aercoustics
Aercoustics Engineering Ltd.
1004 Middlegate Road, Suite 1100
Mississauga, ON L4Y 1M4
Tel: 416-249-3361
Fax 416-249-3613
aercoustics.com

REPORT ID**: 14215.01.T026.RP6**

Adelaide Wind Power Project – Turbine T026 (AD102) IEC 61400-11 Edition 3.0 Measurement Report

Prepared for:

Suncor Adelaide Wind General Partnership Inc.
2489 North Sheridan way
Mississauga, ON L5K 1A8

Prepared by:

A. Munro
Allan Munro, B.A.Sc.

P. Ashtiani
Payam Ashtiani, B.A.Sc., P.Eng.

13 July 2018 – Revision #6

Revision History

Revision Number	Description	Date
1	Issued Edition 2.1 test report [May Data]	17/09/2015
2	Minor changes and edits to the body of the report	28/10/2015
3	Issued Edition 2.1 test report [May and November Data]	07/12/2015
4	Issued Edition 3.0 test report [May Data]	18/09/2017
5	Updates to Section 4.1, addition of Appendix F – Note on anemometer position and Appendix G – Calibration Certificates	15/06/2018
6	Updates to section 3.2.1, addition of Table 9, Table B.01 and E-Audit Checklist	13/07/2018

This report in its entirety, including appendices contains 104 pages.

Statement Qualifications and Limitations

This report was prepared by Aercoustics Engineering Limited in accordance with International Standard IEC 61400-11 (Edition 3.0, released 2012-11), "Wind turbine generator systems – Part 11: Acoustic noise measurement techniques". This report is specific only to the Wind Turbine identified in this report.

Aercoustics Engineering Limited shall not be responsible for any events or circumstances that may have occurred since the date on which the Wind Turbine was tested and/or this report was prepared, or for any inaccuracies contained in information that was provided to Aercoustics Engineering Limited. Further, Aercoustics Engineering Limited agrees that this report represents test data analysed as per the above described standard for the specific Wind Turbine described in this report, but Aercoustics Engineering Limited makes no other representations with respect to this report or any part thereof.

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This Statement of Qualifications and Limitations is attached to and forms part of this report.

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1 Introduction

Aercoustics Engineering Limited (Aercoustics) was retained by Suncor Adelaide Wind LP to conduct an acoustic measurement of turbine T26 at the Suncor Adelaide Wind Power Project ("Adelaide"). The purpose of the measurement was to provide verification of the maximum noise emission of the turbine. The measurement was carried out in accordance with International Standard IEC 61400-11 (Edition 3.0, released 2012-11), "Wind turbine generator systems – Part 11: Acoustic noise measurement techniques". This report is specific only to Turbine T26.

2 Wind Turbine Information

2.1 Wind turbine equipment specific information

Wind turbine specific equipment information for turbine T26 was provided by Suncor Adelaide and is summarized in Tables 1 – 5.

Table 1 - Wind Turbine Details

Wind Turbine Details	
Manufacturer	Siemens
Model Number	SWT2.3-113
Turbine ID	2308430

Table 2 - Operating Details

Operating Details	
Vertical or Horizontal axis wind turbine	Horizontal
Upwind or downwind rotor	Upwind Rotor
Hub height	99.5 m
Horizontal distance from rotor centre to tower axis	5.5 m
Diameter of rotor	113 m
Tower type (lattice or tube)	Tubular
Passive stall, active stall, or pitch controlled turbine	Pitch controlled turbine
Constant or variable speed	Variable speed
Power curve	Rev 1
Rotational speed at each integer standardised wind speed	13.0
Rated power output	2221 kW
Control software version	121.3.0.1

Table 3 - Rotor Details

Rotor Details	
Rotor control devices	Pitch control
Presence of vortex generators, stall strips, serrated trailing edges	Vortex generators and dino tails
Blade type	B55
Serial number	Blade A: 550308801 Blade B: 550309501 Blade C: 550306801
Number of blades	3

Table 4 - Gearbox Details

Gearbox Details	
Manufacturer	n/a a direct drive turbine
Model number	n/a a direct drive turbine
Serial number	n/a a direct drive turbine

Table 5 - Generator Details

Generator Details	
Manufacturer	Siemens
Model number	DD22_02
Serial number	5980132

2.2 Wind Turbine Location

Turbine T26 is located in the municipality of Adelaide Metcalfe, Ontario approximately 500m North of Cuddy Drive, and 400m East of Sexton Road. The area surrounding T26 is flat and consists primarily of farmland.

A general layout of the area in which the turbine is located is provided in the site plan (Figure A.01).

3 Measurement Details

3.1 Measurement Equipment

3.1.1 Acoustic Measurement Equipment

A summary of acoustic equipment utilized by Aercoustics for the measurement of turbine T26 is summarized in Table 6.

Table 6 - Acoustic Measurement Equipment

Equipment	Manufacturer Name & Model	Serial Number
Acoustic Data acquisition system	LMS SCADA Mobile	53103922
Microphone	B&K 4189	2625197
Pre-amplifier	B&K 2671	2614901
Acoustic calibrator	B&K 4231	2513182

Calibration of the measurement setup was carried out before and after Aercoustics set of measurements.

3.1.2 Meteorological Equipment

Wind speed for Turbine ON was derived from the power curve (as per procedures outlined in IEC 61400-11). Wind direction for turbine ON measurements was utilized from the nacelle anemometer located at hub height (100m high) from turbine T26. Data for background measurements was obtained from a 10m high anemometer, which was placed as per guidelines outlined in IEC-61400-11.

The meteorological equipment is summarized in Table 7

Table 7 – Meteorological Measurement Equipment

Equipment	Manufacturer Name & Model	Serial Number
Anemometer	VAISALA WXT520	G442002
Serial to Analog Converter	NOKEVAL 7470	A159784

3.2 Measurement Setup

3.2.1 Microphone Placement

The measurement microphone was setup 156m from the base of the turbine in 'Position 1', (i.e. downwind of the turbine, as per IEC 61400-11) at an elevation of 0m relative to the base of T26. The slant distance (R_1) from microphone location to rotor centre includes the distance from rotor center (hub) to tower axis (R_1 = 190.0m). The microphone was placed in the centre of a circular, acoustically reflective board.

Data was only collected when the wind direction was within 15 degrees of the downwind microphone position. The microphone position relative to downwind of the turbine was

monitoring via the yaw angle output provided from the turbine system (discussed further in Section 3.5). During placement of the microphone the turbine was parked and the reference yaw angle for that measurement logged.

When measurements of T26 were taken, the surrounding land was bare land farm. There were no nearby reflecting surfaces (houses, barns etc.); as such the influence from reflecting surfaces was considered to be negligible.

Photos of the measurement setup are provided in Figure A.02, Appendix A.

3.2.2 Double Windscreen Setup

A double windscreen setup was not utilized.

3.3 Measurement Schedule

Table 8 provides a summary of the test date and times. Data was logged in 10 second intervals for post-processing (as per the measurement standard).

Table 8 - Measurement Schedule Summary

Date	Test Type	Start Time	Finish time
May 13, 2015	Turbine ON	10:15am	11:15am
	Background	11:20am	12:20am
	Turbine ON	12:25am	1:18pm
	Background	1:23pm	1:38pm
	Turbine ON	2:01pm	3:01pm
	Background	3:52pm	4:06pm
	Turbine ON	4:08pm	4:49pm

3.4 Meteorological Conditions

Detailed meteorological data relevant to the measurement is provided in Appendix E.

As previously mentioned, wind speed for Turbine ON was derived from T26's power curve (as per the standard), while wind direction was provided by T26's nacelle anemometer (located at hub height). Background data was obtained from an anemometer located 10m above ground level near T26.

Temperature and pressure readings during the measurement period were provided by the 10m anemometer, located near turbine T26 for the duration of Aercoustics measurements.

3.5 Turbine operational information

Output data from the turbine (Power, yaw, RPM, pitch angle, and nacelle wind speed) were obtained as analog output signals that were simultaneously acquired with the acoustic and anemometer measurement data using Aercoustics data acquisition system.

4 Measurement Results

4.1 Deviations from IEC-61400-11 Edition 3.0

Originally, the test contract required measurements in accordance to edition 2.1 of the standard (61400-11) which requires the anemometer to be placed upwind of the turbine. This test report is a reprocessing of the originally acquired data and as such, during the test, the anemometer position was erected in an upwind (Ed 2.1), rather than crosswind (Ed 3.0) position relative to the test turbine.

The acoustic signal to noise ratio is >13.3 dB, and as such, the effect of this deviation on the resulting sound power levels are expected to be negligible. This method is in accordance with the recommendations made by the convenor of the IEC 61400-11 working group and is detailed in Note N6.023.17 and is provided in Appendix F.

4.2 Special Notes & Considerations

T27 was turned off for the duration of testing at T26.

4.3 Analysis Details

The following section outlines analysis of the measurement data acquired for T26. The data presented is exclusive of transient events such as vehicle traffic, wildlife, air traffic etc. The site has been assessed to have a roughness length of 0.05m, representative of farmland with some vegetation.

4.3.1 Double Windscreen Adjustment

As previously mentioned, no double wind screen was used, as such the measurement data did not require adjustment.

4.3.2 Wind Speed Correction

The wind speed for each measurement data point for Turbine ON was derived through the power curve (as per Section 8.2.1.1 of IEC-61400-11). For data points during Turbine ON that were outside the allowed range of the power curve, the wind speed was derived from the nacelle anemometer wind speed (as specified in Section 8.2.1.2 of IEC-61400-11).

Background wind speed was derived utilizing data acquired with the 10m anemometer and normalizing the wind speed (as per Section 8.2.2 of IEC-61400-11).

Table 9 - Calculated nacelle anemometer (k_nac) and 10m (k_Z) wind speed k-factor

k_nac	k_Z
0.9446	1.2413

4.4 Type B uncertainties

Type B uncertainties were obtained through interpretation of information provided in Annex C of IEC-61400-11, and instrument uncertainties obtained from the calibration certificate. A summary of Type B uncertainties is provided in Table 10, while detailed information (including data in 1/3 octave) is provided in Appendix C.

Table 10 - Summary of Type B uncertainties

Component	Typical (dB)	Used (dB)
Calibration	0.2	0.2
Board	0.3	0.3
Distance & direction	0.1	0.1
Air absorption	0.0	0.0
Weather conditions	0.5	0.5
Wind speed measured	0.7	0.7
Wind speed derived	0.2	0.2
Wind speed from power curve	0.2	0.2

4.5 Sound Pressure Level Measurements

Sound pressure level measurements are summarized in Table 11. Detailed 1/3 Octave band spectrum data, respective uncertainties, and analysis plots are provided in Appendix C. A copy of the measurement data used for analysis is provided in Appendix E and includes meteorological and turbine operational data.

Table 11 - Summary of Sound Pressure Level Measurements

Wind Speed (m/s)	Turbine ON		Background		Turbine ON, Background adjusted
	L_{eq}, (dBA)	# of data pts	L_{eq}, (dBA)	# of data pts	L_{eq}, (dBA)
7	49.8	91	36.5	38	49.6
7.5	51.7	134	35.9	45	51.6
8	53.1	168	36.9	69	52.9
8.5	53.4	106	36.8	78	53.3
9	53.3	111	36.2	57	53.2
9.5	53.4	64	38.7	53	53.3
10	53.3	32	36.9	41	53.2
10.5	53.2	32	37.9	31	53.0
11	53.1	25	37.0	32	52.9
11.5	52.9	10	37.3	15	53.0

4.6 Sound Power Level of Turbine

The calculated sound power level of the turbine T26 (as per IEC 61400-11) is summarized in Table 12 (hub height) and Table 13 (10m height). Detailed 1/3 Octave band spectrum data and respective uncertainties are provided in Appendix C.

Table 12 - $L_{WA,\,K}$ at each integer wind speed

Wind Speed (m/s)	Apparent L_{WA}, (dBA)	Uncertainty (dB)
7	100.2	0.7
7.5	102.2	0.7
8	103.5	0.7
8.5	103.9	0.7
9	103.8	0.7
9.5	103.8	0.7
10	103.8	0.7
10.5	103.6	0.7
11	103.5	0.7
11.5	103.6	0.8

Table 13 - $L_{WA\ 10m,\,K}$ at each integer wind speed

Wind Speed (m/s)	Apparent L_{WA}, (dBA)	Uncertainty (dB)
5	101.1	0.7
6	103.7	0.7
7	103.7	0.7
8	103.5	0.7

4.7 Tonality Analysis

The tonality analysis for Turbine T26 is summarized in Table 14, while plots of narrow band spectra at each wind speed are provided in Appendix D. The ΔL_{tn} and ΔL_a values reported represent the energy average of all data points with an identified tone that falls within the same frequency origin (as specified in Section 9.5.8 in IEC-61400-11).

The narrow band spectra provided in the plots represents an energy average of all data points in the given wind speed bin for both Turbine ON and Background.

Table 14 - Tonality Assessment Summary

Wind Speed (m/s)	Frequency (Hz)	Tonality, ΔL_{tn} (dB)	Tonal audibility, ΔL_a (dB)	FFT's with tones	Total # of FFT's	Presence (%)
No Reportable Tones Detected						

5 Closure

Measurements and analysis were carried on Turbine T26 of the Suncor Adelaide Wind Power Project, located in the Township of Adelaide Metcalfe as per International IEC 61400-11 (Edition 3.0, released 2012-11), “Wind turbine generator systems – Part 11: Acoustic noise measurement techniques”.

Should you have any questions or comments please do not hesitate to contact the authors of this report.

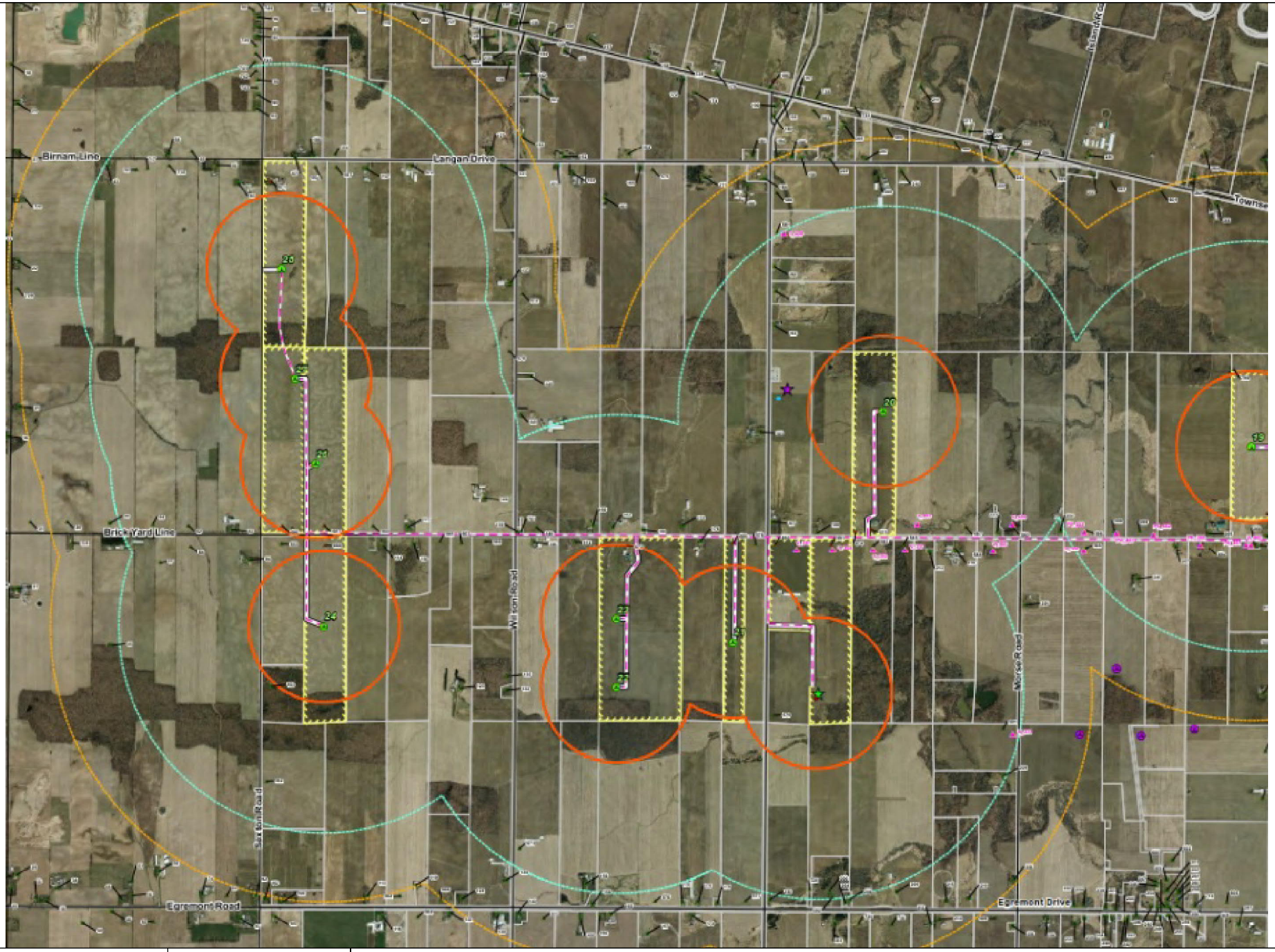
6 References

1. International Standard IEC 61400-11 (Edition 3.0, released 2012-11), “Wind turbine generator systems – Part 11: Acoustic noise measurement techniques”.

Aercoustics Engineering Ltd.
1004 Middlegate Road, Suite 1100
Mississauga, ON L4Y 1M4

Tel: 416-249-3361
Fax 416-249-3613
aercoustics.com

Appendix A
Site Details



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14215.01.T26.RP6	**Project Name**
Scale: NTS Drawn by: ADT Reviewed by: AM Date: Sept 06, 2017 Revision: 1	Suncor Adelaide Wind Power Project - Turbine T26 - IEC61400-11 Edition 3.0
	Figure Title Site Plan

Figure A.01

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14215.01.T26.RP6

Scale: NTS
Drawn by: ADT
Reviewed by: AM
Date: Sept 06, 2017
Revision: 1

Project Name

Suncor Adelaide Wind Power Project - Turbine T26 - IEC61400-11 Edition 3.0

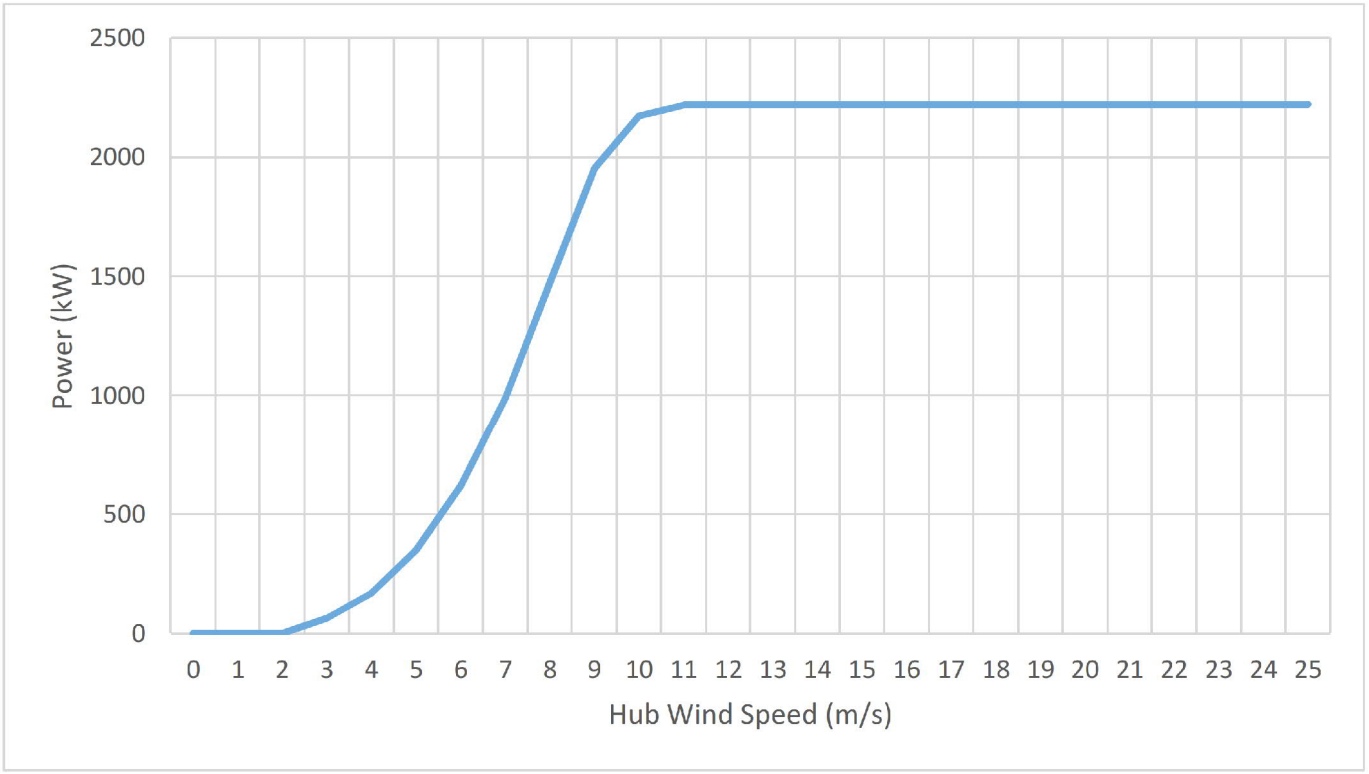
Figure Title

Site Photos

Figure A.02

aercoustics
Aercoustics Engineering Ltd.
1004 Middlegate Road, Suite 1100
Mississauga, ON L4Y 1M4
Tel: 416-249-3361
Fax 416-249-3613
aercoustics.com

Appendix B
Turbine Information



Power Curve	
Hub Wind Speed (m/s)	Power [kW]
0	0
1	0
2	0
3	65
4	169
5	347
6	615
7	989
8	1471
9	1951
10	2172
11	2217
12	2221
13	2221
14	2221
15	2221
16	2221
17	2221
18	2221
19	2221
20	2221
21	2221
22	2221
23	2221
24	2221
25	2221

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14215.01.T26.RP6

Scale: NTS
Drawn by: AM
Reviewed by: PA
Date: Sept 19, 2017
Revision: 1

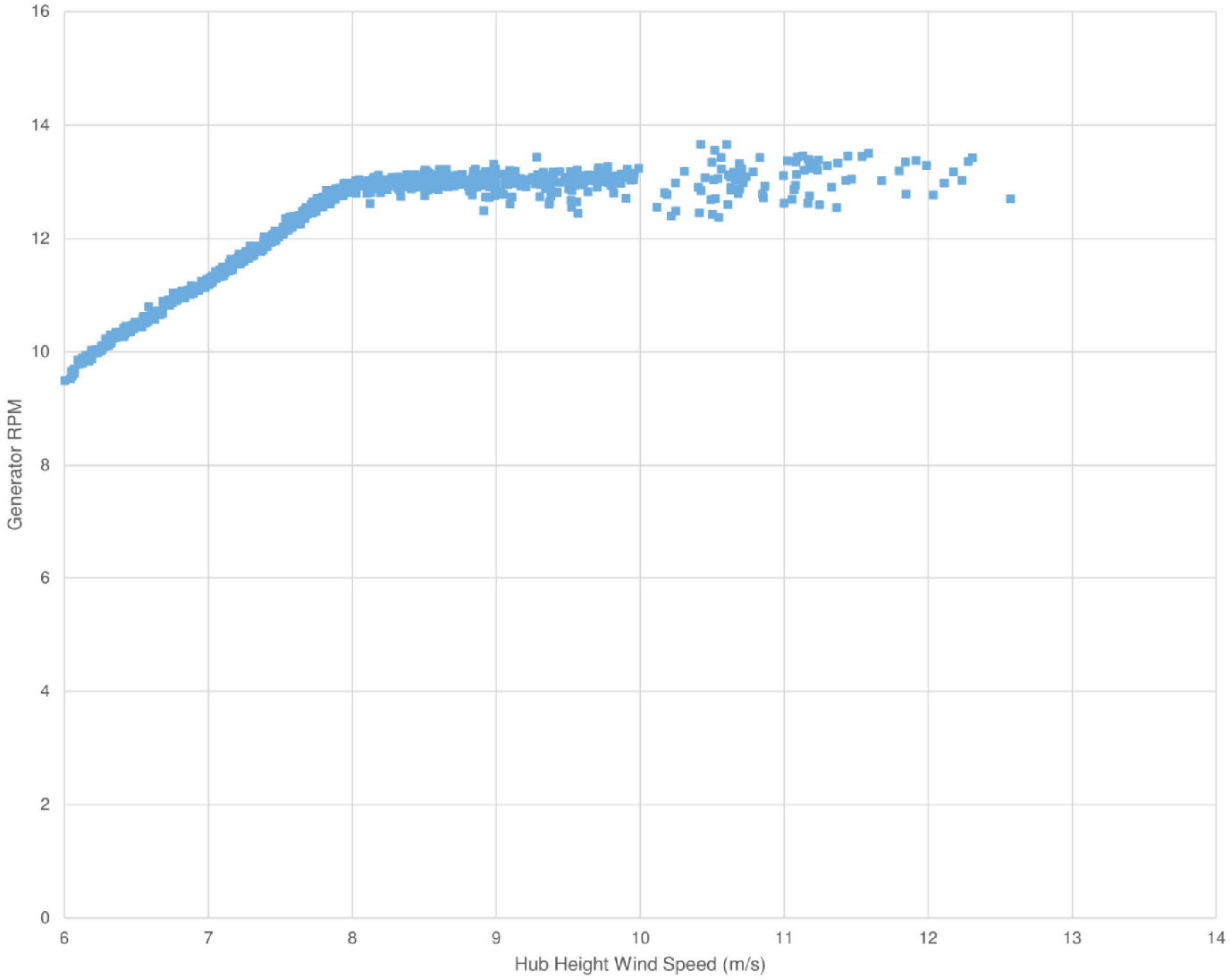
Project Name

Suncor Adelaide Wind Power Project - Turbine T26 - IEC61400-11 Edition 3.0

Figure Title

Power Curve

Figure B.01



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14215.01.T26.RP6	**Project Name**
Scale: NTS Drawn by: ADT Reviewed by: AM Date: Sept 6, 2017 Revision: 1	Suncor Adelaide Wind Power Project - Turbine T26 - IEC61400-11 Edition 3.0
	Figure Title Rotor RPM vs Wind Speed

Figure B.02

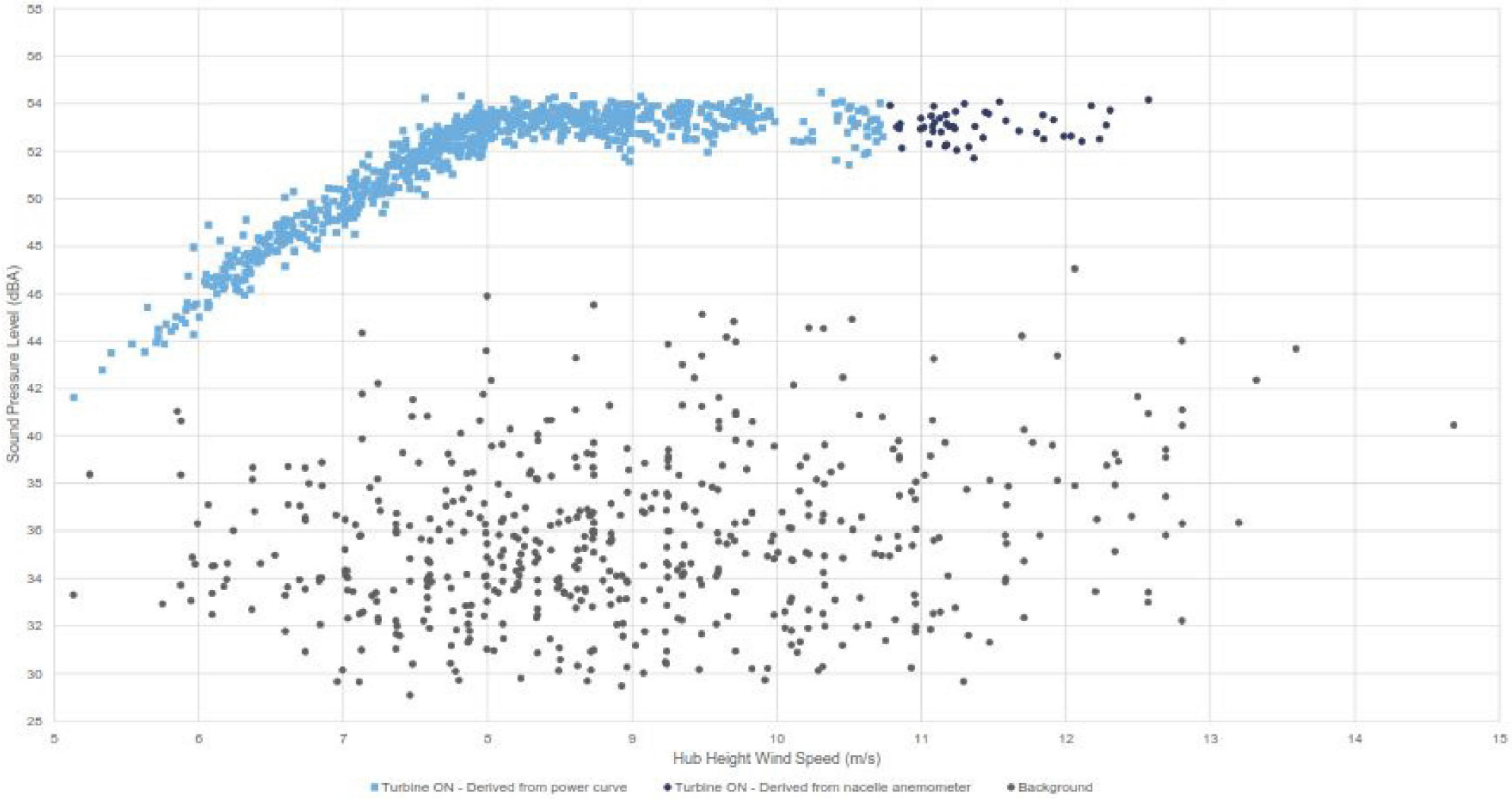
Table B.01 Allowed range of power curve and required wind speeds

Power Curve & Required Wind Speeds		
Power Curve Tolerance	1%	
Min allowable range	2	m/s
Max allowable range	10	m/s
Power Output	2221	kW
85% Power	1887.85	kW
Corresponding wind speed	8.87	m/s
Minimum bin	7.0	m/s
Maximum bin	11.5	m/s

Power Curve Hub Wind Speed (m/s)	Power [kW]	+ value = acceptable slope of power curve
0	**0**	-44.42
1	0	-44.42
2	0	20.58
3	65	59.58
4	169	133.58
5	347	223.58
6	615	329.58
7	989	437.58
8	1471	435.58
9	1951	176.58
10	2172	0.58
11	2217	-40.42
12	2221	-44.42
13	2221	-44.42
14	2221	-44.42
15	2221	-44.42
16	2221	-44.42
17	2221	-44.42
18	2221	-44.42
19	2221	-44.42
20	2221	-44.42
21	2221	-44.42
22	2221	-44.42
23	2221	-44.42
24	2221	-44.42
25	2221	

aercoustics
Aercoustics Engineering Ltd.
1004 Middlegate Road, Suite 1100
Mississauga, ON L4Y 1M4
Tel: 416-249-3361
Fax 416-249-3613
aercoustics.com

Appendix C
Apparent Sound Power Level



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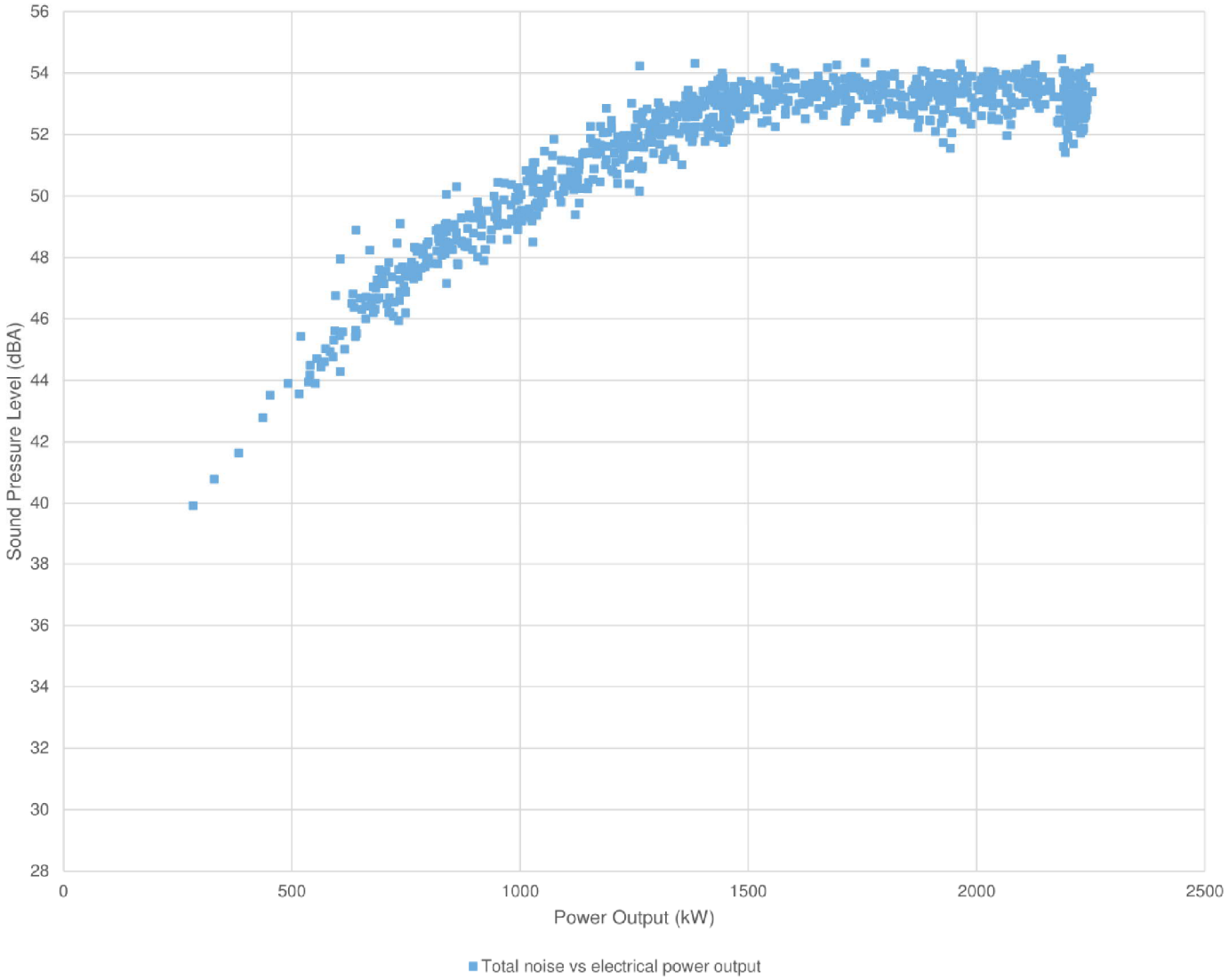
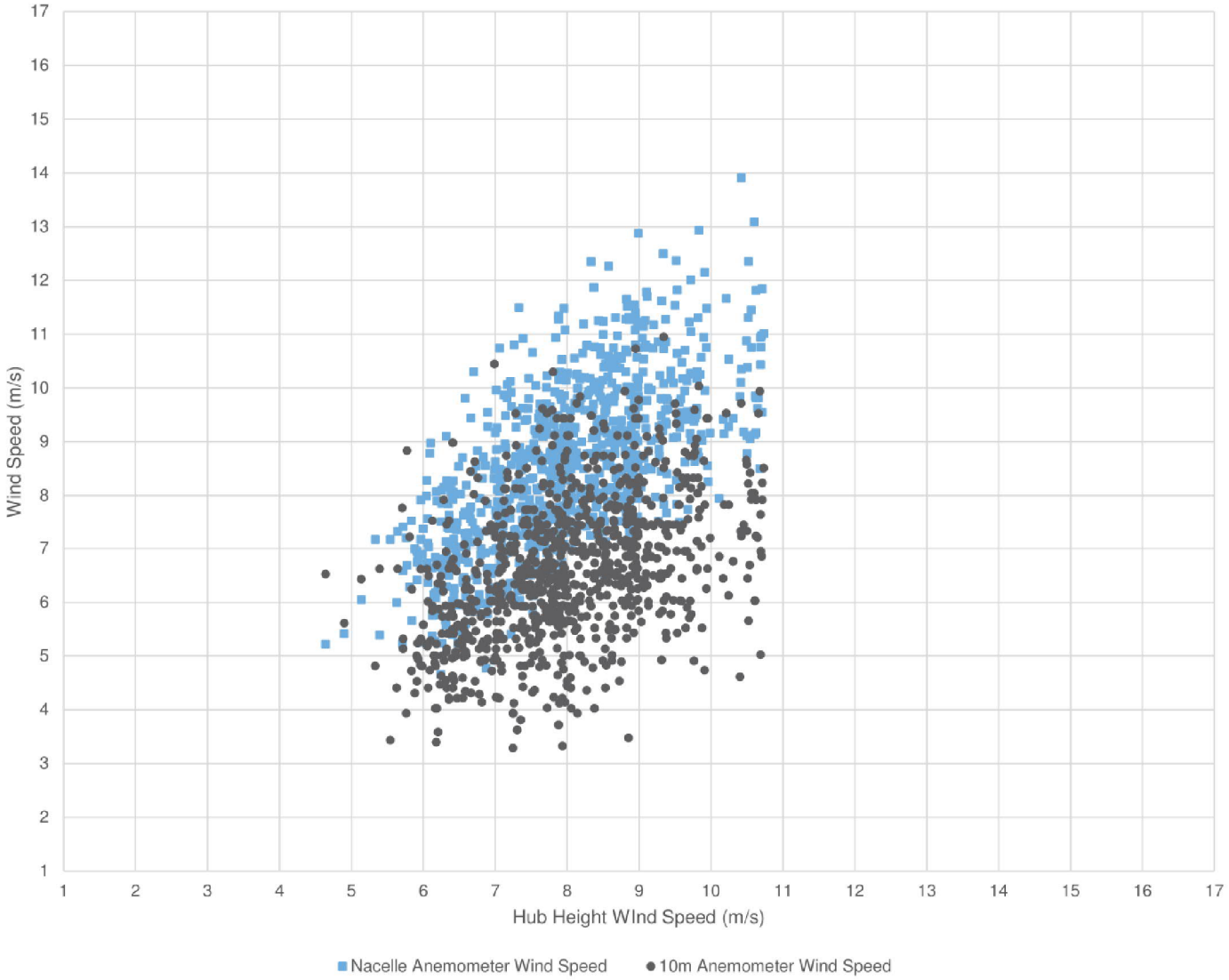
14215.01.T26.RP6	**Project Name**
Scale: NTS Drawn by: ADT Reviewed by: AM Date: Sept 06, 2017 Revision: 1	Suncor Adelaide Wind Power Project - Turbine T26 - IEC61400-11 Edition 3.0
	Figure Title Plot of overall measurement data pairs at position 1 (Turbine ON & Background)

Figure C.01



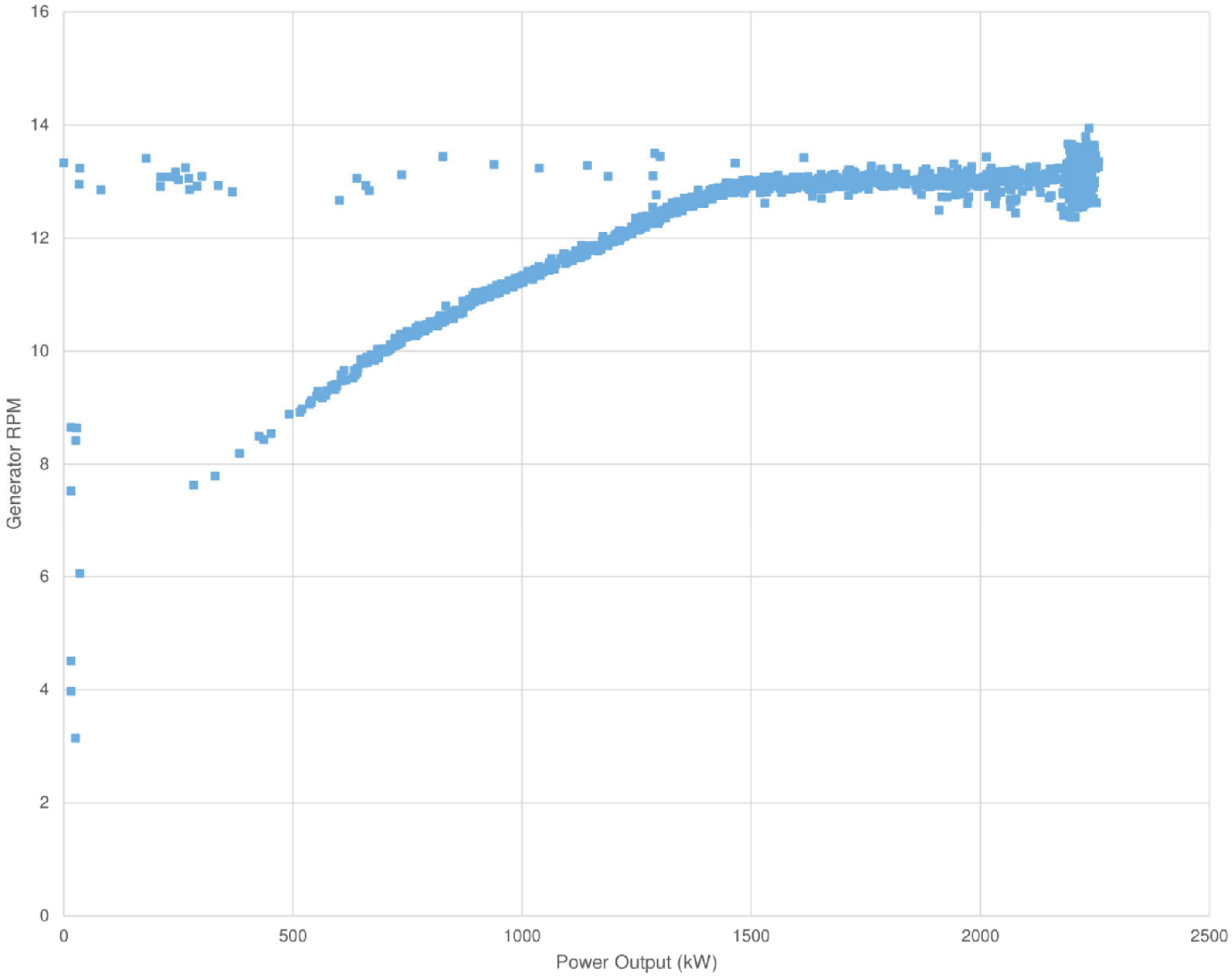
aercoustics	14215.01.T26.RP6 Scale: NTS Drawn by: ADT Reviewed by: AM Date: Sept 06, 2017 Revision: 1	**Project Name** Suncor Adelaide Wind Power Project - Turbine T26 - IEC61400-11 Edition 3.0 **Figure Title** Plot of measured total noise vs electrical power output

Figure C.02



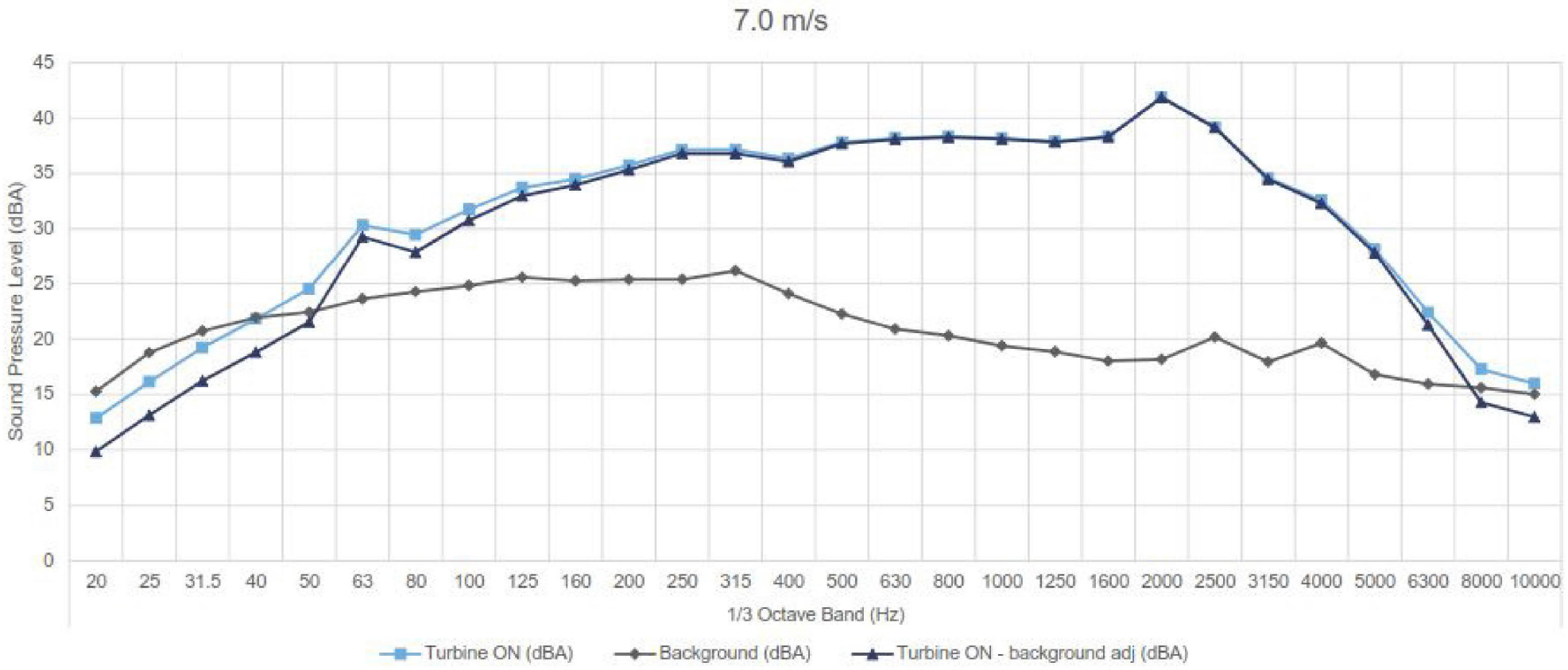
aercoustics	14215.01.T26.RP6 Scale: NTS Drawn by: ADT Reviewed by: AM Date: Sept 06, 2017 Revision: 1	**Project Name** Suncor Adelaide Wind Power Project - Turbine T26 - IEC61400-11 Edition 3.0 **Figure Title** Plot of power curve relative to nacelle anemometer and 10m anemometer

Figure C.03



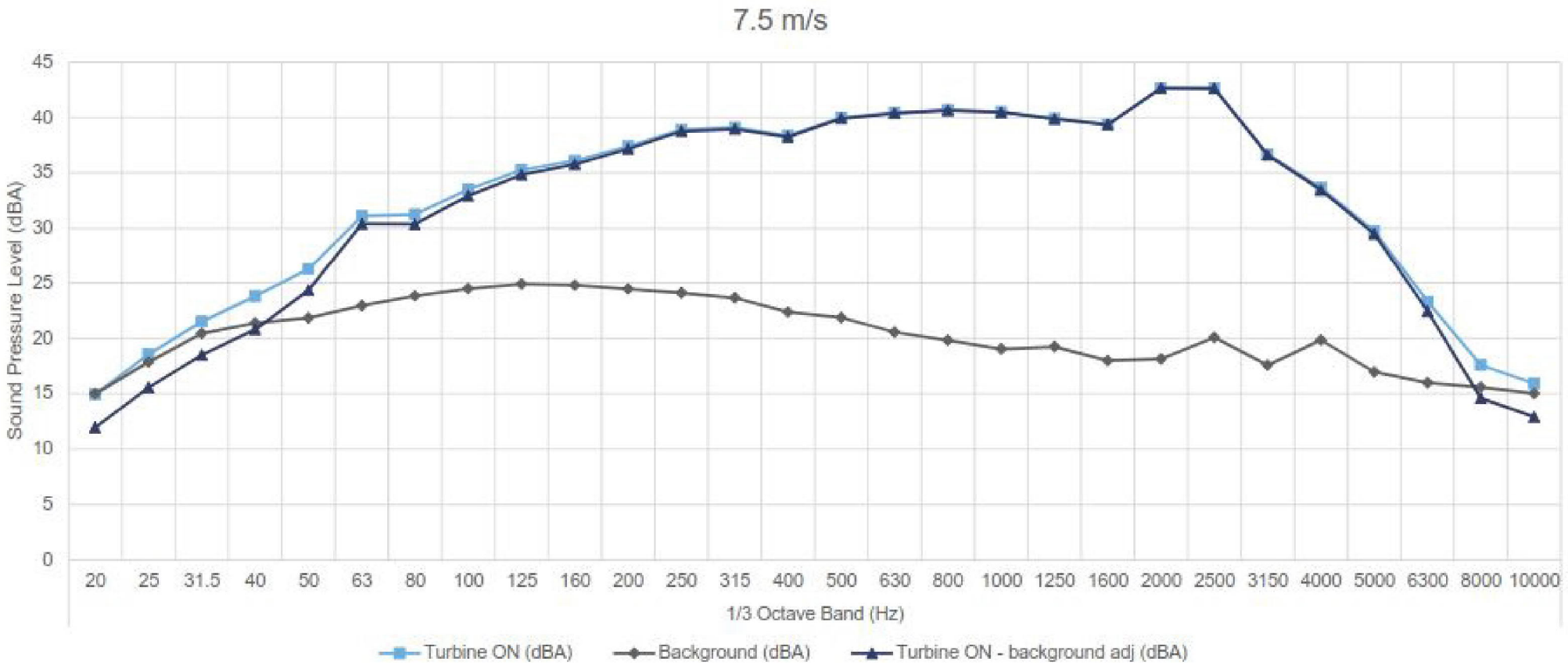
aercoustics	14215.01.T26.RP6 Scale: NTS Drawn by: ADT Reviewed by: AM Date: Sept 06, 2017 Revision: 1	**Project Name** Suncor Adelaide Wind Power Project - Turbine T26 - IEC61400-11 Edition 3.0 **Figure Title** Plot of rotor RPM vs. electrical power output

