

## ADELAIDE WIND ENERGY CENTRE

TOWNSHIP OF ADELAIDE-METCALFE, ON

ACOUSTIC AUDIT REPORT - IMMISSION: FALL 2014 AUDIT REPORT

RWDI # 1402594

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### SUBMITTED TO

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## EXECUTIVE SUMMARY

Kerwood Wind, LP retained RWDI to conduct an immission acoustic audit of the Adelaide Wind Energy Centre located in the Township of Adelaide-Metcalf, Ontario. The purpose of this audit is to capture long-term acoustic measurements of the sound level produced by the operation of the wind turbines for comparison with the applicable Ministry of the Environment, Conservation, and Parks (MECP) sound level limits. This audit report is the first of two immission audit reports as required by the Renewable Energy Approval (REA) for the facility.

The Adelaide Wind Energy Centre consists of thirty-seven (37) General Electric (GE) 1.6-100 (1.62 MW) wind turbine generators and one (1) transformer substation in the project switchyard. The project then connects to one of two step-up transformers at the Parkhill Interconnect. The total nameplate capacity of the wind farm is 60 MW.

The facility is required to meet the sound level limits identified in the REA. For an audit scenario, NPC 350: Compliance Protocol for Wind Turbine Noise (Protocol) requires a minimum of 120 operational and 60 ambient one-minute intervals between 4 to 7 m/s integer wind speeds inclusively. A facility is deemed to be in compliance if the resulting turbine sound levels do not exceed the sound level limit at each integer wind speed.

Unattended measurements were conducted at three representative points of reception to assess sound immissions from the wind turbine farm. Weather monitoring instrumentation was co-located with the sound level meters; including wind speed and directions. Precipitation data was collected at a single monitoring location. To achieve the maximum amount of data collection, the fall sampling program started in September and was extended into December (beyond the October-November time period recommended in the REA). The fall measurement program began on September 5, 2014 and ended on December 19, 2014.

The initial I-Audit report, titled “Acoustic Audit Report – Immission: Fall 2014 Audit Report” and dated January 23, 2015, was submitted after completion of the measurement campaign. Comments were received by the MECP on the report. The resubmitted report is titled “Acoustic Audit Report – Immission: Fall 2014 Audit Report” and dated January 25, 2018. This current report addresses all comments received since the original report submission.

Based on the time of the measurement campaign and subsequent analysis of data, this audit is based on the 2011 version of the Protocol.

This report shows that required data intervals were achieved at all monitoring locations. Based on the available data, the facility is in compliance with the sound level limits identified in the REA.



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## VERSION HISTORY

Index	Date	Report Title	Description
1	January 23, 2015	Acoustic Audit Report – Immission: Fall 2014 Audit Report	Initial I-Audit #1 Submission
2	January 25, 2018	Acoustic Audit Report – Immission: Fall 2014 Audit Report	I-Audit #1 Update in Response to MOECC Comments
3	June 26, 2020	Acoustic Audit Report – Immission: Fall 2014 Audit Report	I-Audit #1 Update in Response to MECP Comments and Tonality Analysis

## REPORT SIGNATURES

A handwritten signature in black ink that reads 'Ben Coulson'.

Ben Coulson, P.Eng., B.A.Sc., M.A.Sc.  
Senior Consultant/Principal



# 1 INTRODUCTION

Kerwood Wind, LP retained RWDI to conduct an immission acoustic audit of the Adelaide Wind Energy Centre (Adelaide) located in the Township of Adelaide-Metcalf, Ontario. The purpose of this audit is to capture long-term acoustic measurements of the sound level at nearby receptors produced by the operation of the wind turbines for comparison with the applicable Ministry of the Environment, Conservation, and Parks (MECP) sound level limits. This immission audit is intended to meet the requirements of Part D of the 2011 MOE Publication “Compliance Protocol for Wind Turbine Noise” PIBS# 85402 (Protocol).

The wind turbines and ancillary equipment are located on privately-owned farmland through a legal agreement between the landowner and Kerwood Wind GP, ULC, as general partner for and on behalf of Kerwood Wind, LP. The zoning within the project area and surrounding areas is mainly agricultural. The acoustic environment surrounding the project area is rural and is influenced primarily by Highway 402 and other road traffic, farming activities, and sounds of nature. Zoning information as found in the “Noise Impact Assessment Adelaide Wind Energy Center” report, dated April 2013 and prepared by GL Garrad Hassan (NIA report), is included in Appendix A. A site plan is also provided in Appendix A.

The facility’s Renewable Energy Approval (REA), number 8980-95RSLP, dated August 1, 2013, and four subsequent amendments, are provided in Appendix B. Condition F1 of the REA requires the facility to complete two immission acoustic audits at three locations; one test in the fall (October/November) and one in the spring (March/April). This report represents the I-Audit #1 report, presents the results fall period immission audit test, and addresses comments provided by the MECP after the audit’s completion.

The initial I-Audit report, titled “Acoustic Audit Report – Immission: Fall 2014 Audit Report” and dated January 23, 2015, was submitted after completion of the measurement campaign. Comments were received by the MECP on the report. The resubmitted report is titled “Acoustic Audit Report – Immission: Fall 2014 Audit Report” and dated January 25, 2018. This current report addresses all comments received since the original report submission.

Based on the time of the measurement campaign and subsequent analysis of data, this audit is based on the 2011 version of the Protocol. Herein, Protocol refers to the 2011 edition only, when not specified otherwise.

Unattended measurements were conducted at three representative points of reception to assess sound immissions from the wind turbine farm. The points of reception were selected based on historical weather data for the area and the modelling results provided in the NIA report.

A detailed discussion of the audit procedures and data analysis is provided in the subsequent sections.

# 2 FACILITY DESCRIPTION

The facility is owned by Kerwood Wind GP, ULC, as general partner for and on behalf of Kerwood Wind, LP. The Adelaide wind farm became operational in late August 2014.

The project site is generally bounded by Napperton Drive to the south, Sexton Road to the west, Townsend Line to the north and Centre road to the east, in the Township of Adelaide-Metcalf, Ontario.



The Adelaide wind farm consists of thirty-seven (37) General Electric 1.6-100 wind turbine generators and one (1) transformer substation in the project switchyard. The project then connects to one of two 225 MVA step-up transformers at the Parkhill Interconnect. The total nameplate capacity of the wind farm is 60 MW. All turbines have a hub height of 80 m above local grade.

## 3 INSTRUMENTATION

All instrumentation used for the immission testing followed the requirements set out in the Protocol.

### 3.1 Acoustic Instrumentation

The measurements were conducted using three Brüel & Kjær 2250 Type 1 sound level meters. A list of the acoustic equipment including serial numbers is provided in Appendix C. The 2250 sound level meters are capable of recording both sound level and audio. Each sound monitoring site meets the following requirements:

- Type 1 sound level meter according to the IEC standard 61672-1 Sound Level Meter, Part 1: Specifications;
- Class 1 or Class 2 microphone systems;
- The instrumentation having constant frequency response over at the 20 Hz to 20000Hz frequency range;
- The filters meeting the requirements of IEC 61620 for Class 1 filters; and
- The instrumentation being capable of measuring audio recordings continuously during the measurement campaign, at sampling rate of at least 8000 Hz.

All sound monitoring locations were calibrated both before and after the measurement campaign using a Larson-Davis CAL200 precision acoustic calibrator. The calibrator's accuracy is equal to or better than +/- 0.3 dB and is Class 1 according to IEC 60942 within the temperature range of this measurement program. Manufacturer recommendations typically suggest a re-calibration period of 1-2 years. RWDI policy is to calibrate all components at least every two years, with field calibrators being re-certified annually. As the components were calibrated appropriately at deployment and recovery, there are no concerns on measurement drift.

Calibration certificates for all equipment are provided in Appendix C. The sound level meter used at Receptor C shows a calibration date of April 15, 2013. This meter was rented from Xscala Rentals (Xscala), a reputable vendor of B & K equipment, based in Alberta. To provide the MECP with further comfort that this meter remained in calibration, RWDI intended to have Xscala provide the first calibration certificate for the meter in question immediately following the conclusion of our measurement campaign. However, Xscala could not provide this, as they had replaced the meter. The rental unit was calibrated with an RWDI calibrator and showed no appreciable drift in the rental noise meter. The calibrator is calibrated annually by a third-party provider.

In phone conversation with Xscala, it was noted that their regular calibration schedule for sound level meters is every two years, and for calibrators used in the field is every one year. Additionally, this timeline is established by Alberta noise measurement requirements put forth by the Alberta Utilities Commission (AUC). AUC Rule 12, Section 4.7.2 (2) (c) and (3) both outline a valid calibration period of two years. See Appendix C for a copy of AUC Rule 12. Therefore, to conform with AUC Rule 12 obligations, all Xscala sound level meters are calibrated at authorized



instrument calibration facilities to maintain calibration for at least two years. As a result, RWDI is confident the meter in question (serial number: 2505861) remained in calibration throughout the 2014 calendar year, and therefore throughout the entire period of the measurement campaign.

In addition to the 90mm diameter primary wind screen that is commonly used for long-term monitoring campaigns, a secondary 500mm diameter wind screen was deployed at each location. The secondary wind screen as constructed met recommendations outlined in C3.3.4 of the Protocol (and D2.1.4 of the 2017 Protocol). The secondary wind screen also meets the specifications indicated in IEC 61400-11. Transmission loss was assumed to be negligible at the frequencies important for wind turbine sound (i.e., less than about 0.2 dB below 1000 Hz) based on manufacturer acoustic wind screen data (see attached excerpt from Larson Davis 824 manual in Appendix C). Our prior experience in testing a similar windscreens in reverberation chamber equipped with registered sound source and flow noise gave similar results.

## **3.2 Non-Acoustic Instrumentation**

Each sound level monitoring location was co-located with a meteorological station. The weather station consisted of a Campbell Scientific weather console using a CR200 data logging system and a R.M. Young 05103-10 wind anemometer. Auxiliary measurement instrumentation for temperature, relative humidity, and precipitation was also recorded for the local area. The weather monitoring meets the system requirements as required in the Protocol.

# **4 MEASUREMENT PROCEDURE**

## **4.1 Noise Measurement Location**

The microphones were located at a height of approximately 4.5 metres above local ground representing a 2-storey residence. This height is consistent with dwellings located at the points of reception in this study and the modelled receptor heights identified in the NIA Report.

The microphones were located as close to the dwelling as practically and technically feasible, or in an acoustically equivalent location in accordance with the Protocol, as appropriate. More specifically, the microphones were located more than 5 m away from any large reflecting surface and away from trees or foliage that could affect the measurements. The monitoring positions were also positioned such that any intervening obstacles or terrain did not shield them from line of sight to the wind turbines.

## **4.2 Wind Measurement Location**

The Protocol requires the wind measurement location be in close proximity to the sound measurement location. An anemometer was mounted to the same tower as the microphone at each of the sound measurement locations. A sensor for measuring temperature and relative humidity was located in the near vicinity to the wind farm. The weather measurement location was not shielded by nearby buildings or obstructions. Wind speed and direction measurements were obtained at a height of 10 m. All monitoring locations were configured to record data on one-minute intervals.



## 4.3 Acoustic Measurements

### TURBINES OPERATIONAL

All monitoring locations were configured to log one-minute statistical sound level data. The key statistical data used in the analysis is the A-weighted one-minute energy equivalent sound level (LEQ,1 min in dBA). Audio recordings were also logged on a continual basis for sound identification purposes. Small interruptions in the data set occurred during daytime hours while checks and maintenance were conducted by RWDI personnel. Sound and weather measurement equipment were time synchronized with each other at each measurement location.

Appendix D includes a statement signed by an authorized representative of the Adelaide wind farm confirming that all wind turbines were operating normally for the duration of the valid measured data time periods.

### TURBINES PARKED

Meter configurations were not changed between the turbine operational and turbine parked conditions. The turbines were parked on several different occasions to establish ambient sound levels. During the parked conditions, all nearby influential turbines were stopped so that the measured sound levels at the point of reception were representative of ambient background levels.

Appendix D includes a statement signed by an authorized representative of the Adelaide wind farm confirming that all nearby influential wind turbines were not operational and that there were no modifications to the turbine blades during the audit.

Acoustic measurements during parked conditions were obtained on the following dates during the normal audit time period between the hours of 22:00 and 05:00:

- September 29th to October 12th;
- October 25th/26th;
- November 18th/19th;
- November 19th/20th; and
- November 30th/ December 1st.

An initial shutdown (“outage”) for the entire wind farm occurred between September 29th and October 12th, 2014. Data was collected for the parked conditions during this period.

## 4.4 Non-Acoustic Measurements

All meteorological stations were configured to continuously log the appropriate statistical parameters and output one-minute averaged data or instantaneous data where applicable. The station was configured to log the following data on one-minute intervals:

- average wind speed (m/s);
- maximum wind speed (m/s);
- minimum wind speed (m/s); and
- average wind direction (azimuth degrees).



Average temperature (degrees Celsius), average relative humidity (percentage), and precipitation data were collected at a monitoring station located at an adjacent wind farm (i.e. Bornish) in the local area that was being assessed concurrently. This meteorological data is considered representative of the entire area conditions.

## 4.5 Number of Measurement Intervals

### TURBINES OPERATIONAL

The Protocol requires that no less than 120 one-minute intervals are required to be measured for each integer wind speed for the data set to be considered large enough to conduct the analysis and to be able to assess compliance. Wind speed measurements are rounded to the nearest integer prior to sorting into a representative integer wind speed “bin”.

### TURBINES PARKED

Ambient sound measurements were completed with all applicable turbines parked. The Protocol states that no less than 60 one-minute intervals are required to be measured for each integer wind speed for the data set to be considered large enough to determine the ambient sound level. Wind speed measurements are rounded to the nearest integer prior to “binning”.

## 5 ACOUSTIC AUDIT PROCEDURE

### 5.1 Points of Reception

Condition F1 (2) of the REA requires measurements to be made at three different points of reception that represent the location of the greatest predicted sound levels and that are located in the direction of the prevailing winds. Additionally, the Protocol states that the points of reception should represent worst-case non-participating receptors.

Selected points of reception were identified based on those expected to be most affected by sounds from the operation of the wind farm. The most affected points of reception were determined from the noise contours provided in the NIA report. The numeric values used below for the receptor locations are consistent with the NIA report. These points of reception were further refined to downwind locations that would receive a reasonable frequency of prevailing winds for the current season (i.e., westerly winds). This review resulted in points of reception being ideally positioned in the locations shown in Figure 1.

Ideally monitors should be located at the most impacted non-participating receptors. However, this was not always feasible and alternate locations were selected that are acoustically equivalent and conservative. Based on informal conversations with the MECP we understand that this approach should be acceptable. Further information is provided below on the location of the monitoring locations. Pictures of the monitoring locations, overhead views of their location, their UTM coordinates, and microphone heights are included in Appendix E. The overhead views of the surroundings illustrate that monitors A, B, and C are not located within forested areas and are not shielded from the wind turbines in the direction of the prevailing north-westerly winds.



A rationale summary table and location justification map are included in Appendix E. They show that locations were chosen due to consideration of worst-case parameters such as high wind shear, highest predicted sound levels, and wind direction. Non-participating receptors from the Acoustic Assessment Report were sorted from highest predicted sound level to lowest. Starting at the top of the list, locations were categorized based on surrounding influences, area of wind farm, and direction to prevailing winds. Locations that were not downwind of a nearby turbine for prevailing winds were ruled out. Permissions were then sought for the top ranked receptors in discrete areas of the wind farm. The majority of the top predicted impacts at non-participating receptors are influenced by the Napier Wind Farm project that was not built at the time of this audit. As a result, these receptors were not included as potential monitoring sites.

Location A - monitor is positioned on the lands of a participating receptor directly beside a non participating receptor (R\_119). Non-participating receptor (R\_119) is the top receptor that is not affected by the Napier Wind Farm project and is one of the ideal locations for monitoring. This location is considered acoustically equivalent to being in the yard of R\_119, yet accommodates less interference with landowner activities. The non participating receptor's lot also has several structures and is surrounded by trees which will influence both the ambient sound levels and likely wind speed and direction measurements; which is not ideal for a monitoring position. This location is expected to experience similar sound levels to the non-participating receptor due to its close proximity. Location A is also appropriate for the prevailing winds, which are from the northwest such that the monitor is downwind from a number of nearby turbines.

Location B - monitor is positioned on the lands of a participating receptor in the general vicinity of several non-participating receptors (R\_143, R\_128 and R\_129) and vacant lots (V\_103, V\_149 and V162). The non-participating and vacant lot receptors fall within the 10 top highest predicted values when the proposed Napier Wind Farm impacts are removed. The monitor is located within a cluster of lots and fully exposed to the closest turbines which are located to the north and is partially shielded from traffic to the south along Mullifarry Drive. Location B is expected to experience conservative sound levels (i.e., closer to 40 dBA contour) than the actual receptors in the area. The monitor is also downwind from the turbines as the prevailing winds are from the northwest.

Location C - monitor is positioned on the lands of a participating vacant lot receptor (PV\_457) adjacent to a non-participating vacant lot receptor (V\_329). Other non-participating and vacant receptors surround Turbines 1-4, but are generally not in the prevailing wind direction or easily accessible.

## **5.2 Time of Measurements**

The REA requires immission acoustic audit measurements be completed on two separate occasions within a period of twelve months during the lowest annual ambient sound levels. The stated preferred times in the REA are:

1. October and November; and
2. March and April.

This report is the first of two immission audit reports. Sound level measurements at Monitor A started on September 5th, 2014 and on October 10th, 2014 for Monitors B, and C. The delay in setup for Monitors B and C were due to delays in obtaining landowner permissions.



The fall measurement program ended on December 19, 2014 for all monitoring locations. Although the monitoring program was extended into December; no useful data was collected in the later portion of the program. As of the program end date, the required data was completed for all stations, with the exception of the 7 m/s wind speed bin at Receptor B during turbine operational conditions only.

## 6 DATA PROCESSING

### 6.1 Data Reduction and Filtering

The measurement data must be filtered in accordance with the Protocol. Filters including wind direction and individual events were applied to the measurement data as required by the REA and suggested in the Protocol, respectively. The following filters were applied to the measured data and only the data that satisfied all four conditions were used in the subsequent analysis:

1. Measurements between 22:00 and 05:00;
2. No rainfall within the hour of the measurement interval;
3. The maximum and minimum wind speed during the interval did not differ from the average by more than 2 m/s, also known as a gust filter; and
4. Removal of notable extraneous high level events (e.g., wind over microphone, traffic pass-bys, human activities, etc.).

The Protocol did not specify that only downwind data could be considered in the analysis. This approach was however followed except for the 7 m/s wind speed bin for Monitor B during turbine operational conditions. The removal of the downwind constraint was required to capture additional data points for the 7 m/s wind speed bin.

Conditions during the measurement period are presented in Appendix F.

#### ILLUSTRATION OF DATA REDUCTION PROCEDURE

Figures G1-G4 in Appendix G illustrate the trends of the included and excluded data for Monitor A. The other measurement locations, not presented in the attached figures, exhibit similar trends to Monitor A so were not included for the sake of brevity.

All figures show only nighttime data. Figures G1 and G3 show only whether the data was valid or excluded, for operational and parked data, respectively, while figures G2 and G4 show specifically why each set of points were excluded, for operational and parked data, respectively.

Examination of Figure G1 and G3 shows the large amount of data filtered out due to Protocol restrictions. Examination of Figures G2 and G4 shows the extent to which each individual filter affected the filtering of the data. Data was excluded due to wind angle when the monitor was not downwind of the turbine. Data was excluded due to listening when extraneous noise sources could be heard for the related audio file. Exclusions for 'other' events include removal of data for various anomalies, such as a momentary malfunction in angle sensor data. These figures illustrate how effective data collection is affected by the application of various filters, thus requiring measurement campaigns to run longer than a 6-week period.





## 6.2 Effects of Insects and Fauna

The audio recordings were reviewed for sounds from insects and fauna. Sounds of crickets were audible at the beginning of the sampling program and this data was subsequently removed from the study.

## 6.3 Data Analysis

Following the guidance of the Protocol, the “binning method” is used to analyze one-minute sound level data. All sound level data that correlates to wind speeds between 4 to 7 m/s need to be grouped into integer wind speed bins. Data within each bin is +/- 0.5 m/s of the specified integer wind speed. Data within these bins are subsequently filtered and used for further analysis as detailed in Section 6.4.

## 6.4 Determination of Turbine Sound Level

As described in the Protocol, the measured data obtained for both the total sound (turbines operational) and ambient sound (turbines parked) are first reduced and filtered as described in Section 6.1. The binned data are then averaged. The resulting sound levels generated by the turbines only are the logarithmic subtraction of the average measured total sound minus the average measured ambient sound at each wind speed bin. The resulting valid data is plotted in Figures 2 through 4 for Monitors A, B, and C, respectively. Each graph is a plot of valid sound level data versus wind speed measured at the co-located weather station. Each plot shows the measured total sound, the measured ambient sound, and the resulting turbine-only sound levels. Wind rose plots for each point of reception are presented in Figures 5 through 7. Valid data for each point of reception can be found in Appendix H Tables H1 through H3 for measured total sound and Tables H4 through H6 for measured ambient sound. A summary of the applicable sound levels based on the valid data is provided in Tables 1 through 3.

## 6.5 Data Trends

### HIGH AMBIENT LEVELS

Analysis of data at all three stations yielded ambient level results that might be considered high. With reference to Tables 1 through 3, this was especially the case at Monitor B, where the minimum level at any wind bin was 46 dBA and at across all stations at 7 m/s wind bins, where the minimum level was 45 dBA and the maximum level was 49 dBA. These levels are higher than what might be expected based on Figure 1 of the MECP “Noise Guidelines for Wind Farms”, October 2008. An explanation for this trend is provided below.

In a 2010 case study conducted by Lightstone et al (see Appendix I), a review of measured sound levels in an ambient environment was conducted. These results found that ambient sound levels (i.e., made pre-construction in the absence of any turbines) were consistently 5-7 dB higher than the reference curve included in Figure 1 of the “Noise Guidelines for Wind Farms”, October 2008. That result is also consistent with work conducted by members of RWDI staff in 2009. Figure 7 of the Lightstone paper shows that ambient values over 50 dBA are common at 6 m/s and increase further at 7 m/s; these are for 1-hour values, so shorter averaging times (e.g., 1-minute) would be expected to show even more variability from minimum to maximum sound level. When accounting for offsets of 5-7 dB, the ambient measurements are within expectations for typical ambient conditions and are consistent with the values in the Lightstone paper. Hence, we believe the datasets reported remain relevant and valid.



Further, variability in ambient data has been observed in all of the measurement campaigns RWDI has conducted. Such variability stems from seasonal conditions (i.e., changes in crop coverage or foliage, stronger winds in different months), changes in development activity in the area (e.g., increased traffic, new homes, different crop placements or local buildings), as well as natural variability based on unpredictability of the wind environment.

Wind gusts are a source of the wide range in ambient sound levels. Gusts can occur in disparate areas around a monitoring site over distances of 30-40 m which may register differently at an anemometer, yet sound levels are recorded from the entire area. For example, consider a patch of vegetation that is different from the rest of a farm field that is 40m from a monitor. A wind gust could excite this vegetation at 40m away, but no change in wind speed may be experienced at the monitor anemometer (i.e., the gust is local to the vegetation). The microphone at the monitor will register the higher sound level but the wind speed at the monitor would be lower as it did not measure the gust. This discrepancy arises because the microphone inherently measures sound in an area, whereas the anemometer measures wind speed at a point in space.

Graphs of sound level versus time for the Fall 2014 Adelaide campaign are provided in Figures I1 through I3 for Monitors A through C, respectively. The graphs each display two panels. The top panels provide the LAF10, LAF90, and LAeq values for all collected data. The periods for which valid ambient data was collected are marked along the horizontal axis in each figure. The bottom panels provide the wind speed average and wind speed direction plotted using two separate vertical axes. Each vertical gridline represents midnight, meaning that the space between each vertical gridline represents 24 hours of data.

Across all graphs, L90 is representative of background sound levels, while L10 is representative of extraneous events. The sound level generally tracks with wind speed; it climbs to higher levels whenever the wind is stronger and falls to lower levels whenever wind speed weakens. The L90, LAeq, and L10 are closer together with lower wind speeds, but are moved further apart as wind speeds increase. During nighttime periods, extraneous events are not as frequent – as might be expected due to lower volume of drivers on the roads – resulting in L90, LAeq, and L10 values that are quite close together. Observing those periods where valid ambient data was collected, this pattern of similar L90 and LAeq values remains, implying that during these periods, the LAeq values were mainly measurements of the natural ambient levels, and were not contaminated by extraneous sources. Additionally, many of the LAeq values during these periods fall above 40 dBA, thus highlighting that high background sound levels are likely a natural feature of the environment at the Adelaide Wind Energy Centre.

There is one difference between the Adelaide Monitors A, B, and C. Due to the differing proximities of each of the monitors to roads with large vehicle traffic volumes, the number of extraneous sources due to vehicle pass-bys is different at each monitor. Comparing the sound levels at Monitor A to those at Monitor B, there are a greater number of higher values – along with high L10 values – at Monitor A. This is because Monitor A is located immediately beside Mullifarry Drive, while Monitor B is situated near Mullifarry Drive, but approximately 140 metres away in a field with direct line-of-sight blocked by houses and trees along the road. Comparing Monitors B and C, there are more instances of vehicle pass-bys at Monitor B – along with high L10 values – despite the fact that Monitor C is located immediately beside Seed Road. This is due to the low traffic volume along Seed Road in comparison to Mullifarry Drive. The greater proximity of Monitor B to Highway 402 in comparison with Monitor C may also play a part.



### HIGH LEQ VALUES

Several measurements were recorded at various wind speeds at levels higher than 80 dBA. These measurements were not included as valid and were not part of the calculation of results. They were caused by charge injection calibration (CIC) that the sound level meters use during monitoring.

## 6.6 Tonal Assessment

The tonality assessment was completed using the active tone assessment standard at the time, CAN-CSA-61400-11-07, which was an adoption of the IEC-61400-11-06 standard (Standard).

### EXPLANATION OF NUMBER OF DATA POINTS EMPLOYED IN ANALYSIS

Section 8.5.1 of the Standard requires two one-minute measurements for each wind bin for data while the turbines are operational. Additionally, section 8.5.5 stipulates two one-minute measurements of ambient sound while the turbines are parked. However, the acting Protocol required, per section D3.8.3, that at least five one-minute intervals are used. Consequently, five one-minute intervals were used for each wind bin for operational data.

### EXPLANATION OF DIVISION OF DATA AND FREQUENCY RESOLUTION EMPLOYED IN ANALYSIS

Section 8.5.1 of the Standard requires, shown in Table 2 of 8.5.1 of the Standard, that the frequency resolution of calculated FFT spectra from the one-minute data be between 2 – 5 Hz at frequencies less than 2000 Hz, and 2 – 12.5 Hz at frequencies between 2000 – 5000 Hz. Additionally, section D3.5.1 of the Protocol required that all audio samples be recorded with a sampling rate of at least 8000 Hz.

To satisfy Protocol requirements, RWDI used a sampling rate of 8000 Hz for audio file collection. Due to aliasing concerns, this results in a maximum resolvable frequency of 4000 Hz. As a result, all operational and parked FFT data provided by RWDI show only the frequencies from 0 – 4000 Hz.

As per 8.5.1 of the Standard, each one-minute measurement was divided into ten-second parts. This yielded a total of 30 (5 one-minute \* 6 parts/minute = 30) FFTs for each wind bin. To satisfy the Standard requirements, RWDI used a frequency resolution of 4 Hz for FFT calculations.

Hereafter, 'set' refers to a collection of values at each frequency. Each FFT was analyzed and a set of tonality values was produced for each FFT. As there are 30 FFTs analyzed in each wind bins, 30 tonality value sets are generated for each wind bin. These 30 sets are then used to calculate the set of tonal audibility values for each wind bin. There are 24 wind bins analyzed for Adelaide (4 wind bins \* 3 stations \* 2 measurement campaigns = 24 analyses), so there are 24 sets of tonal audibility values produced.

### EXPLANATION OF REPORTABLE TONES

Per 8.5.8 of the Standard, all final tonal audibility sets are checked against a value of -3.0 dB. If exceeding this value, they must be reported. However, the Standard does not comment on applicable penalties for tonal audibility values. The Protocol refers to ISO 1996-2:2007 for penalties, where a 4 dB tonal audibility threshold for penalties is established. Only above this value are tones deemed sufficiently significant to trigger application of penalties.

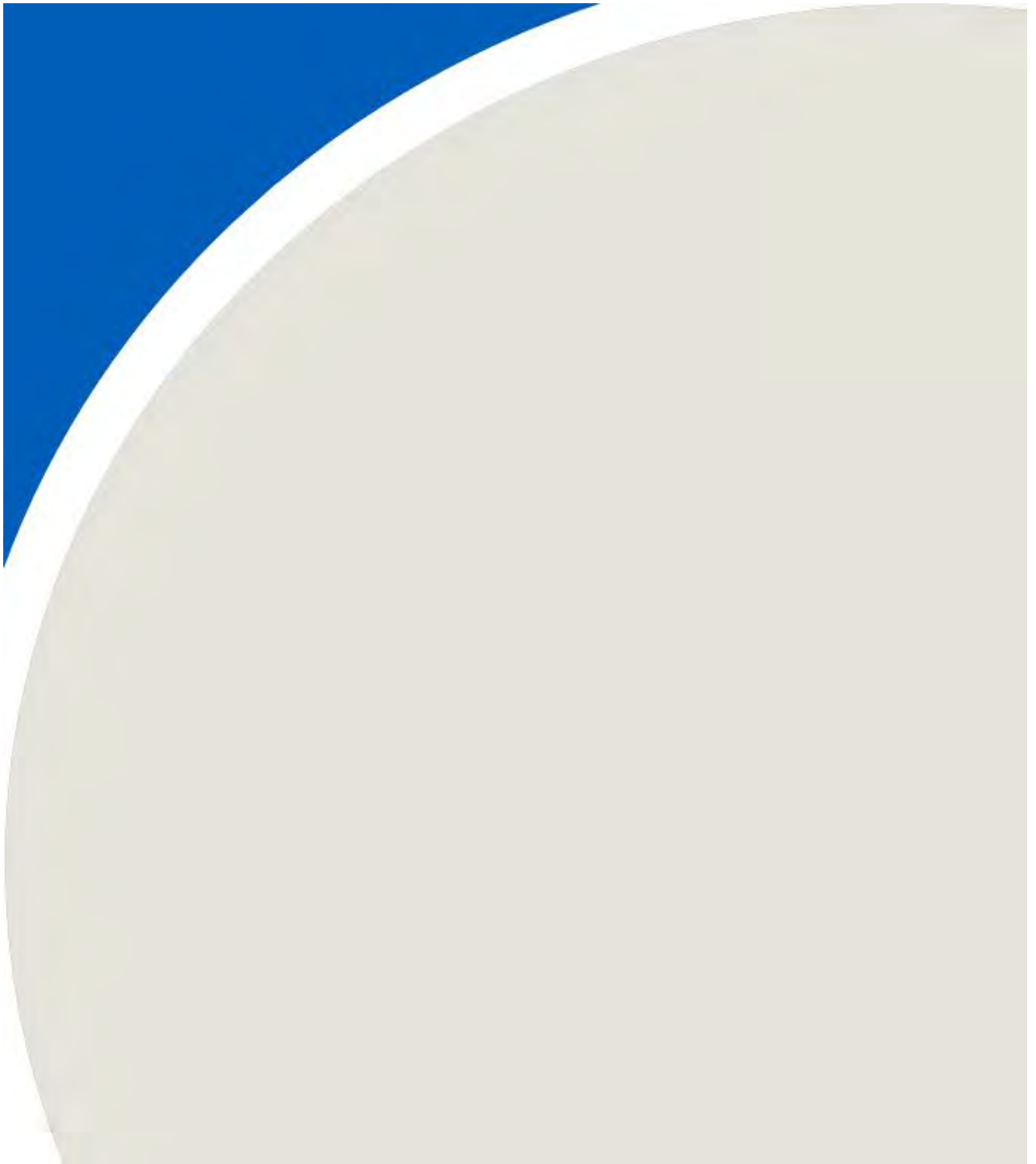


A summary of the results of the tonality analysis is presented in Appendix J. There are no tonal audibility values exceeding the 4 dB threshold found in any of the wind bins; hence no tonality adjustments were applied to the results.

## **7 ASSESSMENT OF COMPLIANCE**

The facility is required to meet the sound level limits identified in the REA. For an audit scenario, the Protocol requires a minimum of 120 operational and 60 ambient one-minute intervals between 4 to 7 m/s integer wind speeds inclusively. A facility is deemed to be in compliance if the resulting turbine sound levels do not exceed the sound level limit at each integer wind speed. The required data intervals were achieved at all monitoring locations. Based on the available data, the facility is in compliance with the sound level limits identified in the REA.

## TABLES



**Table 1 - Summary of Sound Levels - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Wind Speed	Average L <sub>EQ</sub> for Total Sound Condition	Total # of Valid Intervals for Total Sound	Standard Deviation of Valid Intervals for Total Sound	Average L <sub>EQ</sub> for Ambient Sound Condition	Total # of Valid Intervals for Ambient Sound Condition	Standard Deviation of Valid Intervals for Ambient Sound Condition	Turbine Only Sound Levels	REA Sound Level Limits	Over REA Limits?
(m/s)	(dBA)		(dBA)	(dBA)		(dBA)	(dBA)	(dBA)	(dBA)
4	44	2021	3	42	561	2	40	40	No
5	45	950	3	43	373	2	40	40	No
6	45	349	2	44	312	2	40	40	No
7	47	180	2	45	86	2	43	43	No

**Table 2 - Summary of Sound Levels - Monitor B - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Wind Speed	Average L <sub>EQ</sub> for Total Sound Condition	Total # of Valid Intervals for Total Sound	Standard Deviation of Valid Intervals for Total Sound	Average L <sub>EQ</sub> for Ambient Sound Condition	Total # of Valid Intervals for Ambient Sound Condition	Standard Deviation of Valid Intervals for Ambient Sound Condition	Turbine Only Sound Levels	REA Sound Level Limits	Over REA Limits?
(m/s)	(dBA)		(dBA)	(dBA)		(dBA)	(dBA)	(dBA)	(dBA)
4	45	503	3	46	69	3	35 <sup>[1]</sup>	40	No
5	46	284	3	46	131	2	36 <sup>[1]</sup>	40	No
6	47	151	3	46	94	2	38	40	No
7	49	178	3	48	161	2	43	43	No

**Notes:**

[1] Where the ambient condition is greater than the total sound condition, the turbine only sound levels are estimated to be 10 dB lower than the total sound condition.

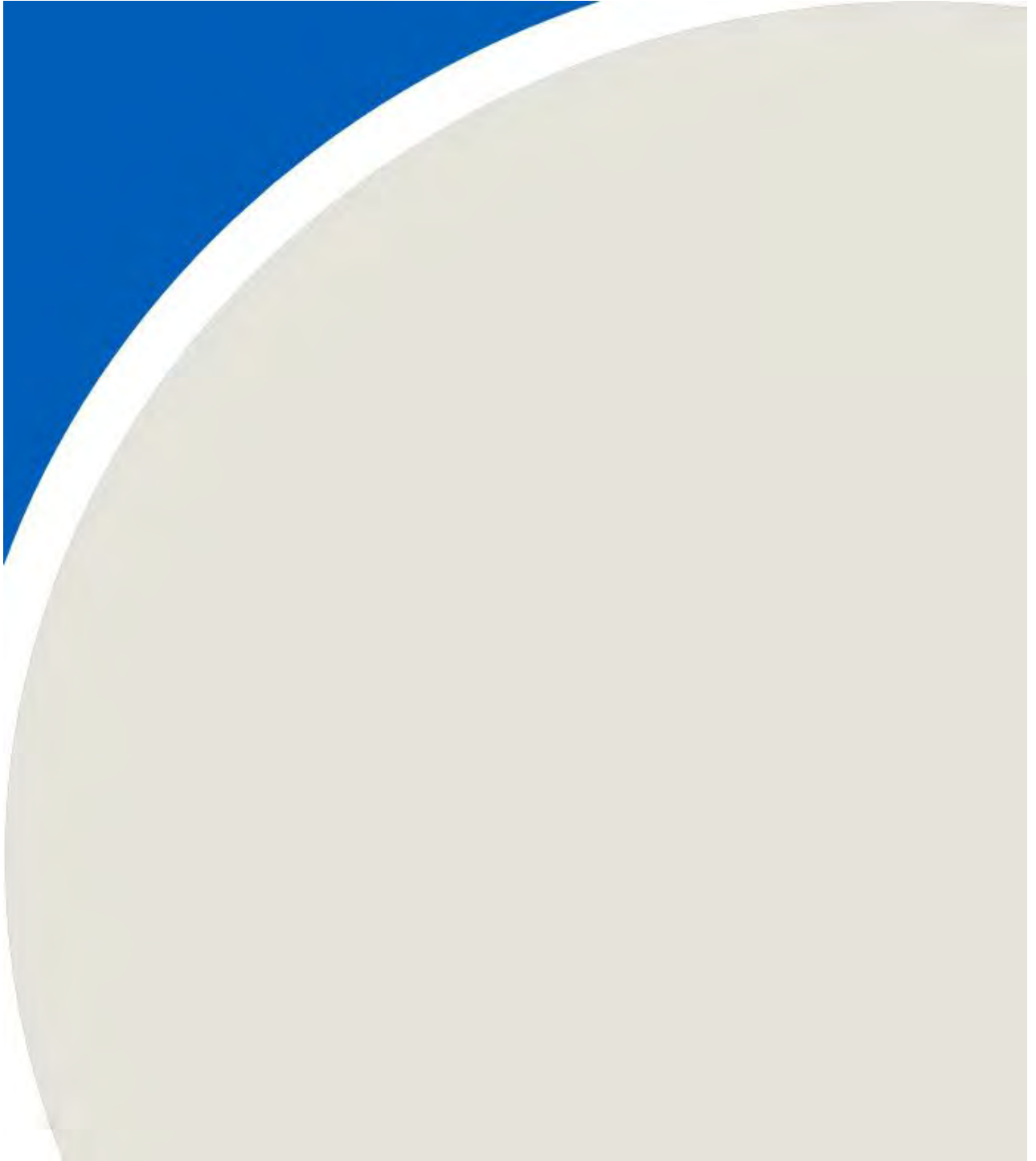
**Table 3 - Summary of Sound Levels - Monitor C - Fall 2014**

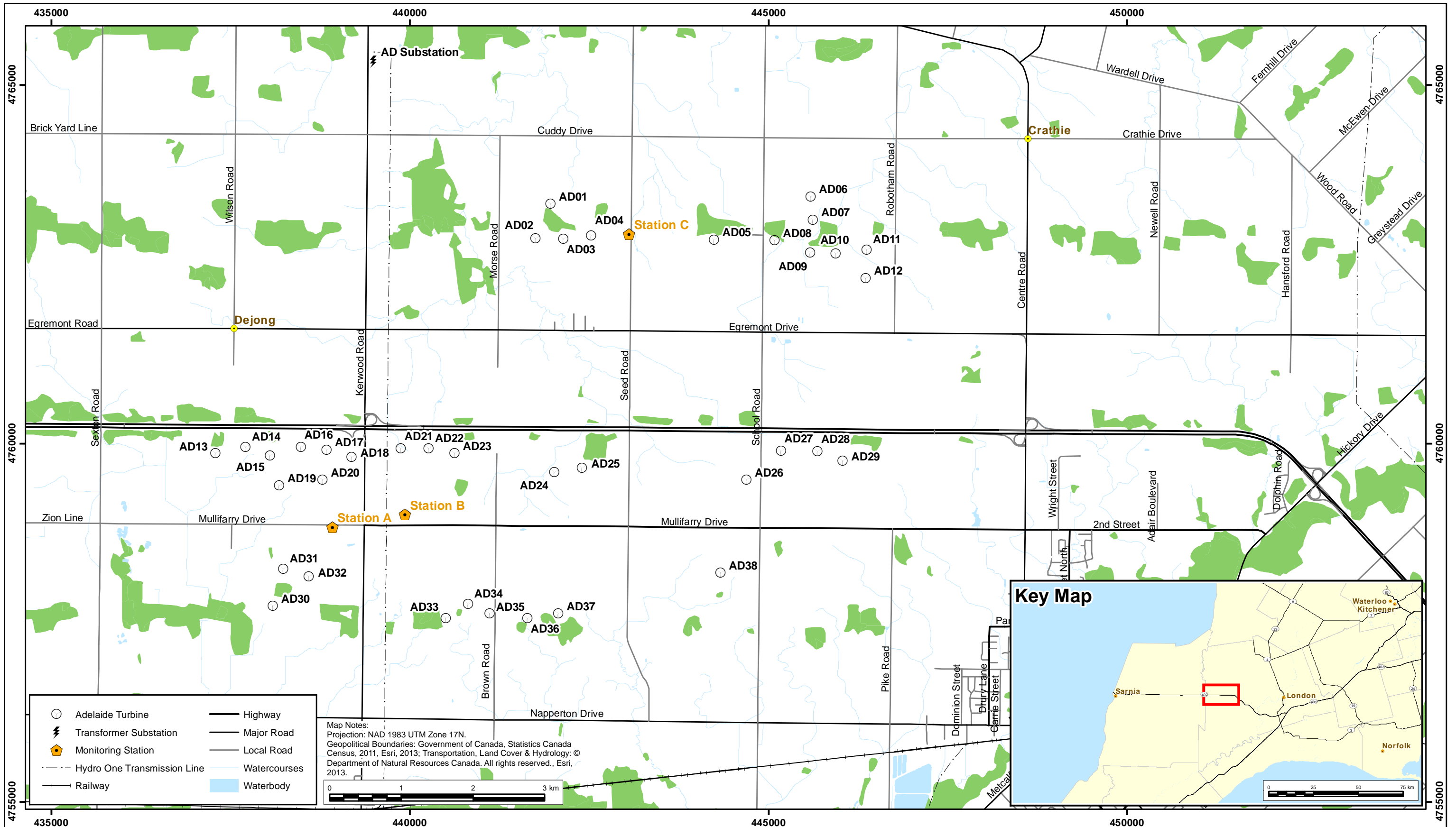
Adelaide Wind Farm - Fall 2014 Audit, 1402594

Wind Speed	Average L <sub>EQ</sub> for Total Sound Condition	Total # of Valid Intervals for Total Sound	Standard Deviation of Valid Intervals for Total Sound	Average L <sub>EQ</sub> for Ambient Sound Condition	Total # of Valid Intervals for Ambient Sound Condition	Standard Deviation of Valid Intervals for Ambient Sound Condition	Turbine Only Sound Levels	REA Sound Level Limits	Over REA Limits?
(m/s)	(dBA)		(dBA)	(dBA)		(dBA)	(dBA)	(dBA)	(dBA)
4	40	889	3	40	74	1	32	40	No
5	43	777	3	43	141	3	32	40	No
6	47	419	3	46	208	3	35	40	No
7	50	150	4	49	194	3	43	43	No



## FIGURES





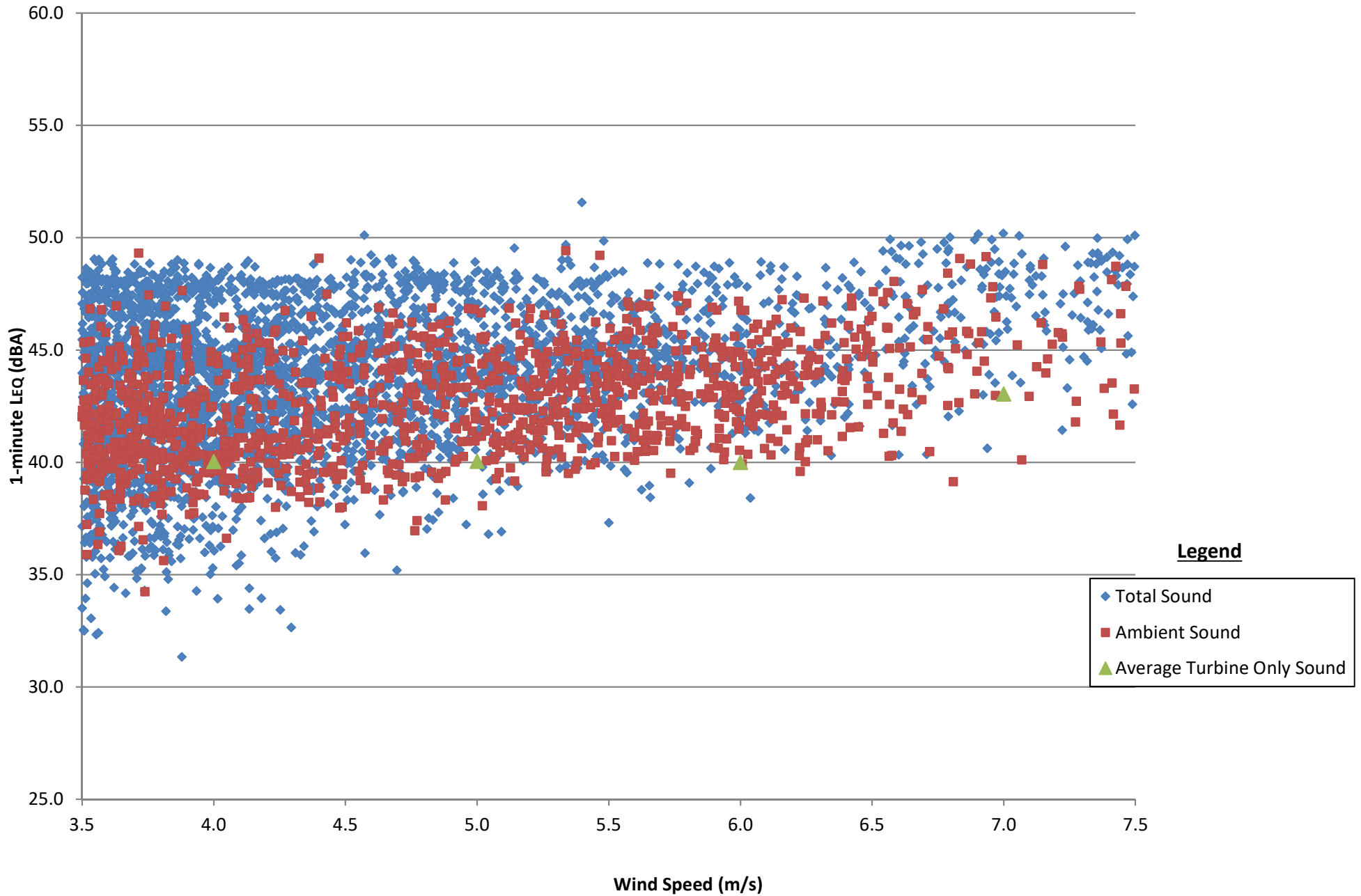
Adelaide Wind Farm - Noise Monitoring Locations



Drawn by: CAM Figure: 1  
 Approx. Scale: 1:50,000  
 Date Revised: Jan.22, 2015



# Figure 2 - Valid $L_{EQ}$ Data - Monitor A - Fall 2014



**Valid  $L_{EQ}$  Data – Monitor A**

Drawn by: ELS

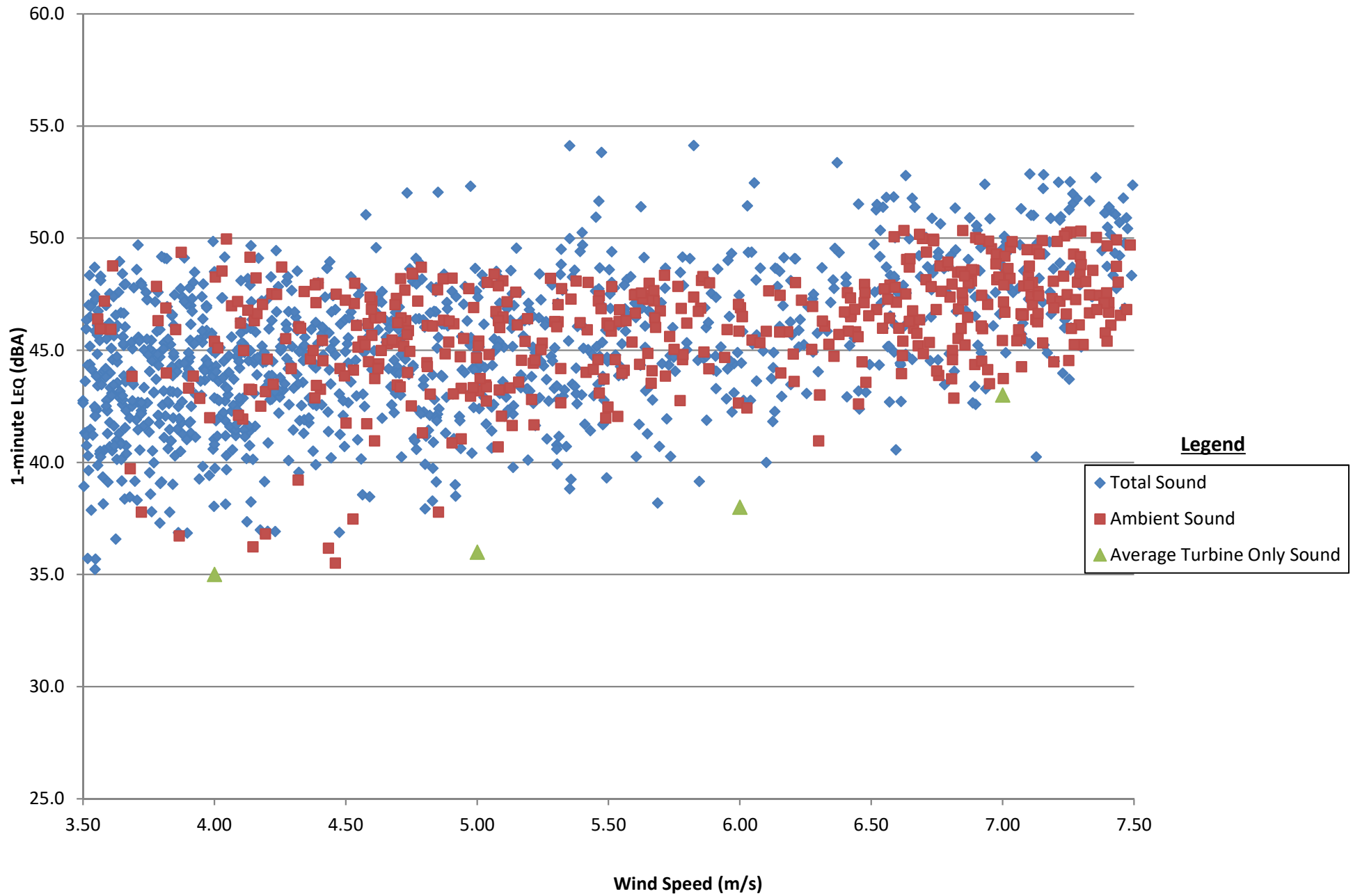
Figure: 2

Date Revised: Jan 9, 2015

Adelaide Wind Farm, Township of Adelaide-Metcalfe, Ontario Project #1402594



### Figure 3 - Valid $L_{EQ}$ Data - Monitor B - Fall 2014



**Valid  $L_{EQ}$  Data – Monitor B**

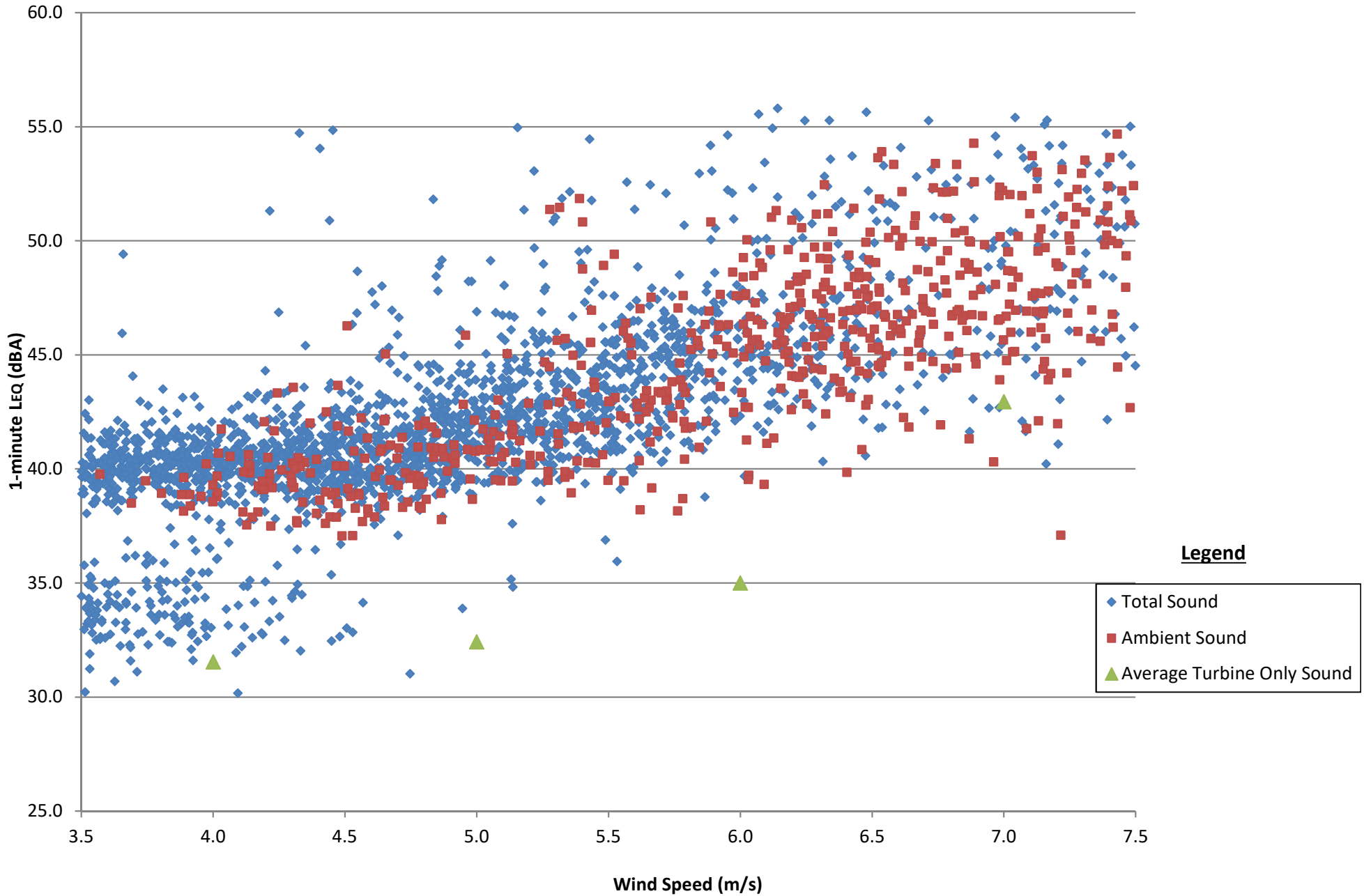
Drawn by: KAMH | Figure: 3

Date Revised: Oct 5, 2017

Adelaide Wind Farm, Township of Adelaide-Metcalfe, Ontario | Project #1402594



# Figure 4 - Valid $L_{EQ}$ Data - Monitor C - Fall 2014



**Valid  $L_{EQ}$  Data – Monitor**

Adelaide Wind Farm, Township Adelaide-Metcalf, Ontario

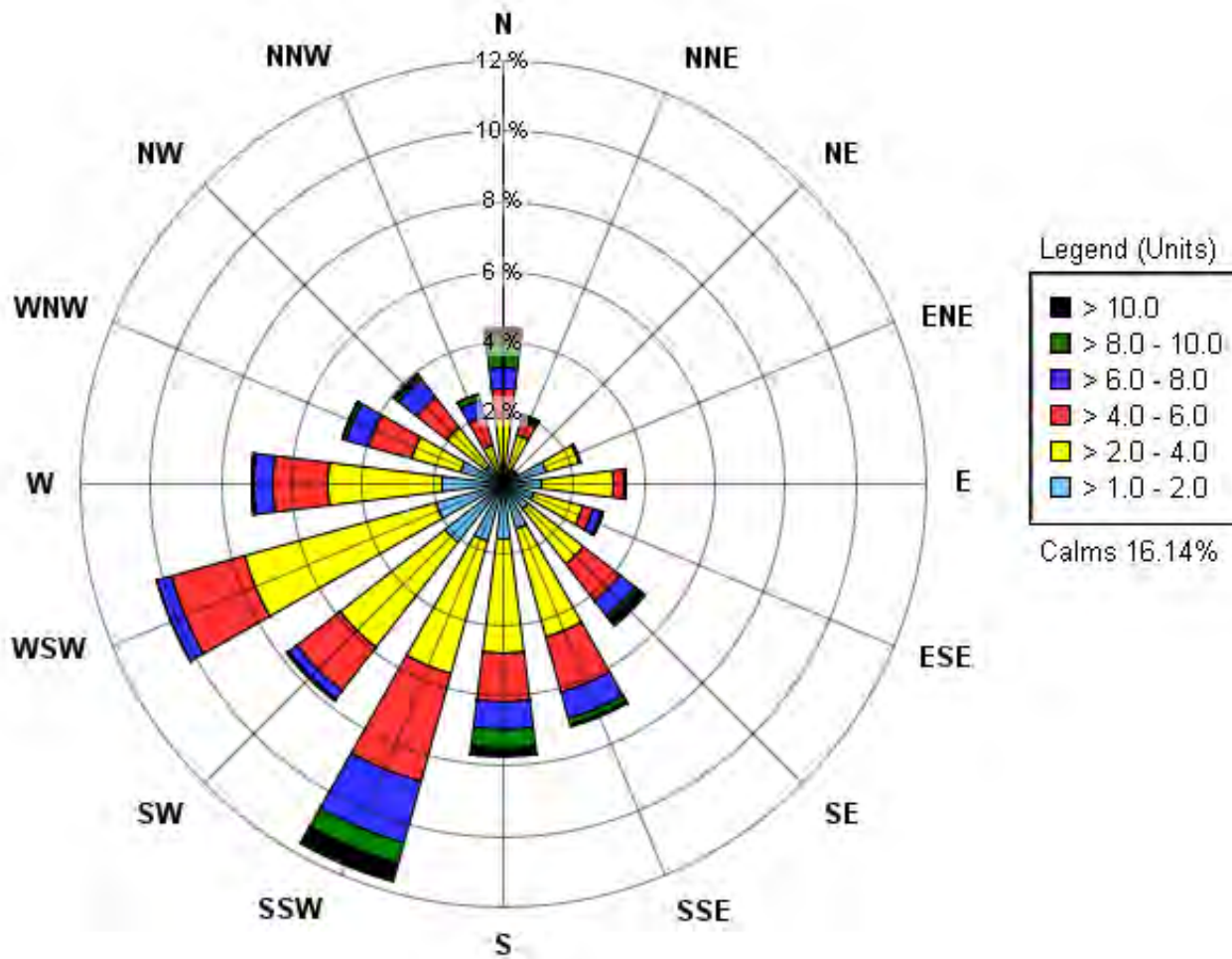
Project #1402594

Drawn by: ELS

Figure: 4

Date Revised: Jan 9, 2015





**Wind Rose Plot – Operational Data – Monitor A Fall 2014**  
 September 5 to December 2, 2014

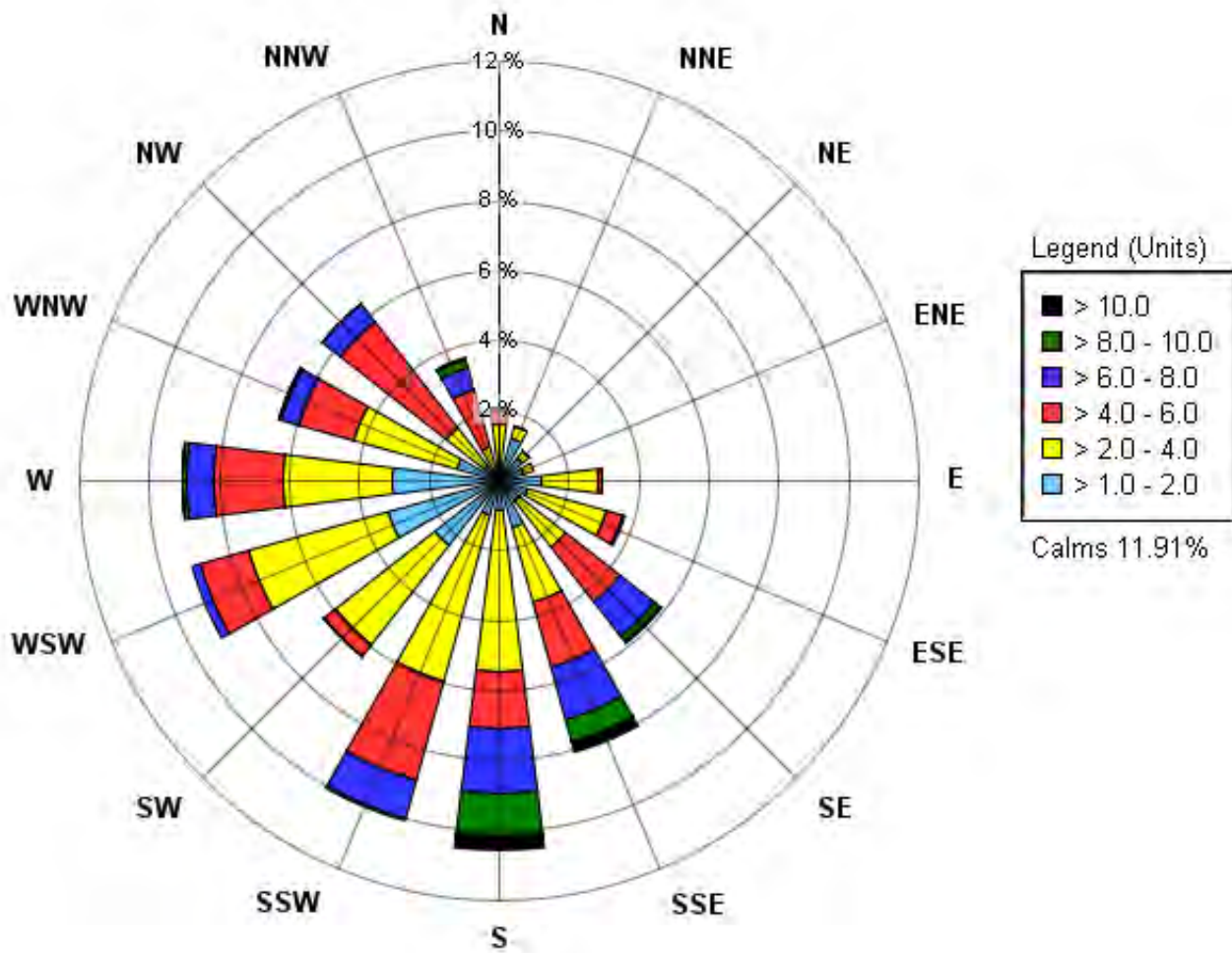
Drawn by: ACCL

Figure: 5a

Date: November 29, 2019





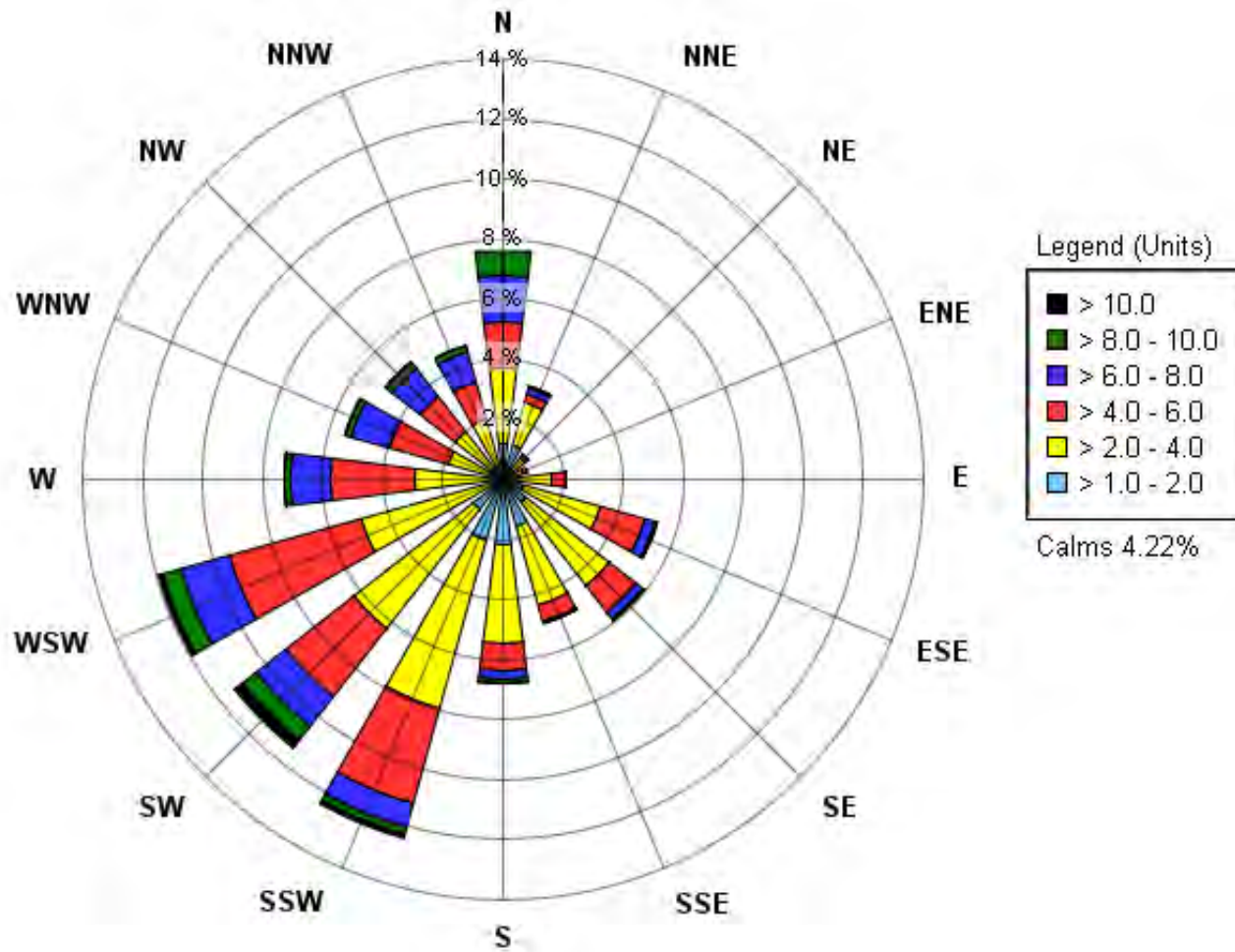


**Wind Rose Plot – Parked Data – Monitor A Fall 2014**  
 September 5 to December 2, 2014

Drawn by: LRC      Figure: 5b

Date: November 29, 2019





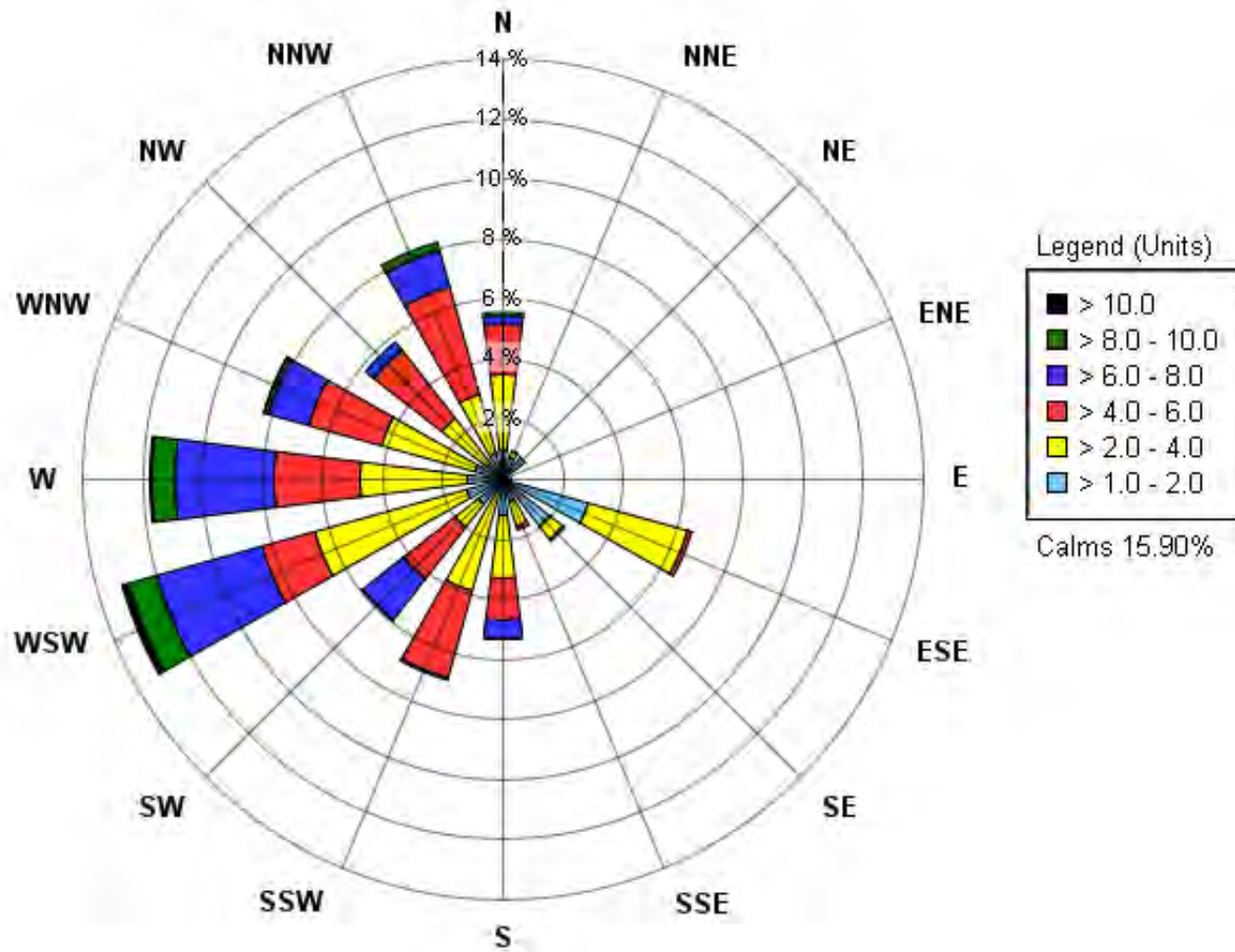
**Wind Rose Plot – Operational Data – Monitor B Fall 2014**  
 October 8 to December 8, 2014

Drawn by: LRC      Figure: 6a

Date: November 29, 2019





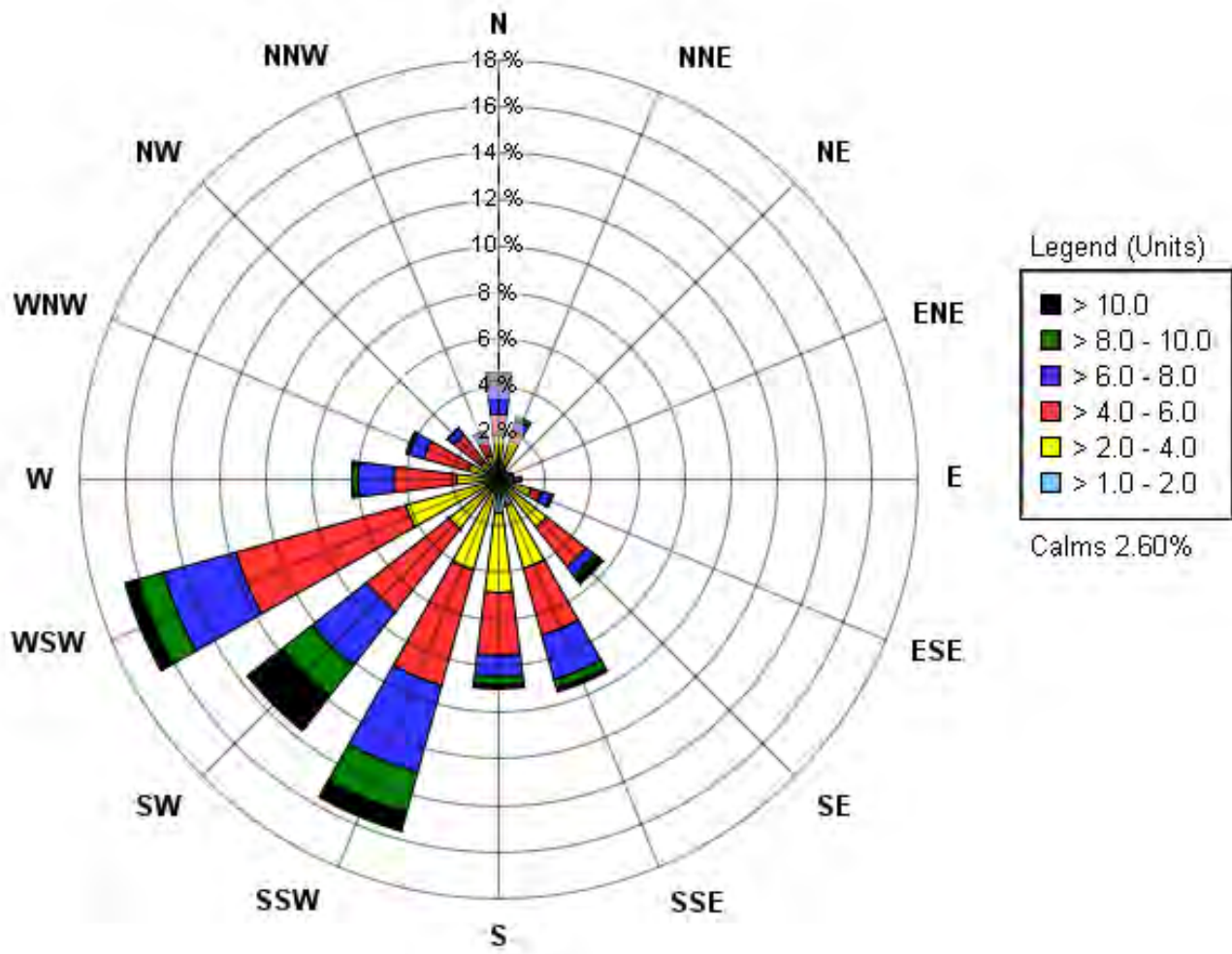


**Wind Rose Plot – Parked Data – Monitor B Fall 2014**  
 October 8 to December 8, 2014

Drawn by: LRC      Figure: 6b

Date: November 29, 2019



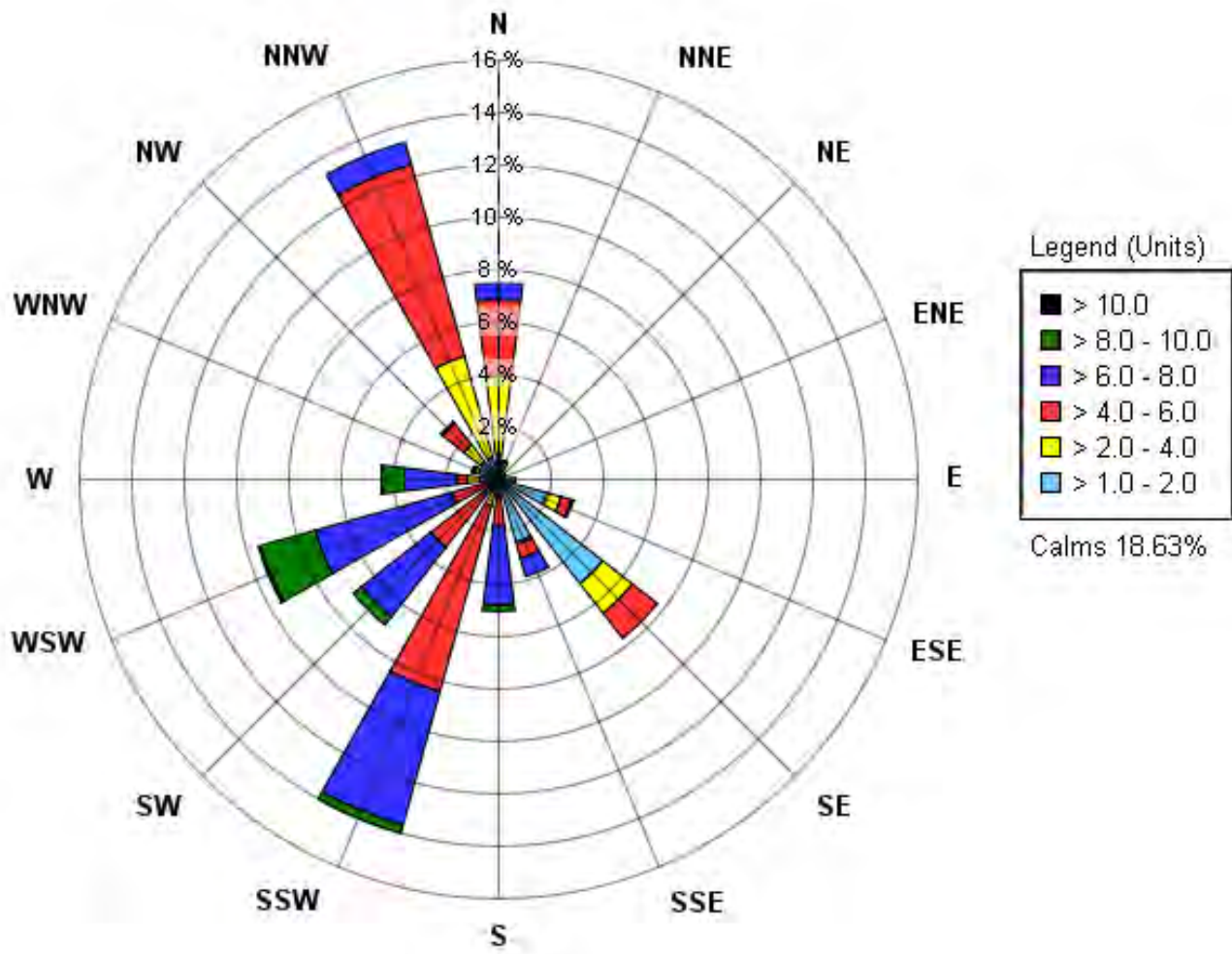


**Wind Rose Plot – Operational Data – Monitor C Fall 2014**  
 October 10 to December 3, 2014

Drawn by: LRC      Figure: 7a

Date: November 29, 2019





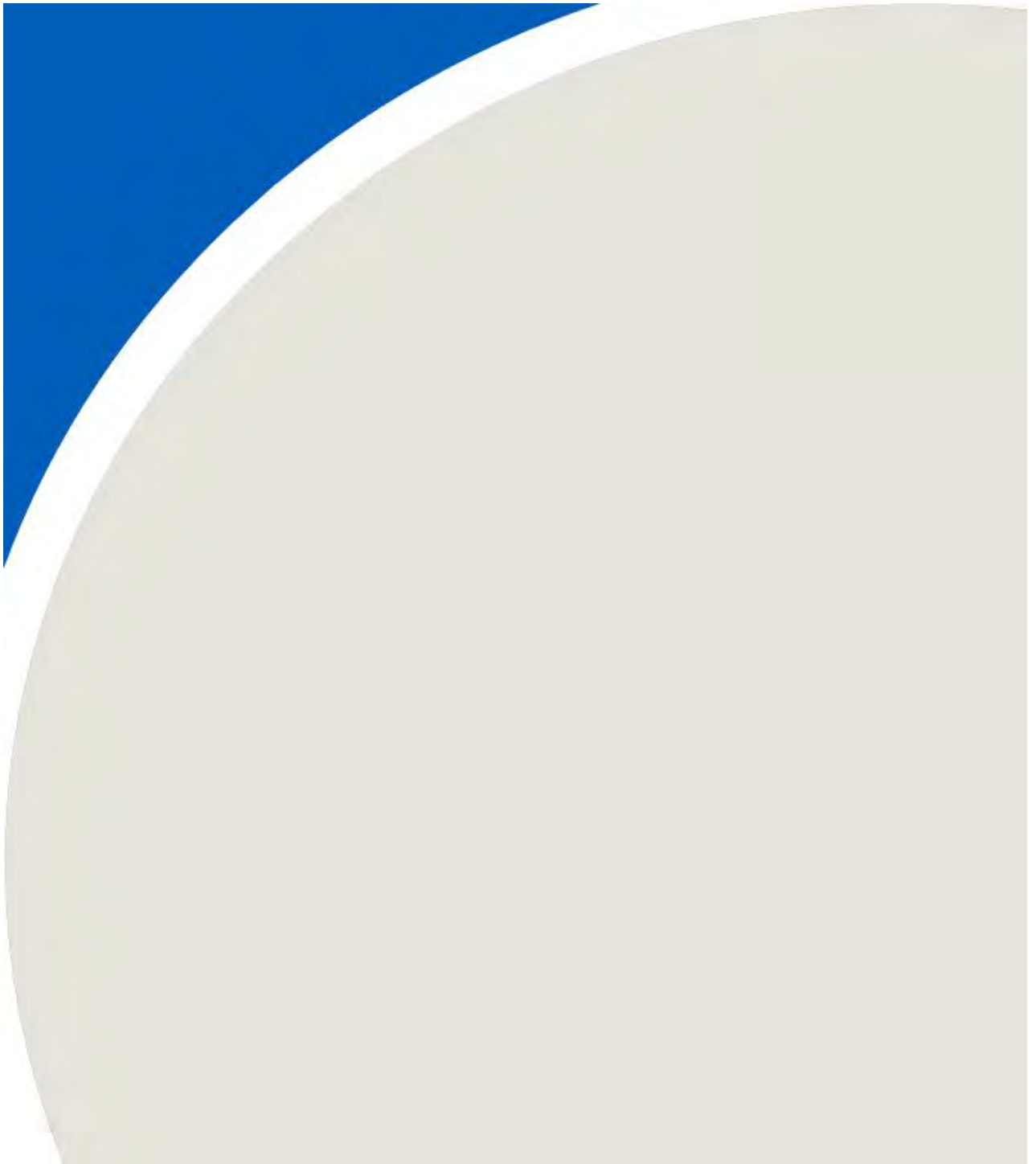
**Wind Rose Plot – Parked Data – Monitor C Fall 2014**  
 October 10 to December 3, 2014

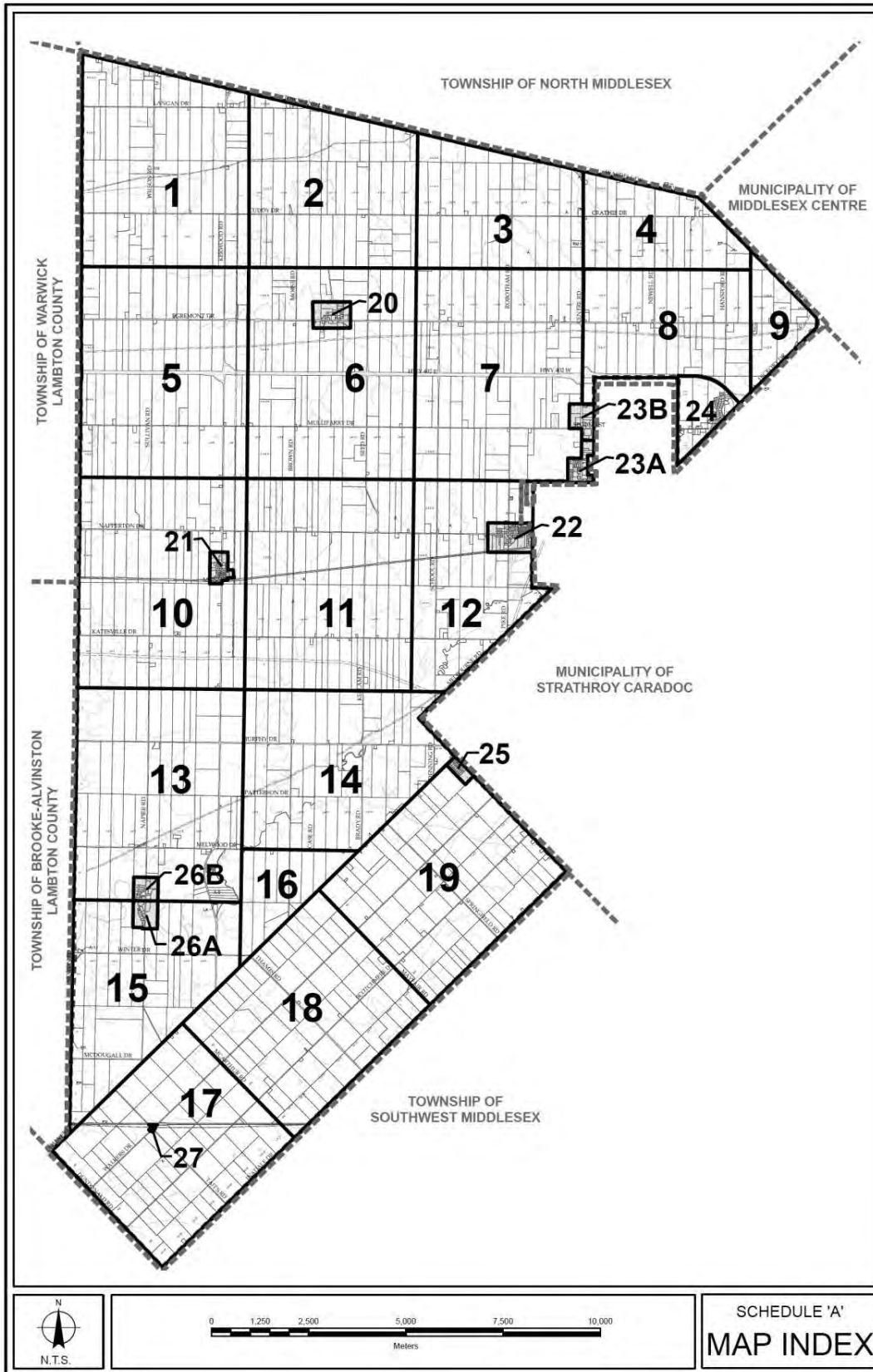
Drawn by: LRC      Figure: 7b

Date: November 29, 2019



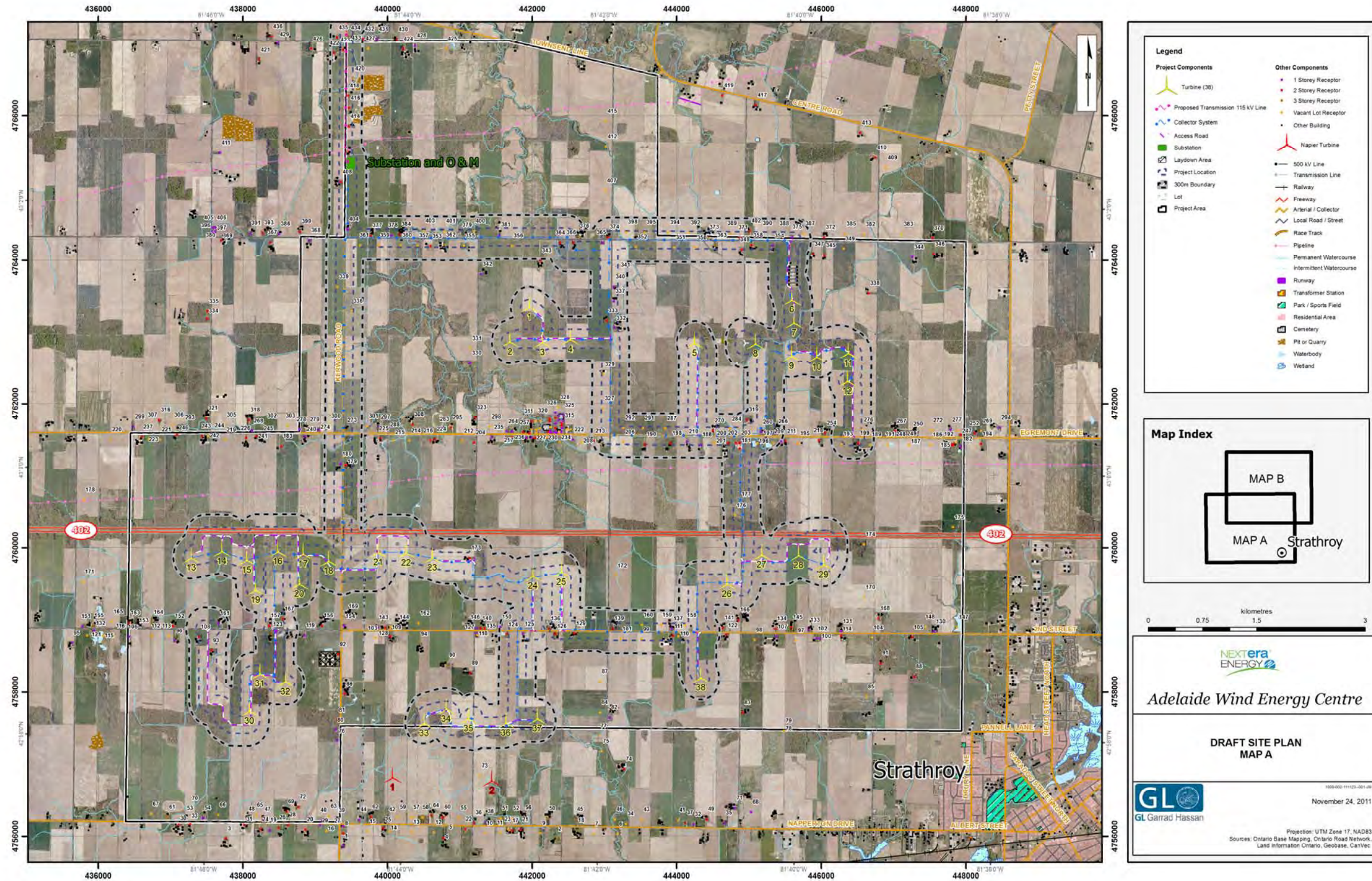
# APPENDIX A







### APPENDIX A DRAFT SITE PLAN









**Legend**

Project Components	Other Components
Turbine (36)	1 Storey Receptor
Park Hill TS	2 Storey Receptor
Proposed Transmission 115 kV Line	3 Storey Receptor
Collector System	Vacant Lot Receptor
Access Road	Other Building
Substation and O & M Building	500 kV Line
Project Location	Transmission Line
300m Boundary	Railway
Lot	Freeway
Project Area	Arterial / Collector
	Local Road / Street
	Race Track
	Pipeline
	Permanent Watercourse
	Intermittent Watercourse
	Runway
	Transformer Station
	Park / Sports Field
	Residential Area
	Cemetery
	Pit or Quarry
	Waterbody
	Wetland

**Map Index**



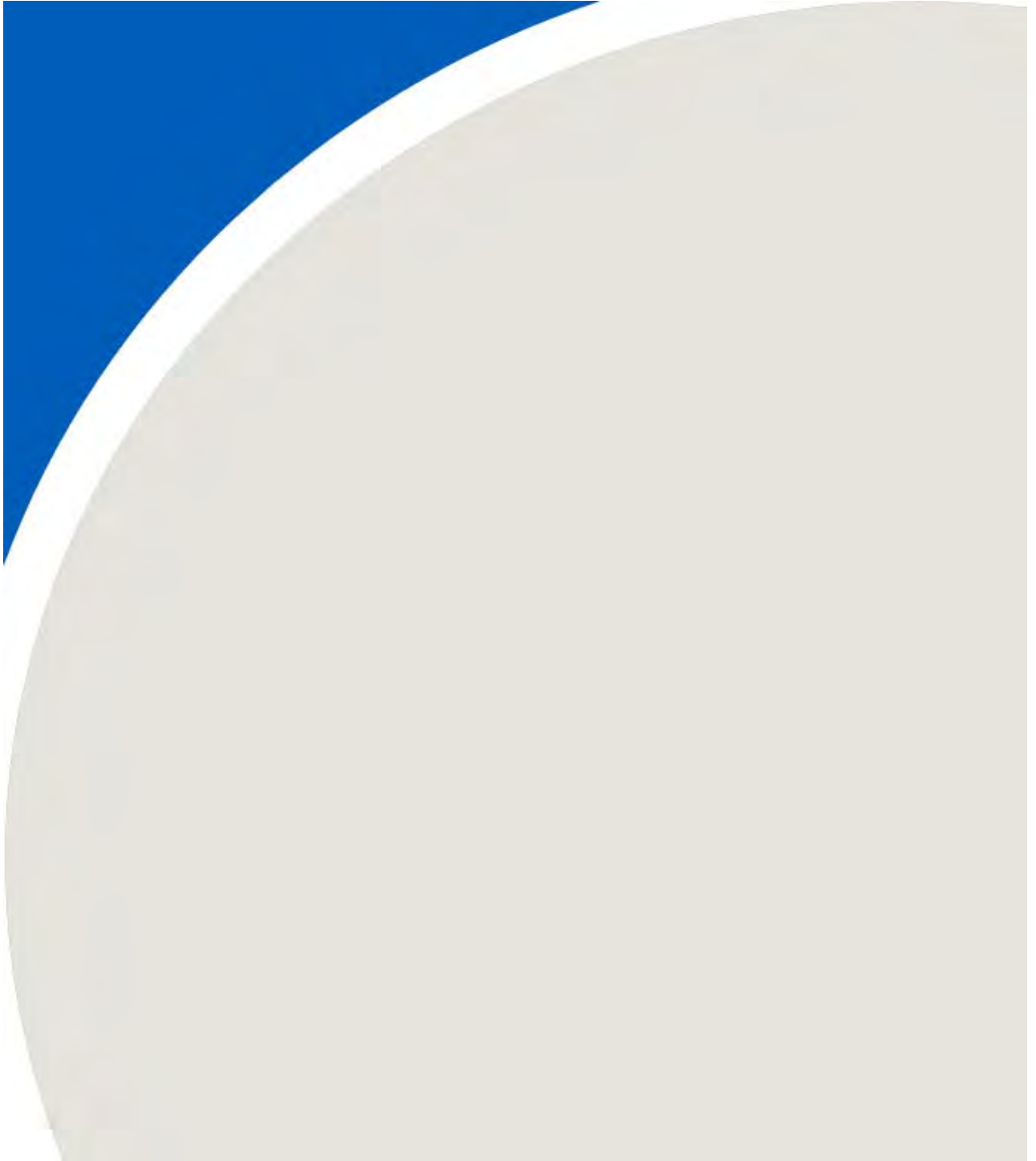
  
**Adelaide Wind Energy Centre**  
**DRAFT SITE PLAN**  
**MAP B**


November 24, 2011

Projection: UTM Zone 17, NAD83  
 Sources: Ontario Base Mapping, Ontario Road Network,  
 Land Information Ontario, Geobase, CanVec



## APPENDIX B





**RENEWABLE ENERGY APPROVAL**NUMBER 8980-95RSLP  
Issue Date: August 1, 2013

Kerwood Wind, Inc.  
390 Bay Street, Suite 1720  
Toronto, Ontario  
M5H 2Y2

Project: Adelaide Wind Energy Centre  
Location: Multiple Addresses south of Townsend Line, west of  
Centre Road, north of Napperton Drive and east of Sexton  
Road  
Adelaide Metcalfe Township, County of Middlesex

*You have applied in accordance with Section 47.4 of the Environmental Protection Act for approval to engage in a renewable energy project in respect of Class 4 Wind facility consisting of the following:*

- the construction, installation, operation, use and retiring of a 37 wind turbine generator with a total name plate capacity of 60 megawatts (MW).

*For the purpose of this renewable energy approval, the following definitions apply:*

1. "Acoustic Assessment Report" means the report included in the Application and entitled "Noise Impact Assessment -Adelaide Wind Energy Centre", dated April 25, 2013, prepared by GL Garrad Hassan Canada Inc. and signed by Aren Nercessian and "Parkhill Interconnect-Noise Impact Assessment", dated April 2, 2013, prepared by GL Garrad Hassan Canada Inc. and signed by Aren Nercessian;
2. "Acoustic Audit - Emission" means an investigative procedure that is compliant with the IEC Standard 61400-11 and consisting of measurements and/or acoustic modelling of noise emissions produced by wind turbine generators, assessed to determine compliance with the manufacturer's noise (acoustic) equipment specifications and emission data of the wind turbine generators, included in the Acoustic Assessment Report;
3. "Acoustic Audit - Immission" means an investigative procedure consisting of measurements and/or acoustic modelling of all sources of noise emissions due to the operation of the Equipment, assessed to determine compliance with the Noise Performance Limits set out in this Approval;

4. "Acoustic Audit Report-Emission" means a report presenting the results of the Acoustic Audit - Emission;
5. "Acoustic Audit Report- Immission" means a report presenting the results of the Acoustic Audit - Immission;
6. "Acoustic Audit - Transformer Substation" means an investigative procedure that is compliant with the IEEE Standard C57.12.90 consisting of measurements and/or acoustic modelling of all noise sources comprising the transformer substation assessed to determine compliance with the Sound Power Level specification of the transformer substation described in the Acoustic Assessment Report.
7. "Acoustic Audit Report - Transformer Substation" means a report presenting the results of the Acoustic Audit - Transformer Substation.
8. "Acoustical Consultant" means a person currently active in the field of environmental acoustics and noise/vibration control, who is knowledgeable about Ministry noise guidelines and procedures and has a combination of formal university education, training and experience necessary to assess noise emissions from wind facilities;
9. "Act" means the *Environmental Protection Act* , R.S.O 1990, c.E.19, as amended;
10. "Adverse Effect" has the same meaning as in the Act;
11. "Application" means the application for a Renewable Energy Approval dated August 22, 2012, and signed by F. Allen Wiley, Vice President, Development, NextEra Energy Canada, on behalf of Kerwood Wind Inc., and all supporting documentation submitted with the application, including amended documentation submitted up to the date this Approval is issued;
12. "Approval" means this Renewable Energy Approval issued in accordance with Section 47.4 of the Act, including any schedules to it;
13. "A-weighting" means the frequency weighting characteristic as specified in the International Electrotechnical Commission (IEC) Standard 61672, and intended to approximate the relative sensitivity of the normal human ear to different frequencies (itches) of sound. It is denoted as "A";
14. "A-weighted Sound Pressure Level" means the Sound Pressure Level modified by application of an A-weighting network. It is measured in decibels, A-weighted, and denoted "dBA";
15. "Class 1 Area" means an area with an acoustical environment typical of a major population centre, where the background sound level is dominated by the activities of people, usually road traffic, often referred to as "urban hum";
16. "Class 2 Area" means an area with an acoustical environment that has qualities representative of both Class 1 and Class 3 Areas:
  1. sound levels characteristic of Class 1 during daytime (07:00 to 19:00 or to 23:00 hours);

2. low evening and night background sound level defined by natural environment and infrequent human activity starting as early as 19:00 hours (19:00 or 23:00 to 07:00 hours);
  3. no clearly audible sound from stationary sources other than from those under impact assessment.
17. "Class 3 Area" means a rural area with an acoustical environment that is dominated by natural sounds having little or no road traffic, such as the following:
1. a small community with less than 1000 population;
  2. agricultural area;
  3. a rural recreational area such as a cottage or a resort area; or
  4. a wilderness area.
18. "Company" means Kerwood Wind Inc. and includes its successors and assignees;
19. "Decibel" means a dimensionless measure of Sound Level or Sound Pressure Level, denoted as dB;
20. "Director" means a person appointed in writing by the Minister of the Environment pursuant to section 5 of the Act as a Director for the purposes of section 47.5 of the Act;
21. "District Manager" means the District Manager of the appropriate local district office of the Ministry where the Facility is geographically located;
22. "Equipment" means the 37 wind turbine generators, associated ancillary equipment, and one (1) transformer substation in Adelaide wind farm, the project switchyard, and two (2) transformer substations in the Parkhill Interconnect location, identified in this Approval and as further described in the Application, to the extent approved by this Approval;
23. "Equivalent Sound Level" is the value of the constant sound level which would result in exposure to the same total A-weighted energy as would the specified time-varying sound, if the constant sound level persisted over an equal time interval. It is denoted  $L_{eq}$  and is measured in dB A-weighting (dBA);
24. "Facility" means the renewable energy generation facility, including the Equipment, as described in this Approval and as further described in the Application, to the extent approved by this Approval;
25. "IEEE Standard C57.12.90" means the IEEE Standard Test Code for Liquid-Immersed Distribution, Power, and Regulating Transformers, 2010.
26. "IEC Standard 61400-11" means the International Standard IEC Standard 61400-11, Wind turbine generator systems – Part 11: Acoustic noise measurement techniques, 2006;

27. "Compliance Protocol for Wind Turbine Noise" means the Ministry document entitled, Compliance Protocol for Wind Turbine Noise, Guideline for Acoustic Assessment and Measurement, PIBS# 8540e;
28. "Independent Acoustical Consultant" means an Acoustical Consultant who is not representing the Company and was not involved in preparing the Acoustic Assessment Report. The Independent Acoustical Consultant shall not be retained by the Acoustical Consultant involved in the noise impact assessment;
29. "Ministry" means the ministry of the government of Ontario responsible for the Act and includes all officials, employees or other persons acting on its behalf;
30. "Noise Guidelines for Wind Farms" means the Ministry document entitled, "Noise Guidelines for Wind Farms - Interpretation for Applying MOE NPC Publications to Wind Power Generation Facilities", dated October 2008;
31. "Noise Receptor" has the same meaning as in O. Reg. 359/09;
32. "Publication NPC-103" means the Ministry Publication NPC-103 of the Model Municipal Noise Control By-Law, Final Report, August 1978, published by the Ministry as amended.
33. "Publication NPC-233" means Ministry Publication NPC-233, "Information to be Submitted for Approval of Stationary Sources of Sound", October 1995;
34. "O. Reg. 359/09" means Ontario Regulation 359/09 "Renewable Energy Approvals under Part V.0.1 of the Act" made under the Act;
35. "Point of Reception" has the same meaning as in the Noise Guidelines for Wind Farms and is subject to the same qualifications described in that document;
36. "Sound Level" means the A-weighted Sound Pressure Level;
37. "Sound Level Limit" is the limiting value described in terms of the one hour A-weighted Equivalent Sound Level  $L_{eq}$ ;
38. "Sound Power Level" means ten times the logarithm to the base of 10 of the ratio of the sound power (Watts) of a noise source to standard reference power of  $10^{-12}$  Watts;
39. "Sound Pressure" means the instantaneous difference between the actual pressure and the average or barometric pressure at a given location. The unit of measurement is the micro pascal ( $\mu\text{Pa}$ );
40. "Sound Pressure Level" means twenty times the logarithm to the base 10 of the ratio of the effective pressure ( $\mu\text{Pa}$ ) of a sound to the reference pressure of  $20 \mu\text{Pa}$ ;
41. "UTM" means Universal Transverse Mercator coordinate system.

*You are hereby notified that this approval is issued to you subject to the terms and conditions outlined below:*

## **TERMS AND CONDITIONS**

### **A - GENERAL**

A1. The Company shall construct, install, use, operate, maintain and retire the Facility in accordance with the terms and conditions of this Approval and the Application and in accordance with the following schedules attached hereto:

Schedule A - Facility Description

Schedule B - Coordinates of the Equipment and Noise Specifications

Schedule C -Noise Control Measures

A2. Where there is a conflict between a provision of this Approval and any document submitted by the Company, the conditions in this Approval shall take precedence. Where there is a conflict between one or more of the documents submitted by the Company, the document bearing the most recent date shall take precedence.

A3. The Company shall ensure a copy of this Approval is:

(1) accessible, at all times, by Company staff operating the Facility and;

(2) submitted to the clerk of each local municipality and upper-tier municipality in which the Facility is situated.

A4. If the Company has a publicly accessible website, the Company shall ensure that the Approval and the Application are posted on the Company's publicly accessible website within five (5) business days of receiving this Approval.

A5. The Company shall, at least six (6) months prior to the anticipated retirement date of the entire Facility, or part of the Facility, review its Decommissioning Plan Report to ensure that it is still accurate. If the Company determines that the Facility cannot be decommissioned in accordance with the Decommissioning Plan Report, the Company shall provide the Director and District Manager a written description of plans for the decommissioning of the Facility.

A6. The Facility shall be retired in accordance with the Decommissioning Plan Report and any directions provided by the Director or District Manager.

A7. The Company shall, at least six months prior to the anticipated retirement date of the entire Facility, or part of the Facility, contact the ministry responsible for agriculture in Ontario at that time to discuss its plans for the decommissioning of the Facility, and follow any reasonable directions provided by that ministry in respect of the Company's plans to restore the project location to its previous agricultural capacity.

- A8. The Company shall provide the District Manager and the Director at least ten (10) days written notice of the following:
- (1) the commencement of any construction or installation activities at the project location; and
  - (2) the commencement of the operation of the Facility.
- A9. As described in Schedule A of the Approval the Company shall not construct or operate more than thirty seven (37) out of the thirty eight (38) wind turbine generators identified in the Schedule B of the Approval;
- A10. The Company shall ensure that any necessary authorizations under the *Endangered Species Act (2007)* have been obtained prior to the commencement of construction of the Facility in areas that support habitat for endangered or threatened species.

**B - EXPIRY OF APPROVAL**

- B1. Construction and installation of the Facility must be completed within three (3) years of the later of:
- (1) the date this Approval is issued; or
  - (2) if there is a hearing or other litigation in respect of the issuance of this Approval, the date that this hearing or litigation is disposed of, including all appeals.
- B2. This Approval ceases to apply in respect of any portion of the Facility not constructed or installed before the later of the dates identified in Condition B1.

**C - NOISE PERFORMANCE LIMITS**

C1. The Company shall ensure that:

- (1) the Sound Levels from the Equipment, at the Points of Reception identified in the Acoustic Assessment Report, comply with the Sound Level Limits set in the Noise Guidelines for Wind Farms, as applicable, and specifically as stated in the table below:

<b>Wind Speed (m/s) at 10 m height</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>
Sound Level Limits, dBA	40.0	40.0	40.0	43.0	45.0	49.0	51.0

- (2) the Equipment is constructed and installed at either of the following locations:
  - a) at the locations identified in Schedule B of this Approval; or
  - b) at a location that does not vary by more than 10 metres from the locations identified in Schedule B of this Approval and provided that,
    - i) the Equipment will comply with Condition C1 (1); and
    - ii) all setback prohibitions established under O. Reg. 359/09 are complied with.
- (3) the Equipment complies with the noise specifications set out in Schedule B of this Approval.

C2. If the Company determines that some or all of the Equipment cannot be constructed in accordance with Condition C1 (2), prior to the construction and installation of the Equipment in question, the Company shall apply to the Director for an amendment to the terms and conditions of the Approval.

C3. Within three (3) months of the completion of the construction of the Facility, the Company shall submit to the Director a written confirmation signed by an individual who has the authority to bind the Company that the UTM coordinates of the “as constructed” Equipment comply with the requirements of Condition C1 (2).

C4. The locations identified in Appendix C, Appendix D and Table 2-2 of the Acoustic Assessment Report are specified as Noise Receptors for the purposes of subsection 54 (1.1) of O. Reg. 359/09 and subsection 35 (1.01) of O. Reg. 359/09.

**D - ACOUSTIC AUDIT - IMMISSION AND EMISSION (TRANSFORMER SUBSTATIONS)**

D1. The Company shall carry out an Acoustic Audit of each of the three (3) transformer substations in accordance with the procedure set out in Publication NPC-103, and shall submit to the District Manager and the Director an Acoustic Audit Report prepared by an Independent Acoustical Consultant in accordance with the requirements of Publication NPC-233, no later than six (6) months after the commencement of the operation of the Facility.

## **E - ACOUSTIC AUDIT - EMISSION (WIND TURBINES)**

- E1. The Company shall carry out an Acoustic Audit - Emission of the acoustic emissions produced by the operation of the wind turbine generators in accordance with the following:
- (1) the acoustic audit measurements shall be undertaken in accordance with the IEC Standard 61400-11;
  - (2) the acoustic emission measurements shall be performed by an Independent Acoustical Consultant; and
  - (3) the acoustic audit measurements shall be performed on two (2) of the wind turbine generators used in the Facility;
- E2. The Company shall submit to the District Manager and the Director an Acoustic Audit Report -Emission, prepared in accordance with Section 9 of the IEC Standard 61400-11 by an Independent Acoustical Consultant, no later than six (6) months after the commencement of the operation of the Facility.

## **F - ACOUSTIC AUDIT - IMMISSION (WIND TURBINES)**

- F1. The Company shall carry out an Acoustic Audit - Immission of the Sound Levels produced by the operation of the Equipment in accordance with the following:
- (1) the acoustic audit measurements shall be undertaken in accordance with Part D of the Compliance Protocol for Wind Turbine Noise;
  - (2) the acoustic audit measurements shall be performed by an Independent Acoustical Consultant at three (3) different Points of Reception that have been selected using the following criteria:
    - a) the Points of Reception should represent the location of the greatest predicted noise impact, i.e., the highest predicted Sound Level; and
    - b) the Points of Reception should be located in the direction of prevailing winds from the Facility;
  - (3) the acoustic audit measurements shall be performed on two (2) separate occasions within a period of twelve (12) months that represent the lowest annual ambient Sound Levels, preferably:
    - a) March and April, and
    - b) October and November.
- F2. The Company shall submit to the District Manager and the Director an Acoustic Audit Report - Immission, prepared by an Independent Acoustical Consultant, at the following points in time:



- (1) no later than nine (9) months after the commencement of the operation of the Facility for the first of the two (2) acoustic audit measurements at the three (3) Points of Reception; and
- (2) no later than fifteen (15) months after the commencement of the operation of the Facility for the second of the two (2) acoustic audit measurements at the three (3) Points of Reception.

## **G - STORMWATER MANAGEMENT**

- G1. The Company shall employ best management practices for stormwater management and sediment and erosion control during construction, installation, use, operation, maintenance and retiring of the Facility, as described in the report included in the Application.
- G2. Within six (6) months of the completion of the construction of the Facility, the Company shall provide the District Manager with a written description of post-construction stormwater management conditions.

## **H - SEWAGE WORKS OF THE TRANSFORMER SPILL CONTAINMENT FACILITY**

- H1. The Company shall design and construct a transformer substation spill containment facility which meets the following requirements:
- (1) the spill containment area serving the transformer substation shall have a minimum volume equal to the volume of transformer oil and lubricants plus the volume equivalent to providing a minimum 24-hour duration, 50-year return storm capacity for the stormwater drainage area around the transformer under normal operating conditions;
  - (2) the containment facility shall have an impervious concrete floor and walls or impervious plastic liner on floor and walls, sloped toward an outlet, maintaining a freeboard of approximately 0.25 metres terminating approximately 0.30 metres above grade, and a minimum 300mm layer of crushed stoned (typical 19mm to 38mm in diameter) within, all as needed in accordance to site specific conditions and final design parameters;
  - (3) the containment facility shall drain to an oil control device, such as an oil/water separator, a pump-out sump, an oil absorbing material in a canister or a blind sump; and
  - (4) the oil control device shall be equipped with an oil detection system and appropriate sewage appurtenances, such as, but not limited to: sump, oil/grit separator, pumpout manhole, level controllers, floating oil sensors, etc., that allows for batch discharges or direct discharges and for proper implementation of the monitoring program described in Condition No. H4.
- H2. The Company shall:
- (1) prior to the construction of the transformer substation spill containment facility, provide the District Manager and Director a report and drawings issued for construction signed and stamped by an independent Professional Engineer licensed in Ontario and competent in electrical engineering;

- (2) within six (6) months of the completion of the construction of the transformer substation spill containment facility, provide the District Manager and Director a report and drawings issued for construction signed and stamped by an independent Professional Engineer licensed in Ontario which includes the following:
  - a) as-built drawings of the sewage works;
  - b) confirmation that the transformer substation spill containment facility has been designed and installed according to appropriate specifications; and
  - c) confirmation of the adequacy of the operating procedures and the emergency procedures manuals as it pertains to the installed sewage works.
- (3) as a minimum, check the oil detection system on a monthly basis and create a written record of the inspections;
- (4) ensure that the effluent is essentially free of floating and settle-able solids and does not contain oil or any other substance in amounts sufficient to create a visible film, sheen or foam on the receiving waters;
- (5) immediately identify and clean-up all losses of oil from the transformer;
- (6) upon identification of oil in the effluent pumpout, take immediate action to prevent the further occurrence of such loss; and
- (7) ensure that equipment and material for the containment, clean-up and disposal of oil and materials contaminated with oil are kept within easy access and in good repair for immediate use in the event of:
  - a) loss of oil from the transformer,
  - b) a spill within the meaning of Part X of the Act, or
  - c) the identification of an abnormal amount of oil in the effluent.

H3. The Company shall design, construct and operate the sewage works such that the concentration of the effluent parameter named in the table below does not exceed the maximum concentration objective shown for that parameter in the effluent, and shall comply with the following requirements:

<b>Effluent Parameters</b>	<b>Maximum Concentration Objective</b>
Oil and Grease	15mg/L

- (1) notify the District Manager as soon as reasonably possible of any exceedance of the maximum concentration objective set out in the table above;
- (2) take immediate action to identify the cause of the exceedance; and
- (3) take immediate action to prevent further exceedances.

H4. Upon commencement of the operation of the Facility, the Company shall establish and carry out the following monitoring program for the sewage works:

- (1) the Company shall collect and analyze the required set of samples at the sampling points listed in the table below in accordance with the measurement frequency and sample type specified for the effluent parameter, oil and grease, and create a written record of the monitoring:

Effluent Parameters	Measurement Frequency and Sample Points
Oil and Grease	B – Batch, i.e., for each discrete volume in the sewer appurtenance as per H1(4) prior to pumpout; or  Q – Quarterly for direct effluent discharge, i.e., four times over a year, relatively evenly spaced.

- (2) in the event of an exceedance of the maximum concentration objective set out in the table in Condition No. H3, the Company shall:
  - (a) increase the frequency of sampling to once per month, for each month that effluent discharge occurs, and
  - (b) provide the District Manager, on a monthly basis, with copies of the written record created for the monitoring until the District Manager provides written direction that monthly sampling and reporting is no longer required; and
- (3) if over a period of twenty-four (24) months of effluent monitoring under Condition No. H4(1), there are no exceedances of the maximum concentration set out in the table in Condition No. H3, the Company may reduce the measurement frequency of effluent monitoring to a frequency as the District Manager may specify in writing, provided that the new specified frequency is never less than annual.

H5. The Company shall comply with the following methods and protocols for any sampling, analysis and recording undertaken in accordance with Condition No. H4:

- (1) Ministry of the Environment publication "Protocol for the Sampling and Analysis of Industrial/ Municipal Wastewater", January 1999, as amended from time to time by more recently published editions, and
- (2) the publication "Standard Methods for the Examination of Water and Wastewater," 21st edition, 2005, as amended from time to time by more recently published editions.

**I - WATER TAKING ACTIVITIES**

I1. The Company shall not take more than 50,000 litres of water on any day by any means during the construction, installation, use, operation, maintenance and retiring of the Facility.

## **J - SURFACE WATER**

- J1. The Company shall conduct the pre-construction monitoring described in the Water Assessment and Water Body Report, dated August 2012, and included in the Application.
- J2. Within one year of the completion of the construction of the Facility, the Company must provide the District Manager, in writing, a description of post-construction surface water quality conditions and a written description of any additional remediation works required. The written description shall include surface water conditions during the freshet period occurrence in the first Spring following the construction of the Facility.

## **K - NATURAL HERITAGE AND PRE AND POST CONSTRUCTION MONITORING**

### **GENERAL**

- K1. The Company shall implement the *Adelaide Wind Energy Centre Natural Heritage Environmental Effects Monitoring Plan*, dated April 23, 2013, and the commitments made in the *Adelaide Wind Energy Centre Natural Heritage Environmental Impact Study*, dated April 2012 and the *Adelaide Wind Energy Centre Natural Heritage Assessment Addendum Report*, dated August 2012, prepared by NRSI and included in the Application, and which the Company submitted to the Ministry of Natural Resources in order to comply with O. Reg. 359/09.
- K2. If the Company determines that it must deviate from either the Environmental Effects Monitoring Plan or the Environmental Impact Study, described in Condition K1, the Company shall contact the Ministry of Natural Resources and the Director, prior to making any changes to the Environmental Effects Monitoring Plan or the Environmental Impact Study, and follow any directions provided.

### **PRE-CONSTRUCTION MONITORING – SIGNIFICANT WILDLIFE HABITAT**

- K3. The Company shall implement the pre-construction monitoring described in the Environmental Effects Monitoring Plan described in Condition K1, including the following:
- (1) A baseline survey of Raptor Wintering Area for features RWA-002, RWA-003 and RWA-004.
  - (2) A baseline survey of Bat Maternity Colonies for features BMA-011, BMA-012, BMA-014, BMA-016 and BMA-017, BMA-019, BMA-020.
  - (3) A baseline survey of Bald Eagle Nesting, Foraging and Perching habitat for feature BAL-001.
  - (4) A baseline survey of Amphibian Breeding Habitat (Woodland) for features AWO-001, AWO-002, AWO-004, AWO-005.
  - (5) A baseline survey of Carey's Sedge Habitat (Woodland) for features CAS-001, CAS-002, CAS-003, CAS-004, CAS-006 and CAS-007.
  - (6) A baseline survey of Yellow Stargrass Habitat for features YSG-001 and YSG-002.

## **POST-CONSTRUCTION MONITORING – SIGNIFICANT WILDLIFE HABITAT**

- K4. The Company shall implement the post-construction monitoring described in the Environmental Effects Monitoring Plan and the Environmental Impact Study, described in Condition K1, including the following:
- (1) Disturbance Monitoring for Bat Maternity Colony features BMA-001, BMA-002 and BMA-006;
- K5. Based on the results of the pre-construction monitoring described in Condition K3, should any of the Wildlife Habitats described in Condition K3 be deemed significant, the Company shall implement the post-construction monitoring described in the Environmental Effects Monitoring Plan described in Condition K1, at the specific habitats that are found to be significant, including the following:
- (1) Disturbance Monitoring for Raptor Wintering Area for features RWA-002, RWA-003 and RWA-004.
  - (2) Disturbance Monitoring for Bat Maternity Colonies for features BMC-011, BMC-012, BMC-014, BMC-016 and BMC-017, BMC-019, BMC-020.
  - (3) Disturbance Monitoring for Bald Eagle Nesting, Foraging and Perching habitat for feature BAL-001.
  - (4) Disturbance Monitoring for Amphibian Breeding Habitat (Woodland) for features AWO-001, AWO-002, AWO-004, AWO-005.
  - (5) Disturbance Monitoring for Carey’s Sedge Habitat (Woodland) for features CAS-001, CAS-002, CAS-003, CAS-004, CAS-006 and CAS-007.
  - (6) Disturbance Monitoring for Yellow Stargrass Habitat for features YSG-001 and YSG-002.

## **POST CONSTRUCTION MONITORING - BIRD AND BAT MONITORING**

- K6. The Company shall implement the post-construction bird and bat mortality monitoring described in the Environmental Effects Monitoring Plan, described in Condition K1, at a minimum of 11 of 37 constructed turbines.

## **THRESHOLDS AND MITIGATION**

- K7. The Company shall contact the Ministry of Natural Resources and the Director if any of the following bird and bat mortality thresholds, as stated in the *Adelaide Wind Energy Centre Natural Heritage Environmental Effects Monitoring Plan* described in Condition K1, are exceeded:
- (1) 10 bats per turbine per year;

- (2) 14 birds per turbine per year at individual turbines or turbine groups;
- (3) 0.2 raptors per turbine per year (all raptors) across the wind power project;
- (4) 0.1 raptors per turbine per year (provincially tracked raptors) across the wind power project;
- (5) 10 or more birds at any one turbine during a single monitoring survey; or
- (6) 33 or more birds (including raptors) at multiple turbines during a single monitoring survey.

