22 | 0.2 | <0.1 | 0.2 | Clear, plant matter, small # fine brown & small # coarse brown/green dust |
| 15/04/14 | 16/05/14 | 22 | 1.4 | 0.9 | 0.5 | Clear, bugs, organics, moderate # fine brown & moderate # coarse black/green dust |
| 16/05/14 | 17/06/14 | 22 | 0.9 | 0.5 | 0.4 | Clear, bugs, small # fine black & small # coarse brown/pink/black dust |
| 17/06/14 | 18/07/14 | 22 | 0.5 | 0.2 | 0.3 | Clear, bugs, organics, small # fine grey & small # coarse brown/black dust |
| 18/07/14 | 19/08/14 | 22 | 0.6 | 0.3 | 0.3 | Clear, bugs, small # fine grey & small # coarse black dust |
| 19/08/14 | 19/09/14 | 22 | 0.5 | 0.1 | 0.4 | Clear, bugs, organics, small # fine grey/green & small # coarse brown/green dust |
| 16/12/11 | 17/01/12 | 23 | 0.5 | 0.3 | 0.2 | Clear, spider, organic matter, plant matter, small # fine grey & small # coarse black/brown dust |
| 19/01/12 | 16/02/12 | 23 | 0.1 | BD | 0.1 | Clear, organic matter, small # fine silver/blue & small # coarse black dust |
| 16/02/12 | 19/03/12 | 23 | 0.4 | 0.2 | 0.2 | Clear, bugs, glass, small # fine grey & small # coarse black/grey dust |
| 19/03/12 | 16/04/12 | 23 | 2.1 | 1.6 | 0.5 | Clear, glass, mod # fine grey & mod # coarse black/green dust |
| 16/04/12 | 15/05/12 | 23 | 0.5 | 0.3 | 0.2 | Clear, plant matter, small # fine grey & small # coarse grey/black dust |
| 15/05/12 | 15/06/12 | 23 | 1.4 | 1.2 | 0.2 | Clear, spider, moderate # fine greyr & moderate # coarse grey dust |
| 15/06/12 | 17/07/12 | 23 | 0.4 | 0.2 | 0.2 | Clear, bugs, small # fine grey & small # coarse black dust |
| 17/07/12 | 15/08/12 | 23 | 0.9 | 0.6 | 0.3 | Clear, bugs, small # fine grey & small # coarse grey/black dust |
| 15/08/12 | 14/09/12 | 23 | 1.5 | 0.9 | 0.6 | Clear, plant matter, mod # fine brown/black & mod # coarse brown/black/green dust |
| 14/09/12 | 15/10/12 | 23 | 1.1 | 0.7 | 0.4 | Clear, plant matter, small # fine brown/grey & small # coarse green/black dust |
| 15/10/12 | 14/11/12 | 23 | 1.0 | 0.5 | 0.5 | Clear, organics, small # fine brown & small # coarse green/black dust |
| 14/11/12 | 14/12/12 | 23 | 1.6 | 0.8 | 0.8 | Clear, bugs, plant matter, mod # fine grey & mod # coarse black dust |
| 14/12/12 | 15/01/13 | 23 | 0.3 | 0.1 | 0.2 | Clear, bugs, small # fine grey & small # coarse black dust |
| 15/01/13 | 15/02/13 | 23 | 0.5 | 0.3 | 0.2 | Clear,  small # fine grey & small # coarse brown/black dust |
| 15/02/13 | 15/03/13 | 23 | 0.1 | BD | 0.1 | Clear, bugs, small # fine brown & small # coarse brown/green/black dust |
| 15/03/13 | 12/04/13 | 23 | 0.7 | 0.4 | 0.3 | Clear, bugs, spider, small # fine grey & small # coarse black dust |
| 12/04/13 | 13/05/13 | 23 | 0.9 | 0.6 | 0.3 | Clear, bugs, small # fine brown/black & small # coarse grey/green/black dust |
| 13/05/13 | 11/06/13 | 23 | 1.1 | 0.7 | 0.4 | Clear, bugs, small # fine grey & small # coarse black dust |
| 11/06/13 | 12/07/13 | 23 | 0.2 | 0.0 | 0.2 | Clear, bugs, organics, small # fin e grey & small # coarse black dust |
| 12/07/13 | 9/08/13 | 23 | 0.3 | BD | 0.3 | Clear, bugs, small # fine grey & small # coarse black dust |

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|---|---|---|---|---|---|---|
| 9/08/13 | 9/09/13 | 23 | 0.3 | BD | 0.3 | Clear, small # fine green/black & small # coarse black dust |
| 9/09/13 | 11/10/13 | 23 | 1.1 | 0.6 | 0.5 | Clear, bugs, small # fine grey & small # coarse grey/black dust |
| 11/10/13 | 12/11/13 | 23 | 1.7 | 1.1 | 0.6 | Clear, mod # fine grey & mod # coarse black dust |
| 12/11/13 | 13/12/13 | 23 | 1.5 | 0.8 | 0.7 | Clear, bugs, plant matter, organics, mod # fine brown & mod # coarse brown dust |
| 13/12/13 | 14/01/14 | 23 | 0.6 | 0.3 | 0.3 | Clear, bugs, organics, small # fine brown/grey/black & small # coarse black dust |
| 14/01/14 | 14/02/14 | 23 | 0.3 | BD | 0.3 | Clear, organics, small # fine grey & small # coarse grey/black dust |
| 14/02/14 | 18/03/14 | 23 | 0.2 | BD | 0.2 | Clear, bugs, small # fine brown/black & small # coarse brown/black dust |
| 18/03/14 | 15/04/14 | 23 | 0.9 | 0.6 | 0.3 | Clear, organics, small # fine brown & small # coarse brown/black dust |
| 15/04/14 | 16/05/14 | 23 | 1.3 | 0.7 | 0.6 | Clear, organics, small # fine brown & small # coarse black dust |
| 16/05/14 | 17/06/14 | 23 | 0.7 | 0.2 | 0.5 | Clear, bugs, small # fine grey/black & small # coarse brown/pink/black dust |
| 17/06/14 | 18/07/14 | 23 | 0.7 | 0.2 | 0.5 | Clear, bugs, organics, small # fine grey & small # coarse grey dust |
| 18/07/14 | 19/08/14 | 23 | 0.4 | 0.2 | 0.2 | Clear, small # fine grey & small # coarse black dust |
| 19/08/14 | 19/09/14 | 23 | 0.4 | BD | 0.4 | Clear, bugs, plant matter, organics, small # fine grey/green & small # coarse brown/black dust |
| 16/12/11 | 17/01/12 | 24 | 1.5 | 1.0 | 0.5 | Clear, bugs, spider, plant matter, organic matter, mod # fine brown/grey & mod # coarse black dust |
| 19/01/12 | 16/02/12 | 24 | 3.0 | 1.5 | 1.5 | Clear, large # fine grey & large # coarse black dust |
| 16/02/12 | 19/03/12 | 24 | 0.9 | 0.4 | 0.5 | Clear, bugs, organic matter, samll # fine brown/grey & small # coarse brown/black dust |
| 19/03/12 | 16/04/12 | 24 | 1.5 | 1.0 | 0.5 | Clear, bugs, organic matter, mod # fine grey & mod # coarse black dust |
| 16/04/12 | 15/05/12 | 24 | 1.2 | 0.8 | 0.4 | Clear, plant matter, organics, small # fine grey & small # coarse grey/black dust |
| 15/05/12 | 15/06/12 | 24 | 0.1 | BD | 0.1 | Clear, organics, small # fine brown & small # coarse green/black dust |
| 15/06/12 | 17/07/12 | 24 | 0.6 | 0.1 | 0.5 | Clear, small # fine grey & small # coarse green/black dust |
| 17/07/12 | 15/08/12 | 24 | 2.0 | 1.5 | 0.5 | Clear, plant matter, mod # fine brown & mod # coarse brown/grey/black dust |
| 15/08/12 | 14/09/12 | 24 | 1.4 | 1.0 | 0.4 | Clear, bugs, mod # fine brown & mod # coarse grey/black dust |
| 14/09/12 | 15/10/12 | 24 | 0.7 | 0.3 | 0.4 | Clear, bugs, small # fine brown & small # coarse brown/grey/green/black dust |
| 15/10/12 | 14/11/12 | 24 | 4.9 | 2.0 | 2.9 | Cloudy, bugs, plant matter, organics, large # fine grey/green & large # coarse grey/green dust |
| 14/11/12 | 14/12/12 | 24 | 2.8 | 1.7 | 1.1 | Clear, mod # fine grey & mod # coarse black dust |
| 14/12/12 | 15/01/13 | 24 | 3.3 | 2.3 | 1.0 | Clear, bugs, organics, large # fine brown & large # coarse brown/black dust |
| 15/01/13 | 15/02/13 | 24 | 2.4 | 1.9 | 0.5 | Clear, spider, mod # fine brown & mod # coarse browndust |

| | | | | | | |
|---|---|---|---|---|---|---|
| 15/02/13 | 15/03/13 | 24 | 3.1 | 2.6 | 0.5 | Clear, bugs, organics, large # fine brown & large # coarse brown/black dust |
| 15/03/13 | 12/04/13 | 24 | 7.4 | 6.5 | 0.9 | Clear, bugs, very large # fine grey & very large # coarse black dust |
| 12/04/13 | 13/05/13 | 24 | 34.8 | 30.9 | 3.9 | Cloudy/brown, bugs, very large # fine brown & very large # coarse brown dust |
| 13/05/13 | 11/06/13 | 24 | 4.8 | 3.6 | 1.2 | Clear, bugs, glass, large # fine brown & large # coarse black dust |
| 11/06/13 | 12/07/13 | 24 | 1.0 | 0.7 | 0.3 | Clear, bugs, plant matter, organics, mod # fine grey & mod # coarse blue/black dust |
| 12/07/13 | 9/08/13 | 24 | 1.5 | 1.3 | 0.2 | Clear, bugs, mod # fine grey & mod # coarse black dust |
| 9/08/13 | 9/09/13 | 24 | 0.9 | 0.6 | 0.3 | Clear, organics, small # fine grey & small # coarse black dust |
| 9/09/13 | 11/10/13 | 24 | 1.9 | 1.4 | 0.5 | Slightly cloudy, bugs, plant matter, mod # fine brown & mod # coarse brown/green/black dust |
| 11/10/13 | 12/11/13 | 24 | 2.0 | 1.6 | 0.4 | Clear, bugs, plant matter, mod # fine brown & mod # coarse black/green dust |
| 12/11/13 | 13/12/13 | 24 | 0.9 | 0.5 | 0.4 | Clear, bugs, plant matter, organics, small # fine brown & small # coarse brown/green/black dust |
| 13/12/13 | 14/01/14 | 24 | 2.9 | 1.3 | 1.6 | Slightly cloudy, bugs, plant matter, organics, mod # fine brown/green & mod # coarse brown/green/black dust |
| 14/01/14 | 14/02/14 | 24 | 2.6 | 1.7 | 0.9 | Slightly cloudy, bugs, spider, mod # fine brown & mod # coarse brown/black dust |
| 14/02/14 | 18/03/14 | 24 | 0.7 | 0.3 | 0.4 | Clear, bugs, organics, spider, small # fine brown/grey/black & small # coarse brown/black dust |
| 18/03/14 | 15/04/14 | 24 | 0.6 | 0.4 | 0.2 | Clear, plant matter, small # fine brown & small # coarse brown dust |
| 15/04/14 | 16/05/14 | 24 | 7.5 | 2.3 | 5.2 | Cloudy, plant matter, spider, bugs very large # fine brown & very large # coarse brown/black/green dust |
| 16/05/14 | 17/06/14 | 24 | 0.3 | 0.3 | BD | Cloudy, organics, small # fine brown/grey & small # coarse pink/black dust |
| 17/06/14 | 18/07/14 | 24 | 9.3 | 5.9 | 3.4 | Cloudy, organics, very large # fine brown & very large # coarse brown dust |
| 18/07/14 | 19/08/14 | 24 | 23.3 | 12.5 | 10.8 | Slightly cloudy, bird droppings, organics, very large # fine brown/black & very large # coarse brown/black dust |
| 19/08/14 | 19/09/14 | 24 | 0.6 | 0.3 | 0.3 | Clear, bugs, organics, small # fine grey/green & small # coarse brown dust |

# Appendix B

***Air Quality data and summary for Lamberts North TEOM PM10***

| Date | Mount Piper TEOM; Average TSP (ug/m3) | | | | |
|---|---|---|---|---|---|
| | Daily | Monthly | Annual | Maximum daily conc. | Maximum Annual conc. |
| 1/01/2012 | 4 | 14.7 | 9.0 | 50 | 30 |
| 2/01/2012 | 13 | 14.7 | 9.0 | 50 | 30 |
| 3/01/2012 | 15 | 14.7 | 9.0 | 50 | 30 |
| 4/01/2012 | 8 | 14.7 | 9.0 | 50 | 30 |
| 5/01/2012 | 3 | 14.7 | 9.0 | 50 | 30 |
| 6/01/2012 | 4 | 14.7 | 9.0 | 50 | 30 |
| 7/01/2012 | 7 | 14.7 | 9.0 | 50 | 30 |
| 8/01/2012 | 15 | 14.7 | 9.0 | 50 | 30 |
| 9/01/2012 | 4 | 14.7 | 9.0 | 50 | 30 |
| 10/01/2012 | 12 | 14.7 | 9.0 | 50 | 30 |
| 11/01/2012 | 14 | 14.7 | 9.0 | 50 | 30 |
| 12/01/2012 | 15 | 14.7 | 9.0 | 50 | 30 |
| 13/01/2012 | 10 | 14.7 | 9.0 | 50 | 30 |
| 14/01/2012 | 21 | 14.7 | 9.0 | 50 | 30 |
| 15/01/2012 | 9 | 14.7 | 9.0 | 50 | 30 |
| 16/01/2012 | 5 | 14.7 | 9.0 | 50 | 30 |
| 17/01/2012 | 5 | 14.7 | 9.0 | 50 | 30 |

| | | | | | |
|---|---|---|---|---|---|
| 18/01/2012 | 13 | 14.7 | 9.0 | 50 | 30 |
| 19/01/2012 | 7 | 14.7 | 9.0 | 50 | 30 |
| 20/01/2012 | 15 | 14.7 | 9.0 | 50 | 30 |
| 21/01/2012 | -14 | 14.7 | 9.0 | 50 | 30 |
| 22/01/2012 | 6 | 14.7 | 9.0 | 50 | 30 |
| 23/01/2012 | 9 | 14.7 | 9.0 | 50 | 30 |
| 24/01/2012 | 9 | 14.7 | 9.0 | 50 | 30 |
| 25/01/2012 | 4 | 14.7 | 9.0 | 50 | 30 |
| 26/01/2012 | 3 | 14.7 | 9.0 | 50 | 30 |
| 27/01/2012 | 5 | 14.7 | 9.0 | 50 | 30 |
| 28/01/2012 | 11 | 14.7 | 9.0 | 50 | 30 |
| 29/01/2012 | 65 | 14.7 | 9.0 | 50 | 30 |
| 30/01/2012 | 4 | 14.7 | 9.0 | 50 | 30 |
| 31/01/2012 | 5 | 14.7 | 9.0 | 50 | 30 |
| 1/02/2012 | -3 | 10.1 | 9.0 | 50 | 30 |
| 2/02/2012 | 3 | 10.1 | 9.0 | 50 | 30 |
| 3/02/2012 | 4 | 10.1 | 9.0 | 50 | 30 |
| 4/02/2012 | 6 | 10.1 | 9.0 | 50 | 30 |
| 5/02/2012 | 6 | 10.1 | 9.0 | 50 | 30 |
| 6/02/2012 | 10 | 10.1 | 9.0 | 50 | 30 |
| 7/02/2012 | 1 | 10.1 | 9.0 | 50 | 30 |
| 8/02/2012 | 8 | 10.1 | 9.0 | 50 | 30 |
| 9/02/2012 | 8 | 10.1 | 9.0 | 50 | 30 |
| 10/02/2012 | 8 | 10.1 | 9.0 | 50 | 30 |
| 11/02/2012 | 4 | 10.1 | 9.0 | 50 | 30 |
| 12/02/2012 | 8 | 10.1 | 9.0 | 50 | 30 |
| 13/02/2012 | 14 | 10.1 | 9.0 | 50 | 30 |

| | | | | | |
|---|---|---|---|---|---|
| 14/02/2012 | 134 | 10.1 | 9.0 | 50 | 30 |
| 15/02/2012 | 9 | 10.1 | 9.0 | 50 | 30 |
| 16/02/2012 | 16 | 10.1 | 9.0 | 50 | 30 |
| 17/02/2012 | 8 | 10.1 | 9.0 | 50 | 30 |
| 18/02/2012 | 4 | 10.1 | 9.0 | 50 | 30 |
| 19/02/2012 | 5 | 10.1 | 9.0 | 50 | 30 |
| 20/02/2012 | -1 | 10.1 | 9.0 | 50 | 30 |
| 21/02/2012 | 4 | 10.1 | 9.0 | 50 | 30 |
| 22/02/2012 | 7 | 10.1 | 9.0 | 50 | 30 |
| 23/02/2012 | 16 | 10.1 | 9.0 | 50 | 30 |
| 24/02/2012 | 7 | 10.1 | 9.0 | 50 | 30 |
| 25/02/2012 | 1 | 10.1 | 9.0 | 50 | 30 |
| 26/02/2012 | 11 | 10.1 | 9.0 | 50 | 30 |
| 27/02/2012 | 1 | 10.1 | 9.0 | 50 | 30 |
| 28/02/2012 | 7 | 10.1 | 9.0 | 50 | 30 |
| 29/02/2012 | 15 | 10.1 | 9.0 | 50 | 30 |
| 1/03/2012 | 2 | 9.1 | 9.0 | 50 | 30 |
| 2/03/2012 | 4 | 9.1 | 9.0 | 50 | 30 |
| 3/03/2012 | 4 | 9.1 | 9.0 | 50 | 30 |
| 4/03/2012 | 3 | 9.1 | 9.0 | 50 | 30 |
| 5/03/2012 | -2 | 9.1 | 9.0 | 50 | 30 |
| 6/03/2012 | 12 | 9.1 | 9.0 | 50 | 30 |
| 7/03/2012 | 3 | 9.1 | 9.0 | 50 | 30 |
| 8/03/2012 | 2 | 9.1 | 9.0 | 50 | 30 |
| 9/03/2012 | 5 | 9.1 | 9.0 | 50 | 30 |
| 10/03/2012 | -11 | 9.1 | 9.0 | 50 | 30 |
| 11/03/2012 | 39 | 9.1 | 9.0 | 50 | 30 |