Figure C.04



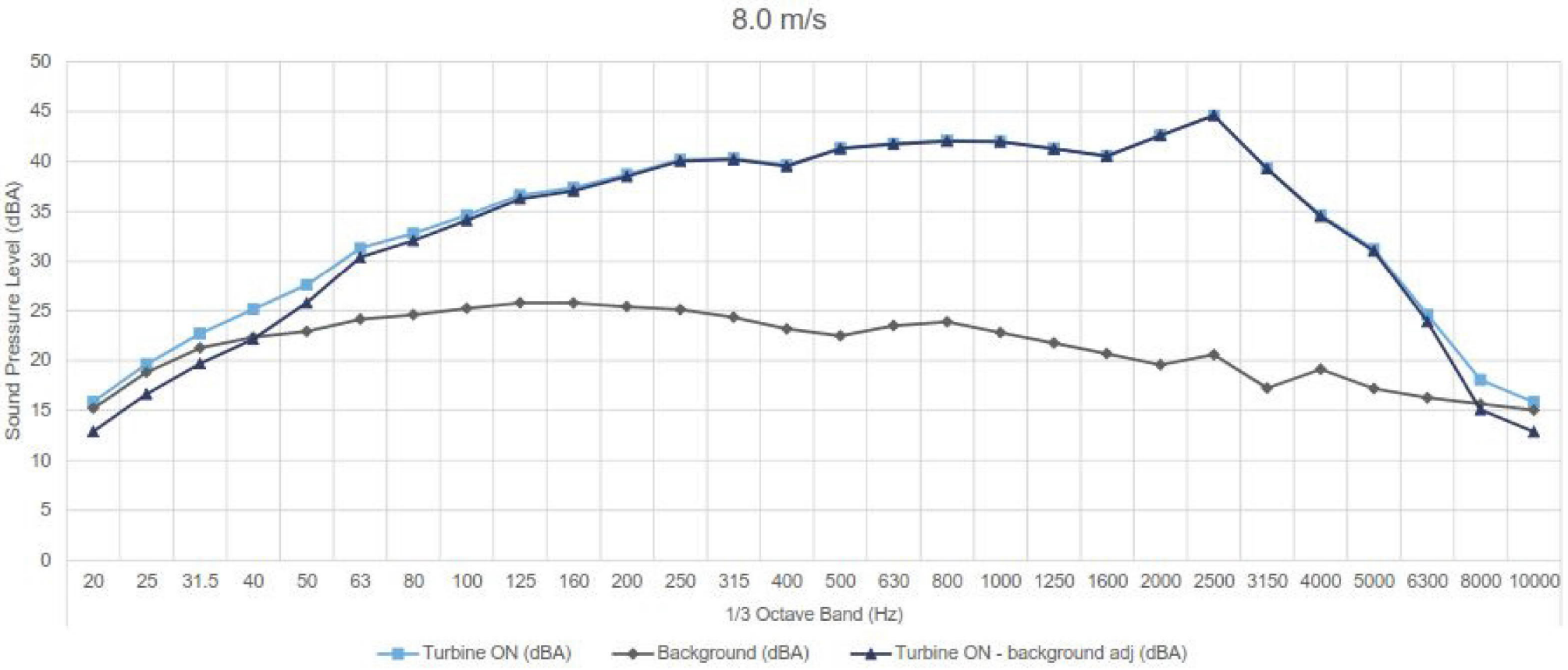
aercoustics	14215.01.T26.RP6 Scale: NTS Drawn by: ADT Reviewed by: AM Date: Sept 06, 2017 Revision: 1	**Project Name** Suncor Adelaide Wind Power Project - Turbine T26 - IEC61400-11 Edition 3.0 **Figure Title** Plot of sound pressure spectrum at 1/3 Octave at 7 m/s

Figure C.05



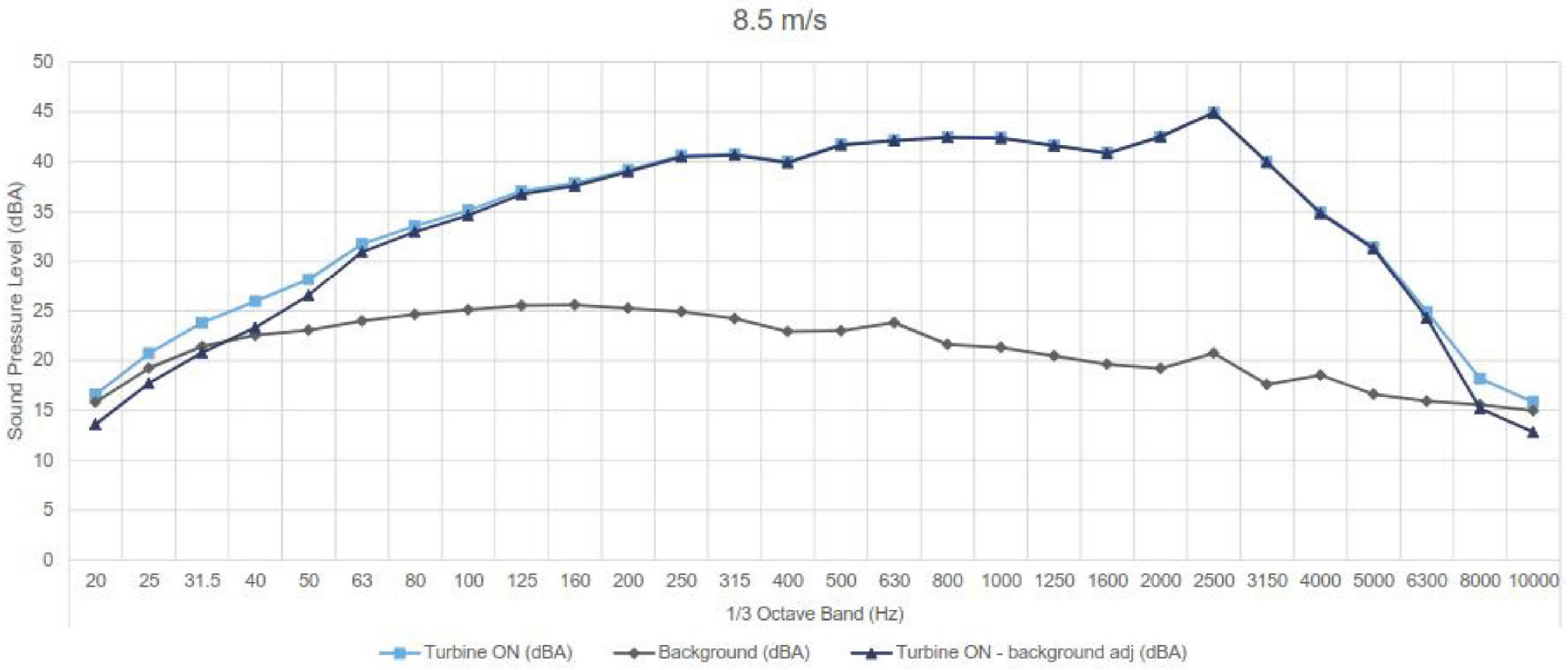
aercoustics	14215.01.T26.RP6 Scale: NTS Drawn by: ADT Reviewed by: AM Date: Sept 06, 2017 Revision: 1	**Project Name** Suncor Adelaide Wind Power Project - Turbine T26 - IEC61400-11 Edition 3.0 **Figure Title** Plot of sound pressure spectrum at 1/3 Octave at 7.5 m/s

Figure C.06



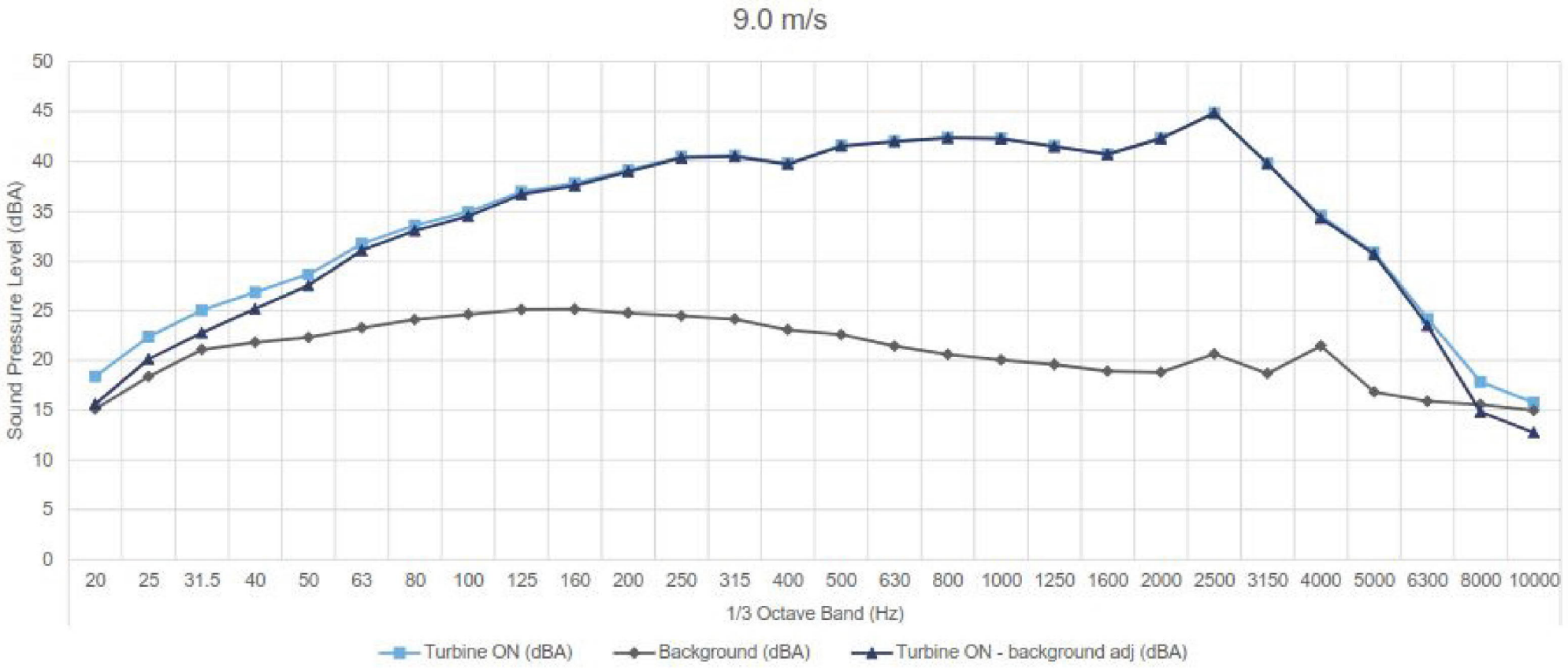
aercoustics	14215.01.T26.RP6 Scale:NTS Drawn by:ADT Reviewed by:AM Date:Sept 06, 2017 Revision:1	**Project Name** Suncor Adelaide Wind Power Project - Turbine T26 - IEC61400-11 Edition 3.0 **Figure Title** Plot of sound pressure spectrum at 1/3 Octave at 8.0 m/s

Figure C.07



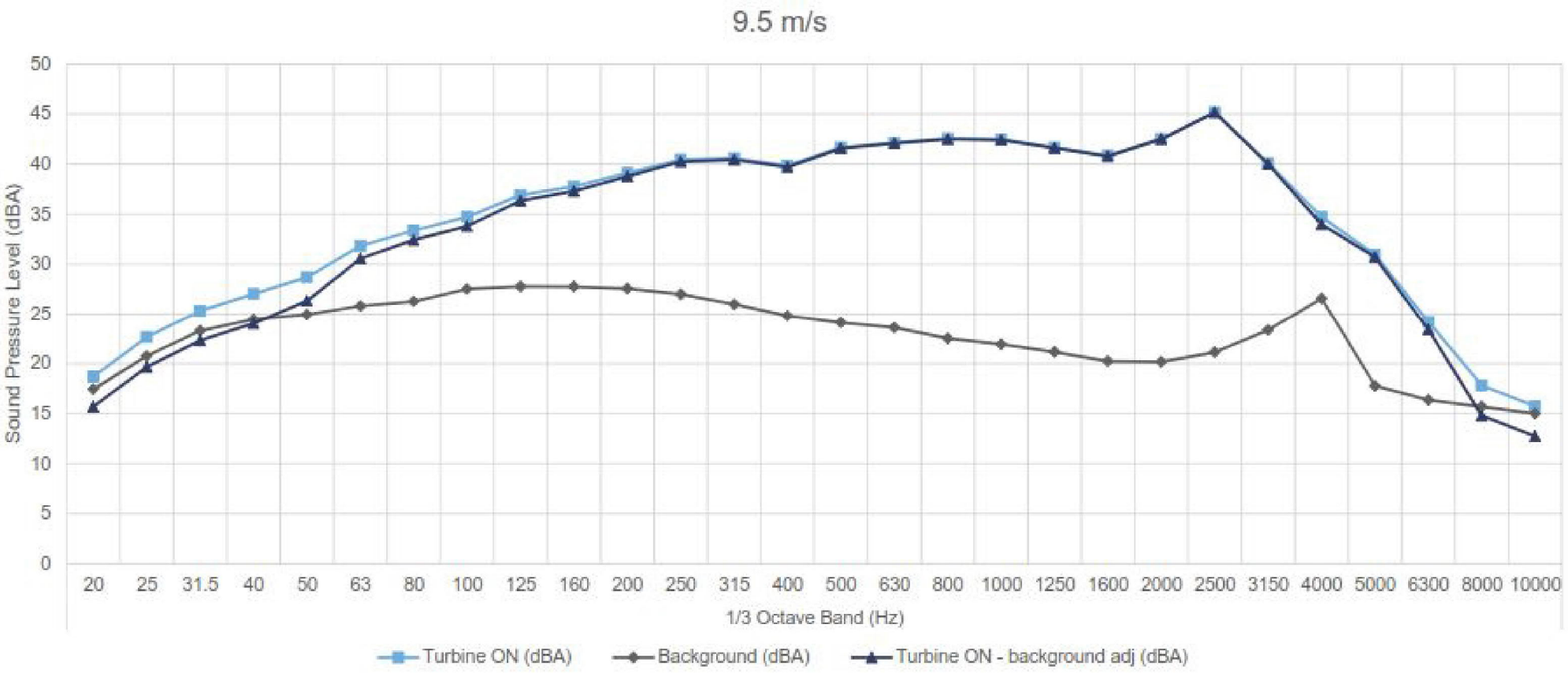
aercoustics	14215.01.T26.RP6 Scale: NTS Drawn by: ADT Reviewed by: AM Date: Sept 6, 2017 Revision: 1	**Project Name** Suncor Adelaide Wind Power Project - Turbine T26 - IEC61400-11 Edition 3.0 **Figure Title** Plot of sound pressure spectrum at 1/3 Octave at 8.5 m/s

Figure C.08



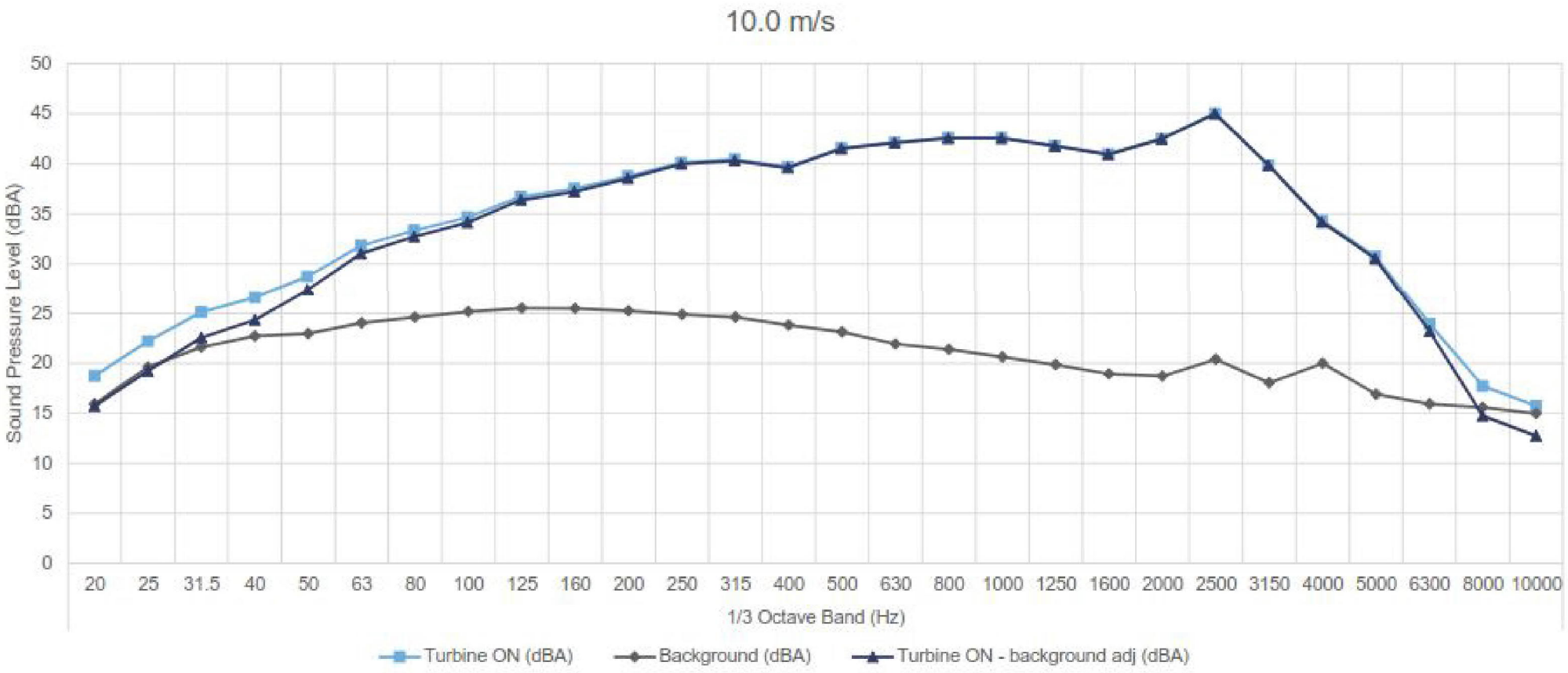
aercoustics	14215.01.T26.RP6 Scale: NTS Drawn by: ADT Reviewed by: AM Date: Sept 6, 2017 Revision: 1	**Project Name** Suncor Adelaide Wind Power Project - Turbine T26 - IEC61400-11 Edition 3.0 **Figure Title** Plot of sound pressure spectrum at 1/3 Octave at 9.0 m/s

Figure C.09



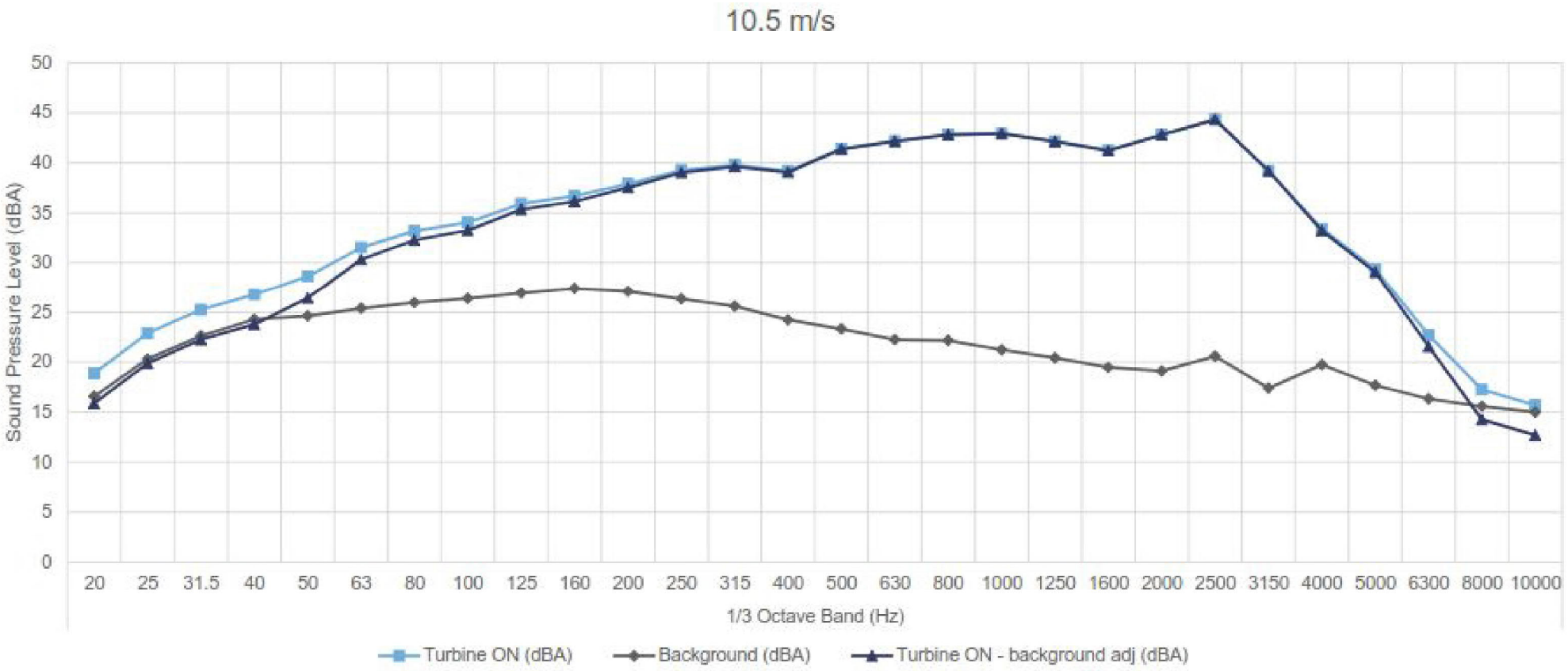
aercoustics	14215.01.T26.RP6 Scale: NTS Drawn by: ADT Reviewed by: AM Date: Sept 6, 2017 Revision: 1	**Project Name** Suncor Adelaide Wind Power Project - Turbine T26 - IEC61400-11 Edition 3.0 **Figure Title** Plot of sound pressure spectrum at 1/3 Octave at 9.5 m/s

Figure C.10



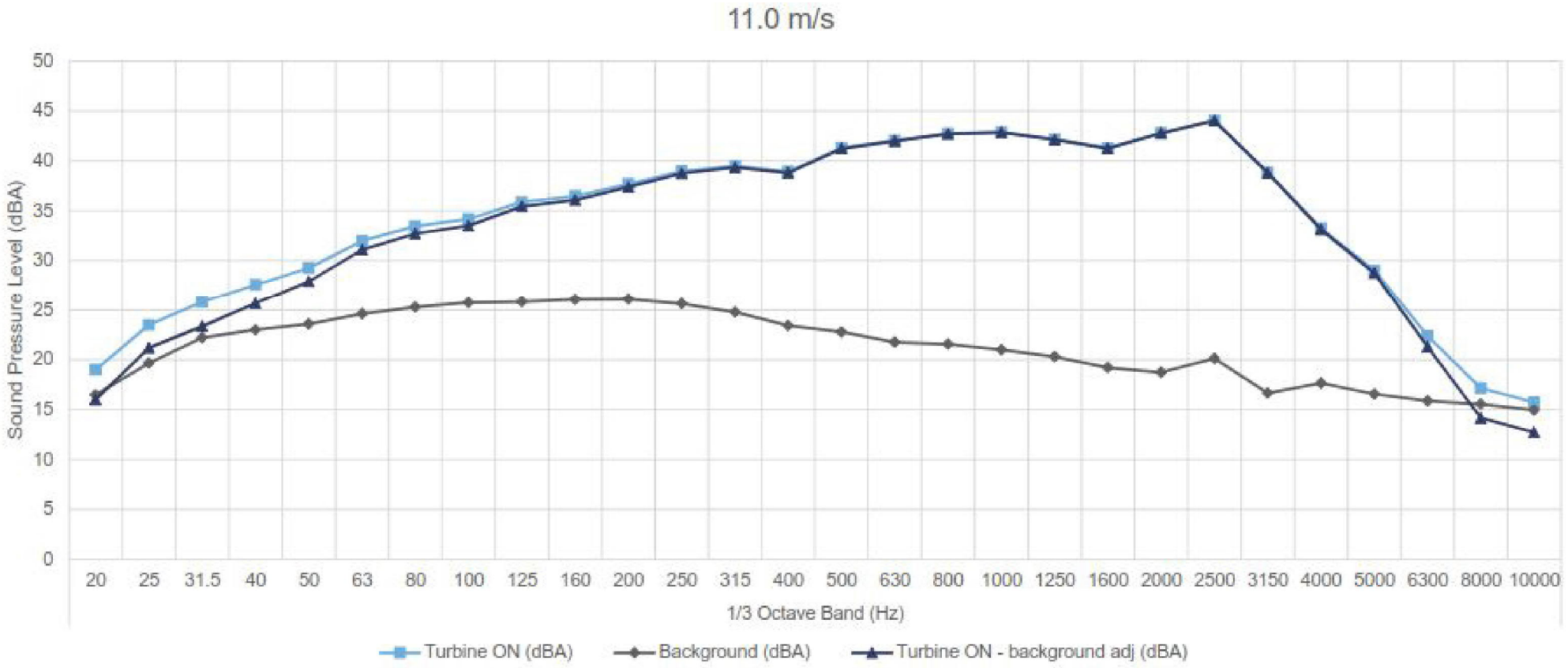
aercoustics	14215.01.T26.RP6 Scale: NTS Drawn by: ADT Reviewed by: AM Date: Sept 6, 2017 Revision: 1	**Project Name** Suncor Adelaide Wind Power Project - Turbine T26 - IEC61400-11 Edition 3.0 **Figure Title** Plot of sound pressure spectrum at 1/3 Octave at 10.0 m/s

Figure C.11



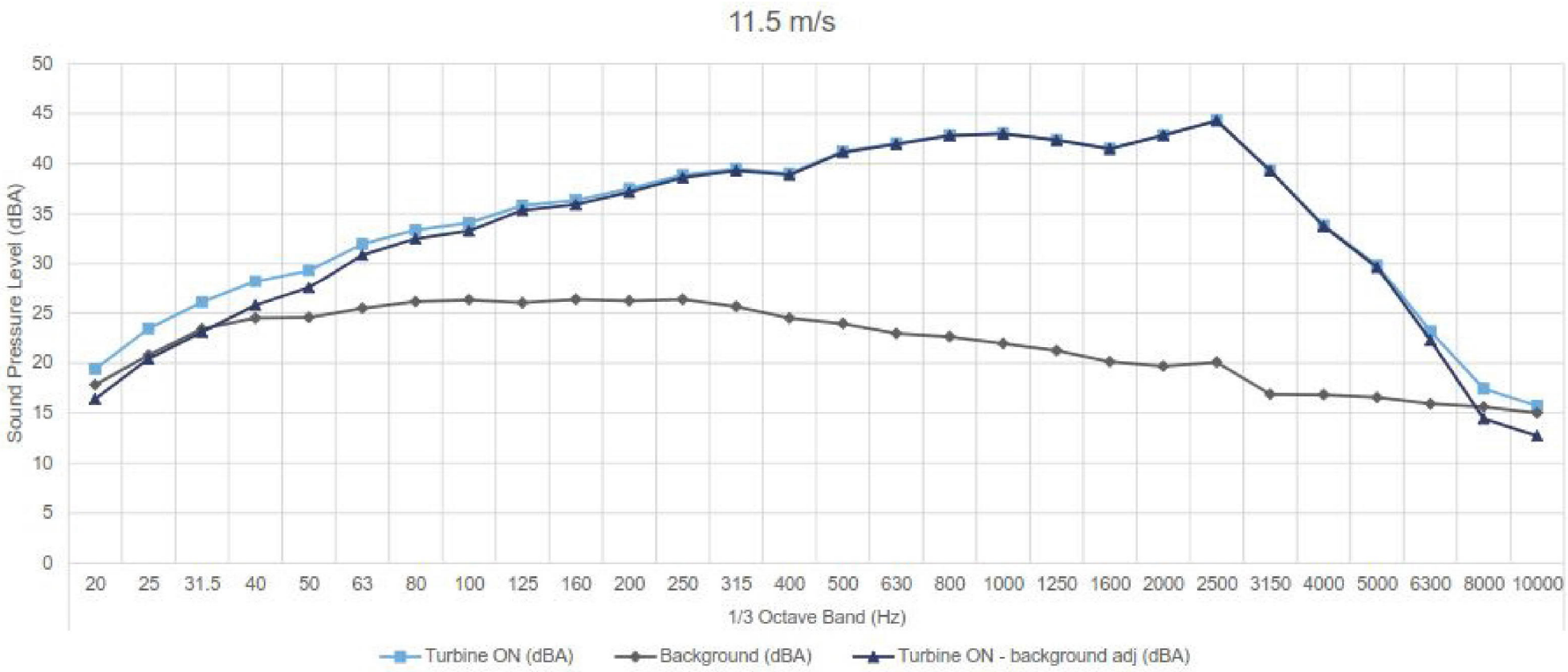
aercoustics	14215.01.T26.RP6 Scale: NTS Drawn by: ADT Reviewed by: AM Date: Sept 6, 2017 Revision: 1	**Project Name** Suncor Adelaide Wind Power Project - Turbine T26 - IEC61400-11 Edition 3.0 **Figure Title** Plot of sound pressure spectrum at 1/3 Octave at 10.5 m/s

Figure C.12



aercoustics	14215.01.T26.RP6 Scale: NTS Drawn by: ADT Reviewed by: AM Date: Sept 6, 2017 Revision: 1	**Project Name** Suncor Adelaide Wind Power Project - Turbine T26 - IEC61400-11 Edition 3.0 **Figure Title** Plot of sound pressure spectrum at 1/3 Octave at 11.0 m/s

Figure C.13



aercoustics	14215.01.T26.RP6 Scale: NTS Drawn by: ADT Reviewed by: AM Date: Sept 6, 2017 Revision: 1	**Project Name** Suncor Adelaide Wind Power Project - Turbine T26 - IEC61400-11 Edition 3.0 **Figure Title** Plot of sound pressure spectrum at 1/3 Octave at 11.5 m/s

Figure C.14

Table C.01 Detailed apparent sound power level data at hub height
Project: Suncor Adelaide Wind Power Project - Turbine T26 - IEC 61400-11 Measurement
Report ID: 14215.01.T26.RP6

Created on: 9/7/2017

1/3 Octave values marked with brackets [ ] denote less than 3 dB difference between Turbine ON and Background
Overall levels marked with an asterisk * denote 3 to 6 dB difference between Turbine ON and Background, while Overall values with less than 3 dB difference between Turbine ON and Background are not reported

Wind Bin (m/s)	Parameter	1/3 Octave Band (Hz)																														Overall
		20	25	31.5	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000	
7.0	Turbine ON (dBA)	12.9	16.1	19.2	21.8	24.5	30.3	29.5	31.7	33.7	34.5	35.7	37.1	37.1	36.3	37.8	38.2	38.3	38.2	37.9	38.3	41.9	39.2	34.6	32.5	28.2	22.4	17.3	16.0	49.8
	Background (dBA)	15.3	18.7	20.8	22.0	22.4	23.7	24.3	24.9	25.6	25.3	25.4	25.4	26.0	24.0	22.1	20.7	20.2	19.4	18.8	17.9	18.2	20.2	18.0	19.7	16.9	15.9	15.6	15.0	36.5
	Turbine ON - background adj (dBA)	[9.9]	[13.1]	[16.2]	[18.8]	[21.5]	29.3	27.9	30.7	33.0	33.9	35.3	36.8	36.8	36.1	37.7	38.1	38.3	38.1	37.8	38.3	41.8	39.1	34.5	32.3	27.8	21.3	[14.3]	[13]	49.6
	Signal to noise (dB)	-2.5	-2.6	-1.5	-0.1	2.1	6.6	5.2	6.8	8.1	9.2	10.4	11.7	11.1	12.4	15.7	17.5	18.1	18.8	19.1	20.4	23.7	19.0	16.6	12.8	11.3	6.5	1.7	1.0	13.3
	Uncertainty (dB)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	PWL (dBA)	[60.4]	[63.7]	[66.8]	[69.4]	[72.1]	79.8	78.5	81.3	83.5	84.5	85.9	87.4	87.4	86.7	88.3	88.7	88.8	88.7	88.4	88.8	92.4	89.7	85.0	82.9	78.4	71.8	[64.8]	[63.5]	100.2
7.5	Turbine ON (dBA)	14.9	18.5	21.5	23.8	26.3	31.1	31.2	33.5	35.2	36.1	37.4	38.9	39.1	38.3	40.0	40.4	40.7	40.5	39.9	39.4	42.6	42.6	36.7	33.6	29.7	23.3	17.6	15.9	51.7
	Background (dBA)	14.9	17.9	20.3	21.4	21.9	23.0	23.9	24.5	25.0	24.9	24.5	24.2	23.8	22.6	22.0	20.7	19.9	19.1	19.3	18.0	18.2	20.0	17.6	19.9	17.0	16.0	15.6	15.0	35.9
	Turbine ON - background adj (dBA)	[11.9]	[15.5]	[18.5]	[20.8]	24.3	30.4	30.4	32.9	34.8	35.7	37.1	38.7	38.9	38.2	39.9	40.4	40.6	40.5	39.9	39.3	42.6	42.6	36.6	33.5	29.5	22.4	[14.6]	[12.9]	51.6
	Signal to noise (dB)	0.1	0.6	1.1	2.4	4.3	8.1	7.4	9.0	10.2	11.2	12.8	14.7	15.2	15.8	18.0	19.7	20.8	21.4	20.6	21.3	24.5	22.6	19.0	13.7	12.7	7.3	2.0	0.9	15.8
	Uncertainty (dB)	2.4	2.4	1.9	1.9	1.4	0.9	1.0	0.9	0.9	0.9	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	1.0	1.7	3.1	0.7
	PWL (dBA)	[62.5]	[66.1]	[69.1]	[71.4]	74.8	80.9	80.9	83.5	85.4	86.3	87.7	89.3	89.5	88.8	90.5	90.9	91.2	91.0	90.4	89.9	93.2	93.2	87.2	84.0	80.0	73.0	[65.2]	[63.5]	102.2
8.0	Turbine ON (dBA)	15.9	19.7	22.7	25.1	27.6	31.3	32.8	34.6	36.6	37.4	38.7	40.2	40.3	39.6	41.4	41.8	42.1	42.0	41.3	40.6	42.6	44.6	39.3	34.6	31.2	24.6	18.1	15.9	53.1
	Background (dBA)	15.2	18.6	21.2	22.2	22.7	24.0	24.5	25.1	25.7	25.7	25.3	25.0	24.2	23.0	22.4	23.4	23.7	22.7	21.7	20.6	19.5	20.6	17.3	19.2	17.2	16.3	15.7	15.0	36.9
	Turbine ON - background adj (dBA)	[12.9]	[16.7]	[19.7]	[22.1]	25.9	30.5	32.1	34.1	36.3	37.1	38.5	40.1	40.2	39.5	41.3	41.7	42.1	42.0	41.3	40.5	42.6	44.6	39.3	34.5	31.0	23.9	[15.1]	[12.9]	52.9
	Signal to noise (dB)	0.7	1.0	1.5	3.0	4.9	7.4	8.3	9.5	11.0	11.7	13.4	15.2	16.1	16.6	19.0	18.4	18.4	19.4	19.7	20.0	23.1	24.0	22.0	15.4	14.0	8.3	2.4	0.8	16.2
	Uncertainty (dB)	2.3	2.3	1.9	1.9	1.2	1.0	0.9	0.9	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.9	1.7	3.1	0.7
	PWL (dBA)	[63.5]	[67.2]	[70.3]	[72.7]	76.5	81.0	82.7	84.7	86.8	87.6	89.1	90.6	90.8	90.1	91.9	92.3	92.6	92.6	91.8	91.1	93.2	95.2	89.8	85.1	81.6	74.5	[65.6]	[63.4]	103.5
8.5	Turbine ON (dBA)	16.6	20.7	23.8	25.9	28.2	31.8	33.6	35.1	37.1	37.8	39.2	40.6	40.8	40.0	41.7	42.2	42.5	42.4	41.7	40.9	42.5	45.0	40.0	34.9	31.4	24.9	18.2	15.8	53.4
	Background (dBA)	15.8	19.3	21.5	22.6	23.1	24.0	24.6	25.2	25.6	25.6	25.3	25.0	24.3	23.0	23.0	23.8	21.8	21.4	20.5	19.7	19.2	20.8	17.6	18.5	16.6	15.9	15.6	15.0	36.8
	Turbine ON - background adj (dBA)	[13.6]	[17.7]	[20.8]	23.2	26.5	31.0	33.0	34.6	36.7	37.6	39.0	40.5	40.7	39.9	41.7	42.1	42.4	42.4	41.6	40.9	42.5	44.9	40.0	34.8	31.3	24.3	[15.2]	[12.8]	53.3
	Signal to noise (dB)	0.8	1.4	2.3	3.4	5.0	7.7	8.9	9.9	11.4	12.2	13.9	15.7	16.5	17.0	18.7	18.4	20.7	21.0	21.1	21.2	23.3	24.2	22.4	16.4	14.8	8.9	2.6	0.9	16.6
	Uncertainty (dB)	2.4	2.4	1.9	1.7	1.3	1.0	0.9	0.9	0.9	0.9	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.9	1.8	3.2	0.7
	PWL (dBA)	[64.2]	[68.3]	[71.4]	73.8	77.1	81.5	83.5	85.2	87.3	88.1	89.6	91.1	91.2	90.5	92.2	92.7	93.0	92.9	92.2	91.4	93.1	95.5	90.5	85.4	81.9	74.9	[65.8]	[63.4]	103.9
9.0	Turbine ON (dBA)	18.4	22.4	25.0	26.8	28.7	31.8	33.6	35.0	37.0	37.8	39.2	40.5	40.6	39.8	41.6	42.0	42.4	42.3	41.5	40.8	42.3	44.9	39.8	34.6	30.9	24.2	17.8	15.8	53.3
	Background (dBA)	15.1	18.3	21.0	21.7	22.2	23.2	24.0	24.5	24.9	25.0	24.6	24.3	24.1	23.0	22.5	21.5	20.6	20.1	19.6	18.9	18.8	20.6	18.6	21.3	16.8	15.9	15.6	15.0	36.2
	Turbine ON - background adj (dBA)	15.6	20.2	22.8	25.2	27.6	31.1	33.1	34.6	36.7	37.6	39.0	40.4	40.5	39.7	41.5	42.0	42.4	42.3	41.5	40.7	42.3	44.8	39.8	34.3	30.7	23.5	[14.8]	[12.8]	53.2
	Signal to noise (dB)	3.3	4.1	4.0	5.1	6.5	8.6	9.6	10.5	12.1	12.8	14.5	16.1	16.5	16.8	19.1	20.5	21.8	22.2	22.0	21.9	23.5	24.2	21.2	13.3	14.1	8.3	2.3	0.8	17.1
	Uncertainty (dB)	2.1	1.7	1.4	1.2	1.0	0.9	0.8	0.8	0.8	0.8	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.8	0.8	0.9	1.6	2.9	0.7
	PWL (dBA)	66.2	70.8	73.4	75.8	78.1	81.7	83.7	85.1	87.3	88.2	89.6	90.9	91.1	90.3	92.1	92.6	92.9	92.8	92.1	91.3	92.9	95.4	90.3	84.9	81.3	74.1	[65.4]	[63.3]	103.8
9.5	Turbine ON (dBA)	18.7	22.7	25.3	27.0	28.7	31.8	33.4	34.7	36.9	37.8	39.1	40.5	40.6	39.8	41.7	42.1	42.5	42.5	41.7	40.8	42.5	45.2	40.1	34.7	30.9	24.2	17.8	15.8	53.4
	Background (dBA)	17.4	20.7	23.3	24.5	25.0	25.8	26.3	27.6	27.9	27.8	27.6	27.1	26.0	24.8	24.1	23.4	22.4	21.7	21.0	20.1	20.1	21.0	23.4	26.6	17.8	16.4	15.7	15.0	38.7
	Turbine ON - background adj (dBA)	[15.7]	[19.7]	[22.3]	[24]	26.3	30.6	32.4	33.8	36.3	37.3	38.8	40.3	40.5	39.7	41.6	42.1	42.5	42.4	41.6	40.8	42.5	45.2	40.0	34.0	30.7	23.4	[14.8]	[12.8]	53.3
	Signal to noise (dB)	1.3	1.9	2.1	2.6	3.7	6.0	7.1	7.1	9.0	10.0	11.5	13.4	14.6	15.0	17.6	18.8	20.1	20.7	20.6	20.7	22.4	24.1	16.7	8.1	13.2	7.8	2.1	0.8	14.7
	Uncertainty (dB)	2.4	2.4	2.1	2.0	1.6	1.1	1.0	1.0	0.9	0.9	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	1.0	0.8	1.0	1.7	3.1	0.7
	PWL (dBA)	[66.2]	[70.2]	[72.9]	[74.6]	76.9	81.1	83.0	84.4	86.9	87.9	89.3	90.8	91.0	90.3	92.2	92.7	93.1	93.0	92.2	91.4	93.1	95.7	90.6	84.6	81.3	74.0	[65.4]	[63.3]	103.8
10.0	Turbine ON (dBA)	18.7	22.3	25.2	26.7	28.7	31.9	33.3	34.6	36.7	37.5	38.7	40.1	40.4	39.7	41.6	42.1	42.6	42.6	41.8	41.0	42.5	45.1	39.9	34.4	30.8	24.1	17.8	15.7	53.3
	Background (dBA)	16.1	19.7	21.8	22.9	23.1	24.1	24.7	25.3	25.6	25.6	25.4	25.0	24.7	23.9	23.3	22.4	21.6	21.0	20.2	19.2	19.0	20.6	18.3	20.3	16.9	16.0	15.6	15.0	36.9
	Turbine ON - background adj (dBA)	[15.7]	[19.3]	22.4	24.3	27.4	31.0	32.7	34.1	36.4	37.2	38.5	40.0	40.3	39.6	41.5	42.1	42.5	42.5	41.8	41.0	42.5	45.0	39.9	34.2	30.6	23.4	[14.8]	[12.7]	53.2
	Signal to noise (dB)	2.6	2.5	3.3	3.8	5.7	7.7	8.7	9.3	11.1	11.9	13.3	15.1	15.7	15.8	18.3	19.7	21.0	21.6	21.6	21.8	23.5	24.5	21.6	14.1	13.9	8.1	2.2	0.8	16.4
	Uncertainty (dB)	2.4	2.4	1.9	1.6	1.1	0.9	0.9	0.8	0.8	0.8	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.8	0.7	0.8	0.8	0.9	1.6	2.9	0.7
	PWL (dBA)	[66.3]	[69.8]	73.0	74.9	77.9	81.6	83.3	84.7	86.9	87.8	89.1	90.6	90.9	90.2	92.1	92.6	93.1	93.1	92.3	91.5	93.0	95.6	90.5	84.8	81.2	73.9	[65.3]	[63.3]	103.8
10.5	Turbine ON (dBA)	18.8	23.1	25.4	27.0	28.5	31.7	33.0	33.9	35.8	36.5	37.9	39.3	39.8	39.3	41.4	42.2	42.8	42.9	42.1	41.3	42.7	44.6	39.6	33.8	30.0	23.5	17.5	15.7	53.2
	Background (dBA)	16.6	20.4	22.7	24.4	24.8	25.5	26.1	26.5	27.1	27.5	27.2	26.4	25.7	24.3	23.4	22.3	22.2	21.3	20.5	19.5	19.1	20.6	17.0	18.6	17.4	16.2	15.6	15.0	37.9
	Turbine ON - background adj (dBA)	[15.8]	[20.1]	[22.4]	[24]	26.1	30.5	32.1	33.0	35.2	36.0	37.5	39.1	39.6	39.1	41.4	42.1	42.7	42.8	42.1	41.3	42.7	44.6	39.5	33.7	29.8	22.5	[14.5]	[12.7]	53.0
	Signal to noise (dB)	2.2	2.7	2.7	2.6	3.7	6.2	7.0	7.4	8.7	9.1	10.7	12.9	14.1	15.0	18.1	19.9	20.5	21.6	21.6	21.8	23.6	24.0	22.5	15.2	12.6	7.2	1.9	0.7	15.3
	Uncertainty (dB)	2.5	2.5	2.2	2.1	1.7	1.1	1.0	1.0	0.9	0.9	0.7	0.7	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.8	0.8	0.8	0.9	1.0	1.6	2.9	0.7
	PWL (dBA)	[66.3]	[70.6]	[73]	[74.5]	76.7	81.1	82.6	83.6	85.8	86.5	88.1	89.6	90.2	89.7	91.9	92.7	93.3	93.4	92.6	91.9	93.3	95.2	90.1	84.2	80.3	73.1	[65.1]	[63.3]	103.6

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1/3 Octave values marked with brackets [ ] denote less than 3 dB difference between Turbine ON and Background
Overall levels marked with an asterisk * denote 3 to 6 dB difference between Turbine ON and Background, while Overall values with less than 3 dB difference between Turbine ON and Background are not reported

Wind Bin (m/s)	Parameter	1/3 Octave Band (Hz)																													Overall
		20	25	31.5	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000	
11.0	Turbine ON (dBA)	18.8	23.2	25.5	27.4	29.1	31.9	33.4	34.2	36.0	36.6	37.8	39.1	39.6	39.0	41.3	42.0	42.7	42.9	42.2	41.3	42.7	44.2	39.1	33.4	29.3	22.7	17.3	15.7	53.1
	Background (dBA)	16.4	19.7	22.1	23.0	23.5	24.5	25.3	25.7	25.8	26.1	26.1	25.6	24.7	23.4	22.7	21.7	21.5	20.9	20.2	19.1	18.7	20.1	17.1	19.4	17.1	16.0	15.6	15.0	37.0
	Turbine ON - background adj (dBA)	[15.8]	20.7	22.9	25.4	27.7	31.0	32.7	33.5	35.6	36.2	37.5	38.9	39.5	38.9	41.3	42.0	42.7	42.9	42.1	41.3	42.6	44.2	39.1	33.3	29.1	21.7	[14.3]	[12.7]	52.9
	Signal to noise (dB)	2.4	3.6	3.4	4.4	5.6	7.4	8.2	8.5	10.2	10.5	11.7	13.5	14.9	15.6	18.6	20.3	21.2	22.0	22.0	22.2	24.0	24.1	21.9	14.1	12.2	6.7	1.7	0.8	16.0
	Uncertainty (dB)	2.4	2.1	1.9	1.5	1.2	0.9	0.9	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.8	0.8	1.0	1.6	2.9	0.7
	PWL (dBA)	[66.4]	71.3	73.4	76.0	78.3	81.6	83.3	84.1	86.1	86.8	88.0	89.4	90.0	89.5	91.8	92.6	93.3	93.4	92.7	91.8	93.2	94.7	89.6	83.8	79.6	72.3	[64.8]	[63.3]	103.5
11.5	Turbine ON (dBA)	19.5	23.5	26.2	28.3	29.4	31.9	33.3	34.0	35.8	36.3	37.4	38.9	39.5	39.1	41.2	42.0	42.8	43.0	42.4	41.5	42.8	44.3	39.4	33.9	29.9	23.3	17.5	15.7	53.1
	Background (dBA)	17.4	20.2	22.8	23.9	24.1	25.0	25.6	25.8	25.5	26.0	25.8	25.9	25.2	24.0	23.5	22.5	22.2	21.6	20.9	19.8	19.5	20.1	16.8	17.0	16.6	15.9	15.6	15.0	37.3
	Turbine ON - background adj (dBA)	[16.5]	20.8	23.5	26.4	27.9	30.9	32.5	33.3	35.3	35.9	37.1	38.7	39.3	38.9	41.2	42.0	42.8	43.0	42.4	41.5	42.8	44.3	39.4	33.8	29.7	22.4	[14.5]	[12.7]	53.0
	Signal to noise (dB)	2.1	3.3	3.3	4.4	5.3	7.0	7.7	8.2	10.2	10.4	11.6	13.0	14.3	15.0	17.7	19.5	20.7	21.5	21.5	21.7	23.4	24.2	22.6	16.9	13.3	7.4	1.8	0.7	15.8
	Uncertainty (dB)	3.5	3.2	3.0	2.4	1.8	1.2	1.1	1.1	0.9	0.9	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.9	0.9	0.9	1.0	1.1	1.7	3.0	0.8
	PWL (dBA)	[67.1]	71.4	74.0	76.9	78.5	81.5	83.1	83.9	85.9	86.5	87.7	89.2	89.9	89.5	91.7	92.5	93.4	93.6	92.9	92.1	93.4	94.9	90.0	84.4	80.3	73.0	[65]	[63.3]	103.6

Table C.02 Detailed apparent sound power level data at 10m height

Project: Suncor Adelaide Wind Power Project - Turbine T26 - IEC 61400-11 Measurement

Report ID: 14215.01.T26.RP6

Created on: 9/18/2017

1/3 Octave values marked with brackets [ ] denote less than 3 dB difference between Turbine ON and Background

Overall levels marked with an asterisk * denote 3 to 6 dB difference between Turbine ON and Background, while Overall values with less than 3 dB difference between Turbine ON and Background are not reported