K8. If the bat mortality threshold described in Condition K7 (1) is exceeded, the Company shall:

- (1) implement operational mitigation measures consistent with those described in the Ministry of Natural Resources publication entitled "Bats and Bat Habitats: Guidelines for Wind Power Projects" dated July 2011, or in an amended version of the publication;
- (2) increase cut-in speed to 5.5 m/s or feather wind turbine blades when wind speeds are below 5.5 m/s between sunset and sunrise, from July 15 to September 30 at all turbines, for the operating life of the Facility. Should site specific monitoring indicate a shifted peak mortality period, operational mitigation may be shifted to match the peak mortality, with mitigation maintained for a minimum of 10 weeks. Any shift in the operational mitigation period to match peak mortality should be determined in coordination with and confirmed by Ministry of Natural Resources; and
- (3) implement an additional three (3) years of effectiveness monitoring.

K9. If the bat mortality threshold described in Condition K7 (1) is exceeded after operational mitigation is implemented in accordance with Condition K8, the Company shall prepare and implement a contingency plan, in consultation with the Ministry of Natural Resources, to address mitigation actions which shall include additional mitigation and scoped monitoring requirements.

K10. If either of the bird mortality thresholds described in Conditions K7(2), K7(3) or K7(4) is exceeded for turbines located outside 120 metres of bird significant wildlife habitat, the Company shall conduct two (2) years of subsequent scoped mortality monitoring and cause and effects monitoring. Following the completion of scoped monitoring, post-construction monitoring (e.g. operational mitigation), and effectiveness monitoring may be required at individual turbines where a mortality effect persists.

K11. If either of the bird mortality thresholds described in Conditions K7(5) or K7(6) is exceeded, the Company shall prepare and implement a contingency plan to address immediate mitigation actions which shall include:

- (1) periodic shut-down of select turbines;
- (2) blade feathering at specific times of year; or
- (3) an alternate plan agreed to between the Company and the Ministry of Natural Resources.

K12. If either of the bird mortality thresholds described in Conditions K7(2), K7(3) or K7(4) is exceeded while monitoring is being implemented in accordance with Conditions K10, or if either of the bird mortality thresholds described in Conditions K7(5) or K7(6) is reached or exceeded after mitigation is implemented in accordance with Condition K11, the Company shall contact the Ministry of Natural Resources and prepare and implement an appropriate response plan that shall include some or all of the following mitigation measures:

- (1) increased reporting frequency to identify potential threshold exceedance;
- (2) additional behavioural studies to determine factors affecting mortality rates;
- (3) periodic shut-down of select turbines;
- (4) blade feathering at specific times of year; or
- (5) an alternate plan agreed to between the Company and the Ministry of Natural Resources.

#### **REPORTING AND REVIEW OF RESULTS**

K13. The Company shall report, in writing, the results of the post-construction disturbance monitoring described in Conditions K4 and K5, to the Ministry of Natural Resources for three (3) years on an annual basis and within three (3) months of the end of each calendar year in which the monitoring took place.

K15. The Company shall report, in writing, bird and bat mortality levels to the Ministry of Natural Resources for three (3) years on an annual basis and within three (3) months of the conclusion of the November mortality monitoring, with the exception of the following:

- (1) if either of the bird mortality thresholds described in Conditions K7(5) or K7(6) is reached or exceeded, the Company shall report the mortality event to the Ministry of Natural Resources within 48 hours of observation;
- (2) for any and all mortality of species at risk (including a species listed on the Species at Risk in Ontario list as Extirpated, Endangered or Threatened under the provincial *Endangered Species Act, 2007* ) that occurs, the Company shall report the mortality to the Ministry of Natural Resources within 24 hours of observation or the next business day;
- (3) if the bat mortality threshold described in Condition K7(1) is reached or exceeded, the Company shall report mortality levels to the Ministry of Natural Resources for the additional three (3) years of monitoring described in Condition K8, on an annual basis and within three (3) months of the conclusion of the October mortality monitoring for each year;

- (4) if either of the bird mortality thresholds described in Conditions K7(2), K7(3) or K7(4) is reached or exceeded for turbines located outside 120 m of bird significant wildlife habitat, the Company shall report mortality levels to the Ministry of Natural Resources for the additional two (2) years of cause and effects monitoring described in Condition K10, on an annual basis and within three (3) months of the conclusion of the November mortality monitoring for each year; and
- (5) if the Company implements operational mitigation following cause and effects monitoring in accordance with Condition K10, the Company shall report mortality levels to the Ministry of Natural Resources for the three (3) years of subsequent effectiveness monitoring described in Condition K10, on an annual basis and within three (3) months of the conclusion of the November mortality monitoring for each year.

## **L - TRAFFIC MANAGEMENT PLANNING**

- L1. Within three (3) months of receiving this Approval, the Company shall prepare a Traffic Management Plan and provide it to the Municipality of North Middlesex, Middlesex County, and the Township of Adelaide-Metcalf.
- L2. Within three (3) months of having provided the Traffic Management Plan to Municipality of North Middlesex, Middlesex County, and the Township of Adelaide-Metcalf, the Company shall make reasonable efforts to enter into a Road Users Agreement with Municipality of North Middlesex, Middlesex County, and the Township of Adelaide-Metcalf.
- L3. If a Road Users Agreement has not been signed with the Municipality of North Middlesex, Middlesex County, and the Township of Adelaide-Metcalf within three (3) months of having provided the Traffic Management Plan to the Municipality of North Middlesex, Middlesex County, and the Township of Adelaide-Metcalf, the Company shall provide a written explanation to the Director as to why this has not occurred.

## **M - ARCHAEOLOGICAL RESOURCES**

- M1. The Company shall implement all of the recommendations, if any, for further archaeological fieldwork and for the protection of archaeological sites found in the consultant archeologist's report included in the Application, and which the Company submitted to the Ministry of Tourism, Culture and Sport in order to comply with O. Reg. 359/09.
- M2. Should any previously undocumented archaeological resources be discovered, the Company shall:
  - (1) cease all alteration of the area in which the resources were discovered immediately;
  - (2) engage a consultant archaeologist to carry out the archaeological fieldwork necessary to further assess the area and to either protect and avoid or excavate any sites in the area in accordance with the *Ontario Heritage Act*, the regulations under that act and the Ministry of Tourism, Culture and Sport's *Standards and Guidelines for Consultant Archaeologists*; and



- (3) notify the Director as soon as reasonably possible.

## **N - COMMUNITY LIAISON COMMITTEE**

- N1. Within three (3) months of receiving this Approval, the Company shall make reasonable efforts to establish a Community Liaison Committee. The Community Liaison Committee shall be a forum to exchange ideas and share concerns with interested residents and members of the public. The Community Liaison Committee shall be established by:
  - (1) publishing a notice in a newspaper with general circulation in each local municipality in which the project location is situated; and
  - (2) posting a notice on the Company's publicly accessible website, if the Company has a website; to notify members of the public about the proposal for a Community Liaison Committee and invite residents living within a one (1) kilometer radius of the Facility that may have an interest in the Facility to participate on the Community Liaison Committee.
- N2. The Company may invite other members of stakeholders to participate in the Community Liaison Committee, including, but not limited to, local municipalities, local conservation authorities, Aboriginal communities, federal or provincial agencies, and local community groups.
- N3. The Community Liaison Committee shall consist of at least one Company representative who shall attend all meetings.
- N4. The purpose of the Community Liaison Committee shall be to:
  - (1) act as a liaison facilitating two way communications between the Company and members of the public with respect to issues relating to the construction, installation, use, operation, maintenance and retirement of the Facility;
  - (2) provide a forum for the Company to provide regular updates on, and to discuss issues or concerns relating to, the construction, installation, use, operation, maintenance and retirement of the Facility with members of the public; and
  - (3) ensure that any issues or concerns resulting from the construction, installation, use, operation, maintenance and retirement of the Facility are discussed and communicated to the Company.
- N5. The Community Liaison Committee shall be deemed to be established on the day the Director is provided with written notice from the Company that representative Community Liaison Committee members have been chosen and a date for a first Community Liaison Committee meeting has been set.
- N6. If a Community Liaison Committee has not been established within three (3) months of receiving this Approval, the Company shall provide a written explanation to the Director as to why this has not occurred.

- N7. The Company shall ensure that the Community Liaison Committee operates for a minimum period of two (2) years from the day it is established. During this two (2) year period, the Company shall ensure that the Community Liaison Committee meets a minimum of two (2) times per year. At the end of this two (2) year period, the Company shall contact the Director to discuss the continued operation of the Community Liaison Committee.
- N8. The Company shall ensure that all Community Liaison Committee meetings are open to the general public.
- N9. The Company shall provide administrative support for the Community Liaison Committee including, at a minimum:
- (1) providing a meeting space for Community Liaison Committee meetings;
  - (2) providing access to resources, such as a photocopier, stationery, and office supplies, so that the Community Liaison Committee can:
    - a) prepare and distribute meeting notices;
    - b) record and distribute minutes of each meeting; and
    - c) prepare reports about the Community Liaison Committee's activities.
- N10. The Company shall submit any reports of the Community Liaison Committee to the Director and post it on the Company's publicly accessible website, if the Company has a website.

## **O - OPERATION AND MAINTENANCE**

- O1. Prior to the commencement of the operation of the Facility, the Company shall prepare a written manual for use by Company staff outlining the operating procedures and a maintenance program for the Equipment that includes as a minimum the following:
- (1) routine operating and maintenance procedures in accordance with good engineering practices and as recommended by the Equipment suppliers;
  - (2) emergency procedures;
  - (3) procedures for any record keeping activities relating to operation and maintenance of the Equipment; and
  - (4) all appropriate measures to minimize noise emissions from the Equipment.
- O2. The Company shall;
- (1) update, as required, the manual described in Condition O1; and

- (2) make the manual described in Condition O1 available for review by the Ministry upon request.
- O3. The Company shall ensure that the Facility is operated and maintained in accordance with the Approval and the manual described in Condition O1.

**P - RECORD CREATION AND RETENTION**

- P1. The Company shall create written records consisting of the following:
- (1) an operations log summarizing the operation and maintenance activities of the Facility;
  - (2) within the operations log, a summary of routine and Ministry inspections of the Facility; and
  - (3) a record of any complaint alleging an Adverse Effect caused by the construction, installation, use, operation, maintenance or retirement of the Facility.
- P2. A record described under Condition P1 (3) shall include:
- (1) a description of the complaint that includes as a minimum the following:
    - a) the date and time the complaint was made;
    - b) the name, address and contact information of the person who submitted the complaint;
  - (2) a description of each incident to which the complaint relates that includes as a minimum the following:
    - a) the date and time of each incident;
    - b) the duration of each incident;
    - c) the wind speed and wind direction at the time of each incident;
    - d) the ID of the Equipment involved in each incident and its output at the time of each incident;
    - e) the location of the person who submitted the complaint at the time of each incident; and
  - (3) a description of the measures taken to address the cause of each incident to which the complaint relates and to prevent a similar occurrence in the future.
- P3. The Company shall retain, for a minimum of five (5) years from the date of their creation, all records described in Condition P1, and make these records available for review by the Ministry upon request.

**Q - NOTIFICATION OF COMPLAINTS**

- Q1. The Company shall notify the District Manager of each complaint within two (2) business days of the receipt of the complaint.
- Q2. The Company shall provide the District Manager with the written records created under Condition P2 within eight (8) business days of the receipt of the complaint.

## **R - CHANGE OF OWNERSHIP**

- R1. The Company shall notify the Director in writing, and forward a copy of the notification to the District Manager, within thirty (30) days of the occurrence of any of the following changes:
- (1) the ownership of the Facility;
  - (2) the operator of the Facility;
  - (3) the address of the Company;
  - (4) the partners, where the Company is or at any time becomes a partnership and a copy of the most recent declaration filed under the *Business Names Act*, R.S.O. 1990, c.B.17, as amended, shall be included in the notification; and
  - (5) the name of the corporation where the Company is or at any time becomes a corporation, other than a municipal corporation, and a copy of the most current information filed under the *Corporations Information Act*, R.S.O. 1990, c. C.39, as amended, shall be included in the notification.

## **S – ABORIGINAL CONSULTATION**

- S1. During the construction, installation, operation, use and retiring of the Facility, the Company shall:
- (1) create and maintain written records of any communications with Aboriginal communities; and
  - (2) make the written records available for review by the Ministry upon request.
- S2. The Company shall provide the following to interested Aboriginal communities:
- (1) updated project information, including the results of monitoring activities undertaken and copies of additional archaeological assessment reports that may be prepared; and;
  - (2) updates on key steps in the construction, installation, operation, use and retirement phases of the Facility, including notice of the commencement of construction activities at the project location.
- S3. If an Aboriginal community requests a meeting to obtain information relating to the construction, installation, operation, use and retiring of the Facility, the Company shall make reasonable efforts to arrange and participate in such a meeting.
- S4. If any archaeological resources of Aboriginal origin are found during the construction of the Facility, the Company shall:
- (1) notify any Aboriginal community considered likely to be interested or which has expressed an interest in such finds; and,

- (2) if a meeting is requested by an Aboriginal community to discuss the archaeological find(s), make reasonable efforts to arrange and participate in such a meeting.

**SCHEDULE A**  
**Facility Description**

The Facility shall consist of the construction, installation, operation, use and retiring of the following:

**Adelaide wind farm:**

- (a) a total of thirty seven (37) out of thirty eight (38) wind turbine generators each rated at a maximum of 1.62 megawatts (MW) generating output capacity with a maximum total name plate capacity of 60 megawatts (MW), designated as source ID Nos. 1 through 38, each with a hub height of eighty (80) metres above grade, and sited at the locations shown in Schedule B, in accordance with Condition C1(2)(b); and
- (b) associated ancillary equipment, systems and technologies including one (1) 85 mega-volt-ampere (MVA) transformer substation, on-site access roads, underground cabling and overhead transmission lines,

**Project Switchyard:**

- (c) associated ancillary equipment, including switches, breakers, electrical bus work, instrument transformers, grounding, metering equipment, control house and steel structures supporting incoming and outgoing transmission line circuits,

**Parkhill interconnect:**

- (d) associated ancillary equipment, systems and technologies including one (2) 225 mega-volt-ampere (MVA) transformer substation, on-site access roads, underground cabling and overhead transmission lines,

all in accordance with the Application.

**SCHEDULE B: Adelaide wind farm and Parkhill interconnect substation**

**Coordinates of the Equipment and Noise Specifications in UTM, Z17-NAD83 projection**

Table B1: Coordinates and Maximum Sound Power Levels of Wind Turbine Generators and Transformer Substations

<b>Source ID</b>	<b>Maximum Sound Power Level (dBA)</b>	<b>Easting (m)</b>	<b>Northing (m)</b>	<b>Source description</b>
1	103.0	441,963	4,763,345	1.62 megawatts (MW) turbine See Table B2
2	103.0	441,755	4,762,865	1.62 megawatts (MW) turbine See Table B2
3	103.0	442,142	4,762,857	1.62 megawatts (MW) turbine See Table B2
4	103.0	442,529	4,762,899	1.62 megawatts (MW) turbine See Table B2
5	103.0	444,245	4,762,845	1.62 megawatts (MW) turbine See Table B2
6	103.0	445,590	4,763,450	1.62 megawatts (MW) turbine See Table B2
7	103.0	445,620	4,763,125	1.62 megawatts (MW) turbine See Table B2
8	103.0	445,087	4,762,836	1.62 megawatts (MW) turbine See Table B2
9	103.0	445,586	4,762,665	1.62 megawatts (MW) turbine See Table B2
10	103.0	445,939	4,762,651	1.62 megawatts (MW) turbine See Table B2
11	103.0	446,370	4,762,704	1.62 megawatts (MW) turbine See Table B2
12	103.0	446,360	4,762,314	1.62 megawatts (MW) turbine See Table B2
13	103.0	437,290	4,759,864	1.62 megawatts (MW) turbine See Table B2
14	103.0	437,710	4,759,955	1.62 megawatts (MW) turbine See Table B2
15	103.0	438,055	4,759,832	1.62 megawatts (MW) turbine See Table B2
16	103.0	438,483	4,759,952	1.62 megawatts (MW) turbine See Table B2
17	103.0	438,837	4,759,917	1.62 megawatts (MW) turbine See Table B2
18	103.0	439,187	4,759,817	1.62 megawatts (MW) turbine See Table B2
19	103.0	438,176	4,759,414	1.62 megawatts (MW) turbine See Table B2
20	103.0	438,783	4,759,497	1.62 megawatts (MW) turbine See Table B2
21	103.0	439,875	4,759,939	1.62 megawatts (MW) turbine See Table B2
22	103.0	440,261	4,759,935	1.62 megawatts (MW) turbine See Table B2
23	103.0	440,623	4,759,864	1.62 megawatts (MW) turbine See Table B2

				B2
24	103.0	442,013	4,759,608	1.62 megawatts (MW) turbine See Table B2
25	103.0	442,404	4,759,661	1.62 megawatts (MW) turbine See Table B2
26	103.0	444,694	4,759,496	1.62 megawatts (MW) turbine See Table B2
27	103.0	445,175	4,759,905	1.62 megawatts (MW) turbine See Table B2
28	103.0	445,687	4,759,898	1.62 megawatts (MW) turbine See Table B2
29	103.0	446,031	4,759,766	1.62 megawatts (MW) turbine See Table B2
30	103.0	438,092	4,757,738	1.62 megawatts (MW) turbine See Table B2
31	103.0	438,237	4,758,255	1.62 megawatts (MW) turbine See Table B2
32	103.0	438,593	4,758,143	1.62 megawatts (MW) turbine See Table B2
33	103.0	440,506	4,757,566	1.62 megawatts (MW) turbine See Table B2
34	103.0	440,812	4,757,764	1.62 megawatts (MW) turbine See Table B2
35	103.0	441,115	4,757,631	1.62 megawatts (MW) turbine See Table B2
36	103.0	441,641	4,757,570	1.62 megawatts (MW) turbine See Table B2
37	103.0	442,072	4,757,631	1.62 megawatts (MW) turbine See Table B2
38	103.0	444,335	4,758,200	1.62 megawatts (MW) turbine See Table B2



Table B1: Coordinates and Maximum Sound Power Levels of Wind Turbine Generators and Transformer Substations (continued)

Source ID	Maximum Sound Power Level (dBA)	Easting (m)	Northing (m)	Source description
<b>Sub</b>	<b>102.8</b>	439,495	4,765,334	85 mega-volt-amperes (MVA)- See Table B3
Parkhill T1	<b>105.8</b>	452,735	4,774,658	225 mega-volt-ampere (MVA)- See Table B4
Parkhill T2	<b>105.8</b>	452,777	4,774,648	225 mega-volt-ampere (MVA)- See Table B4

Note: The Maximum Sound Power Level of the transformer substations include the applicable 5 dB tonal penalty described in the Noise Guidelines for Wind Farms.

Table B2: Maximum Sound Power Level spectrum (dBA) of the Wind Turbine Generators

1-38	Octave Band Centre Frequency (Hz)							
	63	125	250	500	1000	2000	4000	8000
Sound Power Level (dBA)	84	91.7	95.5	97.0	97.8	95.1	87.9	69.1

Table B3: Maximum Sound Power Level spectrum (dBA) of the 85 mega-volt-amperes (MVA) Transformer Substation including 5 dB tonal penalty

Sub	Octave Band Centre Frequency (Hz)							
	63	125	250	500	1000	2000	4000	8000
Sound Power Level (dBA)	79.2	91.3	93.8	99.2	96.4	92.6	87.4	78.3

Table B4: Maximum Sound Power Level spectrum (dBA) of the 225 mega-volt-amperes (MVA) Transformer Substation including 5dB tonal penalty

Parkhill T1 Parkhill T2	Octave Band Centre Frequency (Hz)							
	63	125	250	500	1000	2000	4000	8000
Sound Power Level (dBA)	82.2	94.3	96.8	102.2	99.4	95.6	90.4	81.3

**SCHEDULE C**  
**Noise Control Measures**

**Acoustic Barrier:**

**A) Adelaide wind farm substation:**

One (1) 8 metres long and 5.5 metres high acoustic barriers, positioned as per Figure entitled "38 Turbine Layout with simulated noise isocontours (the worst case wind speed scenario)" of the Acoustic Assessment Report. The acoustic barriers shall be continuous without holes, gaps and other penetrations, and having a surface mass at least 20 kilograms per square metres.

**B) Parkhill Interconnect Substation:**

Two (2) 28 metres long and 5.5 metres high acoustic barriers, positioned as per Figure entitled "Noise Map" of the Acoustic Assessment Report. The acoustic barriers shall be continuous without holes, gaps and other penetrations, and having a surface mass at least 20 kilograms per square metres.

*The reasons for the imposition of these terms and conditions are as follows:*

## **REASONS**

1. Conditions A1, A2 and A9 are included to ensure that the Facility is constructed, installed, used, operated, maintained and retired in the manner in which it was described for review and upon which Approval was granted. These conditions are also included to emphasize the precedence of conditions in the Approval and the practice that the Approval is based on the most current document, if several conflicting documents are submitted for review.
2. Conditions A3 and A4 are included to require the Company to provide information to the public and the local municipality.
3. Conditions A5, A6 and A7 are included to ensure that final retirement of the Facility is completed in an aesthetically pleasing manner, in accordance with Ministry standards, and to ensure long-term protection of the health and safety of the public and the environment.
4. Condition A8 is included to require the Company to inform the Ministry of the commencement of activities related to the construction, installation and operation of the Facility.
5. Condition A10 is included to ensure that all necessary authorizations under the *Endangered Species Act* are obtained.
5. Condition B is intended to limit the time period of the Approval.
6. Condition C1 is included to provide the minimum performance requirement considered necessary to prevent an Adverse Effect resulting from the operation of the Equipment and to ensure that the noise emissions from the Equipment will be in compliance with applicable limits set in the Noise Guidelines for Wind Farms.
7. Conditions A9, C2 and C3 are included to ensure that the Equipment is constructed, installed, used, operated, maintained and retired in a way that meets the regulatory setback prohibitions set out in O. Reg. 359/09.
8. Conditions D, E and F are included to require the Company to gather accurate information so that the environmental noise impact and subsequent compliance with the Act, O. Reg. 359/09, the Noise Guidelines for Wind Farms and this Approval can be verified.
10. Conditions G, H, I, J, K and L are included to ensure that the Facility is constructed, installed, used, operated, maintained and retired in a way that does not result in an Adverse Effect or hazard to the natural environment or any persons.
11. Condition M is included to protect archaeological resources that may be found at the project location.
12. Condition N is included to ensure continued communication between the Company and the local residents.

13. Condition O is included to emphasize that the Equipment must be maintained and operated according to a procedure that will result in compliance with the Act, O. Reg. 359/09 and this Approval.
14. Condition P is included to require the Company to keep records and provide information to the Ministry so that compliance with the Act, O. Reg. 359/09 and this Approval can be verified.
15. Condition Q is included to ensure that any complaints regarding the construction, installation, use, operation, maintenance or retirement of the Facility are responded to in a timely and efficient manner.
16. Condition R is included to ensure that the Facility is operated under the corporate name which appears on the application form submitted for this Approval and to ensure that the Director is informed of any changes.16.
17. Condition S is included to ensure continued communication between the Company and interested Aboriginal communities.

## **NOTICE REGARDING HEARINGS**

*In accordance with Section 139 of the Environmental Protection Act, within 15 days after the service of this notice, you may by further written notice served upon the Director, the Environmental Review Tribunal and the Environmental Commissioner, require a hearing by the Tribunal.*

*In accordance with Section 47 of the Environmental Bill of Rights, 1993, the Environmental Commissioner will place notice of your request for a hearing on the Environmental Registry.*

*Section 142 of the Environmental Protection Act provides that the notice requiring the hearing shall state:*

1. The portions of the renewable energy approval or each term or condition in the renewable energy approval in respect of which the hearing is required, and;
2. The grounds on which you intend to rely at the hearing in relation to each portion appealed.

*The signed and dated notice requiring the hearing should also include:*

3. The name of the appellant;
4. The address of the appellant;
5. The renewable energy approval number;
6. The date of the renewable energy approval;
7. The name of the Director;
8. The municipality or municipalities within which the project is to be engaged in;

*This notice must be served upon:*

The Secretary\*  
Environmental Review Tribunal  
655 Bay Street, 15th Floor  
Toronto, Ontario  
M5G 1E5

AND

The Environmental Commissioner  
1075 Bay Street, 6th Floor  
Suite 605  
Toronto, Ontario  
M5S 2B1

AND

The Director  
Section 47.5, *Environmental Protection Act*  
Ministry of the Environment  
2 St. Clair Avenue West, Floor 12A  
Toronto, Ontario  
M4V 1L5

**\* Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 314-4600, Fax: (416) 314-4506 or [www.ert.gov.on.ca](http://www.ert.gov.on.ca)**

*Under Section 142.1 of the Environmental Protection Act, residents of Ontario may require a hearing by the Environmental Review Tribunal within 15 days after the day on which notice of this decision is published in the Environmental Registry. By accessing the Environmental Registry at [www.ebr.gov.on.ca](http://www.ebr.gov.on.ca), you can determine when this period ends.*

*Approval for the above noted renewable energy project is issued to you under Section 47.5 of the Environmental Protection Act subject to the terms and conditions outlined above.*

DATED AT TORONTO this 1st day of August, 2013



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Vic Schroter, P.Eng.  
Director  
Section 47.5, *Environmental Protection Act*

MZ/

c: District Manager, MOE London - District  
Thomas Bird, NextEra Energy Canada

**AMENDMENT TO RENEWABLE ENERGY APPROVAL**NUMBER 8980-95RSLP  
Issue Date: February 28, 2014

Kerwood Wind, Inc.  
390 Bay St, No. 1720  
Toronto, Ontario  
M5H 2Y2

Site Location: Adelaide Wind Energy Centre  
Multiple addresses south of Townsend Line, west of Centre Road, north of Napperton Drive  
and east of Sexton Road.  
Adelaide Metcalfe Township, County of Middlesex

*You are hereby notified that I have amended Approval No. 8980-95RSLP issued on August 1, 2013  
for a Class 4 wind facility , as follows:*

**A. The definition of "Application" in the Approval is deleted and replaced by the following:**

11. "Application" means the application for a Renewable Energy Approval dated August 22, 2012, and signed by F. Allen Wiley, Vice President, Development, NextEra Energy Canada, on behalf of Kerwood Wind Inc., and all supporting documentation submitted with the application, including amended documentation submitted up to July 31, 2013; and as further amended by two applications for a Renewable Energy Approval dated September 24, 2013 and January 10, 2014, and signed by F. Allen Wiley, Vice President, Development, NextEra Energy Canada, on behalf of Kerwood Wind Inc., and all supporting documentation submitted with the applications, including amended documentation submitted up to February 27, 2014;

**All other Terms and Conditions of the Approval remain the same.**

**This Notice shall constitute part of the approval issued under Approval No. 8980-95RSLP dated August 1, 2013**

*In accordance with Section 139 of the Environmental Protection Act, within 15 days after the service of this notice, you may by further written notice served upon the Director, the Environmental Review Tribunal and the Environmental Commissioner, require a hearing by the Tribunal.*

*In accordance with Section 47 of the Environmental Bill of Rights, 1993, the Environmental Commissioner will place notice of your request for a hearing on the Environmental Registry.*



Section 142 of the Environmental Protection Act provides that the notice requiring the hearing shall state:

1. The portions of the renewable energy approval or each term or condition in the renewable energy approval in respect of which the hearing is required, and;
2. The grounds on which you intend to rely at the hearing in relation to each portion appealed.

The signed and dated notice requiring the hearing should also include:

3. The name of the appellant;
4. The address of the appellant;
5. The renewable energy approval number;
6. The date of the renewable energy approval;
7. The name of the Director;
8. The municipality or municipalities within which the project is to be engaged in;

This notice must be served upon:

The Secretary\*  
Environmental Review Tribunal  
655 Bay Street, 15th Floor  
Toronto, Ontario  
M5G 1E5

AND

The Environmental Commissioner  
1075 Bay Street, 6th Floor  
Suite 605  
Toronto, Ontario  
M5S 2B1

AND

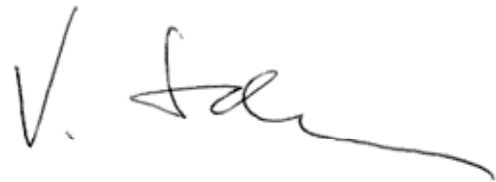
The Director  
Section 47.5, *Environmental Protection Act*  
Ministry of the Environment  
2 St. Clair Avenue West, Floor 12A  
Toronto, Ontario  
M4V 1L5

**\* Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 314-4600, Fax: (416) 314-4506 or [www.ert.gov.on.ca](http://www.ert.gov.on.ca)**

*Under Section 142.1 of the Environmental Protection Act, residents of Ontario may require a hearing by the Environmental Review Tribunal within 15 days after the day on which notice of this decision is published in the Environmental Registry. By accessing the Environmental Registry at [www.ebr.gov.on.ca](http://www.ebr.gov.on.ca), you can determine when this period ends.*

*Approval for the above noted renewable energy project is issued to you under Section 47.5 of the Environmental Protection Act subject to the terms and conditions outlined above.*

DATED AT TORONTO this 28th day of February, 2014



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Vic Schroter, P.Eng.  
Director  
Section 47.5, *Environmental Protection Act*

MK/

c: District Manager, MOE London - District  
Andrea Garcia, NextEra Energy Canada

**AMENDMENT TO RENEWABLE ENERGY APPROVAL**NUMBER 8980-95RSLP  
Issue Date: October 16, 2014

Kerwood Wind GP, ULC, as general partner for and on behalf of Kerwood Wind, LP  
390 Bay Street, Suite 1720  
Toronto, Ontario  
M5H 2Y2

Site Location: Adelaide Wind Energy Centre  
Multiple Addresses south of Townsend Line, west of Centre Road, north of Napperton Drive  
and east of Sexton Road  
Adelaide Metcalfe Township, County of Middlesex

*You are hereby notified that I have amended Approval No. 8980-95RSLP issued on August 1, 2013  
for a Class 4 wind facility , as follows:*

**A. The owner/ operator of the Facility is deleted and replaced with the following:**

Kerwood Wind GP, ULC, as general partner for and on behalf of Kerwood Wind, LP  
390 Bay Street, Suite 1720  
Toronto, Ontario  
M5H 2Y2

**B. The definitions of "Application" and "Company" are deleted and replaced with the following:**

11. "Application" means the application for a Renewable Energy Approval dated August 22, 2012, and signed by F. Allen Wiley, Vice President, Development, NextEra Energy Canada, on behalf of Kerwood Wind Inc., and all supporting documentation submitted with the application, including amended documentation submitted up to August 1, 2013; and as further amended by two applications for amendments to a Renewable Energy Approval dated September 24, 2013 and January 10, 2014, and signed by F. Allen Wiley, Vice President, Development, NextEra Energy Canada, on behalf of Kerwood Wind Inc., and all supporting documentation submitted with the application, including amended documentation submitted up to February 28, 2014; and as further amended by two applications for amendments to a Renewable Energy Approval dated April 16, 2014 and August 1, 2014 and signed by F. Allen Wiley, Vice President, Development, Kerwood Wind GP, ULC as a general partner for and on behalf of Kerwood Wind, LP, and all supporting documentation submitted with the application, including amended documentation submitted up to the date this amendment is issued;

18. "Company" means Kerwood Wind GP, ULC, as general partner for and on behalf of Kerwood Wind, LP, a limited partnership formed under the laws of Ontario, and includes its successors and assignees;

**C. Condition D1 of the Approval is deleted and replaced with the following:**

D1. The Company shall carry out an Acoustic Audit of each of the three (3) transformer substations in accordance with the procedure set out in Publication NPC-103, and shall submit to the District Manager and the Director an Acoustic Audit Report prepared by an Independent Acoustical Consultant in accordance with the requirements of Publication NPC-233, no later than twelve (12) months after the commencement of the operation of the Facility.

**D. Condition E2 of the Approval is deleted and replaced with the following:**

E2. The Company shall submit to the District Manager and the Director an Acoustic Audit Report -Emission, prepared in accordance with Section 9 of the IEC Standard 61400-11 by an Independent Acoustical Consultant, no later than twelve (12) months after the commencement of the operation of the Facility.

**E. Conditions F1 and F2 of the Approval are deleted and replaced with the following:**

F1. The Company shall carry out an Acoustic Audit - Immission of the Sound Levels produced by the operation of the Equipment in accordance with the following:

- (1) the acoustic audit measurements shall be undertaken in accordance with Part D of the Compliance Protocol for Wind Turbine Noise;
- (2) the acoustic audit measurements shall be performed by an Independent Acoustical Consultant on two (2) separate occasions at three (3) different Points of Reception;
- (3) the Points of Reception shall be selected using the following criteria, subject to the constraints imposed by the location of the Points of Reception with respect to the location of the Equipment:
  - (a) the selected Point(s) of Reception should represent the location of the greatest predicted noise impacts, i.e., the highest predicted Sound Levels; and
  - (b) the selected Point(s) of Reception should be located in the direction of prevailing winds from the Facility.

F2. The Company shall submit to the District Manager and the Director an Acoustic Audit Report-Immision, prepared by an Independent Acoustical Consultant, at the following points in time:

- (1) no later than twelve (12) months after the commencement of the operation of the Facility for the first of the two (2) acoustic audit measurements at the three (3) Points of Reception; and
- (2) no later than eighteen (18) months after the commencement of the operation of the Facility for the second of the two (2) acoustic audit measurements at the three (3) Points of Reception.

**All other Terms and Conditions of the Approval remain the same.**

**This Notice shall constitute part of the approval issued under Approval No. 8980-95RSLP dated August 1, 2013.**

*In accordance with Section 139 of the Environmental Protection Act, within 15 days after the service of this notice, you may by further written notice served upon the Director, the Environmental Review Tribunal and the Environmental Commissioner, require a hearing by the Tribunal.*

*In accordance with Section 47 of the Environmental Bill of Rights, 1993, the Environmental Commissioner will place notice of your request for a hearing on the Environmental Registry.*

*Section 142 of the Environmental Protection Act provides that the notice requiring the hearing shall state:*

1. The portions of the renewable energy approval or each term or condition in the renewable energy approval in respect of which the hearing is required, and;
2. The grounds on which you intend to rely at the hearing in relation to each portion appealed.

*The signed and dated notice requiring the hearing should also include:*

3. The name of the appellant;
4. The address of the appellant;
5. The renewable energy approval number;
6. The date of the renewable energy approval;
7. The name of the Director;
8. The municipality or municipalities within which the project is to be engaged in;

*This notice must be served upon:*

The Secretary\*  
Environmental Review Tribunal  
655 Bay Street, 15th Floor  
Toronto, Ontario  
M5G 1E5

AND

The Environmental Commissioner  
1075 Bay Street, 6th Floor  
Suite 605  
Toronto, Ontario  
M5S 2B1

AND

The Director  
Section 47.5, *Environmental Protection Act*  
Ministry of the Environment  
2 St. Clair Avenue West, Floor 12A  
Toronto, Ontario  
M4V 1L5

**\* Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 314-4600, Fax: (416) 314-4506 or [www.ert.gov.on.ca](http://www.ert.gov.on.ca)**

*Under Section 142.1 of the Environmental Protection Act, residents of Ontario may require a hearing by the Environmental Review Tribunal within 15 days after the day on which notice of this decision is published in the Environmental Registry. By accessing the Environmental Registry at [www.ebr.gov.on.ca](http://www.ebr.gov.on.ca), you can determine when this period ends.*

*Approval for the above noted renewable energy project is issued to you under Section 47.5 of the Environmental Protection Act subject to the terms and conditions outlined above.*

DATED AT TORONTO this 16th day of October, 2014



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Vic Schroter, P.Eng.  
Director  
Section 47.5, *Environmental Protection Act*

MZ/

c: District Manager, MOE London  
Andrea Garcia, NextEra Energy Canada

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Ministry of the Environment and Climate Change  
Ministère de l'Environnement et de l'Action en matière de changement  
climatique

AMENDMENT TO RENEWABLE ENERGY APPROVAL

NUMBER 8980-95RSLP  
Issue Date: June 27, 2016

Kerwood Wind GP, ULC, as general partner for and on behalf of Kerwood Wind, LP  
390 Bay St, No. 1720  
Toronto, Ontario  
M5H 2Y2

Site Location: Adelaide Wind Energy Centre  
Multiple Addresses south of Townsend Line, west of Centre Road, north of  
Napperton Drive and east of Sexton Road. See PDR in application  
Adelaide Metcalfe Township, County of Middlesex

*You are hereby notified that I have amended Approval No. 8980-95RSLP issued on August 1, 2013  
for a Class 4 wind facility , as follows:*

**A. The definition of "Application" is hereby deleted and replaced with the following:**

11. "Application" means the application for a Renewable Energy Approval dated August 22, 2012, and signed by F. Allen Wiley, Vice President, Development, NextEra Energy Canada, on behalf of Kerwood Wind Inc., and all supporting documentation submitted with the application, including amended documentation submitted up to August 1, 2013; and as further amended by two applications for amendments to a Renewable Energy Approval dated September 24, 2013 and January 10, 2014, and signed by F. Allen Wiley, Vice President, Development, NextEra Energy Canada, on behalf of Kerwood Wind Inc., and all supporting documentation submitted with the application, including amended documentation submitted up to February 28, 2014; and as further amended by two applications for amendments to a Renewable Energy Approval dated April 16, 2014 and August 1, 2014 and signed by F. Allen Wiley, Vice President, Development, Kerwood Wind GP, ULC as a general partner for and on behalf of Kerwood Wind, LP, and all supporting documentation submitted with the application, including amended documentation submitted up to October 16, 2014; and as further amended by the application for an amendment to a Renewable Energy Approval dated December 21, 2015, and signed by Catherine Mitchell, Senior Business Manager, Kerwood Wind GP, ULC, as general partner for and on behalf of Kerwood Wind, LP, and all supporting documentation submitted with the application, including amended documentation submitted up to June 27, 2016.

**B. The following Conditions T1 and T2 are added to the Approval:**

**T – SPARE TRANSFORMER**

T1. The spare transformer will only be used in the event of failure or maintenance of the existing approved transformer, not simultaneously.

T2. The spare transformer shall not be stored at the project location.

**C. All references to the mega-volt ampere (MVA) rating of the transformer substation in this**

**Approval are hereby deleted.**

**All other Terms and Conditions of the Approval remain the same.**

**This Notice shall constitute part of the approval issued under Approval No. 8980-95RSLP dated August 1, 2013**

*In accordance with Section 139 of the Environmental Protection Act , within 15 days after the service of this notice, you may by further written notice served upon the Director, the Environmental Review Tribunal and the Environmental Commissioner, require a hearing by the Tribunal.*

*In accordance with Section 47 of the Environmental Bill of Rights, 1993 , the Environmental Commissioner will place notice of your request for a hearing on the Environmental Registry.*

*Section 142 of the Environmental Protection Act provides that the notice requiring the hearing shall state:*

1. The portions of the renewable energy approval or each term or condition in the renewable energy approval in respect of which the hearing is required, and;
2. The grounds on which you intend to rely at the hearing in relation to each portion appealed.

*The signed and dated notice requiring the hearing should also include:*

3. The name of the appellant;
4. The address of the appellant;
5. The renewable energy approval number;
6. The date of the renewable energy approval;
7. The name of the Director;
8. The municipality or municipalities within which the project is to be engaged in;

*This notice must be served upon:*

The Secretary*	AND	The Environmental	AND	The Director
Environmental Review		Commissioner		Section 47.5, <i>Environmental</i>
Tribunal		1075 Bay Street, 6th		<i>Protection Act</i>
655 Bay Street, 15th		Floor		Ministry of the Environment
Floor		Suite 605		and Climate Change
Toronto, Ontario		Toronto, Ontario		135 St. Clair Avenue West,
M5G 1E5		M5S 2B1		1st Floor
				Toronto, Ontario
				M4V 1P5

**\* Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 212-6349, Fax: (416) 326-5370 or [www.ert.gov.on.ca](http://www.ert.gov.on.ca)**

*Under Section 142.1 of the Environmental Protection Act , residents of Ontario may require a hearing by the Environmental Review Tribunal within 15 days after the day on which notice of this decision is published in the Environmental Registry. By accessing the Environmental Registry at [www.ebr.gov.on.ca](http://www.ebr.gov.on.ca) , you can determine when this period ends.*

*Approval for the above noted renewable energy project is issued to you under Section 47.5 of the*

*Environmental Protection Act* subject to the terms and conditions outlined above.

DATED AT TORONTO this 27th day of June, 2016

Mohsen Keyvani, P.Eng.  
Director  
Section 47.5, *Environmental Protection Act*

AZ/

c: District Manager, MOECC London - District  
Derek Dudek, NextEra Energy Centre



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Ministry of the Environment, Conservation and Parks  
Ministère de l'Environnement, de la Protection de la nature et des Parcs

AMENDMENT TO RENEWABLE ENERGY APPROVAL  
NUMBER 8980-95RSLP  
Issue Date: July 19, 2019

Kerwood Wind GP, ULC, as general partner for and on behalf of Kerwood Wind,  
LP  
390 Bay St, No. 1720  
Toronto, Ontario  
M5H 2Y2

**Site Location:** Adelaide Wind Energy Centre

Multiple Addresses south of Townsend Line, west of Centre Road, north of  
Napperton Drive and east of Sexton Road. See PDR in application  
Adelaide Metcalfe Township, County of Middlesex  
N7G 3G5

*You are hereby notified that I have amended Approval No. 8980-95RSLP issued on  
August 1, 2013 for a Class 4 wind facility , as follows:*

**A. The definition of "Application" is hereby deleted and replaced with the  
following:**

11. "Application" means the application for a Renewable Energy Approval dated August 22, 2012, and signed by F. Allen Wiley, Vice President, Development, NextEra Energy Canada, on behalf of Kerwood Wind Inc., and all supporting documentation submitted with the application, including amended documentation submitted up to August 1, 2013; and as further amended by two applications for amendments to a Renewable Energy Approval dated September 24, 2013 and January 10, 2014, and signed by F. Allen Wiley, Vice President, Development, NextEra Energy Canada, on behalf of Kerwood Wind Inc., and all supporting documentation submitted with the application, including amended documentation submitted up to February 28, 2014; and as further amended by two applications for amendments to a Renewable Energy Approval dated April 16, 2014 and August 1, 2014 and signed by F. Allen Wiley, Vice President, Development, Kerwood Wind GP, ULC as a general partner for and on behalf of Kerwood Wind, LP, and all supporting documentation submitted with the application, including amended documentation submitted up to October 16, 2014; and as further amended by the application for an amendment to a Renewable Energy Approval dated December 21, 2015, and signed by Catherine Mitchell, Senior Business Manager, Kerwood Wind GP, ULC, as general partner for and on behalf of Kerwood Wind, LP, and all supporting documentation submitted with the application, including amended documentation submitted up to June 27, 2016; and as further amended by the application for an amendment to a Renewable Energy Approval dated April 22, 2019, and signed by Michael Sheehan, VP, Business Management, NextEra Energy Canada, on behalf of

Kerwood Wind GP, ULC, as general partner for and on behalf of Kerwood Wind, LP, and all supporting documentation submitted with the application;

**All other Terms and Conditions of the Approval remain the same.**

**This Notice shall constitute part of the approval issued under Approval No. 8980-95RSLP dated August 1, 2013.**

*In accordance with Section 139 of the Environmental Protection Act, within 15 days after the service of this notice, you may by further written notice served upon the Director, the Environmental Review Tribunal and the Minister of the Environment, Conservation and Parks, require a hearing by the Tribunal.*

*In accordance with Section 47 of the Environmental Bill of Rights, 1993, the Minister of the Environment, Conservation and Parks will place notice of your request for a hearing on the Environmental Registry.*

*Section 142 of the Environmental Protection Act provides that the notice requiring the hearing shall state:*

- a. The portions of the renewable energy approval or each term or condition in the renewable energy approval in respect of which the hearing is required, and;
- b. The grounds on which you intend to rely at the hearing in relation to each portion appealed.

*The signed and dated notice requiring the hearing should also include:*

1. The name of the appellant;
2. The address of the appellant;
3. The renewable energy approval number;
4. The date of the renewable energy approval;
5. The name of the Director;
6. The municipality or municipalities within which the project is to be engaged in;

*This notice must be served upon:*

The Secretary\*  
Environmental Review  
Tribunal  
655 Bay Street, 15th Floor  
Toronto, Ontario  
M5G 1E5

AND

The Minister of the  
Environment, Conservation  
and Parks  
777 Bay Street, 5th Floor  
Toronto, Ontario  
M7A 2J3

AND

The Director  
Section 47.5, *Environmental  
Protection Act*  
Ministry of the Environment,  
Conservation and Parks  
135 St. Clair Avenue West, 1st Floor  
Toronto, Ontario  
M4V 1P5

**\* Further information on the Environmental Review Tribunal's requirements for**

**an appeal can be obtained directly from the Tribunal at: Tel: (416) 212-6349, Fax: (416) 326-5370 or [www.ert.gov.on.ca](http://www.ert.gov.on.ca)**

*Under Section 142.1 of the Environmental Protection Act, residents of Ontario may require a hearing by the Environmental Review Tribunal within 15 days after the day on which notice of this decision is published in the Environmental Registry. By accessing the Environmental Registry at <https://ero.ontario.ca/>, you can determine when this period ends.*

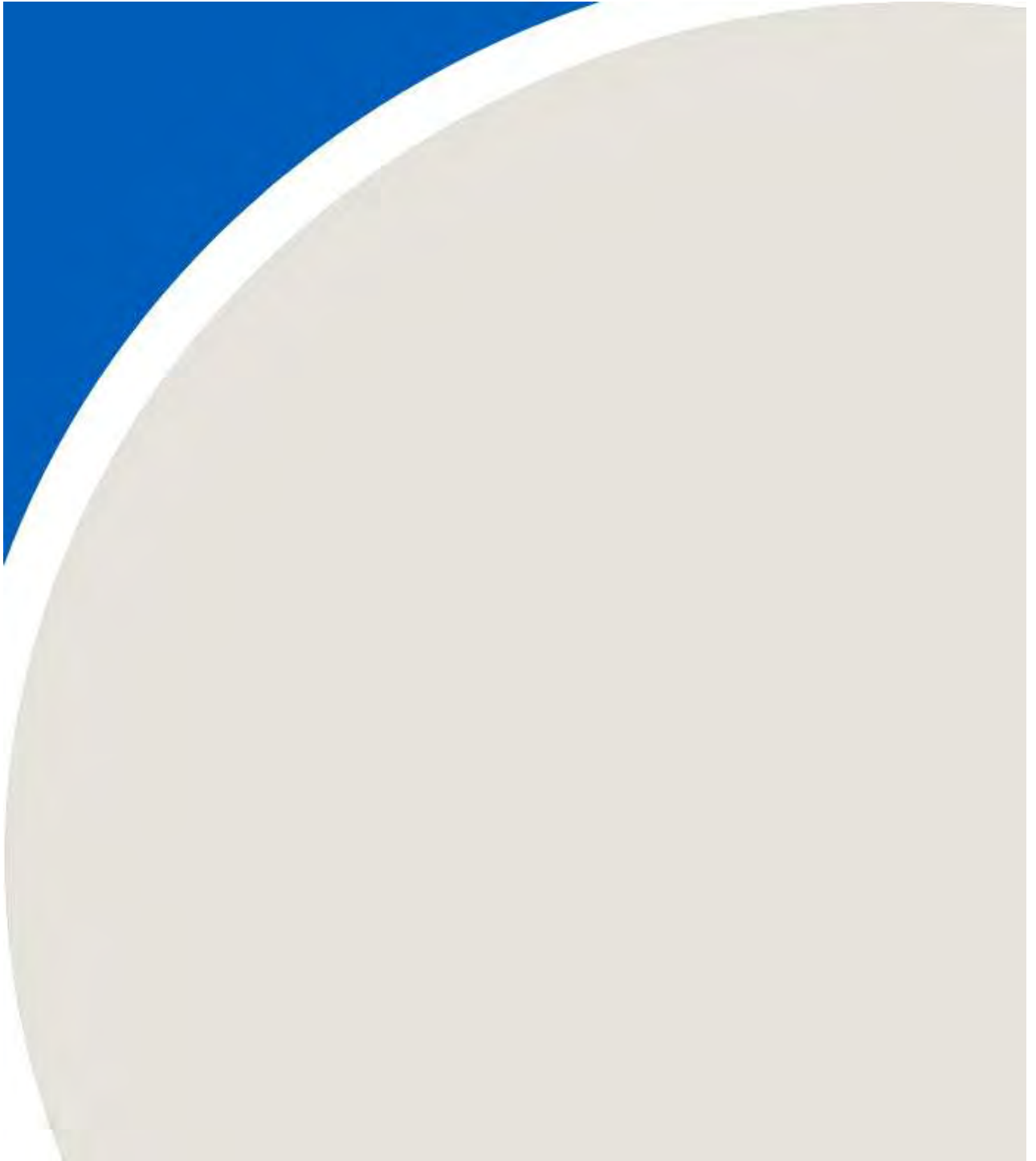
*Approval for the above noted renewable energy project is issued to you under Section 47.5 of the Environmental Protection Act subject to the terms and conditions outlined above.*

DATED AT TORONTO this 19th day of July,  
2019

Mohsen Keyvani, P.Eng.  
Director  
Section 47.5, *Environmental  
Protection Act*

SR/  
c: District Manager, MECP London - District  
Joanna Rosengarten, McCarthy Tetrault LLP

## APPENDIX C





## Sound Level Meter 2250

<b>Sound Level Meter</b>	
Make and Model	Brüel & Kjær Modular Precision Sound Analyzer Type 2250
Serial No.	3004496
<b>Preamplifier</b>	
Make and Type	Brüel & Kjær Preamplifier Type ZC-0032
Serial No.	20253
<b>Microphone</b>	
Make and Type	Brüel & Kjær 1/2" Sound Microphone Type 4189
Serial No.	2555994
<b>Calibrator</b>	
Make and Type	Larson-Davis CAL200 precision acoustic calibrator (1000 Hz)
Serial No.	Various

# MANUFACTURER'S CERTIFICATE OF CONFORMANCE

We certify that Brüel & Kjær **-2250--D00-** Serial No. **3004496** has been tested and passed all production tests, confirming compliance with the manufacturer's published specification at the date of the test.

The final test has been performed using calibrated equipment, traceable to National or International Standards or by ratio measurements.

Brüel & Kjær is certified under ISO 9001:2008 assuring that all test data is retained on file and is available for inspection upon request.

Nærum 12-feb-2014



Torben Bjørn  
Vice President, Operations

Please note that this document is not a calibration certificate.  
For information on our calibration services please contact your nearest Brüel & Kjær office.



## Sound Level Meter 2250

<b>Sound Level Meter</b>	
Make and Model	Brüel & Kjær Modular Precision Sound Analyzer Type 2250
Serial No.	3004786
<b>Preamplifier</b>	
Make and Type	Brüel & Kjær Preamplifier Type ZC-0032
Serial No.	20299
<b>Microphone</b>	
Make and Type	Brüel & Kjær 1/2" Sound Microphone Type 4189
Serial No.	2888637
<b>Calibrator</b>	
Make and Type	Larson-Davis CAL200 precision acoustic calibrator (1000 Hz)
Serial No.	Various

# MANUFACTURER'S CERTIFICATE OF CONFORMANCE

We certify that Brüel & Kjær **-2250--D00-** Serial No. **3004786** has been tested and passed all production tests, confirming compliance with the manufacturer's published specification at the date of the test.

The final test has been performed using calibrated equipment, traceable to National or International Standards or by ratio measurements.

Brüel & Kjær is certified under ISO 9001:2008 assuring that all test data is retained on file and is available for inspection upon request.

Nærum 12-feb-2014



Torben Bjørn  
Vice President, Operations

Please note that this document is not a calibration certificate.  
For information on our calibration services please contact your nearest Brüel & Kjær office.

HEADQUARTERS: Brüel & Kjær Sound & Vibration Measurement A/S · DK-2850 Nærum · Denmark  
Telephone: +45 7741 2000 · Fax: +45 4580 1405 · www.bksv.com · info@bksv.com

Local representatives and service organisations worldwide

**Brüel & Kjær** 





## Sound Level Meter 2250

<b>Sound Level Meter</b>	
Make and Model	Brüel & Kjær Modular Precision Sound Analyzer Type 2250
Serial No.	2505861
<b>Preamplifier</b>	
Make and Type	Brüel & Kjær Preamplifier Type ZC-0032
Serial No.	15717
<b>Microphone</b>	
Make and Type	Brüel & Kjær 1/2" Sound Microphone Type 4189
Serial No.	2503102
<b>Calibrator</b>	
Make and Type	Larson-Davis CAL200 precision acoustic calibrator (1000 Hz)
Serial No.	Various



The Brüel & Kjær Calibration Laboratory  
2815 Colonnades Court  
Norcross, GA 30071-1588  
Telephone: 770/209-6907  
Fax: 770/447-4033  
Web site address: <http://www.bkhome.com>

## CERTIFICATE OF CALIBRATION

Certificate No: 1-356301052-201

### CALIBRATION OF:

Sound Level Meter:	Brüel & Kjær	2250	Serial No: 2505861
Microphone:	Brüel & Kjær	4189	Serial No: 2503102
Preamplifier:	Brüel & Kjær	ZC-0032	Serial No: 15717
Software version:	BZ7222 Version 4.1.1	Instruction manual:	BE1713-23

### CLIENT:

XSCALA Rental Instruments  
234-5149 Country Hills Blvd. NW  
Calgary, AB T3A 5K8

### CALIBRATION CONDITIONS:

Preconditioning: 4 hours at 23 ± 3 °C  
Environment conditions See actual values in Environmental Condition sections

### SPECIFICATIONS:

This document certifies that the instrument as listed under "Model/Serial Number" has been calibrated and unless otherwise indicated under "Final Data", meets acceptance criteria as prescribed by the referenced Procedure. The reported expanded uncertainty is based on the standard uncertainty multiplied by a coverage factor  $k = 2$  providing a level of confidence of approximately 95%. Statements of compliance, where applicable, are based on calibration results falling within specified criteria with no reduction by the uncertainty of the measurement. The calibration of the listed instrumentation, was accomplished using a test system which conforms with the requirements of ISO/IEC 17025, ANSI/NCSL Z540-1, and ISO 10012-1. For "as received" and/or "final" data, see the attached page(s). Items marked with one asterisk (\*) are not covered by the scope of the current A2LA accreditation This Certificate and attached data pages shall not be reproduced, except in full, without the written approval of the Brüel and Kjær Calibration Laboratory-Norcross, GA. Results relate only to the items tested. This instrument has been calibrated using Measurement Standards with values traceable to the National Institute of Standards and Technology, National Measurement Institutes or derived from natural physical constants.

### PROCEDURE:

Brüel and Kjær Model 3630 Sound Level Meter Calibration System Software 7763 Version 4.7 - DB: 4.70 Test Collection 2250-4189.

### RESULTS:

As Received Condition	As Received Data	Final Data
<input checked="" type="checkbox"/> Received in good condition	<input checked="" type="checkbox"/> Within acceptance criteria	<input checked="" type="checkbox"/> Within acceptance criteria
<input type="checkbox"/> Damaged - See attached report	<input type="checkbox"/> Outside acceptance criteria	<input type="checkbox"/> Limited test - See attached details
	<input type="checkbox"/> Inoperative	
	<input type="checkbox"/> Data not taken	

Date of Calibration: 15 Apr. 2013

Certificate issued: 15 Apr. 2013

Ashley Cody

Calibration Technician

Quality Representative

# CERTIFICATE OF CALIBRATION

Certificate No: 1-356301052-201

Page 2 of 9

## Summary

Preliminary inspection	<b><u>Passed</u></b>
Environmental conditions, Prior to calibration	<b><u>Passed</u></b>
Reference information	<b><u>Passed</u></b>
Indication at the calibration check frequency	<b><u>Passed</u></b>
Self-generated noise, Microphone installed	<b><u>Passed</u></b>
Acoustical signal tests of a frequency weighting, C weighting	<b><u>Passed</u></b>
Self-generated noise, Electrical	<b><u>Passed</u></b>
Electrical signal tests of frequency weightings, A weighting	<b><u>Passed</u></b>
Electrical signal tests of frequency weightings, C weighting	<b><u>Passed</u></b>
Electrical signal tests of frequency weightings, Z weighting	<b><u>Passed</u></b>
Frequency and time weightings at 1 kHz	<b><u>Passed</u></b>
Level linearity on the reference level range, Upper	<b><u>Passed</u></b>
Level linearity on the reference level range, Lower	<b><u>Passed</u></b>
Toneburst response, Time-weighting Fast	<b><u>Passed</u></b>
Toneburst response, Time-weighting Slow	<b><u>Passed</u></b>
Toneburst response, LAE	<b><u>Passed</u></b>
Peak C sound level, 8 kHz	<b><u>Passed</u></b>
Peak C sound level, 500 Hz	<b><u>Passed</u></b>
Overload indication	<b><u>Passed</u></b>
Environmental conditions, Following calibration	<b><u>Passed</u></b>

The sound level meter submitted for periodic testing successfully completed the class 1 tests of IEC 61672-3:2006, for the environmental conditions under which the tests were performed.

However, no general statement or conclusion can be made about conformance of the sound level meter to the full requirements of IEC 61672-1:2002 because evidence was not publicly available, from an independent testing organization responsible for pattern approvals, to demonstrate that the model of sound level meter fully conformed to the requirements in IEC 61672-1:2002 and because the periodic test of IEC 61672-3:2006 cover only a limited subset of the specifications in IEC 61672-1:2002.

## Instruments

<b><u>Category:</u></b>	<b><u>Type:</u></b>	<b><u>Manufacturer:</u></b>	<b><u>Serial No.:</u></b>	<b><u>Next Calibration Date:</u></b>	<b><u>Traceable to:</u></b>
Voltmeter	DMM34970A	Agilent	44002586	24 May. 2013	318154
Generator	Pulse Generator	Brüel & Kjær	2604447	05 Jun. 2013	1-354731821-204
Calibrator	4226	Brüel & Kjær	2590978	06 Nov. 2013	1-315939881-301
Amplifier/Divider	3111 Output Module	Brüel & Kjær	2590603	05 Jun. 2013	1-354731821-204
Adaptor	WA0302B, 15 pF	Brüel & Kjær	2461380	16 Jan. 2015	330971

# Rule 012

## Noise Control

The Alberta Utilities Commission has approved amendments to this rule on March 13, 2013, which are effective on April 1, 2013.

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## 1 General provisions

### 1.1 Definitions

In this rule:

- (a) “Commission” means the Alberta Utilities Commission
- (b) “facility” means a gas utility pipeline, hydro development, power plant, substation or transmission line
- (c) “gas utility pipeline” has the same meaning as in the [Gas Utilities Act](#)
- (d) “hydro development”, “power plant”, “substation” or “transmission line” has the same meaning as in the [Hydro and Electric Energy Act](#)
- (e) “licensee” means the holder of a licence or approval for a facility in accordance with the records of the Alberta Utilities Commission

Refer to Appendix 1- Glossary for additional definitions.

### 1.2 Rule application

- (1) The purpose of this rule is to ensure that the noise from a facility, measured cumulatively with noise from other energy-related facilities, does not exceed the permissible sound level calculated in accordance with this rule.

The rule provides a process to evaluate noise complaints relating to a facility.

- (2) Subject to Section 2.2, this rule applies on or after April 1, 2013.

### 1.3 Compliance

- (1) At any dwelling(s), the permissible sound level determined in accordance with Section 2 of this rule.
- (2) The cumulative sound level includes the assumed or measured ambient sound level, any existing and approved, but not yet constructed energy-related facilities, and the predicted sound level from the applicant’s proposed facility.

### 1.4 Commission discretion

- (1) The Commission retains the discretion to assess the permissible sound level on a site-specific basis and may permit a permissible sound level in excess of the permissible sound level as determined in accordance with Section 2.
- (2) The Commission retains the discretion to conduct sound level surveys of facilities.

## 2 Permissible sound level

### 2.1 Determination of permissible sound level

- (1) The permissible sound level is determined for the most impacted dwelling(s) from the boundary of the facility property other than for wind turbines and a substation in a wind turbine project.
- (2) For wind turbines and a substation in a wind turbine project, the permissible sound level is determined for the most impacted dwelling(s) from the centre point of the tower of the closest wind turbine, or from the boundary of that substation.
- (3) If there are no dwellings within 1.5 kilometres (km) from the facility property, or from the centre point of the tower of a wind turbine or the boundary of a substation in a wind turbine project, then the permissible sound level is applicable at 1.5 km from the facility property, or the centre point of the wind turbine or the boundary of a substation in a wind turbine project.
- (4) The permissible sound level is based on summertime conditions.
- (5) In the case of an emergency, which is an unplanned event requiring immediate action to prevent loss of life or property, the permissible sound level determined under this rule does not apply. However, if an event occurs more than four times a year at a facility, the event is not considered an unplanned event and the facility must comply with its permissible sound level.
- (6) A dwelling may have only one nighttime and one daytime permissible sound level, except where a Class C adjustment applies.
- (7) The permissible sound level is calculated as follows:

$$\begin{array}{ccccccccc} \text{Permissible} & = & \text{Basic} & + & \text{Daytime} & + & \text{Class A} & + & \text{Class B} & + & \text{Class C} \\ \text{sound level} & & \text{sound} & & \text{adjustment} & & \text{adjustment} & & \text{adjustment} & & \text{adjustment} \\ & & \text{level} & & \text{(Item (9)} & & \text{(Table 2)} & & \text{(Table 3)} & & \text{(Table 4) only for} \\ & & \text{(Table 1)} & & \text{below)} & & & & & & \text{wind turbines} \end{array}$$

- (8) Nighttime basic sound levels are determined from Table 1. The minimum basic sound level used to calculate the permissible sound level is 40 dBA  $L_{eq}$  nighttime with adjustments made for proximity to transportation and population density as indicated in Table 1.

**Table 1. Basic sound levels (BSL) for nighttime**

Dwelling density per quarter section of land			
Proximity to transportation	(1) 1 to 8 dwellings; 22:00 - 07:00 (nighttime) (dBA L <sub>eq</sub> )	(2) 9 to 160 dwellings; 22:00 - 07:00 (nighttime) (dBA L <sub>eq</sub> )	(3) >160 dwellings; 22:00 - 07:00 (nighttime) (dBA L <sub>eq</sub> )
Category 1 (Note 3)	40	43	46
Category 2 (Note 4)	45	48	51
Category 3 (Note 5)	50	53	56

Notes:

- (1) The assumed nighttime ambient sound level is five dBA less than the applicable basic sound level.
- (2) The assumed daytime ambient sound level is five dBA less than the applicable basic sound level plus the daytime adjustment.
- (3) Category 1—dwelling(s) distance is more than or equal to 500 metres (m) from heavily travelled roads or rail lines and not subject to frequent aircraft flyovers.
- (4) Category 2—dwelling(s) distance is more than or equal to 30 m, but less than 500 m from heavily travelled roads or rail lines and not subject to frequent aircraft flyovers.
- (5) Category 3—dwelling(s) distance is less than 30 m from heavily travelled roads, or rail lines or subject to frequent aircraft flyovers.
- (6) Documentation regarding whether a road is heavily travelled must be compiled and submitted with the noise impact assessment to support the Table 1 category used.
- (7) Density per quarter section — refers to a quarter section with the affected dwelling at the centre (a 451 m radius). For quarter sections with various land uses or with mixed densities, the density chosen is averaged for the area under consideration.

(9) Daytime adjustment means an adjustment of 10 dBA above the nighttime basic sound level with daytime being the period between 7 a.m. and 10 p.m.

(10) Class A adjustments are described and set out in Table 2.

**Table 2. Class A adjustments**

Class	Reason for adjustment	Value (dBA L <sub>eq</sub> )
A1	Seasonal adjustment for wintertime conditions must not be added when determining the permissible sound level for design purposes. In the case of wintertime noise complaint under Section 5 of this rule, this adjustment may be used in determining the permissible sound level.	+ 5
A2	<p>Ambient monitoring adjustment is applicable if the measured ambient sound level is not representative of the assumed ambient sound environment. The ambient sound levels may be measured in areas considered to be pristine as defined in Appendix 1 or areas that have non-energy industrial activity that would impact the ambient sound levels.</p> <p>In the case where there are existing energy-related facilities located within an area and the assumed ambient sound level without the existing energy-related facilities as determined from Table 1 is considered not representative of the actual sound levels, the area may be eligible for an ambient adjustment.</p> <p>An ambient adjustment for one dwelling may be applied to other dwellings within the same project study area that have a similar acoustic environment. To be deemed similar, justification must be provided demonstrating that the difference in daytime or nighttime ambient sound level at the dwelling(s) is no greater than plus or minus three dBA from the measured ambient sound level.</p> <p>Use Figure 1 to determine the applicable adjustment value.</p>	-10 to +10

Note: Class A adjustment = Sum of A1 and A2 (as applicable), is not to exceed of +/- 10 dBA L<sub>eq</sub>.



- (11) Class A2 ambient adjustment:
- (a) The Commission will not make a decision on a Class A2 adjustment request before making a decision on the facility application to which it pertains.
  - (b) A Class A2 adjustment is an adjustment to the permissible sound level for locations where the measured ambient sound level is different from the assumed ambient sound level referred from Table 1.
  - (c) A Class A2 adjustment is based on the measured ambient sound level in an area measured in accordance with the ambient sound monitoring survey requirements in Section 4 of this rule.
  - (d) After completing the ambient sound survey, an applicant must use Figure 1 to determine the applicable Class A2 adjustment and:
    - (i) determine the difference between the basic sound level (Table 1) for the applicable dwelling density, transportation proximity and the measured nighttime and daytime ambient sound level to the nearest whole number
    - (ii) look up this difference on the horizontal axis of Figure 1
    - (iii) move up on the figure until the plotted line is intersected
    - (iv) move left on the figure to the vertical axis and read the applicable Class A2 adjustment value; it may be positive or negative
  - (e) If a Class A2 adjustment is requested, the noise impact assessment must indicate the predicted results with a Class A2 adjustment and without a Class A2 adjustment.
  - (f) An applicant seeking a Class A2 adjustment under this section must:
    - (i) conduct an ambient sound level survey
    - (ii) include in its public consultation program for the proposed facility information relating to the Class A2 adjustment request for each location
    - (iii) identify the dwelling(s) or area where the Class A2 adjustment is requested and identify any energy-related facilities in the area
    - (iv) identify whether an area is an urban or country residential location wherein an adjustment applicable for one dwelling may be applied to other dwelling(s) within the area because the dwelling(s) have a similar acoustic environment

- (v) explain if the acoustic environment is influenced by factors such as non-energy related industrial activity, proximity to transportation infrastructures or population density
- (vi) identify the multiple acoustic environment areas if requesting multiple adjustments for one proposed facility
- (vii) provide justification on the applicability of the same Class A2 adjustment to other dwelling(s) in the area, if a Class A2 adjustment is requested for an area with more than one dwelling, but noise measurements were taken at only one location

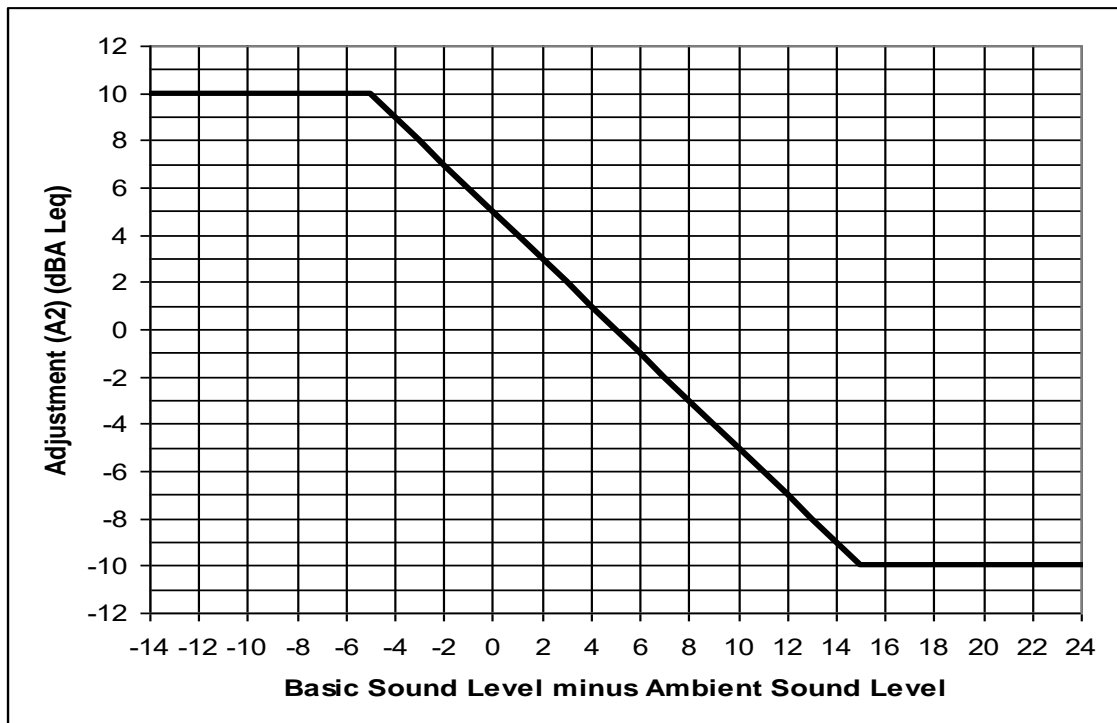


Figure 1 - Ambient monitoring adjustment, Class A2 adjustment

(12) Class B adjustments:

Class B adjustments are values set out in Table 3 to permit an adjustment to the basic sound level for temporary noise generating activities. Temporary noise generating activities are those lasting up to 60 days and not expected to occur more than once every 12 months. In order to use this adjustment, the licensee must inform the potentially-impacted residents of the duration and character of the noise.

**Table 3. Class B adjustments**

<b>Class</b>	<b>Duration of activity</b>	<b>Value (dBA L<sub>eq</sub>)</b>
B1	< 1 day	+ 15
B2	< 7 days	+ 10
B3	≤ 60 days	+ 5
B4	> 60 days	0

Note: Only one Class B adjustment may be claimed within a period of 12 months.

- (13) A licensee must keep noise measurement information to support the licensee's use of any of the adjustments to the basic sound level.
- (14) The Class C adjustments are described and set out in Table 4.

**Table 4. Class C adjustments**

Class	Reason for adjustment	Value (dB L <sub>eq</sub> )
C1	<p>To account for sound caused by wind near a dwelling resulting in the wind masking the noise level of a wind turbine at certain wind speeds, an operator or licensee may add a Class C1 adjustment to the nighttime permissible sound level, for the noise from the wind turbines only. If the wind speed <math>WS_{avg,10\ min}</math>, representative for a dwelling, reaches a value of 12 metres per second (m/s) or more, an increase to the permissible sound level of five dB over the value determined in accordance with Table 1 may be added to a maximum value of 50 dBA for the nighttime period. This adjustment applies to the noise level from wind turbines, only in the presence of wind speeds of 12 m/s or more near a dwelling.</p>	+5
C2	<p>To account for sound caused by wind near a dwelling resulting in the wind masking the noise level of a wind turbine at certain wind speeds, an operator or licensee may apply for a Class C2 adjustment to the permissible sound level for the noise from the wind turbines only. If the ambient wind sound level, representative for a dwelling increases to values higher than the values for the ambient sound level assumed in Table 1, a Class C2 adjustment to increase the permissible sound level up to a maximum of 10 dB may be requested for that dwelling for both the daytime period and the nighttime period.</p> <p>An ambient wind sound level survey must be completed for at least each integer wind speed and wind direction that the dwelling is downwind from a dominant wind turbine, to determine the difference between the ambient sound level as per Table 1 and the measured ambient wind sound level.</p> <p>The Class C2 adjustment for each wind speed must be calculated according to the following formula:</p> <p>Class C2 adjustment = ambient wind sound level – (basic sound level from Table 1 - five dB)</p> <ol style="list-style-type: none"> <li>(1) Determine the basic sound level from Table 1 for both the daytime and the nighttime period;</li> <li>(2) Subtract five dB from the basic sound level to determine the ambient sound level; Compare this value to the ambient wind sound level for each wind speed – wind direction combination. If the ambient wind sound level is higher, the difference in increments of one dB is the Class C2 adjustment that may be added to the permissible sound level.</li> <li>(3) This Class C2 adjustment may be added to the permissible sound level for that specific wind speed - wind direction combination.</li> <li>(4) A Class C2 adjustment for a lower wind speed may be applied as a Class C2 adjustment for a higher wind speed, if the ambient wind sound survey did not yield enough valid data for establishing the Class C2 adjustment for the higher wind speed.</li> </ol> <p>An ambient wind sound level survey and wind measurements must be conducted in accordance with this rule. An applicant for a Class C2 adjustment must submit an ambient wind sound survey and information indicating how the operation of the wind turbines will be adjusted to account for the variability of the wind, representative for that dwelling.</p>	+1 to +10

- (15) A Class C1 and C2 adjustment to the permissible sound level may not be combined.
- (16) A Class C adjustment to the permissible sound level may not be combined with a Class A2 adjustment or the Class B adjustments.
- (17) The wind speed and direction near the dwelling where the Class C adjustment applies must be documented, together with the time and date, and the operational settings of the dominant wind turbines. These records must be kept for at least the previous year of operation.
- (18) Before an applicant or a licensee of a wind turbine project may add a Class C1 adjustment to the permissible sound level, the applicant or licensee must file with the Commission information indicating how the

wind turbine operation may be adjusted when the wind speed of  $WS_{avg,10 min}$ , representative at a dwelling, reaches values of less than 12 m/s.

- (19) A Class C1 adjustment applies to the nighttime permissible sound level, but not to the daytime permissible sound level.
- (20) An applicant for or a licensee of a wind turbine project must obtain approval of the Commission before adding a Class C2 adjustment to the permissible sound level.
- (21) A request for a Class C2 adjustment may be filed as part of an application for a wind turbine project or as an amendment application for a wind turbine project.
- (22) If a Class C1 adjustment is added or a Class C2 adjustment is requested, the noise impact assessment from the wind turbine project must be submitted both with the Class C1 or Class C2 adjustment to the permissible sound level and without the Class C1 or Class C2 adjustment to the permissible sound level.
- (23) A Class C2 adjustment may only be requested if the operation of the wind turbines may be adjusted for the variability of the wind speed and direction to maintain compliance with the permissible sound level.
- (24) The Class C2 adjustment for a wind speed and wind direction applies to the permissible sound level when that wind speed and direction is present near the dwelling.
- (25) An applicant or licensee applying for a Class C2 adjustment must include such a request in its public consultation program, as required in AUC Rule 007: *Applications for Power Plants, Substations, Transmission Lines, and Industrial System Designations* (AUC Rule 007).
- (26) A Class C2 adjustment for one dwelling may be applied to other dwellings within the same project study area that have a similar acoustical environment and ambient wind sound level. For a dwelling to be deemed similar, justification must be provided demonstrating that the difference in daytime and nighttime ambient wind sound level at the dwelling(s) is no greater than plus or minus three dB from the measured wind ambient sound level at the similar dwelling.
- (27) A Class C2 adjustment remains in effect until the Commission approves an application to amend the Class C2 adjustment.

## **2.2 Permissible sound level determination for pre-1988 facilities**

- (1) A facility constructed and in operation before October 17, 1988, is considered to be a deferred facility, meaning that it does not have to demonstrate compliance with the permissible sound level established under Section 2.1 of this rule, in the absence of a noise complaint.

- (2) If a noise complaint is filed with the Commission against a deferred facility where a permissible sound level has not been previously established, the licensee must establish the permissible sound level in accordance with Section 2 of this rule.
- (3) In the absence of a noise complaint in respect of a deferred facility, where the licensee applies to modify the facility, the permissible sound level will be the measured sound level as determined from a prior or new comprehensive sound level survey. However, a licensee must reduce noise from a deferred facility to accommodate the introduction of new noise sources at the facility so that there is no net increase in total noise at the most impacted dwelling(s).
- (4) Effective October 17, 2018, the Commission will eliminate the deferred status for facilities built and in operation prior to 1988. Any application received after this date for modification of a deferred facility must demonstrate compliance with the permissible sound level as determined in Section 2 of this rule.

### **2.3 Permissible sound level determination for a proposed facility near a deferred facility**

Where a facility is proposed to be constructed near a deferred facility, the permissible sound level is determined based on the deferred facility status and this permissible sound level may be used only while the deferred facility is operating or until October 17, 2018, at the latest.

### **2.4 Permissible sound level for a proposed dwelling in proximity to an existing or approved facility**

- (1) Where a person builds a dwelling or receives a building permit within 1.5 km from the boundary of an existing or approved facility, or a wind turbine or substation in a wind project, the permissible sound level at the new dwelling, will be the greater of the cumulative sound level existing at the time of construction of the new dwelling, or the permissible sound level as determined in Section 2 of this rule.
- (2) When a licensee is notified that a person is proposing to build a dwelling within 1.5 km of the boundary of the facility property or a wind turbine or substation in a wind project, if requested by the person, the licensee must communicate information regarding existing noise levels to that person. Where a noise impact assessment for the facility or wind turbine project exists, the licensee must either provide it to that person or, in the alternative, the licensee may provide the existing sound level survey or modelling data interpolated to the person's proposed building site.
- (3) A licensee must keep documentation of communication between the licensee and a person proposing to build a dwelling within 1.5 km of the boundary of the facility property or a wind turbine or substation in a wind project including a copy of the noise impact assessment or other data provided to that person.

## **2.5 Cumulative sound level**

- (1) The simplified method to predict sound level by reducing six dBA per doubling of distance is only acceptable for a small stationary single-source facility without the cumulative effect from any existing energy-related facility and with flat ground between the facility and the dwelling, or at 1.5 km distance (see example in Appendix 2 – Section 2.5).
- (2) In cases where the simplified method is not acceptable, an applicant or licensee must have an acoustical practitioner to predict the cumulative sound level. When requested by the Commission, an applicant or licensee must provide all noise modelling documentation. Applicants or licensees must demonstrate the suitability of acoustical practices, equipment and techniques when measuring or modelling sound levels.

## **2.6 Noise management plans**

- (1) For unique cases, if the Commission considers that a comprehensive sound level survey is not practical, a detailed noise management plan approved by the Commission may be used to demonstrate compliance.
- (2) A noise management plan must include:
  - (a) identification of noise sources
  - (b) assessment of current noise mitigation programs
  - (c) performance effectiveness of noise control devices
  - (d) methods of noise measurement and, if applicable, noise model verification
  - (e) best practices programs
  - (f) continuous improvement programs
- (3) A licensee must discuss a proposed noise management plan with all affected persons, such as nearby residents, operators of energy-related facilities, other industries and local government. When submitting a noise management plan, the licensee must describe the consultation process and indicate if any affected persons have outstanding concerns with the plan.

## **2.7 Construction noise**

- (1) Licensees must manage the impact of construction noise on nearby dwellings. The following mitigating measures should be used:
  - (a) conduct construction activity between the hours of 7 a.m. and 10 p.m. to reduce the duration impact from construction noise
  - (b) advise nearby residents of significant noise-causing activities and schedule these events to reduce disruption to them
  - (c) ensure that all internal combustion engines are well maintained with muffler systems

- (2) Should a noise complaint be filed during construction, the licensee must respond expeditiously and take prompt action to address the complaint.

### **3 Noise impact assessments**

#### **3.1 General requirements**

- (1) Subject to subsections (4) and (5) below, an applicant must file a noise impact assessment in accordance with this rule for the proposed facility and predict the potential noise impact of the proposed facility under normal facility operating conditions at the most impacted dwelling(s).
- (2) When planning a facility in an area where there is an existing facility or approved energy-related facility, the applicant must ensure that its facility will not cause the cumulative sound levels to exceed the permissible sound level.
- (3) The most impacted dwelling(s) must be identified for each defined area of similar acoustic environment for inclusion in a noise impact assessment.
- (4) Where a noise impact assessment is not submitted, the applicant must demonstrate that noise levels are not affected by the proposed facility or modifications to a facility.
- (5) Where the facility application or exemption pursuant to AUC Rule 007 relates to an electric transmission line or substation of 240/260 kilovolt (kV) or less, to a small power plant with a capacity of less than one megawatt (MW), or to a meter station on a gas utility pipeline installation, an Appendix 3 - Noise impact assessment summary form may be submitted to satisfy the requirements of AUC Rule 007.

#### **3.2 Noise impact assessment requirements**

A noise impact assessment must include:

- (1) Permissible sound level:

Determine the permissible sound level and the direction and distance to the most impacted dwelling(s). This includes all details showing how the permissible sound level was determined and any adjustments claimed, including supporting documentation for a Class A2, Class B or Class C adjustment.

- (2) Sound source identification:

Identify all major sources of noise such as transformers, heat recovery steam generators, exhaust and pump noise, ventilation openings or other equipment from the energy-related facilities, and their associated sound power or pressure levels in octave bands.



Indicate whether the sound data is from vendors, field measurements, theoretical estimates or another source.

(3) Operating conditions:

It may be necessary to modify the manufacturer's data to account for actual operating conditions. The noise impact assessment must indicate the design conditions, such as operating with open or closed facility building windows and doors or restricted modes of operation.

(4) Factors to be considered and included in the model:

- (a) geometric spreading
- (b) barrier effects
- (c) atmospheric absorption
- (d) source size, location and elevation
- (e) intermittency of noise
- (f) mild downwind from the facility to the dwelling(s) and/or temperature inversion conditions
- (g) source directivity considerations

(5) The following factors must be considered and included in the noise impact assessment report:

- (a) meteorological parameters such as temperature (0 to 25 degrees Celsius), relative humidity (70 per cent to 90 per cent), wind speed (five to 7.5 kilometres per hour (km/h))
- (b) noise source identification
- (c) sound power level and/or sound pressure level spectral data
- (d) type of noise propagation model used (models or hand calculations may be used to obtain the predicted sound level)
- (e) standards followed
- (f) ground conditions and ground attenuation factor
- (g) terrain parameters (terrain resolution)
- (h) reflection parameters
- (i) any adjustments made (documentation of power level calculation, assumptions made must be provided, e.g. source size considerations)

(6) Outline of study area:

Include a figure, map, area plan or drawing showing the proposed facility property, study area, the most impacted dwelling(s), and any approved and existing energy-related facilities. The figure, map, area plan or drawing must be clearly labelled, include a scale and indicate either geographic coordinates or legal land descriptions. Also, if a Class A2, Class B or a Class C adjustment is requested, indicate the dwelling(s) for which the adjustment is sought.

(7) If predicted sound levels are determined using the methods as outlined in Section 2.5 of Appendix 2, the noise impact assessment must clearly show that the conditions in that section are met.

(8) Predicted sound level and compliance determination:

Identify what the predicted cumulative sound level will be at the most impacted dwelling(s). If there are differences between daytime and nighttime operations, both levels must be calculated. Indicate whether the facility is in compliance with permissible sound level requirements.

If there is a Class A2 or Class C2 adjustment, provide the ambient (wind) sound monitoring survey information outlined in Section 4.6.

Provide the predicted cumulative sound level with and without the Class A2 or Class C2 adjustment.

(9) Non-compliance determination and attenuation measures:

If the predicted sound level indicates non-compliance with this rule, identify the noise attenuation measures that the applicant or licensee is committing to implement and the timeline to implement measures to attain compliance.

If the predicted sound level indicates non-compliance with this rule and further attenuation measures are not practical, the noise impact assessment must include the reasons why the measures proposed to reduce the impacts are not practical.

(10) Use models that meet accepted protocols and international standards (e.g., CONCAWE, ISO 9613).

(11) If available, C-weighted sound pressure level (dBC) minus the A-weighted sound pressure level (dBA) is to be considered in the noise model for new facilities or modifications to an existing facility to identify the potential for low frequency noise impacts. A low frequency noise condition may exist when both:

- the time-weighted average dBC – dBA value for the measured daytime or nighttime period is equal to or greater than 20 dB
- a clear tonal component exists at a frequency between 20 to 250 hertz (Hz)

A-weighting measurements typically discount the lower frequencies. Therefore, when low frequency noise is an issue, the dBA value may not be sufficient to determine if low frequency noise is present. Due to the complexity of determining low frequency noise, this is a specialized investigation. The procedure in Section 4.5 and Appendix 5 is required only when low frequency noise is identified subsequent to the complaint investigation.

- (12) Acoustical practitioner's information:

Provide the name(s) and describe the role(s), directly-related training and experience of the person(s) who prepared the noise impact assessment.

### **3.3 Noise impact assessment for wind turbines – additional requirements**

- (1) For noise impact assessments, the sound power level from a wind turbine must correspond to the maximum noise emitted when the wind turbine operates under the planned maximum operating conditions for both the daytime and nighttime period. These operating conditions and restrictions to one or more wind turbines must be documented in the noise impact assessment.
- (2) The model must include the cumulative effects of adjacent wind turbines, adjacent energy-related facilities and proposed energy related facilities that may have a noise impact on a dwelling within the study area.
- (3) In cases where no dwelling exists within 1.5 km of a facility property and the facility is adjacent to another energy-related facility which does not have a dwelling within 1.5 km such that the 1.5 km radius overlaps, in the overlapping portion, the sound level may exceed the permissible sound level (see Example 3 in Appendix 6).

### **3.4 Noise impact assessment records**

An applicant or licensee must keep all supporting information relating to a noise impact assessment in the event that the Commission requests the information.

## **4 Noise measurement**

### **4.1 General**

- (1) A facility is in compliance if the comprehensive sound level measured during representative conditions is equal to or lower than the established permissible sound level, taking into consideration any low frequency noise.

- (2) For the purpose of determining compliance with this rule, noise is measured at a distance of 15 metres (m) from the most impacted dwelling(s) in the direction of the facility, rather than at the property line of the land on which the dwelling is located. Other measurement locations may be used if it is physically impracticable or acoustically illogical to measure where specified.
- (3) A comprehensive sound survey consists of sound and weather measurements for at least a full 24-hour period. An extended survey of more than 24 hours may be required to ensure that representative conditions have been met (see Section 4.4).
- (4) The number of samples is sufficient in a valid comprehensive sound survey if:
  - (a) in the case of a noise complaint or where compliance at a dwelling is in question, at least three cumulative hours of valid data in each nighttime sampling period (10 p.m. to 7 a.m.) and three cumulative hours in each daytime sampling period (7 a.m. to 10 p.m.) under representative conditions are obtained, or
  - (b) the intention of noise monitoring is to verify modelling predictions and after isolation analysis has been undertaken, the computed confidence interval for the arithmetic mean value over all the samples for each individual daytime and nighttime period is not more than plus or minus three dB with a confidence level of 90 per cent for the daytime or for the nighttime period (See statistical method in Appendix 9)
- (5) Abnormal noise events not representative of the ambient environment may be isolated and removed from measurement data. The isolation analysis must be documented.
- (6) The measured sound level for a facility operating intermittently such as wind turbines or peaking units is based on noise generated for the duration of the operation and must not be an average of the entire nighttime or daytime periods if the facility does not operate for the entire period.
- (7) Noise contribution from existing energy-related facilities must be isolated for ambient sound level surveys. Noise from energy-related facilities is not isolated for comprehensive sound level surveys.

## **4.2 Multiple noise sources**

- (1) The methodology for assessment of multiple noise sources or isolation techniques relies on the judgment of an acoustical practitioner and must be documented.
- (2) Isolation techniques that may be used:
  - (a) If the sound levels at the most impacted dwelling(s) are due to the cumulative contributions from several sources or energy-related

facilities, the relative contributions of each source or energy-related facility at the most impacted dwelling(s) must be evaluated in order to determine noise control options. This is most commonly done by assessing the sound power level of each noise source or a measured sound pressure level at a standard distance where each individual source is dominant.

- (b) If the facilities are separated by some distance, the relative sound emission of each facility can be determined by taking measurements in the direction of the dwelling at points where noise from each source or facility, in turn, is completely dominant. Usually, these measurements are conducted at a common distance in the far field.
  - (c) If the facilities are in close proximity to each other causing the sound fields to overlap, or if there are elevated sound sources that may not be adequately taken into account due to vertical directionality of the sources, judgment must be used when assessing the sound levels (see Example 3 in Appendix 6).
- (3) At points where two or more facility noise sources contribute to the total sound pressure level, the relative contributions must be explained in the report.

#### **4.3 Isolation analysis**

- (1) Isolation analysis techniques are used to separate sound sources and obtain the sound level from the source of interest alone.
- (2) During a comprehensive sound level survey, all sound sources are recorded during the survey period. However, when monitoring for compliance, noise contributions from the licensee's facility are evaluated.
- (3) Invalid or abnormal data can be extracted from the measured comprehensive sound level. Invalid data can include periods with unacceptable meteorological conditions or non-representative ground cover or facility operating conditions. Noise measured during temperature inversions or lapse conditions is excluded unless the conditions are a frequent occurrence (the condition occurs more than 10 per cent of the time for a particular season) and can be measured at the dwelling. Such conditions affect the level of noise, but unless the event occurs with regularity due to local topography or other factors, the condition is dismissed. The extraction of data from the measured comprehensive sound level must be documented and supported by a digital or analog audio recording, operational log or event log.
- (4) Criteria for removing data may include:
  - (a) minimum wind speed (for wind turbines) not reached or maximum wind speed exceeded, resulting in contamination from wind-induced noise in the microphone
  - (b) measurement periods during precipitation

- (c) measurement periods where the monitor is not downwind of the noise source
- (d) any wind turbine that has a dominant noise impact was operating at less than the planned maximum sound power level, as documented in the noise impact assessment, filed as part of the application to the Commission for that wind turbine
- (e) periods of noise dominated by biological activity such as birdcalls, frogs, typically at dawn or dusk
- (f) abnormal noise events, including aircraft flyovers and off-plant site vehicular traffic
- (g) other non-energy related sources of noise

#### **4.4 Multiple nights or single night of monitoring**

- (1) Multiple nights of monitoring may be required in order to clearly demonstrate that noise has been measured during representative conditions.
- (2) If the intention of noise monitoring is to verify modelling predictions, and sufficient valid data under representative conditions has not been recorded after a minimum period of seven days, alternative methods of verification such as sound level measurements to assess the sound power level combined with noise model calculations as described in this rule, may be considered.
- (3) The selection of the multiple-night noise monitoring period must reflect efforts to measure under representative conditions, and supporting documentation (e.g. an analysis of historical weather records, production data) may be requested.
- (4) The following are some of the reasons to conduct a multiple-night monitoring:
  - (a) conditions not representative of the complaint conditions
  - (b) requirement for minimal hours of valid data not achieved
  - (c) changing weather conditions
  - (d) changing atmospheric conditions
  - (e) changing plant operating conditions
  - (f) variable seasonal effects
  - (g) significant noise contamination from distant noise sources
  - (h) insufficient local meteorological data
  - (i) prior agreement on an extended monitoring period in order to satisfy mutual concerns between residents and licensees

- (5) The following are reasons for accepting single-night monitoring or for ending a multiple-night survey:
  - (a) favourable weather conditions
  - (b) achievement of representative conditions, as described in the noise complaint investigation form (in Appendix 4)
  - (c) agreement from complainant that survey conditions were appropriate
  - (d) licensee acknowledgement that compliance is not achieved
- (6) Each nighttime result for multiple nights of monitoring must be evaluated against the requirements of this rule. If multiple nights are deemed to be representative, the worst-case condition (highest nighttime  $L_{eq}$ ) is compared to the permissible sound level.

#### 4.5 Low frequency noise

- (1) When low frequency noise is an issue, measurements must be conducted in both C-weighted and A-weighted scales concurrently. Measurements may be made using two monitoring sound level meters, a dual-channel capable sound level meter, or other equipment capable of obtaining both the C-weighted and A-weighted sound levels simultaneously.

- (2) The following two conditions indicate the presence of a low frequency noise measured at a dwelling.

The isolated (e.g. non-facility noise, such as wind noise, has been removed) time-weighted average dBC – dBA value for the measured daytime or nighttime period is equal to or greater than 20 dB.

For the one-third octave frequency bands between 20 to 250 Hz and below:

- (a) the linear sound level of one band must be at least 10 dB or more above one of the adjacent bands within two one-third octave bandwidths
  - (b) there must be at least a five dB drop in level within two bandwidths on the opposite side of the frequency band exhibiting the high sound level
- (3) If a low frequency noise condition as defined above exists, five dBA must be added to the measured comprehensive sound level. If this value exceeds the permissible sound level, the licensee must identify the source of the low frequency noise and implement noise attenuation measure to address the issue in a timely way. Once low frequency noise control measures have been implemented, a follow-up comprehensive sound level and complaint investigation must be conducted to confirm that the low frequency noise condition has successfully been addressed.

- (4) Wind generates high levels of low frequency sound that can mask the assessment of low frequency noise. Measurements of low frequency noise should only be taken when atmospheric conditions are favourable for accurate measurement (see Table 8 and Appendix 5).

#### **4.6 Sound level surveys report requirements – ambient and comprehensive**

The following information must be provided in sound level survey reports (additional requirements applicable to wind turbines are described in sections 4.6.1 and 4.6.2):

- (a) an explanation of the noise monitoring procedures and weather measurement methodologies
- (b) a map and list of noise monitoring and weather measurement locations
- (c) a list of noise monitoring and weather measurement equipment
- (d) field calibration records
- (e) the response setting for the sound level meter
- (f) the time, duration and number of monitoring periods
- (g) the averaging period or interval for both noise and weather measurements
- (h) the weather and ground conditions: temperature, wind speed, wind direction, humidity, precipitation, topography and ground cover at the monitoring location
- (i) graphs showing measured sound level during the measurement period
- (j) a tabulated record of duration, description of extraneous noise events, and the methodology used to isolate and remove the noise source of interest
- (k) the dwelling(s) for which a Class A2, Class C1 or Class C2 adjustment is applicable
- (l) the distance and direction of dwelling(s) from the facility
- (m) a list of equipment and equipment calibration date
- (n) the operating conditions for energy-related facilities included in the survey
- (o) graphs showing measured sound levels and any isolation analysis (with noise sources identified)
- (p) an analysis of the validation of the samples
- (q) a summary table including the permissible sound level for the most impacted dwelling(s), measured sound level, isolation analysis results, valid hours of the survey
- (r) in cases where low frequency noise was identified as a potential problem, provide an analysis and the results
- (s) a completed noise complaint investigation form (in Appendix 4 - parts 1 and 2) identifying the representative conditions for monitoring, or provide explanation if the form is not available
- (t) acoustical practitioner's information



#### 4.6.1 Comprehensive sound level survey requirements for wind turbines

- (1) When ordered to do so by the Commission as a condition in the approval; or in response to a noise complaint, a licensee of a wind turbine project must conduct post-construction noise monitoring or noise model verification.
- (2) When determining the comprehensive sound level for monitoring related to a condition in an approval for a wind turbine project, the following constitute representative conditions:
  - (a) The monitoring location must be at the dwelling(s) specified in the condition.
  - (b) Operation of wind turbines at the same mode or setting, relevant for the sound power level as documented in the noise impact assessment, filed with the Commission to be compliant with the permissible sound level.
  - (c) Downwind conditions from the wind turbine with predominant noise contribution towards the dwelling(s).
  - (d) If the signal-to-noise ratio is weak, compliance with the permissible sound level may be demonstrated by determining the sound power level of the dominant wind turbines for the maximum approved operating conditions according to standard International Electrotechnical Commission (IEC 61400-11), Acoustic Noise Measurement Techniques, latest version, combined with noise modelling techniques and standards as described in this rule. Other generally accepted acoustic methods may be used as well.
  - (e) Noise level measurement conducted at wind speeds higher than five m/s should have consideration for wind induced noise. The validity of noise data during such high wind conditions must be justified by using specially designed wind screens or other industry-accepted methods. The Commission may request supporting documentation.
- (3) In a post-construction non-compliance situation, the licensee may be required to reduce the wind turbine noise emitted from the turbine. The operator must indicate how the mitigation plan would result in compliance with the permissible sound level.

#### 4.6.2 Noise measurement specifications for wind turbine project monitoring

- (1) The specifications for conducting comprehensive sound level surveys for wind turbines are provided in Table 5.

**Table 5. Noise measurement specifications for wind turbine project monitoring**

#	Description	Specifications
1	Measurement intervals	<ul style="list-style-type: none"> <li>Ambient wind sound level 10 minutes</li> <li>Noise impact 1 to 10 minutes</li> </ul>
2	Measurement parameters	<ul style="list-style-type: none"> <li>Ambient wind sound level <math>L_{90}</math></li> <li>Noise impact <math>L_{eq}</math></li> </ul>
3	Frequency weighting	<ul style="list-style-type: none"> <li>A-weighted</li> <li>C-weighted</li> </ul>
4	Frequency content	<ul style="list-style-type: none"> <li>Octave band centre frequency</li> <li>1/3 octave band for tonality analysis</li> </ul>
5	Audio recording	<ul style="list-style-type: none"> <li>For identification of abnormal noise event during unattended noise monitoring period</li> </ul>
6	Microphone placement	<ul style="list-style-type: none"> <li>At least 15 m from a facade or other reflecting surface</li> </ul>
7	Microphone height	<ul style="list-style-type: none"> <li>1.5 m above ground</li> <li>If applicable, 4.5 m above ground in complaint situation (i.e. nighttime complaint with second storey bedroom)</li> </ul>
8	Minimum monitoring duration	<ul style="list-style-type: none"> <li>Ambient wind sound level survey: sufficient valid samples in each wind bin so the 90% confidence interval on the calculated mean over the valid samples is <math>\pm 3</math> dB.</li> <li>Comprehensive sound survey: at least 24 hour duration with a minimum of three cumulative hours of valid data in daytime and three cumulative hours in the nighttime period after isolation analysis.</li> </ul>

- (2) Information requirements of wind turbines monitoring are listed in Table 6.

**Table 6. Information requirements**

#	Information requirements
1	Description of sound level meter and other associated equipment
2	Location of the sound level meter including microphone height
3	Description of the anemometry equipment
4	Location of the anemometry equipment including height of wind speed measurement
5	Field equipment calibration records
6	Number of noise measurement data points used in the determination of daytime or nighttime comprehensive sound level
7	Graphs showing measured sound levels and any isolated portion of the measurement data
8	Tabulated record of the time, duration, and description of abnormal noise events isolated
9	Make and model of wind turbine(s)
10	Number of operational wind turbines during the measurement period
11	Power output of each wind turbine during the measurement period
12	Date, time and duration of monitoring period
13	Averaging sample period for noise and wind measurements
14	Wind shear conditions at site, if any
15	Atmospheric conditions (wind speed and direction at the wind turbine location and the monitoring location, precipitation record)
16	Map showing all wind turbines, the noise monitoring location(s), all energy-related facilities, dwellings and any heavily travelled roads, railroads or airports that affect ambient noise levels
17	Acoustical practitioner's information

### 4.6.3 Measurements required for a Class C2 adjustment

- (1) An application for a Class C2 adjustment requires, for each (group of acoustically comparable) dwelling(s), the measurement of the available wind noise masking for each wind speed of at least three m/s in each wind direction that is downwind from dominant wind turbines toward the most exposed (to the noise impact from the wind turbines) side of that dwelling, and at the height relevant for that dwelling, for the nighttime period.
- (2) Noise measurements and the simultaneous measurement of meteorological parameters should be executed in 10-minute intervals, with each 10-minute interval resulting in one sound sample and one simultaneously recorded meteorological sample. To account for lulls in wind speed in each 10-minute interval with the associated decrease in available wind noise masking, the acoustical parameter to be established in each 10-minute interval is  $L_{90}$  in dBA. Meteorological parameters to be established simultaneously in the same 10-minute interval are:
  - the average wind speed in m/s
  - the average wind direction in degrees
- (3) The 10-minute sound and meteorological samples will be grouped in wind bins for wind speeds and direction combinations for each dwelling, with each wind bin representing the average wind speed ( $\pm 0.5$  m/s). The wind speed bin for an average wind speed of three m/s will thus contain samples for wind speeds ranging from 2.5 m/s up to and including 3.4 m/s. Each bin will contain sufficient samples to limit the calculated confidence interval for the mean value over the valid samples to plus or minus three dB with a confidence level of 90 per cent. For each bin, the arithmetic average value over the  $L_{90}$  values in that bin will be considered to be the representative value.

## 4.7 Measurement equipment

### 4.7.1 Sound level meters

- (1) Instrumentation used to conduct sound monitoring surveys must be able to measure the A-weighted (dBA) and/or C-weighted (dBC) continuous energy equivalent sound level ( $L_{eq}$ ) of steady, intermittent, and fluctuating sounds. If used for a survey that includes measurements to determine the ambient wind sound level, the sound monitoring instrumentation must be able to determine statistical parameters  $L_n$ , such as  $L_{90}$ . It must be able to accumulate the data and calculate the  $L_{eq}$  and  $L_{90}$  values over the time periods required and must meet the minimum technical specifications in the IEC 61672-2 Ed.01.0 2003 (latest version), for type I sound level meters.

- (2) The sound measurement instrumentation necessary to conduct the one-third octave band sound pressure level measurements to characterize the presence of tonal components must meet the minimum technical specification in IEC publication 225-1966 or American National Standards Institute (ANSI) publication S1.11-1966 for Class I filter sets used in conjunction with conventional sound level meters that meet the minimum technical specifications in IEC publication 61672-1 or ANSI publication S1.11-2004 (R2009) for type I sound level meters.

#### **4.7.2 Sound level meter calibration requirements**

- (1) In this section and Section 4.7.4, manufacturer certificate means a certificate indicating the new equipment, identified by a serial number has passed all production tests in a certified facility and that the final tests have been performed using calibrated equipment.
- (2) The sound level meters used for noise measurements made under this rule must:
  - (a) Be field calibrated, or have their calibration tested using a Class 1 calibrator, immediately prior to the measurement using a sound calibrator meeting the requirements of EN/IEC 60942 (2003) Class LS, and ANSI S1.40-2006 (latest revision) for Class 1 calibrators.
  - (b) Have their calibration checked immediately after the measurement using the same calibrator and a record of calibration results must be included in the report.
  - (c) Be calibrated by the instrument manufacturer, an authorized instrument calibration facility, or another agency acceptable to the Commission within a two-year period immediately preceding the measurements. Records of calibration must be maintained, although formal calibration certificates are not necessary. Meters which fail a pre-use or post-use calibration test (e.g. the meter does not read within plus or minus one dB) must not be used until re-calibrated for accuracy, applicability and the cause of deviation has been removed. Data collected from noise meters that fail a pre-use or post-use field calibration test (e.g., the meter does read within plus or minus one dB) must not be used.
- (3) The sound level meter may be used for a two-year period dated from the manufacturer certificate prior to requiring recalibration. The manufacturer certificate must be kept on record, the same as a certificate of calibration. If the sound level meter does not come with a manufacturer certificate as described above, an initial certificate of calibration for the sound level meter is required prior to use.

### 4.7.3 Instrumentation for wind measurement

Table 7 defines the instrumentation setting or specifications for wind measurement.

**Table 7. Wind measurement instrumentation**

#	Description	Setting/specifications
1	Anemometer resolution	0.1 m/s (maximum)
2	Anemometer precision	+/- 0.2 m/s (maximum)
3	Anemometer location	In the direction of the nearest noise sources and within 100 m of the sound level meter with no obstruction in between the anemometer and sound level meter
4	Anemometer height	Same as the microphone of sound level meter
5	Sampling period	10 minutes (maximum)

Note: Allowance for a variance of the location or height specification may be considered. The variance must be documented and justified by the acoustical practitioner in the report.

### 4.7.4 Calibrator certification requirements

- (1) Calibrators must be recertified in accordance with ANSI publication SI.40-1984 (or latest revision), which requires that a calibrator be recalibrated at least once a year. The calibrator may be used for a one-year period dated from the manufacturer certificate prior to requiring recalibration.
- (2) The manufacturer certificate must be kept on record, the same as a certificate of calibration. If the calibrator does not come with a manufacturer certificate as described above, an initial certificate of calibration for the calibrator is required prior to use.

## 4.8 Measurement conditions

### 4.8.1 Sound level

- (1) In the noise impact assessment, if the facility was modelled to operate with doors and windows closed; then this is a condition of operation to ensure that the permissible sound level is met.
- (2) If wind turbines are modelled in an operating mode or setting that restricts the sound power level, as documented in the noise impact assessment that was submitted to the Commission as part of an application, then this is the condition to be modelled to ensure that the permissible sound level is met and the turbines must operate with their settings restricted as documented in the noise impact assessment.
- (3) Representative conditions do not constitute absolute worst-case conditions, or the exact conditions the complainant has identified if those conditions are not easily duplicated. In order to expedite complaint resolution, comprehensive sound level surveys should be conducted at the earliest opportunity when sound propagation towards the complainant's dwelling is likely and representative conditions might exist.

- (4) If the permissible sound level was established for deferred facilities using modelling results, the comprehensive sound level must be measured under similar seasonal and meteorological conditions as the noise model, with adjustments if the measurement conditions do not match the model conditions.
- (5) When the measured comprehensive sound level exceeds the permissible sound level, but noise from the facility is not considered to be responsible for the exceedance, isolation analysis to further separate the facility noise contribution may be carried out (see Section 4.3).
- (6) Invalid data (except in the case of wind turbine noise monitoring) may result if wind speeds are greater than those shown in Table 8. Wind gradients can greatly affect the sound levels measured. Table 8 is less applicable in situations where hills exist between the facility and the measurement location. Judgment must be used in determining the applicability of the table; short-term wind gusts less than five minutes in duration and up to 20 km/h may be acceptable.
- (7) The limits for wind speed and precipitation apply in the vicinity of the measurement, not at a remote sensing position many kilometres away. While data from a nearby meteorological station may serve as an indicator, that data does not guarantee that the same conditions exist at the measurement position.
- (8) Table 8 describes favourable summertime weather conditions. The requirements in Table 8 regarding wind speed do not apply for wind turbines. Higher wind speeds during sound surveys for wind turbines are acceptable, provided measures (e.g. a large diameter windscreen or a second windscreen) have been taken to prevent wind induced noise in the microphone.

**Table 8. Favourable summertime weather conditions**

Parameter	Preferred condition
Ground cover	No snow, water, or ice (frozen) ground cover
Precipitation	No steady precipitation
Wind speed measured at a height between 1.2 m and 10 m	<p>Wind speed limits (noise data may be invalid if limits are exceeded):</p> <p><b>Less than 500 m from noise source:</b> Downwind: 15 km/h limit</p> <p><b>500 – 1,000 m from noise source:</b> Downwind: 10 km/h limit</p> <p><b>Greater than 1,000 m from noise source:</b> Downwind: 10 km/h limit</p> <p>A 24-hour noise sampling period: unless exceptional circumstances are encountered, there must be at least three cumulative hours of valid data (after isolation analysis) in the nighttime sampling period (10 p.m. to 7 a.m.) and three cumulative hours in the daytime sampling period (7 a.m. to 10 p.m.) If exceptional circumstances are encountered, the licensee must provide details of such circumstances and the reasons that these circumstances justify the use of a lesser amount of valid data, or the use of data during upwind or cross-wind directions.</p>

#### **4.8.2 Wind measurement for wind turbine projects**

- (1) Wind measurement data recorded during noise monitoring is used to verify representative conditions and to:
  - define the wind speed and direction in the vicinity of the sound level meter
  - identify wind-induced noise contamination on the microphone
  - define wind speed and direction at the operating wind turbine hub height
  - determine if downwind conditions are being measured
  - identify wind shear conditions
- (2) Wind speed and direction information is required at two locations during the monitoring period. One location is at the wind turbine hub height (either the closest turbine upwind from the sound level meter, or at a meteorological tower present within the project) and the other location is in the vicinity of the sound level meter at the monitoring location. This information must be documented.

#### **4.8.3 Measurement techniques**

References for sound measurement techniques are listed in Appendix 7.

### **5 Noise complaint**

#### **5.1 General**

- (1) If a noise complaint is filed by a resident of a dwelling near the facility after the facility is in operation, the licensee must meet the permissible sound level as determined in accordance with Section 2. This section does not apply where the resident is the person who constructed a dwelling under the circumstances set out in Section 2.3.
- (2) When a noise complaint is filed with the Commission, the Commission may require the licensee to conduct a comprehensive sound level survey to determine compliance with this rule.
- (3) If a facility is found to be non-compliant, the licensee must provide both a detailed noise control mitigation plan and a timeline as to when compliance will be met.
- (4) When the facility meets the requirements in this rule, the Commission investigation is complete.
- (5) If conditions at the facility change, a new complaint may be filed.
- (6) A noise complaint cannot be filed against a deferred facility as a result of gathering noise emission data as part of an application for modification of the facility.

## 5.2 Investigation

- (1) When a noise complaint has been filed, licensees must first attempt to resolve the issue through direct contact by way of telephone calls or meetings with the complainant(s) to understand the concerns and establish a dialogue. Licensees must document telephone calls made or meetings held.
- (2) Licensees must make every reasonable attempt to resolve any noise complaint in a timely manner.
- (3) If monitoring is conducted due to a noise complaint, a completed noise complaint investigation form (see part 1 and part 2, in Appendix 4) identifying the representative conditions for monitoring must be completed and submitted to the Commission.

## 5.3 Investigation form

- (1) In part 1 of the noise complaint investigation form, the licensee must enter information from the complainant(s) about the character of the noise and the weather and ground cover conditions that exist when the noise is most annoying. These and the facility operating conditions (as described in Appendix 4) are the representative conditions of the noise complaint when the comprehensive sound level survey should take place.
- (2) Part 2 of the noise complaint investigation form, the event log, is for use by the complainant(s) to record details about environmental and facility operating conditions under which noise adversely affects them. If the complainant(s) does not complete part 2 of the noise complaint investigation form, the licensee must describe efforts to involve the complainant, use its judgment to approximate representative conditions, and explain how those conditions were determined.
- (3) A licensee must provide a copy of the completed noise complaint investigation form (parts 1 and 2) to the complainant(s) and include a copy in the comprehensive sound level report to demonstrate that the representative conditions were met.
- (4) The completed noise complaint investigation form is used to determine conditions representative of the complaint. If this completed form is not available, Table 8 outlines the favourable summertime weather conditions for noise monitoring.



## Appendix 1 – Glossary

Some of the terms used in this rule are defined for this particular context; these definitions are not necessarily the same as the generally accepted broader definitions of the terms.

Abnormal noise events	Noises that are sufficiently infrequent as to be uncharacteristic of an area or that occur so close to the microphone as to dominate the measurements in an unrealistic manner. Consideration must be given to deleting occurrences of abnormal noise from the measurements to obtain a reasonably accurate representation of the sound environment. Examples of abnormal noises include a dog barking close to the microphone, a vehicle passing nearby, people talking in the vicinity of the microphone in a quiet environment, or a passing road grader.
Acoustical practitioner	An acoustical practitioner is an individual with acoustical expertise and knowledge capable of preparing assessments, surveys and reports in accordance with this rule.
Ambient sound level (ASL)	<p>The sound level that is a composite of different airborne sounds from many sources far away from and near the point of measurement. The ambient sound level does not include noise from any energy-related facilities or from wind and must be determined without it. The average nighttime ambient sound level in rural Alberta is 35 dBA. The ambient sound level can be measured when the sound level in an area is not believed to be represented by the basic sound levels in Table 1. The ambient sound level must be determined under representative conditions and does not constitute absolute worst-case conditions (e.g. an unusually quiet day) but conditions that portray typical conditions for the area. Also see Representative conditions.</p> <p>In the absence of measurement, the nighttime ambient sound level is assumed to be five dBA less than the basic sound level and the daytime ambient sound level is assumed to be five dBA less than the basic sound level plus the daytime adjustment.</p>
Ambient wind sound level (AWSL)	The ambient sound level $L_{90}$ in dBA near the dwelling, caused by the sound of the wind through vegetation and around structures such as dwellings in excess of the ambient sound level $L_{eq}$ . The ambient wind sound level is measured in 10-minute intervals. The ambient wind sound level is wind speed dependent, and the dwelling level wind speed has to be three m/s or more.
A-weighted sound level	The sound level as measured on a sound level meter using a setting that emphasizes the middle frequency components similar to the frequency response of the human ear at levels typical of rural backgrounds in mid frequencies. See Figure 2 below.

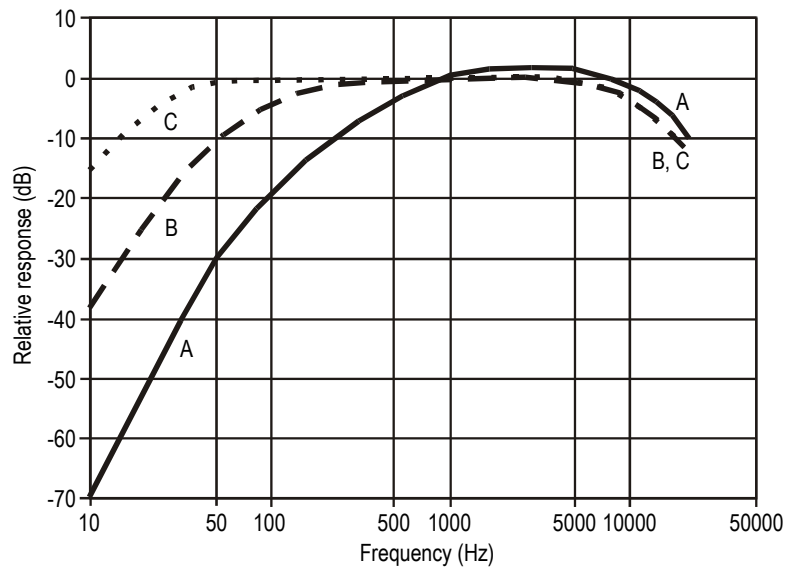


Figure 2 - Weighting network curves

Bands (octave, one-third octave)

A series of electronic filters separate sound into discrete frequency bands, making it possible to know how sound energy is distributed as a function of frequency. Each octave band has a centre frequency that is double the centre frequency of the octave band preceding it.

The one-third octave band analysis provides a finer breakdown of sound distribution as a function of frequency.

Basic sound level (BSL)

The nighttime A-weighted  $L_{eq}$  sound level commonly observed to occur in the designated land-use categories with industrial presence and is assumed to be five dBA above the ambient sound level and is set out in Table 1.

Calibration

The procedure used for the adjustment of a sound level meter using a reference source of a known sound pressure level and frequency. Field calibration must take place before and after the sound level measurements.

Category

A classification of a dwelling in relation to transportation routes used to arrive at a basic sound level, using Table 1 in this rule.

Category 1

Dwelling(s) distance is more than equal to 500 m from heavily travelled roads or rail lines and not subject to frequent aircraft flyovers.

Category 2

Dwelling(s) distance is more than or equal to 30 m, but less than 500 m from heavily travelled roads or rail lines and not subject to frequent aircraft flyovers.

Category 3

Dwelling(s) distance is less than 30 m from heavily travelled roads or rail lines or subject to frequent aircraft flyovers.

Class A adjustment	Consists of the sum of adjustments that account for the seasonal nature of the noise source (A1 cannot be used for design purposes) and the actual ambient sound level in an area (A2). The Class A adjustment is added to the basic sound level to arrive at the permissible sound level and cannot exceed +/- 10 dBA.
Class B adjustment	An adjustment applied for temporary noise generating activities which are activities lasting 60 or fewer days and not expected to occur more than once in any 12-month period. The adjustment recognizes that additional noise can be tolerated if it is known that the duration will be limited.
Class C adjustment	An adjustment to the permissible sound level for a wind turbine project to account for the masking of the noise from wind turbines by the sound of the wind through vegetation and around structures, when the wind reaches a wind speed $WS_{10,avg}$ of three m/s or greater near the dwelling to which the Class C adjustment pertains.
Comprehensive sound level	The comprehensive sound level includes ambient sound level, noise from existing facilities and energy-related facilities and should exclude abnormal noise events. Also see Representative conditions.
Cumulative sound level	The cumulative sound level includes the comprehensive sound level, noise from proposed facilities, energy-related facilities approved but not yet constructed, and the predicted noise from the applicant's proposed facility.
C-weighted sound level	The C-weighting approximates the sensitivity of human hearing at industrial noise levels (above about 85 dBA). The C-weighted sound level (e.g., measured with the C-weighting) is more sensitive to sounds at low frequencies than the A-weighted sound level and is sometimes used to assess the low-frequency content of complex sound environments.
Daytime	Defined as the hours from 7 a.m. to 10 p.m.
Daytime adjustment	An adjustment that allows a 10 dBA increase because daytime ambient sound levels are generally about 10 dBA higher than nighttime values.
dB (decibel)	<p>A unit of measure of sound pressure that compresses a large range of numbers into a more meaningful scale. Hearing tests indicate that the lowest audible pressure is about <math>2 \times 10^{-5}</math> Pa (0 dB), while the sensation of pain is about <math>2 \times 10^2</math> Pa (140 dB). Generally, an increase of 10 dB is perceived as twice as loud.</p> <p>The decibel is a linear weighting and can also be used when referring to differences in weightings.</p>

$$\begin{aligned} \text{Sound pressure level (dB)} &= 10 \log \left( \frac{p^2}{p_o^2} \right) \\ &= 20 \log \left( \frac{p}{p_o} \right) \end{aligned}$$

$p$  = root-mean-square sound pressure (Pa)

$p_o$  = reference root-mean-square-sound pressure, generally  $2 \times 10^{-5}$  Pa

dBA	The decibel (dB) sound pressure level filtered through the A filtering network that approximates human hearing response at low intensities. Also see dB and A-weighted sound level.
Deferred facility	Energy-related facilities constructed and in operation prior to October 1988. These facilities do not have to demonstrate compliance with this rule in the absence of a complaint.
Density per quarter section	Refers to a quarter section with the affected dwelling at the centre (a 451-metre radius). For quarter sections with various land uses or with mixed densities, the density chosen must be factored for the area under consideration.
Down wind	The wind direction from the noise source towards the receiver ( $\pm 45$ degrees), measured at either dwelling height or source height. The 45 degrees requirement is consistent with the definition for downwind conditions, as included in ISO 9613-1996, Attenuation of Sound During Propagation Outdoors – Part 2: general method of calculation, amongst others.
Dwelling	<p>Any permanently or seasonally occupied structure used for habitation for the purpose of human rest; including a nursing home or hospital with the exception of an employee or worker residence, dormitory, or construction camp located within an energy-related industrial plant boundary. Trailer parks and campgrounds may qualify as a dwelling if it can be demonstrated that they are in regular and consistent use.</p> <p>A permanent dwelling is a fixed residence occupied on a full-time basis.</p> <p>In the case of a condominium or apartment complex, each unit is considered a dwelling.</p> <p>A seasonally occupied dwelling is a fixed residence that, while not being occupied on a full-time basis, is occupied on a regular basis. A regular basis does not imply a scheduled occupancy but implies use of six weeks per year or more. The dwelling must not be mobile and should have some sort of foundation or features of</p>

permanence (e.g., electrical power, domestic water supply, septic system) associated with it. Summer cottages or manufactured homes are examples of seasonally-occupied dwellings, while a holiday trailer simply pulled onto a site is not.

The most impacted dwelling(s) are those subject to the highest average weighted sound level relative to the permissible sound level.

The nearest dwelling may not necessarily be the one most impacted by noise because of factors such as topography or man-made features. For example the nearest dwelling to a facility may be behind an intervening ridge, while a more distant dwelling may be in direct line of sight of the facility and experience louder noise.

**Emergency** An unplanned event requiring immediate action to prevent loss of life or property. Events occurring more than four times a year are not considered unplanned.