| | | | | | |
|---|---|---|---|---|---|
| 12/03/2012 | 21 | 9.1 | 9.0 | 50 | 30 |
| 13/03/2012 | 9 | 9.1 | 9.0 | 50 | 30 |
| 14/03/2012 | 8 | 9.1 | 9.0 | 50 | 30 |
| 15/03/2012 | 73 | 9.1 | 9.0 | 50 | 30 |
| 16/03/2012 | 10 | 9.1 | 9.0 | 50 | 30 |
| 17/03/2012 | 2 | 9.1 | 9.0 | 50 | 30 |
| 18/03/2012 | 0 | 9.1 | 9.0 | 50 | 30 |
| 19/03/2012 | -9 | 9.1 | 9.0 | 50 | 30 |
| 20/03/2012 | 3 | 9.1 | 9.0 | 50 | 30 |
| 21/03/2012 | 5 | 9.1 | 9.0 | 50 | 30 |
| 22/03/2012 | 11 | 9.1 | 9.0 | 50 | 30 |
| 23/03/2012 | 5 | 9.1 | 9.0 | 50 | 30 |
| 24/03/2012 | 7 | 9.1 | 9.0 | 50 | 30 |
| 25/03/2012 | 4 | 9.1 | 9.0 | 50 | 30 |
| 26/03/2012 | 14 | 9.1 | 9.0 | 50 | 30 |
| 27/03/2012 | 11 | 9.1 | 9.0 | 50 | 30 |
| 28/03/2012 | 8 | 9.1 | 9.0 | 50 | 30 |
| 29/03/2012 | 4 | 9.1 | 9.0 | 50 | 30 |
| 30/03/2012 | 1 | 9.1 | 9.0 | 50 | 30 |
| 31/03/2012 | 3 | 9.1 | 9.0 | 50 | 30 |
| 1/04/2012 | 6 | 12.8 | 9.0 | 50 | 30 |
| 2/04/2012 | -4 | 12.8 | 9.0 | 50 | 30 |
| 3/04/2012 | 6 | 12.8 | 9.0 | 50 | 30 |
| 4/04/2012 | 6 | 12.8 | 9.0 | 50 | 30 |
| 5/04/2012 | 26 | 12.8 | 9.0 | 50 | 30 |
| 6/04/2012 | 8 | 12.8 | 9.0 | 50 | 30 |
| 7/04/2012 | 4 | 12.8 | 9.0 | 50 | 30 |

| | | | | | |
|---|---|---|---|---|---|
| 8/04/2012 | 6 | 12.8 | 9.0 | 50 | 30 |
| 9/04/2012 | 12 | 12.8 | 9.0 | 50 | 30 |
| 10/04/2012 | 8 | 12.8 | 9.0 | 50 | 30 |
| 11/04/2012 | 5 | 12.8 | 9.0 | 50 | 30 |
| 12/04/2012 | 5 | 12.8 | 9.0 | 50 | 30 |
| 13/04/2012 | -1 | 12.8 | 9.0 | 50 | 30 |
| 14/04/2012 | 11 | 12.8 | 9.0 | 50 | 30 |
| 15/04/2012 | 2 | 12.8 | 9.0 | 50 | 30 |
| 16/04/2012 | 6 | 12.8 | 9.0 | 50 | 30 |
| 17/04/2012 | 4 | 12.8 | 9.0 | 50 | 30 |
| 18/04/2012 | 3 | 12.8 | 9.0 | 50 | 30 |
| 19/04/2012 | 1 | 12.8 | 9.0 | 50 | 30 |
| 20/04/2012 | 5 | 12.8 | 9.0 | 50 | 30 |
| 21/04/2012 | 14 | 12.8 | 9.0 | 50 | 30 |
| 22/04/2012 | 25 | 12.8 | 9.0 | 50 | 30 |
| 23/04/2012 | 15 | 12.8 | 9.0 | 50 | 30 |
| 24/04/2012 | 7 | 12.8 | 9.0 | 50 | 30 |
| 25/04/2012 | 11 | 12.8 | 9.0 | 50 | 30 |
| 26/04/2012 | 13 | 12.8 | 9.0 | 50 | 30 |
| 27/04/2012 | 8 | 12.8 | 9.0 | 50 | 30 |
| 28/04/2012 | 28 | 12.8 | 9.0 | 50 | 30 |
| 29/04/2012 | 6 | 12.8 | 9.0 | 50 | 30 |
| 30/04/2012 | 4 | 12.8 | 9.0 | 50 | 30 |
| 1/05/2012 | 14 | 12.1 | 9.0 | 50 | 30 |
| 2/05/2012 | 4 | 12.1 | 9.0 | 50 | 30 |
| 3/05/2012 | -6 | 12.1 | 9.0 | 50 | 30 |
| 4/05/2012 | 2 | 12.1 | 9.0 | 50 | 30 |

| | | | | | |
|---|---|---|---|---|---|
| 5/05/2012 | 3 | 12.1 | 9.0 | 50 | 30 |
| 6/05/2012 | -1 | 12.1 | 9.0 | 50 | 30 |
| 7/05/2012 | | 12.1 | 9.0 | 50 | 30 |
| 8/05/2012 | 2 | 12.1 | 9.0 | 50 | 30 |
| 9/05/2012 | 8 | 12.1 | 9.0 | 50 | 30 |
| 10/05/2012 | -2 | 12.1 | 9.0 | 50 | 30 |
| 11/05/2012 | 4 | 12.1 | 9.0 | 50 | 30 |
| 12/05/2012 | 23 | 12.1 | 9.0 | 50 | 30 |
| 13/05/2012 | 10 | 12.1 | 9.0 | 50 | 30 |
| 14/05/2012 | 6 | 12.1 | 9.0 | 50 | 30 |
| 15/05/2012 | 6 | 12.1 | 9.0 | 50 | 30 |
| 16/05/2012 | 2 | 12.1 | 9.0 | 50 | 30 |
| 17/05/2012 | 4 | 12.1 | 9.0 | 50 | 30 |
| 18/05/2012 | 7 | 12.1 | 9.0 | 50 | 30 |
| 19/05/2012 | 1 | 12.1 | 9.0 | 50 | 30 |
| 20/05/2012 | 7 | 12.1 | 9.0 | 50 | 30 |
| 21/05/2012 | 7 | 12.1 | 9.0 | 50 | 30 |
| 22/05/2012 | 9 | 12.1 | 9.0 | 50 | 30 |
| 23/05/2012 | 4 | 12.1 | 9.0 | 50 | 30 |
| 24/05/2012 | 22 | 12.1 | 9.0 | 50 | 30 |
| 25/05/2012 | 5 | 12.1 | 9.0 | 50 | 30 |
| 26/05/2012 | 14 | 12.1 | 9.0 | 50 | 30 |
| 27/05/2012 | 2 | 12.1 | 9.0 | 50 | 30 |
| 28/05/2012 | 8 | 12.1 | 9.0 | 50 | 30 |
| 29/05/2012 | 10 | 12.1 | 9.0 | 50 | 30 |
| 30/05/2012 | 20 | 12.1 | 9.0 | 50 | 30 |
| 31/05/2012 | 4 | 12.1 | 9.0 | 50 | 30 |

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|---|---|---|---|---|---|
| 1/06/2012 | 25 | 7.0 | 9.0 | 50 | 30 |
| 2/06/2012 | 8 | 7.0 | 9.0 | 50 | 30 |
| 3/06/2012 | 3 | 7.0 | 9.0 | 50 | 30 |
| 4/06/2012 | 5 | 7.0 | 9.0 | 50 | 30 |
| 5/06/2012 | 5 | 7.0 | 9.0 | 50 | 30 |
| 6/06/2012 | 13 | 7.0 | 9.0 | 50 | 30 |
| 7/06/2012 | 4 | 7.0 | 9.0 | 50 | 30 |
| 8/06/2012 | 4 | 7.0 | 9.0 | 50 | 30 |
| 9/06/2012 | 8 | 7.0 | 9.0 | 50 | 30 |
| 10/06/2012 | 5 | 7.0 | 9.0 | 50 | 30 |
| 11/06/2012 | 4 | 7.0 | 9.0 | 50 | 30 |
| 12/06/2012 | 1 | 7.0 | 9.0 | 50 | 30 |
| 13/06/2012 | 4 | 7.0 | 9.0 | 50 | 30 |
| 14/06/2012 | 8 | 7.0 | 9.0 | 50 | 30 |
| 15/06/2012 | 26 | 7.0 | 9.0 | 50 | 30 |
| 16/06/2012 | 6 | 7.0 | 9.0 | 50 | 30 |
| 17/06/2012 | 4 | 7.0 | 9.0 | 50 | 30 |
| 18/06/2012 | 3 | 7.0 | 9.0 | 50 | 30 |
| 19/06/2012 | -2 | 7.0 | 9.0 | 50 | 30 |
| 20/06/2012 | -1 | 7.0 | 9.0 | 50 | 30 |
| 21/06/2012 | 5 | 7.0 | 9.0 | 50 | 30 |
| 22/06/2012 | 6 | 7.0 | 9.0 | 50 | 30 |
| 23/06/2012 | 4 | 7.0 | 9.0 | 50 | 30 |
| 24/06/2012 | 2 | 7.0 | 9.0 | 50 | 30 |
| 25/06/2012 | -9 | 7.0 | 9.0 | 50 | 30 |
| 26/06/2012 | | 7.0 | 9.0 | 50 | 30 |
| 27/06/2012 | | 7.0 | 9.0 | 50 | 30 |

| | | | | | |
|---|---|---|---|---|---|
| 28/06/2012 | | 7.0 | 9.0 | 50 | 30 |
| 29/06/2012 | 8 | 7.0 | 9.0 | 50 | 30 |
| 30/06/2012 | 3 | 7.0 | 9.0 | 50 | 30 |
| 1/07/2012 | 2 | 7.7 | 9.0 | 50 | 30 |
| 2/07/2012 | 4 | 7.7 | 9.0 | 50 | 30 |
| 3/07/2012 | 1 | 7.7 | 9.0 | 50 | 30 |
| 4/07/2012 | 3 | 7.7 | 9.0 | 50 | 30 |
| 5/07/2012 | 11 | 7.7 | 9.0 | 50 | 30 |
| 6/07/2012 | 9 | 7.7 | 9.0 | 50 | 30 |
| 7/07/2012 | 2 | 7.7 | 9.0 | 50 | 30 |
| 8/07/2012 | 11 | 7.7 | 9.0 | 50 | 30 |
| 9/07/2012 | 6 | 7.7 | 9.0 | 50 | 30 |
| 10/07/2012 | 11 | 7.7 | 9.0 | 50 | 30 |
| 11/07/2012 | -22 | 7.7 | 9.0 | 50 | 30 |
| 12/07/2012 | 3 | 7.7 | 9.0 | 50 | 30 |
| 13/07/2012 | 0 | 7.7 | 9.0 | 50 | 30 |
| 14/07/2012 | 0 | 7.7 | 9.0 | 50 | 30 |
| 15/07/2012 | 9 | 7.7 | 9.0 | 50 | 30 |
| 16/07/2012 | 9 | 7.7 | 9.0 | 50 | 30 |
| 17/07/2012 | 6 | 7.7 | 9.0 | 50 | 30 |
| 18/07/2012 | 25 | 7.7 | 9.0 | 50 | 30 |
| 19/07/2012 | 0 | 7.7 | 9.0 | 50 | 30 |
| 20/07/2012 | 9 | 7.7 | 9.0 | 50 | 30 |
| 21/07/2012 | 11 | 7.7 | 9.0 | 50 | 30 |
| 22/07/2012 | 10 | 7.7 | 9.0 | 50 | 30 |
| 23/07/2012 | 0 | 7.7 | 9.0 | 50 | 30 |
| 24/07/2012 | 7 | 7.7 | 9.0 | 50 | 30 |

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|---|---|---|---|---|---|
| 25/07/2012 | -8 | 7.7 | 9.0 | 50 | 30 |
| 26/07/2012 | 17 | 7.7 | 9.0 | 50 | 30 |
| 27/07/2012 | -3 | 7.7 | 9.0 | 50 | 30 |
| 28/07/2012 | 2 | 7.7 | 9.0 | 50 | 30 |
| 29/07/2012 | 4 | 7.7 | 9.0 | 50 | 30 |
| 30/07/2012 | 9 | 7.7 | 9.0 | 50 | 30 |
| 31/07/2012 | 5 | 7.7 | 9.0 | 50 | 30 |
| 1/08/2012 | 3 | 14.1 | 9.0 | 50 | 30 |
| 2/08/2012 | 4 | 14.1 | 9.0 | 50 | 30 |
| 3/08/2012 | 3 | 14.1 | 9.0 | 50 | 30 |
| 4/08/2012 | 10 | 14.1 | 9.0 | 50 | 30 |
| 5/08/2012 | 6 | 14.1 | 9.0 | 50 | 30 |
| 6/08/2012 | 9 | 14.1 | 9.0 | 50 | 30 |
| 7/08/2012 | 8 | 14.1 | 9.0 | 50 | 30 |
| 8/08/2012 | -1 | 14.1 | 9.0 | 50 | 30 |
| 9/08/2012 | 18 | 14.1 | 9.0 | 50 | 30 |
| 10/08/2012 | 2 | 14.1 | 9.0 | 50 | 30 |
| 11/08/2012 | 6 | 14.1 | 9.0 | 50 | 30 |
| 12/08/2012 | 4 | 14.1 | 9.0 | 50 | 30 |
| 13/08/2012 | 9 | 14.1 | 9.0 | 50 | 30 |
| 14/08/2012 | 11 | 14.1 | 9.0 | 50 | 30 |
| 15/08/2012 | 16 | 14.1 | 9.0 | 50 | 30 |
| 16/08/2012 | 10 | 14.1 | 9.0 | 50 | 30 |
| 17/08/2012 | 13 | 14.1 | 9.0 | 50 | 30 |
| 18/08/2012 | 3 | 14.1 | 9.0 | 50 | 30 |
| 19/08/2012 | 4 | 14.1 | 9.0 | 50 | 30 |
| 20/08/2012 | 6 | 14.1 | 9.0 | 50 | 30 |

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|---|---|---|---|---|---|
| 21/08/2012 | 8 | 14.1 | 9.0 | 50 | 30 |
| 22/08/2012 | 40 | 14.1 | 9.0 | 50 | 30 |
| 23/08/2012 | 15 | 14.1 | 9.0 | 50 | 30 |
| 24/08/2012 | 10 | 14.1 | 9.0 | 50 | 30 |
| 25/08/2012 | 7 | 14.1 | 9.0 | 50 | 30 |
| 26/08/2012 | 4 | 14.1 | 9.0 | 50 | 30 |
| 27/08/2012 | 6 | 14.1 | 9.0 | 50 | 30 |
| 28/08/2012 | 10 | 14.1 | 9.0 | 50 | 30 |
| 29/08/2012 | 21 | 14.1 | 9.0 | 50 | 30 |
| 30/08/2012 | 18 | 14.1 | 9.0 | 50 | 30 |
| 31/08/2012 | 13 | 14.1 | 9.0 | 50 | 30 |
| 1/09/2012 | 4 | 18.0 | 9.0 | 50 | 30 |
| 2/09/2012 | 4 | 18.0 | 9.0 | 50 | 30 |
| 3/09/2012 | 5 | 18.0 | 9.0 | 50 | 30 |
| 4/09/2012 | 13 | 18.0 | 9.0 | 50 | 30 |
| 5/09/2012 | 12 | 18.0 | 9.0 | 50 | 30 |
| 6/09/2012 | 41 | 18.0 | 9.0 | 50 | 30 |
| 7/09/2012 | 23 | 18.0 | 9.0 | 50 | 30 |
| 8/09/2012 | 14 | 18.0 | 9.0 | 50 | 30 |
| 9/09/2012 | 3 | 18.0 | 9.0 | 50 | 30 |
| 10/09/2012 | 9 | 18.0 | 9.0 | 50 | 30 |
| 11/09/2012 | 14 | 18.0 | 9.0 | 50 | 30 |
| 12/09/2012 | 31 | 18.0 | 9.0 | 50 | 30 |
| 13/09/2012 | 19 | 18.0 | 9.0 | 50 | 30 |
| 14/09/2012 | 9 | 18.0 | 9.0 | 50 | 30 |
| 15/09/2012 | 9 | 18.0 | 9.0 | 50 | 30 |
| 16/09/2012 | 15 | 18.0 | 9.0 | 50 | 30 |

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|---|---|---|---|---|---|
| 17/09/2012 | 11 | 18.0 | 9.0 | 50 | 30 |
| 18/09/2012 | 3 | 18.0 | 9.0 | 50 | 30 |
| 19/09/2012 | 5 | 18.0 | 9.0 | 50 | 30 |
| 20/09/2012 | 7 | 18.0 | 9.0 | 50 | 30 |
| 21/09/2012 | 18 | 18.0 | 9.0 | 50 | 30 |
| 22/09/2012 | 8 | 18.0 | 9.0 | 50 | 30 |
| 23/09/2012 | 5 | 18.0 | 9.0 | 50 | 30 |
| 24/09/2012 | 15 | 18.0 | 9.0 | 50 | 30 |
| 25/09/2012 | 4 | 18.0 | 9.0 | 50 | 30 |
| 26/09/2012 | 15 | 18.0 | 9.0 | 50 | 30 |
| 27/09/2012 | 21 | 18.0 | 9.0 | 50 | 30 |
| 28/09/2012 | 16 | 18.0 | 9.0 | 50 | 30 |
| 29/09/2012 | 2 | 18.0 | 9.0 | 50 | 30 |
| 30/09/2012 | 5 | 18.0 | 9.0 | 50 | 30 |
| 1/10/2012 | 4 | 16.3 | 9.0 | 50 | 30 |
| 2/10/2012 | -4 | 16.3 | 9.0 | 50 | 30 |
| 3/10/2012 | 4 | 16.3 | 9.0 | 50 | 30 |
| 4/10/2012 | 15 | 16.3 | 9.0 | 50 | 30 |
| 5/10/2012 | 20 | 16.3 | 9.0 | 50 | 30 |
| 6/10/2012 | 20 | 16.3 | 9.0 | 50 | 30 |
| 7/10/2012 | -9 | 16.3 | 9.0 | 50 | 30 |
| 8/10/2012 | 11 | 16.3 | 9.0 | 50 | 30 |
| 9/10/2012 | 8 | 16.3 | 9.0 | 50 | 30 |
| 10/10/2012 | 10 | 16.3 | 9.0 | 50 | 30 |
| 11/10/2012 | 10 | 16.3 | 9.0 | 50 | 30 |
| 12/10/2012 | 2 | 16.3 | 9.0 | 50 | 30 |
| 13/10/2012 | 10 | 16.3 | 9.0 | 50 | 30 |