Wind Bin (m/s)	Parameter	1/3 Octave Band (Hz)																														Overall
		20	25	31.5	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000	
5.0	Turbine ON (dBA)	13.9	17.5	20.5	22.8	25.4	30.3	30.4	32.6	34.5	35.3	36.5	38.0	38.1	37.3	38.9	39.3	39.4	39.3	38.9	38.9	41.8	40.9	35.8	32.9	28.9	22.8	17.4	16.0	50.7
	Background (dBA)	14.9	18.1	20.3	21.4	21.9	23.2	23.8	24.5	25.1	24.9	24.7	24.6	24.7	22.9	21.8	20.6	20.0	19.2	19.2	18.2	18.3	20.2	18.0	19.9	17.1	16.0	15.6	15.0	36.0
	Turbine ON - background adj (dBA)	[10.9]	[14.5]	[17.5]	[19.8]	22.9	29.3	29.3	31.9	34.0	34.9	36.2	37.7	37.9	37.2	38.8	39.2	39.4	39.3	38.8	38.8	41.8	40.8	35.7	32.7	28.6	21.8	[14.4]	[13]	50.5
	Signal to noise (dB)	-1.0	-0.6	0.1	1.4	3.5	7.1	6.5	8.2	9.4	10.4	11.8	13.3	13.4	14.4	17.0	18.7	19.4	20.1	19.7	20.7	23.5	20.7	17.8	13.0	11.8	6.8	1.8	0.9	14.6
	Uncertainty (dB)	2.1	2.1	1.7	1.7	1.5	0.9	1.0	0.9	0.8	0.8	0.7	0.7	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.8	0.8	0.9	1.6	2.9	0.7
	PWL (dBA)	[61.5]	[65.1]	[68]	[70.4]	73.5	79.9	79.8	82.5	84.5	85.4	86.8	88.3	88.4	87.7	89.3	89.8	89.9	89.8	89.4	89.4	92.3	91.4	86.3	83.2	79.2	72.3	[65]	[63.5]	101.1
6.0	Turbine ON (dBA)	17.2	21.2	24.0	26.1	28.2	31.6	33.3	34.9	36.9	37.7	39.0	40.4	40.6	39.8	41.6	42.0	42.4	42.3	41.5	40.8	42.5	44.9	39.8	34.7	31.2	24.5	18.0	15.8	53.3
	Background (dBA)	15.5	19.0	21.4	22.4	22.9	23.9	24.5	25.1	25.5	25.6	25.2	24.9	24.3	23.1	22.8	23.3	22.4	21.7	20.7	19.8	19.2	20.7	17.9	19.9	16.8	16.0	15.6	15.0	36.8
	Turbine ON - background adj (dBA)	[14.2]	[18.2]	[21]	23.7	26.7	30.8	32.7	34.4	36.5	37.4	38.8	40.3	40.5	39.7	41.5	42.0	42.3	42.3	41.5	40.8	42.5	44.9	39.8	34.6	31.0	23.9	[15]	[12.8]	53.2
	Signal to noise (dB)	1.7	2.2	2.6	3.7	5.3	7.7	8.8	9.8	11.3	12.1	13.8	15.5	16.3	16.7	18.8	18.8	20.0	20.6	20.8	21.0	23.3	24.2	21.9	14.8	14.4	8.5	2.4	0.8	16.5
	Uncertainty (dB)	2.2	2.2	1.8	1.5	1.1	0.9	0.9	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.9	1.7	3.1	0.7
	PWL (dBA)	[64.8]	[68.7]	[71.6]	74.3	77.3	81.4	83.3	85.0	87.1	88.0	89.4	90.9	91.0	90.3	92.1	92.5	92.9	92.8	92.1	91.3	93.0	95.4	90.3	85.1	81.6	74.5	[65.6]	[63.4]	103.7
7.0	Turbine ON (dBA)	18.8	22.8	25.4	27.1	28.7	31.8	33.3	34.4	36.5	37.3	38.6	40.0	40.3	39.6	41.5	42.1	42.6	42.6	41.8	41.0	42.6	45.0	39.9	34.4	30.6	23.9	17.7	15.7	53.3
	Background (dBA)	16.8	20.4	22.7	24.0	24.4	25.3	25.8	26.7	27.1	27.2	26.9	26.4	25.6	24.5	23.7	22.9	22.2	21.4	20.7	19.7	19.5	20.8	21.2	24.1	17.5	16.2	15.6	15.0	38.1
	Turbine ON - background adj (dBA)	[15.8]	[19.8]	[22.4]	24.1	26.7	30.7	32.4	33.6	36.0	36.9	38.3	39.8	40.1	39.5	41.5	42.1	42.6	42.6	41.8	41.0	42.6	44.9	39.8	33.9	30.4	23.1	[14.7]	[12.7]	53.2
	Signal to noise (dB)	2.0	2.4	2.7	3.0	4.3	6.5	7.4	7.7	9.4	10.1	11.7	13.6	14.7	15.1	17.8	19.2	20.4	21.2	21.2	21.3	23.1	24.2	18.7	10.3	13.2	7.7	2.0	0.7	15.2
	Uncertainty (dB)	2.2	2.2	1.8	1.8	1.3	1.0	0.9	0.9	0.8	0.8	0.7	0.7	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.8	0.8	0.8	0.8	0.9	1.7	3.0	0.7
	PWL (dBA)	[66.4]	[70.4]	[73]	74.6	77.3	81.3	83.0	84.2	86.5	87.4	88.9	90.3	90.7	90.0	92.0	92.6	93.1	93.2	92.4	91.6	93.1	95.5	90.4	84.5	81.0	73.7	[65.3]	[63.3]	103.7
8.0	Turbine ON (dBA)	19.7	23.9	26.5	28.5	29.8	32.3	33.7	34.5	36.2	36.8	37.9	39.2	39.7	39.1	41.3	42.0	42.8	42.9	42.2	41.4	42.6	44.1	39.1	33.6	29.5	23.0	17.5	15.8	53.1
	Background (dBA)	17.4	20.8	23.4	24.5	24.7	25.6	26.4	26.8	26.8	27.3	27.1	27.0	25.9	24.6	24.1	23.4	22.9	22.6	21.6	20.4	19.8	20.5	17.5	18.8	17.0	16.0	15.6	15.0	38.2
	Turbine ON - background adj (dBA)	[16.7]	21.0	23.6	26.2	28.3	31.3	32.8	33.7	35.6	36.3	37.5	38.9	39.5	38.9	41.2	42.0	42.7	42.9	42.2	41.3	42.6	44.1	39.1	33.4	29.2	22.0	[14.5]	[12.8]	53.0
	Signal to noise (dB)	2.3	3.1	3.1	3.9	5.2	6.7	7.3	7.7	9.3	9.4	10.8	12.2	13.8	14.5	17.2	18.6	19.9	20.3	20.6	20.9	22.8	23.6	21.6	14.7	12.5	6.9	1.9	0.8	14.9
	Uncertainty (dB)	2.4	2.5	2.2	1.8	1.3	1.0	0.9	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.8	1.0	1.6	2.8	0.7
	PWL (dBA)	[67.3]	71.6	74.1	76.8	78.8	81.8	83.4	84.2	86.2	86.8	88.0	89.5	90.1	89.5	91.8	92.5	93.3	93.5	92.7	91.9	93.1	94.6	89.7	84.0	79.8	72.5	[65]	[63.4]	103.5

Overall Equipment Uncertainties		
	Typical values	Used values
Calibration	0.2 dB	0.2 dB
Board	0.3 dB	0.3 dB
Distance	0.1 dB	0.1 dB
Air absorption	0 dB	0 dB
Weather	0.5 dB	0.5 dB

1/3 Octave Band Uncertainties		
Frequency (Hz)	Microphone Uncertainty	Overall (including overall equipment Uncertainties)
20	0.8 dB	1 dB
25	0.8 dB	1 dB
31.5	0.5 dB	0.8 dB
40	0.5 dB	0.8 dB
50	0.5 dB	0.8 dB
63	0.5 dB	0.8 dB
80	0.5 dB	0.8 dB
100	0.5 dB	0.8 dB
125	0.5 dB	0.8 dB
160	0.5 dB	0.8 dB
200	0.3 dB	0.7 dB
250	0.3 dB	0.7 dB
315	0.3 dB	0.7 dB
400	0.3 dB	0.7 dB
500	0.3 dB	0.7 dB
630	0.3 dB	0.7 dB
800	0.3 dB	0.7 dB
1000	0.3 dB	0.7 dB
1250	0.3 dB	0.7 dB
1600	0.3 dB	0.7 dB
2000	0.3 dB	0.7 dB
2500	0.5 dB	0.8 dB
3150	0.5 dB	0.8 dB
4000	0.5 dB	0.8 dB
5000	0.5 dB	0.8 dB
6300	0.5 dB	0.8 dB
8000	0.5 dB	0.8 dB
10000	1.3 dB	1.4 dB

Table C.04 Detailed measurement uncertainty at hub height

Project: Suncor Adelaide Wind Power Project - Turbine T26 - IEC 61400-11 Measurement

Report ID: 14215.01.T26.RP6

Created on: 9/6/2017

Wind Bin (m/s)	Parameter	Average Wind Speed (m/s)	# of data points	Parameter	1/3 Octave Band (Hz) 20	25	31.5	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000	Overall
7.0	Turbine ON	7.02	91	Average (dBA)	12.9	16.1	19.3	21.9	24.6	30.4	29.5	31.8	33.8	34.6	35.8	37.2	37.2	36.4	37.9	38.2	38.4	38.2	38.0	38.3	41.9	39.3	34.6	32.6	28.2	22.4	17.3	16.0	49.9
				Uncertainty A (dB)	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.0		
				Uncertainty B (dB)	1.0	1.0	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	1.4	
				Combined Uncertainty (dB)	1.1	1.1	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	1.4	
	Background	7.06	38	Average (dBA)	15.3	18.7	20.8	21.9	22.4	23.7	24.3	25.0	25.7	25.4	25.5	25.4	26.3	24.2	22.3	20.8	20.3	19.4	18.8	18.0	18.2	20.1	17.8	19.5	16.8	15.9	15.6	15.0	36.6
				Uncertainty A (dB)	0.8	0.8	0.9	0.9	0.9	0.9	0.8	0.9	0.9	0.9	0.9	0.8	1.0	0.9	0.7	0.5	0.5	0.4	0.4	0.3	0.2	0.2	0.4	0.6	0.2	0.1	0.0	0.0		
				Uncertainty B (dB)	1.0	1.0	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.4	
				Combined Uncertainty (dB)	1.3	1.3	1.2	1.2	1.2	1.2	1.1	1.2	1.2	1.2	1.1	1.1	1.2	1.1	1.0	0.9	0.8	0.8	0.8	0.8	0.7	0.8	0.9	1.0	0.8	0.8	0.8	0.8	1.4	
7.5	Turbine ON	7.53	134	Average (dBA)	15.0	18.6	21.6	23.8	26.3	31.1	31.3	33.6	35.3	36.1	37.4	38.9	39.1	38.4	40.0	40.5	40.7	40.6	39.9	39.4	42.7	42.7	36.7	33.7	29.8	23.3	17.6	15.9	51.8
				Uncertainty A (dB)	0.3	0.3	0.3	0.3	0.2	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.1	0.0		
				Uncertainty B (dB)	1.0	1.0	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.4	
				Combined Uncertainty (dB)	1.1	1.1	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.4	
	Background	7.54	45	Average (dBA)	14.8	17.8	20.3	21.4	21.9	23.0	23.8	24.5	24.9	24.8	24.5	24.1	23.6	22.4	22.0	20.7	19.8	19.0	19.3	18.0	18.2	20.0	17.6	20.0	17.0	16.0	15.6	15.0	35.9
				Uncertainty A (dB)	0.7	0.7	0.7	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.6	0.6	0.6	0.5	0.4	0.3	0.4	0.3	0.2	0.2	0.4	0.6	0.2	0.1	0.0	0.0		
				Uncertainty B (dB)	1.0	1.0	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.4	
				Combined Uncertainty (dB)	1.2	1.2	1.1	1.1	1.1	1.0	1.0	1.1	1.1	1.1	1.0	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.8	0.8	0.7	0.8	0.9	1.0	0.8	0.8	0.8	0.8	1.4	
8.0	Turbine ON	7.99	168	Average (dBA)	15.9	19.6	22.7	25.1	27.6	31.3	32.8	34.6	36.6	37.4	38.7	40.2	40.3	39.6	41.3	41.8	42.1	42.0	41.3	40.6	42.6	44.6	39.3	34.6	31.2	24.6	18.1	15.9	53.0
				Uncertainty A (dB)	0.3	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.1	0.2	0.2	0.1	0.0		
				Uncertainty B (dB)	1.0	1.0	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.4	
				Combined Uncertainty (dB)	1.0	1.0	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.4	
	Background	8.01	69	Average (dBA)	15.2	18.6	21.2	22.2	22.7	24.0	24.5	25.1	25.7	25.7	25.3	25.0	24.2	23.0	22.4	23.4	23.8	22.7	21.7	20.7	19.6	20.6	17.3	19.2	17.2	16.3	15.7	15.0	36.9
				Uncertainty A (dB)	0.5	0.5	0.6	0.6	0.6	0.5	0.5	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.4	0.6	0.6	0.6	0.5	0.5	0.3	0.2	0.3	0.4	0.2	0.1	0.0	0.0		
				Uncertainty B (dB)	1.0	1.0	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.4	
				Combined Uncertainty (dB)	1.1	1.2	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.9	0.9	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.8	0.9	0.8	0.8	0.8	0.8	1.4	
8.5	Turbine ON	8.51	106	Average (dBA)	16.6	20.7	23.8	25.9	28.2	31.8	33.6	35.1	37.1	37.9	39.2	40.6	40.8	40.0	41.7	42.2	42.5	42.4	41.7	40.9	42.5	45.0	40.0	34.9	31.4	24.9	18.2	15.8	53.4
				Uncertainty A (dB)	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.1	0.2	0.2	0.1	0.0		
				Uncertainty B (dB)	1.0	1.0	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.4	
				Combined Uncertainty (dB)	1.1	1.1	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.4	
	Background	8.54	78	Average (dBA)	15.9	19.4	21.5	22.6	23.2	24.0	24.7	25.2	25.6	25.6	25.3	25.0	24.3	23.0	23.0	23.8	21.6	21.3	20.4	19.6	19.2	20.8	17.6	18.5	16.6	15.9	15.6	15.0	36.8
				Uncertainty A (dB)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.6	0.4	0.4	0.4	0.3	0.3	0.2	0.3	0.3	0.1	0.1	0.0	0.0		
				Uncertainty B (dB)	1.0	1.0	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.4	
				Combined Uncertainty (dB)	1.1	1.1	0.9	1.0	1.0	0.9	0.9	1.0	1.0	1.0	0.9	0.8	0.8	0.8	0.8	0.9	0.8	0.8	0.8	0.8	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.4	
9.0	Turbine ON	8.99	111	Average (dBA)	18.4	22.3	25.0	26.8	28.7	31.8	33.6	35.0	37.0	37.8	39.2	40.5	40.6	39.8	41.6	42.0	42.4	42.3	41.5	40.7	42.3	44.8	39.8	34.5	30.9	24.2	17.8	15.8	53.3
				Uncertainty A (dB)	0.3	0.3	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.1	0.0		
				Uncertainty B (dB)	1.0	1.0	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.4	
				Combined Uncertainty (dB)	1.1	1.1	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.4	
	Background	9.05	57	Average (dBA)	15.0	18.2	21.0	21.6	22.1	23.1	23.9	24.4	24.8	24.9	24.6	24.3	24.0	23.0	22.5	21.3	20.5	20.0	19.5	18.8	18.7	20.6	18.7	21.6	16.8	15.9	15.6	15.0	36.2
				Uncertainty A (dB)	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.6	0.6	0.6	0.6	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.4	0.7	0.2	0.1	0.0	0.0		
				Uncertainty B (dB)	1.0	1.0	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.4	
				Combined Uncertainty (dB)	1.2	1.2	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.9	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.8	0.8	0.7	0.8	0.9	1.0	0.8	0.8	0.8	0.8	1.4	
9.5	Turbine ON	9.48	64	Average (dBA)	18.7	22.7	25.3	27.0	28.7	31.8	33.4	34.7	36.9	37.8	39.1	40.5	40.6	39.9	41.7	42.1	42.5	42.5	41.7	40.8	42.5	45.2	40.1	34.7	30.9	24.2	17.8	15.8	53.4
				Uncertainty A (dB)	0.4	0.5	0.5	0.4	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.0		
				Uncertainty B (dB)	1.0	1.0	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.4	
				Combined Uncertainty (dB)	1.1	1.1	0.9	0.9	0.9	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.4	
	Background	9.52	53	Average (dBA)	17.5	20.8	23.3	24.6	25.1	25.9	26.4	27.7	28.0	27.9	27.7	27.2	26.1	24.9	24.2	23.5	22.5	21.8	21.1	20.2	20.1	21.1	23.6	26.8	17.8	16.4	15.7	15.0	38.8
				Uncertainty A (dB)	0.6	0.7	0.7	0.8	0.8	0.8	0.7	0.8	0.8	0.8	0.8	0.7	0.6	0.7	0.6	0.6	0.5	0.5	0.5	0.4	0.4	0.2	1.0	1.3	0.3	0.2	0.1	0.0		
				Uncertainty B (dB)	1.0	1.0	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.4	
				Combined Uncertainty (dB)	1.2	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.2	1.1	1.0	0.9	1.0	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.8	1.3	1.5	0.9	0.8	0.8	0.8	1.4	

Table C.03 Detailed measurement uncertainty at hub height

Project: Suncor Adelaide Wind Power Project - Turbine T26 - IEC 61400-11 Measurement

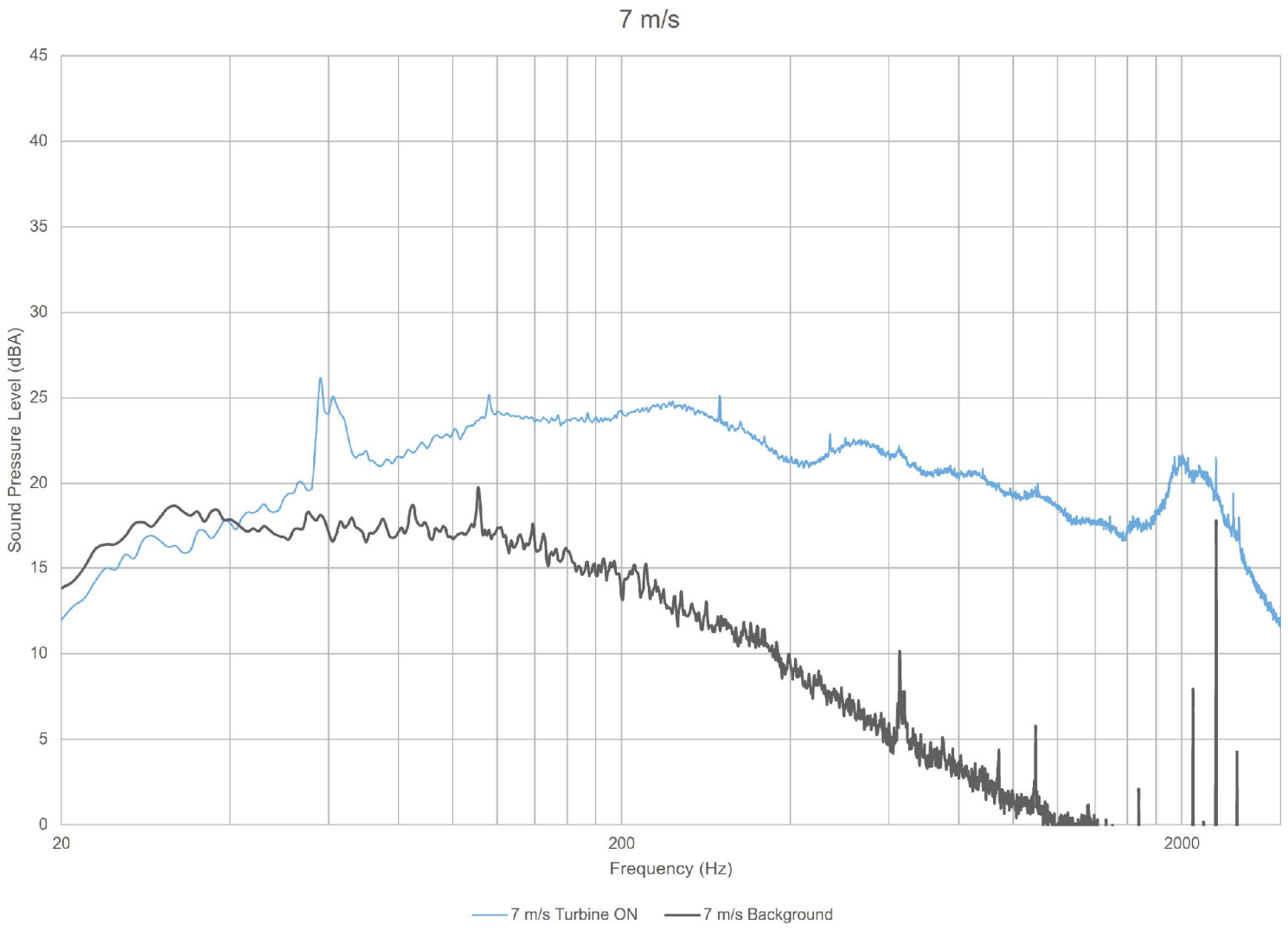
Report ID: 14215.01.T26.RP6

Created on: 9/6/2017

Wind Bin (m/s)	Parameter	Average Wind Speed (m/s)	# of data points	Parameter	1/3 Octave Band (Hz)																													Overall
					20	25	31.5	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000	
10.0	Turbine ON	9.97	32	Average (dBA)	18.7	22.1	25.1	26.6	28.8	31.9	33.4	34.8	36.9	37.7	38.9	40.3	40.6	39.8	41.6	42.1	42.5	42.5	41.8	40.9	42.4	45.1	40.0	34.5	31.0	24.2	17.8	15.7	53.4
				Uncertainty A (dB)	0.6	0.6	0.6	0.4	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.3	0.3	0.3	0.3	0.1	0.0	
				Uncertainty B (dB)	1.0	1.0	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	1.4	
				Combined Uncertainty (dB)	1.2	1.2	1.0	0.9	0.9	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.9	0.8	0.8	0.9	0.9	0.8	1.4	
	Background	10.04	41	Average (dBA)	16.0	19.6	21.7	22.7	22.9	24.0	24.5	25.1	25.4	25.5	25.2	24.8	24.6	23.9	23.2	22.3	21.5	20.9	20.1	19.1	18.9	20.5	17.9	19.7	16.9	15.9	15.6	15.0	36.7
				Uncertainty A (dB)	0.8	0.8	0.8	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.6	0.5	0.5	0.5	0.3	0.2	0.4	0.6	0.2	0.1	0.0	0.0	
				Uncertainty B (dB)	1.0	1.0	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	1.4	
				Combined Uncertainty (dB)	1.3	1.3	1.2	1.2	1.1	1.1	1.1	1.1	1.2	1.2	1.0	1.0	1.0	1.0	1.0	1.0	0.9	0.9	0.9	0.8	0.7	0.8	0.9	1.0	0.8	0.8	0.8	1.4	
10.5	Turbine ON	10.46	32	Average (dBA)	18.8	23.2	25.4	27.0	28.4	31.7	33.0	33.8	35.7	36.4	37.8	39.2	39.7	39.2	41.4	42.2	42.8	42.9	42.1	41.4	42.8	44.6	39.5	33.7	29.9	23.4	17.5	15.7	53.2
				Uncertainty A (dB)	0.6	0.6	0.6	0.5	0.4	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.1	0.0	
				Uncertainty B (dB)	1.0	1.0	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	1.4	
				Combined Uncertainty (dB)	1.2	1.2	1.0	1.0	0.9	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.9	0.9	0.9	0.9	0.9	0.8	1.4	
	Background	10.45	31	Average (dBA)	16.6	20.4	22.7	24.5	24.9	25.6	26.2	26.6	27.2	27.6	27.3	26.5	25.8	24.4	23.5	22.4	22.3	21.3	20.5	19.6	19.2	20.7	17.0	18.6	17.4	16.3	15.6	15.0	38.0
				Uncertainty A (dB)	0.9	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.0	1.0	0.9	0.8	0.7	0.7	0.6	0.6	0.5	0.4	0.2	0.3	0.5	0.4	0.2	0.0	0.0	
				Uncertainty B (dB)	1.0	1.0	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	1.4	
				Combined Uncertainty (dB)	1.3	1.5	1.3	1.4	1.4	1.3	1.3	1.4	1.4	1.4	1.3	1.2	1.2	1.1	1.1	1.0	1.0	0.9	0.9	0.9	0.8	0.8	0.9	0.9	0.9	0.8	0.8	1.4	
11.0	Turbine ON	10.99	25	Average (dBA)	18.8	23.2	25.5	27.5	29.3	31.9	33.5	34.3	36.1	36.6	37.8	39.1	39.6	39.0	41.3	42.0	42.7	42.9	42.2	41.3	42.7	44.1	39.0	33.4	29.2	22.6	17.2	15.7	53.0
				Uncertainty A (dB)	0.7	0.6	0.7	0.5	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.3	0.4	0.4	0.1	0.0	
				Uncertainty B (dB)	1.0	1.0	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	1.4	
				Combined Uncertainty (dB)	1.2	1.2	1.0	1.0	0.9	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.9	0.8	0.9	0.9	0.9	0.8	1.4	
	Background	10.97	32	Average (dBA)	16.4	19.7	22.1	23.0	23.5	24.5	25.2	25.7	25.8	26.1	26.1	25.6	24.7	23.3	22.7	21.7	21.5	20.9	20.2	19.1	18.6	20.1	17.2	19.5	17.1	16.0	15.6	15.0	37.0
				Uncertainty A (dB)	0.7	0.8	0.8	0.9	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.8	0.7	0.7	0.7	0.6	0.6	0.6	0.5	0.5	0.3	0.2	0.4	0.7	0.3	0.1	0.0	0.0	
				Uncertainty B (dB)	1.0	1.0	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	1.4	
				Combined Uncertainty (dB)	1.3	1.3	1.1	1.2	1.2	1.1	1.1	1.2	1.2	1.2	1.1	1.0	1.0	1.0	1.0	0.9	0.9	0.9	0.9	0.8	0.7	0.8	0.9	1.0	0.9	0.8	0.8	1.4	
11.5	Turbine ON	11.46	10	Average (dBA)	19.5	23.6	26.2	28.4	29.5	31.9	33.4	34.0	35.8	36.3	37.4	38.9	39.5	39.1	41.2	42.0	42.9	43.1	42.4	41.6	42.9	44.3	39.5	33.9	29.9	23.3	17.5	15.7	53.1
				Uncertainty A (dB)	1.3	1.3	1.4	1.3	1.0	0.6	0.5	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.5	0.6	0.4	0.6	0.6	0.2	0.0	
				Uncertainty B (dB)	1.0	1.0	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	1.4	
				Combined Uncertainty (dB)	1.7	1.7	1.6	1.5	1.3	1.0	1.0	1.0	0.9	0.9	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.7	1.0	1.0	0.9	1.0	1.0	0.8	1.4	
	Background	11.55	15	Average (dBA)	17.5	20.3	22.9	24.0	24.2	25.0	25.6	25.9	25.5	25.9	25.8	25.9	25.2	24.1	23.6	22.6	22.3	21.6	20.9	19.9	19.5	20.1	16.8	16.8	16.6	15.9	15.6	15.0	37.3
				Uncertainty A (dB)	1.5	1.6	1.6	1.7	1.7	1.6	1.5	1.6	1.4	1.4	1.3	1.3	1.2	1.2	1.1	1.0	0.9	0.8	0.8	0.8	0.6	0.4	0.5	0.3	0.3	0.1	0.0	0.0	
				Uncertainty B (dB)	1.0	1.0	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	1.4	
				Combined Uncertainty (dB)	1.8	1.9	1.8	1.9	1.9	1.8	1.7	1.7	1.6	1.6	1.5	1.4	1.4	1.4	1.3	1.2	1.1	1.1	1.0	1.0	0.9	0.9	0.9	0.9	0.9	0.8	0.8	1.4	

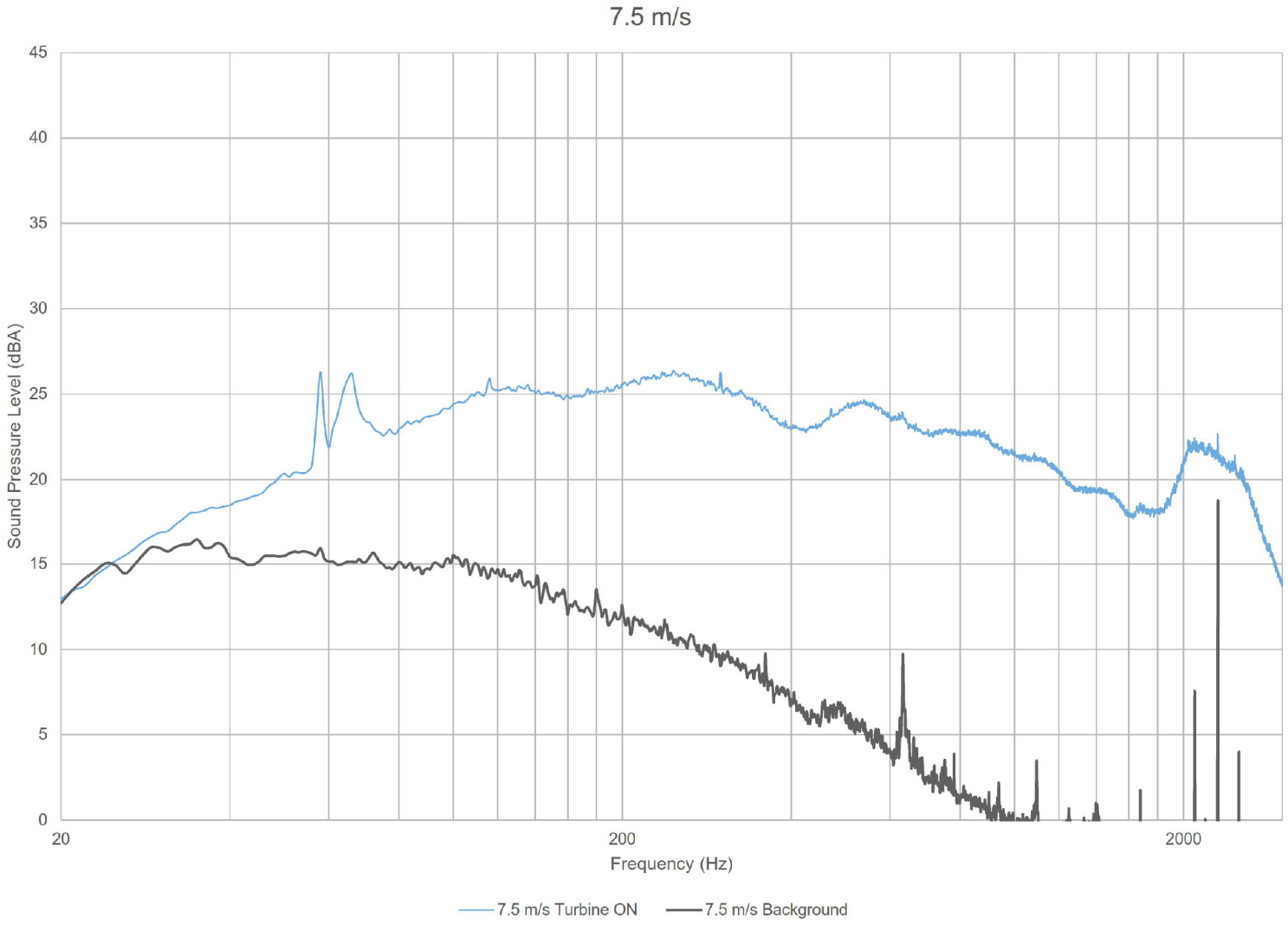
aercoustics
Aercoustics Engineering Ltd.
1004 Middlegate Road, Suite 1100
Mississauga, ON L4Y 1M4
Tel: 416-249-3361
Fax 416-249-3613
aercoustics.com

Appendix D
Tonality Assessment



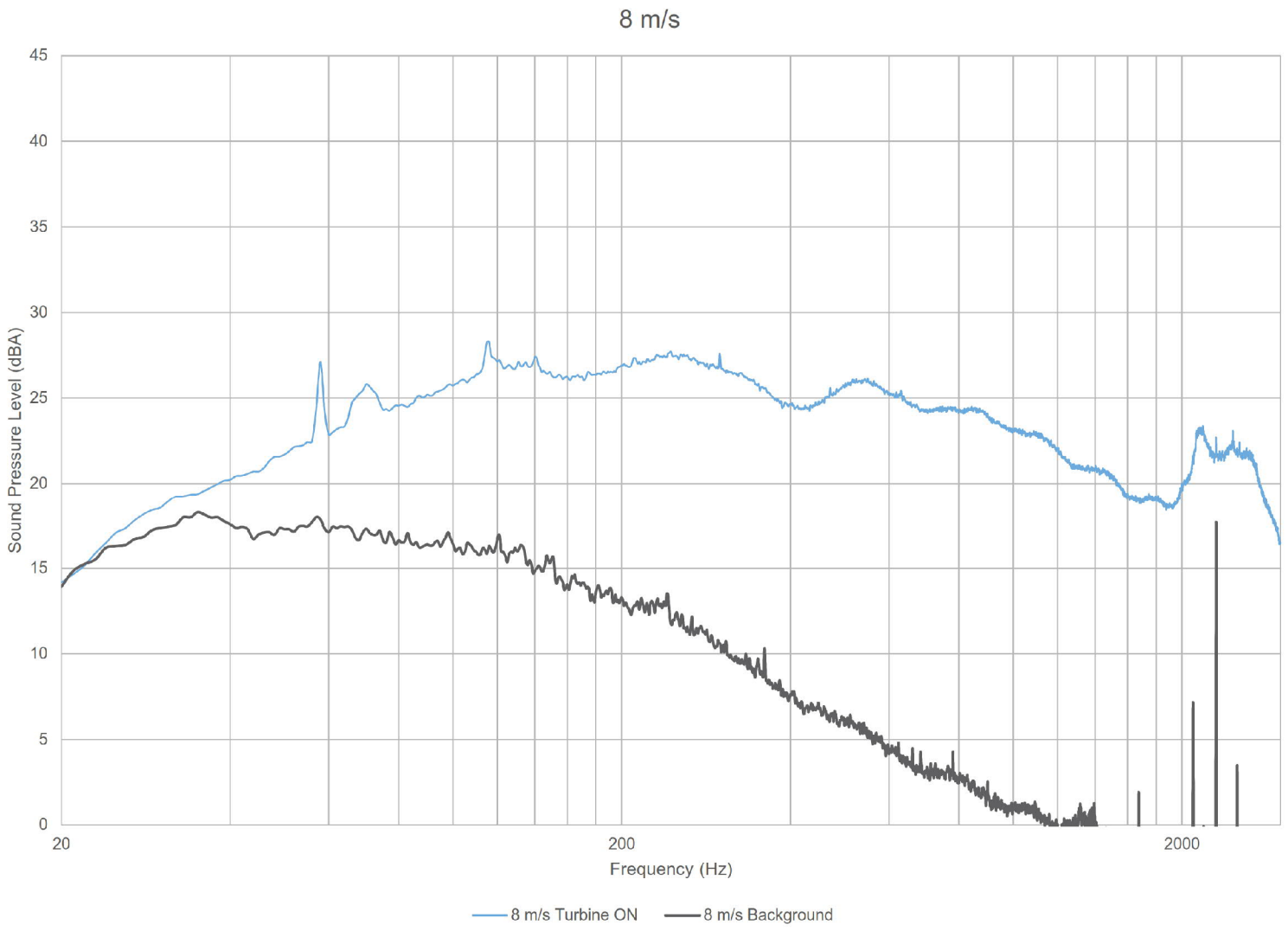
aercoustics	14215.01.T26.RP6 Scale: NTS Drawn by: AM Reviewed by: PA Date: Sept 06, 2017 Revision: 1	**Project Name** Suncor Adelaide Wind Power Project - Turbine T26 - IEC61400-11 Edition 3.0 **Figure Title** Plot of narrow band spectra – Turbine ON vs. Background at 7 m/s

Figure D.01



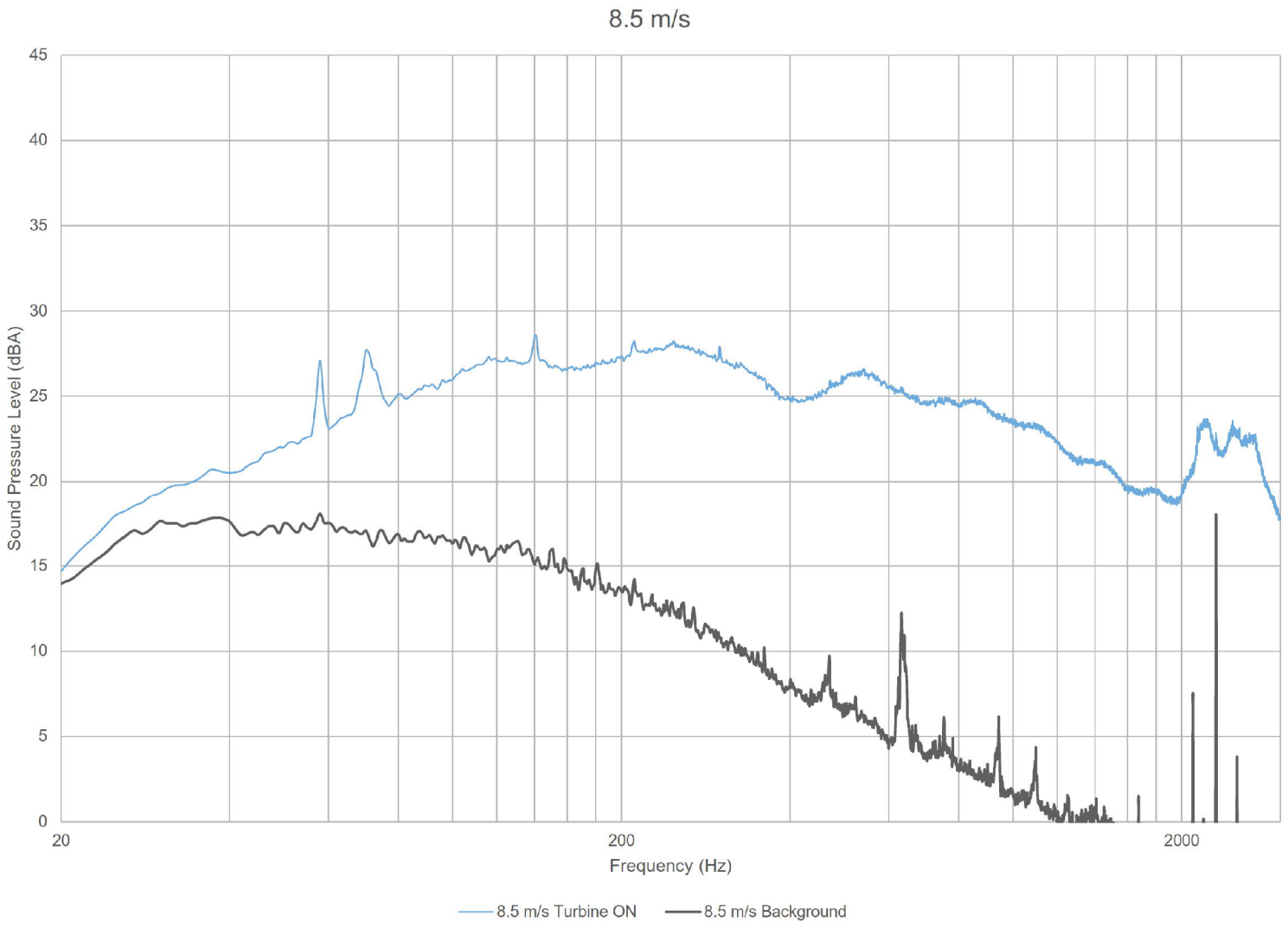
aercoustics	14215.01.T26.RP6 Scale: NTS Drawn by: AM Reviewed by: PA Date: Sept 06, 2017 Revision: 1	**Project Name** Suncor Adelaide Wind Power Project - Turbine T26 - IEC61400-11 Edition 3.0 **Figure Title** Plot of narrow band spectra – Turbine ON vs. Background at 7.5 m/s

Figure D.02



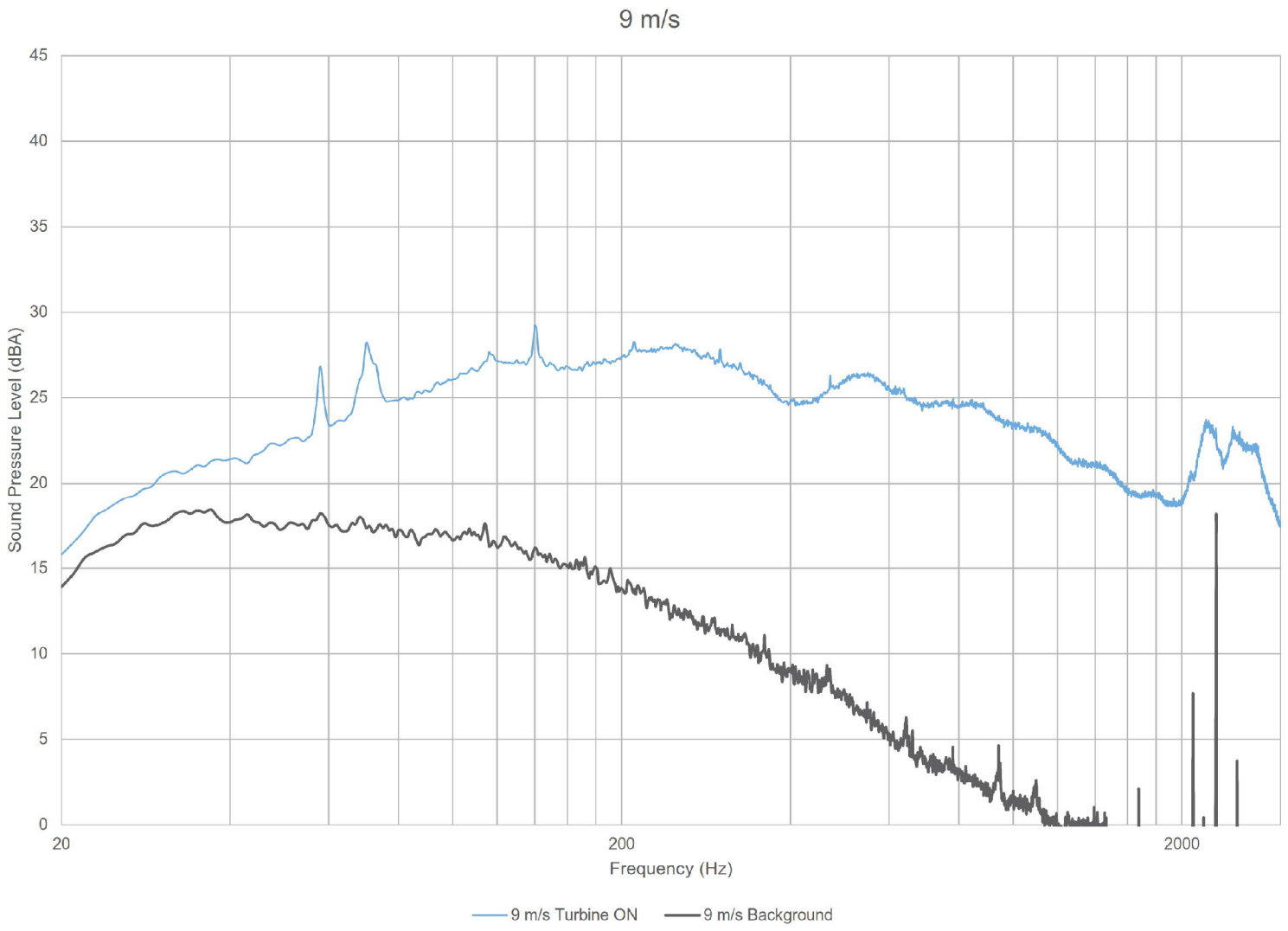
aercoustics	14215.01.T26.RP6 Scale: NTS Drawn by: AM Reviewed by: PA Date: Sept 06, 2017 Revision: 1	**Project Name** Suncor Adelaide Wind Power Project - Turbine T26 - IEC61400-11 Edition 3.0 **Figure Title** Plot of narrow band spectra – Turbine ON vs. Background at 8.0 m/s

Figure D.03



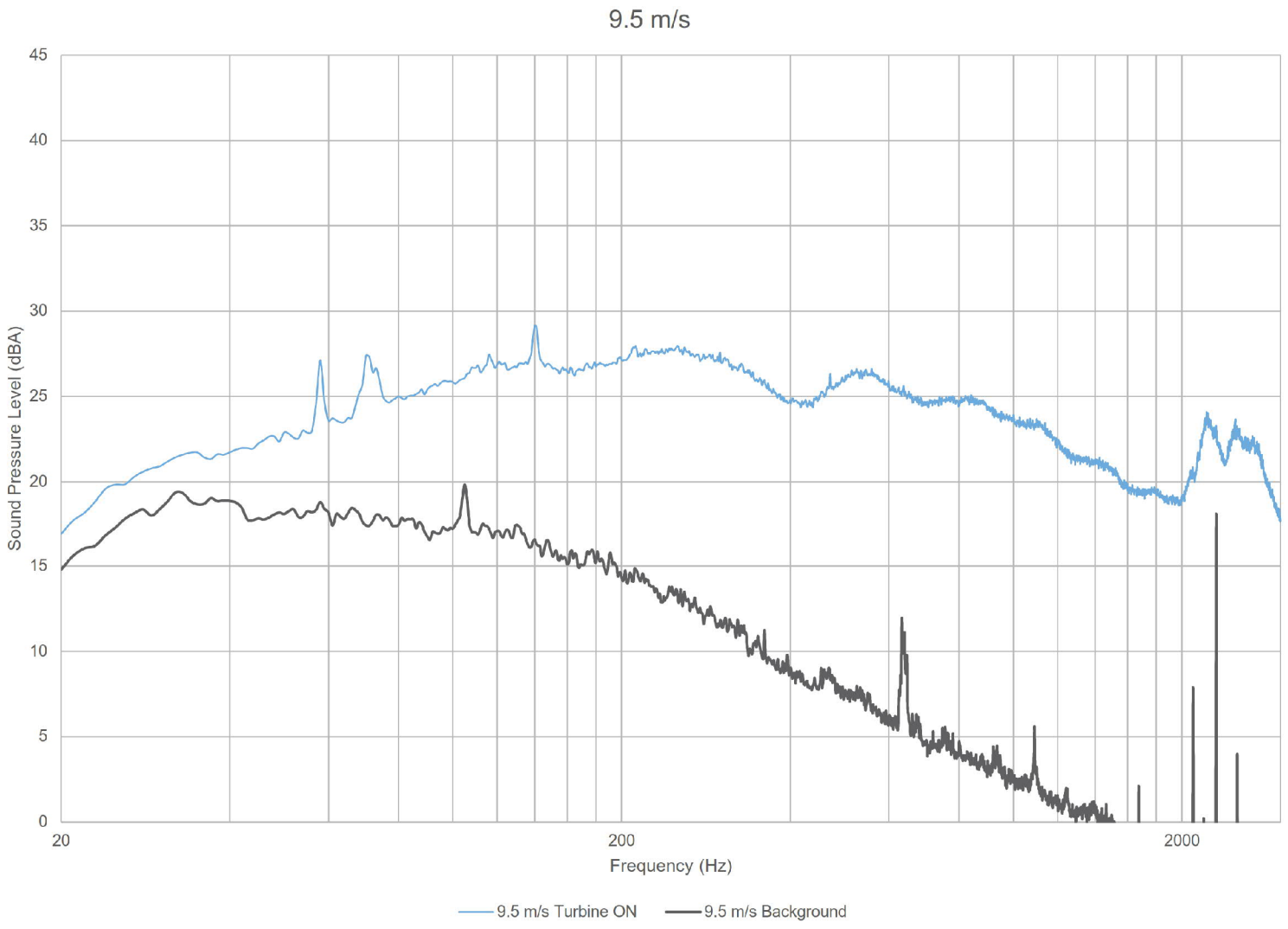
aercoustics	14215.01.T26.RP6 Scale: NTS Drawn by: AM Reviewed by: PA Date: Sept 06, 2017 Revision: 1	**Project Name** Suncor Adelaide Wind Power Project - Turbine T26 - IEC61400-11 Edition 3.0 **Figure Title** Plot of narrow band spectra – Turbine ON vs. Background at 8.5 m/s

Figure D.04



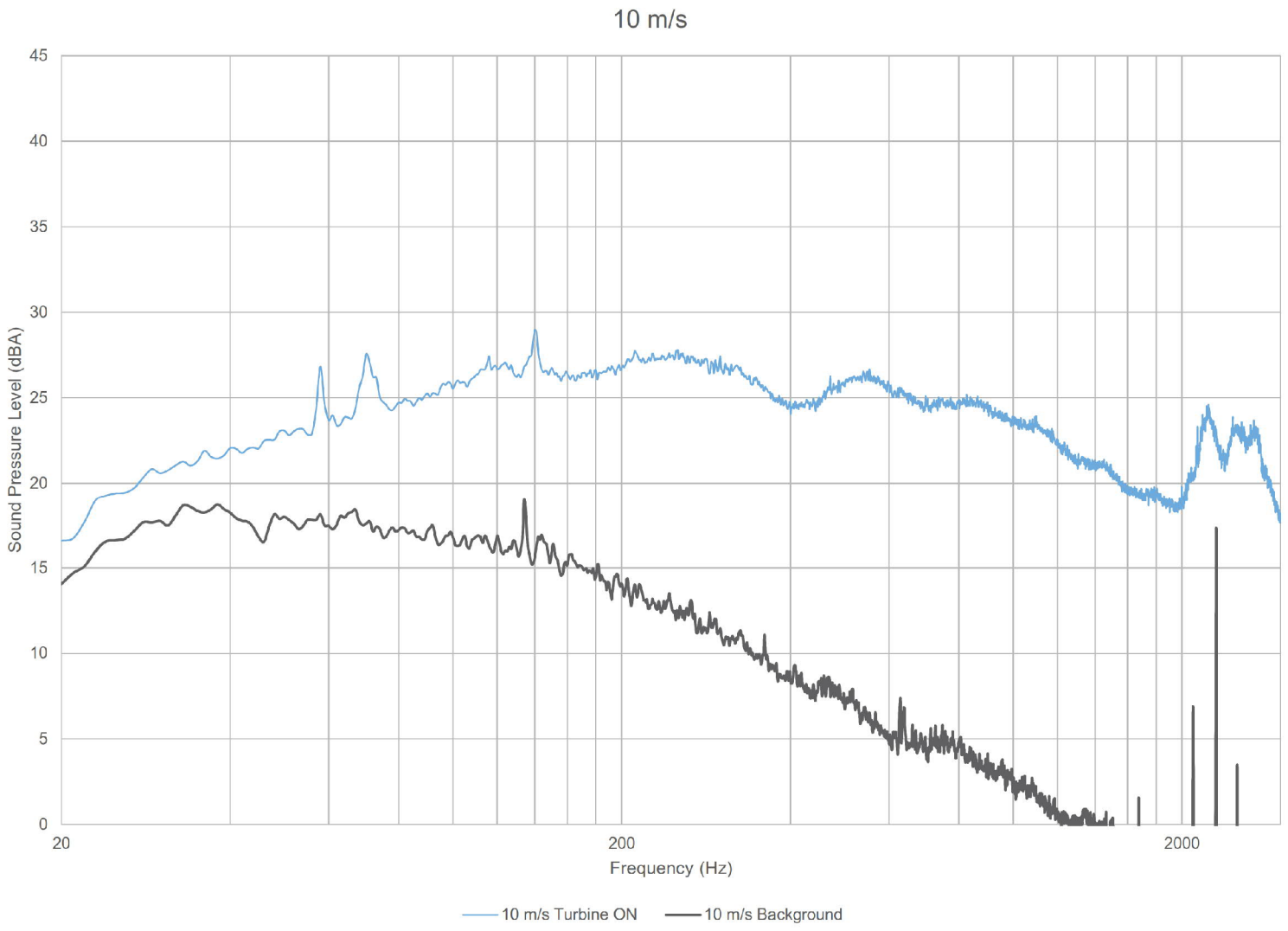
aercoustics	14215.01.T26.RP6 Scale: NTS Drawn by: AM Reviewed by: PA Date: Sept 06, 2017 Revision: 1	**Project Name** Suncor Adelaide Wind Power Project - Turbine T26 - IEC61400-11 Edition 3.0 **Figure Title** Plot of narrow band spectra – Turbine ON vs. Background at 9 m/s