**Energy equivalent sound level ( $L_{eq}$ )** The  $L_{eq}$  is the average weighted sound level over a specified period of time. It is a single-number representation of the cumulative acoustical energy measured over a time interval. The time interval used should be specified in brackets following the  $L_{eq}$ —e.g.,  $L_{eq}$  (9 hours) is a nine-hour  $L_{eq}$ . If a sound level is constant over the measurement period, the  $L_{eq}$  will equal the constant sound level. If the sound level shows a variety of constant levels for different intervals, then  $f_i$  is the fraction of time the constant level  $L_i$ , is present.

$$L_{eq} = 10 \log \left( \sum_{i=1}^n f_i \times 10^{L_i/10} \right)$$

See Appendix 2 for more detail on the  $L_{eq}$  concept.

**Energy-related facility** A facility under the jurisdiction of the Commission or other regulatory agency, used for energy generation, transport (except by road or rail line) and resource extraction. These include mining, extraction, processing and transportation (except by road or rail line) as well as federally regulated electrical transmission lines and pipelines.

**Facility** Facility means a gas utility pipeline, hydro development, power plant, substation or transmission line.

**Facility property** The facility property is used to establish the 1.5 km compliance distance from a facility. The boundary of the facility property is defined by the legal interest in the land (e.g., property line, right-of-way, easement or lease), and from the centre point of the

tower for wind turbines. Lands optioned for future developments or for wind power projects may not be used to define the boundary.

Fast response	A standardized detector response on a sound level meter. Fast response has a time constant of 1/8 second (125 milliseconds) and is used to assess the ambient wind sound level $L_{90}$ .
Far field	The far field is that area far enough away from the noise source that the noise emissions can be treated as if they come from a single point or line source and the individual components of the noise source are not apparent as separate sources. This is typically at a distance of at least three to five times the major dimensions of the noise source, such as length, width, height or diameter.
Filter	A device separating the components of an incoming noise by its frequencies.
Frequent aircraft flyovers	A location that has a minimum of nine aircraft takeoffs or landings over the nighttime period. A dwelling must be within five km of the airport to qualify for the BSL adjustment in the assessment of categories as part of a site-specific analysis for dwellings that lie within a noise exposure forecast contour area with a noise exposure forecast 25 or greater, as designated by Transport Canada. In the absence of any noise exposure forecast contours for a local airport, Transport Canada can be contacted for current air traffic statistics. Also see Noise exposure forecast.
Heavily travelled road	<p>Includes highways and any other road where 90 or more vehicles travel during the nine-hour nighttime period consistently for any one month period in a year. The following methods to validate the travel volume are acceptable:</p> <ul style="list-style-type: none"><li>• traffic count by attended technician for the entire nighttime period with the dates documented</li><li>• traffic count by audio recording during the sound monitoring period with the dates documented</li><li>• hourly traffic volume data from Alberta Transportation or other municipalities</li><li>• Alberta Transportation's Average Annual Summer Daily Traffic (ASDT) value</li><li>• if the ASDT is not available, the Alberta Transportation's Average Annual Daily Traffic (AADT) value can be used</li></ul>

In the case of using the ASDT or AADT, 10 per cent of the daily traffic volume can be assumed to be the nighttime period traffic.

Isolation analysis techniques	Various sound measurements and analytical techniques used to separate various sound sources and to determine the sound level from the source of interest alone.
$L_{eq}$	See Energy equivalent sound level.
$L_n$	A generic notation for the sound level that is exceeded $n\%$ of the time, e.g. $L_{90}$ , $L_{50}$ or $L_{10}$ .
$L_{90}$	The sound level that is exceeded 90 per cent of the time. The $L_{90}$ must be measured in the setting “fast” on the sound level meter and is expressed in dBA. This parameter is used to assess the AWSL in 10-minute intervals, to account for lulls in wind speed and will thus represent the quietest 10 per cent of the time in a 10-minute interval.
Linear weighting (or Z-weighting)	The sound level measured without any adjustment for the sensitivity of human hearing. It is a direct measure in decibels of the variation in air pressure and is often referred to as the “sound pressure level”. This level is sometimes called the “linear weighted level” or “the unweighted level,” as it includes no frequency weighting beyond the tolerances and limits of the sound level meter being used for the measurements.
Low frequency noise	Where a clear tone is present below and including 250 Hz and the difference between the overall C-weighted sound level and the overall A-weighted sound level exceeds 20 dB.
Manufacturer’s certificate	A certificate issued by the manufacturer indicating that the instrument has passed tests performed in an ISO 9001: 2008 certified facility.
Near field	The region close to the source where the inverse-square law (six dBA loss per doubling of distance for a point source) does not apply. Usually this region is closer than three to five times the major dimensions of the noise source such as length, width, height or diameter.
Nighttime	Defined as the hours from 10 p.m. to 7 a.m.
No net increase	The logarithmic addition of sound pressure levels when predicting noise where the sum does not exceed the permissible sound level by 0.4 dBA.
Noise	The unwanted portion of sound.
Noise exposure forecast	The noise exposure forecast contours are site specific to each

airport and take into account such factors as traffic levels, proximity to runways, flight paths, and aircraft type and size.

Noise impact assessment (NIA)	A noise impact assessment predicts the expected sound level emanating from a facility as measured 15 m from the most impacted dwelling(s). It also identifies what the permissible sound level is and how it was calculated.
Permissible sound level (PSL)	The maximum daytime or nighttime sound level as determined in Table 1 at a point 15 m from the dwelling(s) in the direction of the facility. The permissible sound level is the sum of the basic sound level, daytime adjustment, Class A adjustments and Class B adjustment, or Class C adjustments.
Pristine area	A natural area that might have a dwelling but no industrial presence, including energy, agricultural, forestry, manufacturing, recreational, or other industries that affect the noise environment.
Proposed facility	A proposed facility is a facility for which an application has been deemed complete by the Commission, but is not yet approved or for which an approval has been issued, but is not yet constructed.
Rail lines	Includes any rail line where there is a minimum of one train passage during every nighttime period consisting of 25 cars.
Representative conditions	For ambient sound levels, these are conditions that portray the typical activities for the area, not an unusually quiet time (non-frequent occurrence – less than 10 per cent of the time for a particular season). If the ambient sound level is established by means of an ambient sound level survey, the maximum acceptable dwelling level wind speed is three m/sec, to exclude contamination from sounds caused by the wind. The ambient wind sound level can thus only be established for dwelling level wind speeds of three m/s and higher. For comprehensive sound levels, these do not constitute absolute worst-case conditions or the exact conditions the complainant has highlighted if those conditions are not easily duplicated. Sound levels must be taken only when representative conditions exist; this may necessitate a survey of extensive duration. For wind turbines to be compliant with the permissible sound level, these represent downwind conditions towards the dwelling from the wind turbines that can be expected to have a dominant noise impact at the dwelling, when those wind turbines are operating at the maximum sound power level associated with the operational setting, as documented in the noise impact assessment.



Signal to noise ratio	Signal to noise ratio (SNR) is the ratio of the sound level generated by the source of interest to the sound level generated by other sources. A weak signal to noise ratio will depend on many conditions, but as a rule of thumb, if the signal from the source of interest is less than 3 dB louder than the combined other sources, the SNR can be considered weak.
Slow response	A standardized detector response on a sound level meter that dampens the movement of displays so that rapidly fluctuating sound levels may be read. Slow response has a time constant of one second.
Sound level meter	An instrument designed and calibrated to respond to sound and to give objective, reproducible measurements of sound pressure level. Its frequency response and averaging times may be adjusted to simulate the response of the human ear.
Sound monitoring survey	The measurement and recording of sound levels and pertinent related information over a given time period.
Sound power level	<p>The decibel equivalent of the rate of energy (or power) emitted in the form of noise. The sound power level is given by:</p> $\text{Sound Power Level} = 10 \log \left( \frac{\text{sound as power (watts)}}{W_0} \right)$ <p>By international agreement, <math>W_0 = 10^{-12}</math> watts (W)</p> <p>The sound power level is an inherent property of a noise source.</p>
Sound pressure level	The decibel equivalent of the pressure of sound waves at a specific location, which is measured with a microphone. Since human reaction and material behaviours vary with frequency, the sound pressure level may be measured using frequency bands or with an overall weighting scale such as the A-weighting system. The sound pressure level depends on the noise sources, as well as the location and environment of the measurement path.
Spectrum	A wide range or sequence of frequencies. Octave band center frequency 31.5 Hz to 8,000 Hz. One third octave band frequency 16 Hz to 250 Hz.
Summertime conditions	Ground cover and temperatures that do not meet the definition for wintertime conditions. These can occur at any time of the year.
Tonal components	The test for the presence of tonal components consists of two parts. The first must demonstrate that the sound pressure level of any one of the slow-response, linear, one-third octave bands between 20 and 250 Hz is 10 dBA or more than the sound pressure level of at least one of the adjacent bands within two

one-third octave bandwidths. In addition, there must be a minimum of a five dBA drop from the band containing the tone within two bandwidths on the opposite side.

The second part is that the tonal component must be a pronounced peak clearly obvious within the spectrum.

Temperature inversions  
or  
lapse conditions

Temperature inversions or lapse conditions occur when temperatures in the atmosphere (usually measured at a height of 10 metres) are one degree Celsius or more above the temperatures at ground level (usually measured at a height of two metres).

Valid sound sample

A valid sound sample is typically one of many sound samples, acquired during sound level measurements (e.g. ambient noise or wind noise measurements, or in a comprehensive sound survey). An individual valid sound sample has a specified duration between one and 10 minutes, is representative for the noise source(s) and conditions of interest and meets the requirements of this rule. Isolation analysis may be performed to determine if a sample is valid or not. Rejected (not valid) samples have to be listed, together with the reason for their rejection.

Wind bin (for wind  
speeds)

Wind bin or bin refers to the grouping of sound samples according to wind speed. For instance, all sound samples collected at wind speeds between 3.5 m/s and 4.4 m/s are grouped in the four m/s bin.

Wind noise masking

The masking of the sound from wind turbines due to the sound of the wind through vegetation and around structures near a dwelling. Masking results in a decreased audibility of the wind turbines.

Wind speed

The speed of the wind, expressed in metres per second (m/s). For purposes of determining the amount of wind for wind noise masking, the speed of the wind is measured in and averaged over 10-minute intervals at the same height as the microphone, but not more than 10 metres above ground level and not more than 100 metres away from the dwelling or group of dwellings to which it applies, unless the Commission has granted permission to establish the wind speed at a different location and/or height. This wind speed is referred to in this rule as  $WS_{avg,10min}$ . To assure compliance with a Class C adjusted permissible sound level, the  $WS_{avg,10min}$  is typically assessed as the average wind speed in the preceding 10 minutes.

Wind turbine

A machine for converting the kinetic energy in wind into mechanical energy, which is then converted into electricity.

Wintertime conditions

There is snow, ice, or frozen ground cover and temperatures are typically below zero degrees Celsius.

## Appendix 2 – Sound level descriptors

### 2.1 dB and dBA

The human ear is capable of hearing a large range of levels of sound pressure from  $2 \times 10^{-5}$  pascals (Pa) (just audible, 0 dB) to  $2 \times 10^2$  Pa (sensation of pain, 140 dB)—a difference of seven orders of magnitude. The decibel is a logarithmic scale and is used to compress the range of sound pressure levels into a more meaningful scale. The symbol used to represent the linear decibel scale is dB (Lin), or simply dB.

The subjective or perceived loudness of a sound is determined by several factors, including the fact that the human ear is not equally sensitive to all frequency ranges. The ear emphasizes middle frequency sounds. The A-weighted decibel scale approximates the way the human ear hears different frequencies and is represented by dB(A) or dBA (see Appendix 1 - Glossary for A-weighted sound level and Figure 2 - Weighting network curves).

Low frequency sounds (hum) are harder for the human ear to hear than higher frequency sounds (whine). This means a low frequency sound has a higher sound pressure level on the linear scale (dB) than a high frequency sound and is perceived to be equally loud to the ear. These two sounds have the same dBA rating on the A-weighting scale because they are perceived to be equally loud.

### 2.2 $L_{eq}$ concept

This rule uses  $L_{eq}$  measurements, which represent energy-equivalent sound levels. The  $L_{eq}$  is the average weighted sound level over a specified period of time — a single-number representation of the cumulative acoustical energy measured over the interval. The time interval used should be specified in brackets following the  $L_{eq}$  (e.g.,  $L_{eq}$  (nine hours) is a 9-hour  $L_{eq}$ ). If a sound level is constant over the measurement period, the  $L_{eq}$  will equal the constant sound level. Figure 3 illustrates this concept.

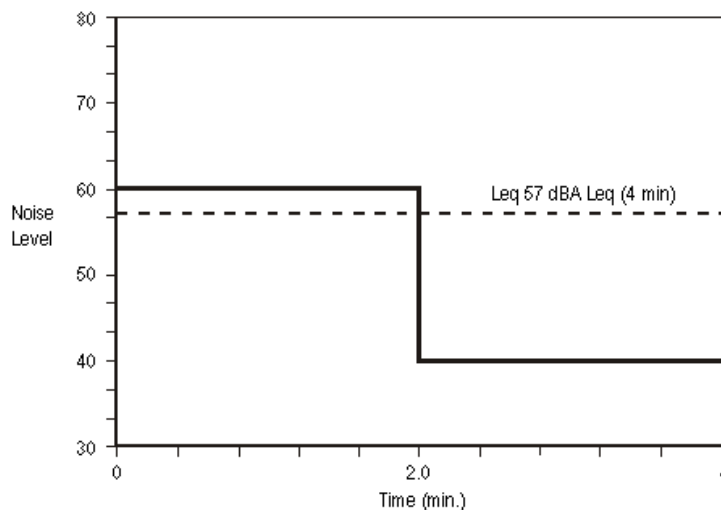


Figure 3 - Illustration of  $L_{eq}$  concept

In Figure 3, the equivalent energy during the four-minute period is not 50 dBA, as one might expect, but 57 dBA. This is due to the way in which sound energies are added, which is logarithmical rather than arithmetic. A quick look at the mathematics shows this:

$$\begin{aligned}
 L_{eq} &= 10 \log \left( \sum_{i=1}^n f_i \times 10^{L_i/10} \right) && \text{where: } f_i = \text{fraction of total time the constant} \\
 & && \text{level } L_i \text{ is present} \\
 &= 10 \log \left( \sum_1^{240} f_i \times 10^{L_i/10} \right) && L_i = \text{sound level in dBA} \\
 &= 10 \log \left( \frac{120}{240} \times 10^{60/10} + \frac{120}{240} \right. \\
 & \quad \left. \times 10^{40/10} \right) \\
 &= 10 \log (505\,000) \\
 &= 57 \text{ dBA } L_{eq} (4 \text{ min})
 \end{aligned}$$

In these calculations, we are adding numbers that are proportional to the corresponding sound energies. For example, the energy associated with the 60 dBA level is 100 times greater than the energy associated with the 40 dBA level ( $10^6$  versus  $10^4$ ).

Another example of a  $L_{eq}$  calculation is useful in demonstrating how a loud noise event, such as a train passing by, can alter the  $L_{eq}$  value. Assume the sound level is measured for one hour. For 59 minutes, the sound level is 40 dBA (fairly quiet), and for one minute it is 90 dBA while a train passes:

$$\begin{aligned}
 L_{eq} &= 10 \log (f_1 \times 10^{L_1/10} + f_2 \times 10^{L_2/10}) \\
 &= 10 \log \left( \frac{59}{60} \times 10^{40/10} + \frac{1}{60} \times 10^{90/10} \right) \\
 &= 10 \log (0.98 \times 10^4 + 0.02 \times 10^9) \\
 &= 73 \text{ dBA } L_{eq} (1 \text{ hr})
 \end{aligned}$$

This example demonstrates how loud noise events, such as trains passing, can dominate the  $L_{eq}$  values.

### 2.3 Sound power and sound pressure levels

A sound source radiates power, which results in a sound pressure. Sound power is a physical property of the source alone and is an important absolute parameter used for rating and comparing sound sources. Sound power levels for specific equipment may be obtained from the manufacturer or by modelling the source using near-field sound pressure level measurements.

Sound pressure levels can be calculated using sound power levels. For sound levels in a free field, the formula is:

$$L_{\text{pressure}} = L_{\text{power}} + 10 \log_{10} Q - 20 \log_{10} r - 10.8 - A_{\text{NC}} - A_{\text{air}} - A_{\text{ground}} - \dots$$

Where  $r$  = distance in metres

$Q$  = directivity factor of source, composed of inherent directivity of the source,  $Q_s$ , and the geometry of location,  $Q_g$

$A$  = attenuation from noise control, air absorption, ground effects, etc.

For simplicity, with an exposed source in a free field (e.g., the distance,  $r$ , is greater than five times the size of the source and there are no significant reflections of sound) where additional attenuation factors are to be neglected, this calculation can be done using A-weighted power and pressure levels. This gives a conservative estimate of the sound pressure level at a distance, but not necessarily the worst-case level that may occur under weather conditions favouring noise propagation in a given direction, which can be considered as a negative attenuation.

If any noise control measures are to be added to the source (such as a silencer or a building that will enclose the source) or if environmental conditions (such as the barrier effect of the topography) are to be included, the calculations must be done using octave or one-third octave frequency bands and the sound pressure levels added together and A-weighted afterwards. Noise controls and environmental effects are strongly frequency dependent, and a calculation using A-weighted data is not adequate.

The directivity factor,  $Q$ , can be thought of as the portion of a sphere into which the source radiates its sound energy. Some sources radiate uniformly in all directions, while others, notably fans, are very directional. For example, a fan in a vertical plane radiates most of the sound energy in a narrow beam to the front: ( $Q_s \approx 5 - 8$ ).

The directionality of the source is also affected by the geometry of its immediate surroundings, largely due to the presence of reflecting surfaces. The directivity of the location may or may not be significant due to the inherent directivity of the source. How the directivity factors  $Q_s$  and  $Q_g$  combine depends on the layout of the equipment and its surroundings. Table 9 gives examples of values of  $Q$  for a variety of location geometries.

**Table 9. Q values**

Q	Radiation pattern	Examples
1	Spherical	Elevated sources, flares, aircraft
2	Hemispherical	Source near or on ground surface
4	1/4-spherical	Source on ground beside taller building
8	1/8-spherical	In a corner of three surfaces

## 2.4 Addition of sound power or sound pressure levels

A similar formula to the one used in Section 2.2 of the Appendix 2,  $L_{eq}$  concept, can be used to add sound levels together both for the A-weighted levels and by the different frequency bands. This formula is useful for adding together sound power or sound pressure levels from different components of a facility, for example, to arrive at a composite sound level for the facility.

Sound pressure levels can be added together in this way only if they are measured or calculated for the same location.

Sound power levels can be added together and the composite source can be thought of as being at the acoustic centre of the individual sources (similar to the concept of the centre of mass of an object).

The formula for the addition of sound levels is:

$$L_{total} = 10 \log(10^{L_1/10} + 10^{L_2/10} + \dots + 10^{L_n/10})$$

where  $L_i$  = individual component sound levels (power or pressure).

### *Example calculation of addition of sound power levels*

A facility will be constructed and the manufacturer stated that the A-weighted sound power levels (referred to as  $10^{-12}$  watts, also written 1 picowatt, or 1 pW) for the different components are as follows:

Engine exhaust, with muffler 106 dBA  
Aerial cooler (non-directional) 113 dBA

Piping noise 79 dBA

$$\begin{aligned} L_{power,total} &= 10 \log(10^{L_1/10} + 10^{L_2/10} + \dots + 10^{L_n/10}) \\ L_{power,total} &= 10 \log(10^{106/10} + 10^{113/10} + 10^{79/10}) \\ &= 10 \times \log_{10} (10^{10.6} + 10^{11.3} + 10^{7.9}) \\ &= 10 \times \log_{10} (2.394 \times 10^{11}) \\ &= 10 \times 11.38 \\ &= 113.8 \text{ dBA (ref 1 pW)} \end{aligned}$$

When adding sound pressure levels, these levels are only valid for the specific location. To add the sound pressure levels, they must all be calculated or measured at the same location.

## 2.5 Estimate of sound pressure levels for different distances

### 2.5.1 Point sources

This estimate assumes hemispherical spreading of the sound waves and equates to a six-dB loss per doubling of distance from the sound source. The calculation

does not account for any attenuation (or loss) due to atmospheric or ground absorption.

This method of calculation can only be used in the following circumstances:

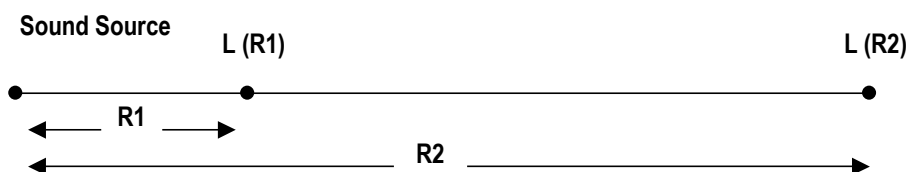
- (1) Simplified or other informal calculations are only acceptable for a smaller stationary single source facility without any existing industrial infrastructure and with flat ground between the facility and a single dwelling at a close distance or in remote areas where there are no dwellings within 1.5 km of the facility property.
- (2) An acceptable distance for applying the inverse square law depends on the sound source dimensions and the wavelength of the sound. The formula is usually safe to use as long as  $R_1$  and  $R_2$  are about five times the size of the source. Alternatively, a minimum distance of  $R_1=50$  metres can be used as a rule of thumb.
- (3) The inverse square law (six-dB loss per doubling of distance) for sound dissipation over distance does not apply for near-field measurements. The near field is the area where the dimensions of the source are significant; it applies to sound pressure levels measured at distances less than about five times the size of the source object. The data supplied by manufacturers is often provided as sound pressure levels measured very close to the equipment (e.g., in the near field) and is intended for use under occupational hearing requirements rather than for environmental assessment. Note that such measurements are often conducted using conditions that may not reflect field or operational conditions. Therefore, this type of measurement cannot be used in the equation below. However, given additional information about the dimensions of the equipment and the conditions of the measurement, the sound power level of the equipment can be determined, and the equation from Appendix 2 – Section 2.3, Sound power and sound pressure levels, can be used instead.

In other circumstances, it may be advisable to contact an acoustical practitioner.

The basic equation is:

$$L(R_2) = L(R_1) - 20 \log \left( \frac{R_2}{R_1} \right)$$

with  $R_1$  = distance  $R_1$  in metres  
 $R_2$  = distance  $R_2$  in metres  
 $L$  = sound level in dBA





Note that the second term in the equation is negative if  $R_2$  is less than  $R_1$ , and  $L(R_2)$  is higher than  $L(R_1)$ . Also, under certain source-receiver configurations, the loss per doubling of distance can be less than six dB.

***Example: calculation of the sound level at a different distance***

The sound level measured at 50 m from the source is 75 dBA. A dwelling is located 800 m away from the facility. What is the sound level calculated at the dwelling?

Measured  $L(50\text{ m}) = 75\text{ dBA}$ .

$$L(R_2) = L(R_1) - 20 \log\left(\frac{R_2}{R_1}\right)$$

$$L(800\text{ m}) = L(50\text{ m}) - 20 \log\left(\frac{800}{50}\right)$$

$$L(800\text{ m}) = 75\text{ dBA} - 20 \log\left(\frac{800}{50}\right)$$

$$L(800\text{ m}) = 75\text{ dBA} - 24\text{ dBA}$$

$$L(800\text{ m}) = 51\text{ dBA}$$

So the sound level contribution due to the facility is 51 dBA at 800 m.

***Alternative method of determining the sound level at a different distance — the simple table approach***

A simplified way to estimate the sound level is to use the rule of six dB lost per doubling of distance. With this method, subtract six dB each time the distance from the noise source is doubled.

If the measured sound level is 75 dBA at 50 m from the source:

Distance (m)	Sound level (dBA)
50	75
100	69
200	63
400	57
800	51
1600	45

This method results in 51 dBA at 800 m. This result matches the calculation above. The simple table method only estimates sound values at discrete distance points. If sound values between the distance points are required, use the formula calculation method.

## 2.5.2 Line sources

Where a long, narrow source radiates noise, the radiation pattern is that of a cylinder, not a sphere. Examples include pipes, conveyor belts, and transportation corridors, such as roads. Calculations using the spherical spreading of sound from point-like sources would involve a final step of integration over the length of the sound. It is more convenient to treat the sound as a line radiating into a cylinder. The pressure level at distance  $R$  is considered below if the length,  $L$ , of the line source is limited, once the distance,  $R$ , exceeds three to five times the length, the source can be considered as a point source, and the equations in Appendix 2 – Section 2.3 and Appendix 2 – Section 2.5.1 can be used.

For a line source, the sound spread equates to a three-dB loss per doubling of distance. Similar conditions apply for the line source equation as for the point source equation. The formula for noise levels at different distances from a line source is as follows:

$$L(R_2) = L(R_1) - 10 \log\left(\frac{R_2}{R_1}\right)$$

with  $R_1$  = distance  $R_1$ , in metres

$R_2$  = distance  $R_2$ , in metres, and

$L$  = sound level in dB (for octave bands) or dBA

Note that if  $R_2 < R_1$ , the second term in the equation is negative, and  $L(R_2)$  is higher than  $L(R_1)$ .

**Appendix 3 – Noise impact assessment summary form**  
**(Please retain detailed records for audit purposes)**



Licensee: \_\_\_\_\_  
 Facility name: \_\_\_\_\_ Type: \_\_\_\_\_  
 Legal location: \_\_\_\_\_  
 Contact: \_\_\_\_\_ Telephone: \_\_\_\_\_

**1. Permissible Sound Level (PSL) determination (Rule 012, Section 2)**

(Note that the PSL for a pre-1988 facility undergoing modifications is the equivalent noise level ( $L_{eq}$ ) that currently exists at the dwelling if no prior noise complaint exists and the current sound level  $L_{eq}$  exceeds the calculated PSL from Section 2.1.)

Complete the following for the most impacted dwelling(s) or at a distance of 1.5 km where there are no dwellings:

Dwelling Distance from facility (m)	Dwelling Direction from facility	BSL (dBA)	Daytime adjustment (dBA)	Nighttime PSL (dBA)	Daytime PSL (dBA)

**2. Sound source identification**

For the new and existing equipment, identify the model major sources of noise from the facility, their associated sound power level (PWL) or sound pressure level (SPL).

New and/or Existing Equipment Noise Sources (include make and model, power rating)	Predicted or Measured		Data source (Vendor Measurement theoretical, etc.)	Distance SPL measured from the noise source (m)
	<input type="checkbox"/> PWL (dBA) or <input type="checkbox"/> SPL (dBA)	<input type="checkbox"/> PWL (dBA) or <input type="checkbox"/> SPL (dBA)		

**Provide a tentative schedule and timing for the operation, maintenance and testing of the equipment**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**3. Normal operating conditions**

When using manufacturer’s data for expected performance, it may be necessary to modify the data to account for actual operating conditions (for example, indicate conditions such as operating with window/doors open or closed, load, RPM). Describe any considerations and assumptions used in preparing estimates:

\_\_\_\_\_

\_\_\_\_\_

**4. Noise modelling parameters**

If modelling was conducted, identify the model input parameters used (see Section 3.2):

\_\_\_\_\_

(continued)

**5. Predicted sound level/compliance determination**

Identify the predicted sound level at the most impacted dwelling(s) or at a distance of 1.5 km where there are no dwellings. Typically, only the nighttime sound level is necessary, as levels do not often change from daytime to nighttime. However, if there are differences between day and night operations, both levels must be calculated.

Predicted sound level contribution from the new or modified facility alone at the most impacted dwelling(s) or at a distance of 1.5 km where there are no dwellings.

Nighttime sound level: \_\_\_\_\_ dBA  $L_{eq}$                       Daytime sound level: \_\_\_\_\_ dBA  $L_{eq}$   
Assumed ambient nighttime sound level \_\_\_\_\_ dBA  $L_{eq}$     Assumed ambient daytime sound level: \_\_\_\_\_ dBA  $L_{eq}$

Predicted sound level at the most impacted dwelling(s) or at a distance of 1.5 km where there are no dwellings, from the new or modified facility including the cumulative effects of noise from energy-related facilities and the assumed ambient level (ASL + new facility + existing energy-related facilities + proposed energy-related facilities).

Nighttime sound level: \_\_\_\_\_ dBA  $L_{eq}$                       Nighttime permissible sound level: \_\_\_\_\_ dBA  $L_{eq}$   
Daytime sound level: \_\_\_\_\_ dBA  $L_{eq}$                       Daytime permissible sound level: \_\_\_\_\_ dBA  $L_{eq}$

Is the predicted sound level less than the permissible sound level by a margin of three dBA? Yes \_\_\_\_\_ No \_\_\_\_\_  
If **No**, conduct a detailed NIA as per Section 3 of AUC Rule 012.

**6. Supply any other relevant information you want to provide to the AUC. Submit additional pages if required.**

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**7. If the nighttime permissible sound level is higher than 40 dBA  $L_{eq}$ , provide supplementary information to support the use of such permissible sound level.**

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**8. Explain what measures have been taken to address construction noise.**

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**9. Acoustical practitioner's information (See Section 3.2 (12)):**

Company: \_\_\_\_\_

Name: \_\_\_\_\_

Experience: \_\_\_\_\_

Title: \_\_\_\_\_ Telephone: \_\_\_\_\_ Date: \_\_\_\_\_

## Appendix 4 – Noise complaint investigation form



### PART 1 (To be completed by licensee)

Date (DD/MM/YYYY): \_\_\_\_\_

Resident: \_\_\_\_\_ Licensee representative: \_\_\_\_\_

Legal location: \_\_\_\_\_ Licensee: \_\_\_\_\_

Address: \_\_\_\_\_ Address: \_\_\_\_\_

\_\_\_\_\_

Telephone: \_\_\_\_\_ Telephone: \_\_\_\_\_

### Noise characterization

Identify the quality and characteristics of the noise.

Distance to source: \_\_\_\_\_ (m) When is noise a problem (day/night)? \_\_\_\_\_

Pitch (high/low): \_\_\_\_\_ Where is noise most annoying (inside/outside)? \_\_\_\_\_

Is there a noticeable tone? \_\_\_\_\_ Describe: \_\_\_\_\_

Is noise steady/intermittent/pulsating? \_\_\_\_\_ Describe: \_\_\_\_\_

Is the noise heard and/or a vibration felt? \_\_\_\_\_ Describe: \_\_\_\_\_

What is noise comparable to? \_\_\_\_\_

Other comments: \_\_\_\_\_

### Weather conditions

Identify the weather conditions when the noise is most noticeable.

Temperature: \_\_\_\_\_ Direction wind is coming from: \_\_\_\_\_

Wind speed (km/h): \_\_\_\_\_ Cloud cover: \_\_\_\_\_ Precipitation: \_\_\_\_\_

Ground cover between dwelling and facility (snow, water, grass, crop, trees, ice, etc.):

\_\_\_\_\_

Other comments:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

### Representative conditions

From the above, identify the conditions that should exist as closely as possible during a comprehensive sound level survey.

\_\_\_\_\_

(continued)



## Appendix 5 – Determination of low frequency tonal component

### 5.1 The methodologies

The methodologies shown below are intended as guidelines only and should not restrict the methods of an acoustical practitioner. The Commission will review the proposed methodology and approve the techniques or require other methods, as deemed appropriate. As the permissible sound levels are typically higher in the daytime than during the night, the methods described focus on the nighttime periods. However, the low frequency noise concerns may be due to activities during the daytime only. The methodologies remain similar.

As part of the pre-evaluation of a potential issue with low frequency noise, the acoustical practitioner should determine the quality of the noise that has raised concerns from the affected resident(s) and assess whether the noise issue is intermittent or continuous.

#### 5.1.1 Continuous low frequency noise

If there is a low frequency noise concern and it is continuous, the levels should be measured over the entire nighttime period in terms of the one-third octave  $L_{eq}$  and statistical levels ( $L_{10}$ ,  $L_{50}$ ,  $L_{90}$ , or some combination). The difference in the  $L_{eq}$  (equivalent-continuous) levels for adjacent spectral bands should be graphed in order to demonstrate whether there is a pure tone, as defined in Section 4.4. If the difference in the levels varies over the nighttime, this will be evident from such a graph.

When measurements are taken over the entire period of the nighttime, the measurement interval should be a maximum of one minute. In this case, the statistical levels are valuable to show any shorter term fluctuations in levels.

#### 5.1.2 Intermittent low frequency noise

If the suspected low frequency noise is intermittent, then short-term measurements should be taken at times when the low frequency sound is present, and the assessment of the presence of a tone should be restricted to times when the sound is present. A high-quality audio recording of the sound over the period of concern may need to be taken for later analysis and identification of the duration and intensity of the low frequency noise. If the timing of the intermittent periods is not regular, a continuous measurement may be required to obtain sufficient evidence of the presence or absence of a pure tone.

In this case, the spectral analysis can be done in terms of a short-term  $L_{eq}$  or a “slow” weighted sound level. Many instruments do allow simultaneous measurements of the one-third octave  $L_{eq}$  levels. If meters cannot track all the one-third octave frequency bands at the same time, the tonal components can be assessed by running a signal through an analyzer a number of times to get the levels of all the frequency bands of interest. The analyzer would be for “slow response” and the recordings run with different one-third octave band settings until all bands between 20 and 250 Hz have been analyzed.

#### 5.1.3 Importance of wind conditions

In all cases where low frequency noise may be a consideration, measurements of the local wind conditions must be taken throughout the assessment period at the same height as the microphone above ground in the vicinity of the sound monitoring location(s). Wind

generates high levels of low-frequency (and infrasonic) sound energy, which can mask or confuse the assessment of facility low frequency noise.

**Example**

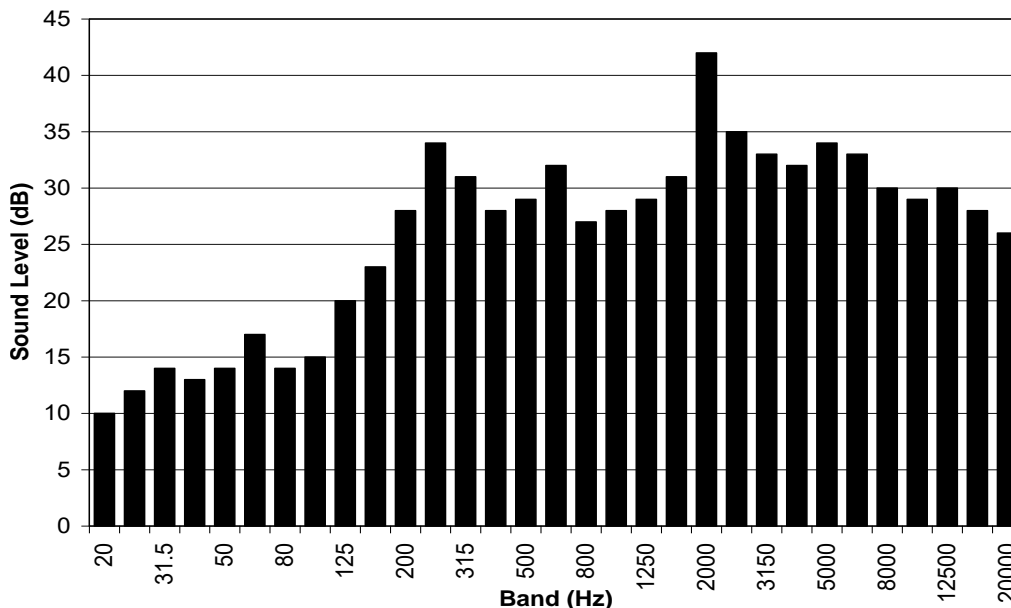
The Table 10 below shows how the presence of low frequency tonal components is determined. For example, a tonal component is evident at 250 Hz ( $\geq 10$  dBA within two bandwidths on one side and five dBA or greater drop within two bandwidths on the other side, in addition to being pronounced within the spectrum).

**Table 10. One-third octave band frequency spectrum analysis for tonal components**

Band (Hz)	Sound level (dB)	Part 1		Part 2
		Maximum $\Delta$ dB within 2 bandwidths	$\geq 5$ dB on other side?	Pronounced within the spectrum
20	10	-4	n/a	n/a
25	12	-2	n/a	n/a
31.5	14	4	n/a	n/a
40	13	-4	n/a	n/a
50	14	-3	n/a	n/a
63	17	4	n/a	n/a
80	14	-6	n/a	n/a
100	15	-8	n/a	n/a
125	20	-8	n/a	n/a
160	23	-11	n/a	n/a
200	28	8	n/a	n/a
250	34	11	<b>yes</b>	<b>yes</b>
315	31	3	n/a	n/a
400	28	-6	n/a	n/a

Figure 4 below shows some examples of tonal components. There is clearly a tonal component (pronounced peak) within the spectrum at 250 Hz and 2000 Hz ( $\geq 10$  dBA within two bandwidths on one side and five dBA or greater drop within two bandwidths on the other side); however, the second is at a frequency greater than 250 Hz and would not be considered low frequency noise.

**Figure 4 - One-third octave band centre frequency (Hz)**





## Appendix 6 – Examples

The examples below show a step-by-step process to determine compliance or non-compliance for new or existing facilities that: may request an A2 adjustment (Example 1); use the simplified calculation described in Appendix 2 - Section 2.5 (Example 2); or may require consideration of cumulative effects (Example 3). Example 4 and 5 show a step-by-step process to determine the PSL with the application of wind noise masking for wind turbines, and the class C adjustments.

### Example 1

A new facility is proposed for the area shown in Figure 5. What sound levels should the facility be designed for?

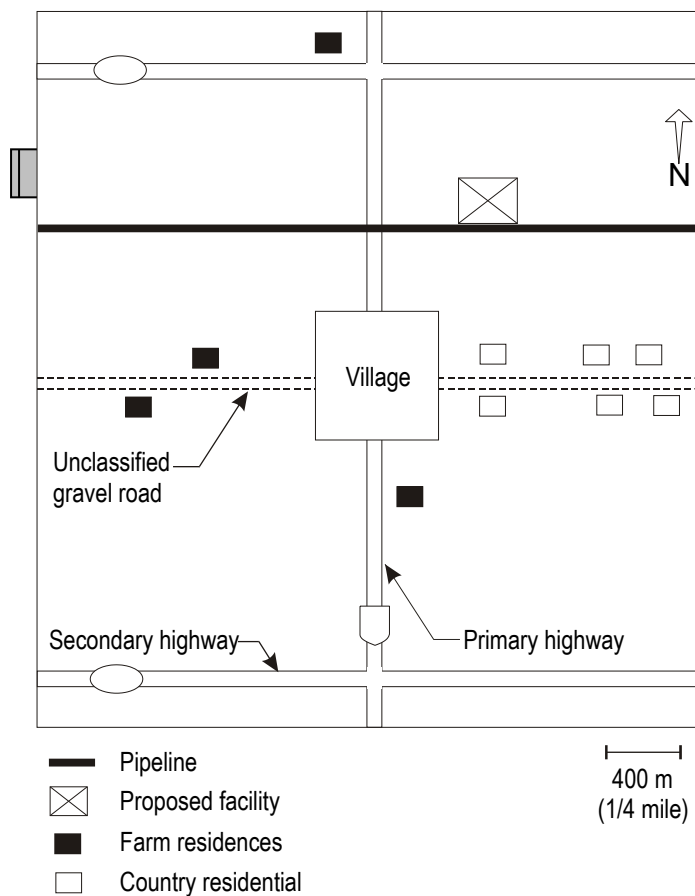


Figure 5 - Area sketch for example 1

## Example 1 - Solution

### Step 1 Determine BSL.

All three possible dwelling densities are represented in this study area. The four 8.1 hectares (20 acre) country residential dwellings factored over a quarter section fall into the 1 to 8 dwellings density, as do the farmhouses. The two country residential dwellings closest to the village and a portion of the village are in the 9 to 160 dwellings density, while the body of the village is in the >160 (greater than) dwellings density.

Regarding the proximity to transportation Category: the primary and secondary highways in this example are heavily travelled which causes the adjacent farmhouses to fall into Category 2, while the dwellings in the village would fall into Category 2 or Category 3, based on population density and depending on the distance from the highway. The two country dwellings in closest proximity to the village fall into Category 2, while other four country dwellings that are east of the village further along the gravel road (which in this example is not a heavily travelled road), fall into Category 1. The farmhouses along the gravel road fall into Category 1.

It appears that the Category 1 country dwellings to the south of the proposed facility are probably the nearest and most impacted, with a nighttime BSL of 40 dBA  $L_{eq}$ , from Table 1-Basic Sound Levels for nighttime. However each dwelling is assigned its own site specific BSL. Where there is more than one category and dwelling density in a study area it may be difficult to ascertain the most impacted dwelling as it may not be the nearest dwelling to the proposed facility. The difference between the determined permissible sound level and predicted sound level will assist in the determination of the most impacted dwelling.

### Step 2 What is the daytime sound level adjustment?

The daytime sound level adjustment is 10 dBA above the BSL. (For a continuous facility noise source where there is no difference in operational noise level between the daytime and nighttime period, the facility sound level must be designed to comply with the most stringent criteria which is usually the lower nighttime permissible sound level.)

### Step 3 Is a Class A1 Seasonal Adjustment appropriate?

No, because this adjustment cannot be added when determining the permissible sound level for design purposes.

### Step 4 Is the BSL appropriate for this area?

In this example assume no, because of presence of a non-energy related noise source in area (feedlot that operates 24-hours). The licensee of the proposed facility has taken some spot measurements with a hand-held sound meter. The levels recorded ranged from 42 dBA at night to 55 dBA during the day.

Step 5 Is the use of a Class A2 monitoring adjustment required?  
 As per Section 2.1(8), the Class A2 adjustment is not to be deemed held in reserve before the application is deemed completed. In addition, if the Class A2 adjustment is requested, the noise impact assessment must indicate the predicted noise level with a Class A2 adjustment and without a Class A2 adjustment. The remaining steps (step 6 to step 11) represent the determination of permissible sound level in the former case of a noise impact assessment with a Class A2 adjustment.

Step 6 An A2 adjustment is based on the measured ambient sound level at a dwelling. A 24-hour ambient sound monitoring study measured at 15 m from the nearest country dwelling is conducted. The results of the survey are:

Daytime ASL: 53 dBA  $L_{eq}$

Nighttime ASL: 37 dBA  $L_{eq}$

Claim the appropriate daytime and nighttime A2 monitoring adjustment for the applicable dwelling (in this example the country dwelling nearest the facility and the feedlot) specific dwelling from Figure 1 - Ambient monitoring adjustment. First, subtract the appropriate daytime and nighttime ASL measured during the monitoring study from the BSL determined in step 2. In this example:

Daytime BSL - daytime ASL = 50 - 53 = -3

Nighttime BSL - nighttime ASL = 40 - 37 = +3

For each in turn, locate this difference on the horizontal axis of Figure 1, read upward until the adjustment line is intersected, and read to the left to find the applicable A2 adjustment that will apply to the daytime and nighttime periods. The A2 adjustment that apply in this example are:

Daytime adjustment: A2 = +8 dBA  $L_{eq}$

Nighttime adjustment: A2 = +2 dBA  $L_{eq}$

Step 7 Sum of the Class A adjustments: (A1 + A2 (call it A))  
 Daytime: 0 + 8 = 8 dBA  $L_{eq}$   
 Nighttime: 0 + 2 = 2 dBA  $L_{eq}$

Step 8 Is the Class A adjustment greater than 10 dBA  $L_{eq}$  (only a maximum of 10 is allowed)?

In either case, no.

Class A ambient adjustment = 8 dBA daytime

Class A ambient adjustment = 2 dBA nighttime

Step 9 Is noise temporary in nature?  
 In this example assume no; the facility will operate all year (more than 60 days).

Class B adjustment: B = 0 dBA

	<b>Daytime</b>	<b>Nighttime</b>
	PSL = BSL + Day + A + B	PSL = BSL + Day + A + B
	PSL = 40 + 10 + 8 + 0	PSL = 40 + 0 + 2 + 0
	PSL = 58 dBA $L_{eq}$	PSL = 42 dBA $L_{eq}$

Step 11      Daytime PSL = 58 dBA  $L_{eq}$   
 Nighttime PSL = 42 dBA  $L_{eq}$   
 as measured 15 m from the nearest country dwelling.

**Example 2 – Noise impact assessment (simple calculation)**

A new facility is proposed for the area shown in Figure 6. The most impacted dwelling is located 800 m northeast of the facility along a road not heavily travelled; therefore it is a Category 1 proximity to transportation. The density of dwelling is in the 1 to 8 range. From Table 1, the BSL at nighttime is 40 dBA and since no additional adjustments are required, the PSL is 40 dBA  $L_{eq}$  nighttime. The sources of noise from the facility are the cooler fans and exhaust noise. The manufacturer has stated that the maximum sound level emitted from this equipment is 55 dBA measured at 50 m in front of the cooler fans.

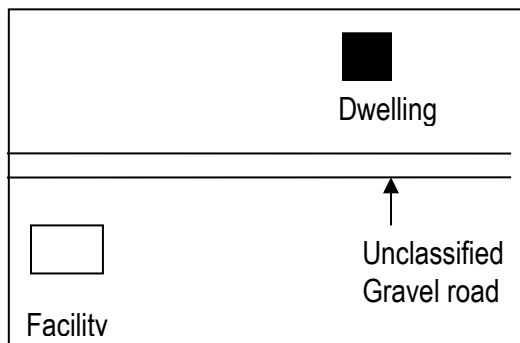


Figure 6 - Area sketch for example 2

**Example 2 - Solution**

The table below demonstrates the use of the doubling of distance method to estimate the sound level from the source:

Distance (m)	Sound level (dBA)
50	55
100	49
200	43
400	37
800	31

Note that this is a small, stationary, single-source facility without any existing energy-related facility in the proximity and with flat ground between the facility and a single dwelling.

The six dBA loss per doubling of distance is a rough estimate. A more accurate way to determine the sound attenuation with distance is to measure similar equipment at a topographically similar location. The sound levels would be measured at specified distances away from the facility (for example, 100 m, 200 m, 400 m, etc.) to determine the actual attenuation with distance.

The nighttime permissible sound level must be met. Many permanent facilities create the same amount of noise whether it is daytime or nighttime, and so the most stringent criterion is the nighttime permissible sound level.

The noise impact assessment developed for this example would include the following:

- 1) The major sources of noise in this facility include cooler fans and exhaust noise.
- 2) The sound levels at the nearest dwelling have been predicted using the six dBA loss per doubling of distance calculation method. Sound level losses for air absorption, ground attenuation, or cooler fan orientation away from the dwelling have not been included. The only noise source input is the 55 dBA at 50 m.
- 3) The distance to the most impacted dwelling is 800 m northeast of the facility. This also happens to be the closest dwelling. If we extrapolate the 55 dBA value out to 800 m, using the theoretical six dBA loss per doubling of distance:

L is sound level at distance R

$$L(R2) = L(R1) - 20 \log (R2/R1)$$

$$L(800) = 55 - 20 \log (800/50)$$

$$L(800) = 30.9$$

The predicted sound level at the dwelling from the facility alone is 30.9 dBA. Adding this to the assumed rural ambient sound level (35 dBA  $L_{eq}$ ) results in a combined predicted sound level of 36.3 dBA  $L_{eq}$ . With this result, the Appendix 3 noise impact assessment summary form can be submitted in the application as a substitute for the noise impact assessment.

- 4) This noise impact assessment was conducted by Acoustical Practitioner, of XYZ Company. Also see other requirements set out in Section 3.2.

### Example 3 - Noise impact assessment

A new facility is proposed for the area shown in Figure 7. For what location(s) should compliance be determined? How should the existing facility be considered?

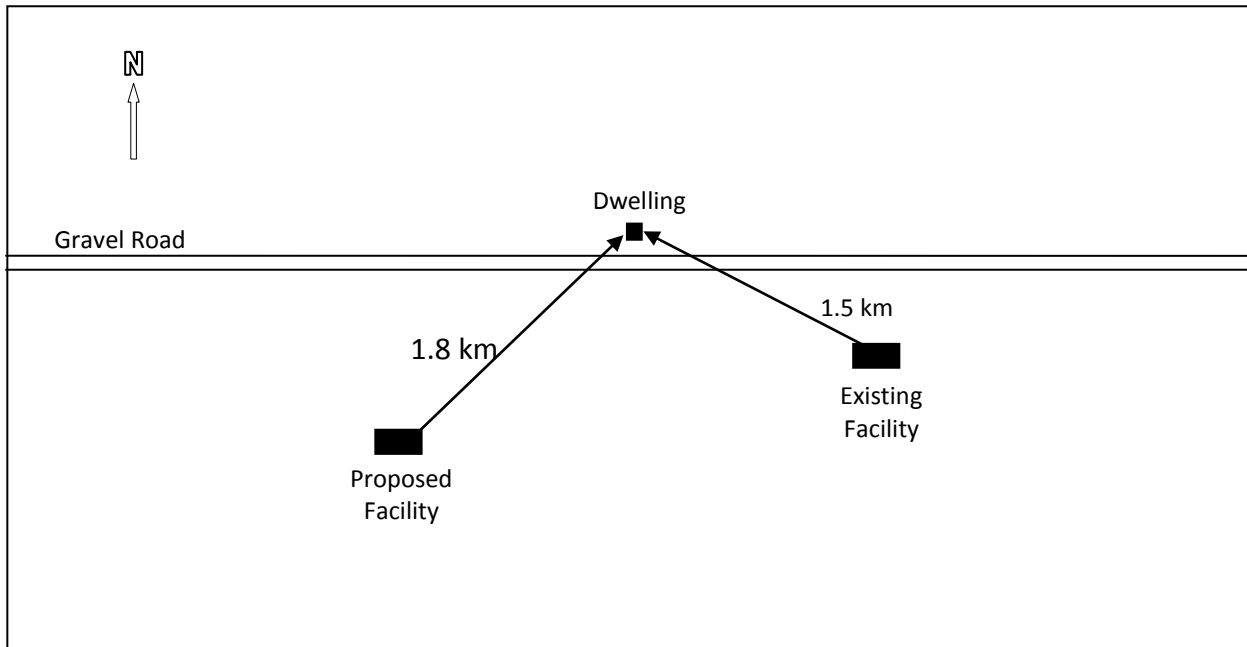


Figure 7 - Area sketch for example 3

### Example 3 – Solution

A new facility is planned for an area where another regulated energy-related facility is present. AUC Rule 012 requires that cumulative effects be considered for all potentially affected dwellings in a study area and/or at 1.5 km from the facility property boundary where there are no dwellings in the study area. The acoustical practitioner must determine whether dwellings are present within the 1.5 km distance or if there is potential for cumulative effects to occur at dwellings beyond the 1.5 km facility property boundary. The example presented examines two situations: one where the proposed facility is a simple noise source and the situation where there is a dwelling beyond the proposed facility property boundary. The example demonstrates the concept of the area of overlap of two energy-related facilities at their respective 1.5 km facility property boundaries, and compliance with the PSL.

- 1) The PSL based on Section 2.1 of the AUC Rule 012 is 40 dBA  $L_{eq}$  nighttime at a distance of 1.5 km from the proposed facility property boundary where there are no affected dwellings closer to the facility. The corresponding assumed nighttime ASL from Section 2.1 is 35 dBA  $L_{eq}$ .
- 2) Where there is no noise data available for the existing energy-related facility, the existing energy-facility may be assumed to be compliant with the PSL so that it meets a noise level of 40 dBA  $L_{eq}$  at a distance of 1.5 km from its own facility property boundary. This means the existing energy-related facility contribution is assumed to be 38.3 dBA, with an assumed ASL of 35 dBA  $L_{eq}$  nighttime. (38.3 dBA + 35 dBA = 40 dBA).
- 3) Compliance of the proposed facility is assessed at the points of intersection of the 1.5 km facility property boundaries of the existing and proposed energy-related facilities (see points A and B in Figure 8). Note that in the areas of overlap of the proposed and existing

facility 1.5 km facility property boundaries, the PSL may be exceeded if there are no dwellings within that area.

- 4) The sound emission from the proposed facility needs to be established. The measurements from a similar facility indicate that it is a simple source that emits a sound level of 56.5 dBA at 25 m from the facility. Using the standard distance attenuation formulae (Appendix 2 - Section 2.5), 56.5 dBA at 25 m results in a noise contribution at Point A or Point B of 20.9 dBA. (For more complex sources or situations, the acoustical practitioner must conduct the calculations using modelling software or more detailed calculations).
- 5) Point A and Point B are the points of interest where the two facility property boundaries meet and where compliance must be demonstrated (in the absence of an affected dwelling in the area). The PSL is determined to be 40 dBA  $L_{eq}$  nighttime at these two points. The cumulative effects assessment at Point A and Point B considers the contributions of all energy-related regulated facilities plus the assumed ASL. In this situation the noise level at Point A and Point B is predicted to be:

Proposed Facility contribution + Existing facility contribution + assumed ASL = dBA at Point A

which is:

$$20.9 \text{ dBA} + 38.3 \text{ dBA} + 35.0 \text{ dBA} = 40.0 \text{ dBA at Point A and Point B}$$

- 6) In the situation where a dwelling is located beyond the 1.5 km proposed facility property (at 1.8 km), but the noise impact may be affected due to cumulative effects from multiple facilities, the noise impact needs to be assessed at those dwellings. Using the standard distance attenuation formulae (Appendix 2 - Section 2.5 if applicable), the proposed facility noise contribution at the dwelling is predicted to be 19.4 dBA.
- 7) Compliance at the dwelling is determined by adding the proposed facility noise contribution to the existing energy-related facility noise contribution (based on the assumption the existing energy-related facility complies with the PSL of 40 dBA  $L_{eq}$  nighttime and its noise contribution is 38.3 dBA at the dwelling, and the assumed ambient sound level of 35 dBA  $L_{eq}$  nighttime), then comparing the result to the nighttime PSL:

Proposed Facility contribution + Existing facility contribution + assumed ASL = noise level dBA at the dwelling

which is:

$$19.4 \text{ dBA} + 38.3 \text{ dBA} + 35.0 \text{ dBA} = 40.0 \text{ dBA at the dwelling.}$$

The PSL is not exceeded; both facilities are predicted to be in compliance.

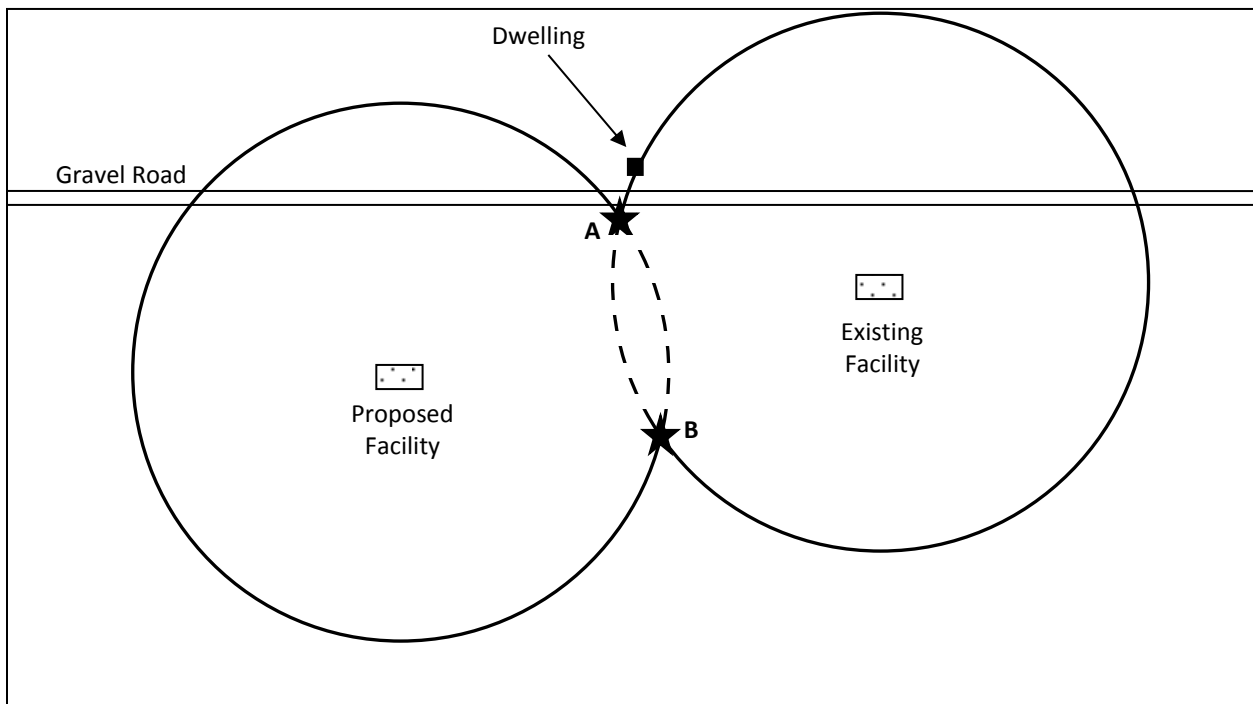
### ***Summary***

If there are no dwellings in the study area that will be affected by the cumulative effects of noise from energy-related facilities, AUC Rule 012 limits the nighttime permissible sound level in this example along the 1.5 km facility property boundaries

and at the intersecting points (Point A and Point B) of the proposed and existing facility boundaries.

The proposed facility which meets the permissible sound level at the 1.5 km facility property boundary intersection points (points A and B) is expected to have less noise impact at a dwelling located further from the intersection points but may have a cumulative noise impact at that dwelling. With a dwelling in the study area at a distance of 1.8 km from the proposed facility, it is determined through the calculations that the proposed facility demonstrates a no net increase in noise level at the dwelling. “No net increase” indicates that the total noise impact, including the proposed facility, will not exceed 40.4 dBA, resulting in an increase over the PSL (40.0 dBA) of up to 0.4 dB.

- 8) The noise assessment supplied in the example provides the details required and outlines the assumptions made and data sources and formulae used to determine compliance with the PSL at a distance of 1.5 km from the proposed facility property boundary with and without a dwelling in the study area. The example demonstrates a no net increase in noise level as defined in Appendix A.



Legend

- Applicable 1.5 km criteria boundary
- - - Interlaced Area
- ★ 1.5 km criteria boundary Intersection Points

Figure 8 - 1.5 km criteria boundary for example 3



## Appendix 7 – References

Document Reference	Title
ANSI S1.11-2004 (R2009)	Octave-Band and Fractional-Octave-Band Analog and Digital Filters
ANSI S1.40-2006	American National Standard Specifications and Verification Procedures for Sound Calibrators
ANSI S1.4-1983 (R2006)/ANSI S1.4a-1985 (R2006)	American National Standard Specification for Sound Level Meters
ANSI S1.26-1995 (R2004)	Calculation of the Absorption of Sound by the Atmosphere
ANSI S1.13-2005 (R2010)	Measurement of Sound Pressure Levels in Air
ANSI S12.18 (R2009)	Outdoor Measurement of Sound Pressure Level
ASTM E1014 – 08	Standard Guide for Measurement of Outdoor A-Weighted Sound Levels
ASTM E1686 – 10	Standard Guide for Applying Environmental Noise Measurement Methods and Criteria
ISO 1996-1 (2003)	Acoustics -- Description, measurement and assessment of environmental noise -- Part 1: Basic quantities and assessment procedures
ISO 1996-2 (2006)	Acoustics -- Description, measurement and assessment of environmental noise -- Part 2: Determination of environmental noise levels
ISO 9613-1:1993	Acoustics -- Attenuation of sound during propagation outdoors – Part 1 Calculation of the Absorption of Sound by the Atmosphere;
ISO 9613-2:1996	Acoustics -- Attenuation of sound during propagation outdoors – Part 2 General method of calculation
IEC 61672-1 ed1.0 (2002.05)	Electroacoustics – Sound level meters – Part 1: Specifications
IEC 61672-2 ed1.0 (2003-04)	Electroacoustics – Sound level meters – Part 2: Pattern evaluation tests
IEC 61400-11 ed2.0 (2002-12) IEC 61400-11-am1 ed2.0 (2006-05) IEC 61400-11 ed2.1 Consol. with am1 (2006-11)	Wind turbine systems - Part 11: Acoustic noise measurement techniques Amendment 1 - Wind turbine systems - Part 11: Acoustic noise measurement techniques
IEEE C57.12.90-2010	IEEE Standard Test Code for Liquid-Immersed Distribution, Power, and Regulating Transformers
Harmonoise HAR32TR-040922-DGMR20 (January 2005)	Harmonoise WP 3 Engineering method for road traffic and railway noise after validation and fine-tuning

Note: The references listing provided in the table is not a comprehensive listing of all available references accepted by the AUC. The proponent should verify that the latest version of the reference is used

## Appendix 8 – Sound definitions table

The following table depicts the sound definitions.

<b>Noise room remaining (if any) to the Permissible sound level</b>  (permissible sound level see Table 1 and 2)	<b>Nighttime permissible sound level</b>  range from 30 dBA to 66 dBA (Table 1 and 2)	<b>Daytime permissible sound level</b>  range from 40 dBA to 76 dBA (Table 1 and 2)
<b>Cumulative sound level predicted</b>  (includes comprehensive)	<b>Noise sources</b>	
	<b>Examples</b> - power plants incl. wind turbine projects, cogeneration - power transformer station - gas compressor station - gas regulating/meter station	
	<b>Facility proposed in Application to AUC</b>	- oil & gas processing plant - oil battery, pump jack - oil pump station - coal mine - compressor station
	Approved but not yet constructed energy-related facilities (all authorities)	- oil & gas processing plant - oil battery, pump jack - oil pump station - coal mine - compressor station
	<b>Existing facilities approved by AUC</b>	
	Existing energy- related facilities (all authorities)	- power plants incl. wind farms, cogeneration - power transformer station - gas compressor station - gas regulating/meter station - oil & gas processing plant - oil battery, pump jack - oil pump station - coal mine - compressor station
<b>Comprehensive sound level measured</b>  (includes ambient)	<b>Ambient Sound Level Measured</b>  (Energy-related noise is isolated out of measured noise)	
	Non energy-related facilities	- manufacturing plants - gravel pit operations - commercial plants
	Non-industrial noise sources	- vehicular traffic - dwelling density - rail lines - aircraft flyover

### **BASIC SOUND LEVEL**

- Assumed ambient plus five dBA allowed for existing and approved energy-related facilities.
- If the measured ambient is higher or lower than the assumed ambient, an A2 adjustment may be applicable per Table 2.
- Noise from wind is not included in the ambient sound level.

## Appendix 9 – Statistical method to calculate a minimum number of valid samples

The following steps are required to calculate a minimum number of valid sample sizes:

Step 1: Calculate the standard deviation of the samples using formula [1] as follows:

Formula [1]

$$s = \sqrt{\left(\frac{1}{n} \sum_{1}^n ((\bar{x} - x))^2\right)}$$

with:

$s$  = standard deviation calculated over the valid samples;

$n$  = number of samples;

$\bar{x}$  = arithmetic average value of the valid samples (after isolation analysis);

$x$  = value of each valid sample.

Step 2: Calculate the upper limit for the standard deviation over all the valid samples using formula [2] as follows:

Formula [2]

$$s_{upper} = s * \sqrt{\left(\frac{n - 1}{f(0.9, n - 1)}\right)}$$

with:

$s$  = standard deviation, as calculated above;

$n$  = number of valid samples obtained;

$f$  = probability density function of the inverse chi-squared distribution.

Values for  $f(0.9, n - 1)$  can be found in Chi-squared Distribution table or using the function “CHIINV” in Microsoft Excel®.

0.9 = number corresponding to the confidence interval, expressed as a value between 0 and 1 and not as a percentage.

Step 3: Calculate the minimum number of valid samples needed in each daytime or nighttime period using formula [3] as follows:

Formula [3]:

$$n_{min} = \left(\frac{1.645 * s_{upper}}{3}\right)^2$$

with:

$n_{min}$  = minimum number of valid samples required;

1.645 = number corresponding with a confidence interval of 90 per cent (the “z-score” from the Normal Distribution table);

$s_{upper}$  = the calculated upper limit for the standard deviation over all the valid samples in each daytime or nighttime period, with a confidence level of 90 per cent;

3 = 3 dB; the 90 per cent confidence interval on the calculated mean is  $\pm 3$  dB when the valid number of samples is equal to population  $N$ .

If the minimum number of valid samples  $n_{min}$  is met for each single daytime or nighttime period, then the  $L_{eq}$  (for a comprehensive sound survey) or arithmetic average value of  $L_{90}$  (for an ambient wind sound level survey) over the valid samples for that period meets the validity requirements of this rule.

### Ambient Pressure Response of Free-Field Microphones

(Variation over Static Pressure)

Pressure	65 kPa	75 kPa	85 kPa	93 kPa	101 kPa	110kPa
2520	.38 dB	.20 dB	.14 dB	.069 dB	0.000	-.047 dB
2540	.34 dB	.24 dB	.15 dB	.08 dB	0.000	-.075 dB
377B41	.43 dB	.31 dB	.19 dB	.099 dB	0.000	-.10 dB

*NOTE: Results in dB referenced to 101 kPa*

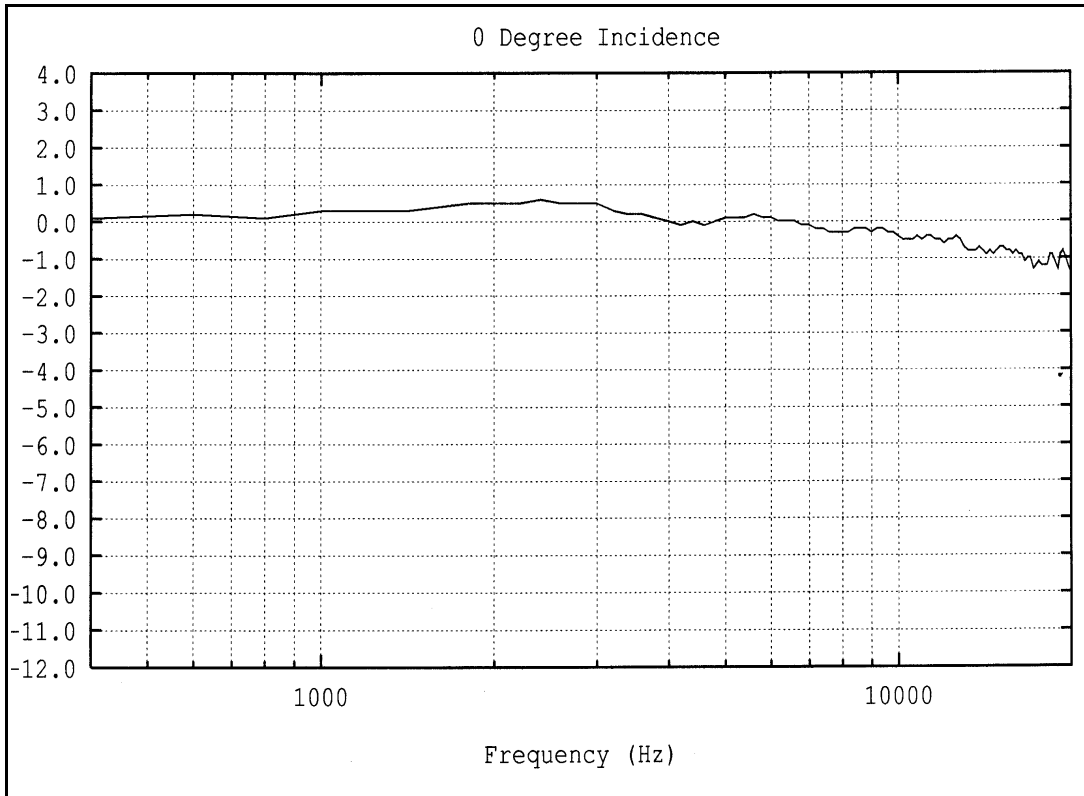
#### **Position of Instrument and Operator:**

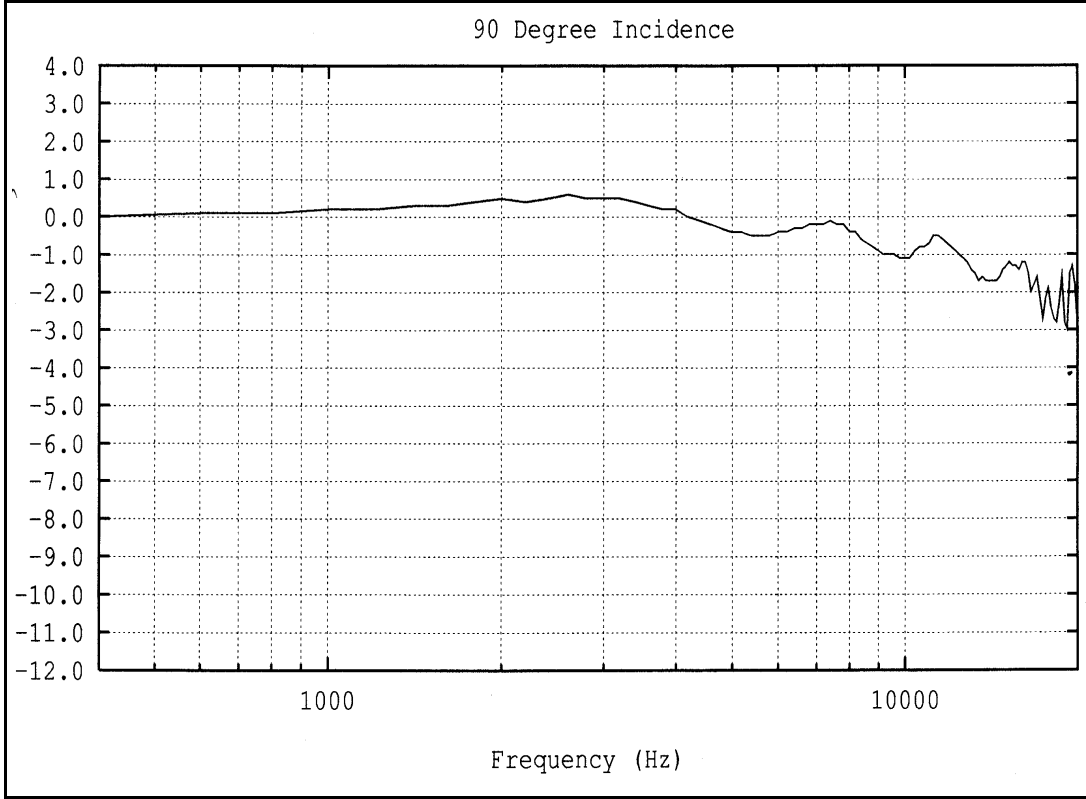
When making a measurement, it is recommended that the observer be positioned as far behind and to the right of the instrument as possible to minimize interference of the sound field at the microphone resulting from body reflections. When using the 824, the meter is held in one hand with the arm extended away from the body. Better results can be obtained by using a tripod.

#### **Effect of Windscreen:**

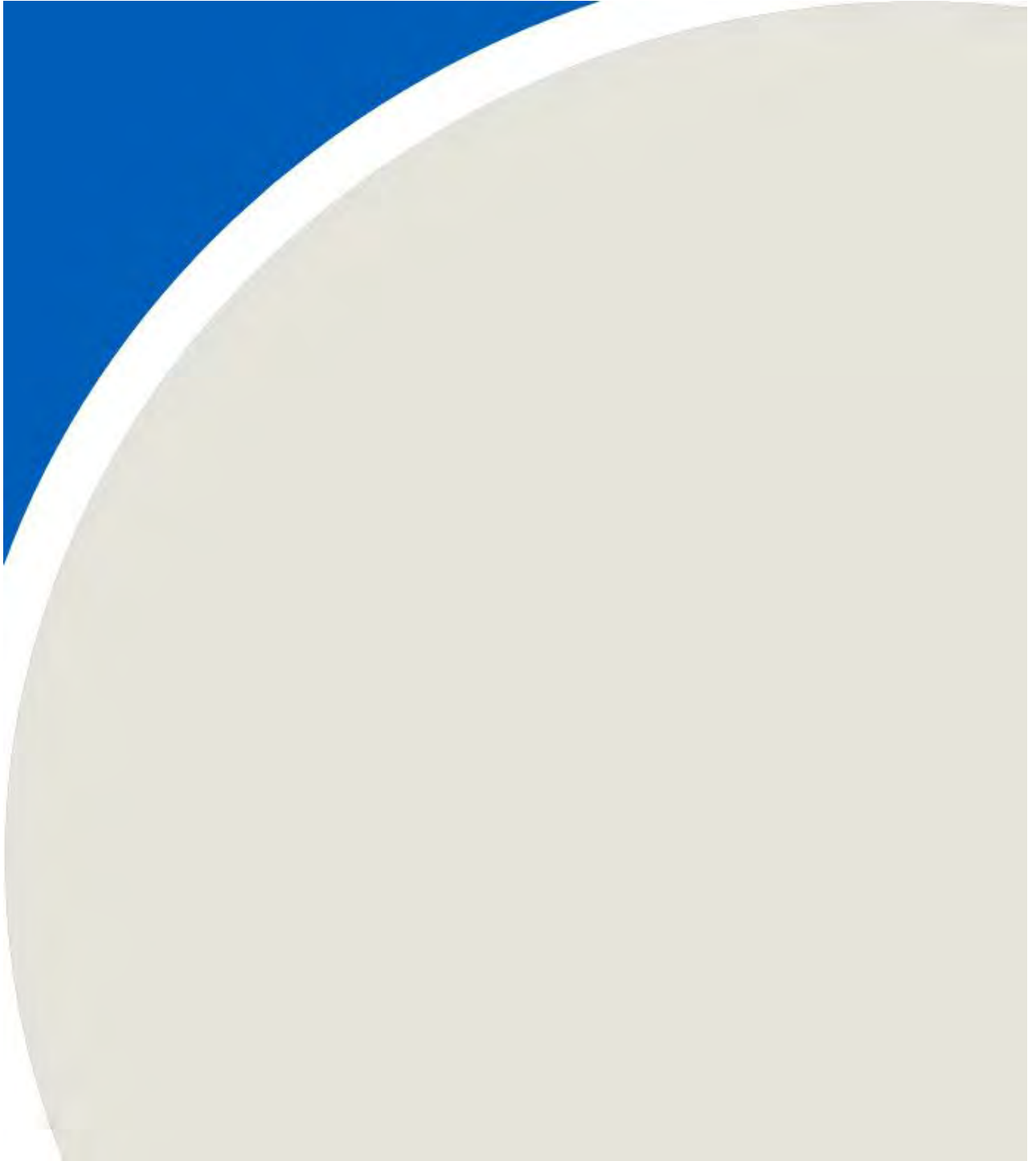
The Corrections which should be subtracted from the measured data when using the Larson-Davis Model WS001 3½ inch diameter windscreen with a ½ inch Larson-Davis microphone are as indicated in the following graphs.

### Windscreen Response with Respect to No Windscreen





## APPENDIX D





I can confirm on behalf of Kerwood Wind GP, ULC that the wind turbines located within the Adelaide Wind Energy Centre that were included in this immission report were operating normally for the duration of the measurement campaign from September 5, 2014 through December 19, 2014. More specifically, all wind turbines were in operation and operating normally during the valid data time periods indicated in this report.

**Company Name:**

Kerwood Wind GP, ULC

**Name Of Company Representative:**

Title: *Associate Wind Site Manager*

**Signature of Company Representative:**

*Peter Miller*

Date: *Aug 5, 2015*

**PETER MILLER  
ASSOCIATE WIND SITE  
MANAGER  
APPROVED**

# Kerwood Wind, LP

October 12, 2017

Ministry of Environment and Climate Change  
135 St. Clair Avenue West, 1st Floor  
Toronto ON M4V 1P5

**Subject: Adelaide - REA #8980-95RSLP - Immission Audit Reports**

To Whom it May Concern,

The purpose of this letter is to provide additional information on the above noted Immission Audit Reports for the Adelaide Wind Energy Centre. Specifically, this is to provide written confirmation that the turbines were not operational during the ambient sound level measurements as indicated in the July 24, 2015 – Spring Report and the January 23, 2015 – Fall Report.

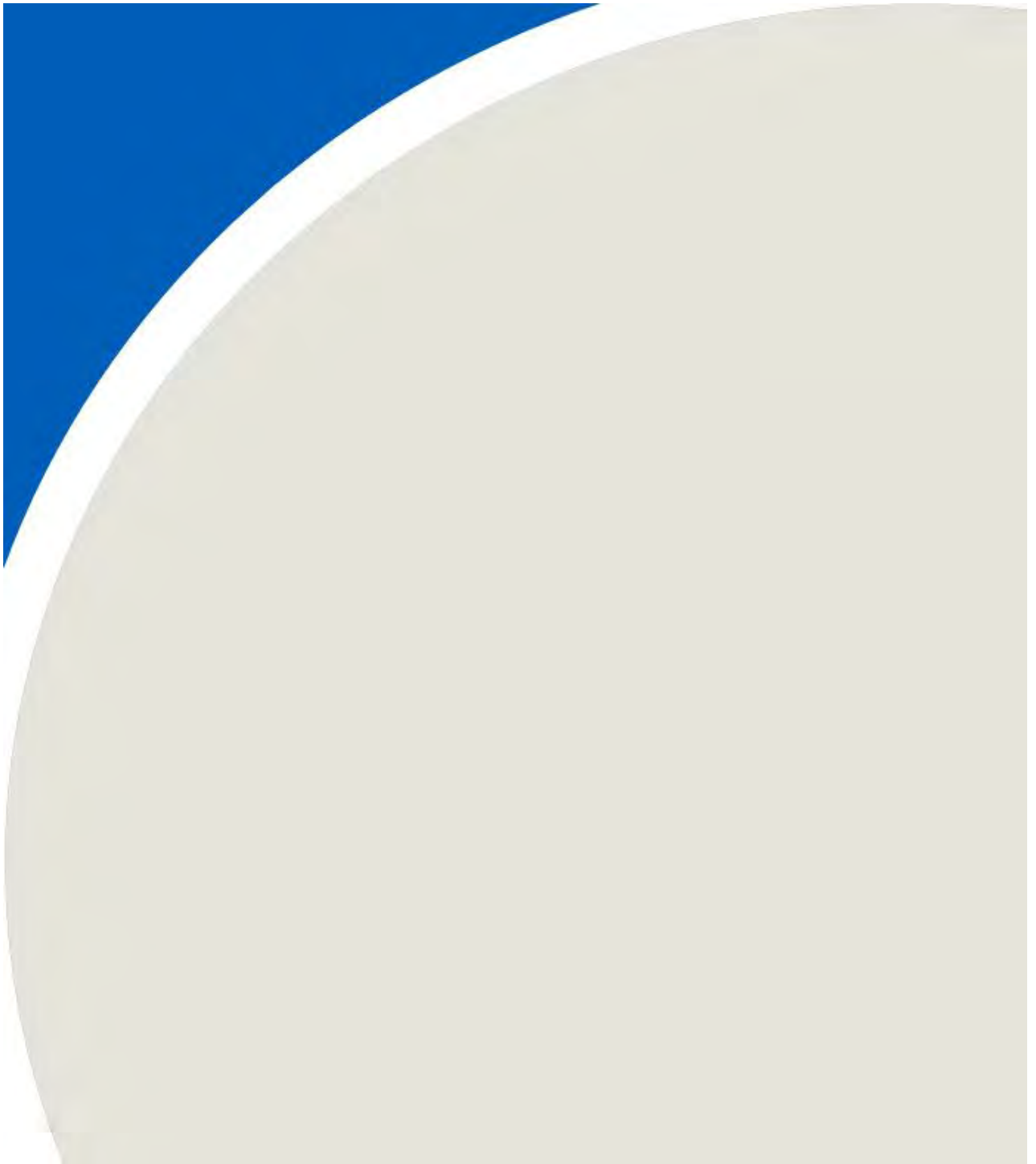
In addition, this letter will serve as confirmation that there were no modifications to the blades of the wind turbines (such as but not limited to vortex generators) during the audit; If you have any questions or require further details please do not hesitate to contact me.

Regards,



Peter Miller  
Regional Wind Site Manager  
Region 6–Canada and East

## APPENDIX E





**Adelaide Wind Farm  
Monitor Location A**

Adelaide Fall Immission Report

Project #1402594

Figure: E1









**Adelaide Wind Farm  
Monitor Location B**

Adelaide Fall Immission Report

Project #1402594

Figure: E3





Esri, HERE, Garmin, USGS, Swirelocation contributors, Esri, HERE, Garmin, DeLorme, GeoEye, GEBCO, GEBCO, Swirelocation contributors, and the  
 USGS National Elevation Dataset, Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNR/Airphoto, USDA, USDA, USDA,  
 AeroGRID, IGN, and the GIS User Community

<p><b>Adelaide Wind Farm</b> <b>Monitor Location B</b></p> <p>Adelaide Fall Immission Report</p>	<p>Figure: E4</p>	
	<p>Project #1402594</p>	





**Adelaide Wind Farm  
Monitor Location C**

Adelaide Fall Immission Report

Project #1402594

Figure: E5







**Adelaide Wind Farm  
Monitor Location C**

Adelaide Fall Immission Report

Project #1402594

Figure: E6



## Noise Monitoring Locations

Monitoring Location	UTM 17		Microphone Height (m)
	Easting (m)	Northing (m)	
<b>Adelaide A</b>	438918	4758840	4.5
<b>Adelaide B</b>	439936	4759012	4.5
<b>Adelaide C</b>	443060	4762913	4.5

### Rationale Summary Table for Measurement Locations (Adelaide I-Audits)

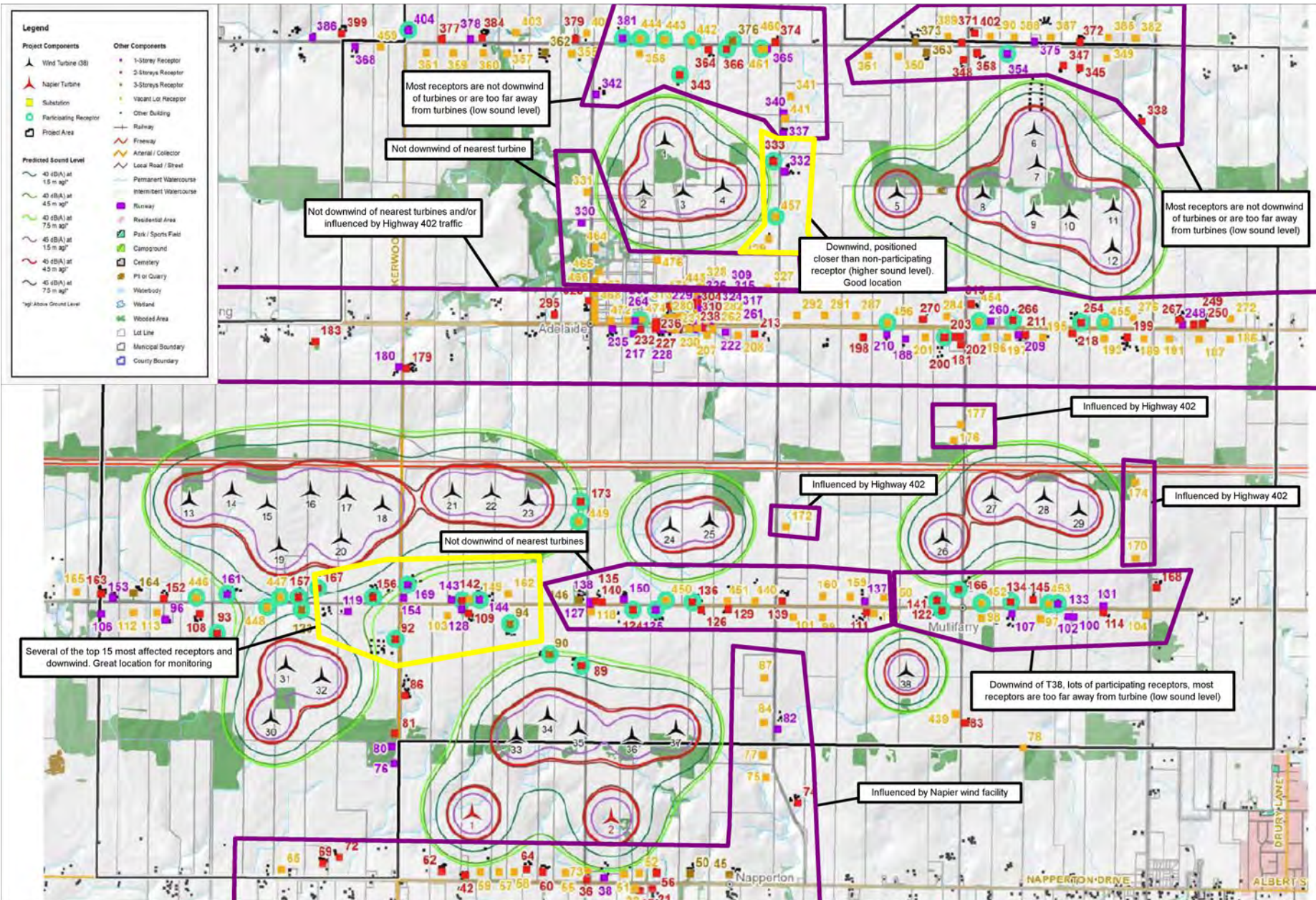
Rank	Rec. ID	Rec. Type	Rec. Height (m)	Distance to Nearest Turbine (m)	Nearest Turbine	Modelled Sound Level (dBA)	Location Comment	Location Conclusion
1	V_73	VNP	4.5	1363	T35	39.2	Not useful, dominated by Napier turbine	Excluded
2	V_51	VNP	4.5	1338	T36	38.9	Not useful, dominated by Napier turbine	Excluded
3	R_119	NP	1.5	695	T32	38.9	Ideal, existing house, alt. participating loc'n @PR_123, PR_156, PR_92	Selected PR_92 lands near R_119 as representative since permission not provided. (Location A)
4	V_59	VNP	4.5	1356	T33	38.7	Not useful, dominated by Napier turbine	Excluded
5	V_476	VNP	4.5	673	T2	38.6	Not ideal for winds (south of turbines), appears land-locked?	Not selected
6	V_331	VNP	4.5	555	T2	38.5	Non-prevailing winds (west of turbines), no nearby participating	Not selected
7	V_52	VNP	4.5	1329	T36	38.3	Not useful, dominated by Napier turbine	Excluded
8	V_57	VNP	4.5	1321	T33	38.3	Not useful, dominated by Napier turbine	Excluded
9	R_42	NP	4.5	1434	T33	38.2	Not useful, dominated by Napier turbine	Excluded
10	R_408	NP	4.5	289	sub	38.2	Near substation, so will be part of that audit	Excluded
11	R_36	NP	4.5	1452	T35	38.1	Not useful, dominated by Napier turbine	Excluded
12	V_55	VNP	4.5	1388	T35	38.1	Not useful, dominated by Napier turbine	Excluded
13	V_149	VNP	4.5	1046	T21	38.1	Good for winds, vacant lot, alt. participating loc'n @PR_142, PR_144	Selected PR_142 lands as representative since permission not provided. (Location B)
14	V_162	VNP	4.5	924	T23	38.1	Good for winds, vacant lot, alt. participating loc'n @R144, R94	Similar to V149

Rank	Rec. ID	Rec. Type	Rec. Height (m)	Distance to Nearest Turbine (m)	Nearest Turbine	Modelled Sound Level (dBA)	Location Comment	Location Conclusion
15	V_58	VNP	4.5	1310	T33	38	Not useful, dominated by Napier turbine	Excluded
16	R_146	NP	7.5	1084	T23	38	OK, Difficult due to 3-storey receptor, adjacent to participating R89	Permission not obtained
17	R_64	NP	4.5	1288	T33	37.9	Not useful, dominated by Napier turbine	Excluded
18	R_86	NP	4.5	834	T32	37.9	Good for winds, existing home, adjacent to part. Rec. R92	Permission not obtained
19	V_103	VNP	4.5	1191	T21	37.9	Good for winds, vacant lot, no nearby part. Rec	Permission not obtained
20	R_109	NP	4.5	1180	T21	37.8	Good for winds, existing home, adjacent to part. Rec. R149	Permission not obtained
21	R_60	NP	4.5	1333	T33	37.7	Not useful, dominated by Napier turbine	Excluded
22	R_108	NP	4.5	987	T31	37.7	Good for winds, existing home, adjacent to part. Rec. R93, R446	Permission not obtained
23	R_62	NP	4.5	1497	T33	37.6	Not useful, dominated by Napier turbine	Excluded
24	R_81	NP	4.5	894	T32	37.6	Good for winds, existing home, adjacent to part. Rec. R92, but forest nearby	Permission not obtained
25	V_118	VNP	4.5	1109	T34	37.6	OK for winds, vacant lot, adjacent to part. Rec. R89	Permission not obtained
26	V_176	VNP	4.5	663	T27	37.6	Dominated by Hwy 402	Excluded
27	R_135	NP	4.5	986	T24	37.5	Good for winds, vacant lot, no nearby part. Rec	Similar to R332
28	R_140	NP	4.5	1022	T24	37.5	Similar to V149	Not selected
29	V_329	VNP	4.5	670	T4	37.5	Not ideal prevailing winds, local activity, Hwy 402 audible, but PV_457 nearby	Selected PV_457 lands as representative as no permissions in area. (Location C)
30	R_154	NP	1.5	839	T20	37.4	Similar to R119	Not selected

Rank	Rec. ID	Rec. Type	Rec. Height (m)	Distance to Nearest Turbine (m)	Nearest Turbine	Modelled Sound Level (dBA)	Location Comment	Location Conclusion
31	R_56	NP	4.5	1342	T36	37.3	Not useful, dominated by Napier turbine	Excluded
32	R_126	NP	4.5	857	T25	37.3	Similar to V149	Not selected
33	V_174	VNP	4.5	624	T29	37.1	Dominated by Hwy 402	Excluded
34	V_276	VNP	4.5	702	T12	37.1	Not prevailing winds, local roads, Hwy 402 audible	Not selected
35	V_110	VNP	4.5	652	T38	37	Not prevailing winds, local roads, Hwy 402 audible	Not selected
36	R_347	NP	4.5	699	T6	37	Good for winds, nearby traffic,	Permission not obtained
37	V_451	VNP	4.5	791	T25	37	Not prevailing winds, local roads, Hwy 402 audible	Not selected
38	V_23	VNP	4.5	1476	T36	36.9	Not useful, dominated by Napier turbine	Excluded
39	R_38	NP	1.5	1397	T36	36.9	Not useful, dominated by Napier turbine	Excluded
40	V_158	VNP	4.5	762	T38	36.9	Not prevailing winds, local roads, Hwy 402 audible	Not selected
41	R_414	NP	4.5	521	sub	36.9	Not prevailing winds, major road	Not selected
42	V_177	VNP	4.5	763	T27	36.8	Dominated by Hwy 402	Excluded
43	R_338	NP	4.5	883	T11	36.8	Decent for winds, no nearby participating rec.	Permission not obtained
44	V_464	VNP	4.5	717	T2	36.7	Non-prevailing winds (west of turbines), no nearby participating	Not selected
45	R_111	NP	4.5	698	T38	36.6	Not prevailing winds, local roads, Hwy 402 audible	Not selected
46	R_129	NP	4.5	864	T25	36.6	Not prevailing winds, local roads, Hwy 402 audible	Not selected
47	R_218	NP	4.5	908	T12	36.6	Not prevailing winds, local roads, Hwy 402 audible	Not selected

Rank	Rec. ID	Rec. Type	Rec. Height (m)	Distance to Nearest Turbine (m)	Nearest Turbine	Modelled Sound Level (dBA)	Location Comment	Location Conclusion
48	R_345	NP	4.5	762	T6	36.6	Good for winds, nearby traffic,	Permission not obtained
49	R_17	NP	4.5	1497	T36	36.5	Not useful, dominated by Napier turbine	Excluded
50	V_328	VNP	4.5	897	T3	36.5	Not prevailing winds, local roads, Hwy 402 audible	Not selected
51	V_98	VNP	4.5	861	T26	36.4	Not prevailing winds, local roads, Hwy 402 audible	Not selected
52	R_319	NP	4.5	1064	T8	36.4	Not prevailing winds, local roads, Hwy 402 audible	Not selected
53	R_152	NP	4.5	980	T13	36.3	Not prevailing winds (SW of turbines), local roads	Not selected
54	R_143	NP	1.5	1038	T21	36.2	Similar to V149	Not selected
55	R_145	NP	4.5	973	T29	36.2	Not prevailing winds, local roads, Hwy 402 audible	Not selected
56	V_172	VNP	4.5	756	T25	36.2	Dominated by Hwy 402	Excluded
57	V_193	VNP	4.5	874	T12	36.2	Not prevailing winds, local roads, Hwy 402 audible	Not selected
58	V_195	VNP	4.5	1097	T12	36.2	Not prevailing winds, local roads, Hwy 402 audible	Not selected
59	R_332	NP	1.5	631	T4	36.2	Nearest non-participating receptor to worst-case participating locations (i.e., PR_333)	Similar to V_329.
60	R_21	NP	4.5	1491	T36	36.1	Not useful, dominated by Napier turbine	Excluded





## Location Justification for Adelaide Wind Facility

True North



Drawn by: AKH Figure: **A**

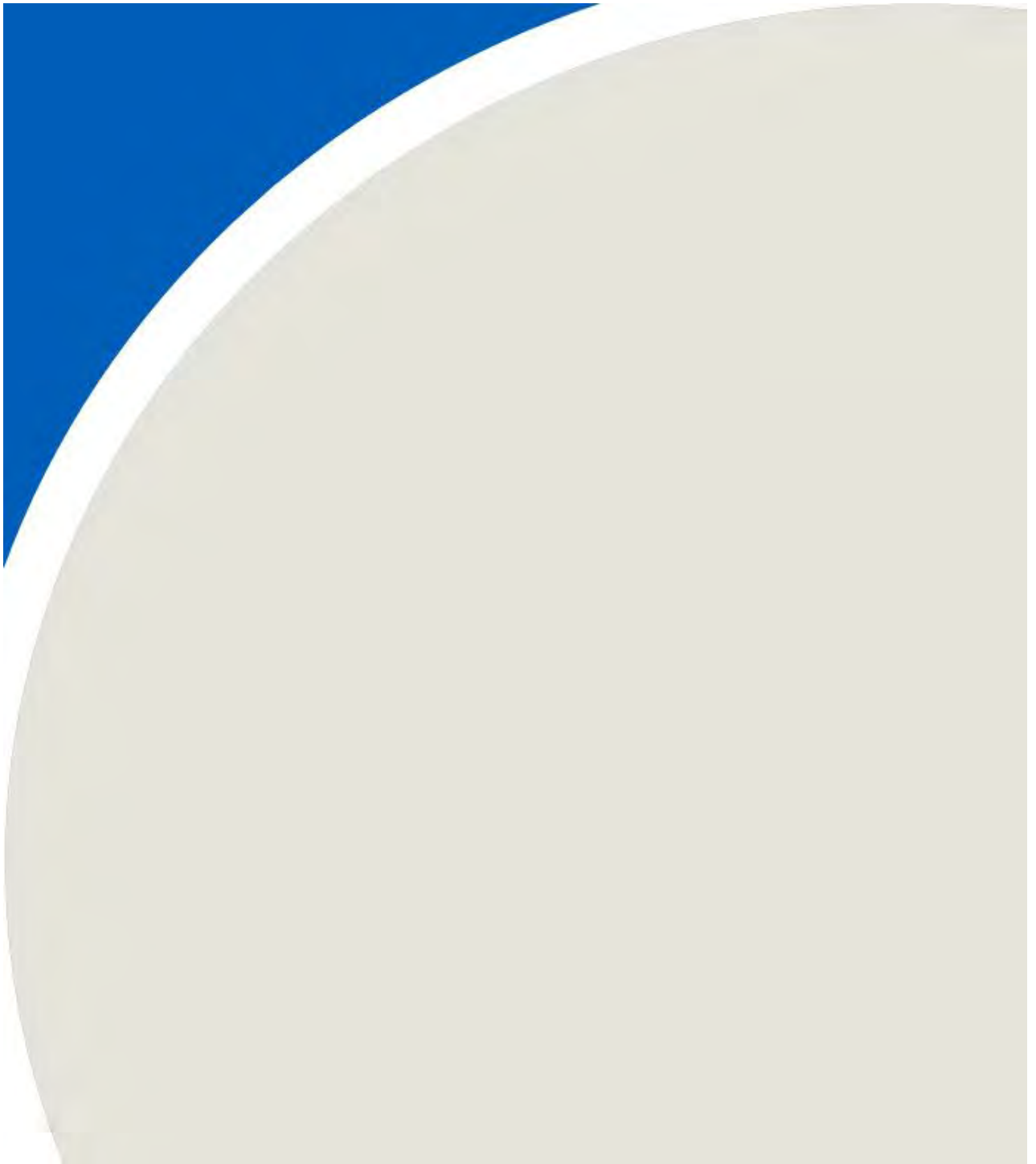
Scale: 1:5000

Project #1402594

Date: Nov. 6, 2017



## APPENDIX F



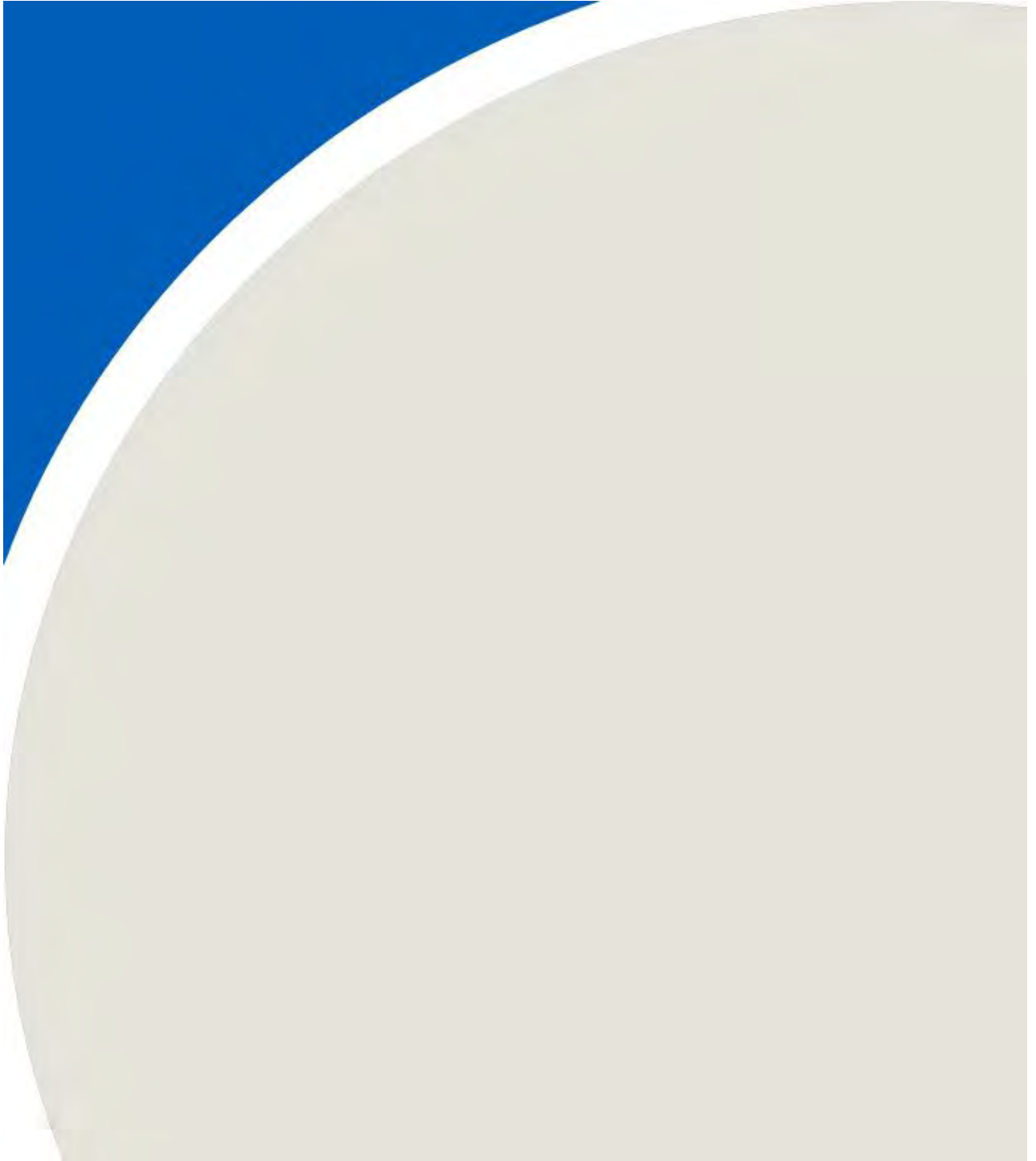


**Table F1 - Summary of Measurement Conditions**

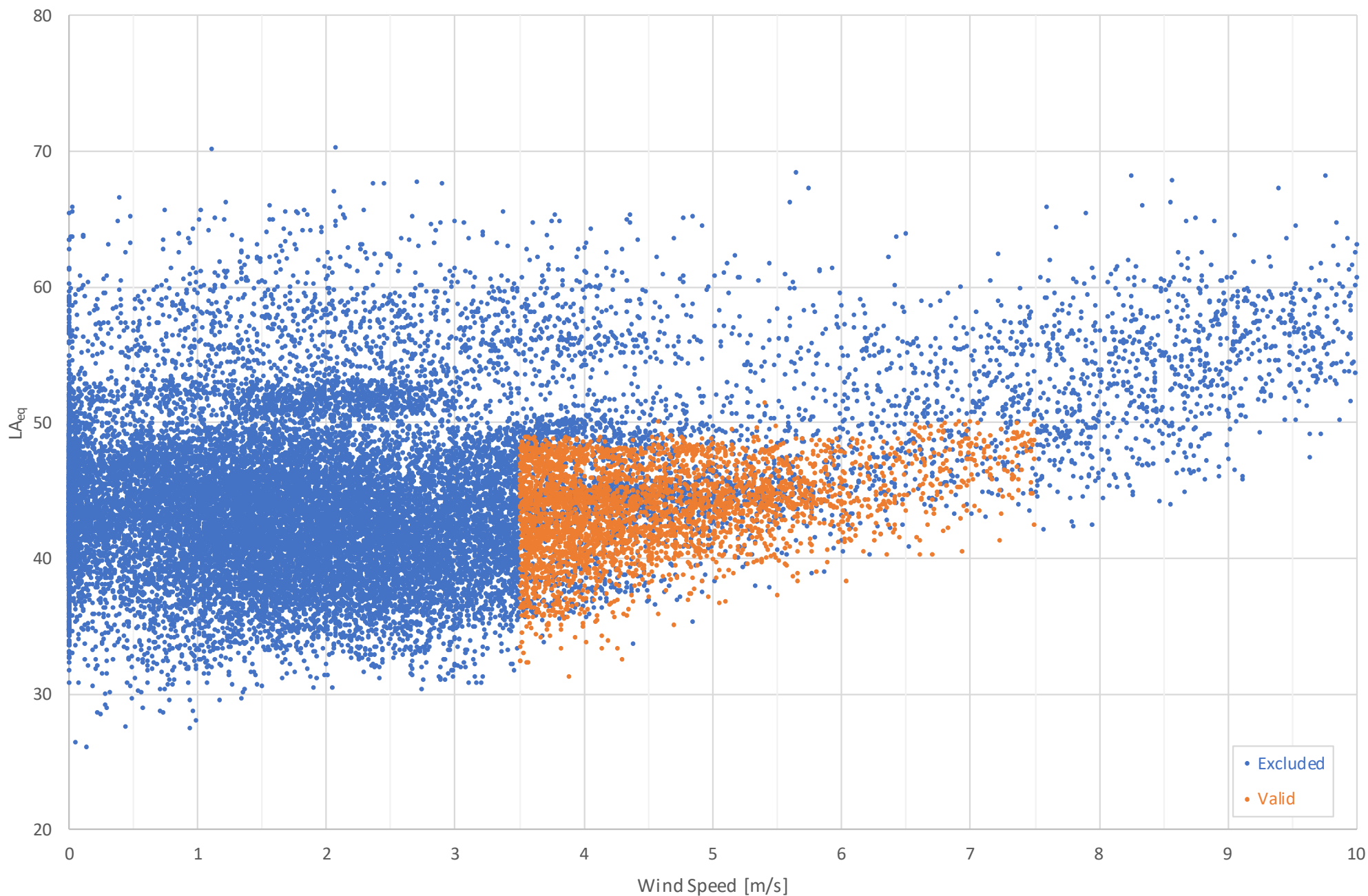
Adelaide Wind Farm, 1402594

Measurement Duration	September 5, 2014 to December 19, 2014
Wind Speed	0 to 20 m/s
Temperature	-8 to 24°C
General Weather Conditions	Weather conditions varied significantly over the measurement campaign
Wind Rose Plot	Found in Figures 5 through 7
Signed Statement by the Operator	Found in Appendix D

## APPENDIX G



# Fall 2014 Monitor A - Operational Data



## Fall 2014 Operational Data – Monitor A

Valid and Excluded Data

Adelaide Wind Farm, Township of Adelaide-Metcalfe, Ontario Project #1402594

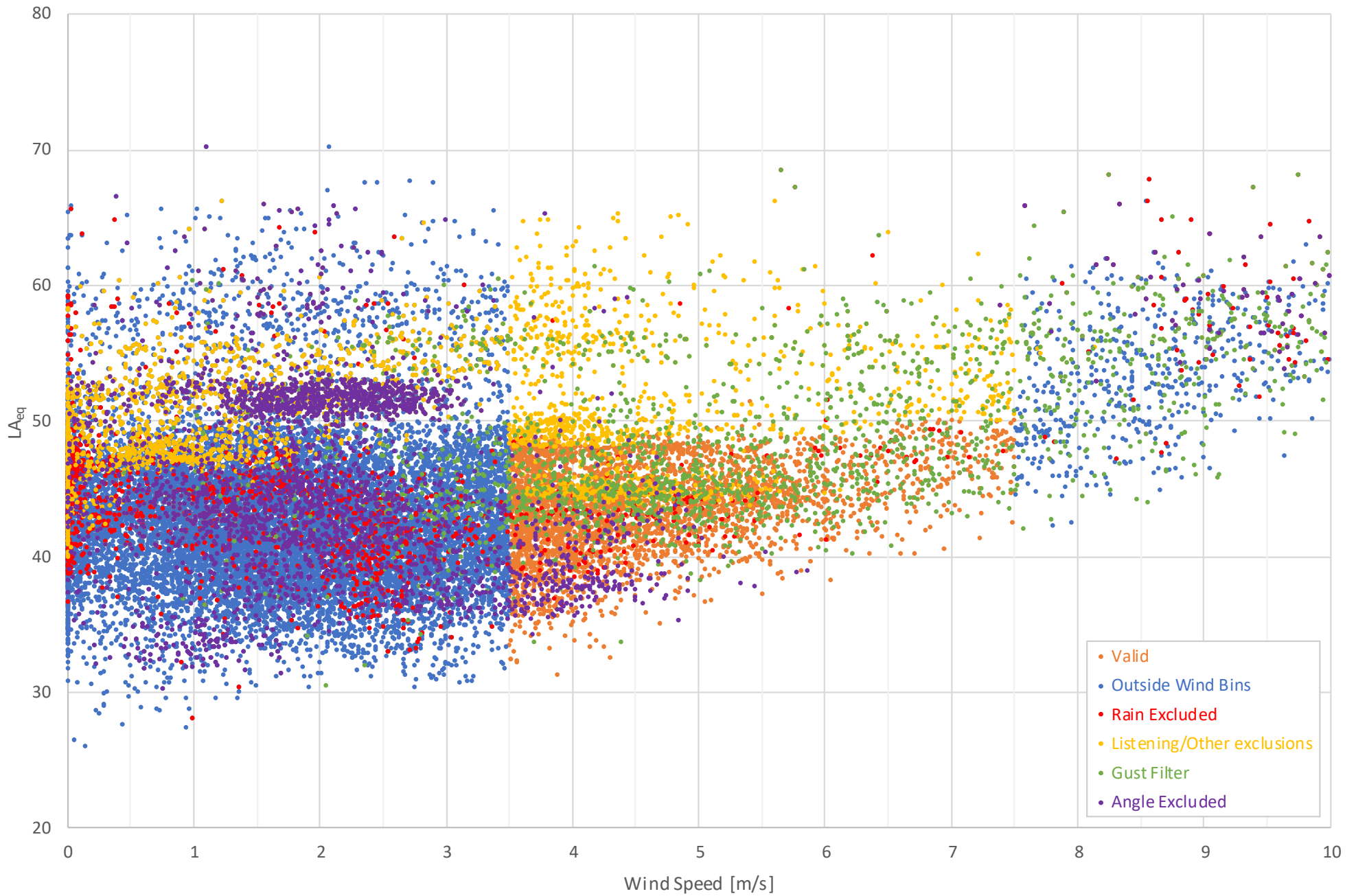
Drawn by: ACCL

Figure: G1

Date: June 25, 2020



# Fall 2014 Monitor A - Operational Data



**Fall 2014 Operational Data – Monitor A**  
Exclusion Breakdown

Adelaide Wind Farm, Township of Adelaide-Metcalfe, Ontario Project #1402594

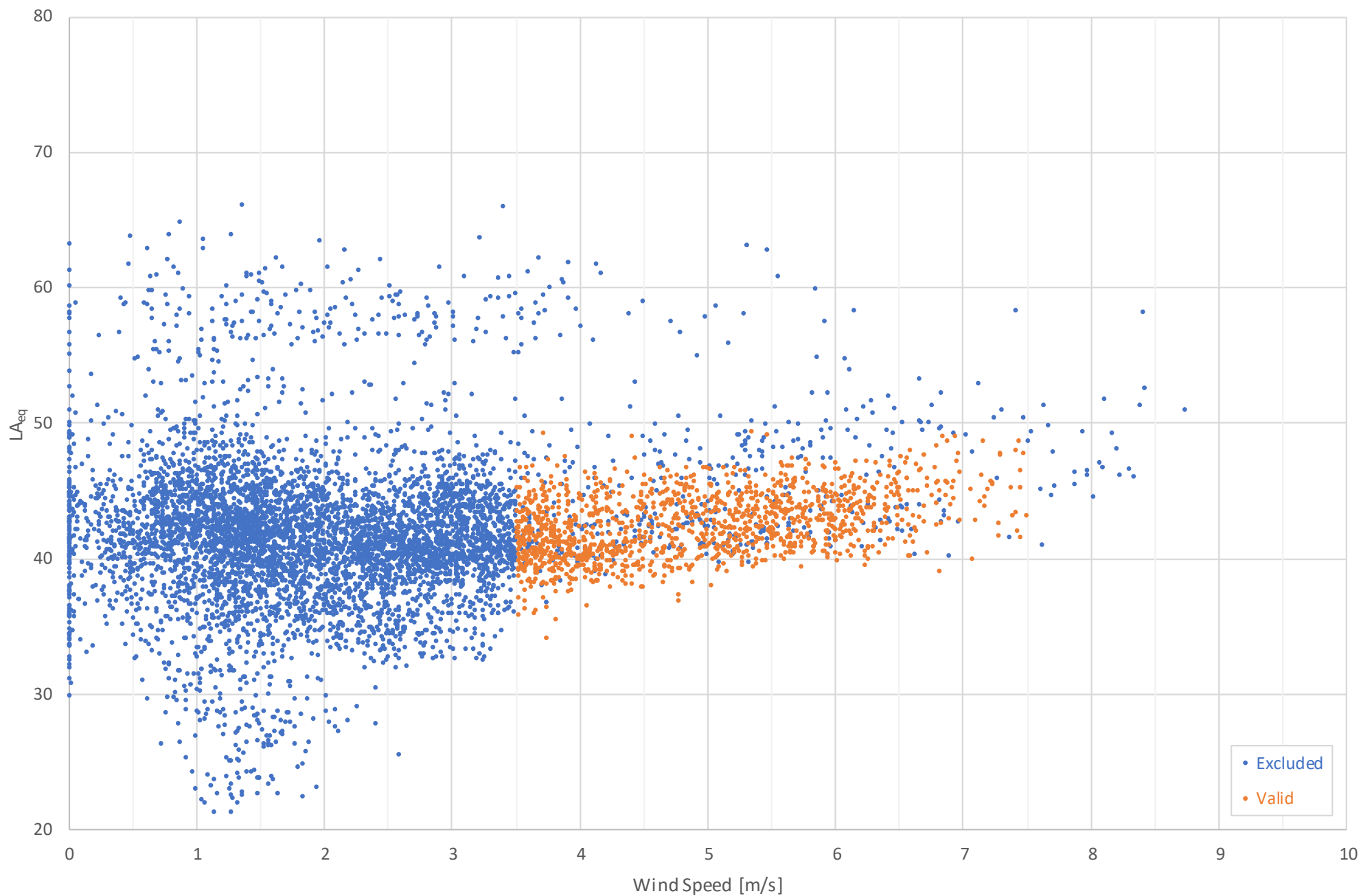
Drawn by: ACCL

Figure: G2

Date: June 25, 2020



# Fall 2014 Monitor A - Parked Data



## Fall 2014 Parked Data – Monitor A

Valid and Excluded Data

Adelaide Wind Farm, Township of Adelaide-Metcalfe, Ontario Project #1402594

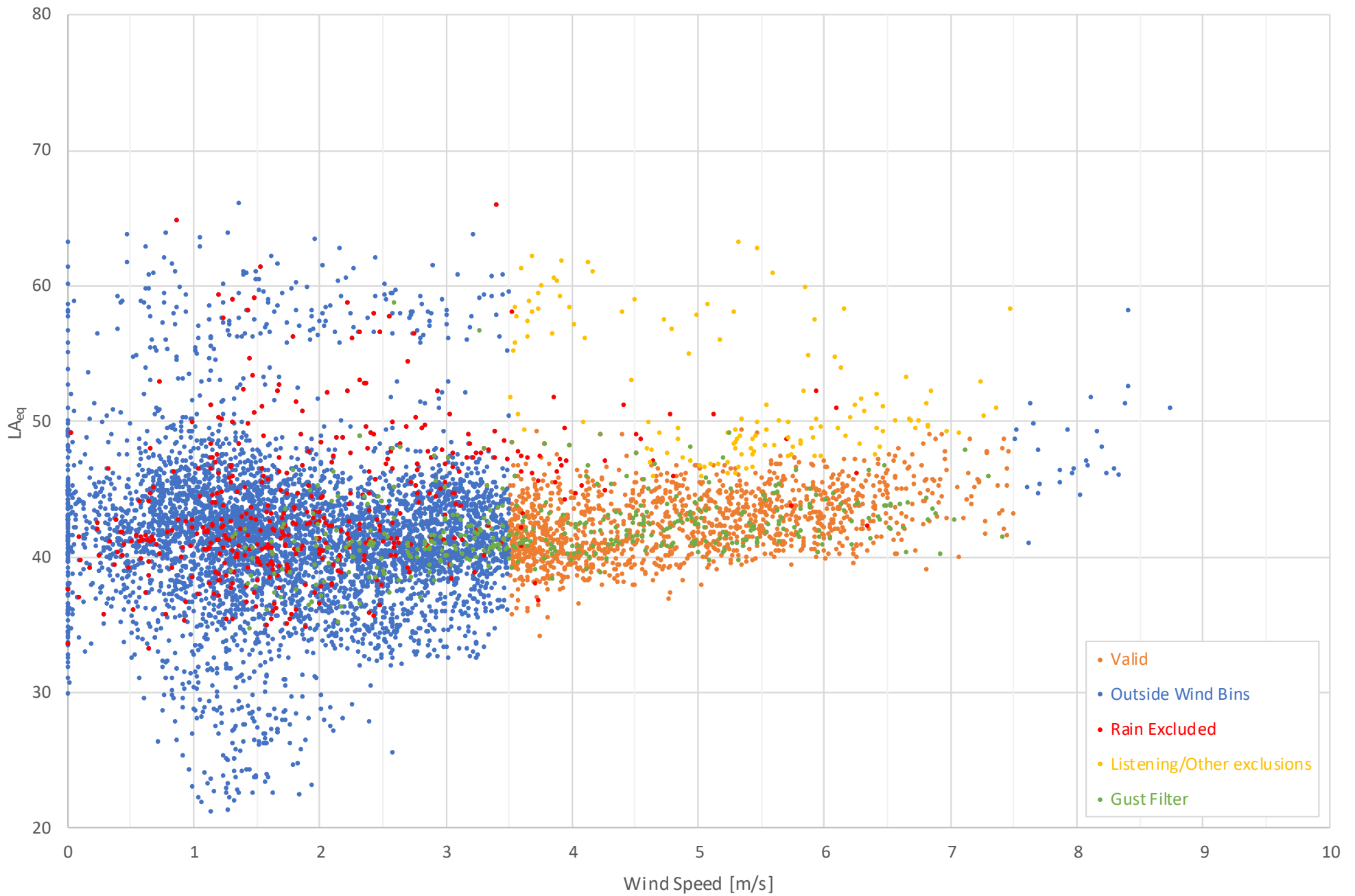
Drawn by: ACCL

Figure: G3

Date: June 25, 2020



# Fall 2014 Monitor A - Parked Data



**Fall 2014 Parked Data – Monitor A**  
Exclusion Breakdown

Adelaide Wind Farm, Township of Adelaide-Metcalfe, Ontario Project #1402594

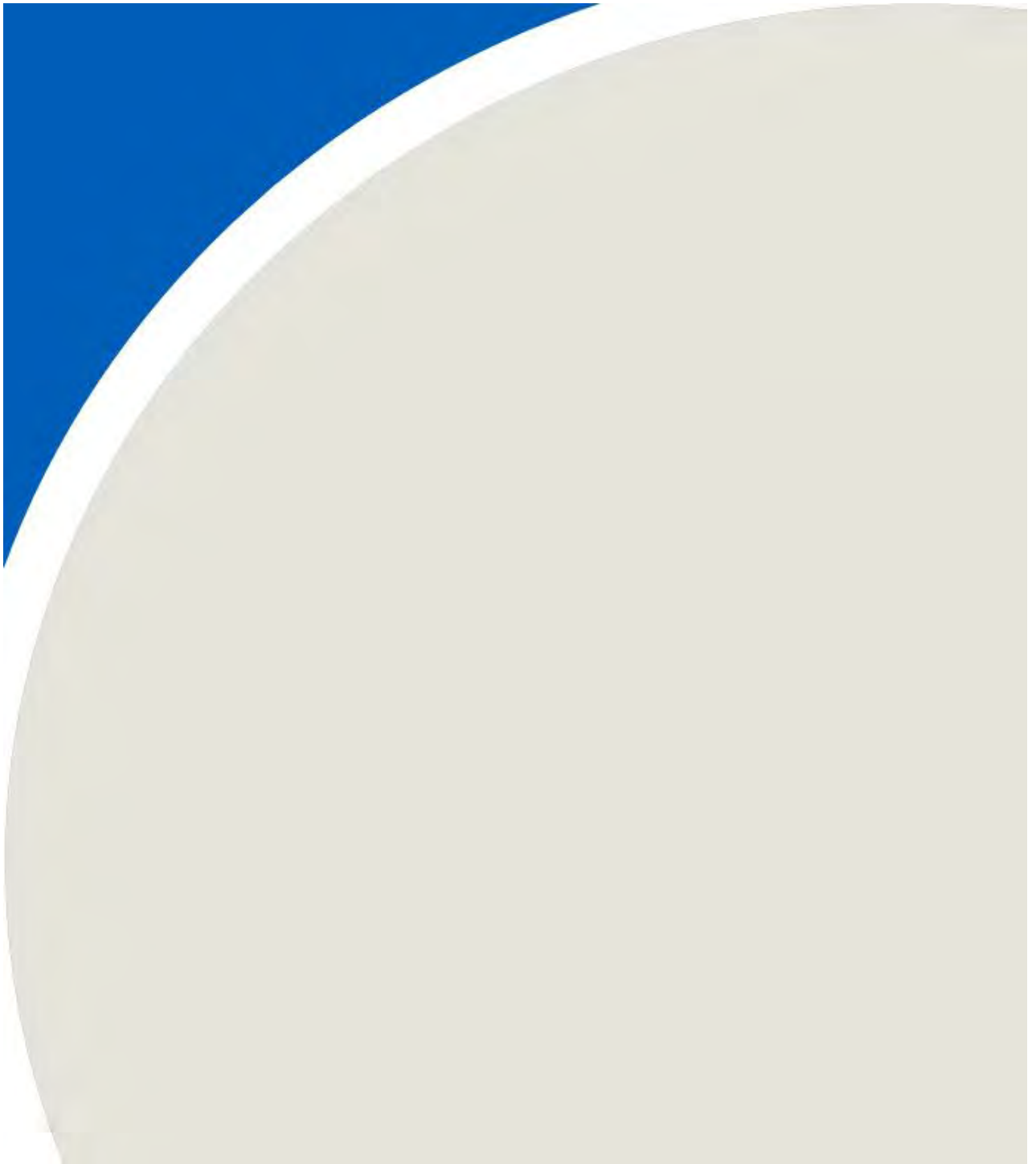
Drawn by: ACCL

Figure: G4

Date: June 25, 2020



## APPENDIX H



**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
09/20/2014 1:15:00 AM	3.62	41.5
09/20/2014 10:40:00 PM	3.86	46.1
09/21/2014 12:09:00 AM	3.99	47.2
09/21/2014 12:14:00 AM	3.71	46.9
09/21/2014 12:29:00 AM	4.03	47.2
09/21/2014 12:35:00 AM	4.00	47.0
09/21/2014 12:43:00 AM	3.52	48.1
09/21/2014 1:04:00 AM	3.54	47.3
09/21/2014 1:05:00 AM	3.65	47.3
09/21/2014 1:10:00 AM	3.99	47.8
09/21/2014 1:11:00 AM	4.20	47.6
09/21/2014 1:12:00 AM	4.12	47.5
09/21/2014 1:13:00 AM	3.51	47.4
09/21/2014 1:34:00 AM	3.79	48.0
10/13/2014 1:39:00 AM	3.58	40.3
10/13/2014 3:16:00 AM	3.56	39.9
10/13/2014 3:23:00 AM	4.05	38.9
10/13/2014 3:33:00 AM	3.69	39.4
10/13/2014 3:35:00 AM	3.57	40.0
10/13/2014 3:38:00 AM	3.77	41.1
10/13/2014 3:44:00 AM	3.54	39.3
10/13/2014 3:49:00 AM	3.70	39.5
10/13/2014 3:50:00 AM	3.52	38.7
10/13/2014 3:57:00 AM	3.73	42.6
10/13/2014 4:04:00 AM	3.54	38.1
10/13/2014 10:00:00 PM	3.91	39.5
10/13/2014 10:01:00 PM	3.57	39.3
10/13/2014 10:02:00 PM	4.56	39.5
10/13/2014 10:03:00 PM	3.92	41.6
10/13/2014 10:06:00 PM	4.33	40.1
10/13/2014 10:09:00 PM	3.70	40.3
10/13/2014 10:10:00 PM	4.12	40.4
10/13/2014 10:12:00 PM	3.58	41.8
10/13/2014 10:14:00 PM	4.10	41.9
10/13/2014 10:17:00 PM	3.90	40.7
10/13/2014 10:18:00 PM	4.46	45.5
10/13/2014 10:19:00 PM	4.22	41.8
10/13/2014 10:20:00 PM	3.63	41.1
10/13/2014 10:21:00 PM	4.08	40.8
10/13/2014 10:22:00 PM	4.27	40.5
10/13/2014 10:26:00 PM	4.15	41.3
10/13/2014 10:28:00 PM	4.89	40.4
10/13/2014 10:31:00 PM	4.05	39.9
10/13/2014 10:34:00 PM	4.52	40.0
10/13/2014 10:37:00 PM	3.88	40.5
10/13/2014 10:39:00 PM	3.85	40.3
10/13/2014 10:40:00 PM	3.59	40.9
10/13/2014 10:41:00 PM	3.74	40.1
10/13/2014 10:42:00 PM	3.63	40.2
10/13/2014 10:43:00 PM	4.03	40.2



