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: 17283.03.T3.RP3

North Kent Wind 1 LP / Turbine T03
IEC 61400-11 Edition 3.0 Measurement Report

Prepared for:

North Kent Wind 1 LP
2050 Derry Road West, 2nd Floor
Mississauga, Ontario
L5N 0B9

Prepared by:

Christopher Bosyj, M.A.Sc., P.Eng.

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

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Revision History

Version	Description	Author	Reviewed	Date
RP1	Initial Report	CB	PA	December 4, 2020
RP2	Dataset refined to address background measurement points with high sound levels. Associated tables and figures updated accordingly.	CB	PA	January 13, 2021
RP3	Added Figure A.03 and Table C.05. Revised Section 3.1.4, Table E.01, and Table E.02.	CB	PA	January 28, 2021

This report in its entirety, including appendices, contains 141 pages.

Statement of 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.

Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of such third parties. Aercoustics Engineering Limited accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

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

Table of Contents

List of Appendices

1 Introduction

Aercoustics Engineering Limited ("Aercoustics") was retained by North Kent Wind 1 LP to conduct acoustic measurements of the wind turbine T03, located in the North Kent Wind 1 LP. Measurements were carried out in accordance with IEC 61400-11 (edition 3.0), "*Wind turbine generator systems – Part 11: Acoustic noise measurement techniques*". The IEC 61400-11 (edition 3.0) test standard is referred to in this report by its citation reference, [1]. This report is specific only to turbine T03 operating in its 2.628 MW reduced noise emission (-3 dB) mode.

Aercoustics is an ISO/IEC 17025 test laboratory accredited for IEC 61400-11 testing.

2 Wind Turbine Information

2.1 Wind Turbine Equipment Details

Equipment information specific to turbine T03 was provided by the client and is summarized in Table 1 to Table 5.

Table 1 - Wind Turbine Details

Wind Turbine Details	
Manufacturer	Siemens
Model Number	SWT-3.2-113 IEC IIA
Turbine ID (Serial Number)	T03 (3200856)

Table 2 - Operating Details

Operating Details	
Vertical or Horizontal axis wind turbine	Horizontal
Upwind or downwind rotor	Upwind
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 steel tower
Passive stall, active stall, or pitch controlled turbine	Pitch controlled turbine
Constant or variable speed	Variable speed
Power curve	See Figure B.01 [Appendix B]
Rotational speed at each integer standardised wind speed	See Figure B.02 [Appendix B]
Rated power output	2.628 MW
Control software version	139.0.0.21

Table 3 - Rotor Details

Rotor Details	
Rotor control devices	Siemens Integrated Control System (SICS)
Presence of aerodynamic add-ons, such as vortex generators, stall strips, serrated trailing edges, etc.	Vortex generators, DinoTails
Blade type	B55
Serial number	Blade A 550272301 Blade B 550272501 Blade C 550272401 Blade Set 7799
Number of blades	3

Table 4 - Gearbox Details

Gearbox Details	
Manufacturer	N/A
Model number	N/A
Serial number	N/A

Table 5 - Generator Details

Generator Details	
Manufacturer	Siemens AG
Model number	Electrical generator UL DD22 SICS v.5
Serial number	5100246472

2.2 Wind Turbine Location / Physical Environment

UTM coordinates of Turbine T03 are 394851.81 m E and 4708795.23 m N, Zone 17 T. The area surrounding the test turbine was flat and consists primarily of farmland.

A general layout of the test turbine and surrounding area is provided in the site plan (Figure A.01).

3 Measurement Details

3.1 Instrumentation

The instrumentation used to acquire acoustic, meteorological ("MET"), and turbine operational data is detailed in the following sections. All data was acquired synchronously using Aercoustics' data acquisition system unless otherwise noted.

3.1.1 Acoustic Equipment

Acoustic equipment used for the testing is summarized in Table 6. The acoustic equipment used in the test conforms to the traceable calibration requirements prescribed in Section

6.3 of [1]. A field calibration of the measurement chain was performed at the beginning and end of each measurement day.

Table 6 – Acoustic Measurement Equipment

Equipment	Make & Model	Serial Number	Last Calibration Date
Data acquisition system	LMS SCADA Mobile	53103922	2020.01.29
Microphone	B&K 4189	2625416	2019.08.26
Pre-amplifier	B&K 2671	2369794	2019.08.26
Signal Conditioner	PCB 480E09	34208	2020.03.16
Acoustic calibrator	B&K 4231	2053016	2020.08.14

3.1.2 Meteorological Equipment

Meteorological parameters were measured using an anemometer installed on top of a 10-m AGL[1] mast. The anemometer recorded wind speed, temperature, and atmospheric pressure for the duration of the test. Wind speed at hub-height was recorded from the test turbine. Meteorological equipment utilized and controlled by Aercoustics is summarized in Table 7; this equipment conforms to the traceable calibration requirements prescribed in Section 6.3 of [1]. Equipment used by the test turbine to measure turbine parameters are outside of Aercoustics' control and not reported here.

Table 7 – Meteorological Measurement Equipment

Equipment	Make & Model	Serial Number	Last Calibration Date
Weather anemometer	Vaisala WXT536	R2510790	2020.02.04
Serial to Analog Converter	Nokeval 7470	A198729	2019.03.29

3.1.3 Turbine Operational Information

Turbine operational parameters were acquired from the turbine controller simultaneously with the acoustic and meteorological data using Aercoustics' data acquisition system. Turbine parameters measured include electrical power, yaw angle, rotational speed, and nacelle wind speed. Equipment used by the test turbine to measure turbine parameters are outside of Aercoustics' control and not reported here.

3.1.4 Microphone and MET Tower Placement

The measurement microphone was installed in Position 1, according to Figure 3 of [1]. The horizontal distance from microphone to the centerline of the wind turbine tower was R_0 = 134 m.

Due to site-specific constraints on the microphone placement, a reduced R_0 measurement distance was used. Specifically, the allowable measurement region is bounded by a canal which reduces the practical measurement positions.

[1] Above ground level

As shown in Figure A.03, the measurement distance prescribed in [1] cannot practically be used at a reference yaw angle of 283° (microphone setting #1) as the position is within a canal. As such, the measurement distance was intentionally reduced to a distance within the allowable range according to [1]. The measurement distance was maintained for consistency throughout measurements.

An elevation difference of 0 metres between the microphone position and the base of the wind turbine was noted by test personnel at the time of the measurements. The slant distance from microphone location to rotor centre was R_1 = 171.3 m (includes the distance from rotor center to tower centreline).

The microphone was placed in a downwind position on the centre of a circular, acoustically reflective board. The downwind direction was determined using the turbine yaw angle output (Section 8.3 of [1]). The microphone position relative to downwind direction was monitored via the turbine yaw angle and data points were excluded from analysis when the turbine yaw angle exceeded ±15 degrees from the microphone position (reference yaw angle). The microphone board was moved as needed during the measurement to maintain a downwind position from the wind turbine. The microphone settings used during measurements are indicated in Figure A.03.

The area immediately surrounding the microphone board was flat, bare fields. There were no reflecting surfaces in the vicinity of the microphone position during the test.

The 10-m AGL mast was installed in a crosswind position from the turbine tower, according to Figure 5 of [1].

Photos of the 10-m AGL mast and microphone board used during the test are provided in Figure A.02.

3.1.5 Double Windscreen Setup

A double windscreen was utilized, and the measurement data was adjusted to account for the insertion loss of the double windscreen. The insertion loss of the double windscreen has been tested per Annex E of [1].

The insertion loss of the double windscreen in comparison to a single windscreen setup is provided in Appendix C.

3.2 Measurement Date and Time

Measurement data collected for this test was acquired during the following times.

Table 8 – Summary of Measurement Periods

Date	Test Type	Start Time	Finish time
November 02, 2020	Turbine ON	8:53 AM	9:14 AM
	Background	9:17 AM	9:47 AM

Date	Test Type	Start Time	Finish time
	Turbine ON	9:51 AM	10:10 AM
	Background	10:10 AM	10:35 AM
	Turbine ON	10:38 AM	11:36 AM
	Turbine ON	11:46 AM	12:34 PM
	Background	12:37 PM	1:12 PM
	Turbine ON	1:16 PM	1:41 PM
	Background	1:51 PM	2:18 PM
	Turbine ON	2:47 PM	3:05 PM
	Background	3:06 PM	3:17 PM
	Turbine ON	3:21 PM	3:25 PM
	Turbine ON	3:38 PM	4:05 PM
	Background	4:06 PM	4:26 PM

3.3 Determination of Normalized Wind Speed

The normalized hub height wind speed for Turbine ON intervals was determined using one of the following two methods, depending on the hub-height wind speed during the interval:

> The power curve method (Section 8.2.1.1 of [1]) is used to determine normalized hub-height wind speed if the power output during the interval falls within the allowable range of the power curve. The allowable range is defined per Equation (3) of [1] as the range of wind bins where the power curve has a positive slope.
>
> The nacelle plus correction method (Section 8.2.1.2 of [1]) is used to determine normalized hub-height wind speed if the power output falls outside the allowable range of the power curve. If the application of this method results in a normalized wind speed that falls back inside the allowable range of the power curve, then that data point is excluded from analysis.

The normalized hub height wind speed for Background intervals is determined using the 10-m AGL anemometer wind speed and applying a correction factor (k_Z) to adjust to hub-height (Section 8.2.2 of [1]).

3.3.1 Wind Speed Correction Factors

Following the methodologies described above, two correction factors are derived from the measurement data and used to determine the normalized hub-height wind speed outside the allowable power curve range.

The first correction factor (k_nac) is used to correct nacelle wind speeds for Turbine ON intervals that fall outside of the allowable power curve range. The second correction

factor (k_Z) is used to correct Background 10-m AGL wind speeds to hub-height. The correction factors calculated for this measurement set are provided in Table 9.

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

k_nac	k_Z
0.95	1.18

3.4 Deviations from IEC-61400-11 Edition 3.0

No deviations.

3.5 Special Notes & Considerations

Turbine T04 was parked during the measurement period. This turbine, and its position relative to the test turbine, is shown in Figure A.01.

Transient events (such as vehicle traffic, wildlife, air traffic, etc.) are manually excluded from the measurement data set.

4 Measurement Results

Measurement results are summarized in this section. Detailed supporting information is provided in Appendix C (1/3rd octave sound levels and uncertainties), Appendix D (tonality assessment), and Appendix E (measurement dataset).

4.1 Sound Pressure Levels

Average overall sound pressure levels in each wind bin for all Turbine ON and Background periods are summarized in Table 10.

Table 10 – Summary of Sound Pressure Level Measurements

Wind Speed (m/s)	Turbine ON		Background		Turbine ON, Background adjusted L_{eq}, (dBA)
	L_{eq}, (dBA)	# of data pts	L_{eq}, (dBA)	# of data pts	
7.5	52.2	105	38.8	67	52.0
8.0	52.8	92	39.7	83	52.5
8.5	52.8	121	41.4	62	52.4
9.0	52.8	102	42.4	91	52.4
9.5	52.7	74	42.9	83	52.2
10.0	52.5	65	44.4	63	51.7
10.5	52.3	30	44.9	72	51.4
11.0	52.7	39	45.2	55	51.9
11.5	52.3	29	45.8	44	51.3
12.0	52.5	22	45.5	39	51.6
12.5	52.7	18	45.3	23	51.8

* denotes a 3 to 6 dB difference between Turbine ON and Background
** denotes a less than 3 dB difference between Turbine ON and Background; level not reported

4.2 Apparent Sound Power Level

The calculated apparent sound power levels by hub height wind speed are summarized in Table 11. Corresponding sound power levels by 10 m height wind speed are summarized in Table 12. Wind speeds at 10 m are calculated per Section 9.4 of [1].

Table 11 – $L_{WA,K}$ at each integer wind speed

Wind Speed (m/s)	Apparent L_{WA}, (dBA)	Uncertainty (dB)
7.5	101.7	0.8
8.0	102.2	0.7
8.5	102.1	0.8
9.0	102.1	0.8
9.5	101.9	0.9
10.0	101.4	0.9
10.5	101.1	0.9
11.0	101.6	1.0
11.5	100.9	1.0
12.0	101.2	1.0
12.5	101.5	1.0

* denotes a 3 to 6 dB difference between Turbine ON and Background
** denotes a less than 3 dB difference between Turbine ON and Background; level not reported

Table 12 – $L_{WA\ 10m,K}$ at each integer wind speed

Wind Speed (m/s)	Apparent L_{WA}, (dBA)	Uncertainty (dB)
5	100.7	0.7
6	102.1	0.8
7	101.5	0.8
8	101.3	0.9
9	101.3	1.0

* denotes a 3 to 6 dB difference between Turbine ON and Background
** denotes a less than 3 dB difference between Turbine ON and Background and are not reported

4.3 Uncertainty

The uncertainty of the test result is the combination of Type A and Type B uncertainty. Detailed uncertainties calculated for overall and 1/3rd octave band sound levels are provided in Appendix C.

4.3.1 Type A Uncertainty

Type A measurement uncertainty is calculated based on the distribution of the measured sound levels and wind speeds during the test. Calculation of Type A uncertainy is conducted per Section 9.2 of [1].

4.3.2 Type B Uncertainty

Type B uncertainty is determined using the guidance provided in Annex C of [1] and equipment calibration records. A summary of Type B uncertainties is provided in Table 13.

Table 13 – 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
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

4.4 Tonality Analysis

Tonal audibility is determined for each wind speed bin per Section 9.5 of [1]. The results of the tonality analysis are summarized in Table 14. All ΔL_{tn} and ΔL_a values reported represent the energy average of all data points having an identified tone that fall within the same frequency of origin (Section 9.5.8 of [1]).

The average narrow band spectrum measured at each hub-height wind speed are provided in Appendix D.

Table 14 – Tonality Assessment Summary

Wind Speed (m/s)	Frequency (Hz)	Tonality, ΔLtn (dB)	Tonal audibility, ΔLa (dB)	FFT's with tones	Total # of FFT's	Presence (%)
7.5	64	-0.7	1.3	87	105	83%
8	67	-0.7	1.3	65	92	71%
8.5	66	-0.6	1.4	84	121	69%
9	72	-1.5	0.5	34	102	33%
9.5	66	-3.3	-1.3	36	74	49%
9.5	132	-5.0	-2.9	73	74	99%
10	65	-3.5	-1.5	33	65	51%
10	129	-2.9	-0.9	65	65	100%
10.5	68	-1.8	0.2	17	30	57%
10.5	132	-4.3	-2.2	28	30	93%
11	67	-2.8	-0.8	25	39	64%
11	132	-4.5	-2.4	36	39	92%
11.5	66	-3.3	-1.3	21	29	72%
11.5	131	-4.8	-2.8	29	29	100%
12	127	-3.5	-1.5	20	22	91%
12.5	124	-3.9	-1.9	18	18	100%

5 Closure

Measurements and analyses per IEC 61400-11 (edition 3.0) were performed on turbine T03 of the North Kent Wind 1 LP, located in Chatham, Ontario, operating in its 2.628 MW reduced noise emission (-3 dB) mode. The test turbine was found to have a maximum apparent sound power level of 102.2 dBA and a maximum tonal audibility of 1.4 dB.

Supplementary information to address specific local regulatory requirements are attached separately in Appendix F.

Appendix A
Site Details

aercoustics	17283.03.T3.RP3	**Project Name**
	Scale: As Shown Drawn by: CB Reviewed by: AM Date: Jan 2021 Revision: 3	North Kent Wind Farm - IEC 61400- 11 Edition 3.0 - Turbine T3
		Figure Title Site Plan
		Figure A.01

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Scale: As Shown
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Reviewed by: AM
Date: Jan 2021
Revision: 3

Project Name

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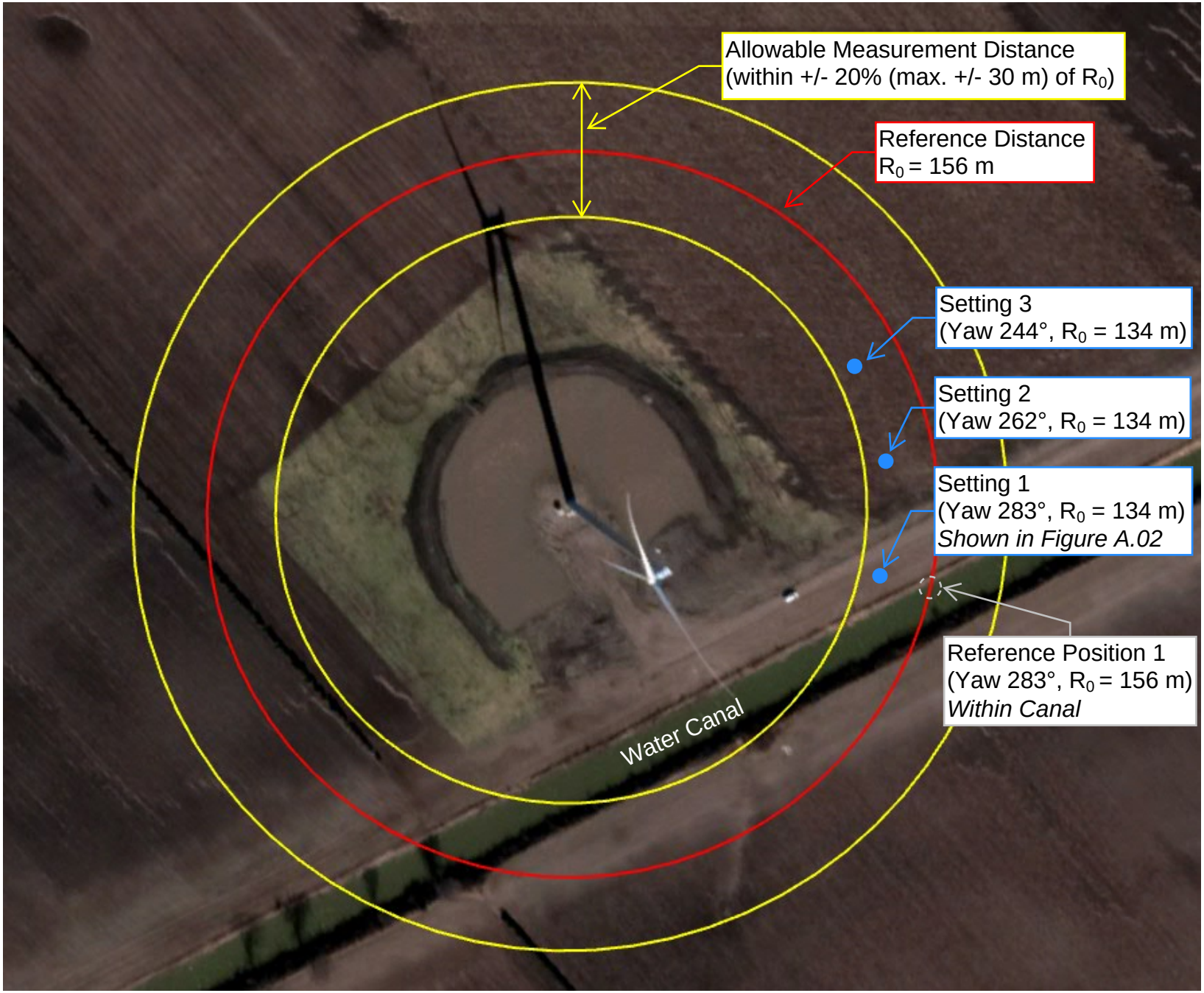
Figure Title

Site Photos

Figure A.02



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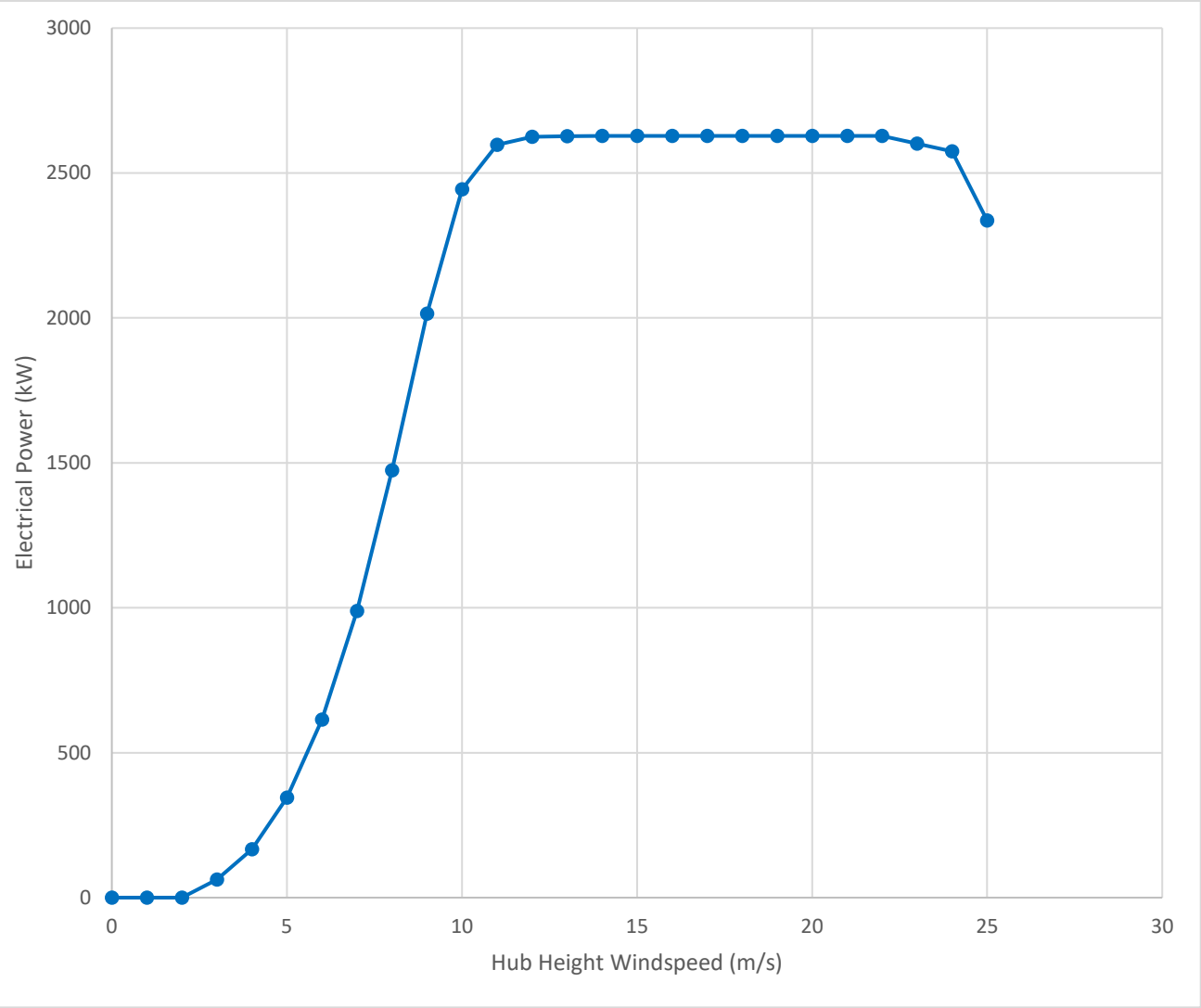
17283.03.T3.RP3	**Project Name**
Scale: As Shown Drawn by: CB Reviewed by: AM Date: Jan 2021 Revision: 2	North Kent Wind Farm - IEC 61400- 11 Edition 3.0 - Turbine T3
	Figure Title
	Aerial View of Turbine and Measurement Settings