Figure D.05



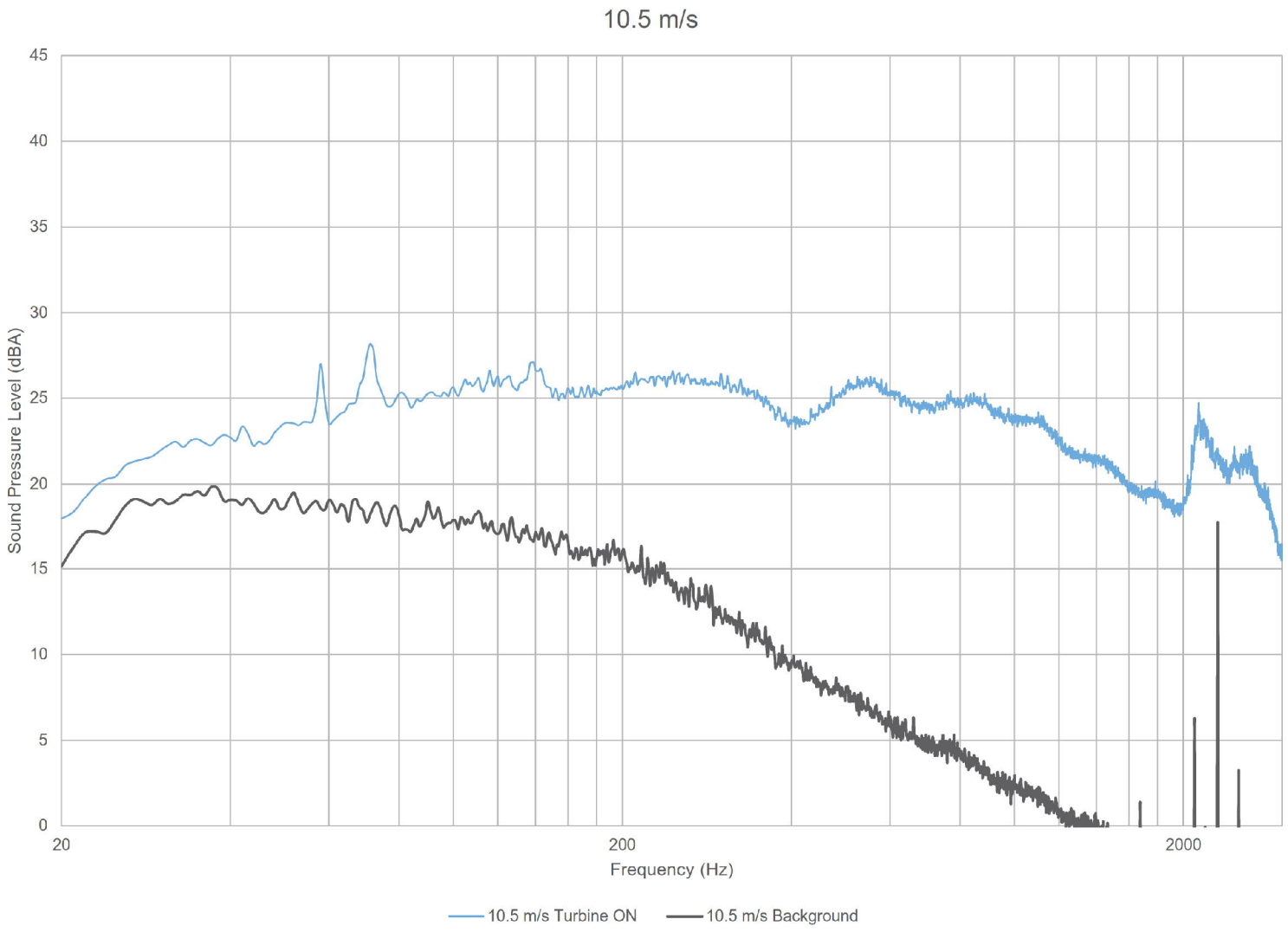
aercoustics	14215.01.T26.RP6 Scale: NTS Drawn by: AM Reviewed by: PA Date: Sept 06, 2017 Revision: 1	**Project Name** Suncor Adelaide Wind Power Project - Turbine T26 - IEC61400-11 Edition 3.0 **Figure Title** Plot of narrow band spectra – Turbine ON vs. Background at 9.5 m/s

Figure D.06



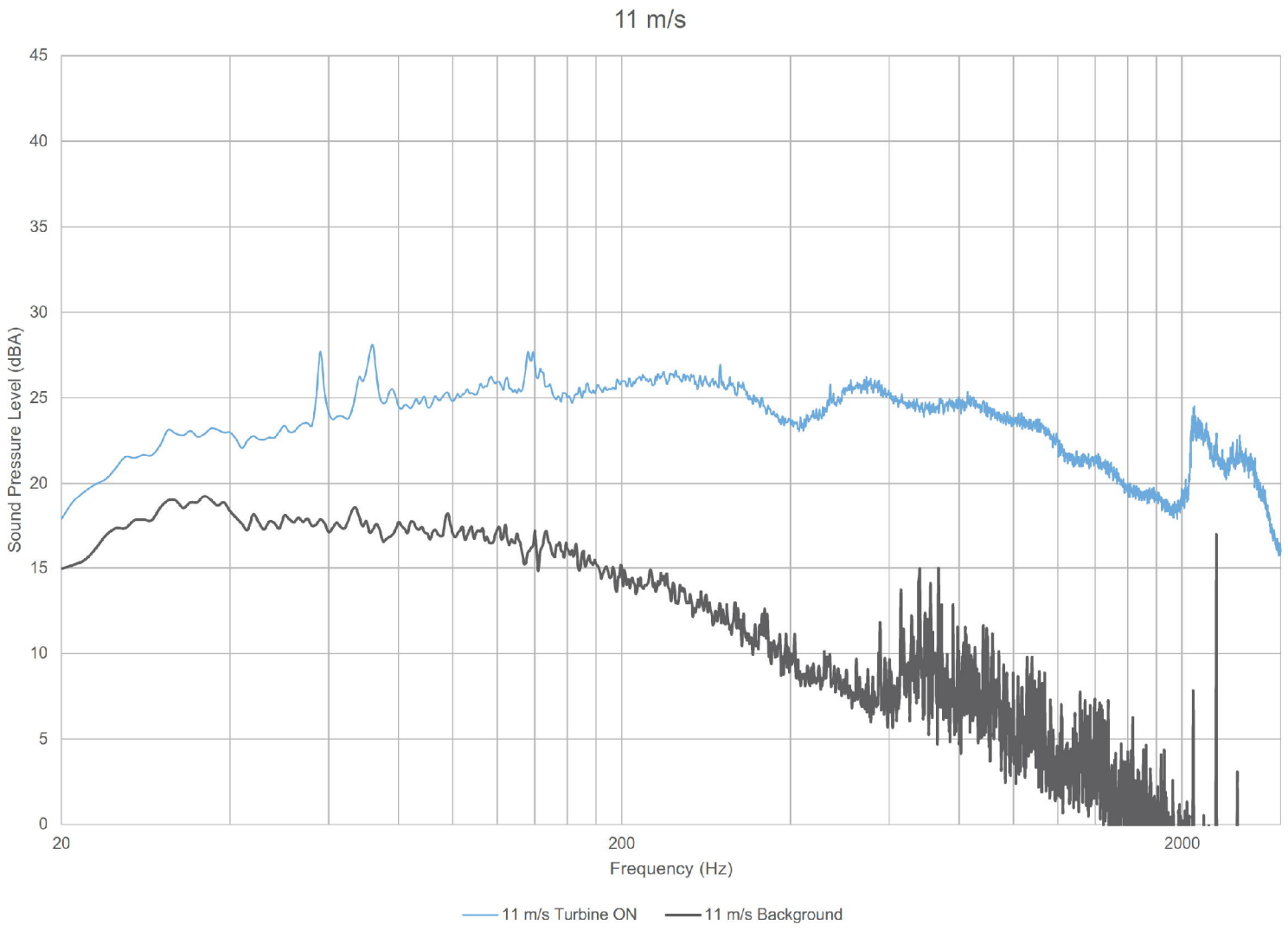
aercoustics	14215.01.T26.RP6 Scale: NTS Drawn by: AM Reviewed by: PA Date: Sept 06, 2017 Revision: 1	**Project Name** Suncor Adelaide Wind Power Project - Turbine T26 - IEC61400-11 Edition 3.0 **Figure Title** Plot of narrow band spectra – Turbine ON vs. Background at 10 m/s

Figure D.07



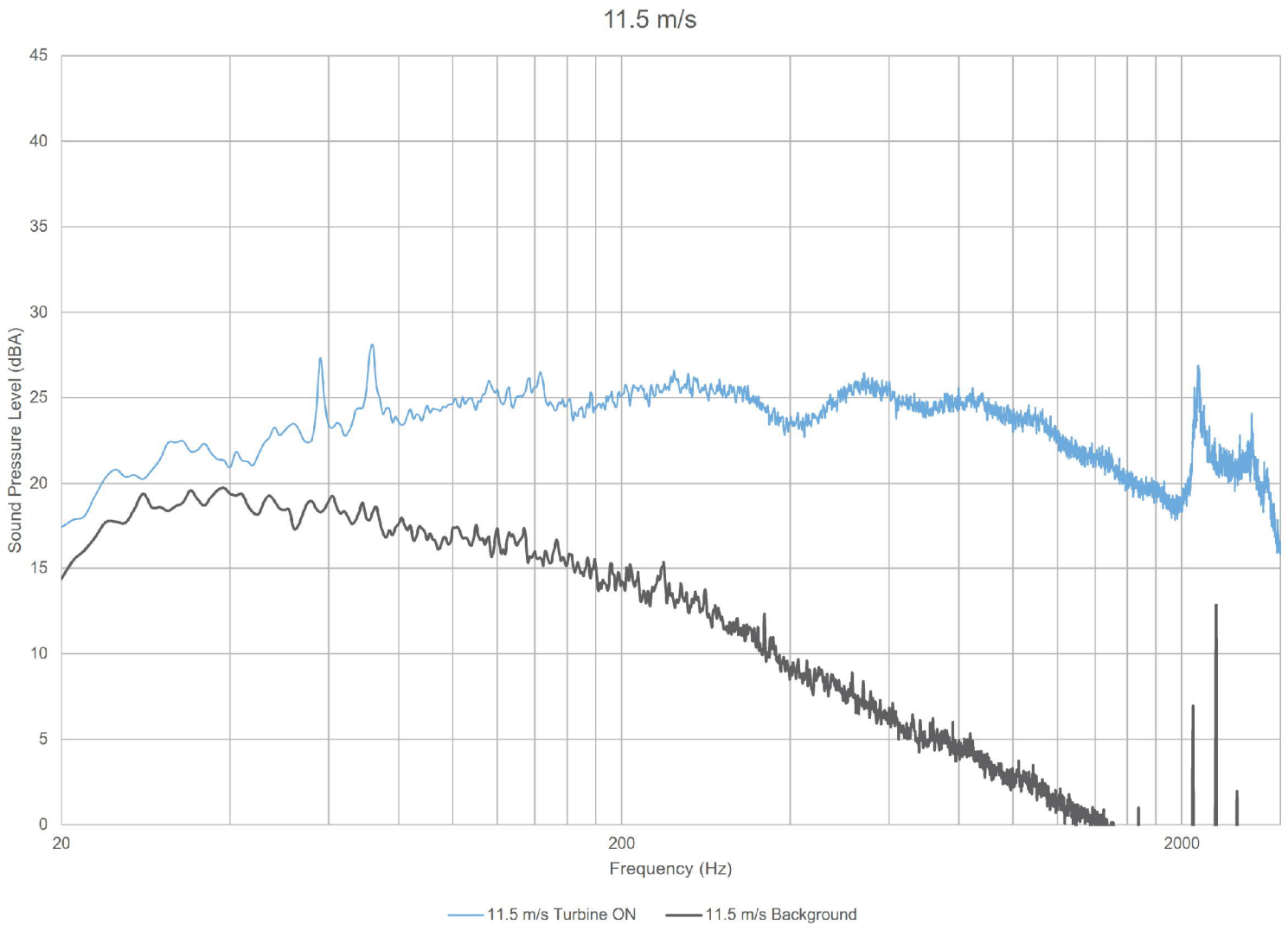
aercoustics	14215.01.T26.RP6 Scale: NTS Drawn by: AM Reviewed by: PA Date: Sept 06, 2017 Revision: 1	**Project Name** Suncor Adelaide Wind Power Project - Turbine T26 - IEC61400-11 Edition 3.0 **Figure Title** Plot of narrow band spectra – Turbine ON vs. Background at 10.5 m/s

Figure D.08



aercoustics	14215.01.T26.RP6 Scale: NTS Drawn by: AM Reviewed by: PA Date: Sept 06, 2017 Revision: 1	**Project Name** Suncor Adelaide Wind Power Project - Turbine T26 - IEC61400-11 Edition 3.0 **Figure Title** Plot of narrow band spectra – Turbine ON vs. Background at 11 m/s

Figure D.09



aercoustics	14215.01.T26.RP6 Scale: NTS Drawn by: AM Reviewed by: PA Date: Sept 06, 2017 Revision: 1	**Project Name** Suncor Adelaide Wind Power Project - Turbine T26 - IEC61400-11 Edition 3.0 **Figure Title** Plot of narrow band spectra – Turbine ON vs. Background at 11.5 m/s

Figure D.10

aercoustics
Aercoustics Engineering Ltd.
1004 Middlegate Road, Suite 1100
Mississauga, ON L4Y 1M4
Tel: 416-249-3361
Fax 416-249-3613
aercoustics.com

Appendix E
Measurement Data

***Blank data denotes values that were omitted in the analysis due to an extraneous event during recording

Data Point #	Standardized Wind Speed	LAeq	Turbine Power Output (kW)	Reference Yaw Angle (°)	Yaw Angle (°)	Pitch Angle (°)	Rotor RPM	Nacelle Anemometer Wind Speed (m/s)	10m Anemometer Wind Speed (m/s)	Air Temperature (°C)	Pressure (Pa)	Relative Humidity (%)
1			994	345.0	336.3	15.0	11.2	6.3	6.1	6	100	78
2			893	345.0	336.3	15.0	11.0	5.6	6.2	6	100	78
3			816	345.0	342.0	15.0	10.5	7.6	5.6	6	100	78
4			933	345.0	344.4	15.0	11.1	10.2	6.0	6	100	78
5			1468	345.0	344.5	15.0	13.0	9.5	5.7	6	100	78
6			1688	345.0	344.5	15.0	13.1	9.5	4.8	6	100	77
7	8.1	53.6	1525	345.0	344.5	15.0	12.9	9.3	5.8	6	100	77
8	7.7	52.9	1350	345.0	344.5	15.0	12.5	9.1	5.6	6	100	77
9	7.5	51.9	1214	345.0	344.5	15.0	12.0	7.0	6.2	6	100	77
10	7.5	51.8	1228	345.0	344.5	15.0	12.1	6.5	6.8	6	100	77
11	7.6	52.0	1258	345.0	344.5	15.0	12.2	9.2	5.6	6	100	77
12	7.5	51.7	1213	345.0	344.5	15.0	12.0	9.8	5.3	6	100	76
13	7.4	51.4	1168	345.0	344.5	15.0	11.8	8.8	5.9	6	100	76
14	7.5	51.8	1224	345.0	344.5	15.0	12.0	7.8	6.3	6	100	76
15	7.5	52.0	1228	345.0	344.5	15.0	12.1	7.1	4.9	6	100	76
16	7.4	52.2	1200	345.0	338.8	15.0	11.9	7.4	5.5	6	100	76
17	7.3	51.4	1138	345.0	338.7	15.0	11.7	9.5	3.6	6	100	76
18	7.1	51.1	1029	345.0	338.7	15.0	11.3	8.5	4.8	6	100	76
19	6.9	50.4	951	345.0	340.9	15.0	11.1	6.0	5.3	6	100	76
20	6.8	49.8	906	345.0	347.5	15.0	10.9	7.2	5.1	6	100	76
21	6.6	49.1	836	345.0	348.0	15.0	10.6	7.2	5.1	6	100	76
22	6.6	48.6	822	345.0	348.0	15.0	10.5	6.4	5.1	6	100	76
23	6.4	47.7	769	345.0	348.0	15.0	10.3	7.5	4.4	6	100	76
24	6.2	47.4	697	345.0	343.8	15.0	10.0	5.8	5.9	6	100	77
25	6.2	46.7	680	345.0	339.1	15.0	9.9	6.1	4.8	6	100	77
26	6.3	47.3	737	345.0	339.1	15.0	10.2	8.3	5.1	6	100	77
27	6.5	48.2	788	345.0	339.1	15.0	10.4	6.9	5.5	6	100	77
28	6.3	47.7	742	345.0	341.4	15.0	10.2	7.4	5.4	6	100	77
29	6.6	48.1	836	345.0	344.9	15.0	10.6	6.1	5.4	6	100	77
30	6.4	48.3	783	345.0	344.9	15.0	10.4	7.0	5.1	6	100	78
31	6.2	46.5	708	345.0	344.9	15.0	10.0	7.5	4.6	6	100	78
32	6.4	46.9	749	345.0	344.9	15.0	10.3	7.1	4.2	6	100	78
33	6.6	48.5	824	345.0	345.9	15.0	10.5	7.6	5.0	6	100	78
34	6.6	48.9	822	345.0	352.4	15.0	10.6	6.8	4.2	6	100	78
35	6.7	47.8	864	345.0	353.6	15.0	10.7	9.4	4.3	6	100	78
36	6.5	48.0	795	345.0	353.6	15.0	10.4	5.2	5.6	6	100	79
37	6.0	46.5	631	345.0	353.6	15.0	9.5	8.0	5.2	6	100	79
38	5.3	42.8	436	345.0	353.6	15.0	8.4	7.2	4.8	6	100	79
39	4.9	40.8	330	345.0	353.8	15.0	7.8	5.4	5.6	6	100	79
40	4.6	39.9	283	345.0	353.8	15.0	7.6	5.2	6.5	6	100	79
41	5.1	41.6	384	345.0	353.8	15.0	8.2	6.0	6.4	6	100	79
42	5.4	43.5	453	345.0	349.2	15.0	8.5	5.4	6.6	7	100	77
43	5.6	45.4	520	345.0	345.9	15.0	9.0	7.3	6.6	7	100	77
44	6.1	46.8	634	345.0	345.9	15.0	9.7	8.3	6.6	7	100	77
45	6.6	47.2	839	345.0	345.9	15.0	10.6	8.2	6.3	7	100	77
46	7.1	49.3	1024	345.0	345.9	15.0	11.4	7.4	7.0	7	100	77
47	7.3	49.4	1121	345.0	345.9	15.0	11.7	8.0	6.9	7	100	77
48	7.5	50.9	1239	345.0	345.9	15.0	12.1	5.8	6.9	7	100	75
49	7.5	51.2	1224	345.0	345.9	15.0	12.0	7.5	6.6	7	100	75
50	7.5	52.0	1242	345.0	345.1	15.0	12.2	8.3	5.0	7	100	75
51	7.6	52.3	1286	345.0	340.3	15.0	12.3	7.9	4.8	7	100	75
52	7.6	51.9	1282	345.0	340.3	15.0	12.3	9.4	6.3	7	100	75
53	7.8	52.6	1364	345.0	340.3	15.0	12.6	8.8	5.7	7	100	75
54	7.4	51.6	1187	345.0	340.3	15.0	11.9	6.5	5.4	7	100	76
55	6.7	49.3	871	345.0	340.3	15.0	10.7	7.5	5.6	7	100	76
56	6.8	48.7	915	345.0	340.3	15.0	11.0	7.7	4.9	7	100	76
57	7.3	50.9	1128	345.0	340.3	15.0	11.7	8.7	5.9	7	100	76
58	7.5	51.3	1227	345.0	340.3	15.0	12.1	8.7	6.5	7	100	76
59	7.9	52.2	1438	345.0	340.1	15.0	12.8	7.7	6.4	7	100	76
60	7.8	52.9	1398	345.0	340.1	15.0	12.6	8.2	6.5	7	100	76
61	7.2	50.8	1069	345.0	340.1	15.0	11.4	9.8	5.1	7	100	76
62	7.0	49.2	981	345.0	340.1	15.0	11.2	8.3	4.9	7	100	76
63	7.3	50.4	1150	345.0	340.1	15.0	11.8	8.3	5.2	7	100	76
64	7.3	50.6	1115	345.0	340.1	15.0	11.7	8.0	4.1	7	100	76
65	7.2	51.1	1109	345.0	346.1	15.0	11.6	7.1	3.9	7	100	76
66	7.1	50.8	1028	345.0	346.1	15.0	11.3	7.8	6.2	6	100	77
67	6.6	49.0	850	345.0	346.1	15.0	10.6	6.7	5.4	6	100	77
68	6.3	47.4	719	345.0	346.1	15.0	10.1	6.7	6.2	6	100	77
69	6.2	47.3	687	345.0	346.1	15.0	9.9	7.9	6.7	6	100	77
70	6.2	47.5	706	345.0	346.1	15.0	10.0	4.7	6.5	6	100	77
71	6.5	48.4	797	345.0	342.5	15.0	10.4	7.0	6.0	6	100	77
72	6.4	47.8	763	345.0	342.5	15.0	10.3	6.7	5.8	7	100	74
73	6.4	47.5	771	345.0	342.5	15.0	10.3	8.1	6.8	7	100	74
74	6.5	48.1	787	345.0	342.5	15.0	10.4	7.3	6.6	7	100	74
75	6.2	46.5	675	345.0	342.5	15.0	9.9	5.3	4.9	7	100	74
76	6.1	45.4	639	345.0	342.5	15.0	9.6	7.6	5.2	7	100	74
77	6.1	46.3	654	345.0	342.5	15.0	9.8	9.0	5.3	7	100	74
78	6.2	47.1	702	345.0	342.5	15.0	10.0	6.7	4.5	7	100	75
79	6.2	46.7	692	345.0	342.5	15.0	10.0	6.3	3.6	7	100	75
80	6.2	46.3	682	345.0	342.5	15.0	9.9	6.7	3.4	7	100	75
81	6.5	47.8	820	345.0	344.1	15.0	10.6	8.7	4.6	7	100	75
82	6.8	49.1	916	345.0	350.8	15.0	11.0	6.0	5.8	7	100	75
83	6.9	49.6	950	345.0	357.4	15.0	11.0	5.8	6.4	7	100	75
84	7.3	51.1	1130	345.0	357.5	15.0	11.8	7.4	7.1	7	100	76
85	7.8	52.3	1385	345.0	354.2	15.0	12.7	7.7	6.0	7	100	76
86	8.2	53.9	1581	345.0	350.0	15.0	13.0	8.5	6.3	7	100	76
87	8.1	53.7	1525	345.0	350.0	15.0	13.0	7.4	6.0	7	100	76
88	8.1	53.5	1524	345.0	350.0	15.0	13.0	7.9	5.5	7	100	76

***Blank data denotes values that were omitted in the analysis due to an extraneous event during recording

Data Point #	Standardized Wind Speed	LAeq	Turbine Power Output (kW)	Reference Yaw Angle (°)	Yaw Angle (°)	Pitch Angle (°)	Rotor RPM	Nacelle Anemometer Wind Speed (m/s)	10m Anemometer Wind Speed (m/s)	Air Temperature (°C)	Pressure (Pa)	Relative Humidity (%)
89	7.9	53.8	1433	345.0	350.0	15.0	12.7	8.7	4.9	7	100	76
90	7.6	52.5	1256	345.0	350.0	15.0	12.2	8.6	6.8	7	100	73
91	7.3	51.4	1141	345.0	350.0	15.0	11.7	6.2	6.5	7	100	73
92	7.1	50.5	1048	345.0	350.0	15.0	11.4	8.4	6.8	7	100	73
93	7.0	50.0	991	345.0	350.0	15.0	11.2	7.7	6.2	7	100	73
94	7.0	50.0	1002	345.0	355.4	15.0	11.3	7.4	6.3	7	100	73
95	8.0	51.8	1452	345.0	357.8	15.0	12.9	9.9	5.6	7	100	73
96	8.7	53.4	1794	345.0	357.8	15.0	13.1	11.3	5.5	7	100	74
97	8.2	53.7	1562	345.0	357.8	15.0	13.0	8.7	5.3	7	100	74
98	8.5	53.8	1692	345.0	357.8	15.0	13.0	9.2	6.1	7	100	74
99	8.0	53.2	1491	345.0	357.9	15.0	13.0	7.7	5.6	7	100	74
100	8.5	53.9	1726	345.0	352.2	15.0	13.1	7.1	4.4	7	100	74
101	8.0	53.3	1471	345.0	350.6	15.0	12.9	7.3	4.5	7	100	74
102	7.9	53.8	1439	345.0	350.6	15.0	12.8	6.7	4.2	7	100	73
103	8.1	53.4	1540	345.0	350.6	15.0	13.0	10.3	3.9	7	100	73
104	8.1	53.2	1500	345.0	350.6	15.0	13.0	7.4	4.0	7	100	73
105	7.7	52.9	1338	345.0	350.6	15.0	12.5	10.2	4.0	7	100	73
106	7.5	52.2	1252	345.0	350.6	15.0	12.1	7.2	5.0	7	100	73
107	7.9	52.4	1421	345.0	350.6	15.0	12.8	9.9	4.1	7	100	73
108	7.9	53.0	1440	345.0	354.4	15.0	12.7	8.8	3.3	7	100	76
109	8.6	53.3	1770	345.0	354.4	15.0	13.1	10.1	4.9	7	100	76
110	8.7	54.0	1820	345.0	354.4	15.0	13.0	8.5	4.5	7	100	76
111	8.9	54.1	1880	345.0	354.4	15.0	13.0	10.0	3.5	7	100	76
112	8.4	53.9	1653	345.0	354.4	15.0	12.9	8.3	4.0	7	100	76
113	7.9	53.3	1415	345.0	354.4	15.0	12.7	11.3	3.7	7	100	76
114	7.7	52.7	1313	345.0	354.4	15.0	12.4	7.5	5.9	7	100	75
115	7.4	51.0	1187	345.0	354.4	15.0	11.9	8.8	7.5	7	100	75
116	7.5	51.0	1247	345.0	354.4	15.0	12.2	7.7	6.2	7	100	75
117	7.9	52.3	1434	345.0	354.4	15.0	12.8	9.8	7.6	7	100	75
118	8.0	52.9	1474	345.0	354.4	15.0	12.9	8.5	6.1	7	100	75
119	8.5	53.8	1711	345.0	354.4	15.0	13.1	10.1	4.9	7	100	75
120	8.3	53.9	1603	345.0	354.4	15.0	12.9	7.4	5.7	7	100	74
121	8.2	53.7	1561	345.0	349.6	15.0	13.0	8.0	6.1	7	100	74
122	8.0	53.6	1450	345.0	343.3	15.0	12.9	7.1	5.0	7	100	74
123	7.9	53.6	1446	345.0	342.1	15.0	12.8	7.8	4.8	7	100	74
124	7.8	53.1	1380	345.0	342.1	15.0	12.6	6.5	6.2	7	100	74
125	7.7	52.4	1335	345.0	342.1	15.0	12.4	9.6	6.9	7	100	74
126	7.4	51.4	1166	345.0	342.1	15.0	11.8	8.5	6.4	7	100	74
127	6.9	49.9	965	345.0	342.1	15.0	11.1	6.5	6.0	7	100	74
128	6.6	48.8	831	345.0	342.1	15.0	10.5	7.7	5.6	7	100	74
129	6.1	46.7	663	345.0	342.3	15.0	9.9	6.6	5.8	7	100	74
130	5.8	44.6	572	345.0	345.9	15.0	9.2	7.5	4.7	7	100	74
131	5.7	44.5	540	345.0	345.9	15.0	9.1	6.6	5.3	7	100	74
132	5.9	46.8	596	345.0	345.9	15.0	9.4	6.8	4.9	7	100	74
133	6.0	48.0	606	345.0	345.9	15.0	9.5	7.2	5.3	7	100	74
134	6.1	48.9	641	345.0	344.7	15.0	9.6	6.4	4.4	7	100	74
135	6.1	48.2	670	345.0	344.8	15.0	9.9	6.1	5.0	7	100	74
136	6.3	47.8	713	345.0	344.7	15.0	10.0	8.1	5.4	7	100	74
137	6.4	48.3	771	345.0	344.7	15.0	10.4	8.3	5.7	7	100	74
138	6.6	48.8	839	345.0	344.8	15.0	10.6	7.0	5.0	7	100	75
139	6.5	47.6	784	345.0	344.8	15.0	10.4	6.7	5.0	7	100	75
140	6.3	46.5	724	345.0	344.8	15.0	10.1	6.8	4.9	7	100	75
141	6.3	46.6	735	345.0	344.8	15.0	10.2	9.1	5.1	7	100	75
142	6.8	48.3	923	345.0	344.8	15.0	11.0	8.3	5.2	7	100	75
143	7.2	50.2	1094	345.0	344.8	15.0	11.5	5.4	7.7	7	100	75
144	7.1	50.1	1029	345.0	344.8	15.0	11.3	7.3	7.2	7	100	74
145	7.2	50.4	1097	345.0	344.8	15.0	11.6	8.6	6.9	7	100	74
146	7.1	50.5	1015	345.0	344.8	15.0	11.3	7.8	6.1	7	100	74
147	7.0	49.4	994	345.0	344.7	15.0	11.2	7.2	5.1	7	100	74
148	7.3	50.8	1110	345.0	344.8	15.0	11.7	6.1	3.9	7	100	74
149	7.4	50.5	1160	345.0	344.8	15.0	11.8	7.8	3.8	7	100	74
150	7.2	50.5	1109	345.0	344.8	15.0	11.6	7.1	3.3	7	100	76
151	6.6	48.7	826	345.0	344.8	15.0	10.5	6.5	5.0	7	100	76
152	6.2	46.6	686	345.0	344.8	15.0	9.9	6.7	4.0	7	100	76
153	6.1	45.6	639	345.0	344.7	15.0	9.7	7.1	6.0	7	100	76
154	6.4	46.2	749	345.0	344.7	15.0	10.3	7.6	7.5	7	100	76
155	6.7	48.4	883	345.0	344.7	15.0	10.8	7.3	8.6	7	100	76
156	6.6	49.1	839	345.0	343.3	15.0	10.6	7.6	6.4	7	100	73
157	7.1	49.3	1018	345.0	343.3	15.0	11.4	10.7	5.4	7	100	73
158	7.9	51.9	1435	345.0	343.3	15.0	12.8	8.3	5.4	7	100	73
159	8.1	53.0	1502	345.0	343.3	15.0	13.0	8.1	6.9	7	100	73
160	8.1	53.5	1517	345.0	343.3	15.0	13.0	9.2	6.3	7	100	73
161	8.4	53.2	1681	345.0	343.3	15.0	13.1	11.3	5.7	7	100	73
162	8.6	53.7	1741	345.0	343.3	15.0	13.0	7.9	7.3	7	100	73
163	8.5	53.6	1732	345.0	343.3	15.0	13.0	8.1	6.5	7	100	73
164	8.3	53.3	1618	345.0	343.3	15.0	13.0	9.9	6.9	7	100	73
165	8.4	53.6	1643	345.0	343.3	15.0	13.0	7.6	4.8	7	100	73
166	8.2	53.3	1556	345.0	343.3	15.0	13.0	9.8	5.0	7	100	73
167	8.1	53.6	1496	345.0	343.2	15.0	13.0	9.3	4.4	7	100	73
168	8.3	54.0	1602	345.0	343.3	15.0	13.0	10.8	4.4	7	100	74
169	8.0	53.7	1484	345.0	344.5	15.0	12.9	8.7	5.8	7	100	74
170	7.7	52.5	1302	345.0	344.5	15.0	12.4	8.5	5.4	7	100	74
171	7.4	51.5	1172	345.0	344.5	15.0	11.8	9.6	4.6	7	100	74
172	7.1	50.6	1032	345.0	344.5	15.0	11.4	7.1	4.7	7	100	74
173	7.0	49.5	1002	345.0	344.5	15.0	11.2	9.3	4.9	7	100	74
174	7.1	49.7	1033	345.0	344.5	15.0	11.4	7.6	6.0	7	100	75
175	7.1	50.2	1045	345.0	344.7	15.0	11.4	7.4	5.3	7	100	75
176	6.9	49.3	949	345.0	348.1	15.0	11.1	7.8	5.8	7	100	75

***Blank data denotes values that were omitted in the analysis due to an extraneous event during recording

Data Point #	Standardized Wind Speed	LAeq	Turbine Power Output (kW)	Reference Yaw Angle (°)	Yaw Angle (°)	Pitch Angle (°)	Rotor RPM	Nacelle Anemometer Wind Speed (m/s)	10m Anemometer Wind Speed (m/s)	Air Temperature (°C)	Pressure (Pa)	Relative Humidity (%)
177	7.0	49.2	989	345.0	350.3	15.0	11.3	8.6	7.2	7	100	75
178	7.1	49.7	1032	345.0	350.3	15.0	11.3	7.0	5.3	7	100	75
179	6.9	49.1	960	345.0	350.3	15.0	11.1	6.1	6.2	7	100	75
180	7.5	50.4	1214	345.0	345.5	15.0	12.1	10.2	7.3	7	100	73
181	8.6	53.3	1751	345.0	342.9	15.0	13.1	8.7	6.6	7	100	73
182	8.2	54.2	1558	345.0	342.9	15.0	13.0	10.2	6.0	7	100	73
183	9.1	53.9	1980	345.0	342.9	15.0	13.2	8.8	7.1	7	100	73
184	9.2	53.9	1989	345.0	344.4	15.0	13.0	8.5	7.8	7	100	73
185	8.2	54.1	1567	345.0	344.4	15.0	12.9	9.0	7.4	7	100	73
186	7.9	53.2	1443	345.0	344.4	15.0	12.8	7.7	7.3	7	100	72
187	7.7	52.6	1322	345.0	344.3	15.0	12.4	9.3	7.1	7	100	72
188	7.6	52.3	1298	345.0	344.4	15.0	12.4	9.6	6.4	7	100	72
189	7.8	52.8	1356	345.0	344.4	15.0	12.6	8.8	6.4	7	100	72
190	7.9	53.5	1417	345.0	344.4	15.0	12.7	7.8	5.8	7	100	72
191	7.6	52.8	1279	345.0	344.4	15.0	12.3	7.7	5.6	7	100	72
192	7.4	51.6	1179	345.0	344.4	15.0	11.9	8.5	6.2	7	100	72
193	7.5	51.5	1225	345.0	344.4	15.0	12.1	8.3	6.1	7	100	72
194	7.8	52.7	1359	345.0	344.4	15.0	12.6	8.8	5.6	7	100	72
195	7.9	53.2	1415	345.0	350.0	15.0	12.8	7.2	6.5	7	100	72
196	8.3	53.6	1624	345.0	350.5	15.0	13.1	8.8	8.0	7	100	72
197	8.4	53.7	1646	345.0	350.5	15.0	13.1	9.7	6.9	7	100	72
198	8.3	53.5	1593	345.0	350.5	15.0	12.9	7.9	6.9	7	100	71
199	8.1	53.4	1533	345.0	350.5	15.0	13.0	7.5	7.1	7	100	71
200	8.1	53.4	1536	345.0	350.5	15.0	13.0	8.6	7.3	7	100	71
201	8.4	53.7	1642	345.0	350.5	15.0	13.0	9.6	7.4	7	100	71
202	8.9	53.2	1927	345.0	350.4	15.0	13.2	9.5	7.0	7	100	71
203	8.7	53.4	1796	345.0	350.5	15.0	13.0	8.3	6.3	7	100	71
204	8.2	53.5	1576	345.0	350.5	15.0	12.9	7.7	7.9	7	100	72
205	7.9	53.6	1422	345.0	347.0	15.0	12.8	6.9	7.6	7	100	72
206	8.0	53.4	1458	345.0	340.5	15.0	12.9	7.3	6.5	7	100	72
207	7.8	52.8	1373	345.0	337.5	15.0	12.6	8.2	6.7	7	100	72
208	7.3	51.1	1121	345.0	339.2	15.0	11.6	6.4	6.3	7	100	72
209	7.0	49.7	979	345.0	341.1	15.0	11.1	7.0	6.0	7	100	72
210	6.7	49.4	888	345.0	341.1	15.0	10.8	5.9	5.5	7	100	71
211	6.7	48.8	860	345.0	341.1	15.0	10.7	7.8	5.9	7	100	71
212	7.0	50.3	996	345.0	341.1	15.0	11.2	7.6	5.6	7	100	71
213	7.1	50.7	1020	345.0	343.1	15.0	11.3	7.0	6.9	7	100	71
214	7.0	50.4	981	345.0	343.1	15.0	11.1	6.6	7.3	7	100	71
215	6.6	48.6	826	345.0	343.1	15.0	10.5	6.4	5.5	7	100	71
216	6.4	47.3	767	345.0	343.1	15.0	10.3	5.4	5.0	7	100	71
217	6.4	47.6	768	345.0	346.3	15.0	10.3	6.0	4.6	7	100	71
218	6.3	46.7	714	345.0	346.3	15.0	10.1	5.2	5.0	7	100	71
219	6.3	46.2	715	345.0	346.2	15.0	10.1	6.6	5.7	7	100	71
220	6.4	46.9	749	345.0	346.2	15.0	10.3	7.6	5.4	7	100	71
221	6.6	48.2	852	345.0	346.2	15.0	10.7	7.3	5.3	7	100	71
222	6.6	49.1	856	345.0	346.2	15.0	10.7	7.7	6.2	7	100	72
223	6.7	49.3	890	345.0	346.2	15.0	10.9	8.6	6.0	7	100	72
224	6.5	48.2	818	345.0	346.2	15.0	10.5	5.4	5.3	7	100	72
225	6.1	46.4	636	345.0	346.2	15.0	9.6	6.7	5.2	7	100	72
226	5.6	43.6	516	345.0	346.2	15.0	8.9	6.0	4.4	7	100	72
227	5.8	43.9	552	345.0	346.2	15.0	9.2	7.2	3.9	7	100	72
228	6.0	45.0	616	345.0	346.2	15.0	9.5	7.4	5.6	7	100	74
229	5.9	44.8	591	345.0	346.2	15.0	9.4	6.9	5.0	7	100	74
230	5.8	45.0	574	345.0	346.2	15.0	9.3	5.7	6.2	7	100	74
231	6.1	45.5	642	345.0	346.2	15.0	9.7	7.0	6.5	7	100	74
232	6.1	46.0	662	345.0	341.1	15.0	9.8	5.7	7.5	7	100	74
233	6.3	46.2	713	345.0	341.1	15.0	10.1	7.9	6.3	7	100	74
234	6.8	48.0	907	345.0	341.1	15.0	10.9	6.1	4.3	7	100	74
235	7.0	49.1	972	345.0	341.1	15.0	11.1	6.3	4.7	7	100	74
236	7.1	49.4	1036	345.0	341.1	15.0	11.4	8.3	6.6	7	100	74
237	7.5	51.6	1253	345.0	342.0	15.0	12.3	9.2	4.4	7	100	74
238	8.5	53.9	1725	345.0	344.0	15.0	13.1	9.6	5.1	7	100	74
239	8.7	53.9	1791	345.0	344.0	15.0	13.1	8.8	7.0	7	100	74
240	9.7	54.1	2112	345.0	344.0	15.0	13.1	9.0	5.8	7	100	71
241	9.7	53.7	2110	345.0	344.0	15.0	13.0	12.0	6.8	7	100	71
242	9.1	54.1	1969	345.0	344.0	15.0	12.9	9.4	6.4	7	100	71
243	8.2	53.3	1566	345.0	344.0	15.0	12.8	8.1	5.7	7	100	71
244	8.5	53.1	1711	345.0	347.0	15.0	13.2	8.7	7.1	7	100	71
245	8.9	53.9	1897	345.0	348.0	15.0	13.1	7.4	6.2	7	100	71
246	8.4	53.7	1641	345.0	347.9	15.0	13.0	9.1	7.0	7	100	68
247	8.1	53.4	1534	345.0	345.5	15.0	12.9	8.6	7.1	7	100	68
248	7.9	53.1	1426	345.0	345.5	15.0	12.8	8.9	7.5	7	100	68
249	7.6	52.6	1298	345.0	345.5	15.0	12.3	8.1	7.3	7	100	68
250	7.1	50.7	1059	345.0	345.5	15.0	11.4	8.9	6.7	7	100	68
251	6.6	48.5	846	345.0	345.6	15.0	10.7	7.1	5.8	7	100	68
252	6.6	48.1	829	345.0	352.0	15.0	10.6	6.8	7.1	7	100	70
253	6.7	48.5	861	345.0	353.1	15.0	10.7	7.1	6.2	7	100	70
254	6.7	48.5	873	345.0	349.3	15.0	10.8	8.4	5.8	7	100	70
255	6.9	49.0	951	345.0	346.4	15.0	11.0	9.3	5.3	7	100	70
256	6.8	49.1	915	345.0	346.4	15.0	11.0	7.0	5.7	7	100	70
257	6.9	49.7	947	345.0	346.4	15.0	11.0	6.6	6.5	7	100	70
258	6.9	49.3	949	345.0	346.4	15.0	11.1	9.5	5.6	7	100	71
259	7.3	51.0	1130	345.0	346.3	15.0	11.7	8.2	5.3	7	100	71
260	7.4	51.6	1191	345.0	346.3	15.0	11.9	7.4	5.9	7	100	71
261	7.9	52.5	1415	345.0	346.4	15.0	12.8	11.3	5.5	7	100	71
262	8.5	53.5	1696	345.0	346.4	15.0	13.0	9.8	7.1	7	100	71
263	8.0	53.3	1470	345.0	346.3	15.0	12.9	8.4	5.9	7	100	71
264	8.0	52.9	1469	345.0	347.9	15.0	12.8	8.9	4.5	7	100	71

***Blank data denotes values that were omitted in the analysis due to an extraneous event during recording

Data Point #	Standardized Wind Speed	LAeq	Turbine Power Output (kW)	Reference Yaw Angle (°)	Yaw Angle (°)	Pitch Angle (°)	Rotor RPM	Nacelle Anemometer Wind Speed (m/s)	10m Anemometer Wind Speed (m/s)	Air Temperature (°C)	Pressure (Pa)	Relative Humidity (%)
265	7.7	52.6	1303	345.0	347.9	15.0	12.4	6.6	6.6	7	100	71
266	7.7	52.2	1321	345.0	347.9	15.0	12.4	7.6	5.9	7	100	71
267	7.9	52.9	1431	345.0	347.9	15.0	12.8	8.2	7.0	7	100	71
268	8.0	53.6	1470	345.0	347.9	15.0	12.9	7.9	6.2	7	100	71
269	7.8	53.4	1368	345.0	344.1	15.0	12.6	8.1	5.9	7	100	71
270	7.6	52.2	1255	345.0	344.1	15.0	12.1	7.1	6.1	7	100	70
271	7.4	51.7	1159	345.0	344.1	15.0	11.8	8.5	4.8	7	100	70
272	7.5	51.8	1220	345.0	344.1	15.0	12.1	7.9	5.2	7	100	70
273	7.6	52.3	1288	345.0	344.1	15.0	12.3	7.5	5.1	7	100	70
274	7.6	51.9	1287	345.0	344.1	15.0	12.3	7.2	5.4	7	100	70
275	7.5	51.6	1239	345.0	341.6	15.0	12.1	7.3	5.9	7	100	70
276	7.4	51.4	1177	345.0	341.6	15.0	12.0	8.6	5.5	7	100	71
277	7.7	52.2	1324	345.0	347.7	15.0	12.5	9.5	6.5	7	100	71
278	7.9	52.6	1423	345.0	351.5	15.0	12.8	10.3	5.6	7	100	71
279	8.0	53.0	1471	345.0	351.5	15.0	12.9	8.8	8.8	7	100	71
280	8.5	52.9	1727	345.0	351.5	15.0	13.1	10.4	6.4	7	100	71
281	9.8	54.0	2121	345.0	351.5	15.0	13.1	9.4	4.9	7	100	71
282	9.4	54.0	2035	345.0	351.5	15.0	13.0	7.7	6.1	7	100	70
283	9.3	53.8	2019	345.0	351.5	15.0	13.0	8.4	7.0	7	100	70
284	8.8	53.6	1865	345.0	351.5	15.0	13.0	7.7	6.0	7	100	70
285	8.9	53.6	1899	345.0	351.5	15.0	13.0	8.3	7.1	7	100	70
286	8.2	53.7	1563	345.0	351.5	15.0	12.9	7.7	5.0	7	100	70
287	8.2	53.1	1558	345.0	348.0	15.0	13.0	9.7	6.1	7	100	70
288	8.4	53.4	1669	345.0	348.0	15.0	13.0	8.9	6.2	7	100	71
289	7.9	53.4	1412	345.0	348.0	15.0	12.8	9.5	6.3	7	100	71
290	7.6	52.1	1294	345.0	348.0	15.0	12.3	7.6	6.4	7	100	71
291	7.7	52.1	1313	345.0	348.0	15.0	12.4	7.3	6.6	7	100	71
292	7.4	51.5	1172	345.0	348.0	15.0	11.8	7.5	5.6	7	100	71
293	7.1	50.4	1029	345.0	348.0	15.0	11.3	6.7	5.6	7	100	71
294	7.0	49.9	997	345.0	347.9	15.0	11.2	8.3	5.4	7	100	72
295	7.1	50.3	1060	345.0	347.9	15.0	11.6	6.9	8.1	7	100	72
296	7.4	50.9	1162	345.0	347.0	15.0	11.8	8.6	8.1	7	100	72
297	7.1	50.1	1040	345.0	347.0	15.0	11.3	8.5	7.3	7	100	72
298	7.0	49.2	1003	345.0	347.0	15.0	11.3	7.9	7.6	7	100	72
299	7.1	49.8	1050	345.0	347.0	15.0	11.4	7.8	8.1	7	100	72
300	7.2	50.3	1071	345.0	347.0	15.0	11.4	7.8	8.4	7	100	70
301	6.9	48.9	938	345.0	347.0	15.0	11.0	8.6	7.9	7	100	70
302	7.1	49.9	1047	345.0	347.0	15.0	11.4	7.2	7.9	7	100	70
303	7.3	50.4	1125	345.0	347.0	15.0	11.7	7.3	8.1	7	100	70
304	7.6	51.0	1269	345.0	347.0	15.0	12.2	8.1	7.3	7	100	70
305	7.3	50.6	1124	345.0	347.0	15.0	11.6	8.7	7.2	7	100	70
306	7.1	50.1	1056	345.0	347.0	15.0	11.5	9.5	7.7	7	100	70
307	7.6	51.1	1259	345.0	347.0	15.0	12.2	7.7	7.2	7	100	70
308	8.0	53.4	1465	345.0	347.0	15.0	12.9	7.8	8.0	7	100	70
309	7.9	53.0	1405	345.0	347.0	15.0	12.7	7.3	6.3	7	100	70
310	7.8	52.6	1389	345.0	347.0	15.0	12.7	9.9	6.7	7	100	70
311	8.1	53.5	1511	345.0	347.0	15.0	13.0	8.9	5.6	7	100	70
312	8.3	53.5	1604	345.0	347.0	15.0	13.1	8.8	6.5	7	100	69
313	8.1	53.6	1498	345.0	347.0	15.0	13.0	8.3	6.5	7	100	69
314	8.0	53.3	1460	345.0	345.3	15.0	12.9	7.3	6.4	7	100	69
315	8.0	53.2	1459	345.0	343.6	15.0	12.9	8.6	6.4	7	100	69
316	7.6	52.4	1270	345.0	343.6	15.0	12.2	7.0	6.5	7	100	69
317	7.8	52.2	1370	345.0	343.5	15.0	12.6	8.3	6.6	7	100	69
318	8.6	53.5	1747	345.0	343.4	15.0	13.1	12.3	6.4	7	100	70
319	9.1	53.3	1963	345.0	344.7	15.0	13.1	10.3	6.3	7	100	70
320	8.5	53.6	1726	345.0	351.1	15.0	13.0	9.3	6.4	7	100	70
321	8.8	53.6	1832	345.0	357.4	15.0	13.0	9.3	6.3	7	100	70
322	8.5	54.3	1694	345.0	358.2	15.0	12.9	10.6	7.5	7	100	70
323	8.3	54.0	1595	345.0	358.2	15.0	12.9	8.1	7.6	7	100	70
324	8.0	53.6	1494	345.0	353.8	15.0	13.0	9.0	5.9	7	100	72
325	7.8	52.9	1392	345.0	352.7	15.0	12.7	8.5	5.8	7	100	72
326	8.1	53.5	1520	345.0	352.7	15.0	13.0	10.6	5.9	7	100	72
327	7.8	54.3	1383	345.0	352.7	15.0	12.7	7.6	5.4	7	100	72
328			1300	345.0	352.7	15.0	12.3	7.7	6.1	7	100	72
329			1209	345.0	352.7	15.0	12.0	9.1	6.0	7	100	72
330	7.6	54.2	1262	345.0	352.6	15.0	12.2	10.0	5.2	7	100	72
331	7.4	52.9	1189	345.0	352.6	15.0	11.9	9.4	4.8	7	100	72
332	7.1	51.1	1032	345.0	352.7	15.0	11.4	7.2	4.7	7	100	72
333	6.8	49.5	929	345.0	352.6	15.0	11.0	8.7	5.3	7	100	72
334	6.7	48.5	885	345.0	352.6	15.0	10.8	7.4	4.5	7	100	72
335	7.1	49.4	1015	345.0	352.6	15.0	11.3	8.1	4.2	7	100	72
336	7.2	50.5	1100	345.0	352.6	15.0	11.6	9.7	6.0	7	100	73
337	6.5	48.9	816	345.0	352.6	15.0	10.4	5.3	5.2	7	100	73
338	5.9	45.3	592	345.0	352.6	15.0	9.3	6.4	4.5	7	100	73
339	5.5	43.9	492	345.0	353.5	15.0	8.9	7.2	3.4	7	100	73
340	5.9	44.9	584	345.0	356.0	15.0	9.4	7.0	4.3	7	100	73
341	6.2	47.0	678	345.0	356.0	15.0	9.8	6.8	4.0	7	100	73
342	5.9	45.6	594	345.0	356.0	15.0	9.4	6.7	5.2	8	100	74
343	5.7	44.2	540	345.0	356.0	15.0	9.1	7.4	5.1	8	100	74
344	6.0	45.6	611	345.0	355.1	15.0	9.7	6.9	4.8	8	100	74
345	6.5	47.7	792	345.0	348.6	15.0	10.5	7.5	4.2	8	100	74
346	6.4	47.7	761	345.0	342.1	15.0	10.3	8.1	5.9	8	100	74
347	6.3	47.1	746	345.0	337.7	15.0	10.3	7.8	5.7	8	100	74
348	6.7	47.8	863	345.0	337.7	15.0	10.7	7.8	6.1	8	100	71
349	6.8	48.8	898	345.0	341.3	15.0	10.9	8.8	7.1	8	100	71
350	6.8	48.3	896	345.0	347.9	15.0	10.9	6.4	6.5	8	100	71
351	6.5	47.8	809	345.0	351.1	15.0	10.5	8.0	6.0	8	100	71
352	6.2	46.2	679	345.0	351.0	15.0	9.9	6.2	5.0	8	100	71