**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
10/13/2014 10:45:00 PM	3.62	40.5
10/13/2014 10:47:00 PM	3.54	42.3
10/13/2014 10:48:00 PM	4.21	41.1
10/13/2014 10:49:00 PM	3.98	41.7
10/13/2014 10:58:00 PM	3.91	40.2
10/13/2014 10:59:00 PM	4.51	40.9
10/13/2014 11:00:00 PM	4.47	42.3
10/13/2014 11:01:00 PM	3.57	41.9
10/13/2014 11:03:00 PM	4.52	41.4
10/13/2014 11:07:00 PM	3.70	44.1
10/13/2014 11:08:00 PM	4.53	43.8
10/13/2014 11:09:00 PM	4.08	42.7
10/13/2014 11:10:00 PM	4.30	42.3
10/13/2014 11:12:00 PM	3.97	42.4
10/13/2014 11:14:00 PM	4.05	44.4
10/13/2014 11:21:00 PM	4.30	43.1
10/13/2014 11:23:00 PM	4.08	43.4
10/13/2014 11:24:00 PM	3.62	42.9
10/13/2014 11:25:00 PM	3.70	43.1
10/13/2014 11:26:00 PM	5.13	42.0
10/13/2014 11:27:00 PM	3.88	42.5
10/13/2014 11:36:00 PM	3.68	42.4
10/13/2014 11:37:00 PM	3.54	41.3
10/13/2014 11:38:00 PM	3.87	41.2
10/13/2014 11:41:00 PM	4.75	42.3
10/13/2014 11:42:00 PM	3.74	41.8
10/13/2014 11:43:00 PM	4.74	40.9
10/13/2014 11:44:00 PM	3.56	41.7
10/13/2014 11:45:00 PM	3.63	40.7
10/13/2014 11:47:00 PM	3.86	40.6
10/13/2014 11:48:00 PM	3.88	41.6
10/13/2014 11:50:00 PM	3.78	42.3
10/13/2014 11:51:00 PM	3.60	41.1
10/13/2014 11:53:00 PM	4.41	41.5
10/13/2014 11:54:00 PM	4.70	42.0
10/13/2014 11:55:00 PM	4.39	41.7
10/13/2014 11:56:00 PM	4.31	42.7
10/13/2014 11:58:00 PM	3.92	41.2
10/13/2014 11:59:00 PM	4.26	42.2
10/14/2014 12:01:00 AM	4.58	42.2
10/14/2014 12:02:00 AM	4.04	40.4
10/14/2014 12:04:00 AM	4.12	41.8
10/14/2014 12:05:00 AM	3.90	44.0
10/14/2014 12:08:00 AM	3.71	41.6
10/14/2014 12:10:00 AM	3.85	41.1
10/14/2014 12:11:00 AM	4.30	42.0
10/14/2014 12:12:00 AM	4.07	41.0
10/14/2014 12:13:00 AM	3.86	42.7
10/14/2014 12:14:00 AM	4.59	41.8
10/14/2014 12:15:00 AM	3.84	44.0

**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
10/14/2014 12:17:00 AM	3.85	46.8
10/14/2014 12:21:00 AM	4.00	42.5
10/14/2014 12:23:00 AM	4.00	44.1
10/14/2014 12:24:00 AM	4.23	42.2
10/14/2014 12:25:00 AM	4.57	41.3
10/14/2014 12:26:00 AM	3.76	41.1
10/14/2014 12:28:00 AM	4.93	45.1
10/14/2014 12:29:00 AM	5.40	41.1
10/14/2014 12:30:00 AM	4.39	42.9
10/14/2014 12:31:00 AM	4.10	44.5
10/14/2014 12:32:00 AM	4.06	42.5
10/14/2014 12:33:00 AM	4.37	41.7
10/14/2014 12:34:00 AM	4.35	43.6
10/14/2014 12:35:00 AM	4.03	42.4
10/14/2014 12:36:00 AM	4.31	42.4
10/14/2014 12:37:00 AM	3.89	43.3
10/14/2014 12:38:00 AM	3.51	42.9
10/14/2014 12:39:00 AM	4.10	41.9
10/14/2014 12:40:00 AM	4.29	42.7
10/14/2014 12:41:00 AM	4.18	41.2
10/14/2014 12:42:00 AM	3.69	43.7
10/14/2014 12:43:00 AM	4.08	43.3
10/14/2014 12:44:00 AM	4.14	45.0
10/14/2014 12:45:00 AM	3.71	42.2
10/14/2014 12:46:00 AM	4.09	42.2
10/14/2014 12:47:00 AM	4.29	44.3
10/14/2014 12:48:00 AM	4.00	43.0
10/14/2014 12:49:00 AM	4.44	43.5
10/14/2014 12:50:00 AM	3.83	44.5
10/14/2014 12:52:00 AM	4.45	46.8
10/14/2014 12:58:00 AM	3.71	45.6
10/14/2014 12:59:00 AM	3.90	43.5
10/14/2014 1:00:00 AM	3.83	44.7
10/14/2014 1:02:00 AM	3.63	44.3
10/14/2014 1:03:00 AM	4.28	43.8
10/14/2014 1:04:00 AM	4.50	42.4
10/14/2014 1:05:00 AM	4.08	42.4
10/14/2014 1:06:00 AM	4.22	44.6
10/14/2014 1:07:00 AM	4.79	43.3
10/14/2014 1:08:00 AM	4.28	42.0
10/14/2014 1:09:00 AM	4.33	41.2
10/14/2014 1:10:00 AM	3.92	41.7
10/14/2014 1:13:00 AM	4.23	44.1
10/14/2014 1:14:00 AM	4.48	44.6
10/14/2014 1:15:00 AM	3.87	42.0
10/14/2014 1:18:00 AM	4.62	45.0
10/14/2014 1:20:00 AM	4.61	44.7
10/14/2014 1:21:00 AM	4.15	42.9
10/14/2014 1:22:00 AM	4.56	42.7
10/14/2014 1:23:00 AM	4.22	43.7

**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
10/14/2014 1:24:00 AM	3.60	42.8
10/14/2014 1:25:00 AM	4.02	44.7
10/14/2014 1:26:00 AM	3.68	46.9
10/14/2014 1:28:00 AM	4.64	44.0
10/14/2014 1:30:00 AM	4.87	46.1
10/14/2014 1:32:00 AM	3.77	43.4
10/14/2014 1:33:00 AM	5.24	48.0
10/14/2014 1:37:00 AM	3.63	44.4
10/14/2014 1:38:00 AM	3.64	44.7
10/14/2014 1:40:00 AM	4.67	44.9
10/14/2014 1:41:00 AM	4.24	44.6
10/14/2014 1:42:00 AM	4.39	44.2
10/14/2014 1:44:00 AM	4.41	43.9
10/14/2014 1:45:00 AM	4.33	44.0
10/14/2014 1:46:00 AM	4.48	44.1
10/14/2014 1:50:00 AM	4.59	45.1
10/14/2014 1:51:00 AM	4.74	48.2
10/14/2014 1:55:00 AM	4.02	48.2
10/14/2014 1:58:00 AM	4.77	48.7
10/14/2014 2:03:00 AM	4.97	47.2
10/14/2014 2:04:00 AM	4.20	45.0
10/14/2014 2:05:00 AM	4.17	44.2
10/14/2014 2:06:00 AM	4.85	44.1
10/14/2014 2:07:00 AM	4.05	44.6
10/14/2014 2:09:00 AM	4.27	44.6
10/14/2014 2:13:00 AM	5.03	46.8
10/14/2014 2:16:00 AM	4.51	45.1
10/14/2014 2:17:00 AM	4.29	45.3
10/14/2014 2:18:00 AM	5.44	47.8
10/14/2014 2:19:00 AM	4.89	44.7
10/14/2014 2:20:00 AM	3.94	45.7
10/14/2014 2:22:00 AM	5.24	46.2
10/14/2014 2:23:00 AM	4.75	46.1
10/14/2014 2:29:00 AM	4.68	49.1
10/14/2014 2:31:00 AM	4.57	48.4
10/14/2014 2:33:00 AM	5.33	47.4
10/14/2014 2:42:00 AM	4.12	46.7
10/14/2014 2:49:00 AM	4.37	47.8
10/14/2014 2:55:00 AM	4.97	47.9
10/14/2014 2:56:00 AM	4.95	47.7
10/14/2014 2:57:00 AM	4.91	48.4
10/14/2014 2:59:00 AM	5.00	46.4
10/14/2014 3:01:00 AM	4.62	45.8
10/14/2014 3:02:00 AM	5.72	45.7
10/14/2014 3:03:00 AM	5.28	45.7
10/14/2014 3:04:00 AM	5.69	44.7
10/14/2014 3:07:00 AM	4.85	47.6
10/14/2014 3:08:00 AM	5.88	48.3
10/14/2014 3:12:00 AM	4.27	47.6
10/14/2014 3:14:00 AM	5.30	46.2

**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
10/14/2014 3:15:00 AM	4.85	46.4
10/14/2014 3:16:00 AM	4.97	47.1
10/14/2014 3:17:00 AM	4.76	46.6
10/14/2014 3:19:00 AM	4.98	47.2
10/14/2014 3:22:00 AM	4.58	48.2
10/14/2014 3:23:00 AM	5.10	43.4
10/14/2014 3:25:00 AM	4.64	46.2
10/14/2014 3:26:00 AM	4.29	45.9
10/14/2014 3:32:00 AM	4.77	47.3
10/14/2014 3:33:00 AM	4.78	46.4
10/14/2014 3:34:00 AM	3.62	44.9
10/14/2014 3:35:00 AM	4.08	44.9
10/14/2014 3:36:00 AM	5.09	43.4
10/14/2014 3:37:00 AM	4.11	45.3
10/14/2014 3:38:00 AM	4.90	47.1
10/14/2014 3:39:00 AM	4.55	45.8
10/14/2014 3:43:00 AM	4.40	47.6
10/14/2014 3:47:00 AM	4.27	43.9
10/14/2014 3:49:00 AM	4.18	47.9
10/14/2014 3:51:00 AM	5.50	43.7
10/14/2014 3:52:00 AM	4.59	46.0
10/14/2014 3:53:00 AM	3.79	46.2
10/14/2014 3:54:00 AM	4.82	44.2
10/14/2014 3:55:00 AM	4.20	46.8
10/14/2014 3:56:00 AM	4.39	43.9
10/14/2014 3:57:00 AM	4.11	43.8
10/14/2014 3:59:00 AM	4.84	43.7
10/14/2014 4:02:00 AM	3.50	47.6
10/14/2014 4:05:00 AM	4.03	45.1
10/14/2014 4:08:00 AM	4.75	44.6
10/14/2014 4:12:00 AM	5.00	45.4
10/14/2014 4:13:00 AM	4.20	46.3
10/14/2014 4:14:00 AM	5.17	45.8
10/14/2014 4:21:00 AM	3.97	46.5
10/14/2014 4:22:00 AM	4.63	47.0
10/14/2014 4:24:00 AM	5.18	46.0
10/14/2014 4:25:00 AM	4.58	44.8
10/14/2014 4:26:00 AM	4.66	47.7
10/15/2014 1:56:00 AM	3.83	35.9
10/15/2014 1:59:00 AM	4.70	35.2
10/15/2014 2:00:00 AM	3.93	34.3
10/15/2014 2:13:00 AM	3.53	41.1
10/15/2014 2:27:00 AM	3.62	42.1
10/15/2014 2:31:00 AM	3.55	44.2
10/16/2014 10:17:00 PM	3.55	38.4
10/16/2014 10:23:00 PM	3.94	40.2
10/16/2014 10:24:00 PM	3.76	39.1
10/16/2014 10:28:00 PM	3.94	42.1
10/16/2014 11:22:00 PM	4.04	39.2
10/16/2014 11:28:00 PM	3.80	37.2

**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
10/16/2014 11:31:00 PM	4.01	38.0
10/16/2014 11:52:00 PM	3.53	37.3
10/17/2014 12:11:00 AM	3.61	37.2
10/17/2014 12:22:00 AM	3.83	34.8
10/17/2014 12:25:00 AM	3.77	37.3
10/17/2014 12:33:00 AM	3.65	38.0
10/17/2014 12:37:00 AM	3.56	42.2
10/17/2014 12:53:00 AM	3.76	36.3
10/17/2014 1:16:00 AM	3.62	43.4
10/17/2014 2:12:00 AM	3.87	40.1
10/17/2014 2:15:00 AM	4.46	39.3
10/17/2014 2:16:00 AM	3.52	38.2
10/17/2014 2:36:00 AM	3.89	38.3
10/17/2014 2:37:00 AM	3.87	36.3
10/17/2014 2:45:00 AM	3.70	36.5
10/17/2014 2:46:00 AM	3.88	38.1
10/17/2014 2:47:00 AM	3.52	40.2
10/17/2014 2:53:00 AM	3.66	39.8
10/17/2014 2:54:00 AM	3.51	38.1
10/17/2014 2:57:00 AM	3.97	40.1
10/17/2014 3:02:00 AM	3.64	40.7
10/17/2014 3:03:00 AM	3.67	41.6
10/17/2014 3:04:00 AM	4.00	35.3
10/17/2014 3:10:00 AM	3.74	40.6
10/17/2014 3:21:00 AM	4.40	39.2
10/17/2014 3:22:00 AM	4.50	40.3
10/17/2014 3:56:00 AM	3.95	36.6
10/17/2014 4:00:00 AM	3.50	37.2
10/17/2014 4:04:00 AM	4.08	37.5
10/17/2014 4:05:00 AM	3.93	39.3
10/17/2014 4:07:00 AM	3.53	42.1
10/17/2014 4:08:00 AM	3.70	37.8
10/17/2014 4:14:00 AM	3.54	41.2
10/17/2014 4:26:00 AM	3.61	38.7
10/17/2014 4:30:00 AM	3.76	36.2
10/17/2014 10:00:00 PM	4.38	43.7
10/17/2014 10:01:00 PM	3.69	43.9
10/17/2014 10:02:00 PM	4.43	46.0
10/17/2014 10:03:00 PM	3.97	45.8
10/17/2014 10:06:00 PM	4.57	43.8
10/17/2014 10:07:00 PM	4.14	44.3
10/17/2014 10:08:00 PM	3.94	44.6
10/17/2014 10:12:00 PM	4.93	44.2
10/17/2014 10:14:00 PM	3.57	47.2
10/17/2014 10:16:00 PM	3.52	43.4
10/17/2014 10:17:00 PM	4.81	42.8
10/17/2014 10:20:00 PM	5.05	44.6
10/17/2014 10:21:00 PM	3.64	44.3
10/17/2014 10:23:00 PM	5.31	45.3
10/17/2014 10:24:00 PM	4.40	44.1

**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
10/17/2014 10:25:00 PM	3.85	44.0
10/17/2014 10:27:00 PM	4.70	43.0
10/17/2014 10:29:00 PM	4.63	41.8
10/17/2014 10:30:00 PM	4.67	41.8
10/17/2014 10:33:00 PM	4.21	42.4
10/17/2014 10:34:00 PM	3.71	42.7
10/17/2014 10:35:00 PM	4.83	41.9
10/17/2014 10:36:00 PM	4.92	42.5
10/17/2014 10:37:00 PM	4.63	42.4
10/17/2014 10:40:00 PM	3.65	42.3
10/17/2014 10:41:00 PM	3.97	42.0
10/17/2014 10:42:00 PM	3.84	44.1
10/17/2014 10:44:00 PM	4.68	43.9
10/17/2014 10:45:00 PM	3.57	42.9
10/17/2014 10:47:00 PM	3.55	42.4
10/17/2014 10:48:00 PM	4.19	41.8
10/17/2014 10:50:00 PM	4.62	42.4
10/17/2014 10:51:00 PM	3.55	42.8
10/17/2014 10:53:00 PM	3.79	42.5
10/17/2014 10:54:00 PM	3.65	42.7
10/17/2014 10:56:00 PM	4.01	41.5
10/17/2014 10:58:00 PM	3.59	40.9
10/17/2014 10:59:00 PM	3.78	38.8
10/17/2014 11:00:00 PM	4.02	39.9
10/17/2014 11:01:00 PM	3.55	41.0
10/17/2014 11:04:00 PM	4.06	41.5
10/17/2014 11:07:00 PM	4.17	44.2
10/17/2014 11:14:00 PM	3.94	41.9
10/17/2014 11:15:00 PM	3.56	40.8
10/17/2014 11:18:00 PM	4.51	41.1
10/17/2014 11:20:00 PM	4.26	40.5
10/17/2014 11:23:00 PM	3.56	41.0
10/17/2014 11:27:00 PM	3.97	41.2
10/17/2014 11:28:00 PM	3.54	41.1
10/17/2014 11:30:00 PM	3.99	40.7
10/17/2014 11:32:00 PM	4.83	41.3
10/17/2014 11:33:00 PM	3.51	41.0
10/17/2014 11:34:00 PM	4.47	38.9
10/17/2014 11:35:00 PM	3.80	39.5
10/17/2014 11:36:00 PM	4.46	39.3
10/17/2014 11:39:00 PM	4.81	40.5
10/17/2014 11:40:00 PM	4.08	40.3
10/17/2014 11:41:00 PM	4.83	37.4
10/17/2014 11:42:00 PM	4.67	38.5
10/17/2014 11:43:00 PM	4.75	40.5
10/17/2014 11:45:00 PM	5.06	41.1
10/17/2014 11:46:00 PM	4.89	40.7
10/17/2014 11:48:00 PM	4.30	41.2
10/17/2014 11:49:00 PM	3.66	41.9
10/17/2014 11:50:00 PM	4.10	41.4

**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
10/17/2014 11:51:00 PM	4.77	41.8
10/17/2014 11:53:00 PM	5.60	41.0
10/17/2014 11:54:00 PM	4.72	41.1
10/17/2014 11:55:00 PM	3.74	42.1
10/17/2014 11:56:00 PM	3.51	44.0
10/17/2014 11:57:00 PM	5.02	43.0
10/17/2014 11:59:00 PM	4.21	42.6
10/18/2014 12:00:00 AM	3.84	45.2
10/18/2014 12:01:00 AM	5.79	43.1
10/18/2014 12:04:00 AM	4.03	41.0
10/18/2014 12:05:00 AM	4.68	41.0
10/18/2014 12:11:00 AM	3.59	40.6
10/18/2014 12:12:00 AM	4.24	40.7
10/18/2014 12:13:00 AM	5.18	42.3
10/18/2014 12:15:00 AM	4.24	46.9
10/18/2014 12:17:00 AM	4.21	42.5
10/18/2014 12:19:00 AM	4.31	44.7
10/18/2014 12:20:00 AM	4.24	42.8
10/18/2014 12:29:00 AM	4.13	42.6
10/18/2014 12:30:00 AM	4.38	38.9
10/18/2014 12:31:00 AM	4.28	39.5
10/18/2014 12:35:00 AM	5.31	42.1
10/18/2014 12:37:00 AM	4.13	39.4
10/18/2014 12:38:00 AM	4.01	40.9
10/18/2014 12:39:00 AM	3.77	41.6
10/18/2014 12:40:00 AM	3.85	39.8
10/18/2014 12:41:00 AM	3.59	39.2
10/18/2014 12:45:00 AM	4.07	39.8
10/18/2014 12:47:00 AM	3.67	47.3
10/18/2014 12:58:00 AM	3.54	39.8
10/18/2014 12:59:00 AM	3.65	41.1
10/18/2014 1:00:00 AM	4.36	40.5
10/18/2014 1:01:00 AM	3.81	39.6
10/18/2014 1:04:00 AM	4.09	38.9
10/18/2014 1:06:00 AM	3.87	41.0
10/18/2014 1:15:00 AM	3.98	42.2
10/18/2014 1:17:00 AM	4.28	43.9
10/18/2014 2:04:00 AM	4.43	46.9
10/18/2014 2:06:00 AM	3.87	45.9
10/18/2014 2:07:00 AM	3.63	47.6
10/18/2014 2:11:00 AM	4.67	49.1
10/18/2014 2:13:00 AM	3.85	48.1
10/18/2014 2:16:00 AM	3.67	46.4
10/18/2014 2:17:00 AM	3.68	47.1
10/18/2014 2:19:00 AM	3.93	45.9
10/18/2014 2:20:00 AM	4.53	45.1
10/18/2014 2:21:00 AM	4.38	45.9
10/18/2014 2:23:00 AM	3.74	48.1
10/18/2014 2:24:00 AM	3.79	46.9
10/18/2014 2:29:00 AM	3.75	45.6

**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
10/18/2014 2:30:00 AM	3.82	47.2
10/18/2014 2:31:00 AM	3.55	45.1
10/18/2014 2:33:00 AM	4.02	44.1
10/18/2014 2:34:00 AM	4.23	47.4
10/18/2014 2:36:00 AM	4.21	43.7
10/18/2014 2:37:00 AM	4.32	44.8
10/18/2014 2:39:00 AM	3.88	43.1
10/18/2014 2:42:00 AM	3.80	44.6
10/18/2014 2:46:00 AM	3.68	44.4
10/18/2014 2:47:00 AM	3.62	47.5
10/18/2014 2:48:00 AM	4.02	47.5
10/18/2014 2:50:00 AM	3.80	44.4
10/18/2014 2:51:00 AM	4.21	44.1
10/18/2014 2:53:00 AM	4.15	41.5
10/18/2014 2:54:00 AM	4.38	42.2
10/18/2014 2:56:00 AM	4.21	45.8
10/18/2014 2:57:00 AM	3.88	42.7
10/18/2014 2:58:00 AM	4.70	43.4
10/18/2014 2:59:00 AM	3.75	42.9
10/18/2014 3:01:00 AM	4.42	42.0
10/18/2014 3:02:00 AM	4.08	42.2
10/18/2014 3:03:00 AM	5.98	42.6
10/18/2014 3:04:00 AM	3.99	42.6
10/18/2014 3:05:00 AM	3.76	41.7
10/18/2014 3:07:00 AM	3.71	41.3
10/18/2014 3:10:00 AM	5.27	43.9
10/18/2014 3:11:00 AM	4.32	43.5
10/18/2014 3:12:00 AM	3.84	44.1
10/18/2014 3:13:00 AM	4.44	44.4
10/18/2014 3:14:00 AM	4.15	44.5
10/18/2014 3:17:00 AM	3.80	39.5
10/18/2014 3:18:00 AM	4.24	43.9
10/18/2014 3:19:00 AM	4.48	42.3
10/18/2014 3:20:00 AM	4.82	39.7
10/18/2014 3:25:00 AM	5.61	42.0
10/18/2014 3:29:00 AM	4.24	40.6
10/18/2014 3:30:00 AM	3.73	45.1
10/18/2014 3:32:00 AM	4.41	44.4
10/18/2014 3:35:00 AM	4.08	44.9
10/18/2014 3:36:00 AM	3.94	43.0
10/18/2014 3:37:00 AM	4.80	41.6
10/18/2014 3:38:00 AM	4.58	40.2
10/18/2014 3:39:00 AM	4.26	43.3
10/18/2014 3:41:00 AM	4.89	40.8
10/18/2014 3:42:00 AM	4.29	42.5
10/18/2014 3:43:00 AM	5.06	40.9
10/18/2014 3:45:00 AM	3.67	47.6
10/18/2014 3:48:00 AM	3.98	47.4
10/18/2014 3:49:00 AM	4.49	46.6
10/18/2014 4:06:00 AM	5.39	45.7



**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
10/18/2014 4:08:00 AM	4.62	47.0
10/18/2014 4:11:00 AM	3.50	42.9
10/18/2014 4:12:00 AM	3.58	46.6
10/18/2014 4:16:00 AM	5.38	48.1
10/18/2014 4:17:00 AM	4.58	47.8
10/18/2014 4:20:00 AM	4.76	43.3
10/18/2014 4:26:00 AM	4.16	45.9
10/18/2014 4:31:00 AM	4.24	48.1
10/18/2014 4:33:00 AM	3.91	45.7
10/18/2014 4:37:00 AM	4.14	45.8
10/18/2014 4:38:00 AM	4.17	45.2
10/18/2014 4:39:00 AM	3.63	46.5
10/18/2014 4:42:00 AM	5.23	43.6
10/18/2014 4:44:00 AM	3.62	46.7
10/18/2014 4:45:00 AM	4.01	46.2
10/18/2014 4:46:00 AM	4.24	47.4
10/18/2014 4:49:00 AM	3.72	44.3
10/18/2014 4:50:00 AM	4.16	44.0
10/18/2014 4:51:00 AM	4.27	42.5
10/18/2014 4:53:00 AM	5.26	44.0
10/18/2014 4:55:00 AM	3.88	43.7
10/18/2014 4:58:00 AM	4.47	43.4
10/20/2014 4:45:00 AM	3.77	38.1
10/20/2014 11:58:00 PM	3.58	44.3
10/20/2014 11:59:00 PM	4.08	44.6
10/21/2014 12:03:00 AM	4.83	43.3
10/21/2014 12:04:00 AM	4.48	42.2
10/21/2014 12:05:00 AM	4.85	41.0
10/21/2014 12:06:00 AM	5.02	43.6
10/21/2014 12:08:00 AM	5.23	42.8
10/21/2014 12:09:00 AM	5.06	44.8
10/21/2014 12:10:00 AM	4.98	46.6
10/21/2014 12:12:00 AM	5.00	41.2
10/21/2014 12:13:00 AM	5.45	41.0
10/21/2014 12:14:00 AM	5.34	41.6
10/21/2014 12:15:00 AM	5.76	41.6
10/21/2014 12:16:00 AM	5.49	43.1
10/21/2014 12:17:00 AM	4.17	44.4
10/21/2014 12:21:00 AM	3.66	42.8
10/21/2014 12:23:00 AM	3.52	43.6
10/21/2014 12:24:00 AM	3.69	41.5
10/21/2014 12:25:00 AM	4.10	41.1
10/21/2014 12:28:00 AM	3.55	36.6
10/21/2014 12:39:00 AM	4.23	40.0
10/21/2014 12:40:00 AM	3.60	41.2
10/21/2014 12:42:00 AM	3.56	39.9
10/21/2014 12:45:00 AM	4.34	39.1
10/21/2014 12:46:00 AM	4.02	41.6
10/21/2014 12:47:00 AM	3.90	42.0
10/21/2014 12:48:00 AM	3.54	38.7

**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
10/21/2014 12:49:00 AM	3.66	40.5
10/21/2014 1:04:00 AM	3.63	38.3
10/21/2014 1:07:00 AM	3.53	39.2
10/21/2014 1:08:00 AM	4.03	39.7
10/21/2014 1:11:00 AM	3.52	47.1
10/21/2014 1:14:00 AM	3.73	39.5
10/21/2014 1:16:00 AM	3.66	39.5
10/21/2014 1:20:00 AM	3.51	45.4
10/21/2014 1:26:00 AM	3.74	39.2
10/21/2014 1:34:00 AM	3.72	38.4
10/21/2014 1:35:00 AM	4.26	37.1
10/21/2014 1:36:00 AM	3.57	40.2
10/21/2014 1:38:00 AM	4.15	43.6
10/21/2014 1:39:00 AM	4.24	43.3
10/21/2014 1:42:00 AM	3.51	36.4
10/21/2014 1:44:00 AM	3.66	36.6
10/21/2014 1:45:00 AM	3.62	40.6
10/21/2014 1:47:00 AM	4.43	39.5
10/21/2014 1:48:00 AM	4.27	39.2
10/21/2014 1:50:00 AM	3.92	41.9
10/21/2014 1:51:00 AM	3.66	43.0
10/21/2014 1:53:00 AM	3.92	38.5
10/21/2014 1:55:00 AM	3.60	41.2
10/21/2014 1:57:00 AM	4.23	40.2
10/21/2014 2:00:00 AM	4.41	38.9
10/21/2014 2:01:00 AM	4.04	41.3
10/21/2014 2:09:00 AM	4.29	32.7
10/21/2014 2:10:00 AM	4.91	38.4
10/21/2014 2:11:00 AM	3.80	40.0
10/21/2014 2:14:00 AM	4.01	39.4
10/21/2014 2:15:00 AM	4.10	35.9
10/21/2014 2:16:00 AM	4.65	40.9
10/21/2014 2:17:00 AM	4.53	42.4
10/21/2014 2:18:00 AM	4.12	42.1
10/21/2014 2:26:00 AM	3.56	37.9
10/21/2014 2:27:00 AM	3.66	37.2
10/21/2014 2:32:00 AM	3.66	40.8
10/21/2014 2:34:00 AM	4.38	41.1
10/21/2014 2:36:00 AM	3.55	44.3
10/21/2014 2:48:00 AM	3.84	43.3
10/21/2014 2:49:00 AM	4.04	41.7
10/21/2014 2:51:00 AM	4.52	40.2
10/21/2014 2:52:00 AM	3.70	39.1
10/21/2014 3:20:00 AM	3.69	44.4
10/21/2014 3:23:00 AM	3.59	45.5
10/21/2014 3:24:00 AM	3.82	46.0
10/21/2014 3:25:00 AM	3.84	46.6
10/21/2014 3:26:00 AM	4.35	44.2
10/21/2014 3:27:00 AM	4.26	43.4
10/21/2014 3:53:00 AM	3.80	36.7

**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
10/21/2014 3:54:00 AM	3.51	39.3
10/21/2014 10:02:00 PM	5.29	43.4
10/21/2014 10:03:00 PM	4.38	44.6
10/21/2014 10:05:00 PM	4.92	48.0
10/21/2014 10:06:00 PM	4.74	44.2
10/21/2014 10:07:00 PM	4.68	44.9
10/21/2014 10:08:00 PM	3.97	44.6
10/21/2014 10:09:00 PM	5.16	45.0
10/21/2014 10:10:00 PM	5.11	44.9
10/21/2014 10:11:00 PM	5.06	47.4
10/21/2014 10:13:00 PM	4.29	45.3
10/21/2014 10:15:00 PM	5.38	42.1
10/21/2014 10:16:00 PM	6.21	43.1
10/21/2014 10:17:00 PM	4.58	44.2
10/21/2014 10:19:00 PM	4.98	44.7
10/21/2014 10:20:00 PM	4.60	45.4
10/21/2014 10:21:00 PM	4.54	45.4
10/21/2014 10:22:00 PM	4.60	45.1
10/21/2014 10:23:00 PM	5.01	43.9
10/21/2014 10:24:00 PM	4.49	43.8
10/21/2014 10:27:00 PM	4.74	47.6
10/21/2014 10:28:00 PM	5.06	43.9
10/21/2014 10:29:00 PM	4.32	45.3
10/21/2014 10:30:00 PM	5.30	42.1
10/21/2014 10:31:00 PM	4.88	42.8
10/21/2014 10:33:00 PM	5.11	44.5
10/21/2014 10:34:00 PM	5.75	43.1
10/21/2014 10:35:00 PM	5.71	44.6
10/21/2014 10:36:00 PM	4.48	44.3
10/21/2014 10:37:00 PM	4.86	42.6
10/21/2014 10:38:00 PM	6.10	42.3
10/21/2014 10:39:00 PM	4.58	44.8
10/21/2014 10:40:00 PM	5.08	42.1
10/21/2014 10:41:00 PM	5.66	43.1
10/21/2014 10:42:00 PM	4.57	42.9
10/21/2014 10:43:00 PM	4.23	42.1
10/21/2014 10:44:00 PM	4.83	42.8
10/21/2014 10:46:00 PM	4.39	44.2
10/21/2014 10:47:00 PM	4.13	45.5
10/21/2014 10:48:00 PM	5.15	44.7
10/21/2014 10:49:00 PM	4.74	45.8
10/21/2014 10:50:00 PM	4.83	44.0
10/21/2014 10:51:00 PM	3.76	44.8
10/21/2014 10:52:00 PM	4.81	42.9
10/21/2014 10:53:00 PM	3.95	41.9
10/21/2014 10:54:00 PM	4.10	43.3
10/21/2014 10:56:00 PM	5.06	43.2
10/21/2014 10:58:00 PM	5.15	47.7
10/21/2014 10:59:00 PM	4.04	43.6
10/21/2014 11:00:00 PM	4.85	43.4

**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
10/21/2014 11:01:00 PM	4.33	45.1
10/21/2014 11:02:00 PM	4.26	45.8
10/21/2014 11:03:00 PM	4.36	43.9
10/21/2014 11:04:00 PM	4.39	44.6
10/21/2014 11:05:00 PM	5.07	45.7
10/21/2014 11:06:00 PM	7.06	43.6
10/21/2014 11:07:00 PM	6.70	44.4
10/21/2014 11:08:00 PM	5.03	43.5
10/21/2014 11:09:00 PM	4.39	43.7
10/21/2014 11:10:00 PM	5.37	40.0
10/21/2014 11:11:00 PM	5.30	42.4
10/21/2014 11:12:00 PM	5.63	43.1
10/21/2014 11:13:00 PM	6.20	44.3
10/21/2014 11:16:00 PM	4.81	45.4
10/21/2014 11:17:00 PM	4.91	43.7
10/21/2014 11:18:00 PM	5.87	44.3
10/21/2014 11:19:00 PM	4.76	43.1
10/21/2014 11:20:00 PM	4.11	41.1
10/21/2014 11:21:00 PM	4.19	40.2
10/21/2014 11:22:00 PM	4.72	42.4
10/21/2014 11:23:00 PM	4.14	43.9
10/21/2014 11:26:00 PM	4.48	44.8
10/21/2014 11:29:00 PM	4.16	44.8
10/21/2014 11:30:00 PM	4.25	43.8
10/21/2014 11:31:00 PM	4.65	43.4
10/21/2014 11:32:00 PM	5.48	42.8
10/21/2014 11:33:00 PM	5.57	41.1
10/21/2014 11:34:00 PM	5.89	40.7
10/21/2014 11:36:00 PM	6.17	40.6
10/21/2014 11:37:00 PM	6.60	40.3
10/21/2014 11:38:00 PM	5.65	40.6
10/21/2014 11:39:00 PM	5.13	42.3
10/21/2014 11:40:00 PM	5.09	43.7
10/21/2014 11:41:00 PM	5.38	39.8
10/21/2014 11:42:00 PM	5.02	38.6
10/21/2014 11:43:00 PM	4.67	42.6
10/21/2014 11:45:00 PM	4.86	43.8
10/21/2014 11:46:00 PM	4.46	41.7
10/21/2014 11:47:00 PM	4.51	41.9
10/21/2014 11:48:00 PM	3.57	41.0
10/21/2014 11:49:00 PM	3.56	42.8
10/21/2014 11:50:00 PM	3.93	42.8
10/21/2014 11:51:00 PM	3.55	44.9
10/21/2014 11:52:00 PM	4.51	41.6
10/21/2014 11:53:00 PM	4.93	41.0
10/21/2014 11:54:00 PM	4.30	42.2
10/21/2014 11:55:00 PM	3.98	40.4
10/21/2014 11:57:00 PM	3.95	43.1
10/21/2014 11:58:00 PM	3.66	40.9
10/21/2014 11:59:00 PM	4.51	39.9

**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
10/22/2014 12:00:00 AM	4.56	40.0
10/22/2014 12:01:00 AM	4.64	40.4
10/22/2014 12:02:00 AM	3.58	40.9
10/22/2014 12:04:00 AM	4.11	44.8
10/22/2014 12:05:00 AM	5.00	41.9
10/22/2014 12:06:00 AM	4.64	40.9
10/22/2014 12:07:00 AM	4.85	41.1
10/22/2014 12:08:00 AM	4.72	38.7
10/22/2014 12:09:00 AM	4.82	37.5
10/22/2014 12:10:00 AM	4.25	39.3
10/22/2014 12:11:00 AM	5.05	40.4
10/22/2014 12:12:00 AM	5.45	40.3
10/22/2014 12:13:00 AM	5.63	38.8
10/22/2014 12:14:00 AM	4.50	37.2
10/22/2014 12:15:00 AM	4.21	41.6
10/22/2014 12:16:00 AM	4.52	43.8
10/22/2014 12:17:00 AM	4.34	47.9
10/22/2014 12:23:00 AM	3.66	41.2
10/22/2014 12:24:00 AM	4.12	38.4
10/22/2014 12:25:00 AM	3.63	36.1
10/22/2014 12:27:00 AM	3.56	39.5
10/22/2014 12:28:00 AM	3.96	39.6
10/22/2014 12:31:00 AM	5.01	41.9
10/22/2014 12:32:00 AM	3.73	38.8
10/22/2014 12:33:00 AM	4.02	40.6
10/22/2014 12:36:00 AM	3.83	40.4
10/22/2014 12:38:00 AM	5.09	40.4
10/22/2014 12:39:00 AM	4.14	38.6
10/22/2014 12:40:00 AM	4.85	37.8
10/22/2014 12:41:00 AM	4.19	36.6
10/22/2014 12:42:00 AM	4.03	36.3
10/22/2014 12:43:00 AM	4.24	36.9
10/22/2014 12:44:00 AM	4.43	38.2
10/22/2014 12:45:00 AM	5.50	37.3
10/22/2014 12:46:00 AM	4.01	39.2
10/22/2014 12:47:00 AM	4.12	42.9
10/22/2014 12:48:00 AM	4.31	44.3
10/22/2014 12:49:00 AM	4.29	41.3
10/22/2014 12:50:00 AM	4.90	40.6
10/22/2014 12:54:00 AM	3.54	39.5
10/22/2014 12:55:00 AM	4.10	41.5
10/22/2014 12:56:00 AM	4.25	42.2
10/22/2014 12:57:00 AM	5.34	42.9
10/22/2014 12:58:00 AM	5.22	40.4
10/22/2014 12:59:00 AM	5.18	40.1
10/22/2014 1:00:00 AM	4.38	36.9
10/22/2014 1:01:00 AM	4.53	38.3
10/22/2014 1:02:00 AM	4.32	40.7
10/22/2014 1:03:00 AM	3.96	40.8
10/22/2014 1:04:00 AM	4.72	40.4

**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
10/22/2014 1:05:00 AM	4.96	37.2
10/22/2014 1:06:00 AM	5.09	36.9
10/22/2014 1:07:00 AM	4.37	39.6
10/22/2014 1:08:00 AM	4.71	40.4
10/22/2014 1:09:00 AM	3.92	41.8
10/22/2014 1:10:00 AM	4.53	39.6
10/22/2014 1:11:00 AM	4.81	37.0
10/22/2014 1:12:00 AM	4.51	38.3
10/22/2014 1:13:00 AM	4.81	40.5
10/22/2014 1:15:00 AM	3.65	39.7
10/22/2014 1:16:00 AM	3.89	41.4
10/22/2014 1:17:00 AM	4.60	42.8
10/22/2014 1:18:00 AM	3.58	41.3
10/22/2014 1:19:00 AM	3.61	44.6
10/22/2014 1:20:00 AM	4.01	42.9
10/22/2014 1:21:00 AM	4.23	41.2
10/22/2014 1:22:00 AM	4.14	39.6
10/22/2014 1:23:00 AM	4.25	38.2
10/22/2014 1:24:00 AM	3.52	39.7
10/22/2014 1:25:00 AM	3.65	41.6
10/22/2014 1:26:00 AM	4.58	41.3
10/22/2014 1:27:00 AM	4.32	41.2
10/22/2014 1:28:00 AM	4.46	42.5
10/22/2014 1:29:00 AM	4.88	39.6
10/22/2014 1:30:00 AM	4.37	37.4
10/22/2014 1:31:00 AM	4.53	40.1
10/22/2014 1:32:00 AM	4.74	40.2
10/22/2014 1:33:00 AM	4.17	39.1
10/22/2014 1:34:00 AM	3.54	39.1
10/22/2014 1:36:00 AM	3.96	40.0
10/22/2014 1:37:00 AM	3.72	39.6
10/22/2014 1:38:00 AM	4.57	36.0
10/22/2014 1:40:00 AM	3.54	38.0
10/22/2014 1:41:00 AM	3.65	38.1
10/22/2014 1:42:00 AM	4.03	39.0
10/22/2014 1:43:00 AM	3.67	40.2
10/22/2014 1:44:00 AM	3.76	40.2
10/22/2014 1:45:00 AM	4.44	39.7
10/22/2014 1:46:00 AM	3.87	39.1
10/22/2014 1:47:00 AM	3.96	39.9
10/22/2014 1:48:00 AM	3.84	39.8
10/22/2014 1:50:00 AM	3.91	36.6
10/22/2014 1:51:00 AM	3.54	41.6
10/22/2014 1:54:00 AM	3.68	42.2
10/22/2014 1:56:00 AM	5.02	39.8
10/22/2014 1:57:00 AM	4.52	39.1
10/22/2014 1:58:00 AM	4.09	37.8
10/22/2014 2:00:00 AM	4.53	41.2
10/22/2014 2:01:00 AM	4.51	40.1
10/22/2014 2:02:00 AM	4.41	40.6

**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
10/22/2014 2:03:00 AM	3.53	41.0
10/22/2014 2:05:00 AM	4.07	37.0
10/22/2014 2:06:00 AM	4.31	36.0
10/22/2014 2:07:00 AM	3.98	36.3
10/22/2014 2:08:00 AM	3.91	38.3
10/22/2014 2:09:00 AM	3.73	41.6
10/22/2014 2:10:00 AM	4.43	40.3
10/22/2014 2:11:00 AM	4.10	41.3
10/22/2014 2:12:00 AM	4.85	44.2
10/22/2014 2:13:00 AM	3.65	42.2
10/22/2014 2:19:00 AM	3.97	41.6
10/22/2014 2:26:00 AM	3.88	38.9
10/22/2014 2:27:00 AM	4.66	38.8
10/22/2014 2:28:00 AM	4.11	38.0
10/22/2014 2:29:00 AM	4.10	38.4
10/22/2014 2:30:00 AM	3.89	37.0
10/22/2014 2:32:00 AM	3.82	36.5
10/22/2014 2:34:00 AM	4.29	39.0
10/22/2014 2:35:00 AM	4.72	38.7
10/22/2014 2:36:00 AM	4.25	39.3
10/22/2014 2:37:00 AM	3.68	35.8
10/22/2014 2:39:00 AM	3.74	34.3
10/22/2014 2:41:00 AM	3.79	36.9
10/22/2014 2:42:00 AM	3.63	39.5
10/22/2014 2:44:00 AM	3.72	40.8
10/22/2014 2:45:00 AM	4.10	39.2
10/22/2014 2:46:00 AM	3.84	41.8
10/22/2014 2:47:00 AM	4.06	42.3
10/22/2014 2:48:00 AM	3.62	38.3
10/22/2014 2:49:00 AM	3.51	40.8
10/22/2014 2:50:00 AM	4.19	42.6
10/22/2014 2:51:00 AM	4.41	41.7
10/22/2014 2:52:00 AM	3.69	39.7
10/22/2014 2:53:00 AM	3.84	38.6
10/22/2014 2:54:00 AM	3.52	39.2
10/22/2014 2:55:00 AM	4.22	39.7
10/22/2014 2:56:00 AM	3.92	38.7
10/22/2014 2:57:00 AM	3.93	38.7
10/22/2014 2:58:00 AM	4.01	40.3
10/22/2014 3:00:00 AM	3.61	42.5
10/22/2014 3:01:00 AM	3.91	40.3
10/22/2014 3:02:00 AM	4.39	38.0
10/22/2014 3:04:00 AM	3.76	39.9
10/22/2014 3:05:00 AM	4.44	40.8
10/22/2014 3:06:00 AM	4.62	41.9
10/22/2014 3:12:00 AM	3.85	41.0
10/22/2014 3:15:00 AM	4.10	41.4
10/22/2014 3:16:00 AM	4.26	44.0
10/22/2014 3:17:00 AM	4.56	43.1
10/22/2014 3:18:00 AM	4.58	42.1

**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
10/22/2014 3:19:00 AM	4.82	43.8
10/22/2014 3:20:00 AM	3.98	42.1
10/22/2014 3:21:00 AM	3.50	44.0
10/22/2014 3:23:00 AM	3.52	41.2
10/22/2014 3:24:00 AM	3.76	42.0
10/22/2014 3:25:00 AM	4.57	41.8
10/22/2014 3:26:00 AM	4.40	41.2
10/22/2014 3:27:00 AM	3.90	43.8
10/22/2014 3:28:00 AM	3.87	43.8
10/22/2014 3:29:00 AM	3.70	44.2
10/22/2014 3:31:00 AM	5.05	39.2
10/22/2014 3:32:00 AM	4.25	41.1
10/22/2014 3:33:00 AM	4.00	43.4
10/22/2014 3:34:00 AM	4.44	44.2
10/22/2014 3:35:00 AM	4.40	42.3
10/22/2014 3:36:00 AM	3.84	38.5
10/22/2014 3:37:00 AM	3.75	36.2
10/22/2014 3:39:00 AM	3.61	39.3
10/22/2014 3:44:00 AM	4.03	40.4
10/22/2014 3:45:00 AM	4.44	45.3
10/22/2014 3:46:00 AM	3.72	42.3
10/22/2014 3:47:00 AM	4.02	40.1
10/22/2014 3:50:00 AM	4.08	42.0
10/22/2014 3:51:00 AM	4.13	43.5
10/22/2014 3:52:00 AM	3.90	41.0
10/22/2014 3:53:00 AM	4.17	39.8
10/22/2014 3:54:00 AM	3.99	42.2
10/22/2014 3:55:00 AM	4.01	44.7
10/22/2014 3:57:00 AM	3.66	39.7
10/22/2014 3:58:00 AM	4.24	44.5
10/22/2014 3:59:00 AM	4.27	43.4
10/22/2014 4:00:00 AM	3.93	44.1
10/22/2014 4:01:00 AM	4.76	46.9
10/22/2014 4:03:00 AM	3.97	44.3
10/22/2014 4:05:00 AM	4.38	40.2
10/22/2014 4:06:00 AM	3.67	40.8
10/22/2014 4:08:00 AM	3.71	42.6
10/22/2014 4:09:00 AM	4.17	44.8
10/22/2014 4:10:00 AM	3.77	43.4
10/22/2014 4:12:00 AM	4.70	40.9
10/22/2014 4:13:00 AM	4.60	39.9
10/22/2014 4:14:00 AM	3.70	43.4
10/22/2014 4:15:00 AM	3.83	41.8
10/22/2014 4:16:00 AM	3.64	36.4
10/22/2014 4:17:00 AM	3.68	38.6
10/22/2014 4:18:00 AM	3.71	41.6
10/22/2014 4:21:00 AM	4.20	42.5
10/22/2014 4:22:00 AM	3.80	42.5
10/22/2014 4:28:00 AM	4.38	41.9
10/22/2014 4:29:00 AM	3.76	41.8



**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
10/22/2014 4:41:00 AM	3.90	44.3
10/22/2014 4:46:00 AM	3.53	41.9
10/22/2014 10:27:00 PM	3.54	46.5
10/22/2014 10:30:00 PM	3.52	47.2
10/22/2014 10:32:00 PM	3.58	44.5
10/22/2014 10:33:00 PM	3.58	43.0
10/22/2014 10:34:00 PM	3.58	45.2
10/22/2014 10:35:00 PM	3.68	45.8
10/22/2014 10:44:00 PM	3.96	48.1
10/22/2014 10:45:00 PM	3.77	47.0
10/22/2014 10:53:00 PM	3.52	45.6
10/22/2014 10:54:00 PM	3.77	45.6
10/22/2014 10:55:00 PM	3.74	45.5
10/22/2014 10:56:00 PM	4.13	44.9
10/22/2014 10:57:00 PM	4.24	44.2
10/22/2014 10:58:00 PM	4.25	42.7
10/22/2014 10:59:00 PM	4.28	42.9
10/22/2014 11:00:00 PM	3.92	42.7
10/22/2014 11:01:00 PM	3.73	43.4
10/22/2014 11:03:00 PM	3.73	47.9
10/22/2014 11:04:00 PM	4.15	46.8
10/22/2014 11:05:00 PM	3.95	44.4
10/22/2014 11:06:00 PM	3.93	45.4
10/22/2014 11:07:00 PM	3.84	45.2
10/22/2014 11:09:00 PM	4.19	44.8
10/22/2014 11:10:00 PM	4.26	47.0
10/22/2014 11:11:00 PM	3.79	45.1
10/22/2014 11:13:00 PM	4.24	47.5
10/22/2014 11:14:00 PM	4.17	45.5
10/22/2014 11:15:00 PM	4.10	45.1
10/22/2014 11:16:00 PM	4.17	44.0
10/22/2014 11:18:00 PM	4.19	44.7
10/22/2014 11:19:00 PM	4.01	47.6
10/22/2014 11:20:00 PM	3.87	45.9
10/22/2014 11:21:00 PM	3.84	47.9
10/22/2014 11:27:00 PM	3.54	39.3
10/22/2014 11:28:00 PM	3.55	38.1
10/22/2014 11:30:00 PM	3.52	45.3
10/22/2014 11:34:00 PM	3.60	43.6
10/22/2014 11:39:00 PM	3.84	38.5
10/22/2014 11:40:00 PM	4.00	36.1
10/22/2014 11:41:00 PM	3.71	41.4
10/22/2014 11:42:00 PM	4.07	42.1
10/22/2014 11:44:00 PM	3.64	44.5
10/22/2014 11:45:00 PM	3.63	44.2
10/22/2014 11:46:00 PM	3.64	43.6
10/22/2014 11:47:00 PM	3.59	45.0
10/22/2014 11:48:00 PM	3.57	45.6
10/22/2014 11:49:00 PM	3.65	46.7
10/22/2014 11:53:00 PM	3.60	38.9

**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
10/22/2014 11:54:00 PM	3.62	41.3
10/23/2014 12:01:00 AM	3.80	42.4
10/23/2014 12:02:00 AM	3.62	42.3
10/23/2014 12:03:00 AM	3.70	40.8
10/23/2014 12:04:00 AM	3.92	37.5
10/23/2014 12:05:00 AM	3.63	38.7
10/23/2014 12:06:00 AM	3.77	41.7
10/23/2014 12:07:00 AM	3.66	44.4
10/23/2014 12:08:00 AM	3.77	44.7
10/23/2014 12:09:00 AM	3.82	41.3
10/23/2014 12:10:00 AM	3.84	42.1
10/23/2014 12:11:00 AM	3.76	41.9
10/23/2014 12:12:00 AM	3.92	44.1
10/23/2014 12:13:00 AM	3.92	43.0
10/23/2014 12:14:00 AM	3.77	41.3
10/23/2014 12:15:00 AM	3.83	41.5
10/23/2014 12:16:00 AM	3.85	42.0
10/23/2014 12:17:00 AM	3.90	42.1
10/23/2014 12:18:00 AM	4.17	42.8
10/23/2014 12:19:00 AM	4.08	47.2
10/23/2014 12:20:00 AM	4.24	44.9
10/23/2014 12:21:00 AM	4.21	44.4
10/23/2014 12:22:00 AM	4.10	42.8
10/23/2014 12:23:00 AM	3.85	41.5
10/23/2014 12:24:00 AM	3.94	40.0
10/23/2014 12:25:00 AM	3.58	43.0
10/23/2014 12:27:00 AM	3.93	43.7
10/23/2014 12:28:00 AM	3.90	40.9
10/23/2014 12:29:00 AM	4.13	43.1
10/23/2014 12:30:00 AM	4.08	42.4
10/23/2014 12:31:00 AM	3.86	42.0
10/23/2014 12:32:00 AM	3.96	42.3
10/23/2014 12:33:00 AM	4.00	42.6
10/23/2014 12:35:00 AM	4.09	43.6
10/23/2014 12:36:00 AM	4.15	39.2
10/23/2014 12:37:00 AM	4.13	43.4
10/23/2014 12:39:00 AM	4.23	43.8
10/23/2014 12:40:00 AM	4.18	42.7
10/23/2014 12:41:00 AM	4.12	45.1
10/23/2014 12:42:00 AM	4.14	41.8
10/23/2014 12:43:00 AM	3.93	41.0
10/23/2014 12:45:00 AM	3.89	41.5
10/23/2014 12:46:00 AM	3.73	38.1
10/23/2014 12:47:00 AM	3.82	39.0
10/23/2014 12:48:00 AM	3.53	42.5
10/23/2014 12:49:00 AM	4.06	40.7
10/23/2014 12:50:00 AM	3.90	44.4
10/23/2014 12:52:00 AM	4.30	46.6
10/23/2014 12:53:00 AM	4.09	46.9
10/23/2014 12:54:00 AM	4.00	40.2

**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
10/23/2014 12:55:00 AM	3.98	39.0
10/23/2014 12:56:00 AM	3.72	38.3
10/23/2014 12:57:00 AM	3.94	39.1
10/23/2014 12:58:00 AM	3.61	45.1
10/23/2014 1:00:00 AM	3.76	45.8
10/23/2014 1:01:00 AM	4.08	40.8
10/23/2014 1:05:00 AM	3.58	42.0
10/23/2014 1:06:00 AM	3.66	44.8
10/23/2014 1:07:00 AM	3.74	45.4
10/23/2014 1:08:00 AM	3.79	38.5
10/23/2014 1:09:00 AM	3.93	39.2
10/23/2014 1:10:00 AM	3.71	42.5
10/23/2014 1:11:00 AM	3.85	38.5
10/23/2014 1:12:00 AM	3.67	39.3
10/23/2014 1:13:00 AM	3.94	40.0
10/23/2014 1:14:00 AM	4.21	44.3
10/23/2014 1:15:00 AM	4.15	44.7
10/23/2014 1:16:00 AM	3.94	43.4
10/23/2014 1:17:00 AM	3.86	40.3
10/23/2014 1:18:00 AM	3.81	38.1
10/23/2014 1:19:00 AM	3.87	39.5
10/23/2014 1:20:00 AM	3.74	41.9
10/23/2014 1:21:00 AM	3.97	45.1
10/23/2014 1:22:00 AM	3.77	46.6
10/23/2014 1:34:00 AM	3.62	36.5
10/23/2014 1:36:00 AM	3.73	44.0
10/23/2014 1:37:00 AM	3.86	44.3
10/23/2014 1:48:00 AM	3.63	37.4
10/23/2014 1:50:00 AM	3.76	41.7
10/23/2014 1:51:00 AM	3.71	39.1
10/23/2014 1:52:00 AM	3.54	42.9
10/23/2014 1:53:00 AM	3.84	39.8
10/23/2014 1:56:00 AM	3.52	34.6
10/23/2014 1:57:00 AM	3.56	39.0
10/23/2014 1:58:00 AM	3.68	39.4
10/23/2014 1:59:00 AM	3.72	35.2
10/23/2014 2:00:00 AM	3.88	31.3
10/23/2014 2:08:00 AM	3.56	44.4
10/23/2014 2:09:00 AM	3.91	41.7
10/23/2014 2:10:00 AM	3.83	37.5
10/23/2014 2:11:00 AM	3.97	38.4
10/23/2014 2:12:00 AM	4.20	40.5
10/23/2014 2:13:00 AM	4.02	39.6
10/23/2014 2:14:00 AM	4.16	40.5
10/23/2014 2:15:00 AM	4.08	45.3
10/23/2014 2:16:00 AM	3.68	47.1
10/23/2014 2:20:00 AM	3.63	38.7
10/23/2014 2:21:00 AM	3.64	39.2
10/23/2014 2:22:00 AM	3.88	41.3
10/23/2014 2:23:00 AM	3.97	42.0

**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
10/23/2014 2:24:00 AM	3.77	40.6
10/23/2014 2:25:00 AM	3.89	43.0
10/23/2014 2:26:00 AM	3.94	42.7
10/23/2014 2:27:00 AM	4.12	44.3
10/23/2014 2:28:00 AM	4.13	45.5
10/23/2014 2:29:00 AM	3.97	43.0
10/23/2014 2:30:00 AM	3.80	43.1
10/23/2014 2:31:00 AM	3.98	42.4
10/23/2014 2:32:00 AM	3.70	40.2
10/23/2014 2:33:00 AM	4.04	42.3
10/23/2014 2:34:00 AM	3.76	43.8
10/23/2014 2:35:00 AM	3.68	40.8
10/23/2014 2:36:00 AM	3.53	39.6
10/23/2014 2:37:00 AM	3.61	39.1
10/23/2014 2:43:00 AM	3.69	40.6
10/23/2014 2:44:00 AM	3.72	42.1
10/23/2014 2:54:00 AM	3.72	40.8
10/23/2014 2:56:00 AM	3.95	42.8
10/23/2014 2:57:00 AM	3.63	42.0
10/23/2014 2:58:00 AM	3.59	40.9
10/23/2014 2:59:00 AM	3.72	42.0
10/23/2014 3:01:00 AM	3.73	44.5
10/23/2014 3:03:00 AM	3.64	41.9
10/23/2014 3:04:00 AM	3.58	41.9
10/23/2014 3:05:00 AM	3.54	42.4
10/23/2014 3:07:00 AM	3.80	40.2
10/23/2014 3:08:00 AM	4.03	41.3
10/23/2014 3:09:00 AM	3.93	41.7
10/23/2014 3:11:00 AM	4.11	46.0
10/23/2014 3:12:00 AM	3.75	46.7
10/23/2014 3:14:00 AM	3.64	43.6
10/23/2014 3:15:00 AM	3.70	42.9
10/23/2014 3:19:00 AM	3.53	48.1
10/23/2014 3:21:00 AM	3.69	44.3
10/23/2014 3:23:00 AM	3.51	42.2
10/23/2014 3:25:00 AM	3.87	45.7
10/23/2014 3:26:00 AM	3.89	44.7
10/23/2014 3:27:00 AM	4.25	44.0
10/23/2014 3:28:00 AM	3.86	42.9
10/23/2014 3:30:00 AM	3.72	45.0
10/23/2014 3:31:00 AM	3.98	43.7
10/23/2014 3:32:00 AM	4.35	43.0
10/23/2014 3:33:00 AM	4.15	40.7
10/23/2014 3:34:00 AM	3.81	41.8
10/23/2014 3:35:00 AM	3.76	45.6
10/23/2014 3:36:00 AM	3.69	45.1
10/23/2014 3:37:00 AM	3.68	46.0
10/23/2014 3:38:00 AM	3.69	47.5
10/23/2014 3:39:00 AM	3.69	46.2
10/23/2014 3:40:00 AM	3.97	42.6

**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
10/23/2014 3:41:00 AM	3.78	40.5
10/23/2014 3:42:00 AM	3.97	40.5
10/23/2014 3:43:00 AM	3.82	40.5
10/23/2014 3:44:00 AM	3.84	45.1
10/23/2014 3:45:00 AM	3.81	46.2
10/23/2014 3:46:00 AM	3.82	45.9
10/23/2014 3:47:00 AM	3.89	46.1
10/23/2014 3:48:00 AM	3.68	43.0
10/23/2014 3:49:00 AM	3.62	41.3
10/23/2014 3:51:00 AM	3.75	44.6
10/23/2014 3:52:00 AM	3.84	41.8
10/23/2014 3:53:00 AM	4.47	40.6
10/23/2014 3:54:00 AM	4.02	43.9
10/23/2014 3:55:00 AM	3.78	42.7
10/23/2014 3:57:00 AM	3.51	46.8
10/23/2014 3:58:00 AM	3.50	47.1
10/23/2014 4:08:00 AM	3.70	41.6
10/23/2014 4:09:00 AM	3.51	43.8
10/23/2014 4:13:00 AM	3.73	46.9
10/23/2014 4:14:00 AM	3.62	47.5
10/23/2014 4:16:00 AM	3.90	44.6
10/23/2014 4:17:00 AM	3.79	46.8
10/23/2014 4:18:00 AM	3.67	45.0
10/23/2014 4:19:00 AM	3.86	44.8
10/23/2014 4:20:00 AM	3.81	46.8
10/23/2014 4:21:00 AM	3.60	43.7
10/23/2014 4:45:00 AM	3.53	44.8
10/23/2014 4:46:00 AM	3.58	43.7
10/23/2014 4:47:00 AM	3.72	44.6
10/23/2014 4:48:00 AM	3.78	44.7
10/23/2014 4:49:00 AM	3.51	45.4
10/23/2014 4:50:00 AM	3.70	43.3
10/23/2014 4:51:00 AM	3.51	44.1
10/23/2014 4:52:00 AM	3.60	44.7
10/23/2014 4:53:00 AM	3.59	45.7
10/23/2014 4:54:00 AM	3.59	42.2
10/25/2014 4:53:00 AM	3.58	43.3
10/25/2014 4:55:00 AM	3.56	43.9
10/27/2014 10:00:00 PM	3.60	42.6
10/27/2014 10:01:00 PM	3.53	42.9
10/27/2014 10:02:00 PM	3.83	43.2
10/27/2014 10:03:00 PM	3.81	41.6
10/27/2014 10:04:00 PM	4.14	43.9
10/27/2014 10:06:00 PM	3.64	44.7
10/27/2014 10:08:00 PM	3.51	42.9
10/27/2014 10:09:00 PM	3.64	43.9
10/27/2014 10:10:00 PM	3.73	42.9
10/27/2014 10:11:00 PM	4.18	43.4
10/27/2014 10:12:00 PM	4.24	42.8
10/27/2014 10:13:00 PM	4.32	44.0

**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
10/27/2014 10:14:00 PM	4.10	43.9
10/27/2014 10:15:00 PM	4.40	44.5
10/27/2014 10:16:00 PM	5.05	43.2
10/27/2014 10:17:00 PM	4.77	43.6
10/27/2014 10:18:00 PM	4.61	43.5
10/27/2014 10:19:00 PM	4.66	43.0
10/27/2014 10:20:00 PM	4.75	42.1
10/27/2014 10:21:00 PM	4.90	44.8
10/27/2014 10:23:00 PM	4.74	42.3
10/27/2014 10:24:00 PM	4.70	42.2
10/27/2014 10:25:00 PM	4.81	42.8
10/27/2014 10:26:00 PM	4.64	43.3
10/27/2014 10:27:00 PM	4.58	44.8
10/27/2014 10:28:00 PM	4.21	42.4
10/27/2014 10:29:00 PM	4.31	42.1
10/27/2014 10:30:00 PM	4.32	42.8
10/27/2014 10:31:00 PM	3.62	42.8
10/27/2014 10:32:00 PM	3.82	44.9
10/27/2014 10:33:00 PM	3.66	45.5
10/27/2014 10:37:00 PM	4.14	46.5
10/27/2014 10:38:00 PM	4.56	44.2
10/27/2014 10:40:00 PM	4.21	42.6
10/27/2014 10:42:00 PM	3.98	43.1
10/27/2014 10:43:00 PM	4.01	43.7
10/27/2014 10:44:00 PM	3.62	42.5
10/27/2014 10:45:00 PM	3.71	43.0
10/27/2014 10:46:00 PM	4.00	43.5
10/27/2014 10:48:00 PM	3.77	43.1
10/27/2014 10:54:00 PM	3.58	46.8
10/27/2014 10:55:00 PM	3.82	46.6
10/27/2014 10:56:00 PM	3.51	46.7
10/27/2014 10:57:00 PM	3.58	46.3
10/27/2014 10:58:00 PM	3.92	45.4
10/27/2014 10:59:00 PM	3.98	44.6
10/27/2014 11:01:00 PM	3.91	44.0
10/27/2014 11:02:00 PM	3.56	43.7
10/27/2014 11:04:00 PM	3.84	44.2
10/27/2014 11:05:00 PM	3.79	44.7
10/27/2014 11:06:00 PM	3.66	45.2
10/27/2014 11:07:00 PM	3.53	44.7
10/27/2014 11:08:00 PM	3.73	44.2
10/27/2014 11:09:00 PM	3.65	43.0
10/27/2014 11:11:00 PM	3.54	43.6
10/27/2014 11:12:00 PM	3.83	43.0
10/27/2014 11:13:00 PM	4.24	42.6
10/27/2014 11:14:00 PM	3.99	45.4
10/27/2014 11:16:00 PM	4.19	43.8
10/27/2014 11:18:00 PM	4.12	41.7
10/27/2014 11:19:00 PM	3.99	42.3
10/27/2014 11:20:00 PM	3.57	41.7

**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
10/27/2014 11:21:00 PM	3.88	42.6
10/27/2014 11:22:00 PM	3.68	41.9
10/27/2014 11:23:00 PM	3.67	43.1
10/27/2014 11:24:00 PM	4.00	42.8
10/27/2014 11:25:00 PM	3.59	42.6
10/27/2014 11:26:00 PM	3.72	41.5
10/27/2014 11:27:00 PM	3.83	42.6
10/27/2014 11:28:00 PM	3.77	43.9
10/27/2014 11:30:00 PM	3.65	44.1
10/27/2014 11:31:00 PM	3.55	43.8
10/27/2014 11:32:00 PM	3.64	41.6
10/27/2014 11:33:00 PM	3.87	42.4
10/27/2014 11:35:00 PM	4.01	42.5
10/27/2014 11:36:00 PM	3.65	41.2
10/27/2014 11:37:00 PM	3.59	41.5
10/27/2014 11:38:00 PM	3.61	42.2
10/27/2014 11:39:00 PM	3.80	42.0
10/27/2014 11:40:00 PM	4.29	41.9
10/27/2014 11:41:00 PM	3.81	42.0
10/27/2014 11:42:00 PM	3.89	41.9
10/27/2014 11:43:00 PM	3.70	42.1
10/27/2014 11:48:00 PM	3.89	40.6
10/27/2014 11:49:00 PM	4.00	40.4
10/27/2014 11:50:00 PM	4.35	46.8
10/27/2014 11:51:00 PM	5.20	41.5
10/27/2014 11:52:00 PM	5.50	42.7
10/27/2014 11:53:00 PM	5.72	44.2
10/27/2014 11:54:00 PM	3.92	44.2
10/27/2014 11:55:00 PM	3.59	45.3
10/27/2014 11:56:00 PM	3.74	45.4
10/28/2014 12:04:00 AM	4.08	41.4
10/28/2014 12:05:00 AM	3.98	42.5
10/28/2014 12:06:00 AM	4.07	41.4
10/28/2014 12:07:00 AM	4.17	42.8
10/28/2014 12:08:00 AM	3.92	43.1
10/28/2014 12:09:00 AM	4.07	42.6
10/28/2014 12:10:00 AM	3.78	41.9
10/28/2014 12:12:00 AM	4.00	47.2
10/28/2014 12:13:00 AM	3.61	44.1
10/28/2014 12:14:00 AM	3.99	40.7
10/28/2014 12:16:00 AM	4.64	43.5
10/28/2014 12:17:00 AM	4.36	42.3
10/28/2014 12:18:00 AM	4.29	42.4
10/28/2014 12:19:00 AM	4.48	41.3
10/28/2014 12:20:00 AM	4.26	43.8
10/28/2014 12:21:00 AM	4.29	40.7
10/28/2014 12:22:00 AM	4.05	41.2
10/28/2014 12:23:00 AM	4.09	41.0
10/28/2014 12:24:00 AM	3.90	40.3
10/28/2014 12:25:00 AM	3.64	41.1

**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
10/28/2014 12:26:00 AM	3.90	41.5
10/28/2014 12:27:00 AM	3.85	42.5
10/28/2014 12:28:00 AM	3.76	43.4
10/28/2014 12:30:00 AM	3.88	44.5
10/28/2014 12:31:00 AM	3.85	42.0
10/28/2014 12:32:00 AM	3.80	42.0
10/28/2014 12:34:00 AM	3.67	44.2
10/28/2014 12:35:00 AM	3.70	41.5
10/28/2014 12:36:00 AM	3.75	39.8
10/28/2014 12:37:00 AM	3.79	40.5
10/28/2014 12:38:00 AM	4.14	40.9
10/28/2014 12:39:00 AM	3.86	41.2
10/28/2014 12:40:00 AM	4.04	43.1
10/28/2014 12:41:00 AM	4.54	43.7
10/28/2014 12:42:00 AM	4.36	42.1
10/28/2014 12:44:00 AM	3.58	40.6
10/28/2014 12:48:00 AM	3.65	40.0
10/28/2014 12:49:00 AM	3.52	42.6
10/28/2014 12:52:00 AM	3.90	44.6
10/28/2014 12:53:00 AM	3.74	40.8
10/28/2014 12:55:00 AM	3.84	39.1
10/28/2014 2:09:00 AM	3.65	42.0
10/28/2014 2:10:00 AM	3.56	41.6
10/28/2014 2:16:00 AM	3.66	41.7
10/28/2014 2:22:00 AM	4.21	41.4
10/28/2014 2:26:00 AM	4.03	41.5
10/28/2014 2:27:00 AM	3.77	42.5
10/28/2014 2:28:00 AM	4.19	42.8
10/28/2014 2:29:00 AM	3.94	41.8
10/28/2014 2:30:00 AM	4.18	41.7
10/28/2014 2:31:00 AM	4.13	42.1
10/28/2014 2:32:00 AM	3.57	42.1
10/28/2014 2:33:00 AM	3.72	41.3
10/28/2014 2:34:00 AM	4.53	40.5
10/28/2014 2:35:00 AM	3.93	40.6
10/28/2014 2:36:00 AM	5.33	41.2
10/28/2014 2:37:00 AM	5.77	41.0
10/28/2014 2:38:00 AM	5.01	42.0
10/28/2014 2:40:00 AM	4.79	43.4
10/28/2014 2:41:00 AM	4.45	41.9
10/28/2014 2:42:00 AM	5.11	42.0
10/28/2014 2:43:00 AM	4.41	42.2
10/28/2014 2:44:00 AM	4.43	43.1
10/28/2014 2:45:00 AM	4.36	43.9
10/28/2014 2:46:00 AM	4.36	43.9
10/28/2014 2:47:00 AM	4.81	43.4
10/28/2014 2:48:00 AM	4.38	43.1
10/28/2014 3:42:00 AM	3.68	41.8
10/28/2014 3:43:00 AM	3.84	42.1
10/28/2014 3:44:00 AM	4.17	41.8



**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
10/28/2014 3:45:00 AM	3.79	42.2
10/28/2014 3:47:00 AM	3.59	42.2
10/28/2014 3:48:00 AM	3.80	42.1
10/28/2014 3:49:00 AM	4.02	41.9
10/28/2014 3:50:00 AM	4.56	42.2
10/28/2014 3:51:00 AM	4.49	42.4
10/28/2014 3:52:00 AM	4.59	41.9
10/28/2014 3:53:00 AM	4.68	42.3
10/28/2014 3:54:00 AM	4.16	41.4
10/28/2014 4:34:00 AM	3.96	40.2
10/28/2014 4:35:00 AM	3.65	41.3
10/28/2014 4:36:00 AM	3.68	39.4
10/28/2014 4:37:00 AM	3.59	40.2
10/28/2014 4:38:00 AM	3.51	39.7
10/28/2014 4:39:00 AM	3.52	40.2
10/28/2014 4:49:00 AM	3.80	39.5
10/28/2014 4:53:00 AM	3.93	40.2
10/28/2014 4:54:00 AM	3.84	40.6
10/28/2014 4:55:00 AM	3.99	39.9
10/28/2014 4:56:00 AM	3.92	39.5
10/28/2014 4:57:00 AM	3.58	45.3
10/28/2014 4:58:00 AM	3.55	39.5
10/28/2014 4:59:00 AM	3.54	40.3
10/28/2014 10:21:00 PM	3.87	43.7
10/28/2014 10:25:00 PM	3.77	45.3
10/28/2014 10:29:00 PM	3.56	42.8
10/28/2014 10:36:00 PM	3.74	46.8
10/28/2014 10:40:00 PM	4.48	44.8
10/28/2014 10:42:00 PM	4.89	44.7
10/28/2014 10:43:00 PM	3.65	44.5
10/28/2014 10:46:00 PM	4.39	44.6
10/28/2014 10:48:00 PM	4.45	42.4
10/28/2014 10:49:00 PM	4.92	42.8
10/28/2014 10:50:00 PM	4.83	43.9
10/28/2014 10:51:00 PM	5.03	43.4
10/28/2014 10:54:00 PM	4.67	43.4
10/28/2014 10:55:00 PM	4.88	44.9
10/28/2014 10:57:00 PM	4.12	42.9
10/28/2014 10:58:00 PM	4.54	44.8
10/28/2014 11:02:00 PM	3.67	42.1
10/28/2014 11:04:00 PM	4.19	42.3
10/28/2014 11:05:00 PM	4.58	42.9
10/28/2014 11:06:00 PM	4.74	44.2
10/28/2014 11:08:00 PM	3.71	42.5
10/28/2014 11:09:00 PM	4.34	42.1
10/28/2014 11:10:00 PM	4.40	43.7
10/28/2014 11:11:00 PM	4.08	44.2
10/28/2014 11:13:00 PM	4.57	43.6
10/28/2014 11:14:00 PM	3.65	43.1
10/28/2014 11:16:00 PM	3.59	41.8

**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
10/28/2014 11:32:00 PM	3.87	43.0
10/29/2014 11:34:00 PM	3.68	43.9
10/29/2014 11:39:00 PM	3.59	45.0
10/29/2014 11:40:00 PM	5.01	46.6
10/29/2014 11:41:00 PM	4.62	46.0
10/29/2014 11:42:00 PM	4.04	44.6
10/29/2014 11:43:00 PM	4.25	44.3
10/29/2014 11:44:00 PM	4.63	43.3
10/29/2014 11:45:00 PM	4.10	44.5
10/30/2014 12:07:00 AM	4.92	42.4
10/30/2014 12:08:00 AM	5.48	41.5
10/30/2014 12:10:00 AM	4.93	41.8
10/30/2014 12:11:00 AM	3.85	43.8
10/30/2014 12:19:00 AM	3.58	38.6
10/30/2014 12:20:00 AM	3.87	41.0
10/30/2014 2:59:00 AM	4.10	45.0
10/30/2014 3:00:00 AM	3.95	42.1
10/30/2014 3:01:00 AM	4.04	43.4
10/30/2014 3:02:00 AM	3.67	45.6
10/30/2014 3:03:00 AM	4.54	46.9
10/30/2014 3:04:00 AM	4.27	47.3
10/30/2014 3:05:00 AM	4.40	46.7
10/30/2014 3:06:00 AM	4.49	45.2
10/30/2014 3:07:00 AM	4.01	42.9
10/30/2014 3:08:00 AM	4.46	44.9
10/30/2014 3:09:00 AM	4.92	43.4
10/30/2014 3:10:00 AM	4.57	41.5
10/30/2014 3:11:00 AM	4.63	46.4
10/30/2014 3:12:00 AM	4.68	45.9
10/30/2014 3:13:00 AM	5.24	45.1
10/30/2014 3:14:00 AM	4.53	45.3
10/30/2014 3:16:00 AM	4.29	42.5
10/30/2014 3:17:00 AM	4.54	43.8
10/30/2014 3:19:00 AM	5.51	46.1
10/30/2014 3:20:00 AM	5.22	45.7
10/30/2014 3:35:00 AM	5.99	44.9
10/30/2014 3:36:00 AM	5.72	43.9
10/30/2014 3:37:00 AM	5.15	43.5
10/30/2014 3:38:00 AM	5.29	46.4
10/30/2014 3:39:00 AM	4.88	46.5
10/30/2014 3:40:00 AM	4.64	45.1
10/30/2014 3:41:00 AM	5.91	45.1
10/30/2014 3:42:00 AM	5.81	39.1
10/30/2014 3:43:00 AM	6.23	43.3
10/30/2014 3:44:00 AM	6.62	45.5
10/30/2014 3:45:00 AM	6.11	41.8
10/30/2014 3:46:00 AM	5.62	42.5
10/30/2014 3:47:00 AM	5.69	45.8
10/30/2014 3:48:00 AM	5.21	45.6
10/30/2014 3:49:00 AM	4.25	44.4

**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
10/30/2014 3:50:00 AM	4.70	40.9
10/30/2014 3:51:00 AM	4.47	41.7
10/30/2014 3:52:00 AM	4.00	37.6
10/30/2014 3:53:00 AM	4.23	39.8
10/30/2014 3:55:00 AM	4.25	46.5
10/30/2014 4:06:00 AM	4.59	46.0
10/30/2014 4:07:00 AM	4.19	45.8
10/30/2014 4:08:00 AM	4.55	44.7
10/30/2014 4:09:00 AM	4.80	43.6
10/30/2014 4:10:00 AM	4.58	44.9
10/30/2014 4:11:00 AM	4.55	45.1
10/30/2014 4:12:00 AM	4.42	44.6
10/30/2014 4:13:00 AM	5.07	46.0
10/30/2014 4:14:00 AM	4.45	45.2
10/30/2014 4:15:00 AM	4.71	43.7
10/30/2014 4:16:00 AM	4.20	43.1
10/30/2014 4:17:00 AM	4.44	44.4
10/30/2014 4:18:00 AM	4.23	46.2
10/30/2014 4:19:00 AM	4.41	46.4
10/30/2014 4:20:00 AM	4.95	43.9
10/30/2014 4:21:00 AM	4.90	44.9
10/30/2014 4:22:00 AM	5.10	48.0
10/30/2014 4:23:00 AM	4.49	46.1
10/30/2014 4:24:00 AM	4.35	41.4
10/30/2014 4:25:00 AM	3.88	44.4
10/30/2014 4:26:00 AM	3.79	40.4
10/30/2014 4:27:00 AM	4.26	41.2
10/30/2014 4:28:00 AM	4.33	45.3
10/30/2014 4:29:00 AM	4.47	45.4
10/30/2014 4:30:00 AM	4.14	46.4
10/30/2014 4:31:00 AM	4.32	46.1
10/30/2014 4:32:00 AM	4.86	44.6
10/30/2014 4:33:00 AM	4.25	43.7
10/30/2014 4:34:00 AM	4.00	44.8
10/30/2014 4:35:00 AM	4.08	44.6
10/30/2014 4:36:00 AM	3.81	45.7
10/30/2014 4:37:00 AM	3.53	45.3
10/30/2014 4:39:00 AM	3.55	44.7
10/30/2014 4:42:00 AM	3.70	46.5
10/30/2014 4:58:00 AM	3.73	46.6
11/01/2014 4:02:00 AM	7.50	50.1
11/01/2014 10:01:00 PM	4.33	42.8
11/01/2014 10:35:00 PM	4.00	43.0
11/01/2014 10:37:00 PM	3.80	43.4
11/01/2014 10:38:00 PM	3.88	41.5
11/01/2014 10:39:00 PM	3.60	42.4
11/01/2014 10:41:00 PM	3.76	44.3
11/01/2014 10:42:00 PM	3.63	44.9
11/01/2014 10:47:00 PM	3.56	43.3
11/01/2014 10:53:00 PM	3.60	43.1

**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
11/01/2014 10:55:00 PM	3.51	45.7
11/01/2014 10:57:00 PM	3.84	40.2
11/01/2014 10:59:00 PM	3.78	42.6
11/01/2014 11:00:00 PM	3.69	41.7
11/01/2014 11:01:00 PM	3.52	41.0
11/01/2014 11:04:00 PM	3.62	44.0
11/01/2014 11:05:00 PM	4.09	42.7
11/01/2014 11:07:00 PM	3.56	38.4
11/01/2014 11:10:00 PM	3.55	40.0
11/01/2014 11:11:00 PM	3.59	41.0
11/01/2014 11:12:00 PM	3.77	44.2
11/01/2014 11:24:00 PM	3.55	40.9
11/01/2014 11:26:00 PM	3.57	39.7
11/01/2014 11:34:00 PM	3.55	43.0
11/01/2014 11:43:00 PM	3.79	41.4
11/01/2014 11:44:00 PM	3.87	43.3
11/01/2014 11:47:00 PM	3.86	42.2
11/01/2014 11:48:00 PM	3.55	40.9
11/01/2014 11:50:00 PM	3.64	42.9
11/01/2014 11:51:00 PM	3.67	41.8
11/01/2014 11:52:00 PM	3.66	40.8
11/01/2014 11:53:00 PM	4.22	40.3
11/01/2014 11:54:00 PM	3.86	42.8
11/01/2014 11:56:00 PM	4.23	42.1
11/01/2014 11:57:00 PM	4.32	41.4
11/01/2014 11:58:00 PM	4.33	40.2
11/01/2014 11:59:00 PM	4.49	43.3
11/02/2014 12:00:00 AM	3.88	44.6
11/02/2014 12:01:00 AM	3.94	42.9
11/02/2014 12:02:00 AM	3.55	41.1
11/02/2014 12:03:00 AM	3.81	40.6
11/02/2014 12:04:00 AM	4.25	40.7
11/02/2014 12:05:00 AM	3.55	38.6
11/02/2014 12:06:00 AM	3.96	37.6
11/02/2014 12:07:00 AM	4.03	37.6
11/02/2014 12:11:00 AM	3.93	42.8
11/02/2014 12:18:00 AM	3.66	39.6
11/02/2014 12:19:00 AM	3.98	39.8
11/02/2014 12:20:00 AM	3.82	39.0
11/02/2014 12:23:00 AM	3.58	43.1
11/02/2014 12:24:00 AM	3.61	42.7
11/02/2014 12:26:00 AM	3.76	40.8
11/02/2014 12:28:00 AM	3.57	39.5
11/02/2014 12:29:00 AM	3.74	40.5
11/02/2014 12:30:00 AM	4.00	40.1
11/02/2014 12:31:00 AM	3.92	40.4
11/02/2014 12:32:00 AM	3.65	41.1
11/02/2014 12:33:00 AM	3.62	43.1
11/02/2014 12:34:00 AM	3.68	41.7
11/02/2014 12:36:00 AM	3.53	41.7

**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
11/02/2014 12:38:00 AM	3.77	40.3
11/02/2014 12:39:00 AM	3.81	40.0
11/02/2014 12:40:00 AM	3.97	42.6
11/02/2014 12:41:00 AM	3.82	41.6
11/02/2014 12:42:00 AM	3.93	39.5
11/02/2014 12:48:00 AM	3.79	43.1
11/02/2014 12:49:00 AM	3.54	37.7
11/02/2014 12:50:00 AM	3.52	36.5
11/02/2014 12:51:00 AM	3.92	40.0
11/02/2014 12:52:00 AM	3.59	42.6
11/02/2014 12:54:00 AM	3.62	37.5
11/02/2014 1:11:00 AM	3.51	41.0
11/02/2014 2:27:00 AM	3.55	35.0
11/02/2014 2:28:00 AM	3.56	37.0
11/02/2014 2:30:00 AM	3.62	34.4
11/02/2014 2:31:00 AM	3.51	33.9
11/02/2014 3:48:00 AM	3.50	33.5
11/02/2014 4:35:00 AM	3.52	35.8
11/02/2014 4:36:00 AM	3.61	37.8
11/02/2014 4:38:00 AM	3.54	40.1
11/02/2014 4:39:00 AM	4.01	33.9
11/02/2014 4:40:00 AM	3.82	33.4
11/02/2014 4:41:00 AM	4.25	33.4
11/02/2014 4:42:00 AM	4.18	34.0
11/02/2014 4:43:00 AM	4.02	40.0
11/02/2014 4:44:00 AM	3.84	35.6
11/02/2014 4:45:00 AM	3.67	34.2
11/02/2014 4:46:00 AM	4.14	33.5
11/02/2014 4:47:00 AM	4.14	34.4
11/02/2014 4:48:00 AM	3.53	36.8
11/02/2014 4:53:00 AM	3.55	32.3
11/02/2014 4:54:00 AM	3.56	32.4
11/02/2014 4:55:00 AM	3.53	33.1
11/02/2014 4:56:00 AM	3.51	32.5
11/02/2014 4:57:00 AM	3.51	32.5
11/03/2014 11:18:00 PM	3.69	46.6
11/03/2014 11:26:00 PM	3.53	47.5
11/03/2014 11:27:00 PM	3.56	48.1
11/03/2014 11:31:00 PM	3.81	47.2
11/03/2014 11:32:00 PM	3.74	47.1
11/03/2014 11:33:00 PM	3.58	47.5
11/03/2014 11:34:00 PM	3.75	46.2
11/03/2014 11:35:00 PM	3.63	45.8
11/03/2014 11:36:00 PM	3.77	45.9
11/03/2014 11:38:00 PM	3.62	48.2
11/03/2014 11:40:00 PM	3.64	46.6
11/03/2014 11:42:00 PM	3.66	48.1
11/03/2014 11:44:00 PM	3.81	47.4
11/03/2014 11:45:00 PM	3.73	47.0
11/03/2014 11:46:00 PM	3.85	46.8

**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
11/03/2014 11:47:00 PM	3.98	46.5
11/03/2014 11:48:00 PM	3.83	46.6
11/03/2014 11:49:00 PM	3.95	47.2
11/03/2014 11:50:00 PM	3.79	47.6
11/03/2014 11:51:00 PM	3.57	47.5
11/03/2014 11:55:00 PM	3.65	47.0
11/03/2014 11:56:00 PM	3.66	47.0
11/03/2014 11:57:00 PM	3.95	47.1
11/03/2014 11:58:00 PM	3.92	46.1
11/03/2014 11:59:00 PM	3.82	46.2
11/04/2014 12:01:00 AM	3.82	46.5
11/04/2014 12:02:00 AM	3.80	46.0
11/04/2014 12:04:00 AM	3.96	45.1
11/04/2014 12:05:00 AM	3.97	44.7
11/04/2014 12:06:00 AM	3.98	45.0
11/04/2014 12:07:00 AM	3.97	45.6
11/04/2014 12:09:00 AM	3.86	46.2
11/04/2014 12:10:00 AM	3.81	46.1
11/04/2014 12:11:00 AM	3.51	47.0
11/04/2014 12:20:00 AM	3.77	46.2
11/04/2014 12:21:00 AM	3.74	46.2
11/04/2014 12:22:00 AM	3.83	47.2
11/04/2014 12:23:00 AM	4.00	47.9
11/04/2014 12:24:00 AM	4.14	48.0
11/04/2014 12:25:00 AM	4.13	46.6
11/04/2014 12:26:00 AM	3.90	47.9
11/04/2014 12:29:00 AM	4.53	48.1
11/04/2014 12:30:00 AM	4.06	47.9
11/04/2014 12:31:00 AM	4.29	48.1
11/04/2014 12:36:00 AM	4.08	47.3
11/04/2014 12:40:00 AM	4.14	48.2
11/04/2014 12:41:00 AM	4.03	47.7
11/04/2014 12:42:00 AM	3.93	47.7
11/04/2014 12:43:00 AM	3.60	48.0
11/04/2014 12:44:00 AM	4.30	47.7
11/04/2014 12:45:00 AM	4.44	47.7
11/04/2014 12:47:00 AM	3.86	48.2
11/04/2014 12:49:00 AM	4.22	48.0
11/04/2014 12:50:00 AM	4.10	48.2
11/04/2014 12:51:00 AM	4.17	47.9
11/04/2014 12:52:00 AM	3.63	47.9
11/04/2014 12:55:00 AM	4.77	48.9
11/04/2014 12:59:00 AM	4.19	47.8
11/04/2014 1:00:00 AM	4.39	47.3
11/04/2014 1:02:00 AM	4.32	47.3
11/04/2014 1:03:00 AM	4.53	47.9
11/04/2014 1:06:00 AM	4.56	46.7
11/04/2014 1:07:00 AM	4.33	46.6
11/04/2014 1:08:00 AM	4.42	47.4
11/04/2014 1:13:00 AM	3.75	48.1

**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
11/04/2014 1:15:00 AM	3.60	47.5
11/04/2014 1:16:00 AM	4.11	48.0
11/04/2014 1:17:00 AM	4.26	47.5
11/04/2014 1:19:00 AM	4.70	48.3
11/04/2014 1:20:00 AM	3.94	47.3
11/04/2014 1:22:00 AM	4.46	47.9
11/04/2014 1:23:00 AM	4.38	47.9
11/04/2014 1:24:00 AM	3.96	47.8
11/04/2014 1:25:00 AM	4.50	48.2
11/04/2014 1:28:00 AM	3.60	47.9
11/04/2014 1:29:00 AM	3.86	47.8
11/04/2014 1:30:00 AM	3.73	47.8
11/04/2014 1:32:00 AM	4.36	48.0
11/04/2014 1:33:00 AM	4.82	48.4
11/04/2014 1:34:00 AM	4.22	47.6
11/04/2014 1:35:00 AM	4.32	47.2
11/04/2014 1:38:00 AM	3.90	47.7
11/04/2014 1:39:00 AM	4.79	47.8
11/04/2014 1:41:00 AM	4.58	47.7
11/04/2014 1:42:00 AM	5.03	48.1
11/04/2014 1:43:00 AM	4.73	48.2
11/04/2014 1:44:00 AM	4.19	47.5
11/04/2014 1:46:00 AM	4.22	48.0
11/04/2014 1:48:00 AM	4.82	48.1
11/04/2014 1:49:00 AM	5.28	47.6
11/04/2014 1:50:00 AM	5.36	48.8
11/04/2014 1:51:00 AM	4.77	48.2
11/04/2014 1:52:00 AM	4.02	48.2
11/04/2014 1:54:00 AM	5.39	48.1
11/04/2014 1:56:00 AM	4.60	48.2
11/04/2014 2:00:00 AM	4.19	48.0
11/04/2014 2:01:00 AM	4.79	47.9
11/04/2014 2:03:00 AM	4.62	49.0
11/04/2014 2:04:00 AM	4.92	47.7
11/04/2014 2:05:00 AM	5.45	48.7
11/04/2014 2:08:00 AM	5.86	46.7
11/04/2014 2:09:00 AM	5.40	47.8
11/04/2014 2:10:00 AM	5.10	47.8
11/04/2014 2:11:00 AM	5.13	47.1
11/04/2014 2:13:00 AM	5.47	48.2
11/04/2014 2:14:00 AM	3.93	48.0
11/04/2014 2:15:00 AM	4.28	47.7
11/04/2014 2:16:00 AM	4.75	48.3
11/04/2014 2:19:00 AM	3.87	48.0
11/04/2014 2:20:00 AM	5.08	48.5
11/04/2014 2:22:00 AM	3.91	47.7
11/04/2014 2:27:00 AM	5.68	47.4
11/04/2014 2:28:00 AM	4.80	48.0
11/04/2014 2:30:00 AM	4.58	47.7
11/04/2014 2:31:00 AM	3.82	47.5

**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
11/04/2014 2:32:00 AM	5.69	48.8
11/04/2014 2:33:00 AM	4.80	48.1
11/04/2014 2:34:00 AM	4.35	47.6
11/04/2014 2:35:00 AM	5.04	47.9
11/04/2014 2:37:00 AM	4.14	47.7
11/04/2014 2:38:00 AM	5.06	48.0
11/04/2014 2:41:00 AM	4.87	48.0
11/04/2014 2:42:00 AM	4.74	47.7
11/04/2014 2:43:00 AM	4.14	48.1
11/04/2014 2:44:00 AM	3.59	48.2
11/04/2014 2:46:00 AM	4.93	48.1
11/04/2014 2:47:00 AM	4.83	48.4
11/04/2014 2:49:00 AM	4.24	48.1
11/04/2014 2:50:00 AM	4.88	48.4
11/04/2014 2:51:00 AM	5.02	48.1
11/04/2014 2:54:00 AM	4.92	48.2
11/04/2014 2:55:00 AM	4.91	48.9
11/04/2014 2:56:00 AM	4.29	48.2
11/04/2014 2:58:00 AM	4.44	48.1
11/04/2014 3:02:00 AM	4.36	47.5
11/04/2014 3:03:00 AM	5.09	48.2
11/04/2014 3:05:00 AM	5.47	48.1
11/04/2014 3:06:00 AM	4.33	48.1
11/04/2014 3:08:00 AM	3.95	47.9
11/04/2014 3:09:00 AM	4.34	48.0
11/04/2014 3:10:00 AM	5.41	47.4
11/04/2014 3:11:00 AM	4.72	47.3
11/04/2014 3:13:00 AM	4.33	47.9
11/04/2014 3:14:00 AM	4.73	47.6
11/04/2014 3:15:00 AM	3.80	47.8
11/04/2014 3:16:00 AM	4.94	47.6
11/04/2014 3:17:00 AM	5.06	48.2
11/04/2014 3:18:00 AM	5.42	48.0
11/04/2014 3:19:00 AM	4.48	46.6
11/04/2014 3:20:00 AM	3.79	47.0
11/04/2014 3:22:00 AM	3.56	47.3
11/04/2014 3:23:00 AM	4.78	46.8
11/04/2014 3:24:00 AM	4.51	47.0
11/04/2014 3:25:00 AM	3.54	46.7
11/04/2014 3:26:00 AM	4.17	47.7
11/04/2014 3:29:00 AM	4.02	48.2
11/04/2014 3:31:00 AM	4.72	47.6
11/04/2014 3:32:00 AM	4.07	47.6
11/04/2014 3:33:00 AM	3.89	48.2
11/04/2014 3:34:00 AM	4.31	47.3
11/04/2014 3:35:00 AM	3.67	48.1
11/04/2014 3:36:00 AM	4.31	48.2
11/04/2014 3:37:00 AM	3.66	47.9
11/04/2014 3:38:00 AM	4.37	48.0
11/04/2014 3:39:00 AM	5.25	48.0



**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
11/04/2014 3:41:00 AM	4.39	48.1
11/04/2014 3:42:00 AM	4.67	47.6
11/04/2014 3:43:00 AM	3.95	47.7
11/04/2014 3:44:00 AM	4.91	47.9
11/04/2014 3:46:00 AM	4.54	47.4
11/04/2014 3:47:00 AM	4.17	48.1
11/04/2014 3:48:00 AM	4.85	47.8
11/04/2014 3:49:00 AM	4.84	47.3
11/04/2014 3:54:00 AM	4.07	48.2
11/04/2014 3:55:00 AM	4.62	47.8
11/04/2014 4:01:00 AM	3.52	48.1
11/04/2014 4:02:00 AM	5.32	48.6
11/04/2014 4:03:00 AM	4.58	48.4
11/04/2014 4:06:00 AM	4.23	47.9
11/04/2014 4:09:00 AM	4.27	48.2
11/04/2014 4:11:00 AM	4.52	47.6
11/04/2014 4:12:00 AM	4.77	48.1
11/04/2014 4:13:00 AM	5.10	47.6
11/04/2014 4:15:00 AM	4.48	47.9
11/04/2014 4:16:00 AM	5.46	48.0
11/04/2014 4:17:00 AM	4.35	48.0
11/04/2014 4:18:00 AM	4.85	48.1
11/04/2014 4:19:00 AM	4.41	47.6
11/04/2014 4:21:00 AM	5.46	47.5
11/04/2014 4:22:00 AM	4.46	47.7
11/04/2014 4:23:00 AM	4.21	47.9
11/04/2014 4:25:00 AM	4.38	48.0
11/04/2014 4:27:00 AM	4.72	48.1
11/04/2014 4:28:00 AM	4.16	47.9
11/04/2014 4:29:00 AM	3.93	47.7
11/04/2014 4:30:00 AM	3.83	48.1
11/04/2014 4:31:00 AM	4.53	47.9
11/04/2014 4:34:00 AM	4.36	47.7
11/04/2014 4:35:00 AM	5.62	47.2
11/04/2014 4:36:00 AM	4.84	47.4
11/04/2014 4:37:00 AM	5.16	48.2
11/04/2014 4:38:00 AM	4.32	48.2
11/04/2014 4:39:00 AM	4.16	47.8
11/04/2014 4:45:00 AM	4.78	48.6
11/04/2014 4:46:00 AM	4.87	47.7
11/04/2014 4:47:00 AM	4.98	48.1
11/04/2014 4:48:00 AM	5.03	47.5
11/04/2014 4:50:00 AM	5.14	48.1
11/04/2014 4:52:00 AM	5.92	48.6
11/04/2014 4:58:00 AM	4.73	47.7
11/04/2014 5:00:00 AM	3.61	47.1
11/04/2014 5:01:00 AM	4.34	47.6
11/04/2014 5:02:00 AM	3.96	47.5
11/04/2014 5:03:00 AM	4.01	47.4
11/04/2014 5:04:00 AM	3.54	46.9

**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
11/04/2014 5:06:00 AM	4.71	48.0
11/04/2014 5:07:00 AM	5.80	48.4
11/04/2014 5:08:00 AM	4.26	48.1
11/04/2014 5:15:00 AM	3.63	47.8
11/04/2014 5:16:00 AM	4.54	48.5
11/04/2014 5:17:00 AM	4.87	47.9
11/04/2014 5:18:00 AM	5.00	48.5
11/04/2014 5:20:00 AM	4.33	48.0
11/04/2014 5:21:00 AM	5.25	47.2
11/04/2014 5:24:00 AM	4.73	47.9
11/04/2014 5:26:00 AM	4.06	47.6
11/04/2014 5:27:00 AM	4.68	48.8
11/04/2014 5:30:00 AM	3.52	48.0
11/04/2014 5:31:00 AM	4.10	48.2
11/04/2014 5:32:00 AM	4.61	48.9
11/04/2014 5:33:00 AM	4.76	49.0
11/04/2014 5:39:00 AM	4.63	47.8
11/04/2014 5:41:00 AM	4.18	47.7
11/04/2014 5:42:00 AM	4.33	48.1
11/04/2014 5:46:00 AM	5.15	48.4
11/04/2014 5:47:00 AM	6.21	48.3
11/04/2014 5:48:00 AM	4.83	48.1
11/04/2014 5:52:00 AM	5.04	48.5
11/04/2014 5:53:00 AM	5.52	48.5
11/04/2014 5:56:00 AM	4.44	48.2
11/04/2014 5:57:00 AM	4.85	48.3
11/04/2014 5:58:00 AM	4.73	48.5
11/04/2014 11:05:00 PM	5.24	46.1
11/04/2014 11:28:00 PM	6.63	47.4
11/04/2014 11:29:00 PM	6.21	47.5
11/04/2014 11:30:00 PM	5.51	47.1
11/04/2014 11:35:00 PM	6.76	46.7
11/04/2014 11:36:00 PM	6.38	46.4
11/04/2014 11:37:00 PM	6.80	47.9
11/04/2014 11:42:00 PM	6.15	46.2
11/04/2014 11:43:00 PM	6.58	47.4
11/04/2014 11:48:00 PM	6.81	47.2
11/05/2014 12:32:00 AM	6.62	44.9
11/05/2014 12:39:00 AM	5.42	43.3
11/05/2014 12:40:00 AM	5.76	43.5
11/05/2014 12:41:00 AM	6.01	42.0
11/05/2014 12:42:00 AM	4.80	43.3
11/05/2014 12:46:00 AM	5.08	41.3
11/05/2014 12:48:00 AM	3.93	44.8
11/05/2014 12:49:00 AM	4.91	40.7
11/05/2014 12:50:00 AM	5.41	40.1
11/05/2014 12:51:00 AM	4.77	38.9
11/05/2014 12:52:00 AM	5.13	40.9
11/05/2014 12:54:00 AM	5.75	41.2
11/05/2014 12:55:00 AM	4.33	41.2

**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
11/05/2014 12:56:00 AM	4.71	40.4
11/05/2014 12:57:00 AM	4.28	38.1
11/05/2014 12:58:00 AM	5.04	36.8
11/05/2014 1:00:00 AM	4.82	39.7
11/05/2014 1:01:00 AM	4.26	41.8
11/05/2014 1:02:00 AM	3.98	42.9
11/05/2014 1:03:00 AM	4.26	44.0
11/05/2014 3:43:00 AM	3.59	41.9
11/05/2014 3:44:00 AM	3.52	41.3
11/05/2014 3:45:00 AM	3.53	41.8
11/05/2014 3:46:00 AM	3.69	40.7
11/05/2014 3:47:00 AM	4.20	42.8
11/05/2014 3:48:00 AM	3.87	42.5
11/05/2014 3:49:00 AM	3.96	41.9
11/05/2014 3:50:00 AM	3.84	42.4
11/05/2014 3:52:00 AM	3.73	43.0
11/05/2014 3:53:00 AM	3.51	42.2
11/05/2014 3:54:00 AM	3.51	40.9
11/05/2014 3:58:00 AM	3.58	41.7
11/05/2014 3:59:00 AM	3.56	42.1
11/05/2014 4:00:00 AM	3.81	41.9
11/05/2014 4:01:00 AM	3.54	41.3
11/05/2014 4:02:00 AM	3.77	42.7
11/05/2014 4:06:00 AM	3.66	43.3
11/05/2014 4:07:00 AM	3.59	41.8
11/05/2014 4:08:00 AM	3.72	41.5
11/05/2014 4:09:00 AM	3.65	40.9
11/05/2014 4:10:00 AM	3.66	41.7
11/05/2014 4:11:00 AM	3.66	41.4
11/05/2014 4:14:00 AM	3.57	41.4
11/05/2014 4:15:00 AM	3.53	42.5
11/05/2014 4:16:00 AM	3.64	42.3
11/05/2014 4:17:00 AM	3.54	42.4
11/05/2014 4:19:00 AM	3.98	42.6
11/05/2014 4:20:00 AM	3.92	42.7
11/05/2014 4:21:00 AM	4.12	42.3
11/05/2014 4:22:00 AM	3.92	45.3
11/05/2014 4:23:00 AM	4.47	45.4
11/05/2014 4:24:00 AM	4.30	46.3
11/05/2014 4:25:00 AM	4.46	46.7
11/05/2014 4:26:00 AM	4.63	45.9
11/05/2014 4:27:00 AM	4.49	44.2
11/05/2014 4:28:00 AM	4.60	43.4
11/05/2014 4:29:00 AM	4.29	42.5
11/05/2014 4:30:00 AM	3.77	41.6
11/05/2014 4:31:00 AM	3.91	42.2
11/05/2014 4:32:00 AM	4.05	44.2
11/05/2014 4:33:00 AM	4.09	44.2
11/05/2014 4:34:00 AM	4.26	44.9
11/05/2014 4:35:00 AM	4.24	46.0

**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
11/05/2014 4:36:00 AM	4.27	46.5
11/05/2014 4:37:00 AM	4.49	46.7
11/05/2014 4:38:00 AM	4.46	46.6
11/05/2014 4:39:00 AM	4.25	46.2
11/05/2014 4:40:00 AM	4.05	44.4
11/05/2014 4:41:00 AM	4.48	43.4
11/05/2014 4:42:00 AM	4.17	43.6
11/05/2014 4:43:00 AM	4.25	42.4
11/05/2014 4:44:00 AM	4.53	41.5
11/05/2014 4:45:00 AM	4.51	41.7
11/05/2014 4:46:00 AM	4.71	41.9
11/05/2014 4:47:00 AM	4.51	42.3
11/05/2014 4:48:00 AM	4.34	41.3
11/05/2014 4:49:00 AM	4.79	41.4
11/05/2014 4:50:00 AM	4.54	40.8
11/05/2014 4:51:00 AM	5.31	41.6
11/05/2014 4:52:00 AM	5.01	41.5
11/05/2014 4:53:00 AM	4.28	41.6
11/05/2014 4:54:00 AM	4.22	42.0
11/05/2014 4:55:00 AM	3.88	40.9
11/05/2014 4:56:00 AM	4.21	43.5
11/05/2014 4:57:00 AM	4.32	43.9
11/05/2014 4:58:00 AM	4.41	42.1
11/05/2014 4:59:00 AM	4.54	43.0
11/05/2014 5:00:00 AM	4.75	42.7
11/05/2014 5:01:00 AM	4.49	45.9
11/05/2014 5:02:00 AM	4.24	42.2
11/05/2014 5:03:00 AM	4.52	42.3
11/05/2014 5:04:00 AM	4.31	41.4
11/05/2014 5:05:00 AM	4.68	42.1
11/05/2014 5:06:00 AM	4.27	42.7
11/05/2014 5:07:00 AM	4.70	42.5
11/05/2014 5:08:00 AM	4.75	42.0
11/05/2014 5:09:00 AM	4.86	41.9
11/05/2014 5:10:00 AM	4.67	41.8
11/05/2014 5:11:00 AM	4.59	42.4
11/05/2014 5:12:00 AM	4.79	42.4
11/05/2014 5:13:00 AM	4.65	41.9
11/05/2014 5:14:00 AM	4.78	41.7
11/05/2014 5:15:00 AM	4.97	44.0
11/05/2014 5:16:00 AM	4.85	43.5
11/05/2014 5:17:00 AM	4.99	43.1
11/05/2014 5:18:00 AM	5.22	42.8
11/05/2014 5:19:00 AM	4.97	43.1
11/05/2014 5:20:00 AM	4.81	43.2
11/05/2014 5:21:00 AM	4.56	43.2
11/05/2014 5:22:00 AM	4.77	43.3
11/05/2014 5:23:00 AM	5.17	42.9
11/05/2014 5:26:00 AM	4.83	42.3
11/05/2014 5:27:00 AM	4.85	42.7

**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
11/05/2014 5:28:00 AM	4.82	43.0
11/05/2014 5:30:00 AM	5.33	42.3
11/05/2014 5:31:00 AM	5.04	43.5
11/05/2014 5:32:00 AM	5.41	43.1
11/05/2014 5:33:00 AM	5.62	44.2
11/05/2014 5:34:00 AM	5.78	46.9
11/05/2014 5:35:00 AM	5.80	44.2
11/05/2014 5:37:00 AM	5.20	42.8
11/05/2014 5:38:00 AM	5.10	43.6
11/05/2014 5:40:00 AM	5.24	44.7
11/05/2014 5:41:00 AM	5.56	42.9
11/05/2014 5:44:00 AM	4.62	43.1
11/05/2014 5:45:00 AM	5.83	45.1
11/05/2014 5:46:00 AM	5.11	45.4
11/05/2014 5:47:00 AM	5.10	44.2
11/05/2014 5:48:00 AM	5.67	45.6
11/05/2014 5:49:00 AM	4.52	46.9
11/05/2014 5:50:00 AM	5.23	47.0
11/05/2014 5:51:00 AM	5.32	46.7
11/05/2014 5:52:00 AM	5.56	45.8
11/05/2014 5:53:00 AM	5.66	46.8
11/05/2014 5:54:00 AM	6.00	45.9
11/05/2014 5:57:00 AM	4.15	45.5
11/05/2014 5:58:00 AM	5.28	44.0
11/05/2014 5:59:00 AM	5.17	43.4
11/06/2014 4:45:00 AM	3.80	43.9
11/06/2014 4:46:00 AM	3.72	42.4
11/06/2014 5:25:00 AM	3.63	40.3
11/06/2014 5:26:00 AM	3.56	39.9
11/06/2014 5:28:00 AM	3.68	42.1
11/06/2014 5:32:00 AM	3.75	39.1
11/06/2014 5:36:00 AM	3.52	41.7
11/06/2014 5:37:00 AM	3.61	42.1
11/06/2014 5:38:00 AM	3.62	39.5
11/06/2014 5:39:00 AM	3.90	38.4
11/06/2014 5:40:00 AM	3.60	39.1
11/06/2014 5:43:00 AM	3.72	38.6
11/06/2014 5:44:00 AM	3.99	37.0
11/06/2014 5:45:00 AM	3.80	37.6
11/06/2014 5:46:00 AM	3.80	37.0
11/06/2014 5:47:00 AM	3.74	38.4
11/06/2014 5:48:00 AM	3.87	36.6
11/06/2014 5:49:00 AM	3.81	36.8
11/06/2014 5:51:00 AM	3.69	40.6
11/06/2014 5:52:00 AM	3.74	46.1
11/06/2014 5:53:00 AM	3.56	37.5
11/06/2014 11:13:00 PM	7.32	47.1
11/06/2014 11:16:00 PM	6.80	50.0
11/08/2014 4:43:00 AM	3.51	36.7
11/08/2014 5:20:00 AM	3.55	37.7

**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
11/08/2014 5:24:00 AM	3.63	37.8
11/08/2014 5:25:00 AM	4.00	37.1
11/08/2014 5:26:00 AM	3.59	36.5
11/08/2014 5:27:00 AM	3.58	36.7
11/08/2014 5:28:00 AM	3.58	35.2
11/08/2014 5:29:00 AM	3.82	35.1
11/08/2014 5:30:00 AM	3.73	35.3
11/08/2014 5:31:00 AM	3.61	38.0
11/08/2014 5:32:00 AM	3.71	35.2
11/08/2014 5:33:00 AM	3.76	36.7
11/08/2014 5:34:00 AM	3.83	36.0
11/08/2014 5:35:00 AM	3.86	37.1
11/08/2014 5:36:00 AM	3.66	38.6
11/08/2014 5:39:00 AM	3.68	35.8
11/08/2014 5:41:00 AM	3.71	34.8
11/08/2014 5:43:00 AM	3.93	40.8
11/08/2014 5:44:00 AM	3.61	46.6
11/08/2014 5:49:00 AM	3.61	40.7
11/08/2014 5:52:00 AM	3.55	36.0
11/08/2014 5:53:00 AM	3.99	35.0
11/08/2014 5:54:00 AM	3.59	34.9
11/08/2014 5:56:00 AM	3.61	37.5
11/08/2014 5:57:00 AM	3.57	37.2
11/08/2014 5:58:00 AM	3.76	37.4
11/08/2014 5:59:00 AM	4.02	37.1
11/08/2014 11:00:00 PM	3.87	40.9
11/08/2014 11:01:00 PM	4.11	39.8
11/08/2014 11:02:00 PM	3.90	41.0
11/08/2014 11:03:00 PM	3.57	40.4
11/08/2014 11:04:00 PM	3.97	41.2
11/08/2014 11:05:00 PM	3.63	41.6
11/08/2014 11:11:00 PM	3.80	40.5
11/08/2014 11:13:00 PM	3.66	41.9
11/08/2014 11:17:00 PM	3.68	43.3
11/08/2014 11:18:00 PM	3.82	44.4
11/08/2014 11:23:00 PM	3.76	41.7
11/09/2014 12:53:00 AM	3.60	40.9
11/09/2014 2:28:00 AM	3.59	39.5
11/10/2014 12:29:00 AM	3.58	48.1
11/10/2014 12:33:00 AM	3.54	47.7
11/10/2014 12:34:00 AM	3.91	47.7
11/10/2014 12:52:00 AM	3.70	46.8
11/11/2014 12:30:00 AM	3.57	46.5
11/11/2014 12:34:00 AM	3.81	44.9
11/11/2014 12:35:00 AM	3.51	45.4
11/11/2014 12:36:00 AM	4.15	46.0
11/11/2014 12:37:00 AM	3.91	46.1
11/11/2014 12:38:00 AM	3.86	45.7
11/11/2014 12:39:00 AM	3.92	45.5
11/11/2014 12:40:00 AM	4.05	45.1

**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
11/11/2014 12:41:00 AM	4.08	45.3
11/11/2014 12:42:00 AM	3.95	45.1
11/11/2014 12:43:00 AM	4.26	45.1
11/11/2014 12:44:00 AM	3.79	45.2
11/11/2014 12:45:00 AM	3.72	46.4
11/11/2014 12:46:00 AM	4.08	45.3
11/11/2014 12:47:00 AM	3.77	45.3
11/11/2014 12:48:00 AM	4.16	45.0
11/11/2014 12:49:00 AM	4.35	44.9
11/11/2014 12:50:00 AM	4.42	45.0
11/11/2014 12:51:00 AM	4.16	44.7
11/11/2014 12:52:00 AM	4.22	44.7
11/11/2014 12:53:00 AM	3.89	45.0
11/11/2014 12:54:00 AM	4.40	45.8
11/11/2014 12:56:00 AM	4.64	48.1
11/11/2014 12:59:00 AM	4.45	48.0
11/11/2014 1:00:00 AM	4.10	46.6
11/11/2014 1:01:00 AM	3.97	44.9
11/11/2014 1:02:00 AM	4.02	44.9
11/11/2014 1:03:00 AM	4.32	44.7
11/11/2014 1:04:00 AM	3.96	44.2
11/11/2014 1:06:00 AM	3.64	43.7
11/11/2014 1:07:00 AM	3.66	44.7
11/11/2014 1:09:00 AM	3.71	44.3
11/11/2014 1:12:00 AM	4.08	44.2
11/11/2014 1:13:00 AM	3.63	43.9
11/11/2014 1:14:00 AM	3.68	44.4
11/11/2014 1:16:00 AM	3.51	43.9
11/11/2014 1:18:00 AM	3.53	44.0
11/11/2014 1:22:00 AM	3.67	44.9
11/11/2014 1:25:00 AM	3.55	46.4
11/11/2014 1:35:00 AM	3.52	46.5
11/11/2014 1:37:00 AM	3.73	47.2
11/11/2014 1:43:00 AM	3.56	48.1
11/11/2014 1:44:00 AM	3.66	47.4
11/11/2014 1:48:00 AM	3.50	46.2
11/11/2014 1:56:00 AM	3.64	46.9
11/11/2014 1:57:00 AM	3.73	45.9
11/11/2014 1:58:00 AM	3.63	45.6
11/11/2014 1:59:00 AM	3.50	45.5
11/11/2014 2:02:00 AM	3.78	45.3
11/11/2014 2:03:00 AM	3.79	46.0
11/11/2014 2:06:00 AM	3.59	47.7
11/11/2014 2:07:00 AM	3.76	47.7
11/11/2014 2:11:00 AM	3.58	45.7
11/11/2014 2:12:00 AM	3.63	45.5
11/11/2014 2:21:00 AM	3.56	45.1
11/11/2014 2:24:00 AM	3.54	45.7
11/11/2014 2:33:00 AM	3.54	47.3
11/11/2014 2:34:00 AM	3.54	46.7

**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
11/11/2014 2:57:00 AM	3.55	49.1
11/11/2014 3:01:00 AM	3.50	48.2
11/11/2014 3:06:00 AM	3.53	48.5
11/11/2014 3:09:00 AM	3.75	47.8
11/11/2014 3:10:00 AM	3.63	48.5
11/11/2014 3:11:00 AM	3.51	48.6
11/11/2014 3:12:00 AM	3.89	48.6
11/11/2014 3:13:00 AM	3.57	48.0
11/11/2014 3:14:00 AM	3.68	48.5
11/11/2014 3:15:00 AM	3.75	48.0
11/11/2014 3:16:00 AM	3.78	47.8
11/11/2014 3:17:00 AM	3.62	48.6
11/11/2014 3:18:00 AM	3.86	48.7
11/11/2014 3:19:00 AM	3.82	47.0
11/11/2014 3:20:00 AM	3.70	48.3
11/11/2014 3:22:00 AM	3.70	48.8
11/11/2014 3:24:00 AM	3.55	49.0
11/11/2014 3:28:00 AM	3.56	49.0
11/11/2014 3:31:00 AM	3.56	48.6
11/11/2014 3:32:00 AM	3.76	48.9
11/11/2014 3:33:00 AM	3.75	47.7
11/11/2014 3:35:00 AM	3.70	48.3
11/11/2014 3:36:00 AM	3.52	48.5
11/11/2014 3:37:00 AM	3.53	48.2
11/11/2014 3:38:00 AM	3.74	48.5
11/11/2014 3:53:00 AM	3.58	48.8
11/11/2014 3:56:00 AM	3.61	48.9
11/11/2014 3:57:00 AM	3.60	48.2
11/11/2014 4:01:00 AM	3.54	48.2
11/11/2014 4:02:00 AM	3.61	48.8
11/11/2014 4:03:00 AM	3.62	47.5
11/11/2014 4:04:00 AM	3.76	47.0
11/11/2014 4:05:00 AM	3.65	48.1
11/11/2014 4:06:00 AM	3.62	48.1
11/11/2014 4:07:00 AM	3.75	48.1
11/11/2014 4:08:00 AM	3.75	48.0
11/11/2014 4:09:00 AM	3.54	48.1
11/11/2014 4:10:00 AM	3.55	47.9
11/11/2014 4:11:00 AM	3.73	47.5
11/11/2014 4:12:00 AM	3.65	47.4
11/11/2014 4:13:00 AM	3.58	48.2
11/11/2014 4:14:00 AM	3.55	47.8
11/11/2014 4:15:00 AM	3.60	47.1
11/11/2014 4:16:00 AM	3.59	47.4
11/11/2014 4:17:00 AM	3.75	47.7
11/11/2014 4:18:00 AM	3.72	47.3
11/11/2014 4:19:00 AM	3.84	47.8
11/11/2014 4:20:00 AM	3.80	47.7
11/11/2014 4:21:00 AM	3.86	47.4
11/11/2014 4:22:00 AM	3.82	47.5