Appendix B
Turbine Information



Power Curve	
Hub Wind Speed (m/s)	Power [kW]
0	0
1	0
2	0
3	62
4	167
5	345
6	614
7	989
8	1474
9	2015
10	2444
11	2597
12	2625
13	2627
14	2628
15	2628
16	2628
17	2628
18	2628
19	2628
20	2628
21	2628
22	2628
23	2601
24	2575
25	2336

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Project Name

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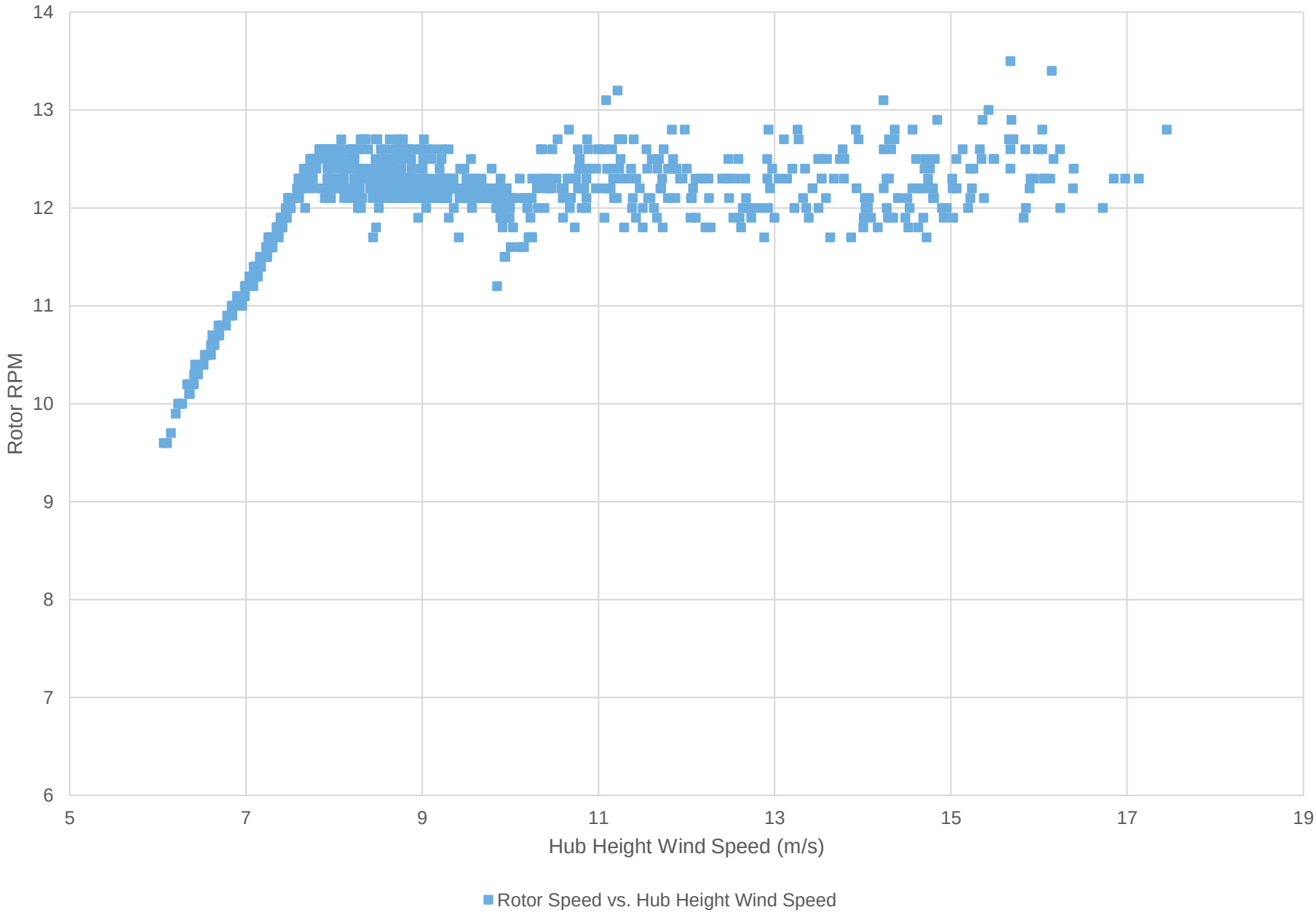
Figure Title

Power Curve

Figure B.01



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Scale: NTS Drawn by: CB Reviewed by: AM Date: Jan 2021 Revision: 3	North Kent Wind Farm - IEC 61400- 11 Edition 3.0 - Turbine T3
	Figure Title Rotor RPM vs. Wind Speed

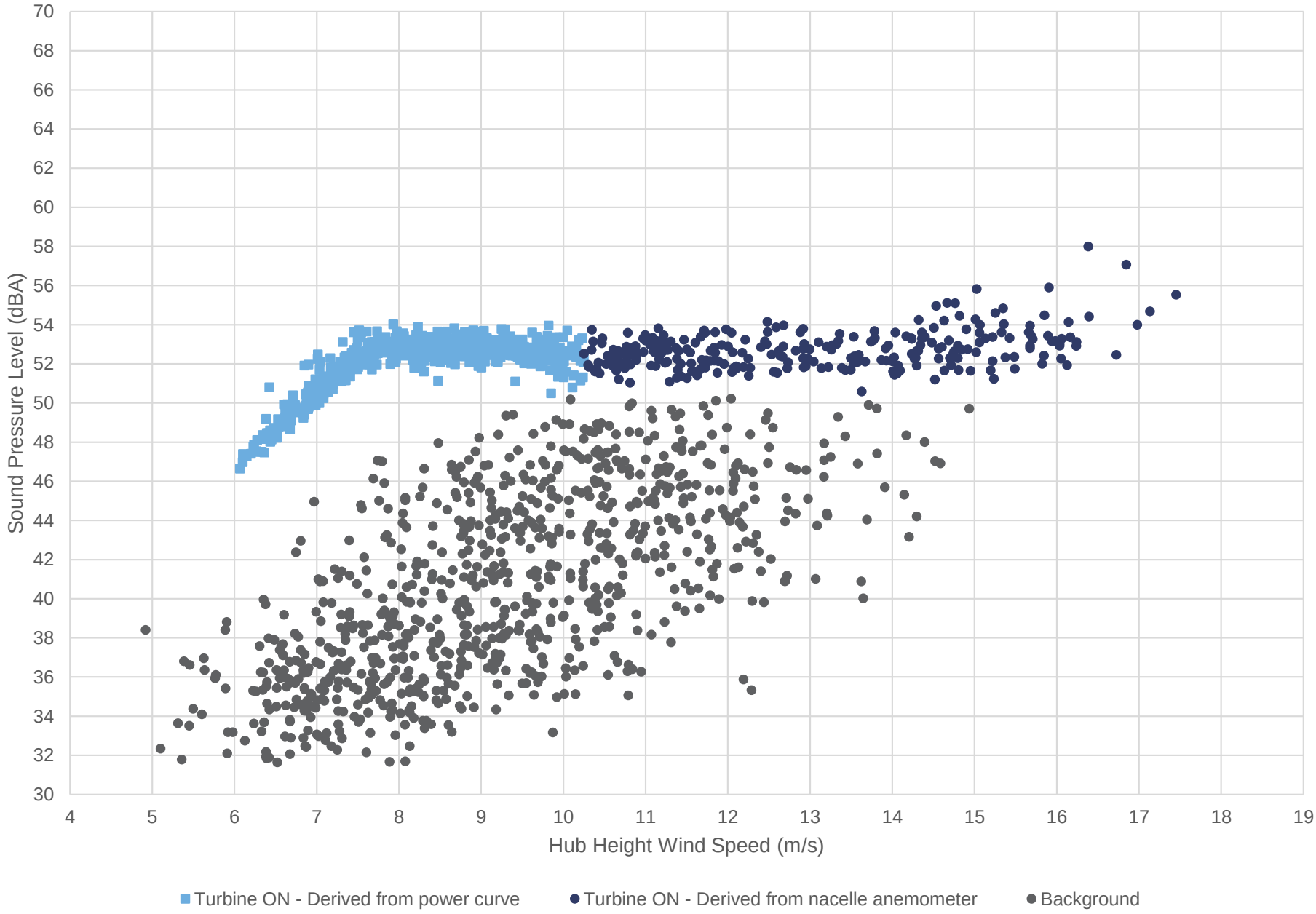
Figure B.02

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

Power Curve & Required Wind Speeds		
Power Curve Tolerance	1.0%	
Acceptable range min	2	m/s
Acceptable range max	10	m/s
Min allowable range	2	m/s
Max allowable range	10	m/s
Power Output	2628	kW
85% Power	2233.8	kW
Corresponding wind speed	9.51	m/s
Minimum bin	7.5	m/s
Maximum bin	12.5	m/s

Power Curve		
Hub Wind Speed (m/s)	Power [kW]	slope
0	0	-52.56
1	0	-52.56
2	0	9.44
3	62	52.44
4	167	125.44
5	345	216.44
6	614	322.44
7	989	432.44
8	1474	488.44
9	2015	376.44
10	2444	100.44
11	2597	-24.56
12	2625	-50.56
13	2627	-51.56
14	2628	-52.56
15	2628	-52.56
16	2628	-52.56
17	2628	-52.56
18	2628	-52.56
19	2628	-52.56
20	2628	-52.56
21	2628	-52.56
22	2628	-79.56
23	2601	-78.56
24	2575	-291.56
25	2336	

Appendix C
Apparent Sound Power Level



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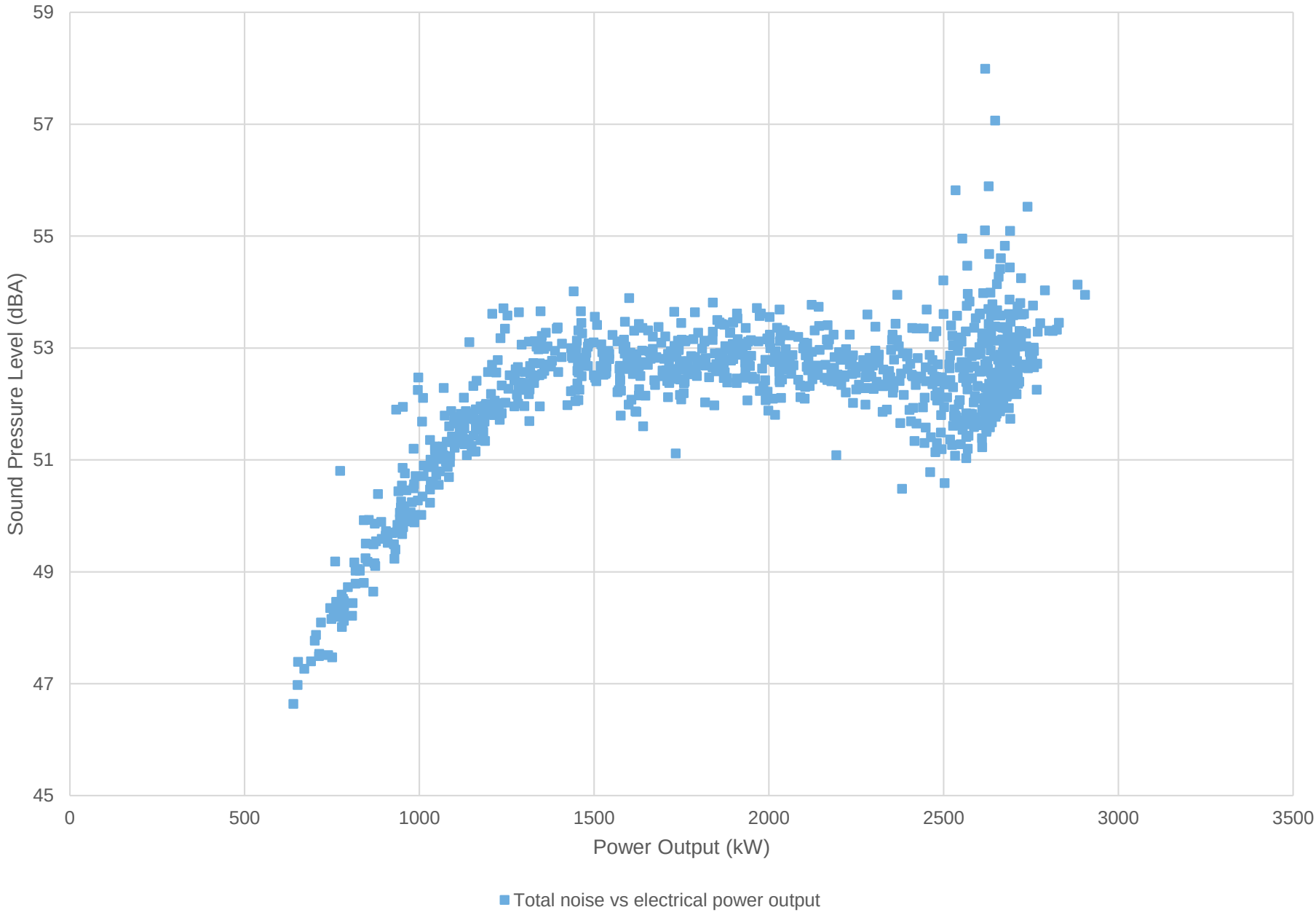
Scale: NTS Drawn by: CB Reviewed by: AM Date: Jan 2021 Revision: 3	North Kent Wind Farm - IEC 61400- 11 Edition 3.0 - Turbine T3
	Figure Title Plot of overall measurement data pairs at Position 1 (Turbine ON & Background)

Figure C.01



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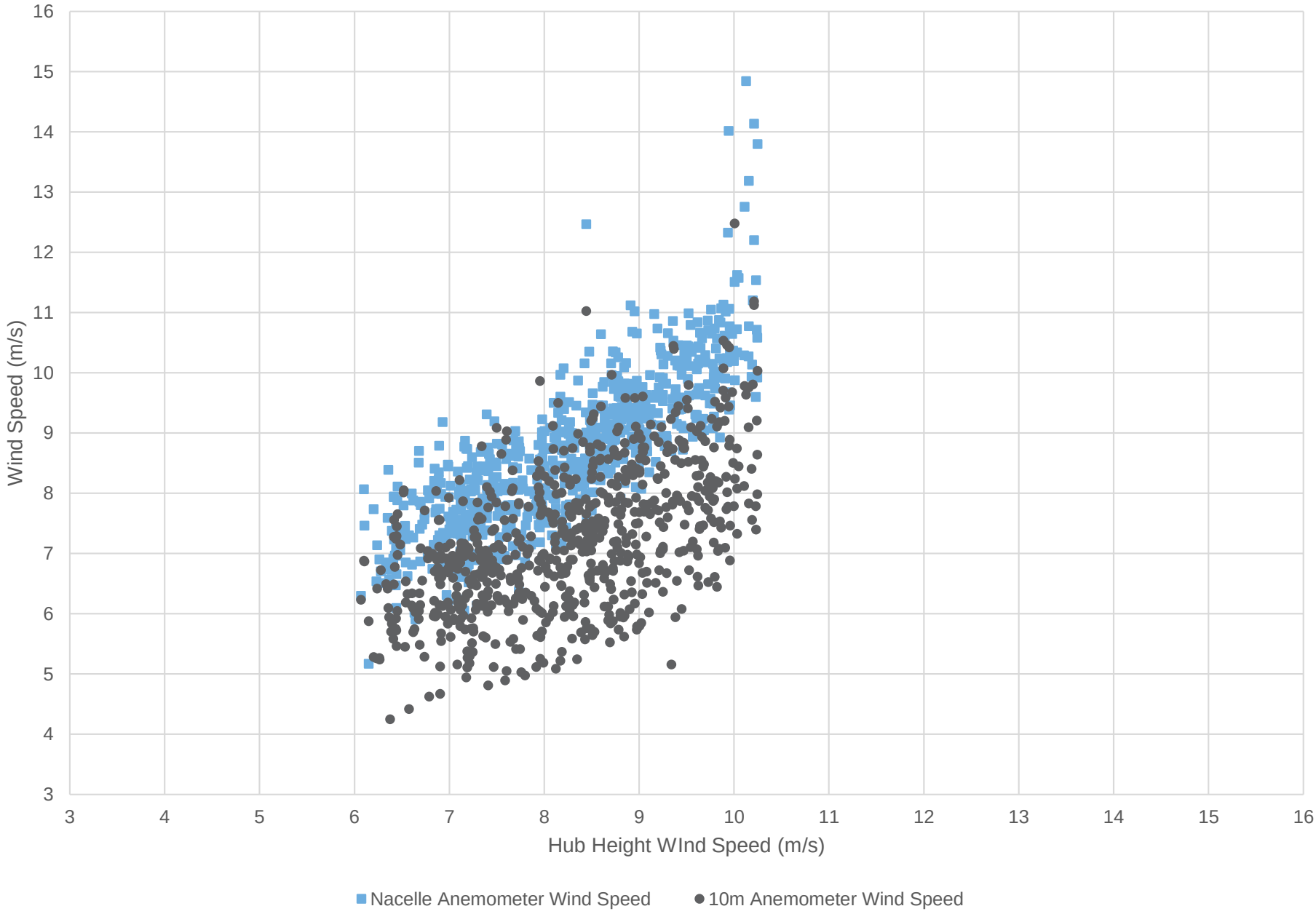
Scale: NTS Drawn by: CB Reviewed by: AM Date: Jan 2021 Revision: 3	North Kent Wind Farm - IEC 61400- 11 Edition 3.0 - Turbine T3
	Figure Title Plot of measured total noise vs. electrical power output

Figure C.02



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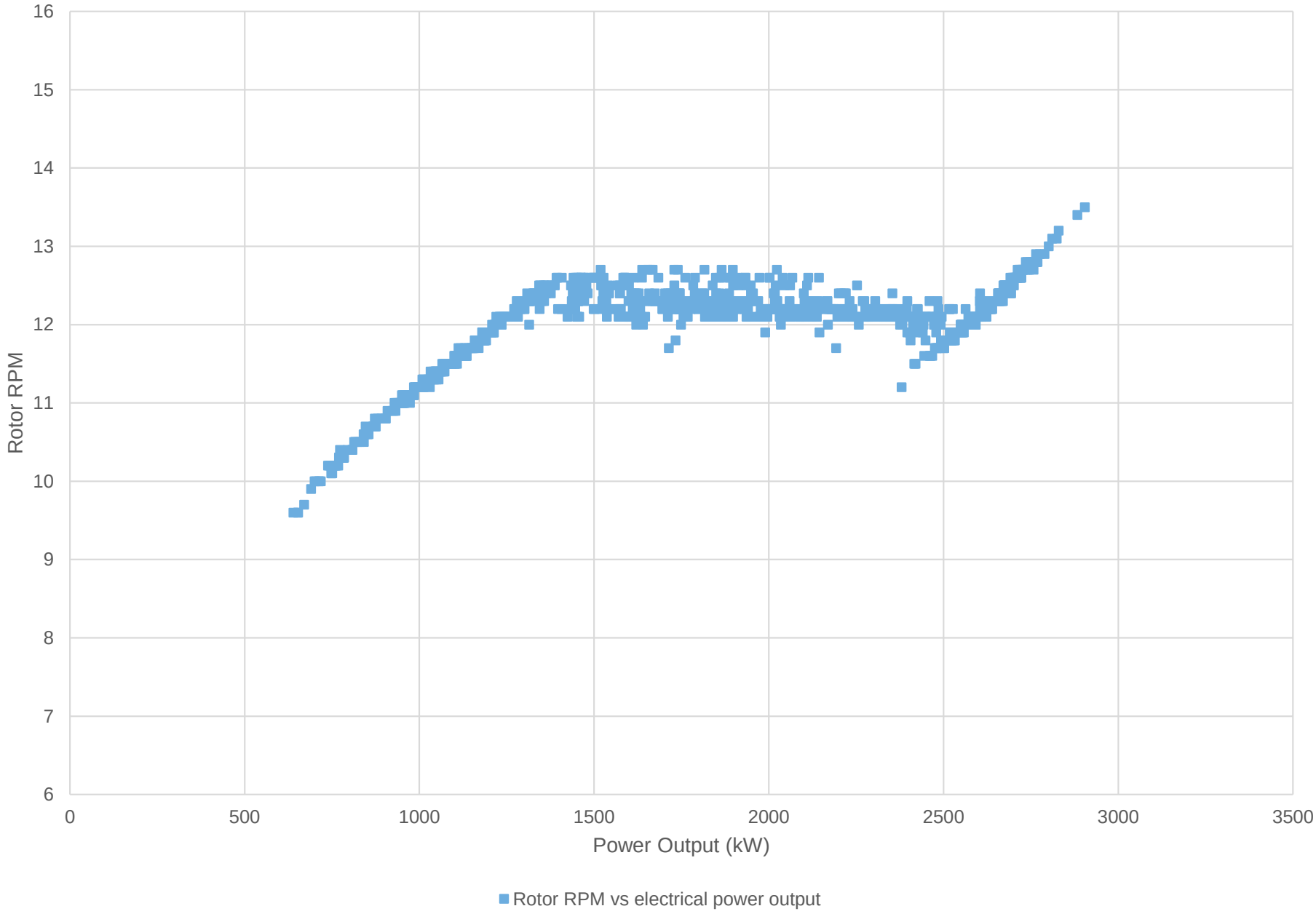
Scale: NTS Drawn by: CB Reviewed by: AM Date: Jan 2021 Revision: 3	North Kent Wind Farm - IEC 61400- 11 Edition 3.0 - Turbine T3
	Figure Title Plot of power curve relative to nacelle anemometer and 10m anemometer