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|---|---|---|---|---|---|
| 14/10/2012 | 2 | 16.3 | 9.0 | 50 | 30 |
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| 16/10/2012 | 6 | 16.3 | 9.0 | 50 | 30 |
| 17/10/2012 | 12 | 16.3 | 9.0 | 50 | 30 |
| 18/10/2012 | 11 | 16.3 | 9.0 | 50 | 30 |
| 19/10/2012 | 8 | 16.3 | 9.0 | 50 | 30 |
| 20/10/2012 | 18 | 16.3 | 9.0 | 50 | 30 |
| 21/10/2012 | 0 | 16.3 | 9.0 | 50 | 30 |
| 22/10/2012 | 6 | 16.3 | 9.0 | 50 | 30 |
| 23/10/2012 | 10 | 16.3 | 9.0 | 50 | 30 |
| 24/10/2012 | 18 | 16.3 | 9.0 | 50 | 30 |
| 25/10/2012 | 12 | 16.3 | 9.0 | 50 | 30 |
| 26/10/2012 | 27 | 16.3 | 9.0 | 50 | 30 |
| 27/10/2012 | 14 | 16.3 | 9.0 | 50 | 30 |
| 28/10/2012 | 13 | 16.3 | 9.0 | 50 | 30 |
| 29/10/2012 | 10 | 16.3 | 9.0 | 50 | 30 |
| 30/10/2012 | 10 | 16.3 | 9.0 | 50 | 30 |
| 31/10/2012 | 3 | 16.3 | 9.0 | 50 | 30 |
| 1/11/2012 | 17 | 15.8 | 9.0 | 50 | 30 |
| 2/11/2012 | 11 | 15.8 | 9.0 | 50 | 30 |
| 3/11/2012 | 9 | 15.8 | 9.0 | 50 | 30 |
| 4/11/2012 | 6 | 15.8 | 9.0 | 50 | 30 |
| 5/11/2012 | 10 | 15.8 | 9.0 | 50 | 30 |
| 6/11/2012 | 22 | 15.8 | 9.0 | 50 | 30 |
| 7/11/2012 | 11 | 15.8 | 9.0 | 50 | 30 |
| 8/11/2012 | 0 | 15.8 | 9.0 | 50 | 30 |
| 9/11/2012 | 6 | 15.8 | 9.0 | 50 | 30 |

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|---|---|---|---|---|---|
| 10/11/2012 | 7 | 15.8 | 9.0 | 50 | 30 |
| 11/11/2012 | 1 | 15.8 | 9.0 | 50 | 30 |
| 12/11/2012 | 15 | 15.8 | 9.0 | 50 | 30 |
| 13/11/2012 | 7 | 15.8 | 9.0 | 50 | 30 |
| 14/11/2012 | 0 | 15.8 | 9.0 | 50 | 30 |
| 15/11/2012 | 3 | 15.8 | 9.0 | 50 | 30 |
| 16/11/2012 | 17 | 15.8 | 9.0 | 50 | 30 |
| 17/11/2012 | 2 | 15.8 | 9.0 | 50 | 30 |
| 18/11/2012 | 9 | 15.8 | 9.0 | 50 | 30 |
| 19/11/2012 | 12 | 15.8 | 9.0 | 50 | 30 |
| 20/11/2012 | 5 | 15.8 | 9.0 | 50 | 30 |
| 21/11/2012 | 7 | 15.8 | 9.0 | 50 | 30 |
| 22/11/2012 | 8 | 15.8 | 9.0 | 50 | 30 |
| 23/11/2012 | -4 | 15.8 | 9.0 | 50 | 30 |
| 24/11/2012 | 7 | 15.8 | 9.0 | 50 | 30 |
| 25/11/2012 | 15 | 15.8 | 9.0 | 50 | 30 |
| 26/11/2012 | 8 | 15.8 | 9.0 | 50 | 30 |
| 27/11/2012 | 14 | 15.8 | 9.0 | 50 | 30 |
| 28/11/2012 | -1 | 15.8 | 9.0 | 50 | 30 |
| 29/11/2012 | 2 | 15.8 | 9.0 | 50 | 30 |
| 30/11/2012 | 7 | 15.8 | 9.0 | 50 | 30 |
| 1/12/2012 | 26 | 20.8 | 9.0 | 50 | 30 |
| 2/12/2012 | 15 | 20.8 | 9.0 | 50 | 30 |
| 3/12/2012 | -3 | 20.8 | 9.0 | 50 | 30 |
| 4/12/2012 | 12 | 20.8 | 9.0 | 50 | 30 |
| 5/12/2012 | 18 | 20.8 | 9.0 | 50 | 30 |
| 6/12/2012 | 17 | 20.8 | 9.0 | 50 | 30 |

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|---|---|---|---|---|---|
| 7/12/2012 | 17 | 20.8 | 9.0 | 50 | 30 |
| 8/12/2012 | 5 | 20.8 | 9.0 | 50 | 30 |
| 9/12/2012 | 41 | 20.8 | 9.0 | 50 | 30 |
| 10/12/2012 | 7 | 20.8 | 9.0 | 50 | 30 |
| 11/12/2012 | 9 | 20.8 | 9.0 | 50 | 30 |
| 12/12/2012 | 3 | 20.8 | 9.0 | 50 | 30 |
| 13/12/2012 | 11 | 20.8 | 9.0 | 50 | 30 |
| 14/12/2012 | 17 | 20.8 | 9.0 | 50 | 30 |
| 15/12/2012 | 29 | 20.8 | 9.0 | 50 | 30 |
| 16/12/2012 | 11 | 20.8 | 9.0 | 50 | 30 |
| 17/12/2012 | 18 | 20.8 | 9.0 | 50 | 30 |
| 18/12/2012 | 11 | 20.8 | 9.0 | 50 | 30 |
| 19/12/2012 | 26 | 20.8 | 9.0 | 50 | 30 |
| 20/12/2012 | 35 | 20.8 | 9.0 | 50 | 30 |
| 21/12/2012 | 10 | 20.8 | 9.0 | 50 | 30 |
| 22/12/2012 | 7 | 20.8 | 9.0 | 50 | 30 |
| 23/12/2012 | 17 | 20.8 | 9.0 | 50 | 30 |
| 24/12/2012 | 16 | 20.8 | 9.0 | 50 | 30 |
| 25/12/2012 | 12 | 20.8 | 9.0 | 50 | 30 |
| 26/12/2012 | 6 | 20.8 | 9.0 | 50 | 30 |
| 27/12/2012 | 10 | 20.8 | 9.0 | 50 | 30 |
| 28/12/2012 | 11 | 20.8 | 9.0 | 50 | 30 |
| 29/12/2012 | 2 | 20.8 | 9.0 | 50 | 30 |
| 30/12/2012 | 12 | 20.8 | 9.0 | 50 | 30 |
| 31/12/2012 | 17 | 20.8 | 9.0 | 50 | 30 |
| 1/01/2013 | 17 | 21.2 | 10.0 | 50 | 30 |
| 2/01/2013 | 30 | 21.2 | 10.0 | 50 | 30 |

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|---|---|---|---|---|---|
| 3/01/2013 | -1 | 21.2 | 10.0 | 50 | 30 |
| 4/01/2013 | 9 | 21.2 | 10.0 | 50 | 30 |
| 5/01/2013 | 42 | 21.2 | 10.0 | 50 | 30 |
| 6/01/2013 | 39 | 21.2 | 10.0 | 50 | 30 |
| 7/01/2013 | 4 | 21.2 | 10.0 | 50 | 30 |
| 8/01/2013 | 34 | 21.2 | 10.0 | 50 | 30 |
| 9/01/2013 | 26 | 21.2 | 10.0 | 50 | 30 |
| 10/01/2013 | 8 | 21.2 | 10.0 | 50 | 30 |
| 11/01/2013 | 23 | 21.2 | 10.0 | 50 | 30 |
| 12/01/2013 | 36 | 21.2 | 10.0 | 50 | 30 |
| 13/01/2013 | 30 | 21.2 | 10.0 | 50 | 30 |
| 14/01/2013 | 9 | 21.2 | 10.0 | 50 | 30 |
| 15/01/2013 | 0 | 21.2 | 10.0 | 50 | 30 |
| 16/01/2013 | 3 | 21.2 | 10.0 | 50 | 30 |
| 17/01/2013 | 25 | 21.2 | 10.0 | 50 | 30 |
| 18/01/2013 | 45 | 21.2 | 10.0 | 50 | 30 |
| 19/01/2013 | 48 | 21.2 | 10.0 | 50 | 30 |
| 20/01/2013 | 1 | 21.2 | 10.0 | 50 | 30 |
| 21/01/2013 | 7 | 21.2 | 10.0 | 50 | 30 |
| 22/01/2013 | 27 | 21.2 | 10.0 | 50 | 30 |
| 23/01/2013 | -17 | 21.2 | 10.0 | 50 | 30 |
| 24/01/2013 | 8 | 21.2 | 10.0 | 50 | 30 |
| 25/01/2013 | 3 | 21.2 | 10.0 | 50 | 30 |
| 26/01/2013 | 40 | 21.2 | 10.0 | 50 | 30 |
| 27/01/2013 | 8 | 21.2 | 10.0 | 50 | 30 |
| 28/01/2013 | 17 | 21.2 | 10.0 | 50 | 30 |
| 29/01/2013 | 1 | 21.2 | 10.0 | 50 | 30 |

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|---|---|---|---|---|---|
| 30/01/2013 | 34 | 21.2 | 10.0 | 50 | 30 |
| 31/01/2013 | 19 | 21.2 | 10.0 | 50 | 30 |
| 1/02/2013 | 45 | 11.4 | 10.0 | 50 | 30 |
| 2/02/2013 | 2 | 11.4 | 10.0 | 50 | 30 |
| 3/02/2013 | 4 | 11.4 | 10.0 | 50 | 30 |
| 4/02/2013 | | 11.4 | 10.0 | 50 | 30 |
| 5/02/2013 | | 11.4 | 10.0 | 50 | 30 |
| 6/02/2013 | | 11.4 | 10.0 | 50 | 30 |
| 7/02/2013 | | 11.4 | 10.0 | 50 | 30 |
| 8/02/2013 | | 11.4 | 10.0 | 50 | 30 |
| 9/02/2013 | | 11.4 | 10.0 | 50 | 30 |
| 10/02/2013 | | 11.4 | 10.0 | 50 | 30 |
| 11/02/2013 | | 11.4 | 10.0 | 50 | 30 |
| 12/02/2013 | | 11.4 | 10.0 | 50 | 30 |
| 13/02/2013 | | 11.4 | 10.0 | 50 | 30 |
| 14/02/2013 | | 11.4 | 10.0 | 50 | 30 |
| 15/02/2013 | 11 | 11.4 | 10.0 | 50 | 30 |
| 16/02/2013 | 3 | 11.4 | 10.0 | 50 | 30 |
| 17/02/2013 | 4 | 11.4 | 10.0 | 50 | 30 |
| 18/02/2013 | 6 | 11.4 | 10.0 | 50 | 30 |
| 19/02/2013 | 10 | 11.4 | 10.0 | 50 | 30 |
| 20/02/2013 | 13 | 11.4 | 10.0 | 50 | 30 |
| 21/02/2013 | 7 | 11.4 | 10.0 | 50 | 30 |
| 22/02/2013 | 10 | 11.4 | 10.0 | 50 | 30 |
| 23/02/2013 | 8 | 11.4 | 10.0 | 50 | 30 |
| 24/02/2013 | -15 | 11.4 | 10.0 | 50 | 30 |
| 25/02/2013 | -18 | 11.4 | 10.0 | 50 | 30 |

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|---|---|---|---|---|---|
| 26/02/2013 | 16 | 11.4 | 10.0 | 50 | 30 |
| 27/02/2013 | 35 | 11.4 | 10.0 | 50 | 30 |
| 28/02/2013 | 18 | 11.4 | 10.0 | 50 | 30 |
| 1/03/2013 | 57 | 16.0 | 10.0 | 50 | 30 |
| 2/03/2013 | -9 | 16.0 | 10.0 | 50 | 30 |
| 3/03/2013 | 14 | 16.0 | 10.0 | 50 | 30 |
| 4/03/2013 | -123 | 16.0 | 10.0 | 50 | 30 |
| 5/03/2013 | 30 | 16.0 | 10.0 | 50 | 30 |
| 6/03/2013 | -3 | 16.0 | 10.0 | 50 | 30 |
| 7/03/2013 | 14 | 16.0 | 10.0 | 50 | 30 |
| 8/03/2013 | 58 | 16.0 | 10.0 | 50 | 30 |
| 9/03/2013 | 5 | 16.0 | 10.0 | 50 | 30 |
| 10/03/2013 | -39 | 16.0 | 10.0 | 50 | 30 |
| 11/03/2013 | 32 | 16.0 | 10.0 | 50 | 30 |
| 12/03/2013 | 9 | 16.0 | 10.0 | 50 | 30 |
| 13/03/2013 | 14 | 16.0 | 10.0 | 50 | 30 |
| 14/03/2013 | 13 | 16.0 | 10.0 | 50 | 30 |
| 15/03/2013 | 7 | 16.0 | 10.0 | 50 | 30 |
| 16/03/2013 | 3 | 16.0 | 10.0 | 50 | 30 |
| 17/03/2013 | 24 | 16.0 | 10.0 | 50 | 30 |
| 18/03/2013 | 7 | 16.0 | 10.0 | 50 | 30 |
| 19/03/2013 | 19 | 16.0 | 10.0 | 50 | 30 |
| 20/03/2013 | 7 | 16.0 | 10.0 | 50 | 30 |
| 21/03/2013 | 8 | 16.0 | 10.0 | 50 | 30 |
| 22/03/2013 | 15 | 16.0 | 10.0 | 50 | 30 |
| 23/03/2013 | 11 | 16.0 | 10.0 | 50 | 30 |
| 24/03/2013 | 11 | 16.0 | 10.0 | 50 | 30 |

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|---|---|---|---|---|---|
| 25/03/2013 | 13 | 16.0 | 10.0 | 50 | 30 |
| 26/03/2013 | 14 | 16.0 | 10.0 | 50 | 30 |
| 27/03/2013 | 14 | 16.0 | 10.0 | 50 | 30 |
| 28/03/2013 | 10 | 16.0 | 10.0 | 50 | 30 |
| 29/03/2013 | 0 | 16.0 | 10.0 | 50 | 30 |
| 30/03/2013 | 16 | 16.0 | 10.0 | 50 | 30 |
| 31/03/2013 | 7 | 16.0 | 10.0 | 50 | 30 |
| 1/04/2013 | 5 | 23.5 | 10.0 | 50 | 30 |
| 2/04/2013 | 8 | 23.5 | 10.0 | 50 | 30 |
| 3/04/2013 | 14 | 23.5 | 10.0 | 50 | 30 |
| 4/04/2013 | 13 | 23.5 | 10.0 | 50 | 30 |
| 5/04/2013 | 2 | 23.5 | 10.0 | 50 | 30 |
| 6/04/2013 | 2 | 23.5 | 10.0 | 50 | 30 |
| 7/04/2013 | 1 | 23.5 | 10.0 | 50 | 30 |
| 8/04/2013 | 2 | 23.5 | 10.0 | 50 | 30 |
| 9/04/2013 | 10 | 23.5 | 10.0 | 50 | 30 |
| 10/04/2013 | 1 | 23.5 | 10.0 | 50 | 30 |
| 11/04/2013 | 2 | 23.5 | 10.0 | 50 | 30 |
| 12/04/2013 | 9 | 23.5 | 10.0 | 50 | 30 |
| 13/04/2013 | 6 | 23.5 | 10.0 | 50 | 30 |
| 14/04/2013 | 11 | 23.5 | 10.0 | 50 | 30 |
| 15/04/2013 | 16 | 23.5 | 10.0 | 50 | 30 |
| 16/04/2013 | 20 | 23.5 | 10.0 | 50 | 30 |
| 17/04/2013 | -2 | 23.5 | 10.0 | 50 | 30 |
| 18/04/2013 | 12 | 23.5 | 10.0 | 50 | 30 |
| 19/04/2013 | 14 | 23.5 | 10.0 | 50 | 30 |
| 20/04/2013 | 5 | 23.5 | 10.0 | 50 | 30 |

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|---|---|---|---|---|---|
| 21/04/2013 | 3 | 23.5 | 10.0 | 50 | 30 |
| 22/04/2013 | 7 | 23.5 | 10.0 | 50 | 30 |
| 23/04/2013 | 13 | 23.5 | 10.0 | 50 | 30 |
| 24/04/2013 | 8 | 23.5 | 10.0 | 50 | 30 |
| 25/04/2013 | 10 | 23.5 | 10.0 | 50 | 30 |
| 26/04/2013 | 19 | 23.5 | 10.0 | 50 | 30 |
| 27/04/2013 | 12 | 23.5 | 10.0 | 50 | 30 |
| 28/04/2013 | 11 | 23.5 | 10.0 | 50 | 30 |
| 29/04/2013 | 8 | 23.5 | 10.0 | 50 | 30 |
| 30/04/2013 | 27 | 23.5 | 10.0 | 50 | 30 |
| 1/05/2013 | 12 | 18.2 | 10.0 | 50 | 30 |
| 2/05/2013 | 11 | 18.2 | 10.0 | 50 | 30 |
| 3/05/2013 | 9 | 18.2 | 10.0 | 50 | 30 |
| 4/05/2013 | 27 | 18.2 | 10.0 | 50 | 30 |
| 5/05/2013 | 35 | 18.2 | 10.0 | 50 | 30 |
| 6/05/2013 | 12 | 18.2 | 10.0 | 50 | 30 |
| 7/05/2013 | 7 | 18.2 | 10.0 | 50 | 30 |
| 8/05/2013 | 5 | 18.2 | 10.0 | 50 | 30 |
| 9/05/2013 | 13 | 18.2 | 10.0 | 50 | 30 |
| 10/05/2013 | 1 | 18.2 | 10.0 | 50 | 30 |
| 11/05/2013 | 12 | 18.2 | 10.0 | 50 | 30 |
| 12/05/2013 | 11 | 18.2 | 10.0 | 50 | 30 |
| 13/05/2013 | 4 | 18.2 | 10.0 | 50 | 30 |
| 14/05/2013 | -10 | 18.2 | 10.0 | 50 | 30 |
| 15/05/2013 | 0 | 18.2 | 10.0 | 50 | 30 |
| 16/05/2013 | 5 | 18.2 | 10.0 | 50 | 30 |
| 17/05/2013 | 6 | 18.2 | 10.0 | 50 | 30 |