**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
11/11/2014 4:23:00 AM	3.68	47.9
11/11/2014 4:24:00 AM	3.97	48.1
11/11/2014 4:26:00 AM	3.63	47.9
11/11/2014 4:27:00 AM	3.74	47.2
11/11/2014 4:28:00 AM	3.72	48.6
11/11/2014 4:29:00 AM	3.92	48.2
11/11/2014 4:30:00 AM	3.71	47.7
11/11/2014 4:31:00 AM	3.69	48.1
11/11/2014 4:32:00 AM	3.59	47.8
11/11/2014 4:33:00 AM	3.52	48.0
11/11/2014 4:34:00 AM	3.71	47.9
11/11/2014 4:35:00 AM	3.67	47.9
11/11/2014 4:36:00 AM	3.83	48.5
11/11/2014 4:37:00 AM	3.55	48.0
11/11/2014 4:38:00 AM	3.68	48.2
11/11/2014 4:39:00 AM	3.77	47.5
11/11/2014 4:41:00 AM	3.79	48.1
11/11/2014 4:42:00 AM	3.99	48.1
11/11/2014 4:43:00 AM	3.63	48.2
11/11/2014 4:44:00 AM	3.55	48.2
11/11/2014 4:45:00 AM	3.56	48.3
11/11/2014 4:46:00 AM	3.77	47.6
11/11/2014 4:47:00 AM	3.84	47.6
11/11/2014 4:48:00 AM	3.62	49.1
11/11/2014 4:49:00 AM	3.71	48.4
11/11/2014 4:50:00 AM	3.72	48.4
11/11/2014 4:51:00 AM	3.52	47.5
11/11/2014 4:54:00 AM	4.08	47.7
11/11/2014 4:55:00 AM	3.86	48.3
11/11/2014 4:56:00 AM	3.97	48.3
11/11/2014 4:57:00 AM	3.99	48.7
11/11/2014 4:58:00 AM	4.03	48.5
11/11/2014 5:00:00 AM	3.62	48.0
11/11/2014 5:01:00 AM	3.80	48.3
11/11/2014 5:02:00 AM	3.80	47.7
11/11/2014 5:03:00 AM	3.88	47.5
11/11/2014 5:04:00 AM	3.87	47.4
11/11/2014 5:05:00 AM	3.74	47.8
11/11/2014 5:06:00 AM	3.90	47.3
11/11/2014 5:07:00 AM	3.97	47.8
11/11/2014 5:08:00 AM	3.77	48.3
11/11/2014 5:09:00 AM	3.86	48.1
11/11/2014 5:10:00 AM	3.79	47.5
11/11/2014 5:11:00 AM	3.85	48.0
11/11/2014 5:12:00 AM	3.77	48.4
11/11/2014 5:13:00 AM	3.81	48.5
11/11/2014 5:14:00 AM	3.84	48.5
11/11/2014 5:16:00 AM	3.86	49.0
11/11/2014 5:17:00 AM	3.54	48.0
11/11/2014 5:20:00 AM	3.93	48.1

**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
11/11/2014 5:21:00 AM	4.12	48.8
11/11/2014 5:22:00 AM	4.04	48.4
11/11/2014 5:23:00 AM	4.38	48.8
11/11/2014 5:24:00 AM	4.56	48.9
11/11/2014 5:25:00 AM	4.10	48.4
11/11/2014 5:26:00 AM	4.06	48.7
11/11/2014 5:55:00 AM	3.84	48.8
11/11/2014 6:25:00 AM	4.57	50.1
11/12/2014 12:03:00 AM	5.06	44.1
11/12/2014 12:05:00 AM	6.01	43.6
11/12/2014 12:09:00 AM	5.72	44.7
11/12/2014 12:10:00 AM	4.56	44.6
11/12/2014 12:11:00 AM	3.85	44.4
11/12/2014 12:14:00 AM	4.59	45.3
11/12/2014 12:22:00 AM	4.76	48.4
11/12/2014 12:23:00 AM	4.20	45.8
11/12/2014 12:32:00 AM	6.49	46.8
11/12/2014 12:33:00 AM	6.27	46.9
11/12/2014 12:34:00 AM	6.22	47.4
11/12/2014 12:41:00 AM	6.66	46.1
11/12/2014 12:42:00 AM	6.26	45.0
11/12/2014 12:43:00 AM	6.47	44.0
11/12/2014 12:45:00 AM	5.98	44.3
11/12/2014 12:46:00 AM	5.03	45.3
11/12/2014 12:47:00 AM	5.25	46.5
11/12/2014 12:48:00 AM	5.97	43.8
11/12/2014 12:49:00 AM	5.91	43.9
11/12/2014 12:50:00 AM	6.62	44.5
11/12/2014 12:51:00 AM	5.89	46.2
11/12/2014 12:53:00 AM	5.12	46.0
11/12/2014 12:54:00 AM	4.24	46.4
11/12/2014 12:58:00 AM	5.09	45.1
11/12/2014 12:59:00 AM	3.52	48.0
11/12/2014 1:01:00 AM	5.43	45.5
11/12/2014 1:03:00 AM	6.21	46.1
11/12/2014 1:07:00 AM	4.12	45.9
11/12/2014 1:08:00 AM	4.93	46.6
11/12/2014 1:16:00 AM	5.80	46.4
11/12/2014 1:22:00 AM	5.02	45.4
11/12/2014 1:23:00 AM	4.35	45.9
11/12/2014 1:24:00 AM	3.69	46.7
11/12/2014 1:26:00 AM	4.20	46.0
11/12/2014 1:33:00 AM	3.74	45.1
11/12/2014 1:35:00 AM	4.43	46.5
11/12/2014 1:36:00 AM	3.72	44.3
11/12/2014 1:37:00 AM	4.51	44.6
11/12/2014 1:41:00 AM	6.74	44.7
11/12/2014 1:44:00 AM	5.44	46.7
11/12/2014 1:48:00 AM	6.92	43.0
11/12/2014 1:51:00 AM	4.94	42.2

**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
11/12/2014 1:59:00 AM	4.73	45.1
11/12/2014 2:01:00 AM	3.69	46.1
11/12/2014 2:02:00 AM	4.18	45.1
11/12/2014 2:05:00 AM	4.75	46.5
11/12/2014 2:08:00 AM	4.99	48.4
11/12/2014 2:09:00 AM	5.73	47.4
11/12/2014 2:18:00 AM	5.35	49.0
11/12/2014 2:20:00 AM	6.61	48.0
11/12/2014 2:37:00 AM	5.30	47.4
11/12/2014 2:57:00 AM	6.04	44.9
11/12/2014 3:00:00 AM	4.80	45.4
11/12/2014 3:02:00 AM	3.94	46.3
11/12/2014 3:04:00 AM	4.66	46.7
11/12/2014 3:05:00 AM	4.14	47.9
11/12/2014 3:10:00 AM	6.98	48.4
11/12/2014 3:16:00 AM	7.12	48.3
11/12/2014 3:17:00 AM	7.34	46.1
11/12/2014 3:26:00 AM	5.57	45.2
11/12/2014 3:27:00 AM	5.32	45.6
11/12/2014 3:28:00 AM	6.37	45.1
11/12/2014 3:32:00 AM	6.79	47.0
11/12/2014 3:34:00 AM	4.64	45.5
11/12/2014 3:35:00 AM	4.84	47.8
11/12/2014 3:36:00 AM	4.72	46.2
11/12/2014 3:37:00 AM	4.52	47.0
11/12/2014 3:39:00 AM	5.62	44.7
11/12/2014 3:44:00 AM	5.41	45.9
11/12/2014 3:46:00 AM	5.55	45.3
11/12/2014 3:48:00 AM	4.96	43.1
11/12/2014 3:54:00 AM	5.74	44.4
11/12/2014 3:56:00 AM	5.70	42.8
11/12/2014 3:59:00 AM	4.18	45.3
11/12/2014 4:00:00 AM	5.07	46.8
11/12/2014 4:02:00 AM	5.60	46.7
11/12/2014 4:05:00 AM	3.53	47.1
11/12/2014 4:08:00 AM	4.67	47.5
11/12/2014 4:22:00 AM	6.86	48.7
11/12/2014 4:23:00 AM	6.75	47.8
11/12/2014 4:24:00 AM	5.93	47.3
11/12/2014 4:25:00 AM	5.79	47.0
11/12/2014 4:26:00 AM	6.57	47.6
11/12/2014 4:32:00 AM	6.63	48.8
11/12/2014 4:33:00 AM	7.14	48.3
11/12/2014 4:37:00 AM	5.65	48.9
11/12/2014 4:38:00 AM	7.01	47.4
11/12/2014 4:39:00 AM	6.75	49.5
11/12/2014 4:42:00 AM	7.10	48.6
11/12/2014 4:43:00 AM	6.53	47.9
11/12/2014 4:48:00 AM	6.70	45.5
11/12/2014 4:49:00 AM	7.16	46.1

**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
11/12/2014 4:52:00 AM	6.98	48.9
11/12/2014 4:54:00 AM	4.52	49.0
11/12/2014 4:56:00 AM	6.84	46.5
11/12/2014 4:57:00 AM	4.74	45.6
11/12/2014 5:03:00 AM	5.72	45.8
11/12/2014 5:07:00 AM	5.50	48.3
11/12/2014 5:14:00 AM	5.65	47.4
11/12/2014 5:17:00 AM	5.50	46.5
11/12/2014 5:35:00 AM	5.04	44.0
11/12/2014 5:36:00 AM	4.66	43.6
11/12/2014 5:37:00 AM	5.11	44.1
11/12/2014 5:43:00 AM	4.51	44.6
11/12/2014 5:45:00 AM	3.59	47.3
11/12/2014 5:49:00 AM	5.56	45.6
11/12/2014 5:51:00 AM	4.44	46.1
11/12/2014 5:53:00 AM	4.59	45.8
11/12/2014 5:55:00 AM	5.12	44.5
11/12/2014 5:59:00 AM	5.59	47.0
11/12/2014 6:00:00 AM	6.09	47.1
11/12/2014 6:01:00 AM	5.14	49.5
11/12/2014 6:05:00 AM	4.48	45.8
11/12/2014 6:24:00 AM	5.09	44.9
11/12/2014 6:27:00 AM	3.73	46.7
11/12/2014 6:28:00 AM	4.16	48.7
11/12/2014 6:34:00 AM	4.64	48.4
11/12/2014 6:42:00 AM	6.76	46.5
11/12/2014 6:57:00 AM	4.60	49.2
11/12/2014 6:58:00 AM	6.79	46.6
11/15/2014 12:08:00 AM	3.66	47.1
11/15/2014 12:09:00 AM	3.80	46.6
11/15/2014 12:10:00 AM	4.63	46.7
11/15/2014 12:11:00 AM	3.94	46.7
11/15/2014 12:19:00 AM	3.83	47.9
11/15/2014 12:21:00 AM	3.69	46.5
11/15/2014 12:29:00 AM	3.56	47.4
11/15/2014 12:58:00 AM	3.56	47.6
11/15/2014 1:01:00 AM	3.85	46.9
11/15/2014 1:04:00 AM	3.52	46.9
11/15/2014 1:05:00 AM	3.57	46.8
11/15/2014 1:06:00 AM	4.05	46.0
11/15/2014 1:07:00 AM	4.10	44.8
11/15/2014 1:16:00 AM	3.53	46.0
11/15/2014 1:22:00 AM	3.73	47.2
11/15/2014 1:24:00 AM	3.59	44.3
11/15/2014 2:13:00 AM	4.27	46.2
11/15/2014 2:14:00 AM	3.89	48.9
11/15/2014 2:15:00 AM	4.15	47.5
11/15/2014 2:21:00 AM	3.63	48.5
11/15/2014 2:22:00 AM	3.61	47.1
11/15/2014 2:36:00 AM	3.59	47.3

**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
11/15/2014 2:37:00 AM	3.76	45.0
11/15/2014 2:39:00 AM	3.84	46.1
11/15/2014 2:48:00 AM	3.85	46.2
11/15/2014 2:50:00 AM	3.93	45.7
11/15/2014 2:51:00 AM	4.17	46.3
11/15/2014 2:52:00 AM	4.18	46.9
11/15/2014 2:56:00 AM	4.19	45.8
11/15/2014 2:57:00 AM	3.87	45.2
11/15/2014 3:09:00 AM	4.64	45.5
11/15/2014 3:12:00 AM	3.51	45.7
11/15/2014 3:35:00 AM	3.94	48.8
11/15/2014 3:36:00 AM	3.61	48.1
11/15/2014 3:41:00 AM	3.95	46.5
11/15/2014 3:42:00 AM	3.92	48.2
11/15/2014 3:46:00 AM	3.50	45.9
11/15/2014 3:52:00 AM	3.92	47.5
11/15/2014 4:00:00 AM	3.76	46.9
11/15/2014 4:04:00 AM	3.70	46.9
11/15/2014 4:38:00 AM	3.76	47.1
11/15/2014 4:39:00 AM	3.51	45.2
11/15/2014 5:17:00 AM	3.63	47.2
11/15/2014 5:49:00 AM	4.02	44.9
11/15/2014 5:50:00 AM	3.76	45.1
11/15/2014 5:51:00 AM	3.57	47.3
11/15/2014 5:55:00 AM	3.63	46.4
11/15/2014 6:01:00 AM	4.07	46.0
11/15/2014 6:08:00 AM	3.95	44.1
11/15/2014 6:09:00 AM	3.72	45.2
11/15/2014 6:32:00 AM	3.60	46.0
11/15/2014 6:40:00 AM	3.62	44.9
11/15/2014 6:45:00 AM	4.01	45.4
11/15/2014 6:51:00 AM	5.27	47.0
11/15/2014 6:52:00 AM	4.36	45.6
11/15/2014 6:53:00 AM	4.80	46.9
11/15/2014 6:56:00 AM	4.54	44.3
11/15/2014 6:59:00 AM	4.10	45.0
11/16/2014 6:40:00 AM	3.60	40.7
11/18/2014 12:04:00 AM	4.81	43.7
11/18/2014 12:06:00 AM	4.91	45.6
11/18/2014 12:11:00 AM	5.55	48.5
11/18/2014 12:13:00 AM	4.99	48.9
11/18/2014 12:23:00 AM	7.24	43.3
11/18/2014 12:24:00 AM	5.58	44.5
11/18/2014 12:28:00 AM	4.95	43.8
11/18/2014 12:35:00 AM	5.62	45.2
11/18/2014 12:38:00 AM	5.04	43.3
11/18/2014 12:39:00 AM	5.08	43.4
11/18/2014 12:40:00 AM	4.80	45.2
11/18/2014 12:41:00 AM	4.53	44.6
11/18/2014 12:42:00 AM	4.66	44.5

**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
11/18/2014 12:43:00 AM	4.96	45.0
11/18/2014 12:49:00 AM	3.87	43.3
11/18/2014 12:50:00 AM	5.58	46.3
11/18/2014 12:52:00 AM	4.93	43.9
11/18/2014 12:53:00 AM	5.07	44.6
11/18/2014 12:55:00 AM	4.18	43.4
11/18/2014 1:00:00 AM	6.62	44.3
11/18/2014 1:05:00 AM	4.84	42.6
11/18/2014 1:08:00 AM	4.68	42.1
11/18/2014 1:09:00 AM	4.00	42.7
11/18/2014 1:10:00 AM	4.93	41.7
11/18/2014 1:13:00 AM	5.10	41.7
11/18/2014 1:15:00 AM	3.97	41.3
11/18/2014 1:19:00 AM	5.19	42.4
11/18/2014 1:20:00 AM	4.84	41.7
11/18/2014 1:21:00 AM	3.66	41.4
11/18/2014 1:23:00 AM	4.88	42.2
11/18/2014 1:26:00 AM	4.36	42.3
11/18/2014 2:02:00 AM	3.51	43.5
11/18/2014 2:12:00 AM	3.57	44.0
11/18/2014 2:17:00 AM	5.25	46.1
11/18/2014 2:20:00 AM	4.70	47.2
11/18/2014 2:32:00 AM	4.56	40.5
11/18/2014 2:34:00 AM	4.76	40.4
11/18/2014 2:37:00 AM	4.89	41.2
11/18/2014 2:39:00 AM	6.41	44.4
11/18/2014 2:41:00 AM	4.27	47.7
11/18/2014 2:43:00 AM	3.80	47.0
11/18/2014 3:37:00 AM	4.68	43.8
11/18/2014 4:47:00 AM	3.96	42.5
11/18/2014 5:07:00 AM	3.65	43.3
11/18/2014 5:12:00 AM	4.38	46.8
11/18/2014 5:16:00 AM	3.72	44.1
11/18/2014 5:44:00 AM	4.52	45.1
11/18/2014 5:45:00 AM	3.75	45.1
11/18/2014 6:38:00 AM	3.80	44.7
11/18/2014 6:50:00 AM	3.59	44.2
11/20/2014 6:29:00 AM	3.82	46.8
11/20/2014 6:30:00 AM	4.78	46.4
11/20/2014 6:34:00 AM	4.37	43.8
11/20/2014 6:35:00 AM	4.85	44.4
11/20/2014 6:36:00 AM	3.62	44.6
11/20/2014 6:38:00 AM	4.38	43.6
11/20/2014 6:40:00 AM	4.25	43.3
11/20/2014 6:41:00 AM	4.53	45.1
11/20/2014 6:51:00 AM	3.70	44.3
11/20/2014 6:56:00 AM	3.59	44.0
11/20/2014 6:58:00 AM	4.36	44.3
11/21/2014 12:22:00 AM	3.58	42.9
11/21/2014 12:27:00 AM	3.57	43.8

**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
11/21/2014 12:41:00 AM	3.95	43.2
11/21/2014 12:45:00 AM	3.54	42.7
11/21/2014 12:59:00 AM	3.59	40.5
11/21/2014 1:06:00 AM	4.02	44.5
11/21/2014 1:10:00 AM	3.78	42.7
11/21/2014 1:19:00 AM	3.54	42.7
11/21/2014 1:22:00 AM	3.88	40.9
11/21/2014 1:24:00 AM	3.69	44.1
11/21/2014 1:25:00 AM	3.64	41.2
11/21/2014 1:33:00 AM	3.84	44.6
11/21/2014 1:35:00 AM	3.64	44.2
11/21/2014 1:48:00 AM	4.00	40.8
11/21/2014 1:50:00 AM	3.62	41.9
11/21/2014 1:58:00 AM	3.56	42.0
11/21/2014 2:58:00 AM	3.87	42.2
11/21/2014 4:13:00 AM	3.55	44.4
11/21/2014 5:07:00 AM	3.79	43.8
11/21/2014 5:13:00 AM	3.51	45.2
11/21/2014 5:21:00 AM	3.56	44.5
11/21/2014 5:57:00 AM	3.78	44.9
11/22/2014 12:00:00 AM	4.53	44.6
11/22/2014 12:01:00 AM	4.57	44.5
11/22/2014 12:02:00 AM	4.29	44.2
11/22/2014 12:03:00 AM	4.90	44.0
11/22/2014 12:04:00 AM	4.27	44.3
11/22/2014 12:05:00 AM	4.74	44.5
11/22/2014 12:06:00 AM	4.22	44.6
11/22/2014 12:07:00 AM	4.82	44.8
11/22/2014 12:08:00 AM	4.12	45.2
11/22/2014 12:09:00 AM	4.58	44.7
11/22/2014 12:10:00 AM	4.71	45.5
11/22/2014 12:11:00 AM	4.53	44.7
11/22/2014 12:12:00 AM	4.88	45.4
11/22/2014 12:13:00 AM	4.65	44.8
11/22/2014 12:15:00 AM	4.14	44.3
11/22/2014 12:16:00 AM	4.26	44.1
11/22/2014 12:17:00 AM	4.38	44.4
11/22/2014 12:18:00 AM	3.83	44.3
11/22/2014 12:19:00 AM	3.75	44.2
11/22/2014 12:20:00 AM	4.70	43.6
11/22/2014 12:21:00 AM	4.09	43.7
11/22/2014 12:22:00 AM	4.03	44.1
11/22/2014 12:23:00 AM	3.80	43.8
11/22/2014 12:24:00 AM	3.97	43.9
11/22/2014 12:25:00 AM	4.16	44.8
11/22/2014 12:27:00 AM	3.85	46.2
11/22/2014 12:28:00 AM	3.71	45.6
11/22/2014 12:29:00 AM	3.55	44.9
11/22/2014 12:31:00 AM	3.85	45.2
11/22/2014 12:32:00 AM	4.16	44.2

**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
11/22/2014 12:33:00 AM	4.00	44.3
11/22/2014 12:34:00 AM	3.85	44.9
11/22/2014 12:35:00 AM	4.18	44.4
11/22/2014 12:36:00 AM	3.71	44.8
11/22/2014 12:37:00 AM	4.50	44.3
11/22/2014 12:38:00 AM	3.90	45.4
11/22/2014 12:39:00 AM	4.07	44.3
11/22/2014 12:40:00 AM	4.48	44.7
11/22/2014 12:42:00 AM	4.16	46.0
11/22/2014 12:43:00 AM	4.87	45.6
11/22/2014 12:45:00 AM	5.34	45.2
11/22/2014 12:46:00 AM	5.73	45.7
11/22/2014 12:47:00 AM	4.58	45.7
11/22/2014 12:48:00 AM	5.04	45.7
11/22/2014 12:49:00 AM	4.63	45.7
11/22/2014 12:50:00 AM	5.11	46.9
11/22/2014 12:51:00 AM	5.58	47.6
11/22/2014 12:52:00 AM	4.97	48.1
11/22/2014 12:53:00 AM	5.28	47.5
11/22/2014 12:54:00 AM	5.26	47.9
11/22/2014 12:55:00 AM	5.35	47.2
11/22/2014 12:56:00 AM	5.36	46.5
11/22/2014 12:57:00 AM	5.22	45.3
11/22/2014 12:58:00 AM	5.12	45.1
11/22/2014 12:59:00 AM	5.08	45.2
11/22/2014 1:01:00 AM	5.39	45.5
11/22/2014 1:02:00 AM	5.61	44.8
11/22/2014 1:03:00 AM	5.56	44.5
11/22/2014 1:04:00 AM	5.52	44.9
11/22/2014 1:05:00 AM	5.13	45.0
11/22/2014 1:06:00 AM	5.72	45.7
11/22/2014 1:07:00 AM	5.78	45.4
11/22/2014 1:08:00 AM	5.46	45.2
11/22/2014 1:09:00 AM	5.41	45.3
11/22/2014 1:10:00 AM	5.08	44.9
11/22/2014 1:12:00 AM	5.13	43.8
11/22/2014 1:13:00 AM	4.86	44.2
11/22/2014 1:14:00 AM	4.91	44.4
11/22/2014 1:15:00 AM	4.87	44.4
11/22/2014 1:16:00 AM	4.86	44.8
11/22/2014 1:17:00 AM	5.04	44.5
11/22/2014 1:18:00 AM	4.67	45.1
11/22/2014 1:19:00 AM	4.71	45.2
11/22/2014 1:20:00 AM	4.67	45.7
11/22/2014 1:21:00 AM	5.01	45.6
11/22/2014 1:22:00 AM	4.45	45.4
11/22/2014 1:23:00 AM	4.63	45.5
11/22/2014 1:24:00 AM	4.79	45.6
11/22/2014 1:25:00 AM	4.37	45.8
11/22/2014 1:26:00 AM	5.03	46.1



**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
11/22/2014 1:27:00 AM	4.81	46.6
11/22/2014 1:28:00 AM	5.17	46.9
11/22/2014 1:29:00 AM	4.92	46.3
11/22/2014 1:30:00 AM	4.97	45.6
11/22/2014 1:31:00 AM	4.56	46.0
11/22/2014 1:32:00 AM	4.98	45.5
11/22/2014 1:33:00 AM	4.53	44.6
11/22/2014 1:34:00 AM	4.25	44.4
11/22/2014 1:35:00 AM	4.59	44.2
11/22/2014 1:36:00 AM	4.44	44.1
11/22/2014 1:37:00 AM	4.50	44.3
11/22/2014 1:38:00 AM	4.96	44.3
11/22/2014 1:39:00 AM	4.63	44.1
11/22/2014 1:40:00 AM	5.03	44.1
11/22/2014 1:41:00 AM	4.84	43.6
11/22/2014 1:42:00 AM	4.73	44.2
11/22/2014 1:44:00 AM	4.74	47.8
11/22/2014 1:45:00 AM	4.55	44.1
11/22/2014 1:47:00 AM	4.66	45.9
11/22/2014 1:48:00 AM	4.39	45.1
11/22/2014 1:49:00 AM	4.70	47.0
11/22/2014 1:50:00 AM	4.71	45.4
11/22/2014 1:51:00 AM	4.81	46.1
11/22/2014 1:52:00 AM	4.93	46.9
11/22/2014 1:53:00 AM	4.93	46.9
11/22/2014 1:54:00 AM	4.32	45.9
11/22/2014 1:55:00 AM	4.89	46.2
11/22/2014 1:56:00 AM	4.76	45.0
11/22/2014 1:57:00 AM	4.84	45.5
11/22/2014 1:58:00 AM	4.57	45.3
11/22/2014 1:59:00 AM	5.06	44.3
11/22/2014 2:01:00 AM	5.37	45.1
11/22/2014 2:02:00 AM	5.50	44.8
11/22/2014 2:03:00 AM	5.33	44.5
11/22/2014 2:04:00 AM	5.78	44.7
11/22/2014 2:05:00 AM	5.45	44.9
11/22/2014 2:06:00 AM	5.23	45.0
11/22/2014 2:07:00 AM	5.82	44.4
11/22/2014 2:08:00 AM	5.47	44.9
11/22/2014 2:09:00 AM	5.19	45.4
11/22/2014 2:10:00 AM	5.56	45.3
11/22/2014 2:11:00 AM	5.41	45.3
11/22/2014 2:12:00 AM	5.21	45.4
11/22/2014 2:13:00 AM	5.53	45.6
11/22/2014 2:14:00 AM	5.10	44.9
11/22/2014 2:15:00 AM	5.46	44.8
11/22/2014 2:16:00 AM	5.49	43.9
11/22/2014 2:17:00 AM	5.39	43.8
11/22/2014 2:18:00 AM	5.76	43.8
11/22/2014 2:19:00 AM	5.59	44.5

**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
11/22/2014 2:20:00 AM	5.59	44.0
11/22/2014 2:21:00 AM	5.29	43.6
11/22/2014 2:22:00 AM	5.42	44.0
11/22/2014 2:23:00 AM	5.62	43.8
11/22/2014 2:24:00 AM	5.31	44.3
11/22/2014 2:25:00 AM	5.33	44.8
11/22/2014 2:26:00 AM	5.59	45.3
11/22/2014 2:27:00 AM	5.18	44.4
11/22/2014 2:28:00 AM	4.86	45.5
11/22/2014 2:29:00 AM	5.25	46.0
11/22/2014 2:30:00 AM	5.00	45.2
11/22/2014 2:31:00 AM	4.95	44.5
11/22/2014 2:32:00 AM	5.07	44.9
11/22/2014 2:35:00 AM	5.14	44.7
11/22/2014 2:36:00 AM	5.35	44.9
11/22/2014 2:37:00 AM	5.13	45.1
11/22/2014 2:38:00 AM	5.26	45.3
11/22/2014 2:39:00 AM	5.32	44.7
11/22/2014 2:40:00 AM	4.94	45.8
11/22/2014 2:41:00 AM	5.35	45.2
11/22/2014 2:42:00 AM	5.73	45.0
11/22/2014 2:43:00 AM	5.57	47.1
11/22/2014 2:44:00 AM	5.43	48.0
11/22/2014 2:45:00 AM	5.34	49.7
11/22/2014 2:46:00 AM	5.48	49.9
11/22/2014 2:47:00 AM	5.84	48.0
11/22/2014 2:49:00 AM	5.66	46.1
11/22/2014 2:50:00 AM	5.72	45.1
11/22/2014 2:51:00 AM	5.39	45.1
11/22/2014 2:52:00 AM	5.13	46.1
11/22/2014 2:53:00 AM	5.43	46.7
11/22/2014 2:54:00 AM	5.55	47.1
11/22/2014 2:55:00 AM	5.51	47.4
11/22/2014 2:56:00 AM	5.10	47.6
11/22/2014 2:57:00 AM	5.43	47.2
11/22/2014 2:58:00 AM	5.49	48.4
11/22/2014 2:59:00 AM	5.88	48.0
11/22/2014 3:00:00 AM	5.88	46.6
11/22/2014 3:01:00 AM	5.44	45.8
11/22/2014 3:02:00 AM	5.07	44.6
11/22/2014 3:03:00 AM	5.41	43.9
11/22/2014 3:04:00 AM	5.38	44.0
11/22/2014 3:05:00 AM	5.30	44.1
11/22/2014 3:06:00 AM	5.23	43.4
11/22/2014 3:08:00 AM	4.98	47.6
11/22/2014 3:09:00 AM	5.36	43.6
11/22/2014 3:10:00 AM	5.14	44.2
11/22/2014 3:11:00 AM	5.03	44.1
11/22/2014 3:12:00 AM	5.07	44.0
11/22/2014 3:13:00 AM	4.91	44.3

**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
11/22/2014 3:14:00 AM	5.51	43.7
11/22/2014 3:15:00 AM	5.33	44.4
11/22/2014 3:16:00 AM	4.84	43.6
11/22/2014 3:17:00 AM	5.43	43.6
11/22/2014 3:18:00 AM	5.39	44.5
11/22/2014 3:19:00 AM	5.18	43.7
11/22/2014 3:20:00 AM	5.46	43.4
11/22/2014 3:21:00 AM	5.60	43.8
11/22/2014 3:22:00 AM	5.37	43.5
11/22/2014 3:23:00 AM	5.66	44.0
11/22/2014 3:24:00 AM	5.10	43.7
11/22/2014 3:25:00 AM	5.86	44.4
11/22/2014 3:26:00 AM	4.97	44.1
11/22/2014 3:27:00 AM	5.25	44.0
11/22/2014 3:28:00 AM	5.58	44.4
11/22/2014 3:29:00 AM	5.62	43.7
11/22/2014 3:30:00 AM	5.39	43.8
11/22/2014 3:31:00 AM	5.16	43.4
11/22/2014 3:32:00 AM	5.13	43.9
11/22/2014 3:33:00 AM	5.08	44.0
11/22/2014 3:34:00 AM	4.92	44.0
11/22/2014 3:35:00 AM	5.49	43.4
11/22/2014 3:36:00 AM	5.20	44.3
11/22/2014 3:37:00 AM	4.93	43.8
11/22/2014 3:38:00 AM	5.42	43.7
11/22/2014 3:39:00 AM	5.28	44.7
11/22/2014 3:40:00 AM	5.29	44.5
11/22/2014 3:41:00 AM	5.12	44.0
11/22/2014 3:42:00 AM	5.47	43.9
11/22/2014 3:43:00 AM	5.33	44.1
11/22/2014 3:44:00 AM	5.36	44.7
11/22/2014 3:45:00 AM	5.44	44.0
11/22/2014 3:46:00 AM	5.14	44.4
11/22/2014 3:47:00 AM	5.43	44.9
11/22/2014 3:48:00 AM	5.40	44.6
11/22/2014 3:49:00 AM	5.61	44.8
11/22/2014 3:50:00 AM	5.44	44.3
11/22/2014 3:51:00 AM	4.91	44.7
11/22/2014 3:52:00 AM	5.37	44.2
11/22/2014 3:53:00 AM	5.35	43.7
11/22/2014 3:54:00 AM	5.53	44.3
11/22/2014 3:55:00 AM	5.58	44.2
11/22/2014 3:56:00 AM	5.68	44.0
11/22/2014 3:57:00 AM	5.61	44.2
11/22/2014 3:58:00 AM	5.45	44.4
11/22/2014 3:59:00 AM	5.85	44.2
11/22/2014 4:00:00 AM	5.45	44.1
11/22/2014 4:01:00 AM	5.65	44.1
11/22/2014 4:02:00 AM	5.40	44.0
11/22/2014 4:03:00 AM	5.37	43.9

**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
11/22/2014 4:04:00 AM	5.44	44.6
11/22/2014 4:05:00 AM	5.51	44.5
11/22/2014 4:06:00 AM	5.42	43.6
11/22/2014 4:08:00 AM	5.51	45.3
11/22/2014 4:09:00 AM	5.73	43.9
11/22/2014 4:10:00 AM	5.59	45.5
11/22/2014 4:11:00 AM	5.34	44.9
11/22/2014 4:12:00 AM	5.43	45.6
11/22/2014 4:13:00 AM	5.24	45.2
11/22/2014 4:14:00 AM	5.68	44.8
11/22/2014 4:15:00 AM	5.71	45.0
11/22/2014 4:16:00 AM	5.02	45.5
11/22/2014 4:17:00 AM	5.48	46.6
11/22/2014 4:18:00 AM	5.57	47.3
11/22/2014 4:19:00 AM	5.89	48.2
11/22/2014 4:20:00 AM	5.83	48.7
11/22/2014 4:25:00 AM	6.15	47.7
11/22/2014 4:26:00 AM	6.42	47.3
11/22/2014 4:27:00 AM	6.57	49.9
11/22/2014 4:28:00 AM	6.79	49.4
11/22/2014 4:29:00 AM	6.89	49.9
11/22/2014 4:31:00 AM	7.34	48.3
11/22/2014 4:34:00 AM	7.11	47.9
11/22/2014 4:35:00 AM	7.05	46.9
11/22/2014 4:36:00 AM	6.61	49.7
11/22/2014 4:38:00 AM	7.30	44.7
11/22/2014 4:40:00 AM	7.23	45.1
11/22/2014 4:41:00 AM	7.26	46.6
11/22/2014 4:43:00 AM	6.92	45.3
11/22/2014 4:44:00 AM	7.02	45.9
11/22/2014 4:45:00 AM	6.91	45.3
11/22/2014 4:47:00 AM	6.81	45.4
11/22/2014 4:48:00 AM	6.18	44.4
11/22/2014 4:49:00 AM	6.09	44.2
11/22/2014 4:50:00 AM	6.37	44.3
11/22/2014 4:51:00 AM	7.03	43.9
11/22/2014 4:52:00 AM	6.41	44.2
11/22/2014 4:53:00 AM	6.38	44.2
11/22/2014 4:54:00 AM	6.32	44.3
11/22/2014 4:55:00 AM	6.27	44.7
11/22/2014 4:56:00 AM	5.88	44.9
11/22/2014 4:57:00 AM	6.16	44.0
11/22/2014 4:58:00 AM	5.94	45.5
11/22/2014 4:59:00 AM	5.98	44.3
11/22/2014 5:00:00 AM	5.98	44.9
11/22/2014 5:01:00 AM	5.86	45.2
11/22/2014 5:02:00 AM	5.80	45.7
11/22/2014 5:03:00 AM	5.67	45.7
11/22/2014 5:04:00 AM	5.84	46.4
11/22/2014 5:05:00 AM	5.61	46.4

**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
11/22/2014 5:06:00 AM	5.99	46.0
11/22/2014 5:07:00 AM	5.75	45.5
11/22/2014 5:08:00 AM	6.34	44.8
11/22/2014 5:09:00 AM	6.06	44.7
11/22/2014 5:10:00 AM	6.00	44.1
11/22/2014 5:11:00 AM	6.22	45.9
11/22/2014 5:12:00 AM	6.14	43.4
11/22/2014 5:13:00 AM	6.08	44.2
11/22/2014 5:14:00 AM	6.33	44.0
11/22/2014 5:15:00 AM	6.31	44.0
11/22/2014 5:16:00 AM	6.29	43.9
11/22/2014 5:17:00 AM	6.28	43.5
11/22/2014 5:18:00 AM	5.94	43.9
11/22/2014 5:19:00 AM	6.12	44.5
11/22/2014 5:20:00 AM	5.78	44.5
11/22/2014 5:21:00 AM	6.14	44.2
11/22/2014 5:22:00 AM	5.14	44.3
11/22/2014 5:23:00 AM	5.73	44.1
11/22/2014 5:24:00 AM	5.78	44.3
11/22/2014 5:25:00 AM	5.41	44.4
11/22/2014 5:26:00 AM	5.62	43.9
11/22/2014 5:27:00 AM	5.46	44.4
11/22/2014 5:28:00 AM	5.74	43.8
11/22/2014 5:29:00 AM	5.66	45.1
11/22/2014 5:30:00 AM	5.84	45.8
11/22/2014 5:31:00 AM	5.69	46.3
11/22/2014 5:32:00 AM	5.67	45.4
11/22/2014 5:33:00 AM	5.71	46.0
11/22/2014 5:34:00 AM	5.58	46.6
11/22/2014 5:35:00 AM	5.68	45.3
11/22/2014 5:36:00 AM	5.47	45.1
11/22/2014 5:37:00 AM	5.77	45.6
11/22/2014 5:38:00 AM	5.53	45.4
11/22/2014 5:39:00 AM	5.16	44.6
11/22/2014 5:40:00 AM	5.14	44.3
11/22/2014 5:41:00 AM	5.42	44.2
11/22/2014 5:42:00 AM	5.12	44.1
11/22/2014 5:43:00 AM	5.43	44.6
11/22/2014 5:44:00 AM	5.72	43.8
11/22/2014 5:45:00 AM	5.20	43.7
11/22/2014 5:46:00 AM	5.41	43.9
11/22/2014 5:47:00 AM	6.02	44.2
11/22/2014 5:48:00 AM	5.69	44.3
11/22/2014 5:49:00 AM	5.80	44.0
11/22/2014 5:50:00 AM	5.38	45.3
11/22/2014 5:51:00 AM	5.69	47.8
11/22/2014 5:52:00 AM	5.98	48.3
11/22/2014 5:53:00 AM	5.78	47.7
11/22/2014 5:54:00 AM	5.15	48.1
11/22/2014 5:55:00 AM	5.37	47.8

**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
11/22/2014 5:56:00 AM	5.31	46.6
11/22/2014 5:57:00 AM	5.68	45.7
11/22/2014 5:58:00 AM	5.87	45.6
11/22/2014 5:59:00 AM	5.51	46.5
11/22/2014 6:00:00 AM	5.40	43.8
11/22/2014 6:01:00 AM	5.55	44.6
11/22/2014 6:02:00 AM	5.38	45.0
11/22/2014 6:03:00 AM	4.97	43.9
11/22/2014 6:04:00 AM	5.32	42.8
11/22/2014 6:05:00 AM	5.28	43.6
11/22/2014 6:06:00 AM	5.34	43.2
11/22/2014 6:07:00 AM	5.70	43.2
11/22/2014 6:08:00 AM	6.31	43.7
11/22/2014 6:09:00 AM	5.91	44.1
11/22/2014 6:10:00 AM	4.80	43.4
11/22/2014 6:11:00 AM	5.70	43.4
11/22/2014 6:12:00 AM	5.54	45.2
11/22/2014 6:13:00 AM	5.39	44.8
11/22/2014 6:14:00 AM	4.80	44.1
11/22/2014 6:15:00 AM	5.34	42.9
11/22/2014 6:16:00 AM	5.17	43.5
11/22/2014 6:17:00 AM	4.86	45.1
11/22/2014 6:18:00 AM	5.47	44.8
11/22/2014 6:19:00 AM	5.50	44.4
11/22/2014 6:20:00 AM	5.18	43.9
11/22/2014 6:21:00 AM	5.15	43.8
11/22/2014 6:22:00 AM	5.75	45.5
11/22/2014 6:23:00 AM	5.33	46.2
11/22/2014 6:24:00 AM	5.63	44.9
11/22/2014 6:25:00 AM	5.23	43.5
11/22/2014 6:26:00 AM	5.41	44.4
11/22/2014 6:27:00 AM	6.00	44.3
11/22/2014 6:28:00 AM	5.77	44.0
11/22/2014 6:29:00 AM	5.56	45.0
11/22/2014 6:30:00 AM	5.06	44.3
11/22/2014 6:31:00 AM	5.55	47.0
11/22/2014 6:32:00 AM	5.46	43.9
11/22/2014 6:33:00 AM	6.06	44.7
11/22/2014 6:35:00 AM	5.78	47.0
11/22/2014 6:36:00 AM	5.93	44.6
11/22/2014 6:37:00 AM	5.68	45.8
11/22/2014 6:38:00 AM	5.32	45.7
11/22/2014 6:39:00 AM	5.84	44.4
11/22/2014 6:40:00 AM	5.70	44.7
11/22/2014 6:42:00 AM	5.53	47.3
11/22/2014 6:43:00 AM	5.98	47.9
11/22/2014 6:44:00 AM	5.77	45.0
11/22/2014 6:45:00 AM	5.79	46.9
11/22/2014 6:46:00 AM	6.11	47.2
11/22/2014 6:47:00 AM	6.32	46.2

**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
11/22/2014 6:48:00 AM	6.20	47.1
11/22/2014 6:49:00 AM	5.66	46.8
11/22/2014 6:50:00 AM	5.94	43.8
11/22/2014 6:51:00 AM	6.01	43.2
11/22/2014 6:52:00 AM	6.76	45.5
11/22/2014 6:54:00 AM	6.07	45.3
11/22/2014 6:55:00 AM	6.48	44.8
11/22/2014 6:56:00 AM	6.33	45.4
11/22/2014 6:57:00 AM	6.45	44.7
11/22/2014 6:58:00 AM	6.70	45.5
11/22/2014 6:59:00 AM	6.63	47.4
11/23/2014 6:00:00 AM	3.99	45.2
11/23/2014 6:01:00 AM	3.95	44.3
11/23/2014 6:02:00 AM	4.47	44.7
11/23/2014 6:03:00 AM	4.74	44.3
11/23/2014 6:04:00 AM	3.59	44.6
11/23/2014 6:05:00 AM	3.77	44.8
11/23/2014 6:06:00 AM	3.85	44.5
11/23/2014 6:07:00 AM	3.93	44.6
11/23/2014 6:08:00 AM	3.95	44.9
11/23/2014 6:09:00 AM	3.93	44.5
11/23/2014 6:10:00 AM	3.74	44.4
11/23/2014 6:11:00 AM	3.94	44.2
11/23/2014 6:12:00 AM	4.05	44.3
11/23/2014 6:13:00 AM	3.81	44.2
11/23/2014 6:14:00 AM	3.78	44.1
11/23/2014 6:15:00 AM	3.77	43.7
11/23/2014 6:16:00 AM	3.87	43.8
11/23/2014 6:17:00 AM	3.99	44.2
11/23/2014 6:18:00 AM	3.86	44.0
11/23/2014 6:19:00 AM	3.77	44.0
11/23/2014 6:20:00 AM	3.87	44.3
11/23/2014 6:21:00 AM	3.95	45.2
11/23/2014 6:22:00 AM	3.75	44.9
11/23/2014 6:23:00 AM	3.60	44.6
11/23/2014 6:24:00 AM	3.53	44.3
11/23/2014 6:25:00 AM	3.96	44.4
11/23/2014 6:26:00 AM	4.37	44.5
11/23/2014 6:27:00 AM	4.38	45.0
11/23/2014 6:29:00 AM	3.59	44.7
11/23/2014 6:30:00 AM	3.59	44.8
11/23/2014 6:31:00 AM	3.54	44.6
11/23/2014 6:33:00 AM	4.19	44.6
11/23/2014 6:34:00 AM	3.69	44.9
11/23/2014 6:35:00 AM	3.83	44.6
11/23/2014 6:36:00 AM	3.60	44.8
11/23/2014 6:38:00 AM	3.69	45.1
11/23/2014 6:40:00 AM	3.55	44.2
11/23/2014 6:41:00 AM	3.54	44.3
11/23/2014 6:43:00 AM	3.70	44.4

**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
11/23/2014 6:44:00 AM	3.51	44.9
11/23/2014 6:45:00 AM	3.50	44.7
11/23/2014 6:49:00 AM	3.84	44.2
11/23/2014 6:50:00 AM	3.75	44.3
11/23/2014 6:51:00 AM	3.77	44.4
11/23/2014 6:52:00 AM	3.86	44.6
11/23/2014 6:53:00 AM	3.92	45.0
11/23/2014 6:54:00 AM	4.00	44.6
11/23/2014 6:55:00 AM	4.07	44.5
11/23/2014 6:56:00 AM	4.11	44.6
11/23/2014 6:57:00 AM	3.79	44.2
11/23/2014 6:58:00 AM	3.89	44.5
11/23/2014 6:59:00 AM	3.84	44.4
11/25/2014 2:32:00 AM	5.91	47.6
11/25/2014 3:02:00 AM	4.61	46.1
11/25/2014 3:18:00 AM	6.00	45.6
11/25/2014 3:24:00 AM	4.58	45.1
11/25/2014 3:25:00 AM	4.21	46.8
11/25/2014 3:27:00 AM	4.81	46.3
11/25/2014 3:28:00 AM	4.85	48.2
11/25/2014 3:34:00 AM	4.75	46.4
11/25/2014 3:35:00 AM	5.60	45.5
11/25/2014 3:43:00 AM	5.41	46.5
11/25/2014 3:50:00 AM	5.45	45.4
11/25/2014 3:52:00 AM	5.88	47.2
11/25/2014 3:54:00 AM	5.10	47.8
11/25/2014 3:56:00 AM	4.24	46.2
11/25/2014 3:59:00 AM	4.53	46.6
11/25/2014 4:02:00 AM	4.95	45.1
11/25/2014 4:06:00 AM	5.32	45.7
11/25/2014 4:16:00 AM	5.20	45.9
11/25/2014 4:21:00 AM	6.30	45.2
11/25/2014 4:26:00 AM	4.90	46.1
11/25/2014 4:29:00 AM	5.20	44.1
11/25/2014 4:39:00 AM	5.09	47.8
11/25/2014 4:45:00 AM	4.78	48.0
11/25/2014 4:46:00 AM	5.67	44.5
11/25/2014 4:50:00 AM	5.87	44.4
11/25/2014 4:51:00 AM	5.31	47.6
11/25/2014 4:53:00 AM	5.58	45.6
11/25/2014 4:56:00 AM	5.24	45.2
11/25/2014 4:59:00 AM	5.41	46.4
11/25/2014 5:00:00 AM	5.19	45.4
11/25/2014 5:01:00 AM	6.84	48.1
11/25/2014 5:04:00 AM	5.39	47.4
11/25/2014 5:05:00 AM	5.11	46.5
11/25/2014 5:06:00 AM	5.04	48.4
11/25/2014 5:07:00 AM	4.80	48.3
11/25/2014 5:08:00 AM	5.88	46.9
11/25/2014 5:40:00 AM	7.44	49.2



**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
11/25/2014 5:53:00 AM	6.95	49.9
11/25/2014 5:57:00 AM	7.41	49.4
11/25/2014 6:03:00 AM	7.35	48.8
11/25/2014 6:06:00 AM	6.57	49.4
11/25/2014 6:10:00 AM	5.40	51.6
11/25/2014 6:13:00 AM	5.99	48.0
11/25/2014 6:22:00 AM	5.82	47.7
11/25/2014 6:44:00 AM	6.69	47.5
11/27/2014 6:46:00 AM	3.51	46.7
11/27/2014 6:47:00 AM	3.65	46.4
11/27/2014 6:48:00 AM	4.13	45.3
11/27/2014 6:49:00 AM	3.76	45.9
11/27/2014 6:52:00 AM	3.60	46.1
11/27/2014 6:56:00 AM	3.58	45.6
11/27/2014 6:57:00 AM	3.56	46.1
11/28/2014 12:00:00 AM	4.53	48.2
11/28/2014 12:01:00 AM	5.03	44.9
11/28/2014 12:02:00 AM	4.29	40.9
11/28/2014 12:03:00 AM	4.54	41.8
11/28/2014 12:04:00 AM	4.50	40.2
11/28/2014 12:05:00 AM	5.27	39.6
11/28/2014 12:06:00 AM	4.13	41.9
11/28/2014 12:07:00 AM	4.11	43.4
11/28/2014 12:10:00 AM	4.19	42.5
11/28/2014 12:11:00 AM	3.94	41.6
11/28/2014 12:13:00 AM	4.14	41.6
11/28/2014 12:14:00 AM	3.69	42.0
11/28/2014 12:15:00 AM	3.60	41.6
11/28/2014 12:16:00 AM	4.15	42.2
11/28/2014 12:17:00 AM	5.09	47.2
11/28/2014 12:19:00 AM	3.76	45.5
11/28/2014 12:21:00 AM	3.64	46.1
11/28/2014 12:22:00 AM	5.00	47.1
11/28/2014 12:23:00 AM	5.31	46.8
11/28/2014 12:24:00 AM	5.28	46.9
11/28/2014 12:26:00 AM	4.30	42.3
11/28/2014 12:29:00 AM	5.99	45.3
11/28/2014 12:30:00 AM	6.64	47.1
11/28/2014 12:31:00 AM	6.26	46.8
11/28/2014 12:32:00 AM	6.60	45.4
11/28/2014 12:33:00 AM	6.67	42.6
11/28/2014 12:34:00 AM	6.30	41.9
11/28/2014 12:35:00 AM	5.45	46.1
11/28/2014 12:36:00 AM	4.85	42.7
11/28/2014 12:37:00 AM	4.96	44.7
11/28/2014 12:39:00 AM	6.16	48.2
11/28/2014 12:42:00 AM	6.59	49.1
11/28/2014 12:43:00 AM	5.23	43.5
11/28/2014 12:44:00 AM	5.28	44.8
11/28/2014 12:45:00 AM	6.41	45.9

**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
11/28/2014 12:51:00 AM	7.35	47.6
11/28/2014 12:52:00 AM	7.40	46.6
11/28/2014 12:53:00 AM	5.35	44.5
11/28/2014 12:54:00 AM	5.75	42.7
11/28/2014 12:55:00 AM	5.22	45.5
11/28/2014 1:04:00 AM	4.90	44.2
11/28/2014 1:05:00 AM	5.52	43.3
11/28/2014 1:09:00 AM	7.49	44.9
11/28/2014 1:10:00 AM	6.14	46.9
11/28/2014 1:14:00 AM	5.53	42.9
11/28/2014 1:15:00 AM	4.89	42.9
11/28/2014 1:16:00 AM	6.71	43.7
11/28/2014 1:17:00 AM	5.63	45.9
11/28/2014 1:18:00 AM	5.23	42.1
11/28/2014 1:19:00 AM	6.72	43.4
11/28/2014 1:20:00 AM	6.58	41.7
11/28/2014 1:21:00 AM	6.61	41.4
11/28/2014 1:22:00 AM	5.20	42.7
11/28/2014 1:24:00 AM	6.05	42.8
11/28/2014 1:26:00 AM	6.09	42.5
11/28/2014 1:27:00 AM	7.49	42.6
11/28/2014 1:30:00 AM	5.48	40.3
11/28/2014 1:31:00 AM	5.92	42.5
11/28/2014 1:32:00 AM	5.58	44.6
11/28/2014 1:34:00 AM	6.00	42.8
11/28/2014 1:37:00 AM	5.69	41.2
11/28/2014 1:38:00 AM	6.06	43.1
11/28/2014 1:40:00 AM	5.30	44.8
11/28/2014 1:41:00 AM	5.60	42.1
11/28/2014 1:42:00 AM	6.25	41.9
11/28/2014 1:43:00 AM	6.51	44.8
11/28/2014 1:44:00 AM	6.07	41.4
11/28/2014 1:45:00 AM	6.05	41.5
11/28/2014 1:46:00 AM	6.35	43.8
11/28/2014 1:47:00 AM	5.26	42.5
11/28/2014 1:48:00 AM	5.10	43.0
11/28/2014 1:49:00 AM	4.30	43.2
11/28/2014 1:50:00 AM	6.03	43.3
11/28/2014 1:51:00 AM	4.93	42.0
11/28/2014 1:52:00 AM	4.70	42.0
11/28/2014 1:54:00 AM	4.86	44.4
11/28/2014 1:55:00 AM	4.74	43.2
11/28/2014 1:56:00 AM	6.02	45.7
11/28/2014 1:57:00 AM	6.08	48.3
11/28/2014 1:58:00 AM	6.32	46.4
11/28/2014 1:59:00 AM	5.76	48.8
11/28/2014 2:01:00 AM	4.96	45.8
11/28/2014 2:02:00 AM	4.96	46.9
11/28/2014 2:03:00 AM	4.75	44.0
11/28/2014 2:04:00 AM	5.22	45.7

**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
11/28/2014 2:05:00 AM	5.60	44.3
11/28/2014 2:06:00 AM	5.84	45.0
11/28/2014 2:07:00 AM	6.99	47.8
11/28/2014 2:08:00 AM	6.94	45.8
11/28/2014 2:09:00 AM	6.97	45.4
11/28/2014 2:11:00 AM	6.40	42.0
11/28/2014 2:12:00 AM	6.83	42.3
11/28/2014 2:13:00 AM	5.89	44.2
11/28/2014 2:14:00 AM	6.21	43.9
11/28/2014 2:16:00 AM	5.93	47.0
11/28/2014 2:17:00 AM	6.90	45.3
11/28/2014 2:18:00 AM	6.49	43.6
11/28/2014 2:19:00 AM	5.66	43.3
11/28/2014 2:20:00 AM	4.55	43.8
11/28/2014 2:21:00 AM	4.62	43.9
11/28/2014 2:22:00 AM	4.01	47.6
11/28/2014 2:23:00 AM	5.31	46.2
11/28/2014 2:24:00 AM	5.90	45.4
11/28/2014 2:25:00 AM	7.16	45.9
11/28/2014 2:26:00 AM	6.41	44.6
11/28/2014 2:27:00 AM	6.21	43.9
11/28/2014 2:28:00 AM	5.55	41.5
11/28/2014 2:29:00 AM	5.44	42.1
11/28/2014 2:30:00 AM	5.37	41.5
11/28/2014 2:31:00 AM	5.44	42.9
11/28/2014 2:33:00 AM	6.02	41.5
11/28/2014 2:34:00 AM	6.13	43.1
11/28/2014 2:35:00 AM	5.93	42.7
11/28/2014 2:36:00 AM	6.05	42.1
11/28/2014 2:37:00 AM	5.42	45.8
11/28/2014 2:38:00 AM	4.59	45.4
11/28/2014 2:39:00 AM	5.09	43.8
11/28/2014 2:40:00 AM	5.49	43.2
11/28/2014 2:41:00 AM	5.31	42.9
11/28/2014 2:42:00 AM	4.70	42.5
11/28/2014 2:43:00 AM	4.50	41.0
11/28/2014 2:45:00 AM	5.13	42.6
11/28/2014 2:46:00 AM	5.36	41.8
11/28/2014 2:47:00 AM	6.35	40.3
11/28/2014 2:48:00 AM	6.25	41.4
11/28/2014 2:49:00 AM	5.77	40.6
11/28/2014 2:50:00 AM	4.84	42.7
11/28/2014 2:51:00 AM	5.56	39.7
11/28/2014 2:52:00 AM	5.38	42.0
11/28/2014 2:53:00 AM	4.69	44.5
11/28/2014 2:54:00 AM	5.66	42.7
11/28/2014 2:55:00 AM	5.35	41.9
11/28/2014 2:56:00 AM	5.04	41.6
11/28/2014 2:57:00 AM	5.17	40.2
11/28/2014 2:58:00 AM	5.19	40.7

**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
11/28/2014 2:59:00 AM	3.92	41.4
11/28/2014 3:00:00 AM	5.29	40.3
11/28/2014 3:01:00 AM	4.33	39.6
11/28/2014 3:02:00 AM	5.48	42.6
11/28/2014 3:03:00 AM	5.97	41.3
11/28/2014 3:04:00 AM	5.01	42.1
11/28/2014 3:05:00 AM	4.57	47.3
11/28/2014 3:06:00 AM	5.04	42.6
11/28/2014 3:07:00 AM	4.73	43.4
11/28/2014 3:08:00 AM	5.08	42.9
11/28/2014 3:09:00 AM	4.94	44.5
11/28/2014 3:11:00 AM	4.16	47.9
11/28/2014 3:12:00 AM	5.41	40.9
11/28/2014 3:13:00 AM	4.64	42.5
11/28/2014 3:14:00 AM	4.76	42.5
11/28/2014 3:16:00 AM	5.56	40.9
11/28/2014 3:17:00 AM	5.45	41.8
11/28/2014 3:18:00 AM	5.48	40.1
11/28/2014 3:19:00 AM	6.04	38.4
11/28/2014 3:20:00 AM	6.79	42.0
11/28/2014 3:21:00 AM	6.94	40.6
11/28/2014 3:22:00 AM	4.92	41.7
11/28/2014 3:23:00 AM	5.30	41.6
11/28/2014 3:24:00 AM	4.65	40.2
11/28/2014 3:25:00 AM	4.27	38.7
11/28/2014 3:26:00 AM	4.80	39.7
11/28/2014 3:27:00 AM	5.09	38.7
11/28/2014 3:28:00 AM	5.12	39.2
11/28/2014 3:29:00 AM	3.76	39.5
11/28/2014 3:30:00 AM	6.07	41.4
11/28/2014 3:31:00 AM	5.31	39.7
11/28/2014 3:32:00 AM	5.66	38.4
11/28/2014 3:33:00 AM	4.70	40.0
11/28/2014 3:34:00 AM	4.17	39.1
11/28/2014 3:35:00 AM	4.01	39.4
11/28/2014 3:36:00 AM	5.27	40.4
11/28/2014 3:37:00 AM	4.66	40.0
11/28/2014 3:38:00 AM	4.03	39.3
11/28/2014 3:39:00 AM	3.72	39.0
11/28/2014 3:40:00 AM	4.87	40.6
11/28/2014 3:41:00 AM	4.42	39.9
11/28/2014 3:42:00 AM	4.00	43.9
11/28/2014 3:43:00 AM	4.51	42.9
11/28/2014 3:44:00 AM	4.78	41.1
11/28/2014 3:45:00 AM	4.89	41.4
11/28/2014 3:46:00 AM	4.55	45.4
11/28/2014 3:47:00 AM	4.51	44.1
11/28/2014 3:48:00 AM	4.02	41.4
11/28/2014 3:49:00 AM	4.45	41.9
11/28/2014 3:50:00 AM	4.99	40.6

**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
11/28/2014 3:51:00 AM	4.36	39.0
11/28/2014 3:52:00 AM	5.57	39.5
11/28/2014 3:53:00 AM	5.24	40.7
11/28/2014 3:54:00 AM	5.09	43.2
11/28/2014 3:55:00 AM	5.01	43.7
11/28/2014 3:56:00 AM	5.38	42.8
11/28/2014 3:57:00 AM	4.73	42.8
11/28/2014 3:58:00 AM	4.55	41.4
11/28/2014 3:59:00 AM	4.03	43.4
11/28/2014 4:00:00 AM	4.35	41.4
11/28/2014 4:01:00 AM	4.42	44.7
11/28/2014 4:02:00 AM	4.65	45.8
11/28/2014 4:03:00 AM	4.38	46.3
11/28/2014 4:04:00 AM	4.95	42.3
11/28/2014 4:05:00 AM	5.99	42.2
11/28/2014 4:06:00 AM	5.23	48.2
11/28/2014 4:07:00 AM	4.89	44.0
11/28/2014 4:08:00 AM	4.10	43.1
11/28/2014 4:09:00 AM	4.01	43.0
11/28/2014 4:10:00 AM	3.93	43.1
11/28/2014 4:12:00 AM	6.36	42.6
11/28/2014 4:13:00 AM	6.71	40.4
11/28/2014 4:14:00 AM	5.51	39.8
11/28/2014 4:15:00 AM	5.48	43.9
11/28/2014 4:16:00 AM	6.65	43.4
11/28/2014 4:17:00 AM	4.96	41.7
11/28/2014 4:18:00 AM	4.41	43.9
11/28/2014 4:19:00 AM	3.79	46.7
11/28/2014 4:20:00 AM	4.30	46.2
11/28/2014 4:21:00 AM	5.19	47.1
11/28/2014 4:22:00 AM	5.29	45.5
11/28/2014 4:23:00 AM	4.60	43.2
11/28/2014 4:24:00 AM	4.54	41.3
11/28/2014 4:25:00 AM	5.43	40.7
11/28/2014 4:27:00 AM	4.50	46.9
11/28/2014 4:28:00 AM	5.38	45.9
11/28/2014 4:29:00 AM	6.41	42.6
11/28/2014 4:30:00 AM	6.03	47.8
11/28/2014 4:32:00 AM	6.21	46.7
11/28/2014 4:33:00 AM	5.03	44.3
11/28/2014 4:34:00 AM	4.36	42.9
11/28/2014 4:35:00 AM	4.50	41.8
11/28/2014 4:36:00 AM	6.94	43.9
11/28/2014 4:38:00 AM	6.41	42.2
11/28/2014 4:39:00 AM	5.20	42.2
11/28/2014 4:40:00 AM	6.45	41.6
11/28/2014 4:41:00 AM	7.22	41.4
11/28/2014 4:42:00 AM	6.26	42.7
11/28/2014 4:43:00 AM	5.42	42.5
11/28/2014 4:44:00 AM	5.22	41.9

**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
11/28/2014 4:45:00 AM	4.17	43.7
11/28/2014 4:46:00 AM	4.02	43.2
11/28/2014 4:47:00 AM	5.46	42.2
11/28/2014 4:48:00 AM	5.25	41.1
11/28/2014 4:49:00 AM	4.62	44.9
11/28/2014 4:50:00 AM	3.80	45.4
11/28/2014 4:51:00 AM	4.53	44.2
11/28/2014 4:52:00 AM	4.37	41.9
11/28/2014 4:53:00 AM	4.79	41.9
11/28/2014 4:54:00 AM	4.58	41.0
11/28/2014 4:55:00 AM	6.02	41.3
11/28/2014 4:56:00 AM	5.04	42.4
11/28/2014 4:57:00 AM	5.25	42.1
11/28/2014 4:58:00 AM	4.71	39.6
11/28/2014 4:59:00 AM	5.89	39.7
11/28/2014 5:00:00 AM	5.06	42.0
11/28/2014 5:01:00 AM	4.26	43.6
11/28/2014 5:03:00 AM	3.70	42.5
11/28/2014 5:04:00 AM	4.19	41.5
11/28/2014 5:05:00 AM	4.51	42.2
11/28/2014 5:06:00 AM	3.84	42.4
11/28/2014 5:07:00 AM	4.70	40.1
11/28/2014 5:08:00 AM	4.47	39.5
11/28/2014 5:09:00 AM	4.88	40.8
11/28/2014 5:10:00 AM	4.56	41.6
11/28/2014 5:11:00 AM	4.93	42.1
11/28/2014 5:12:00 AM	4.31	40.5
11/28/2014 5:13:00 AM	3.91	42.6
11/28/2014 5:14:00 AM	5.29	42.4
11/28/2014 5:15:00 AM	3.92	42.1
11/28/2014 5:16:00 AM	3.78	41.2
11/28/2014 5:19:00 AM	4.18	41.8
11/28/2014 5:20:00 AM	5.13	43.3
11/28/2014 5:21:00 AM	5.27	43.2
11/28/2014 5:22:00 AM	4.66	42.4
11/28/2014 5:23:00 AM	5.23	43.3
11/28/2014 5:24:00 AM	4.55	42.7
11/28/2014 5:25:00 AM	4.23	40.0
11/28/2014 5:26:00 AM	5.07	40.2
11/28/2014 5:27:00 AM	4.98	42.8
11/28/2014 5:28:00 AM	5.19	40.9
11/28/2014 5:29:00 AM	4.83	39.4
11/28/2014 5:30:00 AM	5.38	39.7
11/28/2014 5:31:00 AM	4.60	40.6
11/28/2014 5:32:00 AM	4.86	40.2
11/28/2014 5:33:00 AM	4.12	43.0
11/28/2014 5:34:00 AM	4.88	44.0
11/28/2014 5:35:00 AM	4.07	41.8
11/28/2014 5:36:00 AM	3.92	42.0
11/28/2014 5:37:00 AM	4.11	41.8

**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
11/28/2014 5:39:00 AM	4.15	40.3
11/28/2014 5:41:00 AM	4.39	39.6
11/28/2014 5:42:00 AM	4.85	38.6
11/28/2014 5:43:00 AM	4.81	40.9
11/28/2014 5:44:00 AM	3.52	42.7
11/28/2014 5:45:00 AM	4.12	40.3
11/28/2014 5:46:00 AM	4.93	40.6
11/28/2014 5:47:00 AM	4.71	40.9
11/28/2014 5:48:00 AM	4.36	41.8
11/28/2014 5:49:00 AM	5.34	39.9
11/28/2014 5:50:00 AM	4.41	41.3
11/28/2014 5:51:00 AM	4.61	41.2
11/28/2014 5:52:00 AM	4.69	41.8
11/28/2014 5:53:00 AM	4.37	42.2
11/28/2014 5:54:00 AM	5.44	42.0
11/28/2014 5:55:00 AM	4.86	40.7
11/28/2014 5:56:00 AM	5.17	43.4
11/28/2014 5:57:00 AM	4.04	42.6
11/28/2014 5:58:00 AM	4.71	41.7
11/28/2014 5:59:00 AM	3.99	39.5
11/28/2014 6:00:00 AM	4.50	41.7
11/28/2014 6:01:00 AM	3.60	41.2
11/28/2014 6:02:00 AM	4.39	42.3
11/28/2014 6:03:00 AM	5.03	44.7
11/28/2014 6:04:00 AM	5.00	40.0
11/28/2014 6:05:00 AM	4.08	39.3
11/28/2014 6:06:00 AM	4.90	40.1
11/28/2014 6:08:00 AM	5.35	42.2
11/28/2014 6:09:00 AM	4.16	41.9
11/28/2014 6:10:00 AM	4.89	40.5
11/28/2014 6:11:00 AM	4.26	40.4
11/28/2014 6:12:00 AM	4.97	41.0
11/28/2014 6:13:00 AM	4.80	42.3
11/28/2014 6:14:00 AM	4.02	40.2
11/28/2014 6:15:00 AM	4.07	39.3
11/28/2014 6:16:00 AM	4.60	42.1
11/28/2014 6:17:00 AM	4.13	49.0
11/28/2014 6:19:00 AM	3.78	43.1
11/28/2014 6:21:00 AM	3.90	42.1
11/28/2014 6:22:00 AM	3.57	42.9
11/28/2014 6:23:00 AM	4.61	41.2
11/28/2014 6:24:00 AM	4.70	41.3
11/28/2014 6:25:00 AM	4.34	40.8
11/28/2014 6:26:00 AM	4.76	42.4
11/28/2014 6:27:00 AM	4.38	44.1
11/28/2014 6:28:00 AM	4.97	43.3
11/28/2014 6:29:00 AM	4.16	43.5
11/28/2014 6:30:00 AM	4.50	44.7
11/28/2014 6:31:00 AM	4.15	40.1
11/28/2014 6:33:00 AM	4.24	45.6

**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
11/28/2014 6:34:00 AM	3.83	39.4
11/28/2014 6:37:00 AM	4.35	42.6
11/28/2014 6:39:00 AM	4.44	42.0
11/28/2014 6:41:00 AM	4.12	41.5
11/28/2014 6:42:00 AM	4.26	44.1
11/28/2014 6:56:00 AM	3.74	37.9
11/28/2014 6:57:00 AM	4.11	38.9
11/28/2014 6:58:00 AM	3.67	38.9
11/28/2014 6:59:00 AM	4.81	41.0
11/29/2014 2:44:00 AM	3.56	36.8
11/29/2014 3:08:00 AM	3.58	36.8
11/29/2014 3:12:00 AM	3.57	37.1
11/29/2014 3:13:00 AM	3.82	38.9
11/29/2014 3:14:00 AM	3.77	36.6
11/29/2014 3:21:00 AM	3.86	36.4
11/29/2014 3:22:00 AM	3.53	36.4
11/29/2014 3:25:00 AM	3.87	36.7
11/29/2014 3:27:00 AM	3.81	36.7
11/29/2014 3:28:00 AM	3.57	37.1
11/29/2014 3:29:00 AM	3.68	37.6
11/29/2014 3:31:00 AM	4.18	37.4
11/29/2014 3:33:00 AM	3.78	36.1
11/29/2014 3:34:00 AM	4.22	36.0
11/29/2014 3:35:00 AM	3.74	35.8
11/29/2014 3:36:00 AM	3.97	36.0
11/29/2014 3:38:00 AM	4.09	35.4
11/29/2014 3:39:00 AM	4.24	35.8
11/29/2014 3:40:00 AM	3.73	36.1
11/29/2014 3:41:00 AM	4.22	36.8
11/29/2014 3:42:00 AM	3.79	37.0
11/29/2014 3:43:00 AM	3.92	37.0
11/29/2014 3:44:00 AM	3.77	35.9
11/29/2014 3:46:00 AM	3.54	35.8
11/29/2014 3:47:00 AM	3.61	35.8
11/29/2014 3:48:00 AM	3.87	35.7
11/29/2014 3:49:00 AM	4.10	35.5
11/29/2014 3:50:00 AM	3.81	36.1
11/29/2014 3:51:00 AM	4.34	36.3
11/29/2014 3:52:00 AM	4.33	35.9
11/29/2014 3:53:00 AM	3.97	37.2
11/29/2014 3:58:00 AM	3.69	36.0
11/29/2014 4:00:00 AM	3.65	36.1
11/29/2014 4:01:00 AM	3.57	35.7
11/29/2014 4:05:00 AM	3.69	38.1
11/29/2014 4:08:00 AM	3.70	38.3
11/29/2014 5:07:00 AM	4.63	37.7
11/29/2014 5:08:00 AM	3.87	38.4
11/29/2014 5:31:00 AM	4.01	40.1
11/29/2014 5:34:00 AM	3.60	43.0
11/29/2014 5:35:00 AM	3.72	45.3



**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
11/29/2014 5:36:00 AM	3.95	46.6
11/29/2014 5:39:00 AM	3.85	45.8
11/29/2014 5:40:00 AM	4.12	44.7
11/29/2014 5:41:00 AM	4.00	45.3
11/29/2014 5:42:00 AM	3.61	44.7
11/29/2014 5:45:00 AM	4.61	38.8
11/29/2014 5:46:00 AM	3.88	44.8
11/29/2014 5:47:00 AM	4.08	40.6
11/29/2014 5:48:00 AM	3.89	43.1
11/29/2014 5:49:00 AM	3.54	45.8
11/29/2014 5:50:00 AM	3.63	45.3
11/29/2014 5:52:00 AM	3.65	38.1
11/29/2014 5:53:00 AM	3.63	38.4
11/29/2014 5:55:00 AM	3.69	36.9
11/29/2014 5:56:00 AM	3.57	36.6
11/29/2014 5:58:00 AM	4.00	39.4
11/29/2014 5:59:00 AM	3.61	42.8
11/29/2014 6:04:00 AM	3.75	47.9
11/29/2014 6:05:00 AM	3.56	44.0
11/29/2014 6:07:00 AM	3.52	41.0
11/29/2014 6:09:00 AM	3.63	40.9
11/29/2014 6:11:00 AM	3.72	39.1
11/29/2014 6:12:00 AM	3.76	38.8
11/29/2014 6:13:00 AM	3.80	38.9
11/29/2014 6:14:00 AM	3.88	38.8
11/29/2014 6:15:00 AM	3.70	38.6
11/29/2014 6:16:00 AM	3.79	38.5
11/29/2014 6:19:00 AM	4.50	38.8
11/29/2014 6:20:00 AM	4.38	38.7
11/29/2014 6:21:00 AM	4.35	38.9
11/29/2014 6:22:00 AM	4.08	38.7
11/29/2014 6:23:00 AM	4.20	38.4
11/29/2014 6:25:00 AM	4.06	38.6
11/29/2014 6:26:00 AM	4.28	39.8
11/29/2014 6:27:00 AM	4.21	39.8
11/29/2014 6:28:00 AM	3.89	39.7
11/29/2014 6:29:00 AM	4.23	39.6
11/29/2014 6:30:00 AM	4.15	38.9
11/29/2014 6:31:00 AM	4.25	39.9
11/29/2014 6:34:00 AM	3.81	40.9
11/29/2014 6:35:00 AM	4.19	42.0
11/29/2014 6:36:00 AM	3.97	40.7
11/29/2014 6:39:00 AM	4.29	46.8
11/29/2014 6:40:00 AM	4.02	48.1
11/29/2014 6:41:00 AM	4.34	46.0
11/29/2014 6:42:00 AM	3.98	44.6
11/29/2014 6:46:00 AM	3.76	38.3
11/29/2014 6:47:00 AM	4.46	38.6
11/29/2014 6:48:00 AM	3.93	40.5
11/29/2014 6:49:00 AM	4.08	44.2

**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
11/29/2014 6:50:00 AM	4.25	46.0
11/29/2014 6:51:00 AM	3.96	46.9
11/29/2014 6:56:00 AM	3.94	48.9
11/29/2014 6:58:00 AM	3.94	47.0
11/30/2014 1:35:00 AM	6.69	49.8
11/30/2014 1:53:00 AM	7.23	49.6
11/30/2014 1:57:00 AM	7.32	48.9
11/30/2014 1:59:00 AM	6.77	49.8
11/30/2014 2:00:00 AM	7.27	47.5
11/30/2014 2:08:00 AM	7.47	48.8
11/30/2014 2:18:00 AM	7.43	47.9
11/30/2014 2:29:00 AM	7.47	49.9
11/30/2014 2:45:00 AM	6.39	48.2
11/30/2014 2:46:00 AM	7.12	46.5
11/30/2014 2:56:00 AM	6.64	45.9
11/30/2014 2:57:00 AM	7.37	45.9
11/30/2014 3:08:00 AM	7.06	50.1
11/30/2014 3:09:00 AM	6.20	46.8
11/30/2014 3:12:00 AM	6.97	47.4
11/30/2014 3:18:00 AM	7.32	45.9
11/30/2014 3:22:00 AM	6.81	46.7
11/30/2014 3:24:00 AM	6.93	48.6
11/30/2014 3:27:00 AM	6.98	47.4
11/30/2014 3:28:00 AM	6.33	47.0
11/30/2014 3:32:00 AM	6.64	49.6
11/30/2014 3:33:00 AM	7.02	47.7
11/30/2014 3:34:00 AM	7.16	46.7
11/30/2014 3:36:00 AM	7.49	47.4
11/30/2014 3:37:00 AM	6.48	46.3
11/30/2014 3:40:00 AM	6.97	49.5
11/30/2014 3:44:00 AM	6.55	47.0
11/30/2014 3:47:00 AM	6.08	48.9
11/30/2014 3:53:00 AM	6.33	47.9
11/30/2014 3:54:00 AM	6.17	48.7
11/30/2014 4:00:00 AM	7.07	49.3
11/30/2014 4:04:00 AM	7.01	48.5
11/30/2014 4:05:00 AM	7.37	49.0
11/30/2014 4:06:00 AM	6.95	48.9
11/30/2014 4:09:00 AM	7.36	49.2
11/30/2014 4:13:00 AM	6.78	44.5
11/30/2014 4:16:00 AM	7.29	46.4
11/30/2014 4:17:00 AM	6.42	47.8
11/30/2014 4:25:00 AM	6.78	48.9
11/30/2014 4:26:00 AM	6.45	47.5
11/30/2014 4:28:00 AM	6.12	48.8
11/30/2014 4:29:00 AM	6.91	48.6
11/30/2014 4:32:00 AM	7.45	48.7
11/30/2014 4:35:00 AM	7.25	44.6
11/30/2014 4:36:00 AM	6.85	45.0
11/30/2014 4:38:00 AM	6.92	47.9

**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
11/30/2014 4:43:00 AM	5.78	47.9
11/30/2014 4:47:00 AM	6.54	49.4
11/30/2014 4:48:00 AM	7.15	46.3
11/30/2014 4:49:00 AM	7.43	48.5
11/30/2014 4:50:00 AM	6.45	47.4
11/30/2014 4:51:00 AM	6.46	48.5
11/30/2014 4:53:00 AM	7.37	45.1
11/30/2014 4:58:00 AM	7.10	48.1
11/30/2014 5:00:00 AM	7.15	47.5
11/30/2014 5:01:00 AM	7.04	48.9
11/30/2014 5:03:00 AM	6.79	49.5
11/30/2014 5:04:00 AM	5.90	48.7
11/30/2014 5:05:00 AM	6.37	47.7
11/30/2014 5:06:00 AM	6.79	47.1
11/30/2014 5:09:00 AM	6.95	45.7
11/30/2014 5:10:00 AM	6.73	45.8
11/30/2014 5:11:00 AM	7.04	48.4
11/30/2014 5:12:00 AM	6.71	47.9
11/30/2014 5:13:00 AM	5.86	48.5
11/30/2014 5:15:00 AM	6.55	48.6
11/30/2014 5:16:00 AM	5.96	48.9
11/30/2014 5:17:00 AM	6.47	47.1
11/30/2014 5:18:00 AM	6.68	48.9
11/30/2014 5:19:00 AM	6.03	46.3
11/30/2014 5:22:00 AM	7.15	49.1
11/30/2014 5:23:00 AM	7.39	48.5
11/30/2014 5:24:00 AM	7.47	45.6
11/30/2014 5:25:00 AM	7.47	44.8
11/30/2014 5:26:00 AM	7.32	46.3
11/30/2014 5:27:00 AM	6.96	46.7
11/30/2014 5:28:00 AM	7.36	46.8
11/30/2014 5:29:00 AM	6.74	45.0
11/30/2014 5:37:00 AM	6.92	47.7
11/30/2014 5:38:00 AM	6.98	45.8
11/30/2014 5:39:00 AM	6.11	48.5
11/30/2014 5:40:00 AM	7.50	48.7
11/30/2014 5:47:00 AM	7.22	47.1
11/30/2014 5:48:00 AM	6.69	49.3
11/30/2014 5:50:00 AM	7.48	48.4
11/30/2014 5:51:00 AM	7.10	48.8
11/30/2014 5:52:00 AM	7.36	49.3
11/30/2014 5:55:00 AM	7.23	47.5
11/30/2014 5:57:00 AM	6.93	48.4
11/30/2014 6:00:00 AM	7.03	47.3
11/30/2014 6:01:00 AM	7.10	47.5
11/30/2014 6:02:00 AM	7.33	46.0
11/30/2014 6:03:00 AM	7.43	48.3
11/30/2014 6:04:00 AM	7.00	50.2
11/30/2014 6:05:00 AM	7.33	48.9
11/30/2014 6:06:00 AM	7.36	50.0

**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
11/30/2014 6:10:00 AM	7.29	48.1
11/30/2014 6:12:00 AM	6.99	48.3
11/30/2014 6:13:00 AM	7.47	48.0
11/30/2014 6:22:00 AM	6.90	50.2
11/30/2014 6:24:00 AM	6.43	48.9
11/30/2014 6:25:00 AM	6.61	49.1
11/30/2014 6:47:00 AM	7.34	49.3
11/30/2014 6:54:00 AM	7.28	48.8
11/30/2014 6:59:00 AM	7.39	49.1
12/01/2014 6:01:00 AM	5.83	42.7
12/01/2014 6:02:00 AM	5.86	42.7
12/01/2014 6:03:00 AM	5.26	45.4
12/01/2014 6:04:00 AM	5.07	45.0
12/01/2014 6:05:00 AM	5.18	46.3
12/01/2014 6:07:00 AM	5.91	47.8
12/01/2014 6:08:00 AM	6.40	46.9
12/01/2014 6:09:00 AM	5.77	43.0
12/01/2014 6:10:00 AM	5.30	44.7
12/01/2014 6:11:00 AM	4.20	46.1
12/01/2014 6:12:00 AM	4.97	45.4
12/01/2014 6:13:00 AM	5.18	46.6
12/01/2014 6:14:00 AM	5.55	46.9
12/01/2014 6:15:00 AM	6.01	46.5
12/01/2014 6:16:00 AM	5.95	44.7
12/01/2014 6:17:00 AM	7.34	46.0
12/01/2014 6:19:00 AM	5.29	43.6
12/01/2014 6:20:00 AM	6.00	45.2
12/01/2014 6:21:00 AM	6.64	46.9
12/01/2014 6:23:00 AM	6.34	45.5
12/01/2014 6:24:00 AM	6.97	43.5
12/01/2014 6:25:00 AM	6.60	46.5
12/01/2014 6:26:00 AM	4.81	46.3
12/01/2014 6:27:00 AM	6.01	42.8
12/01/2014 6:28:00 AM	6.17	45.7
12/01/2014 6:30:00 AM	5.33	46.0
12/01/2014 6:31:00 AM	5.76	47.1
12/01/2014 6:32:00 AM	7.01	46.3
12/01/2014 6:33:00 AM	5.63	43.9
12/01/2014 6:34:00 AM	5.19	47.3
12/01/2014 6:36:00 AM	6.32	48.7
12/01/2014 6:37:00 AM	5.43	45.1
12/01/2014 6:38:00 AM	5.76	44.8
12/01/2014 6:39:00 AM	4.81	46.1
12/01/2014 6:40:00 AM	4.96	47.6
12/01/2014 6:41:00 AM	6.41	47.9
12/01/2014 6:42:00 AM	5.95	47.9
12/01/2014 6:43:00 AM	4.71	46.5
12/01/2014 6:44:00 AM	4.71	45.5
12/01/2014 6:45:00 AM	4.86	45.3
12/01/2014 6:46:00 AM	4.29	47.2

**Table H1 - Valid Total 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
12/01/2014 6:47:00 AM	5.32	49.0
12/01/2014 6:50:00 AM	4.58	46.8
12/01/2014 6:51:00 AM	5.21	47.7
12/01/2014 6:52:00 AM	5.68	46.5
12/01/2014 6:53:00 AM	4.96	47.5
12/01/2014 6:55:00 AM	5.41	45.2
12/01/2014 6:57:00 AM	6.55	45.0
12/01/2014 6:58:00 AM	7.32	44.5
12/02/2014 12:01:00 AM	5.65	39.0
12/02/2014 12:03:00 AM	4.93	44.5
12/02/2014 12:04:00 AM	5.01	45.0
12/02/2014 12:05:00 AM	4.83	44.2
12/02/2014 12:06:00 AM	5.13	45.3
12/02/2014 12:07:00 AM	4.40	47.0
12/02/2014 12:09:00 AM	4.21	40.1
12/02/2014 12:10:00 AM	3.99	40.3
12/02/2014 12:11:00 AM	4.12	40.4
12/02/2014 12:12:00 AM	4.73	42.8
12/02/2014 12:13:00 AM	3.94	43.0
12/02/2014 12:16:00 AM	3.52	42.7
12/02/2014 12:22:00 AM	4.28	39.8
12/02/2014 12:23:00 AM	4.06	41.9
12/02/2014 12:24:00 AM	4.93	40.6
12/02/2014 12:25:00 AM	4.53	45.2
12/02/2014 12:26:00 AM	4.68	47.1
12/02/2014 12:27:00 AM	5.21	43.4
12/02/2014 12:28:00 AM	4.47	42.1
12/02/2014 12:29:00 AM	5.00	43.1
12/02/2014 12:30:00 AM	4.30	41.7
12/02/2014 12:31:00 AM	4.85	44.0
12/02/2014 12:32:00 AM	4.29	43.7
12/02/2014 12:34:00 AM	4.31	41.3
12/02/2014 12:37:00 AM	4.01	44.1
12/02/2014 12:38:00 AM	4.40	42.5
12/02/2014 12:39:00 AM	5.15	38.9
12/02/2014 12:40:00 AM	4.95	40.3
12/02/2014 12:41:00 AM	4.64	40.2
12/02/2014 12:42:00 AM	4.65	41.3
12/02/2014 12:43:00 AM	4.38	43.7
12/02/2014 12:44:00 AM	4.00	41.4
12/02/2014 12:45:00 AM	3.90	41.0
12/02/2014 12:46:00 AM	4.51	40.6
12/02/2014 12:47:00 AM	4.37	40.7
12/02/2014 12:50:00 AM	3.52	45.1
12/02/2014 12:51:00 AM	4.34	43.3
12/02/2014 12:52:00 AM	3.85	43.9
12/02/2014 1:07:00 AM	3.59	42.1
12/02/2014 1:08:00 AM	3.51	43.1
12/02/2014 1:10:00 AM	3.55	36.0
12/02/2014 2:28:00 AM	3.52	37.6

**Table H2 - Valid Total 1-Minute Sound Data - Monitor B - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
10/12/2014 10:11:00 PM	3.72	42.2
10/12/2014 10:13:00 PM	3.65	42.6
10/12/2014 10:15:00 PM	3.83	43.2
10/12/2014 11:22:00 PM	3.73	42.6
10/12/2014 11:23:00 PM	3.79	44.7
10/12/2014 11:24:00 PM	3.73	41.6
10/12/2014 11:25:00 PM	3.71	42.7
10/12/2014 11:26:00 PM	4.01	42.8
10/12/2014 11:27:00 PM	4.26	43.2
10/12/2014 11:28:00 PM	4.33	42.5
10/12/2014 11:30:00 PM	4.93	42.1
10/12/2014 11:32:00 PM	3.88	41.8
10/12/2014 11:36:00 PM	4.25	42.9
10/12/2014 11:37:00 PM	4.14	43.2
10/12/2014 11:38:00 PM	4.51	42.7
10/12/2014 11:39:00 PM	4.81	41.2
10/12/2014 11:40:00 PM	4.42	46.0
10/12/2014 11:41:00 PM	3.55	42.3
10/12/2014 11:42:00 PM	4.27	43.5
10/12/2014 11:43:00 PM	4.31	46.5
10/12/2014 11:44:00 PM	3.64	49.0
10/12/2014 11:48:00 PM	3.96	45.6
10/12/2014 11:51:00 PM	3.95	45.4
10/12/2014 11:52:00 PM	3.91	41.3
10/12/2014 11:53:00 PM	3.84	42.0
10/12/2014 11:54:00 PM	4.04	43.4
10/12/2014 11:55:00 PM	3.91	43.8
10/13/2014 12:00:00 AM	4.04	49.2
10/13/2014 12:01:00 AM	3.91	47.8
10/13/2014 12:03:00 AM	3.96	43.7
10/13/2014 12:06:00 AM	3.75	44.1
10/13/2014 12:12:00 AM	4.04	41.9
10/13/2014 12:13:00 AM	3.84	41.0
10/13/2014 12:14:00 AM	4.30	41.5
10/13/2014 12:15:00 AM	4.00	41.0
10/13/2014 12:16:00 AM	3.88	41.3
10/13/2014 12:17:00 AM	4.00	40.6
10/13/2014 12:18:00 AM	4.16	41.6
10/13/2014 12:20:00 AM	4.13	41.4
10/13/2014 12:21:00 AM	3.51	41.3
10/13/2014 12:23:00 AM	3.75	41.4
10/13/2014 12:24:00 AM	3.76	40.5
10/13/2014 12:25:00 AM	3.63	40.1
10/13/2014 12:27:00 AM	3.65	40.9
10/13/2014 12:31:00 AM	3.63	43.6
10/13/2014 12:33:00 AM	3.94	45.5
10/13/2014 12:38:00 AM	3.84	44.7
10/13/2014 12:40:00 AM	3.69	45.1
10/13/2014 12:41:00 AM	3.86	44.1
10/13/2014 12:44:00 AM	3.84	44.3

**Table H2 - Valid Total 1-Minute Sound Data - Monitor B - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
10/13/2014 12:46:00 AM	3.89	44.5
10/13/2014 12:48:00 AM	4.08	41.4
10/13/2014 12:49:00 AM	3.59	42.8
10/13/2014 12:50:00 AM	3.75	42.7
10/13/2014 12:52:00 AM	3.85	40.3
10/13/2014 12:53:00 AM	3.82	40.6
10/13/2014 12:54:00 AM	4.05	40.3
10/13/2014 12:55:00 AM	3.58	40.5
10/13/2014 12:56:00 AM	3.72	40.6
10/13/2014 1:01:00 AM	3.57	40.5
10/13/2014 1:04:00 AM	3.52	40.3
10/13/2014 1:06:00 AM	3.61	40.5
10/13/2014 1:13:00 AM	3.57	48.3
10/13/2014 1:19:00 AM	3.65	40.1
10/13/2014 1:26:00 AM	3.80	39.1
10/13/2014 1:35:00 AM	3.56	40.4
10/13/2014 1:38:00 AM	4.12	40.2
10/13/2014 1:39:00 AM	3.66	42.3
10/13/2014 1:43:00 AM	3.66	40.7
10/13/2014 1:45:00 AM	3.65	39.2
10/13/2014 1:46:00 AM	3.87	40.5
10/13/2014 1:47:00 AM	3.63	41.0
10/13/2014 1:48:00 AM	3.91	41.8
10/13/2014 1:50:00 AM	3.60	40.7
10/13/2014 1:52:00 AM	4.04	41.2
10/13/2014 1:54:00 AM	4.33	41.9
10/13/2014 1:58:00 AM	3.58	39.4
10/13/2014 1:59:00 AM	4.00	39.7
10/13/2014 2:02:00 AM	3.52	41.4
10/13/2014 2:06:00 AM	3.51	41.2
10/13/2014 2:07:00 AM	3.77	40.0
10/13/2014 2:12:00 AM	3.75	39.5
10/13/2014 2:13:00 AM	3.59	39.1
10/13/2014 2:23:00 AM	3.94	39.3
10/13/2014 2:27:00 AM	3.64	40.8
10/17/2014 10:10:00 PM	6.53	50.4
10/17/2014 10:12:00 PM	7.44	49.2
10/17/2014 10:14:00 PM	6.80	49.2
10/17/2014 10:21:00 PM	6.91	48.5
10/17/2014 10:22:00 PM	7.14	48.2
10/17/2014 10:23:00 PM	6.63	52.8
10/17/2014 10:24:00 PM	6.69	48.3
10/17/2014 10:26:00 PM	6.73	48.5
10/17/2014 10:27:00 PM	7.19	46.6
10/17/2014 10:41:00 PM	6.96	46.1
10/17/2014 10:44:00 PM	6.57	48.4
10/17/2014 10:54:00 PM	6.80	44.8
10/18/2014 10:09:00 PM	4.50	44.9
10/18/2014 10:10:00 PM	4.87	43.8
10/18/2014 10:11:00 PM	4.85	45.1

**Table H2 - Valid Total 1-Minute Sound Data - Monitor B - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
10/18/2014 10:12:00 PM	4.40	48.0
10/18/2014 10:13:00 PM	4.52	48.3
10/18/2014 10:14:00 PM	4.10	46.3
10/18/2014 10:15:00 PM	4.58	51.1
10/18/2014 10:16:00 PM	5.07	48.5
10/18/2014 10:17:00 PM	6.36	47.8
10/18/2014 10:19:00 PM	5.36	48.3
10/18/2014 10:20:00 PM	5.38	46.1
10/18/2014 10:25:00 PM	5.50	45.9
10/18/2014 10:26:00 PM	5.60	47.1
10/18/2014 10:27:00 PM	5.26	46.3
10/18/2014 10:28:00 PM	4.97	45.2
10/18/2014 10:29:00 PM	5.20	43.2
10/18/2014 10:30:00 PM	4.41	45.7
10/18/2014 10:31:00 PM	4.16	45.8
10/18/2014 10:33:00 PM	4.02	45.1
10/18/2014 10:35:00 PM	4.41	44.8
10/18/2014 10:36:00 PM	4.67	43.4
10/18/2014 10:37:00 PM	5.28	44.7
10/18/2014 10:38:00 PM	5.07	45.0
10/18/2014 10:39:00 PM	4.84	46.7
10/18/2014 10:40:00 PM	4.29	47.7
10/18/2014 10:41:00 PM	4.28	46.7
10/18/2014 10:42:00 PM	3.99	45.8
10/18/2014 10:43:00 PM	3.87	44.4
10/18/2014 10:44:00 PM	4.38	44.3
10/18/2014 10:45:00 PM	3.75	47.3
10/18/2014 10:46:00 PM	3.77	44.9
10/18/2014 10:47:00 PM	4.58	45.6
10/18/2014 10:50:00 PM	4.44	44.1
10/18/2014 10:51:00 PM	4.09	44.7
10/18/2014 10:52:00 PM	3.99	44.0
10/18/2014 10:53:00 PM	6.19	43.5
10/18/2014 10:54:00 PM	5.24	44.9
10/18/2014 10:55:00 PM	4.84	46.7
10/18/2014 10:56:00 PM	4.57	44.9
10/18/2014 10:57:00 PM	4.13	48.2
10/18/2014 10:58:00 PM	4.70	44.3
10/18/2014 10:59:00 PM	4.07	45.6
10/19/2014 12:10:00 AM	3.68	44.1
10/19/2014 12:11:00 AM	4.20	44.5
10/19/2014 12:12:00 AM	4.94	45.6
10/19/2014 12:13:00 AM	4.70	46.9
10/19/2014 12:14:00 AM	4.79	48.2
10/19/2014 12:15:00 AM	5.42	45.0
10/19/2014 12:16:00 AM	5.22	41.6
10/19/2014 12:17:00 AM	5.19	43.3
10/19/2014 12:19:00 AM	4.49	43.9
10/19/2014 12:20:00 AM	4.67	46.3
10/19/2014 12:21:00 AM	5.14	47.0



**Table H2 - Valid Total 1-Minute Sound Data - Monitor B - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
10/19/2014 12:22:00 AM	3.96	44.2
10/19/2014 12:23:00 AM	3.56	43.8
10/19/2014 12:25:00 AM	3.69	43.5
10/19/2014 12:27:00 AM	3.64	41.3
10/19/2014 12:28:00 AM	4.05	39.7
10/19/2014 12:29:00 AM	3.66	38.4
10/19/2014 12:37:00 AM	4.14	45.0
10/19/2014 12:38:00 AM	4.11	42.9
10/19/2014 12:39:00 AM	4.25	42.2
10/19/2014 12:41:00 AM	3.83	45.3
10/19/2014 12:42:00 AM	4.22	44.5
10/19/2014 12:43:00 AM	3.98	44.3
10/19/2014 12:44:00 AM	5.00	44.9
10/19/2014 12:45:00 AM	5.51	47.5
10/19/2014 12:46:00 AM	5.57	48.2
10/19/2014 12:47:00 AM	6.20	45.7
10/19/2014 12:48:00 AM	6.61	44.3
10/19/2014 12:49:00 AM	6.45	43.2
10/19/2014 12:50:00 AM	5.29	44.5
10/19/2014 12:51:00 AM	4.84	47.8
10/19/2014 12:52:00 AM	4.87	48.4
10/19/2014 12:53:00 AM	5.46	47.7
10/19/2014 12:54:00 AM	6.06	45.7
10/19/2014 12:55:00 AM	5.90	44.1
10/19/2014 12:56:00 AM	5.50	44.5
10/19/2014 12:57:00 AM	5.45	44.7
10/19/2014 12:58:00 AM	4.40	43.4
10/19/2014 12:59:00 AM	4.64	42.0
10/19/2014 1:00:00 AM	4.52	43.6
10/19/2014 1:01:00 AM	4.06	41.6
10/19/2014 1:02:00 AM	4.04	42.8
10/19/2014 1:03:00 AM	3.55	45.7
10/19/2014 1:04:00 AM	4.57	43.0
10/19/2014 1:05:00 AM	4.88	42.9
10/19/2014 1:06:00 AM	4.69	43.1
10/19/2014 1:07:00 AM	4.34	44.5
10/19/2014 1:08:00 AM	3.90	44.5
10/19/2014 1:09:00 AM	4.14	47.2
10/19/2014 1:10:00 AM	4.61	45.0
10/19/2014 1:11:00 AM	5.19	43.3
10/19/2014 1:12:00 AM	4.82	41.4
10/19/2014 1:13:00 AM	5.73	44.8
10/19/2014 1:14:00 AM	5.23	46.5
10/19/2014 1:15:00 AM	5.06	45.5
10/19/2014 1:16:00 AM	5.29	43.3
10/19/2014 1:17:00 AM	4.65	45.4
10/19/2014 1:18:00 AM	4.95	47.1
10/19/2014 1:19:00 AM	4.55	47.5
10/19/2014 1:20:00 AM	5.40	49.7
10/20/2014 11:56:00 PM	3.54	48.7

**Table H2 - Valid Total 1-Minute Sound Data - Monitor B - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
10/20/2014 11:59:00 PM	5.64	46.1
10/21/2014 12:00:00 AM	4.14	46.0
10/21/2014 12:01:00 AM	3.65	48.4
10/21/2014 12:02:00 AM	4.90	47.6
10/21/2014 12:03:00 AM	3.92	45.3
10/21/2014 12:04:00 AM	4.36	41.8
10/21/2014 12:06:00 AM	3.91	44.7
10/21/2014 12:07:00 AM	4.74	43.9
10/21/2014 12:08:00 AM	4.80	46.0
10/21/2014 12:09:00 AM	3.81	49.1
10/21/2014 12:11:00 AM	3.82	49.1
10/21/2014 12:12:00 AM	3.66	45.2
10/21/2014 12:15:00 AM	3.91	45.5
10/21/2014 12:16:00 AM	4.00	48.5
10/21/2014 12:17:00 AM	4.24	47.8
10/21/2014 12:24:00 AM	3.64	46.7
10/21/2014 12:26:00 AM	3.65	45.6
10/21/2014 12:27:00 AM	3.69	43.5
10/21/2014 12:28:00 AM	4.15	40.1
10/21/2014 12:34:00 AM	3.80	42.6
10/21/2014 12:37:00 AM	4.55	41.0
10/21/2014 12:38:00 AM	4.39	39.9
10/21/2014 12:39:00 AM	4.01	44.3
10/21/2014 12:40:00 AM	4.00	45.4
10/21/2014 12:42:00 AM	3.70	41.9
10/21/2014 12:43:00 AM	3.99	45.0
10/21/2014 12:45:00 AM	4.09	42.7
10/21/2014 1:34:00 AM	3.58	44.1
10/21/2014 1:36:00 AM	4.25	43.2
10/21/2014 1:37:00 AM	4.06	44.0
10/21/2014 1:39:00 AM	3.62	45.9
10/21/2014 1:40:00 AM	3.91	47.0
10/21/2014 1:43:00 AM	3.79	39.1
10/21/2014 1:44:00 AM	3.72	42.3
10/21/2014 1:49:00 AM	3.64	43.2
10/21/2014 1:50:00 AM	4.01	41.2
10/21/2014 1:52:00 AM	3.66	46.0
10/21/2014 1:54:00 AM	3.55	42.1
10/21/2014 2:01:00 AM	3.59	42.3
10/21/2014 2:02:00 AM	3.76	45.5
10/21/2014 2:03:00 AM	4.02	43.6
10/21/2014 2:04:00 AM	4.44	40.2
10/21/2014 2:05:00 AM	3.76	37.8
10/21/2014 2:06:00 AM	4.13	40.8
10/21/2014 2:07:00 AM	3.83	42.6
10/21/2014 2:08:00 AM	3.55	35.7
10/21/2014 2:09:00 AM	3.90	36.9
10/21/2014 2:10:00 AM	3.56	43.4
10/21/2014 2:11:00 AM	4.20	40.9
10/21/2014 2:14:00 AM	4.05	43.0

**Table H2 - Valid Total 1-Minute Sound Data - Monitor B - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
10/21/2014 2:15:00 AM	3.79	41.7
10/21/2014 2:20:00 AM	3.67	40.4
10/21/2014 2:30:00 AM	3.61	45.1
10/21/2014 2:31:00 AM	3.61	43.1
10/21/2014 2:32:00 AM	4.18	44.5
10/21/2014 2:34:00 AM	4.34	41.3
10/21/2014 2:35:00 AM	4.34	43.6
10/21/2014 2:36:00 AM	4.26	45.1
10/21/2014 2:37:00 AM	4.51	44.4
10/21/2014 2:38:00 AM	4.01	41.9
10/21/2014 2:40:00 AM	4.07	42.3
10/21/2014 2:41:00 AM	4.08	41.2
10/21/2014 2:42:00 AM	4.12	37.4
10/21/2014 2:43:00 AM	4.36	42.9
10/21/2014 2:44:00 AM	3.78	44.8
10/21/2014 2:45:00 AM	3.77	43.1
10/21/2014 2:46:00 AM	4.33	45.1
10/21/2014 2:47:00 AM	4.75	48.1
10/21/2014 2:48:00 AM	4.03	43.8
10/21/2014 2:50:00 AM	3.84	43.1
10/21/2014 2:51:00 AM	3.81	43.2
10/21/2014 3:33:00 AM	4.00	42.9
10/21/2014 3:46:00 AM	3.64	42.9
10/21/2014 10:01:00 PM	6.31	48.7
10/21/2014 10:02:00 PM	5.56	47.9
10/21/2014 10:03:00 PM	5.60	47.1
10/21/2014 10:04:00 PM	5.64	49.1
10/21/2014 10:05:00 PM	6.19	48.1
10/21/2014 10:06:00 PM	4.67	46.2
10/21/2014 10:07:00 PM	5.25	44.3
10/21/2014 10:08:00 PM	5.07	46.5
10/21/2014 10:09:00 PM	4.92	47.4
10/21/2014 10:10:00 PM	4.27	48.1
10/21/2014 10:11:00 PM	4.56	45.1
10/21/2014 10:12:00 PM	4.99	48.7
10/21/2014 10:13:00 PM	4.32	48.5
10/21/2014 10:14:00 PM	4.43	48.7
10/21/2014 10:15:00 PM	4.22	48.3
10/21/2014 10:17:00 PM	6.06	48.1
10/21/2014 10:18:00 PM	5.32	47.7
10/21/2014 10:19:00 PM	5.08	48.3
10/21/2014 10:20:00 PM	5.79	47.9
10/21/2014 10:21:00 PM	4.74	48.6
10/21/2014 10:22:00 PM	4.10	48.1
10/21/2014 10:23:00 PM	5.32	48.4
10/21/2014 10:24:00 PM	5.87	48.2
10/21/2014 10:25:00 PM	5.29	47.9
10/21/2014 10:26:00 PM	6.51	47.6
10/21/2014 10:27:00 PM	6.63	47.6
10/21/2014 10:29:00 PM	6.16	47.0

**Table H2 - Valid Total 1-Minute Sound Data - Monitor B - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
10/21/2014 10:30:00 PM	4.48	46.2
10/21/2014 10:31:00 PM	4.00	44.9
10/21/2014 10:32:00 PM	4.46	46.8
10/21/2014 10:33:00 PM	5.56	46.9
10/21/2014 10:34:00 PM	4.77	48.2
10/21/2014 10:35:00 PM	4.62	49.6
10/21/2014 10:37:00 PM	5.75	44.7
10/21/2014 10:38:00 PM	5.17	46.3
10/21/2014 10:39:00 PM	3.77	47.2
10/21/2014 10:40:00 PM	4.12	45.2
10/21/2014 10:41:00 PM	4.27	46.2
10/21/2014 10:42:00 PM	5.13	46.0
10/21/2014 10:43:00 PM	4.55	46.1
10/21/2014 10:44:00 PM	5.56	45.9
10/21/2014 10:45:00 PM	4.11	44.9
10/21/2014 10:46:00 PM	4.95	47.9
10/21/2014 10:47:00 PM	3.80	49.2
10/21/2014 10:49:00 PM	4.43	48.7
10/21/2014 10:51:00 PM	5.02	48.4
10/21/2014 10:52:00 PM	3.96	46.4
10/21/2014 10:54:00 PM	5.87	46.0
10/21/2014 10:55:00 PM	5.20	46.8
10/21/2014 10:56:00 PM	5.00	44.1
10/21/2014 10:57:00 PM	5.72	47.8
10/21/2014 10:58:00 PM	3.90	47.1
10/21/2014 10:59:00 PM	3.65	45.6
10/21/2014 11:00:00 PM	3.64	47.6
10/21/2014 11:01:00 PM	4.77	48.0
10/21/2014 11:02:00 PM	3.92	47.3
10/21/2014 11:03:00 PM	3.63	46.1
10/21/2014 11:04:00 PM	3.60	43.3
10/21/2014 11:05:00 PM	4.34	44.9
10/21/2014 11:06:00 PM	4.45	47.4
10/21/2014 11:07:00 PM	3.60	47.5
10/21/2014 11:08:00 PM	3.81	45.3
10/21/2014 11:09:00 PM	4.25	43.8
10/21/2014 11:10:00 PM	4.25	45.0
10/21/2014 11:11:00 PM	3.96	44.1
10/21/2014 11:13:00 PM	4.31	46.7
10/21/2014 11:14:00 PM	3.69	47.8
10/21/2014 11:15:00 PM	4.03	47.3
10/21/2014 11:17:00 PM	4.61	46.7
10/21/2014 11:19:00 PM	3.62	47.4
10/21/2014 11:20:00 PM	4.71	44.8
10/21/2014 11:22:00 PM	3.59	44.2
10/21/2014 11:25:00 PM	3.68	45.4
10/21/2014 11:27:00 PM	3.56	46.1
10/21/2014 11:28:00 PM	3.65	45.3
10/21/2014 11:29:00 PM	3.97	44.6
10/21/2014 11:30:00 PM	4.11	45.3

**Table H2 - Valid Total 1-Minute Sound Data - Monitor B - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
10/21/2014 11:32:00 PM	4.62	47.4
10/21/2014 11:33:00 PM	3.61	44.6
10/21/2014 11:34:00 PM	3.78	43.7
10/21/2014 11:35:00 PM	4.09	42.9
10/21/2014 11:37:00 PM	4.28	44.6
10/21/2014 11:40:00 PM	3.62	46.6
10/21/2014 11:41:00 PM	3.84	46.1
10/21/2014 11:42:00 PM	5.06	42.5
10/21/2014 11:43:00 PM	4.87	46.2
10/21/2014 11:44:00 PM	4.32	46.2
10/21/2014 11:45:00 PM	4.10	45.8
10/21/2014 11:47:00 PM	4.25	45.2
10/21/2014 11:48:00 PM	3.53	44.4
10/21/2014 11:55:00 PM	3.59	47.0
10/22/2014 12:05:00 AM	4.89	47.1
10/22/2014 12:06:00 AM	4.44	45.8
10/22/2014 12:07:00 AM	4.32	43.5
10/22/2014 12:08:00 AM	4.04	38.1
10/22/2014 12:10:00 AM	3.50	42.8
10/22/2014 12:12:00 AM	4.03	42.1
10/22/2014 12:13:00 AM	3.61	43.0
10/22/2014 12:16:00 AM	4.26	45.5
10/22/2014 12:17:00 AM	3.84	43.9
10/22/2014 12:20:00 AM	4.09	44.8
10/22/2014 12:21:00 AM	3.56	46.8
10/22/2014 12:22:00 AM	4.09	45.0
10/22/2014 12:23:00 AM	4.16	43.9
10/22/2014 12:24:00 AM	3.84	44.9
10/22/2014 12:26:00 AM	4.07	40.6
10/22/2014 12:27:00 AM	3.60	41.8
10/22/2014 12:28:00 AM	3.79	44.3
10/22/2014 12:29:00 AM	3.92	46.7
10/22/2014 12:30:00 AM	4.12	46.0
10/22/2014 12:36:00 AM	3.95	43.0
10/22/2014 12:37:00 AM	3.75	45.1
10/22/2014 12:39:00 AM	3.55	42.4
10/22/2014 12:41:00 AM	3.62	36.6
10/22/2014 12:43:00 AM	3.90	41.8
10/22/2014 12:46:00 AM	4.30	43.3
10/22/2014 12:48:00 AM	3.90	44.9
10/22/2014 12:54:00 AM	3.51	46.0
10/22/2014 12:57:00 AM	4.07	43.7
10/22/2014 12:58:00 AM	4.06	44.8
10/22/2014 1:04:00 AM	3.89	44.4
10/22/2014 1:06:00 AM	4.08	41.5
10/22/2014 1:21:00 AM	3.59	42.3
10/22/2014 1:25:00 AM	3.90	44.2
10/22/2014 1:26:00 AM	3.97	47.0
10/22/2014 1:53:00 AM	3.73	45.0
10/22/2014 2:04:00 AM	3.75	41.8

**Table H2 - Valid Total 1-Minute Sound Data - Monitor B - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
10/22/2014 2:08:00 AM	3.53	41.5
10/22/2014 2:27:00 AM	3.70	39.2
10/22/2014 2:29:00 AM	3.86	41.5
10/22/2014 2:32:00 AM	3.66	41.6
10/22/2014 2:33:00 AM	3.98	44.4
10/22/2014 2:34:00 AM	3.91	42.5
10/22/2014 2:38:00 AM	3.52	35.7
10/22/2014 2:40:00 AM	3.86	36.9
10/22/2014 2:43:00 AM	4.39	42.5
10/22/2014 2:44:00 AM	3.95	43.6
10/22/2014 2:50:00 AM	3.95	47.4
10/22/2014 2:51:00 AM	4.66	44.2
10/22/2014 2:54:00 AM	4.10	44.2
10/22/2014 2:55:00 AM	4.21	43.9
10/22/2014 2:56:00 AM	3.52	39.6
10/22/2014 2:57:00 AM	3.71	38.3
10/22/2014 2:58:00 AM	3.63	44.5
10/22/2014 2:59:00 AM	3.66	47.9
10/22/2014 3:01:00 AM	3.66	43.9
10/22/2014 3:02:00 AM	3.87	42.0
10/22/2014 3:03:00 AM	4.69	44.0
10/22/2014 3:04:00 AM	5.03	42.9
10/22/2014 3:05:00 AM	4.76	44.3
10/22/2014 3:06:00 AM	4.86	43.9
10/22/2014 3:07:00 AM	5.48	43.7
10/22/2014 3:08:00 AM	4.51	45.6
10/22/2014 3:09:00 AM	4.29	44.4
10/22/2014 3:10:00 AM	4.59	45.9
10/22/2014 3:11:00 AM	4.72	44.1
10/22/2014 3:12:00 AM	4.15	44.4
10/22/2014 3:13:00 AM	4.39	46.2
10/22/2014 3:14:00 AM	4.37	45.9
10/22/2014 3:15:00 AM	4.60	44.1
10/22/2014 3:16:00 AM	4.50	46.4
10/22/2014 3:17:00 AM	4.24	46.7
10/22/2014 3:18:00 AM	4.21	46.0
10/22/2014 3:19:00 AM	4.46	44.8
10/22/2014 3:20:00 AM	4.18	47.2
10/22/2014 3:21:00 AM	3.96	48.0
10/22/2014 3:22:00 AM	3.97	47.0
10/22/2014 3:23:00 AM	4.44	45.1
10/22/2014 3:24:00 AM	4.09	44.5
10/22/2014 3:25:00 AM	5.06	44.3
10/22/2014 3:26:00 AM	4.30	45.2
10/22/2014 3:27:00 AM	4.13	44.5
10/22/2014 3:28:00 AM	3.87	47.8
10/22/2014 3:29:00 AM	4.39	45.3
10/22/2014 3:30:00 AM	4.13	41.6
10/22/2014 3:31:00 AM	3.62	40.7
10/22/2014 3:34:00 AM	4.63	47.2

**Table H2 - Valid Total 1-Minute Sound Data - Monitor B - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
10/22/2014 3:35:00 AM	3.82	45.5
10/22/2014 3:36:00 AM	3.98	39.4
10/22/2014 3:37:00 AM	4.32	39.6
10/22/2014 3:38:00 AM	4.34	44.6
10/22/2014 3:39:00 AM	4.03	42.2
10/22/2014 3:40:00 AM	4.28	45.9
10/22/2014 3:41:00 AM	4.67	42.6
10/22/2014 3:42:00 AM	4.31	43.9
10/22/2014 3:45:00 AM	3.56	46.3
10/22/2014 3:48:00 AM	3.71	41.5
10/22/2014 3:55:00 AM	3.85	47.5
10/22/2014 3:56:00 AM	3.59	42.5
10/22/2014 3:58:00 AM	3.54	47.5
10/22/2014 3:59:00 AM	3.71	45.6
10/22/2014 4:03:00 AM	4.22	46.3
10/22/2014 4:04:00 AM	3.92	45.3
10/22/2014 4:09:00 AM	3.53	47.1
10/22/2014 4:47:00 AM	3.62	45.7
10/23/2014 2:06:00 AM	3.54	41.2
10/23/2014 2:12:00 AM	3.60	44.0
10/23/2014 2:14:00 AM	3.50	42.7
10/23/2014 2:48:00 AM	3.53	46.5
10/23/2014 2:49:00 AM	3.55	46.1
10/23/2014 3:03:00 AM	3.60	46.2
10/28/2014 10:20:00 PM	3.72	48.0
10/28/2014 10:29:00 PM	4.83	43.9
10/29/2014 11:31:00 PM	4.72	45.6
10/29/2014 11:32:00 PM	4.80	46.4
10/29/2014 11:34:00 PM	3.97	46.9
10/29/2014 11:35:00 PM	4.14	46.4
10/29/2014 11:36:00 PM	3.55	43.9
10/29/2014 11:37:00 PM	4.02	42.8
10/29/2014 11:38:00 PM	3.78	45.8
10/29/2014 11:41:00 PM	3.71	49.7
10/29/2014 11:58:00 PM	3.70	48.6
10/29/2014 11:59:00 PM	3.72	47.9
10/30/2014 12:00:00 AM	3.88	47.4
10/30/2014 12:01:00 AM	3.57	48.1
10/30/2014 12:02:00 AM	4.24	49.5
10/30/2014 12:03:00 AM	4.17	49.1
10/30/2014 12:04:00 AM	4.78	48.9
10/30/2014 12:05:00 AM	4.44	49.0
10/30/2014 12:06:00 AM	4.77	49.1
10/30/2014 12:07:00 AM	3.74	45.5
10/30/2014 12:08:00 AM	3.90	44.0
10/30/2014 12:09:00 AM	3.55	44.8
10/30/2014 12:18:00 AM	3.58	38.2
10/30/2014 4:06:00 AM	3.89	47.2
10/30/2014 4:07:00 AM	3.74	47.3
10/30/2014 4:08:00 AM	3.79	47.6

**Table H2 - Valid Total 1-Minute Sound Data - Monitor B - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
10/30/2014 4:09:00 AM	4.41	45.4
10/30/2014 4:10:00 AM	5.51	46.9
10/30/2014 4:11:00 AM	5.00	47.6
10/30/2014 4:12:00 AM	5.13	48.6
10/30/2014 4:13:00 AM	5.52	47.8
10/30/2014 4:14:00 AM	4.89	46.1
10/30/2014 4:15:00 AM	5.40	45.1
10/30/2014 4:16:00 AM	5.50	45.9
10/30/2014 4:17:00 AM	5.21	45.1
10/30/2014 4:18:00 AM	4.00	49.9
10/30/2014 4:19:00 AM	3.52	47.0
10/30/2014 4:20:00 AM	4.32	46.1
10/30/2014 4:24:00 AM	3.97	45.9
10/30/2014 4:25:00 AM	4.18	45.2
10/30/2014 4:26:00 AM	3.91	44.1
10/30/2014 4:27:00 AM	4.38	40.5
10/30/2014 4:28:00 AM	4.89	46.9
10/30/2014 4:29:00 AM	4.03	47.3
10/30/2014 4:31:00 AM	3.53	47.0
10/30/2014 4:33:00 AM	3.84	46.5
10/30/2014 4:34:00 AM	3.90	43.9
10/30/2014 4:35:00 AM	3.66	46.7
10/30/2014 4:36:00 AM	3.66	48.0
10/30/2014 4:40:00 AM	3.56	45.4
10/30/2014 4:48:00 AM	3.51	43.6
10/30/2014 4:56:00 AM	3.74	47.6
10/30/2014 4:57:00 AM	3.92	48.5
10/30/2014 4:58:00 AM	4.14	47.9
10/30/2014 4:59:00 AM	3.84	46.6
10/31/2014 11:19:00 PM	6.95	50.9
10/31/2014 11:21:00 PM	7.12	51.0
11/01/2014 1:40:00 AM	6.87	49.1
11/01/2014 2:09:00 AM	6.97	49.4
11/01/2014 2:21:00 AM	7.18	50.9
11/01/2014 2:24:00 AM	7.41	51.2
11/01/2014 2:25:00 AM	7.39	51.2
11/01/2014 2:26:00 AM	7.01	49.3
11/01/2014 2:28:00 AM	7.22	51.0
11/01/2014 2:45:00 AM	6.68	49.2
11/01/2014 3:54:00 AM	6.03	49.4
11/01/2014 3:55:00 AM	6.51	49.7
11/01/2014 3:59:00 AM	7.41	51.4
11/01/2014 4:05:00 AM	5.47	53.8
11/01/2014 4:06:00 AM	6.08	48.7
11/01/2014 4:09:00 AM	6.13	48.7
11/01/2014 4:18:00 AM	6.90	50.4
11/01/2014 4:21:00 AM	6.40	48.3
11/01/2014 4:24:00 AM	7.18	49.8
11/01/2014 10:00:00 PM	3.55	42.1
11/01/2014 10:10:00 PM	3.53	45.2



**Table H2 - Valid Total 1-Minute Sound Data - Monitor B - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
11/01/2014 10:46:00 PM	3.99	43.9
11/01/2014 10:47:00 PM	3.86	42.5
11/01/2014 10:48:00 PM	3.75	44.8
11/01/2014 10:49:00 PM	3.66	43.6
11/01/2014 10:50:00 PM	3.65	42.8
11/01/2014 10:52:00 PM	3.72	42.2
11/01/2014 10:53:00 PM	4.00	40.8
11/01/2014 10:54:00 PM	3.51	46.4
11/01/2014 10:55:00 PM	4.14	49.7
11/01/2014 11:03:00 PM	3.55	45.9
11/01/2014 11:04:00 PM	3.81	45.1
11/01/2014 11:06:00 PM	3.77	43.1
11/01/2014 11:07:00 PM	3.90	41.0
11/01/2014 11:08:00 PM	3.82	42.7
11/01/2014 11:09:00 PM	3.63	44.7
11/01/2014 11:11:00 PM	3.62	41.6
11/01/2014 11:14:00 PM	3.59	43.8
11/01/2014 11:16:00 PM	3.69	42.5
11/01/2014 11:17:00 PM	4.11	41.5
11/01/2014 11:20:00 PM	3.52	44.3
11/01/2014 11:21:00 PM	4.21	42.8
11/01/2014 11:22:00 PM	3.81	42.1
11/01/2014 11:23:00 PM	3.93	43.0
11/01/2014 11:24:00 PM	4.05	43.3
11/01/2014 11:25:00 PM	3.56	39.9
11/01/2014 11:27:00 PM	3.84	41.0
11/01/2014 11:29:00 PM	3.83	41.5
11/01/2014 11:31:00 PM	3.84	39.0
11/01/2014 11:32:00 PM	3.79	42.1
11/01/2014 11:43:00 PM	3.51	40.8
11/02/2014 12:04:00 AM	3.54	42.5
11/02/2014 12:30:00 AM	3.50	38.9
11/02/2014 12:33:00 AM	4.08	41.7
11/02/2014 12:34:00 AM	3.59	46.0
11/02/2014 12:35:00 AM	3.88	42.7
11/02/2014 12:44:00 AM	3.73	43.3
11/02/2014 12:45:00 AM	3.96	39.8
11/02/2014 12:46:00 AM	3.68	38.5
11/02/2014 12:47:00 AM	3.86	43.1
11/02/2014 12:50:00 AM	3.79	37.3
11/02/2014 1:22:00 AM	3.57	40.2
11/02/2014 1:25:00 AM	3.83	37.8
11/02/2014 1:26:00 AM	3.55	35.2
11/02/2014 1:46:00 AM	3.53	37.9
11/05/2014 12:15:00 AM	7.35	52.7
11/05/2014 12:24:00 AM	6.90	50.6
11/05/2014 12:27:00 AM	7.22	50.8
11/05/2014 12:32:00 AM	6.59	48.2
11/05/2014 12:35:00 AM	6.73	46.5
11/05/2014 12:51:00 AM	6.59	40.6