***Blank data denotes values that were omitted in the analysis due to an extraneous event during recording

Data Point #	Standardized Wind Speed	LAeq	Turbine Power Output (kW)	Reference Yaw Angle (°)	Yaw Angle (°)	Pitch Angle (°)	Rotor RPM	Nacelle Anemometer Wind Speed (m/s)	10m Anemometer Wind Speed (m/s)	Air Temperature (-C)	Pressure (Pa)	Relative Humidity (%)
353	5.8	44.4	564	345.0	351.0	15.0	9.2	6.3	7.2	8	100	71
354	5.7	43.9	537	345.0	351.0	15.0	9.1	5.2	7.8	8	100	70
355	6.0	44.3	606	345.0	351.0	15.0	9.5	7.9	6.6	8	100	70
356	6.2	47.0	685	345.0	351.3	15.0	10.0	8.1	5.2	8	100	70
357	6.6	48.5	837	345.0	352.6	15.0	10.6	5.6	5.9	8	100	70
358	6.6	48.3	833	345.0	352.7	15.0	10.6	7.3	6.2	8	100	70
359	6.5	48.5	799	345.0	349.2	15.0	10.5	5.9	5.2	8	100	70
360	6.4	47.5	774	345.0	344.5	15.0	10.3	7.2	5.4	8	100	71
361	6.3	46.9	737	345.0	344.5	15.0	10.2	6.9	4.4	8	100	71
362		54.2	2243	345.0	330.1	35.0	13.2	8.6	7.9	8	100	64
363	9.6	53.9	2085	345.0	330.1	35.0	13.0	10.2	8.3	8	100	64
364		53.5	2093	345.0	329.9	35.0	13.0	8.7	8.2	8	100	64
365	9.0	53.1	1936	345.0	330.1	35.0	13.0	10.6	7.0	8	100	64
366	8.9	53.5	1897	345.0	330.1	35.0	13.0	9.9	7.9	8	100	64
367	9.1	53.7	1974	345.0	330.1	35.0	13.0	11.8	7.4	8	100	64
368	9.0	54.0	1931	345.0	330.1	35.0	13.0	9.3	6.5	8	100	64
369	8.2	53.1	1587	345.0	330.1	35.0	12.9	8.1	8.7	8	100	64
370	9.5	54.0	2065	345.0	330.1	35.0	13.2	12.4	9.5	8	100	64
371	10.5	54.1	2192	345.0	330.1	35.0	13.1	9.2	7.4	8	100	64
372	8.8	53.8	1869	345.0	330.1	35.0	12.9	9.1	5.5	8	100	64
373	9.0	53.9	1943	345.0	330.1	35.0	13.0	10.2	6.1	8	100	64
374	8.7	53.9	1790	345.0	330.1	35.0	12.9	8.0	5.7	8	100	64
375		53.8	1786	345.0	329.9	35.0	13.0	10.0	6.9	8	100	64
376		54.0	1601	345.0	329.9	35.0	12.9	9.0	6.2	8	100	64
377		53.0	1367	345.0	329.9	35.0	12.6	9.4	6.3	8	100	64
378		52.7	1390	345.0	329.9	35.0	12.7	9.1	8.2	8	100	64
379		53.6	2021	345.0	329.9	35.0	13.2	8.5	5.5	8	100	64
380		54.6	1805	345.0	329.9	35.0	13.0	8.1	4.7	8	100	64
381		54.3	1445	345.0	329.9	35.0	12.9	8.5	5.3	8	100	64
382		53.9	1454	345.0	329.9	35.0	12.9	8.9	5.6	8	100	64
383		53.2	1401	345.0	329.9	35.0	12.7	8.7	5.7	8	100	64
384		51.4	1137	345.0	329.9	35.0	11.7	8.3	6.3	8	100	64
385		51.2	1241	345.0	329.9	35.0	12.2	8.3	6.6	8	100	65
386		53.0	1708	345.0	329.9	35.0	13.1	9.4	7.5	8	100	65
387		53.9	2078	345.0	329.9	35.0	13.2	9.6	6.7	8	100	65
388		53.8	2172	345.0	329.9	35.0	13.0	9.6	8.4	8	100	65
389		53.8	1913	345.0	329.9	35.0	12.9	10.8	9.4	8	100	65
390		53.2	1424	345.0	329.9	35.0	12.8	8.0	7.7	8	100	65
391			1818	345.0	330.9	35.0	13.2	9.8	7.2	8	100	64
392			1786	345.0	336.0	35.0	12.9	11.9	6.7	8	100	64
393			1529	345.0	336.0	35.0	13.0	8.7	5.5	8	100	64
394		53.7	2241	345.0	336.0	35.0	13.3	10.2	8.0	8	100	64
395		54.2	2249	345.0	336.0	35.0	13.6	9.6	7.9	8	100	64
396		52.9	2215	345.0	336.0	35.0	12.7	8.9	7.0	8	100	64
397	8.5	52.4	1713	345.0	336.0	35.0	12.8	9.4	7.1	8	100	63
398	8.9	52.9	1883	345.0	336.0	35.0	13.0	9.6	6.3	8	100	63
399	8.8	53.6	1871	345.0	336.0	35.0	13.0	10.0	7.5	8	100	63
400		53.9	2239	345.0	336.0	35.0	13.1	10.5	7.5	8	100	63
401	9.1	54.3	1964	345.0	336.0	35.0	13.0	8.5	8.7	8	100	63
402	8.5	53.8	1723	345.0	330.6	35.0	12.9	8.7	6.5	8	100	63
403		53.7	1570	345.0	329.2	35.0	12.9	10.6	8.1	8	100	63
404		53.6	1519	345.0	329.2	35.0	13.0	5.9	8.9	8	100	63
405		53.8	1492	345.0	329.2	35.0	13.0	7.8	9.9	8	100	63
406	10.3	54.5	2186	345.0	330.8	35.0	13.2	9.4	6.8	8	100	63
407	10.8	53.9	2219	345.0	337.3	35.0	13.2	11.4	9.2	8	100	63
408		53.3	2219	345.0	343.8	35.0	13.0	10.5	7.0	8	100	63
409		53.7	2217	345.0	350.3	35.0	12.8	8.6	8.3	8	100	64
410	9.8	53.7	2119	345.0	350.4	35.0	13.0	9.6	8.7	8	100	64
411	9.4	53.6	2037	345.0	350.4	35.0	13.0	8.4	7.5	8	100	64
412	9.1	53.4	1980	345.0	350.4	35.0	13.0	8.5	6.0	8	100	64
413	8.8	53.4	1859	345.0	349.5	35.0	13.0	8.8	5.9	8	100	64
414	8.6	53.6	1781	345.0	344.1	35.0	13.0	10.7	7.5	8	100	64
415	9.0	53.4	1944	345.0	344.1	35.0	13.0	11.2	7.3	8	100	63
416	9.7	53.5	2099	345.0	344.1	35.0	13.1	10.1	6.9	8	100	63
417	9.9	53.7	2159	345.0	348.6	35.0	13.0	11.5	9.4	8	100	63
418		53.5	2237	345.0	348.6	35.0	13.1	9.3	7.8	8	100	63
419	9.5	53.9	2072	345.0	348.6	35.0	12.9	9.4	7.8	8	100	63
420	8.9	53.7	1903	345.0	348.6	35.0	13.0	8.4	7.5	8	100	63
421		53.7	2218	345.0	348.6	35.0	13.1	9.7	7.8	8	100	64
422	9.0	53.8	1949	345.0	348.6	35.0	12.8	10.2	5.8	8	100	64
423	8.5	53.5	1733	345.0	348.6	35.0	12.9	9.6	4.8	8	100	64
424	8.8	52.9	1835	345.0	348.6	35.0	13.1	8.4	8.3	8	100	64
425	8.8	53.8	1868	345.0	348.0	35.0	13.0	8.8	7.5	8	100	64
426	8.8	53.2	1844	345.0	348.0	35.0	13.0	9.0	6.6	8	100	64
427	8.6	53.5	1751	345.0	348.0	35.0	13.0	9.0	5.5	8	100	65
428	7.7	53.0	1303	345.0	348.0	35.0	12.4	8.6	8.6	8	100	65
429	7.2	51.2	1091	345.0	346.2	35.0	11.7	6.3	7.2	8	100	65
430	7.9	51.9	1417	345.0	344.1	35.0	12.9	8.8	7.1	8	100	65
431		53.2	2238	345.0	343.7	35.0	13.1	9.0	8.9	8	100	65
432	9.9	53.0	2150	345.0	336.9	35.0	12.7	10.9	8.6	8	100	65
433	8.7	52.7	1791	345.0	336.8	35.0	12.9	10.5	6.5	8	100	63
434	8.5	53.6	1735	345.0	336.8	35.0	12.9	9.7	7.3	8	100	63
435		54.2	2223	345.0	336.8	35.0	13.2	9.3	7.5	8	100	63
436		53.9	2233	345.0	336.9	35.0	13.6	9.6	6.1	8	100	63
437	11.5	53.6	2239	345.0	335.3	35.0	13.0	12.1	9.2	8	100	63
438		53.4	2238	345.0	334.6	35.0	13.0	11.1	8.7	8	100	63
439		53.2	2221	345.0	334.6	35.0	13.1	9.8	8.9	8	100	62
440	11.4	53.6	2206	345.0	334.6	35.0	13.5	12.1	8.7	8	100	62

***Blank data denotes values that were omitted in the analysis due to an extraneous event during recording

Data Point #	Standardized Wind Speed	LAeq	Turbine Power Output (kW)	Reference Yaw Angle (°)	Yaw Angle (°)	Pitch Angle (°)	Rotor RPM	Nacelle Anemometer Wind Speed (m/s)	10m Anemometer Wind Speed (m/s)	Air Temperature (-C)	Pressure (Pa)	Relative Humidity (%)
441		53.1	2217	345.0	334.7	35.0	13.2	11.4	10.2	8	100	62
442	12.0	52.6	2239	345.0	334.6	35.0	13.3	12.7	8.7	8	100	62
443	11.2	52.2	2235	345.0	334.6	35.0	12.6	11.8	7.6	8	100	62
444		52.8	2218	345.0	334.6	35.0	12.8	10.3	7.5	8	100	62
445		52.8	2224	345.0	334.6	35.0	12.8	10.9	8.6	8	100	62
446		53.9	2212	345.0	334.6	35.0	12.8	10.0	9.2	8	100	62
447		53.3	2222	345.0	334.6	35.0	13.2	10.8	7.1	8	100	62
448		53.5	2218	345.0	334.6	35.0	13.0	10.4	7.9	8	100	62
449		53.7	2246	345.0	334.6	35.0	13.0	9.6	9.2	8	100	62
450		53.7	2226	345.0	334.6	35.0	13.4	10.0	9.4	8	100	62
451		53.0	2222	345.0	334.6	35.0	13.0	10.0	7.6	8	100	62
452		52.9	2211	345.0	334.6	35.0	12.8	10.5	8.3	8	100	62
453		53.2	2226	345.0	334.6	35.0	13.0	10.9	7.5	8	100	62
454		53.3	2233	345.0	334.6	35.0	13.0	10.2	8.6	8	100	62
455		53.3	2242	345.0	334.6	35.0	13.1	9.7	7.1	8	100	62
456	11.2	53.1	2230	345.0	334.6	35.0	12.7	11.8	7.8	8	100	62
457		53.0	2225	345.0	334.6	35.0	12.8	10.8	6.8	8	100	63
458	10.6	53.8	2199	345.0	331.3	35.0	13.7	13.1	8.0	8	100	63
459		53.5	2218	345.0	331.3	35.0	13.1	9.6	7.8	8	100	63
460		53.0	2233	345.0	331.3	35.0	12.8	10.6	6.3	8	100	63
461		53.2	2227	345.0	331.3	35.0	12.6	10.6	8.8	8	100	63
462		53.4	2233	345.0	331.3	35.0	12.8	10.1	6.6	8	100	63
463	8.9	53.3	1888	345.0	331.3	35.0	12.9	9.0	6.5	8	100	63
464	9.8	53.6	2135	345.0	331.3	35.0	13.1	12.9	10.0	8	100	63
465		54.0	2210	345.0	331.3	35.0	13.5	9.8	8.4	8	100	63
466		53.9	2221	345.0	336.0	35.0	13.4	11.0	8.6	8	100	63
467		53.1	2241	345.0	336.1	35.0	12.9	10.6	7.5	8	100	63
468		53.3	2231	345.0	336.1	35.0	12.8	8.9	9.1	8	100	63
469	9.1	53.4	1975	345.0	336.1	35.0	12.7	9.8	9.1	8	100	63
470	11.3	54.0	2226	345.0	336.1	35.0	13.3	12.0	9.6	8	100	63
471	10.6	53.7	2197	345.0	336.1	35.0	13.2	10.8	8.0	8	100	63
472		53.0	2245	345.0	336.1	35.0	12.9	9.9	8.4	8	100	63
473		53.2	2218	345.0	335.8	35.0	12.8	10.2	9.1	8	100	63
474	12.2	53.9	2229	345.0	334.6	35.0	13.2	12.9	7.9	8	100	63
475		53.4	2234	345.0	334.6	35.0	12.9	10.4	7.5	7	100	63
476	9.3	53.8	2018	345.0	334.6	35.0	12.7	9.8	6.5	7	100	63
477	9.8	54.3	2130	345.0	334.6	35.0	13.0	10.2	6.6	7	100	63
478	9.7	54.0	2106	345.0	334.6	35.0	13.0	9.5	5.7	7	100	63
479	9.5	53.5	2069	345.0	334.6	35.0	12.9	10.6	5.4	7	100	63
480	8.9	53.4	1899	345.0	334.6	35.0	12.9	9.5	5.7	7	100	63
481	8.3	53.4	1627	345.0	334.6	35.0	12.9	7.2	6.2	8	100	63
482	7.8	52.7	1382	345.0	334.6	35.0	12.7	5.7	4.2	8	100	63
483	8.0	52.8	1458	345.0	334.6	35.0	12.9	11.1	4.1	8	100	63
484	7.8	53.1	1395	345.0	334.6	35.0	12.7	10.9	7.7	8	100	63
485	7.9	52.7	1447	345.0	338.8	35.0	12.9	7.7	7.0	8	100	63
486	8.2	53.5	1589	345.0	340.8	35.0	13.0	9.6	7.9	8	100	63
487	7.8	53.2	1378	345.0	340.8	35.0	12.6	8.4	10.3	8	100	63
488	7.6	52.7	1269	345.0	340.8	35.0	12.3	6.6	7.5	8	100	63
489	7.2	51.8	1074	345.0	340.4	35.0	11.5	6.2	8.3	8	100	63
490	6.7	50.3	861	345.0	340.4	35.0	10.7	7.6	8.4	8	100	63
491	6.3	49.1	738	345.0	337.5	35.0	10.3	6.3	7.5	8	100	63
492	6.8	49.3	898	345.0	331.0	35.0	11.0	7.3	8.3	8	100	63
493		51.1	1286	345.0	327.2	35.0	12.5	10.3	6.8	8	100	62
494		53.7	2130	345.0	327.2	35.0	13.1	9.0	7.5	8	100	62
495		54.1	1750	345.0	327.2	35.0	13.0	9.9	7.3	8	100	62
496		53.5	1645	345.0	327.2	35.0	13.0	9.1	7.3	8	100	62
497		54.0	1862	345.0	327.2	35.0	13.0	10.3	8.3	8	100	62
498		54.3	1594	345.0	327.2	35.0	12.9	11.2	9.1	8	100	62
499		53.8	1981	345.0	327.2	35.0	13.3	10.2	8.0	8	100	62
500		54.1	2220	345.0	327.2	35.0	13.2	12.6	6.3	8	100	62
501		53.9	2230	345.0	327.2	35.0	13.1	9.5	8.8	8	100	62
502		53.7	2249	345.0	327.2	35.0	13.6	10.0	9.4	8	100	62
503		53.9	2218	345.0	327.2	35.0	13.3	11.8	10.1	8	100	62
504		53.3	2183	345.0	327.2	35.0	13.2	11.5	9.4	8	100	62
505		52.7	2230	345.0	330.1	35.0	12.9	10.7	7.1	8	100	62
506	10.2	52.5	2182	345.0	330.1	35.0	12.4	11.7	9.5	8	100	62
507	9.8	53.1	2131	345.0	330.1	35.0	12.8	8.8	8.0	8	100	62
508	9.2	53.0	1997	345.0	330.1	35.0	12.9	11.2	7.4	8	100	62
509	9.9	53.5	2153	345.0	336.3	35.0	13.1	10.0	7.8	8	100	62
510	9.0	53.3	1945	345.0	340.5	35.0	13.0	8.6	7.2	8	100	62
511	9.3	53.9	2027	345.0	340.5	35.0	13.0	7.8	6.0	8	100	62
512	9.6	53.1	2083	345.0	340.5	35.0	13.1	9.5	6.4	8	100	62
513	9.7	53.8	2099	345.0	340.5	35.0	13.0	9.6	8.3	8	100	62
514		53.5	2227	345.0	339.2	35.0	13.1	9.2	8.3	8	100	62
515		53.6	2221	345.0	337.3	35.0	13.2	10.3	7.7	8	100	62
516		53.8	2218	345.0	337.3	35.0	13.3	10.1	7.8	8	100	62
517		52.7	2208	345.0	337.3	35.0	12.7	9.7	8.2	8	100	60
518	9.5	52.7	2067	345.0	337.3	35.0	12.8	9.1	6.9	8	100	60
519	9.9	53.4	2142	345.0	337.3	35.0	13.0	10.6	7.0	8	100	60
520	8.9	53.3	1888	345.0	337.3	35.0	13.0	7.9	7.5	8	100	60
521	8.9	53.6	1916	345.0	337.3	35.0	13.0	8.6	5.4	8	100	60
522	9.9	53.9	2144	345.0	337.3	35.0	13.1	9.0	5.5	8	100	60
523	9.6	53.8	2082	345.0	337.3	35.0	12.9	10.5	6.0	8	100	61
524	9.9	53.5	2158	345.0	337.3	35.0	13.0	10.8	6.3	8	100	61
525	8.8	53.2	1834	345.0	342.2	35.0	13.0	10.6	7.1	8	100	61
526	9.2	53.6	2002	345.0	343.2	35.0	13.0	8.0	8.6	8	100	61
527	8.1	53.5	1540	345.0	343.2	35.0	12.9	10.0	6.9	8	100	61
528	8.4	53.6	1656	345.0	343.2	35.0	13.0	10.8	5.5	8	100	61

***Blank data denotes values that were omitted in the analysis due to an extraneous event during recording

Data Point #	Standardized Wind Speed	LAeq	Turbine Power Output (kW)	Reference Yaw Angle (°)	Yaw Angle (°)	Pitch Angle (°)	Rotor RPM	Nacelle Anemometer Wind Speed (m/s)	10m Anemometer Wind Speed (m/s)	Air Temperature (-C)	Pressure (Pa)	Relative Humidity (%)
529	7.9	54.0	1443	345.0	343.2	35.0	12.9	8.9	5.9	8	100	62
530	7.8	53.2	1372	345.0	343.2	35.0	12.6	7.7	6.0	8	100	62
531	7.5	53.0	1244	345.0	343.2	35.0	12.2	6.1	5.7	8	100	62
532	7.1	51.5	1054	345.0	343.2	35.0	11.4	9.0	5.9	8	100	62
533	7.1	49.8	1037	345.0	343.2	35.0	11.5	8.3	6.3	8	100	62
534	7.7	52.0	1305	345.0	345.2	35.0	12.5	9.5	4.9	8	100	62
535	7.6	52.3	1297	345.0	345.2	35.0	12.4	9.2	6.0	8	100	63
536	6.9	50.4	966	345.0	345.2	35.0	11.2	7.3	7.5	8	100	63
537	6.4	48.2	775	345.0	339.1	35.0	10.4	6.1	6.6	8	100	63
538	6.7	48.4	878	345.0	336.8	35.0	10.9	10.3	8.0	8	100	63
539	7.3	49.8	1130	345.0	336.8	35.0	11.9	9.3	8.9	8	100	63
540	8.9	53.3	1915	345.0	336.8	35.0	13.2	8.1	9.6	8	100	63
541	8.3	53.5	1632	345.0	336.8	35.0	12.9	12.4	8.0	8	100	62
542	8.5	53.5	1713	345.0	336.8	35.0	13.0	7.3	7.0	8	100	62
543	8.3	53.0	1621	345.0	336.8	35.0	13.0	8.3	6.0	8	100	62
544	8.0	53.3	1494	345.0	336.8	35.0	13.0	9.6	4.6	8	100	62
545	7.9	53.4	1408	345.0	336.8	35.0	12.7	7.7	4.6	8	100	62
546	7.3	52.3	1154	345.0	336.8	35.0	11.8	6.0	5.5	8	100	62
547	6.6	50.1	839	345.0	336.8	35.0	10.6	6.4	6.9	8	100	62
548	6.3	47.6	734	345.0	335.2	35.0	10.2	5.6	4.5	8	100	62
549	6.1	46.4	662	345.0	335.1	35.0	9.9	5.4	5.9	8	100	62
550	6.4	47.4	749	345.0	340.6	35.0	10.3	7.4	4.2	8	100	61
551	7.0	48.9	996	345.0	344.6	35.0	11.3	10.0	5.3	8	100	61
552	7.0	49.8	990	345.0	344.6	35.0	11.2	9.2	5.0	8	100	61
553	6.9	49.3	945	345.0	350.3	35.0	11.2	7.3	5.1	8	100	60
554	7.9	51.7	1445	345.0	355.0	35.0	13.0	9.3	6.7	8	100	60
555	9.1	53.4	1976	345.0	355.0	35.0	13.1	11.7	6.3	8	100	60
556	7.9	53.4	1402	345.0	355.0	35.0	12.7	8.0	5.6	8	100	60
557	7.8	52.6	1384	345.0	352.9	35.0	12.7	9.3	6.7	8	100	60
558	10.0	53.2	2170	345.0	346.2	35.0	13.2	9.2	7.2	8	100	60
559	9.0	53.9	1958	345.0	339.5	35.0	12.8	8.2	5.6	8	100	60
560	8.9	53.4	1885	345.0	335.5	35.0	13.0	11.3	6.1	8	100	60
561	8.7	53.6	1784	345.0	335.5	35.0	12.9	8.5	5.5	8	100	60
562	7.7	52.9	1340	345.0	335.4	35.0	12.6	7.0	7.2	8	100	60
563	7.3	51.9	1154	345.0	330.7	35.0	11.8	8.9	6.8	8	100	60
564	7.3	51.4	1158	345.0	330.8	35.0	11.9	8.6	6.6	8	100	60
565	7.4	51.2	1189	345.0	330.8	35.0	12.0	7.8	6.5	8	100	60
566	7.0	50.2	998	345.0	330.7	35.0	11.3	8.9	7.4	8	100	60
567	6.7	48.9	885	345.0	330.8	35.0	10.9	6.5	6.6	8	100	60
568	6.7	48.5	871	345.0	335.8	35.0	10.9	5.8	5.3	8	100	60
569	7.3	50.3	1133	345.0	335.9	35.0	11.8	9.6	6.5	8	100	60
570	7.9	52.3	1443	345.0	336.0	35.0	12.9	9.1	8.3	8	100	60
571	8.7	53.2	1784	345.0	339.2	35.0	13.1	9.1	7.5	8	100	59
572	9.8	54.0	2128	345.0	345.7	35.0	13.1	9.6	6.6	8	100	59
573	9.7	53.7	2099	345.0	346.6	35.0	13.0	9.4	5.9	8	100	59
574	8.6	54.3	1757	345.0	346.6	35.0	12.9	8.1	5.6	8	100	59
575	8.1	53.6	1500	345.0	346.6	35.0	12.9	8.5	7.5	8	100	59
576	7.9	53.4	1427	345.0	345.0	35.0	12.9	7.4	5.7	8	100	59
577	7.7	52.8	1317	345.0	340.7	35.0	12.5	8.2	5.7	8	100	59
578	7.2	51.3	1071	345.0	340.7	35.0	11.6	10.1	5.8	8	100	59
579	6.8	49.3	914	345.0	341.2	35.0	11.0	6.9	4.9	8	100	59
580	7.2	50.0	1086	345.0	341.7	35.0	11.6	7.9	6.1	8	100	59
581	7.4	50.8	1203	345.0	341.7	35.0	12.1	9.4	6.7	8	100	59
582	7.7	52.0	1348	345.0	341.7	35.0	12.6	7.7	6.8	8	100	59
583	7.6	52.4	1293	345.0	340.1	35.0	12.4	7.0	5.4	8	100	61
584	7.6	51.7	1289	345.0	333.4	35.0	12.4	9.7	6.3	8	100	61
585	7.9	52.3	1410	345.0	333.0	35.0	12.8	8.8	6.1	8	100	61
586	9.4	53.0	2049	345.0	333.1	35.0	13.2	10.3	6.6	8	100	61
587	8.7	53.5	1792	345.0	333.1	35.0	12.9	8.1	7.7	8	100	61
588		53.3	1870	345.0	328.5	35.0	13.0	9.9	10.0	8	100	61
589		54.0	2130	345.0	327.3	35.0	13.1	11.0	9.1	8	100	58
590		54.2	2225	345.0	327.3	35.0	13.3	9.7	8.9	8	100	58
591		54.0	2189	345.0	327.3	35.0	13.3	9.7	9.7	8	100	58
592		53.7	2234	345.0	327.3	35.0	13.3	11.3	8.4	8	100	58
593		53.6	2224	345.0	327.3	35.0	13.1	12.2	10.2	8	100	58
594		53.1	2243	345.0	327.3	35.0	13.0	9.3	8.2	8	100	58
595		53.5	2218	345.0	327.3	35.0	12.8	11.7	6.3	8	100	59
596		53.4	2216	345.0	328.3	35.0	12.8	9.0	9.4	8	100	59
597	10.4	53.5	2191	345.0	331.3	35.0	12.8	10.3	7.2	8	100	59
598		53.6	2230	345.0	331.3	35.0	13.0	9.4	7.0	8	100	59
599		53.9	2222	345.0	331.3	35.0	12.9	10.5	7.3	8	100	59
600	8.9	53.4	1916	345.0	331.3	35.0	12.7	9.4	7.3	8	100	59
601	8.6	53.9	1737	345.0	331.3	35.0	12.9	9.2	7.8	8	100	59
602	7.9	53.8	1445	345.0	332.6	35.0	12.9	7.0	6.3	8	100	59
603	8.4	53.8	1654	345.0	334.3	35.0	13.0	10.1	6.5	8	100	59
604	8.5	53.8	1733	345.0	334.3	35.0	13.1	8.8	6.9	8	100	59
605	9.4	53.7	2038	345.0	334.4	35.0	13.2	9.8	6.5	8	100	59
606		54.4	2234	345.0	339.0	35.0	13.3	10.7	5.7	8	100	59
607	11.1	53.9	2208	345.0	339.2	35.0	13.1	11.7	5.7	8	100	60
608		53.6	2246	345.0	339.2	35.0	12.9	8.5	6.7	8	100	60
609	9.2	53.2	1989	345.0	339.2	35.0	12.9	10.0	6.8	8	100	60
610	8.7	53.3	1794	345.0	334.5	35.0	12.9	9.2	8.0	8	100	60
611	8.1	53.6	1500	345.0	333.7	35.0	12.9	8.7	7.3	8	100	60
612	7.9	53.3	1430	345.0	333.7	35.0	12.8	8.9	8.4	8	100	60
613	7.8	53.0	1360	345.0	333.7	35.0	12.6	7.6	6.2	8	100	59
614	7.4	52.1	1192	345.0	335.5	35.0	11.9	7.7	7.7	8	100	59
615	6.9	50.0	942	345.0	335.5	35.0	11.0	4.8	7.3	8	100	59
616	6.4	48.3	769	345.0	335.5	35.0	10.4	7.9	9.0	8	100	59

***Blank data denotes values that were omitted in the analysis due to an extraneous event during recording

Data Point #	Standardized Wind Speed	LAeq	Turbine Power Output (kW)	Reference Yaw Angle (°)	Yaw Angle (°)	Pitch Angle (°)	Rotor RPM	Nacelle Anemometer Wind Speed (m/s)	10m Anemometer Wind Speed (m/s)	Air Temperature (-C)	Pressure (Pa)	Relative Humidity (%)
617	7.0	49.2	985	345.0	339.5	35.0	11.3	8.5	10.4	8	100	59
618	7.2	50.5	1064	345.0	339.3	35.0	11.6	6.1	8.7	8	100	59
619			1058	345.0	335.0	35.0	11.5	7.2	10.0	8	100	59
620	7.3	50.5	1126	345.0	334.9	35.0	11.8	8.1	9.5	8	100	59
621	8.5	52.6	1722	345.0	333.3	35.0	13.2	6.5	9.2	8	100	59
622		53.9	1782	345.0	329.6	35.0	13.1	10.6	9.0	8	100	59
623		54.2	1815	345.0	329.6	35.0	13.1	9.9	7.9	8	100	59
624		54.2	1926	345.0	329.5	35.0	13.0	7.2	8.2	8	100	59
625		54.2	2029	345.0	329.6	35.0	13.0	10.2	6.8	8	100	61
626		53.4	1716	345.0	329.6	35.0	13.0	10.1	8.1	8	100	61
627		53.9	1879	345.0	329.6	35.0	13.0	9.4	8.5	8	100	61
628		53.2	1298	345.0	329.5	35.0	12.4	7.6	8.1	8	100	61
629		52.3	1328	345.0	328.3	35.0	12.6	10.1	7.5	8	100	61
630		53.8	2200	345.0	328.3	35.0	13.2	9.5	9.3	8	100	61
631		53.7	1919	345.0	328.3	35.0	13.0	10.8	7.7	8	100	59
632		53.5	1630	345.0	328.3	35.0	12.9	9.4	7.0	8	100	59
633		53.0	1341	345.0	328.3	35.0	12.6	8.3	6.1	8	100	59
634		53.0	1337	345.0	329.9	35.0	12.6	9.5	6.3	8	100	59
635	7.9	53.0	1428	345.0	336.5	35.0	12.9	9.8	7.1	8	100	59
636	8.0	53.1	1488	345.0	337.6	35.0	13.0	8.8	5.0	8	100	59
637	7.6	52.7	1297	345.0	333.6	35.0	12.4	8.6	6.2	8	100	60
638	7.8	52.2	1374	345.0	333.4	35.0	12.6	7.5	8.9	8	100	60
639	7.6	52.5	1266	345.0	333.5	35.0	12.3	9.1	8.8	8	100	60
640	8.0	52.4	1455	345.0	333.6	35.0	12.9	9.2	8.7	8	100	60
641	8.8	53.6	1874	345.0	333.6	35.0	13.1	7.7	6.8	8	100	60
642	8.7	53.9	1821	345.0	333.6	35.0	13.0	7.8	8.5	8	100	60
643	8.4	53.3	1649	345.0	333.6	35.0	13.0	8.2	8.6	8	100	60
644	7.8	52.7	1390	345.0	333.4	35.0	12.7	8.5	7.1	8	100	60
645	8.6	53.1	1762	345.0	333.5	35.0	13.2	9.8	7.8	8	100	60
646	9.3	53.9	2015	345.0	333.4	35.0	13.1	8.7	5.8	8	100	60
647	9.6	54.0	2086	345.0	333.4	35.0	13.0	9.4	7.5	8	100	60
648	9.3	54.1	2024	345.0	333.4	35.0	13.0	9.2	9.0	8	100	60
649		53.4	1641	345.0	326.9	35.0	12.9	8.7	7.8	8	100	58
650		53.5	1472	345.0	325.1	35.0	12.9	9.2	7.1	8	100	58
651		53.9	1482	345.0	326.9	35.0	13.0	8.2	7.9	8	100	58
652	8.6	53.6	1756	345.0	332.6	35.0	13.1	8.7	6.6	8	100	58
653	8.4	53.4	1653	345.0	332.6	35.0	13.1	10.1	6.4	8	100	58
654		54.0	2147	345.0	328.1	35.0	13.1	10.3	7.8	8	100	58
655		53.9	2115	345.0	328.1	35.0	13.1	8.4	8.2	8	100	58
656		54.0	1892	345.0	328.1	35.0	12.9	10.2	8.2	8	100	58
657		54.2	1640	345.0	328.1	35.0	12.9	8.6	7.5	8	100	58
658		53.6	1450	345.0	327.6	35.0	12.9	5.6	7.8	8	100	58
659		53.9	1757	345.0	323.9	35.0	13.1	9.8	6.4	8	100	58
660		53.9	1661	345.0	324.1	35.0	12.9	7.5	6.3	8	100	58
661		53.8	1426	345.0	324.1	35.0	12.9	5.1	7.5	8	100	58
662		53.5	1456	345.0	324.1	35.0	12.9	8.3	6.7	8	100	58
663		54.0	1762	345.0	324.1	35.0	13.1	7.9	6.1	8	100	58
664		53.9	1496	345.0	324.1	35.0	12.9	8.0	9.0	8	100	58
665		53.9	1592	345.0	324.1	35.0	13.1	8.3	7.5	8	100	58
666	11.3	52.2	2229	336.0	335.6	40.0	12.9	12.0	8.3	8	100	55
667		53.1	2208	336.0	335.6	40.0	12.9	11.3	9.1	8	100	55
668		53.0	2208	336.0	336.3	40.0	12.7	10.0	9.4	8	100	55
669	9.0	52.8	1941	336.0	336.3	40.0	12.9	9.7	8.1	8	100	55
670	9.0	53.5	1929	336.0	336.3	40.0	13.0	9.1	7.5	8	100	55
671	8.7	52.8	1811	336.0	336.3	40.0	12.9	8.2	6.7	8	100	55
672	8.0	53.4	1471	336.0	336.3	40.0	12.9	8.0	7.8	8	100	55
673	8.5	53.6	1724	336.0	336.3	40.0	13.0	7.5	6.7	8	100	55
674	8.1	53.3	1539	336.0	336.3	40.0	13.0	7.7	5.5	8	100	55
675	8.6	53.6	1768	336.0	332.2	40.0	13.1	9.1	5.3	8	100	55
676	9.5	53.8	2057	336.0	332.2	40.0	13.1	10.1	7.4	8	100	55
677	8.4	53.1	1680	336.0	332.2	40.0	13.0	8.0	7.2	8	100	56
678	8.5	52.6	1714	336.0	337.7	40.0	13.1	11.2	8.7	8	100	57
679	8.4	53.2	1649	336.0	344.3	40.0	12.9	11.9	9.2	8	100	57
680	8.1	53.1	1499	336.0	349.1	40.0	13.0	7.8	8.3	8	100	57
681	7.8	52.8	1387	336.0	349.0	40.0	12.8	8.5	9.1	8	100	57
682	9.6	53.2	2075	336.0	342.6	40.0	13.2	9.7	8.1	8	100	57
683	8.5	53.3	1693	336.0	339.1	40.0	12.9	10.7	7.5	8	100	58
684	8.0	53.0	1449	336.0	339.1	40.0	12.9	11.5	9.4	8	100	58
685	7.4	52.5	1200	336.0	339.1	40.0	12.0	8.1	8.5	8	100	58
686	7.7	51.7	1306	336.0	339.1	40.0	12.5	8.7	9.6	8	100	58
687	8.5	52.7	1715	336.0	339.1	40.0	13.2	9.8	9.3	8	100	58
688	9.9	53.9	2143	336.0	338.8	40.0	13.1	9.1	8.2	8	100	58
689	8.4	53.6	1667	336.0	332.3	40.0	12.9	9.1	8.7	8	100	58
690	8.4	53.9	1687	336.0	331.9	40.0	13.0	8.4	7.9	8	100	56
691		54.1	2228	336.0	331.9	40.0	13.3	10.0	7.3	8	100	56
692	9.4	53.5	2035	336.0	330.9	40.0	12.9	9.8	5.3	8	100	56
693	8.5	53.1	1724	336.0	330.8	40.0	12.9	9.5	6.8	8	100	56
694	7.9	53.4	1405	336.0	330.8	40.0	12.8	8.5	8.0	8	100	56
695	7.4	52.0	1182	336.0	330.8	40.0	11.9	8.3	6.6	8	100	57
696	7.7	51.3	1339	336.0	330.8	40.0	12.6	7.5	6.3	8	100	58
697	7.9	53.2	1445	336.0	330.8	40.0	12.9	8.3	6.4	8	100	58
698	7.4	52.3	1177	336.0	330.8	40.0	11.9	7.2	7.5	8	100	58
699	8.2	52.3	1559	336.0	331.7	40.0	13.1	10.2	9.8	8	100	58
700	9.8	53.7	2122	336.0	331.7	40.0	13.3	8.6	9.6	8	100	58
701	7.9	53.3	1422	336.0	331.7	40.0	12.8	9.2	8.5	8	100	58
702	9.3	53.7	2014	336.0	331.7	40.0	13.4	8.9	9.2	8	100	58
703		53.6	2215	336.0	331.7	40.0	13.6	10.9	7.4	8	100	58
704		52.8	2234	336.0	331.7	40.0	13.1	10.3	8.2	8	100	58

***Blank data denotes values that were omitted in the analysis due to an extraneous event during recording

Data Point #	Standardized Wind Speed	LAeq	Turbine Power Output (kW)	Reference Yaw Angle (°)	Yaw Angle (°)	Pitch Angle (°)	Rotor RPM	Nacelle Anemometer Wind Speed (m/s)	10m Anemometer Wind Speed (m/s)	Air Temperature (°C)	Pressure (Pa)	Relative Humidity (%)
705	12.6	54.2	2247	336.0	331.7	40.0	12.7	13.3	7.6	8	100	58
706		52.9	2218	336.0	331.7	40.0	12.6	10.8	8.6	8	100	58
707	9.4	52.9	2035	336.0	331.7	40.0	12.7	9.3	6.9	8	100	57
708	8.9	53.6	1902	336.0	331.7	40.0	13.0	8.8	5.9	9	100	56
709	9.7	53.5	2102	336.0	331.7	40.0	13.1	7.7	7.6	9	100	56
710	10.7	54.0	2204	336.0	326.6	40.0	13.0	9.5	8.2	9	100	56
711		53.8	2242	336.0	321.5	40.0	13.3	11.1	9.2	9	100	56
712	9.3	53.8	2027	336.0	321.3	40.0	13.0	10.1	10.9	9	100	56
713		54.5	2230	336.0	321.5	40.0	13.8	11.1	8.6	9	100	56
714	10.7	53.3	2202	336.0	321.5	40.0	13.0	9.8	9.5	9	100	55
715		53.1	2220	336.0	321.5	40.0	13.3	9.1	9.4	9	100	55
716	12.3	53.7	2227	336.0	321.5	40.0	13.4	13.0	6.8	9	100	55
717		52.3	2232	336.0	325.7	40.0	12.8	10.1	7.7	9	100	55
718		52.2	2213	336.0	325.7	40.0	12.5	9.6	7.8	9	100	55
719		53.1	2222	336.0	325.7	40.0	12.9	10.5	9.8	9	100	55
720	10.4	53.3	2191	336.0	325.7	40.0	13.7	13.9	9.7	8	100	56
721	11.2	53.0	2221	336.0	325.8	40.0	13.2	11.8	8.7	8	100	56
722			2240	336.0	325.7	40.0	13.1	12.3	7.7	8	100	56
723	11.2	52.0	2228	336.0	325.7	40.0	12.6	11.9	8.8	8	100	56
724	10.9	52.9	2222	336.0	325.7	40.0	12.8	11.5	8.9	8	100	56
725		53.0	2219	336.0	325.7	40.0	12.9	9.5	8.5	8	100	57
726	10.7	52.8	2203	336.0	325.7	40.0	12.8	8.5	9.9	8	100	56
727		53.3	2219	336.0	325.7	40.0	12.7	11.3	9.1	8	100	56
728	11.1	53.5	2217	336.0	325.7	40.0	12.9	11.7	7.0	8	100	56
729	11.0	53.4	2253	336.0	330.2	40.0	12.6	11.6	8.5	8	100	56
730		53.8	2222	336.0	330.2	40.0	13.2	10.0	8.1	8	100	56
731	11.5	54.1	2238	336.0	330.2	40.0	13.4	12.2	7.9	8	100	56
732		53.0	2207	336.0	330.2	40.0	13.0	10.8	6.9	8	100	55
733		53.2	2219	336.0	330.2	40.0	13.2	10.5	8.4	8	100	55
734		53.1	2229	336.0	330.2	40.0	12.8	10.4	6.9	8	100	55
735		53.1	2231	336.0	330.2	40.0	12.9	10.4	5.5	8	100	55
736		53.3	2243	336.0	330.2	40.0	13.3	10.1	7.6	8	100	55
737	11.4	53.0	2218	336.0	330.2	40.0	13.3	12.0	6.4	8	100	56
738	12.1	52.4	2214	336.0	330.2	40.0	13.0	12.8	9.1	8	100	57
739	10.4	51.6	2191	336.0	330.2	40.0	12.4	10.1	7.3	8	100	57
740	11.8	52.8	2227	336.0	330.2	40.0	13.2	12.5	7.4	8	100	57
741		53.3	2233	336.0	330.2	40.0	13.0	9.8	6.6	8	100	57
742		53.3	2234	336.0	330.2	40.0	12.9	9.4	7.9	8	100	57
743	10.7	53.1	2204	336.0	330.2	40.0	13.0	11.8	7.9	8	100	57
744	10.9	53.2	2220	336.0	330.2	40.0	12.7	11.5	9.3	8	100	57
745		53.4	2210	336.0	330.2	40.0	13.4	9.5	7.2	8	100	57
746		53.3	2222	336.0	330.2	40.0	13.4	11.3	10.3	8	100	57
747	11.1	53.2	2243	336.0	330.2	40.0	13.4	11.7	9.8	8	100	57
748	11.7	52.8	2222	336.0	330.2	40.0	13.0	12.4	8.5	8	100	57
749	10.6	52.6	2200	336.0	330.2	40.0	12.9	11.8	7.9	8	100	57
750	10.5	52.1	2197	336.0	330.2	40.0	12.4	9.1	8.4	8	100	56
751		52.6	2215	336.0	330.2	40.0	12.7	9.9	8.9	8	100	56
752		53.5	2233	336.0	330.2	40.0	13.2	10.0	6.5	8	100	56
753	11.6	53.3	2232	336.0	330.2	40.0	13.5	12.3	9.3	8	100	56
754		52.9	2237	336.0	330.2	40.0	13.1	9.9	8.1	8	100	56
755		52.1	2209	336.0	330.2	40.0	12.6	8.8	6.5	8	100	56
756	9.4	53.4	2032	336.0	330.2	40.0	12.6	9.6	6.5	8	100	56
757	9.3	53.2	2026	336.0	330.2	40.0	13.0	12.5	8.0	8	100	56
758	8.6	53.7	1755	336.0	334.9	40.0	12.9	9.8	6.7	8	100	56
759	8.4	54.2	1674	336.0	335.9	40.0	12.9	8.8	7.3	8	100	56
760	8.6	53.7	1744	336.0	336.0	40.0	13.0	10.2	7.1	8	100	56
761	8.0	53.3	1455	336.0	335.9	40.0	12.9	9.1	7.0	8	100	57
762	7.9	53.1	1418	336.0	336.0	40.0	12.8	10.2	5.8	8	100	57
763	7.8	53.0	1384	336.0	336.0	40.0	12.8	8.7	5.7	8	100	57
764	9.3	53.8	2023	336.0	329.8	40.0	13.2	9.8	5.8	8	100	57
765	9.3	53.6	2027	336.0	328.9	40.0	12.9	10.7	8.5	8	100	57
766		53.5	2237	336.0	328.9	40.0	13.1	11.1	5.9	8	100	57
767	9.3	53.7	2019	336.0	328.9	40.0	12.9	9.5	6.4	8	100	56
768	8.8	53.3	1865	336.0	328.9	40.0	13.0	11.3	6.9	9	100	56
769	8.7	53.9	1804	336.0	334.3	40.0	13.0	10.0	6.6	9	100	56
770	8.2	53.7	1567	336.0	336.2	40.0	12.9	9.8	8.1	9	100	56
771	8.0	53.2	1456	336.0	336.1	40.0	12.9	8.8	7.0	9	100	56
772	9.7	53.4	2109	336.0	336.1	40.0	13.2	10.3	6.0	9	100	56
773		53.6	2225	336.0	336.2	40.0	13.1	10.3	5.8	9	100	56
774	8.1	53.4	1533	336.0	336.1	40.0	12.8	10.2	8.2	9	100	56
775	8.7	53.3	1823	336.0	336.1	40.0	13.0	10.4	8.2	9	100	56
776	10.0	53.5	2163	336.0	336.1	40.0	13.1	8.3	9.4	9	100	56
777		53.9	2237	336.0	340.1	40.0	13.9	9.9	8.1	9	100	56
778		53.1	2208	336.0	340.1	40.0	12.4	11.0	7.7	9	100	56
779	8.9	52.8	1910	336.0	339.9	40.0	13.0	10.0	7.6	9	100	56
780	9.0	52.5	1928	336.0	333.6	40.0	12.9	8.7	10.7	9	100	55
781	8.3	53.1	1633	336.0	330.1	40.0	12.7	8.2	9.5	9	100	55
782		53.2	2232	336.0	330.1	40.0	13.1	9.4	8.2	9	100	55
783		53.7	2229	336.0	330.2	40.0	13.2	9.6	7.7	9	100	55
784		53.7	2249	336.0	330.2	40.0	13.0	10.1	8.3	9	100	55
785			2222	336.0	330.2	40.0	13.1	13.0	7.2	9	100	55
786		53.0	2219	336.0	330.1	40.0	13.3	10.1	7.5	9	100	55
787	10.5	52.8	2194	336.0	332.8	40.0	12.7	10.9	8.7	9	100	55
788		53.6	2231	336.0	335.6	40.0	13.0	9.1	8.5	9	100	55
789		53.3	2233	336.0	335.6	40.0	12.8	10.8	7.3	9	100	55
790	10.0	53.7	2162	336.0	335.6	40.0	13.0	8.6	6.6	9	100	55
791	9.0	53.5	1950	336.0	335.6	40.0	13.0	8.0	8.3	9	100	55
792	9.6	53.6	2091	336.0	335.6	40.0	13.1	9.9	6.9	9	100	55