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|---|---|---|---|---|---|
| 18/05/2013 | 10 | 18.2 | 10.0 | 50 | 30 |
| 19/05/2013 | 3 | 18.2 | 10.0 | 50 | 30 |
| 20/05/2013 | 12 | 18.2 | 10.0 | 50 | 30 |
| 21/05/2013 | 5 | 18.2 | 10.0 | 50 | 30 |
| 22/05/2013 | 16 | 18.2 | 10.0 | 50 | 30 |
| 23/05/2013 | 3 | 18.2 | 10.0 | 50 | 30 |
| 24/05/2013 | 7 | 18.2 | 10.0 | 50 | 30 |
| 25/05/2013 | 2 | 18.2 | 10.0 | 50 | 30 |
| 26/05/2013 | -1 | 18.2 | 10.0 | 50 | 30 |
| 27/05/2013 | 11 | 18.2 | 10.0 | 50 | 30 |
| 28/05/2013 | 17 | 18.2 | 10.0 | 50 | 30 |
| 29/05/2013 | 4 | 18.2 | 10.0 | 50 | 30 |
| 30/05/2013 | 7 | 18.2 | 10.0 | 50 | 30 |
| 31/05/2013 | 14 | 18.2 | 10.0 | 50 | 30 |
| 1/06/2013 | 23 | 7.3 | 10.0 | 50 | 30 |
| 2/06/2013 | 1 | 7.3 | 10.0 | 50 | 30 |
| 3/06/2013 | 0 | 7.3 | 10.0 | 50 | 30 |
| 4/06/2013 | 0 | 7.3 | 10.0 | 50 | 30 |
| 5/06/2013 | 4 | 7.3 | 10.0 | 50 | 30 |
| 6/06/2013 | 11 | 7.3 | 10.0 | 50 | 30 |
| 7/06/2013 | 13 | 7.3 | 10.0 | 50 | 30 |
| 8/06/2013 | -2 | 7.3 | 10.0 | 50 | 30 |
| 9/06/2013 | 13 | 7.3 | 10.0 | 50 | 30 |
| 10/06/2013 | 8 | 7.3 | 10.0 | 50 | 30 |
| 11/06/2013 | -7 | 7.3 | 10.0 | 50 | 30 |
| 12/06/2013 | 0 | 7.3 | 10.0 | 50 | 30 |
| 13/06/2013 | 14 | 7.3 | 10.0 | 50 | 30 |

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|---|---|---|---|---|---|
| 14/06/2013 | 7 | 7.3 | 10.0 | 50 | 30 |
| 15/06/2013 | 4 | 7.3 | 10.0 | 50 | 30 |
| 16/06/2013 | 8 | 7.3 | 10.0 | 50 | 30 |
| 17/06/2013 | 2 | 7.3 | 10.0 | 50 | 30 |
| 18/06/2013 | 4 | 7.3 | 10.0 | 50 | 30 |
| 19/06/2013 | 5 | 7.3 | 10.0 | 50 | 30 |
| 20/06/2013 | 3 | 7.3 | 10.0 | 50 | 30 |
| 21/06/2013 | 4 | 7.3 | 10.0 | 50 | 30 |
| 22/06/2013 | 1 | 7.3 | 10.0 | 50 | 30 |
| 23/06/2013 | 6 | 7.3 | 10.0 | 50 | 30 |
| 24/06/2013 | 6 | 7.3 | 10.0 | 50 | 30 |
| 25/06/2013 | -5 | 7.3 | 10.0 | 50 | 30 |
| 26/06/2013 | 3 | 7.3 | 10.0 | 50 | 30 |
| 27/06/2013 | 13 | 7.3 | 10.0 | 50 | 30 |
| 28/06/2013 | 8 | 7.3 | 10.0 | 50 | 30 |
| 29/06/2013 | 7 | 7.3 | 10.0 | 50 | 30 |
| 30/06/2013 | 11 | 7.3 | 10.0 | 50 | 30 |
| 1/07/2013 | -7 | 10.1 | 10.0 | 50 | 30 |
| 2/07/2013 | 5 | 10.1 | 10.0 | 50 | 30 |
| 3/07/2013 | 5 | 10.1 | 10.0 | 50 | 30 |
| 4/07/2013 | 7 | 10.1 | 10.0 | 50 | 30 |
| 5/07/2013 | 5 | 10.1 | 10.0 | 50 | 30 |
| 6/07/2013 | 8 | 10.1 | 10.0 | 50 | 30 |
| 7/07/2013 | 7 | 10.1 | 10.0 | 50 | 30 |
| 8/07/2013 | 5 | 10.1 | 10.0 | 50 | 30 |
| 9/07/2013 | 8 | 10.1 | 10.0 | 50 | 30 |
| 10/07/2013 | 7 | 10.1 | 10.0 | 50 | 30 |

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|---|---|---|---|---|---|
| 11/07/2013 | 9 | 10.1 | 10.0 | 50 | 30 |
| 12/07/2013 | 12 | 10.1 | 10.0 | 50 | 30 |
| 13/07/2013 | 9 | 10.1 | 10.0 | 50 | 30 |
| 14/07/2013 | 18 | 10.1 | 10.0 | 50 | 30 |
| 15/07/2013 | 8 | 10.1 | 10.0 | 50 | 30 |
| 16/07/2013 | 9 | 10.1 | 10.0 | 50 | 30 |
| 17/07/2013 | 3 | 10.1 | 10.0 | 50 | 30 |
| 18/07/2013 | 4 | 10.1 | 10.0 | 50 | 30 |
| 19/07/2013 | 6 | 10.1 | 10.0 | 50 | 30 |
| 20/07/2013 | 3 | 10.1 | 10.0 | 50 | 30 |
| 21/07/2013 | 5 | 10.1 | 10.0 | 50 | 30 |
| 22/07/2013 | 5 | 10.1 | 10.0 | 50 | 30 |
| 23/07/2013 | 5 | 10.1 | 10.0 | 50 | 30 |
| 24/07/2013 | 4 | 10.1 | 10.0 | 50 | 30 |
| 25/07/2013 | 8 | 10.1 | 10.0 | 50 | 30 |
| 26/07/2013 | 7 | 10.1 | 10.0 | 50 | 30 |
| 27/07/2013 | 6 | 10.1 | 10.0 | 50 | 30 |
| 28/07/2013 | 9 | 10.1 | 10.0 | 50 | 30 |
| 29/07/2013 | 12 | 10.1 | 10.0 | 50 | 30 |
| 30/07/2013 | 4 | 10.1 | 10.0 | 50 | 30 |
| 31/07/2013 | 12 | 10.1 | 10.0 | 50 | 30 |
| 1/08/2013 | 9 | 12.7 | 10.0 | 50 | 30 |
| 2/08/2013 | 4 | 12.7 | 10.0 | 50 | 30 |
| 3/08/2013 | 8 | 12.7 | 10.0 | 50 | 30 |
| 4/08/2013 | 7 | 12.7 | 10.0 | 50 | 30 |
| 5/08/2013 | 12 | 12.7 | 10.0 | 50 | 30 |
| 6/08/2013 | 13 | 12.7 | 10.0 | 50 | 30 |

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|---|---|---|---|---|---|
| 7/08/2013 | 8 | 12.7 | 10.0 | 50 | 30 |
| 8/08/2013 | 4 | 12.7 | 10.0 | 50 | 30 |
| 9/08/2013 | 4 | 12.7 | 10.0 | 50 | 30 |
| 10/08/2013 | 2 | 12.7 | 10.0 | 50 | 30 |
| 11/08/2013 | 4 | 12.7 | 10.0 | 50 | 30 |
| 12/08/2013 | 8 | 12.7 | 10.0 | 50 | 30 |
| 13/08/2013 | 11 | 12.7 | 10.0 | 50 | 30 |
| 14/08/2013 | 7 | 12.7 | 10.0 | 50 | 30 |
| 15/08/2013 | 6 | 12.7 | 10.0 | 50 | 30 |
| 16/08/2013 | 6 | 12.7 | 10.0 | 50 | 30 |
| 17/08/2013 | 14 | 12.7 | 10.0 | 50 | 30 |
| 18/08/2013 | 6 | 12.7 | 10.0 | 50 | 30 |
| 19/08/2013 | 6 | 12.7 | 10.0 | 50 | 30 |
| 20/08/2013 | 5 | 12.7 | 10.0 | 50 | 30 |
| 21/08/2013 | 6 | 12.7 | 10.0 | 50 | 30 |
| 22/08/2013 | 5 | 12.7 | 10.0 | 50 | 30 |
| 23/08/2013 | 6 | 12.7 | 10.0 | 50 | 30 |
| 24/08/2013 | 4 | 12.7 | 10.0 | 50 | 30 |
| 25/08/2013 | 8 | 12.7 | 10.0 | 50 | 30 |
| 26/08/2013 | 4 | 12.7 | 10.0 | 50 | 30 |
| 27/08/2013 | 7 | 12.7 | 10.0 | 50 | 30 |
| 28/08/2013 | 7 | 12.7 | 10.0 | 50 | 30 |
| 29/08/2013 | 17 | 12.7 | 10.0 | 50 | 30 |
| 30/08/2013 | 32 | 12.7 | 10.0 | 50 | 30 |
| 31/08/2013 | 8 | 12.7 | 10.0 | 50 | 30 |
| 1/09/2013 | 5 | 17.8 | 10.0 | 50 | 30 |
| 2/09/2013 | 13 | 17.8 | 10.0 | 50 | 30 |

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|---|---|---|---|---|---|
| 3/09/2013 | 14 | 17.8 | 10.0 | 50 | 30 |
| 4/09/2013 | 9 | 17.8 | 10.0 | 50 | 30 |
| 5/09/2013 | 16 | 17.8 | 10.0 | 50 | 30 |
| 6/09/2013 | 12 | 17.8 | 10.0 | 50 | 30 |
| 7/09/2013 | 14 | 17.8 | 10.0 | 50 | 30 |
| 8/09/2013 | 15 | 17.8 | 10.0 | 50 | 30 |
| 9/09/2013 | 19 | 17.8 | 10.0 | 50 | 30 |
| 10/09/2013 | 26 | 17.8 | 10.0 | 50 | 30 |
| 11/09/2013 | 8 | 17.8 | 10.0 | 50 | 30 |
| 12/09/2013 | 9 | 17.8 | 10.0 | 50 | 30 |
| 13/09/2013 | 15 | 17.8 | 10.0 | 50 | 30 |
| 14/09/2013 | 17 | 17.8 | 10.0 | 50 | 30 |
| 15/09/2013 | 5 | 17.8 | 10.0 | 50 | 30 |
| 16/09/2013 | 7 | 17.8 | 10.0 | 50 | 30 |
| 17/09/2013 | 1 | 17.8 | 10.0 | 50 | 30 |
| 18/09/2013 | 5 | 17.8 | 10.0 | 50 | 30 |
| 19/09/2013 | 7 | 17.8 | 10.0 | 50 | 30 |
| 20/09/2013 | 13 | 17.8 | 10.0 | 50 | 30 |
| 21/09/2013 | 3 | 17.8 | 10.0 | 50 | 30 |
| 22/09/2013 | 3 | 17.8 | 10.0 | 50 | 30 |
| 23/09/2013 | 7 | 17.8 | 10.0 | 50 | 30 |
| 24/09/2013 | 9 | 17.8 | 10.0 | 50 | 30 |
| 25/09/2013 | 11 | 17.8 | 10.0 | 50 | 30 |
| 26/09/2013 | 13 | 17.8 | 10.0 | 50 | 30 |
| 27/09/2013 | 14 | 17.8 | 10.0 | 50 | 30 |
| 28/09/2013 | 17 | 17.8 | 10.0 | 50 | 30 |
| 29/09/2013 | 18 | 17.8 | 10.0 | 50 | 30 |

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|---|---|---|---|---|---|
| 30/09/2013 | 4 | 17.8 | 10.0 | 50 | 30 |
| 1/10/2013 | 25 | 17.8 | 10.0 | 50 | 30 |
| 2/10/2013 | 10 | 17.8 | 10.0 | 50 | 30 |
| 3/10/2013 | 6 | 17.8 | 10.0 | 50 | 30 |
| 4/10/2013 | 5 | 17.8 | 10.0 | 50 | 30 |
| 5/10/2013 | 6 | 17.8 | 10.0 | 50 | 30 |
| 6/10/2013 | 6 | 17.8 | 10.0 | 50 | 30 |
| 7/10/2013 | 27 | 17.8 | 10.0 | 50 | 30 |
| 8/10/2013 | 19 | 17.8 | 10.0 | 50 | 30 |
| 9/10/2013 | 11 | 17.8 | 10.0 | 50 | 30 |
| 10/10/2013 | 10 | 17.8 | 10.0 | 50 | 30 |
| 11/10/2013 | 29 | 17.8 | 10.0 | 50 | 30 |
| 12/10/2013 | 8 | 17.8 | 10.0 | 50 | 30 |
| 13/10/2013 | 8 | 17.8 | 10.0 | 50 | 30 |
| 14/10/2013 | 4 | 17.8 | 10.0 | 50 | 30 |
| 15/10/2013 | 7 | 17.8 | 10.0 | 50 | 30 |
| 16/10/2013 | 5 | 17.8 | 10.0 | 50 | 30 |
| 17/10/2013 | 8 | 17.8 | 10.0 | 50 | 30 |
| 18/10/2013 | 13 | 17.8 | 10.0 | 50 | 30 |
| 19/10/2013 | 44 | 17.8 | 10.0 | 50 | 30 |
| 20/10/2013 | 18 | 17.8 | 10.0 | 50 | 30 |
| 21/10/2013 | 14 | 17.8 | 10.0 | 50 | 30 |
| 22/10/2013 | 21 | 17.8 | 10.0 | 50 | 30 |
| 23/10/2013 | -4 | 17.8 | 10.0 | 50 | 30 |
| 24/10/2013 | 7 | 17.8 | 10.0 | 50 | 30 |
| 25/10/2013 | 11 | 17.8 | 10.0 | 50 | 30 |
| 26/10/2013 | 9 | 17.8 | 10.0 | 50 | 30 |

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|---|---|---|---|---|---|
| 27/10/2013 | 17 | 17.8 | 10.0 | 50 | 30 |
| 28/10/2013 | 57 | 17.8 | 10.0 | 50 | 30 |
| 29/10/2013 | 88 | 17.8 | 10.0 | 50 | 30 |
| 30/10/2013 | 2 | 17.8 | 10.0 | 50 | 30 |
| 31/10/2013 | 16 | 17.8 | 10.0 | 50 | 30 |
| 1/11/2013 | 19 | 20.7 | 10.0 | 50 | 30 |
| 2/11/2013 | 55 | 20.7 | 10.0 | 50 | 30 |
| 3/11/2013 | 10 | 20.7 | 10.0 | 50 | 30 |
| 4/11/2013 | 9 | 20.7 | 10.0 | 50 | 30 |
| 5/11/2013 | 8 | 20.7 | 10.0 | 50 | 30 |
| 6/11/2013 | 29 | 20.7 | 10.0 | 50 | 30 |
| 7/11/2013 | 42 | 20.7 | 10.0 | 50 | 30 |
| 8/11/2013 | 22 | 20.7 | 10.0 | 50 | 30 |
| 9/11/2013 | -2 | 20.7 | 10.0 | 50 | 30 |
| 10/11/2013 | 6 | 20.7 | 10.0 | 50 | 30 |
| 11/11/2013 | 0 | 20.7 | 10.0 | 50 | 30 |
| 12/11/2013 | 2 | 20.7 | 10.0 | 50 | 30 |
| 13/11/2013 | 0 | 20.7 | 10.0 | 50 | 30 |
| 14/11/2013 | 5 | 20.7 | 10.0 | 50 | 30 |
| 15/11/2013 | 14 | 20.7 | 10.0 | 50 | 30 |
| 16/11/2013 | 8 | 20.7 | 10.0 | 50 | 30 |
| 17/11/2013 | 3 | 20.7 | 10.0 | 50 | 30 |
| 18/11/2013 | -1 | 20.7 | 10.0 | 50 | 30 |
| 19/11/2013 | 2 | 20.7 | 10.0 | 50 | 30 |
| 20/11/2013 | -1 | 20.7 | 10.0 | 50 | 30 |
| 21/11/2013 | 3 | 20.7 | 10.0 | 50 | 30 |
| 22/11/2013 | 12 | 20.7 | 10.0 | 50 | 30 |