**Table H2 - Valid Total 1-Minute Sound Data - Monitor B - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
11/05/2014 12:54:00 AM	4.70	45.9
11/05/2014 12:56:00 AM	5.69	40.7
11/07/2014 3:12:00 AM	5.40	50.3
11/07/2014 3:14:00 AM	5.89	47.5
11/07/2014 3:17:00 AM	5.45	50.9
11/07/2014 3:18:00 AM	5.58	48.3
11/07/2014 3:19:00 AM	7.01	50.1
11/07/2014 3:20:00 AM	5.32	48.8
11/07/2014 3:22:00 AM	5.81	49.1
11/07/2014 3:23:00 AM	5.02	48.0
11/07/2014 3:24:00 AM	5.65	46.8
11/07/2014 3:25:00 AM	5.62	47.5
11/07/2014 3:26:00 AM	5.47	48.7
11/07/2014 3:27:00 AM	5.35	50.0
11/07/2014 3:30:00 AM	6.53	49.2
11/07/2014 3:32:00 AM	6.62	47.9
11/07/2014 3:34:00 AM	6.26	47.0
11/07/2014 3:35:00 AM	6.53	44.3
11/07/2014 3:36:00 AM	6.23	46.4
11/07/2014 3:37:00 AM	5.51	49.4
11/07/2014 3:38:00 AM	4.62	47.3
11/07/2014 3:39:00 AM	4.64	47.1
11/07/2014 3:40:00 AM	4.64	47.6
11/07/2014 3:41:00 AM	5.18	46.3
11/07/2014 3:42:00 AM	4.44	43.5
11/07/2014 3:43:00 AM	5.36	43.5
11/07/2014 3:44:00 AM	4.84	42.8
11/07/2014 3:45:00 AM	4.34	45.6
11/07/2014 3:46:00 AM	5.20	47.1
11/07/2014 3:47:00 AM	4.82	47.8
11/07/2014 3:48:00 AM	5.64	45.1
11/07/2014 3:49:00 AM	5.50	48.6
11/07/2014 3:50:00 AM	4.73	52.0
11/07/2014 3:51:00 AM	4.98	52.3
11/07/2014 3:59:00 AM	7.44	50.7
11/07/2014 4:09:00 AM	7.46	46.9
11/07/2014 4:28:00 AM	7.07	51.3
11/07/2014 4:52:00 AM	7.13	49.8
11/07/2014 4:53:00 AM	7.39	51.1
11/07/2014 4:57:00 AM	4.85	52.1
11/07/2014 4:58:00 AM	5.35	54.1
11/07/2014 4:59:00 AM	6.54	51.4
11/07/2014 5:00:00 AM	6.73	47.7
11/07/2014 5:01:00 AM	7.38	49.5
11/07/2014 5:02:00 AM	6.38	49.4
11/07/2014 5:12:00 AM	7.33	51.7
11/07/2014 5:14:00 AM	6.45	51.5
11/07/2014 5:15:00 AM	6.03	51.4
11/07/2014 5:17:00 AM	5.82	54.1
11/07/2014 5:18:00 AM	5.62	51.4

**Table H2 - Valid Total 1-Minute Sound Data - Monitor B - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
11/07/2014 5:19:00 AM	6.59	51.8
11/07/2014 5:21:00 AM	6.05	52.5
11/07/2014 5:22:00 AM	7.25	51.3
11/07/2014 5:37:00 AM	6.37	53.4
11/12/2014 12:03:00 AM	7.10	45.3
11/12/2014 12:08:00 AM	6.57	47.4
11/12/2014 12:11:00 AM	6.78	43.5
11/12/2014 12:17:00 AM	6.15	46.1
11/12/2014 12:18:00 AM	5.87	46.9
11/12/2014 12:19:00 AM	6.36	49.6
11/12/2014 12:20:00 AM	5.39	49.4
11/12/2014 12:22:00 AM	7.47	50.9
11/12/2014 12:23:00 AM	6.19	46.3
11/12/2014 12:24:00 AM	6.72	44.5
11/12/2014 12:29:00 AM	7.16	45.2
11/12/2014 12:36:00 AM	5.73	44.3
11/12/2014 12:37:00 AM	6.42	45.2
11/12/2014 12:38:00 AM	6.09	45.0
11/12/2014 12:39:00 AM	5.11	46.9
11/12/2014 12:49:00 AM	5.72	48.7
11/12/2014 12:54:00 AM	6.71	48.7
11/12/2014 12:55:00 AM	7.15	47.1
11/12/2014 1:10:00 AM	6.52	51.3
11/12/2014 1:17:00 AM	6.94	47.3
11/12/2014 1:22:00 AM	6.66	51.8
11/12/2014 1:33:00 AM	6.66	44.6
11/12/2014 1:37:00 AM	7.03	47.8
11/12/2014 1:38:00 AM	7.43	49.3
11/12/2014 1:39:00 AM	6.93	52.4
11/12/2014 1:46:00 AM	7.01	44.9
11/12/2014 1:47:00 AM	7.01	49.8
11/12/2014 1:48:00 AM	7.00	48.7
11/12/2014 1:51:00 AM	7.08	45.4
11/12/2014 2:01:00 AM	6.56	51.8
11/12/2014 2:07:00 AM	7.25	50.2
11/12/2014 2:54:00 AM	7.30	45.2
11/12/2014 2:55:00 AM	6.88	47.8
11/12/2014 2:58:00 AM	6.90	46.5
11/12/2014 3:00:00 AM	7.21	52.5
11/12/2014 3:02:00 AM	7.04	47.6
11/12/2014 3:05:00 AM	6.82	46.7
11/12/2014 3:06:00 AM	7.39	47.3
11/12/2014 3:12:00 AM	7.48	50.4
11/12/2014 3:15:00 AM	7.11	51.0
11/12/2014 3:19:00 AM	7.46	51.8
11/12/2014 3:23:00 AM	6.82	49.5
11/12/2014 3:26:00 AM	7.26	48.6
11/12/2014 3:28:00 AM	7.27	48.7
11/12/2014 3:34:00 AM	6.79	47.6
11/12/2014 3:35:00 AM	7.24	46.0

**Table H2 - Valid Total 1-Minute Sound Data - Monitor B - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
11/12/2014 3:40:00 AM	5.77	48.5
11/12/2014 3:43:00 AM	7.26	46.0
11/12/2014 3:50:00 AM	7.07	46.6
11/12/2014 3:57:00 AM	6.61	42.7
11/12/2014 4:26:00 AM	6.54	47.1
11/12/2014 4:27:00 AM	7.00	48.7
11/12/2014 4:28:00 AM	7.20	47.3
11/12/2014 4:30:00 AM	6.67	51.4
11/12/2014 4:39:00 AM	6.59	44.9
11/12/2014 4:40:00 AM	6.04	49.4
11/12/2014 4:43:00 AM	7.07	46.6
11/12/2014 4:46:00 AM	5.67	46.1
11/12/2014 4:47:00 AM	5.92	48.6
11/12/2014 4:49:00 AM	4.28	48.3
11/12/2014 4:50:00 AM	7.18	47.6
11/12/2014 4:51:00 AM	7.29	48.3
11/12/2014 5:00:00 AM	7.27	51.6
11/12/2014 5:01:00 AM	7.13	46.3
11/12/2014 5:08:00 AM	7.15	52.2
11/12/2014 5:27:00 AM	6.76	49.4
11/12/2014 5:29:00 AM	7.23	44.0
11/12/2014 5:35:00 AM	6.60	47.5
11/12/2014 5:42:00 AM	7.00	49.5
11/12/2014 5:51:00 AM	7.29	47.9
11/12/2014 5:52:00 AM	7.42	48.4
11/12/2014 6:08:00 AM	6.69	46.4
11/12/2014 6:09:00 AM	6.82	51.3
11/12/2014 6:15:00 AM	7.28	51.8
11/12/2014 6:19:00 AM	6.71	50.0
11/12/2014 6:28:00 AM	7.26	52.5
11/12/2014 6:29:00 AM	7.27	52.0
11/12/2014 6:33:00 AM	7.16	52.8
11/14/2014 6:40:00 AM	6.61	44.4
11/14/2014 6:59:00 AM	6.56	45.2
11/20/2014 6:01:00 AM	7.43	47.8
11/20/2014 6:03:00 AM	7.03	48.1
11/20/2014 6:04:00 AM	7.46	49.8
11/20/2014 6:05:00 AM	7.40	50.5
11/20/2014 6:06:00 AM	7.40	48.7
11/20/2014 6:08:00 AM	7.49	48.3
11/20/2014 6:10:00 AM	7.10	52.9
11/20/2014 6:11:00 AM	7.43	51.1
11/20/2014 6:22:00 AM	7.41	50.2
11/20/2014 6:25:00 AM	7.22	48.9
11/20/2014 6:26:00 AM	7.50	52.4
11/20/2014 6:27:00 AM	7.16	49.3
11/20/2014 6:30:00 AM	7.34	47.4
11/20/2014 6:31:00 AM	6.79	48.8
11/20/2014 6:32:00 AM	6.59	50.0
11/20/2014 6:33:00 AM	7.08	48.5

**Table H2 - Valid Total 1-Minute Sound Data - Monitor B - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
11/20/2014 6:34:00 AM	6.99	46.6
11/20/2014 6:35:00 AM	7.07	45.7
11/20/2014 6:36:00 AM	6.92	44.9
11/20/2014 6:41:00 AM	6.91	45.2
11/20/2014 6:53:00 AM	6.75	44.6
11/20/2014 6:54:00 AM	7.17	44.9
11/20/2014 6:59:00 AM	6.57	46.5
11/25/2014 3:07:00 AM	7.19	48.6
11/25/2014 3:08:00 AM	7.09	47.9
11/25/2014 3:11:00 AM	7.34	47.4
11/25/2014 3:33:00 AM	6.59	48.3
11/25/2014 3:50:00 AM	6.56	48.7
11/25/2014 5:04:00 AM	6.57	42.7
11/25/2014 5:35:00 AM	6.55	46.0
11/25/2014 6:13:00 AM	6.97	47.6
11/25/2014 6:47:00 AM	7.07	49.7
11/25/2014 6:59:00 AM	7.06	47.8
11/27/2014 6:45:00 AM	4.15	44.6
11/27/2014 6:46:00 AM	3.82	47.0
11/27/2014 6:48:00 AM	3.91	46.2
11/27/2014 6:49:00 AM	3.92	48.0
11/27/2014 6:50:00 AM	3.55	47.3
11/27/2014 6:51:00 AM	4.52	46.7
11/27/2014 6:52:00 AM	4.51	46.5
11/27/2014 6:57:00 AM	3.59	45.5
11/27/2014 6:58:00 AM	3.79	45.9
11/27/2014 6:59:00 AM	3.99	45.7
11/28/2014 12:00:00 AM	4.80	43.4
11/28/2014 12:01:00 AM	3.52	48.4
11/28/2014 12:02:00 AM	4.65	45.6
11/28/2014 12:03:00 AM	3.62	43.5
11/28/2014 12:04:00 AM	3.59	47.0
11/28/2014 12:05:00 AM	3.81	41.1
11/28/2014 12:06:00 AM	5.17	43.9
11/28/2014 12:07:00 AM	4.96	46.3
11/28/2014 12:08:00 AM	4.85	42.4
11/28/2014 12:09:00 AM	3.79	42.1
11/28/2014 12:10:00 AM	4.20	43.4
11/28/2014 12:11:00 AM	3.72	42.7
11/28/2014 12:12:00 AM	3.68	42.0
11/28/2014 12:13:00 AM	3.65	43.0
11/28/2014 12:14:00 AM	4.80	42.3
11/28/2014 12:15:00 AM	5.09	43.1
11/28/2014 12:16:00 AM	4.51	45.3
11/28/2014 12:17:00 AM	4.54	44.6
11/28/2014 12:18:00 AM	5.17	43.7
11/28/2014 12:19:00 AM	5.66	43.4
11/28/2014 12:20:00 AM	5.91	47.4
11/28/2014 12:21:00 AM	5.51	48.0
11/28/2014 12:22:00 AM	5.70	47.1

**Table H2 - Valid Total 1-Minute Sound Data - Monitor B - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
11/28/2014 12:23:00 AM	6.57	45.2
11/28/2014 12:24:00 AM	6.75	48.7
11/28/2014 12:25:00 AM	6.73	50.9
11/28/2014 12:26:00 AM	5.78	49.2
11/28/2014 12:27:00 AM	6.86	46.8
11/28/2014 12:28:00 AM	6.40	48.0
11/28/2014 12:29:00 AM	6.76	50.6
11/28/2014 12:30:00 AM	5.96	49.0
11/28/2014 12:31:00 AM	6.82	44.1
11/28/2014 12:32:00 AM	6.13	42.3
11/28/2014 12:33:00 AM	5.45	47.6
11/28/2014 12:34:00 AM	5.03	46.2
11/28/2014 12:35:00 AM	5.49	44.7
11/28/2014 12:36:00 AM	6.36	48.1
11/28/2014 12:37:00 AM	6.21	49.1
11/28/2014 12:38:00 AM	5.80	45.3
11/28/2014 12:39:00 AM	6.92	49.6
11/28/2014 12:41:00 AM	5.47	44.7
11/28/2014 12:42:00 AM	7.10	47.3
11/28/2014 12:43:00 AM	6.01	45.8
11/28/2014 12:44:00 AM	5.31	47.1
11/28/2014 12:52:00 AM	5.97	49.3
11/28/2014 12:53:00 AM	6.75	49.2
11/28/2014 12:56:00 AM	6.85	48.4
11/28/2014 12:59:00 AM	6.59	46.1
11/28/2014 1:02:00 AM	5.88	46.2
11/28/2014 1:04:00 AM	5.66	46.7
11/28/2014 1:05:00 AM	6.14	48.6
11/28/2014 1:06:00 AM	6.48	43.1
11/28/2014 1:08:00 AM	6.64	50.0
11/28/2014 1:09:00 AM	5.24	47.3
11/28/2014 1:10:00 AM	6.90	47.4
11/28/2014 1:12:00 AM	6.53	47.7
11/28/2014 1:13:00 AM	6.78	48.6
11/28/2014 1:16:00 AM	6.87	50.9
11/28/2014 1:20:00 AM	6.94	43.3
11/28/2014 1:29:00 AM	5.36	39.2
11/28/2014 1:32:00 AM	4.68	43.4
11/28/2014 1:35:00 AM	5.40	43.0
11/28/2014 1:36:00 AM	4.71	43.0
11/28/2014 1:37:00 AM	4.43	42.3
11/28/2014 1:38:00 AM	5.46	43.5
11/28/2014 1:39:00 AM	5.13	47.5
11/28/2014 1:40:00 AM	5.20	46.4
11/28/2014 1:41:00 AM	5.35	45.4
11/28/2014 1:43:00 AM	5.60	46.5
11/28/2014 1:44:00 AM	5.84	44.6
11/28/2014 1:45:00 AM	6.13	44.9
11/28/2014 1:46:00 AM	6.41	42.9
11/28/2014 1:47:00 AM	4.70	44.0

**Table H2 - Valid Total 1-Minute Sound Data - Monitor B - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
11/28/2014 1:48:00 AM	6.10	40.0
11/28/2014 1:49:00 AM	5.34	40.7
11/28/2014 1:50:00 AM	5.11	43.4
11/28/2014 1:51:00 AM	4.20	47.3
11/28/2014 1:52:00 AM	4.56	47.8
11/28/2014 1:53:00 AM	5.75	44.1
11/28/2014 1:55:00 AM	6.30	44.1
11/28/2014 1:56:00 AM	5.98	43.1
11/28/2014 1:57:00 AM	6.41	46.6
11/28/2014 1:58:00 AM	5.16	47.6
11/28/2014 1:59:00 AM	5.30	45.1
11/28/2014 2:00:00 AM	6.24	45.3
11/28/2014 2:01:00 AM	6.28	44.9
11/28/2014 2:02:00 AM	5.99	44.9
11/28/2014 2:03:00 AM	5.86	44.6
11/28/2014 2:04:00 AM	5.54	46.1
11/28/2014 2:05:00 AM	6.35	47.1
11/28/2014 2:08:00 AM	6.52	51.5
11/28/2014 2:12:00 AM	5.46	51.7
11/28/2014 2:16:00 AM	6.14	47.9
11/28/2014 2:18:00 AM	6.00	47.5
11/28/2014 2:19:00 AM	6.62	47.6
11/28/2014 2:20:00 AM	7.20	44.5
11/28/2014 2:21:00 AM	6.89	43.4
11/28/2014 2:22:00 AM	5.97	42.3
11/28/2014 2:23:00 AM	5.48	46.9
11/28/2014 2:24:00 AM	5.24	48.4
11/28/2014 2:25:00 AM	5.00	47.4
11/28/2014 2:27:00 AM	7.08	46.2
11/28/2014 2:28:00 AM	6.16	42.9
11/28/2014 2:29:00 AM	6.15	48.5
11/28/2014 2:30:00 AM	6.17	49.1
11/28/2014 2:31:00 AM	5.16	46.2
11/28/2014 2:32:00 AM	6.90	42.6
11/28/2014 2:33:00 AM	7.13	40.2
11/28/2014 2:34:00 AM	5.48	43.8
11/28/2014 2:35:00 AM	5.37	43.4
11/28/2014 2:36:00 AM	4.82	42.1
11/28/2014 2:37:00 AM	5.43	41.4
11/28/2014 2:38:00 AM	5.10	43.6
11/28/2014 2:39:00 AM	5.10	42.1
11/28/2014 2:40:00 AM	4.78	42.3
11/28/2014 2:41:00 AM	5.38	43.1
11/28/2014 2:42:00 AM	5.38	42.6
11/28/2014 2:43:00 AM	5.40	46.1
11/28/2014 2:44:00 AM	5.10	45.1
11/28/2014 2:45:00 AM	5.67	42.8
11/28/2014 2:46:00 AM	5.95	44.2
11/28/2014 2:47:00 AM	6.04	42.8
11/28/2014 2:48:00 AM	5.19	40.1

**Table H2 - Valid Total 1-Minute Sound Data - Monitor B - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
11/28/2014 2:49:00 AM	5.49	39.3
11/28/2014 2:50:00 AM	5.17	43.3
11/28/2014 2:51:00 AM	4.56	38.6
11/28/2014 2:52:00 AM	4.48	36.9
11/28/2014 2:53:00 AM	4.94	40.6
11/28/2014 2:54:00 AM	4.04	44.5
11/28/2014 2:55:00 AM	3.95	45.9
11/28/2014 2:56:00 AM	4.34	41.9
11/28/2014 2:57:00 AM	5.54	43.9
11/28/2014 2:58:00 AM	5.06	42.6
11/28/2014 2:59:00 AM	5.03	41.7
11/28/2014 3:00:00 AM	5.65	41.3
11/28/2014 3:01:00 AM	5.06	41.4
11/28/2014 3:02:00 AM	4.83	40.9
11/28/2014 3:03:00 AM	5.14	42.2
11/28/2014 3:04:00 AM	5.31	41.2
11/28/2014 3:05:00 AM	4.88	41.3
11/28/2014 3:06:00 AM	4.83	39.7
11/28/2014 3:07:00 AM	5.24	42.9
11/28/2014 3:08:00 AM	4.84	47.6
11/28/2014 3:09:00 AM	4.65	46.3
11/28/2014 3:10:00 AM	5.37	48.6
11/28/2014 3:11:00 AM	6.49	44.4
11/28/2014 3:13:00 AM	6.29	45.8
11/28/2014 3:14:00 AM	5.63	46.9
11/28/2014 3:15:00 AM	7.24	46.4
11/28/2014 3:16:00 AM	5.93	45.2
11/28/2014 3:17:00 AM	6.45	42.4
11/28/2014 3:18:00 AM	5.85	39.2
11/28/2014 3:19:00 AM	5.87	41.9
11/28/2014 3:20:00 AM	5.91	44.7
11/28/2014 3:21:00 AM	4.14	38.2
11/28/2014 3:23:00 AM	5.72	41.9
11/28/2014 3:25:00 AM	4.12	41.2
11/28/2014 3:26:00 AM	4.80	37.9
11/28/2014 3:27:00 AM	4.83	38.3
11/28/2014 3:28:00 AM	4.23	36.9
11/28/2014 3:29:00 AM	4.22	42.8
11/28/2014 3:30:00 AM	4.41	42.6
11/28/2014 3:31:00 AM	4.19	39.1
11/28/2014 3:32:00 AM	4.17	37.0
11/28/2014 3:33:00 AM	3.76	38.6
11/28/2014 3:34:00 AM	4.20	36.9
11/28/2014 3:36:00 AM	4.49	40.7
11/28/2014 3:39:00 AM	3.59	41.3
11/28/2014 3:41:00 AM	4.94	44.1
11/28/2014 3:42:00 AM	5.33	43.0
11/28/2014 3:43:00 AM	5.26	43.7
11/28/2014 3:44:00 AM	5.95	42.8
11/28/2014 3:45:00 AM	5.01	42.4



**Table H2 - Valid Total 1-Minute Sound Data - Monitor B - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
11/28/2014 3:46:00 AM	4.67	46.0
11/28/2014 3:47:00 AM	5.22	44.9
11/28/2014 3:48:00 AM	5.06	40.6
11/28/2014 3:49:00 AM	5.01	44.4
11/28/2014 3:50:00 AM	5.11	42.9
11/28/2014 3:51:00 AM	4.92	39.0
11/28/2014 3:52:00 AM	4.59	38.5
11/28/2014 3:53:00 AM	4.54	43.0
11/28/2014 3:54:00 AM	4.45	46.7
11/28/2014 3:55:00 AM	4.48	43.1
11/28/2014 3:56:00 AM	6.13	41.8
11/28/2014 3:58:00 AM	5.15	49.6
11/28/2014 3:59:00 AM	5.13	46.4
11/28/2014 4:00:00 AM	6.63	44.8
11/28/2014 4:01:00 AM	6.89	42.7
11/28/2014 4:02:00 AM	5.48	41.7
11/28/2014 4:03:00 AM	5.48	42.8
11/28/2014 4:04:00 AM	5.27	41.1
11/28/2014 4:05:00 AM	4.85	42.2
11/28/2014 4:06:00 AM	4.99	42.5
11/28/2014 4:07:00 AM	4.69	46.7
11/28/2014 4:08:00 AM	5.01	45.2
11/28/2014 4:09:00 AM	4.28	44.2
11/28/2014 4:10:00 AM	6.22	45.9
11/28/2014 4:11:00 AM	4.80	43.7
11/28/2014 4:12:00 AM	5.02	43.5
11/28/2014 4:13:00 AM	5.91	44.1
11/28/2014 4:14:00 AM	5.74	40.3
11/28/2014 4:15:00 AM	5.30	40.8
11/28/2014 4:16:00 AM	5.31	39.9
11/28/2014 4:17:00 AM	4.39	44.2
11/28/2014 4:18:00 AM	5.08	45.4
11/28/2014 4:19:00 AM	5.27	42.7
11/28/2014 4:20:00 AM	5.14	45.2
11/28/2014 4:21:00 AM	6.06	43.6
11/28/2014 4:22:00 AM	5.46	45.2
11/28/2014 4:23:00 AM	5.08	45.2
11/28/2014 4:24:00 AM	5.09	47.1
11/28/2014 4:25:00 AM	6.01	42.8
11/28/2014 4:26:00 AM	5.98	44.4
11/28/2014 4:27:00 AM	6.33	45.9
11/28/2014 4:28:00 AM	4.87	46.2
11/28/2014 4:29:00 AM	5.55	45.3
11/28/2014 4:31:00 AM	6.28	47.3
11/28/2014 4:32:00 AM	6.13	44.2
11/28/2014 4:33:00 AM	6.85	47.3
11/28/2014 4:34:00 AM	5.44	44.8
11/28/2014 4:35:00 AM	5.57	46.7
11/28/2014 4:36:00 AM	6.21	49.1
11/28/2014 4:38:00 AM	6.28	47.5

**Table H2 - Valid Total 1-Minute Sound Data - Monitor B - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
11/28/2014 4:39:00 AM	6.44	45.6
11/28/2014 4:40:00 AM	7.25	43.7
11/28/2014 4:41:00 AM	6.22	45.2
11/28/2014 4:42:00 AM	5.74	46.0
11/28/2014 4:43:00 AM	4.95	44.0
11/28/2014 4:44:00 AM	5.26	46.1
11/28/2014 4:45:00 AM	5.53	44.8
11/28/2014 4:46:00 AM	5.38	44.2
11/28/2014 4:47:00 AM	6.12	43.7
11/28/2014 4:48:00 AM	6.01	44.4
11/28/2014 4:49:00 AM	5.48	45.4
11/28/2014 4:50:00 AM	5.49	45.9
11/28/2014 4:51:00 AM	4.45	47.5
11/28/2014 4:52:00 AM	4.42	47.4
11/28/2014 4:53:00 AM	5.55	44.3
11/28/2014 4:54:00 AM	5.48	41.7
11/28/2014 4:56:00 AM	5.03	44.2
11/28/2014 4:57:00 AM	4.19	44.9
11/28/2014 4:58:00 AM	4.56	40.2
11/28/2014 4:59:00 AM	5.35	38.8
11/28/2014 5:00:00 AM	5.62	44.3
11/28/2014 5:01:00 AM	4.82	46.7
11/28/2014 5:02:00 AM	4.32	45.9
11/28/2014 5:03:00 AM	5.18	45.6
11/28/2014 5:04:00 AM	4.85	45.6
11/28/2014 5:05:00 AM	5.96	46.5
11/28/2014 5:06:00 AM	5.56	43.9
11/28/2014 5:07:00 AM	5.64	43.2
11/28/2014 5:08:00 AM	5.21	46.5
11/28/2014 5:09:00 AM	5.30	43.4
11/28/2014 5:10:00 AM	5.31	42.8
11/28/2014 5:11:00 AM	5.70	44.4
11/28/2014 5:12:00 AM	5.32	49.5
11/28/2014 5:13:00 AM	5.44	43.0
11/28/2014 5:15:00 AM	6.63	46.1
11/28/2014 5:16:00 AM	4.76	44.3
11/28/2014 5:17:00 AM	5.21	43.8
11/28/2014 5:18:00 AM	6.05	45.3
11/28/2014 5:19:00 AM	4.84	42.0
11/28/2014 5:20:00 AM	4.98	44.2
11/28/2014 5:21:00 AM	5.87	44.7
11/28/2014 5:22:00 AM	4.46	45.4
11/28/2014 5:23:00 AM	4.38	44.4
11/28/2014 5:24:00 AM	4.49	42.8
11/28/2014 5:25:00 AM	4.79	42.2
11/28/2014 5:26:00 AM	4.15	43.1
11/28/2014 5:27:00 AM	4.78	46.4
11/28/2014 5:28:00 AM	4.91	43.1
11/28/2014 5:29:00 AM	5.14	42.5
11/28/2014 5:30:00 AM	5.96	44.5

**Table H2 - Valid Total 1-Minute Sound Data - Monitor B - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
11/28/2014 5:31:00 AM	4.71	40.2
11/28/2014 5:32:00 AM	4.28	40.1
11/28/2014 5:33:00 AM	5.24	44.5
11/28/2014 5:34:00 AM	4.21	43.6
11/28/2014 5:35:00 AM	3.91	43.3
11/28/2014 5:36:00 AM	4.23	43.2
11/28/2014 5:37:00 AM	4.38	42.6
11/28/2014 5:38:00 AM	4.85	41.9
11/28/2014 5:39:00 AM	4.98	45.6
11/28/2014 5:40:00 AM	4.92	38.5
11/28/2014 5:41:00 AM	5.14	39.8
11/28/2014 5:42:00 AM	5.69	38.2
11/28/2014 5:43:00 AM	4.36	42.0
11/28/2014 5:44:00 AM	4.76	41.1
11/28/2014 5:45:00 AM	3.93	41.1
11/28/2014 5:46:00 AM	4.43	41.4
11/28/2014 5:47:00 AM	4.49	42.1
11/28/2014 5:48:00 AM	4.57	42.5
11/28/2014 5:49:00 AM	4.48	41.3
11/28/2014 5:50:00 AM	4.17	44.7
11/28/2014 5:51:00 AM	3.89	49.1
11/28/2014 5:52:00 AM	4.77	46.4
11/28/2014 5:53:00 AM	5.80	45.0
11/28/2014 5:54:00 AM	6.25	43.1
11/28/2014 5:55:00 AM	5.91	43.3
11/28/2014 5:56:00 AM	5.62	41.7
11/28/2014 5:57:00 AM	5.61	40.3
11/28/2014 5:58:00 AM	5.30	40.6
11/28/2014 5:59:00 AM	4.84	39.1
11/28/2014 6:00:00 AM	4.38	42.8
11/28/2014 6:01:00 AM	4.07	42.6
11/28/2014 6:02:00 AM	4.10	45.3
11/28/2014 6:03:00 AM	4.93	41.9
11/28/2014 6:04:00 AM	4.98	40.4
11/28/2014 6:05:00 AM	4.91	41.1
11/28/2014 6:06:00 AM	4.80	39.9
11/28/2014 6:07:00 AM	4.99	44.2
11/28/2014 6:08:00 AM	4.73	44.6
11/28/2014 6:09:00 AM	4.34	45.2
11/28/2014 6:10:00 AM	4.22	43.9
11/28/2014 6:11:00 AM	4.68	42.2
11/28/2014 6:12:00 AM	5.21	42.6
11/28/2014 6:13:00 AM	5.41	41.7
11/28/2014 6:14:00 AM	5.11	43.2
11/28/2014 6:15:00 AM	5.12	42.3
11/28/2014 6:16:00 AM	4.98	43.2
11/28/2014 6:17:00 AM	5.33	43.2
11/28/2014 6:18:00 AM	4.68	44.6
11/28/2014 6:19:00 AM	4.62	45.9
11/28/2014 6:20:00 AM	4.76	41.0

**Table H2 - Valid Total 1-Minute Sound Data - Monitor B - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
11/28/2014 6:21:00 AM	4.77	40.6
11/28/2014 6:22:00 AM	4.32	44.9
11/28/2014 6:23:00 AM	4.01	44.1
11/28/2014 6:24:00 AM	4.11	42.0
11/28/2014 6:25:00 AM	4.00	38.0
11/28/2014 6:26:00 AM	4.28	42.6
11/28/2014 6:27:00 AM	3.71	45.6
11/28/2014 6:29:00 AM	3.76	44.5
11/28/2014 6:30:00 AM	3.53	44.2
11/28/2014 6:36:00 AM	4.09	45.1
11/28/2014 6:40:00 AM	3.69	42.8
11/28/2014 6:41:00 AM	3.71	45.4
11/28/2014 6:42:00 AM	4.41	46.0
11/28/2014 6:43:00 AM	3.57	43.5
11/28/2014 6:48:00 AM	3.56	46.1
11/28/2014 6:49:00 AM	4.09	42.3

**Table H3 - Valid Total 1-Minute Sound Data - Monitor C - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
10/12/2014 10:01:00 PM	4.65	43.0
10/12/2014 10:03:00 PM	3.88	43.1
10/12/2014 10:04:00 PM	4.07	42.6
11/02/2014 11:49:00 PM	3.51	42.4
11/02/2014 11:51:00 PM	3.53	40.6
11/02/2014 11:52:00 PM	3.79	40.6
11/02/2014 11:53:00 PM	3.82	42.1
11/02/2014 11:54:00 PM	3.81	41.3
11/02/2014 11:56:00 PM	3.62	40.0
11/03/2014 12:53:00 AM	3.54	41.4
11/03/2014 1:22:00 AM	3.50	39.6
11/03/2014 1:24:00 AM	3.69	39.9
11/03/2014 1:25:00 AM	3.50	39.9
11/03/2014 1:26:00 AM	3.60	40.2
11/03/2014 1:29:00 AM	3.61	41.0
11/03/2014 1:30:00 AM	3.63	41.3
11/03/2014 1:31:00 AM	3.64	42.1
11/03/2014 1:32:00 AM	3.59	41.6
11/03/2014 1:33:00 AM	3.73	41.2
11/03/2014 1:34:00 AM	3.71	41.4
11/03/2014 1:35:00 AM	3.67	41.2
11/03/2014 1:39:00 AM	3.51	41.6
11/03/2014 1:40:00 AM	3.57	41.3
11/03/2014 1:43:00 AM	3.71	41.2
11/03/2014 1:44:00 AM	3.82	40.5
11/03/2014 1:50:00 AM	3.81	43.5
11/03/2014 1:51:00 AM	4.10	41.6
11/03/2014 1:52:00 AM	4.44	43.5
11/03/2014 1:53:00 AM	4.58	42.5
11/03/2014 1:54:00 AM	4.83	42.8
11/03/2014 1:55:00 AM	4.37	40.5
11/03/2014 1:56:00 AM	4.73	40.7
11/03/2014 1:57:00 AM	5.34	42.0
11/03/2014 1:58:00 AM	5.35	42.0
11/03/2014 1:59:00 AM	5.01	41.0
11/03/2014 2:00:00 AM	5.41	42.2
11/03/2014 2:01:00 AM	5.53	40.8
11/03/2014 2:02:00 AM	5.52	43.5
11/03/2014 2:03:00 AM	5.30	41.5
11/03/2014 2:04:00 AM	4.98	41.9
11/03/2014 2:05:00 AM	5.63	41.4
11/03/2014 2:06:00 AM	5.71	40.4
11/03/2014 2:07:00 AM	5.51	39.7
11/03/2014 2:08:00 AM	5.33	39.7
11/03/2014 2:09:00 AM	5.30	40.9
11/03/2014 2:10:00 AM	5.86	40.8
11/03/2014 2:11:00 AM	5.43	40.4
11/03/2014 2:12:00 AM	5.67	40.7
11/03/2014 2:13:00 AM	5.10	39.7
11/03/2014 2:14:00 AM	4.40	39.8

**Table H3 - Valid Total 1-Minute Sound Data - Monitor C - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
11/03/2014 2:15:00 AM	4.85	41.0
11/03/2014 2:16:00 AM	4.63	41.5
11/03/2014 2:17:00 AM	5.51	41.1
11/03/2014 2:18:00 AM	5.25	41.9
11/03/2014 2:19:00 AM	4.84	40.4
11/03/2014 2:20:00 AM	4.34	41.2
11/03/2014 2:21:00 AM	4.87	42.6
11/03/2014 2:22:00 AM	4.68	41.5
11/03/2014 2:23:00 AM	5.27	41.3
11/03/2014 2:24:00 AM	5.09	40.7
11/03/2014 2:25:00 AM	5.10	40.8
11/03/2014 2:26:00 AM	5.00	40.8
11/03/2014 2:27:00 AM	5.04	39.4
11/03/2014 2:28:00 AM	5.28	40.2
11/03/2014 2:29:00 AM	5.29	40.2
11/03/2014 2:30:00 AM	4.96	39.5
11/03/2014 2:31:00 AM	4.93	40.8
11/03/2014 2:32:00 AM	5.32	40.6
11/03/2014 2:33:00 AM	5.31	41.9
11/03/2014 2:34:00 AM	4.62	41.2
11/03/2014 2:35:00 AM	4.58	41.4
11/03/2014 2:36:00 AM	5.25	41.5
11/03/2014 2:37:00 AM	4.83	41.1
11/03/2014 2:38:00 AM	4.84	41.5
11/03/2014 2:39:00 AM	4.49	41.6
11/03/2014 2:40:00 AM	4.74	41.4
11/03/2014 2:41:00 AM	4.49	41.4
11/03/2014 2:42:00 AM	4.33	41.2
11/03/2014 2:43:00 AM	4.64	41.4
11/03/2014 2:44:00 AM	4.11	41.5
11/03/2014 2:45:00 AM	4.44	41.3
11/03/2014 2:46:00 AM	4.50	41.7
11/03/2014 2:47:00 AM	4.22	41.2
11/03/2014 2:48:00 AM	4.52	41.0
11/03/2014 2:49:00 AM	3.95	41.8
11/03/2014 2:50:00 AM	4.36	41.4
11/03/2014 2:51:00 AM	4.34	41.7
11/03/2014 2:52:00 AM	4.34	41.7
11/03/2014 2:53:00 AM	4.30	42.3
11/03/2014 2:58:00 AM	4.44	41.9
11/03/2014 3:00:00 AM	3.90	41.4
11/03/2014 3:01:00 AM	3.93	43.2
11/03/2014 3:02:00 AM	3.95	42.7
11/03/2014 3:03:00 AM	4.20	43.0
11/03/2014 3:04:00 AM	3.53	43.0
11/03/2014 3:05:00 AM	4.13	42.2
11/03/2014 3:06:00 AM	3.72	43.0
11/03/2014 3:07:00 AM	4.20	44.3
11/03/2014 3:08:00 AM	4.54	43.0
11/03/2014 3:09:00 AM	5.15	41.8

**Table H3 - Valid Total 1-Minute Sound Data - Monitor C - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
11/03/2014 3:10:00 AM	5.23	42.0
11/03/2014 3:11:00 AM	5.13	42.4
11/03/2014 3:12:00 AM	4.99	43.0
11/03/2014 3:13:00 AM	5.09	42.3
11/03/2014 3:14:00 AM	5.61	42.7
11/03/2014 3:15:00 AM	5.77	43.1
11/03/2014 3:16:00 AM	5.29	42.9
11/03/2014 3:17:00 AM	4.99	42.3
11/03/2014 3:18:00 AM	5.22	41.7
11/03/2014 3:19:00 AM	5.54	42.6
11/03/2014 3:20:00 AM	5.12	42.5
11/03/2014 3:21:00 AM	4.70	42.4
11/03/2014 3:22:00 AM	5.17	41.4
11/03/2014 3:23:00 AM	5.14	41.7
11/03/2014 3:24:00 AM	4.73	41.7
11/03/2014 3:25:00 AM	5.09	41.0
11/03/2014 3:26:00 AM	4.84	41.3
11/03/2014 3:27:00 AM	5.11	42.2
11/03/2014 3:28:00 AM	5.34	41.7
11/03/2014 3:29:00 AM	5.09	40.8
11/03/2014 3:30:00 AM	4.61	41.4
11/03/2014 3:32:00 AM	4.46	41.6
11/03/2014 3:33:00 AM	4.37	41.5
11/03/2014 3:34:00 AM	4.07	41.4
11/03/2014 3:35:00 AM	4.98	42.2
11/03/2014 3:36:00 AM	4.45	42.6
11/03/2014 3:37:00 AM	3.86	41.3
11/03/2014 3:38:00 AM	4.56	41.3
11/03/2014 3:39:00 AM	4.49	40.3
11/03/2014 3:44:00 AM	4.94	39.7
11/03/2014 3:45:00 AM	5.06	39.7
11/03/2014 3:46:00 AM	4.77	40.7
11/03/2014 3:47:00 AM	4.07	40.1
11/03/2014 3:48:00 AM	3.66	40.5
11/03/2014 3:49:00 AM	4.47	41.1
11/03/2014 3:50:00 AM	4.16	40.0
11/03/2014 3:52:00 AM	3.82	41.1
11/03/2014 3:53:00 AM	4.28	41.1
11/03/2014 3:54:00 AM	3.66	41.9
11/03/2014 3:55:00 AM	3.86	41.7
11/03/2014 3:56:00 AM	4.06	42.0
11/03/2014 4:01:00 AM	4.75	41.1
11/03/2014 4:03:00 AM	4.98	41.0
11/03/2014 4:05:00 AM	4.73	42.3
11/03/2014 4:06:00 AM	4.61	41.9
11/03/2014 4:07:00 AM	4.42	42.3
11/03/2014 4:08:00 AM	4.74	41.6
11/03/2014 4:09:00 AM	4.85	41.0
11/03/2014 4:10:00 AM	4.78	41.6
11/03/2014 4:11:00 AM	4.41	41.5

**Table H3 - Valid Total 1-Minute Sound Data - Monitor C - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
11/03/2014 4:12:00 AM	4.56	41.6
11/03/2014 4:13:00 AM	4.86	42.1
11/03/2014 4:14:00 AM	4.71	41.5
11/03/2014 4:15:00 AM	4.37	41.9
11/03/2014 4:16:00 AM	4.21	42.2
11/03/2014 4:17:00 AM	4.15	43.1
11/03/2014 4:18:00 AM	3.81	42.6
11/03/2014 4:19:00 AM	4.35	41.6
11/03/2014 4:20:00 AM	4.36	41.6
11/03/2014 4:22:00 AM	4.87	42.6
11/03/2014 4:24:00 AM	4.83	43.2
11/03/2014 4:28:00 AM	5.05	42.6
11/03/2014 4:29:00 AM	5.10	43.5
11/03/2014 4:30:00 AM	5.06	43.9
11/03/2014 4:32:00 AM	5.02	42.6
11/03/2014 4:34:00 AM	4.87	40.7
11/03/2014 4:35:00 AM	4.55	41.7
11/03/2014 4:36:00 AM	4.96	41.5
11/03/2014 4:38:00 AM	5.25	42.5
11/03/2014 4:39:00 AM	5.35	42.1
11/03/2014 4:40:00 AM	5.43	42.4
11/03/2014 4:41:00 AM	5.26	42.1
11/03/2014 4:42:00 AM	5.08	41.9
11/03/2014 4:43:00 AM	5.13	41.9
11/03/2014 4:51:00 AM	4.93	41.6
11/03/2014 4:52:00 AM	4.65	41.1
11/03/2014 4:53:00 AM	4.35	41.9
11/03/2014 4:54:00 AM	4.46	41.3
11/03/2014 4:55:00 AM	4.66	41.5
11/03/2014 4:56:00 AM	4.42	40.7
11/03/2014 4:57:00 AM	4.45	40.4
11/03/2014 4:58:00 AM	4.58	39.1
11/03/2014 4:59:00 AM	4.28	38.7
11/03/2014 5:00:00 AM	4.54	39.0
11/03/2014 5:01:00 AM	4.37	39.5
11/03/2014 5:03:00 AM	3.71	40.5
11/03/2014 5:04:00 AM	3.56	40.3
11/03/2014 5:05:00 AM	3.87	39.6
11/03/2014 5:06:00 AM	3.73	40.3
11/03/2014 5:09:00 AM	3.85	40.2
11/04/2014 11:00:00 PM	6.59	51.5
11/04/2014 11:01:00 PM	6.70	49.7
11/04/2014 11:03:00 PM	6.34	53.6
11/04/2014 11:04:00 PM	5.22	53.1
11/04/2014 11:05:00 PM	5.95	52.2
11/04/2014 11:09:00 PM	6.94	48.8
11/04/2014 11:16:00 PM	6.99	48.9
11/04/2014 11:18:00 PM	6.98	42.7
11/04/2014 11:19:00 PM	6.48	55.6
11/04/2014 11:20:00 PM	7.29	44.7



**Table H3 - Valid Total 1-Minute Sound Data - Monitor C - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
11/04/2014 11:23:00 PM	7.13	46.7
11/04/2014 11:24:00 PM	6.73	45.0
11/04/2014 11:25:00 PM	5.44	43.0
11/04/2014 11:26:00 PM	5.88	48.1
11/04/2014 11:27:00 PM	5.65	45.9
11/04/2014 11:29:00 PM	5.21	46.0
11/04/2014 11:30:00 PM	6.77	44.0
11/04/2014 11:31:00 PM	5.96	45.2
11/04/2014 11:32:00 PM	5.72	46.8
11/04/2014 11:33:00 PM	6.17	45.7
11/04/2014 11:34:00 PM	6.54	44.2
11/04/2014 11:35:00 PM	5.45	48.2
11/04/2014 11:36:00 PM	6.27	42.7
11/04/2014 11:37:00 PM	6.60	46.6
11/04/2014 11:38:00 PM	6.17	45.5
11/04/2014 11:39:00 PM	6.40	45.6
11/04/2014 11:40:00 PM	7.22	47.7
11/04/2014 11:41:00 PM	5.40	42.3
11/04/2014 11:42:00 PM	6.40	49.3
11/04/2014 11:43:00 PM	5.66	52.5
11/04/2014 11:44:00 PM	6.32	52.8
11/04/2014 11:45:00 PM	5.22	49.7
11/04/2014 11:46:00 PM	6.55	51.7
11/04/2014 11:47:00 PM	6.27	52.0
11/04/2014 11:48:00 PM	6.42	53.7
11/04/2014 11:49:00 PM	5.95	54.6
11/04/2014 11:51:00 PM	7.16	55.3
11/05/2014 12:10:00 AM	7.36	50.7
11/05/2014 12:11:00 AM	5.44	51.8
11/05/2014 12:12:00 AM	6.54	53.3
11/05/2014 12:18:00 AM	7.15	55.1
11/05/2014 12:27:00 AM	6.94	47.9
11/05/2014 12:28:00 AM	6.05	50.0
11/05/2014 12:29:00 AM	6.77	51.0
11/05/2014 12:30:00 AM	6.41	49.2
11/05/2014 12:31:00 AM	5.75	46.4
11/05/2014 12:32:00 AM	4.64	45.1
11/05/2014 12:33:00 AM	7.08	41.6
11/05/2014 12:35:00 AM	6.80	45.0
11/05/2014 12:37:00 AM	6.54	41.8
11/05/2014 12:38:00 AM	6.87	41.6
11/05/2014 12:39:00 AM	6.34	45.8
11/05/2014 12:40:00 AM	5.10	46.7
11/05/2014 12:42:00 AM	6.42	43.3
11/05/2014 12:43:00 AM	5.13	43.1
11/05/2014 12:44:00 AM	4.24	40.8
11/05/2014 12:45:00 AM	5.04	40.2
11/05/2014 12:46:00 AM	5.18	40.2
11/05/2014 12:47:00 AM	6.52	41.8
11/05/2014 12:48:00 AM	4.05	40.8

**Table H3 - Valid Total 1-Minute Sound Data - Monitor C - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
11/05/2014 12:49:00 AM	5.80	41.2
11/05/2014 12:50:00 AM	5.50	41.8
11/05/2014 12:51:00 AM	4.78	43.6
11/05/2014 12:52:00 AM	4.21	43.2
11/05/2014 12:53:00 AM	3.81	39.9
11/05/2014 12:54:00 AM	4.78	40.3
11/05/2014 12:55:00 AM	5.24	38.6
11/05/2014 12:56:00 AM	4.87	37.9
11/05/2014 12:57:00 AM	5.53	35.9
11/05/2014 12:58:00 AM	4.14	35.1
11/05/2014 12:59:00 AM	5.14	34.8
11/05/2014 1:00:00 AM	4.48	36.7
11/05/2014 1:01:00 AM	5.13	35.2
11/05/2014 1:02:00 AM	4.24	35.8
11/05/2014 1:03:00 AM	4.29	37.4
11/05/2014 1:05:00 AM	3.93	36.4
11/05/2014 1:07:00 AM	3.85	36.7
11/05/2014 1:08:00 AM	3.75	35.8
11/05/2014 1:09:00 AM	4.13	34.9
11/05/2014 1:11:00 AM	3.76	34.0
11/05/2014 1:12:00 AM	4.20	35.1
11/05/2014 1:14:00 AM	4.57	34.1
11/05/2014 1:15:00 AM	4.34	34.5
11/05/2014 1:17:00 AM	3.51	35.8
11/05/2014 1:25:00 AM	3.71	32.8
11/05/2014 1:26:00 AM	3.71	33.9
11/05/2014 1:27:00 AM	3.91	33.5
11/05/2014 1:28:00 AM	3.89	33.5
11/05/2014 1:29:00 AM	3.64	33.9
11/05/2014 1:30:00 AM	3.90	33.3
11/05/2014 1:31:00 AM	3.86	33.4
11/05/2014 1:32:00 AM	3.91	33.2
11/05/2014 1:33:00 AM	3.82	33.6
11/05/2014 1:34:00 AM	3.88	33.2
11/05/2014 1:41:00 AM	3.67	33.3
11/05/2014 1:43:00 AM	3.83	34.3
11/05/2014 1:44:00 AM	3.53	33.7
11/05/2014 2:43:00 AM	3.50	38.9
11/07/2014 4:26:00 AM	3.58	39.4
11/07/2014 4:30:00 AM	5.11	42.2
11/07/2014 4:31:00 AM	4.28	43.4
11/07/2014 4:32:00 AM	4.24	42.7
11/07/2014 4:33:00 AM	4.27	43.3
11/08/2014 11:00:00 PM	3.92	36.9
11/08/2014 11:01:00 PM	4.45	35.4
11/08/2014 11:02:00 PM	4.27	32.5
11/08/2014 11:03:00 PM	4.33	32.0
11/08/2014 11:04:00 PM	3.90	35.1
11/08/2014 11:05:00 PM	3.61	34.2
11/08/2014 11:07:00 PM	4.21	33.3

**Table H3 - Valid Total 1-Minute Sound Data - Monitor C - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
11/08/2014 11:08:00 PM	3.55	34.8
11/08/2014 11:15:00 PM	3.99	33.0
11/08/2014 11:16:00 PM	3.60	33.9
11/08/2014 11:17:00 PM	4.95	33.9
11/08/2014 11:18:00 PM	4.75	31.0
11/08/2014 11:19:00 PM	3.69	31.6
11/08/2014 11:20:00 PM	3.68	32.3
11/08/2014 11:22:00 PM	3.55	33.6
11/08/2014 11:23:00 PM	3.97	34.4
11/08/2014 11:24:00 PM	3.89	34.2
11/08/2014 11:25:00 PM	3.79	33.6
11/08/2014 11:39:00 PM	3.50	34.4
11/08/2014 11:41:00 PM	3.53	34.1
11/08/2014 11:46:00 PM	3.67	36.1
11/08/2014 11:47:00 PM	4.01	36.0
11/08/2014 11:48:00 PM	3.90	39.3
11/08/2014 11:49:00 PM	3.99	36.5
11/08/2014 11:50:00 PM	3.63	35.1
11/08/2014 11:51:00 PM	3.68	36.8
11/08/2014 11:52:00 PM	3.98	35.5
11/08/2014 11:53:00 PM	3.75	35.1
11/08/2014 11:54:00 PM	3.91	35.5
11/08/2014 11:55:00 PM	4.30	34.3
11/08/2014 11:56:00 PM	4.31	34.6
11/08/2014 11:57:00 PM	3.86	35.0
11/08/2014 11:58:00 PM	3.54	35.2
11/09/2014 12:00:00 AM	3.56	34.1
11/09/2014 12:04:00 AM	3.55	33.6
11/09/2014 12:05:00 AM	3.80	32.7
11/09/2014 12:06:00 AM	3.78	33.4
11/09/2014 12:07:00 AM	4.19	32.7
11/09/2014 12:08:00 AM	3.84	32.4
11/09/2014 12:10:00 AM	3.75	34.8
11/09/2014 12:11:00 AM	3.61	34.9
11/09/2014 12:43:00 AM	3.74	35.9
11/09/2014 12:44:00 AM	3.63	34.1
11/09/2014 12:50:00 AM	3.58	33.4
11/09/2014 12:56:00 AM	3.54	33.9
11/09/2014 1:01:00 AM	3.77	36.0
11/09/2014 1:05:00 AM	3.55	35.9
11/09/2014 1:08:00 AM	3.76	34.2
11/09/2014 1:09:00 AM	3.59	35.0
11/09/2014 1:11:00 AM	4.30	34.4
11/09/2014 1:12:00 AM	3.69	34.6
11/09/2014 1:15:00 AM	4.03	37.3
11/09/2014 1:16:00 AM	3.79	34.9
11/09/2014 1:17:00 AM	3.80	35.1
11/09/2014 1:18:00 AM	3.60	34.5
11/09/2014 1:19:00 AM	3.83	32.4
11/09/2014 1:20:00 AM	3.61	32.8

**Table H3 - Valid Total 1-Minute Sound Data - Monitor C - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
11/09/2014 1:32:00 AM	3.83	32.4
11/09/2014 1:47:00 AM	3.53	34.3
11/09/2014 1:52:00 AM	3.64	34.5
11/09/2014 1:53:00 AM	3.96	35.4
11/09/2014 1:54:00 AM	3.82	35.1
11/09/2014 1:55:00 AM	3.81	34.2
11/09/2014 1:56:00 AM	3.94	34.8
11/09/2014 1:57:00 AM	3.92	35.5
11/09/2014 1:58:00 AM	3.94	34.9
11/09/2014 1:59:00 AM	4.23	34.2
11/09/2014 2:01:00 AM	3.73	32.9
11/09/2014 2:02:00 AM	3.54	32.8
11/09/2014 2:08:00 AM	3.76	33.6
11/09/2014 2:10:00 AM	3.52	33.9
11/09/2014 2:13:00 AM	3.56	33.8
11/09/2014 2:14:00 AM	4.32	34.9
11/09/2014 2:15:00 AM	4.16	34.1
11/09/2014 2:16:00 AM	3.90	34.7
11/09/2014 2:17:00 AM	3.81	35.9
11/09/2014 2:18:00 AM	4.05	33.9
11/09/2014 2:20:00 AM	3.93	34.3
11/09/2014 2:21:00 AM	4.10	34.0
11/09/2014 2:22:00 AM	4.11	34.9
11/09/2014 2:23:00 AM	3.67	34.1
11/09/2014 2:24:00 AM	3.81	34.6
11/09/2014 2:25:00 AM	4.48	32.7
11/09/2014 2:26:00 AM	3.92	32.1
11/09/2014 2:27:00 AM	4.51	33.0
11/09/2014 2:28:00 AM	4.18	32.8
11/09/2014 2:29:00 AM	3.97	33.0
11/09/2014 2:30:00 AM	4.53	32.8
11/09/2014 2:31:00 AM	4.12	33.1
11/09/2014 2:32:00 AM	3.92	32.8
11/09/2014 2:35:00 AM	4.11	32.2
11/09/2014 2:52:00 AM	3.63	33.3
11/09/2014 2:53:00 AM	4.06	33.1
11/09/2014 2:54:00 AM	4.25	33.5
11/09/2014 2:55:00 AM	3.86	34.0
11/09/2014 2:56:00 AM	3.92	32.7
11/09/2014 2:57:00 AM	3.57	32.6
11/09/2014 2:58:00 AM	3.55	33.4
11/09/2014 2:59:00 AM	3.86	33.1
11/09/2014 3:00:00 AM	3.97	32.7
11/09/2014 3:01:00 AM	3.52	33.2
11/09/2014 3:02:00 AM	3.85	33.6
11/09/2014 3:03:00 AM	4.15	32.6
11/09/2014 3:05:00 AM	3.53	33.3
11/09/2014 3:06:00 AM	3.97	33.2
11/09/2014 3:07:00 AM	3.65	32.2
11/09/2014 3:08:00 AM	3.51	33.0

**Table H3 - Valid Total 1-Minute Sound Data - Monitor C - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
11/09/2014 3:14:00 AM	3.67	33.0
11/09/2014 3:22:00 AM	3.67	34.2
11/09/2014 3:27:00 AM	3.56	32.5
11/09/2014 3:28:00 AM	3.69	32.2
11/09/2014 3:29:00 AM	3.53	31.9
11/09/2014 3:30:00 AM	3.54	33.2
11/09/2014 3:31:00 AM	3.57	32.5
11/09/2014 3:32:00 AM	4.09	31.9
11/09/2014 3:33:00 AM	4.45	32.5
11/09/2014 3:34:00 AM	3.94	32.4
11/09/2014 3:58:00 AM	3.51	30.2
11/09/2014 4:08:00 AM	4.09	30.2
11/09/2014 4:09:00 AM	3.92	31.6
11/09/2014 4:12:00 AM	3.53	31.2
11/09/2014 4:13:00 AM	3.63	30.7
11/09/2014 4:28:00 AM	3.58	33.3
11/09/2014 4:30:00 AM	3.71	31.1
11/09/2014 4:55:00 AM	3.75	32.3
11/09/2014 4:56:00 AM	3.59	32.6
11/09/2014 5:16:00 AM	3.53	34.9
11/09/2014 5:23:00 AM	3.62	39.4
11/09/2014 5:31:00 AM	3.53	35.3
11/11/2014 11:00:00 PM	7.12	47.4
11/11/2014 11:03:00 PM	6.15	45.6
11/11/2014 11:05:00 PM	5.39	49.5
11/11/2014 11:06:00 PM	6.40	44.4
11/11/2014 11:08:00 PM	6.69	47.3
11/11/2014 11:09:00 PM	5.43	47.0
11/11/2014 11:10:00 PM	4.98	48.2
11/11/2014 11:11:00 PM	6.16	47.6
11/11/2014 11:12:00 PM	4.91	44.0
11/11/2014 11:13:00 PM	6.48	47.4
11/11/2014 11:14:00 PM	5.27	45.7
11/11/2014 11:15:00 PM	5.51	45.5
11/11/2014 11:16:00 PM	6.33	43.5
11/11/2014 11:17:00 PM	6.70	42.6
11/11/2014 11:18:00 PM	6.47	42.2
11/11/2014 11:19:00 PM	6.70	44.2
11/11/2014 11:20:00 PM	5.12	45.1
11/11/2014 11:22:00 PM	6.14	44.2
11/11/2014 11:24:00 PM	5.58	44.6
11/11/2014 11:25:00 PM	4.85	48.4
11/11/2014 11:26:00 PM	4.94	46.1
11/11/2014 11:27:00 PM	5.00	46.9
11/11/2014 11:28:00 PM	5.26	48.0
11/11/2014 11:29:00 PM	5.10	44.0
11/11/2014 11:30:00 PM	4.72	45.0
11/11/2014 11:31:00 PM	5.87	47.8
11/11/2014 11:32:00 PM	6.12	49.4
11/11/2014 11:33:00 PM	6.94	42.7

**Table H3 - Valid Total 1-Minute Sound Data - Monitor C - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
11/11/2014 11:34:00 PM	6.50	44.2
11/11/2014 11:35:00 PM	6.14	46.3
11/11/2014 11:36:00 PM	5.50	41.9
11/11/2014 11:37:00 PM	4.67	45.3
11/11/2014 11:39:00 PM	6.49	52.2
11/11/2014 11:40:00 PM	7.20	46.9
11/11/2014 11:41:00 PM	5.42	49.6
11/11/2014 11:42:00 PM	4.85	47.8
11/11/2014 11:43:00 PM	6.52	50.9
11/11/2014 11:44:00 PM	4.25	46.9
11/11/2014 11:48:00 PM	6.27	50.8
11/11/2014 11:49:00 PM	7.21	47.7
11/11/2014 11:50:00 PM	6.67	52.8
11/11/2014 11:52:00 PM	6.07	46.6
11/11/2014 11:53:00 PM	6.52	45.6
11/11/2014 11:54:00 PM	6.44	44.0
11/11/2014 11:56:00 PM	7.34	46.1
11/11/2014 11:57:00 PM	6.40	45.9
11/11/2014 11:59:00 PM	7.25	46.1
11/12/2014 12:00:00 AM	6.01	43.0
11/12/2014 12:01:00 AM	5.61	42.4
11/12/2014 12:02:00 AM	5.39	45.4
11/12/2014 12:03:00 AM	5.49	43.5
11/12/2014 12:04:00 AM	6.10	50.1
11/12/2014 12:06:00 AM	7.01	49.8
11/12/2014 12:08:00 AM	5.05	49.1
11/12/2014 12:09:00 AM	4.84	51.8
11/12/2014 12:10:00 AM	6.07	50.1
11/12/2014 12:11:00 AM	5.72	52.1
11/12/2014 12:12:00 AM	5.98	51.0
11/12/2014 12:13:00 AM	5.10	48.0
11/12/2014 12:14:00 AM	6.45	46.2
11/12/2014 12:16:00 AM	6.80	51.0
11/12/2014 12:18:00 AM	7.33	51.8
11/12/2014 12:21:00 AM	6.57	51.7
11/12/2014 12:23:00 AM	6.14	51.9
11/12/2014 12:24:00 AM	7.22	54.2
11/12/2014 12:31:00 AM	7.46	45.0
11/12/2014 12:33:00 AM	6.45	47.8
11/12/2014 12:34:00 AM	6.99	45.5
11/12/2014 12:35:00 AM	7.21	43.1
11/12/2014 12:36:00 AM	7.29	48.5
11/12/2014 12:37:00 AM	5.99	48.1
11/12/2014 12:38:00 AM	6.15	42.6
11/12/2014 12:39:00 AM	5.49	42.8
11/12/2014 12:41:00 AM	6.49	49.0
11/12/2014 12:42:00 AM	5.88	42.6
11/12/2014 12:43:00 AM	5.70	42.1
11/12/2014 12:44:00 AM	6.88	43.1
11/12/2014 12:45:00 AM	6.51	49.9

**Table H3 - Valid Total 1-Minute Sound Data - Monitor C - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
11/12/2014 12:46:00 AM	5.41	47.3
11/12/2014 12:47:00 AM	5.25	49.0
11/12/2014 12:48:00 AM	6.04	45.0
11/12/2014 12:50:00 AM	4.82	44.5
11/12/2014 12:51:00 AM	4.35	43.6
11/12/2014 12:52:00 AM	4.97	48.2
11/12/2014 12:55:00 AM	7.06	46.0
11/12/2014 12:56:00 AM	5.72	40.8
11/12/2014 12:57:00 AM	5.52	41.4
11/12/2014 12:58:00 AM	5.36	43.2
11/12/2014 12:59:00 AM	5.17	41.5
11/12/2014 1:00:00 AM	7.08	41.8
11/12/2014 1:01:00 AM	6.32	43.2
11/12/2014 1:02:00 AM	5.86	44.3
11/12/2014 1:04:00 AM	4.55	43.7
11/12/2014 1:05:00 AM	4.32	42.7
11/12/2014 1:06:00 AM	5.25	45.7
11/12/2014 1:07:00 AM	4.63	44.9
11/12/2014 1:08:00 AM	4.70	46.6
11/12/2014 1:09:00 AM	5.28	44.3
11/12/2014 1:10:00 AM	5.74	45.8
11/12/2014 1:11:00 AM	5.89	54.2
11/12/2014 1:12:00 AM	5.57	52.6
11/12/2014 1:13:00 AM	4.93	45.4
11/12/2014 1:15:00 AM	5.07	46.9
11/12/2014 1:17:00 AM	5.55	43.5
11/12/2014 1:18:00 AM	6.32	46.2
11/12/2014 1:20:00 AM	7.20	47.9
11/12/2014 1:21:00 AM	5.61	48.9
11/12/2014 1:22:00 AM	4.64	48.0
11/12/2014 1:23:00 AM	6.35	49.2
11/12/2014 1:24:00 AM	6.56	47.4
11/12/2014 1:25:00 AM	5.05	44.5
11/12/2014 1:26:00 AM	6.21	48.4
11/12/2014 1:27:00 AM	6.50	51.4
11/12/2014 1:28:00 AM	6.92	48.0
11/12/2014 1:29:00 AM	6.01	45.2
11/12/2014 1:30:00 AM	6.90	46.1
11/12/2014 1:31:00 AM	6.79	44.3
11/12/2014 1:32:00 AM	5.81	44.7
11/12/2014 1:33:00 AM	6.01	47.9
11/12/2014 1:34:00 AM	6.69	45.1
11/12/2014 1:38:00 AM	5.91	42.0
11/12/2014 1:39:00 AM	5.38	42.7
11/12/2014 1:40:00 AM	5.49	45.1
11/12/2014 1:42:00 AM	5.79	41.2
11/12/2014 1:43:00 AM	6.27	44.4
11/12/2014 1:44:00 AM	6.98	45.1
11/12/2014 1:46:00 AM	5.10	43.3
11/12/2014 1:47:00 AM	4.60	47.8

**Table H3 - Valid Total 1-Minute Sound Data - Monitor C - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
11/12/2014 1:49:00 AM	5.43	47.0
11/12/2014 1:50:00 AM	4.61	47.2
11/12/2014 1:52:00 AM	6.23	51.0
11/12/2014 1:53:00 AM	4.93	44.2
11/12/2014 1:54:00 AM	4.86	44.4
11/12/2014 1:56:00 AM	6.82	45.2
11/12/2014 1:57:00 AM	6.20	42.7
11/12/2014 1:58:00 AM	6.59	42.8
11/12/2014 1:59:00 AM	6.61	43.5
11/12/2014 2:01:00 AM	5.63	42.7
11/12/2014 2:02:00 AM	5.84	41.9
11/12/2014 2:03:00 AM	5.02	43.2
11/12/2014 2:04:00 AM	5.58	40.0
11/12/2014 2:05:00 AM	5.08	39.9
11/12/2014 2:06:00 AM	4.92	41.0
11/12/2014 2:07:00 AM	5.56	45.9
11/12/2014 2:08:00 AM	5.26	47.8
11/12/2014 2:09:00 AM	5.25	46.9
11/12/2014 2:10:00 AM	4.86	48.9
11/12/2014 2:11:00 AM	5.36	46.7
11/12/2014 2:12:00 AM	4.41	54.0
11/12/2014 2:13:00 AM	4.33	54.7
11/12/2014 2:17:00 AM	6.56	50.9
11/12/2014 2:36:00 AM	7.39	46.0
11/12/2014 2:38:00 AM	6.68	45.8
11/12/2014 2:39:00 AM	5.58	47.1
11/12/2014 2:53:00 AM	6.57	48.4
11/12/2014 2:54:00 AM	5.47	44.0
11/12/2014 2:55:00 AM	4.53	46.3
11/12/2014 2:56:00 AM	5.32	51.9
11/12/2014 3:02:00 AM	5.29	50.9
11/12/2014 3:10:00 AM	7.36	53.0
11/12/2014 3:14:00 AM	6.34	55.3
11/12/2014 3:15:00 AM	6.14	55.8
11/12/2014 3:16:00 AM	7.17	54.2
11/12/2014 3:30:00 AM	7.36	45.6
11/12/2014 3:35:00 AM	6.33	52.4
11/12/2014 3:37:00 AM	5.89	50.1
11/12/2014 3:38:00 AM	5.79	50.7
11/12/2014 3:40:00 AM	6.67	43.7
11/12/2014 3:45:00 AM	7.17	47.7
11/12/2014 3:48:00 AM	5.18	51.4
11/12/2014 3:51:00 AM	5.90	48.6
11/12/2014 3:52:00 AM	5.35	52.2
11/12/2014 3:53:00 AM	6.20	50.0
11/12/2014 3:58:00 AM	7.12	45.3
11/12/2014 3:59:00 AM	6.58	45.1
11/12/2014 4:02:00 AM	7.13	49.8
11/12/2014 4:04:00 AM	6.07	55.6
11/12/2014 4:05:00 AM	5.40	49.0



**Table H3 - Valid Total 1-Minute Sound Data - Monitor C - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
11/12/2014 4:06:00 AM	5.60	51.4
11/12/2014 4:08:00 AM	7.16	51.3
11/12/2014 4:38:00 AM	7.41	48.4
11/12/2014 4:43:00 AM	7.49	46.2
11/12/2014 4:46:00 AM	7.13	52.7
11/12/2014 4:47:00 AM	7.18	47.0
11/12/2014 4:51:00 AM	5.89	53.1
11/12/2014 4:55:00 AM	6.15	44.5
11/12/2014 4:56:00 AM	7.38	48.5
11/12/2014 5:00:00 AM	6.99	49.1
11/12/2014 5:02:00 AM	5.16	55.0
11/12/2014 5:03:00 AM	5.84	53.0
11/12/2014 5:05:00 AM	4.45	54.8
11/12/2014 5:06:00 AM	5.43	54.5
11/12/2014 5:07:00 AM	5.30	51.0
11/12/2014 5:08:00 AM	6.57	48.5
11/12/2014 5:15:00 AM	6.72	53.1
11/12/2014 5:17:00 AM	6.37	49.9
11/12/2014 5:23:00 AM	7.21	41.1
11/12/2014 5:24:00 AM	7.16	40.2
11/12/2014 5:25:00 AM	7.07	42.1
11/12/2014 5:26:00 AM	7.39	42.2
11/12/2014 5:27:00 AM	6.64	48.3
11/12/2014 5:30:00 AM	4.55	46.8
11/12/2014 5:31:00 AM	4.21	51.3
11/12/2014 5:32:00 AM	3.66	49.4
11/12/2014 5:33:00 AM	4.44	50.9
11/12/2014 5:34:00 AM	3.70	44.1
11/12/2014 5:36:00 AM	6.94	45.0
11/12/2014 5:37:00 AM	5.58	44.3
11/12/2014 5:38:00 AM	6.11	42.8
11/12/2014 5:39:00 AM	7.12	44.1
11/12/2014 5:40:00 AM	6.36	51.5
11/12/2014 5:42:00 AM	5.39	42.9
11/12/2014 5:44:00 AM	5.55	44.1
11/12/2014 5:45:00 AM	5.66	41.8
11/12/2014 5:46:00 AM	4.90	40.6
11/12/2014 5:48:00 AM	7.06	47.0
11/12/2014 5:49:00 AM	5.68	42.5
11/12/2014 5:50:00 AM	5.03	43.1
11/12/2014 5:51:00 AM	5.00	43.9
11/12/2014 5:53:00 AM	4.49	43.4
11/12/2014 5:54:00 AM	4.55	48.7
11/12/2014 5:55:00 AM	4.68	47.0
11/12/2014 5:57:00 AM	5.39	45.2
11/12/2014 5:58:00 AM	4.87	49.2
11/12/2014 11:01:00 PM	3.73	40.4
11/12/2014 11:03:00 PM	3.61	39.8
11/12/2014 11:08:00 PM	3.60	40.1
11/12/2014 11:12:00 PM	3.51	39.1

**Table H3 - Valid Total 1-Minute Sound Data - Monitor C - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
11/12/2014 11:15:00 PM	3.60	39.7
11/12/2014 11:16:00 PM	3.62	39.0
11/12/2014 11:21:00 PM	3.82	39.5
11/12/2014 11:22:00 PM	3.71	39.5
11/12/2014 11:27:00 PM	3.54	40.8
11/12/2014 11:31:00 PM	3.65	40.8
11/12/2014 11:32:00 PM	3.94	41.2
11/12/2014 11:34:00 PM	3.56	39.1
11/12/2014 11:35:00 PM	4.11	40.3
11/12/2014 11:36:00 PM	3.84	40.1
11/12/2014 11:37:00 PM	3.86	39.7
11/12/2014 11:38:00 PM	4.22	40.1
11/12/2014 11:39:00 PM	3.61	40.2
11/12/2014 11:40:00 PM	4.19	40.6
11/12/2014 11:41:00 PM	4.09	40.9
11/12/2014 11:42:00 PM	3.58	41.1
11/12/2014 11:43:00 PM	4.15	40.4
11/12/2014 11:44:00 PM	3.94	40.9
11/12/2014 11:45:00 PM	3.69	40.3
11/12/2014 11:47:00 PM	4.14	39.6
11/12/2014 11:48:00 PM	4.04	40.2
11/12/2014 11:49:00 PM	4.37	40.5
11/12/2014 11:50:00 PM	4.60	40.9
11/12/2014 11:51:00 PM	3.92	41.0
11/12/2014 11:52:00 PM	4.32	40.9
11/12/2014 11:53:00 PM	4.01	40.6
11/12/2014 11:54:00 PM	3.75	40.6
11/12/2014 11:55:00 PM	3.80	40.1
11/12/2014 11:56:00 PM	3.71	40.5
11/12/2014 11:57:00 PM	4.25	41.0
11/12/2014 11:58:00 PM	4.77	40.4
11/12/2014 11:59:00 PM	4.36	40.8
11/13/2014 12:00:00 AM	4.38	40.4
11/13/2014 12:01:00 AM	4.65	39.2
11/13/2014 12:02:00 AM	4.62	39.4
11/13/2014 12:03:00 AM	4.34	38.7
11/13/2014 12:04:00 AM	4.38	39.8
11/13/2014 12:05:00 AM	4.03	40.6
11/13/2014 12:06:00 AM	4.17	40.2
11/13/2014 12:07:00 AM	4.49	41.2
11/13/2014 12:08:00 AM	4.28	40.8
11/13/2014 12:09:00 AM	3.66	40.8
11/13/2014 12:10:00 AM	3.97	41.7
11/13/2014 12:12:00 AM	3.66	40.1
11/13/2014 12:13:00 AM	4.00	40.4
11/13/2014 12:14:00 AM	4.01	41.0
11/13/2014 12:15:00 AM	3.80	40.7
11/13/2014 12:16:00 AM	4.27	39.8
11/13/2014 12:17:00 AM	3.96	39.4
11/13/2014 12:18:00 AM	3.82	40.7

**Table H3 - Valid Total 1-Minute Sound Data - Monitor C - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
11/13/2014 12:20:00 AM	3.55	40.2
11/13/2014 12:21:00 AM	3.83	40.1
11/13/2014 12:22:00 AM	4.04	38.9
11/13/2014 12:23:00 AM	3.93	40.9
11/13/2014 12:24:00 AM	3.60	39.5
11/13/2014 12:25:00 AM	3.96	40.3
11/13/2014 12:26:00 AM	4.17	40.6
11/13/2014 12:27:00 AM	3.85	38.9
11/13/2014 12:28:00 AM	3.56	39.7
11/13/2014 12:29:00 AM	3.81	41.4
11/13/2014 12:30:00 AM	3.51	40.1
11/13/2014 12:31:00 AM	4.21	41.0
11/13/2014 12:33:00 AM	3.79	41.0
11/13/2014 12:34:00 AM	3.96	39.9
11/13/2014 12:36:00 AM	3.71	40.3
11/13/2014 12:37:00 AM	4.03	39.6
11/13/2014 12:38:00 AM	4.41	39.7
11/13/2014 12:39:00 AM	4.19	40.0
11/13/2014 12:40:00 AM	4.54	40.0
11/13/2014 12:41:00 AM	4.52	39.4
11/13/2014 12:42:00 AM	3.90	40.8
11/13/2014 12:43:00 AM	3.65	40.1
11/13/2014 12:44:00 AM	4.27	42.0
11/13/2014 12:45:00 AM	4.11	40.5
11/13/2014 12:46:00 AM	3.68	40.5
11/13/2014 12:47:00 AM	3.97	40.6
11/13/2014 12:48:00 AM	3.82	40.0
11/13/2014 12:49:00 AM	3.90	40.3
11/13/2014 12:50:00 AM	3.67	39.6
11/13/2014 12:51:00 AM	3.99	41.1
11/13/2014 12:52:00 AM	4.07	39.8
11/13/2014 12:53:00 AM	3.99	39.0
11/13/2014 12:54:00 AM	4.16	40.2
11/13/2014 12:56:00 AM	3.87	40.8
11/13/2014 12:57:00 AM	3.90	40.6
11/13/2014 12:58:00 AM	3.80	40.7
11/13/2014 12:59:00 AM	4.19	40.4
11/13/2014 1:00:00 AM	3.90	39.1
11/13/2014 1:01:00 AM	3.58	40.4
11/13/2014 1:02:00 AM	3.62	38.4
11/13/2014 1:03:00 AM	3.70	39.1
11/13/2014 1:04:00 AM	4.54	40.6
11/13/2014 1:05:00 AM	4.19	39.1
11/13/2014 1:06:00 AM	4.02	40.3
11/13/2014 1:08:00 AM	4.02	39.8
11/13/2014 1:09:00 AM	3.63	40.7
11/13/2014 1:11:00 AM	3.68	40.1
11/13/2014 1:12:00 AM	4.25	39.8
11/13/2014 1:14:00 AM	4.02	40.2
11/13/2014 1:15:00 AM	4.35	38.5

**Table H3 - Valid Total 1-Minute Sound Data - Monitor C - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
11/13/2014 1:16:00 AM	3.98	40.9
11/13/2014 1:17:00 AM	3.94	39.7
11/13/2014 1:18:00 AM	3.55	40.2
11/13/2014 1:19:00 AM	4.44	40.3
11/13/2014 1:20:00 AM	3.83	39.7
11/13/2014 1:24:00 AM	3.62	39.8
11/13/2014 1:25:00 AM	3.60	39.5
11/13/2014 1:26:00 AM	3.98	38.7
11/13/2014 1:27:00 AM	3.50	40.3
11/13/2014 1:28:00 AM	3.87	39.4
11/13/2014 1:29:00 AM	3.63	38.6
11/13/2014 1:30:00 AM	4.23	39.5
11/13/2014 1:31:00 AM	4.54	39.4
11/13/2014 1:32:00 AM	3.70	39.8
11/13/2014 1:33:00 AM	3.65	40.6
11/13/2014 1:35:00 AM	3.71	40.4
11/13/2014 1:42:00 AM	4.27	39.9
11/13/2014 1:43:00 AM	3.90	39.3
11/13/2014 1:44:00 AM	3.52	39.8
11/13/2014 1:46:00 AM	3.54	40.5
11/13/2014 1:51:00 AM	3.69	39.0
11/13/2014 1:52:00 AM	3.86	39.6
11/13/2014 1:55:00 AM	3.95	39.2
11/13/2014 1:56:00 AM	3.87	40.3
11/13/2014 1:58:00 AM	3.63	38.8
11/13/2014 2:00:00 AM	3.70	39.3
11/13/2014 2:02:00 AM	3.61	40.1
11/13/2014 2:03:00 AM	3.55	39.7
11/13/2014 2:04:00 AM	4.36	39.5
11/13/2014 2:06:00 AM	3.52	40.2
11/13/2014 2:09:00 AM	3.77	42.1
11/13/2014 2:10:00 AM	3.80	41.6
11/13/2014 2:16:00 AM	3.76	40.3
11/13/2014 2:17:00 AM	4.10	39.9
11/13/2014 2:18:00 AM	3.64	39.8
11/13/2014 2:19:00 AM	3.87	40.2
11/13/2014 2:20:00 AM	3.88	40.3
11/13/2014 2:21:00 AM	3.67	41.2
11/13/2014 2:22:00 AM	3.61	39.7
11/13/2014 2:23:00 AM	3.59	40.5
11/13/2014 2:24:00 AM	3.89	40.3
11/13/2014 2:25:00 AM	3.66	40.1
11/13/2014 2:27:00 AM	3.62	39.0
11/13/2014 2:28:00 AM	3.55	38.7
11/13/2014 2:29:00 AM	3.51	38.9
11/13/2014 2:31:00 AM	4.08	40.8
11/13/2014 2:32:00 AM	3.96	38.6
11/13/2014 2:33:00 AM	3.77	39.7
11/13/2014 2:34:00 AM	3.61	40.1
11/13/2014 2:38:00 AM	4.18	40.4

**Table H3 - Valid Total 1-Minute Sound Data - Monitor C - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
11/13/2014 2:39:00 AM	4.28	40.2
11/13/2014 2:41:00 AM	3.71	39.9
11/13/2014 2:42:00 AM	3.94	40.2
11/13/2014 2:43:00 AM	4.54	39.5
11/13/2014 2:44:00 AM	4.30	39.7
11/13/2014 2:45:00 AM	3.65	40.4
11/13/2014 2:46:00 AM	4.45	39.6
11/13/2014 2:47:00 AM	3.86	40.5
11/13/2014 2:48:00 AM	4.30	39.4
11/13/2014 2:49:00 AM	3.80	39.5
11/13/2014 2:50:00 AM	4.21	39.3
11/13/2014 2:51:00 AM	3.69	39.1
11/13/2014 2:52:00 AM	3.96	39.6
11/13/2014 2:53:00 AM	4.28	39.1
11/13/2014 2:54:00 AM	4.12	40.7
11/13/2014 2:55:00 AM	3.88	40.0
11/13/2014 2:56:00 AM	3.79	41.2
11/13/2014 2:57:00 AM	3.62	40.3
11/13/2014 3:01:00 AM	3.78	39.8
11/13/2014 3:02:00 AM	4.12	39.9
11/13/2014 3:03:00 AM	4.24	39.6
11/13/2014 3:04:00 AM	4.77	40.5
11/13/2014 3:05:00 AM	4.28	40.2
11/13/2014 3:06:00 AM	4.58	39.7
11/13/2014 3:07:00 AM	4.23	40.7
11/13/2014 3:09:00 AM	3.99	39.6
11/13/2014 3:10:00 AM	3.77	39.9
11/13/2014 3:11:00 AM	3.64	39.9
11/13/2014 3:12:00 AM	3.62	39.9
11/13/2014 3:13:00 AM	4.26	39.3
11/13/2014 3:14:00 AM	3.66	39.9
11/13/2014 3:16:00 AM	3.64	40.5
11/13/2014 3:17:00 AM	3.72	40.5
11/13/2014 3:18:00 AM	4.05	39.3
11/13/2014 3:19:00 AM	3.91	40.0
11/13/2014 3:20:00 AM	3.55	40.2
11/13/2014 3:22:00 AM	3.55	39.6
11/13/2014 3:23:00 AM	3.55	39.6
11/13/2014 3:24:00 AM	3.54	40.1
11/13/2014 3:25:00 AM	4.02	40.0
11/13/2014 3:26:00 AM	3.68	40.4
11/13/2014 3:27:00 AM	4.22	40.1
11/13/2014 3:28:00 AM	3.65	38.6
11/13/2014 3:29:00 AM	3.66	39.9
11/13/2014 3:32:00 AM	3.99	40.8
11/13/2014 3:33:00 AM	4.10	37.7
11/13/2014 3:34:00 AM	4.11	40.2
11/13/2014 3:37:00 AM	3.96	39.6
11/13/2014 3:38:00 AM	4.70	40.5
11/13/2014 3:39:00 AM	3.84	39.6

**Table H3 - Valid Total 1-Minute Sound Data - Monitor C - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
11/13/2014 3:40:00 AM	3.75	40.0
11/13/2014 3:42:00 AM	3.66	39.6
11/13/2014 3:45:00 AM	3.61	40.3
11/13/2014 3:46:00 AM	3.78	40.0
11/13/2014 3:48:00 AM	3.59	40.1
11/13/2014 3:49:00 AM	4.11	39.2
11/13/2014 4:03:00 AM	3.84	39.5
11/13/2014 4:04:00 AM	3.59	39.8
11/13/2014 4:08:00 AM	3.72	40.5
11/13/2014 4:09:00 AM	3.79	39.8
11/13/2014 4:12:00 AM	3.68	39.9
11/13/2014 4:13:00 AM	3.93	39.5
11/13/2014 4:14:00 AM	3.67	39.9
11/13/2014 4:15:00 AM	3.99	39.5
11/13/2014 4:16:00 AM	4.20	40.8
11/13/2014 4:17:00 AM	3.93	39.5
11/13/2014 4:18:00 AM	4.03	40.0
11/13/2014 4:22:00 AM	3.74	40.0
11/13/2014 4:24:00 AM	3.83	40.3
11/13/2014 4:26:00 AM	3.98	40.1
11/13/2014 4:27:00 AM	3.84	38.3
11/13/2014 4:28:00 AM	3.79	40.8
11/13/2014 4:30:00 AM	3.91	39.8
11/13/2014 4:31:00 AM	3.83	39.1
11/13/2014 4:32:00 AM	4.03	38.5
11/13/2014 4:33:00 AM	3.94	39.4
11/13/2014 4:35:00 AM	3.52	39.7
11/13/2014 4:36:00 AM	4.22	40.3
11/13/2014 4:39:00 AM	3.62	41.0
11/13/2014 4:41:00 AM	3.62	40.7
11/13/2014 4:42:00 AM	3.88	41.1
11/13/2014 4:43:00 AM	3.87	40.3
11/13/2014 4:44:00 AM	4.55	40.1
11/13/2014 4:45:00 AM	4.30	40.9
11/13/2014 4:46:00 AM	4.05	40.1
11/13/2014 4:47:00 AM	4.40	40.5
11/13/2014 4:48:00 AM	3.79	40.7
11/13/2014 4:49:00 AM	4.19	41.1
11/13/2014 4:50:00 AM	3.79	40.6
11/13/2014 4:51:00 AM	3.99	41.5
11/13/2014 4:52:00 AM	4.09	40.3
11/13/2014 4:53:00 AM	3.76	41.5
11/13/2014 4:54:00 AM	4.03	40.4
11/13/2014 4:55:00 AM	3.78	39.4
11/13/2014 4:56:00 AM	4.06	39.8
11/13/2014 4:57:00 AM	4.18	39.8
11/13/2014 4:58:00 AM	3.86	40.7
11/13/2014 4:59:00 AM	4.06	40.3
11/13/2014 5:00:00 AM	4.10	41.1
11/13/2014 5:01:00 AM	4.50	42.3

**Table H3 - Valid Total 1-Minute Sound Data - Monitor C - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
11/13/2014 5:02:00 AM	4.08	40.5
11/13/2014 5:04:00 AM	4.39	41.1
11/13/2014 5:05:00 AM	4.05	39.8
11/13/2014 5:06:00 AM	4.39	39.5
11/13/2014 5:07:00 AM	4.57	39.8
11/13/2014 5:08:00 AM	4.77	40.1
11/13/2014 5:09:00 AM	4.89	41.0
11/13/2014 5:10:00 AM	4.17	39.7
11/13/2014 5:11:00 AM	4.54	39.8
11/13/2014 5:12:00 AM	4.52	40.0
11/13/2014 5:14:00 AM	3.78	39.4
11/13/2014 5:15:00 AM	3.65	41.6
11/13/2014 5:16:00 AM	4.43	41.0
11/13/2014 5:17:00 AM	4.18	41.1
11/13/2014 5:18:00 AM	3.92	40.4
11/13/2014 5:19:00 AM	3.87	41.3
11/13/2014 5:20:00 AM	4.02	41.2
11/13/2014 5:21:00 AM	4.32	42.3
11/13/2014 5:22:00 AM	3.91	40.0
11/13/2014 5:23:00 AM	4.68	41.0
11/13/2014 5:24:00 AM	4.04	40.2
11/13/2014 5:25:00 AM	4.53	41.4
11/13/2014 5:26:00 AM	4.24	40.2
11/13/2014 5:27:00 AM	4.61	39.7
11/13/2014 5:28:00 AM	4.34	41.2
11/13/2014 5:29:00 AM	5.16	40.1
11/13/2014 5:30:00 AM	3.76	40.6
11/13/2014 5:31:00 AM	4.11	40.6
11/13/2014 5:32:00 AM	4.15	40.9
11/13/2014 5:33:00 AM	4.63	41.2
11/13/2014 5:34:00 AM	4.24	42.1
11/13/2014 5:35:00 AM	3.59	41.1
11/13/2014 5:36:00 AM	4.67	41.0
11/13/2014 5:37:00 AM	3.61	41.5
11/13/2014 5:38:00 AM	4.05	40.8
11/13/2014 5:39:00 AM	4.24	40.5
11/13/2014 5:40:00 AM	3.70	40.3
11/13/2014 5:41:00 AM	4.47	39.4
11/13/2014 5:42:00 AM	3.75	40.4
11/13/2014 5:43:00 AM	4.20	39.3
11/13/2014 5:44:00 AM	4.31	42.0
11/13/2014 5:45:00 AM	4.34	40.2
11/13/2014 5:46:00 AM	4.29	41.6
11/13/2014 5:47:00 AM	3.85	40.6
11/13/2014 5:48:00 AM	3.80	40.0
11/13/2014 5:49:00 AM	3.61	41.2
11/13/2014 5:50:00 AM	3.94	41.2
11/13/2014 5:51:00 AM	3.60	41.4
11/13/2014 5:52:00 AM	4.55	39.6
11/13/2014 5:53:00 AM	3.88	41.4

**Table H3 - Valid Total 1-Minute Sound Data - Monitor C - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
11/13/2014 5:54:00 AM	4.04	42.1
11/13/2014 5:55:00 AM	4.11	39.7
11/13/2014 5:57:00 AM	4.21	39.9
11/13/2014 5:58:00 AM	4.69	39.2
11/13/2014 5:59:00 AM	4.75	40.7
11/13/2014 11:00:00 PM	4.45	41.4
11/13/2014 11:01:00 PM	4.46	41.2
11/13/2014 11:02:00 PM	4.45	40.9
11/13/2014 11:03:00 PM	4.79	41.3
11/13/2014 11:04:00 PM	4.81	41.0
11/13/2014 11:05:00 PM	4.53	41.1
11/13/2014 11:06:00 PM	4.93	40.7
11/13/2014 11:07:00 PM	4.57	40.5
11/13/2014 11:08:00 PM	5.09	41.0
11/13/2014 11:09:00 PM	4.89	42.3
11/13/2014 11:10:00 PM	4.48	41.9
11/13/2014 11:11:00 PM	4.78	41.5
11/13/2014 11:12:00 PM	4.52	42.6
11/13/2014 11:13:00 PM	4.82	44.2
11/13/2014 11:14:00 PM	4.97	43.8
11/13/2014 11:15:00 PM	4.66	43.0
11/13/2014 11:16:00 PM	4.79	42.3
11/13/2014 11:17:00 PM	4.47	41.0
11/13/2014 11:18:00 PM	4.93	41.9
11/13/2014 11:19:00 PM	4.87	42.4
11/13/2014 11:20:00 PM	5.12	41.1
11/13/2014 11:21:00 PM	5.46	40.8
11/13/2014 11:22:00 PM	4.96	41.8
11/13/2014 11:23:00 PM	5.25	41.1
11/13/2014 11:24:00 PM	5.07	41.4
11/13/2014 11:25:00 PM	4.49	39.9
11/13/2014 11:26:00 PM	4.97	40.5
11/13/2014 11:27:00 PM	5.06	41.4
11/13/2014 11:28:00 PM	4.80	41.7
11/13/2014 11:29:00 PM	4.27	40.5
11/13/2014 11:30:00 PM	5.03	43.0
11/13/2014 11:31:00 PM	4.56	41.4
11/13/2014 11:32:00 PM	5.09	42.1
11/13/2014 11:33:00 PM	4.52	43.9
11/13/2014 11:34:00 PM	4.62	41.3
11/13/2014 11:35:00 PM	5.17	41.6
11/13/2014 11:36:00 PM	4.98	42.0
11/13/2014 11:37:00 PM	4.61	40.4
11/13/2014 11:38:00 PM	5.00	40.3
11/13/2014 11:39:00 PM	4.79	39.6
11/13/2014 11:40:00 PM	5.14	40.8
11/13/2014 11:41:00 PM	5.74	41.5
11/13/2014 11:42:00 PM	4.92	39.9
11/13/2014 11:43:00 PM	5.07	39.8
11/13/2014 11:44:00 PM	5.28	40.5



**Table H3 - Valid Total 1-Minute Sound Data - Monitor C - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
11/13/2014 11:45:00 PM	4.49	39.0
11/13/2014 11:46:00 PM	4.90	40.0
11/13/2014 11:47:00 PM	4.50	39.7
11/13/2014 11:48:00 PM	4.38	40.1
11/13/2014 11:49:00 PM	5.16	40.8
11/13/2014 11:50:00 PM	4.74	39.9
11/13/2014 11:51:00 PM	4.38	40.2
11/13/2014 11:52:00 PM	5.15	39.8
11/13/2014 11:53:00 PM	4.46	39.3
11/13/2014 11:54:00 PM	4.70	39.0
11/13/2014 11:55:00 PM	4.56	38.5
11/13/2014 11:56:00 PM	4.55	39.7
11/13/2014 11:57:00 PM	4.68	39.8
11/13/2014 11:58:00 PM	4.66	40.8
11/13/2014 11:59:00 PM	4.69	40.0
11/14/2014 12:00:00 AM	4.55	40.3
11/14/2014 12:01:00 AM	4.24	40.4
11/14/2014 12:02:00 AM	3.97	39.5
11/14/2014 12:03:00 AM	4.36	39.8
11/14/2014 12:04:00 AM	4.45	39.3
11/14/2014 12:05:00 AM	4.47	40.3
11/14/2014 12:06:00 AM	4.55	40.2
11/14/2014 12:07:00 AM	4.59	40.9
11/14/2014 12:08:00 AM	4.76	39.7
11/14/2014 12:09:00 AM	4.71	40.3
11/14/2014 12:10:00 AM	4.38	39.6
11/14/2014 12:11:00 AM	4.36	40.4
11/14/2014 12:12:00 AM	4.51	40.1
11/14/2014 12:13:00 AM	4.59	42.7
11/14/2014 12:14:00 AM	4.62	40.1
11/14/2014 12:15:00 AM	4.91	41.9
11/14/2014 12:16:00 AM	4.28	41.6
11/14/2014 12:17:00 AM	4.40	40.1
11/14/2014 12:18:00 AM	4.53	42.6
11/14/2014 12:19:00 AM	4.40	39.7
11/14/2014 12:20:00 AM	4.23	40.1
11/14/2014 12:21:00 AM	4.87	39.4
11/14/2014 12:22:00 AM	4.36	39.0
11/14/2014 12:23:00 AM	4.72	40.2
11/14/2014 12:24:00 AM	4.78	38.8
11/14/2014 12:25:00 AM	4.37	39.2
11/14/2014 12:26:00 AM	5.32	39.5
11/14/2014 12:27:00 AM	4.46	38.6
11/14/2014 12:28:00 AM	4.56	39.4
11/14/2014 12:29:00 AM	4.39	39.5
11/14/2014 12:30:00 AM	4.29	39.1
11/14/2014 12:31:00 AM	4.87	39.4
11/14/2014 12:32:00 AM	4.14	40.1
11/14/2014 12:33:00 AM	4.39	40.1
11/14/2014 12:34:00 AM	4.72	38.7

**Table H3 - Valid Total 1-Minute Sound Data - Monitor C - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
11/14/2014 12:35:00 AM	4.36	38.0
11/14/2014 12:36:00 AM	4.63	39.7
11/14/2014 12:37:00 AM	4.54	38.4
11/14/2014 12:38:00 AM	4.59	39.3
11/14/2014 12:39:00 AM	4.78	38.2
11/14/2014 12:40:00 AM	4.63	38.2
11/14/2014 12:41:00 AM	4.61	40.8
11/14/2014 12:42:00 AM	4.34	39.6
11/14/2014 12:43:00 AM	4.15	37.8
11/14/2014 12:44:00 AM	4.82	40.3
11/14/2014 12:45:00 AM	3.86	42.4
11/14/2014 12:46:00 AM	4.10	40.8
11/14/2014 12:47:00 AM	3.97	40.3
11/14/2014 12:48:00 AM	4.31	39.9
11/14/2014 12:49:00 AM	4.46	39.9
11/14/2014 12:50:00 AM	4.67	38.8
11/14/2014 12:51:00 AM	4.20	40.2
11/14/2014 12:52:00 AM	4.69	39.5
11/14/2014 12:53:00 AM	5.06	39.5
11/14/2014 12:54:00 AM	4.84	38.9
11/14/2014 12:55:00 AM	4.48	39.4
11/14/2014 12:56:00 AM	4.27	39.9
11/14/2014 12:57:00 AM	4.64	39.6
11/14/2014 12:58:00 AM	4.48	39.3
11/14/2014 12:59:00 AM	4.38	39.0
11/14/2014 1:00:00 AM	4.57	39.0
11/14/2014 1:01:00 AM	4.68	39.1
11/14/2014 1:02:00 AM	4.07	40.3
11/14/2014 1:03:00 AM	3.87	41.5
11/14/2014 1:04:00 AM	3.87	39.7
11/14/2014 1:05:00 AM	3.95	40.2
11/14/2014 1:06:00 AM	4.30	39.9
11/14/2014 1:07:00 AM	4.28	39.2
11/14/2014 1:08:00 AM	4.20	39.3
11/14/2014 1:09:00 AM	4.29	39.9
11/14/2014 1:10:00 AM	4.90	41.1
11/14/2014 1:11:00 AM	4.13	40.9
11/14/2014 1:12:00 AM	4.36	40.8
11/14/2014 1:13:00 AM	4.46	41.0
11/14/2014 1:14:00 AM	4.29	40.0
11/14/2014 1:15:00 AM	4.35	45.4
11/14/2014 1:17:00 AM	4.47	40.6
11/14/2014 1:18:00 AM	5.35	40.5
11/14/2014 1:19:00 AM	4.89	39.5
11/14/2014 1:20:00 AM	4.92	39.3
11/14/2014 1:21:00 AM	4.98	38.9
11/14/2014 1:22:00 AM	4.71	39.8
11/14/2014 1:23:00 AM	5.17	40.0
11/14/2014 1:24:00 AM	4.50	40.0
11/14/2014 1:25:00 AM	4.80	39.4

**Table H3 - Valid Total 1-Minute Sound Data - Monitor C - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
11/14/2014 1:26:00 AM	4.97	38.9
11/14/2014 1:27:00 AM	4.53	39.4
11/14/2014 1:28:00 AM	4.48	40.4
11/14/2014 1:29:00 AM	4.33	40.8
11/14/2014 1:30:00 AM	4.69	39.2
11/14/2014 1:31:00 AM	4.86	39.8
11/14/2014 1:32:00 AM	4.46	39.5
11/14/2014 1:33:00 AM	4.63	40.8
11/14/2014 1:34:00 AM	3.88	40.8
11/14/2014 1:35:00 AM	4.74	40.0
11/14/2014 1:36:00 AM	4.76	40.2
11/14/2014 1:37:00 AM	4.75	40.1
11/14/2014 1:38:00 AM	4.31	41.2
11/14/2014 1:39:00 AM	4.53	39.9
11/14/2014 1:40:00 AM	4.49	40.1
11/14/2014 1:41:00 AM	4.52	40.7
11/14/2014 1:42:00 AM	4.80	40.8
11/14/2014 1:43:00 AM	4.40	39.1
11/14/2014 1:44:00 AM	4.56	40.4
11/14/2014 1:45:00 AM	4.27	40.7
11/14/2014 1:46:00 AM	4.82	39.7
11/14/2014 1:47:00 AM	4.32	39.8
11/14/2014 1:48:00 AM	4.75	39.9
11/14/2014 1:49:00 AM	4.76	40.2
11/14/2014 1:50:00 AM	4.82	40.2
11/14/2014 1:51:00 AM	4.32	40.4
11/14/2014 1:52:00 AM	4.64	40.1
11/14/2014 1:53:00 AM	4.86	40.3
11/14/2014 1:54:00 AM	4.59	39.6
11/14/2014 1:55:00 AM	4.59	39.8
11/14/2014 1:56:00 AM	4.68	39.4
11/14/2014 1:57:00 AM	4.49	39.1
11/14/2014 1:58:00 AM	5.25	39.4
11/14/2014 1:59:00 AM	4.88	40.4
11/14/2014 2:00:00 AM	4.90	39.8
11/14/2014 2:01:00 AM	4.57	39.1
11/14/2014 2:02:00 AM	4.43	40.0
11/14/2014 2:03:00 AM	4.84	39.4
11/14/2014 2:04:00 AM	4.40	40.6
11/14/2014 2:05:00 AM	4.30	41.2
11/14/2014 2:06:00 AM	4.42	41.1
11/14/2014 2:07:00 AM	5.03	41.5
11/14/2014 2:08:00 AM	4.65	40.7
11/14/2014 2:09:00 AM	4.46	42.3
11/14/2014 2:10:00 AM	4.92	40.9
11/14/2014 2:11:00 AM	4.45	40.1
11/14/2014 2:12:00 AM	4.48	42.4
11/14/2014 2:13:00 AM	4.63	40.9
11/14/2014 2:14:00 AM	4.83	42.9
11/14/2014 2:15:00 AM	4.72	41.9

**Table H3 - Valid Total 1-Minute Sound Data - Monitor C - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
11/14/2014 2:16:00 AM	4.86	43.9
11/14/2014 2:17:00 AM	5.14	42.2
11/14/2014 2:18:00 AM	5.07	41.7
11/14/2014 2:19:00 AM	4.71	41.6
11/14/2014 2:20:00 AM	5.52	44.4
11/14/2014 2:21:00 AM	4.84	40.7
11/14/2014 2:22:00 AM	5.61	40.6
11/14/2014 2:23:00 AM	5.14	42.2
11/14/2014 2:24:00 AM	5.91	41.6
11/14/2014 2:25:00 AM	5.29	41.5
11/14/2014 2:26:00 AM	5.02	43.6
11/14/2014 2:27:00 AM	5.00	42.6
11/14/2014 2:28:00 AM	5.88	41.2
11/14/2014 2:29:00 AM	4.90	41.5
11/14/2014 2:30:00 AM	4.73	41.6
11/14/2014 2:31:00 AM	5.20	41.7
11/14/2014 2:32:00 AM	5.23	42.1
11/14/2014 2:33:00 AM	5.13	42.5
11/14/2014 2:34:00 AM	5.51	41.1
11/14/2014 2:35:00 AM	5.65	41.6
11/14/2014 2:36:00 AM	5.16	43.7
11/14/2014 2:37:00 AM	5.12	42.7
11/14/2014 2:38:00 AM	5.32	42.3
11/14/2014 2:39:00 AM	5.15	42.4
11/14/2014 2:40:00 AM	5.21	41.4
11/14/2014 2:41:00 AM	5.46	40.7
11/14/2014 2:42:00 AM	4.72	41.4
11/14/2014 2:43:00 AM	5.04	40.5
11/14/2014 2:44:00 AM	5.58	41.9
11/14/2014 2:45:00 AM	5.64	41.1
11/14/2014 2:46:00 AM	5.46	42.1
11/14/2014 2:47:00 AM	5.64	42.5
11/14/2014 2:48:00 AM	5.04	41.7
11/14/2014 2:49:00 AM	4.91	41.6
11/14/2014 2:50:00 AM	4.99	41.2
11/14/2014 2:51:00 AM	4.72	42.9
11/14/2014 2:52:00 AM	5.21	41.7
11/14/2014 2:53:00 AM	4.75	41.7
11/14/2014 2:54:00 AM	5.10	42.8
11/14/2014 2:55:00 AM	5.13	44.3
11/14/2014 2:56:00 AM	4.93	40.9
11/14/2014 2:57:00 AM	5.18	43.8
11/14/2014 2:58:00 AM	5.09	41.5
11/14/2014 2:59:00 AM	5.33	42.6
11/14/2014 3:00:00 AM	4.86	43.2
11/14/2014 3:01:00 AM	5.05	42.0
11/14/2014 3:02:00 AM	5.61	41.5
11/14/2014 3:03:00 AM	5.88	43.2
11/14/2014 3:04:00 AM	5.38	41.1
11/14/2014 3:05:00 AM	5.49	41.5

**Table H3 - Valid Total 1-Minute Sound Data - Monitor C - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
11/14/2014 3:06:00 AM	5.17	40.1
11/14/2014 3:07:00 AM	5.46	43.1
11/14/2014 3:08:00 AM	5.66	40.8
11/14/2014 3:09:00 AM	5.50	41.5
11/14/2014 3:10:00 AM	5.12	43.3
11/14/2014 3:11:00 AM	5.32	43.7
11/14/2014 3:12:00 AM	5.04	43.1
11/14/2014 3:13:00 AM	5.16	42.4
11/14/2014 3:14:00 AM	4.52	43.3
11/14/2014 3:15:00 AM	5.50	41.7
11/14/2014 3:16:00 AM	4.91	42.3
11/14/2014 3:17:00 AM	5.19	44.6
11/14/2014 3:18:00 AM	5.62	45.5
11/14/2014 3:19:00 AM	5.49	42.6
11/14/2014 3:20:00 AM	5.56	43.5
11/14/2014 3:21:00 AM	5.38	40.5
11/14/2014 3:22:00 AM	5.53	41.0
11/14/2014 3:23:00 AM	5.18	45.5
11/14/2014 3:24:00 AM	5.48	43.7
11/14/2014 3:25:00 AM	5.78	44.0
11/14/2014 3:26:00 AM	5.81	43.1
11/14/2014 3:27:00 AM	5.38	41.7
11/14/2014 3:28:00 AM	5.86	41.9
11/14/2014 3:29:00 AM	4.17	43.3
11/14/2014 3:30:00 AM	4.69	41.7
11/14/2014 3:31:00 AM	5.69	42.2
11/14/2014 3:32:00 AM	5.73	42.7
11/14/2014 3:33:00 AM	5.74	42.6
11/14/2014 3:34:00 AM	5.23	42.4
11/14/2014 3:35:00 AM	4.92	41.3
11/14/2014 3:36:00 AM	5.41	42.1
11/14/2014 3:37:00 AM	5.49	40.9
11/14/2014 3:38:00 AM	5.16	41.2
11/14/2014 3:39:00 AM	4.80	43.1
11/14/2014 3:40:00 AM	5.55	42.2
11/14/2014 3:41:00 AM	5.27	41.5
11/14/2014 3:42:00 AM	5.41	40.8
11/14/2014 3:43:00 AM	4.96	41.2
11/14/2014 3:44:00 AM	4.89	42.9
11/14/2014 3:45:00 AM	4.32	41.7
11/14/2014 3:46:00 AM	4.83	42.6
11/14/2014 3:47:00 AM	5.15	42.2
11/14/2014 3:48:00 AM	5.24	42.0
11/14/2014 3:49:00 AM	4.93	41.3
11/14/2014 3:50:00 AM	4.44	41.8
11/14/2014 3:51:00 AM	4.54	41.3
11/14/2014 3:52:00 AM	5.30	43.0
11/14/2014 3:53:00 AM	5.06	41.9
11/14/2014 3:54:00 AM	5.17	42.5
11/14/2014 3:55:00 AM	5.22	41.5

**Table H3 - Valid Total 1-Minute Sound Data - Monitor C - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
11/14/2014 3:56:00 AM	5.24	42.0
11/14/2014 3:57:00 AM	4.84	44.6
11/14/2014 3:58:00 AM	5.11	42.1
11/14/2014 3:59:00 AM	4.92	43.3
11/14/2014 4:00:00 AM	5.60	40.1
11/14/2014 4:01:00 AM	5.14	40.8
11/14/2014 4:02:00 AM	5.33	40.5
11/14/2014 4:03:00 AM	4.76	40.4
11/14/2014 4:04:00 AM	5.25	41.6
11/14/2014 4:05:00 AM	5.42	41.0
11/14/2014 4:06:00 AM	5.51	42.7
11/14/2014 4:07:00 AM	5.81	41.8
11/14/2014 4:08:00 AM	4.45	43.8
11/14/2014 4:09:00 AM	4.70	44.2
11/14/2014 4:10:00 AM	4.55	43.1
11/14/2014 4:11:00 AM	4.45	41.9
11/14/2014 4:12:00 AM	4.57	42.1
11/14/2014 4:13:00 AM	4.93	42.1
11/14/2014 4:14:00 AM	5.31	40.5
11/14/2014 4:15:00 AM	5.24	43.5
11/14/2014 4:16:00 AM	5.29	41.9
11/14/2014 4:17:00 AM	5.33	41.3
11/14/2014 4:18:00 AM	5.27	43.0
11/14/2014 4:19:00 AM	4.57	41.6
11/14/2014 4:20:00 AM	5.35	42.2
11/14/2014 4:21:00 AM	5.32	41.6
11/14/2014 4:22:00 AM	4.88	43.0
11/14/2014 4:23:00 AM	5.62	42.0
11/14/2014 4:24:00 AM	5.33	41.7
11/14/2014 4:25:00 AM	4.75	40.8
11/14/2014 4:26:00 AM	5.48	42.3
11/14/2014 4:27:00 AM	4.86	42.1
11/14/2014 4:28:00 AM	5.00	42.2
11/14/2014 4:29:00 AM	5.22	41.7
11/14/2014 4:30:00 AM	5.38	41.7
11/14/2014 4:31:00 AM	5.14	41.6
11/14/2014 4:32:00 AM	4.99	40.4
11/14/2014 4:33:00 AM	4.86	42.4
11/14/2014 4:34:00 AM	5.18	43.8
11/14/2014 4:35:00 AM	5.16	44.4
11/14/2014 4:36:00 AM	5.04	41.2
11/14/2014 4:37:00 AM	5.02	42.0
11/14/2014 4:38:00 AM	5.04	41.7
11/14/2014 4:39:00 AM	5.24	45.6
11/14/2014 4:40:00 AM	4.70	45.9
11/14/2014 4:41:00 AM	5.19	45.0
11/14/2014 4:42:00 AM	5.88	42.2
11/14/2014 4:43:00 AM	5.98	42.1
11/14/2014 4:44:00 AM	4.89	42.6
11/14/2014 4:45:00 AM	5.26	41.2

**Table H3 - Valid Total 1-Minute Sound Data - Monitor C - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
11/14/2014 4:46:00 AM	4.96	44.1
11/14/2014 4:47:00 AM	6.29	44.9
11/14/2014 4:48:00 AM	6.53	44.7
11/14/2014 4:49:00 AM	6.17	43.3
11/14/2014 4:50:00 AM	5.72	46.5
11/14/2014 4:51:00 AM	5.61	42.6
11/14/2014 4:52:00 AM	5.52	43.5
11/14/2014 4:53:00 AM	5.28	41.7
11/14/2014 4:54:00 AM	5.94	43.0
11/14/2014 4:55:00 AM	6.11	42.1
11/14/2014 4:56:00 AM	5.90	43.2
11/14/2014 4:57:00 AM	5.72	41.8
11/14/2014 4:58:00 AM	6.27	42.7
11/14/2014 4:59:00 AM	5.27	40.8
11/14/2014 5:00:00 AM	5.82	40.9
11/14/2014 5:01:00 AM	5.21	41.3
11/14/2014 5:02:00 AM	5.35	39.8
11/14/2014 5:03:00 AM	5.51	40.8
11/14/2014 5:04:00 AM	5.51	42.3
11/14/2014 5:05:00 AM	5.43	40.8
11/14/2014 5:06:00 AM	5.41	39.4
11/14/2014 5:07:00 AM	4.99	42.9
11/14/2014 5:08:00 AM	5.20	40.2
11/14/2014 5:09:00 AM	5.38	40.0
11/14/2014 5:10:00 AM	4.88	42.0
11/14/2014 5:11:00 AM	5.23	42.7
11/14/2014 5:12:00 AM	5.10	43.6
11/14/2014 5:13:00 AM	5.04	45.0
11/14/2014 5:14:00 AM	4.55	41.4
11/14/2014 5:15:00 AM	5.53	41.6
11/14/2014 5:16:00 AM	4.94	41.4
11/14/2014 5:17:00 AM	4.65	43.1
11/14/2014 5:18:00 AM	5.47	42.1
11/14/2014 5:19:00 AM	5.58	41.3
11/14/2014 5:20:00 AM	5.70	40.3
11/14/2014 5:21:00 AM	6.02	39.7
11/14/2014 5:22:00 AM	5.26	40.3
11/14/2014 5:23:00 AM	5.03	39.4
11/14/2014 5:24:00 AM	5.17	40.2
11/14/2014 5:25:00 AM	5.52	39.8
11/14/2014 5:26:00 AM	5.55	39.1
11/14/2014 5:27:00 AM	4.92	40.0
11/14/2014 5:28:00 AM	4.79	40.1
11/14/2014 5:29:00 AM	4.37	40.8
11/14/2014 5:30:00 AM	4.87	39.2
11/14/2014 5:31:00 AM	4.53	42.5
11/14/2014 5:32:00 AM	4.87	41.6
11/14/2014 5:33:00 AM	4.67	44.6
11/14/2014 5:34:00 AM	4.26	42.4
11/14/2014 5:35:00 AM	4.52	42.1

**Table H3 - Valid Total 1-Minute Sound Data - Monitor C - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
11/14/2014 5:36:00 AM	4.66	40.3
11/14/2014 5:37:00 AM	5.22	40.2
11/14/2014 5:38:00 AM	4.62	39.6
11/14/2014 5:39:00 AM	5.29	39.9
11/14/2014 5:40:00 AM	5.23	39.4
11/14/2014 5:41:00 AM	5.87	38.8
11/14/2014 5:42:00 AM	5.49	36.9
11/14/2014 5:43:00 AM	5.59	39.8
11/14/2014 5:44:00 AM	4.87	40.6
11/14/2014 5:45:00 AM	4.92	40.2
11/14/2014 5:46:00 AM	4.55	39.6
11/14/2014 5:47:00 AM	4.41	40.2
11/14/2014 5:48:00 AM	4.26	40.7
11/14/2014 5:49:00 AM	4.15	40.7
11/14/2014 5:50:00 AM	3.56	38.6
11/14/2014 5:51:00 AM	4.38	40.5
11/14/2014 5:52:00 AM	5.10	40.2
11/14/2014 5:53:00 AM	4.75	38.7
11/14/2014 5:54:00 AM	4.38	40.2
11/14/2014 5:55:00 AM	4.47	38.7
11/14/2014 5:56:00 AM	4.62	38.4
11/14/2014 5:57:00 AM	5.14	37.6
11/14/2014 5:58:00 AM	4.18	39.0
11/14/2014 5:59:00 AM	4.70	37.1
11/14/2014 11:00:00 PM	4.62	41.1
11/14/2014 11:01:00 PM	4.63	43.3
11/14/2014 11:03:00 PM	4.31	41.3
11/14/2014 11:04:00 PM	4.16	40.2
11/14/2014 11:05:00 PM	4.25	40.8
11/14/2014 11:06:00 PM	4.14	40.9
11/14/2014 11:07:00 PM	4.08	41.5
11/14/2014 11:08:00 PM	3.94	40.4
11/14/2014 11:09:00 PM	4.50	39.5
11/14/2014 11:10:00 PM	4.19	39.6
11/14/2014 11:11:00 PM	4.15	40.6
11/14/2014 11:12:00 PM	3.70	38.7
11/14/2014 11:13:00 PM	4.26	40.0
11/14/2014 11:14:00 PM	3.96	39.5
11/14/2014 11:15:00 PM	4.15	39.4
11/14/2014 11:17:00 PM	3.95	39.6
11/14/2014 11:18:00 PM	3.87	41.5
11/14/2014 11:19:00 PM	3.82	40.1
11/14/2014 11:20:00 PM	3.68	39.9
11/14/2014 11:21:00 PM	4.01	40.2
11/14/2014 11:22:00 PM	3.99	39.7
11/14/2014 11:23:00 PM	3.62	40.7
11/14/2014 11:24:00 PM	4.60	39.2
11/14/2014 11:25:00 PM	3.91	40.0
11/14/2014 11:26:00 PM	4.52	40.1
11/14/2014 11:27:00 PM	4.15	42.1



**Table H3 - Valid Total 1-Minute Sound Data - Monitor C - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
11/14/2014 11:28:00 PM	4.08	41.9
11/14/2014 11:29:00 PM	3.54	40.1
11/14/2014 11:30:00 PM	4.13	39.7
11/14/2014 11:31:00 PM	4.53	39.8
11/14/2014 11:32:00 PM	3.87	40.5
11/14/2014 11:33:00 PM	3.88	39.2
11/14/2014 11:34:00 PM	3.55	39.7
11/14/2014 11:35:00 PM	4.15	39.9
11/14/2014 11:36:00 PM	4.01	40.3
11/14/2014 11:37:00 PM	4.46	39.2
11/14/2014 11:38:00 PM	4.02	39.2
11/14/2014 11:39:00 PM	3.85	41.6
11/14/2014 11:40:00 PM	4.41	42.3
11/14/2014 11:41:00 PM	3.53	42.2
11/14/2014 11:42:00 PM	3.75	42.8
11/14/2014 11:43:00 PM	3.53	41.3
11/14/2014 11:44:00 PM	3.75	41.6
11/14/2014 11:47:00 PM	4.28	41.2
11/14/2014 11:48:00 PM	3.78	40.7
11/14/2014 11:49:00 PM	4.37	40.7
11/14/2014 11:50:00 PM	4.77	41.5
11/14/2014 11:51:00 PM	4.88	41.6
11/14/2014 11:52:00 PM	4.46	40.2
11/14/2014 11:53:00 PM	4.22	41.7
11/14/2014 11:54:00 PM	3.70	41.2
11/14/2014 11:55:00 PM	3.87	41.4
11/14/2014 11:56:00 PM	4.37	41.4
11/14/2014 11:57:00 PM	4.17	41.9
11/14/2014 11:58:00 PM	4.59	41.2
11/14/2014 11:59:00 PM	4.56	42.4
11/15/2014 12:00:00 AM	4.15	42.3
11/15/2014 12:01:00 AM	4.64	42.8
11/15/2014 12:02:00 AM	4.94	42.0
11/15/2014 12:04:00 AM	4.79	41.1
11/15/2014 12:05:00 AM	5.24	42.8
11/15/2014 12:06:00 AM	4.86	42.2
11/15/2014 12:07:00 AM	5.53	41.6
11/15/2014 12:08:00 AM	5.45	41.6
11/15/2014 12:09:00 AM	5.52	41.0
11/15/2014 12:10:00 AM	5.34	41.2
11/15/2014 12:11:00 AM	5.40	41.3
11/15/2014 12:12:00 AM	4.97	40.5
11/15/2014 12:13:00 AM	5.18	40.1
11/15/2014 12:14:00 AM	4.71	40.9
11/15/2014 12:15:00 AM	4.92	39.2
11/15/2014 12:16:00 AM	4.66	40.0
11/15/2014 12:17:00 AM	4.52	40.8
11/15/2014 12:18:00 AM	3.71	40.1
11/15/2014 12:19:00 AM	3.54	40.4
11/15/2014 12:20:00 AM	3.93	41.1

**Table H3 - Valid Total 1-Minute Sound Data - Monitor C - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
11/15/2014 12:21:00 AM	3.74	41.9
11/15/2014 12:22:00 AM	3.91	39.8
11/15/2014 12:23:00 AM	3.89	40.1
11/15/2014 12:24:00 AM	3.95	40.2
11/15/2014 12:25:00 AM	4.51	40.9
11/15/2014 12:26:00 AM	4.08	40.9
11/15/2014 12:27:00 AM	4.13	41.3
11/15/2014 12:28:00 AM	4.29	40.3
11/15/2014 12:29:00 AM	5.05	40.7
11/15/2014 12:30:00 AM	4.50	40.1
11/15/2014 12:31:00 AM	4.33	40.0
11/15/2014 12:32:00 AM	4.35	41.9
11/15/2014 12:33:00 AM	4.50	41.6
11/15/2014 12:34:00 AM	4.50	39.2
11/15/2014 12:35:00 AM	4.56	40.7
11/15/2014 12:36:00 AM	4.38	40.4
11/15/2014 12:37:00 AM	3.79	39.5
11/15/2014 12:38:00 AM	4.18	40.7
11/15/2014 12:39:00 AM	4.16	39.0
11/15/2014 12:40:00 AM	4.30	40.6
11/15/2014 12:41:00 AM	4.01	39.2
11/15/2014 12:42:00 AM	3.78	41.1
11/15/2014 12:43:00 AM	4.37	40.4
11/15/2014 12:44:00 AM	4.88	41.5
11/15/2014 12:45:00 AM	4.13	43.2
11/15/2014 12:46:00 AM	4.66	41.1
11/15/2014 12:47:00 AM	4.02	40.5
11/15/2014 12:48:00 AM	4.27	39.1
11/15/2014 12:49:00 AM	4.16	39.0
11/15/2014 12:50:00 AM	4.20	38.1
11/15/2014 12:51:00 AM	4.19	38.7
11/15/2014 12:52:00 AM	4.28	40.3
11/15/2014 12:53:00 AM	4.12	39.6
11/15/2014 12:54:00 AM	4.61	38.9
11/15/2014 12:55:00 AM	4.49	38.1
11/15/2014 12:56:00 AM	3.95	40.4
11/15/2014 12:57:00 AM	3.97	40.3
11/15/2014 12:58:00 AM	3.69	38.5
11/15/2014 12:59:00 AM	3.58	39.8
11/15/2014 1:00:00 AM	3.87	40.2
11/15/2014 1:01:00 AM	3.54	40.2
11/15/2014 1:04:00 AM	3.68	40.4
11/15/2014 1:05:00 AM	3.66	40.5
11/15/2014 1:08:00 AM	3.92	40.2
11/15/2014 1:09:00 AM	4.03	41.5
11/15/2014 1:10:00 AM	3.89	39.7
11/15/2014 1:11:00 AM	4.05	39.6
11/15/2014 1:12:00 AM	4.05	40.6
11/15/2014 1:13:00 AM	4.65	39.5
11/15/2014 1:14:00 AM	4.70	39.5