***Blank data denotes values that were omitted in the analysis due to an extraneous event during recording

Data Point #	Standardized Wind Speed	LAeq	Turbine Power Output (kW)	Reference Yaw Angle (°)	Yaw Angle (°)	Pitch Angle (°)	Rotor RPM	Nacelle Anemometer Wind Speed (m/s)	10m Anemometer Wind Speed (m/s)	Air Temperature (°C)	Pressure (Pa)	Relative Humidity (%)
793	9.0	53.5	1945	336.0	335.6	40.0	13.0	12.9	7.5	9	100	55
794	8.9	53.3	1920	336.0	336.7	40.0	13.0	11.5	8.9	9	100	55
795	8.8	53.3	1874	336.0	341.3	40.0	13.0	8.1	9.1	9	100	55
796	9.8	53.4	2117	336.0	341.3	40.0	13.0	9.6	8.3	9	100	55
797	9.1	53.4	1976	336.0	341.3	40.0	13.1	10.7	6.9	9	100	55
798	9.4	54.0	2040	336.0	341.3	40.0	13.0	9.6	7.2	8	100	55
799	8.8	53.5	1861	336.0	341.3	40.0	12.9	10.3	7.2	8	100	55
800	8.9	53.9	1901	336.0	341.3	40.0	13.0	9.5	6.9	8	100	55
801	9.3	53.5	2016	336.0	344.1	40.0	13.0	10.2	9.1	8	100	55
802	9.7	53.7	2111	336.0	344.1	40.0	13.1	11.0	8.1	8	100	55
803		53.9	2230	336.0	344.1	40.0	13.2	10.2	5.5	8	100	56
804	10.7	53.3	2203	336.0	344.1	40.0	13.2	10.8	6.9	8	100	56
805	11.2	53.5	2219	336.0	344.1	40.0	13.4	11.8	7.4	8	100	56
806	9.1	52.6	1972	336.0	344.1	40.0	12.6	9.2	6.5	8	100	56
807	8.8	53.0	1870	336.0	344.1	40.0	13.0	11.7	5.3	8	100	56
808	8.7	53.3	1809	336.0	344.1	40.0	13.0	10.6	7.3	8	100	56
809	7.9	52.9	1446	336.0	344.1	40.0	12.9	9.1	9.4	8	100	56
810	8.0	53.0	1471	336.0	342.4	40.0	13.0	9.1	9.1	9	100	56
811	8.0	52.6	1453	336.0	342.4	40.0	13.0	9.6	6.1	9	100	56
812	8.6	53.3	1772	336.0	342.4	40.0	13.0	10.4	5.0	9	100	56
813	8.8	53.6	1873	336.0	342.4	40.0	13.1	11.5	7.6	9	100	56
814	8.5	53.4	1705	336.0	342.4	40.0	12.9	8.9	6.6	9	100	56
815	7.7	52.7	1330	336.0	342.4	40.0	12.5	6.7	5.8	9	100	56
816	7.5	51.6	1221	336.0	342.4	40.0	12.1	8.9	5.3	9	100	56
817	7.6	51.6	1261	336.0	338.0	40.0	12.3	7.4	6.7	9	100	56
818	8.5	53.3	1713	336.0	331.4	40.0	13.2	11.0	8.2	9	100	56
819	8.7	53.7	1801	336.0	328.8	40.0	13.1	10.5	7.7	9	100	56
820	8.3	53.3	1631	336.0	328.7	40.0	12.8	10.0	5.9	9	100	56
821	8.7	53.4	1791	336.0	330.3	40.0	13.1	8.9	7.8	9	100	55
822	9.0	54.0	1943	336.0	337.0	40.0	13.1	10.0	8.2	9	100	55
823	7.9	53.5	1427	336.0	343.5	40.0	12.9	8.3	6.9	9	100	55
824	7.7	53.0	1337	336.0	345.1	40.0	12.6	9.3	9.5	9	100	55
825	9.1	52.7	1972	336.0	345.1	40.0	13.2	10.8	7.9	9	100	55
826	9.1	53.4	1965	336.0	345.1	40.0	13.0	10.5	8.2	9	100	55
827	8.0	52.8	1460	336.0	345.1	40.0	12.8	8.9	7.0	9	100	55
828	7.8	53.3	1363	336.0	348.0	40.0	12.6	8.3	7.2	9	100	54
829	7.7	52.2	1308	336.0	348.0	40.0	12.5	9.1	8.2	9	100	54
830	8.4	52.9	1673	336.0	348.0	40.0	13.1	7.8	7.4	9	100	54
831	8.2	53.2	1577	336.0	348.0	40.0	13.0	10.6	6.9	9	100	54
832	9.0	53.5	1949	336.0	348.0	40.0	13.2	10.7	9.8	9	100	54
833		54.0	2219	336.0	348.0	40.0	13.1	9.8	7.6	9	100	54
834		53.6	2239	336.0	348.0	40.0	13.1	8.6	8.1	9	100	54
835	10.5	53.0	2196	336.0	348.0	40.0	13.1	9.1	6.7	9	100	54
836		53.6	2212	336.0	343.5	40.0	13.3	9.7	6.8	9	100	54
837	10.5	53.9	2195	336.0	341.8	40.0	13.0	10.4	6.4	9	100	54
838	11.8	53.5	2225	336.0	341.8	40.0	13.3	12.5	6.4	9	100	54
839	9.6	52.7	2077	336.0	341.7	40.0	12.4	9.3	6.0	9	100	54
840	8.8	52.6	1856	336.0	341.7	40.0	13.0	9.2	9.9	9	100	54
841	9.6	53.6	2093	336.0	341.7	40.0	13.1	10.7	8.8	9	100	54
842	9.0	53.3	1935	336.0	341.7	40.0	13.0	9.8	8.0	9	100	54
843		53.2	2215	336.0	341.7	40.0	13.3	10.2	7.5	9	100	54
844		53.5	2216	336.0	341.7	40.0	13.1	8.8	6.6	9	100	54
845	9.7	53.0	2106	336.0	341.7	40.0	12.9	11.2	8.7	9	100	54
846	8.8	52.8	1836	336.0	341.7	40.0	13.0	7.9	6.4	9	100	53
847	8.2	52.8	1582	336.0	341.7	40.0	12.9	11.2	6.9	9	100	53
848	7.9	52.5	1416	336.0	341.7	40.0	12.8	9.1	7.4	9	100	53
849	8.3	52.8	1604	336.0	343.3	40.0	13.1	10.8	7.7	9	100	53
850	9.7	53.4	2108	336.0	344.1	40.0	13.2	9.2	7.9	9	100	53
851		53.1	2218	336.0	344.1	40.0	13.3	10.3	7.7	9	100	54
852	8.8	52.7	1862	336.0	344.1	40.0	12.8	10.7	7.0	9	100	55
853	8.7	52.8	1788	336.0	344.1	40.0	12.9	9.9	7.4	9	100	55
854	9.4	53.2	2034	336.0	344.1	40.0	13.1	10.9	5.4	9	100	55
855	9.3	53.3	2022	336.0	344.1	40.0	13.0	9.3	7.4	9	100	55
856	8.9	53.3	1921	336.0	344.1	40.0	13.0	9.1	6.5	9	100	55
857	7.9	53.1	1429	336.0	344.1	40.0	12.8	8.1	5.9	9	100	55
858	7.7	52.4	1336	336.0	344.1	40.0	12.6	6.9	7.4	9	100	55
859	8.0	52.9	1458	336.0	344.1	40.0	12.9	7.6	7.5	9	100	55
860	7.7	52.5	1309	336.0	344.1	40.0	12.4	7.8	7.6	9	100	55
861	8.0	52.6	1494	336.0	344.1	40.0	13.0	8.8	9.4	9	100	55
862		54.0	2215	336.0	344.1	40.0	13.4	10.2	9.0	9	100	55
863	9.8	53.4	2123	336.0	344.1	40.0	13.0	10.2	8.9	9	100	54
864		53.6	2224	336.0	340.7	40.0	13.2	9.9	7.5	9	100	52
865		53.4	2241	336.0	340.7	40.0	13.2	10.7	6.8	9	100	52
866		53.5	2228	336.0	340.7	40.0	13.0	11.1	8.4	9	100	52
867		53.4	2225	336.0	340.7	40.0	13.0	10.6	8.5	9	100	52
868		53.2	2209	336.0	340.7	40.0	12.6	9.9	6.8	9	100	52
869	9.0	53.4	1936	336.0	340.7	40.0	12.9	10.2	7.2	9	100	53
870	9.0	53.6	1931	336.0	343.7	40.0	13.0	8.7	7.0	9	100	54
871	9.8	53.3	2134	336.0	344.5	40.0	13.1	8.7	7.6	9	100	54
872	10.6	53.6	2200	336.0	344.4	40.0	13.1	9.8	6.0	9	100	54
873		54.0	2238	336.0	344.5	40.0	13.2	9.6	7.0	9	100	54
874	10.5	53.8	2194	336.0	344.5	40.0	13.3	9.1	8.6	9	100	54
875	11.1	53.4	2222	336.0	344.5	40.0	13.4	11.8	6.7	9	100	54
876		52.3	2236	336.0	344.3	40.0	12.7	10.6	7.0	9	100	54
877	11.8	52.5	2234	336.0	344.4	40.0	12.8	12.5	9.1	9	100	54
878		52.8	2218	336.0	344.5	40.0	13.0	9.1	5.7	9	100	54
879		53.2	2231	336.0	344.5	40.0	12.9	11.0	7.9	8	100	54
880	10.5	53.3	2195	336.0	344.3	40.0	13.6	11.3	8.2	8	100	54

***Blank data denotes values that were omitted in the analysis due to an extraneous event during recording

Data Point #	Standardized Wind Speed	LAeq	Turbine Power Output (kW)	Reference Yaw Angle (°)	Yaw Angle (°)	Pitch Angle (°)	Rotor RPM	Nacelle Anemometer Wind Speed (m/s)	10m Anemometer Wind Speed (m/s)	Air Temperature (°C)	Pressure (Pa)	Relative Humidity (%)
881		52.9	2226	336.0	344.3	40.0	13.2	10.2	6.6	8	100	54
882		52.5	2230	336.0	344.4	40.0	12.7	9.3	5.8	8	100	54
883	8.9	52.1	1910	336.0	344.3	40.0	12.5	8.6	6.7	8	100	54
884	9.2	52.9	1995	336.0	344.5	40.0	13.0	10.7	6.5	8	100	54
885	8.2	53.1	1588	336.0	344.4	40.0	12.9	10.2	4.9	8	100	54
886	8.0	53.3	1448	336.0	345.8	40.0	13.0	8.6	6.4	8	100	54
887	8.9	54.0	1888	336.0	350.6	40.0	13.1	7.3	8.2	9	100	54
888	8.6	53.4	1746	336.0	350.5	40.0	13.0	10.6	6.5	9	100	54
889	7.9	53.2	1437	336.0	350.6	40.0	12.8	10.5	7.6	9	100	54
890	7.8	52.2	1371	336.0	350.4	40.0	12.7	7.2	9.6	9	100	54
891		54.0	2239	336.0	345.5	40.0	13.4	9.2	9.9	9	100	54
892	9.6	53.0	2092	336.0	343.8	40.0	12.8	8.6	8.2	9	100	54
893		53.4	2225	336.0	343.8	40.0	13.1	8.5	7.8	9	100	54
894		53.4	2223	336.0	341.4	40.0	12.8	10.4	7.4	9	100	53
895		53.6	2216	336.0	335.5	40.0	13.0	9.1	6.4	9	100	53
896		53.5	2240	336.0	335.5	40.0	12.9	10.1	6.0	9	100	53
897	9.1	53.5	1971	336.0	335.6	40.0	13.0	11.3	6.8	9	100	53
898	8.4	53.4	1673	336.0	335.5	40.0	12.9	9.4	6.9	9	100	53
899	7.9	53.3	1427	336.0	335.5	40.0	12.9	7.4	7.2	9	100	53
900	7.7	52.6	1344	336.0	335.5	40.0	12.6	8.1	7.3	9	100	54
901	7.7	52.0	1311	336.0	335.5	40.0	12.5	9.1	6.2	9	100	54
902	8.2	52.9	1551	336.0	335.5	40.0	13.0	9.6	7.6	9	100	54
903	8.0	53.0	1447	336.0	335.5	40.0	12.8	8.8	6.6	9	100	54
904	8.9	53.4	1882	336.0	335.5	40.0	13.2	11.3	7.1	9	100	54
905	9.3	53.8	2009	336.0	335.5	40.0	13.0	10.9	7.5	9	100	54
906	8.8	53.3	1834	336.0	335.5	40.0	13.0	9.4	4.9	9	100	54
907	8.6	52.9	1736	336.0	335.5	40.0	13.0	8.6	6.1	9	100	54
908	8.0	53.1	1465	336.0	335.5	40.0	12.9	10.1	7.4	9	100	54
909	7.5	51.9	1248	336.0	335.5	40.0	12.3	6.9	6.9	9	100	54
910	7.5	51.4	1207	336.0	338.9	40.0	12.0	7.6	7.2	9	100	54
911	7.3	50.3	1117	336.0	338.9	40.0	11.8	10.8	7.0	9	100	54
912	7.1	49.9	1047	336.0	338.9	40.0	11.4	9.9	6.9	9	100	54
913	7.3	50.2	1148	336.0	338.9	40.0	11.9	11.5	8.4	9	100	54
914	7.2	50.6	1092	336.0	341.4	40.0	11.7	10.1	7.7	9	100	54
915	7.2	50.2	1097	336.0	346.0	40.0	11.6	9.9	6.1	9	100	54
916	7.0	49.4	1013	336.0	346.0	40.0	11.4	7.7	6.2	9	100	54
917	7.8	51.0	1354	336.0	340.5	40.0	12.7	8.5	8.0	9	100	53
918	8.4	53.0	1686	336.0	339.1	40.0	13.1	9.9	7.1	9	100	52
919	9.0	53.4	1943	336.0	339.1	40.0	13.1	9.0	7.4	9	100	52
920	8.9	54.0	1915	336.0	339.1	40.0	13.1	8.4	7.1	9	100	52
921	8.9	53.5	1925	336.0	339.1	40.0	13.0	10.8	9.4	9	100	52
922	8.4	53.4	1672	336.0	339.1	40.0	12.9	9.3	8.5	9	100	52
923		53.8	2224	336.0	339.1	40.0	13.2	10.6	9.8	9	100	52
924		54.1	2227	336.0	339.1	40.0	13.5	8.9	8.1	9	100	52
925		53.6	2235	336.0	338.9	40.0	13.2	9.6	9.0	9	100	52
926	9.5	53.4	2065	336.0	332.3	40.0	12.7	8.3	9.3	9	100	52
927	9.8	53.6	2129	336.0	328.2	40.0	12.9	10.3	7.1	9	100	52
928	9.8	53.4	2128	336.0	328.2	40.0	12.9	9.5	9.1	9	100	52
929		53.8	2228	336.0	328.2	40.0	13.0	9.9	7.8	9	100	52
930	10.2	53.2	2180	336.0	328.2	40.0	12.8	9.1	7.8	9	100	51
931	11.2	53.7	2233	336.0	328.2	40.0	13.4	11.9	9.2	9	100	51
932	11.9	53.3	2224	336.0	328.2	40.0	13.4	12.6	7.7	9	100	51
933	10.5	53.4	2196	336.0	328.2	40.0	12.7	12.4	5.7	9	100	51
934	8.1	52.4	1530	336.0	332.8	40.0	12.6	8.6	6.3	9	100	51
935	7.9	53.0	1435	336.0	332.8	40.0	12.8	6.7	6.9	9	100	52
936	7.8	52.2	1358	336.0	332.8	40.0	12.6	8.7	7.8	9	100	54
937	7.8	52.3	1359	336.0	332.8	40.0	12.6	9.7	8.2	9	100	54
938	7.6	52.1	1286	336.0	332.8	40.0	12.4	9.5	9.2	9	100	54
939	8.0	52.2	1457	336.0	332.8	40.0	12.9	9.4	8.7	9	100	54
940	8.3	53.0	1610	336.0	332.8	40.0	13.0	9.9	8.5	9	100	54
941	8.1	53.3	1502	336.0	332.8	40.0	13.0	7.0	8.1	9	100	53
942	7.8	53.0	1375	336.0	332.8	40.0	12.6	7.0	6.7	9	100	52
943	7.5	51.7	1206	336.0	332.8	40.0	12.1	8.7	6.3	9	100	52
944	7.7	51.3	1317	336.0	332.8	40.0	12.5	8.1	6.5	9	100	52
945	9.0	53.3	1932	336.0	332.8	40.0	13.1	9.3	6.7	9	100	52
946	8.3	53.0	1621	336.0	332.8	40.0	12.9	8.1	7.5	9	100	52
947	8.8	53.2	1838	336.0	332.8	40.0	13.1	8.0	6.0	9	100	52
948	8.6	53.3	1778	336.0	332.8	40.0	13.0	9.4	5.9	9	100	52
949	8.2	53.2	1576	336.0	332.8	40.0	13.0	7.4	7.0	9	100	52
950	8.0	53.2	1467	336.0	332.8	40.0	12.9	7.5	7.5	9	100	52
951	7.7	52.9	1306	336.0	332.8	40.0	12.4	8.7	7.1	9	100	52
952	7.4	51.7	1175	336.0	330.1	40.0	11.9	8.0	6.2	9	100	52
953	7.4	50.5	1175	336.0	330.1	40.0	12.0	10.9	4.4	9	100	53
954	7.8	52.0	1382	336.0	330.1	40.0	12.7	9.5	7.3	9	100	54
955	8.2	53.1	1545	336.0	330.3	40.0	13.1	10.0	6.7	9	100	54
956	9.1	53.7	1980	336.0	336.9	40.0	13.1	10.0	5.9	9	100	54
957	9.9	53.4	2152	336.0	343.3	40.0	13.2	12.1	4.7	9	100	54
958	10.4	54.0	2190	336.0	348.2	40.0	12.9	9.8	4.6	9	100	54
959	8.1	53.5	1520	336.0	348.2	40.0	12.8	9.7	7.2	9	100	54
960	7.6	52.6	1256	336.0	345.9	40.0	12.3	6.9	5.5	9	100	52
961	7.1	50.8	1014	336.0	344.2	40.0	11.3	7.6	6.5	9	100	52
962	6.3	48.5	731	336.0	342.8	40.0	10.1	5.7	5.9	9	100	52
963	6.1	46.7	650	336.0	342.8	40.0	9.9	8.8	4.7	9	100	52
964	6.4	47.4	777	336.0	342.8	40.0	10.4	6.3	4.5	9	100	52
965	6.4	47.6	761	336.0	347.1	40.0	10.3	8.1	6.7	9	100	52
966	6.4	47.5	748	336.0	347.3	40.0	10.3	6.5	6.6	9	100	52
967	6.4	47.7	768	336.0	347.3	40.0	10.3	6.0	5.5	9	100	52
968	6.0	45.5	605	336.0	347.3	40.0	9.6	5.2	4.8	9	100	52

***Blank data denotes values that were omitted in the analysis due to an extraneous event during recording

Data Point #	Standardized Wind Speed	LAeq	Turbine Power Output (kW)	Reference Yaw Angle (°)	Yaw Angle (°)	Pitch Angle (°)	Rotor RPM	Nacelle Anemometer Wind Speed (m/s)	10m Anemometer Wind Speed (m/s)	Air Temperature (°C)	Pressure (Pa)	Relative Humidity (%)
969	6.3	46.1	722	336.0	347.3	40.0	10.2	8.2	7.9	9	100	52
970	7.0	48.6	972	336.0	347.3	40.0	11.2	6.6	7.4	9	100	52
971	9.0	51.6	1942	336.0	343.1	40.0	13.3	7.6	6.3	9	100	52
972		53.3	2216	336.0	338.6	40.0	13.2	10.5	5.4	9	100	50
973		53.1	2213	336.0	338.7	40.0	13.2	11.2	8.2	9	100	50
974	11.1	53.0	2235	336.0	338.7	40.0	12.9	11.7	9.6	9	100	50
975	10.2	52.4	2183	336.0	338.7	40.0	12.5	10.5	7.8	9	100	50
976	8.9	52.4	1923	336.0	338.7	40.0	13.1	11.1	8.2	9	100	50
977		53.3	2221	336.0	338.8	40.0	13.0	9.9	7.0	9	100	51
978	9.8	53.0	2133	336.0	343.7	40.0	13.0	11.3	8.3	9	100	51
979	8.8	52.9	1859	336.0	343.7	40.0	12.9	7.9	8.8	9	100	51
980	8.7	53.0	1809	336.0	343.7	40.0	12.9	11.0	9.1	9	100	51
981	9.0	53.1	1946	336.0	343.7	40.0	13.0	8.1	8.2	9	100	51
982	9.1	53.3	1966	336.0	343.7	40.0	13.0	8.7	6.3	9	100	51
983	8.8	53.4	1867	336.0	343.7	40.0	13.0	8.5	8.3	9	100	51
984	8.9	53.4	1899	336.0	340.8	40.0	13.0	8.2	8.2	9	100	49
985	8.5	53.1	1713	336.0	340.7	40.0	13.0	7.6	8.0	9	100	49
986		53.5	2223	336.0	340.7	40.0	13.2	9.2	7.6	9	100	49
987	9.0	53.5	1941	336.0	340.7	40.0	12.9	11.2	6.6	9	100	49
988	9.5	53.6	2056	336.0	340.7	40.0	13.0	9.1	6.0	9	100	49
989	9.3	53.0	2021	336.0	340.7	40.0	13.0	11.6	4.9	9	100	49
990	9.0	53.6	1941	336.0	340.7	40.0	13.0	7.9	6.4	9	100	50
991			1763	336.0	340.7	40.0	13.3	7.4	8.5	9	100	50
992			1615	336.0	340.7	40.0	13.4	8.5	8.4	9	100	50
993			1465	336.0	340.7	40.0	13.3	10.6	10.1	9	100	50
994			1301	336.0	340.7	40.0	13.4	10.1	8.9	9	100	50
995			1289	336.0	340.7	40.0	13.5	9.3	7.0	9	100	50
996			1286	336.0	346.1	40.0	13.1	10.7	9.1	9	100	49
997			1293	336.0	348.0	40.0	12.8	8.2	8.2	9	100	49
998			1188	336.0	348.0	40.0	13.1	9.2	8.9	9	100	49
999			1143	336.0	347.9	40.0	13.3	8.7	8.1	9	100	49
1000			1037	336.0	342.6	40.0	13.2	11.5	9.6	9	100	49
1001			939	336.0	342.6	40.0	13.3	10.3	10.2	9	100	49
1002			828	336.0	342.6	40.0	13.4	10.7	8.4	9	100	49
1003			738	336.0	342.4	40.0	13.1	10.2	7.9	9	100	49
1004			639	336.0	342.4	40.0	13.1	9.0	8.6	9	100	49
1005			659	336.0	342.4	40.0	12.9	8.6	7.5	9	100	49
1006			667	336.0	342.4	40.0	12.8	8.1	7.7	9	100	49
1007			602	336.0	342.4	40.0	12.7	8.7	6.7	9	100	49
1008			368	336.0	342.4	40.0	12.8	7.3	6.6	9	100	49
1009			180	336.0	340.6	40.0	13.4	9.7	7.7	9	100	49
1010			244	336.0	336.1	40.0	13.2	8.2	8.7	9	100	49
1011			229	336.0	336.1	40.0	13.1	9.2	8.1	9	100	49
1012			243	336.0	336.1	40.0	13.1	9.7	8.0	9	100	49
1013			212	336.0	336.1	40.0	13.1	8.2	6.8	9	100	49
1014			211	336.0	336.1	40.0	12.9	7.1	7.7	8	100	50
1015			33	336.0	336.1	40.0	12.9	7.0	6.8	8	100	50
1016			0	336.0	336.1	40.0	13.3	9.4	6.0	8	100	50
1017			81	336.0	336.1	40.0	12.8	9.1	7.6	8	100	50
1018			35	336.0	336.1	40.0	13.2	8.8	8.2	8	100	50
1019			250	336.0	336.1	40.0	13.0	10.1	9.0	8	100	50
1020			266	336.0	336.1	40.0	13.2	9.3	8.4	9	100	50
1021			291	336.0	336.1	40.0	12.9	10.1	7.9	9	100	50
1022			275	336.0	336.1	40.0	12.9	9.7	7.3	9	100	50
1023			301	336.0	336.1	40.0	13.1	9.4	8.0	9	100	50
1024			337	336.0	332.1	40.0	12.9	10.1	8.2	9	100	50
1025			273	336.0	332.1	40.0	13.1	9.4	8.0	9	100	50
1026			25	336.0	346.1	40.0	3.1	9.7	7.1	8	100	45
1027			16	336.0	346.1	40.0	4.0	11.2	8.8	8	100	45
1028			16	336.0	345.1	40.0	4.5	9.9	9.8	8	100	45
1029			35	336.0	343.3	40.0	6.0	8.4	8.0	8	100	45
1030			16	336.0	341.0	40.0	7.5	12.1	8.8	8	100	45
1031			26	336.0	341.0	40.0	8.4	9.8	7.7	8	100	45
1032			16	336.0	341.0	40.0	8.6	10.8	7.6	8	100	44
1033			28	336.0	341.0	40.0	8.6	8.5	9.0	8	100	44
1034			426	336.0	341.0	40.0	8.5	10.0	8.8	8	100	44
1035			649	336.0	341.0	40.0	9.8	9.6	7.5	8	100	44
1036			1461	336.0	341.1	40.0	12.8	8.2	6.4	8	100	44
1037			1656	336.0	341.1	40.0	12.9	10.2	7.7	8	100	44
1038			1807	336.0	341.1	40.0	13.0	8.8	6.7	8	100	45
1039			1819	336.0	341.1	40.0	13.0	9.3	6.5	8	100	45
1040			1443	336.0	340.6	40.0	12.9	7.8	6.0	8	100	45
1041			1889	336.0	337.7	40.0	13.1	9.9	5.4	8	100	45
1042			1624	336.0	337.7	40.0	12.9	9.8	6.6	8	100	45
1043			1675	336.0	337.7	40.0	13.1	10.8	5.7	8	100	45
1044			1601	336.0	337.7	40.0	13.0	8.8	4.8	9	100	46
1045			1493	336.0	337.7	40.0	12.9	8.4	6.9	9	100	46
1046			1660	336.0	344.5	40.0	13.0	8.9	7.0	9	100	46
1047			1548	336.0	351.2	40.0	12.9	8.9	7.0	9	100	46
1048			1723	336.0	357.5	40.0	13.1	9.0	7.5	9	100	46
1049			1495	336.0	357.5	40.0	12.9	7.7	6.1	9	100	46
1050			1364	336.0	357.5	40.0	12.6	8.1	5.7	9	100	45
1051			1445	336.0	357.5	40.0	12.8	10.0	7.0	9	100	45
1052			1192	336.0	357.5	40.0	11.9	10.1	6.5	9	100	45
1053			1254	336.0	358.6	40.0	12.2	8.6	6.5	9	100	45
1054			1297	336.0	358.6	40.0	12.3	7.8	7.0	9	100	45
1055			1023	336.0	358.6	40.0	11.3	7.0	6.3	9	100	45
1056			1004	336.0	358.5	40.0	11.3	7.5	6.0	9	100	45

***Blank data denotes values that were omitted in the analysis due to an extraneous event during recording

Data Point #	Standardized Wind Speed	LAeq	Turbine Power Output (kW)	Reference Yaw Angle (°)	Yaw Angle (°)	Pitch Angle (°)	Rotor RPM	Nacelle Anemometer Wind Speed (m/s)	10m Anemometer Wind Speed (m/s)	Air Temperature (°C)	Pressure (Pa)	Relative Humidity (%)
1057			1308	336.0	358.6	40.0	12.4	9.2	6.2	9	100	45
1058			1128	336.0	353.9	40.0	11.7	8.8	5.9	9	100	45
1059			929	336.0	350.4	40.0	11.0	7.3	8.4	9	100	45
1060			913	336.0	350.4	40.0	10.9	9.2	8.7	9	100	45
1061			1135	336.0	350.4	40.0	11.8	7.4	6.5	9	100	45
1062			1215	336.0	350.4	40.0	12.0	7.6	5.1	9	100	45
1063			1041	336.0	344.2	40.0	11.5	7.7	7.1	9	100	45
1064			1060	336.0	339.4	40.0	11.5	7.1	8.4	9	100	45
1065			883	336.0	339.4	40.0	10.8	7.0	8.9	9	100	45
1066			955	336.0	336.4	40.0	11.2	6.6	9.0	9	100	45
1067			2024	336.0	333.5	40.0	13.2	12.0	9.0	9	100	45
1068			2228	336.0	333.5	40.0	12.9	9.8	10.2	9	100	44
1069			1750	336.0	333.5	40.0	12.9	9.3	5.9	9	100	44
1070			1894	336.0	339.5	40.0	13.0	8.6	7.7	9	100	44
1071			1425	336.0	346.1	40.0	12.8	7.2	7.5	9	100	44
1072			1528	336.0	351.6	40.0	13.1	8.4	5.9	9	100	44
1073		53.7	2244	336.0	351.7	40.0	13.3	7.7	7.1	9	100	44
1074		53.1	2222	336.0	351.7	40.0	13.1	9.3	9.0	9	100	44
1075		52.8	2077	336.0	351.7	40.0	12.7	10.5	6.1	9	100	44
1076		52.6	1488	336.0	351.7	40.0	12.9	8.3	5.9	9	100	44
1077		53.0	2139	336.0	351.7	40.0	13.0	8.7	7.7	9	100	44
1078		52.6	2251	336.0	351.7	40.0	13.2	11.4	7.2	9	100	44
1079		52.6	2154	336.0	351.7	40.0	12.7	10.3	8.2	9	100	44
1080		52.5	2188	336.0	351.7	40.0	13.1	10.6	8.6	9	100	44
1081		52.8	2008	336.0	351.7	40.0	12.9	12.9	7.0	9	100	44
1082		52.9	2234	336.0	351.7	40.0	13.1	11.1	7.6	9	100	44
1083		52.8	1969	336.0	351.7	40.0	12.9	9.6	5.5	9	100	44
1084		52.9	1943	336.0	351.7	40.0	13.0	11.2	5.9	9	100	44
1085		53.0	1799	336.0	351.7	40.0	13.0	9.4	5.7	9	100	44
1086		53.0	1647	336.0	351.7	40.0	13.0	9.7	7.7	9	100	44
1087		53.0	2085	336.0	351.7	40.0	13.2	11.2	8.8	9	100	44
1088		53.5	2246	336.0	351.7	40.0	13.4	11.5	8.3	9	100	44
1089		53.3	2240	336.0	351.7	40.0	13.2	11.1	7.2	9	100	44
1090		53.8	2251	336.0	351.7	40.0	13.5	12.7	5.9	9	100	44
1091		53.1	2223	336.0	351.7	40.0	12.5	9.3	5.9	9	100	44
1092		52.6	1654	336.0	351.7	40.0	12.7	8.9	5.6	9	100	44
1093		53.0	1697	336.0	351.7	40.0	13.0	6.9	7.4	9	100	44
1094	8.7	52.9	1820	336.0	348.9	40.0	13.1	7.5	7.8	9	100	44
1095		53.4	2258	336.0	348.9	40.0	13.4	9.6	8.6	9	100	44
1096	9.8	53.2	2123	336.0	348.9	40.0	13.0	9.4	8.8	9	100	44
1097	9.1	52.7	1964	336.0	348.9	40.0	13.0	11.1	7.5	9	100	44
1098	7.9	53.1	1424	336.0	348.9	40.0	12.8	8.5	5.6	9	100	43
1099	7.6	51.6	1270	336.0	348.9	40.0	12.2	6.2	5.6	9	100	43
1100	7.8	51.8	1377	336.0	348.9	40.0	12.7	6.6	7.0	9	100	43
1101	8.7	52.5	1784	336.0	346.7	40.0	13.2	9.0	8.5	9	100	43
1102		53.4	2258	336.0	346.2	40.0	13.3	10.5	6.8	9	100	43
1103		53.1	2249	336.0	346.2	40.0	13.0	10.1	7.8	9	100	43
1104	8.9	52.5	1897	336.0	346.2	40.0	13.0	9.2	7.5	9	100	43
1105	9.1	52.6	1980	336.0	346.2	40.0	13.0	10.0	8.8	9	100	43
1106	8.8	53.1	1876	336.0	346.2	40.0	13.0	8.7	7.8	9	100	43
1107	9.3	53.4	2006	336.0	346.2	40.0	13.1	9.1	6.8	9	100	43
1108		53.0	2235	336.0	346.2	40.0	13.4	11.0	8.8	9	100	43
1109		53.3	2237	336.0	346.2	40.0	13.5	10.5	5.3	9	100	43
1110	10.6	51.9	2199	336.0	346.2	40.0	12.6	9.1	6.0	9	100	43
1111	8.9	51.7	1927	336.0	346.2	40.0	12.7	11.3	6.8	9	100	43
1112		52.3	2211	336.0	346.2	40.0	12.9	10.0	7.5	9	100	43
1113	11.0	53.0	2241	336.0	346.2	40.0	13.4	11.7	7.3	9	100	43
1114	11.1	52.8	2242	336.0	346.2	40.0	13.2	11.8	8.5	9	100	43
1115	11.1	52.3	2215	336.0	346.2	40.0	12.7	11.7	9.6	9	100	43
1116	8.8	52.2	1871	336.0	346.2	40.0	12.8	10.7	7.7	9	100	43
1117	11.2	53.0	2209	336.0	346.2	40.0	13.3	11.9	9.6	9	100	43
1118	10.2	52.4	2180	336.0	346.2	40.0	12.8	9.4	6.4	9	100	43
1119		52.8	2231	336.0	346.2	40.0	13.1	9.5	7.8	9	100	43
1120	9.4	52.5	2044	336.0	346.2	40.0	12.8	8.1	7.5	9	100	43
1121	10.2	52.8	2183	336.0	346.2	40.0	13.0	9.3	6.1	9	100	43
1122	9.4	52.5	2049	336.0	346.2	40.0	13.0	10.2	5.8	9	100	43
1123		52.7	2221	336.0	346.2	40.0	13.1	9.4	8.1	9	100	43
1124		53.2	2231	336.0	346.2	40.0	13.7	11.2	7.9	9	100	43
1125		52.5	2247	336.0	346.2	40.0	13.2	10.1	7.8	9	100	43
1126		52.4	2220	336.0	346.2	40.0	12.7	10.5	8.1	9	100	43
1127	9.6	52.3	2075	336.0	346.2	40.0	12.6	7.5	7.8	9	100	43
1128		53.1	2206	336.0	346.2	40.0	13.6	10.7	8.2	9	100	43
1129	11.0	52.9	2215	336.0	346.2	40.0	13.1	11.6	10.0	9	100	43
1130		52.4	2243	336.0	346.2	40.0	12.6	10.9	8.2	9	100	43
1131	12.2	52.5	2223	336.0	346.2	40.0	13.0	13.0	8.3	9	100	43
1132	10.8	53.0	2231	336.0	346.2	40.0	13.4	11.5	8.7	9	100	43
1133		53.2	2208	336.0	346.2	40.0	13.0	10.2	9.8	9	100	43
1134	10.7	52.6	2205	336.0	346.2	40.0	13.1	11.0	8.5	8	100	42
1135		53.1	2222	336.0	346.2	40.0	12.8	10.5	7.9	8	100	42
1136		52.9	2220	336.0	346.2	40.0	12.8	11.1	8.3	8	100	42
1137	9.4	52.6	2033	336.0	343.5	40.0	12.6	9.4	8.6	8	100	42
1138		52.7	2237	336.0	343.5	40.0	13.2	8.7	6.7	8	100	42
1139	12.3	53.1	2228	336.0	343.4	40.0	13.4	13.0	5.9	8	100	42
1140	10.7	52.9	2203	336.0	343.5	40.0	13.3	10.9	5.0	8	100	44
1141		52.0	2228	336.0	343.5	40.0	12.7	10.5	5.9	8	100	44
1142		52.4	2227	336.0	343.5	40.0	13.2	10.6	6.3	8	100	44
1143		52.0	2241	336.0	343.5	40.0	12.8	10.2	7.1	8	100	44
1144	11.4	52.6	2237	336.0	343.3	40.0	13.0	12.1	8.0	8	100	44

***Blank data denotes values that were omitted in the analysis due to an extraneous event during recording

Data Point #	Standardized Wind Speed	LAeq	Turbine Power Output (kW)	Reference Yaw Angle (°)	Yaw Angle (°)	Pitch Angle (°)	Rotor RPM	Nacelle Anemometer Wind Speed (m/s)	10m Anemometer Wind Speed (m/s)	Air Temperature (°C)	Pressure (Pa)	Relative Humidity (%)
1145		52.8	2218	336.0	343.5	40.0	13.5	9.9	7.5	8	100	44
1146	10.7	52.4	2203	336.0	343.5	40.0	12.9	10.4	7.6	8	100	44
1147	11.4	51.7	2212	336.0	343.5	40.0	12.5	12.0	8.2	8	100	44
1148	9.0	52.0	1946	336.0	343.5	40.0	12.8	9.7	9.4	8	100	44
1149		53.0	2239	336.0	343.5	40.0	13.1	11.2	9.5	8	100	44
1150	11.2	52.9	2239	336.0	343.5	40.0	13.2	11.9	9.8	8	100	44
1151		53.0	2216	336.0	343.5	40.0	13.1	8.2	9.7	8	100	44
1152		52.5	2219	336.0	343.5	40.0	12.7	9.2	7.7	8	100	42
1153	9.5	52.8	2062	336.0	343.5	40.0	12.9	11.5	9.7	8	100	42
1154	9.8	52.8	2138	336.0	343.5	40.0	13.0	10.2	7.7	8	100	42
1155		53.7	2227	336.0	343.5	40.0	13.4	10.3	6.0	8	100	42
1156		52.8	2234	336.0	343.5	40.0	13.2	10.1	7.9	8	100	42
1157	10.7	52.9	2204	336.0	343.5	40.0	13.2	11.0	6.8	8	100	42
1158		52.2	2213	336.0	343.5	40.0	13.0	9.5	9.1	8	100	44
1159		52.5	2214	336.0	343.5	40.0	13.0	9.7	8.3	8	100	44
1160		51.9	2239	336.0	343.5	40.0	12.8	7.9	8.2	8	100	44
1161		52.6	2223	336.0	343.5	40.0	12.9	10.9	8.5	8	100	44
1162	9.5	52.0	2067	336.0	343.5	40.0	12.5	7.8	7.5	8	100	44
1163	9.4	52.5	2033	336.0	343.5	40.0	13.0	11.3	7.3	8	100	44
1164	8.6	52.7	1771	336.0	343.3	40.0	13.0	10.4	8.7	8	100	44
1165	9.6	53.0	2094	336.0	343.4	40.0	13.1	8.3	5.5	8	100	44
1166	9.2	52.3	1989	336.0	343.3	40.0	13.1	9.0	7.5	8	100	44
1167	8.9	52.8	1907	336.0	343.5	40.0	13.0	9.6	7.7	8	100	44
1168	8.9	53.1	1919	336.0	343.5	40.0	13.0	9.7	8.2	8	100	44
1169	8.9	53.1	1888	336.0	343.5	40.0	13.0	9.2	6.8	8	100	44
1170	10.6	53.3	2201	336.0	342.6	40.0	13.2	9.6	7.2	8	100	44
1171		53.3	2225	336.0	342.6	40.0	13.4	9.4	7.3	8	100	44
1172		52.6	2227	336.0	342.6	40.0	13.1	10.0	6.5	8	100	44
1173		52.8	2241	336.0	342.6	40.0	12.9	10.1	7.1	8	100	44
1174		52.7	2219	336.0	342.6	40.0	13.0	9.9	9.2	8	100	44
1175		52.9	2215	336.0	342.6	40.0	13.1	11.0	8.1	8	100	44
1176	10.1	52.4	2177	336.0	342.6	40.0	12.5	7.9	6.8	8	100	45
1177		52.9	2223	336.0	342.6	40.0	13.2	10.3	5.7	8	100	45
1178		52.7	2229	336.0	342.6	40.0	13.0	10.5	7.6	8	100	45
1179		52.6	2242	336.0	342.6	40.0	12.8	10.0	7.2	8	100	45
1180		52.6	2230	336.0	342.6	40.0	13.2	8.7	9.3	8	100	45
1181	11.1	52.8	2223	336.0	342.6	40.0	13.3	11.7	8.0	8	100	45
1182	10.6	53.2	2197	336.0	342.6	40.0	13.4	11.4	7.9	8	100	43
1183		52.0	2233	336.0	342.6	40.0	13.3	11.1	7.9	8	100	43
1184		51.9	2243	336.0	342.6	40.0	13.1	11.1	6.6	8	100	43
1185	10.6	51.9	2200	336.0	341.6	40.0	12.9	9.8	7.9	8	100	43
1186	10.5	51.4	2195	336.0	339.2	40.0	12.4	8.8	7.3	8	100	43
1187	11.2	52.3	2212	336.0	339.4	40.0	13.3	11.8	6.8	8	100	43
1188		52.2	2207	336.0	339.3	40.0	12.9	9.6	6.0	8	100	44
1189	10.9	52.1	2231	336.0	339.1	40.0	12.9	11.5	6.1	8	100	44
1190		52.3	2233	336.0	339.2	40.0	12.9	10.2	6.3	8	100	44
1191		52.2	2231	336.0	339.2	40.0	13.1	11.3	8.6	8	100	44
1192	12.0	52.6	2218	336.0	339.2	40.0	12.8	12.7	8.5	8	100	44
1193	9.0	52.7	1962	336.0	339.2	40.0	12.8	10.9	7.5	8	100	44
1194	8.9	52.4	1899	336.0	339.2	40.0	13.0	9.3	6.9	8	100	44
1195	9.1	52.5	1974	336.0	339.1	40.0	13.1	9.8	7.9	8	100	44
1196	9.5	52.6	2069	336.0	339.2	40.0	13.1	11.8	8.4	8	100	44
1197	9.3	52.6	2011	336.0	339.2	40.0	13.0	7.5	7.0	8	100	44
1198	8.9	52.6	1926	336.0	339.2	40.0	13.0	11.4	8.5	8	100	44
1199	9.0	52.7	1948	336.0	339.2	40.0	13.1	9.8	8.0	8	100	44
1200	9.6	53.0	2079	336.0	339.2	40.0	13.1	9.8	7.3	8	100	44
1201	10.6	53.0	2200	336.0	339.2	40.0	13.1	9.2	7.2	8	100	44
1202	9.0	53.1	1935	336.0	339.2	40.0	13.0	8.8	6.0	8	100	44
1203	8.9	53.2	1894	336.0	339.2	40.0	13.0	8.2	7.6	8	100	44
1204	8.0	52.9	1484	336.0	339.2	40.0	12.8	8.9	9.1	8	100	44
1205	7.6	51.7	1272	336.0	339.1	40.0	12.4	8.1	7.5	8	100	44
1206	8.8	52.5	1875	336.0	335.6	40.0	13.2	8.6	6.4	8	100	44
1207		53.3	2219	336.0	335.2	40.0	13.2	8.6	7.5	8	100	44
1208	9.3	53.1	2014	336.0	335.2	40.0	13.0	9.3	6.4	8	100	44
1209	8.8	52.7	1838	336.0	335.2	40.0	12.9	9.2	6.4	8	100	44
1210	8.3	52.5	1625	336.0	335.2	40.0	12.9	10.2	8.1	8	100	44
1211	8.1	52.9	1536	336.0	335.2	40.0	13.0	8.8	9.7	8	100	44
1212	8.0	52.5	1482	336.0	335.2	40.0	13.0	8.5	7.9	8	100	43
1213	8.7	53.1	1783	336.0	335.2	40.0	13.1	9.7	7.2	8	100	43
1214	8.1	52.8	1514	336.0	335.2	40.0	12.9	8.7	7.1	8	100	43
1215	8.0	52.6	1481	336.0	335.1	40.0	13.0	9.3	5.9	8	100	43
1216	8.4	52.8	1655	336.0	335.1	40.0	13.1	8.2	6.7	8	100	43
1217	8.0	52.8	1473	336.0	335.1	40.0	13.0	10.3	5.7	8	100	43
1218	8.4	53.2	1678	336.0	335.2	40.0	13.1	8.7	6.5	8	100	44
1219	8.5	53.1	1691	336.0	335.2	40.0	13.0	10.1	6.3	8	100	44
1220	8.0	52.1	1455	336.0	335.2	40.0	12.9	9.1	6.6	8	100	44
1221	7.9	52.0	1412	336.0	335.2	40.0	12.8	9.0	7.7	8	100	44
1222	7.9	52.1	1418	336.0	335.2	40.0	12.8	10.2	7.6	8	100	44
1223	8.2	52.7	1581	336.0	335.1	40.0	13.0	8.1	7.8	8	100	44
1224	8.1	52.8	1540	336.0	335.1	40.0	13.0	9.8	7.4	9	100	43
1225	8.5	52.8	1717	336.0	335.1	40.0	13.1	10.4	6.6	9	100	43
1226	8.4	52.6	1665	336.0	335.1	40.0	13.0	7.8	5.3	9	100	43
1227	8.0	52.7	1479	336.0	335.1	40.0	13.0	7.9	4.4	9	100	43
1228	7.9	52.5	1447	336.0	335.1	40.0	12.8	7.3	5.9	9	100	43
1229	7.3	51.4	1150	336.0	335.1	40.0	11.8	6.7	6.4	9	100	43
1230	6.8	49.5	909	336.0	335.2	40.0	10.9	8.0	6.7	9	100	44
1231	6.2	47.6	692	336.0	335.2	40.0	10.0	6.2	6.3	9	100	44
1232	5.8	44.7	555	336.0	335.2	40.0	9.3	6.7	8.8	9	100	44

***Blank data denotes values that were omitted in the analysis due to an extraneous event during recording

Data Point #	Standardized Wind Speed	LAeq	Turbine Power Output (kW)	Reference Yaw Angle (°)	Yaw Angle (°)	Pitch Angle (°)	Rotor RPM	Nacelle Anemometer Wind Speed (m/s)	10m Anemometer Wind Speed (m/s)	Air Temperature (°C)	Pressure (Pa)	Relative Humidity (%)
1233	6.3	45.9	734	336.0	335.2	40.0	10.3	7.1	6.9	9	100	44
1234	7.1	48.5	1028	336.0	335.2	40.0	11.4	8.4	6.0	9	100	44
1235	7.5	50.4	1240	336.0	335.2	40.0	12.2	10.7	4.3	9	100	44
1236	7.9	51.8	1405	336.0	335.2	40.0	12.8	9.2	5.1	9	100	44
1237	7.7	52.2	1334	336.0	335.1	40.0	12.5	7.4	6.6	9	100	44
1238	7.5	51.0	1249	336.0	335.1	40.0	12.2	9.0	7.7	9	100	44
1239	7.6	51.4	1293	336.0	335.1	40.0	12.4	9.3	7.1	9	100	44
1240	7.7	51.5	1320	336.0	335.2	40.0	12.5	9.2	6.7	9	100	44
1241	7.4	51.7	1167	336.0	335.2	40.0	11.9	7.8	6.3	9	100	44
1242	7.2	49.8	1090	336.0	335.2	40.0	11.6	7.6	7.1	9	100	44
1243	7.5	51.1	1210	336.0	335.2	40.0	12.1	9.6	7.7	9	100	44
1244	7.7	51.2	1313	336.0	335.2	40.0	12.5	7.5	8.2	9	100	44
1245	7.9	52.2	1403	336.0	330.5	40.0	12.7	8.2	9.4	9	100	44
1246	7.6	52.1	1293	336.0	330.5	40.0	12.4	7.0	7.5	9	100	44
1247	7.4	50.9	1200	336.0	330.5	40.0	12.0	8.1	7.5	9	100	44
1248	7.5	50.7	1212	336.0	333.8	40.0	12.1	7.2	7.4	9	100	43
1249	7.6	50.9	1267	336.0	333.8	40.0	12.3	7.6	6.5	9	100	43
1250	7.7	51.5	1334	336.0	333.8	40.0	12.6	9.7	6.5	9	100	43
1251	7.8	51.9	1371	336.0	333.8	40.0	12.7	6.4	6.4	9	100	43
1252	7.8	51.8	1378	336.0	333.8	40.0	12.7	8.6	5.8	9	100	43
1253	8.0	52.4	1460	336.0	333.8	40.0	13.0	8.7	6.3	9	100	43
1254	7.7	52.1	1331	336.0	333.8	40.0	12.4	10.0	4.8	9	100	42
1255	7.3	50.7	1112	336.0	333.8	40.0	11.7	7.2	5.5	9	100	42
1256	7.0	49.2	1003	336.0	333.8	40.0	11.3	8.1	5.8	9	100	42
1257	7.1	49.2	1026	336.0	333.9	40.0	11.4	8.2	6.6	9	100	42
1258	7.3	50.2	1118	336.0	333.9	40.0	11.7	7.3	5.9	9	100	42
1259	7.1	49.6	1041	336.0	333.9	40.0	11.5	7.3	7.5	9	100	42
1260	7.1	49.6	1020	336.0	333.9	40.0	11.4	8.5	5.9	9	100	44
1261	6.9	48.6	936	336.0	333.9	40.0	11.1	6.9	4.9	9	100	44
1262	7.6	50.2	1261	336.0	333.8	40.0	12.4	8.9	5.7	9	100	44
1263	8.1	52.4	1541	336.0	331.8	40.0	13.0	9.8	6.0	9	100	44
1264	7.6	52.0	1283	336.0	331.7	40.0	12.3	8.7	5.3	9	100	44
1265	7.0	50.3	994	336.0	331.7	40.0	11.2	7.0	4.2	9	100	44
1266	6.6	48.4	834	336.0	333.7	40.0	10.8	9.8	4.3	9	100	45
1267	6.5	48.0	799	336.0	340.0	40.0	10.5	8.5	5.2	9	100	45
1268	6.8	47.9	921	336.0	345.1	40.0	11.1	6.0	4.1	9	100	45
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***Blank data denotes values that were omitted in the analysis due to an extraneous event during recording

Data Point #	Standardized Wind Speed	LAeq	Turbine Power Output (kW)	Reference Yaw Angle (°)	Yaw Angle (°)	Pitch Angle (°)	Rotor RPM	Nacelle Anemometer Wind Speed (m/s)	10m Anemometer Wind Speed (m/s)	Air Temperature (°C)	Pressure (Pa)	Relative Humidity (%)
1321												
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Table E.02 Measurement data - Background

Project: Suncor Adelaide Wind Power Project - Turbine T26 - IEC 61400-11 Measurement

Report ID: 14215.01.T26.RP6

Created on: 9/19/2017

***Blank data denotes values that were omitted in the analysis due to an extraneous event during recording

Data Point #	Standardized Wind Speed	LAeq	Rotor RPM	10m Anemometer Wind Speed (m/s)	Air Temperature (°C)	Pressure (kPa)	Relative Humidity (%)
1	7.1	33.4	0.5	5.7	7	100	69
2	6.7	37.1	0.5	5.4	7	100	69
3	8.0	33.5	0.4	6.5	7	100	69
4	8.9	33.1	0.3	7.2	7	100	71
5	10.2	31.3	0.4	8.2	7	100	71
6	7.5	36.2	0.5	6.0	7	100	71
7	10.3	36.4	0.4	8.3	7	100	71
8	9.6	34.2	0.3	7.7	7	100	71
9	9.6	34.1	0.3	7.7	7	100	71
10	11.1	39.2	0.3	8.9	7	100	71
11	9.7	35.4	0.5	7.8	7	100	71
12	7.9	38.4	0.5	6.3	7	100	71
13	10.0	35.5	0.4	8.0	7	100	71
14	7.5	34.8	0.3	6.0	7	100	71
15	8.1	34.9	0.5	6.5	7	100	71
16	7.9	34.2	0.4	6.3	7	100	71
17	8.1	33.4	0.5	6.5	7	100	71
18	10.6	31.9	0.4	8.5	7	100	71
19	8.7	30.9	0.3	7.0	7	100	71
20	8.7	36.6	0.5	7.0	7	100	71
21	9.1	36.8	0.5	7.3	7	100	71
22	8.3	35.1	0.5	6.7	7	100	72
23	7.6	32.2	0.3	6.1	7	100	72
24	8.2	33.7	0.3	6.6	7	100	72
25	7.6	33.7	0.3	6.1	7	100	72
26	7.4	31.6	0.6	6.0	7	100	72
27	6.1	33.4	0.7	4.9	7	100	72
28	8.0	34.1	0.6	6.4	7	100	73
29	7.9	32.9	0.4	6.4	7	100	73
30	6.6	33.3	0.4	5.3	7	100	73
31	8.5	33.6	0.2	6.8	7	100	73
32	7.6	33.9	0.3	6.1	7	100	73
33	6.8	34.0	0.4	5.5	7	100	73
34	7.7	36.3	0.4	6.2	7	100	71
35	7.7	36.0	0.3	6.2	7	100	71
36	6.1	34.5	0.2	4.9	7	100	71
37	8.2	33.8	0.2	6.6	7	100	71
38	8.1	31.5	0.3	6.5	7	100	71
39	8.0	32.4	0.4	6.4	7	100	71
40	7.6	33.9	0.3	6.1	7	100	72
41	7.0	34.0	0.2	5.7	7	100	72
42	6.6	31.8	0.2	5.3	7	100	72
43	10.2	35.1	0.3	8.2	7	100	72
44	10.8	31.4	0.4	8.7	7	100	72
45	7.5	29.1	0.5	6.0	7	100	72
46	7.1	29.6	0.4	5.7	7	100	70
47	8.0	31.0	0.4	6.5	7	100	70
48	7.2	33.4	0.3	5.8	7	100	70
49	7.6	40.8	0.3	6.1	7	100	70
50	8.3	35.4	0.3	6.7	7	100	70
51	8.3	34.7	0.3	6.7	7	100	70
52	9.5	30.2	0.4	7.6	7	100	70
53	7.8	30.1	0.5	6.3	7	100	70
54	7.6	34.0	0.4	6.1	7	100	70
55	8.7	30.1	0.3	7.0	7	100	70
56	7.0	34.3	0.4	5.7	7	100	70
57	7.3	33.5	0.5	5.9	7	100	70
58	6.8	33.9	0.3	5.5	7	100	70
59	7.0	32.3	0.3	5.7	7	100	70
60	7.1	32.5	0.4	5.7	7	100	70
61	7.0	30.1	0.3	5.6	7	100	70
62	9.2	30.5	0.2	7.4	7	100	70
63	7.5	33.9	0.3	6.0	7	100	70
64	7.6	33.2	0.3	6.1	7	100	70
65	8.6	33.1	0.4	7.0	7	100	70
66	9.6	32.1	0.4	7.7	7	100	70
67	8.2	35.7	0.4	6.6	7	100	70
68	10.1	31.9	0.2	8.1	7	100	70
69	11.1	31.8	0.3	8.9	7	100	70
70	10.3	30.3	0.6	8.3	7	100	68
71	9.3	34.4	0.5	7.5	7	100	68
72	9.3	34.6	0.3	7.5	7	100	68
73	8.6	34.5	0.2	6.9	7	100	68
74	8.0	34.6	0.2	6.5	7	100	68
75	7.6	32.7	0.3	6.1	7	100	68
76	6.4	38.2	0.3	5.1	7	100	69
77	8.1	38.0	0.3	6.5	7	100	69
78	9.3	32.2	0.4	7.5	7	100	69
79	7.7	30.4	0.7	6.2	7	100	69
80	7.5	35.7	0.5	6.1	7	100	69
81	10.3	32.5	0.5	8.3	7	100	69
82	8.7	36.7	0.5	7.0	7	100	70
83	7.7	35.6	0.5	6.2	7	100	70