Figure C.03



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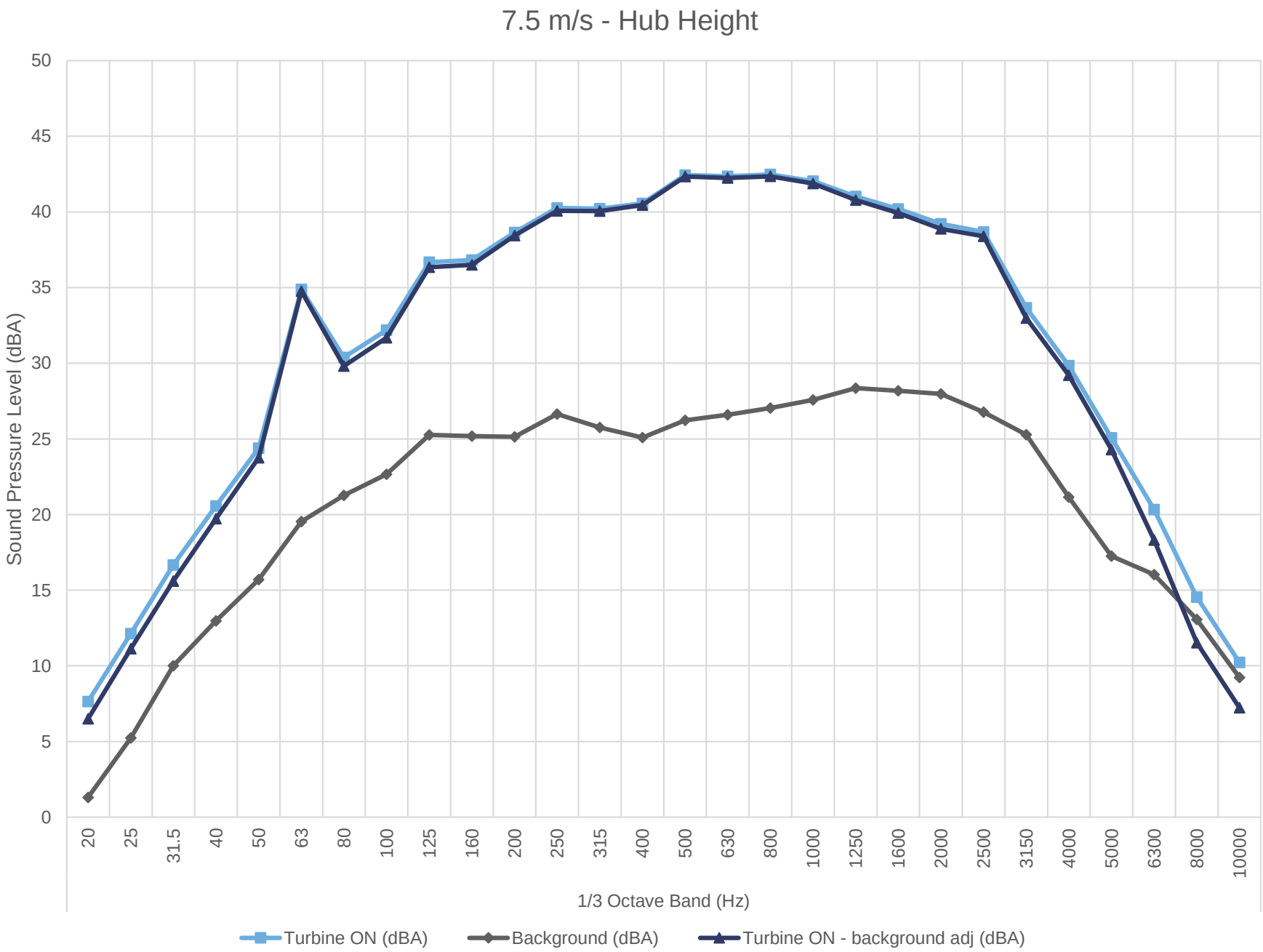
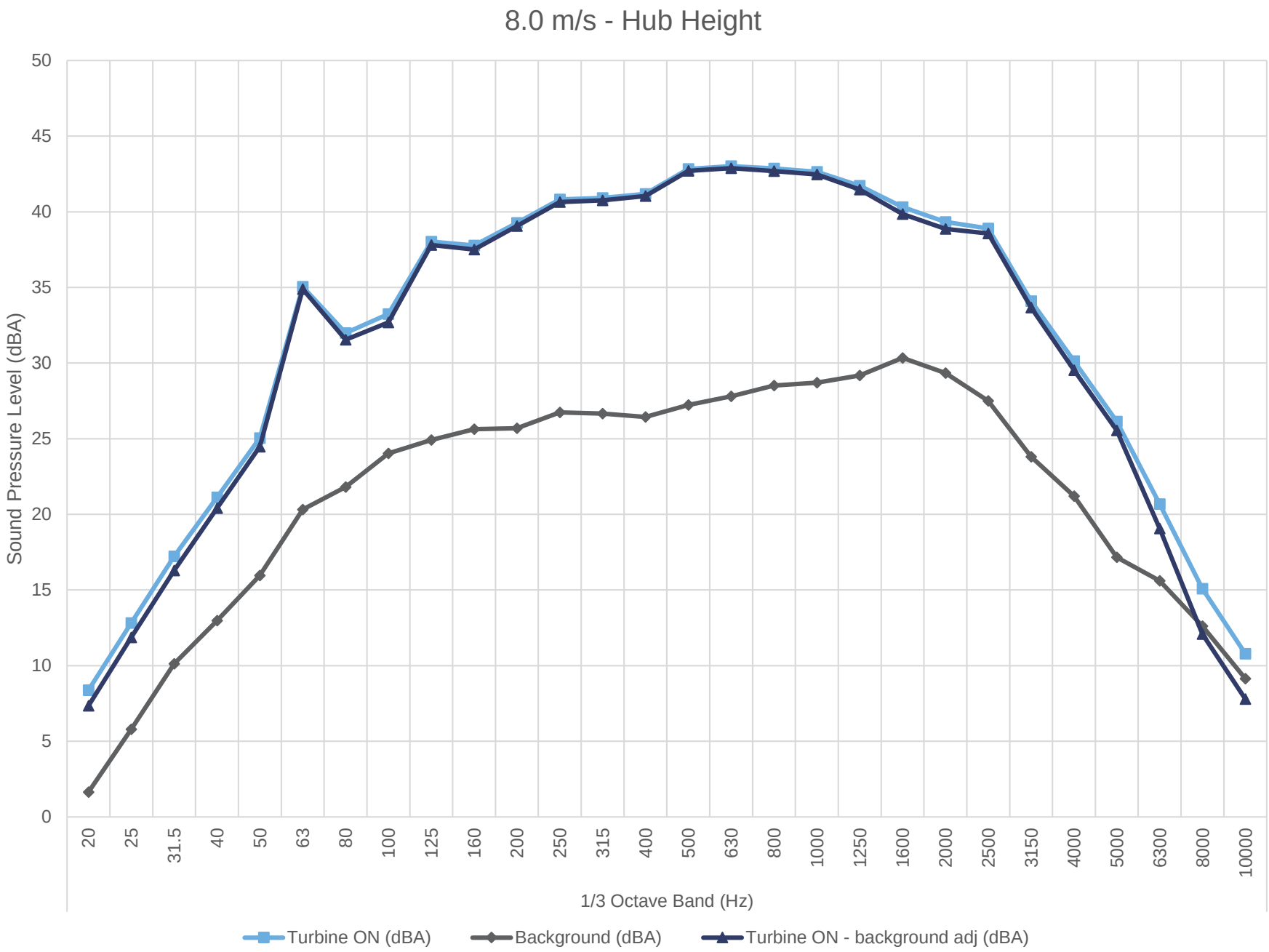
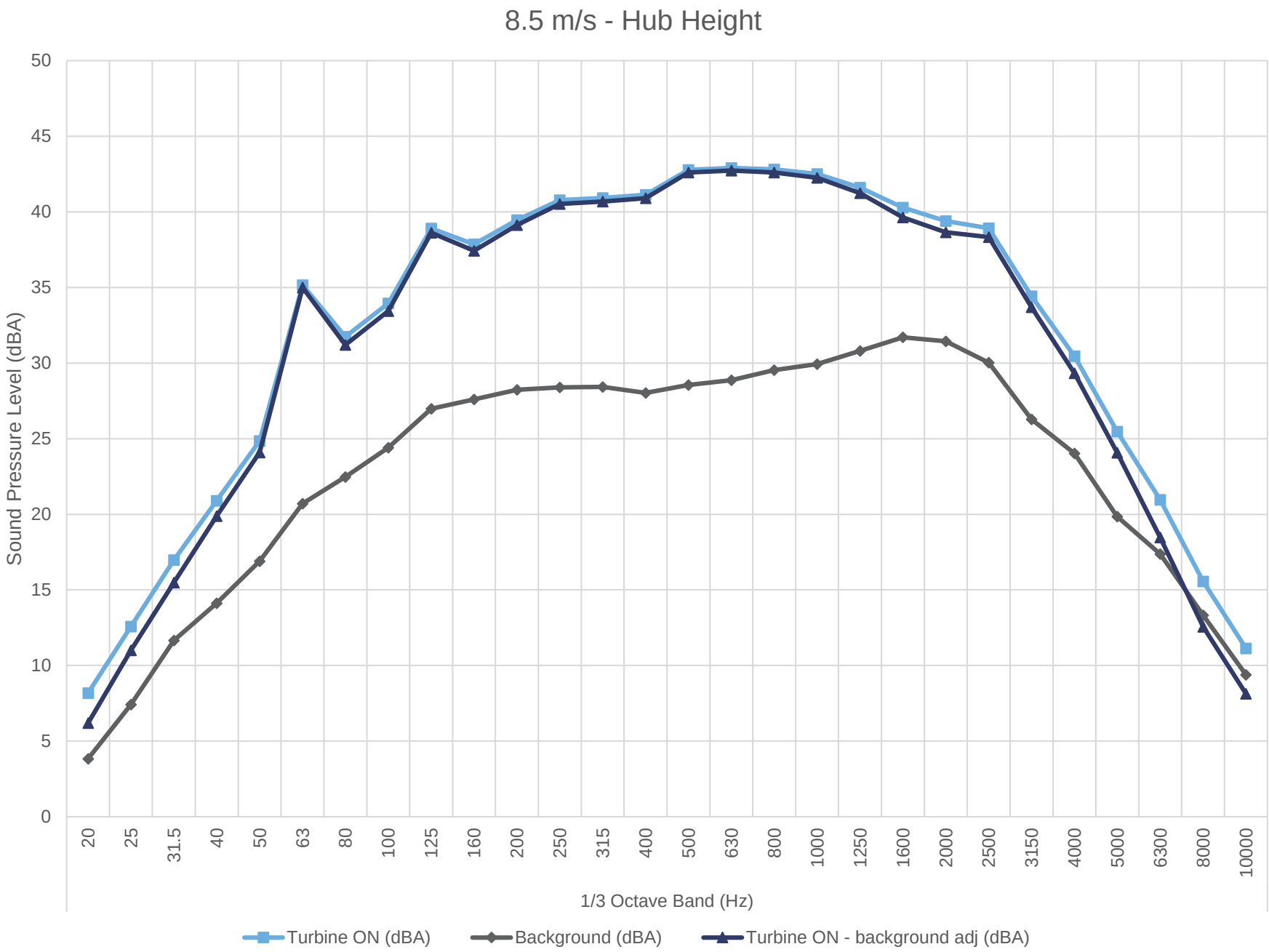
	Scale: NTS Drawn by: CB Reviewed by: AM Date: Jan 2021 Revision: 3	North Kent Wind Farm - IEC 61400- 11 Edition 3.0 - Turbine T3
		Figure Title Plot of Rotor RPM vs. electrical power output
		Figure C.04



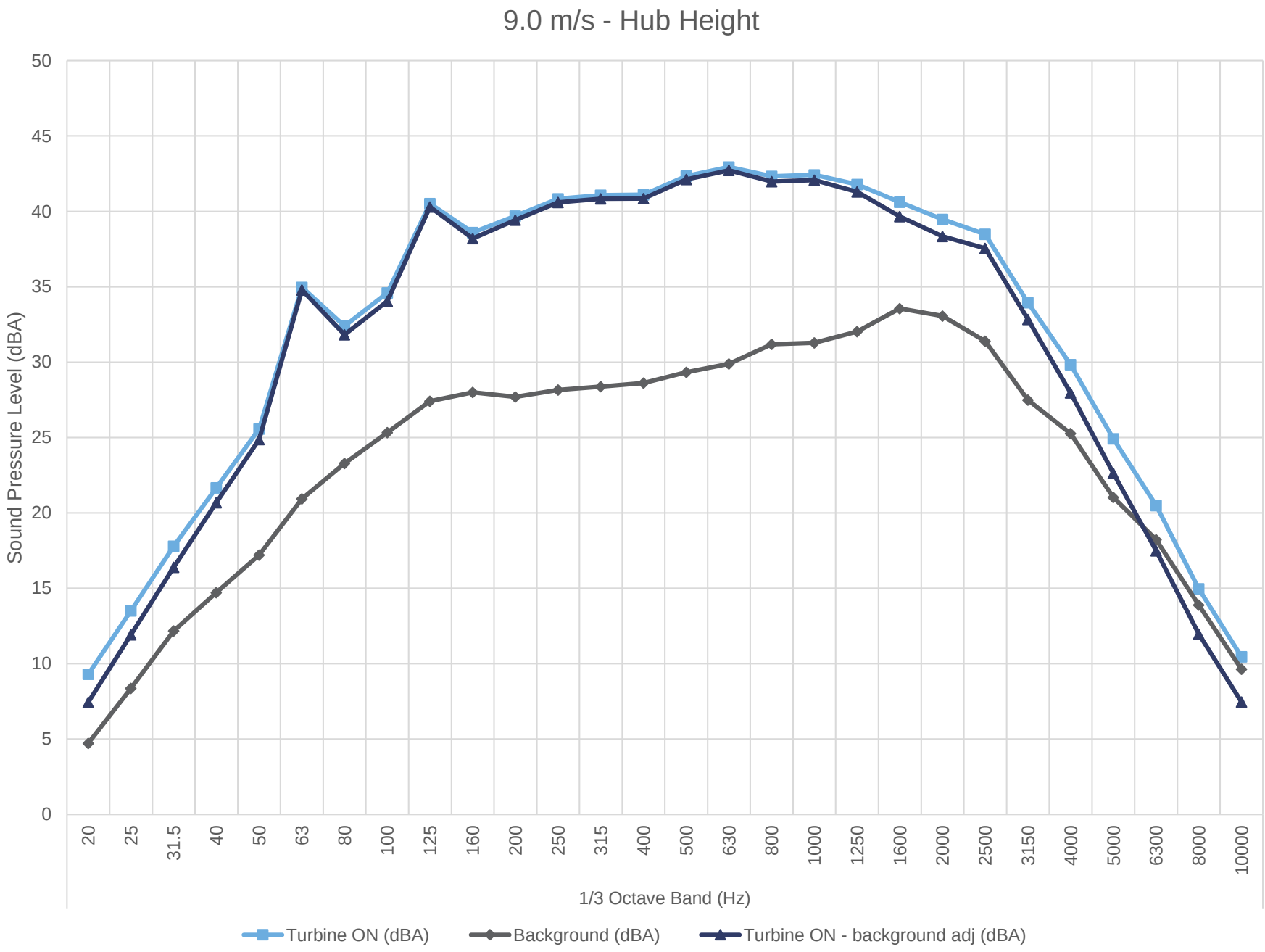
aercoustics	17283.03.T3.RP3	**Project Name**
	Scale: NTS Drawn by: CB Reviewed by: AM Date: Jan 2021 Revision: 3	North Kent Wind Farm - IEC 61400- 11 Edition 3.0 - Turbine T3
		Figure Title Plot of sound pressure spectrum at 1/3 Octave at 7.5 m/s
		Figure C.05



aercoustics	17283.03.T3.RP3	**Project Name**
	Scale: NTS Drawn by: CB Reviewed by: AM Date: Jan 2021 Revision: 3	North Kent Wind Farm - IEC 61400- 11 Edition 3.0 - Turbine T3
		Figure Title Plot of sound pressure spectrum at 1/3 Octave at 8.0 m/s
		Figure C.06



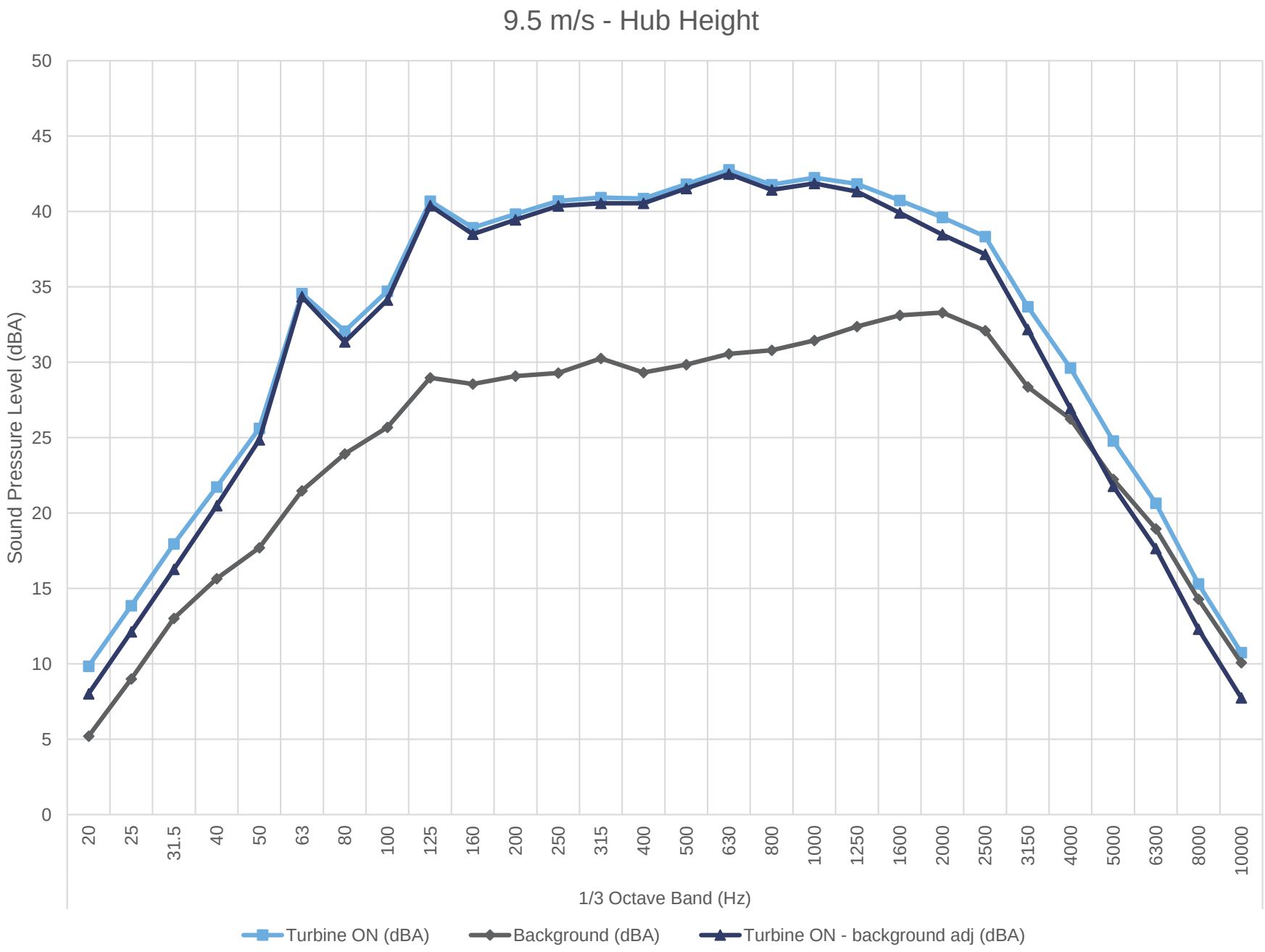
aercoustics	17283.03.T3.RP3	**Project Name**
	Scale: NTS Drawn by: CB Reviewed by: AM Date: Jan 2021 Revision: 3	North Kent Wind Farm - IEC 61400- 11 Edition 3.0 - Turbine T3
		Figure Title Plot of sound pressure spectrum at 1/3 Octave at 8.5 m/s
		Figure C.07



aercoustics

17283.03.T3.RP3	**Project Name**
Scale: NTS Drawn by: CB Reviewed by: AM Date: Jan 2021 Revision: 3	North Kent Wind Farm - IEC 61400- 11 Edition 3.0 - Turbine T3
	Figure Title Plot of sound pressure spectrum at 1/3 Octave at 9.0 m/s