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|---|---|---|---|---|---|
| 23/11/2013 | 5 | 20.7 | 10.0 | 50 | 30 |
| 24/11/2013 | 17 | 20.7 | 10.0 | 50 | 30 |
| 25/11/2013 | 5 | 20.7 | 10.0 | 50 | 30 |
| 26/11/2013 | 12 | 20.7 | 10.0 | 50 | 30 |
| 27/11/2013 | 4 | 20.7 | 10.0 | 50 | 30 |
| 28/11/2013 | 14 | 20.7 | 10.0 | 50 | 30 |
| 29/11/2013 | 21 | 20.7 | 10.0 | 50 | 30 |
| 30/11/2013 | 9 | 20.7 | 10.0 | 50 | 30 |
| 1/12/2013 | 6 | 14.1 | 10.0 | 50 | 30 |
| 2/12/2013 | 3 | 14.1 | 10.0 | 50 | 30 |
| 3/12/2013 | 11 | 14.1 | 10.0 | 50 | 30 |
| 4/12/2013 | 8 | 14.1 | 10.0 | 50 | 30 |
| 5/12/2013 | 37 | 14.1 | 10.0 | 50 | 30 |
| 6/12/2013 | 2 | 14.1 | 10.0 | 50 | 30 |
| 7/12/2013 | 10 | 14.1 | 10.0 | 50 | 30 |
| 8/12/2013 | 8 | 14.1 | 10.0 | 50 | 30 |
| 9/12/2013 | 13 | 14.1 | 10.0 | 50 | 30 |
| 10/12/2013 | 10 | 14.1 | 10.0 | 50 | 30 |
| 11/12/2013 | 7 | 14.1 | 10.0 | 50 | 30 |
| 12/12/2013 | 10 | 14.1 | 10.0 | 50 | 30 |
| 13/12/2013 | 15 | 14.1 | 10.0 | 50 | 30 |
| 14/12/2013 | 15 | 14.1 | 10.0 | 50 | 30 |
| 15/12/2013 | 3 | 14.1 | 10.0 | 50 | 30 |
| 16/12/2013 | 1 | 14.1 | 10.0 | 50 | 30 |
| 17/12/2013 | 2 | 14.1 | 10.0 | 50 | 30 |
| 18/12/2013 | 6 | 14.1 | 10.0 | 50 | 30 |
| 19/12/2013 | -4 | 14.1 | 10.0 | 50 | 30 |

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|---|---|---|---|---|---|
| 20/12/2013 | 12 | 14.1 | 10.0 | 50 | 30 |
| 21/12/2013 | 7 | 14.1 | 10.0 | 50 | 30 |
| 22/12/2013 | 13 | 14.1 | 10.0 | 50 | 30 |
| 23/12/2013 | 10 | 14.1 | 10.0 | 50 | 30 |
| 24/12/2013 | 2 | 14.1 | 10.0 | 50 | 30 |
| 25/12/2013 | 1 | 14.1 | 10.0 | 50 | 30 |
| 26/12/2013 | 1 | 14.1 | 10.0 | 50 | 30 |
| 27/12/2013 | 1 | 14.1 | 10.0 | 50 | 30 |
| 28/12/2013 | -1 | 14.1 | 10.0 | 50 | 30 |
| 29/12/2013 | 7 | 14.1 | 10.0 | 50 | 30 |
| 30/12/2013 | 11 | 14.1 | 10.0 | 50 | 30 |
| 31/12/2013 | 14 | 14.1 | 10.0 | 50 | 30 |
| 1/01/2014 | 9 | 12.7 | 5.2 | 50 | 30 |
| 2/01/2014 | -1 | 12.7 | 5.2 | 50 | 30 |
| 3/01/2014 | 25 | 12.7 | 5.2 | 50 | 30 |
| 4/01/2014 | 3 | 12.7 | 5.2 | 50 | 30 |
| 5/01/2014 | 11 | 12.7 | 5.2 | 50 | 30 |
| 6/01/2014 | 18 | 12.7 | 5.2 | 50 | 30 |
| 7/01/2014 | 19 | 12.7 | 5.2 | 50 | 30 |
| 8/01/2014 | 1 | 12.7 | 5.2 | 50 | 30 |
| 9/01/2014 | 2 | 12.7 | 5.2 | 50 | 30 |
| 10/01/2014 | 8 | 12.7 | 5.2 | 50 | 30 |
| 11/01/2014 | -6 | 12.7 | 5.2 | 50 | 30 |
| 12/01/2014 | 10 | 12.7 | 5.2 | 50 | 30 |
| 13/01/2014 | 3 | 12.7 | 5.2 | 50 | 30 |
| 14/01/2014 | -5 | 12.7 | 5.2 | 50 | 30 |
| 15/01/2014 | 14 | 12.7 | 5.2 | 50 | 30 |

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|---|---|---|---|---|---|
| 16/01/2014 | 31 | 12.7 | 5.2 | 50 | 30 |
| 17/01/2014 | 21 | 12.7 | 5.2 | 50 | 30 |
| 18/01/2014 | 13 | 12.7 | 5.2 | 50 | 30 |
| 19/01/2014 | 35 | 12.7 | 5.2 | 50 | 30 |
| 20/01/2014 | 6 | 12.7 | 5.2 | 50 | 30 |
| 21/01/2014 | -1 | 12.7 | 5.2 | 50 | 30 |
| 22/01/2014 | 8 | 12.7 | 5.2 | 50 | 30 |
| 23/01/2014 | 5 | 12.7 | 5.2 | 50 | 30 |
| 24/01/2014 | 2 | 12.7 | 5.2 | 50 | 30 |
| 25/01/2014 | 0 | 12.7 | 5.2 | 50 | 30 |
| 26/01/2014 | 9 | 12.7 | 5.2 | 50 | 30 |
| 27/01/2014 | 7 | 12.7 | 5.2 | 50 | 30 |
| 28/01/2014 | 1 | 12.7 | 5.2 | 50 | 30 |
| 29/01/2014 | 5 | 12.7 | 5.2 | 50 | 30 |
| 30/01/2014 | 38 | 12.7 | 5.2 | 50 | 30 |
| 31/01/2014 | 4 | 12.7 | 5.2 | 50 | 30 |
| 1/02/2014 | 9 | 13.0 | 5.2 | 50 | 30 |
| 2/02/2014 | 18 | 13.0 | 5.2 | 50 | 30 |
| 3/02/2014 | 6 | 13.0 | 5.2 | 50 | 30 |
| 4/02/2014 | 8 | 13.0 | 5.2 | 50 | 30 |
| 5/02/2014 | -1 | 13.0 | 5.2 | 50 | 30 |
| 6/02/2014 | 1 | 13.0 | 5.2 | 50 | 30 |
| 7/02/2014 | 0 | 13.0 | 5.2 | 50 | 30 |
| 8/02/2014 | 16 | 13.0 | 5.2 | 50 | 30 |
| 9/02/2014 | -2 | 13.0 | 5.2 | 50 | 30 |
| 10/02/2014 | 17 | 13.0 | 5.2 | 50 | 30 |
| 11/02/2014 | 0 | 13.0 | 5.2 | 50 | 30 |

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|---|---|---|---|---|---|
| 12/02/2014 | 2 | 13.0 | 5.2 | 50 | 30 |
| 13/02/2014 | -5 | 13.0 | 5.2 | 50 | 30 |
| 14/02/2014 | 2 | 13.0 | 5.2 | 50 | 30 |
| 15/02/2014 | 1 | 13.0 | 5.2 | 50 | 30 |
| 16/02/2014 | 2 | 13.0 | 5.2 | 50 | 30 |
| 17/02/2014 | -7 | 13.0 | 5.2 | 50 | 30 |
| 18/02/2014 | 1 | 13.0 | 5.2 | 50 | 30 |
| 19/02/2014 | 5 | 13.0 | 5.2 | 50 | 30 |
| 20/02/2014 | -101 | 13.0 | 5.2 | 50 | 30 |
| 21/02/2014 | -1 | 13.0 | 5.2 | 50 | 30 |
| 22/02/2014 | 6 | 13.0 | 5.2 | 50 | 30 |
| 23/02/2014 | 12 | 13.0 | 5.2 | 50 | 30 |
| 24/02/2014 | -1 | 13.0 | 5.2 | 50 | 30 |
| 25/02/2014 | 1 | 13.0 | 5.2 | 50 | 30 |
| 26/02/2014 | 7 | 13.0 | 5.2 | 50 | 30 |
| 27/02/2014 | 2 | 13.0 | 5.2 | 50 | 30 |
| 28/02/2014 | 2 | 13.0 | 5.2 | 50 | 30 |
| 1/03/2014 | -1 | 5.9 | 5.2 | 50 | 30 |
| 2/03/2014 | -7 | 5.9 | 5.2 | 50 | 30 |
| 3/03/2014 | 0 | 5.9 | 5.2 | 50 | 30 |
| 4/03/2014 | 6 | 5.9 | 5.2 | 50 | 30 |
| 5/03/2014 | 11 | 5.9 | 5.2 | 50 | 30 |
| 6/03/2014 | 10 | 5.9 | 5.2 | 50 | 30 |
| 7/03/2014 | 14 | 5.9 | 5.2 | 50 | 30 |
| 8/03/2014 | 10 | 5.9 | 5.2 | 50 | 30 |
| 9/03/2014 | 7 | 5.9 | 5.2 | 50 | 30 |
| 10/03/2014 | 10 | 5.9 | 5.2 | 50 | 30 |

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|---|---|---|---|---|---|
| 11/03/2014 | 12 | 5.9 | 5.2 | 50 | 30 |
| 12/03/2014 | 9 | 5.9 | 5.2 | 50 | 30 |
| 13/03/2014 | 9 | 5.9 | 5.2 | 50 | 30 |
| 14/03/2014 | 10 | 5.9 | 5.2 | 50 | 30 |
| 15/03/2014 | 9 | 5.9 | 5.2 | 50 | 30 |
| 16/03/2014 | 7 | 5.9 | 5.2 | 50 | 30 |
| 17/03/2014 | 10 | 5.9 | 5.2 | 50 | 30 |
| 18/03/2014 | 11 | 5.9 | 5.2 | 50 | 30 |
| 19/03/2014 | 11 | 5.9 | 5.2 | 50 | 30 |
| 20/03/2014 | 12 | 5.9 | 5.2 | 50 | 30 |
| 21/03/2014 | 12 | 5.9 | 5.2 | 50 | 30 |
| 22/03/2014 | 7 | 5.9 | 5.2 | 50 | 30 |
| 23/03/2014 | 9 | 5.9 | 5.2 | 50 | 30 |
| 24/03/2014 | 7 | 5.9 | 5.2 | 50 | 30 |
| 25/03/2014 | 4 | 5.9 | 5.2 | 50 | 30 |
| 26/03/2014 | 6 | 5.9 | 5.2 | 50 | 30 |
| 27/03/2014 | 3 | 5.9 | 5.2 | 50 | 30 |
| 28/03/2014 | 7 | 5.9 | 5.2 | 50 | 30 |
| 29/03/2014 | 7 | 5.9 | 5.2 | 50 | 30 |
| 30/03/2014 | 13 | 5.9 | 5.2 | 50 | 30 |
| 31/03/2014 | 5 | 5.9 | 5.2 | 50 | 30 |
| 1/04/2014 | 11 | 9.6 | 5.2 | 50 | 30 |
| 2/04/2014 | 10 | 9.6 | 5.2 | 50 | 30 |
| 3/04/2014 | 11 | 9.6 | 5.2 | 50 | 30 |
| 4/04/2014 | 13 | 9.6 | 5.2 | 50 | 30 |
| 5/04/2014 | 7 | 9.6 | 5.2 | 50 | 30 |
| 6/04/2014 | 4 | 9.6 | 5.2 | 50 | 30 |

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|---|---|---|---|---|---|
| 7/04/2014 | 1 | 9.6 | 5.2 | 50 | 30 |
| 8/04/2014 | 6 | 9.6 | 5.2 | 50 | 30 |
| 9/04/2014 | 11 | 9.6 | 5.2 | 50 | 30 |
| 10/04/2014 | 12 | 9.6 | 5.2 | 50 | 30 |
| 11/04/2014 | 5 | 9.6 | 5.2 | 50 | 30 |
| 12/04/2014 | 6 | 9.6 | 5.2 | 50 | 30 |
| 13/04/2014 | 11 | 9.6 | 5.2 | 50 | 30 |
| 14/04/2014 | 6 | 9.6 | 5.2 | 50 | 30 |
| 15/04/2014 | 5 | 9.6 | 5.2 | 50 | 30 |
| 16/04/2014 | 3 | 9.6 | 5.2 | 50 | 30 |
| 17/04/2014 | 8 | 9.6 | 5.2 | 50 | 30 |
| 18/04/2014 | 8 | 9.6 | 5.2 | 50 | 30 |
| 19/04/2014 | 15 | 9.6 | 5.2 | 50 | 30 |
| 20/04/2014 | 11 | 9.6 | 5.2 | 50 | 30 |
| 21/04/2014 | 10 | 9.6 | 5.2 | 50 | 30 |
| 22/04/2014 | 7 | 9.6 | 5.2 | 50 | 30 |
| 23/04/2014 | 7 | 9.6 | 5.2 | 50 | 30 |
| 24/04/2014 | 6 | 9.6 | 5.2 | 50 | 30 |
| 25/04/2014 | 19 | 9.6 | 5.2 | 50 | 30 |
| 26/04/2014 | 1 | 9.6 | 5.2 | 50 | 30 |
| 27/04/2014 | 8 | 9.6 | 5.2 | 50 | 30 |
| 28/04/2014 | 3 | 9.6 | 5.2 | 50 | 30 |
| 29/04/2014 | 6 | 9.6 | 5.2 | 50 | 30 |
| 30/04/2014 | 5 | 9.6 | 5.2 | 50 | 30 |
| 1/05/2014 | 4 | 8.7 | 5.2 | 50 | 30 |
| 2/05/2014 | 15 | 8.7 | 5.2 | 50 | 30 |
| 3/05/2014 | 7 | 8.7 | 5.2 | 50 | 30 |

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|---|---|---|---|---|---|
| 4/05/2014 | 1 | 8.7 | 5.2 | 50 | 30 |
| 5/05/2014 | 5 | 8.7 | 5.2 | 50 | 30 |
| 6/05/2014 | 5 | 8.7 | 5.2 | 50 | 30 |
| 7/05/2014 | 7 | 8.7 | 5.2 | 50 | 30 |
| 8/05/2014 | 4 | 8.7 | 5.2 | 50 | 30 |
| 9/05/2014 | 4 | 8.7 | 5.2 | 50 | 30 |
| 10/05/2014 | 6 | 8.7 | 5.2 | 50 | 30 |
| 11/05/2014 | 7 | 8.7 | 5.2 | 50 | 30 |
| 12/05/2014 | 7 | 8.7 | 5.2 | 50 | 30 |
| 13/05/2014 | 6 | 8.7 | 5.2 | 50 | 30 |
| 14/05/2014 | 5 | 8.7 | 5.2 | 50 | 30 |
| 15/05/2014 | 5 | 8.7 | 5.2 | 50 | 30 |
| 16/05/2014 | 6 | 8.7 | 5.2 | 50 | 30 |
| 17/05/2014 | 5 | 8.7 | 5.2 | 50 | 30 |
| 18/05/2014 | 3 | 8.7 | 5.2 | 50 | 30 |
| 19/05/2014 | 4 | 8.7 | 5.2 | 50 | 30 |
| 20/05/2014 | 4 | 8.7 | 5.2 | 50 | 30 |
| 21/05/2014 | 7 | 8.7 | 5.2 | 50 | 30 |
| 22/05/2014 | 12 | 8.7 | 5.2 | 50 | 30 |
| 23/05/2014 | 7 | 8.7 | 5.2 | 50 | 30 |
| 24/05/2014 | 8 | 8.7 | 5.2 | 50 | 30 |
| 25/05/2014 | 7 | 8.7 | 5.2 | 50 | 30 |
| 26/05/2014 | 4 | 8.7 | 5.2 | 50 | 30 |
| 27/05/2014 | 8 | 8.7 | 5.2 | 50 | 30 |
| 28/05/2014 | 3 | 8.7 | 5.2 | 50 | 30 |
| 29/05/2014 | 4 | 8.7 | 5.2 | 50 | 30 |
| 30/05/2014 | 13 | 8.7 | 5.2 | 50 | 30 |

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|---|---|---|---|---|---|
| 31/05/2014 | 4 | 8.7 | 5.2 | 50 | 30 |
| 1/06/2014 | 0 | 7.6 | 5.2 | 50 | 30 |
| 2/06/2014 | 8 | 7.6 | 5.2 | 50 | 30 |
| 3/06/2014 | 0 | 7.6 | 5.2 | 50 | 30 |
| 4/06/2014 | 4 | 7.6 | 5.2 | 50 | 30 |
| 5/06/2014 | 8 | 7.6 | 5.2 | 50 | 30 |
| 6/06/2014 | 6 | 7.6 | 5.2 | 50 | 30 |
| 7/06/2014 | 3 | 7.6 | 5.2 | 50 | 30 |
| 8/06/2014 | 1 | 7.6 | 5.2 | 50 | 30 |
| 9/06/2014 | 4 | 7.6 | 5.2 | 50 | 30 |
| 10/06/2014 | 3 | 7.6 | 5.2 | 50 | 30 |
| 11/06/2014 | 0 | 7.6 | 5.2 | 50 | 30 |
| 12/06/2014 | 3 | 7.6 | 5.2 | 50 | 30 |
| 13/06/2014 | 7 | 7.6 | 5.2 | 50 | 30 |
| 14/06/2014 | 4 | 7.6 | 5.2 | 50 | 30 |
| 15/06/2014 | 2 | 7.6 | 5.2 | 50 | 30 |
| 16/06/2014 | 4 | 7.6 | 5.2 | 50 | 30 |
| 17/06/2014 | 3 | 7.6 | 5.2 | 50 | 30 |
| 18/06/2014 | 4 | 7.6 | 5.2 | 50 | 30 |
| 19/06/2014 | 4 | 7.6 | 5.2 | 50 | 30 |
| 20/06/2014 | 7 | 7.6 | 5.2 | 50 | 30 |
| 21/06/2014 | 3 | 7.6 | 5.2 | 50 | 30 |
| 22/06/2014 | 6 | 7.6 | 5.2 | 50 | 30 |
| 23/06/2014 | 5 | 7.6 | 5.2 | 50 | 30 |
| 24/06/2014 | 2 | 7.6 | 5.2 | 50 | 30 |
| 25/06/2014 | 4 | 7.6 | 5.2 | 50 | 30 |
| 26/06/2014 | 5 | 7.6 | 5.2 | 50 | 30 |