***Blank data denotes values that were omitted in the analysis due to an extraneous event during recording

Data Point #	Standardized Wind Speed	LAeq	Rotor RPM	10m Anemometer Wind Speed (m/s)	Air Temperature (°C)	Pressure (kPa)	Relative Humidity (%)
84	7.1	35.8	0.4	5.7	7	100	70
85	7.6	34.8	0.4	6.1	7	100	70
86	8.2	34.3	0.4	6.6	7	100	70
87	9.3	41.3	0.5	7.5	7	100	70
88	10.2	39.1	0.3	8.2	7	100	69
89	10.0	35.1	0.3	8.1	7	100	69
90	9.3	33.3	0.4	7.5	7	100	69
91	11.2	34.1	0.3	9.0	7	100	69
92	8.9	32.1	0.3	7.2	7	100	69
93	7.2	33.0	0.4	5.8	7	100	69
94	8.3	35.6	0.3	6.7	7	100	70
95	10.2	38.7	0.2	8.2	7	100	70
96	8.6	39.1	0.2	6.9	7	100	70
97	9.8	39.7	0.2	7.9	7	100	70
98	10.3	36.7	0.3	8.3	7	100	70
99	9.0	33.1	0.4	7.2	7	100	70
100	9.0	33.9	0.5	7.2	7	100	69
101	8.5	33.4	0.3	6.9	7	100	69
102	8.1	36.4	0.3	6.5	7	100	69
103	7.7	33.6	0.3	6.2	7	100	69
104	8.4	38.3	0.4	6.8	7	100	69
105	8.6	41.1	0.4	6.9	7	100	69
106	6.4	38.7	0.3	5.1	7	100	69
107	8.0	37.1	0.3	6.4	7	100	69
108	9.5	36.2	0.3	7.6	7	100	69
109	9.2	36.9	0.3	7.4	7	100	69
110	8.6	34.8	0.3	7.0	7	100	69
111	8.3	38.2	0.4	6.7	7	100	69
112	10.4	36.4	0.5	8.4	7	100	68
113	6.7	33.9	0.4	5.4	7	100	68
114	10.3	34.2	0.3	8.3	7	100	68
115	10.4	38.7	0.3	8.4	7	100	68
116	8.7	33.6	0.4	7.0	7	100	68
117	8.5	36.3	0.3	6.8	7	100	68
118	8.0	36.3	0.3	6.4	7	100	68
119	8.7	33.4	0.3	7.0	7	100	68
120	8.8	34.3	0.3	7.1	7	100	68
121	8.2	34.7	0.3	6.6	7	100	68
122	8.0	39.6	0.3	6.5	7	100	68
123	7.9	32.1	0.3	6.3	7	100	68
124	6.8	32.1	0.3	5.5	7	100	69
125	6.4	32.7	0.2	5.1	7	100	69
126	5.8	32.9	0.3	4.6	7	100	69
127	9.0	30.3	0.1	7.2	7	100	69
128	7.0	29.7	0.2	5.6	7	100	69
129	9.2	30.4	0.3	7.4	7	100	69
130	8.5	30.1	0.2	6.8	7	100	71
131	9.9	29.7	0.3	8.0	7	100	71
132	8.7	32.8	0.4	7.0	7	100	71
133	8.6	32.7	0.5	6.9	7	100	71
134	10.1	34.7	0.6	8.1	7	100	71
135	8.3	32.3	0.5	6.7	7	100	71
136	7.9	31.3	0.4	6.3	7	100	71
137	6.2	34.6	0.4	5.0	7	100	71
138	11.0	33.3	0.4	8.8	7	100	71
139	9.6	35.9	0.3	7.7	7	100	71
140	7.0	33.5	0.4	5.7	7	100	71
141	7.1	35.8	0.4	5.7	7	100	71
142	8.2	34.1	0.2	6.6	7	100	71
143	8.9	32.1	0.3	7.2	7	100	71
144	10.1	33.0	0.3	8.1	7	100	71
145	9.2	30.9	0.2	7.4	7	100	71
146	10.6	32.0	0.2	8.6	7	100	71
147	9.1	30.0	0.3	7.3	7	100	71
148	12.2	33.4	0.5	9.8	7	100	68
149	10.0	36.8	0.5	8.1	7	100	68
150	9.2	32.9	0.4	7.4	7	100	68
151	9.2	34.7	0.3	7.4	7	100	68
152	7.7	39.2	0.3	6.2	7	100	68
153	8.0	35.9	0.3	6.4	7	100	68
154	8.1	39.6	0.5	6.5	7	100	70
155	8.3	38.5	0.4	6.7	7	100	70
156	8.8	35.5	0.4	7.1	7	100	70
157	9.6	37.7	0.4	7.7	7	100	70
158	9.1	36.9	0.4	7.4	7	100	70
159	7.8	38.9	0.5	6.2	7	100	70
160	9.0	39.5	0.4	7.2	7	100	68
161	9.7	35.8	0.4	7.8	7	100	68
162	8.7	35.7	0.4	7.0	7	100	68
163	8.7	36.0	0.4	7.0	7	100	68
164	7.3	36.8	0.5	5.8	7	100	68
165	9.1	33.1	0.6	7.3	7	100	68
166	9.7	33.4	0.4	7.8	7	100	68

***Blank data denotes values that were omitted in the analysis due to an extraneous event during recording

Data Point #	Standardized Wind Speed	LAeq	Rotor RPM	10m Anemometer Wind Speed (m/s)	Air Temperature (°C)	Pressure (kPa)	Relative Humidity (%)
167	9.2	35.3	0.5	7.4	7	100	68
168	9.7	35.6	0.6	7.8	7	100	68
169	8.8	35.5	0.5	7.1	7	100	68
170	7.5	38.9	0.6	6.1	7	100	68
171	8.8	33.5	0.4	7.1	7	100	68
172	8.7	39.2	0.5	7.0	7	100	69
173	7.9	38.5	0.5	6.4	7	100	69
174	8.7	36.8	0.5	7.0	7	100	69
175	7.2	38.2	0.5	5.8	7	100	69
176	8.2	40.3	0.3	6.6	7	100	69
177	8.2	39.2	0.4	6.6	7	100	69
178	8.5	34.0	0.4	6.8	7	100	69
179	8.2	36.6	0.4	6.6	7	100	69
180	8.7	38.7	0.4	7.0	7	100	69
181	9.2	37.6	0.4	7.4	7	100	69
182	10.3	38.2	0.3	8.3	7	100	69
183	10.3	38.0	0.4	8.3	7	100	69
184	11.6	35.8	0.4	9.3	7	100	68
185	10.1	30.9	0.3	8.2	7	100	68
186	9.0	37.6	0.4	7.2	7	100	68
187	9.1	37.4	0.4	7.3	7	100	68
188	9.3	38.3	0.4	7.5	7	100	68
189	10.3	34.9	0.4	8.3	7	100	68
190	11.1	40.7	0.4	8.9	7	100	67
191	9.3	36.0	0.3	7.5	7	100	67
192	8.1	33.9	0.4	6.5	7	100	67
193	8.0	43.6	0.4	6.4	7	100	67
194	11.2	39.7	0.3	9.0	7	100	67
195	10.8	39.8	0.3	8.7	7	100	67
196	10.3	39.6	0.4	8.3	7	100	67
197	8.9	34.1	0.4	7.2	7	100	67
198	8.5	33.7	0.3	6.8	7	100	67
199	9.7	36.3	0.4	7.8	7	100	67
200	8.0	41.8	0.4	6.4	7	100	67
201	7.5	40.8	0.4	6.0	7	100	67
202	7.9	37.8	0.4	6.3	7	100	68
203	8.9	35.6	0.3	7.1	7	100	68
204	8.0	34.1	0.4	6.4	7	100	68
205	9.0	33.8	0.4	7.2	7	100	68
206	7.4	32.0	0.5	5.9	7	100	68
207	8.3	32.5	0.3	6.7	7	100	68
208	7.6	31.9	0.3	6.1	7	100	69
209	10.9	35.4	0.4	8.8	7	100	69
210	8.5	31.1	0.4	6.8	7	100	69
211	8.1	32.1	0.3	6.5	7	100	69
212	7.7	34.1	0.4	6.2	7	100	69
213	8.9	32.9	0.3	7.1	7	100	69
214	9.4	34.2	0.3	7.5	7	100	69
215	10.6	33.2	0.5	8.5	7	100	69
216	10.8	35.3	0.4	8.7	7	100	69
217	11.8	35.8	0.6	9.5	7	100	69
218	9.4	34.6	0.6	7.6	7	100	69
219	11.0	37.3	0.5	8.8	7	100	69
220	10.3	33.7	0.5	8.3	7	100	68
221	8.4	35.2	0.5	6.8	7	100	68
222	9.6	34.4	0.6	7.7	7	100	68
223	8.6	38.7	0.5	6.9	7	100	68
224	6.0	34.6	0.5	4.8	7	100	68
225	7.6	34.1	0.6	6.1	7	100	68
226	10.0	35.8	0.4	8.0	7	100	70
227	6.5	35.0	0.3	5.3	7	100	70
228	7.6	34.7	0.1	6.1	7	100	70
229	7.1	31.0	0.0	5.7	7	100	70
230	8.6	36.5	0.4	6.9	7	100	70
231	7.4	31.0	0.4	5.9	7	100	70
232	7.2	32.3	0.4	5.8	7	100	68
233	8.2	34.4	0.4	6.6	7	100	68
234	7.4	36.3	0.4	5.9	7	100	68
235	8.3	32.7	0.4	6.7	7	100	68
236	10.4	33.1	0.3	8.4	7	100	68
237	8.3	30.9	0.3	6.7	7	100	68
238	10.2	31.9	0.5	8.2	7	100	69
239	7.8	36.0	0.3	6.3	7	100	69
240	6.6	33.6	0.3	5.3	7	100	69
241	5.1	33.3	0.3	4.1	7	100	69
242	5.2	38.4	0.3	4.2	7	100	69
243	8.1	35.2	0.3	6.5	7	100	69
244	6.1	34.5	0.3	4.9	7	100	67
245	6.2	34.0	0.4	5.0	7	100	67
246	6.9	34.0	0.3	5.5	7	100	67
247	9.4	35.4	0.2	7.5	7	100	67
248	9.5	45.1	0.4	7.6	7	100	67
249	10.1	31.8	0.3	8.1	7	100	67

***Blank data denotes values that were omitted in the analysis due to an extraneous event during recording

Data Point #	Standardized Wind Speed	LAeq	Rotor RPM	10m Anemometer Wind Speed (m/s)	Air Temperature (-C)	Pressure (kPa)	Relative Humidity (%)
250	7.2	32.2	0.2	5.8	8	100	69
251	6.2	36.0	0.4	5.0	8	100	69
252	7.0	34.3	0.4	5.6	8	100	69
253	6.7	33.5	0.6	5.4	8	100	69
254	7.7	31.2	0.6	6.2	8	100	69
255	11.0	31.8	0.3	8.8	8	100	69
256	10.3	32.0	0.2	8.3	8	100	67
257	10.8	34.9	0.5	8.7	8	100	67
258	9.8	36.8	0.4	7.9	8	100	67
259	9.6	35.5	0.4	7.7	8	100	67
260	9.1	34.5	0.4	7.3	8	100	67
261	8.3	38.2	0.4	6.7	8	100	67
262	7.9	32.5	0.3	6.3	8	100	67
263	9.2	37.6	0.3	7.4	8	100	67
264	8.6	34.4	0.3	6.9	8	100	67
265	8.3	33.9	0.3	6.7	8	100	67
266	8.3	36.0	0.4	6.7	8	100	67
267	7.6	36.5	0.5	6.1	8	100	67
268	7.4	32.2	0.3	5.9	8	100	67
269	9.3	34.1	0.3	7.5	8	100	67
270	9.2	34.1	0.4	7.4	8	100	67
271	8.6	36.6	0.3	6.9	8	100	67
272	10.7	35.0	0.3	8.6	8	100	67
273	7.8	32.6	0.5	6.3	8	100	67
274	5.9	33.7	0.4	4.7	8	100	67
275	9.3	39.4	0.3	7.5	8	100	67
276	7.7	37.7	0.4	6.2	7	100	67
277	6.1	37.1	0.5	4.9	7	100	67
278	8.5	33.4	0.6	6.9	7	100	67
279	8.9	29.5	0.4	7.2	7	100	67
280	8.2	35.8	0.5	6.6	7	100	66
281	6.2	33.7	0.4	5.0	7	100	66
282	5.9	33.1	0.4	4.8	7	100	66
283	7.9	36.5	0.2	6.4	7	100	66
284	7.8	31.8	0.2	6.3	7	100	66
285	9.4	36.8	0.3	7.6	7	100	66
286	9.8	35.0	0.3	7.9	7	100	67
287	11.3	29.7	0.4	9.1	7	100	67
288	8.7	29.7	0.5	7.0	7	100	67
289	10.3	30.1	0.5	8.3	7	100	67
290	8.9	31.6	0.6	7.2	7	100	67
291	10.5	36.1	0.5	8.5	7	100	67
292	9.6	37.8	0.4	7.7	7	100	67
293	8.9	34.1	0.3	7.2	7	100	67
294	7.1	36.3	0.5	5.7	7	100	67
295	9.3	32.3	0.4	7.5	7	100	67
296	8.7	35.3	0.4	7.0	7	100	67
297	8.7	39.3	0.4	7.0	7	100	67
298	9.8	36.4	0.4	7.9	7	100	67
299	8.9	36.7	0.5	7.2	7	100	67
300	8.7	36.9	0.7	7.0	7	100	67
301	7.2	33.3	0.5	5.8	7	100	67
302	6.4	34.6	0.6	5.2	7	100	67
303	9.9	34.9	0.5	8.0	7	100	67
304	10.1	32.6	0.4	8.1	7	100	67
305	10.4	38.5	0.4	8.4	7	100	67
306	9.5	34.0	0.6	7.6	7	100	67
307	12.6	33.0	0.5	10.1	7	100	67
308	9.0	31.2	0.4	7.3	7	100	67
309	8.7	35.9	0.2	7.0	7	100	67
310	6.4	36.8	0.4	5.1	8	100	68
311	6.7	38.6	0.1	5.4	8	100	68
312	9.8	36.7	0.2	7.9	8	100	68
313	8.5	36.8	0.2	6.8	8	100	68
314	8.4	40.7	0.3	6.8	8	100	68
315	8.1	34.5	0.4	6.5	8	100	68
316	10.1	31.2	0.4	8.1	8	100	66
317	9.9	30.2	0.3	8.0	8	100	66
318	9.8	30.2	0.3	7.9	8	100	66
319	9.2	36.0	0.3	7.4	8	100	66
320	8.7	35.8	0.2	7.0	8	100	66
321	10.6	40.9	0.2	8.5	8	100	66
322	10.2	36.6	0.3	8.2	8	100	65
323	9.6	38.7	0.3	7.8	8	100	65
324	8.7	39.7	0.3	7.0	8	100	65
325	8.7	45.5	0.2	7.0	8	100	65
326	5.9	41.1	0.1	4.7	8	100	65
327	8.7	36.0	0.2	7.0	8	100	65
328	8.1	36.5	0.3	6.5	8	100	66
329	10.9	30.2	0.2	8.8	8	100	66
330	10.2	32.7	0.2	8.2	8	100	66
331	9.5	33.7	0.3	7.6	8	100	66
332	9.2	39.0	0.3	7.4	8	100	66

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Data Point #	Standardized Wind Speed	LAeq	Rotor RPM	10m Anemometer Wind Speed (m/s)	Air Temperature (-C)	Pressure (kPa)	Relative Humidity (%)
333	8.9	35.9	0.4	7.1	8	100	66
334	8.0	33.0	0.3	6.4	8	100	67
335	7.8	37.3	0.3	6.3	8	100	67
336	8.3	33.4	0.2	6.7	8	100	67
337	8.7	31.0	0.3	7.0	8	100	67
338	7.8	29.7	0.4	6.3	8	100	67
339	9.7	30.9	0.3	7.8	8	100	67
340	7.5	30.4	0.4	6.0	8	100	66
341	7.4	39.3	0.4	6.0	8	100	66
342	7.0	35.2	0.3	5.7	8	100	66
343	7.4	36.0	0.3	5.9	8	100	66
344	7.9	40.6	0.3	6.4	8	100	66
345	6.9	38.9	0.3	5.5	8	100	66
346	6.7	36.6	0.3	5.4	8	100	68
347	6.8	38.0	0.3	5.4	8	100	68
348	9.1	31.8	0.3	7.3	8	100	68
349	8.6	30.3	0.4	6.9	8	100	68
350	8.5	33.9	0.3	6.8	8	100	68
351	9.5	31.7	0.4	7.6	8	100	68
352	8.5	30.6	0.4	6.8	8	100	68
353	7.1	32.6	0.4	5.7	8	100	68
354	7.2	37.3	0.5	5.8	8	100	68
355	9.6	40.6	0.3	7.7	8	100	68
356	8.6	33.3	0.4	6.9	8	100	68
357	6.7	30.9	0.3	5.4	8	100	68
358	9.1	36.7	0.2	7.3	8	100	64
359	8.4	35.5	0.3	6.7	8	100	64
360	8.0	34.9	0.4	6.4	8	100	64
361	7.4	35.9	0.1	5.9	8	100	60
362	8.8	33.9	0.2	7.1	8	100	59
363	9.2	37.5	0.3	7.5	8	100	59
364	8.7	38.3	0.2	7.0	8	100	59
365	11.1	35.6	0.3	8.9	8	100	59
366	11.0	32.0	0.2	8.8	8	100	59
367	11.5	31.3	0.2	9.2	8	100	59
368	11.1	32.6	0.4	9.0	8	100	58
369	9.7	33.4	0.4	7.8	8	100	58
370	7.5	41.5	0.5	6.0	8	100	58
371	8.4	36.2	0.4	6.8	8	100	58
372	9.5	43.4	0.3	7.6	8	100	58
373	8.9	37.1	0.4	7.1	8	100	58
374	9.7	44.2	0.4	7.8	8	100	58
375	8.6	35.2	0.3	6.9	8	100	58
376	10.0	32.5	0.4	8.0	8	100	58
377	8.1	35.8	0.3	6.5	8	100	58
378	11.0	38.1	0.5	8.8	8	100	58
379	10.0	34.8	0.4	8.0	8	100	58
380	8.3	38.4	0.3	6.7	8	100	59
381	7.4	36.7	0.4	5.9	8	100	59
382	8.7	36.3	0.6	7.0	8	100	59
383	10.2	35.0	0.6	8.2	8	100	59
384	9.8	40.6	0.5	7.9	8	100	59
385	9.5	41.3	0.3	7.6	8	100	59
386	9.8	38.6	0.3	7.9	8	100	58
387	9.2	43.9	0.3	7.5	8	100	58
388	9.0	38.6	0.3	7.2	8	100	58
389	9.2	33.5	0.3	7.4	8	100	58
390	8.2	35.0	0.4	6.6	8	100	58
391	7.0	34.1	0.4	5.7	8	100	58
392	6.0	34.9	0.4	4.8	8	100	59
393	7.6	35.6	0.3	6.1	8	100	59
394	6.0	36.3	0.3	4.8	8	100	59
395	6.1	32.5	0.4	4.9	8	100	59
396	6.7	36.4	0.4	5.4	8	100	59
397	5.9	40.6	0.4	4.7	8	100	59
398	7.2	42.2	0.4	5.8	8	100	60
399	9.1	38.8	0.4	7.3	8	100	60
400	10.0	39.6	0.3	8.0	8	100	60
401	7.7	37.0	0.4	6.2	8	100	60
402	9.2	38.7	0.3	7.5	8	100	60
403	9.4	37.1	0.3	7.5	8	100	60
404	8.2	33.5	0.2	6.6	8	100	58
405	8.0	33.7	0.2	6.4	8	100	58
406	5.9	38.4	0.4	4.7	8	100	58
407	8.8	34.8	0.2	7.1	8	100	58
408	6.6	37.1	0.4	5.3	8	100	58
409	8.7	35.1	0.4	7.0	8	100	58
410	10.2	37.7	0.6	8.2	8	100	59
411	12.8	44.0	0.4	10.3	8	100	59
412	11.5	38.1	0.6	9.2	8	100	59
413	10.9	37.6	0.7	8.8	8	100	59
414	9.7	44.0	0.8	7.8	8	100	59
415	9.6	41.6	0.6	7.7	8	100	59

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Data Point #	Standardized Wind Speed	LAeq	Rotor RPM	10m Anemometer Wind Speed (m/s)	Air Temperature (-C)	Pressure (kPa)	Relative Humidity (%)
416	8.6	43.3	0.4	6.9	8	100	58
417	8.3	39.8	0.3	6.7	8	100	58
418	7.9	36.7	0.2	6.3	8	100	58
419	8.1	37.5	0.1	6.6	8	100	58
420	8.6	33.5	0.4	6.9	8	100	58
421	7.4	31.7	0.4	5.9	8	100	58
422	9.7	32.4	0.3	7.8	8	100	59
423	7.9	31.4	0.3	6.3	8	100	59
424	9.2	34.6	0.3	7.5	8	100	59
425	11.3	31.6	0.2	9.1	8	100	59
426	10.5	31.2	0.2	8.4	8	100	59
427	10.2	37.1	0.3	8.2	8	100	59
428	7.8	40.1	0.6	6.3	8	100	58
429	8.3	40.1	0.6	6.7	8	100	58
430	7.0	36.5	0.4	5.7	8	100	58
431	7.2	37.8	0.4	5.8	8	100	58
432	7.1	44.4	0.2	5.7	8	100	58
433	6.6	38.7	0.3	5.3	8	100	58
434	8.4	31.5	0.4	6.8	8	100	58
435	8.2	29.8	0.4	6.6	8	100	58
436	8.0	31.0	0.3	6.4	8	100	58
437	11.1	35.7	0.3	9.0	8	100	58
438	11.1	32.5	0.3	8.9	8	100	58
439	10.1	33.2	0.1	8.1	8	100	58
440	9.2	31.8	0.5	7.4	8	100	57
441	12.8	32.2	0.5	10.3	8	100	57
442	11.6	34.0	0.4	9.3	8	100	57
443	10.1	36.1	0.6	8.1	8	100	57
444	12.3	35.1	0.7	9.9	8	100	57
445	10.5	42.5	0.5	8.4	8	100	57
446	8.0	42.4	0.5	6.5	8	100	57
447	11.0	32.9	0.6	8.8	8	100	57
448	7.9	31.8	0.7	6.3	8	100	57
449	11.2	32.8	0.4	9.1	8	100	57
450	10.1	34.8	0.4	8.1	8	100	57
451	7.8	32.8	0.6	6.3	9	100	46
452	7.1	39.9	0.4	5.7	9	100	46
453	6.9	37.9	0.2	5.5	9	100	46
454	9.7	44.8	0.3	7.8	9	100	46
455	12.8	41.1	0.2	10.3	9	100	46
456	11.6	37.1	0.6	9.3	9	100	46
457	10.7	35.7	0.6	8.6	9	100	46
458	12.1	37.9	0.6	9.7	9	100	45
459	11.0	36.1	0.8	8.8	9	100	45
460	12.3	38.7	0.6	9.9	9	100	45
461	11.9	43.4	0.4	9.6	9	100	45
462	12.1	47.1	0.5	9.7	9	100	45
463	11.7	44.2	0.4	9.4	9	100	45
464	8.9	35.6	0.4	7.1	9	100	43
465	9.2	39.1	0.3	7.5	9	100	43
466	10.5	44.9	0.4	8.5	9	100	43
467	13.3	42.4	0.6	10.7	9	100	43
468	11.6	35.5	0.5	9.3	9	100	43
469	10.7	35.0	0.5	8.6	9	100	43
470	14.7	40.4	0.4	11.8	9	100	43
471	12.8	36.3	0.5	10.3	9	100	43
472	11.8	39.7	0.4	9.5	9	100	43
473	10.7	40.8	0.5	8.6	9	100	43
474	11.1	43.3	0.4	8.9	9	100	43
475	10.3	44.5	0.4	8.3	9	100	43
476	10.2	44.6	0.5	8.2	9	100	43
477	10.8	39.0	0.4	8.7	9	100	43
478	10.1	42.2	0.4	8.1	9	100	43
479	13.2	36.3	0.3	10.6	9	100	43
480	9.7	39.8	0.3	7.8	9	100	43
481	7.0	36.7	0.4	5.6	9	100	43
482	11.7	34.7	0.4	9.4	9	100	44
483	10.1	36.1	0.3	8.1	9	100	44
484	8.8	41.3	0.4	7.1	9	100	44
485	10.8	37.5	0.4	8.7	9	100	44
486	8.3	34.9	0.5	6.7	9	100	44
487	11.6	33.9	0.6	9.3	9	100	44
488	8.0	35.5	0.5	6.4	9	100	44
489	7.1	41.8	0.3	5.7	9	100	44
490	11.9	39.6	0.4	9.6	9	100	44
491	10.5	34.9	0.5	8.4	9	100	44
492	11.7	32.4	0.6	9.4	9	100	44
493	12.4	38.9	0.5	10.0	9	100	44
494	13.6	43.7	0.4	11.0	9	100	45
495	12.3	37.9	0.6	9.9	9	100	45
496	11.6	37.9	0.5	9.3	9	100	45
497	12.2	36.5	0.5	9.8	9	100	45
498	9.2	39.1	0.5	7.5	9	100	45

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Data Point #	Standardized Wind Speed	LAeq	Rotor RPM	10m Anemometer Wind Speed (m/s)	Air Temperature (-C)	Pressure (kPa)	Relative Humidity (%)
499	9.3	43.0	0.5	7.5	9	100	45
500	12.7	39.1	0.5	10.2	9	100	45
501	12.8	40.4	0.5	10.3	9	100	45
502	10.6	36.6	0.4	8.5	9	100	45
503	12.3	39.2	0.4	9.9	9	100	45
504	12.7	37.4	0.5	10.2	9	100	45
505	8.4	40.7	0.5	6.8	9	100	45
506	11.7	40.3	0.4	9.4	8	100	45
507	11.3	37.7	0.4	9.1	8	100	45
508	9.4	42.5	0.5	7.6	8	100	45
509	9.7	41.0	0.6	7.8	8	100	45
510	9.4	37.0	0.5	7.5	8	100	45
511	8.6	36.8	0.3	7.0	8	100	45
512	9.5	38.0	0.3	7.6	8	100	45
513	7.8	37.2	0.5	6.3	8	100	45
514	10.8	32.3	0.3	8.7	8	100	45
515	12.7	39.4	0.5	10.2	8	100	45
516	12.6	41.0	0.4	10.1	8	100	45
517	11.0	38.3	0.3	8.9	8	100	45
518	12.5	36.6	0.4	10.0	8	100	45
519	12.6	33.4	0.5	10.1	8	100	45
520	12.5	41.7	0.4	10.1	8	100	45
521	10.9	39.1	0.5	8.7	8	100	45
522	12.7	35.8	0.5	10.2	8	100	45
523	10.8	39.4	0.5	8.7	8	100	45
524	9.7	40.9	0.5	7.8	8	100	46
525	11.9	38.1	0.5	9.6	8	100	46
526	10.8	35.8	0.5	8.7	8	100	46
527	8.0	45.9	0.5	6.4	8	100	46
528	9.6	40.3	0.5	7.7	8	100	46
529	8.3	37.0	0.3	6.7	8	100	46
530							
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***Blank data denotes values that were omitted in the analysis due to an extraneous event during recording

Data Point #	Standardized Wind Speed	LAeq	Rotor RPM	10m Anemometer Wind Speed (m/s)	Air Temperature (-C)	Pressure (kPa)	Relative Humidity (%)
582							
583							
584							
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632							
633							

***Blank data denotes values that were omitted in the analysis due to an extraneous event during recording

Data Point #	Standardized Wind Speed	LAeq	Rotor RPM	10m Anemometer Wind Speed (m/s)	Air Temperature (-C)	Pressure (kPa)	Relative Humidity (%)

aercoustics
Aercoustics Engineering Ltd.
1004 Middlegate Road, Suite 1100
Mississauga, ON L4Y 1M4
Tel: 416-249-3361
Fax 416-249-3613
aercoustics.com

Appendi xF
Note on anemometer position with IEC 61400-11 Ed 2.1 and Ed 3.0

Note N6.040.17

Note on anemometer position with IEC 61400-11 editions 2.1 and 3.0

Author: Bo Søndergaard

Project number: 35.6539.01
Date: 7/11/2017
Project manager: Bo Søndergaard
Controlled by: -

To : Aercoustics Engineering Limited
Att.: Payam Ashtiani

From : Bo Søndergaard

1. Purpose

In the capacity of convenor for Maintenance Team 11, the workgroup in charge of IEC 61400-11, since 2006, I have been asked to provide background information, and comment on the consequences of changing the anemometer position when going from edition 2.1 to edition 3, and the recommended method for using measurements based on edition 2.1 for an analysis with edition 3.

2. Comment

There are several differences between IEC 61400-11 standard edition 2.1 (November 2006) and edition 3.0 (November 2012). In particular, the general data treatment procedures for noise levels, and the tonality assessment were changed to keep up with the changes in wind turbine design at the time.

However, since edition 1.0 (1998), very few changes have been made to the IEC 61400-11 standard with respect to the measurement setup. In edition 1.0 the prescribed position of the anemometer was upwind (2 to 4 rotor diameters) as it was allowed to use the anemometer for determination of the standardized wind speed with the wind turbine running. At that time the distances were smaller and this setup is maintained in Annex F on small wind turbines in edition 3. Editions 2.0 and 2.1, still allowed such use of the anemometer

In Germany, modified versions of IEC 61400-11 edition 2 were introduced by the FGW. In revision 15 (from 2004), using the power for determination of the standardized wind speed was mandatory. In revision 16 (from 2005), it was stated that the position of the anemometer can deviate from the requirements in IEC 61400-11 edition 2, without specifying position requirements. Germany has had a strong influence on the development of the IEC 61400-11 standard through the experience from several measuring companies and German authorities. The decision to allow alternative positions for the anemometer is very representative of the situation. It is difficult to set up general requirements for the position of the anemometer that works at all sites. As such, it makes sense to allow for an expert

Sweco
Dusager 12
DK-8200 Aarhus
Danmark

Telephone +45 72 20 72 07
Fax +45 82 10 51 55
www.sweco.dk

Sweco Danmark A/S
Reg.no 48233511
Reg. office: Glostrup

Bo Søndergaard

Telephone direct +45 82 10 51 49
Mobile +45 27 23 51 49
bo.sondergaard@sweco.dk

judgement on the anemometer position in a given situation. In the Danish regulations, it is stated that the anemometer has to be close to the wind turbine in a position where neither the wind turbine nor objects in the terrain is expected to influence the wind speed measurements.

The German and Danish considerations on the position of the anemometer is based on the fact that the dominating background noise at the microphone position can be more or less dependent on wind speed; and can be generated by vegetation upwind, downwind or to the side of the wind turbine. This is often reflected in background noise with a weak dependence on wind speed.

Maintenance Team 11, responsible for revising IEC 61400-11, discussed this issue and there was a strong support from the measurement institutes for using the nacelle anemometer for background noise measurements. In most cases, this would give a reasonable correlation between wind speed and background noise. The nacelle anemometer is not influenced by terrain and represents, to a reasonable degree, the wind in the surroundings. However, the manufacturers argued that the nacelle anemometer might not be a part of future designs and could not be guaranteed. There was a general agreement that it was difficult to decide on an optimum position, but in most cases, downwind and to the side would make sense, resulting in Figure 5 of edition 3.0. The position of the anemometer is not considered an important issue and the wording is “guidance” and “acceptable” and not a stronger wording like “shall”. This is a deliberate decision by the Maintenance Team 11 to ensure flexibility when other choices make more sense.

The recommended method when using measurements made according to IEC 61400-11 edition 2.1 for analysis with IEC 61400-11 edition 3.0 is to use the nacelle anemometer for the background noise. This will work well in most cases. Alternatively, to use the measured wind speed at 10 m height if there is no strong influence from the background noise (e.g. when signal to noise ratio is better than 6 dB).

SWECO Danmark A/S

Bo Søndergaard

Bo Søndergaard

Acoustica

aercoustics
Aercoustics Engineering Ltd.
1004 Middlegate Road, Suite 1100
Mississauga, ON L4Y 1M4
Tel: 416-249-3361
Fax 416-249-3613
aercoustics.com

Appendix G
Calibration Certificates

A Siemens Business

Certificate number: **1-947579110**

Calibration report

- 'As Found data' -

Product type: LMS SCADAS

Calibration Suite: **Calibration Software**
Calibration Suite Version: **2.0**

Customer:

Company name	: Aercoustics Engineering
Division / department	: Aercoustics Engineering
Location (city / country)	: Toronto Canada
Contact person	: Mr. Rob Jozwiak

System:

System type(s)	: SCR05
Serial number(s)	: 53103922

Calibration conditions:

Location (factory, office or on-site)	: Factory
Date	: 04-June-2014
Ambient temperature	: 22.7ºC
Previous calibration date	: Mar-2014

Calibration results (refer to page 2 for details)**:**

Calibration successful	: YES
Within published specification	: YES
Within test specification	: YES

Report approved by:

Name : Mr. A v Aalst

LMS Instruments
Druivenstraat 47
4816 KB Breda
The Netherlands
Phone: +31 76 573 6363

LMS France
2 rue René Caudron
78960 Voisins le Bretonneux
France
Phone :+33 1 3452 1740

LMS North-America
5755 New King Street
Troy, MI 48098
USA
Phone: +1 248 952 5664

West Caldwell Calibration Laboratories Inc.

Certificate of Calibration

for

MICROPHONE UNIT

Manufactured by:	**BRUEL & KJAER**
Model No:	**4189-A-021**
Serial No:	**2622170**
Calibration Recall No:	**24274**

Submitted By:

Customer:

Company: **AERCOUSTICS ENGINEERING**
Address:

The subject instrument was calibrated to the indicated specification using standards traceable to the National Institute of Standards and Technology or to accepted values of natural physical constants. This document certifies that the instrument met the following specification upon its return to the submitter.

West Caldwell Calibration Laboratories Procedure No. **4189-A-021 BRUE**

Upon receipt for Calibration, the instrument was found to be:

Within **(X)** **see attached Report of Calibration.**

the tolerance of the indicated specification.

West Caldwell Calibration Laboratories' calibration control system meets the requirements, ISO 10012-1 MIL-STD-45662A, ANSI/NCSL Z540-1, IEC Guide 25, ISO 9001:2008 and ISO 17025.

Note: With this Certificate, Report of Calibration is included.

Calibration Date: **16-Jun-14**

Certificate No: **24274 - 3**

Approved by:

FC

Felix Christopher (QA Mgr.)
ISO/IEC 17025:2005

ACCREDITED

Calibration Lab. Cert. # 1533.01

uncompromised calibration **West Caldwell Calibration Laboratories, Inc.**
1575 State Route 96, Victor, NY 14564, U.S.A.

West Caldwell Calibration Laboratories, Inc.
uncompromised calibration
1575 State Route 96, Victor NY 14564

ISO/IEC 17025: 2005
ACCREDITED
Calibration Lab. Cert. # 1533.01

REPORT OF CALIBRATION

for

Brüel & Kjær Microphone Unit Model No.: 4189-A-021 Serial No.: 2622170
Mic. Model: 4189 Serial No.: 2625197
Preamp. Model No.: 2671 Serial No.: 2614901
Company : Aercoustics Engineering I. D. No.: XXXX

Calibration results: Before data: ..... After data: .....✓

Combined Sensitivity @ 250 Hz and pressure of 99.622 kPa Before & after data same: ...✓...
(Sensitivity with microphone and preamplifier.)

-26.67	dB re.1V/Pascal	Ambient Temperature:	21 °C
46.39	mV/Pascal	Ambient Humidity:	51.8 % RH
0.67	Ko (- dB re 50 mV/Pascal)	Ambient Pressure:	99.62 kPa
Sensitivity:	Pass	Calibration Date:	16-Jun-2014
Freq. Response	Pass	Re-calibration Due:	16-Jun-2015
All tests:	Pass	Report Number:	24274 -3
		Control Number:	24274

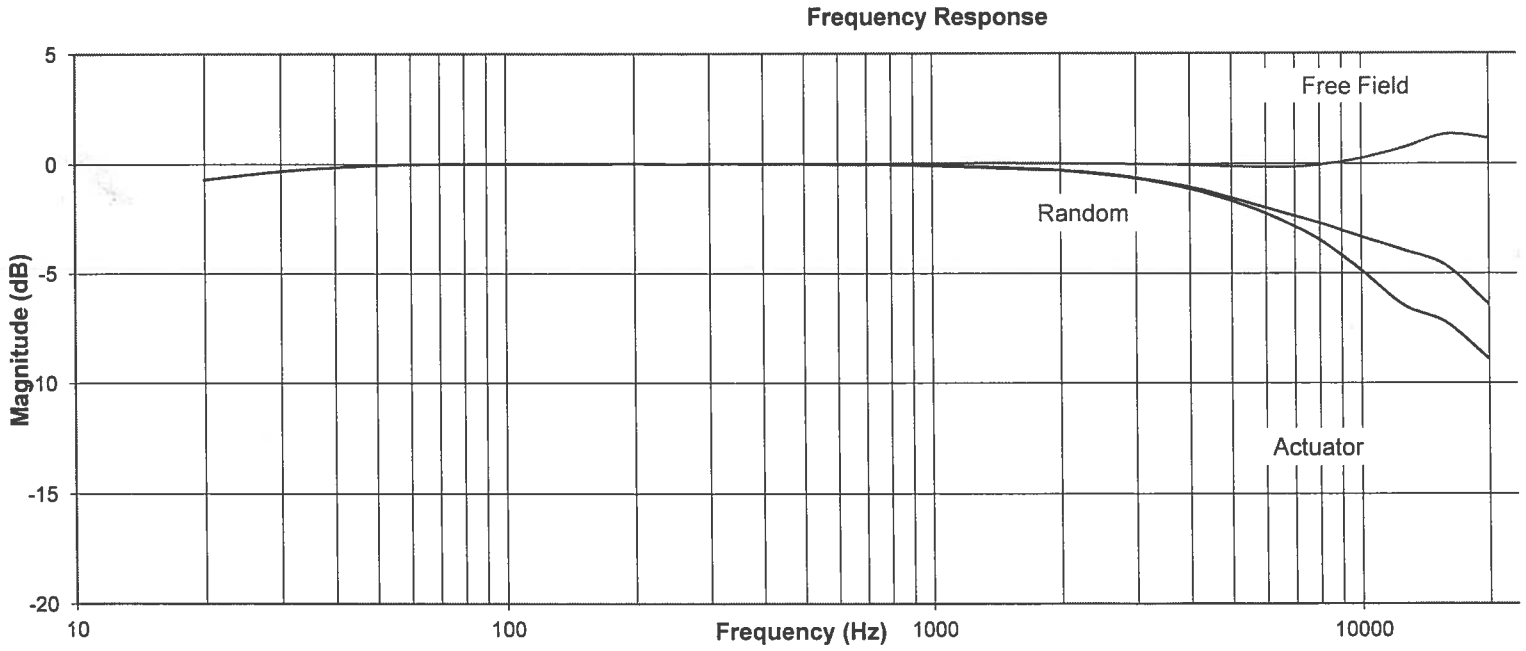
Combined Sensitivity @ 1000 Hz -26.74 dB re.1V/Pascal or 46.03 mV/Pascal

The above listed instrument meets or exceeds the tested manufacturer's specifications.

This Calibration is traceable through NIST test numbers: 683/281764-12

The expanded uncertainty of calibration: 0.18dB at 95% confidence level with a coverage factor of k=2.

The lower curve is the pressure response recorded with electrostatic actuator.



The above listed instrument was checked using calibration procedure documented in West Caldwell Calibration Laboratories Inc. procedure : **Rev. 7.0 Jan. 24, 2014 Doc. # 1038 4189A021B&K**

Calibration was performed by West Caldwell Calibration Laboratories Inc. under Operating Procedures intended to implement the requirements of ISO10012-1, IEC Guide 25, ANSI/NCSL Z540-1, (MIL-STD-45662A) and ISO 9001:2008, ISO 17025

Measurements performed by: .....
Felix Christopher

Calibrated on WCCL system type 9700

West Caldwell Calibration Laboratories Inc.
1575 State Route 96, Victor NY 14564
Tel. (585) 586-3900 FAX (585) 586-4327

Calibration Data Record

for

Brüel & Kjær Microphone Unit Model No.: 4189-A-021 **Serial No.: 2622170**
I. D. No.: XXXX

Company : Aercoustics Engineering

Frequency Response (Reference = 0 dB @ 250Hz)

Frequency [Hz]	Actuator [dB]	Random (dB)	Free Field (dB)	Frequency [Hz]	Actuator [dB]	Random (dB)	Free Field (dB)
19.95	-0.70	-0.70	-0.70	631.0	-0.03	-0.03	0.00
25.12	-0.47	-0.47	-0.47	794.3	-0.04	-0.04	0.02
31.62	-0.28	-0.28	-0.28	1000.0	-0.07	-0.09	0.03
39.81	-0.15	-0.15	-0.15	1258.9	-0.11	-0.15	0.03
50.12	-0.05	-0.05	-0.05	1584.9	-0.19	-0.24	0.03
63.10	0.00	0.00	0.00	1995.3	-0.30	-0.30	0.03
79.43	0.01	0.01	0.01	2511.9	-0.47	-0.44	0.00
100.00	0.01	0.01	0.01	3162.3	-0.73	-0.70	-0.02
125.89	0.00	0.00	0.00	3981.1	-1.13	-1.04	-0.07
158.49	0.01	0.01	0.01	5011.9	-1.69	-1.55	-0.12
199.53	0.02	0.02	0.02	6309.6	-2.45	-2.13	-0.17
251.19	0.00	0.00	0.00	7943.3	-3.44	-2.69	-0.06
316.23	0.02	0.02	0.02	10000.0	-4.87	-3.34	0.25
398.11	-0.01	-0.01	0.00	12589.3	-6.46	-3.95	0.73
501.19	-0.01	-0.01	0.01	15848.9	-7.24	-4.66	1.35
				19952.6	-8.88	-6.40	1.17

Frequency Response: Expanded Uncertainty (dB) with coverage factor K = 2
20 to 25 Hz 0.8dB, 25 to 160 Hz 0.5dB, 160 to 2kHz 0.3dB, 2k to 10kHz 0.5dB, 10k to 20kHz 1.3dB.

Instruments used for calibration:				Date of Cal.	Traceability No.	Re-cal. Due Date
Brüel & Kjær	4134	S/N	1942286	2-Oct-2013	683/281764-12	3-Oct-2014
HP	34401A	S/N	36064102	8-Oct-2013	,287708	8-Oct-2014
HP	34401A	S/N	36102471	8-Oct-2013	,287708	8-Oct-2014
HP	33120A	S/N	36043716	8-Oct-2013	,287708	8-Oct-2014
Brüel & Kjær	2636	S/N	1324082	3-Oct-2013	683/281764-12	3-Oct-2014
Brüel & Kjær	2669	S/N	1835082	3-Oct-2013	683/281764-12	3-Oct-2014
Brüel & Kjær	4228	S/N	1742061	2-Oct-2013	683/281764-12	3-Oct-2014

Cal. Date: 16-Jun-2014 **Tested by: Felix Christopher**

Calibrated on WCCL system type 9700

West Caldwell Calibration Laboratories Inc.

Certificate of Calibration

for

ACOUSTICAL CALIBRATOR

Manufactured by:	BRUEL & KJAER
Model No:	4231
Serial No:	2513184
Calibration Recall No:	25471

Submitted By:

Customer:

Company: Aercoustics Engineering, LTD.
Address:

The subject instrument was calibrated to the indicated specification using standards traceable to the National Institute of Standards and Technology or to accepted values of natural physical constants. This document certifies that the instrument met the following specification upon its return to the submitter.

West Caldwell Calibration Laboratories Procedure No. 4231 BRUE

Upon receipt for Calibration, the instrument was found to be:

Within (X)

tolerance of the indicated specification. See attached Report of Calibration.

West Caldwell Calibration Laboratories' calibration control system meets the requirements, ISO 10012-1 MIL-STD-45662A, ANSI/NCSL Z540-1, IEC Guide 25, ISO 9001:2008 and ISO 17025.

Note: With this Certificate, Report of Calibration is included.

Approved by:

Calibration Date: 01-Jul-15

Certificate No: 25471 - 1

Felix Christopher (QA Mgr.)
ISO/IEC 17025:2005

West Caldwell Calibration Laboratories, Inc.
uncompromised calibration
1575 State Route 96, Victor, NY 14564, U.S.A.

ACCREDITED
Calibration Lab. Cert. # 1533.01

West Caldwell Calibration Laboratories, Inc.
uncompromised calibration
1575 State Route 96, Victor NY 14564

ISO/IEC 17025: 2005
ACCREDITED
Calibration Lab. Cert. # 1533.01

REPORT OF CALIBRATION

for

Brüel & Kjær Acoustical Calibrator **Model No.: 4231** **Serial No.: 2513184**

Company : Aercoustics Engineering, LTD. **I. D. No: XXXX**

Calibration results: Before data: ..... After data: .....

Sound Pressure Level at 999.9 Hz and pressure of 1013 hPa (mbar) Before & after data same: ...X...
was 114.0 dB re 20µPa

(Calibrator tested with ½" adaptor UC 0210)

IEC 1094-4 Type WS 2 P Microphone was used for measurement.

	114dB	94dB
Sound Pressure Level:	Pass	Pass
Frequency:	Pass	Pass
Distortion:	Pass	Pass
Stability:	Pass	Pass
All tested parameters:		Pass

Laboratory Environment:

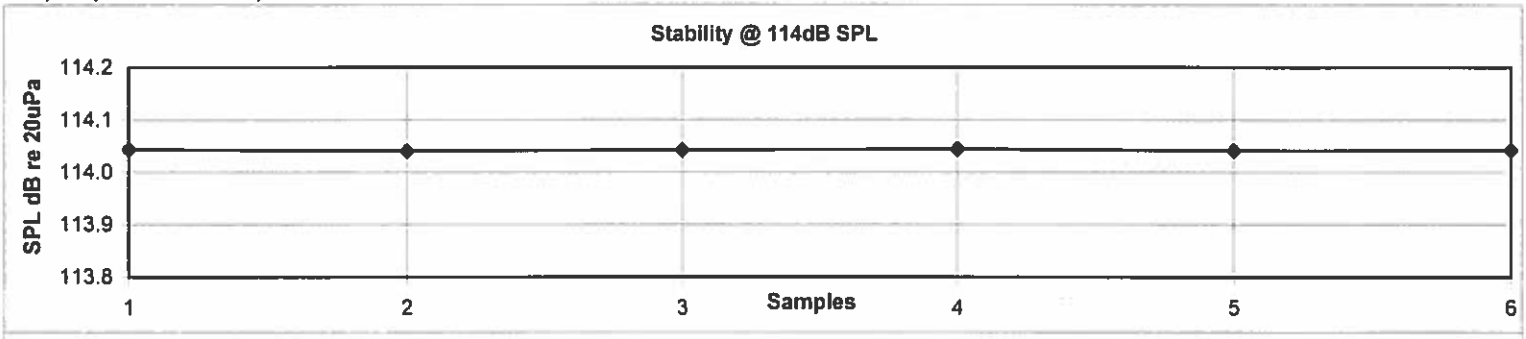
Ambient Temperature:	22.3	°C
Ambient Humidity:	49.4	% RH
Ambient Pressure:	98.407	kPa
Calibration Date:	1-Jul-2015	
Re-calibration Due:	1-Jul-2016	
Report Number:	25471	-1
Control Number:	25471	

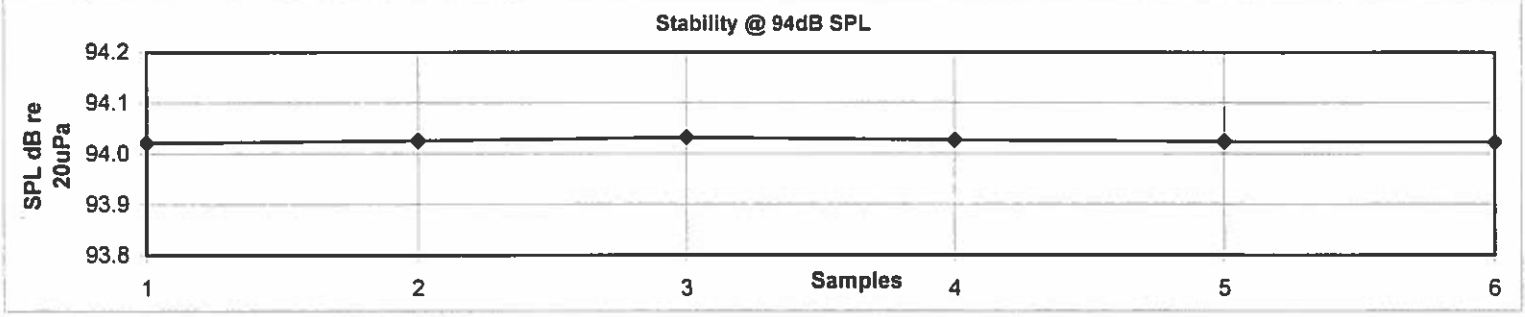
The above listed instrument meets or exceeds the tested manufacturer's specifications
The IEC 942:1988 Class 1 specifications, passed.
The ANSI S1.4-1984 specifications, passed.

This Calibration is traceable through NIST test numbers: 683/284413-14

The expanded uncertainty of calibration: 0.09dB at 95% confidence level with a coverage factor of k=2.

Graph represents six samples of Sound Pressure Level measured at 5sec. interval.





The above listed instrument was checked using calibration procedure documented in West Caldwell Calibration Laboratories Inc. procedure : **Rev. 7.0 Jan. 24, 2014 Doc. # 1038 4231B&K**

Calibration was performed by West Caldwell Calibration Laboratories Inc. under Operating Procedures intended to implement the requirements of ISO10012-1, IEC Guide 25, ANSI/NCSL Z540-1, (MIL-STD-45662A) and ISO 9001:2008, ISO 17025

Cal. Date: 1-Jul-2015 Measurements performed by: .....

Calibrated on WCCL system type 9700 **Joanne Lemmon**

West Caldwell Calibration Laboratories Inc.

1575 State Route 96, Victor NY 14564
Tel. (585) 586-3900 FAX (585) 586-4327

Calibration Data Record

for

Brüel & Kjær Acoustical Calibrator **Model No.: 4231** **Serial No.: 2513184**

Company : Aercoustics Engineering, LTD.