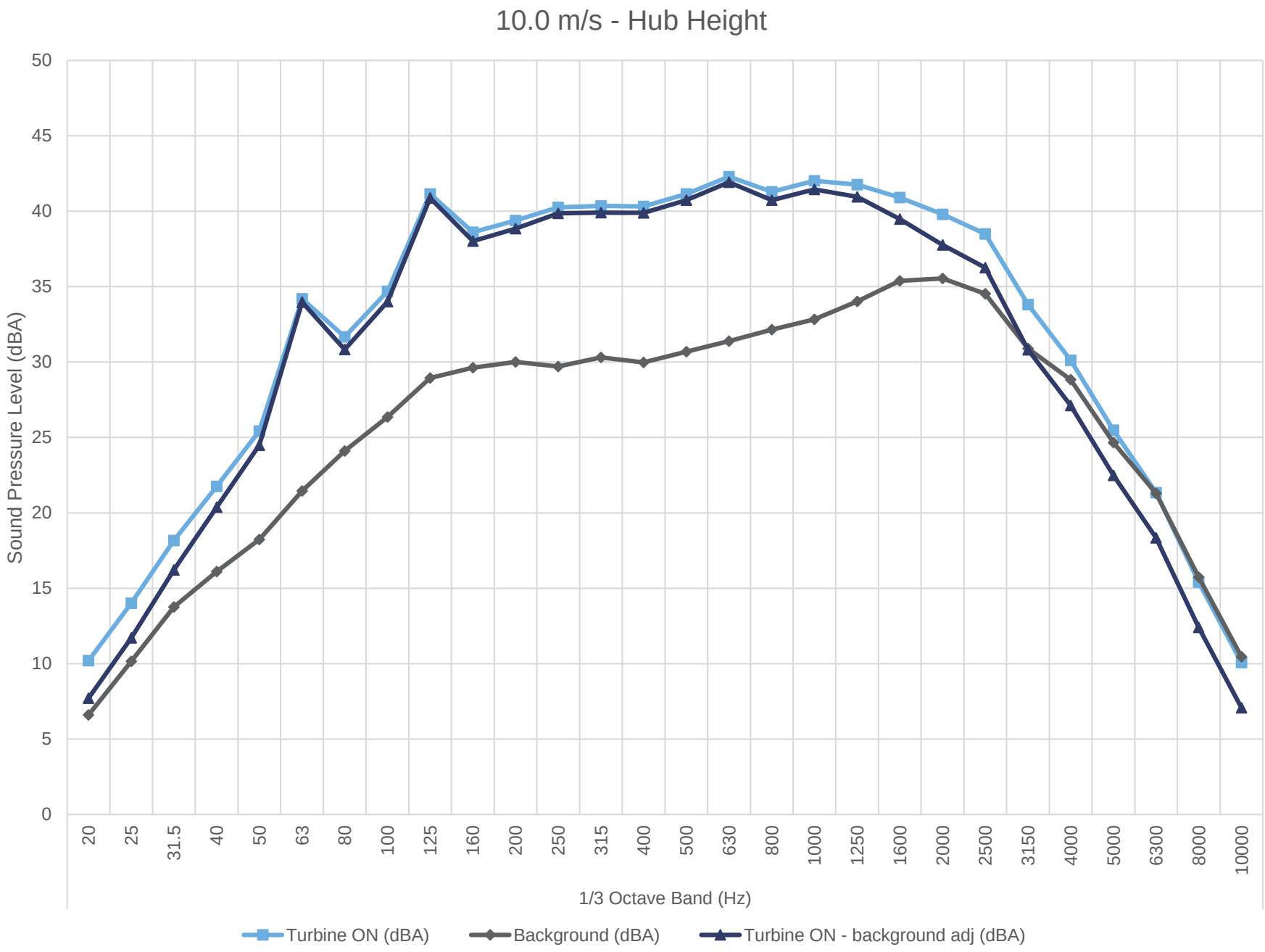
Figure C.08



aercoustics

17283.03.T3.RP3	**Project Name**
Scale: NTS Drawn by: CB Reviewed by: AM Date: Jan 2021 Revision: 3	North Kent Wind Farm - IEC 61400- 11 Edition 3.0 - Turbine T3
	Figure Title Plot of sound pressure spectrum at 1/3 Octave at 9.5 m/s

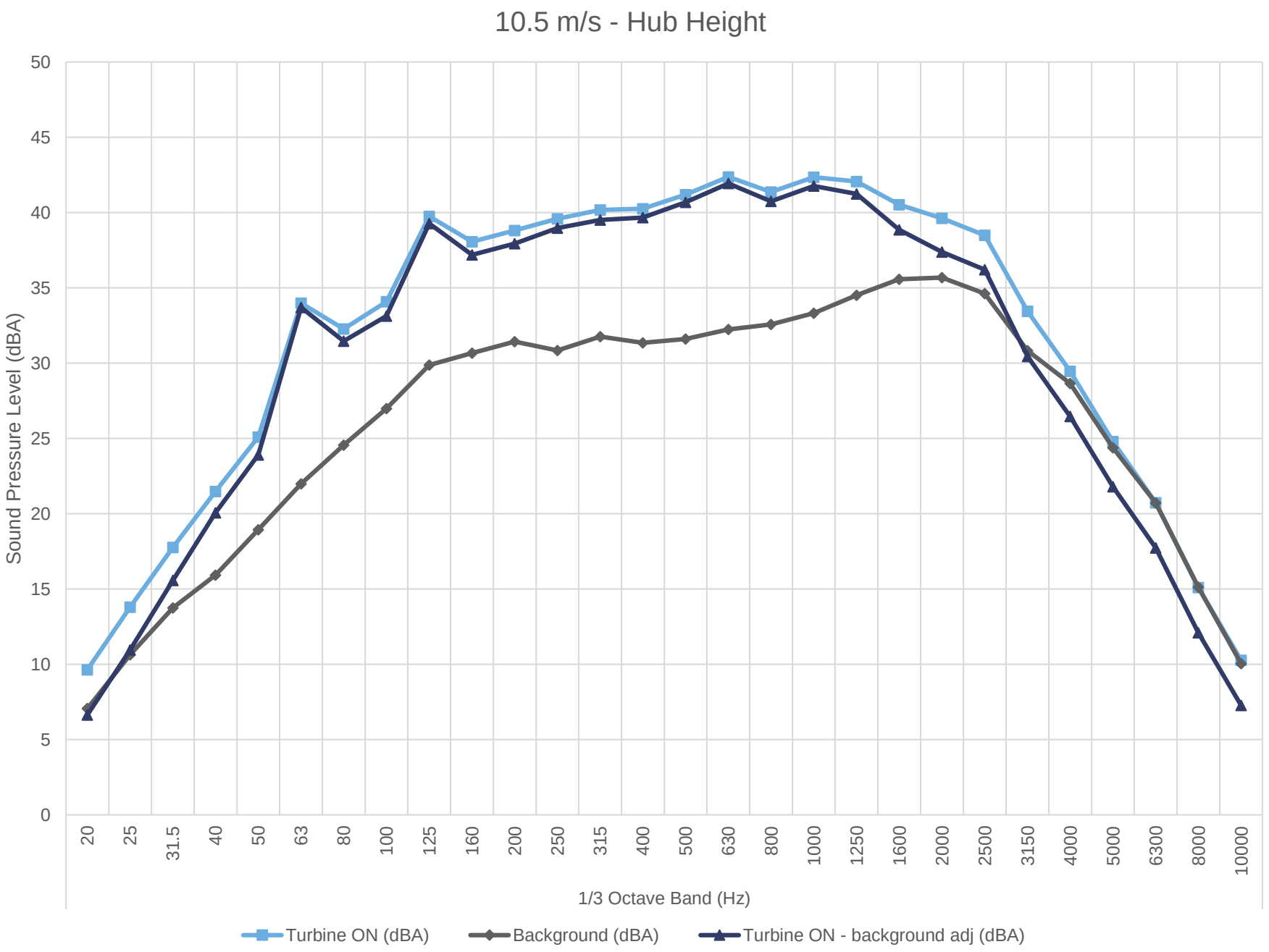
Figure C.09



aercoustics

17283.03.T3.RP3	**Project Name**
Scale: NTS Drawn by: CB Reviewed by: AM Date: Jan 2021 Revision: 3	North Kent Wind Farm - IEC 61400- 11 Edition 3.0 - Turbine T3
	Figure Title Plot of sound pressure spectrum at 1/3 Octave at 10.0 m/s

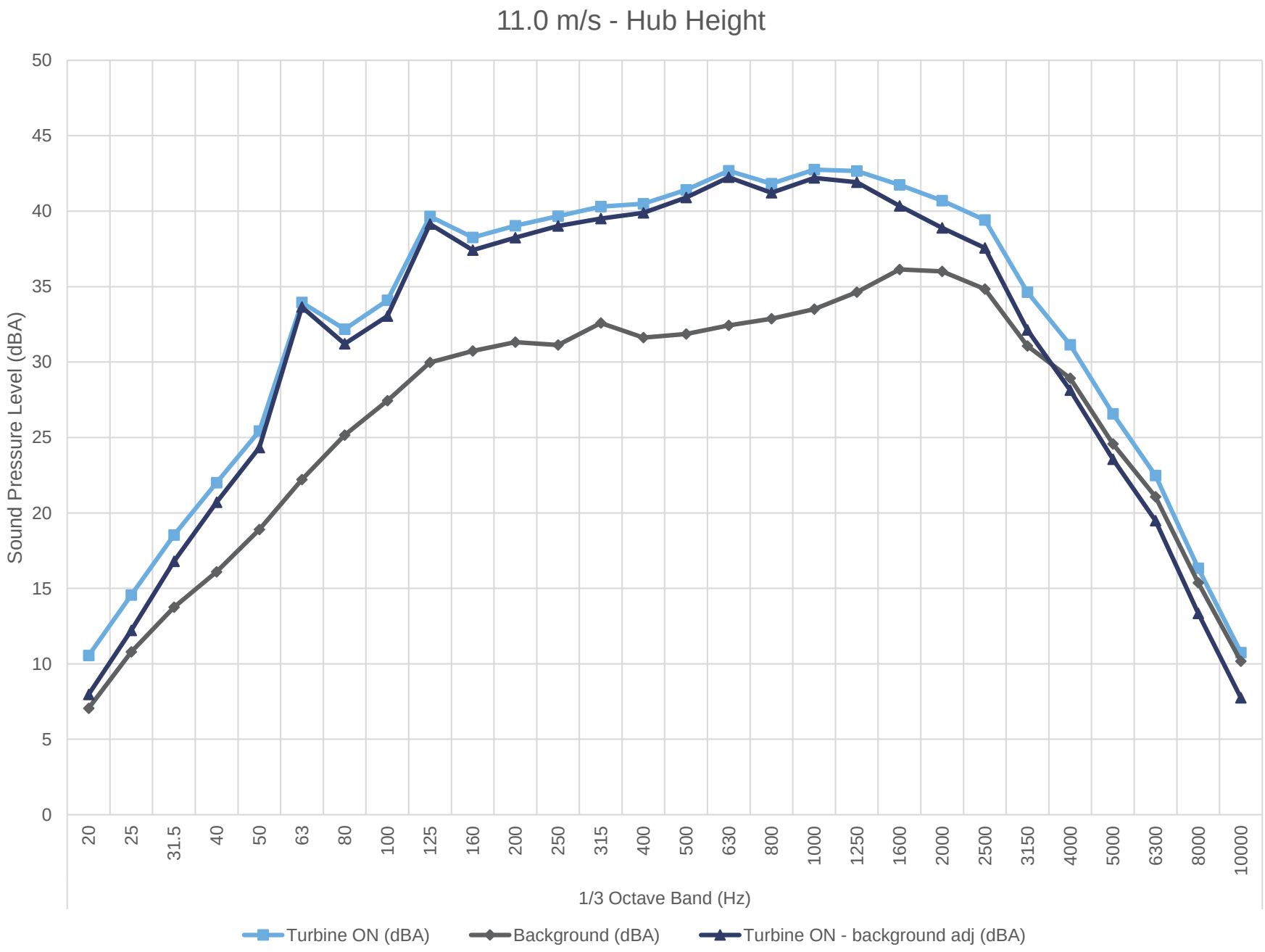
Figure C.10



aercoustics

17283.03.T3.RP3	**Project Name**
Scale: NTS Drawn by: CB Reviewed by: AM Date: Jan 2021 Revision: 3	North Kent Wind Farm - IEC 61400- 11 Edition 3.0 - Turbine T3
	Figure Title Plot of sound pressure spectrum at 1/3 Octave at 10.5 m/s

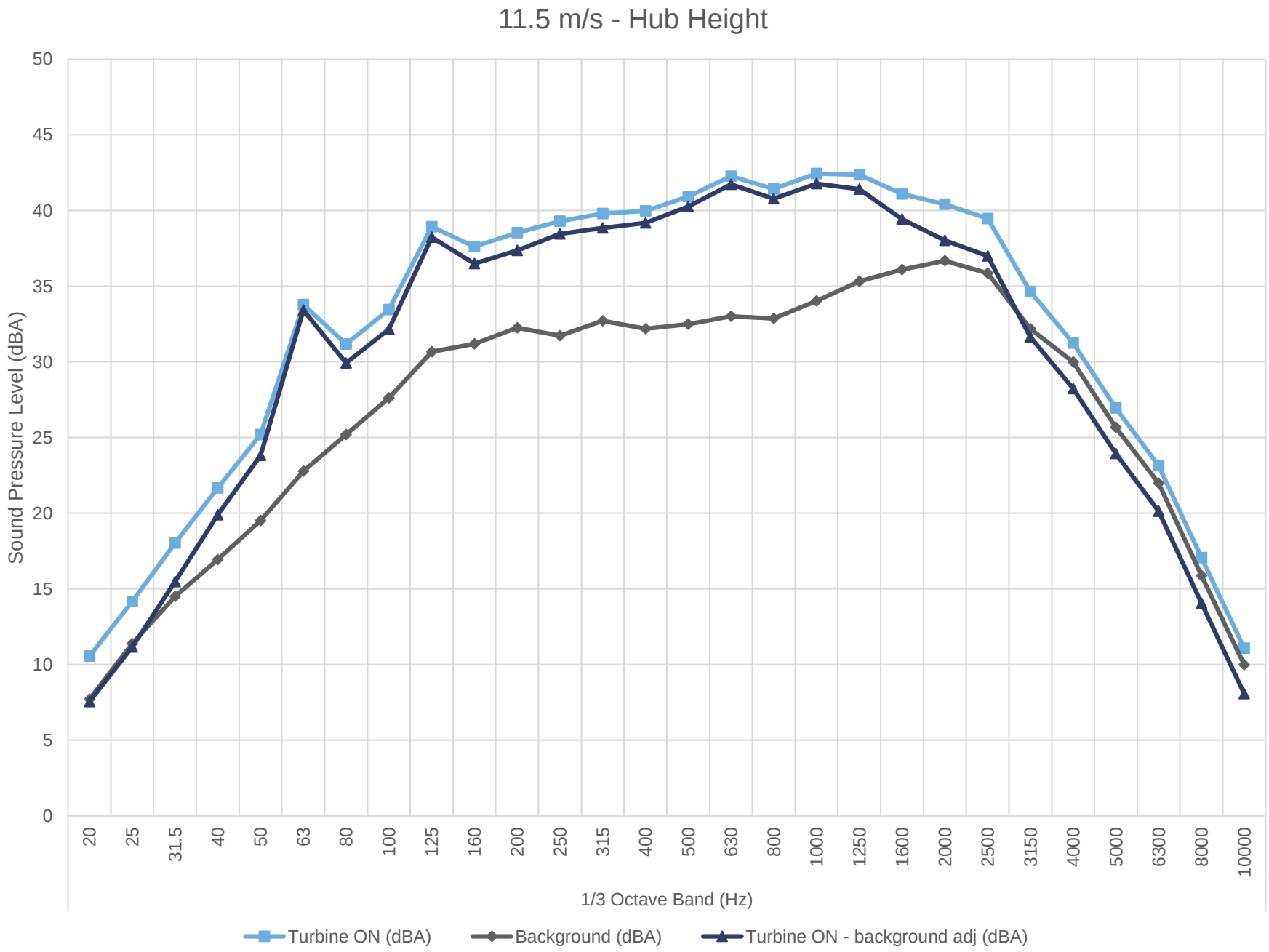
Figure C.11



aercoustics

17283.03.T3.RP3	**Project Name**
Scale: NTS Drawn by: CB Reviewed by: AM Date: Jan 2021 Revision: 3	North Kent Wind Farm - IEC 61400- 11 Edition 3.0 - Turbine T3
	Figure Title Plot of sound pressure spectrum at 1/3 Octave at 11.0 m/s

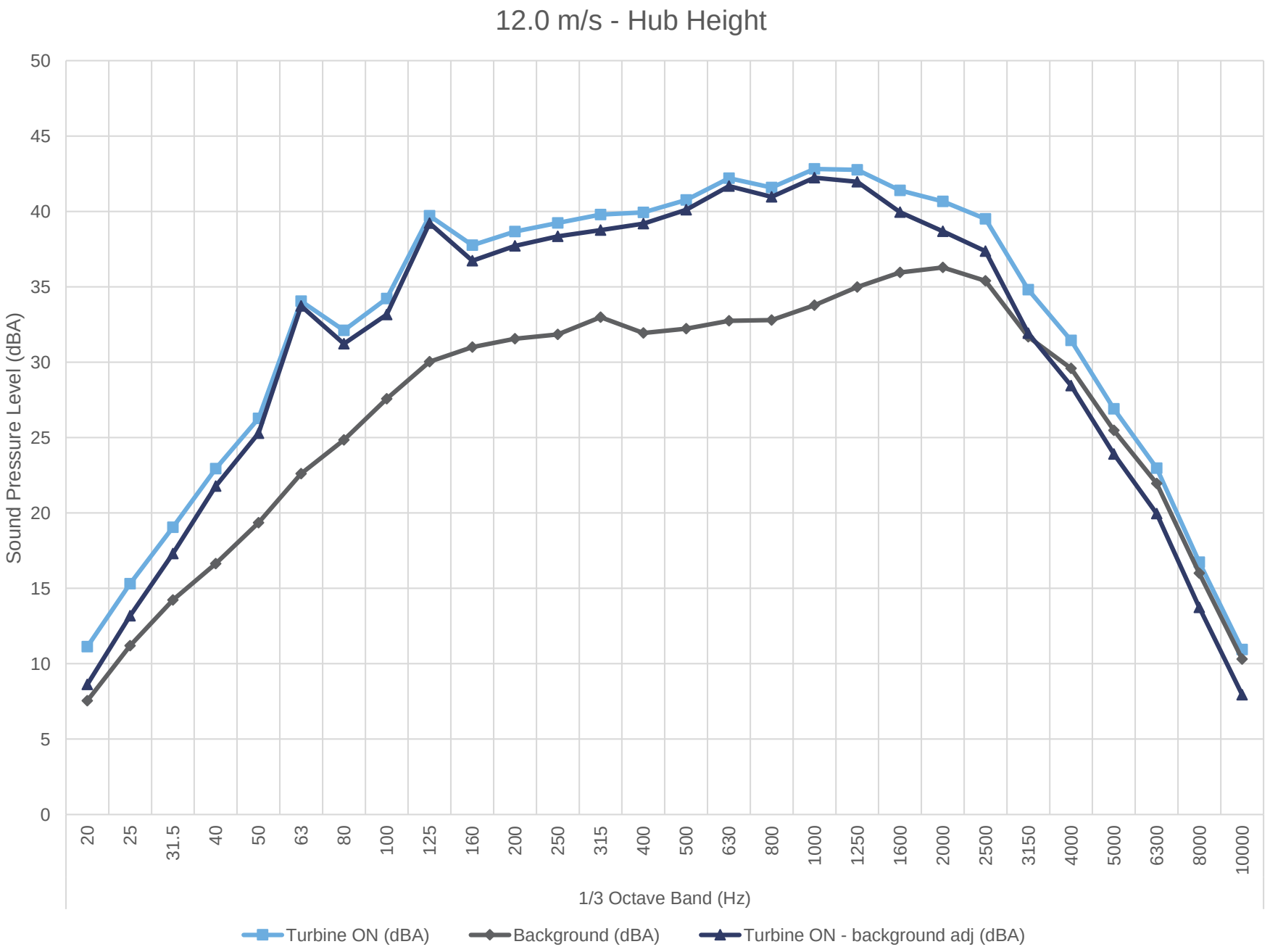
Figure C.12



aercoustics

17283.03.T3.RP3	**Project Name**
Scale: NTS Drawn by: CB Reviewed by: AM Date: Jan 2021 Revision: 3	North Kent Wind Farm - IEC 61400- 11 Edition 3.0 - Turbine T3
	Figure Title Plot of sound pressure spectrum at 1/3 Octave at 11.5 m/s

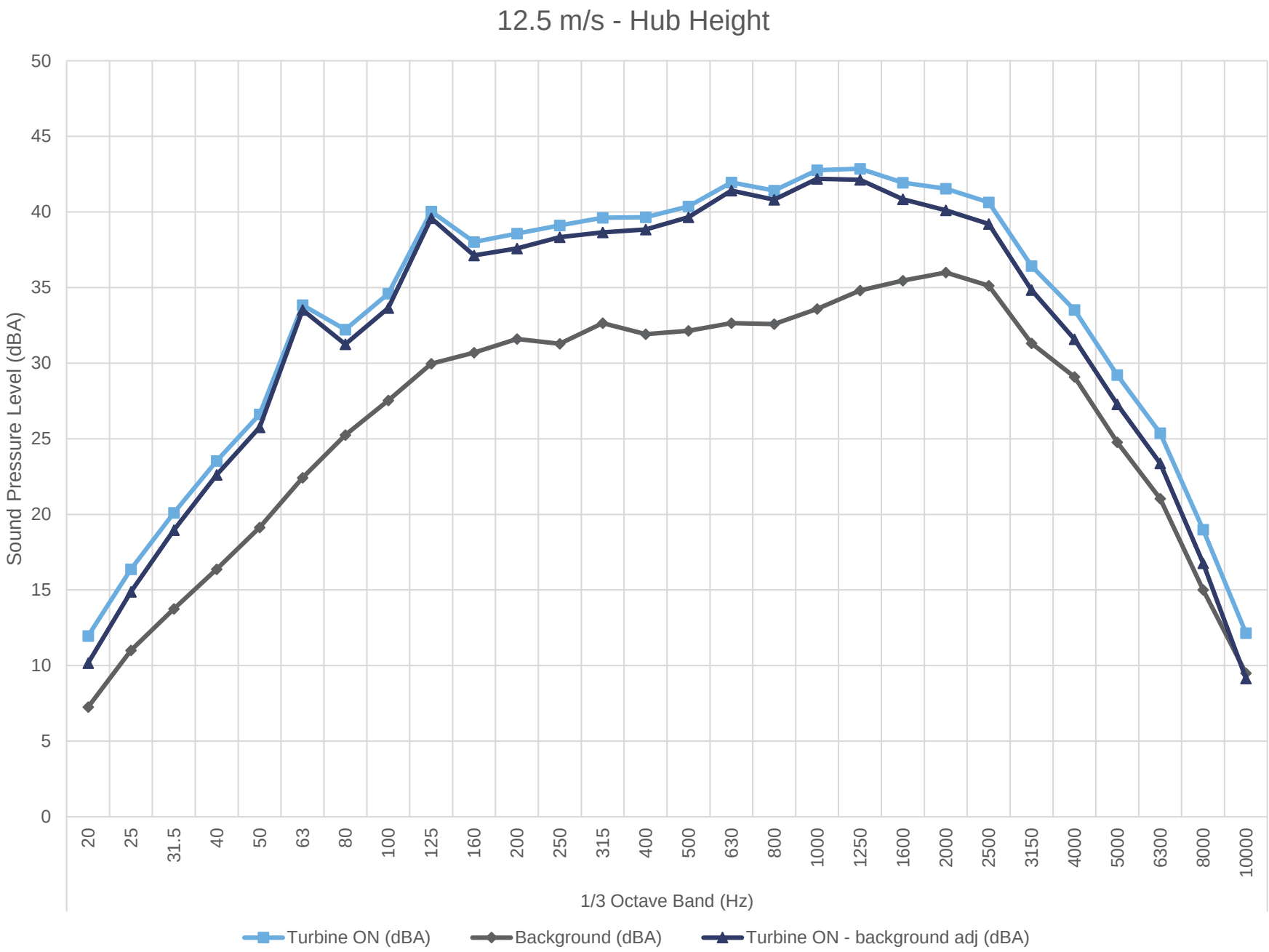
Figure C.13



aercoustics

17283.03.T3.RP3	**Project Name**
Scale: NTS Drawn by: CB Reviewed by: AM Date: Jan 2021 Revision: 3	North Kent Wind Farm - IEC 61400- 11 Edition 3.0 - Turbine T3
	Figure Title Plot of sound pressure spectrum at 1/3 Octave at 12.0 m/s