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|---|---|---|---|---|---|
| 27/06/2014 | 4 | 7.6 | 5.2 | 50 | 30 |
| 28/06/2014 | 2 | 7.6 | 5.2 | 50 | 30 |
| 29/06/2014 | 0 | 7.6 | 5.2 | 50 | 30 |
| 30/06/2014 | 2 | 7.6 | 5.2 | 50 | 30 |
| 1/07/2014 | 3 | 4.6 | 5.2 | 50 | 30 |
| 2/07/2014 | 1 | 4.6 | 5.2 | 50 | 30 |
| 3/07/2014 | 3 | 4.6 | 5.2 | 50 | 30 |
| 4/07/2014 | 4 | 4.6 | 5.2 | 50 | 30 |
| 5/07/2014 | 3 | 4.6 | 5.2 | 50 | 30 |
| 6/07/2014 | 0 | 4.6 | 5.2 | 50 | 30 |
| 7/07/2014 | 2 | 4.6 | 5.2 | 50 | 30 |
| 8/07/2014 | -1 | 4.6 | 5.2 | 50 | 30 |
| 9/07/2014 | 0 | 4.6 | 5.2 | 50 | 30 |
| 10/07/2014 | 6 | 4.6 | 5.2 | 50 | 30 |
| 11/07/2014 | 3 | 4.6 | 5.2 | 50 | 30 |
| 12/07/2014 | 2 | 4.6 | 5.2 | 50 | 30 |
| 13/07/2014 | 3 | 4.6 | 5.2 | 50 | 30 |
| 14/07/2014 | 4 | 4.6 | 5.2 | 50 | 30 |
| 15/07/2014 | 4 | 4.6 | 5.2 | 50 | 30 |
| 16/07/2014 | 4 | 4.6 | 5.2 | 50 | 30 |
| 17/07/2014 | 1 | 4.6 | 5.2 | 50 | 30 |
| 18/07/2014 | 1 | 4.6 | 5.2 | 50 | 30 |
| 19/07/2014 | 5 | 4.6 | 5.2 | 50 | 30 |
| 20/07/2014 | 11 | 4.6 | 5.2 | 50 | 30 |
| 21/07/2014 | 1 | 4.6 | 5.2 | 50 | 30 |
| 22/07/2014 | 2 | 4.6 | 5.2 | 50 | 30 |
| 23/07/2014 | 7 | 4.6 | 5.2 | 50 | 30 |

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|---|---|---|---|---|---|
| 24/07/2014 | 7 | 4.6 | 5.2 | 50 | 30 |
| 25/07/2014 | 5 | 4.6 | 5.2 | 50 | 30 |
| 26/07/2014 | 0 | 4.6 | 5.2 | 50 | 30 |
| 27/07/2014 | 1 | 4.6 | 5.2 | 50 | 30 |
| 28/07/2014 | 6 | 4.6 | 5.2 | 50 | 30 |
| 29/07/2014 | 1 | 4.6 | 5.2 | 50 | 30 |
| 30/07/2014 | 2 | 4.6 | 5.2 | 50 | 30 |
| 31/07/2014 | 2 | 4.6 | 5.2 | 50 | 30 |
| 1/08/2014 | 6 | 4.6 | 5.2 | 50 | 30 |
| 2/08/2014 | -1 | 4.6 | 5.2 | 50 | 30 |
| 3/08/2014 | 4 | 4.6 | 5.2 | 50 | 30 |
| 4/08/2014 | 6 | 4.6 | 5.2 | 50 | 30 |
| 5/08/2014 | 4 | 4.6 | 5.2 | 50 | 30 |
| 6/08/2014 | 4 | 4.6 | 5.2 | 50 | 30 |
| 7/08/2014 | 2 | 4.6 | 5.2 | 50 | 30 |
| 8/08/2014 | 8 | 4.6 | 5.2 | 50 | 30 |
| 9/08/2014 | 7 | 4.6 | 5.2 | 50 | 30 |
| 10/08/2014 | 6 | 4.6 | 5.2 | 50 | 30 |
| 11/08/2014 | -1 | 4.6 | 5.2 | 50 | 30 |
| 12/08/2014 | 4 | 4.6 | 5.2 | 50 | 30 |
| 13/08/2014 | 4 | 4.6 | 5.2 | 50 | 30 |
| 14/08/2014 | 3 | 4.6 | 5.2 | 50 | 30 |
| 15/08/2014 | 2 | 4.6 | 5.2 | 50 | 30 |
| 16/08/2014 | 8 | 4.6 | 5.2 | 50 | 30 |
| 17/08/2014 | 0 | 4.6 | 5.2 | 50 | 30 |
| 18/08/2014 | 5 | 4.6 | 5.2 | 50 | 30 |
| 19/08/2014 | 5 | 4.6 | 5.2 | 50 | 30 |

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|---|---|---|---|---|---|
| 20/08/2014 | 8 | 4.6 | 5.2 | 50 | 30 |
| 21/08/2014 | 4 | 4.6 | 5.2 | 50 | 30 |
| 22/08/2014 | 1 | 4.6 | 5.2 | 50 | 30 |
| 23/08/2014 | 0 | 4.6 | 5.2 | 50 | 30 |
| 24/08/2014 | -4 | 4.6 | 5.2 | 50 | 30 |
| 25/08/2014 | 3 | 4.6 | 5.2 | 50 | 30 |
| 26/08/2014 | 1 | 4.6 | 5.2 | 50 | 30 |
| 27/08/2014 | 2 | 4.6 | 5.2 | 50 | 30 |
| 28/08/2014 | 1 | 4.6 | 5.2 | 50 | 30 |
| 29/08/2014 | 2 | 4.6 | 5.2 | 50 | 30 |
| 30/08/2014 | 1 | 4.6 | 5.2 | 50 | 30 |
| 31/08/2014 | 2 | 4.6 | 5.2 | 50 | 30 |

***Air Quality data and summary for Lamberts North AQMS PM2.5 and PM10***

| Date | Blackmans AQMS; Average PM2.5 (ug/m3) | | | Blackmans AQMS; Average PM10 (ug/m3) | | | | |
|---|---|---|---|---|---|---|---|---|
| | Daily | Monthly | Maximum conc. | Daily | Monthly | Annual | Maximum daily conc. | Maximum Annual conc. |
| 01/11/2013 | 16 | 10 | 25 | 26.5 | 18 | 18 | 50 | 30 |
| 02/11/2013 | 13 | 10 | 25 | 22.3 | 18 | 18 | 50 | 30 |
| 03/11/2013 | 4 | 10 | 25 | 17.4 | 18 | 18 | 50 | 30 |
| 04/11/2013 | 6 | 10 | 25 | 19 | 18 | 18 | 50 | 30 |
| 05/11/2013 | 9 | 10 | 25 | 19.5 | 18 | 18 | 50 | 30 |
| 06/11/2013 | 30 | 10 | 25 | 42 | 18 | 18 | 50 | 30 |
| 07/11/2013 | 24 | 10 | 25 | 53.2 | 18 | 18 | 50 | 30 |

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|---|---|---|---|---|---|---|---|---|
| 08/11/2013 | 12 | 10 | 25 | 38.4 | 18 | 18 | 50 | 30 |
| 09/11/2013 | 6 | 10 | 25 | 13.4 | 18 | 18 | 50 | 30 |
| 10/11/2013 | 4 | 10 | 25 | 6.8 | 18 | 18 | 50 | 30 |
| 11/11/2013 | 3 | 10 | 25 | 3.9 | 18 | 18 | 50 | 30 |
| 12/11/2013 | 5 | 10 | 25 | 8.9 | 18 | 18 | 50 | 30 |
| 13/11/2013 | 6 | 10 | 25 | 13 | 18 | 18 | 50 | 30 |
| 14/11/2013 | 6 | 10 | 25 | 19 | 18 | 18 | 50 | 30 |
| 15/11/2013 | 9 | 10 | 25 | 17 | 18 | 18 | 50 | 30 |
| 16/11/2013 | 5 | 10 | 25 | 5.5 | 18 | 18 | 50 | 30 |
| 17/11/2013 | 4 | 10 | 25 | 4.8 | 18 | 18 | 50 | 30 |
| 18/11/2013 | 4 | 10 | 25 | 6.2 | 18 | 18 | 50 | 30 |
| 19/11/2013 | 6 | 10 | 25 | 9.6 | 18 | 18 | 50 | 30 |
| 20/11/2013 | 23 | 10 | 25 | 24.6 | 18 | 18 | 50 | 30 |
| 21/11/2013 | 27 | 10 | 25 | 40.6 | 18 | 18 | 50 | 30 |
| 22/11/2013 | 12 | 10 | 25 | 11.8 | 18 | 18 | 50 | 30 |
| 23/11/2013 | 5 | 10 | 25 | 10.7 | 18 | 18 | 50 | 30 |
| 24/11/2013 | 6 | 10 | 25 | 11.6 | 18 | 18 | 50 | 30 |
| 25/11/2013 | 6 | 10 | 25 | 13.6 | 18 | 18 | 50 | 30 |
| 26/11/2013 | 8 | 10 | 25 | 18 | 18 | 18 | 50 | 30 |
| 27/11/2013 | 20 | 10 | 25 | 17.2 | 18 | 18 | 50 | 30 |
| 28/11/2013 | 9 | 10 | 25 | 26.6 | 18 | 18 | 50 | 30 |
| 29/11/2013 | 8 | 10 | 25 | 13.5 | 18 | 18 | 50 | 30 |
| 30/11/2013 | 7 | 10 | 25 | 12.5 | 18 | 18 | 50 | 30 |
| 01/12/2013 | 9 | 11 | 25 | 9.7 | 21 | 18 | 50 | 30 |
| 02/12/2013 | 11 | 11 | 25 | 22.6 | 21 | 18 | 50 | 30 |
| 03/12/2013 | 10 | 11 | 25 | 34.4 | 21 | 18 | 50 | 30 |
| 04/12/2013 | 14 | 11 | 25 | 30.8 | 21 | 18 | 50 | 30 |

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|---|---|---|---|---|---|---|---|---|
| 05/12/2013 | 6 | 11 | 25 | 10.3 | 21 | 18 | 50 | 30 |
| 06/12/2013 | 6 | 11 | 25 | 9.8 | 21 | 18 | 50 | 30 |
| 07/12/2013 | 8 | 11 | 25 | 13.6 | 21 | 18 | 50 | 30 |
| 08/12/2013 | 22 | 11 | 25 | 16.3 | 21 | 18 | 50 | 30 |
| 09/12/2013 | 15 | 11 | 25 | 29.5 | 21 | 18 | 50 | 30 |
| 10/12/2013 | 18 | 11 | 25 | 14.6 | 21 | 18 | 50 | 30 |
| 11/12/2013 | 8 | 11 | 25 | 25.2 | 21 | 18 | 50 | 30 |
| 12/12/2013 | 9 | 11 | 25 | 27.5 | 21 | 18 | 50 | 30 |
| 13/12/2013 | 9 | 11 | 25 | 19.7 | 21 | 18 | 50 | 30 |
| 14/12/2013 | 22 | 11 | 25 | 22 | 21 | 18 | 50 | 30 |
| 15/12/2013 | 8 | 11 | 25 | 13 | 21 | 18 | 50 | 30 |
| 16/12/2013 | 9 | 11 | 25 | 24.5 | 21 | 18 | 50 | 30 |
| 17/12/2013 | 13 | 11 | 25 | 28 | 21 | 18 | 50 | 30 |
| 18/12/2013 | 15 | 11 | 25 | 32.5 | 21 | 18 | 50 | 30 |
| 19/12/2013 | 15 | 11 | 25 | 29.8 | 21 | 18 | 50 | 30 |
| 20/12/2013 | 11 | 11 | 25 | 32.2 | 21 | 18 | 50 | 30 |
| 21/12/2013 | 15 | 11 | 25 | 29.5 | 21 | 18 | 50 | 30 |
| 22/12/2013 | 12 | 11 | 25 | 22 | 21 | 18 | 50 | 30 |
| 23/12/2013 | 9 | 11 | 25 | 30.9 | 21 | 18 | 50 | 30 |
| 24/12/2013 | 4 | 11 | 25 | 11.2 | 21 | 18 | 50 | 30 |
| 25/12/2013 | 6 | 11 | 25 | 5.5 | 21 | 18 | 50 | 30 |
| 26/12/2013 | 4 | 11 | 25 | 4.8 | 21 | 18 | 50 | 30 |
| 27/12/2013 | 21 | 11 | 25 | 9.2 | 21 | 18 | 50 | 30 |
| 28/12/2013 | 9 | 11 | 25 | 9.8 | 21 | 18 | 50 | 30 |
| 29/12/2013 | 11 | 11 | 25 | 22.9 | 21 | 18 | 50 | 30 |
| 30/12/2013 | 11 | 11 | 25 | 25.5 | 21 | 18 | 50 | 30 |
| 31/12/2013 | 10 | 11 | 25 | 20.6 | 21 | 18 | 50 | 30 |

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|---|---|---|---|---|---|---|---|---|
| 01/01/2014 | 14 | 12 | 25 | 22.1 | 21 | 18 | 50 | 30 |
| 02/01/2014 | 7 | 12 | 25 | 20.5 | 21 | 18 | 50 | 30 |
| 03/01/2014 | 22 | 12 | 25 | 40.7 | 21 | 18 | 50 | 30 |
| 04/01/2014 | 19 | 12 | 25 | 15.3 | 21 | 18 | 50 | 30 |
| 05/01/2014 | 23 | 12 | 25 | 26.6 | 21 | 18 | 50 | 30 |
| 06/01/2014 | 10 | 12 | 25 | 20 | 21 | 18 | 50 | 30 |
| 07/01/2014 | 24 | 12 | 25 | 21.7 | 21 | 18 | 50 | 30 |
| 08/01/2014 | 4 | 12 | 25 | 7.6 | 21 | 18 | 50 | 30 |
| 09/01/2014 | 8 | 12 | 25 | 16.8 | 21 | 18 | 50 | 30 |
| 10/01/2014 | 9 | 12 | 25 | 12.5 | 21 | 18 | 50 | 30 |
| 11/01/2014 | 13 | 12 | 25 | 14.7 | 21 | 18 | 50 | 30 |
| 12/01/2014 | 15 | 12 | 25 | 21.1 | 21 | 18 | 50 | 30 |
| 13/01/2014 | 10 | 12 | 25 | 21.7 | 21 | 18 | 50 | 30 |
| 14/01/2014 | 14 | 12 | 25 | 32.9 | 21 | 18 | 50 | 30 |
| 15/01/2014 | 14 | 12 | 25 | 38.4 | 21 | 18 | 50 | 30 |
| 16/01/2014 | 25 | 12 | 25 | 36.6 | 21 | 18 | 50 | 30 |
| 17/01/2014 | 32 | 12 | 25 | 46.9 | 21 | 18 | 50 | 30 |
| 18/01/2014 | 12 | 12 | 25 | 22.8 | 21 | 18 | 50 | 30 |
| 19/01/2014 | 13 | 12 | 25 | 22 | 21 | 18 | 50 | 30 |
| 20/01/2014 | 17 | 12 | 25 | 20 | 21 | 18 | 50 | 30 |
| 21/01/2014 | 7 | 12 | 25 | 24.9 | 21 | 18 | 50 | 30 |
| 22/01/2014 | 4 | 12 | 25 | 7.8 | 21 | 18 | 50 | 30 |
| 23/01/2014 | 5 | 12 | 25 | 10.4 | 21 | 18 | 50 | 30 |
| 24/01/2014 | 3 | 12 | 25 | 7.7 | 21 | 18 | 50 | 30 |
| 25/01/2014 | 8 | 12 | 25 | 12.1 | 21 | 18 | 50 | 30 |
| 26/01/2014 | 5 | 12 | 25 | 9.2 | 21 | 18 | 50 | 30 |
| 27/01/2014 | 6 | 12 | 25 | 13.1 | 21 | 18 | 50 | 30 |

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|---|---|---|---|---|---|---|---|---|
| 28/01/2014 | 6 | 12 | 25 | 17.7 | 21 | 18 | 50 | 30 |
| 29/01/2014 | 9 | 12 | 25 | 21.6 | 21 | 18 | 50 | 30 |
| 30/01/2014 | 8 | 12 | 25 | 18.9 | 21 | 18 | 50 | 30 |
| 31/01/2014 | 21 | 12 | 25 | 32.4 | 21 | 18 | 50 | 30 |
| 01/02/2014 | 12 | 9 | 25 | 27.5 | 17 | 18 | 50 | 30 |
| 02/02/2014 | 10 | 9 | 25 | 22.8 | 17 | 18 | 50 | 30 |
| 03/02/2014 | 7 | 9 | 25 | 20.3 | 17 | 18 | 50 | 30 |
| 04/02/2014 | 7 | 9 | 25 | 17.9 | 17 | 18 | 50 | 30 |
| 05/02/2014 | 18 | 9 | 25 | 19.3 | 17 | 18 | 50 | 30 |
| 06/02/2014 | 5 | 9 | 25 | 17.7 | 17 | 18 | 50 | 30 |
| 07/02/2014 | 9 | 9 | 25 | 19 | 17 | 18 | 50 | 30 |
| 08/02/2014 | 12 | 9 | 25 | 21 | 17 | 18 | 50 | 30 |
| 09/02/2014 | 9 | 9 | 25 | 16.2 | 17 | 18 | 50 | 30 |
| 10/02/2014 | 13 | 9 | 25 | 34.7 | 17 | 18 | 50 | 30 |
| 11/02/2014 | 9 | 9 | 25 | 25.2 | 17 | 18 | 50 | 30 |
| 12/02/2014 | 13 | 9 | 25 | 23.1 | 17 | 18 | 50 | 30 |
| 13/02/2014 | 12 | 9 | 25 | 26.4 | 17 | 18 | 50 | 30 |
| 14/02/2014 | 12 | 9 | 25 | 13.6 | 17 | 18 | 50 | 30 |
| 15/02/2014 | 7 | 9 | 25 | 9.5 | 17 | 18 | 50 | 30 |
| 16/02/2014 | 7 | 9 | 25 | 6.7 | 17 | 18 | 50 | 30 |
| 17/02/2014 | 4 | 9 | 25 | 4.2 | 17 | 18 | 50 | 30 |
| 18/02/2014 | 22 | 9 | 25 | 21.7 | 17 | 18 | 50 | 30 |
| 19/02/2014 | 6 | 9 | 25 | 7.1 | 17 | 18 | 50 | 30 |
| 20/02/2014 | 3 | 9 | 25 | 11.5 | 17 | 18 | 50 | 30 |
| 21/02/2014 | 8 | 9 | 25 | 14.2 | 17 | 18 | 50 | 30 |
| 22/02/2014 | 11 | 9 | 25 | 15.6 | 17 | 18 | 50 | 30 |
| 23/02/2014 | 10 | 9 | 25 | 13.6 | 17 | 18 | 50 | 30 |