**Table H3 - Valid Total 1-Minute Sound Data - Monitor C - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
11/15/2014 1:15:00 AM	4.93	39.6
11/15/2014 1:16:00 AM	4.35	39.7
11/15/2014 1:17:00 AM	5.00	39.5
11/15/2014 1:18:00 AM	4.38	38.6
11/15/2014 1:19:00 AM	4.39	40.8
11/15/2014 1:20:00 AM	4.62	39.8
11/15/2014 1:21:00 AM	4.09	40.4
11/15/2014 1:22:00 AM	3.96	40.1
11/15/2014 1:23:00 AM	4.35	39.6
11/15/2014 1:24:00 AM	4.29	40.3
11/15/2014 1:25:00 AM	3.80	41.2
11/15/2014 1:26:00 AM	3.61	40.6
11/15/2014 1:28:00 AM	3.67	40.9
11/15/2014 1:29:00 AM	3.70	41.3
11/15/2014 1:32:00 AM	3.65	45.9
11/15/2014 1:34:00 AM	3.61	41.7
11/15/2014 1:35:00 AM	3.99	42.1
11/15/2014 1:36:00 AM	3.92	41.8
11/15/2014 1:37:00 AM	4.10	42.8
11/15/2014 1:38:00 AM	3.57	39.4
11/15/2014 1:39:00 AM	4.38	39.9
11/15/2014 1:40:00 AM	5.55	40.9
11/15/2014 1:41:00 AM	4.78	40.1
11/15/2014 1:42:00 AM	4.52	41.1
11/15/2014 1:43:00 AM	4.92	40.8
11/15/2014 1:44:00 AM	4.94	39.5
11/15/2014 1:45:00 AM	5.13	39.9
11/15/2014 1:46:00 AM	3.57	40.2
11/15/2014 1:47:00 AM	4.08	40.8
11/15/2014 1:48:00 AM	4.19	39.8
11/15/2014 1:49:00 AM	4.10	39.2
11/15/2014 1:50:00 AM	3.97	40.7
11/15/2014 1:52:00 AM	3.92	38.5
11/15/2014 1:54:00 AM	4.06	38.6
11/15/2014 1:55:00 AM	4.40	40.6
11/15/2014 1:56:00 AM	3.89	40.2
11/15/2014 1:57:00 AM	3.91	40.3
11/15/2014 1:58:00 AM	3.85	40.3
11/15/2014 1:59:00 AM	3.83	39.0
11/15/2014 2:02:00 AM	3.52	39.7
11/15/2014 2:03:00 AM	4.12	40.7
11/15/2014 2:04:00 AM	4.10	38.9
11/15/2014 2:05:00 AM	3.54	38.5
11/15/2014 2:06:00 AM	3.79	39.5
11/15/2014 2:09:00 AM	3.60	38.9
11/15/2014 2:10:00 AM	3.60	39.2
11/15/2014 2:11:00 AM	3.60	38.6
11/15/2014 2:17:00 AM	3.84	37.4
11/15/2014 2:18:00 AM	3.55	38.5
11/15/2014 2:19:00 AM	3.67	39.8

**Table H3 - Valid Total 1-Minute Sound Data - Monitor C - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
11/15/2014 2:22:00 AM	3.71	40.9
11/15/2014 2:23:00 AM	4.32	40.0
11/15/2014 2:24:00 AM	3.99	40.6
11/15/2014 2:25:00 AM	3.69	39.5
11/15/2014 2:26:00 AM	3.95	39.1
11/15/2014 2:28:00 AM	4.24	41.0
11/15/2014 2:29:00 AM	4.74	39.7
11/15/2014 2:30:00 AM	5.01	41.6
11/15/2014 2:31:00 AM	4.41	39.0
11/15/2014 2:32:00 AM	4.47	41.1
11/15/2014 2:33:00 AM	3.95	40.9
11/15/2014 2:34:00 AM	4.24	40.7
11/15/2014 2:35:00 AM	4.77	39.6
11/15/2014 2:36:00 AM	4.73	39.9
11/15/2014 2:37:00 AM	4.07	40.1
11/15/2014 2:38:00 AM	5.16	39.5
11/15/2014 2:40:00 AM	4.72	40.8
11/15/2014 2:41:00 AM	4.88	39.0
11/15/2014 2:42:00 AM	5.23	39.4
11/15/2014 2:43:00 AM	4.51	38.9
11/15/2014 2:44:00 AM	4.88	39.6
11/15/2014 2:45:00 AM	4.79	39.1
11/15/2014 2:46:00 AM	4.64	39.4
11/15/2014 2:47:00 AM	4.40	38.5
11/15/2014 2:48:00 AM	4.29	39.4
11/15/2014 2:49:00 AM	3.73	39.5
11/15/2014 2:50:00 AM	4.03	40.7
11/15/2014 2:52:00 AM	3.69	39.7
11/15/2014 2:53:00 AM	3.95	40.0
11/15/2014 2:54:00 AM	4.36	38.9
11/15/2014 2:55:00 AM	4.09	40.7
11/15/2014 2:56:00 AM	4.33	39.0
11/15/2014 2:57:00 AM	4.19	38.8
11/15/2014 2:58:00 AM	4.25	39.2
11/15/2014 2:59:00 AM	3.97	40.0
11/15/2014 3:00:00 AM	4.02	39.9
11/15/2014 3:01:00 AM	4.35	38.8
11/15/2014 3:02:00 AM	3.81	39.0
11/15/2014 3:03:00 AM	4.52	39.0
11/15/2014 3:04:00 AM	4.13	37.7
11/15/2014 3:05:00 AM	3.85	39.5
11/15/2014 3:06:00 AM	3.86	38.4
11/15/2014 3:07:00 AM	4.35	37.6
11/15/2014 3:08:00 AM	4.23	39.3
11/15/2014 3:09:00 AM	3.78	39.6
11/15/2014 3:10:00 AM	4.33	38.2
11/15/2014 3:11:00 AM	4.42	38.2
11/15/2014 3:12:00 AM	3.88	38.4
11/15/2014 3:13:00 AM	4.08	38.4
11/15/2014 3:14:00 AM	4.21	40.4

**Table H3 - Valid Total 1-Minute Sound Data - Monitor C - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
11/15/2014 3:15:00 AM	3.57	39.3
11/15/2014 3:16:00 AM	3.69	40.0
11/15/2014 3:17:00 AM	4.31	38.8
11/15/2014 3:18:00 AM	3.94	38.7
11/15/2014 3:19:00 AM	3.71	40.6
11/15/2014 3:20:00 AM	3.64	39.1
11/15/2014 3:21:00 AM	3.52	38.0
11/15/2014 3:22:00 AM	4.11	39.0
11/15/2014 3:23:00 AM	3.70	39.3
11/15/2014 3:24:00 AM	4.12	38.5
11/15/2014 3:25:00 AM	3.98	37.8
11/15/2014 3:26:00 AM	4.03	37.6
11/15/2014 3:27:00 AM	4.32	36.5
11/15/2014 3:28:00 AM	4.39	36.5
11/15/2014 3:29:00 AM	3.70	36.2
11/15/2014 3:30:00 AM	4.02	36.1
11/15/2014 3:31:00 AM	4.61	37.6
11/15/2014 3:33:00 AM	3.90	39.9
11/15/2014 3:40:00 AM	3.79	41.5
11/15/2014 3:42:00 AM	3.83	41.4
11/15/2014 3:46:00 AM	3.68	40.4
11/15/2014 3:48:00 AM	4.11	41.1
11/15/2014 3:49:00 AM	4.32	39.9
11/15/2014 3:50:00 AM	4.98	40.9
11/15/2014 3:51:00 AM	4.80	40.5
11/15/2014 3:52:00 AM	4.67	40.9
11/15/2014 3:53:00 AM	4.63	40.7
11/15/2014 3:54:00 AM	3.93	41.4
11/15/2014 3:55:00 AM	4.43	41.4
11/15/2014 3:56:00 AM	4.30	40.5
11/15/2014 3:58:00 AM	3.71	40.8
11/15/2014 4:00:00 AM	3.67	41.6
11/15/2014 4:02:00 AM	4.27	39.9
11/15/2014 4:03:00 AM	4.43	41.2
11/15/2014 4:04:00 AM	4.06	40.1
11/15/2014 4:05:00 AM	4.40	40.5
11/15/2014 4:06:00 AM	4.36	40.2
11/15/2014 4:07:00 AM	4.22	40.4
11/15/2014 4:08:00 AM	3.79	39.2
11/15/2014 4:13:00 AM	3.91	40.2
11/15/2014 4:14:00 AM	3.80	41.5
11/15/2014 4:15:00 AM	4.22	40.0
11/15/2014 4:17:00 AM	4.32	40.7
11/15/2014 4:18:00 AM	4.37	40.9
11/15/2014 4:19:00 AM	4.66	40.9
11/15/2014 4:20:00 AM	3.73	39.2
11/15/2014 4:21:00 AM	4.14	40.2
11/15/2014 4:22:00 AM	4.80	40.9
11/15/2014 4:23:00 AM	4.30	39.9
11/15/2014 4:24:00 AM	4.77	39.8

**Table H3 - Valid Total 1-Minute Sound Data - Monitor C - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
11/15/2014 4:25:00 AM	4.78	40.8
11/15/2014 4:26:00 AM	4.91	40.7
11/15/2014 4:27:00 AM	4.74	40.5
11/15/2014 4:28:00 AM	4.23	40.3
11/15/2014 4:29:00 AM	4.42	40.0
11/15/2014 4:30:00 AM	4.65	39.4
11/15/2014 4:31:00 AM	4.77	39.7
11/15/2014 4:32:00 AM	4.49	39.5
11/15/2014 4:33:00 AM	4.80	39.5
11/15/2014 4:34:00 AM	4.60	39.7
11/15/2014 4:35:00 AM	4.82	40.1
11/15/2014 4:36:00 AM	4.84	39.5
11/15/2014 4:37:00 AM	4.73	39.6
11/15/2014 4:38:00 AM	4.60	40.0
11/15/2014 4:39:00 AM	4.34	38.4
11/15/2014 4:40:00 AM	4.18	39.9
11/15/2014 4:41:00 AM	4.32	39.9
11/15/2014 4:42:00 AM	4.52	40.2
11/15/2014 4:43:00 AM	4.56	40.6
11/15/2014 4:44:00 AM	4.36	40.6
11/15/2014 4:45:00 AM	4.60	40.6
11/15/2014 4:46:00 AM	4.34	41.1
11/15/2014 4:47:00 AM	4.06	40.6
11/15/2014 4:48:00 AM	4.33	41.4
11/15/2014 4:49:00 AM	4.25	40.5
11/15/2014 4:50:00 AM	3.82	40.0
11/15/2014 4:51:00 AM	4.55	40.0
11/15/2014 4:52:00 AM	4.67	39.7
11/15/2014 4:53:00 AM	4.66	39.6
11/15/2014 4:54:00 AM	4.42	40.2
11/15/2014 4:55:00 AM	4.43	39.5
11/15/2014 4:56:00 AM	4.83	39.9
11/15/2014 4:57:00 AM	4.61	39.9
11/15/2014 4:58:00 AM	4.81	40.7
11/15/2014 4:59:00 AM	4.30	41.1
11/15/2014 5:00:00 AM	4.22	43.3
11/15/2014 5:01:00 AM	4.26	40.6
11/15/2014 5:02:00 AM	3.82	41.2
11/15/2014 5:03:00 AM	4.11	40.3
11/15/2014 5:04:00 AM	4.02	40.0
11/15/2014 5:05:00 AM	3.96	41.1
11/15/2014 5:06:00 AM	4.90	41.0
11/15/2014 5:07:00 AM	4.88	40.3
11/15/2014 5:08:00 AM	5.40	41.2
11/15/2014 5:09:00 AM	4.47	41.1
11/15/2014 5:10:00 AM	4.92	43.0
11/15/2014 5:11:00 AM	4.90	40.7
11/15/2014 5:12:00 AM	4.44	41.4
11/15/2014 5:13:00 AM	5.06	40.8
11/15/2014 5:14:00 AM	4.33	42.8

**Table H3 - Valid Total 1-Minute Sound Data - Monitor C - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
11/15/2014 5:15:00 AM	4.84	42.3
11/15/2014 5:16:00 AM	4.63	41.8
11/15/2014 5:17:00 AM	4.51	42.2
11/15/2014 5:18:00 AM	5.31	41.2
11/15/2014 5:20:00 AM	4.90	40.1
11/15/2014 5:21:00 AM	4.84	41.4
11/15/2014 5:22:00 AM	5.30	41.5
11/15/2014 5:23:00 AM	4.92	39.1
11/15/2014 5:24:00 AM	5.33	40.4
11/15/2014 5:25:00 AM	4.79	42.2
11/15/2014 5:26:00 AM	4.59	39.7
11/15/2014 5:27:00 AM	4.79	42.6
11/15/2014 5:28:00 AM	4.61	40.4
11/15/2014 5:29:00 AM	4.92	39.7
11/15/2014 5:30:00 AM	4.73	40.5
11/15/2014 5:31:00 AM	3.88	40.6
11/15/2014 5:32:00 AM	4.19	40.6
11/15/2014 5:33:00 AM	5.10	40.7
11/15/2014 5:34:00 AM	4.76	41.2
11/15/2014 5:35:00 AM	5.13	40.8
11/15/2014 5:36:00 AM	4.49	40.0
11/15/2014 5:37:00 AM	3.98	41.4
11/15/2014 5:38:00 AM	4.49	39.6
11/15/2014 5:39:00 AM	4.57	38.7
11/15/2014 5:40:00 AM	4.78	39.0
11/15/2014 5:41:00 AM	4.42	39.3
11/15/2014 5:42:00 AM	4.72	39.5
11/15/2014 5:43:00 AM	4.77	38.8
11/15/2014 5:44:00 AM	4.64	37.8
11/15/2014 5:45:00 AM	4.40	38.0
11/15/2014 5:46:00 AM	4.24	37.8
11/15/2014 5:47:00 AM	3.94	38.0
11/15/2014 5:48:00 AM	4.06	36.8
11/15/2014 5:49:00 AM	3.75	36.2
11/15/2014 5:50:00 AM	3.64	38.2
11/15/2014 5:51:00 AM	3.82	38.5
11/15/2014 5:55:00 AM	3.65	38.6
11/15/2014 11:07:00 PM	3.51	39.6
11/16/2014 1:35:00 AM	3.54	39.2
11/16/2014 2:31:00 AM	3.53	39.5
11/16/2014 2:36:00 AM	3.86	38.9
11/16/2014 2:37:00 AM	3.91	38.9
11/16/2014 2:38:00 AM	3.81	39.7
11/16/2014 2:39:00 AM	3.81	39.8
11/17/2014 11:06:00 PM	7.31	52.2
11/17/2014 11:11:00 PM	7.31	49.5
11/17/2014 11:12:00 PM	7.46	51.8
11/17/2014 11:19:00 PM	6.78	52.5
11/17/2014 11:22:00 PM	7.07	54.0
11/17/2014 11:23:00 PM	7.11	53.3

**Table H3 - Valid Total 1-Minute Sound Data - Monitor C - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
11/18/2014 12:02:00 AM	7.50	50.7
11/18/2014 12:03:00 AM	7.48	53.3
11/18/2014 12:04:00 AM	6.96	49.7
11/18/2014 12:05:00 AM	6.88	52.5
11/18/2014 12:10:00 AM	7.19	51.6
11/18/2014 12:13:00 AM	6.73	52.3
11/18/2014 12:42:00 AM	6.96	50.0
11/18/2014 12:46:00 AM	7.40	50.8
11/18/2014 12:47:00 AM	6.73	51.0
11/18/2014 12:50:00 AM	7.41	52.3
11/18/2014 12:51:00 AM	7.19	50.3
11/18/2014 12:53:00 AM	6.94	49.7
11/18/2014 12:54:00 AM	7.37	50.1
11/18/2014 12:56:00 AM	6.89	51.0
11/18/2014 12:59:00 AM	7.43	50.6
11/18/2014 1:00:00 AM	7.09	53.2
11/18/2014 1:02:00 AM	7.04	55.4
11/18/2014 1:03:00 AM	6.97	54.6
11/18/2014 1:07:00 AM	7.44	49.9
11/18/2014 1:13:00 AM	7.50	44.5
11/18/2014 1:15:00 AM	7.42	46.8
11/18/2014 1:16:00 AM	6.82	52.7
11/18/2014 1:17:00 AM	7.39	52.3
11/18/2014 1:18:00 AM	7.32	53.4
11/18/2014 1:20:00 AM	6.95	45.8
11/18/2014 1:21:00 AM	6.42	48.8
11/18/2014 1:22:00 AM	6.32	47.2
11/18/2014 1:23:00 AM	6.75	47.6
11/18/2014 1:24:00 AM	6.23	47.0
11/18/2014 1:27:00 AM	7.45	45.7
11/18/2014 1:28:00 AM	6.31	46.6
11/18/2014 1:29:00 AM	6.57	45.9
11/18/2014 1:30:00 AM	6.43	47.0
11/18/2014 1:31:00 AM	6.64	47.0
11/18/2014 1:32:00 AM	6.81	45.0
11/18/2014 1:33:00 AM	6.44	46.8
11/18/2014 1:34:00 AM	6.24	50.1
11/18/2014 1:35:00 AM	5.97	52.1
11/18/2014 1:36:00 AM	6.06	49.5
11/18/2014 1:37:00 AM	6.38	51.7
11/18/2014 1:38:00 AM	6.21	51.2
11/18/2014 1:39:00 AM	6.47	49.3
11/18/2014 1:40:00 AM	6.09	53.4
11/18/2014 1:42:00 AM	6.12	54.9
11/18/2014 1:52:00 AM	6.98	53.8
11/18/2014 2:03:00 AM	7.22	53.4
11/18/2014 2:09:00 AM	6.95	52.7
11/18/2014 2:22:00 AM	7.38	51.3
11/18/2014 2:30:00 AM	7.22	51.1
11/18/2014 2:32:00 AM	7.21	50.9



**Table H3 - Valid Total 1-Minute Sound Data - Monitor C - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
11/18/2014 2:35:00 AM	7.04	50.4
11/18/2014 2:40:00 AM	7.22	48.9
11/18/2014 2:42:00 AM	7.08	44.8
11/18/2014 2:43:00 AM	6.49	48.3
11/18/2014 2:45:00 AM	6.64	47.0
11/18/2014 2:46:00 AM	7.27	47.4
11/18/2014 2:48:00 AM	7.30	48.8
11/18/2014 2:49:00 AM	6.41	51.2
11/18/2014 2:50:00 AM	5.91	50.5
11/18/2014 2:51:00 AM	6.44	46.4
11/18/2014 2:52:00 AM	7.03	50.4
11/18/2014 2:54:00 AM	6.24	55.3
11/18/2014 2:55:00 AM	6.05	52.3
11/18/2014 4:24:00 AM	7.46	50.6
11/18/2014 4:32:00 AM	7.39	53.4
11/18/2014 4:38:00 AM	7.07	53.6
11/18/2014 4:39:00 AM	6.72	55.3
11/18/2014 4:42:00 AM	7.45	53.8
11/18/2014 4:43:00 AM	7.39	54.7
11/18/2014 4:58:00 AM	6.61	54.1
11/18/2014 5:26:00 AM	7.48	55.0
11/18/2014 5:43:00 AM	7.21	52.5
11/20/2014 11:00:00 PM	5.81	43.1
11/20/2014 11:01:00 PM	6.27	44.5
11/20/2014 11:02:00 PM	5.95	45.0
11/20/2014 11:03:00 PM	6.22	43.1
11/20/2014 11:04:00 PM	5.69	45.0
11/20/2014 11:05:00 PM	5.85	45.2
11/20/2014 11:06:00 PM	5.78	44.0
11/20/2014 11:07:00 PM	5.47	44.9
11/20/2014 11:08:00 PM	5.45	44.0
11/20/2014 11:09:00 PM	5.43	42.9
11/20/2014 11:10:00 PM	5.90	43.9
11/20/2014 11:11:00 PM	5.48	44.5
11/20/2014 11:12:00 PM	5.31	44.3
11/20/2014 11:13:00 PM	6.29	45.4
11/20/2014 11:14:00 PM	5.35	43.6
11/20/2014 11:15:00 PM	5.87	43.0
11/20/2014 11:16:00 PM	5.81	43.6
11/20/2014 11:17:00 PM	5.36	44.2
11/20/2014 11:18:00 PM	5.49	43.5
11/20/2014 11:19:00 PM	5.71	44.0
11/20/2014 11:20:00 PM	5.19	44.3
11/20/2014 11:21:00 PM	6.04	44.2
11/20/2014 11:22:00 PM	5.58	46.4
11/20/2014 11:23:00 PM	5.56	44.4
11/20/2014 11:24:00 PM	5.50	43.4
11/20/2014 11:25:00 PM	5.30	43.7
11/20/2014 11:26:00 PM	5.64	43.9
11/20/2014 11:27:00 PM	5.30	43.4

**Table H3 - Valid Total 1-Minute Sound Data - Monitor C - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
11/20/2014 11:28:00 PM	5.27	44.5
11/20/2014 11:29:00 PM	5.72	42.5
11/20/2014 11:30:00 PM	5.49	42.8
11/20/2014 11:31:00 PM	5.98	42.3
11/20/2014 11:32:00 PM	5.57	43.1
11/20/2014 11:33:00 PM	5.51	41.8
11/20/2014 11:34:00 PM	5.45	42.8
11/20/2014 11:35:00 PM	5.16	42.6
11/20/2014 11:36:00 PM	5.51	43.0
11/20/2014 11:37:00 PM	5.43	41.9
11/20/2014 11:38:00 PM	5.20	42.7
11/20/2014 11:39:00 PM	5.20	42.6
11/20/2014 11:40:00 PM	5.06	43.1
11/20/2014 11:41:00 PM	4.85	43.8
11/20/2014 11:42:00 PM	5.14	43.6
11/20/2014 11:43:00 PM	5.25	42.5
11/20/2014 11:44:00 PM	5.09	42.9
11/20/2014 11:45:00 PM	4.77	42.5
11/20/2014 11:46:00 PM	5.12	43.6
11/20/2014 11:47:00 PM	5.24	42.9
11/20/2014 11:48:00 PM	5.46	43.0
11/20/2014 11:49:00 PM	5.24	44.2
11/20/2014 11:50:00 PM	5.14	46.7
11/20/2014 11:51:00 PM	5.46	44.5
11/20/2014 11:52:00 PM	4.89	43.7
11/20/2014 11:53:00 PM	5.18	42.4
11/20/2014 11:54:00 PM	5.28	45.1
11/20/2014 11:55:00 PM	5.38	44.0
11/20/2014 11:56:00 PM	5.30	43.7
11/20/2014 11:57:00 PM	5.13	46.1
11/20/2014 11:58:00 PM	5.63	44.5
11/20/2014 11:59:00 PM	5.60	42.8
11/21/2014 12:00:00 AM	5.18	42.9
11/21/2014 12:01:00 AM	5.23	42.8
11/21/2014 12:02:00 AM	5.45	42.6
11/21/2014 12:03:00 AM	5.37	42.7
11/21/2014 12:04:00 AM	5.45	44.4
11/21/2014 12:05:00 AM	5.30	42.3
11/21/2014 12:07:00 AM	5.49	44.1
11/21/2014 12:08:00 AM	4.98	43.0
11/21/2014 12:09:00 AM	4.98	44.6
11/21/2014 12:10:00 AM	4.81	43.4
11/21/2014 12:11:00 AM	5.12	43.9
11/21/2014 12:12:00 AM	5.53	45.7
11/21/2014 12:13:00 AM	5.14	43.6
11/21/2014 12:14:00 AM	4.86	42.8
11/21/2014 12:15:00 AM	5.56	43.5
11/21/2014 12:16:00 AM	5.51	42.8
11/21/2014 12:17:00 AM	5.53	43.3
11/21/2014 12:18:00 AM	5.43	42.4

**Table H3 - Valid Total 1-Minute Sound Data - Monitor C - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
11/21/2014 12:19:00 AM	5.43	43.2
11/21/2014 12:20:00 AM	5.99	43.9
11/21/2014 12:21:00 AM	5.60	43.7
11/21/2014 12:22:00 AM	5.18	44.8
11/21/2014 12:23:00 AM	5.52	43.0
11/21/2014 12:24:00 AM	5.44	43.8
11/21/2014 12:25:00 AM	5.41	43.3
11/21/2014 12:26:00 AM	5.12	44.8
11/21/2014 12:27:00 AM	5.19	43.0
11/21/2014 12:28:00 AM	5.34	43.2
11/21/2014 12:29:00 AM	5.64	45.3
11/21/2014 12:31:00 AM	5.25	45.0
11/21/2014 12:32:00 AM	5.51	43.4
11/21/2014 12:33:00 AM	5.35	45.5
11/21/2014 12:34:00 AM	5.64	43.8
11/21/2014 12:35:00 AM	5.23	45.5
11/21/2014 12:36:00 AM	5.35	45.5
11/21/2014 12:37:00 AM	5.45	44.0
11/21/2014 12:38:00 AM	5.70	45.2
11/21/2014 12:40:00 AM	5.54	46.4
11/21/2014 12:41:00 AM	5.84	44.4
11/21/2014 12:42:00 AM	5.67	44.9
11/21/2014 12:43:00 AM	5.80	44.2
11/21/2014 12:44:00 AM	5.79	44.1
11/21/2014 12:45:00 AM	5.76	44.7
11/21/2014 12:46:00 AM	5.63	44.5
11/21/2014 12:47:00 AM	6.18	45.2
11/21/2014 12:48:00 AM	6.34	45.7
11/21/2014 12:49:00 AM	5.93	47.3
11/21/2014 12:50:00 AM	5.72	46.5
11/21/2014 12:51:00 AM	5.91	46.9
11/21/2014 12:52:00 AM	5.55	46.6
11/21/2014 12:53:00 AM	5.67	45.9
11/21/2014 12:54:00 AM	5.75	45.3
11/21/2014 12:55:00 AM	5.66	46.3
11/21/2014 12:56:00 AM	6.18	46.2
11/21/2014 12:57:00 AM	6.44	45.3
11/21/2014 12:58:00 AM	6.11	45.4
11/21/2014 12:59:00 AM	6.24	45.7
11/21/2014 1:00:00 AM	6.26	44.8
11/21/2014 1:01:00 AM	6.04	45.4
11/21/2014 1:02:00 AM	6.04	44.3
11/21/2014 1:03:00 AM	6.16	46.5
11/21/2014 1:04:00 AM	6.10	44.4
11/21/2014 1:05:00 AM	5.95	46.1
11/21/2014 1:06:00 AM	5.87	43.8
11/21/2014 1:07:00 AM	6.24	44.1
11/21/2014 1:08:00 AM	5.61	44.3
11/21/2014 1:10:00 AM	5.77	48.5
11/21/2014 1:11:00 AM	5.47	43.6

**Table H3 - Valid Total 1-Minute Sound Data - Monitor C - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
11/21/2014 1:12:00 AM	5.34	44.3
11/21/2014 1:13:00 AM	6.09	44.4
11/21/2014 1:14:00 AM	5.67	46.0
11/21/2014 1:15:00 AM	5.39	45.0
11/21/2014 1:16:00 AM	5.49	45.6
11/21/2014 1:17:00 AM	5.77	45.7
11/21/2014 1:18:00 AM	5.82	45.3
11/21/2014 1:19:00 AM	5.25	45.9
11/21/2014 1:20:00 AM	5.57	44.9
11/21/2014 1:21:00 AM	5.59	45.6
11/21/2014 1:22:00 AM	5.90	46.5
11/21/2014 1:23:00 AM	5.73	45.8
11/21/2014 1:24:00 AM	5.79	45.7
11/21/2014 1:25:00 AM	5.86	47.0
11/21/2014 1:26:00 AM	5.84	45.6
11/21/2014 1:27:00 AM	6.05	47.4
11/21/2014 1:28:00 AM	5.99	46.3
11/21/2014 1:29:00 AM	5.66	47.9
11/21/2014 1:30:00 AM	6.06	47.3
11/21/2014 1:31:00 AM	5.70	46.5
11/21/2014 1:32:00 AM	5.71	47.8
11/21/2014 1:33:00 AM	6.35	47.5
11/21/2014 1:34:00 AM	6.14	46.8
11/21/2014 1:35:00 AM	5.96	47.6
11/21/2014 1:36:00 AM	6.37	47.4
11/21/2014 1:37:00 AM	6.38	47.6
11/21/2014 1:38:00 AM	6.32	45.9
11/21/2014 1:39:00 AM	6.08	47.7
11/21/2014 1:40:00 AM	6.23	45.5
11/21/2014 1:41:00 AM	6.40	46.6
11/21/2014 1:42:00 AM	6.46	46.1
11/21/2014 1:43:00 AM	6.20	46.8
11/21/2014 1:44:00 AM	6.39	45.0
11/21/2014 1:45:00 AM	6.52	46.8
11/21/2014 1:46:00 AM	6.03	46.1
11/21/2014 1:47:00 AM	6.08	45.0
11/21/2014 1:48:00 AM	5.92	46.1
11/21/2014 1:49:00 AM	5.59	45.5
11/21/2014 1:50:00 AM	5.99	44.6
11/21/2014 1:51:00 AM	5.99	45.7
11/21/2014 1:52:00 AM	5.66	44.0
11/21/2014 1:53:00 AM	5.48	44.7
11/21/2014 1:54:00 AM	6.16	45.3
11/21/2014 1:55:00 AM	5.82	45.0
11/21/2014 1:56:00 AM	5.83	44.3
11/21/2014 1:57:00 AM	5.73	44.6
11/21/2014 1:58:00 AM	5.83	44.0
11/21/2014 1:59:00 AM	5.40	45.2
11/21/2014 2:00:00 AM	5.53	44.9
11/21/2014 2:01:00 AM	5.00	43.9

**Table H3 - Valid Total 1-Minute Sound Data - Monitor C - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
11/21/2014 2:02:00 AM	5.58	45.3
11/21/2014 2:03:00 AM	5.67	45.7
11/21/2014 2:04:00 AM	5.22	45.8
11/21/2014 2:05:00 AM	5.14	44.8
11/21/2014 2:06:00 AM	5.52	45.4
11/21/2014 2:07:00 AM	5.36	44.0
11/21/2014 2:08:00 AM	5.50	44.6
11/21/2014 2:09:00 AM	5.51	45.6
11/21/2014 2:10:00 AM	5.73	45.1
11/21/2014 2:11:00 AM	5.82	45.7
11/21/2014 2:12:00 AM	5.93	46.2
11/21/2014 2:13:00 AM	5.74	46.5
11/21/2014 2:14:00 AM	5.79	45.3
11/21/2014 2:15:00 AM	5.71	46.9
11/21/2014 2:16:00 AM	5.53	46.3
11/21/2014 2:17:00 AM	5.80	44.6
11/21/2014 2:18:00 AM	5.75	46.5
11/21/2014 2:19:00 AM	5.66	47.2
11/21/2014 2:20:00 AM	6.09	46.4
11/21/2014 2:21:00 AM	5.85	46.1
11/21/2014 2:22:00 AM	5.99	46.2
11/21/2014 2:23:00 AM	6.24	46.3
11/21/2014 2:24:00 AM	6.20	44.9
11/21/2014 2:25:00 AM	5.63	44.6
11/21/2014 2:26:00 AM	6.02	46.6
11/21/2014 2:27:00 AM	6.28	43.9
11/21/2014 2:28:00 AM	6.09	44.7
11/21/2014 2:29:00 AM	6.20	44.6
11/21/2014 2:30:00 AM	5.73	44.9
11/21/2014 2:31:00 AM	6.14	44.5
11/21/2014 2:32:00 AM	5.84	44.5
11/21/2014 2:33:00 AM	5.70	44.8
11/21/2014 2:34:00 AM	6.10	44.7
11/21/2014 2:35:00 AM	5.12	46.7
11/21/2014 2:36:00 AM	5.71	46.1
11/21/2014 2:37:00 AM	5.68	47.4
11/21/2014 2:38:00 AM	5.74	46.4
11/21/2014 2:39:00 AM	5.49	45.5
11/21/2014 2:40:00 AM	5.59	46.5
11/21/2014 2:41:00 AM	5.56	46.5
11/21/2014 2:42:00 AM	5.48	46.2
11/21/2014 2:43:00 AM	6.03	44.3
11/21/2014 2:44:00 AM	6.30	44.5
11/21/2014 2:45:00 AM	6.31	45.0
11/21/2014 2:46:00 AM	6.48	44.0
11/21/2014 2:47:00 AM	5.99	45.7
11/21/2014 2:48:00 AM	6.31	46.2
11/21/2014 2:49:00 AM	6.25	45.4
11/21/2014 2:50:00 AM	6.24	45.5
11/21/2014 2:51:00 AM	5.61	45.8

**Table H3 - Valid Total 1-Minute Sound Data - Monitor C - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
11/21/2014 2:52:00 AM	5.42	47.8
11/21/2014 2:53:00 AM	5.61	45.4
11/21/2014 2:54:00 AM	5.61	46.5
11/21/2014 2:55:00 AM	5.91	47.1
11/21/2014 2:56:00 AM	5.52	47.6
11/21/2014 2:57:00 AM	6.05	45.2
11/21/2014 2:58:00 AM	5.74	46.6
11/21/2014 2:59:00 AM	6.22	45.4
11/21/2014 3:00:00 AM	5.90	45.1
11/21/2014 3:01:00 AM	6.05	44.3
11/21/2014 3:02:00 AM	6.04	44.9
11/21/2014 3:03:00 AM	6.04	44.9
11/21/2014 3:04:00 AM	6.28	46.2
11/21/2014 3:05:00 AM	5.77	45.9
11/21/2014 3:06:00 AM	5.76	45.4
11/21/2014 3:07:00 AM	5.89	44.9
11/21/2014 3:08:00 AM	5.75	46.3
11/21/2014 3:09:00 AM	5.53	45.4
11/21/2014 3:10:00 AM	5.83	45.5
11/21/2014 3:11:00 AM	5.61	47.4
11/21/2014 3:12:00 AM	6.07	45.4
11/21/2014 3:13:00 AM	6.16	45.2
11/21/2014 3:14:00 AM	5.79	46.0
11/21/2014 3:15:00 AM	5.78	43.2
11/21/2014 3:16:00 AM	5.98	43.5
11/21/2014 3:17:00 AM	6.05	43.9
11/21/2014 3:18:00 AM	6.07	41.9
11/21/2014 3:19:00 AM	6.12	43.4
11/21/2014 3:20:00 AM	6.11	42.8
11/21/2014 3:21:00 AM	6.00	42.3
11/21/2014 3:22:00 AM	5.91	43.0
11/21/2014 3:23:00 AM	5.73	42.7
11/21/2014 3:24:00 AM	5.24	41.9
11/21/2014 3:25:00 AM	5.60	43.0
11/21/2014 3:26:00 AM	5.03	43.9
11/21/2014 3:27:00 AM	5.10	43.6
11/21/2014 3:28:00 AM	4.97	44.3
11/21/2014 3:29:00 AM	5.07	43.5
11/21/2014 3:30:00 AM	5.11	44.5
11/21/2014 3:31:00 AM	5.11	44.3
11/21/2014 3:32:00 AM	4.95	44.2
11/21/2014 3:33:00 AM	5.18	44.3
11/21/2014 3:34:00 AM	5.66	46.0
11/21/2014 3:35:00 AM	5.26	44.7
11/21/2014 3:36:00 AM	5.57	46.4
11/21/2014 3:37:00 AM	5.68	44.6
11/21/2014 3:38:00 AM	5.54	44.3
11/21/2014 3:39:00 AM	5.85	46.9
11/21/2014 3:40:00 AM	5.82	47.0
11/21/2014 3:41:00 AM	5.81	46.4

**Table H3 - Valid Total 1-Minute Sound Data - Monitor C - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
11/21/2014 3:42:00 AM	5.74	47.6
11/21/2014 3:43:00 AM	5.90	47.3
11/21/2014 3:44:00 AM	6.09	47.4
11/21/2014 3:45:00 AM	5.99	47.4
11/21/2014 3:46:00 AM	5.48	47.6
11/21/2014 3:47:00 AM	6.18	46.1
11/21/2014 3:48:00 AM	6.28	46.5
11/21/2014 3:49:00 AM	6.22	44.9
11/21/2014 3:50:00 AM	6.30	43.7
11/21/2014 3:51:00 AM	6.48	40.6
11/21/2014 3:52:00 AM	6.31	40.3
11/21/2014 3:53:00 AM	6.55	42.8
11/21/2014 3:54:00 AM	6.49	44.6
11/21/2014 3:55:00 AM	6.27	41.9
11/21/2014 3:56:00 AM	6.09	41.6
11/21/2014 3:57:00 AM	6.13	42.9
11/21/2014 3:58:00 AM	5.62	44.8
11/21/2014 3:59:00 AM	4.74	44.0
11/21/2014 4:00:00 AM	4.26	41.7
11/21/2014 4:01:00 AM	4.84	42.4
11/21/2014 4:02:00 AM	5.19	41.9
11/21/2014 4:03:00 AM	4.87	42.2
11/21/2014 4:04:00 AM	5.05	41.4
11/21/2014 4:05:00 AM	4.86	41.5
11/21/2014 4:09:00 AM	4.97	42.3
11/21/2014 4:10:00 AM	4.96	42.1
11/21/2014 4:11:00 AM	4.97	41.6
11/21/2014 4:12:00 AM	4.54	40.9
11/21/2014 4:13:00 AM	4.20	42.1
11/21/2014 4:14:00 AM	4.44	40.7
11/21/2014 4:15:00 AM	4.36	40.7
11/21/2014 4:16:00 AM	3.95	41.6
11/21/2014 4:17:00 AM	4.49	42.2
11/21/2014 4:18:00 AM	4.58	42.0
11/21/2014 4:19:00 AM	4.75	41.9
11/21/2014 4:20:00 AM	4.51	42.4
11/21/2014 4:21:00 AM	4.58	41.0
11/21/2014 4:22:00 AM	4.66	42.2
11/21/2014 4:23:00 AM	4.48	41.1
11/21/2014 4:24:00 AM	4.62	42.3
11/21/2014 4:25:00 AM	4.77	42.1
11/21/2014 4:26:00 AM	5.12	41.6
11/21/2014 4:27:00 AM	4.84	41.8
11/21/2014 4:28:00 AM	4.95	43.3
11/21/2014 4:29:00 AM	4.58	41.3
11/21/2014 4:30:00 AM	5.02	42.3
11/21/2014 4:31:00 AM	4.47	42.7
11/21/2014 4:32:00 AM	4.93	43.5
11/21/2014 4:33:00 AM	5.25	43.1
11/21/2014 4:34:00 AM	4.62	42.8

**Table H3 - Valid Total 1-Minute Sound Data - Monitor C - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
11/21/2014 4:35:00 AM	4.69	42.9
11/21/2014 4:36:00 AM	5.05	44.3
11/21/2014 4:37:00 AM	4.78	44.6
11/21/2014 4:38:00 AM	4.78	44.5
11/21/2014 4:39:00 AM	5.18	44.3
11/21/2014 4:40:00 AM	5.11	45.6
11/21/2014 4:41:00 AM	5.30	46.0
11/21/2014 4:42:00 AM	5.23	43.7
11/21/2014 4:43:00 AM	5.38	43.8
11/21/2014 4:44:00 AM	5.09	45.8
11/21/2014 4:45:00 AM	5.79	45.1
11/21/2014 4:46:00 AM	5.60	46.5
11/21/2014 4:47:00 AM	5.63	45.5
11/21/2014 4:48:00 AM	5.43	44.3
11/21/2014 4:49:00 AM	6.10	45.1
11/21/2014 4:50:00 AM	5.56	45.0
11/21/2014 4:51:00 AM	5.38	45.4
11/21/2014 4:52:00 AM	5.71	45.3
11/21/2014 4:53:00 AM	5.83	46.9
11/21/2014 4:54:00 AM	5.91	46.9
11/21/2014 4:55:00 AM	5.90	45.8
11/21/2014 4:56:00 AM	5.71	45.4
11/21/2014 4:57:00 AM	5.93	44.3
11/21/2014 4:58:00 AM	5.77	45.1
11/21/2014 4:59:00 AM	5.92	46.8
11/21/2014 5:00:00 AM	5.76	44.2
11/21/2014 5:01:00 AM	5.74	46.2
11/21/2014 5:02:00 AM	6.35	43.7
11/21/2014 5:03:00 AM	5.61	43.9
11/21/2014 5:04:00 AM	6.15	43.5
11/21/2014 5:05:00 AM	5.42	43.4
11/21/2014 5:06:00 AM	5.73	42.8
11/21/2014 5:07:00 AM	6.02	46.0
11/21/2014 5:08:00 AM	6.12	44.6
11/21/2014 5:09:00 AM	5.31	42.9
11/21/2014 5:10:00 AM	5.73	45.0
11/21/2014 5:11:00 AM	5.48	44.5
11/21/2014 5:12:00 AM	5.31	44.1
11/21/2014 5:13:00 AM	5.08	43.4
11/21/2014 5:14:00 AM	5.25	44.7
11/21/2014 5:15:00 AM	5.68	45.0
11/21/2014 5:16:00 AM	5.62	44.0
11/21/2014 5:17:00 AM	5.40	43.3
11/21/2014 5:18:00 AM	5.48	42.6
11/21/2014 5:19:00 AM	5.69	41.4
11/21/2014 5:20:00 AM	5.74	44.4
11/21/2014 5:21:00 AM	5.23	42.7
11/21/2014 5:22:00 AM	5.43	42.9
11/21/2014 5:23:00 AM	5.59	43.4
11/21/2014 5:24:00 AM	5.79	42.5



**Table H3 - Valid Total 1-Minute Sound Data - Monitor C - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
11/21/2014 5:25:00 AM	5.46	43.2
11/21/2014 5:26:00 AM	5.15	43.5
11/21/2014 5:27:00 AM	4.96	42.5
11/21/2014 5:28:00 AM	5.26	43.2
11/21/2014 5:29:00 AM	4.94	42.4
11/21/2014 5:30:00 AM	5.17	42.5
11/21/2014 5:31:00 AM	5.05	42.2
11/21/2014 5:32:00 AM	5.13	42.1
11/21/2014 5:33:00 AM	5.13	42.5
11/21/2014 5:34:00 AM	5.49	42.6
11/21/2014 5:35:00 AM	5.33	42.4
11/21/2014 5:36:00 AM	5.33	42.2
11/21/2014 5:37:00 AM	5.45	42.1
11/21/2014 5:38:00 AM	4.99	42.7
11/21/2014 5:39:00 AM	5.13	43.0
11/21/2014 5:40:00 AM	5.01	42.4
11/21/2014 5:41:00 AM	5.00	42.3
11/21/2014 5:42:00 AM	5.26	42.9
11/21/2014 5:43:00 AM	5.24	43.0
11/21/2014 5:44:00 AM	5.02	42.4
11/21/2014 5:45:00 AM	5.22	41.7
11/21/2014 5:46:00 AM	5.19	42.2
11/21/2014 5:47:00 AM	5.33	42.3
11/21/2014 5:48:00 AM	5.29	43.8
11/21/2014 5:49:00 AM	4.88	42.6
11/21/2014 5:50:00 AM	5.42	42.3
11/21/2014 5:51:00 AM	5.36	43.2
11/21/2014 5:52:00 AM	5.33	45.4
11/21/2014 5:53:00 AM	4.90	42.1
11/21/2014 5:54:00 AM	4.93	42.2
11/21/2014 5:55:00 AM	5.36	42.9
11/21/2014 5:56:00 AM	4.94	44.6
11/21/2014 5:57:00 AM	5.20	44.2
11/21/2014 5:58:00 AM	4.84	42.5
11/21/2014 5:59:00 AM	5.16	42.3

**Table H4 - Valid Ambient 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
09/30/2014 12:24:00 AM	4.43	47.5
09/30/2014 12:25:00 AM	3.88	47.7
09/30/2014 12:26:00 AM	4.34	42.7
09/30/2014 12:27:00 AM	4.57	42.4
09/30/2014 12:32:00 AM	3.84	38.7
09/30/2014 12:33:00 AM	3.80	41.0
09/30/2014 12:34:00 AM	4.35	41.6
09/30/2014 12:35:00 AM	4.25	39.5
09/30/2014 12:36:00 AM	3.92	38.7
09/30/2014 12:37:00 AM	3.70	38.3
09/30/2014 12:42:00 AM	4.18	41.1
09/30/2014 12:43:00 AM	4.21	40.0
09/30/2014 12:55:00 AM	3.81	42.8
09/30/2014 12:56:00 AM	3.51	43.7
10/01/2014 11:40:00 PM	3.52	41.2
10/01/2014 11:51:00 PM	3.55	41.5
10/02/2014 12:03:00 AM	3.89	39.8
10/02/2014 12:04:00 AM	3.91	40.9
10/02/2014 12:05:00 AM	4.30	40.6
10/02/2014 12:06:00 AM	4.14	40.0
10/02/2014 12:07:00 AM	4.22	42.6
10/02/2014 12:08:00 AM	3.69	41.7
10/02/2014 12:09:00 AM	3.76	39.8
10/02/2014 12:10:00 AM	4.60	40.3
10/02/2014 12:11:00 AM	4.33	40.6
10/02/2014 12:12:00 AM	4.17	39.6
10/02/2014 12:13:00 AM	4.68	39.9
10/02/2014 12:14:00 AM	3.71	40.6
10/02/2014 12:15:00 AM	4.29	40.4
10/02/2014 12:16:00 AM	4.73	39.4
10/02/2014 12:17:00 AM	4.01	40.3
10/02/2014 12:18:00 AM	4.29	40.4
10/02/2014 12:19:00 AM	4.95	40.3
10/02/2014 12:20:00 AM	4.48	45.0
10/02/2014 12:21:00 AM	3.86	40.8
10/02/2014 12:22:00 AM	3.60	42.1
10/02/2014 12:23:00 AM	4.32	40.6
10/02/2014 12:24:00 AM	4.40	40.3
10/02/2014 12:33:00 AM	3.65	39.0
10/02/2014 12:34:00 AM	3.79	39.2
10/02/2014 12:36:00 AM	3.54	39.6
10/02/2014 12:37:00 AM	3.61	39.7
10/02/2014 12:38:00 AM	3.52	39.2
10/02/2014 12:40:00 AM	3.77	41.4
10/02/2014 12:41:00 AM	3.66	40.9
10/02/2014 12:42:00 AM	4.33	39.6
10/02/2014 12:43:00 AM	4.57	39.9
10/02/2014 12:46:00 AM	3.93	39.1
10/02/2014 12:49:00 AM	4.11	39.3
10/02/2014 12:51:00 AM	3.54	39.6

**Table H4 - Valid Ambient 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
10/02/2014 12:56:00 AM	3.78	38.5
10/02/2014 12:57:00 AM	4.23	40.0
10/02/2014 12:58:00 AM	3.64	45.2
10/02/2014 12:59:00 AM	4.21	39.1
10/02/2014 1:00:00 AM	4.10	38.4
10/02/2014 1:01:00 AM	4.40	38.9
10/02/2014 1:02:00 AM	4.69	39.4
10/02/2014 1:03:00 AM	4.86	39.5
10/02/2014 1:06:00 AM	3.67	40.3
10/02/2014 1:07:00 AM	4.26	40.6
10/02/2014 1:08:00 AM	3.54	38.3
10/02/2014 1:11:00 AM	3.95	38.6
10/02/2014 1:17:00 AM	3.77	38.5
10/02/2014 1:19:00 AM	3.64	38.4
10/02/2014 1:20:00 AM	3.91	37.7
10/02/2014 1:21:00 AM	3.80	37.7
10/02/2014 1:26:00 AM	3.80	38.2
10/02/2014 1:27:00 AM	3.74	38.2
10/02/2014 1:39:00 AM	3.52	40.0
10/02/2014 1:55:00 AM	3.67	39.4
10/02/2014 2:01:00 AM	3.80	39.1
10/02/2014 2:02:00 AM	3.65	40.1
10/02/2014 2:03:00 AM	3.69	40.0
10/02/2014 2:04:00 AM	3.57	39.2
10/02/2014 2:46:00 AM	3.62	40.0
10/02/2014 2:47:00 AM	3.84	41.1
10/02/2014 2:49:00 AM	3.68	41.0
10/02/2014 2:50:00 AM	4.03	40.2
10/02/2014 2:51:00 AM	3.77	40.1
10/02/2014 2:52:00 AM	4.11	43.8
10/02/2014 2:53:00 AM	3.91	40.8
10/02/2014 2:54:00 AM	3.65	40.6
10/02/2014 2:55:00 AM	3.87	40.1
10/02/2014 2:56:00 AM	3.88	39.9
10/02/2014 2:57:00 AM	3.61	40.6
10/02/2014 2:58:00 AM	3.77	40.5
10/02/2014 2:59:00 AM	3.59	40.3
10/02/2014 3:01:00 AM	3.84	40.2
10/02/2014 3:02:00 AM	4.02	40.2
10/02/2014 3:03:00 AM	3.81	40.4
10/02/2014 3:04:00 AM	3.53	41.0
10/02/2014 3:06:00 AM	4.23	40.5
10/02/2014 3:07:00 AM	3.58	40.4
10/02/2014 3:08:00 AM	4.08	40.5
10/02/2014 3:09:00 AM	3.73	40.4
10/02/2014 3:10:00 AM	4.40	41.3
10/02/2014 3:11:00 AM	4.00	41.4
10/02/2014 3:12:00 AM	3.71	40.7
10/02/2014 3:13:00 AM	4.66	41.0
10/02/2014 3:14:00 AM	4.10	41.7

**Table H4 - Valid Ambient 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
10/02/2014 3:16:00 AM	3.93	41.5
10/02/2014 3:17:00 AM	3.64	40.8
10/02/2014 3:18:00 AM	3.95	41.5
10/02/2014 3:19:00 AM	3.56	41.4
10/02/2014 3:21:00 AM	4.23	41.1
10/02/2014 3:22:00 AM	4.26	41.3
10/02/2014 3:24:00 AM	4.04	40.5
10/02/2014 3:25:00 AM	3.64	41.8
10/02/2014 3:26:00 AM	3.77	41.4
10/02/2014 3:28:00 AM	4.18	41.2
10/02/2014 3:29:00 AM	4.16	41.1
10/02/2014 3:30:00 AM	4.11	41.1
10/02/2014 3:31:00 AM	4.17	41.0
10/02/2014 3:32:00 AM	3.79	41.3
10/02/2014 3:33:00 AM	3.85	41.3
10/02/2014 3:34:00 AM	4.00	42.5
10/02/2014 3:36:00 AM	3.58	42.4
10/02/2014 3:37:00 AM	3.77	42.1
10/02/2014 3:38:00 AM	3.92	41.5
10/02/2014 3:40:00 AM	4.31	42.7
10/02/2014 3:41:00 AM	4.08	44.7
10/02/2014 3:42:00 AM	4.72	42.7
10/02/2014 3:43:00 AM	4.98	42.9
10/02/2014 3:44:00 AM	4.91	41.6
10/02/2014 3:45:00 AM	4.70	42.3
10/02/2014 3:46:00 AM	4.48	41.2
10/02/2014 3:47:00 AM	3.80	41.7
10/02/2014 3:48:00 AM	3.52	42.0
10/02/2014 3:50:00 AM	3.60	41.5
10/02/2014 3:51:00 AM	4.35	41.4
10/02/2014 3:53:00 AM	3.85	41.8
10/02/2014 3:54:00 AM	3.77	41.3
10/02/2014 3:55:00 AM	5.05	41.5
10/02/2014 3:56:00 AM	4.09	41.9
10/02/2014 3:57:00 AM	3.83	41.6
10/02/2014 3:58:00 AM	3.89	41.4
10/02/2014 3:59:00 AM	3.74	40.8
10/02/2014 4:00:00 AM	4.29	40.9
10/02/2014 4:01:00 AM	4.43	41.5
10/02/2014 4:03:00 AM	3.95	41.2
10/02/2014 4:04:00 AM	4.49	41.0
10/02/2014 4:05:00 AM	4.96	41.6
10/02/2014 4:06:00 AM	4.14	42.8
10/02/2014 4:07:00 AM	3.75	41.4
10/02/2014 4:08:00 AM	4.52	42.0
10/02/2014 4:13:00 AM	3.60	41.6
10/02/2014 4:14:00 AM	3.74	41.5
10/02/2014 4:15:00 AM	4.03	41.4
10/02/2014 4:16:00 AM	4.18	41.3
10/02/2014 4:17:00 AM	3.80	42.0

**Table H4 - Valid Ambient 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
10/02/2014 4:22:00 AM	4.09	41.1
10/02/2014 4:23:00 AM	4.16	42.5
10/02/2014 4:24:00 AM	4.11	45.0
10/02/2014 4:25:00 AM	3.55	41.2
10/02/2014 4:32:00 AM	4.31	41.9
10/02/2014 4:38:00 AM	3.84	42.1
10/02/2014 4:39:00 AM	3.62	42.1
10/02/2014 4:47:00 AM	3.52	42.3
10/02/2014 10:00:00 PM	5.49	42.0
10/02/2014 10:01:00 PM	5.96	43.4
10/02/2014 10:02:00 PM	6.00	42.3
10/02/2014 10:03:00 PM	5.35	41.9
10/02/2014 10:04:00 PM	6.39	41.2
10/02/2014 10:05:00 PM	6.64	42.1
10/02/2014 10:06:00 PM	5.52	41.8
10/02/2014 10:07:00 PM	5.18	41.8
10/02/2014 10:08:00 PM	5.79	42.5
10/02/2014 10:09:00 PM	5.53	44.2
10/02/2014 10:15:00 PM	5.58	45.8
10/02/2014 10:16:00 PM	5.72	43.9
10/02/2014 10:17:00 PM	5.58	47.0
10/02/2014 10:19:00 PM	5.51	44.9
10/02/2014 10:20:00 PM	6.11	43.7
10/02/2014 10:21:00 PM	6.41	43.8
10/02/2014 10:22:00 PM	6.08	44.9
10/02/2014 10:23:00 PM	5.40	43.1
10/02/2014 10:24:00 PM	6.00	41.7
10/02/2014 10:25:00 PM	6.39	44.1
10/02/2014 10:26:00 PM	7.07	40.1
10/02/2014 10:27:00 PM	6.16	42.1
10/02/2014 10:28:00 PM	5.94	40.1
10/02/2014 10:29:00 PM	6.29	42.2
10/02/2014 10:30:00 PM	6.81	39.1
10/02/2014 10:31:00 PM	5.38	42.4
10/02/2014 10:32:00 PM	6.04	45.3
10/02/2014 10:33:00 PM	5.07	40.3
10/02/2014 10:34:00 PM	5.26	39.8
10/02/2014 10:35:00 PM	5.20	40.6
10/02/2014 10:36:00 PM	5.23	41.0
10/02/2014 10:37:00 PM	5.60	43.4
10/02/2014 10:38:00 PM	5.35	43.1
10/02/2014 10:39:00 PM	4.64	41.9
10/02/2014 10:40:00 PM	4.97	40.9
10/02/2014 10:42:00 PM	5.38	45.4
10/02/2014 10:43:00 PM	4.57	43.9
10/02/2014 10:44:00 PM	5.57	45.8
10/02/2014 10:49:00 PM	5.80	45.0
10/02/2014 10:50:00 PM	5.54	43.1
10/02/2014 10:51:00 PM	4.99	42.3
10/02/2014 10:52:00 PM	5.24	43.0

**Table H4 - Valid Ambient 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
10/02/2014 10:53:00 PM	6.00	44.9
10/02/2014 10:54:00 PM	5.67	45.3
10/02/2014 10:56:00 PM	5.29	43.4
10/02/2014 10:57:00 PM	5.61	43.8
10/02/2014 10:59:00 PM	5.18	42.3
10/02/2014 11:00:00 PM	5.75	45.0
10/02/2014 11:01:00 PM	6.16	43.0
10/02/2014 11:02:00 PM	6.72	40.5
10/02/2014 11:03:00 PM	6.20	43.6
10/02/2014 11:04:00 PM	5.94	42.1
10/02/2014 11:05:00 PM	6.23	40.7
10/02/2014 11:06:00 PM	6.22	40.3
10/02/2014 11:07:00 PM	5.40	40.6
10/02/2014 11:08:00 PM	6.33	40.5
10/02/2014 11:10:00 PM	5.55	41.9
10/02/2014 11:11:00 PM	5.81	40.5
10/02/2014 11:12:00 PM	5.64	40.6
10/02/2014 11:13:00 PM	5.17	43.4
10/02/2014 11:14:00 PM	5.17	42.4
10/02/2014 11:16:00 PM	4.88	42.0
10/02/2014 11:17:00 PM	4.98	41.4
10/02/2014 11:18:00 PM	5.70	43.2
10/02/2014 11:19:00 PM	5.32	43.3
10/02/2014 11:20:00 PM	5.18	40.2
10/02/2014 11:21:00 PM	5.83	41.4
10/02/2014 11:22:00 PM	6.16	45.3
10/02/2014 11:23:00 PM	5.57	41.5
10/02/2014 11:24:00 PM	5.07	41.1
10/02/2014 11:25:00 PM	5.74	39.5
10/02/2014 11:26:00 PM	5.14	40.7
10/02/2014 11:27:00 PM	6.58	40.3
10/02/2014 11:28:00 PM	4.95	42.7
10/02/2014 11:29:00 PM	5.45	43.8
10/02/2014 11:30:00 PM	5.25	42.3
10/02/2014 11:31:00 PM	5.68	41.0
10/02/2014 11:32:00 PM	5.63	41.0
10/02/2014 11:33:00 PM	5.17	41.0
10/02/2014 11:34:00 PM	4.47	44.3
10/02/2014 11:36:00 PM	5.20	45.4
10/02/2014 11:37:00 PM	5.77	46.8
10/02/2014 11:40:00 PM	5.46	44.5
10/02/2014 11:41:00 PM	5.20	41.5
10/02/2014 11:42:00 PM	5.65	41.8
10/02/2014 11:43:00 PM	5.94	42.6
10/02/2014 11:44:00 PM	4.88	44.3
10/02/2014 11:45:00 PM	5.59	44.8
10/02/2014 11:46:00 PM	6.04	42.5
10/02/2014 11:47:00 PM	5.68	41.2
10/02/2014 11:48:00 PM	5.94	42.0
10/02/2014 11:49:00 PM	4.73	40.9

**Table H4 - Valid Ambient 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
10/02/2014 11:50:00 PM	4.68	42.5
10/02/2014 11:51:00 PM	5.62	41.7
10/02/2014 11:52:00 PM	5.57	41.5
10/02/2014 11:53:00 PM	6.58	41.8
10/02/2014 11:54:00 PM	5.85	43.1
10/02/2014 11:55:00 PM	5.56	44.4
10/02/2014 11:56:00 PM	5.88	44.0
10/02/2014 11:57:00 PM	5.28	43.3
10/02/2014 11:58:00 PM	6.18	43.1
10/02/2014 11:59:00 PM	5.77	43.1
10/03/2014 12:00:00 AM	5.81	43.9
10/03/2014 12:01:00 AM	5.76	43.6
10/03/2014 12:02:00 AM	6.12	43.7
10/03/2014 12:03:00 AM	5.91	43.4
10/03/2014 12:04:00 AM	6.61	45.1
10/03/2014 12:05:00 AM	6.28	43.9
10/03/2014 12:07:00 AM	6.07	46.2
10/03/2014 12:15:00 AM	6.57	40.3
10/03/2014 12:16:00 AM	5.47	42.2
10/03/2014 12:17:00 AM	5.92	41.1
10/03/2014 12:18:00 AM	6.02	43.6
10/03/2014 12:19:00 AM	5.57	45.5
10/03/2014 12:21:00 AM	5.04	44.7
10/03/2014 12:22:00 AM	5.76	44.3
10/03/2014 12:23:00 AM	5.03	41.4
10/03/2014 12:24:00 AM	5.17	41.7
10/03/2014 12:25:00 AM	4.79	40.4
10/03/2014 12:26:00 AM	4.92	40.0
10/03/2014 12:27:00 AM	6.04	42.2
10/03/2014 12:29:00 AM	5.38	40.1
10/03/2014 12:30:00 AM	5.59	43.0
10/03/2014 12:31:00 AM	5.65	41.2
10/03/2014 12:32:00 AM	5.92	41.5
10/03/2014 12:33:00 AM	5.35	39.5
10/03/2014 12:34:00 AM	5.06	40.1
10/03/2014 12:35:00 AM	5.67	40.5
10/03/2014 12:36:00 AM	6.01	39.9
10/03/2014 12:37:00 AM	5.28	40.5
10/03/2014 12:38:00 AM	5.78	41.9
10/03/2014 12:39:00 AM	5.63	42.2
10/03/2014 12:41:00 AM	5.06	40.9
10/03/2014 12:42:00 AM	5.16	41.0
10/03/2014 12:43:00 AM	4.86	45.3
10/03/2014 12:44:00 AM	4.80	45.6
10/03/2014 12:50:00 AM	5.02	43.5
10/03/2014 12:51:00 AM	5.93	43.4
10/03/2014 12:52:00 AM	5.35	44.5
10/03/2014 12:53:00 AM	5.51	42.8
10/03/2014 12:54:00 AM	5.19	42.4
10/03/2014 12:55:00 AM	5.64	41.7

**Table H4 - Valid Ambient 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
10/03/2014 12:56:00 AM	5.76	41.7
10/03/2014 12:57:00 AM	6.69	42.8
10/03/2014 12:58:00 AM	6.06	42.0
10/03/2014 12:59:00 AM	6.03	40.4
10/03/2014 1:00:00 AM	6.25	40.0
10/03/2014 1:01:00 AM	5.83	40.9
10/03/2014 1:02:00 AM	6.13	42.6
10/03/2014 1:03:00 AM	5.60	41.1
10/03/2014 1:04:00 AM	5.43	42.4
10/03/2014 1:05:00 AM	5.45	43.8
10/03/2014 1:07:00 AM	4.94	40.9
10/03/2014 1:08:00 AM	5.20	40.8
10/03/2014 1:10:00 AM	5.99	41.5
10/03/2014 1:11:00 AM	5.35	41.1
10/03/2014 1:12:00 AM	5.73	41.4
10/03/2014 1:13:00 AM	5.66	41.0
10/03/2014 1:14:00 AM	5.53	41.9
10/03/2014 1:15:00 AM	5.16	41.3
10/03/2014 1:16:00 AM	5.47	42.2
10/03/2014 1:17:00 AM	5.38	41.6
10/03/2014 1:18:00 AM	5.12	42.0
10/03/2014 1:19:00 AM	5.10	41.9
10/03/2014 1:20:00 AM	5.14	39.2
10/03/2014 1:21:00 AM	5.27	40.2
10/03/2014 1:22:00 AM	5.27	44.9
10/03/2014 1:23:00 AM	5.32	43.7
10/03/2014 1:24:00 AM	4.96	43.3
10/03/2014 1:25:00 AM	5.22	41.9
10/03/2014 1:26:00 AM	6.05	42.6
10/03/2014 1:27:00 AM	5.73	40.9
10/03/2014 1:28:00 AM	4.81	43.9
10/03/2014 1:29:00 AM	5.46	40.9
10/03/2014 1:30:00 AM	5.06	42.2
10/03/2014 1:31:00 AM	5.82	40.6
10/03/2014 1:32:00 AM	5.49	44.3
10/03/2014 1:33:00 AM	5.55	43.8
10/03/2014 1:34:00 AM	5.65	43.1
10/03/2014 1:35:00 AM	5.51	41.0
10/03/2014 1:36:00 AM	6.35	42.1
10/03/2014 1:37:00 AM	5.46	42.7
10/03/2014 1:38:00 AM	5.45	43.0
10/03/2014 1:39:00 AM	5.33	45.7
10/03/2014 1:40:00 AM	5.99	43.0
10/03/2014 1:41:00 AM	6.57	42.6
10/03/2014 1:42:00 AM	5.88	43.3
10/03/2014 1:43:00 AM	5.41	42.4
10/03/2014 1:44:00 AM	5.61	40.5
10/03/2014 1:45:00 AM	6.45	41.6
10/03/2014 1:46:00 AM	6.30	44.0
10/03/2014 1:54:00 AM	5.87	42.9



**Table H4 - Valid Ambient 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
10/03/2014 1:55:00 AM	6.69	44.0
10/03/2014 1:56:00 AM	5.65	47.5
10/03/2014 1:57:00 AM	6.00	46.8
10/03/2014 1:59:00 AM	6.29	45.3
10/03/2014 2:00:00 AM	6.46	45.9
10/03/2014 2:01:00 AM	6.39	43.7
10/03/2014 2:02:00 AM	5.96	45.0
10/03/2014 2:03:00 AM	5.77	47.4
10/03/2014 2:04:00 AM	6.44	45.6
10/03/2014 2:05:00 AM	7.45	45.3
10/03/2014 2:07:00 AM	7.28	42.7
10/03/2014 2:08:00 AM	6.49	43.3
10/03/2014 2:09:00 AM	6.63	47.1
10/03/2014 2:10:00 AM	6.27	43.9
10/03/2014 2:11:00 AM	6.79	44.2
10/03/2014 2:12:00 AM	7.37	45.4
10/03/2014 2:15:00 AM	6.50	44.7
10/03/2014 2:16:00 AM	5.21	42.4
10/03/2014 2:19:00 AM	6.56	43.8
10/03/2014 2:20:00 AM	5.66	43.7
10/03/2014 2:21:00 AM	7.44	41.7
10/03/2014 2:23:00 AM	6.12	41.1
10/03/2014 2:24:00 AM	5.94	40.5
10/03/2014 2:25:00 AM	5.70	42.1
10/03/2014 2:26:00 AM	5.48	42.4
10/03/2014 2:27:00 AM	5.76	43.9
10/03/2014 2:28:00 AM	6.14	42.3
10/03/2014 2:29:00 AM	5.50	43.5
10/03/2014 2:30:00 AM	5.22	41.4
10/03/2014 2:31:00 AM	5.73	41.9
10/03/2014 2:32:00 AM	5.60	41.3
10/03/2014 2:33:00 AM	5.50	42.4
10/03/2014 2:34:00 AM	5.46	41.1
10/03/2014 2:35:00 AM	6.26	41.0
10/03/2014 2:36:00 AM	5.60	40.1
10/03/2014 2:37:00 AM	6.14	40.9
10/03/2014 2:38:00 AM	6.09	40.6
10/03/2014 2:39:00 AM	5.25	41.4
10/03/2014 2:40:00 AM	4.99	43.6
10/03/2014 2:41:00 AM	5.43	39.9
10/03/2014 2:42:00 AM	5.52	40.3
10/03/2014 2:43:00 AM	5.26	39.6
10/03/2014 2:44:00 AM	4.70	39.9
10/03/2014 2:45:00 AM	4.78	39.4
10/03/2014 2:46:00 AM	4.45	39.8
10/03/2014 2:47:00 AM	4.81	40.6
10/03/2014 2:48:00 AM	5.00	41.1
10/03/2014 2:49:00 AM	5.04	40.1
10/03/2014 2:50:00 AM	5.05	42.7
10/03/2014 2:51:00 AM	5.13	39.8

**Table H4 - Valid Ambient 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
10/03/2014 2:52:00 AM	5.07	39.3
10/03/2014 2:53:00 AM	4.80	42.3
10/03/2014 2:54:00 AM	4.92	41.5
10/03/2014 2:55:00 AM	4.56	41.7
10/03/2014 2:56:00 AM	4.99	41.0
10/03/2014 2:57:00 AM	5.09	40.9
10/03/2014 2:58:00 AM	5.31	40.6
10/03/2014 2:59:00 AM	5.31	42.1
10/03/2014 3:00:00 AM	4.37	43.5
10/03/2014 3:01:00 AM	4.91	43.3
10/03/2014 3:02:00 AM	5.95	41.0
10/03/2014 3:03:00 AM	5.33	42.2
10/03/2014 3:04:00 AM	5.31	41.6
10/03/2014 3:05:00 AM	5.32	40.2
10/03/2014 3:06:00 AM	4.63	40.5
10/03/2014 3:07:00 AM	5.51	44.1
10/03/2014 3:08:00 AM	6.06	42.8
10/03/2014 3:09:00 AM	6.18	41.5
10/03/2014 3:10:00 AM	4.82	45.5
10/03/2014 3:11:00 AM	5.67	45.3
10/03/2014 3:12:00 AM	5.62	45.9
10/03/2014 3:18:00 AM	6.03	44.3
10/03/2014 3:19:00 AM	5.72	42.8
10/03/2014 3:21:00 AM	6.48	45.0
10/03/2014 3:22:00 AM	6.25	44.3
10/03/2014 3:23:00 AM	6.65	43.1
10/03/2014 3:24:00 AM	5.78	42.7
10/03/2014 3:25:00 AM	5.99	42.4
10/03/2014 3:26:00 AM	5.89	46.9
10/03/2014 3:27:00 AM	5.69	41.2
10/03/2014 3:28:00 AM	5.28	41.9
10/03/2014 3:29:00 AM	5.91	44.2
10/03/2014 3:30:00 AM	6.17	43.4
10/03/2014 3:31:00 AM	6.62	42.4
10/03/2014 3:32:00 AM	5.09	41.8
10/03/2014 3:33:00 AM	5.63	44.3
10/03/2014 3:35:00 AM	5.50	42.3
10/03/2014 3:36:00 AM	5.25	40.6
10/03/2014 3:37:00 AM	6.30	42.1
10/03/2014 3:38:00 AM	6.36	42.7
10/03/2014 3:39:00 AM	5.51	44.9
10/03/2014 3:41:00 AM	6.35	46.2
10/03/2014 3:42:00 AM	6.31	47.2
10/03/2014 3:44:00 AM	5.34	49.4
10/03/2014 3:46:00 AM	5.47	49.2
10/03/2014 3:48:00 AM	7.22	45.6
10/03/2014 3:49:00 AM	6.50	44.5
10/03/2014 3:50:00 AM	5.99	47.2
10/03/2014 3:51:00 AM	5.81	44.1
10/03/2014 3:52:00 AM	5.30	42.3

**Table H4 - Valid Ambient 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
10/03/2014 3:53:00 AM	5.93	45.1
10/03/2014 3:54:00 AM	5.49	43.4
10/03/2014 3:56:00 AM	6.49	46.3
10/03/2014 3:57:00 AM	5.95	43.0
10/03/2014 3:58:00 AM	7.42	42.1
10/03/2014 3:59:00 AM	6.07	44.5
10/03/2014 4:00:00 AM	5.97	42.4
10/03/2014 4:01:00 AM	6.42	41.6
10/03/2014 4:02:00 AM	6.11	43.7
10/03/2014 4:03:00 AM	5.84	41.3
10/03/2014 4:05:00 AM	6.10	42.1
10/03/2014 4:06:00 AM	6.13	43.9
10/03/2014 4:07:00 AM	6.17	44.2
10/03/2014 4:08:00 AM	6.18	45.3
10/03/2014 4:10:00 AM	5.31	45.4
10/03/2014 4:11:00 AM	5.46	43.5
10/03/2014 4:12:00 AM	5.40	41.6
10/03/2014 4:13:00 AM	5.70	41.7
10/03/2014 4:14:00 AM	6.04	41.8
10/03/2014 4:15:00 AM	6.31	42.7
10/03/2014 4:16:00 AM	6.00	43.0
10/03/2014 4:17:00 AM	5.88	43.0
10/03/2014 4:18:00 AM	5.50	44.0
10/03/2014 4:19:00 AM	6.21	42.8
10/03/2014 4:20:00 AM	5.63	41.8
10/03/2014 4:22:00 AM	5.80	47.1
10/03/2014 4:23:00 AM	5.91	44.2
10/03/2014 4:24:00 AM	5.91	46.8
10/03/2014 4:25:00 AM	6.01	44.7
10/03/2014 4:26:00 AM	6.48	42.6
10/03/2014 4:27:00 AM	6.03	43.9
10/03/2014 4:28:00 AM	5.39	44.3
10/03/2014 4:30:00 AM	7.10	42.9
10/03/2014 4:31:00 AM	6.87	45.7
10/03/2014 4:32:00 AM	5.90	42.9
10/03/2014 4:33:00 AM	6.89	43.1
10/03/2014 4:34:00 AM	5.74	43.4
10/03/2014 4:35:00 AM	6.14	45.2
10/03/2014 4:36:00 AM	6.07	43.6
10/03/2014 4:37:00 AM	5.51	46.0
10/03/2014 4:38:00 AM	5.69	45.8
10/03/2014 4:39:00 AM	6.42	47.3
10/03/2014 4:40:00 AM	6.05	46.0
10/03/2014 4:41:00 AM	5.57	47.1
10/03/2014 4:42:00 AM	6.39	45.3
10/03/2014 4:43:00 AM	6.71	46.0
10/03/2014 4:44:00 AM	5.77	43.8
10/03/2014 4:45:00 AM	6.03	44.4
10/03/2014 4:46:00 AM	6.24	43.9
10/03/2014 4:47:00 AM	7.41	43.5

**Table H4 - Valid Ambient 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
10/03/2014 4:48:00 AM	6.50	45.4
10/03/2014 4:49:00 AM	7.16	44.0
10/03/2014 4:50:00 AM	6.30	45.3
10/03/2014 4:51:00 AM	6.16	44.1
10/03/2014 4:52:00 AM	5.86	44.4
10/03/2014 4:53:00 AM	6.08	43.2
10/03/2014 4:54:00 AM	6.27	44.7
10/03/2014 4:55:00 AM	6.24	47.3
10/03/2014 4:57:00 AM	6.65	45.1
10/03/2014 4:59:00 AM	6.12	43.7
10/04/2014 11:49:00 PM	3.64	36.1
10/05/2014 2:47:00 AM	3.57	36.9
10/05/2014 3:33:00 AM	4.29	42.9
10/05/2014 10:00:00 PM	4.85	39.3
10/05/2014 10:01:00 PM	4.88	39.6
10/05/2014 10:02:00 PM	4.66	39.5
10/05/2014 10:03:00 PM	4.83	39.6
10/05/2014 10:04:00 PM	3.94	39.3
10/05/2014 10:06:00 PM	3.65	44.8
10/05/2014 10:08:00 PM	3.91	39.6
10/05/2014 10:09:00 PM	4.11	39.5
10/05/2014 10:10:00 PM	5.11	42.4
10/05/2014 10:11:00 PM	4.10	43.4
10/05/2014 10:12:00 PM	4.55	45.0
10/05/2014 10:13:00 PM	4.77	44.9
10/05/2014 10:14:00 PM	4.85	44.8
10/05/2014 10:15:00 PM	4.46	42.1
10/05/2014 10:16:00 PM	4.26	40.3
10/05/2014 10:17:00 PM	4.12	39.3
10/05/2014 10:18:00 PM	4.55	39.6
10/05/2014 10:19:00 PM	4.35	39.2
10/05/2014 10:20:00 PM	3.86	39.3
10/05/2014 10:21:00 PM	4.36	40.8
10/05/2014 10:23:00 PM	4.45	39.6
10/05/2014 10:24:00 PM	4.79	41.0
10/05/2014 10:25:00 PM	4.16	42.8
10/05/2014 10:26:00 PM	4.08	43.2
10/05/2014 10:27:00 PM	4.05	40.0
10/05/2014 10:28:00 PM	3.77	39.2
10/05/2014 10:29:00 PM	4.66	38.8
10/05/2014 10:30:00 PM	4.17	39.3
10/05/2014 10:32:00 PM	4.36	38.8
10/05/2014 10:34:00 PM	4.40	41.0
10/05/2014 10:35:00 PM	3.93	38.5
10/05/2014 10:36:00 PM	4.40	38.2
10/05/2014 10:38:00 PM	4.76	40.2
10/05/2014 10:39:00 PM	4.16	39.3
10/05/2014 10:40:00 PM	4.24	38.0
10/05/2014 10:41:00 PM	4.76	37.0
10/05/2014 10:42:00 PM	4.15	39.2

**Table H4 - Valid Ambient 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
10/05/2014 10:43:00 PM	4.17	40.2
10/05/2014 10:44:00 PM	4.13	38.4
10/05/2014 10:45:00 PM	4.48	38.0
10/05/2014 10:46:00 PM	3.92	37.8
10/05/2014 10:47:00 PM	3.60	38.6
10/05/2014 10:48:00 PM	3.76	39.8
10/05/2014 10:52:00 PM	3.57	37.7
10/05/2014 11:08:00 PM	3.98	39.6
10/05/2014 11:09:00 PM	3.72	38.4
10/05/2014 11:10:00 PM	3.61	38.0
10/05/2014 11:12:00 PM	3.62	40.9
10/05/2014 11:13:00 PM	3.53	42.8
10/05/2014 11:14:00 PM	3.89	43.7
10/05/2014 11:15:00 PM	4.26	45.0
10/05/2014 11:16:00 PM	3.71	45.5
10/05/2014 11:17:00 PM	3.71	45.4
10/05/2014 11:18:00 PM	3.56	44.2
10/05/2014 11:29:00 PM	3.65	36.3
10/05/2014 11:31:00 PM	3.72	37.1
10/05/2014 11:35:00 PM	3.61	38.4
10/05/2014 11:47:00 PM	3.73	36.6
10/05/2014 11:48:00 PM	3.52	37.2
10/05/2014 11:50:00 PM	3.81	35.6
10/06/2014 12:02:00 AM	4.05	36.6
10/06/2014 12:04:00 AM	3.56	36.3
10/06/2014 12:09:00 AM	3.96	38.6
10/06/2014 12:21:00 AM	3.66	39.3
10/06/2014 12:24:00 AM	3.55	40.1
10/06/2014 12:25:00 AM	4.08	38.4
10/06/2014 12:26:00 AM	4.26	39.0
10/06/2014 12:27:00 AM	3.55	39.3
10/06/2014 12:28:00 AM	3.71	39.7
10/06/2014 12:32:00 AM	3.98	40.0
10/06/2014 12:33:00 AM	4.66	40.8
10/06/2014 12:34:00 AM	3.97	42.9
10/06/2014 12:35:00 AM	4.21	41.0
10/06/2014 12:36:00 AM	3.89	40.3
10/06/2014 12:37:00 AM	3.67	39.2
10/06/2014 12:38:00 AM	3.78	38.5
10/06/2014 12:39:00 AM	4.36	38.2
10/06/2014 12:40:00 AM	4.14	38.4
10/06/2014 12:41:00 AM	5.08	39.5
10/06/2014 12:42:00 AM	4.93	43.3
10/06/2014 12:43:00 AM	3.89	41.3
10/06/2014 12:44:00 AM	4.33	39.1
10/06/2014 12:45:00 AM	4.08	39.1
10/06/2014 12:46:00 AM	4.35	39.5
10/06/2014 12:47:00 AM	4.37	39.5
10/06/2014 12:48:00 AM	3.90	38.9
10/06/2014 12:49:00 AM	3.92	38.2

**Table H4 - Valid Ambient 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
10/06/2014 12:50:00 AM	4.77	37.4
10/06/2014 12:51:00 AM	4.49	38.0
10/06/2014 1:10:00 AM	3.74	34.2
10/06/2014 10:57:00 PM	3.87	40.0
10/07/2014 12:44:00 AM	3.88	40.3
10/07/2014 12:45:00 AM	3.81	42.9
10/07/2014 12:46:00 AM	3.68	43.1
10/07/2014 12:47:00 AM	3.78	39.4
10/07/2014 12:48:00 AM	3.52	39.4
10/07/2014 1:31:00 AM	3.81	39.7
10/07/2014 1:35:00 AM	3.86	40.1
10/07/2014 1:46:00 AM	3.80	38.7
10/07/2014 1:47:00 AM	3.92	41.1
10/07/2014 1:48:00 AM	3.56	39.4
10/07/2014 1:51:00 AM	3.83	39.4
10/07/2014 1:52:00 AM	3.65	39.4
10/07/2014 1:58:00 AM	3.66	41.7
10/07/2014 2:00:00 AM	4.08	40.8
10/07/2014 2:01:00 AM	3.70	40.2
10/07/2014 2:02:00 AM	3.92	41.6
10/07/2014 2:03:00 AM	3.85	39.8
10/07/2014 2:23:00 AM	3.51	38.8
10/07/2014 2:27:00 AM	3.59	38.5
10/11/2014 2:59:00 AM	3.52	35.9
10/25/2014 10:00:00 PM	4.67	45.1
10/25/2014 10:03:00 PM	4.12	46.0
10/25/2014 10:06:00 PM	4.47	44.2
10/25/2014 10:07:00 PM	4.23	44.6
10/25/2014 10:08:00 PM	3.83	43.9
10/25/2014 10:09:00 PM	3.68	44.0
10/25/2014 10:10:00 PM	3.68	43.8
10/25/2014 10:14:00 PM	3.57	46.8
10/25/2014 10:16:00 PM	4.35	43.6
10/25/2014 10:17:00 PM	3.95	43.2
10/25/2014 10:18:00 PM	3.63	47.0
10/25/2014 10:19:00 PM	3.89	45.9
10/25/2014 10:20:00 PM	3.82	47.0
10/25/2014 10:21:00 PM	3.58	44.5
10/25/2014 10:23:00 PM	3.84	45.5
10/25/2014 10:24:00 PM	4.04	46.5
10/25/2014 10:25:00 PM	3.59	45.8
10/25/2014 10:26:00 PM	3.51	45.3
10/25/2014 10:27:00 PM	3.72	45.0
10/25/2014 10:29:00 PM	3.78	46.1
10/25/2014 10:30:00 PM	3.91	44.1
10/25/2014 10:32:00 PM	3.73	44.7
10/25/2014 10:33:00 PM	3.75	47.5
10/25/2014 10:34:00 PM	3.70	45.3
10/25/2014 10:35:00 PM	3.53	46.8
10/25/2014 10:37:00 PM	3.90	45.0

**Table H4 - Valid Ambient 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
10/25/2014 10:38:00 PM	3.84	44.8
10/25/2014 10:41:00 PM	3.51	44.6
10/25/2014 10:42:00 PM	3.90	44.7
10/25/2014 10:43:00 PM	3.70	45.9
10/25/2014 10:47:00 PM	3.77	45.7
10/25/2014 10:57:00 PM	3.66	44.6
10/25/2014 10:58:00 PM	3.61	44.1
10/25/2014 10:59:00 PM	3.55	43.6
10/25/2014 11:00:00 PM	3.57	46.0
10/25/2014 11:01:00 PM	3.53	45.4
10/26/2014 2:35:00 AM	3.50	42.3
10/26/2014 2:39:00 AM	3.69	43.8
10/26/2014 2:40:00 AM	3.77	42.4
10/26/2014 2:41:00 AM	3.65	41.5
10/26/2014 2:42:00 AM	3.99	42.5
10/26/2014 2:43:00 AM	3.92	42.9
10/26/2014 2:44:00 AM	3.84	44.7
10/26/2014 2:45:00 AM	4.02	43.6
10/26/2014 2:46:00 AM	3.90	45.5
10/26/2014 2:47:00 AM	3.83	43.4
10/26/2014 2:48:00 AM	3.63	42.2
10/26/2014 2:50:00 AM	3.65	43.1
10/26/2014 2:51:00 AM	3.57	41.9
10/26/2014 2:52:00 AM	3.69	43.5
10/26/2014 2:54:00 AM	3.63	44.3
10/26/2014 2:56:00 AM	3.58	42.3
10/26/2014 2:57:00 AM	3.94	42.9
10/26/2014 2:58:00 AM	3.78	42.7
10/26/2014 2:59:00 AM	3.60	41.8
10/26/2014 3:01:00 AM	3.50	42.0
10/26/2014 3:02:00 AM	3.83	41.4
10/26/2014 3:03:00 AM	4.10	42.3
10/26/2014 3:05:00 AM	3.90	42.8
10/26/2014 3:06:00 AM	4.14	43.7
10/26/2014 3:23:00 AM	3.52	42.5
10/26/2014 3:25:00 AM	3.60	42.5
10/26/2014 3:27:00 AM	3.52	44.0
10/26/2014 3:28:00 AM	3.73	43.3
10/26/2014 3:29:00 AM	3.59	43.4
10/26/2014 3:31:00 AM	3.92	42.2
10/26/2014 3:32:00 AM	3.91	44.3
10/26/2014 3:33:00 AM	3.58	43.8
10/26/2014 3:35:00 AM	3.55	42.9
10/26/2014 3:49:00 AM	3.57	43.0
10/26/2014 3:56:00 AM	3.65	44.5
10/26/2014 3:58:00 AM	3.55	43.7
10/26/2014 4:02:00 AM	3.71	43.5
10/26/2014 4:03:00 AM	3.88	42.7
10/26/2014 4:04:00 AM	3.80	45.3
10/26/2014 4:05:00 AM	4.01	44.7

**Table H4 - Valid Ambient 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
10/26/2014 4:06:00 AM	4.13	45.5
10/26/2014 4:07:00 AM	4.55	45.9
10/26/2014 4:08:00 AM	4.21	43.9
10/26/2014 4:09:00 AM	4.66	44.1
10/26/2014 4:10:00 AM	5.07	44.5
10/26/2014 4:11:00 AM	4.78	44.4
10/26/2014 4:12:00 AM	5.16	44.7
10/26/2014 4:13:00 AM	4.48	44.3
10/26/2014 4:14:00 AM	5.17	43.6
10/26/2014 4:15:00 AM	5.64	45.4
10/26/2014 4:16:00 AM	4.63	44.9
10/26/2014 4:17:00 AM	4.91	45.1
10/26/2014 4:18:00 AM	5.11	44.2
10/26/2014 4:19:00 AM	4.45	43.2
10/26/2014 4:20:00 AM	5.51	43.8
10/26/2014 4:21:00 AM	4.60	43.1
10/26/2014 4:22:00 AM	5.25	44.0
10/26/2014 4:23:00 AM	5.30	43.6
10/26/2014 4:24:00 AM	4.90	43.2
10/26/2014 4:25:00 AM	5.02	44.4
10/26/2014 4:26:00 AM	4.42	44.6
10/26/2014 4:27:00 AM	5.08	42.7
10/26/2014 4:28:00 AM	4.02	44.4
10/26/2014 4:29:00 AM	4.86	43.0
10/26/2014 4:30:00 AM	4.74	45.1
10/26/2014 4:31:00 AM	4.48	44.8
10/26/2014 4:32:00 AM	4.22	43.7
10/26/2014 4:33:00 AM	4.68	44.2
10/26/2014 4:34:00 AM	4.57	45.2
10/26/2014 4:35:00 AM	4.21	45.3
10/26/2014 4:36:00 AM	4.71	44.1
10/26/2014 4:37:00 AM	5.49	42.3
10/26/2014 4:38:00 AM	4.88	43.9
10/26/2014 4:39:00 AM	4.52	43.5
10/26/2014 4:40:00 AM	5.37	43.4
10/26/2014 4:41:00 AM	5.57	44.1
10/26/2014 4:42:00 AM	5.41	44.7
10/26/2014 4:43:00 AM	4.74	44.8
10/26/2014 4:44:00 AM	5.26	43.9
10/26/2014 4:45:00 AM	5.14	42.8
10/26/2014 4:46:00 AM	5.08	44.2
10/26/2014 4:47:00 AM	4.87	44.2
10/26/2014 4:48:00 AM	5.03	45.6
10/26/2014 4:49:00 AM	5.47	45.2
10/26/2014 4:50:00 AM	4.53	44.7
10/26/2014 4:51:00 AM	5.02	45.6
10/26/2014 4:52:00 AM	4.30	44.9
10/26/2014 4:53:00 AM	4.56	44.9
10/26/2014 4:54:00 AM	5.64	44.5
10/26/2014 4:55:00 AM	5.26	44.4



**Table H4 - Valid Ambient 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
10/26/2014 4:56:00 AM	5.02	44.4
10/26/2014 4:57:00 AM	5.70	43.9
10/26/2014 4:58:00 AM	4.98	43.9
10/26/2014 4:59:00 AM	5.37	44.8
11/19/2014 12:07:00 AM	4.04	41.0
11/19/2014 12:16:00 AM	3.71	41.1
11/19/2014 12:24:00 AM	4.49	43.8
11/19/2014 12:48:00 AM	3.76	39.3
11/19/2014 12:54:00 AM	4.35	42.0
11/19/2014 1:01:00 AM	3.70	42.4
11/19/2014 1:06:00 AM	3.88	42.0
11/19/2014 1:16:00 AM	3.80	42.2
11/19/2014 2:05:00 AM	3.51	42.0
11/19/2014 2:32:00 AM	4.08	43.4
11/19/2014 2:44:00 AM	3.57	40.1
11/19/2014 2:59:00 AM	4.07	39.3
11/19/2014 3:00:00 AM	3.66	40.1
11/19/2014 3:02:00 AM	3.67	39.4
11/19/2014 3:05:00 AM	3.58	39.7
11/19/2014 3:07:00 AM	3.57	40.6
11/19/2014 3:10:00 AM	3.93	40.3
11/19/2014 3:11:00 AM	3.57	39.6
11/19/2014 3:12:00 AM	4.45	39.7
11/19/2014 3:13:00 AM	3.99	39.5
11/19/2014 3:14:00 AM	3.88	40.2
11/19/2014 3:16:00 AM	3.53	40.2
11/19/2014 3:19:00 AM	3.99	40.1
11/19/2014 3:21:00 AM	4.04	40.8
11/19/2014 3:23:00 AM	3.78	39.3
11/19/2014 3:24:00 AM	3.96	39.5
11/19/2014 3:25:00 AM	3.78	40.1
11/19/2014 3:27:00 AM	3.81	38.5
11/19/2014 3:30:00 AM	4.36	40.7
11/19/2014 3:34:00 AM	3.58	39.6
11/19/2014 3:37:00 AM	3.51	42.8
11/19/2014 3:38:00 AM	3.78	40.2
11/19/2014 3:40:00 AM	3.65	40.6
11/19/2014 3:41:00 AM	4.06	40.2
11/19/2014 3:42:00 AM	4.06	40.5
11/19/2014 3:43:00 AM	3.87	41.4
11/19/2014 3:48:00 AM	3.71	41.5
11/19/2014 3:50:00 AM	3.53	43.5
11/19/2014 3:52:00 AM	3.64	43.4
11/19/2014 3:53:00 AM	3.59	43.7
11/19/2014 3:54:00 AM	3.83	42.2
11/19/2014 3:55:00 AM	4.02	40.4
11/19/2014 3:56:00 AM	3.98	40.2
11/19/2014 3:57:00 AM	3.60	39.9
11/19/2014 3:58:00 AM	3.85	40.7
11/19/2014 3:59:00 AM	4.60	40.8

**Table H4 - Valid Ambient 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
11/19/2014 4:00:00 AM	3.96	40.4
11/19/2014 4:07:00 AM	3.56	40.2
11/19/2014 4:08:00 AM	3.55	40.1
11/19/2014 4:09:00 AM	3.65	39.6
11/19/2014 4:13:00 AM	4.23	41.9
11/19/2014 4:14:00 AM	3.66	39.1
11/19/2014 4:15:00 AM	3.81	39.6
11/19/2014 4:16:00 AM	3.88	40.0
11/19/2014 4:17:00 AM	4.35	39.9
11/19/2014 4:18:00 AM	3.76	40.3
11/19/2014 4:19:00 AM	3.64	40.6
11/19/2014 4:20:00 AM	3.96	43.2
11/19/2014 4:22:00 AM	4.21	44.9
11/19/2014 4:25:00 AM	3.70	40.8
11/19/2014 4:26:00 AM	3.71	40.4
11/19/2014 4:27:00 AM	3.69	41.1
11/19/2014 4:28:00 AM	3.99	40.3
11/19/2014 4:29:00 AM	3.81	40.1
11/19/2014 4:30:00 AM	3.53	39.7
11/19/2014 4:33:00 AM	3.61	44.8
11/19/2014 4:34:00 AM	3.71	43.0
11/19/2014 4:35:00 AM	4.03	41.5
11/19/2014 4:36:00 AM	4.05	40.7
11/19/2014 4:37:00 AM	4.47	39.2
11/19/2014 4:38:00 AM	4.49	39.5
11/19/2014 4:39:00 AM	4.40	40.5
11/19/2014 4:40:00 AM	4.12	39.7
11/19/2014 4:41:00 AM	4.24	40.5
11/19/2014 4:42:00 AM	4.50	41.1
11/19/2014 4:43:00 AM	4.56	43.1
11/19/2014 4:44:00 AM	4.77	40.8
11/19/2014 4:45:00 AM	4.85	39.3
11/19/2014 4:46:00 AM	4.42	39.6
11/19/2014 4:47:00 AM	4.15	39.6
11/19/2014 4:48:00 AM	4.27	39.7
11/19/2014 4:49:00 AM	4.58	38.9
11/19/2014 4:50:00 AM	4.30	38.7
11/19/2014 4:51:00 AM	4.49	39.5
11/19/2014 4:52:00 AM	4.43	39.6
11/19/2014 4:53:00 AM	4.65	38.3
11/19/2014 4:54:00 AM	4.58	38.8
11/19/2014 4:55:00 AM	4.79	40.3
11/19/2014 4:56:00 AM	4.72	39.1
11/19/2014 4:57:00 AM	4.49	40.1
11/19/2014 4:58:00 AM	4.37	39.5
11/19/2014 4:59:00 AM	4.14	38.9
11/19/2014 5:00:00 AM	3.98	40.2
11/19/2014 5:01:00 AM	3.65	38.6
11/19/2014 5:04:00 AM	3.69	39.5
11/19/2014 5:05:00 AM	3.90	40.4

**Table H4 - Valid Ambient 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
11/19/2014 5:06:00 AM	3.94	41.1
11/19/2014 5:07:00 AM	4.05	40.3
11/19/2014 5:08:00 AM	3.90	40.5
11/19/2014 5:09:00 AM	3.92	40.6
11/19/2014 5:10:00 AM	4.08	40.3
11/19/2014 5:11:00 AM	4.16	40.8
11/19/2014 5:12:00 AM	4.04	38.7
11/19/2014 5:13:00 AM	4.04	39.2
11/19/2014 5:14:00 AM	4.05	39.2
11/19/2014 5:15:00 AM	3.76	39.9
11/19/2014 5:16:00 AM	3.68	40.5
11/19/2014 5:17:00 AM	3.58	40.1
11/19/2014 5:18:00 AM	3.54	39.5
11/19/2014 5:19:00 AM	3.53	41.7
11/19/2014 5:23:00 AM	3.63	40.8
11/19/2014 5:24:00 AM	3.62	40.4
11/19/2014 5:25:00 AM	3.74	41.5
11/19/2014 5:26:00 AM	3.81	41.3
11/19/2014 5:27:00 AM	3.52	40.4
11/19/2014 5:28:00 AM	3.57	41.1
11/19/2014 5:29:00 AM	3.52	41.7
11/19/2014 5:30:00 AM	3.52	40.7
11/19/2014 5:36:00 AM	3.53	41.4
11/19/2014 5:37:00 AM	3.60	44.5
11/19/2014 5:39:00 AM	4.07	40.9
11/19/2014 5:40:00 AM	4.03	39.6
11/19/2014 5:41:00 AM	4.02	40.0
11/19/2014 5:42:00 AM	4.13	40.6
11/19/2014 5:43:00 AM	4.21	40.6
11/19/2014 5:44:00 AM	4.05	40.3
11/19/2014 5:45:00 AM	3.93	42.5
11/19/2014 5:46:00 AM	3.90	41.2
11/19/2014 5:47:00 AM	3.93	40.5
11/19/2014 5:48:00 AM	3.56	40.1
11/19/2014 5:49:00 AM	3.62	39.9
11/19/2014 5:54:00 AM	3.55	40.6
11/19/2014 5:56:00 AM	3.72	39.7
11/19/2014 5:57:00 AM	3.80	41.7
11/19/2014 5:58:00 AM	3.92	41.6
11/19/2014 5:59:00 AM	3.68	40.8
11/19/2014 6:00:00 AM	3.74	44.4
11/19/2014 6:02:00 AM	3.55	41.6
11/19/2014 6:03:00 AM	3.61	45.0
11/19/2014 6:09:00 AM	3.57	42.0
11/19/2014 6:10:00 AM	3.77	41.8
11/19/2014 6:11:00 AM	3.77	42.0
11/19/2014 6:12:00 AM	3.77	42.3
11/19/2014 6:13:00 AM	3.70	43.0
11/19/2014 6:14:00 AM	3.75	43.0
11/19/2014 6:15:00 AM	3.75	43.7

**Table H4 - Valid Ambient 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
11/19/2014 6:16:00 AM	3.75	43.7
11/19/2014 6:17:00 AM	3.71	44.3
11/19/2014 6:19:00 AM	3.74	42.6
11/19/2014 6:30:00 AM	3.60	43.5
11/19/2014 6:31:00 AM	3.55	43.2
11/19/2014 6:32:00 AM	4.05	42.0
11/19/2014 6:33:00 AM	3.79	42.4
11/19/2014 6:34:00 AM	3.76	45.1
11/19/2014 6:36:00 AM	3.66	43.0
11/19/2014 6:38:00 AM	3.58	43.0
11/19/2014 6:41:00 AM	3.70	42.2
11/19/2014 6:42:00 AM	3.55	42.2
11/19/2014 6:44:00 AM	3.54	42.8
11/19/2014 6:46:00 AM	3.59	42.1
11/19/2014 6:47:00 AM	3.73	42.5
11/19/2014 6:48:00 AM	3.65	43.2
11/19/2014 6:49:00 AM	3.68	42.7
11/19/2014 6:50:00 AM	3.91	42.4
11/19/2014 6:51:00 AM	3.99	44.5
11/19/2014 6:52:00 AM	4.12	43.7
11/19/2014 6:53:00 AM	3.79	42.1
11/19/2014 6:54:00 AM	3.71	41.3
11/19/2014 6:55:00 AM	3.68	42.0
11/19/2014 6:56:00 AM	3.79	41.3
11/19/2014 6:57:00 AM	3.64	40.4
11/19/2014 6:58:00 AM	3.93	42.7
11/19/2014 6:59:00 AM	3.78	43.9
11/20/2014 12:21:00 AM	3.60	42.3
11/20/2014 12:24:00 AM	3.70	42.6
11/20/2014 12:31:00 AM	4.26	43.1
11/20/2014 12:32:00 AM	3.74	43.8
11/20/2014 12:34:00 AM	4.87	43.3
11/20/2014 12:35:00 AM	4.65	44.2
11/20/2014 12:37:00 AM	4.74	43.3
11/20/2014 12:38:00 AM	4.36	42.3
11/20/2014 12:41:00 AM	4.76	41.6
11/20/2014 12:44:00 AM	6.30	44.6
11/20/2014 12:46:00 AM	4.81	43.7
11/20/2014 12:48:00 AM	5.15	41.2
11/20/2014 12:49:00 AM	4.21	43.6
11/20/2014 12:51:00 AM	4.83	43.4
11/20/2014 12:52:00 AM	4.09	43.4
11/20/2014 12:53:00 AM	4.61	42.6
11/20/2014 12:56:00 AM	6.05	41.6
11/20/2014 12:57:00 AM	4.02	40.1
11/20/2014 1:07:00 AM	4.18	42.0
11/20/2014 1:08:00 AM	4.83	43.5
11/20/2014 1:09:00 AM	4.68	44.4
11/20/2014 1:10:00 AM	4.13	44.2
11/20/2014 1:12:00 AM	5.03	45.5

**Table H4 - Valid Ambient 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
11/20/2014 1:19:00 AM	6.42	47.0
11/20/2014 1:22:00 AM	7.38	43.3
11/20/2014 1:25:00 AM	5.63	43.6
11/20/2014 1:26:00 AM	4.14	45.1
11/20/2014 1:29:00 AM	7.27	41.8
11/20/2014 1:32:00 AM	4.10	43.2
11/20/2014 1:33:00 AM	5.92	40.6
11/20/2014 1:36:00 AM	6.40	43.6
11/20/2014 1:39:00 AM	3.70	41.9
11/20/2014 1:41:00 AM	5.57	43.6
11/20/2014 1:44:00 AM	5.90	40.7
11/20/2014 1:45:00 AM	5.49	41.6
11/20/2014 1:48:00 AM	4.75	41.5
11/20/2014 1:56:00 AM	5.74	43.1
11/20/2014 1:57:00 AM	4.90	43.9
11/20/2014 1:58:00 AM	4.70	44.4
11/20/2014 1:59:00 AM	3.71	44.7
11/20/2014 2:04:00 AM	6.92	45.8
11/20/2014 2:05:00 AM	4.97	44.6
11/20/2014 2:06:00 AM	6.25	42.2
11/20/2014 2:07:00 AM	5.40	41.5
11/20/2014 2:08:00 AM	6.54	41.3
11/20/2014 2:09:00 AM	5.97	44.7
11/20/2014 2:11:00 AM	6.58	48.1
11/20/2014 2:13:00 AM	5.90	45.4
11/20/2014 2:16:00 AM	5.05	43.6
11/20/2014 2:17:00 AM	5.08	43.7
11/20/2014 2:18:00 AM	4.70	42.3
11/20/2014 2:20:00 AM	6.79	44.2
11/20/2014 2:24:00 AM	6.52	43.0
11/20/2014 2:29:00 AM	5.13	44.1
11/20/2014 2:30:00 AM	6.61	41.4
11/20/2014 2:33:00 AM	4.72	44.2
11/20/2014 2:34:00 AM	4.64	42.6
11/20/2014 2:38:00 AM	6.27	44.8
11/20/2014 2:41:00 AM	4.36	42.4
11/20/2014 2:42:00 AM	4.46	41.5
11/20/2014 2:55:00 AM	4.96	41.9
11/20/2014 2:58:00 AM	5.40	42.4
11/20/2014 3:00:00 AM	5.92	42.2
11/20/2014 3:02:00 AM	5.07	40.8
11/20/2014 3:05:00 AM	5.19	43.3
11/20/2014 3:06:00 AM	4.14	40.9
11/20/2014 3:07:00 AM	5.64	41.8
11/20/2014 3:10:00 AM	5.12	40.7
11/20/2014 3:12:00 AM	4.25	41.1
11/20/2014 3:13:00 AM	4.31	41.0
11/20/2014 3:18:00 AM	4.44	43.9
11/20/2014 3:19:00 AM	4.43	41.3
11/20/2014 3:20:00 AM	4.88	42.6

**Table H4 - Valid Ambient 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
11/20/2014 3:21:00 AM	3.96	42.9
11/20/2014 3:22:00 AM	4.56	41.3
11/20/2014 3:23:00 AM	4.72	41.2
11/20/2014 3:24:00 AM	5.36	43.7
11/20/2014 3:29:00 AM	3.89	45.2
11/20/2014 3:32:00 AM	4.89	45.8
11/20/2014 3:33:00 AM	4.11	43.4
11/20/2014 3:36:00 AM	4.93	44.5
11/20/2014 3:38:00 AM	4.70	46.2
11/20/2014 3:43:00 AM	4.45	42.9
11/20/2014 3:51:00 AM	4.76	43.4
11/20/2014 3:54:00 AM	6.14	44.9
11/20/2014 3:55:00 AM	4.95	41.9
11/20/2014 4:00:00 AM	6.31	42.5
11/20/2014 4:02:00 AM	4.54	42.5
11/20/2014 4:17:00 AM	4.14	43.4
11/20/2014 4:21:00 AM	5.24	41.8
11/20/2014 4:22:00 AM	5.52	43.4
11/20/2014 4:23:00 AM	4.18	40.4
11/20/2014 4:25:00 AM	5.31	41.2
11/20/2014 4:27:00 AM	5.37	39.7
11/20/2014 4:28:00 AM	4.52	41.4
11/20/2014 4:30:00 AM	5.57	40.3
11/20/2014 4:31:00 AM	5.09	40.5
11/20/2014 4:33:00 AM	4.85	42.2
11/20/2014 4:35:00 AM	5.02	41.2
11/20/2014 4:40:00 AM	3.60	41.4
11/20/2014 4:41:00 AM	4.05	42.4
11/20/2014 4:45:00 AM	4.82	40.8
11/20/2014 4:47:00 AM	4.36	41.3
11/20/2014 4:48:00 AM	4.77	43.1
11/20/2014 4:49:00 AM	5.27	43.2
11/20/2014 4:50:00 AM	6.07	42.6
11/20/2014 4:55:00 AM	5.03	41.9
11/20/2014 4:56:00 AM	3.83	44.3
11/20/2014 5:07:00 AM	3.51	41.7
11/20/2014 5:08:00 AM	4.00	39.6
11/20/2014 5:09:00 AM	3.81	39.6
11/20/2014 5:11:00 AM	3.74	42.3
11/20/2014 5:25:00 AM	3.74	40.7
12/01/2014 12:02:00 AM	7.14	46.2
12/01/2014 12:18:00 AM	7.43	48.7
12/01/2014 12:25:00 AM	6.83	49.1
12/01/2014 12:30:00 AM	6.77	46.8
12/01/2014 12:35:00 AM	7.29	47.9
12/01/2014 12:39:00 AM	7.44	46.6
12/01/2014 12:40:00 AM	6.93	44.5
12/01/2014 12:41:00 AM	6.56	46.0
12/01/2014 12:45:00 AM	6.56	47.6
12/01/2014 12:46:00 AM	6.95	47.3

**Table H4 - Valid Ambient 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
12/01/2014 12:47:00 AM	6.16	47.2
12/01/2014 12:49:00 AM	6.96	47.8
12/01/2014 12:55:00 AM	6.69	47.7
12/01/2014 12:58:00 AM	7.15	48.8
12/01/2014 12:59:00 AM	7.41	48.1
12/01/2014 1:02:00 AM	7.29	47.7
12/01/2014 1:03:00 AM	6.79	48.4
12/01/2014 1:04:00 AM	7.46	47.8
12/01/2014 1:05:00 AM	6.54	47.2
12/01/2014 1:06:00 AM	6.97	46.5
12/01/2014 1:07:00 AM	7.13	44.3
12/01/2014 1:08:00 AM	7.05	45.2
12/01/2014 1:09:00 AM	6.56	46.0
12/01/2014 1:10:00 AM	6.19	46.0
12/01/2014 1:11:00 AM	6.15	44.1
12/01/2014 1:12:00 AM	6.87	48.8
12/01/2014 1:14:00 AM	6.44	45.0
12/01/2014 1:15:00 AM	5.85	45.1
12/01/2014 1:16:00 AM	6.48	45.3
12/01/2014 1:17:00 AM	5.93	45.0
12/01/2014 1:18:00 AM	4.90	43.9
12/01/2014 1:19:00 AM	5.16	45.7
12/01/2014 1:20:00 AM	6.12	46.1
12/01/2014 1:22:00 AM	6.67	46.7
12/01/2014 1:23:00 AM	6.93	49.2
12/01/2014 1:24:00 AM	5.63	47.0
12/01/2014 1:25:00 AM	5.53	44.5
12/01/2014 1:26:00 AM	5.67	45.7
12/01/2014 1:27:00 AM	6.22	43.4
12/01/2014 1:28:00 AM	5.37	43.7
12/01/2014 1:29:00 AM	5.87	44.3
12/01/2014 1:30:00 AM	6.06	42.8
12/01/2014 1:31:00 AM	7.22	45.7
12/01/2014 1:32:00 AM	6.26	44.3
12/01/2014 1:33:00 AM	7.17	44.6
12/01/2014 1:34:00 AM	6.39	42.7
12/01/2014 1:35:00 AM	5.99	41.8
12/01/2014 1:36:00 AM	6.25	40.9
12/01/2014 1:37:00 AM	5.41	42.8
12/01/2014 1:38:00 AM	5.22	43.5
12/01/2014 1:39:00 AM	4.51	45.6
12/01/2014 1:40:00 AM	4.40	49.1
12/01/2014 1:44:00 AM	4.23	45.8
12/01/2014 1:45:00 AM	5.13	41.2
12/01/2014 1:46:00 AM	4.78	45.6
12/01/2014 1:47:00 AM	5.26	46.6
12/01/2014 1:48:00 AM	4.33	43.5
12/01/2014 1:49:00 AM	5.93	42.1
12/01/2014 1:50:00 AM	7.19	45.3
12/01/2014 1:51:00 AM	6.71	45.5

**Table H4 - Valid Ambient 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
12/01/2014 1:52:00 AM	5.98	44.3
12/01/2014 1:54:00 AM	6.02	46.8
12/01/2014 1:55:00 AM	4.77	42.6
12/01/2014 1:57:00 AM	6.97	43.0
12/01/2014 1:58:00 AM	5.66	44.2
12/01/2014 1:59:00 AM	5.50	41.7
12/01/2014 2:00:00 AM	5.16	40.6
12/01/2014 2:01:00 AM	6.23	39.6
12/01/2014 2:02:00 AM	5.45	40.0
12/01/2014 2:03:00 AM	6.00	40.5
12/01/2014 2:04:00 AM	6.76	44.7
12/01/2014 2:05:00 AM	5.62	46.9
12/01/2014 2:06:00 AM	5.45	46.3
12/01/2014 2:07:00 AM	5.83	45.4
12/01/2014 2:08:00 AM	5.97	43.1
12/01/2014 2:09:00 AM	5.45	43.1
12/01/2014 2:10:00 AM	5.53	42.6
12/01/2014 2:11:00 AM	5.25	44.2
12/01/2014 2:12:00 AM	5.20	43.0
12/01/2014 2:13:00 AM	4.64	40.7
12/01/2014 2:14:00 AM	4.64	44.1
12/01/2014 2:15:00 AM	4.37	46.5
12/01/2014 2:16:00 AM	4.78	40.5
12/01/2014 2:17:00 AM	5.02	38.1
12/01/2014 2:18:00 AM	4.66	39.7
12/01/2014 2:19:00 AM	4.88	38.3
12/01/2014 2:20:00 AM	4.56	39.2
12/01/2014 2:21:00 AM	5.32	42.8
12/01/2014 2:22:00 AM	4.72	42.2
12/01/2014 2:23:00 AM	5.12	42.0
12/01/2014 2:24:00 AM	4.99	41.9
12/01/2014 2:25:00 AM	4.78	42.5
12/01/2014 2:26:00 AM	4.10	40.4
12/01/2014 2:27:00 AM	4.47	40.7
12/01/2014 2:28:00 AM	4.15	42.8
12/01/2014 2:29:00 AM	4.65	45.0
12/01/2014 2:30:00 AM	4.41	42.8
12/01/2014 2:31:00 AM	4.77	39.3
12/01/2014 2:32:00 AM	4.33	38.5
12/01/2014 2:33:00 AM	4.21	40.8
12/01/2014 2:34:00 AM	3.92	40.9
12/01/2014 2:35:00 AM	4.40	41.3
12/01/2014 2:36:00 AM	4.63	43.3
12/01/2014 2:37:00 AM	4.21	44.5
12/01/2014 2:38:00 AM	4.72	41.6
12/01/2014 2:39:00 AM	4.41	42.5
12/01/2014 2:40:00 AM	4.74	40.2
12/01/2014 2:41:00 AM	4.70	41.8
12/01/2014 2:42:00 AM	3.95	41.5
12/01/2014 2:43:00 AM	4.66	45.7



**Table H4 - Valid Ambient 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
12/01/2014 2:46:00 AM	4.81	44.3
12/01/2014 2:47:00 AM	4.71	44.3
12/01/2014 2:48:00 AM	4.57	44.2
12/01/2014 2:49:00 AM	4.34	45.4
12/01/2014 2:50:00 AM	4.67	43.8
12/01/2014 2:51:00 AM	3.72	49.3
12/01/2014 2:52:00 AM	4.13	44.6
12/01/2014 2:53:00 AM	6.06	44.0
12/01/2014 2:54:00 AM	7.50	43.3
12/01/2014 2:56:00 AM	6.07	45.5
12/01/2014 2:57:00 AM	6.57	45.1
12/01/2014 2:58:00 AM	6.04	44.0
12/01/2014 2:59:00 AM	6.86	44.8
12/01/2014 3:00:00 AM	5.67	45.9
12/01/2014 3:01:00 AM	7.21	45.8
12/01/2014 3:02:00 AM	6.23	45.0
12/01/2014 3:03:00 AM	5.97	43.3
12/01/2014 3:04:00 AM	5.93	44.7
12/01/2014 3:05:00 AM	6.90	44.1
12/01/2014 3:06:00 AM	5.76	47.4
12/01/2014 3:07:00 AM	5.61	46.2
12/01/2014 3:08:00 AM	5.78	45.7
12/01/2014 3:09:00 AM	5.83	41.0
12/01/2014 3:10:00 AM	6.79	42.5
12/01/2014 3:11:00 AM	6.82	45.1
12/01/2014 3:12:00 AM	6.09	44.3
12/01/2014 3:13:00 AM	5.56	43.9
12/01/2014 3:14:00 AM	5.53	43.4
12/01/2014 3:16:00 AM	6.86	45.8
12/01/2014 3:17:00 AM	6.91	45.3
12/01/2014 3:18:00 AM	6.50	46.5
12/01/2014 3:19:00 AM	5.90	45.1
12/01/2014 3:20:00 AM	5.31	44.9
12/01/2014 3:21:00 AM	6.32	45.6
12/01/2014 3:22:00 AM	5.34	45.0
12/01/2014 3:23:00 AM	5.38	44.9
12/01/2014 3:24:00 AM	5.33	45.4
12/01/2014 3:25:00 AM	6.14	45.4
12/01/2014 3:26:00 AM	6.19	44.3
12/01/2014 3:27:00 AM	6.08	42.1
12/01/2014 3:28:00 AM	6.13	41.9
12/01/2014 3:29:00 AM	5.79	41.6
12/01/2014 3:30:00 AM	5.90	43.7
12/01/2014 3:31:00 AM	5.35	44.5
12/01/2014 3:32:00 AM	5.51	41.9
12/01/2014 3:33:00 AM	5.67	42.7
12/01/2014 3:34:00 AM	5.64	40.5
12/01/2014 3:35:00 AM	4.92	44.5
12/01/2014 3:36:00 AM	5.57	46.4
12/01/2014 3:37:00 AM	5.16	42.3

**Table H4 - Valid Ambient 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
12/01/2014 3:38:00 AM	4.72	44.3
12/01/2014 3:39:00 AM	4.79	44.2
12/01/2014 3:40:00 AM	4.11	46.4
12/01/2014 3:41:00 AM	4.82	45.3
12/01/2014 3:42:00 AM	5.16	44.9
12/01/2014 3:43:00 AM	4.50	46.2
12/01/2014 3:44:00 AM	4.65	40.8
12/01/2014 3:45:00 AM	5.18	42.4
12/01/2014 3:46:00 AM	6.40	44.6
12/01/2014 3:47:00 AM	5.86	44.6
12/01/2014 3:48:00 AM	5.75	43.8
12/01/2014 3:49:00 AM	4.51	43.5
12/01/2014 3:50:00 AM	5.96	42.9
12/01/2014 3:51:00 AM	6.29	41.0
12/01/2014 3:52:00 AM	5.29	42.7
12/01/2014 3:53:00 AM	5.92	43.4
12/01/2014 3:54:00 AM	5.53	43.2
12/01/2014 3:55:00 AM	5.29	42.3
12/01/2014 3:56:00 AM	5.30	42.4
12/01/2014 3:57:00 AM	4.92	40.1
12/01/2014 3:58:00 AM	5.38	41.3
12/01/2014 3:59:00 AM	4.65	40.5
12/01/2014 4:00:00 AM	4.69	45.2
12/01/2014 4:01:00 AM	4.97	46.8
12/01/2014 4:02:00 AM	4.51	44.0
12/01/2014 4:03:00 AM	4.88	43.5
12/01/2014 4:04:00 AM	4.10	44.4
12/01/2014 4:05:00 AM	4.90	46.3
12/01/2014 4:06:00 AM	5.15	46.2
12/01/2014 4:07:00 AM	4.75	45.7
12/01/2014 4:08:00 AM	4.82	45.1
12/01/2014 4:10:00 AM	4.16	45.7
12/01/2014 4:11:00 AM	4.50	41.7
12/01/2014 4:12:00 AM	5.23	40.9
12/01/2014 4:13:00 AM	5.60	43.5
12/01/2014 4:14:00 AM	5.20	46.8
12/01/2014 4:15:00 AM	5.30	46.6
12/01/2014 4:17:00 AM	6.81	45.8
12/01/2014 4:18:00 AM	6.51	47.6
12/01/2014 4:19:00 AM	6.41	46.1
12/01/2014 4:20:00 AM	6.79	45.7
12/01/2014 4:22:00 AM	5.18	45.0
12/01/2014 4:23:00 AM	5.22	44.8
12/01/2014 4:24:00 AM	5.65	47.0
12/01/2014 4:25:00 AM	5.53	44.7
12/01/2014 4:27:00 AM	5.06	44.7
12/01/2014 4:28:00 AM	5.43	44.8
12/01/2014 4:29:00 AM	5.32	44.0
12/01/2014 4:30:00 AM	4.76	43.0
12/01/2014 4:31:00 AM	4.99	46.8

**Table H4 - Valid Ambient 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
12/01/2014 4:32:00 AM	5.98	45.6
12/01/2014 4:33:00 AM	5.14	42.4
12/01/2014 4:34:00 AM	5.51	42.2
12/01/2014 4:35:00 AM	5.22	43.7
12/01/2014 4:36:00 AM	6.11	45.0
12/01/2014 4:37:00 AM	4.91	43.3
12/01/2014 4:38:00 AM	4.25	43.5
12/01/2014 4:39:00 AM	4.88	45.4
12/01/2014 4:40:00 AM	5.55	45.6
12/01/2014 4:41:00 AM	6.12	44.5
12/01/2014 4:42:00 AM	5.50	42.3
12/01/2014 4:43:00 AM	4.90	43.1
12/01/2014 4:44:00 AM	4.31	44.0
12/01/2014 4:45:00 AM	4.75	46.2
12/01/2014 4:48:00 AM	5.52	45.5
12/01/2014 4:49:00 AM	5.54	43.9
12/01/2014 4:50:00 AM	4.86	46.2
12/01/2014 4:51:00 AM	5.28	43.3
12/01/2014 4:52:00 AM	5.20	46.4
12/01/2014 4:53:00 AM	5.25	44.7
12/01/2014 4:54:00 AM	5.80	43.0
12/01/2014 4:55:00 AM	5.91	45.5
12/01/2014 4:56:00 AM	5.74	46.0
12/01/2014 4:57:00 AM	6.19	43.9
12/01/2014 4:58:00 AM	5.36	43.4
12/01/2014 4:59:00 AM	5.63	43.6
12/01/2014 5:00:00 AM	6.83	42.7
12/01/2014 5:01:00 AM	5.72	44.1
12/01/2014 5:02:00 AM	6.39	43.2
12/01/2014 5:03:00 AM	6.26	44.5
12/01/2014 5:04:00 AM	5.62	44.8
12/01/2014 5:05:00 AM	4.82	45.2
12/01/2014 5:06:00 AM	4.63	46.9
12/01/2014 5:07:00 AM	4.68	46.7
12/01/2014 5:08:00 AM	4.05	43.9
12/01/2014 5:09:00 AM	4.18	43.7
12/01/2014 5:10:00 AM	4.27	46.8
12/01/2014 5:11:00 AM	4.24	45.9
12/01/2014 5:13:00 AM	4.83	46.0
12/01/2014 5:14:00 AM	5.09	45.0
12/01/2014 5:15:00 AM	5.07	44.9
12/01/2014 5:16:00 AM	5.68	43.0
12/01/2014 5:17:00 AM	6.61	43.3
12/01/2014 5:18:00 AM	5.59	43.6
12/01/2014 5:19:00 AM	6.23	45.8
12/01/2014 5:20:00 AM	6.66	46.6
12/01/2014 5:21:00 AM	6.46	44.7
12/01/2014 5:22:00 AM	6.48	45.6
12/01/2014 5:23:00 AM	5.68	46.0
12/01/2014 5:24:00 AM	5.32	46.2