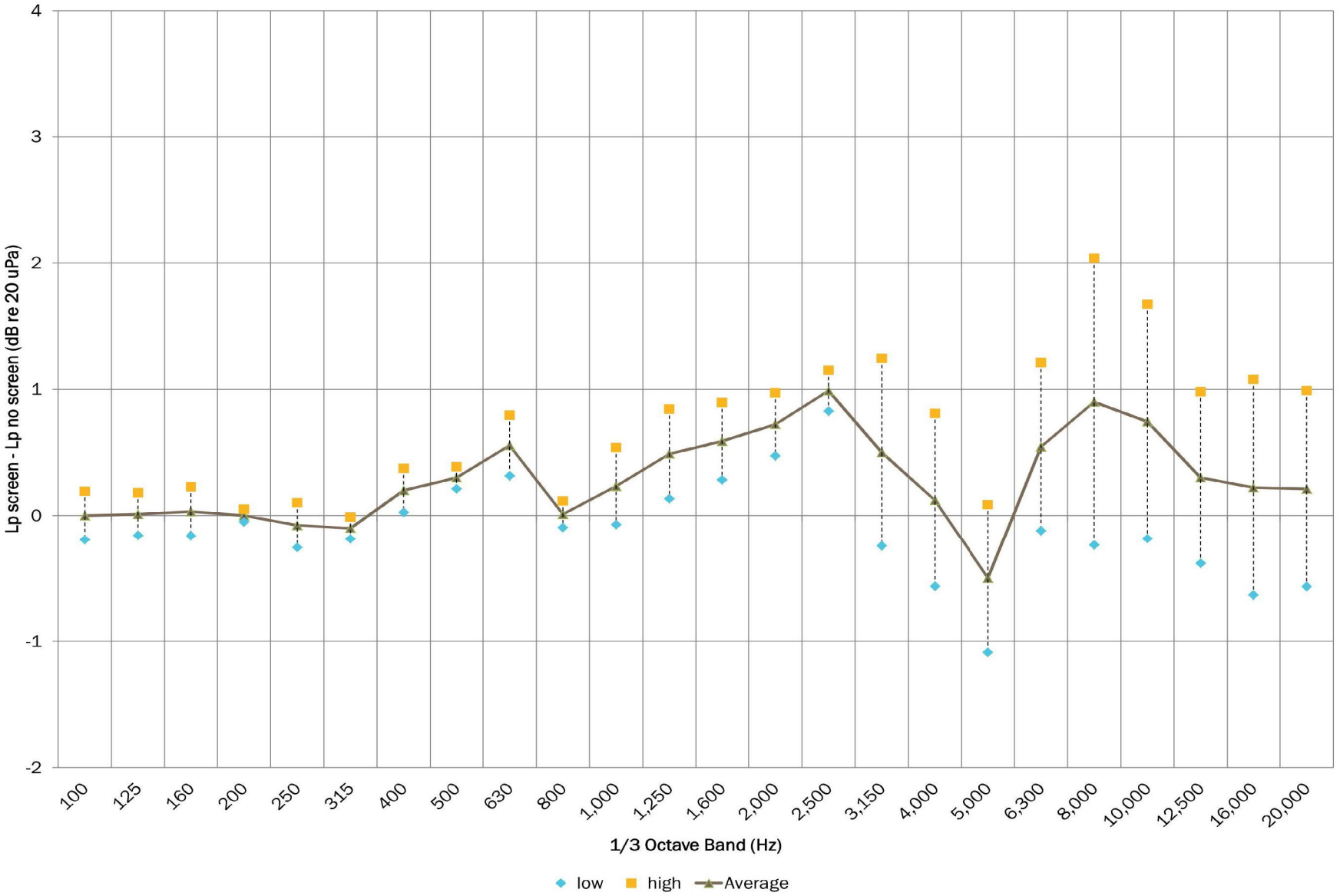
Figure C.14



aercoustics

17283.03.T3.RP3	**Project Name**
Scale: NTS Drawn by: CB Reviewed by: AM Date: Jan 2021 Revision: 3	North Kent Wind Farm - IEC 61400- 11 Edition 3.0 - Turbine T3
	Figure Title Plot of sound pressure spectrum at 1/3 Octave at 12.5 m/s

Figure C.15



aercoustics	17283.03.T3.RP3 Scale: NTS Drawn by: AM Reviewed by: CB Date: Jan 2021 Revision: 2	**Project Name** North Kent Wind Farm - IEC 61400-11 Edition 3.0 - Turbine T3 **Figure Title** Plot of secondary windscreen influence

Figure C.16

Table C.01 Detailed apparent sound power level data at hub height

Project: North Kent Wind Farm - IEC 61400- 11 Edition 3.0 - Turbine T3

Report ID: 17283.03.T3.RP3

Created on: 1/28/2021

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	
7.5	Turbine ON (dBA)	7.6	12.1	16.7	20.6	24.4	34.9	30.4	32.2	36.7	36.8	38.6	40.3	40.2	40.6	42.4	42.4	42.5	42.0	41.0	40.2	39.2	38.7	33.7	29.8	25.1	20.3	14.5	10.2	52.2
	Background (dBA)	1.3	5.2	10.0	13.0	15.7	19.5	21.3	22.7	25.3	25.2	25.1	26.6	25.7	25.1	26.2	26.6	27.0	27.6	28.4	28.2	28.0	26.8	25.3	21.2	17.3	16.0	13.1	9.2	38.8
	Turbine ON - background adj (dBA)	6.5	11.1	15.6	19.7	23.8	34.8	29.8	31.7	36.4	36.5	38.4	40.1	40.1	40.4	42.3	42.2	42.3	41.9	40.8	39.9	38.9	38.4	33.0	29.2	24.3	18.3	[11.5]	[7.2]	52.0
	Signal to noise (dB)	6.3	6.9	6.7	7.6	8.7	15.4	9.1	9.5	11.4	11.6	13.5	13.6	14.5	15.5	16.2	15.8	15.4	14.5	12.7	12.0	11.2	11.9	8.4	8.7	7.8	4.3	1.5	1.0	13.4
	Uncertainty (dB)	2.6	2.1	1.4	1.8	1.2	1.0	0.9	0.9	0.9	0.9	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.9	1.2	1.2	1.2	1.8	3.0	3.8	0.8
	PWL (dBA)	56.2	60.8	65.3	69.4	73.4	84.4	79.5	81.4	86.0	86.2	88.1	89.7	89.7	90.1	92.0	91.9	92.0	91.5	90.5	89.6	88.5	88.1	82.7	78.9	74.0	68.0	[61.2]	[56.9]	101.7
8.0	Turbine ON (dBA)	8.4	12.8	17.2	21.1	25.0	35.0	32.0	33.2	38.0	37.8	39.3	40.8	40.9	41.2	42.8	43.0	42.9	42.6	41.7	40.3	39.3	38.9	34.1	30.1	26.1	20.7	15.1	10.8	52.8
	Background (dBA)	1.6	5.8	10.1	13.0	16.0	20.3	21.8	24.0	24.9	25.6	25.7	26.7	26.7	26.4	27.2	27.8	28.5	28.7	29.2	30.3	29.3	27.5	23.8	21.2	17.2	15.6	12.6	9.1	39.7
	Turbine ON - background adj (dBA)	7.3	11.9	16.3	20.4	24.5	34.9	31.5	32.7	37.8	37.5	39.1	40.6	40.7	41.0	42.7	42.9	42.7	42.5	41.5	39.8	38.9	38.6	33.7	29.5	25.5	19.1	[12.1]	[7.8]	52.5
	Signal to noise (dB)	6.7	7.0	7.1	8.2	9.1	14.7	10.2	9.2	13.1	12.2	13.6	14.1	14.3	14.7	15.6	15.2	14.3	13.9	12.5	10.0	10.0	11.4	10.3	8.9	9.0	5.1	2.5	1.6	13.0
	Uncertainty (dB)	2.4	2.0	1.3	1.7	1.2	0.9	0.9	0.9	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	1.1	1.2	1.1	1.5	2.9	3.6	0.7
	PWL (dBA)	57.0	61.5	66.0	70.1	74.1	84.6	81.2	82.4	87.5	87.2	88.7	90.3	90.4	90.7	92.4	92.6	92.4	92.1	91.1	89.5	88.5	88.2	83.3	79.2	75.2	68.7	[61.8]	[57.5]	102.2
8.5	Turbine ON (dBA)	8.2	12.6	17.0	20.9	24.8	35.2	31.7	34.0	38.9	37.9	39.5	40.8	40.9	41.1	42.8	42.9	42.8	42.5	41.6	40.3	39.4	38.9	34.4	30.5	25.5	21.0	15.6	11.1	52.8
	Background (dBA)	3.8	7.4	11.7	14.1	16.9	20.7	22.5	24.4	27.0	27.6	28.2	28.4	28.4	28.0	28.6	28.9	29.5	29.9	30.8	31.7	31.4	30.0	26.3	24.0	19.9	17.4	13.3	9.4	41.4
	Turbine ON - background adj (dBA)	6.2	11.0	15.5	19.9	24.1	35.0	31.2	33.4	38.6	37.4	39.1	40.5	40.7	40.9	42.6	42.7	42.6	42.3	41.2	39.6	38.6	38.3	33.7	29.3	24.1	18.5	[12.6]	[8.1]	52.4
	Signal to noise (dB)	4.3	5.2	5.3	6.8	8.0	14.4	9.3	9.5	11.9	10.3	11.2	12.4	12.5	13.1	14.2	14.0	13.3	12.6	10.8	8.6	8.0	8.9	8.1	6.4	5.6	3.6	2.2	1.8	11.4
	Uncertainty (dB)	3.3	2.5	1.6	2.0	1.3	1.0	1.0	1.0	0.9	0.9	0.8	0.8	0.7	0.8	0.7	0.7	0.7	0.8	0.9	0.9	0.9	1.0	1.3	1.5	1.5	2.1	3.1	3.8	0.8
	PWL (dBA)	55.9	60.7	65.1	69.6	73.8	84.7	80.9	83.1	88.3	87.1	88.8	90.2	90.3	90.6	92.3	92.4	92.3	91.9	90.9	89.3	88.3	88.0	83.4	79.0	73.7	68.1	[62.2]	[57.8]	102.1
9.0	Turbine ON (dBA)	9.3	13.5	17.8	21.7	25.6	35.0	32.4	34.6	40.5	38.6	39.7	40.8	41.1	41.1	42.3	42.9	42.3	42.4	41.8	40.6	39.5	38.5	33.9	29.8	24.9	20.5	15.0	10.5	52.8
	Background (dBA)	4.7	8.4	12.2	14.7	17.2	20.9	23.3	25.3	27.4	28.0	27.7	28.2	28.4	28.6	29.3	29.9	31.2	31.3	32.0	33.6	33.1	31.4	27.5	25.3	21.0	18.2	13.9	9.6	42.4
	Turbine ON - background adj (dBA)	7.4	11.9	16.4	20.7	24.9	34.8	31.8	34.0	40.3	38.2	39.4	40.6	40.8	40.8	42.1	42.7	42.0	42.1	41.3	39.7	38.3	37.6	32.8	28.0	22.6	[17.5]	[12]	[7.5]	52.4
	Signal to noise (dB)	4.6	5.1	5.6	6.9	8.4	14.0	9.1	9.3	13.1	10.6	12.0	12.7	12.7	12.5	13.0	13.1	11.1	11.1	9.8	7.1	6.4	7.1	6.5	4.6	3.9	2.3	1.1	0.8	10.4
	Uncertainty (dB)	3.1	2.4	1.5	1.9	1.2	0.9	0.9	0.9	0.8	0.9	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.9	0.9	1.0	1.4	1.7	1.8	2.3	2.9	3.6	0.8
	PWL (dBA)	57.1	61.6	66.1	70.4	74.5	84.5	81.5	83.7	90.0	87.9	89.1	90.3	90.5	90.5	91.8	92.4	91.6	91.7	91.0	89.3	88.0	87.2	82.5	77.6	72.3	[67.2]	[61.6]	[57.1]	102.1
9.5	Turbine ON (dBA)	9.8	13.9	18.0	21.7	25.6	34.6	32.1	34.7	40.7	38.9	39.8	40.7	40.9	40.9	41.8	42.8	41.8	42.2	41.8	40.7	39.6	38.3	33.7	29.6	24.8	20.7	15.3	10.7	52.7
	Background (dBA)	5.2	9.0	13.0	15.6	17.7	21.5	23.9	25.7	29.0	28.6	29.1	29.3	30.3	29.3	29.8	30.6	30.8	31.4	32.4	33.1	33.3	32.1	28.4	26.2	22.2	19.0	14.3	10.1	42.9
	Turbine ON - background adj (dBA)	8.0	12.1	16.3	20.5	24.9	34.3	31.3	34.1	40.4	38.5	39.4	40.4	40.5	40.5	41.5	42.5	41.4	41.9	41.3	39.9	38.5	37.2	32.2	26.9	[21.8]	[17.7]	[12.3]	[7.7]	52.2
	Signal to noise (dB)	4.6	4.8	4.9	6.1	7.9	13.1	8.2	9.0	11.7	10.4	10.7	11.4	10.7	11.6	12.0	12.2	11.0	10.8	9.5	7.6	6.3	6.2	5.3	3.4	2.5	1.7	1.0	0.7	9.8
	Uncertainty (dB)	3.2	2.6	1.7	2.1	1.3	1.0	1.0	1.0	0.9	0.9	0.8	0.8	0.8	0.8	0.7	0.8	0.8	0.8	0.9	0.9	1.0	1.1	1.6	2.3	2.4	2.5	3.1	3.8	0.9
	PWL (dBA)	57.7	61.8	65.9	70.2	74.5	84.0	81.0	83.8	90.0	88.2	89.1	90.0	90.2	90.2	91.2	92.2	91.1	91.5	91.0	89.6	88.1	86.8	81.9	76.6	[71.4]	[67.3]	[62]	[57.4]	101.9
10.0	Turbine ON (dBA)	10.2	14.0	18.2	21.8	25.4	34.2	31.7	34.7	41.1	38.6	39.4	40.3	40.4	40.3	41.1	42.3	41.3	42.0	41.8	40.9	39.8	38.5	33.8	30.1	25.5	21.3	15.4	10.1	52.5
	Background (dBA)	6.6	10.2	13.8	16.1	18.2	21.4	24.1	26.3	28.9	29.6	30.0	29.7	30.3	30.0	30.7	31.4	32.1	32.8	34.0	35.4	35.5	34.5	30.9	28.8	24.7	21.3	15.7	10.5	44.4
	Turbine ON - background adj (dBA)	7.7	11.7	16.2	20.4	24.5	34.0	30.8	34.0	40.9	38.0	38.9	39.9	39.9	39.9	40.7	41.9	40.7	41.5	41.0	39.5	37.8	36.3	[30.8]	[27.1]	[22.5]	[18.3]	[12.4]	[7.1]	51.7
	Signal to noise (dB)	3.6	3.9	4.4	5.6	7.2	12.8	7.6	8.3	12.2	9.0	9.4	10.6	10.1	10.3	10.4	10.9	9.1	9.2	7.7	5.5	4.3	4.0	2.9	1.3	0.8	0.0	-0.3	-0.4	8.0
	Uncertainty (dB)	3.7	2.9	1.7	2.1	1.3	1.0	1.0	0.9	0.9	0.9	0.8	0.8	0.7	0.8	0.7	0.8	0.8	0.8	0.9	1.1	1.3	1.6	2.6	2.6	2.5	2.5	3.0	3.7	0.9
	PWL (dBA)	57.4	61.4	65.9	70.0	74.2	83.6	80.5	83.7	90.6	87.7	88.5	89.5	89.6	89.6	90.4	91.6	90.4	91.1	90.6	89.1	87.4	85.9	[80.5]	[76.8]	[72.1]	[68]	[62.1]	[56.7]	101.4
10.5	Turbine ON (dBA)	9.6	13.8	17.8	21.5	25.1	34.0	32.3	34.1	39.7	38.1	38.8	39.6	40.2	40.3	41.2	42.4	41.4	42.3	42.1	40.5	39.6	38.5	33.5	29.5	24.8	20.7	15.1	10.3	52.3
	Background (dBA)	7.1	10.6	13.8	15.9	18.9	22.0	24.6	27.0	29.9	30.7	31.4	30.8	31.8	31.3	31.6	32.2	32.6	33.3	34.5	35.6	35.7	34.6	30.8	28.6	24.4	20.7	15.1	10.0	44.9
	Turbine ON - background adj (dBA)	[6.6]	10.9	15.6	20.1	23.9	33.7	31.5	33.1	39.3	37.2	37.9	39.0	39.5	39.7	40.7	41.9	40.8	41.8	41.2	38.9	37.4	36.2	[30.5]	[26.5]	[21.8]	[17.7]	[12.1]	[7.3]	51.4
	Signal to noise (dB)	2.6	3.2	4.0	5.6	6.2	12.0	7.7	7.1	9.9	7.4	7.4	8.7	8.4	8.9	9.6	10.1	8.8	9.0	7.6	5.0	3.9	3.9	2.6	0.8	0.4	0.0	0.0	0.2	7.3
	Uncertainty (dB)	4.3	3.5	1.9	2.1	1.4	1.0	1.1	1.1	0.9	1.0	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.0	1.2	1.4	1.6	2.5	2.6	2.4	2.5	3.0	3.7	0.9
	PWL (dBA)	[56.3]	60.6	65.2	69.7	73.6	83.4	81.1	82.8	88.9	86.9	87.6	88.6	89.2	89.3	90.4	91.6	90.4	91.4	90.9	88.5	87.1	85.9	[80.1]	[76.1]	[71.5]	[67.4]	[61.8]	[56.9]	101.1
11.0	Turbine ON (dBA)	10.5	14.6	18.5	22.0	25.4	34.0	32.2	34.1	39.6	38.3	39.0	39.7	40.3	40.5	41.4	42.7	41.8	42.8	42.7	41.7	40.7	39.4	34.6	31.1	26.6	22.5	16.3	10.7	52.7
	Background (dBA)	7.0	10.8	13.8	16.1	18.9	22.2	25.2	27.4	30.0	30.7	31.3	31.1	32.6	31.6	31.9	32.4	32.9	33.5	34.6	36.1	36.0	34.8	31.1	28.9	24.6	21.1	15.4	10.2	45.2
	Turbine ON - background adj (dBA)	8.0	12.2	16.8	20.7	24.3	33.7	31.2	33.0	39.2	37.4	38.2	39.0	39.5	39.9	40.9	42.2	41.2	42.2	41.9	40.3	38.9	37.6	32.1	[28.1]	[23.6]	[19.5]	[13.3]	[7.7]	51.9
	Signal to noise (dB)	3.5	3.8	4.8	5.9	6.5	11.7	7.0	6.7	9.7	7.5	7.7	8.5	7.7	8.9	9.5	10.2	8.9	9.2	8.0	5.6	4.7	4.6	3.6	2.2	2.0	1.4	1.0	0.6	7.5
	Uncertainty (dB)	3.9	3.1	1.7	2.1	1.4	1.0	1.1	1.1	1.0	1.0	0.9	0.9	0.9	0.8	0.8	0.8	0.8	0.9	1.0	1.1	1.3	1.5	2.3	2.7	2.6	2.7	3.2	3.8	1.0
	PWL (dBA)	57.6	61.9	66.5	70.4	74.0	83.3	80.9	82.7	88.8	87.1	87.9	88.7	89.2	89.6	90.6	91.9	90.9	91.9	91.6	90.0	88.6	87.2	81.8	[77.8]	[73.2]	[69.2]	[63]	[57.4]	101.6