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|---|---|---|---|---|---|---|---|---|
| 24/02/2014 | 6 | 9 | 25 | 12 | 17 | 18 | 50 | 30 |
| 25/02/2014 | 7 | 9 | 25 | 12.3 | 17 | 18 | 50 | 30 |
| 26/02/2014 | 9 | 9 | 25 | 19.9 | 17 | 18 | 50 | 30 |
| 27/02/2014 | 6 | 9 | 25 | 7.9 | 17 | 18 | 50 | 30 |
| 28/02/2014 | 3 | 9 | 25 | 2.9 | 17 | 18 | 50 | 30 |
| 01/03/2014 | 4 | 5 | 25 | 4 | 14 | 18 | 50 | 30 |
| 02/03/2014 | 4 | 5 | 25 | 3.9 | 14 | 18 | 50 | 30 |
| 03/03/2014 | 5 | 5 | 25 | 5 | 14 | 18 | 50 | 30 |
| 04/03/2014 | 4 | 5 | 25 | 9 | 14 | 18 | 50 | 30 |
| 05/03/2014 | 8 | 5 | 25 | 13.2 | 14 | 18 | 50 | 30 |
| 06/03/2014 | 9 | 5 | 25 | 16.2 | 14 | 18 | 50 | 30 |
| 07/03/2014 | 9 | 5 | 25 | 19.3 | 14 | 18 | 50 | 30 |
| 08/03/2014 | 6 | 5 | 25 | 9.9 | 14 | 18 | 50 | 30 |
| 09/03/2014 | 6 | 5 | 25 | 10.5 | 14 | 18 | 50 | 30 |
| 10/03/2014 | 8 | 5 | 25 | 16.1 | 14 | 18 | 50 | 30 |
| 11/03/2014 | 7 | 5 | 25 | 16.8 | 14 | 18 | 50 | 30 |
| 12/03/2014 | 9 | 5 | 25 | 21 | 14 | 18 | 50 | 30 |
| 13/03/2014 | 8 | 5 | 25 | 24.1 | 14 | 18 | 50 | 30 |
| 14/03/2014 | 10 | 5 | 25 | 15.4 | 14 | 18 | 50 | 30 |
| 15/03/2014 | 6 | 5 | 25 | 10.4 | 14 | 18 | 50 | 30 |
| 16/03/2014 | 6 | 5 | 25 | 13.9 | 14 | 18 | 50 | 30 |
| 17/03/2014 | 7 | 5 | 25 | 30.5 | 14 | 18 | 50 | 30 |
| 18/03/2014 | 7 | 5 | 25 | 27.1 | 14 | 18 | 50 | 30 |
| 19/03/2014 | 9 | 5 | 25 | 29.3 | 14 | 18 | 50 | 30 |
| 20/03/2014 | 5 | 5 | 25 | 17.5 | 14 | 18 | 50 | 30 |
| 21/03/2014 | 0 | 5 | 25 | 17 | 14 | 18 | 50 | 30 |
| 22/03/2014 | 0 | 5 | 25 | 14.8 | 14 | 18 | 50 | 30 |

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|---|---|---|---|---|---|---|---|---|
| 23/03/2014 | 0 | 5 | 25 | 13.3 | 14 | 18 | 50 | 30 |
| 24/03/2014 | 0 | 5 | 25 | 8.9 | 14 | 18 | 50 | 30 |
| 25/03/2014 | 0 | 5 | 25 | 11 | 14 | 18 | 50 | 30 |
| 26/03/2014 | 0 | 5 | 25 | 7.8 | 14 | 18 | 50 | 30 |
| 27/03/2014 | 0 | 5 | 25 | 4.7 | 14 | 18 | 50 | 30 |
| 28/03/2014 | 1 | 5 | 25 | 11 | 14 | 18 | 50 | 30 |
| 29/03/2014 | 6 | 5 | 25 | 10.3 | 14 | 18 | 50 | 30 |
| 30/03/2014 | 9 | 5 | 25 | 11.4 | 14 | 18 | 50 | 30 |
| 31/03/2014 | 8 | 5 | 25 | 17.6 | 14 | 18 | 50 | 30 |
| 01/04/2014 | 9 | 7 | 25 | 20.3 | 17 | 18 | 50 | 30 |
| 02/04/2014 | 10 | 7 | 25 | 36.7 | 17 | 18 | 50 | 30 |
| 03/04/2014 | 13 | 7 | 25 | 55 | 17 | 18 | 50 | 30 |
| 04/04/2014 | 5 | 7 | 25 | 8.5 | 17 | 18 | 50 | 30 |
| 05/04/2014 | 5 | 7 | 25 | 11.2 | 17 | 18 | 50 | 30 |
| 06/04/2014 | 4 | 7 | 25 | 6.2 | 17 | 18 | 50 | 30 |
| 07/04/2014 | 5 | 7 | 25 | 12.3 | 17 | 18 | 50 | 30 |
| 08/04/2014 | 7 | 7 | 25 | 19.4 | 17 | 18 | 50 | 30 |
| 09/04/2014 | 8 | 7 | 25 | 20.8 | 17 | 18 | 50 | 30 |
| 10/04/2014 | 8 | 7 | 25 | 19.2 | 17 | 18 | 50 | 30 |
| 11/04/2014 | 4 | 7 | 25 | 9.5 | 17 | 18 | 50 | 30 |
| 12/04/2014 | 5 | 7 | 25 | 7.8 | 17 | 18 | 50 | 30 |
| 13/04/2014 | 5 | 7 | 25 | 7.5 | 17 | 18 | 50 | 30 |
| 14/04/2014 | 5 | 7 | 25 | 12.6 | 17 | 18 | 50 | 30 |
| 15/04/2014 | 5 | 7 | 25 | 12.2 | 17 | 18 | 50 | 30 |
| 16/04/2014 | 6 | 7 | 25 | 17.9 | 17 | 18 | 50 | 30 |
| 17/04/2014 | 10 | 7 | 25 | 21.7 | 17 | 18 | 50 | 30 |
| 18/04/2014 | 12 | 7 | 25 | 17.7 | 17 | 18 | 50 | 30 |

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|---|---|---|---|---|---|---|---|---|
| 19/04/2014 | 8 | 7 | 25 | 14 | 17 | 18 | 50 | 30 |
| 20/04/2014 | 9 | 7 | 25 | 15.3 | 17 | 18 | 50 | 30 |
| 21/04/2014 | 9 | 7 | 25 | 17 | 17 | 18 | 50 | 30 |
| 22/04/2014 | 9 | 7 | 25 | 20 | 17 | 18 | 50 | 30 |
| 23/04/2014 | 9 | 7 | 25 | 21.1 | 17 | 18 | 50 | 30 |
| 24/04/2014 | 10 | 7 | 25 | 24.8 | 17 | 18 | 50 | 30 |
| 25/04/2014 | 7 | 7 | 25 | 12.2 | 17 | 18 | 50 | 30 |
| 26/04/2014 | 8 | 7 | 25 | 14.9 | 17 | 18 | 50 | 30 |
| 27/04/2014 | 7 | 7 | 25 | 10 | 17 | 18 | 50 | 30 |
| 28/04/2014 | 6 | 7 | 25 | 21 | 17 | 18 | 50 | 30 |
| 29/04/2014 | 5 | 7 | 25 | 13 | 17 | 18 | 50 | 30 |
| 30/04/2014 | 5 | 7 | 25 | 9.1 | 17 | 18 | 50 | 30 |
| 01/05/2014 | 9 | 9 | 25 | 22.2 | 22 | 18 | 50 | 30 |
| 02/05/2014 | 6 | 9 | 25 | 12.2 | 22 | 18 | 50 | 30 |
| 03/05/2014 | 4 | 9 | 25 | 4 | 22 | 18 | 50 | 30 |
| 04/05/2014 | 5 | 9 | 25 | 6.4 | 22 | 18 | 50 | 30 |
| 05/05/2014 | | 9 | 25 | | 22 | 18 | 50 | 30 |
| 06/05/2014 | | 9 | 25 | | 22 | 18 | 50 | 30 |
| 07/05/2014 | 8 | 9 | 25 | 15.9 | 22 | 18 | 50 | 30 |
| 08/05/2014 | 7 | 9 | 25 | 22.2 | 22 | 18 | 50 | 30 |
| 09/05/2014 | 8 | 9 | 25 | 20.3 | 22 | 18 | 50 | 30 |
| 10/05/2014 | 7 | 9 | 25 | 21.4 | 22 | 18 | 50 | 30 |
| 11/05/2014 | 5 | 9 | 25 | 7.9 | 22 | 18 | 50 | 30 |
| 12/05/2014 | 9 | 9 | 25 | 15.3 | 22 | 18 | 50 | 30 |
| 13/05/2014 | 8 | 9 | 25 | 19 | 22 | 18 | 50 | 30 |
| 14/05/2014 | 10 | 9 | 25 | 20.3 | 22 | 18 | 50 | 30 |
| 15/05/2014 | 9 | 9 | 25 | 16 | 22 | 18 | 50 | 30 |

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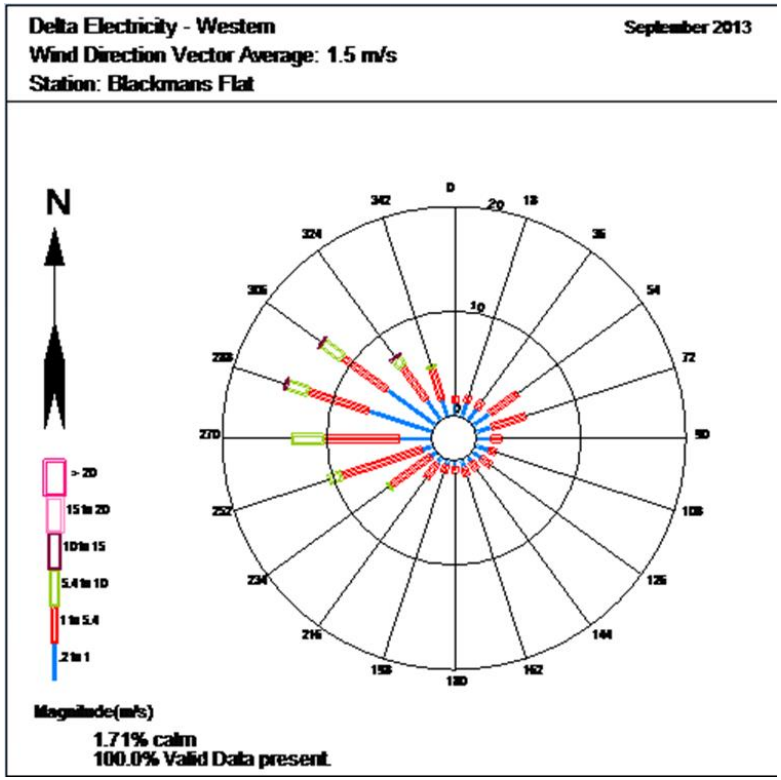
|---|---|---|---|---|---|---|---|---|
| 16/05/2014 | 10 | 9 | 25 | 19.7 | 22 | 18 | 50 | 30 |
| 17/05/2014 | 9 | 9 | 25 | 18.4 | 22 | 18 | 50 | 30 |
| 18/05/2014 | 10 | 9 | 25 | 18.9 | 22 | 18 | 50 | 30 |
| 19/05/2014 | 12 | 9 | 25 | 29.4 | 22 | 18 | 50 | 30 |
| 20/05/2014 | 12 | 9 | 25 | 28.7 | 22 | 18 | 50 | 30 |
| 21/05/2014 | 13 | 9 | 25 | 71.1 | 22 | 18 | 50 | 30 |
| 22/05/2014 | 13 | 9 | 25 | 49.1 | 22 | 18 | 50 | 30 |
| 23/05/2014 | 14 | 9 | 25 | 45 | 22 | 18 | 50 | 30 |
| 24/05/2014 | 9 | 9 | 25 | 21.3 | 22 | 18 | 50 | 30 |
| 25/05/2014 | 8 | 9 | 25 | 14.3 | 22 | 18 | 50 | 30 |
| 26/05/2014 | 10 | 9 | 25 | 26.3 | 22 | 18 | 50 | 30 |
| 27/05/2014 | 8 | 9 | 25 | 44.3 | 22 | 18 | 50 | 30 |
| 28/05/2014 | 4 | 9 | 25 | 10.4 | 22 | 18 | 50 | 30 |
| 29/05/2014 | 7 | 9 | 25 | 14.8 | 22 | 18 | 50 | 30 |
| 30/05/2014 | 7 | 9 | 25 | 13.1 | 22 | 18 | 50 | 30 |
| 31/05/2014 | 8 | 9 | 25 | 11.1 | 22 | 18 | 50 | 30 |
| 01/06/2014 | 7 | 4 | 25 | 8.7 | 13 | 18 | 50 | 30 |
| 02/06/2014 | 6 | 4 | 25 | 18.6 | 13 | 18 | 50 | 30 |
| 03/06/2014 | 3 | 4 | 25 | 11.5 | 13 | 18 | 50 | 30 |
| 04/06/2014 | 8 | 4 | 25 | 18.9 | 13 | 18 | 50 | 30 |
| 05/06/2014 | 9 | 4 | 25 | 11.6 | 13 | 18 | 50 | 30 |
| 06/06/2014 | 4 | 4 | 25 | 5.7 | 13 | 18 | 50 | 30 |
| 07/06/2014 | 6 | 4 | 25 | 13.6 | 13 | 18 | 50 | 30 |
| 08/06/2014 | 9 | 4 | 25 | 12.5 | 13 | 18 | 50 | 30 |
| 09/06/2014 | 7 | 4 | 25 | 8.3 | 13 | 18 | 50 | 30 |
| 10/06/2014 | 3 | 4 | 25 | 6.2 | 13 | 18 | 50 | 30 |
| 11/06/2014 | 1 | 4 | 25 | 17.3 | 13 | 18 | 50 | 30 |

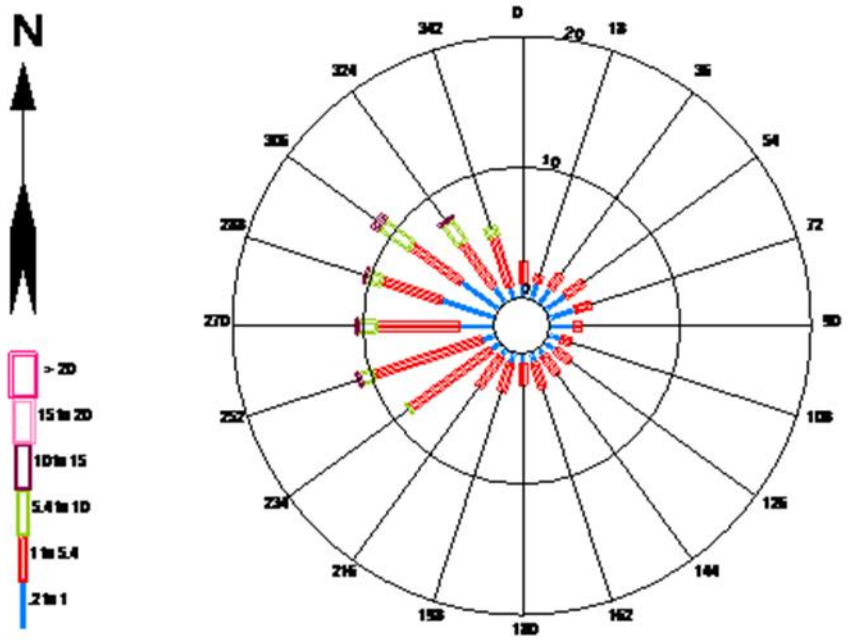
| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 12/06/2014 | 5 | 4 | 25 | 29.7 | 13 | 18 | 50 | 30 |
| 13/06/2014 | 4 | 4 | 25 | 21.2 | 13 | 18 | 50 | 30 |
| 14/06/2014 | 1 | 4 | 25 | 6.7 | 13 | 18 | 50 | 30 |
| 15/06/2014 | 1 | 4 | 25 | 7.2 | 13 | 18 | 50 | 30 |
| 16/06/2014 | 3 | 4 | 25 | 13.3 | 13 | 18 | 50 | 30 |
| 17/06/2014 | 4 | 4 | 25 | 16.4 | 13 | 18 | 50 | 30 |
| 18/06/2014 | 7 | 4 | 25 | 22.2 | 13 | 18 | 50 | 30 |
| 19/06/2014 | 7 | 4 | 25 | 22.2 | 13 | 18 | 50 | 30 |
| 20/06/2014 | 3 | 4 | 25 | 13.6 | 13 | 18 | 50 | 30 |
| 21/06/2014 | 8 | 4 | 25 | 16.1 | 13 | 18 | 50 | 30 |
| 22/06/2014 | 8 | 4 | 25 | 14.6 | 13 | 18 | 50 | 30 |
| 23/06/2014 | 2 | 4 | 25 | 11.5 | 13 | 18 | 50 | 30 |
| 24/06/2014 | 0 | 4 | 25 | 7.2 | 13 | 18 | 50 | 30 |
| 25/06/2014 | 1 | 4 | 25 | 9 | 13 | 18 | 50 | 30 |
| 26/06/2014 | 1 | 4 | 25 | 13.1 | 13 | 18 | 50 | 30 |
| 27/06/2014 | 1 | 4 | 25 | 13.7 | 13 | 18 | 50 | 30 |
| 28/06/2014 | 0 | 4 | 25 | 10 | 13 | 18 | 50 | 30 |
| 29/06/2014 | 0 | 4 | 25 | 4.5 | 13 | 18 | 50 | 30 |
| 30/06/2014 | 1 | 4 | 25 | 7.1 | 13 | 18 | 50 | 30 |