**Table H4 - Valid Ambient 1-Minute Sound Data - Monitor A - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
12/01/2014 5:25:00 AM	5.24	44.4
12/01/2014 5:26:00 AM	5.24	43.5
12/01/2014 5:27:00 AM	5.05	42.9
12/01/2014 5:28:00 AM	4.72	44.5
12/01/2014 5:29:00 AM	3.99	44.9
12/01/2014 5:30:00 AM	4.17	45.3
12/01/2014 5:31:00 AM	4.83	46.9
12/01/2014 5:32:00 AM	4.49	45.6
12/01/2014 5:33:00 AM	4.48	43.7
12/01/2014 5:34:00 AM	5.11	42.4
12/01/2014 5:35:00 AM	4.46	41.8
12/01/2014 5:36:00 AM	5.06	43.9
12/01/2014 5:38:00 AM	5.20	45.3
12/01/2014 5:40:00 AM	4.03	41.7
12/01/2014 5:41:00 AM	5.39	43.7
12/01/2014 5:42:00 AM	5.42	41.5
12/01/2014 5:43:00 AM	4.98	44.1
12/01/2014 5:44:00 AM	5.06	43.7
12/01/2014 5:45:00 AM	5.49	43.9
12/01/2014 5:46:00 AM	6.12	40.3
12/01/2014 5:47:00 AM	6.48	43.8
12/01/2014 5:48:00 AM	6.10	45.8
12/01/2014 5:49:00 AM	6.14	46.4
12/01/2014 5:50:00 AM	5.02	46.7
12/01/2014 5:52:00 AM	5.10	44.3
12/01/2014 5:53:00 AM	5.12	46.9
12/01/2014 5:54:00 AM	4.74	43.1
12/01/2014 5:55:00 AM	5.20	43.2
12/01/2014 5:56:00 AM	4.46	43.8
12/01/2014 5:57:00 AM	4.06	46.0
12/01/2014 5:58:00 AM	4.67	46.0
12/01/2014 5:59:00 AM	5.38	44.0

**Table H5 - Valid Ambient 1-Minute Sound Data - Monitor B - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
11/19/2014 2:56:00 AM	4.53	37.5
11/19/2014 2:57:00 AM	3.87	36.7
11/19/2014 2:58:00 AM	4.85	37.8
11/19/2014 2:59:00 AM	4.15	36.2
11/19/2014 3:00:00 AM	4.46	35.5
11/19/2014 3:01:00 AM	4.19	36.8
11/19/2014 3:02:00 AM	4.43	36.2
11/19/2014 3:03:00 AM	3.72	37.8
11/19/2014 3:04:00 AM	3.68	39.7
11/20/2014 12:00:00 AM	4.32	39.2
11/20/2014 12:01:00 AM	4.58	41.7
11/20/2014 12:02:00 AM	4.81	44.4
11/20/2014 12:03:00 AM	4.07	47.0
11/20/2014 12:04:00 AM	4.60	47.2
11/20/2014 12:06:00 AM	6.80	47.4
11/20/2014 12:07:00 AM	6.32	46.1
11/20/2014 12:08:00 AM	6.83	46.9
11/20/2014 12:09:00 AM	7.19	47.3
11/20/2014 12:10:00 AM	6.81	45.0
11/20/2014 12:11:00 AM	7.31	45.3
11/20/2014 12:12:00 AM	6.92	46.0
11/20/2014 12:14:00 AM	6.77	47.6
11/20/2014 12:15:00 AM	7.00	47.2
11/20/2014 12:17:00 AM	7.08	46.6
11/20/2014 12:18:00 AM	7.11	47.4
11/20/2014 12:19:00 AM	6.57	47.9
11/20/2014 12:20:00 AM	6.63	49.1
11/20/2014 12:21:00 AM	7.07	46.6
11/20/2014 12:22:00 AM	7.13	46.4
11/20/2014 12:23:00 AM	7.40	46.8
11/20/2014 12:24:00 AM	6.47	47.9
11/20/2014 12:25:00 AM	6.64	48.7
11/20/2014 12:26:00 AM	6.92	46.1
11/20/2014 12:27:00 AM	6.83	48.5
11/20/2014 12:28:00 AM	6.98	48.2
11/20/2014 12:29:00 AM	6.52	46.8
11/20/2014 12:30:00 AM	6.68	45.2
11/20/2014 12:31:00 AM	5.71	48.4
11/20/2014 12:32:00 AM	6.01	46.5
11/20/2014 12:33:00 AM	5.85	46.9
11/20/2014 12:34:00 AM	6.79	48.8
11/20/2014 12:38:00 AM	7.41	46.1
11/20/2014 12:41:00 AM	6.62	45.4
11/20/2014 12:42:00 AM	6.89	44.4
11/20/2014 12:43:00 AM	6.63	47.5
11/20/2014 12:45:00 AM	5.32	47.8
11/20/2014 12:51:00 AM	6.74	50.0
11/20/2014 12:59:00 AM	5.76	47.9
11/20/2014 1:00:00 AM	5.53	44.6
11/20/2014 1:01:00 AM	5.65	44.9

**Table H5 - Valid Ambient 1-Minute Sound Data - Monitor B - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
11/20/2014 1:02:00 AM	6.84	46.0
11/20/2014 1:03:00 AM	5.70	46.8
11/20/2014 1:04:00 AM	5.94	44.7
11/20/2014 1:05:00 AM	6.95	43.5
11/20/2014 1:07:00 AM	5.47	43.1
11/20/2014 1:08:00 AM	5.68	46.5
11/20/2014 1:09:00 AM	5.99	42.7
11/20/2014 1:11:00 AM	6.72	45.4
11/20/2014 1:12:00 AM	5.85	48.1
11/20/2014 1:15:00 AM	7.25	44.5
11/20/2014 1:27:00 AM	6.44	45.8
11/20/2014 1:28:00 AM	7.29	46.1
11/20/2014 1:30:00 AM	6.15	47.5
11/20/2014 1:32:00 AM	6.18	45.8
11/20/2014 1:35:00 AM	6.42	46.6
11/20/2014 1:36:00 AM	6.60	47.1
11/20/2014 1:39:00 AM	6.87	46.5
11/20/2014 1:40:00 AM	7.07	45.5
11/20/2014 1:41:00 AM	6.94	47.1
11/20/2014 1:43:00 AM	6.42	46.5
11/20/2014 1:46:00 AM	6.66	46.0
11/20/2014 1:47:00 AM	6.76	48.8
11/20/2014 1:48:00 AM	7.06	45.5
11/20/2014 1:49:00 AM	6.76	43.9
11/20/2014 1:50:00 AM	7.15	45.3
11/20/2014 1:51:00 AM	6.46	44.5
11/20/2014 1:52:00 AM	6.16	44.0
11/20/2014 1:58:00 AM	7.02	48.4
11/20/2014 2:06:00 AM	6.62	50.3
11/20/2014 2:07:00 AM	6.62	44.8
11/20/2014 2:15:00 AM	7.06	45.9
11/20/2014 2:29:00 AM	6.85	47.2
11/20/2014 2:31:00 AM	6.90	50.0
11/20/2014 2:32:00 AM	6.65	49.1
11/20/2014 2:36:00 AM	6.55	47.7
11/20/2014 2:37:00 AM	6.59	47.8
11/20/2014 2:46:00 AM	7.27	49.3
11/20/2014 2:51:00 AM	7.49	49.7
11/20/2014 2:54:00 AM	7.19	48.1
11/20/2014 2:56:00 AM	6.89	48.6
11/20/2014 2:57:00 AM	7.26	50.3
11/20/2014 2:58:00 AM	7.13	47.6
11/20/2014 3:08:00 AM	7.45	46.6
11/20/2014 3:09:00 AM	7.24	50.2
11/20/2014 3:10:00 AM	7.15	49.9
11/20/2014 3:11:00 AM	6.88	48.1
11/20/2014 3:12:00 AM	7.24	46.6
11/20/2014 3:13:00 AM	7.37	47.5
11/20/2014 3:16:00 AM	6.71	49.4
11/20/2014 3:18:00 AM	7.13	49.5

**Table H5 - Valid Ambient 1-Minute Sound Data - Monitor B - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
11/20/2014 3:19:00 AM	7.02	48.6
11/20/2014 3:20:00 AM	6.88	48.6
11/20/2014 3:21:00 AM	6.96	49.5
11/20/2014 3:22:00 AM	6.70	50.0
11/20/2014 3:24:00 AM	7.34	48.6
11/20/2014 3:25:00 AM	7.22	47.2
11/20/2014 3:37:00 AM	7.30	49.2
11/20/2014 4:04:00 AM	6.47	47.1
11/20/2014 4:06:00 AM	7.08	46.6
11/20/2014 4:07:00 AM	7.24	50.1
11/20/2014 4:08:00 AM	6.92	47.5
11/20/2014 4:09:00 AM	6.75	46.8
11/20/2014 4:10:00 AM	7.28	48.0
11/20/2014 4:11:00 AM	6.61	46.0
11/20/2014 4:12:00 AM	6.98	49.3
11/20/2014 4:17:00 AM	7.10	48.8
11/20/2014 4:18:00 AM	7.10	48.3
11/20/2014 4:19:00 AM	7.36	50.0
11/20/2014 4:20:00 AM	7.29	48.4
11/20/2014 4:21:00 AM	7.30	48.8
11/20/2014 4:23:00 AM	7.32	48.1
11/20/2014 4:24:00 AM	7.39	45.8
11/20/2014 4:25:00 AM	6.74	49.9
11/20/2014 4:26:00 AM	7.33	46.7
11/20/2014 4:28:00 AM	6.87	48.0
11/20/2014 4:29:00 AM	7.39	47.1
11/20/2014 4:32:00 AM	7.26	46.0
11/20/2014 4:35:00 AM	7.07	44.3
11/20/2014 4:38:00 AM	6.44	46.8
11/20/2014 4:40:00 AM	7.09	49.5
11/20/2014 4:41:00 AM	7.03	49.6
11/20/2014 4:43:00 AM	7.44	48.0
11/20/2014 4:46:00 AM	7.25	47.5
11/20/2014 4:48:00 AM	7.30	50.3
11/20/2014 4:49:00 AM	7.11	48.0
11/20/2014 4:50:00 AM	7.47	46.8
11/20/2014 4:52:00 AM	7.21	49.9
11/20/2014 4:53:00 AM	7.33	47.5
11/20/2014 4:56:00 AM	7.40	47.1
11/20/2014 4:58:00 AM	7.04	49.8
11/20/2014 4:59:00 AM	6.71	48.2
11/20/2014 5:02:00 AM	7.23	48.3
11/20/2014 5:03:00 AM	7.01	49.2
11/20/2014 5:04:00 AM	7.40	46.7
11/20/2014 5:05:00 AM	7.43	48.7
11/20/2014 5:06:00 AM	7.40	45.4
11/20/2014 5:07:00 AM	6.75	44.1
11/20/2014 5:08:00 AM	7.31	45.3
11/20/2014 5:09:00 AM	6.92	44.5
11/20/2014 5:10:00 AM	6.81	44.6

**Table H5 - Valid Ambient 1-Minute Sound Data - Monitor B - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
11/20/2014 5:11:00 AM	6.81	48.0
11/20/2014 5:12:00 AM	6.56	47.3
11/20/2014 5:13:00 AM	6.73	47.8
11/20/2014 5:14:00 AM	7.28	47.3
11/20/2014 5:15:00 AM	6.85	47.6
11/20/2014 5:16:00 AM	7.27	45.3
11/20/2014 5:17:00 AM	6.94	44.1
11/20/2014 5:18:00 AM	7.11	47.0
11/20/2014 5:19:00 AM	6.28	47.0
11/20/2014 5:20:00 AM	6.64	46.3
11/20/2014 5:21:00 AM	7.13	46.3
11/20/2014 5:22:00 AM	7.00	45.4
11/20/2014 5:23:00 AM	6.57	46.4
11/20/2014 5:24:00 AM	7.19	44.5
11/20/2014 5:25:00 AM	6.81	42.9
11/20/2014 5:26:00 AM	7.00	43.7
11/20/2014 5:27:00 AM	6.30	43.0
11/20/2014 5:28:00 AM	6.70	44.9
11/20/2014 5:29:00 AM	6.48	43.6
11/20/2014 5:30:00 AM	6.41	45.9
11/20/2014 5:31:00 AM	5.86	44.9
11/20/2014 5:32:00 AM	6.21	43.6
11/20/2014 5:33:00 AM	6.68	46.4
11/20/2014 5:34:00 AM	6.54	46.0
11/20/2014 5:35:00 AM	6.27	45.0
11/20/2014 5:36:00 AM	6.31	46.3
11/20/2014 5:37:00 AM	6.81	43.7
11/20/2014 5:51:00 AM	7.14	49.3
11/20/2014 5:52:00 AM	7.08	47.9
11/20/2014 5:53:00 AM	7.39	47.1
11/20/2014 5:54:00 AM	7.19	46.9
11/20/2014 5:55:00 AM	7.05	45.4
11/20/2014 5:56:00 AM	7.40	47.6
11/20/2014 5:57:00 AM	7.03	48.2
11/20/2014 5:58:00 AM	6.84	48.5
12/01/2014 12:03:00 AM	6.95	49.9
12/01/2014 12:07:00 AM	6.99	48.3
12/01/2014 12:15:00 AM	5.42	45.9
12/01/2014 12:16:00 AM	5.86	48.3
12/01/2014 12:25:00 AM	7.43	49.9
12/01/2014 12:28:00 AM	6.86	48.3
12/01/2014 12:31:00 AM	6.59	50.1
12/01/2014 12:33:00 AM	6.85	50.3
12/01/2014 12:36:00 AM	6.79	48.9
12/01/2014 12:37:00 AM	6.49	46.5
12/01/2014 12:38:00 AM	7.36	46.8
12/01/2014 12:39:00 AM	6.83	45.5
12/01/2014 12:42:00 AM	4.71	48.2
12/01/2014 12:43:00 AM	6.97	48.9
12/01/2014 12:44:00 AM	6.45	45.6



**Table H5 - Valid Ambient 1-Minute Sound Data - Monitor B - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
12/01/2014 1:01:00 AM	5.47	47.4
12/01/2014 1:06:00 AM	6.91	50.0
12/01/2014 1:09:00 AM	7.10	47.9
12/01/2014 1:10:00 AM	7.01	47.9
12/01/2014 1:11:00 AM	6.41	47.6
12/01/2014 1:12:00 AM	5.42	48.0
12/01/2014 1:18:00 AM	6.34	45.3
12/01/2014 1:19:00 AM	6.00	46.9
12/01/2014 1:20:00 AM	6.01	46.5
12/01/2014 1:21:00 AM	5.46	47.2
12/01/2014 1:23:00 AM	4.53	48.0
12/01/2014 1:24:00 AM	4.88	44.8
12/01/2014 1:27:00 AM	4.75	48.4
12/01/2014 1:28:00 AM	6.66	46.8
12/01/2014 1:29:00 AM	7.01	46.7
12/01/2014 1:30:00 AM	6.05	45.5
12/01/2014 1:31:00 AM	5.54	46.8
12/01/2014 1:32:00 AM	5.41	44.0
12/01/2014 1:33:00 AM	4.85	47.7
12/01/2014 1:34:00 AM	4.32	46.1
12/01/2014 1:35:00 AM	4.74	45.9
12/01/2014 1:36:00 AM	5.80	46.2
12/01/2014 1:37:00 AM	5.73	45.6
12/01/2014 1:39:00 AM	5.88	48.0
12/01/2014 1:40:00 AM	5.51	47.8
12/01/2014 1:41:00 AM	5.11	47.2
12/01/2014 1:42:00 AM	6.11	47.7
12/01/2014 1:43:00 AM	6.15	45.8
12/01/2014 1:44:00 AM	5.66	47.5
12/01/2014 1:45:00 AM	5.60	47.5
12/01/2014 1:46:00 AM	5.18	45.4
12/01/2014 1:47:00 AM	5.51	45.9
12/01/2014 1:48:00 AM	5.10	46.4
12/01/2014 1:49:00 AM	5.78	44.6
12/01/2014 1:50:00 AM	5.67	47.2
12/01/2014 1:52:00 AM	5.65	48.0
12/01/2014 1:53:00 AM	5.31	47.0
12/01/2014 1:54:00 AM	5.54	46.3
12/01/2014 1:55:00 AM	6.36	44.7
12/01/2014 1:56:00 AM	5.78	44.8
12/01/2014 1:57:00 AM	5.32	42.7
12/01/2014 1:58:00 AM	5.03	43.5
12/01/2014 1:59:00 AM	4.77	47.2
12/01/2014 2:00:00 AM	4.81	44.3
12/01/2014 2:01:00 AM	5.77	42.8
12/01/2014 2:02:00 AM	6.30	41.0
12/01/2014 2:03:00 AM	5.66	43.5
12/01/2014 2:04:00 AM	5.38	48.1
12/01/2014 2:05:00 AM	4.05	50.0
12/01/2014 2:06:00 AM	4.53	47.1

**Table H5 - Valid Ambient 1-Minute Sound Data - Monitor B - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
12/01/2014 2:07:00 AM	5.07	46.7
12/01/2014 2:08:00 AM	4.69	45.4
12/01/2014 2:09:00 AM	3.94	42.9
12/01/2014 2:10:00 AM	4.59	44.5
12/01/2014 2:11:00 AM	4.13	43.3
12/01/2014 2:14:00 AM	3.69	43.8
12/01/2014 2:15:00 AM	3.58	47.2
12/01/2014 2:16:00 AM	3.78	47.9
12/01/2014 2:17:00 AM	4.70	43.5
12/01/2014 2:18:00 AM	3.98	42.0
12/01/2014 2:19:00 AM	5.22	41.7
12/01/2014 2:20:00 AM	5.32	44.2
12/01/2014 2:21:00 AM	4.81	46.1
12/01/2014 2:22:00 AM	4.48	44.2
12/01/2014 2:23:00 AM	4.50	41.8
12/01/2014 2:24:00 AM	4.40	43.3
12/01/2014 2:25:00 AM	4.15	46.3
12/01/2014 2:26:00 AM	3.82	44.0
12/01/2014 2:27:00 AM	4.53	44.1
12/01/2014 2:28:00 AM	4.00	45.4
12/01/2014 2:29:00 AM	4.61	46.5
12/01/2014 2:30:00 AM	4.11	45.0
12/01/2014 2:31:00 AM	4.41	45.4
12/01/2014 2:32:00 AM	5.09	42.1
12/01/2014 2:33:00 AM	4.94	41.1
12/01/2014 2:34:00 AM	5.54	42.1
12/01/2014 2:35:00 AM	4.82	43.0
12/01/2014 2:36:00 AM	3.56	46.4
12/01/2014 2:37:00 AM	4.10	46.2
12/01/2014 2:39:00 AM	3.90	43.3
12/01/2014 2:40:00 AM	5.08	40.7
12/01/2014 2:41:00 AM	3.92	43.9
12/01/2014 2:43:00 AM	4.38	42.9
12/01/2014 2:44:00 AM	4.63	44.4
12/01/2014 2:45:00 AM	4.87	46.3
12/01/2014 2:46:00 AM	4.97	47.8
12/01/2014 2:47:00 AM	4.75	42.5
12/01/2014 2:48:00 AM	6.03	42.4
12/01/2014 2:49:00 AM	5.72	43.9
12/01/2014 2:50:00 AM	5.04	42.7
12/01/2014 2:51:00 AM	5.65	47.3
12/01/2014 2:52:00 AM	5.49	46.2
12/01/2014 2:53:00 AM	5.01	43.2
12/01/2014 2:54:00 AM	6.62	44.0
12/01/2014 2:55:00 AM	5.61	47.5
12/01/2014 2:56:00 AM	5.04	48.0
12/01/2014 2:57:00 AM	5.17	44.6
12/01/2014 2:58:00 AM	5.62	44.4
12/01/2014 2:59:00 AM	5.60	47.5
12/01/2014 3:00:00 AM	5.47	46.9

**Table H5 - Valid Ambient 1-Minute Sound Data - Monitor B - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
12/01/2014 3:01:00 AM	4.66	45.3
12/01/2014 3:03:00 AM	5.67	47.7
12/01/2014 3:04:00 AM	5.10	46.5
12/01/2014 3:06:00 AM	5.49	42.0
12/01/2014 3:07:00 AM	5.56	44.1
12/01/2014 3:08:00 AM	5.48	43.7
12/01/2014 3:09:00 AM	4.91	46.2
12/01/2014 3:10:00 AM	5.50	42.5
12/01/2014 3:11:00 AM	4.95	45.5
12/01/2014 3:12:00 AM	5.05	44.8
12/01/2014 3:13:00 AM	4.58	46.2
12/01/2014 3:14:00 AM	4.16	46.6
12/01/2014 3:15:00 AM	5.44	44.2
12/01/2014 3:16:00 AM	5.59	45.4
12/01/2014 3:17:00 AM	5.75	45.0
12/01/2014 3:18:00 AM	4.33	46.0
12/01/2014 3:20:00 AM	5.10	48.1
12/01/2014 3:22:00 AM	7.14	47.4
12/01/2014 3:24:00 AM	6.68	50.2
12/01/2014 3:26:00 AM	7.13	46.6
12/01/2014 3:27:00 AM	6.20	44.8
12/01/2014 3:28:00 AM	6.00	45.9
12/01/2014 3:29:00 AM	6.08	45.3
12/01/2014 3:30:00 AM	5.50	46.1
12/01/2014 3:31:00 AM	5.31	46.3
12/01/2014 3:32:00 AM	4.61	46.4
12/01/2014 3:33:00 AM	4.19	43.2
12/01/2014 3:34:00 AM	4.94	43.3
12/01/2014 3:35:00 AM	5.13	43.3
12/01/2014 3:36:00 AM	5.21	44.4
12/01/2014 3:37:00 AM	4.63	46.5
12/01/2014 3:38:00 AM	5.04	43.4
12/01/2014 3:39:00 AM	4.13	46.8
12/01/2014 3:40:00 AM	4.99	46.9
12/01/2014 3:41:00 AM	4.94	44.7
12/01/2014 3:42:00 AM	4.57	45.4
12/01/2014 3:43:00 AM	4.74	44.0
12/01/2014 3:44:00 AM	4.55	45.1
12/01/2014 3:45:00 AM	5.13	41.6
12/01/2014 3:46:00 AM	3.61	45.9
12/01/2014 3:47:00 AM	3.57	46.0
12/01/2014 3:48:00 AM	4.11	41.9
12/01/2014 3:49:00 AM	4.29	44.2
12/01/2014 3:50:00 AM	3.61	48.8
12/01/2014 3:51:00 AM	4.16	48.2
12/01/2014 3:52:00 AM	4.14	43.2
12/01/2014 3:53:00 AM	5.67	44.1
12/01/2014 3:54:00 AM	6.48	47.6
12/01/2014 3:55:00 AM	4.46	47.5
12/01/2014 3:56:00 AM	4.61	41.0

**Table H5 - Valid Ambient 1-Minute Sound Data - Monitor B - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
12/01/2014 3:57:00 AM	4.91	43.1
12/01/2014 3:58:00 AM	5.25	45.3
12/01/2014 3:59:00 AM	4.22	43.5
12/01/2014 4:00:00 AM	5.46	44.6
12/01/2014 4:01:00 AM	4.79	48.7
12/01/2014 4:02:00 AM	4.14	49.2
12/01/2014 4:03:00 AM	4.59	47.4
12/01/2014 4:04:00 AM	5.15	46.1
12/01/2014 4:05:00 AM	5.84	46.7
12/01/2014 4:08:00 AM	4.64	45.0
12/01/2014 4:09:00 AM	6.10	45.8
12/01/2014 4:10:00 AM	6.45	42.6
12/01/2014 4:11:00 AM	5.21	42.8
12/01/2014 4:12:00 AM	4.90	40.9
12/01/2014 4:13:00 AM	4.73	45.7
12/01/2014 4:14:00 AM	5.08	47.9
12/01/2014 4:15:00 AM	4.90	48.2
12/01/2014 4:16:00 AM	3.85	45.9
12/01/2014 4:17:00 AM	4.22	47.5
12/01/2014 4:18:00 AM	5.30	46.3
12/01/2014 4:20:00 AM	4.89	46.3
12/01/2014 4:23:00 AM	4.73	47.7
12/01/2014 4:25:00 AM	5.60	46.7
12/01/2014 4:26:00 AM	5.63	47.3
12/01/2014 4:27:00 AM	6.67	45.8
12/01/2014 4:28:00 AM	5.08	46.3
12/01/2014 4:29:00 AM	5.63	47.6
12/01/2014 4:30:00 AM	4.72	45.2
12/01/2014 4:31:00 AM	4.87	48.2
12/01/2014 4:32:00 AM	5.95	45.9
12/01/2014 4:33:00 AM	4.89	45.4
12/01/2014 4:34:00 AM	4.50	47.2
12/01/2014 4:36:00 AM	5.78	46.9
12/01/2014 4:37:00 AM	5.99	47.1
12/01/2014 4:38:00 AM	6.40	46.7
12/01/2014 4:39:00 AM	6.21	48.0
12/01/2014 4:40:00 AM	5.01	45.4
12/01/2014 4:41:00 AM	5.39	46.2
12/01/2014 4:42:00 AM	5.57	46.3
12/01/2014 4:43:00 AM	4.71	43.4
12/01/2014 4:44:00 AM	5.09	46.0
12/01/2014 4:45:00 AM	5.68	46.0
12/01/2014 4:49:00 AM	6.42	47.3
12/01/2014 4:50:00 AM	6.30	43.0
12/01/2014 4:51:00 AM	6.86	45.2
12/01/2014 4:52:00 AM	6.23	47.2
12/01/2014 4:53:00 AM	4.60	45.7
12/01/2014 4:54:00 AM	4.37	44.6
12/01/2014 4:55:00 AM	5.82	47.4
12/01/2014 4:56:00 AM	5.28	48.2

**Table H5 - Valid Ambient 1-Minute Sound Data - Monitor B - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
12/01/2014 4:57:00 AM	4.69	47.3
12/01/2014 4:58:00 AM	4.73	46.3
12/01/2014 4:59:00 AM	4.24	47.5
12/01/2014 5:00:00 AM	4.38	45.0
12/01/2014 5:01:00 AM	3.82	46.9
12/01/2014 5:02:00 AM	4.68	45.5
12/01/2014 5:03:00 AM	4.26	48.7
12/01/2014 5:04:00 AM	4.27	45.5
12/01/2014 5:05:00 AM	3.79	46.3
12/01/2014 5:06:00 AM	4.83	46.1
12/01/2014 5:07:00 AM	4.49	43.9
12/01/2014 5:08:00 AM	4.09	42.1
12/01/2014 5:09:00 AM	4.79	41.3
12/01/2014 5:10:00 AM	4.61	43.7
12/01/2014 5:11:00 AM	4.01	45.1
12/01/2014 5:12:00 AM	3.87	49.4
12/01/2014 5:13:00 AM	4.75	48.4
12/01/2014 5:14:00 AM	4.40	48.0
12/01/2014 5:15:00 AM	4.69	47.0
12/01/2014 5:16:00 AM	5.19	46.4
12/01/2014 5:17:00 AM	5.30	46.1
12/01/2014 5:24:00 AM	7.40	49.7
12/01/2014 5:26:00 AM	5.36	47.3
12/01/2014 5:27:00 AM	4.74	45.0
12/01/2014 5:28:00 AM	6.38	45.7
12/01/2014 5:29:00 AM	5.24	45.0
12/01/2014 5:30:00 AM	5.06	48.4
12/01/2014 5:31:00 AM	4.38	47.9
12/01/2014 5:32:00 AM	4.39	47.1
12/01/2014 5:33:00 AM	5.01	43.7
12/01/2014 5:34:00 AM	5.88	44.2
12/01/2014 5:35:00 AM	5.55	44.0
12/01/2014 5:36:00 AM	4.39	43.4
12/01/2014 5:37:00 AM	4.71	46.5
12/01/2014 5:38:00 AM	5.22	44.6
12/01/2014 5:39:00 AM	4.98	43.0
12/01/2014 5:40:00 AM	5.16	43.6
12/01/2014 5:41:00 AM	4.70	46.2
12/01/2014 5:42:00 AM	5.00	44.7
12/01/2014 5:43:00 AM	4.60	46.8
12/01/2014 5:44:00 AM	5.00	45.2
12/01/2014 5:45:00 AM	4.98	43.3
12/01/2014 5:46:00 AM	4.57	45.3
12/01/2014 5:47:00 AM	4.54	46.1
12/01/2014 5:48:00 AM	4.00	48.3
12/01/2014 5:49:00 AM	4.18	47.1
12/01/2014 5:50:00 AM	4.34	47.6
12/01/2014 5:51:00 AM	4.62	44.2
12/01/2014 5:52:00 AM	5.15	47.6
12/01/2014 5:53:00 AM	4.03	48.5

**Table H5 - Valid Ambient 1-Minute Sound Data - Monitor B - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
12/01/2014 5:54:00 AM	5.08	43.2
12/01/2014 5:55:00 AM	4.18	42.5
12/01/2014 5:56:00 AM	4.41	44.5
12/01/2014 5:58:00 AM	4.09	47.2
12/01/2014 5:59:00 AM	4.20	44.6

**Table H6 - Valid Ambient 1-Minute Sound Data - Monitor C - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
11/18/2014 11:00:00 PM	6.71	48.6
11/18/2014 11:02:00 PM	7.31	48.1
11/18/2014 11:03:00 PM	6.73	46.3
11/18/2014 11:04:00 PM	7.03	48.7
11/18/2014 11:06:00 PM	6.07	49.0
11/18/2014 11:07:00 PM	7.03	45.1
11/18/2014 11:09:00 PM	7.10	51.2
11/18/2014 11:11:00 PM	6.74	53.4
11/18/2014 11:12:00 PM	6.53	51.8
11/18/2014 11:21:00 PM	7.24	46.8
11/18/2014 11:24:00 PM	7.39	50.2
11/18/2014 11:25:00 PM	6.87	49.9
11/18/2014 11:27:00 PM	7.48	51.1
11/18/2014 11:29:00 PM	6.77	52.1
11/18/2014 11:30:00 PM	6.21	47.1
11/18/2014 11:31:00 PM	7.37	45.6
11/18/2014 11:33:00 PM	6.99	50.2
11/18/2014 11:34:00 PM	6.78	52.1
11/18/2014 11:35:00 PM	7.38	49.8
11/18/2014 11:38:00 PM	6.62	48.1
11/18/2014 11:39:00 PM	6.12	51.0
11/18/2014 11:41:00 PM	7.41	50.0
11/18/2014 11:42:00 PM	7.46	48.0
11/18/2014 11:43:00 PM	7.41	46.8
11/18/2014 11:44:00 PM	6.73	50.0
11/18/2014 11:45:00 PM	6.73	48.0
11/18/2014 11:46:00 PM	6.78	48.3
11/18/2014 11:47:00 PM	7.28	46.0
11/18/2014 11:51:00 PM	6.56	50.1
11/18/2014 11:53:00 PM	6.49	49.2
11/18/2014 11:54:00 PM	6.66	50.7
11/18/2014 11:55:00 PM	6.41	49.4
11/18/2014 11:56:00 PM	6.33	49.2
11/18/2014 11:59:00 PM	7.33	47.0
11/19/2014 12:00:00 AM	6.67	48.7
11/19/2014 12:01:00 AM	7.26	48.1
11/19/2014 12:03:00 AM	7.11	47.6
11/19/2014 12:04:00 AM	6.46	47.0
11/19/2014 12:05:00 AM	6.53	47.9
11/19/2014 12:06:00 AM	6.51	47.1
11/19/2014 12:07:00 AM	6.48	49.9
11/19/2014 12:08:00 AM	6.79	49.6
11/19/2014 12:09:00 AM	6.42	46.9
11/19/2014 12:10:00 AM	6.68	45.9
11/19/2014 12:11:00 AM	6.53	44.5
11/19/2014 12:12:00 AM	6.65	46.8
11/19/2014 12:13:00 AM	6.79	45.8
11/19/2014 12:14:00 AM	6.60	46.8
11/19/2014 12:15:00 AM	7.15	44.7
11/19/2014 12:16:00 AM	6.89	44.9

**Table H6 - Valid Ambient 1-Minute Sound Data - Monitor C - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
11/19/2014 12:17:00 AM	6.85	46.7
11/19/2014 12:18:00 AM	6.14	46.0
11/19/2014 12:19:00 AM	5.58	45.5
11/19/2014 12:20:00 AM	6.31	45.8
11/19/2014 12:21:00 AM	6.31	47.5
11/19/2014 12:22:00 AM	6.52	47.1
11/19/2014 12:23:00 AM	6.40	45.4
11/19/2014 12:24:00 AM	6.08	46.3
11/19/2014 12:25:00 AM	6.28	44.4
11/19/2014 12:26:00 AM	6.22	48.4
11/19/2014 12:27:00 AM	6.06	45.7
11/19/2014 12:28:00 AM	6.32	42.4
11/19/2014 12:29:00 AM	6.39	43.4
11/19/2014 12:30:00 AM	6.39	46.9
11/19/2014 12:31:00 AM	6.62	42.3
11/19/2014 12:32:00 AM	6.50	45.3
11/19/2014 12:33:00 AM	6.01	43.3
11/19/2014 12:34:00 AM	6.42	44.7
11/19/2014 12:35:00 AM	6.49	45.7
11/19/2014 12:36:00 AM	5.43	45.5
11/19/2014 12:37:00 AM	5.62	47.0
11/19/2014 12:38:00 AM	6.24	44.2
11/19/2014 12:39:00 AM	5.56	46.0
11/19/2014 12:40:00 AM	6.17	46.3
11/19/2014 12:41:00 AM	5.40	48.8
11/19/2014 12:42:00 AM	5.98	47.6
11/19/2014 12:43:00 AM	6.20	44.1
11/19/2014 12:44:00 AM	6.07	45.4
11/19/2014 12:45:00 AM	6.44	44.7
11/19/2014 12:46:00 AM	6.02	47.6
11/19/2014 12:47:00 AM	5.92	46.3
11/19/2014 12:48:00 AM	6.30	49.2
11/19/2014 12:49:00 AM	6.53	45.2
11/19/2014 12:50:00 AM	6.45	47.2
11/19/2014 12:51:00 AM	6.06	46.5
11/19/2014 12:52:00 AM	6.18	45.2
11/19/2014 12:53:00 AM	5.76	47.0
11/19/2014 12:54:00 AM	6.89	44.6
11/19/2014 12:55:00 AM	6.61	45.9
11/19/2014 12:56:00 AM	7.00	45.7
11/19/2014 12:57:00 AM	6.23	50.6
11/19/2014 12:58:00 AM	6.35	47.8
11/19/2014 12:59:00 AM	5.84	45.4
11/19/2014 1:00:00 AM	6.01	46.3
11/19/2014 1:01:00 AM	6.33	46.0
11/19/2014 1:02:00 AM	5.77	44.6
11/19/2014 1:03:00 AM	6.31	44.3
11/19/2014 1:04:00 AM	5.95	45.4
11/19/2014 1:05:00 AM	7.12	46.9
11/19/2014 1:06:00 AM	6.98	43.9



**Table H6 - Valid Ambient 1-Minute Sound Data - Monitor C - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
11/19/2014 1:07:00 AM	6.19	47.1
11/19/2014 1:08:00 AM	6.32	48.0
11/19/2014 1:09:00 AM	6.27	46.7
11/19/2014 1:10:00 AM	5.66	47.5
11/19/2014 1:11:00 AM	5.39	51.8
11/19/2014 1:12:00 AM	6.26	44.8
11/19/2014 1:13:00 AM	6.43	46.1
11/19/2014 1:14:00 AM	5.88	46.9
11/19/2014 1:15:00 AM	5.92	47.6
11/19/2014 1:16:00 AM	6.81	46.8
11/19/2014 1:17:00 AM	6.15	46.7
11/19/2014 1:18:00 AM	6.69	47.2
11/19/2014 1:20:00 AM	6.28	45.8
11/19/2014 1:21:00 AM	6.16	45.5
11/19/2014 1:22:00 AM	6.14	45.4
11/19/2014 1:23:00 AM	7.02	47.2
11/19/2014 1:24:00 AM	6.52	44.5
11/19/2014 1:25:00 AM	6.23	48.3
11/19/2014 1:26:00 AM	6.22	48.2
11/19/2014 1:27:00 AM	6.29	47.7
11/19/2014 1:28:00 AM	6.16	45.6
11/19/2014 1:29:00 AM	6.04	45.3
11/19/2014 1:30:00 AM	6.28	46.6
11/19/2014 1:31:00 AM	6.39	46.3
11/19/2014 1:32:00 AM	6.01	48.4
11/19/2014 1:33:00 AM	6.15	46.0
11/19/2014 1:34:00 AM	7.05	48.4
11/19/2014 1:35:00 AM	6.90	48.6
11/19/2014 1:36:00 AM	6.11	49.6
11/19/2014 1:37:00 AM	6.26	46.8
11/19/2014 1:38:00 AM	6.68	50.0
11/19/2014 1:39:00 AM	6.49	47.6
11/19/2014 1:40:00 AM	6.82	44.4
11/19/2014 1:41:00 AM	6.57	45.8
11/19/2014 1:42:00 AM	6.59	46.1
11/19/2014 1:43:00 AM	6.98	46.5
11/19/2014 1:44:00 AM	6.99	46.6
11/19/2014 1:45:00 AM	6.64	44.5
11/19/2014 1:46:00 AM	6.51	49.0
11/19/2014 1:47:00 AM	7.10	46.0
11/19/2014 1:48:00 AM	6.03	46.0
11/19/2014 1:49:00 AM	5.97	48.6
11/19/2014 1:50:00 AM	6.48	48.4
11/19/2014 1:51:00 AM	6.42	43.1
11/19/2014 1:52:00 AM	6.36	44.0
11/19/2014 1:53:00 AM	5.89	45.0
11/19/2014 1:54:00 AM	6.55	46.6
11/19/2014 1:55:00 AM	6.68	45.5
11/19/2014 1:56:00 AM	6.31	45.4
11/19/2014 1:57:00 AM	6.44	47.0

**Table H6 - Valid Ambient 1-Minute Sound Data - Monitor C - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
11/19/2014 1:58:00 AM	7.04	45.1
11/19/2014 1:59:00 AM	5.81	46.0
11/19/2014 2:00:00 AM	6.01	44.9
11/19/2014 2:01:00 AM	5.72	43.1
11/19/2014 2:02:00 AM	6.38	43.4
11/19/2014 2:03:00 AM	6.21	44.0
11/19/2014 2:04:00 AM	6.02	42.7
11/19/2014 2:05:00 AM	6.19	42.6
11/19/2014 2:06:00 AM	6.19	44.7
11/19/2014 2:07:00 AM	6.24	43.3
11/19/2014 2:08:00 AM	6.03	42.7
11/19/2014 2:09:00 AM	5.79	41.8
11/19/2014 2:10:00 AM	5.69	43.4
11/19/2014 2:11:00 AM	5.56	46.4
11/19/2014 2:12:00 AM	5.72	43.4
11/19/2014 2:13:00 AM	5.34	45.7
11/19/2014 2:14:00 AM	6.02	41.3
11/19/2014 2:15:00 AM	5.49	42.0
11/19/2014 2:16:00 AM	5.65	42.7
11/19/2014 2:17:00 AM	5.31	41.1
11/19/2014 2:18:00 AM	5.79	43.3
11/19/2014 2:19:00 AM	5.92	43.6
11/19/2014 2:20:00 AM	5.81	41.8
11/19/2014 2:21:00 AM	6.24	44.3
11/19/2014 2:22:00 AM	5.07	42.4
11/19/2014 2:23:00 AM	5.48	40.6
11/19/2014 2:24:00 AM	5.56	42.2
11/19/2014 2:25:00 AM	5.36	43.2
11/19/2014 2:26:00 AM	5.61	42.9
11/19/2014 2:27:00 AM	5.55	42.3
11/19/2014 2:28:00 AM	5.53	43.1
11/19/2014 2:29:00 AM	5.66	43.0
11/19/2014 2:30:00 AM	5.77	43.9
11/19/2014 2:31:00 AM	5.26	44.7
11/19/2014 2:32:00 AM	4.96	45.9
11/19/2014 2:33:00 AM	5.70	43.3
11/19/2014 2:34:00 AM	5.61	42.7
11/19/2014 2:35:00 AM	5.62	42.2
11/19/2014 2:36:00 AM	5.13	41.9
11/19/2014 2:37:00 AM	5.74	42.2
11/19/2014 2:38:00 AM	5.72	43.0
11/19/2014 2:39:00 AM	5.84	40.9
11/19/2014 2:40:00 AM	6.10	41.1
11/19/2014 2:41:00 AM	5.74	43.8
11/19/2014 2:42:00 AM	5.64	43.1
11/19/2014 2:43:00 AM	5.20	42.9
11/19/2014 2:44:00 AM	5.50	42.9
11/19/2014 2:45:00 AM	5.12	45.0
11/19/2014 2:46:00 AM	5.79	42.1
11/19/2014 2:47:00 AM	5.31	42.9

**Table H6 - Valid Ambient 1-Minute Sound Data - Monitor C - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
11/19/2014 2:48:00 AM	5.37	41.9
11/19/2014 2:49:00 AM	5.66	41.2
11/19/2014 2:50:00 AM	5.40	44.5
11/19/2014 2:51:00 AM	5.81	45.2
11/19/2014 2:52:00 AM	5.31	45.6
11/19/2014 2:53:00 AM	6.15	43.5
11/19/2014 2:54:00 AM	5.27	42.8
11/19/2014 2:55:00 AM	5.78	43.6
11/19/2014 2:56:00 AM	5.51	43.0
11/19/2014 2:57:00 AM	5.04	41.3
11/19/2014 2:58:00 AM	6.03	39.7
11/19/2014 2:59:00 AM	6.03	39.5
11/19/2014 3:00:00 AM	6.25	42.8
11/19/2014 3:01:00 AM	5.74	42.3
11/19/2014 3:02:00 AM	5.42	40.3
11/19/2014 3:03:00 AM	5.62	40.4
11/19/2014 3:04:00 AM	5.69	41.6
11/19/2014 3:05:00 AM	5.45	41.7
11/19/2014 3:06:00 AM	4.99	40.8
11/19/2014 3:07:00 AM	4.84	40.5
11/19/2014 3:08:00 AM	5.45	40.3
11/19/2014 3:09:00 AM	5.56	39.5
11/19/2014 3:10:00 AM	4.98	39.6
11/19/2014 3:11:00 AM	5.14	41.5
11/19/2014 3:12:00 AM	5.06	41.6
11/19/2014 3:13:00 AM	5.13	41.6
11/19/2014 3:14:00 AM	4.76	39.7
11/19/2014 3:15:00 AM	4.67	41.0
11/19/2014 3:16:00 AM	5.05	40.3
11/19/2014 3:17:00 AM	4.65	42.2
11/19/2014 3:18:00 AM	4.65	42.1
11/19/2014 3:19:00 AM	5.27	39.9
11/19/2014 3:20:00 AM	5.33	39.6
11/19/2014 3:21:00 AM	5.50	39.5
11/19/2014 3:22:00 AM	4.91	40.5
11/19/2014 3:23:00 AM	5.24	40.6
11/19/2014 3:24:00 AM	5.14	41.7
11/19/2014 3:25:00 AM	5.39	41.8
11/19/2014 3:26:00 AM	5.38	40.3
11/19/2014 3:27:00 AM	4.89	39.9
11/19/2014 3:28:00 AM	4.97	40.8
11/19/2014 3:29:00 AM	4.70	40.5
11/19/2014 3:30:00 AM	4.43	42.5
11/19/2014 3:31:00 AM	5.09	39.5
11/19/2014 3:32:00 AM	4.78	38.4
11/19/2014 3:33:00 AM	5.05	41.1
11/19/2014 3:34:00 AM	5.09	41.4
11/19/2014 3:35:00 AM	4.43	39.0
11/19/2014 3:36:00 AM	4.84	40.8
11/19/2014 3:37:00 AM	4.83	40.9

**Table H6 - Valid Ambient 1-Minute Sound Data - Monitor C - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
11/19/2014 3:38:00 AM	5.27	39.5
11/19/2014 3:39:00 AM	4.73	39.8
11/19/2014 3:40:00 AM	4.44	37.9
11/19/2014 3:41:00 AM	5.07	39.5
11/19/2014 3:42:00 AM	5.14	39.5
11/19/2014 3:43:00 AM	4.61	37.9
11/19/2014 3:44:00 AM	4.75	39.6
11/19/2014 3:45:00 AM	4.55	38.9
11/19/2014 3:46:00 AM	4.20	39.4
11/19/2014 3:47:00 AM	4.62	39.7
11/19/2014 3:48:00 AM	4.46	39.0
11/19/2014 3:49:00 AM	4.53	40.8
11/19/2014 3:50:00 AM	4.59	38.1
11/19/2014 3:51:00 AM	4.14	39.8
11/19/2014 3:52:00 AM	4.21	39.5
11/19/2014 3:53:00 AM	4.30	40.3
11/19/2014 3:54:00 AM	4.26	40.0
11/19/2014 3:55:00 AM	4.23	41.7
11/19/2014 3:56:00 AM	4.64	40.9
11/19/2014 3:57:00 AM	4.92	40.2
11/19/2014 3:58:00 AM	4.18	39.1
11/19/2014 3:59:00 AM	4.59	38.2
11/19/2014 4:00:00 AM	4.57	37.7
11/19/2014 4:01:00 AM	4.65	38.4
11/19/2014 4:02:00 AM	4.39	38.0
11/19/2014 4:03:00 AM	4.72	38.3
11/19/2014 4:04:00 AM	4.64	38.8
11/19/2014 4:05:00 AM	4.63	40.0
11/19/2014 4:06:00 AM	4.22	37.5
11/19/2014 4:07:00 AM	4.11	38.1
11/19/2014 4:08:00 AM	3.89	38.1
11/19/2014 4:09:00 AM	4.30	40.2
11/19/2014 4:10:00 AM	4.03	41.7
11/19/2014 4:11:00 AM	4.01	38.8
11/19/2014 4:12:00 AM	4.17	39.2
11/19/2014 4:13:00 AM	4.06	40.5
11/19/2014 4:14:00 AM	3.88	38.9
11/19/2014 4:15:00 AM	4.21	40.5
11/19/2014 4:16:00 AM	4.17	38.1
11/19/2014 4:17:00 AM	4.63	40.8
11/19/2014 4:18:00 AM	5.02	41.7
11/19/2014 4:19:00 AM	4.51	41.7
11/19/2014 4:20:00 AM	4.67	39.5
11/19/2014 4:21:00 AM	4.84	40.8
11/19/2014 4:22:00 AM	4.95	42.8
11/19/2014 4:23:00 AM	4.85	41.6
11/19/2014 4:24:00 AM	4.35	40.3
11/19/2014 4:25:00 AM	4.78	39.7
11/19/2014 4:26:00 AM	5.15	40.3
11/19/2014 4:27:00 AM	5.16	41.2

**Table H6 - Valid Ambient 1-Minute Sound Data - Monitor C - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
11/19/2014 4:28:00 AM	4.52	38.8
11/19/2014 4:29:00 AM	4.98	38.7
11/19/2014 4:30:00 AM	5.35	39.7
11/19/2014 4:31:00 AM	4.85	40.9
11/19/2014 4:32:00 AM	4.68	39.5
11/19/2014 4:33:00 AM	4.32	37.7
11/19/2014 4:34:00 AM	4.81	38.7
11/19/2014 4:35:00 AM	4.80	39.4
11/19/2014 4:36:00 AM	4.31	39.2
11/19/2014 4:37:00 AM	4.33	40.4
11/19/2014 4:38:00 AM	4.33	40.1
11/19/2014 4:39:00 AM	4.70	39.3
11/19/2014 4:40:00 AM	4.54	38.3
11/19/2014 4:41:00 AM	4.32	37.6
11/19/2014 4:42:00 AM	4.13	37.5
11/19/2014 4:43:00 AM	4.53	37.1
11/19/2014 4:44:00 AM	4.47	37.9
11/19/2014 4:45:00 AM	4.19	39.1
11/19/2014 4:46:00 AM	4.45	38.9
11/19/2014 4:47:00 AM	4.21	39.8
11/19/2014 4:48:00 AM	3.91	38.9
11/19/2014 4:49:00 AM	3.80	38.9
11/19/2014 4:50:00 AM	4.00	38.6
11/19/2014 4:51:00 AM	3.57	39.8
11/19/2014 4:52:00 AM	3.69	38.5
11/19/2014 4:53:00 AM	4.00	39.3
11/19/2014 4:54:00 AM	4.01	39.7
11/19/2014 4:55:00 AM	4.02	38.9
11/19/2014 4:56:00 AM	4.19	39.5
11/19/2014 4:57:00 AM	4.47	40.1
11/19/2014 4:58:00 AM	4.30	39.7
11/19/2014 4:59:00 AM	4.78	41.0
11/19/2014 5:00:00 AM	4.19	42.1
11/19/2014 5:01:00 AM	4.58	41.4
11/19/2014 5:02:00 AM	4.56	42.2
11/19/2014 5:03:00 AM	4.30	43.6
11/19/2014 5:04:00 AM	4.47	43.7
11/19/2014 5:05:00 AM	4.71	40.9
11/19/2014 5:06:00 AM	4.78	41.9
11/19/2014 5:07:00 AM	5.11	40.7
11/19/2014 5:08:00 AM	5.33	39.9
11/19/2014 5:09:00 AM	5.24	41.7
11/19/2014 5:10:00 AM	5.37	41.8
11/19/2014 5:11:00 AM	5.31	41.5
11/19/2014 5:12:00 AM	5.43	41.9
11/19/2014 5:13:00 AM	5.05	40.8
11/19/2014 5:14:00 AM	4.91	41.0
11/19/2014 5:15:00 AM	5.07	40.3
11/19/2014 5:16:00 AM	4.80	42.0
11/19/2014 5:17:00 AM	4.87	40.9

**Table H6 - Valid Ambient 1-Minute Sound Data - Monitor C - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
11/19/2014 5:18:00 AM	5.09	40.5
11/19/2014 5:19:00 AM	4.88	40.5
11/19/2014 5:20:00 AM	4.81	42.1
11/19/2014 5:21:00 AM	4.83	41.8
11/19/2014 5:22:00 AM	4.72	41.4
11/19/2014 5:23:00 AM	4.92	40.6
11/19/2014 5:24:00 AM	5.01	40.8
11/19/2014 5:25:00 AM	4.86	38.9
11/19/2014 5:26:00 AM	4.79	38.3
11/19/2014 5:27:00 AM	4.77	39.3
11/19/2014 5:28:00 AM	5.20	40.6
11/19/2014 5:29:00 AM	4.74	38.5
11/19/2014 5:30:00 AM	4.87	37.8
11/19/2014 5:33:00 AM	4.41	38.6
11/19/2014 5:34:00 AM	4.47	38.5
11/19/2014 5:35:00 AM	4.37	39.8
11/19/2014 5:36:00 AM	4.32	40.5
11/19/2014 5:37:00 AM	3.91	38.4
11/19/2014 5:38:00 AM	4.15	37.9
11/19/2014 5:39:00 AM	4.49	37.1
11/19/2014 5:40:00 AM	4.12	39.9
11/19/2014 5:41:00 AM	4.02	40.7
11/19/2014 5:42:00 AM	3.74	39.5
11/19/2014 5:43:00 AM	3.97	40.2
11/19/2014 5:44:00 AM	4.14	40.1
11/19/2014 5:45:00 AM	3.95	38.8
11/19/2014 5:46:00 AM	4.30	39.4
11/19/2014 5:47:00 AM	3.89	39.6
11/19/2014 5:48:00 AM	4.55	38.8
11/19/2014 5:49:00 AM	4.43	37.6
11/19/2014 5:50:00 AM	4.34	38.5
11/19/2014 5:51:00 AM	4.79	39.3
11/19/2014 5:52:00 AM	4.51	39.1
11/19/2014 5:53:00 AM	4.13	40.6
11/19/2014 5:54:00 AM	4.13	40.2
11/19/2014 5:55:00 AM	4.31	40.0
11/19/2014 5:56:00 AM	4.50	40.1
11/19/2014 5:57:00 AM	4.22	39.2
11/19/2014 5:58:00 AM	4.39	40.4
11/19/2014 5:59:00 AM	4.58	40.5
11/19/2014 11:00:00 PM	6.59	50.5
11/19/2014 11:18:00 PM	7.16	49.7
11/19/2014 11:26:00 PM	6.87	48.8
11/19/2014 11:27:00 PM	7.16	45.7
11/19/2014 11:28:00 PM	7.14	50.5
11/19/2014 11:29:00 PM	6.43	48.4
11/19/2014 11:30:00 PM	7.33	45.7
11/19/2014 11:31:00 PM	6.58	46.3
11/19/2014 11:32:00 PM	6.69	46.1
11/19/2014 11:33:00 PM	6.32	45.9

**Table H6 - Valid Ambient 1-Minute Sound Data - Monitor C - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
11/19/2014 11:34:00 PM	6.88	47.6
11/19/2014 11:35:00 PM	6.45	48.6
11/19/2014 11:37:00 PM	7.39	51.5
11/19/2014 11:38:00 PM	6.52	45.3
11/19/2014 11:39:00 PM	6.48	42.8
11/19/2014 11:40:00 PM	6.24	49.3
11/19/2014 11:41:00 PM	6.44	47.7
11/19/2014 11:42:00 PM	6.44	48.4
11/19/2014 11:43:00 PM	6.83	45.1
11/19/2014 11:44:00 PM	7.13	42.1
11/19/2014 11:46:00 PM	6.87	41.3
11/19/2014 11:47:00 PM	5.87	42.1
11/19/2014 11:48:00 PM	6.76	41.9
11/19/2014 11:49:00 PM	6.96	40.3
11/19/2014 11:50:00 PM	7.09	41.8
11/19/2014 11:51:00 PM	6.48	44.2
11/19/2014 11:52:00 PM	6.13	41.4
11/19/2014 11:53:00 PM	5.20	40.2
11/19/2014 11:54:00 PM	5.45	43.8
11/19/2014 11:55:00 PM	5.39	42.8
11/19/2014 11:56:00 PM	5.77	42.8
11/19/2014 11:58:00 PM	5.43	45.5
11/19/2014 11:59:00 PM	5.59	45.0
11/20/2014 12:00:00 AM	5.64	43.4
11/20/2014 12:01:00 AM	4.99	42.1
11/20/2014 12:02:00 AM	5.45	43.6
11/20/2014 12:03:00 AM	5.34	43.3
11/20/2014 12:04:00 AM	5.64	42.5
11/20/2014 12:05:00 AM	5.79	40.4
11/20/2014 12:06:00 AM	6.40	39.8
11/20/2014 12:07:00 AM	6.09	39.3
11/20/2014 12:08:00 AM	5.78	38.7
11/20/2014 12:09:00 AM	5.76	38.2
11/20/2014 12:10:00 AM	5.66	39.2
11/20/2014 12:11:00 AM	5.62	38.2
11/20/2014 12:12:00 AM	5.36	38.9
11/20/2014 12:13:00 AM	5.03	40.8
11/20/2014 12:14:00 AM	4.47	41.9
11/20/2014 12:15:00 AM	4.65	45.0
11/20/2014 12:19:00 AM	4.24	43.3
11/20/2014 12:20:00 AM	4.37	42.0
11/20/2014 12:21:00 AM	5.08	43.0
11/20/2014 12:22:00 AM	5.28	44.5
11/20/2014 12:25:00 AM	6.41	45.0
11/20/2014 12:26:00 AM	6.18	46.5
11/20/2014 12:27:00 AM	5.97	42.5
11/20/2014 12:28:00 AM	5.40	50.8
11/20/2014 12:29:00 AM	5.48	48.9
11/20/2014 12:30:00 AM	5.52	49.4
11/20/2014 12:31:00 AM	7.02	48.7

**Table H6 - Valid Ambient 1-Minute Sound Data - Monitor C - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
11/20/2014 12:32:00 AM	6.55	46.8
11/20/2014 12:33:00 AM	6.20	50.9
11/20/2014 12:34:00 AM	6.49	50.4
11/20/2014 12:35:00 AM	5.28	51.4
11/20/2014 12:36:00 AM	6.87	50.0
11/20/2014 12:37:00 AM	7.20	49.0
11/20/2014 12:38:00 AM	6.82	53.3
11/20/2014 12:39:00 AM	6.14	51.3
11/20/2014 12:40:00 AM	6.98	52.0
11/20/2014 12:41:00 AM	6.58	53.3
11/20/2014 12:44:00 AM	7.11	53.7
11/20/2014 12:50:00 AM	7.40	50.8
11/20/2014 12:52:00 AM	7.37	50.9
11/20/2014 12:59:00 AM	7.48	42.7
11/20/2014 1:03:00 AM	7.20	42.0
11/20/2014 1:04:00 AM	6.64	41.8
11/20/2014 1:05:00 AM	7.22	37.1
11/20/2014 1:06:00 AM	6.46	40.8
11/20/2014 1:07:00 AM	5.31	51.5
11/20/2014 1:09:00 AM	4.51	46.3
11/20/2014 1:18:00 AM	7.02	52.0
11/20/2014 1:24:00 AM	7.43	49.9
11/20/2014 1:32:00 AM	7.02	49.5
11/20/2014 1:33:00 AM	6.54	44.7
11/20/2014 1:34:00 AM	7.15	46.9
11/20/2014 1:35:00 AM	7.28	51.5
11/20/2014 1:36:00 AM	6.66	51.1
11/20/2014 1:37:00 AM	6.72	46.9
11/20/2014 1:38:00 AM	6.08	48.8
11/20/2014 1:39:00 AM	6.25	45.3
11/20/2014 1:40:00 AM	6.83	48.5
11/20/2014 1:41:00 AM	6.33	51.2
11/20/2014 1:42:00 AM	6.33	48.8
11/20/2014 1:43:00 AM	7.27	50.7
11/20/2014 1:45:00 AM	6.97	48.1
11/20/2014 1:46:00 AM	6.32	52.5
11/20/2014 1:48:00 AM	6.61	49.8
11/20/2014 1:49:00 AM	7.46	49.3
11/20/2014 1:51:00 AM	6.06	47.3
11/20/2014 1:53:00 AM	6.83	47.0
11/20/2014 1:54:00 AM	7.31	51.3
11/20/2014 1:57:00 AM	6.70	47.1
11/20/2014 1:59:00 AM	6.25	48.5
11/20/2014 2:00:00 AM	6.47	47.9
11/20/2014 2:01:00 AM	6.43	51.4
11/20/2014 2:02:00 AM	7.13	49.5
11/20/2014 2:03:00 AM	6.93	49.8
11/20/2014 2:05:00 AM	6.61	52.2
11/20/2014 2:07:00 AM	7.17	43.9
11/20/2014 2:10:00 AM	7.03	46.0



**Table H6 - Valid Ambient 1-Minute Sound Data - Monitor C - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

Day and Time of Measurement	Average Wind Speed	Measured Leq
	(1 Minute Average)	(dBA)
11/20/2014 2:11:00 AM	7.27	48.6
11/20/2014 2:13:00 AM	6.91	47.9
11/20/2014 2:18:00 AM	6.52	53.6
11/20/2014 2:19:00 AM	6.03	50.0
11/20/2014 2:23:00 AM	7.07	52.0
11/20/2014 2:27:00 AM	6.89	54.3
11/20/2014 2:30:00 AM	7.21	48.9
11/20/2014 2:32:00 AM	6.35	50.4
11/20/2014 2:34:00 AM	7.12	47.7
11/20/2014 2:37:00 AM	7.28	52.2
11/20/2014 2:41:00 AM	7.25	49.6
11/20/2014 2:42:00 AM	6.73	52.3
11/20/2014 2:43:00 AM	6.81	52.2
11/20/2014 2:44:00 AM	7.00	52.2
11/20/2014 2:45:00 AM	7.22	53.1
11/20/2014 2:46:00 AM	6.29	51.2
11/20/2014 2:47:00 AM	7.13	52.3
11/20/2014 2:49:00 AM	7.13	53.0
11/20/2014 3:13:00 AM	6.98	52.3
11/20/2014 3:15:00 AM	7.29	53.0
11/20/2014 3:16:00 AM	7.31	53.5
11/20/2014 3:19:00 AM	6.89	52.6
11/20/2014 3:26:00 AM	7.49	52.4
11/20/2014 3:33:00 AM	7.40	53.6
11/20/2014 4:06:00 AM	7.40	52.4
11/20/2014 4:07:00 AM	7.02	49.5
11/20/2014 4:08:00 AM	7.45	52.2
11/20/2014 4:09:00 AM	7.15	46.8
11/20/2014 4:10:00 AM	7.42	46.2
11/20/2014 4:11:00 AM	6.87	49.0
11/20/2014 4:12:00 AM	7.25	50.2
11/20/2014 4:13:00 AM	7.48	50.9
11/20/2014 4:15:00 AM	7.13	50.1
11/20/2014 4:17:00 AM	7.05	50.2
11/20/2014 4:18:00 AM	6.54	53.9
11/20/2014 4:20:00 AM	7.14	47.7
11/20/2014 4:22:00 AM	7.23	51.1
11/20/2014 4:25:00 AM	7.43	54.7
11/20/2014 4:28:00 AM	7.25	51.9
11/20/2014 4:29:00 AM	6.82	50.3
11/20/2014 4:31:00 AM	7.43	44.5
11/20/2014 4:35:00 AM	7.25	50.0
11/20/2014 4:37:00 AM	6.69	47.5
11/20/2014 4:39:00 AM	6.19	46.6
11/20/2014 4:40:00 AM	5.92	46.2
11/20/2014 4:41:00 AM	7.04	47.0
11/20/2014 4:42:00 AM	6.51	46.1
11/20/2014 4:43:00 AM	7.01	44.7
11/20/2014 4:44:00 AM	6.73	44.7
11/20/2014 4:45:00 AM	7.01	46.7

**Table H6 - Valid Ambient 1-Minute Sound Data - Monitor C - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

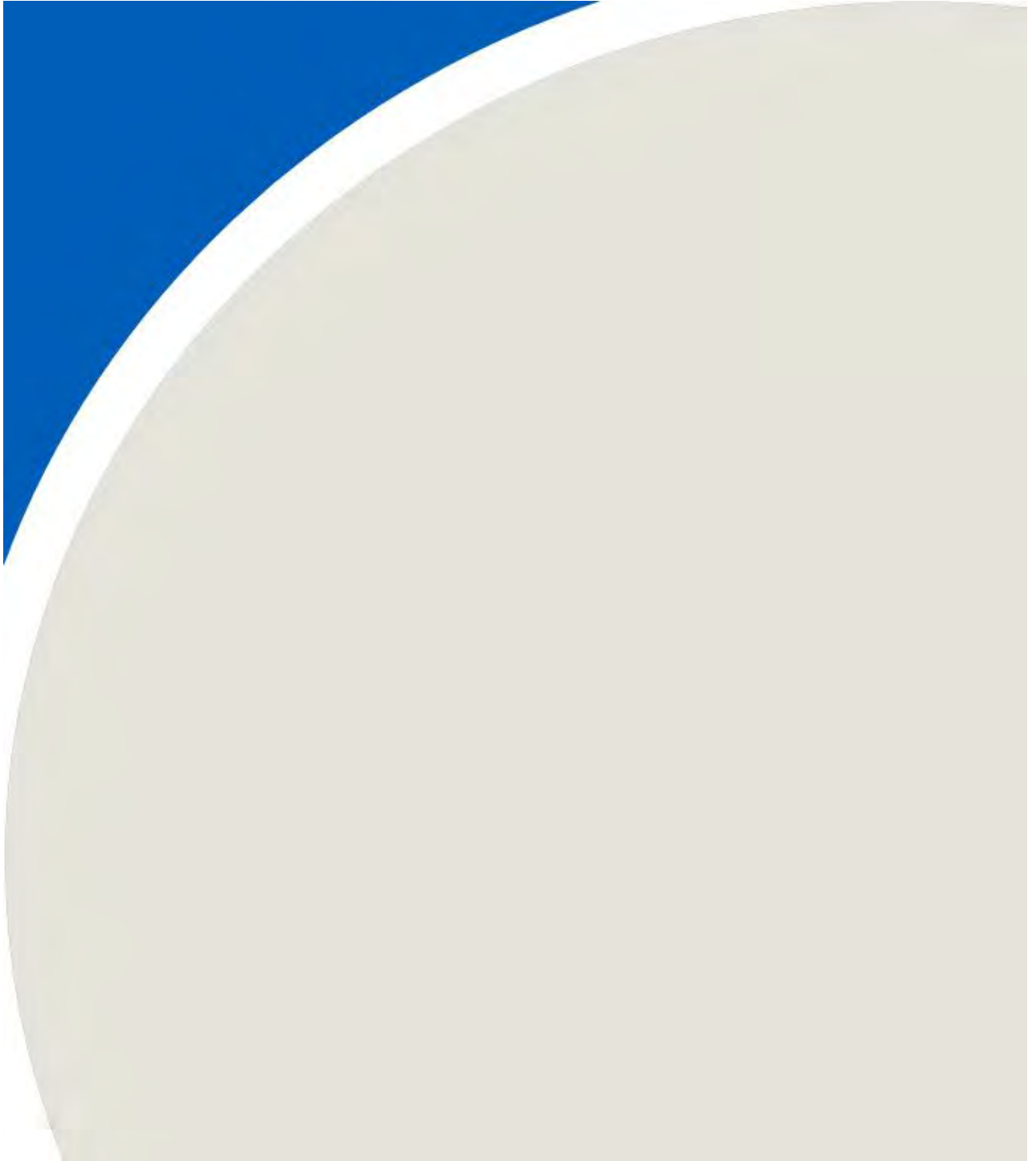
<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
11/20/2014 4:46:00 AM	6.64	45.1
11/20/2014 4:47:00 AM	6.86	46.1
11/20/2014 4:48:00 AM	6.38	43.8
11/20/2014 4:49:00 AM	6.55	45.0
11/20/2014 4:50:00 AM	6.80	46.7
11/20/2014 4:51:00 AM	5.91	45.7
11/20/2014 4:52:00 AM	6.34	46.6
11/20/2014 4:53:00 AM	5.87	46.3
11/20/2014 4:54:00 AM	6.31	46.8
11/20/2014 4:55:00 AM	6.17	45.6
11/20/2014 4:56:00 AM	6.04	46.7
11/20/2014 4:57:00 AM	5.84	45.6
11/20/2014 4:58:00 AM	6.70	46.9
11/20/2014 4:59:00 AM	6.53	47.7
11/20/2014 5:00:00 AM	6.63	46.5
11/20/2014 5:01:00 AM	6.01	49.3
11/20/2014 5:02:00 AM	6.79	51.0
11/20/2014 5:03:00 AM	5.89	50.8
11/20/2014 5:04:00 AM	6.50	47.0
11/20/2014 5:05:00 AM	5.78	47.6
11/20/2014 5:09:00 AM	6.33	49.7
11/20/2014 5:10:00 AM	7.09	46.9
11/20/2014 5:12:00 AM	6.48	47.5
11/20/2014 5:13:00 AM	6.69	44.9
11/20/2014 5:14:00 AM	7.14	46.2
11/20/2014 5:15:00 AM	7.24	44.2
11/20/2014 5:16:00 AM	6.61	46.1
11/20/2014 5:18:00 AM	6.88	46.8
11/20/2014 5:19:00 AM	6.17	45.0
11/20/2014 5:20:00 AM	6.84	46.5
11/20/2014 5:21:00 AM	6.32	48.2
11/20/2014 5:22:00 AM	6.19	48.1
11/20/2014 5:23:00 AM	6.23	47.3
11/20/2014 5:24:00 AM	6.05	48.5
11/20/2014 5:25:00 AM	6.41	48.0
11/20/2014 5:26:00 AM	6.02	47.7
11/20/2014 5:27:00 AM	6.28	49.7
11/20/2014 5:28:00 AM	6.18	49.6
11/20/2014 5:29:00 AM	6.76	49.1
11/20/2014 5:30:00 AM	6.85	50.4
11/20/2014 5:31:00 AM	6.62	50.1
11/20/2014 5:32:00 AM	6.85	49.0
11/20/2014 5:33:00 AM	6.63	47.8
11/20/2014 5:34:00 AM	6.82	46.9
11/20/2014 5:35:00 AM	7.03	48.0
11/20/2014 5:36:00 AM	7.17	47.8
11/20/2014 5:37:00 AM	7.18	44.2
11/20/2014 5:40:00 AM	7.15	44.4
11/20/2014 5:41:00 AM	6.49	43.0
11/20/2014 5:42:00 AM	6.45	44.3

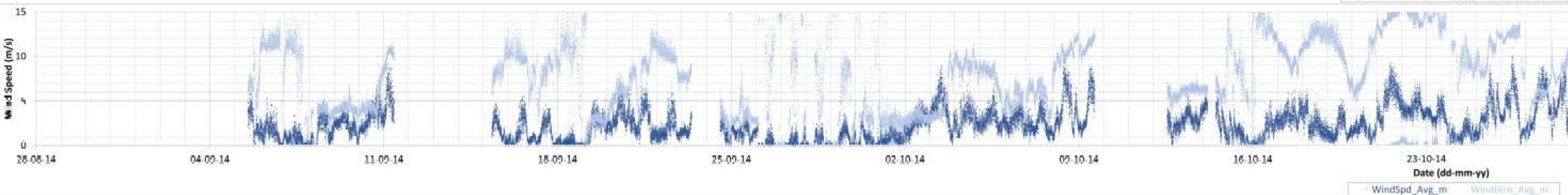
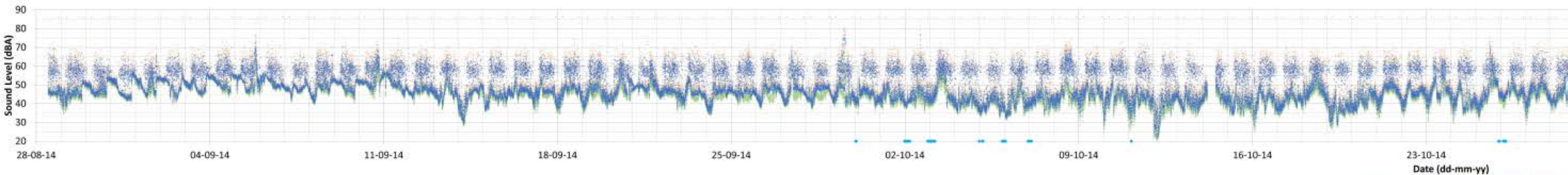
**Table H6 - Valid Ambient 1-Minute Sound Data - Monitor C - Fall 2014**

Adelaide Wind Farm - Fall 2014 Audit, 1402594

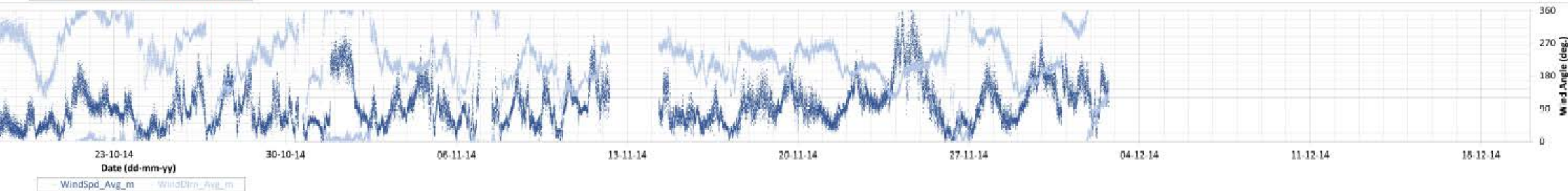
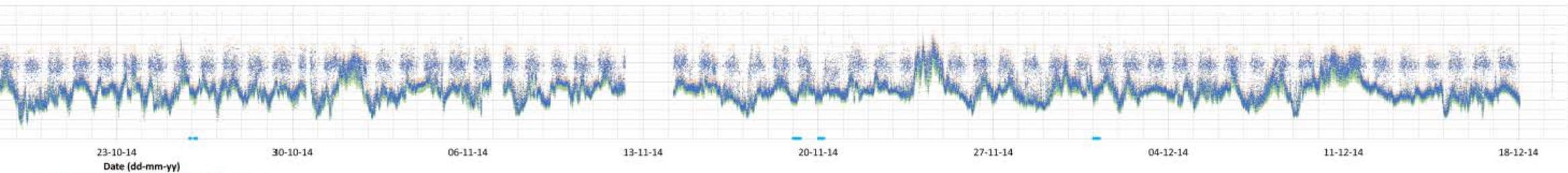
<b>Day and Time of Measurement</b>	<b>Average Wind Speed (1 Minute Average)</b>	<b>Measured Leq (dBA)</b>
11/20/2014 5:43:00 AM	6.46	46.0
11/20/2014 5:44:00 AM	6.78	44.4
11/20/2014 5:45:00 AM	6.10	44.7
11/20/2014 5:46:00 AM	5.37	45.0
11/20/2014 5:47:00 AM	6.22	44.0
11/20/2014 5:48:00 AM	6.30	46.3
11/20/2014 5:49:00 AM	5.44	47.0
11/20/2014 5:50:00 AM	5.57	45.7
11/20/2014 5:51:00 AM	6.45	48.4
11/20/2014 5:52:00 AM	5.96	46.3
11/20/2014 5:53:00 AM	5.97	45.1
11/20/2014 5:54:00 AM	5.88	44.2
11/20/2014 5:55:00 AM	6.18	45.2
11/20/2014 5:56:00 AM	6.05	45.6
11/20/2014 5:57:00 AM	6.78	47.7
11/20/2014 5:58:00 AM	6.23	47.7
11/20/2014 5:59:00 AM	6.92	46.7

# APPENDIX I

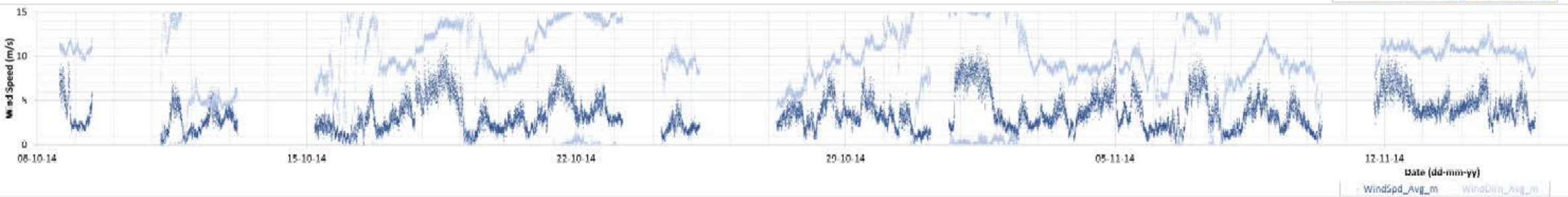
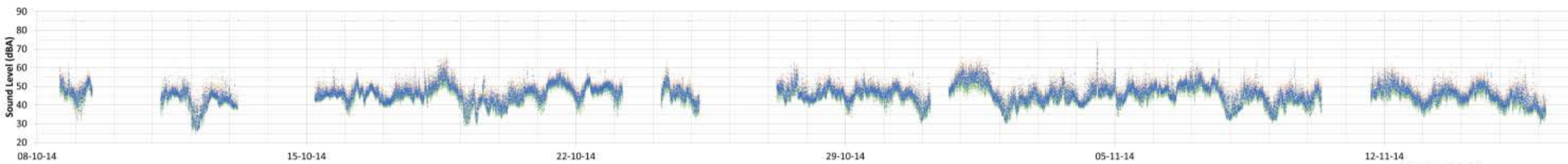




# Fall 2014 Adelaide A

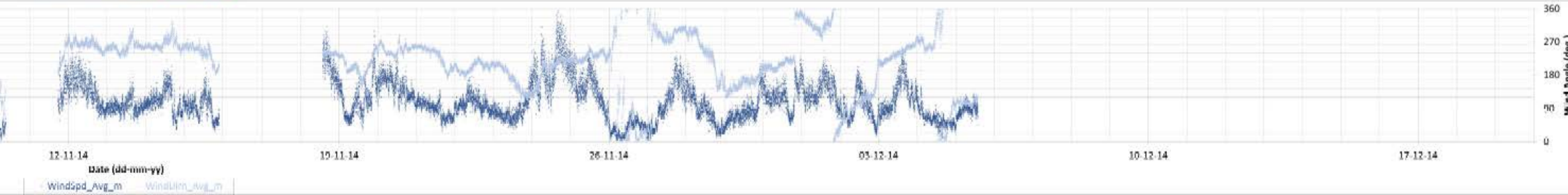


Fall 2014 Adelaide B

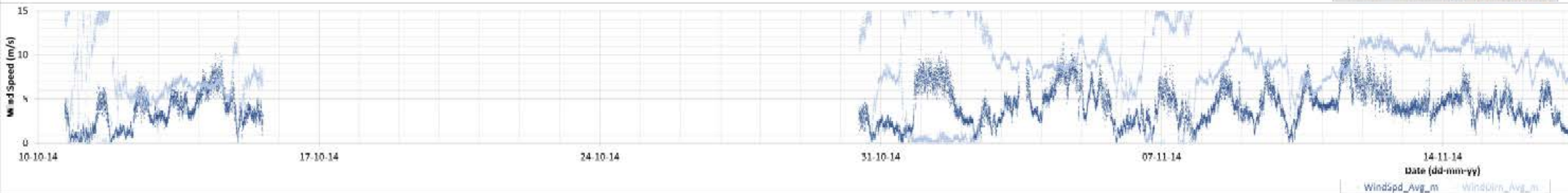
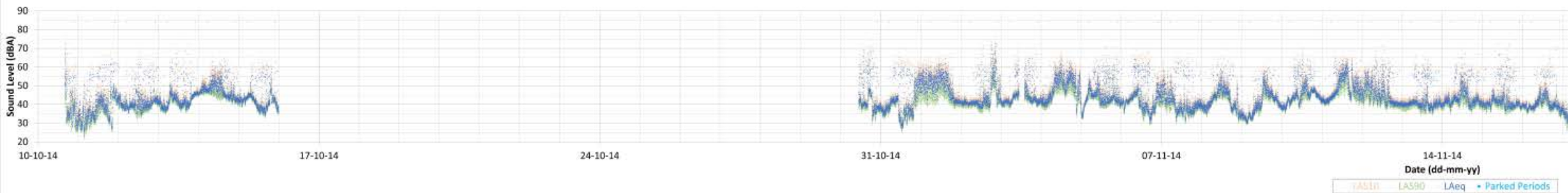




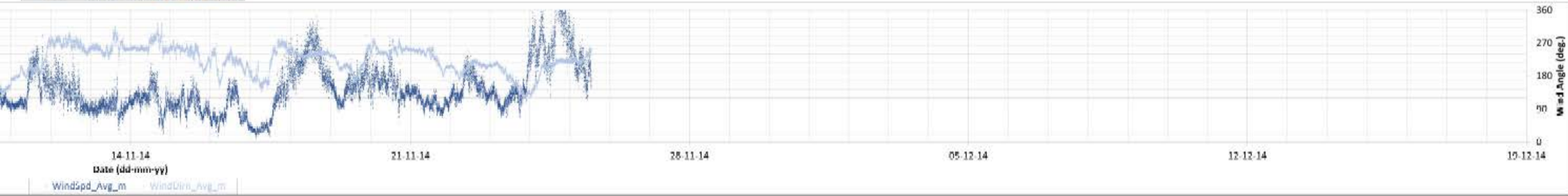
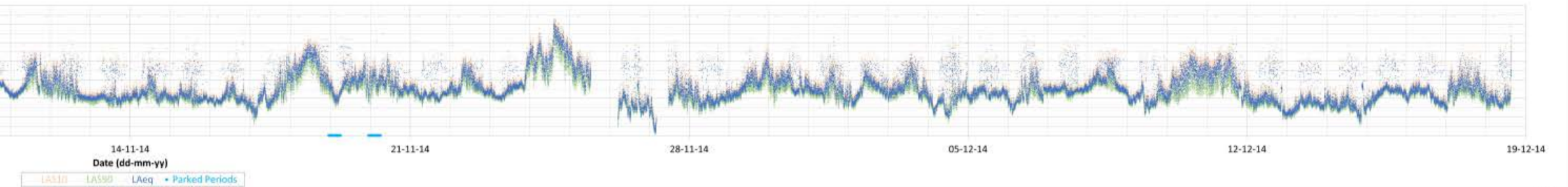
# Fall 2014 Adelaide B







# Fall 2014 Adelaide C



# SIMULTANEOUS MEASUREMENTS OF AMBIENT SOUND LEVELS AND WIND SPEEDS

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## ABSTRACT

Continuous measurements of ambient sound level and wind speed were made for about 17 months at a wind farm site prior to construction, to obtain baseline sound levels. The site is in the middle of an agricultural field on a meteorological tower. Wind was measured at 3, 10, 30, 40, and 50 m above the ground. As expected the diurnal pattern showed high values of wind shear at night, compared to daytime in summer, but little day/night variation in winter. Relating sound level to wind speed indicated that the Ontario MOE approach of increasing the noise criteria with wind speed is appropriate and that above 5m/sec., ambient sound levels exceeded the MOE wind turbine sound limits due to wind action, in the absence of any wind turbines.

## SOMMAIRE

Des mesures continues du niveau de sons ambiants et de la vitesse du vent ont été faites au cours de 17 mois à un site de ferme d'aérogénérateurs avant la construction, afin d'obtenir les niveaux de sons de base. Le site est au milieu d'un champ agricole sur un tour météorologique. Le vent a été mesuré à 3, 10, 30, 40 et 50 mètres au dessus de la terre. Comme prévu, la tendance quotidienne a montré des hautes valeurs de décalage de vent la nuit, par rapport aux journées pendant l'été, mais peu de variation jour/nuit pendant l'hiver. Comparant le niveau de son avec la vitesse du vent indique que la méthode du Ministre de l'Environnement de l'Ontario d'augmenter le principe de bruit avec la vitesse du vent est approprié et qu'après plus de 5 mètres par seconde, les niveaux de sons ambiants ont excédés les limites éolienne du Ministre de l'Environnement à cause du mouvement du vent dans l'absence d'aucune éolienne.

## 1. INTRODUCTION

Continuous measurements of sound level and wind speeds at different heights have been made between May 2007 and October 2008 to provide baseline reference information on ambient sound levels as a function of wind speed on a major wind power project site (wind farm). The current analysis presents information on measured wind and ambient sound data up until the end of October 2008, after which the operation of the wind turbines began. The measurement program is still on-going.

The measurement results were used to examine the validity of the Ontario Ministry of the Environment (MOE) sound limit criteria for wind turbines. These sound limits are based on ambient sound levels that increase with local wind speed at the sensitive receptor locations. The validity of this approach has been questioned due to the possible diurnal reduction in wind speed close to the ground that would result in reduced ambient sound levels, while wind speeds at wind turbine hub height show lesser or no reduction.

## 2. THE MEASUREMENTS

Sound level was measured at a height of about 3 metres (m) above ground with an integrating sound level meter sampling continuously and set to provide hourly summaries of  $L_{eq}$  and cumulative probability ( $L_n$ ) values. Wind speed was mea-

sured at heights of 3 m, 10 m, 30 m, 40 m and 50 m above ground.

## 3. THE SITE

The area is quite flat and used primarily for agriculture. There is very little road traffic on the nearby roads. The site is in the middle of an agricultural field. Thus, other than grass/weeds at the base of the measurement mast (a round-pipe) and crops during the growing season, there is very little major foliage in the immediate vicinity. There are hedgerows and trees along the border of fields and property lines and in the vicinity of a farm and other sparsely located houses. Figure 1 shows the sound measurement set up and the anemometers at 3 m.

## 4. WIND PROFILES

### 4.1 Wind Speeds

The MOE sound level limits for wind turbines are referenced to the wind speed at 10 m height. The IEC standard for measurement and rating of wind turbine sound emission also requires reporting the data referenced to wind speed at 10 m height. This appears to be an arbitrary height to introduce standardization because the average driving effect is wind speed at wind turbine hub height which varies with turbine type and installation. Figure 2 shows the measured hourly



Figure 1. Measurement Set-up.

wind speeds, at 10 m height, on a monthly basis. Figure 3 shows a histogram of wind speed for the whole time period measured.

Generally, wind speed was higher during the day (roughly 0700 to 1800 hours). However, this effect varied by month/season. The effect was greatest during summer (June to September) and least during winter (December and January) when wind speeds were more constant around the clock. Typically, the wind speeds were higher during winter, especially at night.

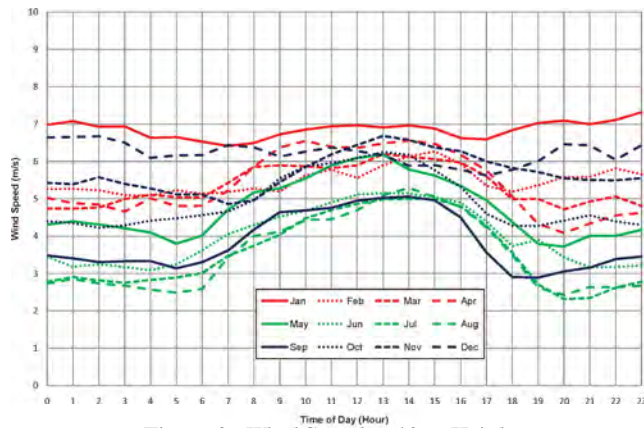


Figure 2. Wind Speed at 10 m Height.

## 4.2 Wind Shear

Normally, the wind speed increases with height. The equation that is commonly used to relate wind speeds at different heights is:

$$\frac{V_u}{V_l} = \left( \frac{H_u}{H_l} \right)^\alpha \quad 1$$

where  $V_u$  is the wind speed at the upper height  $H_u$ ,  $V_l$  is the wind speed at lower height  $H_l$  and  $\alpha$  is the wind shear exponent (sometimes referred to simply as the wind shear).

This results in a logarithmic wind profile of speed vs.

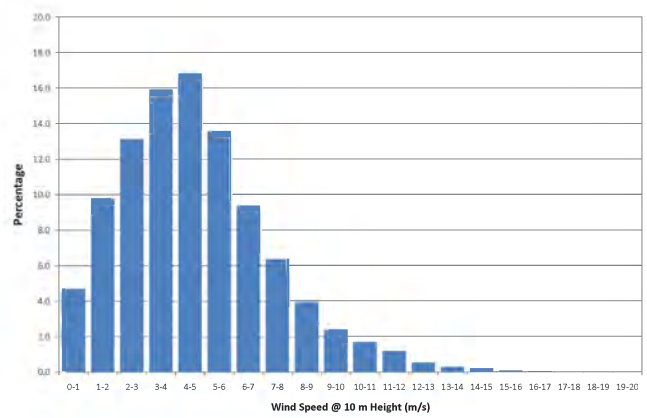


Figure 3. Wind Speed Profile.

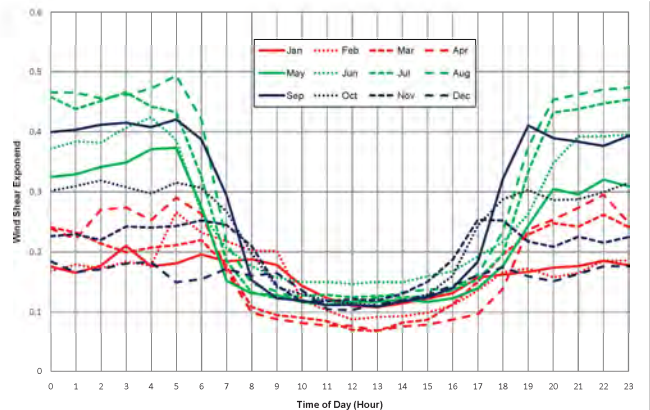


Figure 4. Wind Shear.

height. The values of  $\alpha$  were calculated using the wind speed at all heights by an exponential curve fit, for each hour, on a monthly basis. Figure 4 shows the results. The pattern is believed to be typical of an open flat area in Ontario, although the specific absolute values of  $\alpha$  will be site dependent. As might be inferred from Figure 4, the day values of  $\alpha$  were low ( $0.1 \pm$ ) all year round. For winter,  $\alpha$  remained low around the clock. During summer (June to September), the nighttime values rose to 0.4 to 0.5.

## 5. WIND SPEED AND SOUND LEVEL

### 5.1 Time History

The relationship between ambient sound level and wind speed can be examined for wind at any height. The patterns remain the same. The wind speed values are a function of height. For direct comparison to the MOE guidelines, the wind speed at 10 m height was used. Figure 5 shows a sample segment of time history, over two weeks, of hourly sound levels in terms of  $L_{eq}$  and  $L_{90}$  and hourly wind speed averages at 10 m and 3 m heights. The wind speeds at 3 m, which are more representative of what people and objects at ground level would experience, tracks that at 10 m but at lower levels.

The  $L_{90}$  values track the  $L_{eq}$  values very well. This leads to the conclusion that it is the wind that is the prime determinant of the measured sound levels, in this quiet, rural



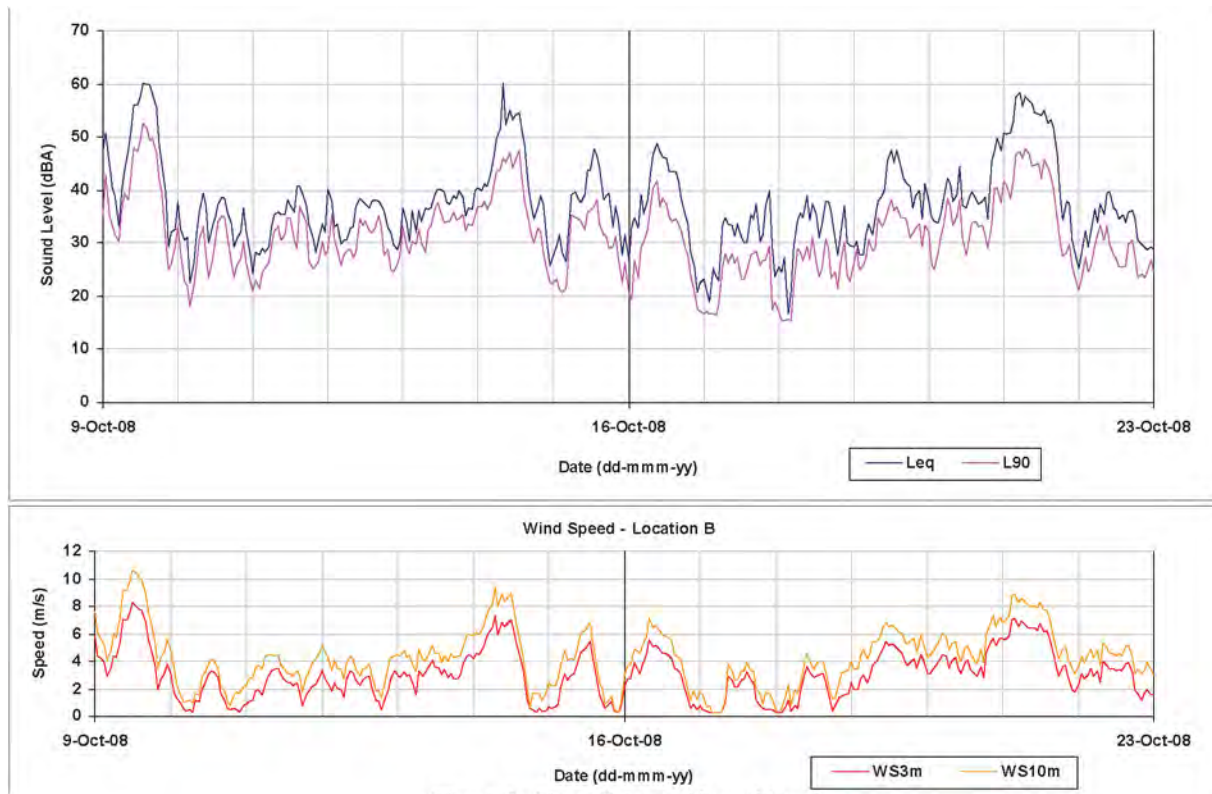


Figure 5. Time History of Sound Levels.

environment. In a typical urban environment, with various activities, including traffic on other than expressways, it is common to have elevated values of  $L_{eq}$  (peaks) with more steady values of  $L_{90}$ . This is because many high sound level (noisy) events (e.g., vehicle pass-bys) that elevate  $L_{eq}$  do not last long enough (i.e., at least 90% of the time) to affect  $L_{90}$ . Subjectively, as illustrated in Figure 5, the sound level values and wind speeds also tracked very well. The area is very quiet, with minimum sound levels as low as 20 dBA, when wind speeds were negligible.

## 5.2 Ambient or Artefact

One of the concerns with sound measurements of this type is

to be sure that the observed sound levels are, in fact, true ambient and not artefacts resulting from air flow over the microphone windscreen or the microphone itself. The sound level meter manufacturers do not provide data about the minimum sound levels that can be measured with their windscreens in the presence of air movement. It is known that the bigger the windscreen, the lower the potential for spurious readings. Hessler (2008) studied the sound levels generated by different air speeds flowing over a variety of windscreens in a specially built “quiet” wind tunnel [1]. Figure 6 shows the data and curve fit from the Hessler study for a windscreen similar to that was used in the current study. The comparison of the current sound level data to this curve showed that the measured sound levels are ambient and not artefacts.

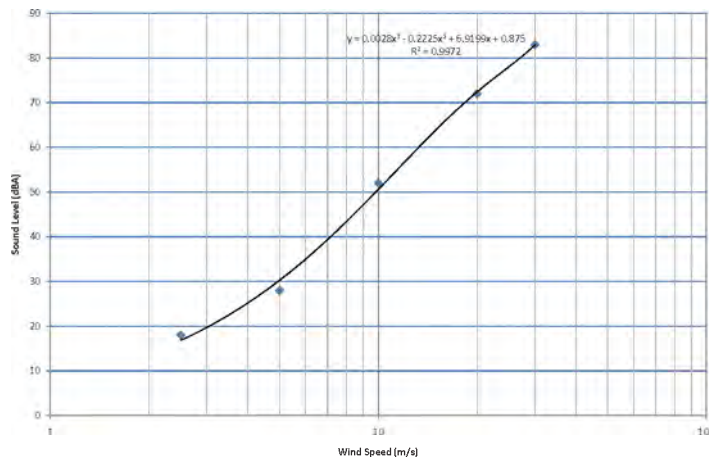


Figure 6. Wind Screen Noise Levels.

## 5.3 Results

Figure 7 shows a plot of all hourly sound data points (some 13,000 plus data points) as a function of the corresponding wind speed, at 3 m, the same height as the microphone. Particularly above 5 m/sec there is a definite trend pattern of increasing sound level with wind speed. At lower wind speeds there is more scatter and variation because wind generated sound levels are lower and other sources would be expected to be more dominant. Also shown on Figure 7 is the curve of the Hessler, laboratory-determined sound levels attributable to the air flow over the windscreen. In general, the measured data is well above this curve. Some measured sound levels were less than 10 dBA above the “windscreen line”. Thus, to be rigorous, all data points were corrected for the sound

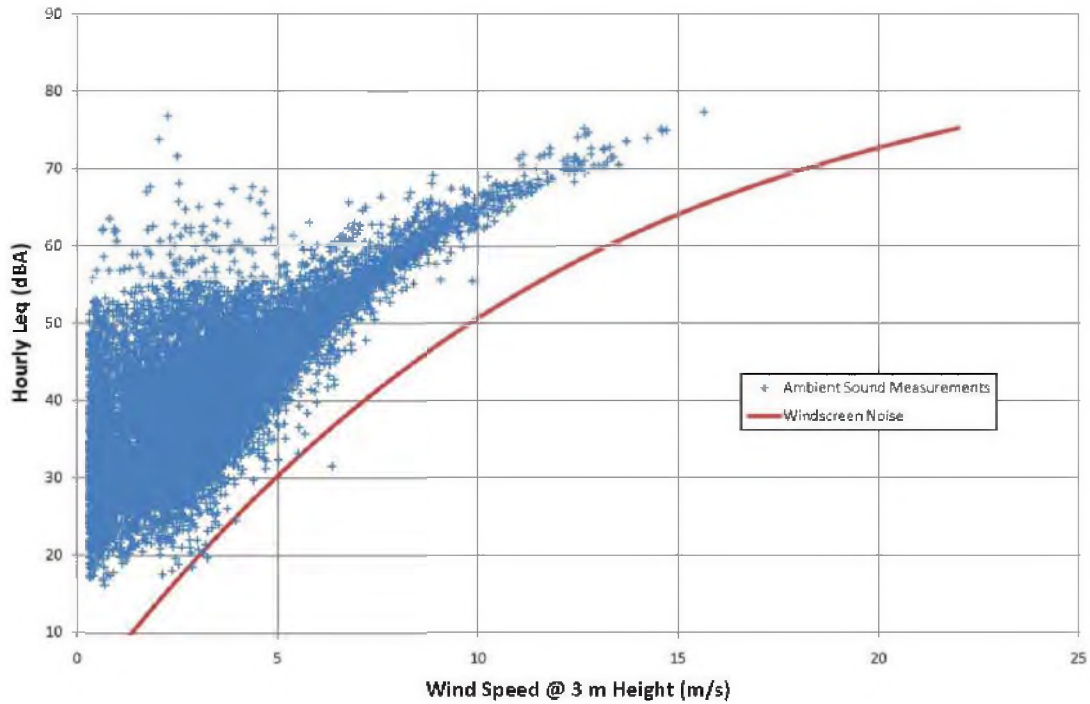


Figure 7. Hourly Noise Levels at 3 m.

level attributable to the windscreen.

Figure 8 shows all of the hourly sound level data points plotted against the wind speed at 10 m height, with a polynomial curve fit to the data. Figure 9 shows this data curve as well as the Ontario MOE wind turbine sound limit curve. (Recall the MOE criteria are referenced to wind speed at 10 m height.) Above 5 m/sec wind speed the ambient sound levels exceed the MOE criteria. Below 5 m/sec, the ambient sound levels were lower than the MOE criterion, which remains constant at 40 dBA at and below 6 m/sec wind speed.

This approach is consistent with the MOE stationary source exclusion sound limit of 40 dBA in quiet rural areas, where a source is not required to attenuate below 40 dBA, regardless of the ambient sound level.

#### 5.4 Analysis Intervals

Because the MOE noise guidelines are based on hourly time periods, the ambient sound levels were measured as one hour  $L_{eq}$  and related to hourly averages of wind speed. In addition

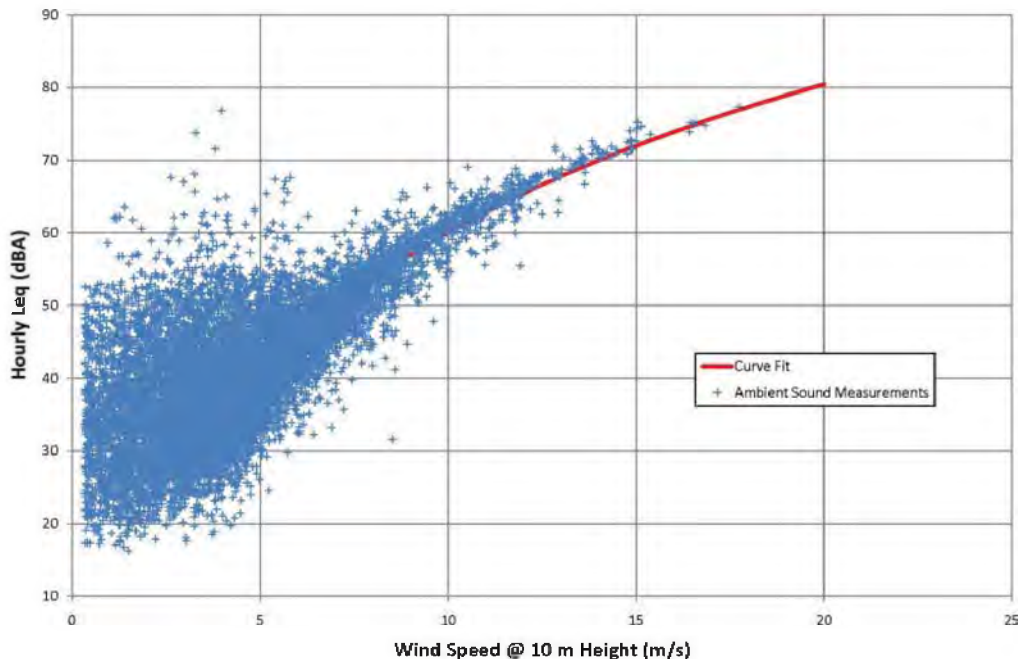


Figure 8. Hourly Noise Levels and Wind Speed at 10 m.

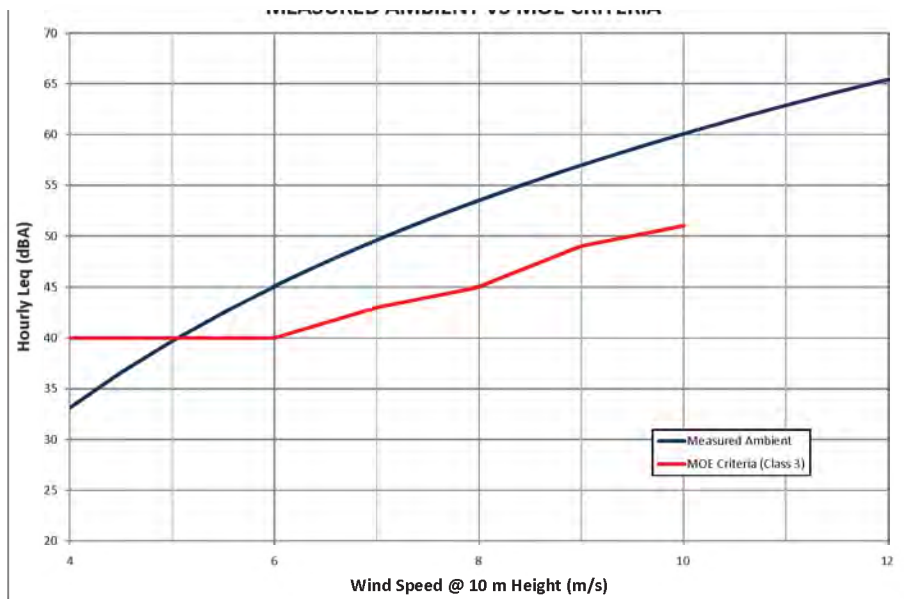


Figure 9. Hourly Noise Levels and MOE Noise Criteria.

to hourly  $L_{eq}$ , various hourly  $L_n$  sound level parameters were also recorded. The wind speed data was actually obtained as 10 minute averages; that is, as six samples per hour that were averaged together. The variability of the data within the hourly periods was examined. It may be surmised that during gusty conditions, the wind speed may vary significantly over short periods (within the hour). Correspondingly, the ambient sound levels may fluctuate significantly over the same time.

Figure 10 shows a plot of  $L_5$  vs  $L_{eq}$ . A linear relationship fits well; basically  $L_5$  is  $L_{eq} + 3.8$  dBA, with very little scatter. For any hour, the difference between  $L_5$  and  $L_{99}$  is the range

of sound levels that existed for most (94%) of the time. Figure 11 plots the range of sound level vs. hourly  $L_{eq}$ . For any given hour there was a wide range of instantaneous sound levels contributing to the hourly  $L_{eq}$  value.

Figure 12 plots the Standard Error (SE) and the Standard Deviation (SD) of the 10 minute wind speed values, binned to integer values for each hour. The SE is close to zero and the SD is small. That is, the variation in wind speed in any hour was small. However, the corresponding range of sound levels is relatively large (about 15 dBA). This apparent discrepancy may be due to significant wind speed variations that are averaged out using the 10 minute averaging periods.

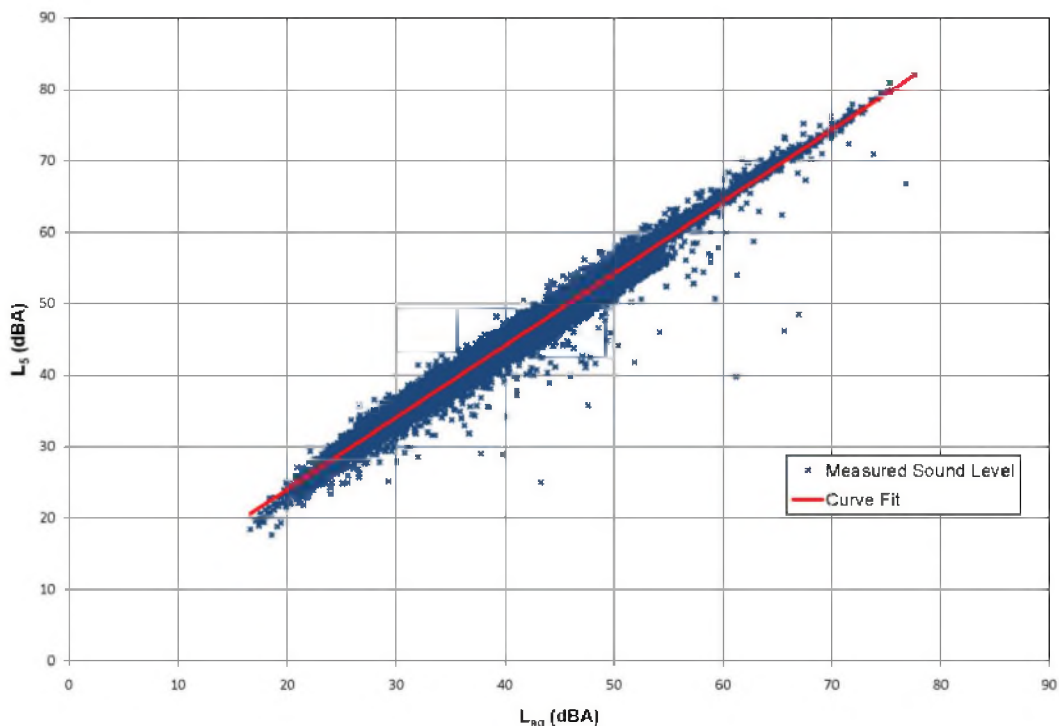


Figure 10. Hourly Noise Levels  $L_5$  and  $L_{eq}$

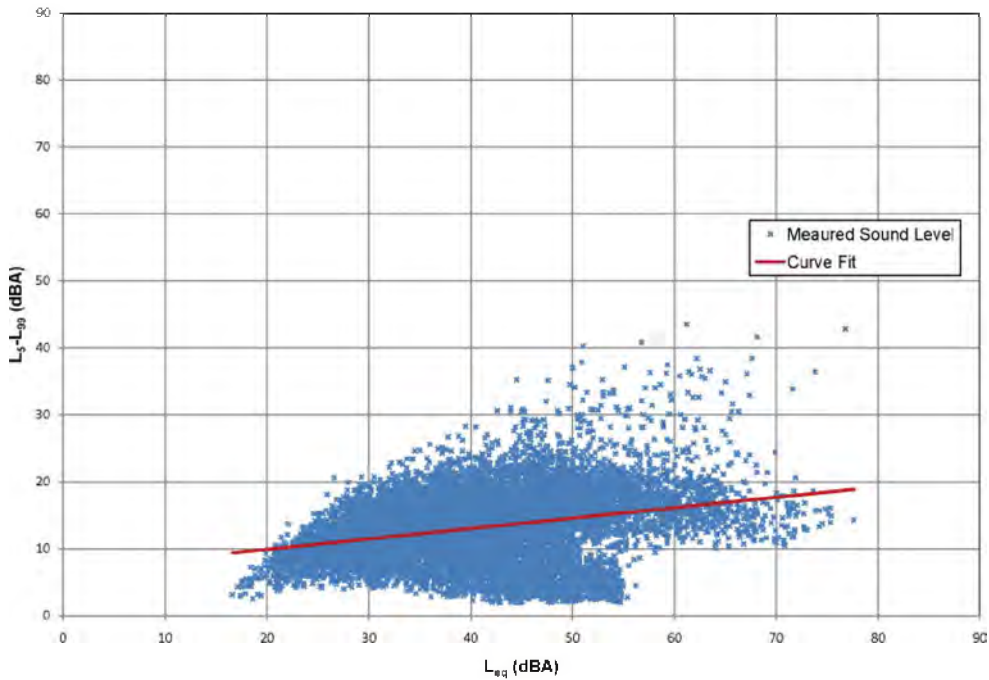


Figure 11. Hourly Noise Levels Range and  $L_{EQ}$

## 6. CONCLUSIONS

1. Care must be taken in the selection of microphone wind-screens, to measure low ambient sound levels in the presence of, or due to wind. There is the potential for air flow over the microphone/ windscreen assembly (or in fact over or past other objects close to the microphone) to produce spurious sound level readings. Of course, the resulting sound levels due to turbulent flow over objects such as residential buildings or trees, etc., that are part of a receptor's environment are legitimately part of the ambient environment.
2. As expected, wind speeds were generally higher in winter than in summer, with spring and fall being intermediate.
3. The expected diurnal variation in wind shear exponent was observed. This effect was strongest in summer, with wind shear exponent variation of 0.4 or 0.5 to 0.1, between night and day, and negligible in winter, with very little diurnal variation. The other seasons exhibited intermediate effects.
4. Above 5 m/sec wind speed, the ambient sound levels attributable to wind at a flat, open, agricultural site, were above the Ontario MOE sound limits for wind turbines. At and above 6 m/sec, the increment was at least 5 dBA, increasing with wind speed.
5. At and below 5 m/sec wind speed, the ambient sound levels were below 40 dBA, the applicable MOE criterion limit. The 40 dBA criterion is consistent with the "exclusion limit" used by the MOE noise guidelines for other types of stationary sources in quiet areas where the

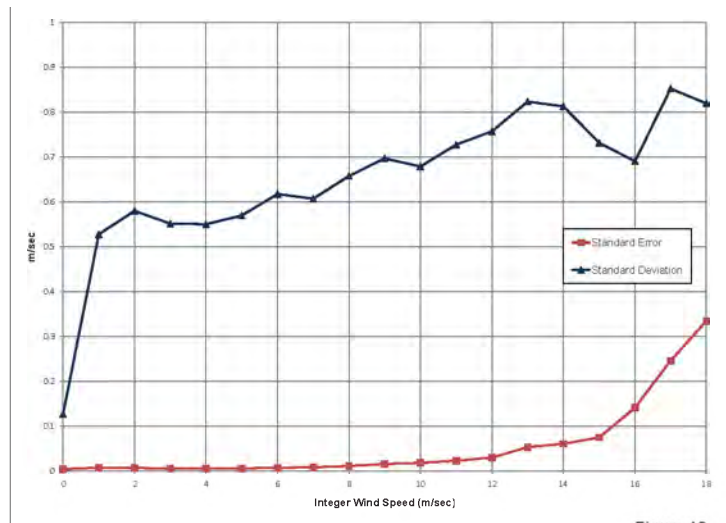


Figure 12. Hourly Noise Levels Statistic.



ambient can be expected to be lower.

6. It is concluded that, at least for a flat, quiet, rural, agricultural environment in Ontario, the MOE sound level limits for wind turbines are appropriate and are consistent with the notion that the sound limits should increase with wind speed above 6 m/sec, due to increasing ambient sound.
7. For measuring ambient sound in a quiet area, hourly averages of wind and sound (energy) data are acceptable. During gusty wind conditions it would be expected that ambient sound levels would follow in step with changes in wind speed and be appropriately reflected in the averages. However, large commercial wind turbines would not be expected to respond to rapid wind speed changes; in effect, averaging them out. Thus, significant fluctuations in sound level may be observed due to the ambient. To do a valid sound audit of a wind farm, and properly account for ambient sound levels, it appears that rela-

tively short sampling periods for both sound level and wind speed are needed; possibly one minute or less, so that measured sound levels and wind speeds can be correlated. Further research is required to determine an appropriate data sampling rate.

## ACKNOWLEDGEMENTS

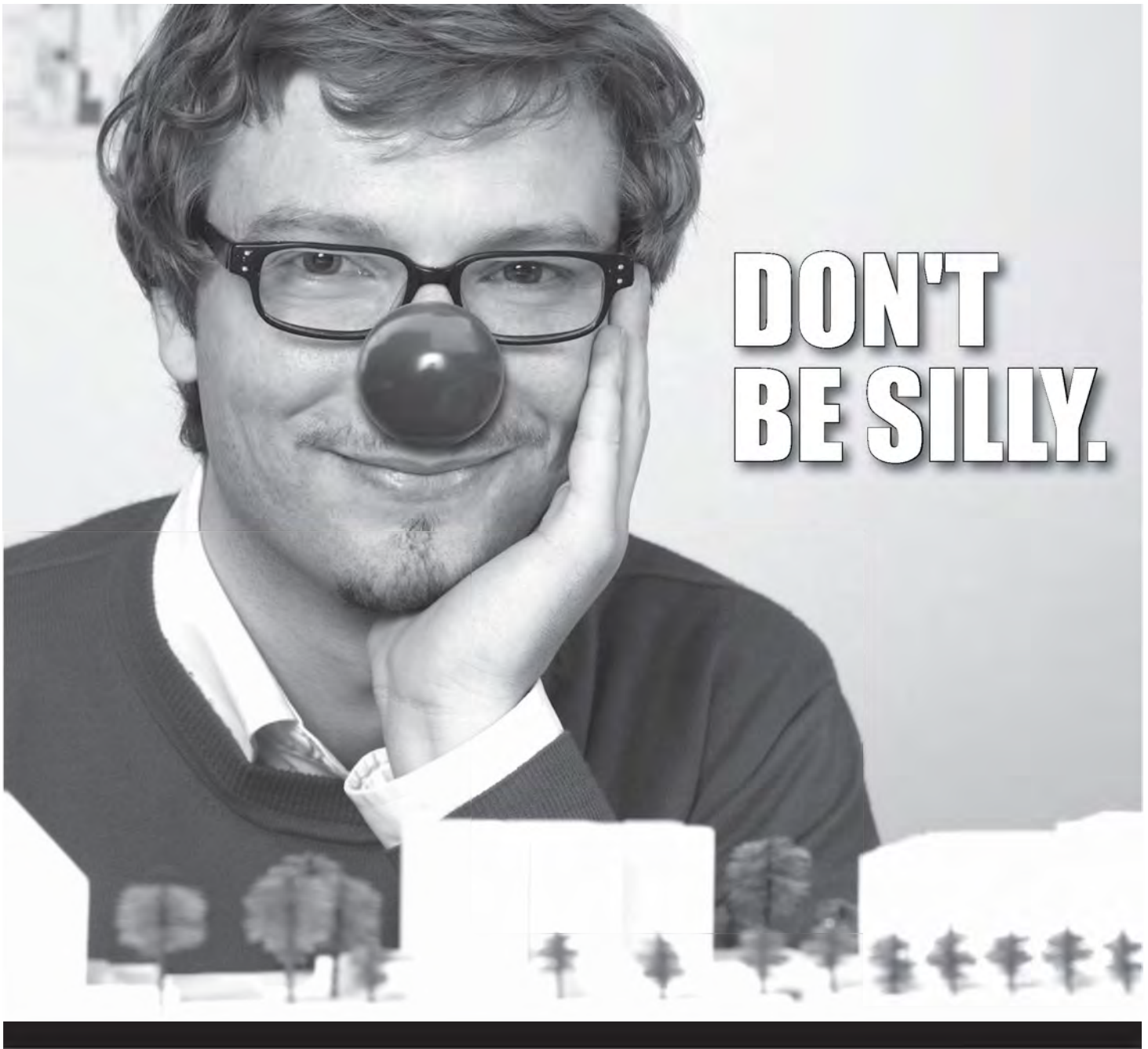
We appreciate the cooperation of Mr. Bob Simpson and Enbridge Ontario Wind Power LP in allowing this data to be made public.

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1. Hessler G. F, Hessler, D. M., Brandstatt, P and Bay, Karlheinz, "Experimental Study to Determine Wind-Induced Noise and Windscreen Attenuation Effects on Microphone Response for Environmental Wind Turbine and Other Applications", Noise Control Engineering Journal, 2008, Vol. 56 No 4, pp 300-309.

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## APPENDIX J

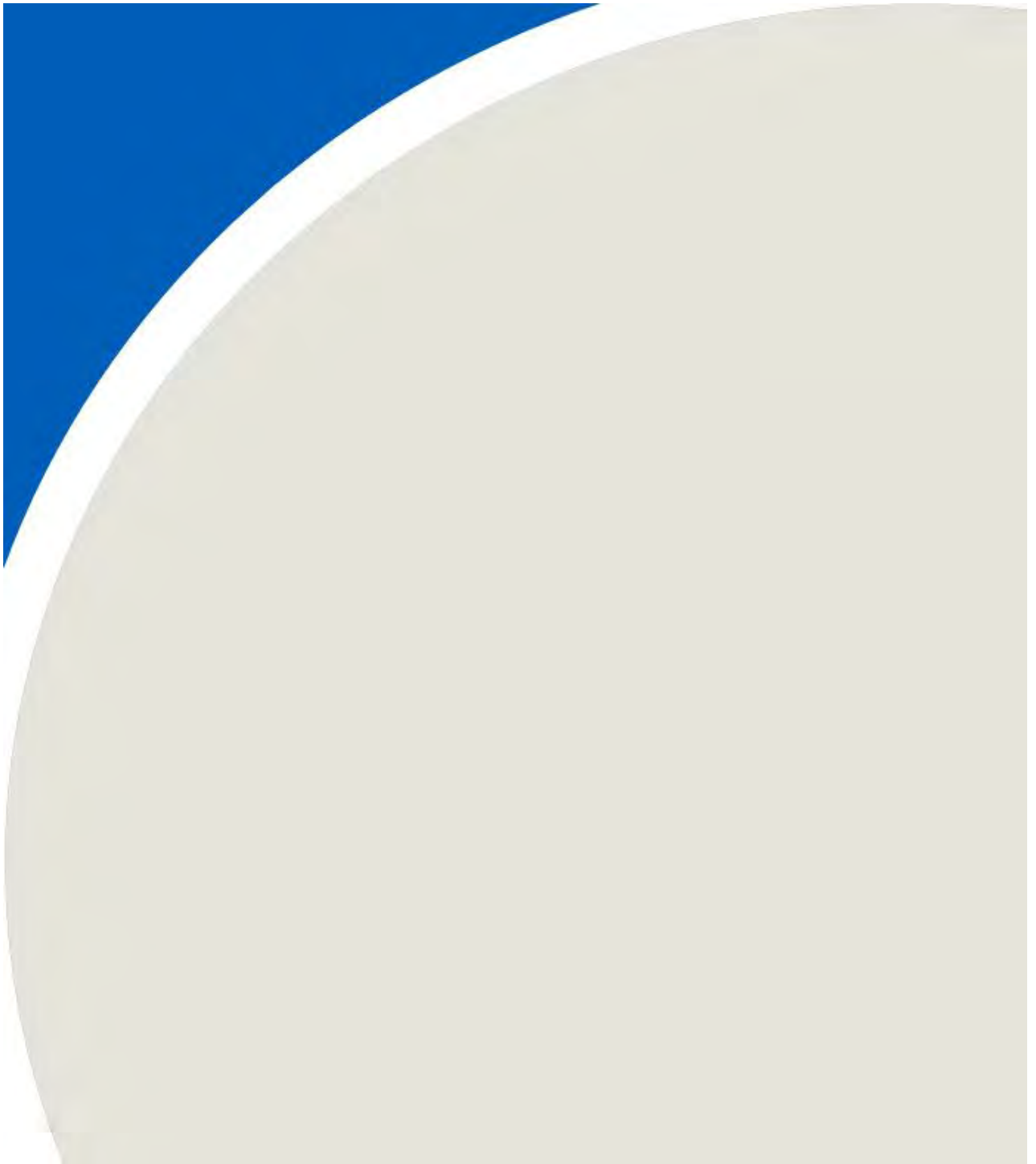


Table J1: Reportable Tones for the Fall 2014 Adelaide Campaign

Measurement Campaign	Monitoring Station	10m Wind Speed (m/s)	Frequency of Tone (Hz)	Tonal Audibility (dB)
Fall 2014	A	4	-	-
		5	-	-
		6	-	-
		7	39	-2.7
	B	4	120	-2.9
		5	66	-0.5
		6	-	-
		7	-	-
	C	4	-	-
		5	-	-
		6	-	-
		7	-	-
<b>Notes:</b>				
<ul style="list-style-type: none"> <li>• Only tonal audibility values greater than -3.0 dB are reportable in accordance with CAN-CSA-61400-11: 2007, which is an adoption of the IEC-61400-11:2006 standard also known as IEC Ed. 2.1.</li> <li>• Tonal audibility values less than 4 dB require no adjustment to the turbine only sound levels, as per Annex C of ISO 1996-2:2007.</li> </ul>				