Table C.01 Detailed apparent sound power level data at hub height

Project: North Kent Wind Farm - IEC 61400- 11 Edition 3.0 - Turbine T3

Report ID: 17283.03.T3.RP3

Created on: 1/28/2021

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	
11.5	Turbine ON (dBA)	10.6	14.2	18.0	21.7	25.2	33.8	31.2	33.5	38.9	37.6	38.5	39.3	39.8	40.0	40.9	42.3	41.4	42.4	42.4	41.1	40.4	39.5	34.6	31.2	26.9	23.1	17.1	11.1	52.3
	Background (dBA)	7.7	11.4	14.5	16.9	19.5	22.8	25.2	27.6	30.7	31.2	32.3	31.7	32.7	32.2	32.5	33.0	32.9	34.0	35.3	36.1	36.7	35.9	32.2	30.0	25.7	22.0	15.9	10.0	45.8
	Turbine ON - background adj (dBA)	[7.6]	[11.2]	15.5	19.9	23.8	33.4	29.9	32.2	38.2	36.5	37.4	38.5	38.9	39.2	40.3	41.7	40.8	41.8	41.4	39.4	38.0	37.0	[31.6]	[28.2]	[23.9]	[20.1]	[14.1]	[8.1]	51.3
	Signal to noise (dB)	2.8	2.8	3.5	4.7	5.7	11.0	6.0	5.9	8.3	6.4	6.3	7.6	7.1	7.8	8.4	9.3	8.6	8.4	7.0	5.0	3.7	3.6	2.5	1.2	1.3	1.2	1.2	1.1	6.5
	Uncertainty (dB)	4.4	3.7	2.2	2.4	1.5	1.0	1.2	1.2	1.0	1.1	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.9	1.0	1.2	1.5	1.8	2.7	2.9	2.9	3.0	3.4	3.8	1.0
	PWL (dBA)	[57.2]	[60.8]	65.1	69.6	73.5	83.1	79.6	81.8	87.9	86.2	87.0	88.1	88.5	88.9	89.9	91.4	90.5	91.4	91.1	89.1	87.7	86.7	[81.3]	[77.9]	[73.6]	[69.8]	[63.7]	[57.7]	100.9
12.0	Turbine ON (dBA)	11.1	15.3	19.0	22.9	26.3	34.1	32.1	34.2	39.7	37.8	38.7	39.2	39.8	39.9	40.8	42.2	41.6	42.8	42.8	41.4	40.7	39.5	34.8	31.4	26.9	23.0	16.7	10.9	52.5
	Background (dBA)	7.5	11.2	14.2	16.6	19.4	22.6	24.8	27.6	30.0	31.0	31.6	31.8	33.0	31.9	32.2	32.7	32.8	33.8	35.0	35.9	36.3	35.4	31.7	29.6	25.5	22.0	16.0	10.3	45.5
	Turbine ON - background adj (dBA)	8.6	13.2	17.3	21.8	25.3	33.7	31.2	33.2	39.2	36.7	37.7	38.4	38.8	39.2	40.1	41.7	41.0	42.2	42.0	39.9	38.7	37.4	31.9	[28.4]	[23.9]	[20]	[13.7]	[7.9]	51.6
	Signal to noise (dB)	3.6	4.1	4.8	6.3	6.9	11.4	7.3	6.6	9.7	6.8	7.1	7.4	6.8	8.0	8.5	9.5	8.8	9.0	7.8	5.5	4.4	4.1	3.1	1.9	1.4	1.0	0.7	0.6	7.0
	Uncertainty (dB)	3.9	2.9	1.7	2.1	1.4	1.0	1.1	1.1	1.0	1.1	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.9	1.0	1.2	1.4	1.7	2.6	3.0	2.9	3.1	3.4	3.9	1.0
	PWL (dBA)	58.3	62.8	67.0	71.4	75.0	83.4	80.9	82.8	88.9	86.4	87.4	88.0	88.4	88.9	89.8	91.3	90.6	91.9	91.6	89.6	88.4	87.0	81.6	[78.1]	[73.6]	[69.6]	[63.4]	[57.6]	101.2
12.5	Turbine ON (dBA)	12.0	16.4	20.1	23.5	26.6	33.8	32.2	34.6	40.0	38.0	38.6	39.1	39.6	39.6	40.4	42.0	41.4	42.8	42.9	41.9	41.5	40.6	36.4	33.5	29.2	25.4	19.0	12.2	52.7
	Background (dBA)	7.3	11.0	13.7	16.4	19.1	22.4	25.2	27.5	30.0	30.7	31.6	31.3	32.6	31.9	32.1	32.7	32.6	33.6	34.8	35.5	36.0	35.1	31.3	29.1	24.8	21.0	15.0	9.5	45.3
	Turbine ON - background adj (dBA)	10.2	14.9	19.0	22.6	25.8	33.5	31.2	33.6	39.6	37.1	37.6	38.3	38.6	38.8	39.7	41.4	40.8	42.2	42.1	40.8	40.1	39.2	34.8	31.6	27.3	23.4	16.8	[9.2]	51.8
	Signal to noise (dB)	4.7	5.4	6.4	7.2	7.5	11.4	7.0	7.1	10.1	7.3	7.0	7.8	7.0	7.7	8.2	9.3	8.8	9.2	8.1	6.5	5.5	5.5	5.1	4.4	4.4	4.3	4.0	2.7	7.4
	Uncertainty (dB)	3.0	2.3	1.4	1.8	1.2	1.0	1.0	1.0	0.9	1.0	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.9	1.1	1.3	1.5	1.9	2.4	2.4	2.5	2.8	3.8	1.0
	PWL (dBA)	59.8	64.6	68.6	72.3	75.4	83.2	80.9	83.3	89.3	86.8	87.3	88.0	88.3	88.5	89.3	91.1	90.5	91.9	91.8	90.5	89.8	88.9	84.5	81.3	77.0	73.1	66.4	[58.8]	101.5

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

Project: North Kent Wind Farm - IEC 61400- 11 Edition 3.0 - Turbine T3

Report ID: 17283.03.T3.RP3

Created on: 1/28/2021

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)	7.0	11.4	15.9	19.8	24.9	34.6	29.5	31.6	35.9	36.0	37.8	39.4	39.3	39.5	41.3	41.2	41.4	40.9	40.0	39.4	38.7	37.5	32.6	29.0	23.9	19.3	13.9	9.8	51.2
	Background (dBA)	0.5	4.7	9.3	12.4	15.5	19.9	21.2	23.2	24.4	24.9	25.0	26.2	25.3	24.8	25.8	26.2	27.2	27.3	28.0	28.4	27.5	25.8	23.6	20.3	16.8	15.6	12.7	9.1	38.5
	Turbine ON - background adj (dBA)	5.9	10.4	14.9	18.9	24.4	34.5	28.8	30.9	35.5	35.6	37.6	39.2	39.1	39.3	41.2	41.1	41.2	40.7	39.7	39.0	38.3	37.2	32.1	28.3	23.0	17.0	[10.9]	[6.8]	51.0
	Signal to noise (dB)	6.5	6.8	6.7	7.4	9.4	14.8	8.3	8.3	11.4	11.1	12.9	13.2	13.9	14.7	15.5	15.1	14.2	13.6	11.9	11.0	11.2	11.7	9.0	8.7	7.1	3.7	1.2	0.7	12.8
	Uncertainty (dB)	2.4	2.0	1.3	1.8	1.1	0.9	0.9	0.9	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.7	0.8	1.1	1.2	1.2	1.9	2.9	3.6	0.7
	PWL (dBA)	55.6	60.1	64.5	68.6	74.1	84.2	78.5	80.6	85.2	85.3	87.3	88.9	88.7	89.0	90.9	90.8	90.9	90.4	89.3	88.7	88.0	86.8	81.7	78.0	72.6	66.6	[60.6]	[56.5]	100.7
6.0	Turbine ON (dBA)	8.7	13.0	17.4	21.3	25.2	35.1	32.1	34.1	39.4	38.2	39.5	40.8	41.0	41.1	42.6	42.9	42.6	42.5	41.7	40.5	39.4	38.8	34.2	30.2	25.6	20.8	15.3	10.9	52.8
	Background (dBA)	3.8	7.5	11.5	14.1	16.8	20.6	22.7	24.5	26.8	27.3	27.5	28.0	28.2	28.0	28.6	29.1	30.0	30.2	31.0	32.2	31.7	30.2	26.4	24.2	20.0	17.5	13.5	9.5	41.5
	Turbine ON - background adj (dBA)	7.1	11.6	16.1	20.3	24.5	34.9	31.5	33.5	39.2	37.8	39.2	40.6	40.7	40.9	42.4	42.8	42.4	42.2	41.3	39.8	38.6	38.1	33.4	29.0	24.2	18.1	[12.3]	[7.9]	52.5
	Signal to noise (dB)	5.0	5.5	5.8	7.1	8.3	14.4	9.4	9.5	12.7	10.8	12.0	12.8	12.8	13.2	14.0	13.8	12.6	12.3	10.7	8.3	7.7	8.6	7.8	6.0	5.6	3.3	1.8	1.4	11.3
	Uncertainty (dB)	3.0	2.3	1.5	1.9	1.2	1.0	0.9	0.9	0.9	0.9	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.9	0.9	0.9	0.9	1.3	1.4	1.4	2.2	3.0	3.7	0.8
	PWL (dBA)	56.7	61.3	65.7	70.0	74.1	84.6	81.2	83.2	88.9	87.4	88.9	90.2	90.4	90.6	92.1	92.4	92.1	91.9	91.0	89.4	88.3	87.8	83.1	78.6	73.8	67.8	[62]	[57.6]	102.1
7.0	Turbine ON (dBA)	10.0	14.0	18.0	21.7	25.5	34.3	31.9	34.5	40.7	38.6	39.4	40.2	40.5	40.5	41.4	42.5	41.5	42.2	41.9	40.8	39.7	38.5	33.7	29.8	25.1	21.0	15.3	10.3	52.5
	Background (dBA)	6.4	10.0	13.5	15.9	18.3	21.7	24.2	26.4	29.3	29.7	30.3	30.0	30.8	30.3	30.8	31.5	31.9	32.6	33.7	34.8	34.9	33.9	30.1	28.0	23.9	20.4	15.0	10.2	44.2
	Turbine ON - background adj (dBA)	7.6	11.7	16.1	20.4	24.5	34.0	31.1	33.8	40.3	38.0	38.8	39.8	40.0	40.1	41.0	42.1	41.0	41.7	41.2	39.5	38.0	36.6	31.2	[26.8]	[22.1]	[18]	[12.3]	[7.3]	51.8
	Signal to noise (dB)	3.6	4.0	4.5	5.8	7.1	12.6	7.7	8.1	11.3	8.9	9.1	10.2	9.7	10.2	10.6	11.0	9.6	9.6	8.2	6.0	4.8	4.6	3.6	1.8	1.3	0.6	0.3	0.1	8.3
	Uncertainty (dB)	3.5	2.8	1.6	2.0	1.2	0.9	0.9	0.9	0.8	0.9	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.9	1.0	1.1	1.3	2.0	2.3	2.2	2.3	2.9	3.6	0.8
	PWL (dBA)	57.2	61.4	65.8	70.1	74.2	83.7	80.8	83.5	90.0	87.7	88.5	89.5	89.7	89.7	90.6	91.8	90.6	91.4	90.9	89.2	87.6	86.3	80.9	[76.5]	[71.8]	[67.7]	[62]	[57]	101.5
8.0	Turbine ON (dBA)	10.8	14.7	18.6	22.2	25.6	33.9	31.9	34.0	39.4	37.9	38.8	39.4	40.0	40.2	41.1	42.4	41.6	42.7	42.6	41.5	40.6	39.5	34.7	31.3	26.8	22.9	16.7	10.9	52.6
	Background (dBA)	7.4	11.1	14.2	16.6	19.3	22.5	25.1	27.6	30.3	31.0	31.8	31.6	32.7	31.9	32.2	32.7	32.9	33.8	35.0	36.1	36.4	35.4	31.7	29.6	25.3	21.7	15.8	10.2	45.5
	Turbine ON - background adj (dBA)	8.0	12.2	16.6	20.8	24.5	33.6	30.9	32.9	38.9	37.0	37.8	38.6	39.1	39.5	40.5	41.9	41.0	42.1	41.8	40.0	38.6	37.3	31.7	[28.3]	[23.8]	[19.9]	[13.7]	[7.9]	51.6
	Signal to noise (dB)	3.3	3.6	4.4	5.6	6.4	11.4	6.8	6.4	9.2	6.9	7.0	7.9	7.3	8.2	8.9	9.7	8.7	8.9	7.6	5.4	4.3	4.1	3.0	1.7	1.5	1.2	0.9	0.7	7.0
	Uncertainty (dB)	3.9	3.1	1.7	2.1	1.4	1.0	1.0	1.1	0.9	1.0	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.9	1.1	1.2	1.4	2.3	2.4	2.3	2.4	3.0	3.6	0.9
	PWL (dBA)	57.7	61.9	66.3	70.5	74.2	83.3	80.6	82.5	88.6	86.6	87.5	88.3	88.8	89.1	90.1	91.6	90.7	91.7	91.5	89.7	88.3	87.0	81.4	[78]	[73.5]	[69.5]	[63.4]	[57.6]	101.3
9.0	Turbine ON (dBA)	11.8	16.2	19.9	23.4	26.8	34.2	32.5	34.6	40.2	37.8	38.4	39.1	39.6	39.6	40.3	41.9	41.4	42.8	42.8	41.9	41.3	40.3	36.0	33.0	28.6	24.7	18.4	11.7	52.6
	Background (dBA)	7.6	11.5	14.2	16.8	19.5	22.7	25.3	27.8	30.4	31.1	31.8	31.8	33.6	32.5	32.5	33.0	32.8	33.9	35.1	35.8	36.3	35.4	31.5	29.2	24.8	21.1	15.1	9.6	45.6
	Turbine ON - background adj (dBA)	9.7	14.4	18.6	22.4	25.9	33.9	31.6	33.6	39.7	36.8	37.4	38.2	38.4	38.7	39.5	41.3	40.8	42.2	42.0	40.6	39.7	38.6	34.0	30.6	26.3	22.3	15.7	[8.7]	51.7
	Signal to noise (dB)	4.2	4.7	5.7	6.6	7.2	11.5	7.2	6.8	9.8	6.7	6.6	7.3	6.1	7.2	7.8	8.9	8.6	8.9	7.7	6.1	5.0	4.9	4.5	3.7	3.8	3.7	3.3	2.1	7.0
	Uncertainty (dB)	3.5	2.7	1.5	2.0	1.3	1.0	1.1	1.1	0.9	1.1	0.9	0.9	1.0	0.9	0.9	0.8	0.8	0.9	1.0	1.1	1.3	1.5	2.0	2.5	2.4	2.6	3.3	3.8	1.0
	PWL (dBA)	59.4	64.1	68.3	72.0	75.5	83.5	81.2	83.2	89.4	86.5	87.0	87.8	88.1	88.4	89.2	91.0	90.5	91.8	91.7	90.3	89.3	88.3	83.7	80.2	75.9	72.0	65.4	[58.4]	101.3

Table C.03 Type B measurement uncertainty summary

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	2 dB
25	0.8 dB	1.6 dB
31.5	0.5 dB	1.1 dB
40	0.5 dB	1.5 dB
50	0.5 dB	1.1 dB
63	0.5 dB	0.9 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	0.8 dB
1250	0.3 dB	0.8 dB
1600	0.3 dB	0.8 dB
2000	0.3 dB	0.7 dB
2500	0.5 dB	0.8 dB
3150	0.5 dB	1.1 dB
4000	0.5 dB	1.1 dB
5000	0.5 dB	1 dB
6300	0.5 dB	1.1 dB
8000	0.5 dB	1.4 dB
10000	1.3 dB	1.7 dB

Table C.04 Detailed measurement uncertainty at hub height

Project: North Kent Wind Farm - IEC 61400- 11 Edition 3.0 - Turbine T3

Report ID: 17283.03.T3.RP3

Created on: 1/28/2021

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	
7.5	Turbine ON	7.49	105	Average (dBA)	7.6	12.1	16.6	20.5	24.4	34.9	30.3	32.2	36.6	36.8	38.6	40.2	40.2	40.6	42.4	42.3	42.5	42.0	41.0	40.2	39.2	38.7	33.7	29.8	25.0	20.3	14.5	10.2	52.2
				Uncertainty A (dB)	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	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	
				Uncertainty B (dB)	2.0	1.6	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7	
				Combined Uncertainty (dB)	2.0	1.7	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7	
	Background	7.49	67	Average (dBA)	1.3	5.2	10.0	13.0	15.7	19.5	21.3	22.6	25.3	25.2	25.1	26.6	25.7	25.1	26.2	26.6	27.0	27.6	28.3	28.2	28.0	26.8	25.3	21.2	17.3	16.0	13.1	9.2	38.8
				Uncertainty A (dB)	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.4	0.5	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.5	0.6	0.7	0.9	1.0	1.1	0.8	0.6	0.4	0.3	0.2	
				Uncertainty B (dB)	2.0	1.6	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7	
				Combined Uncertainty (dB)	2.0	1.7	1.1	1.6	1.1	1.0	0.9	0.9	1.0	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.9	1.0	1.0	1.2	1.3	1.5	1.3	1.2	1.1	1.4	1.7	
8.0	Turbine ON	8.04	92	Average (dBA)	8.4	12.9	17.3	21.2	25.1	35.1	32.1	33.3	38.1	37.9	39.3	40.9	41.0	41.2	42.9	43.1	42.9	42.7	41.8	40.3	39.3	38.9	34.1	30.2	26.2	20.7	15.1	10.8	52.8
				Uncertainty A (dB)	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.2	0.2	
				Uncertainty B (dB)	2.0	1.6	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7	
				Combined Uncertainty (dB)	2.0	1.7	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7	
	Background	8.01	83	Average (dBA)	1.6	5.8	10.1	13.0	16.0	20.3	21.8	24.1	24.9	25.6	25.7	26.7	26.7	26.5	27.3	27.8	28.5	28.7	29.2	30.4	29.4	27.5	23.8	21.2	17.2	15.6	12.6	9.1	39.8
				Uncertainty A (dB)	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.7	0.8	0.9	0.7	0.7	0.5	0.3	0.2	0.2	
				Uncertainty B (dB)	2.0	1.6	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7	
				Combined Uncertainty (dB)	2.0	1.7	1.1	1.5	1.1	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.9	0.9	1.0	1.1	1.2	1.3	1.3	1.1	1.1	1.4	1.7	
8.5	Turbine ON	8.50	121	Average (dBA)	8.2	12.6	17.0	20.9	24.8	35.2	31.7	33.9	38.9	37.9	39.5	40.8	40.9	41.1	42.8	42.9	42.8	42.5	41.6	40.3	39.4	38.9	34.4	30.5	25.5	21.0	15.6	11.1	52.8
				Uncertainty A (dB)	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	
				Uncertainty B (dB)	2.0	1.6	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7	
				Combined Uncertainty (dB)	2.0	1.7	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7	
	Background	8.50	62	Average (dBA)	3.8	7.4	11.6	14.1	16.9	20.7	22.5	24.4	27.0	27.6	28.2	28.4	28.4	28.0	28.5	28.9	29.5	29.9	30.8	31.7	31.4	30.0	26.3	24.0	19.8	17.4	13.3	9.4	41.4
				Uncertainty A (dB)	0.6	0.5	0.5	0.4	0.3	0.3	0.3	0.4	0.5	0.6	0.6	0.4	0.5	0.5	0.5	0.6	0.6	0.7	0.7	0.9	1.2	1.3	1.1	1.1	0.8	0.5	0.3	0.2	
				Uncertainty B (dB)	2.0	1.6	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7	
				Combined Uncertainty (dB)	2.1	1.7	1.2	1.6	1.1	1.0	0.9	0.9	1.0	1.0	0.9	0.8	0.9	0.9	0.9	0.9	0.9	1.0	1.1	1.2	1.4	1.5	1.6	1.5	1.3	1.2	1.4	1.7	
9.0	Turbine ON	8.97	102	Average (dBA)	9.3	13.5	17.8	21.7	25.6	35.0	32.4	34.6	40.5	38.6	39.7	40.8	41.1	41.1	42.4	43.0	42.4	42.4	41.8	40.6	39.5	38.5	34.0	29.8	24.9	20.5	14.9	10.4	52.8
				Uncertainty A (dB)	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	
				Uncertainty B (dB)	2.0	1.6	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7	
				Combined Uncertainty (dB)	2.0	1.7	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7	
	Background	8.99	91	Average (dBA)	4.7	8.4	12.2	14.7	17.2	20.9	23.3	25.3	27.4	28.0	27.7	28.1	28.3	28.6	29.3	29.9	31.2	31.3	32.0	33.6	33.1	31.4	27.5	25.2	21.0	18.2	13.9	9.6	42.4
				Uncertainty A (dB)	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.3	0.4	0.4	0.3	0.3	0.3	0.4	0.3	0.3	0.4	0.4	0.5	0.6	0.7	0.7	0.7	0.7	0.6	0.5	0.3	0.2	
				Uncertainty B (dB)	2.0	1.6	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7	
				Combined Uncertainty (dB)	2.0	1.7	1.1	1.5	1.1	1.0	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.9	0.9	1.0	1.0	1.1	1.3	1.3	1.2	1.2	1.4	1.7	
9.5	Turbine ON	9.49	74	Average (dBA)	9.8	13.9	18.0	21.7	25.6	34.6	32.1	34.7	40.7	38.9	39.8	40.7	40.9	40.9	41.8	42.8	41.8	42.2	41.8	40.7	39.6	38.3	33.7	29.6	24.8	20.6	15.3	10.8	52.7
				Uncertainty A (dB)	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.3	
				Uncertainty B (dB)	2.0	1.6	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7	
				Combined Uncertainty (dB)	2.0	1.7	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7	
	Background	9.51	83	Average (dBA)	5.2	9.0	13.0	15.7	17.7	21.5	23.9	25.7	29.0	28.6	29.1	29.3	30.3	29.3	29.9	30.6	30.8	31.4	32.4	33.1	33.3	32.1	28.4	26.3	22.3	19.0	14.3	10.1	42.9
				Uncertainty A (dB)	0.5	0.4	0.4	0.3	0.2	0.2	0.3	0.3	0.5	0.5	0.4	0.3	0.5	0.4	0.4	0.4	0.4	0.4	0.5	0.7	0.8	0.9	0.9	0.9	0.8	0.6	0.4	0.3	
				Uncertainty B (dB)	2.0	1.6	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7	
				Combined Uncertainty (dB)	2.0	1.7	1.1	1.6	1.1	1.0	0.9	0.9	1.0	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.9	1.0	1.0	1.1	1.3	1.4	1.4	1.3	1.2	1.4	1.7	
10.0	Turbine ON	9.97	65	Average (dBA)	10.2	14.0	18.2	21.8	25.4	34.2	31.6	34.7	41.2	38.6	39.4	40.3	40.4	40.3	41.1	42.3	41.3	42.0	41.7	40.9	39.8	38.5	33.8	30.2	25.5	21.4	15.4	10.1	52.5
				Uncertainty A (dB)	0.2	0.3	0.3	0.2	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	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.3	0.2	
				Uncertainty B (dB)	2.0	1.6	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7	
				Combined Uncertainty (dB)	2.0	1.7	1.1	1.5	1.1	1.0	0.8	0.8	0.9	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.1	1.1	1.4	1.7	
	Background	9.99	63	Average (dBA)	6.6	10.1	13.8	16.1	18.2	21.4	24.1	26.3	28.9	29.6	30.0	29.7	30.3	29.9	30.7	31.4	32.1	32.8	34.0	35.4	35.5	34.5	30.9	28.8	24.7	21.3	15.8	10.5	44.4
				Uncertainty A (dB)	0.6	0.5	0.4	0.4	0.3	0.2	0.3	0.4	0.5	0.5	0.5	0.4	0.5	0.5	0.5	0.5	0.5	0.6	0.7	0.9	1.0	1.1	1.1	1.1	1.0	0.8	0.6	0.4	
				Uncertainty B (dB)	2.0	1.6	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7	
				Combined Uncertainty (dB)	2.1	1.7	1.1	1.6	1.1	1.0	0.9	0.9	0.9	1.0	0.9	0.8	0.9	0.9	0.8	0.9	0.9	1.0	1.0	1.2	1.2	1.4	1.5	1.6	1.4	1.4	1.5	1.7	