All tested parameters: Pass

Measured Sound Pressure Level (Six samples measured at 5 sec. interval)

Sample	1	114.04	dB re 20µPa	94.02	dB re 20µPa
	2	114.04		94.03	
	3	114.04		94.03	
	4	114.04		94.03	
	5	114.04		94.02	
	6	114.04		94.02	
	Average	**114.0**	Spec. 114dB ± 0.2dB	**94.0**	Spec. 94dB ± 0.2dB

Frequency measured (Three samples at 30 sec. Interval)

Sample	1	999.95 Hz	999.95 Hz	
	2	999.95	999.94	
	3	999.95	999.93	
	Average	**999.95**	**999.94**	Spec. 1000Hz ±0.1%

The Frequency expanded uncertainty of calibration:45µHz/Hz at 95% confidence level with a coverage factor of k=2.

Distortion measured	-51.3 dB	-47.5 dB	Spec. ≤-40dB

Instruments used for calibration:			Date of Cal.	Traceability No.	Re-cal. Due Date
Brüel & Kjær	4231	S/N 2205493	3-Oct-2014	683/284413-14	4-Oct-2015
Brüel & Kjær	4134	S/N 1942286	3-Oct-2014	683/284413-14	4-Oct-2015
Brüel & Kjær	2669	S/N 1835082	3-Oct-2014	683/284413-14	3-Oct-2015
HP	34401A	S/N 36064102	6-Oct-2014	,287708	6-Oct-2015
Brüel & Kjær	2636	S/N 1324082	6-Oct-2014	683/284413-14	6-Oct-2015
HP	33120A	S/N 36043716	6-Oct-2014	,287708	6-Oct-2015

Cal. Date: 1-Jul-2015 **Tested by: Joanne Lemmon**

Calibrated on WCCL system type 9700

SOH Wind Engineering LLC

141 Leroy Road · Williston, VT 05495 · USA

Tel 802.999.3309 · Fax 802.735.9106 · www.sohwind.com

CERTIFICATE FOR CALIBRATION OF SONIC ANEMOMETER

Certificate number: 13.US1. 09043 **Date of issue:** November 25, 2013

Type: Vaisala Weather Transmitter, WXT520 **Serial number:** G4420002

Manufacturer: VAISALA Oyj, Pl 26, FIN-00421 Helsinki, Finland

Client: Aercoustics Engineering Ltd., 50 Ronson Dr, Suite 165, Toronto, ON M9W IB3, Canada

Anemometer received: November 19, 2013 **Anemometer calibrated:** November 22, 2013

Calibrated by: rps **Calibration procedure:** IEC 61400-12-1:2005(E) Annex F (at 0°)

Certificate prepared by: R. Paul Smith **Approved by:** Calibration engineer, rds

Robert D. Stevens

Calibration equation obtained: v [m/s] = 1.0070 · m/s output + 0.00704

Standard uncertainty, slope: N/A **Standard uncertainty, offset:** N/A

Covariance: N/A **Coefficient of correlation:** N/A

Absolute maximum deviation: 0.062 m/s at 11.022 m/s

Barometric pressure: 1003.7 hPa **Relative humidity:** 23.8%

ilac-MRA

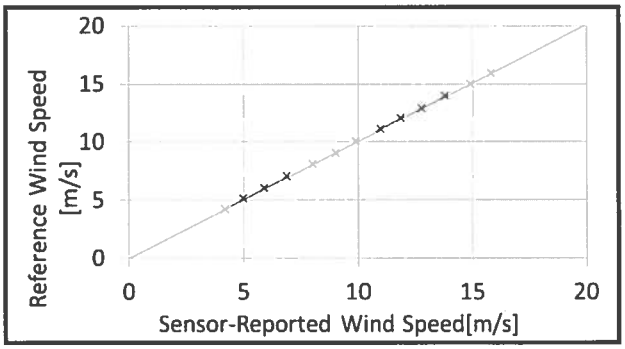
ACLASS ACCREDITED CALIBRATION

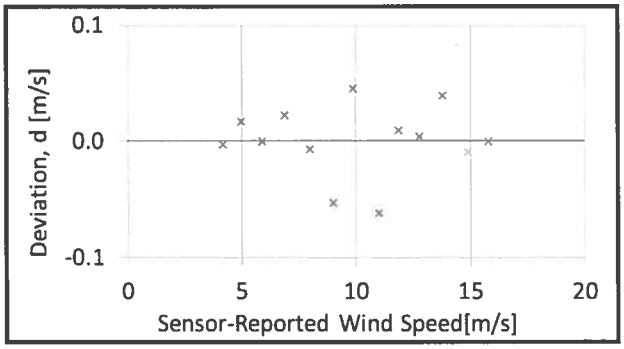
AC-1746

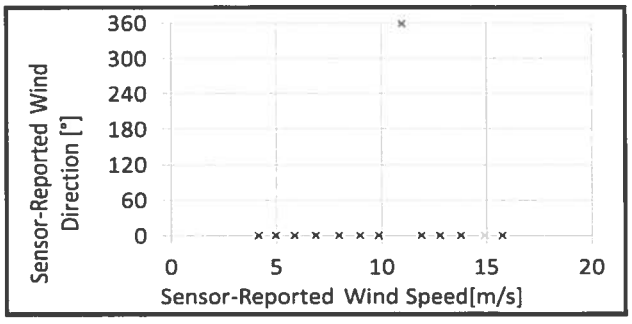
Standard: ISO/IEC 17025

Succession	Direction α [°][1]	Temperature in wind tunnel [°C]	d.p. box [°C]	Wind velocity, *v*. [m/s]	Speed Signal I_1 [A]	Uncertainty u_c (k=2) [m/s]	Deviation d. [m/s]	Direction Signal, I_2 [A]
2	0	22.3	26.5	4.233	4.2	0.045	-0.003	0
4	0	22.3	26.5	5.059	5.0	0.038	0.017	0
6	0	22.3	26.5	5.948	5.9	0.033	0.000	0
8	0	22.3	26.5	6.977	6.9	0.029	0.022	0
10	0	22.3	26.5	8.056	8.0	0.026	-0.007	0
12	0	22.3	26.5	9.017	9.0	0.024	-0.053	0
13-last	0	22.3	26.5	10.022	9.9	0.023	0.045	0
11	0	22.3	26.5	11.022	11.0	0.022	-0.062	359
9	0	22.3	26.5	11.999	11.9	0.022	0.009	0
7	0	22.3	26.5	12.901	12.8	0.022	0.004	0
5	0	22.3	26.5	13.943	13.8	0.022	0.039	0
3	0	22.3	26.5	15.002	14.9	0.023	-0.009	0
1-first	0	22.2	26.5	15.917	15.8	0.024	0.000	0

[1]Wind Direction measurements are not included in the ISO 17025 scope for SOH Wind Engineering and, therefore, not certified.







SOH Wind Engineering LLC
141 Leroy Road · Williston, VT 05495 · USA
Tel 802.999.3309 · Fax 802.735.9106 · www.sohwind.com

EQUIPMENT USED

Serial Number	Description
Njord 1	Wind tunnel, blockage factor = 1.0035
2254	Control cup anemometer
-	Mounting tube, D = 25 mm
TT001	Summit RT-AUI, wind tunnel
TP001	Summit RT-AUI, differential pressure box
DP006	Setra Model 239 pressure transducer
HY002	Dwyer Instruments RHP-2D20 humidity transmitter
BP002	Setra Model 278 barometer
PL3	Pitot tube
XB001	Computer Board. 16 bit A/D data acquisition board
9PRZRW1	PC dedicated to data acquisition

Traceable calibrations of the equipment are carried out by external accredited institutions: Hayes Instrument Service, Inc., TRANSCAT, Atlantic Scale, & Furness Controls. A real-time analysis module within the data acquisition software detects pulse frequency.

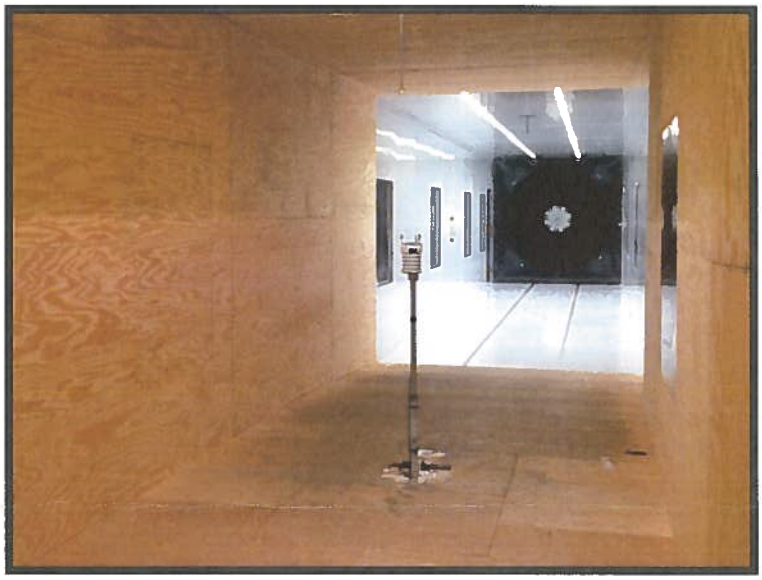


Photo of the wind tunnel setup. The cross-sectional area is 2.5 x 2.5 m.

ilac-MRA

ACLASS ACCREDITED CALIBRATION
AC-1746
Standard: ISO/IEC 17025

UNCERTAINTIES

The documented uncertainty is the total combined uncertainty at 95% confidence level (k=2) in accordance with EA-4/02. The uncertainty at 10 m/s comply with the requirements in the IEC 61400-12-1:2005 procedure. See Document US.DC.016-00 for further details.

Certificate number: 13.US1. 09043

SOH Wind Engineering LLC
141 Leroy Road · Williston, VT 05495 · USA
Tel 802.999.3309 · Fax 802.735.9106 · www.sohwind.com

CERTIFICATE FOR CALIBRATION OF SONIC ANEMOMETER

Certificate number: 13.US1. 09045 **Date of issue:** November 25, 2013

Type: Vaisala Weather Transmitter, WXT520 **Serial number:** G4420002

Manufacturer: VAISALA Oyj, Pl 26, FIN-00421 Helsinki, Finland

Client: Aercoustics Engineering Ltd., 50 Ronson Dr, Suite 165, Toronto, ON M9W IB3, Canada

Anemometer received: November 19, 2013 **Anemometer calibrated:** November 22, 2013

Calibrated by: rps **Calibration procedure:** IEC 61400-12-1:2005(E) Annex F (at 90°[1])

Certificate prepared by: R. Paul Smith **Approved by:** Calibration engineer, rds

Calibration equation obtained: v [m/s] = 1.0347 · m/s output + 0.12046

Standard uncertainty, slope: N/A **Standard uncertainty, offset:** N/A

Covariance: N/A **Coefficient of correlation:** N/A

Absolute maximum deviation: 0.173 m/s at 12.890 m/s

Barometric pressure: 1002.5 hPa **Relative humidity:** 23.9%

ilac-MRA

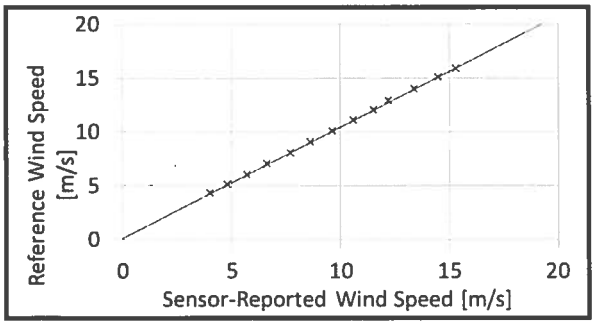
ACLASS ACCREDITED CALIBRATION

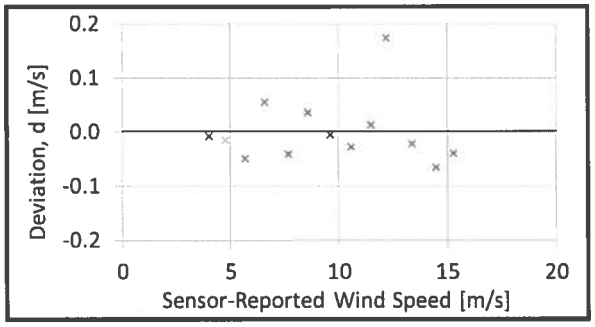
AC-1746

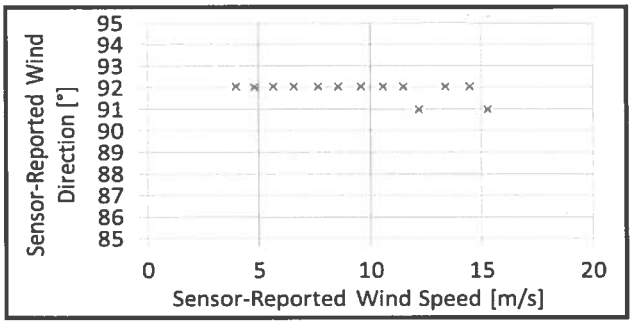
Standard: ISO/IEC 17025

Succession	Direction α [°][1]	Temperature in wind tunnel [°C]	d.p. box [°C]	Wind velocity, *v*. [m/s]	Speed Signal I_1 [A]	Uncertainty u_c (k=2) [m/s]	Deviation d. [m/s]	Direction Signal, I_2 [A]
2	0	22.4	26.6	4.242	4.0	0.045	-0.008	91
4	0	22.4	26.6	5.061	4.8	0.038	-0.015	92
6	0	22.5	26.6	5.957	5.7	0.033	-0.049	92
8	0	22.5	26.6	6.989	6.6	0.029	0.055	92
10	0	22.5	26.6	8.030	7.7	0.026	-0.041	92
12	0	22.4	26.6	9.035	8.6	0.024	0.035	92
13-last	0	22.4	26.6	10.026	9.6	0.023	-0.006	91
11	0	22.4	26.6	11.036	10.6	0.022	-0.028	92
9	0	22.4	26.6	12.007	11.5	0.022	0.013	92
7	0	22.4	26.6	12.890	12.2	0.022	0.173	92
5	0	22.4	26.6	13.933	13.4	0.023	-0.023	92
3	0	22.4	26.6	15.026	14.5	0.023	-0.065	92
1-first	0	22.4	26.6	15.877	15.3	0.024	-0.041	92

[1]Wind Direction measurements are not included in the ISO 17025 scope for SOH Wind Engineering and, therefore, not certified.







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Tel 802.999.3309 · Fax 802.735.9106 · www.sohwind.com

EQUIPMENT USED

Serial Number	Description
Njord 1	Wind tunnel, blockage factor = 1.0035
2254	Control cup anemometer
-	Mounting tube, D = 25 mm
TT001	Summit RT-AUI, wind tunnel
TP001	Summit RT-AUI, differential pressure box
DP006	Setra Model 239 pressure transducer
HY002	Dwyer Instruments RHP-2D20 humidity transmitter
BP002	Setra Model 278 barometer
PL3	Pitot tube
XB001	Computer Board. 16 bit A/D data acquisition board
9PRZRW1	PC dedicated to data acquisition

Traceable calibrations of the equipment are carried out by external accredited institutions: Hayes Instrument Service, Inc., TRANSCAT, Atlantic Scale, & Furness Controls. A real-time analysis module within the data acquisition software detects pulse frequency.

Photo of the wind tunnel setup. The cross-sectional area is 2.5 x 2.5 m.

UNCERTAINTIES

The documented uncertainty is the total combined uncertainty at 95% confidence level (k=2) in accordance with EA-4/02. The uncertainty at 10 m/s comply with the requirements in the IEC 61400-12-1:2005 procedure. See Document US.DC.016-00 for further details.

Certificate number: 13.US1. 09045

SOH Wind Engineering LLC

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CERTIFICATE FOR CALIBRATION OF SONIC ANEMOMETER

Certificate number: 13.US1. 09046 **Date of issue:** November 25, 2013

Type: Vaisala Weather Transmitter, WXT520 **Serial number:** G4420002

Manufacturer: VAISALA Oyj, Pl 26, FIN-00421 Helsinki, Finland

Client: Aercoustics Engineering Ltd., 50 Ronson Dr, Suite 165, Toronto, ON M9W IB3, Canada

Anemometer received: November 19, 2013 **Anemometer calibrated:** November 22, 2013

Calibrated by: rps **Calibration procedure:** IEC 61400-12-1:2005(E) Annex F (at 270°[1])

Certificate prepared by: R. Paul Smith **Approved by:** Calibration engineer, rds

Robert D. Stevens

Calibration equation obtained: v [m/s] = 1.0229 · m/s output + 0.03701

Standard uncertainty, slope: N/A **Standard uncertainty, offset:** N/A

Covariance: N/A **Coefficient of correlation:** N/A

Absolute maximum deviation: 0.061 m/s at 10.021 m/s

Barometric pressure: 1002.2 hPa **Relative humidity:** 24.0%

ilac-MRA

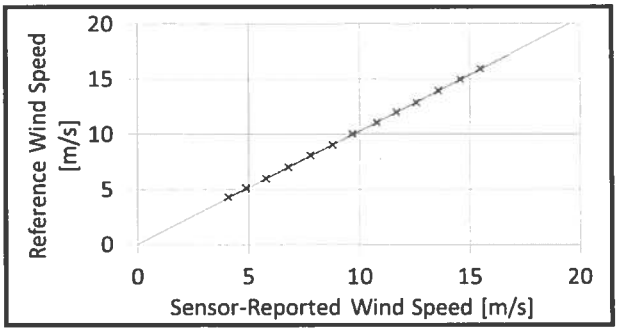
ACLASS ACCREDITED CALIBRATION

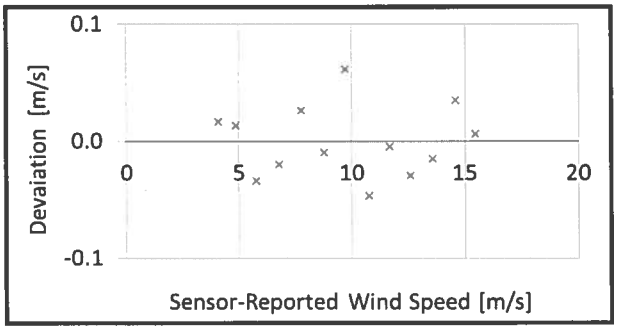
AC-1746

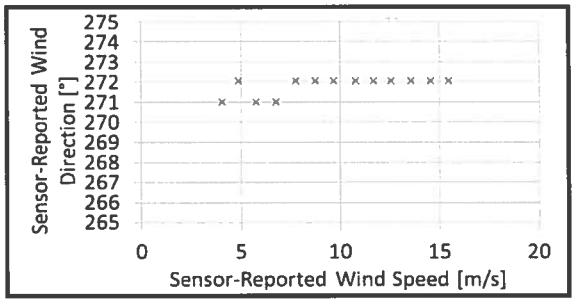
Standard: ISO/IEC 17025

Succession	Direction α [°][1]	Temperature in wind tunnel [°C]	d.p. box [°C]	Wind velocity, v. [m/s]	Speed Signal I_1 [A]	Uncertainty u_c (k=2) [m/s]	Deviation d. [m/s]	Direction Signal, I_2 [A]
2	270	22.5	26.6	4.247	4.1	0.045	0.016	272
4	270	22.5	26.6	5.063	4.9	0.038	0.013	271
6	270	22.5	26.6	5.936	5.8	0.033	-0.034	272
8	270	22.5	26.6	6.974	6.8	0.029	-0.019	272
10	270	22.5	26.6	8.042	7.8	0.026	0.026	272
12	270	22.5	26.6	9.029	8.8	0.024	-0.010	271
13-last	270	22.5	26.6	10.021	9.7	0.023	0.061	272
11	270	22.5	26.6	11.038	10.8	0.022	-0.046	271
9	270	22.5	26.6	12.001	11.7	0.022	-0.004	272
7	270	22.5	26.6	12.897	12.6	0.022	-0.029	272
5	270	22.5	26.6	13.935	13.6	0.022	-0.014	272
3	270	22.5	26.6	15.007	14.6	0.023	0.035	272
1-first	270	22.4	26.6	15.899	15.5	0.024	0.006	272

[1]Wind Direction measurements are not included in the ISO 17025 scope for SOH Wind Engineering and, therefore, not certified.







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Tel 802.999.3309 · Fax 802.735.9106 · www.sohwind.com

EQUIPMENT USED

Serial Number	Description
Njord 1	Wind tunnel, blockage factor = 1.0035
2254	Control cup anemometer
-	Mounting tube, D = 25 mm
TT001	Summit RT-AUI, wind tunnel
TP001	Summit RT-AUI, differential pressure box
DP006	Setra Model 239 pressure transducer
HY002	Dwyer Instruments RHP-2D20 humidity transmitter
BP002	Setra Model 278 barometer
PL3	Pitot tube
XB001	Computer Board. 16 bit A/D data acquisition board
9PRZRW1	PC dedicated to data acquisition

Traceable calibrations of the equipment are carried out by external accredited institutions: Hayes Instrument Service, Inc., TRANSCAT, Atlantic Scale, & Furness Controls. A real-time analysis module within the data acquisition software detects pulse frequency.

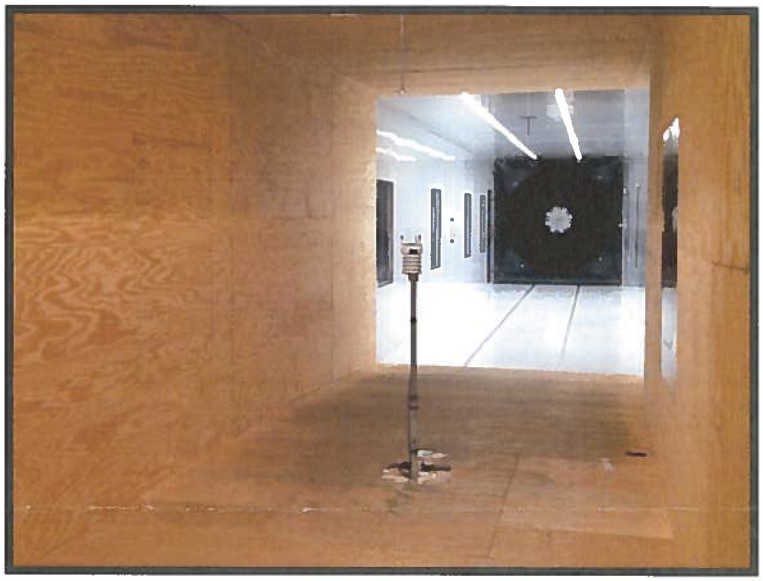

Photo of the wind tunnel setup. The cross-sectional area is 2.5 x 2.5 m.

ilac-MRA

ACLASS ACCREDITED CALIBRATION
AC-1746
Standard: ISO/IEC 17025

UNCERTAINTIES

The documented uncertainty is the total combined uncertainty at 95% confidence level (k=2) in accordance with EA-4/02. The uncertainty at 10 m/s comply with the requirements in the IEC 61400-12-1:2005 procedure. See Document US.DC.016-00 for further details.

Certificate number: 13.US1. 09046

SOH Wind Engineering LLC

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Tel 802.999.3309 · Fax 802.735.9106 · www.sohwind.com

CERTIFICATE FOR CALIBRATION OF SONIC ANEMOMETER

Certificate number: 13.US1. 09044 **Date of issue:** November 25, 2013

Type: Vaisala Weather Transmitter, WXT520 **Serial number:** G4420002

Manufacturer: VAISALA Oyj, Pl 26, FIN-00421 Helsinki, Finland

Client: Aercoustics Engineering Ltd., 50 Ronson Dr, Suite 165, Toronto, ON M9W IB3, Canada

Anemometer received: November 19, 2013 **Anemometer calibrated:** November 22, 2013

Calibrated by: rps **Calibration procedure:** IEC 61400-12-1:2005(E) Annex F (at 180°!)

Certificate prepared by: R. Paul Smith **Approved by:** Calibration engineer, rds

Robert D. Stevens

Calibration equation obtained: v [m/s] = 1.0168 · m/s output + 0.08458

Standard uncertainty, slope: N/A **Standard uncertainty, offset:** N/A

Covariance: N/A **Coefficient of correlation:** N/A

Absolute maximum deviation: 0.083 m/s at 10.083 m/s

Barometric pressure: 1002.9 hPa **Relative humidity:** 23.7%

ilac-MRA

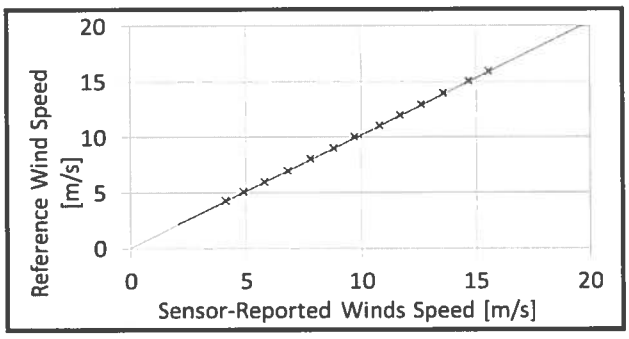
ACLASS ACCREDITED CALIBRATION

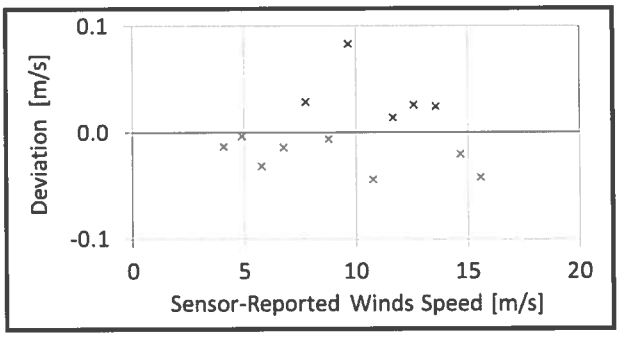
AC-1746

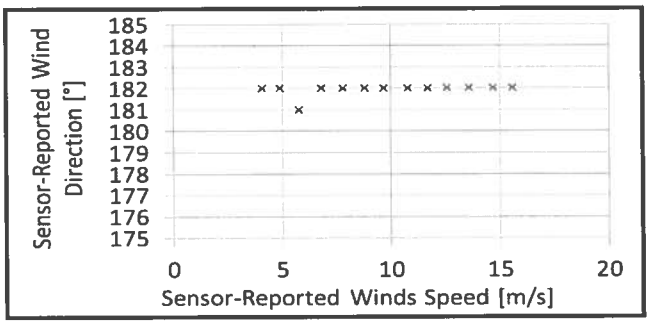
Standard: ISO/IEC 17025

Succession	Direction α [°][1]	Temperature in wind tunnel [°C]	d.p. box [°C]	Wind velocity, v. [m/s]	Speed Signal I_1 [A]	Uncertainty u_c (k=2) [m/s]	Deviation d. [m/s]	Direction Signal, I_2 [A]
2	180	22.3	26.5	4.240	4.1	0.045	-0.013	182
4	180	22.3	26.5	5.063	4.9	0.038	-0.004	182
6	180	22.3	26.5	5.951	5.8	0.033	-0.031	182
8	180	22.3	26.5	6.985	6.8	0.029	-0.014	182
10	180	22.3	26.5	8.044	7.8	0.026	0.029	182
12	180	22.3	26.5	9.027	8.8	0.024	-0.006	181
13-last	180	22.3	26.5	10.030	9.7	0.023	0.083	182
11	180	22.3	26.5	11.022	10.8	0.022	-0.044	182
9	180	22.3	26.5	11.995	11.7	0.022	0.014	182
7	180	22.3	26.5	12.922	12.6	0.022	0.025	182
5	180	22.3	26.5	13.937	13.6	0.022	0.024	182
3	180	22.3	26.5	15.012	14.7	0.023	-0.020	182
1-first	180	22.2	26.5	15.904	15.6	0.024	-0.043	182

[1]Wind Direction measurements are not included in the ISO 17025 scope for SOH Wind Engineering and, therefore, not certified.







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EQUIPMENT USED

Serial Number	Description
Njord 1	Wind tunnel, blockage factor = 1.0035
2254	Control cup anemometer
-	Mounting tube, D = 25 mm
TT001	Summit RT-AUI, wind tunnel
TP001	Summit RT-AUI, differential pressure box
DP006	Setra Model 239 pressure transducer
HY002	Dwyer Instruments RHP-2D20 humidity transmitter
BP002	Setra Model 278 barometer
PL3	Pitot tube
XB001	Computer Board. 16 bit A/D data acquisition board
9PRZRW1	PC dedicated to data acquisition

Traceable calibrations of the equipment are carried out by external accredited institutions: Hayes Instrument Service, Inc., TRANSCAT, Atlantic Scale, & Furness Controls. A real-time analysis module within the data acquisition software detects pulse frequency.

Photo of the wind tunnel setup. The cross-sectional area is 2.5 x 2.5 m.

ilac-MRA

ACLASS ACCREDITED CALIBRATION
AC-1746
Standard: ISO/IEC 17025

UNCERTAINTIES

The documented uncertainty is the total combined uncertainty at 95% confidence level (k=2) in accordance with EA-4/02. The uncertainty at 10 m/s comply with the requirements in the IEC 61400-12-1:2005 procedure. See Document US.DC.016-00 for further details.

Certificate number: 13.US1. 09044

TRANSCAT® TRANSCAT.COM
800.828.1470

NVLAP®

NVLAP LAB CODE
200905-0

CERTIFICATE OF CALIBRATION

Customer: AEROCOUSTICS ENGINEERING LTD
50 RONSON DRIVE
SUITE 165
TORONTO, ON M9W 1B3

Customer Nbr: 9-322110-000
PO Nbr: C022414
Date Received: February 24, 2014

Cert/SO Nbr: 33-8Z881-1-1
Manufacturer: Nokeval
Model Nbr: 7470

Date Completed: March 11, 2014
Due Date: March 11, 2015

Description: Serial to Analog Converter
Serial Nbr: A159784
ID Nbr: NONE
Unit Barcode: 901B0150195

Calibrated To: Manufacturer Specification
Calibration Proc: 1-AC58014-0
Item Received: In Tolerance
Item Returned: In Tolerance

Transcat Calibration Laboratories have been audited and found in compliance with ISO/IEC 17025:2005. Accredited calibrations performed within the Lab's Scope of Accreditation are indicated by the presence of the Accrediting Body's Logo and Certificate Number on this Certificate of Calibration. Any measurements on an accredited calibration not covered by that Lab's Scope are listed in the notes section of the certificate. This report must not be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government.

Transcat calibrations, as applicable, are performed in compliance with the requirements of ISO 9001:2008, ISO TS16949, ANSI/NCSL Z540-1994, and ISO 10012-1992. When specified contractually, the requirements of 10CFR21, 10CFR50 App. B and NQA-1 are also covered.

Traceability includes no less than: An unbroken chain of comparison, realization of SI units, measurement uncertainty, documentation, competence, periodic recalibration, and measurement assurance. Transcat documents the traceability of measurements to the SI units through the National Institute of Standards and Technology (NIST) or the National Research Council of Canada (NRC), or other recognized national measurement institutes (NMI's) or international standard bodies, or to measurable conditions created in our laboratory, or accepted fundamental and/or natural physical constants, ratio type of calibration, or by comparison to consensus standards. The specific path of traceability for the reported measurement results is maintained at the Transcat facility and is available there for review.

Complete records of work performed are maintained by Transcat and are available for inspection. Laboratory standards used in the performance of this calibration are shown on the Supplemental Report.

The results in this report relate only to the item calibrated or tested, and the determination of in or out of tolerance is specific to the model/serial no. referenced above based on the tolerances shown on the supplemental report; these tolerances are either the original equipment manufacturer's (OEM's) warranted specifications or the client's requested specifications.

The applied uncertainty is the uncertainty of the calibration process. The Test Uncertainty Ratio (TUR) is calculated as per NCSL International RP-9, section 8.2. All calibrations have been performed using processes having a TUR of 4 : 1 or better (3:1 for mass calibrations), unless otherwise noted on the Supplemental Report. Uncertainties have been estimated at a 95 percent confidence level (k=2). Calibration at a 4:1 TUR (or greater) provides reasonable confidence that the instrument is within the stated tolerances. For measuring instruments, in order to consider the contribution to the uncertainty from reproducibility of the unit under test (UUT), add 0.6 of the UUT's least significant digit to the reported uncertainty. For mass calibrations: Conventional mass referenced to 8.0 g/cm³.

Any number of factors can cause a unit to drift out of tolerance at any time following its calibration. Limitations on the uses of this instrument are detailed in the OEM's operating instructions.

Notes:

Calibrated At:
4043 Carling Avenue
Ottawa, ON K2K 2A4
By: Shabeba Bucknor
Digitally Signed On March 11, 2014

Facility Responsible:
4043 Carling Avenue
Ottawa, ON K2K 2A4
613-591-8140

Digitally Signed By Keith Powell
Date: March 11, 2014

Keith Powell
Lab Manager

F0013R24 1/27/14

Revision 0

SUPPLEMENTAL REPORT FOR 33-8Z881-1-1

CALIBRATION LAB DATA AS FOUND / AS LEFT

Service Order Nbr:	33-8Z881-1-1	Mfg:	Nokeval
Description:	Serial to Analog Converter	Model:	7470
Serial:	A159784		
Customer:	AEROCOUSTICS ENGINEERING LTD		
Calibrated:	March 11, 2014	PO Nbr:	C022414
Date Due:	March 11, 2015	ID Nbr:	NONE
Service Type:	R9	Calibration Proc:	1-AC58014-0

Description	Setpoints	Accuracy	Low Limit	High Limit	As Found / As Left	OOT	Uncertainty (k=2; ±)		TUR
DC Current % Source - 4-20mA Ch #1									
4 - 20mA	0%	±(0.1% Span)	3.984	4.016	3.996 mA		1.6e-004 mA		100.0 : 1
	25%	±(0.1% Span)	7.984	8.016	7.995 mA		2.7e-004 mA		59.3 : 1
	50%	±(0.1% Span)	11.984	12.016	12.000 mA		1.1e-003 mA		14.5 : 1
	75%	±(0.1% Span)	15.984	16.016	16.000 mA		1.3e-003 mA		12.3 : 1
	100%	±(0.1% Span)	19.984	20.016	19.998 mA		1.4e-003 mA		11.4 : 1
DC Current % Source - 4-20mA Ch #2									
4 - 20mA	0%	±(0.1% Span)	3.984	4.016	3.995 mA		1.6e-004 mA		100.0 : 1
	25%	±(0.1% Span)	7.984	8.016	7.999 mA		2.7e-004 mA		59.3 : 1
	50%	±(0.1% Span)	11.984	12.016	11.997 mA		1.1e-003 mA		14.5 : 1
	75%	±(0.1% Span)	15.984	16.016	16.001 mA		1.3e-003 mA		12.3 : 1

The reported uncertainty is the uncertainty of the calibration process. For measuring instruments, add 0.6 of the least significant digit to the reported uncertainty to obtain the measurement uncertainty of the unit under test at the specific test point.

Reported resolution of the UUT does not represent calibration uncertainty or accuracy of the UUT

Field not applicable.

SUPPLEMENTAL REPORT FOR 33-8Z881-1-1

CALIBRATION LAB DATA AS FOUND / AS LEFT

Description	Setpoints	Accuracy	Low Limit	High Limit	As Found / As Left	OOT	Uncertainty (k=2; ±)		TUR
	100%	±(0.1% Span)	19.984	20.016	19.999 mA		1.4e-003 mA		11.4 : 1
DC Current % Source - 4-20mA Ch #3									
4 - 20mA	0%	±(0.1% Span)	3.984	4.016	3.995 mA		1.6e-004 mA		100.0 : 1
	25%	±(0.1% Span)	7.984	8.016	7.995 mA		2.7e-004 mA		59.3 : 1
	50%	±(0.1% Span)	11.984	12.016	11.996 mA		1.1e-003 mA		14.5 : 1
	75%	±(0.1% Span)	15.984	16.016	16.002 mA		1.3e-003 mA		12.3 : 1
	100%	±(0.1% Span)	19.984	20.016	20.002 mA		1.4e-003 mA		11.4 : 1
DC Current % Source - 4-20mA Ch #4									
4 - 20mA	0%	±(0.1% Span)	3.984	4.016	3.997 mA		1.6e-004 mA		100.0 : 1
	25%	±(0.1% Span)	7.984	8.016	7.995 mA		2.7e-004 mA		59.3 : 1
	50%	±(0.1% Span)	11.984	12.016	11.999 mA		1.1e-003 mA		14.5 : 1
	75%	±(0.1% Span)	15.984	16.016	15.998 mA		1.3e-003 mA		12.3 : 1
	100%	±(0.1% Span)	19.984	20.016	20.002 mA		1.4e-003 mA		11.4 : 1
DC Current % Source - 0-20mA Ch #1									
0 - 20mA	0%	±(0.1% Span)	-0.020	0.020	0.000 mA		9.2e-007 mA		100.0 : 1
	25%	±(0.1% Span)	4.980	5.020	4.997 mA		1.9e-004 mA		100.0 : 1
	50%	±(0.1% Span)	9.980	10.020	9.998 mA		3.2e-004 mA		62.5 : 1
	75%	±(0.1% Span)	14.980	15.020	14.998 mA		1.2e-003 mA		16.7 : 1
	100%	±(0.1% Span)	19.980	20.020	19.998 mA		1.4e-003 mA		14.3 : 1

The reported uncertainty is the uncertainty of the calibration process. For measuring instruments, add 0.6 of the least significant digit to the reported uncertainty to obtain the measurement uncertainty of the unit under test at the specific test point.

Reported resolution of the UUT does not represent calibration uncertainty or accuracy of the UUT.

Field not applicable.

SUPPLEMENTAL REPORT FOR 33-8Z881-1-1

CALIBRATION LAB DATA AS FOUND / AS LEFT

Description	Setpoints	Accuracy	Low Limit	High Limit	As Found / As Left	OOT	Uncertainty (k=2; ±)		TUR
DC Current % Source - 0-20mA Ch #2									
0 - 20mA	0%	±(0.1% Span)	-0.020	0.020	0.000 mA		9.2e-007 mA		100.0 : 1
	25%	±(0.1% Span)	4.980	5.020	4.996 mA		1.9e-004 mA		100.0 : 1
	50%	±(0.1% Span)	9.980	10.020	10.000 mA		3.2e-004 mA		62.5 : 1
	75%	±(0.1% Span)	14.980	15.020	15.000 mA		1.2e-003 mA		16.7 : 1
	100%	±(0.1% Span)	19.980	20.020	19.999 mA		1.4e-003 mA		14.3 : 1
DC Current % Source - 0-20mA Ch #3									
0 - 20mA	0%	±(0.1% Span)	-0.020	0.020	0.000 mA		9.2e-007 mA		100.0 : 1
	25%	±(0.1% Span)	4.980	5.020	4.995 mA		1.9e-004 mA		100.0 : 1
	50%	±(0.1% Span)	9.980	10.020	9.995 mA		3.2e-004 mA		62.5 : 1
	75%	±(0.1% Span)	14.980	15.020	14.997 mA		1.2e-003 mA		16.7 : 1
	100%	±(0.1% Span)	19.980	20.020	20.002 mA		1.4e-003 mA		14.3 : 1
DC Current % Source - 0-20mA Ch #4									
0 - 20mA	0%	±(0.1% Span)	-0.020	0.020	0.000 mA		9.2e-007 mA		100.0 : 1
	25%	±(0.1% Span)	4.980	5.020	4.992 mA		1.9e-004 mA		100.0 : 1
	50%	±(0.1% Span)	9.980	10.020	9.997 mA		3.2e-004 mA		62.5 : 1
	75%	±(0.1% Span)	14.980	15.020	14.996 mA		1.2e-003 mA		16.7 : 1
	100%	±(0.1% Span)	19.980	20.020	20.002 mA		1.4e-003 mA		14.3 : 1
DC Voltage % Source - 0-5V Ch#1									

The reported uncertainty is the uncertainty of the calibration process. For measuring instruments, add 0.6 of the least significant digit to the reported uncertainty to obtain the measurement uncertainty of the unit under test at the specific test point.

Reported resolution of the UUT does not represent calibration uncertainty or accuracy of the UUT

Field not applicable.

SUPPLEMENTAL REPORT FOR 33-8Z881-1-1

CALIBRATION LAB DATA AS FOUND / AS LEFT

Description	Setpoints	Accuracy	Low Limit	High Limit	As Found / As Left	OOT	Uncertainty (k=2; ±)		TUR
0 -5V	0%	±(0.1% Span)	-0.0050	0.0050	0.0004 V		5.0e-007 V		100.0 : 1
	20%	±(0.1% Span)	0.9950	1.0050	1.0006 V		5.5e-006 V		100.0 : 1
	40%	±(0.1% Span)	1.9950	2.0050	1.9990 V		1.1e-005 V		100.0 : 1
	60%	±(0.1% Span)	2.9950	3.0050	2.9969 V		1.6e-005 V		100.0 : 1
	80%	±(0.1% Span)	3.9950	4.0050	3.9981 V		2.1e-005 V		100.0 : 1
	100%	±(0.1% Span)	4.9950	5.0050	4.9970 V		2.6e-005 V		100.0 : 1
DC Voltage % Source - 0-5V Ch#2									
0 -5V	0%	±(0.1% Span)	-0.0050	0.0050	0.0016 V		5.0e-007 V		100.0 : 1
	20%	±(0.1% Span)	0.9950	1.0050	0.9993 V		5.5e-006 V		100.0 : 1
	40%	±(0.1% Span)	1.9950	2.0050	1.9998 V		1.1e-005 V		100.0 : 1
	60%	±(0.1% Span)	2.9950	3.0050	2.9979 V		1.6e-005 V		100.0 : 1
	80%	±(0.1% Span)	3.9950	4.0050	3.9963 V		2.1e-005 V		100.0 : 1
	100%	±(0.1% Span)	4.9950	5.0050	4.9974 V		2.6e-005 V		100.0 : 1
DC Voltage % Source - 0-5V Ch#3									
0 -5V	0%	±(0.1% Span)	-0.0050	0.0050	0.0004 V		5.0e-007 V		100.0 : 1
	20%	±(0.1% Span)	0.9950	1.0050	0.9988 V		5.5e-006 V		100.0 : 1
	40%	±(0.1% Span)	1.9950	2.0050	1.9980 V		1.1e-005 V		100.0 : 1
	60%	±(0.1% Span)	2.9950	3.0050	2.9968 V		1.6e-005 V		100.0 : 1
	80%	±(0.1% Span)	3.9950	4.0050	3.9989 V		2.1e-005 V		100.0 : 1

The reported uncertainty is the uncertainty of the calibration process. For measuring instruments, add 0.6 of the least significant digit to the reported uncertainty to obtain the measurement uncertainty of the unit under test at the specific test point.

Reported resolution of the UUT does not represent calibration uncertainty or accuracy of the UUT.

Field not applicable.

SUPPLEMENTAL REPORT FOR 33-8Z881-1-1

CALIBRATION LAB DATA AS FOUND / AS LEFT

Description	Setpoints	Accuracy	Low Limit	High Limit	As Found / As Left	OOT	Uncertainty (k=2; ±)		TUR
	100%	±(0.1% Span)	4.9950	5.0050	4.9980 V		2.6e-005 V		100.0 : 1
DC Voltage % Source - 0-5V Ch#4									
0 -5V	0%	±(0.1% Span)	-0.0050	0.0050	0.0002 V		5.0e-007 V		100.0 : 1
	20%	±(0.1% Span)	0.9950	1.0050	1.0000 V		5.5e-006 V		100.0 : 1
	40%	±(0.1% Span)	1.9950	2.0050	1.9981 V		1.1e-005 V		100.0 : 1
	60%	±(0.1% Span)	2.9950	3.0050	2.9985 V		1.6e-005 V		100.0 : 1
	80%	±(0.1% Span)	3.9950	4.0050	3.9967 V		2.1e-005 V		100.0 : 1
	100%	±(0.1% Span)	4.9950	5.0050	4.9975 V		2.6e-005 V		100.0 : 1
DC Voltage % Source - 0-10V Ch#1									
0 - 10V	0%	±(0.1% Span)	-0.010	0.010	0.001 V		5.0e-007 V		100.0 : 1
	20%	±(0.1% Span)	1.990	2.010	2.000 V		1.1e-005 V		100.0 : 1
	40%	±(0.1% Span)	3.990	4.010	4.000 V		2.1e-005 V		100.0 : 1
	60%	±(0.1% Span)	5.990	6.010	6.000 V		3.1e-005 V		100.0 : 1
	80%	±(0.1% Span)	7.990	8.010	7.997 V		4.1e-005 V		100.0 : 1
	100%	±(0.1% Span)	9.990	10.010	9.997 V		5.2e-005 V		100.0 : 1
DC Voltage % Source - 0-10V Ch#2									
0 - 10V	0%	±(0.1% Span)	-0.010	0.010	0.002 V		5.0e-007 V		100.0 : 1
	20%	±(0.1% Span)	1.990	2.010	2.001 V		1.1e-005 V		100.0 : 1
	40%	±(0.1% Span)	3.990	4.010	3.998 V		2.1e-005 V		100.0 : 1

The reported uncertainty is the uncertainty of the calibration process. For measuring instruments, add 0.6 of the least significant digit to the reported uncertainty to obtain the measurement uncertainty of the unit under test at the specific test point.

Reported resolution of the UUT does not represent calibration uncertainty or accuracy of the UUT.

Field not applicable.

SUPPLEMENTAL REPORT FOR 33-8Z881-1-1

CALIBRATION LAB DATA AS FOUND / AS LEFT

Description	Setpoints	Accuracy	Low Limit	High Limit	As Found / As Left	OOT	Uncertainty (k=2; ±)		TUR
	60%	±(0.1% Span)	5.990	6.010	5.998 V		3.1e-005 V		100.0 : 1
	80%	±(0.1% Span)	7.990	8.010	7.998 V		4.1e-005 V		100.0 : 1
	100%	±(0.1% Span)	9.990	10.010	9.998 V		5.2e-005 V		100.0 : 1
DC Voltage % Source - 0-10V Ch#3									
0 - 10V	0%	±(0.1% Span)	-0.010	0.010	0.001 V		5.0e-007 V		100.0 : 1
	20%	±(0.1% Span)	1.990	2.010	1.999 V		1.1e-005 V		100.0 : 1
	40%	±(0.1% Span)	3.990	4.010	4.001 V		2.1e-005 V		100.0 : 1
	60%	±(0.1% Span)	5.990	6.010	6.000 V		3.1e-005 V		100.0 : 1
	80%	±(0.1% Span)	7.990	8.010	7.999 V		4.1e-005 V		100.0 : 1
	100%	±(0.1% Span)	9.990	10.010	9.998 V		5.2e-005 V		100.0 : 1
DC Voltage % Source - 0-10V Ch#4									
0 - 10V	0%	±(0.1% Span)	-0.010	0.010	0.001 V		5.0e-007 V		100.0 : 1
	20%	±(0.1% Span)	1.990	2.010	1.999 V		1.1e-005 V		100.0 : 1
	40%	±(0.1% Span)	3.990	4.010	3.998 V		2.1e-005 V		100.0 : 1
	60%	±(0.1% Span)	5.990	6.010	6.000 V		3.1e-005 V		100.0 : 1
	80%	±(0.1% Span)	7.990	8.010	8.000 V		4.1e-005 V		100.0 : 1
	100%	±(0.1% Span)	9.990	10.010	9.999 V		5.2e-005 V		100.0 : 1

The reported uncertainty is the uncertainty of the calibration process. For measuring instruments, add 0.6 of the least significant digit to the reported uncertainty to obtain the measurement uncertainty of the unit under test at the specific test point.

Reported resolution of the UUT does not represent calibration uncertainty or accuracy of the UUT.

Field not applicable.

SUPPLEMENTAL REPORT FOR 33-8Z881-1-1

CALIBRATION LAB DATA AS FOUND / AS LEFT

Description	Setpoints	Accuracy	Low Limit	High Limit	As Found / As Left	OOT	Uncertainty (k=2; ±)		TUR

As Found and As Left Data recorded on March 11, 2014

Temperature: 69.8°F / 21.0°C Relative Humidity: 48% Temp/RH Asset: N0457

Asset	Manufacturer	Model	Description	Cal Date	Due Date	Traceability Numbers
N0118	Agilent/HP	3458A Opt 002	Multimeter, 8.5 Digit	June 25, 2013	June 30, 2014	5-&N0118-10-6

The reported uncertainty is the uncertainty of the calibration process. For measuring instruments, add 0 6 of the least significant digit to the reported uncertainty to obtain the measurement uncertainty of the unit under test at the specific test point.
Reported resolution of the UUT does not represent calibration uncertainty or accuracy of the UUT.

aercoustics

Aercoustics Engineering Ltd.
1004 Middlegate Road, Suite 1100
Mississauga, ON L4Y 0G1

Tel: 416-249-3361
Fax 416-249-3613
aercoustics.com

E-Audit Checklist

(2017 Compliance Protocol AF5): E-Audit checklist

Wind Energy Project – Screening Document – Acoustic Audit Report – Emmission IEC61400-11 Standard

Information Required in the Acoustic Audit Report – Immission

Item #	Description	Complete?	Comment
1	Characterization of the wind turbine Items 1 to 26; IEC61400-11:2013, Section 10.2	✓	
2	Physical environment Items 27 to 33; IEC61400-11:2013, Section 10.3, Physical Environment	✓	
3	Measurement instrumentation Items 34 to 39; IEC61400-11:2013, Section 10.4, Instrumentation	✓	
4	Acoustic data Items 40 to 52; IEC61400-11:2013, Section 10.5, Acoustic Data	✓	
5	Non-acoustic data Items 50 to 53, and 56; IEC61400-11:2003 Section 10.6, Non-Acoustic Data Items 59 and 60; NPC-233, Section 12.3, Acoustic Audit – Acoustical Data, bullet point number 8, All necessary and supporting calculations	✓	
6	Uncertainty the apparent sound power level at integer wind speeds one-third octave band spectrum of the noise at the reference position at each integer wind speed the Tonality of the sound emissions of the wind turbine measured at the reference position	✓	
7	Additional information Item 60; NPC-233, Section 10, Report Format, bullet point number 4, Conclusions and Recommendations Item 61; NPC-233, Section 12.3, Acoustic Audit – Acoustical Data, bullet point number 8, All necessary and supporting calculations Item 62; NPC-233, Section 12.3, Acoustic Audit – Acoustical Data, bullet point number 3, Details of measurement procedure	✓	All data Excel sheet provided
8	Items 68 to 72; IEC61400-11:2013, Section 10.5, Acoustic Data	⊘	Items 68 to 72 acoustic data as per IEC 61400-11 standard are optional; low frequency noise, infrasound, impulsivity, amplitude modulation not reported
9	Non-acoustic data Items 73 to 74 are from IEC61400-11:2013, Section 10.6, Non-Acoustic Data	⊘	Items 73 to 74 non-acoustic data as per IEC 64100-11 standard are optional; turbulence intensity during acoustic meeasurements not reported

Aercoustics Engineering Ltd.
1004 Middlegate Road, Suite 1100
Mississauga, ON L4Y 1M4

Tel: 416-249-3361
Fax 416-249-3613
aercoustics.com

End of Report