# Appendix C

***Wind rose at Blackmans Flat information for September 2013 to August 2014***

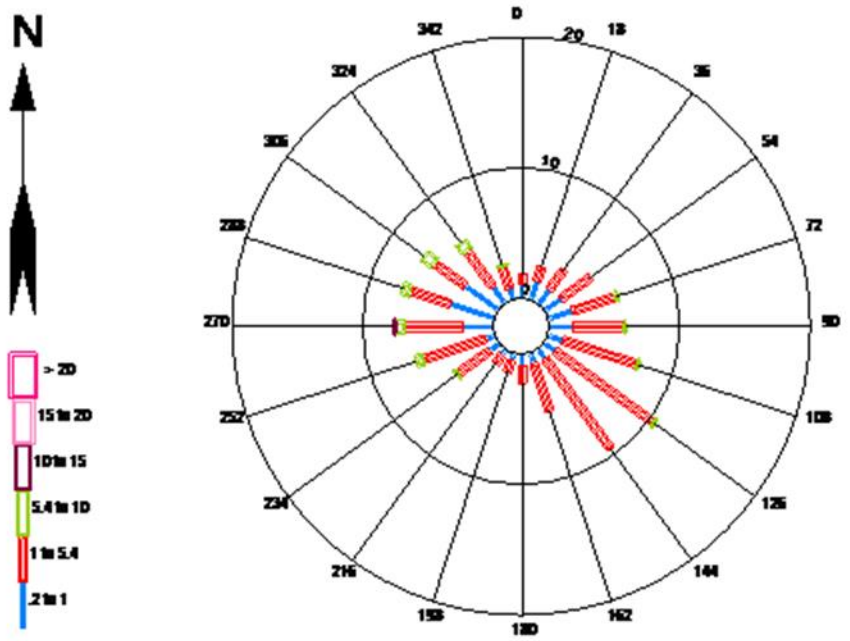


Delta Electricity - Western October 2013
Wind Direction Vector Average: 1.6 m/s
Station: Blackmans Flat

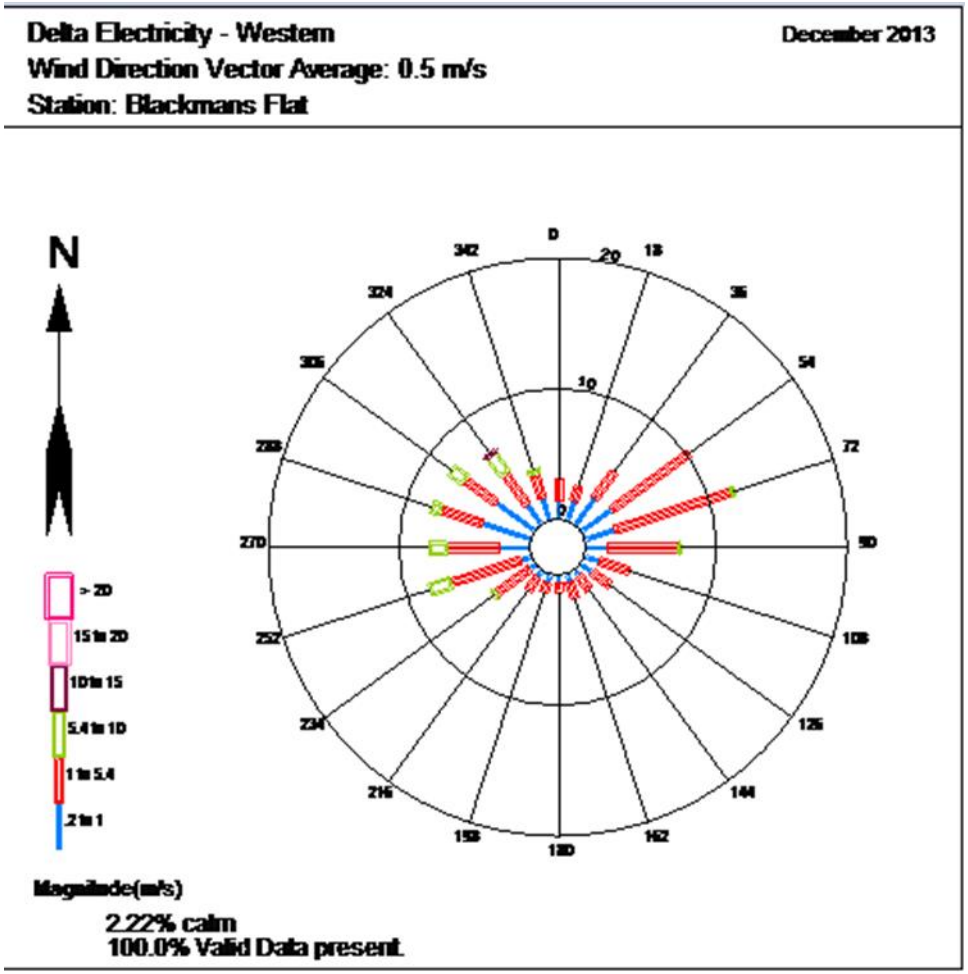


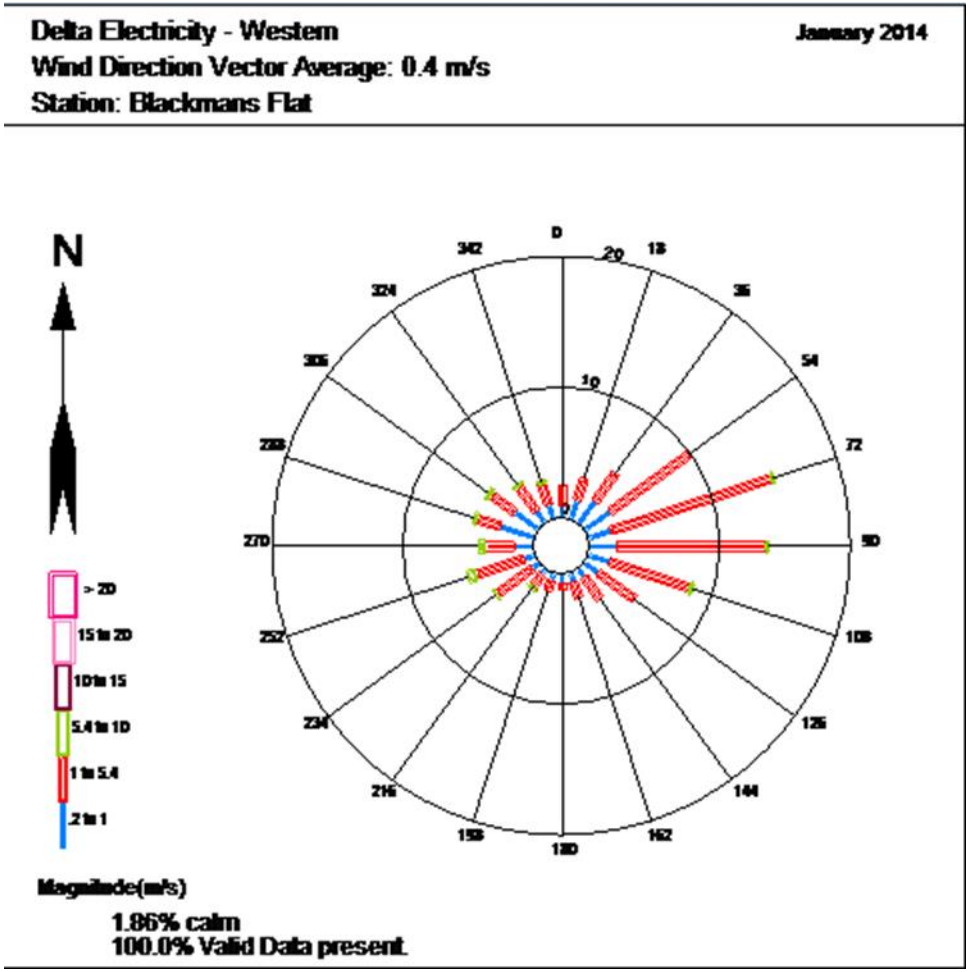

1.73% calm
99.8% Valid Data present.

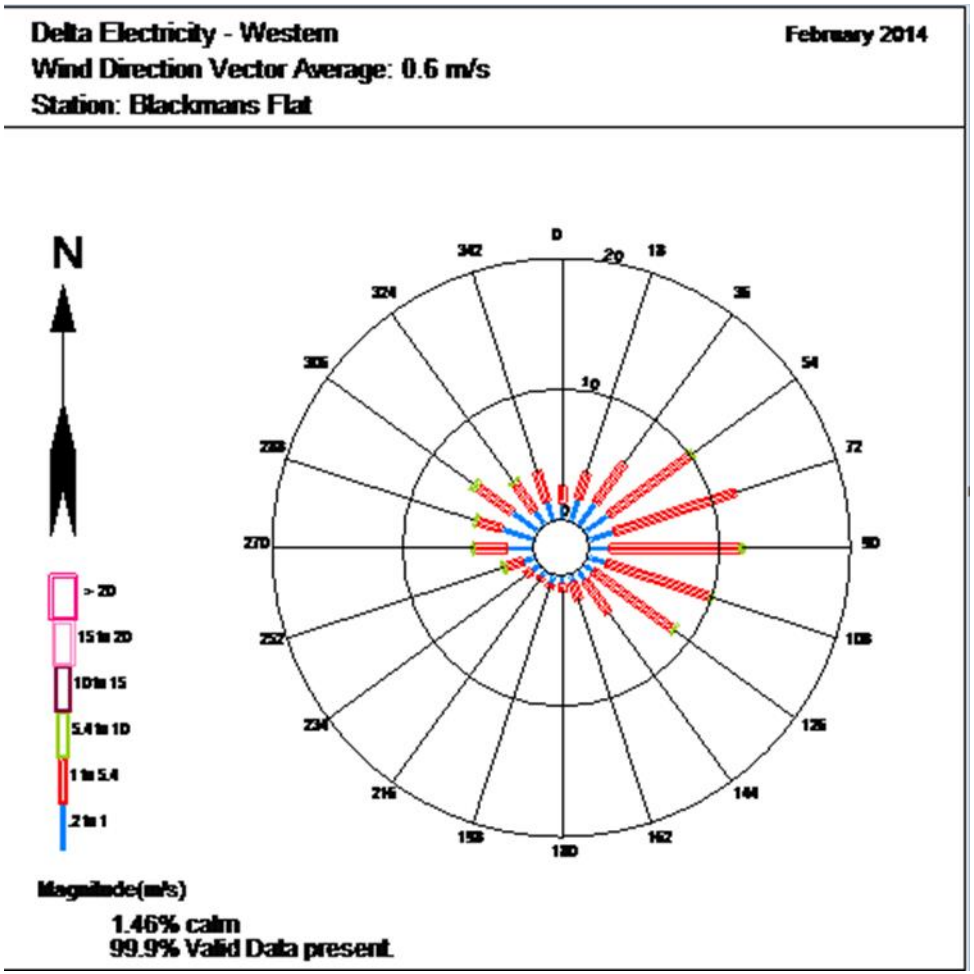
Delta Electricity - Western
November 2013
Wind Direction Vector Average: 0.6 m/s
Station: Blackmans Flat

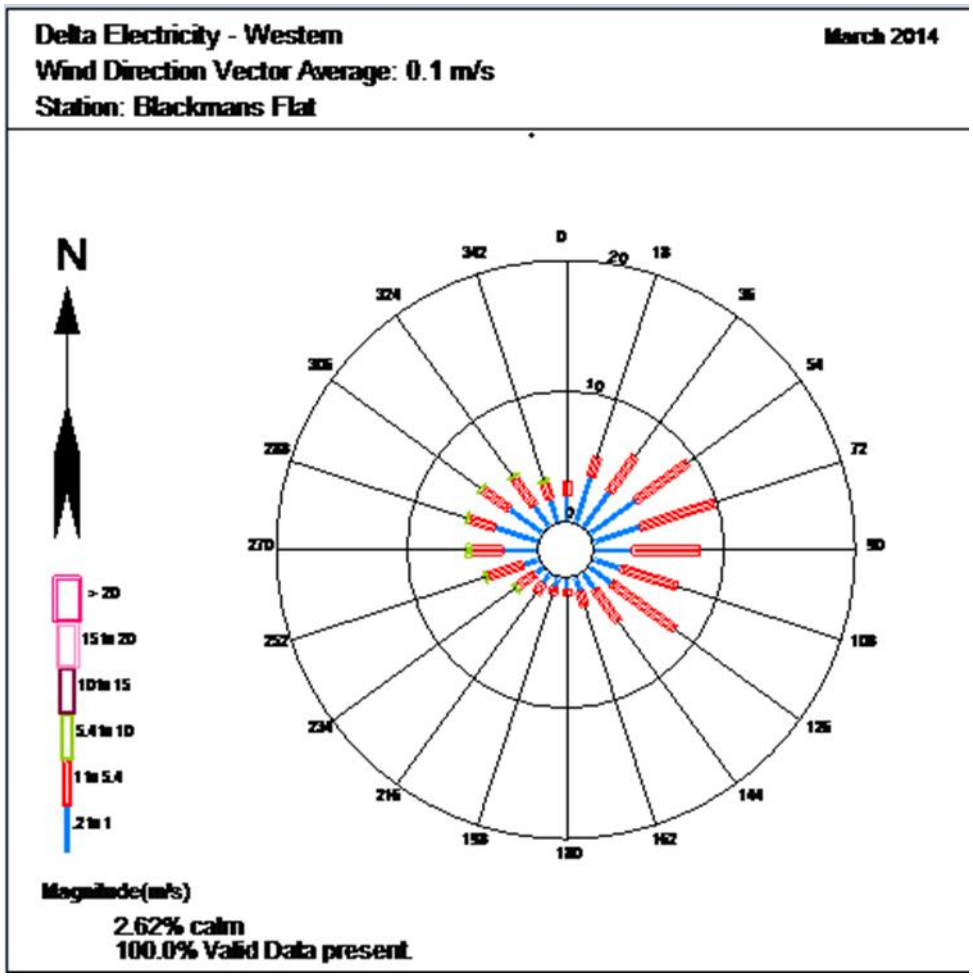


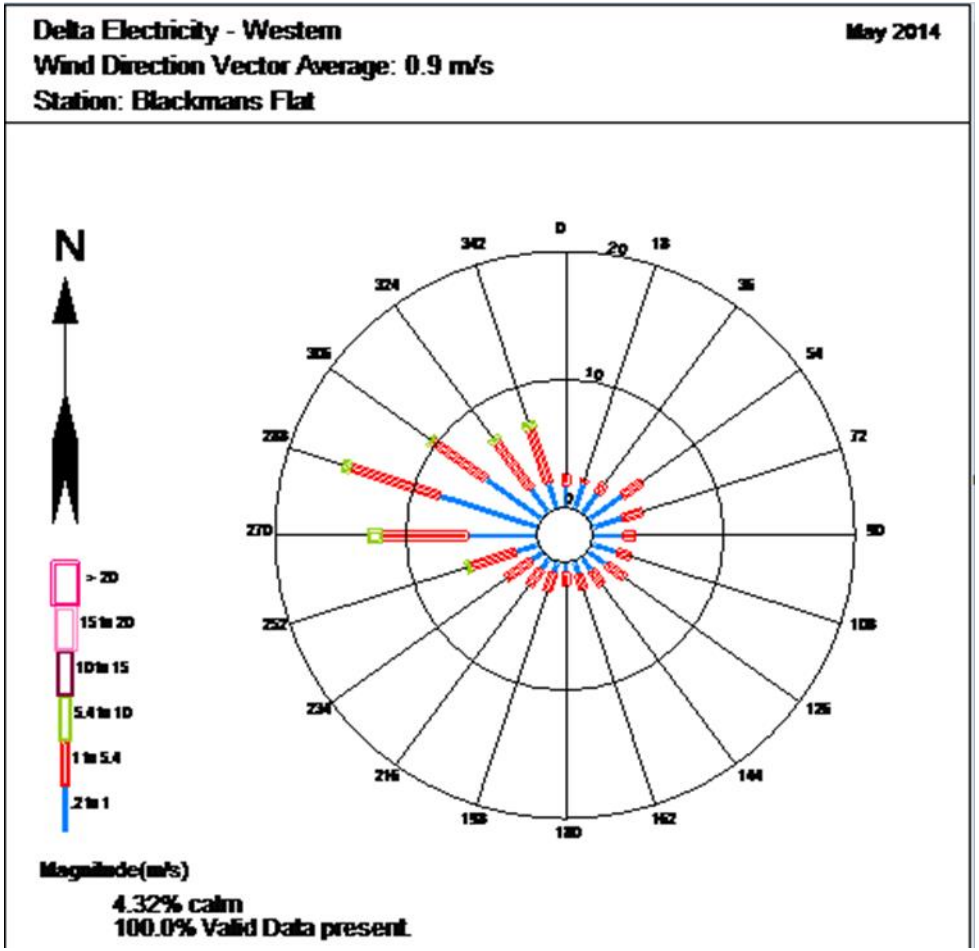

1.44% calm
100.0% Valid Data present.







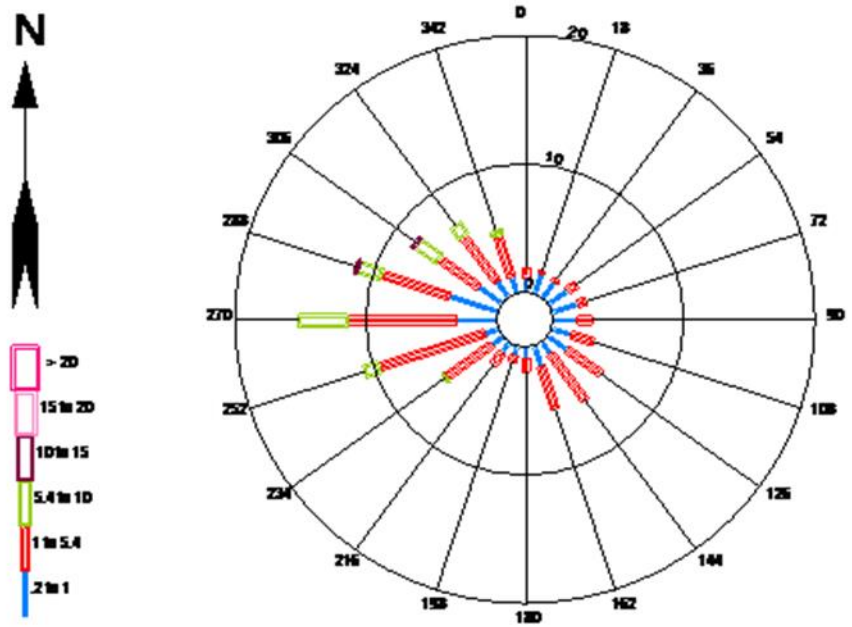




**Delta Electricity - Western** **June 2014**

**Wind Direction Vector Average: 1.4 m/s**

**Station: Blackmans Flat**




**3.15% calm**

**99.9% Valid Data present.**