Table C.04 Detailed measurement uncertainty at hub height

Project: North Kent Wind Farm - IEC 61400- 11 Edition 3.0 - Turbine T3

Report ID: 17283.03.T3.RP3

Created on: 1/28/2021

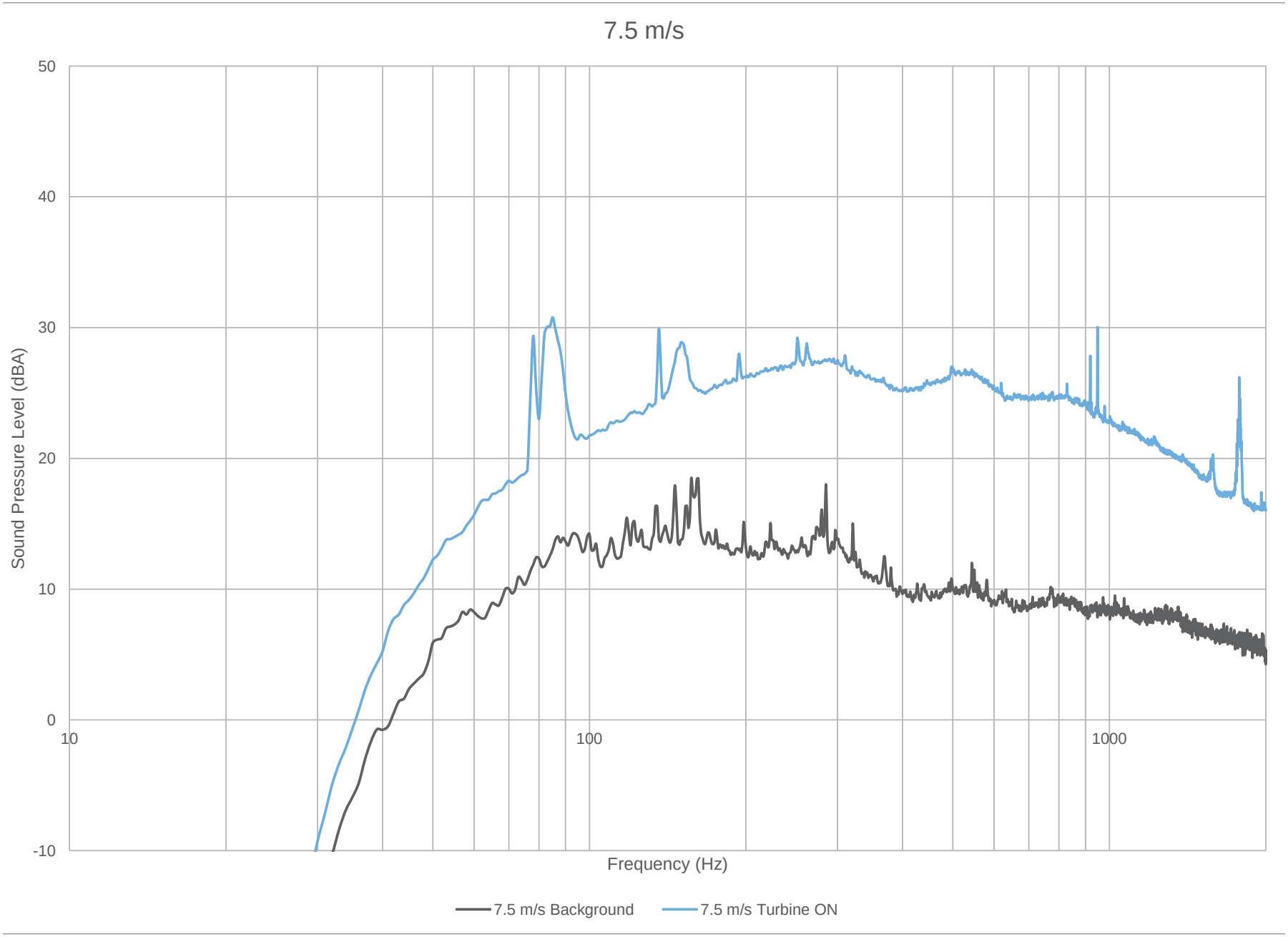
Wind Bin (m/s)	Parameter	Average Wind Speed (m/s)	# of data points	Parameter	1/3 Octave Band (Hz)																													Overall
					20	25	31.5	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000	
10.5	Turbine ON	10.53	30	Average (dBA)	9.6	13.8	17.7	21.5	25.1	34.0	32.3	34.0	39.7	38.0	38.8	39.6	40.2	40.3	41.2	42.4	41.4	42.4	42.1	40.5	39.6	38.5	33.4	29.4	24.8	20.7	15.1	10.3	52.3
				Uncertainty A (dB)	0.3	0.4	0.4	0.4	0.4	0.2	0.5	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.4	0.4	0.4	0.4	0.4		
				Uncertainty B (dB)	2.0	1.6	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7		
				Combined Uncertainty (dB)	2.0	1.7	1.1	1.6	1.1	1.0	1.0	0.9	0.9	0.9	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.7	0.9	1.1	1.1	1.1	1.1	1.4	1.7		
	Background	10.49	72	Average (dBA)	7.1	10.6	13.8	15.9	18.9	22.0	24.5	27.0	29.9	30.7	31.4	30.8	31.8	31.3	31.6	32.2	32.6	33.3	34.5	35.6	35.7	34.6	30.8	28.6	24.4	20.7	15.1	10.0	44.9
				Uncertainty A (dB)	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.4	0.4	0.3	0.4	0.4	0.3	0.4	0.4	0.4	0.5	0.6	0.7	0.8	0.9	0.9	0.9	0.7	0.5	0.3		
				Uncertainty B (dB)	2.0	1.6	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7		
				Combined Uncertainty (dB)	2.0	1.7	1.1	1.6	1.1	1.0	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.9	0.9	1.0	1.0	1.2	1.4	1.4	1.3	1.3	1.4	1.7		
11.0	Turbine ON	10.99	39	Average (dBA)	10.5	14.6	18.6	22.0	25.4	34.0	32.2	34.1	39.7	38.3	39.1	39.7	40.3	40.5	41.4	42.7	41.8	42.8	42.7	41.8	40.7	39.4	34.6	31.1	26.6	22.5	16.3	10.7	52.7
				Uncertainty A (dB)	0.3	0.3	0.2	0.3	0.2	0.2	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	0.2	0.2	0.2	0.3	0.5	0.5	0.5	0.4	0.3		
				Uncertainty B (dB)	2.0	1.6	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7		
				Combined Uncertainty (dB)	2.0	1.7	1.1	1.5	1.1	1.0	0.9	0.9	0.9	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.9	1.1	1.2	1.1	1.2	1.4	1.7		
	Background	11.00	55	Average (dBA)	7.0	10.8	13.8	16.1	18.9	22.2	25.2	27.4	30.0	30.7	31.3	31.1	32.6	31.6	31.9	32.4	32.9	33.5	34.6	36.1	36.0	34.8	31.1	28.9	24.6	21.1	15.4	10.2	45.2
				Uncertainty A (dB)	0.5	0.5	0.4	0.3	0.3	0.2	0.3	0.3	0.4	0.5	0.5	0.4	0.5	0.4	0.4	0.4	0.5	0.5	0.7	0.8	0.9	1.0	1.1	1.1	1.0	0.8	0.6	0.4		
				Uncertainty B (dB)	2.0	1.6	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7		
				Combined Uncertainty (dB)	2.0	1.7	1.1	1.6	1.1	1.0	0.9	0.9	0.9	1.0	0.8	0.8	0.9	0.8	0.8	0.8	0.9	0.9	1.0	1.1	1.2	1.3	1.5	1.5	1.4	1.4	1.5	1.7		
11.5	Turbine ON	11.51	29	Average (dBA)	10.6	14.2	18.0	21.7	25.2	33.8	31.2	33.4	38.9	37.6	38.5	39.3	39.8	40.0	40.9	42.3	41.4	42.4	42.4	41.1	40.4	39.5	34.6	31.2	27.0	23.1	17.1	11.1	52.3
				Uncertainty A (dB)	0.4	0.4	0.4	0.3	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	0.3	0.3	0.4	0.5	0.7	0.8	0.9	0.8	0.5		
				Uncertainty B (dB)	2.0	1.6	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7		
				Combined Uncertainty (dB)	2.0	1.7	1.1	1.6	1.1	1.0	0.9	0.9	0.9	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.9	1.2	1.3	1.3	1.4	1.6	1.8		
	Background	11.46	44	Average (dBA)	7.7	11.4	14.5	17.0	19.5	22.8	25.2	27.6	30.7	31.2	32.3	31.7	32.7	32.2	32.5	33.0	32.9	34.0	35.4	36.1	36.7	35.9	32.2	30.0	25.7	22.0	15.9	10.0	45.8
				Uncertainty A (dB)	0.5	0.5	0.4	0.4	0.3	0.2	0.3	0.2	0.3	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.6	0.7	0.9	1.0	1.0	1.1	1.1	1.0	0.7	0.4		
				Uncertainty B (dB)	2.0	1.6	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7		
				Combined Uncertainty (dB)	2.0	1.7	1.1	1.6	1.1	1.0	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.9	1.0	1.1	1.1	1.3	1.5	1.5	1.5	1.4	1.5	1.7		
12.0	Turbine ON	11.99	22	Average (dBA)	11.1	15.3	19.0	22.9	26.3	34.1	32.1	34.2	39.7	37.8	38.7	39.2	39.8	39.9	40.8	42.2	41.6	42.8	42.8	41.4	40.6	39.5	34.8	31.4	26.9	22.9	16.7	10.9	52.5
				Uncertainty A (dB)	0.4	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.8	0.8	0.9	0.8	0.5		
				Uncertainty B (dB)	2.0	1.6	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7		
				Combined Uncertainty (dB)	2.0	1.7	1.1	1.5	1.1	1.0	0.9	0.9	0.9	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.9	1.2	1.3	1.3	1.4	1.6	1.8		
	Background	11.98	39	Average (dBA)	7.6	11.2	14.3	16.7	19.4	22.6	24.8	27.6	30.0	31.0	31.6	31.9	33.0	31.9	32.2	32.8	32.8	33.8	35.0	36.0	36.3	35.4	31.7	29.6	25.5	22.0	16.1	10.3	45.5
				Uncertainty A (dB)	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.3	0.3	0.4	0.5	0.5	0.6	0.4	0.4	0.4	0.4	0.5	0.5	0.7	0.8	0.9	1.0	1.0	1.0	1.0	0.7	0.4		
				Uncertainty B (dB)	2.0	1.6	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7		
				Combined Uncertainty (dB)	2.0	1.7	1.1	1.6	1.1	1.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.8	0.9	1.0	1.0	1.0	1.2	1.4	1.5	1.4	1.4	1.5	1.8		
12.5	Turbine ON	12.55	18	Average (dBA)	12.0	16.5	20.2	23.6	26.6	33.8	32.2	34.6	40.1	38.0	38.6	39.1	39.6	39.6	40.3	41.9	41.4	42.8	42.9	42.0	41.6	40.7	36.6	33.7	29.4	25.6	19.2	12.3	52.7
				Uncertainty A (dB)	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.3	0.5	0.5	0.7	1.0	1.1	1.2	1.1	0.7		
				Uncertainty B (dB)	2.0	1.6	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7		
				Combined Uncertainty (dB)	2.0	1.7	1.1	1.6	1.1	1.0	0.9	0.9	0.9	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.9	1.0	1.3	1.5	1.5	1.6	1.7	1.8	
	Background	12.48	23	Average (dBA)	7.3	11.0	13.7	16.3	19.1	22.4	25.2	27.5	29.9	30.7	31.6	31.2	32.5	31.8	32.1	32.6	32.6	33.6	34.8	35.5	36.0	35.1	31.3	29.1	24.8	21.1	15.0	9.5	45.2
				Uncertainty A (dB)	0.9	0.8	0.6	0.5	0.5	0.4	0.4	0.4	0.5	0.6	0.6	0.4	0.6	0.5	0.5	0.6	0.6	0.8	1.1	1.3	1.6	1.8	1.8	1.9	1.7	1.4	0.9	0.5		
				Uncertainty B (dB)	2.0	1.6	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7		
				Combined Uncertainty (dB)	2.2	1.8	1.2	1.6	1.2	1.0	0.9	0.9	0.9	1.0	0.9	0.8	0.9	0.9	0.9	0.9	1.0	1.1	1.3	1.5	1.8	2.0	2.1	2.2	2.0	1.8	1.6	1.8		

Table C.05 Secondary Windscreen Influence

1/3-Octave Band (Hz)	Parameter	
	Insertion Loss (dB)	Standard Deviation (dB)*
20	0.0	-
25	0.0	-
31.5	0.0	-
40	0.0	-
50	0.0	-
63	0.0	-
80	0.0	-
100	0.0	0.2
125	0.0	0.2
160	0.0	0.2
200	0.0	0.0
250	-0.1	0.2
315	-0.1	0.1
400	0.2	0.2
500	0.3	0.1
630	0.6	0.2
800	0.0	0.1
1000	0.2	0.3
1250	0.5	0.4
1600	0.6	0.3
2000	0.7	0.2
2500	1.0	0.2
3150	0.5	0.7
4000	0.1	0.7
5000	-0.5	0.6
6300	0.5	0.7
8000	0.9	1.1
10000	0.7	0.9

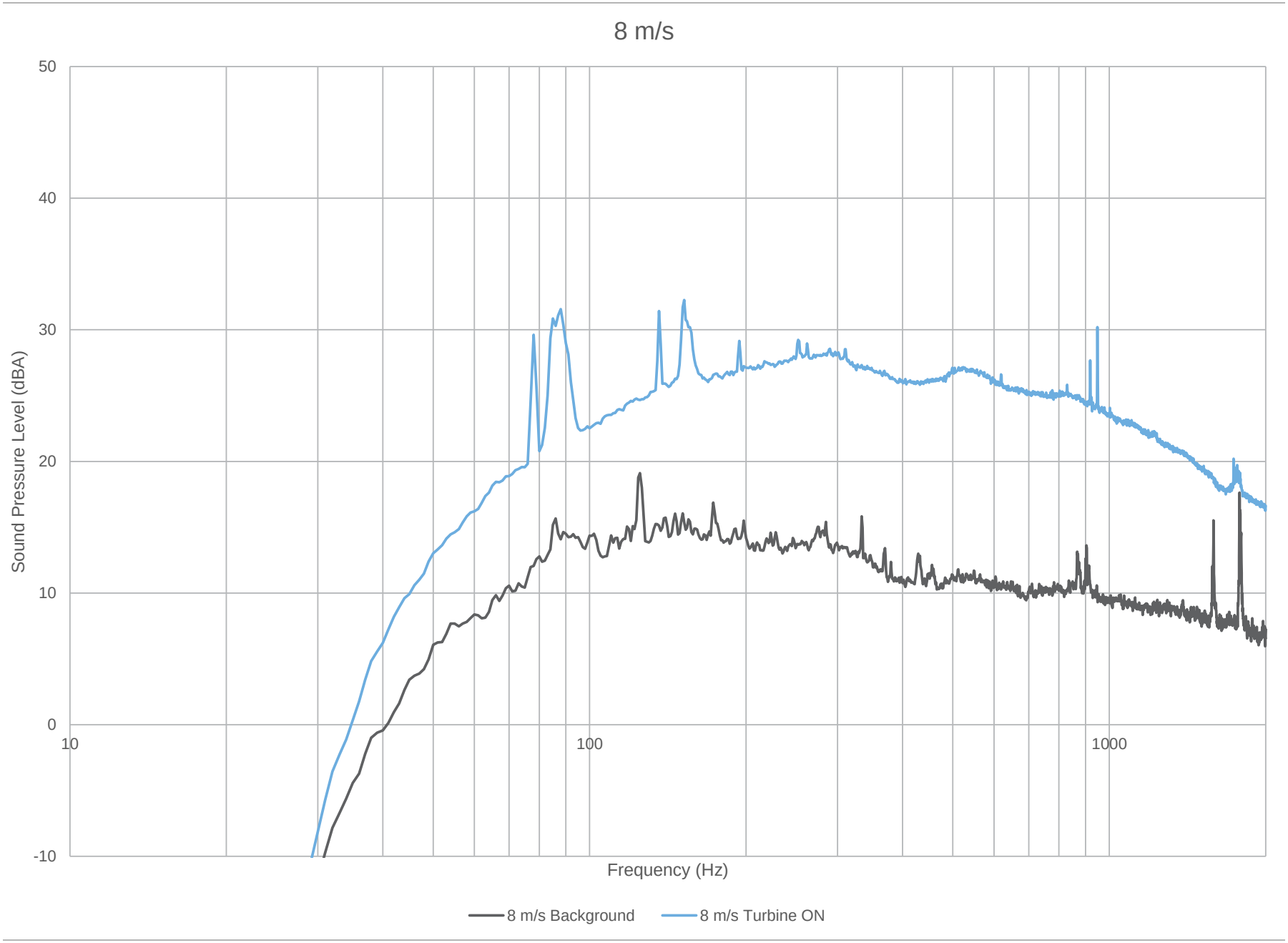
*Per IEC 61400-11 Edition 3.0 Annex E, the insertion loss below 100 Hz has been assumed as 0 dB

Appendix D
Tonality Assessment

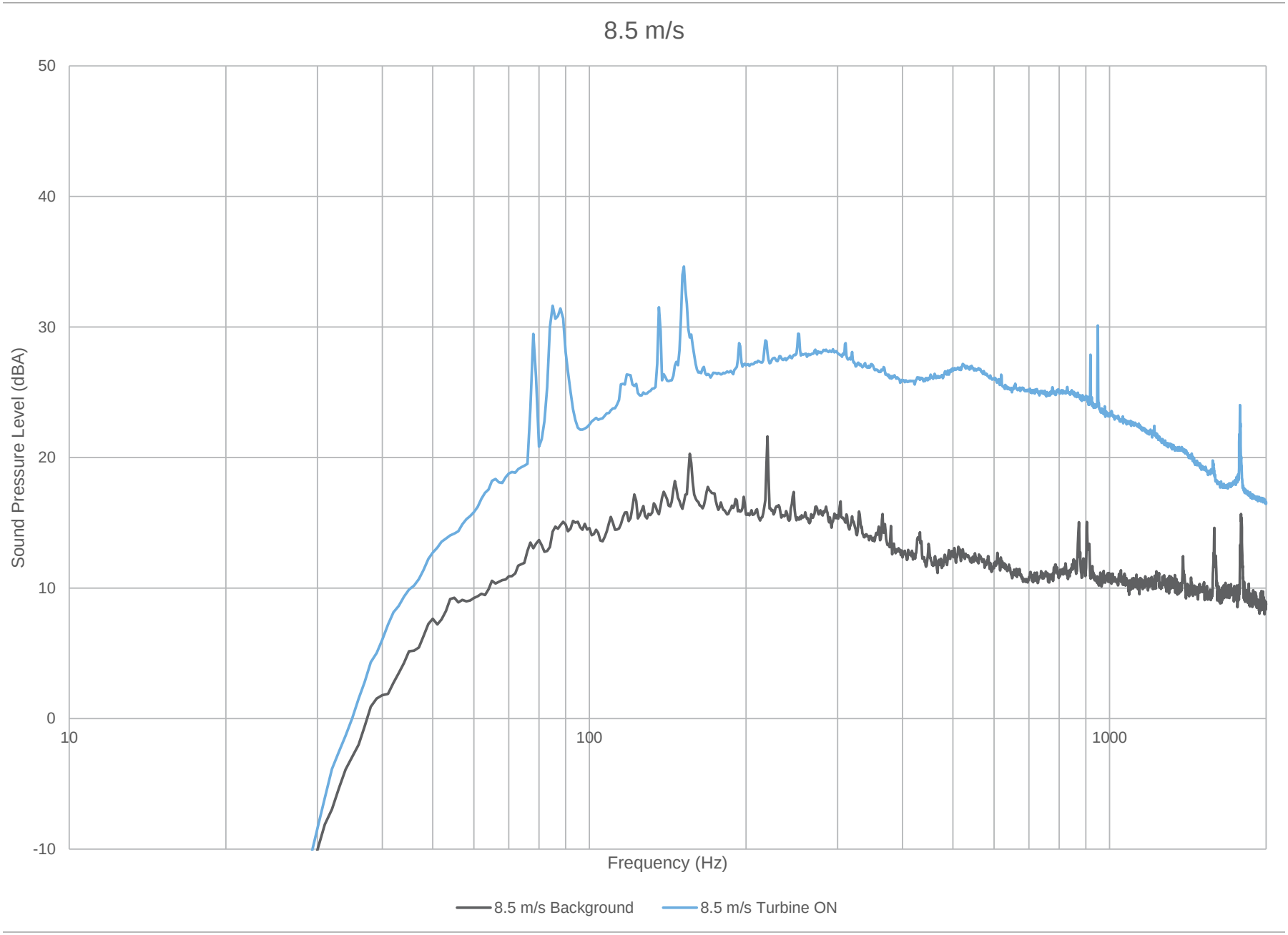


aercoustics	17283.03.T3.RP3	**Project Name**
	Scale: NTS Drawn by: CB Reviewed by: AM Date: Jan 2021 Revision: 3	North Kent Wind Farm - IEC 61400- 11 Edition 3.0 - Turbine T3
		Figure Title Plot of narrow band spectra - Turbine ON vs. Background at 7.5 m/s

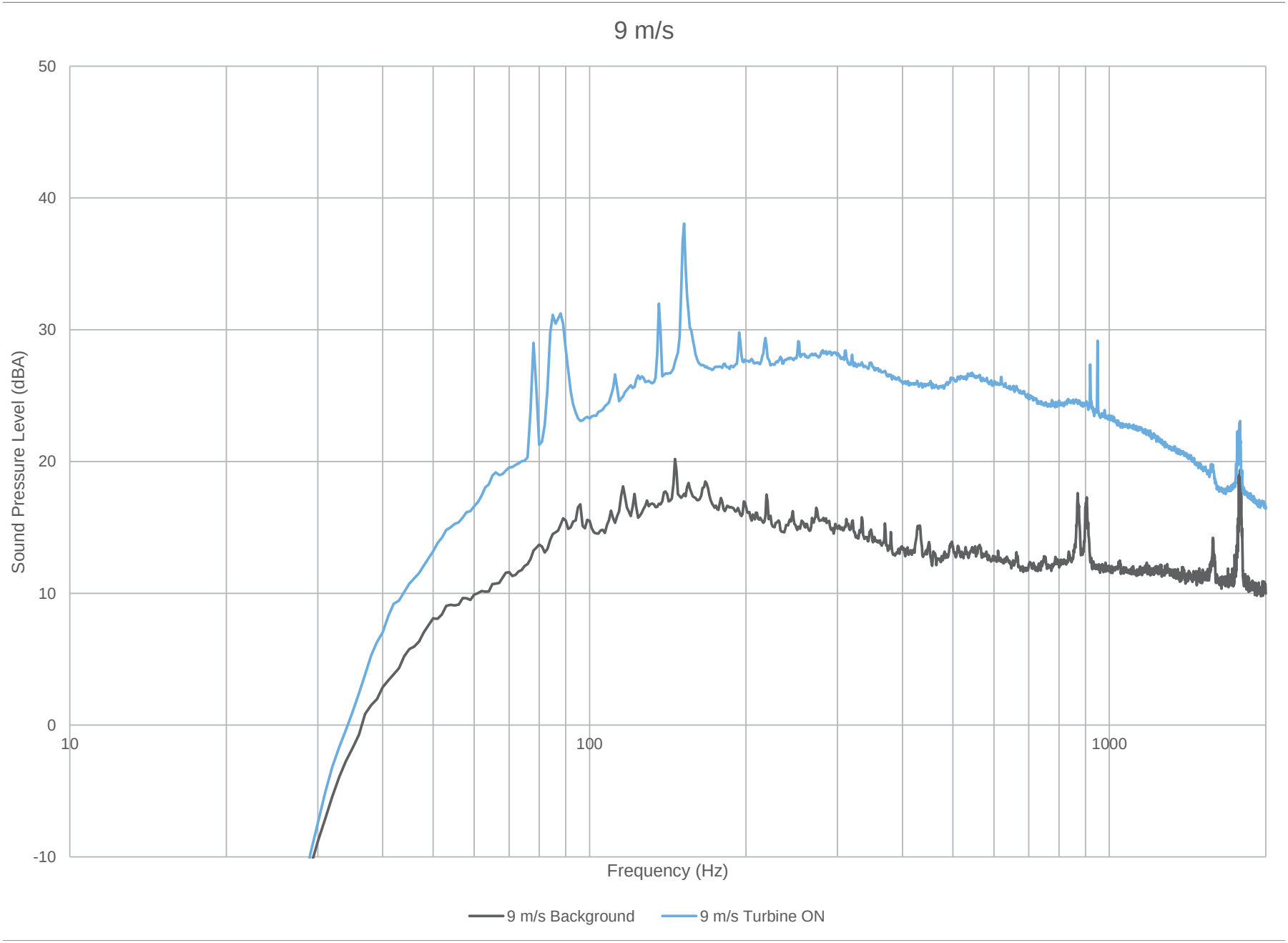
Figure D.01



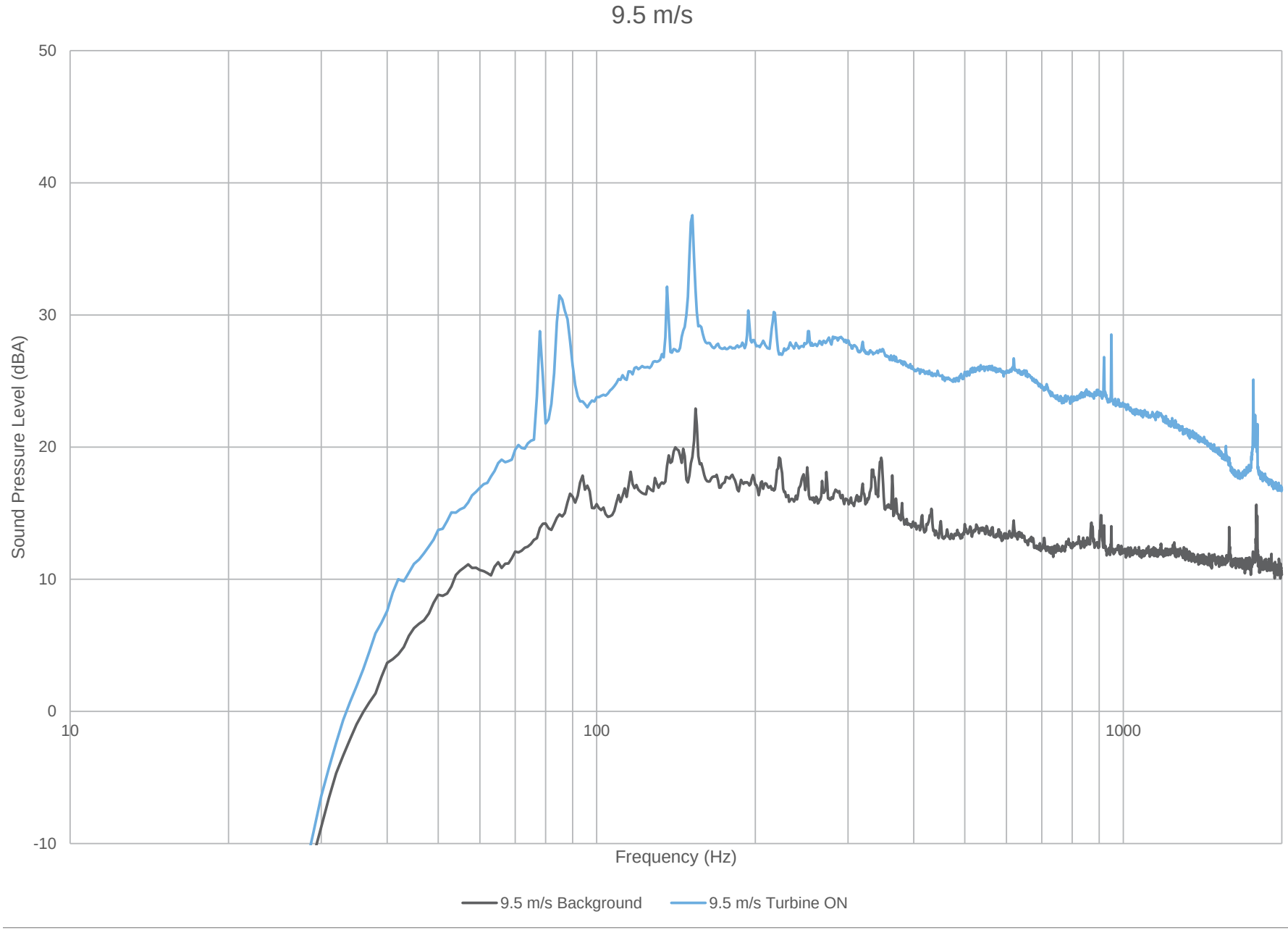
aercoustics	17283.03.T3.RP3	**Project Name**
	Scale: NTS Drawn by: CB Reviewed by: AM Date: Jan 2021 Revision: 3	North Kent Wind Farm - IEC 61400- 11 Edition 3.0 - Turbine T3
		Figure Title Plot of narrow band spectra - Turbine ON vs. Background at 8.0 m/s
		Figure D.02



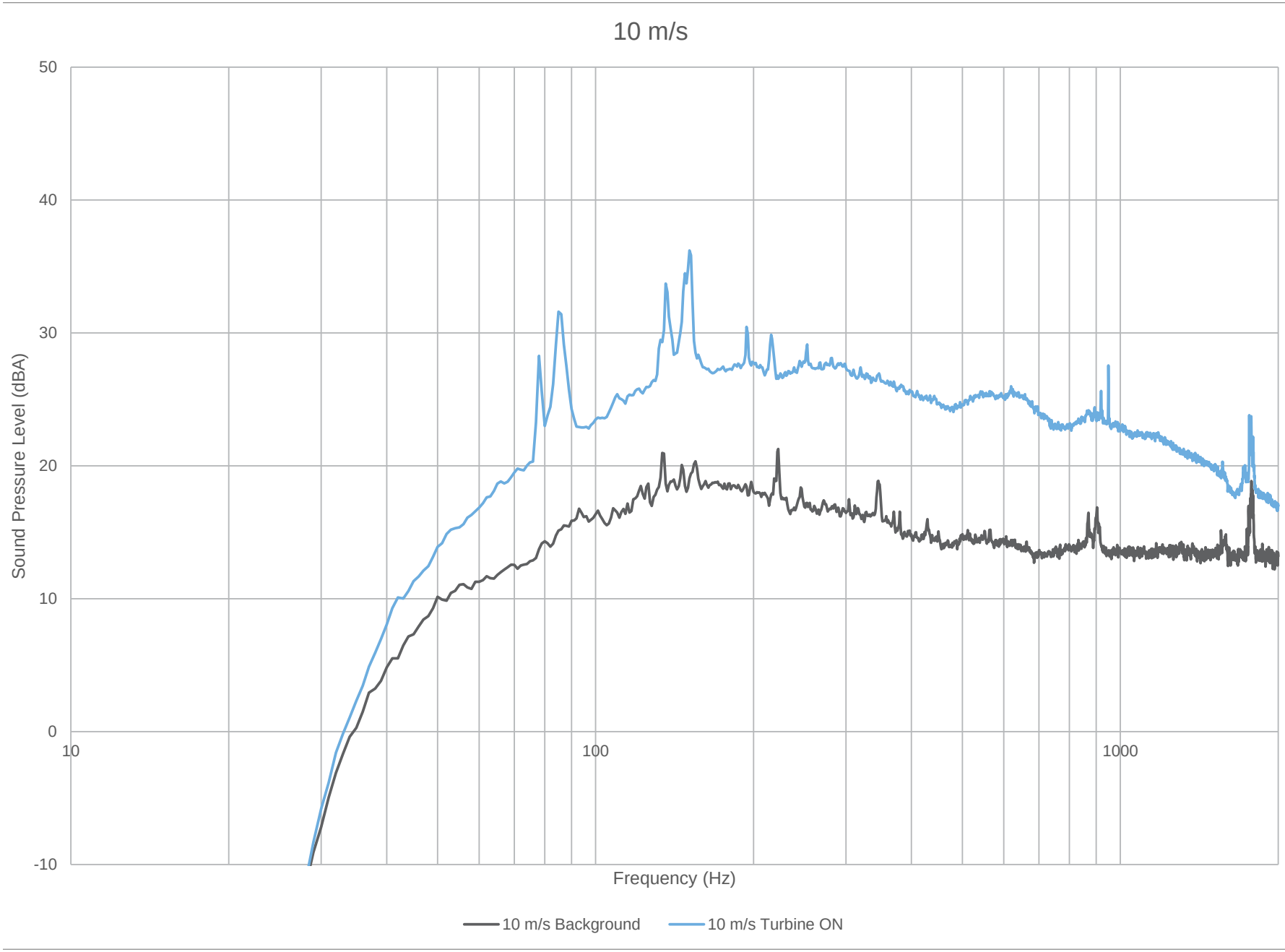
aercoustics	17283.03.T3.RP3	**Project Name**
	Scale: NTS Drawn by: CB Reviewed by: AM Date: Jan 2021 Revision: 3	North Kent Wind Farm - IEC 61400- 11 Edition 3.0 - Turbine T3
		Figure Title Plot of narrow band spectra - Turbine ON vs. Background at 8.5 m/s
		Figure D.03



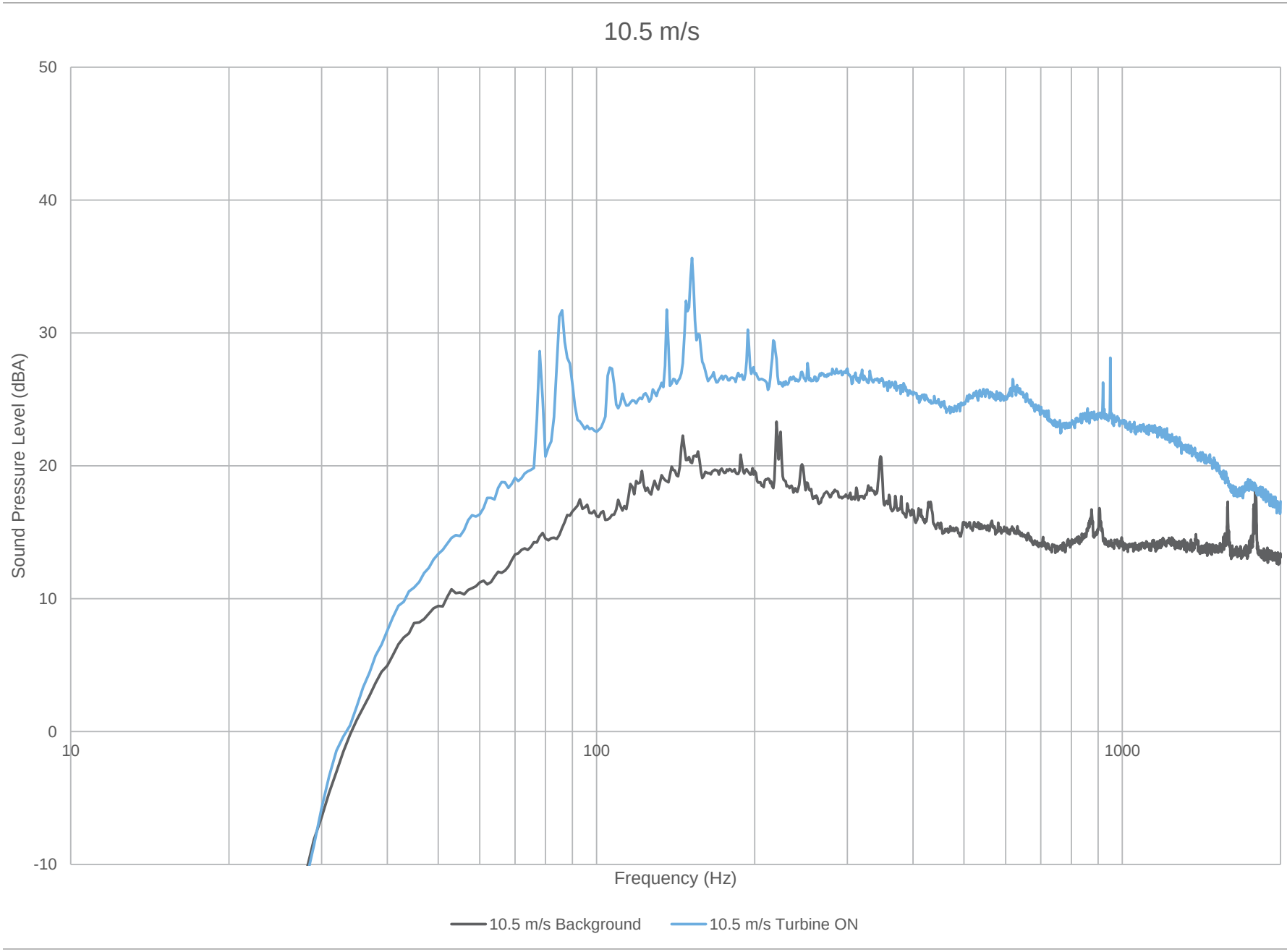
aercoustics	17283.03.T3.RP3	**Project Name**
	Scale: NTS Drawn by: CB Reviewed by: AM Date: Jan 2021 Revision: 3	North Kent Wind Farm - IEC 61400- 11 Edition 3.0 - Turbine T3
		Figure Title Plot of narrow band spectra - Turbine ON vs. Background at 9.0 m/s
		Figure D.04



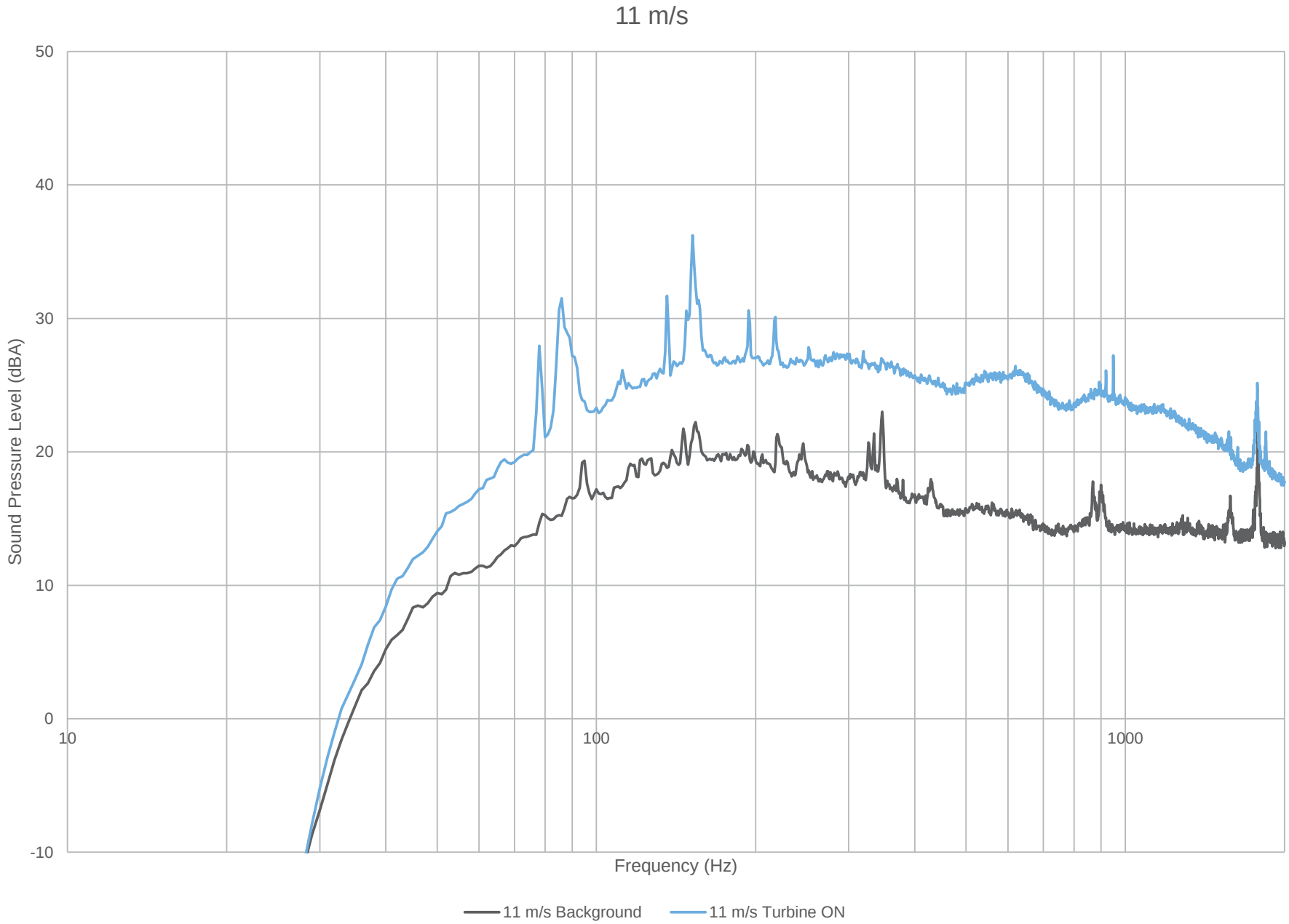
aercoustics	17283.03.T3.RP3	**Project Name**
	Scale: NTS Drawn by: CB Reviewed by: AM Date: Jan 2021 Revision: 3	North Kent Wind Farm - IEC 61400- 11 Edition 3.0 - Turbine T3
		Figure Title Plot of narrow band spectra - Turbine ON vs. Background at 9.5 m/s
		Figure D.05



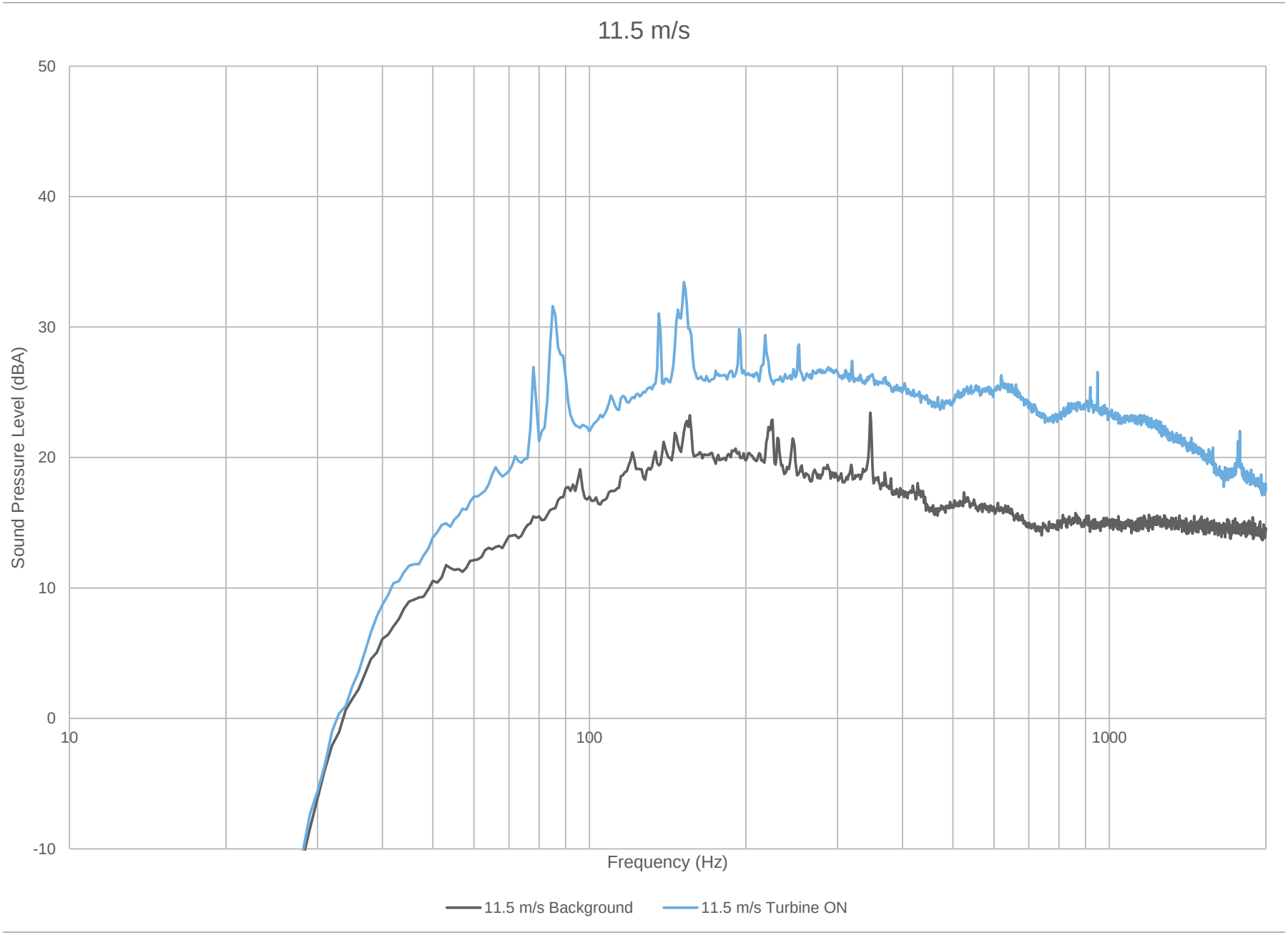
aercoustics	17283.03.T3.RP3	**Project Name**
	Scale: NTS Drawn by: CB Reviewed by: AM Date: Jan 2021 Revision: 3	North Kent Wind Farm - IEC 61400- 11 Edition 3.0 - Turbine T3
		Figure Title Plot of narrow band spectra - Turbine ON vs. Background at 10.0 m/s
		Figure D.06



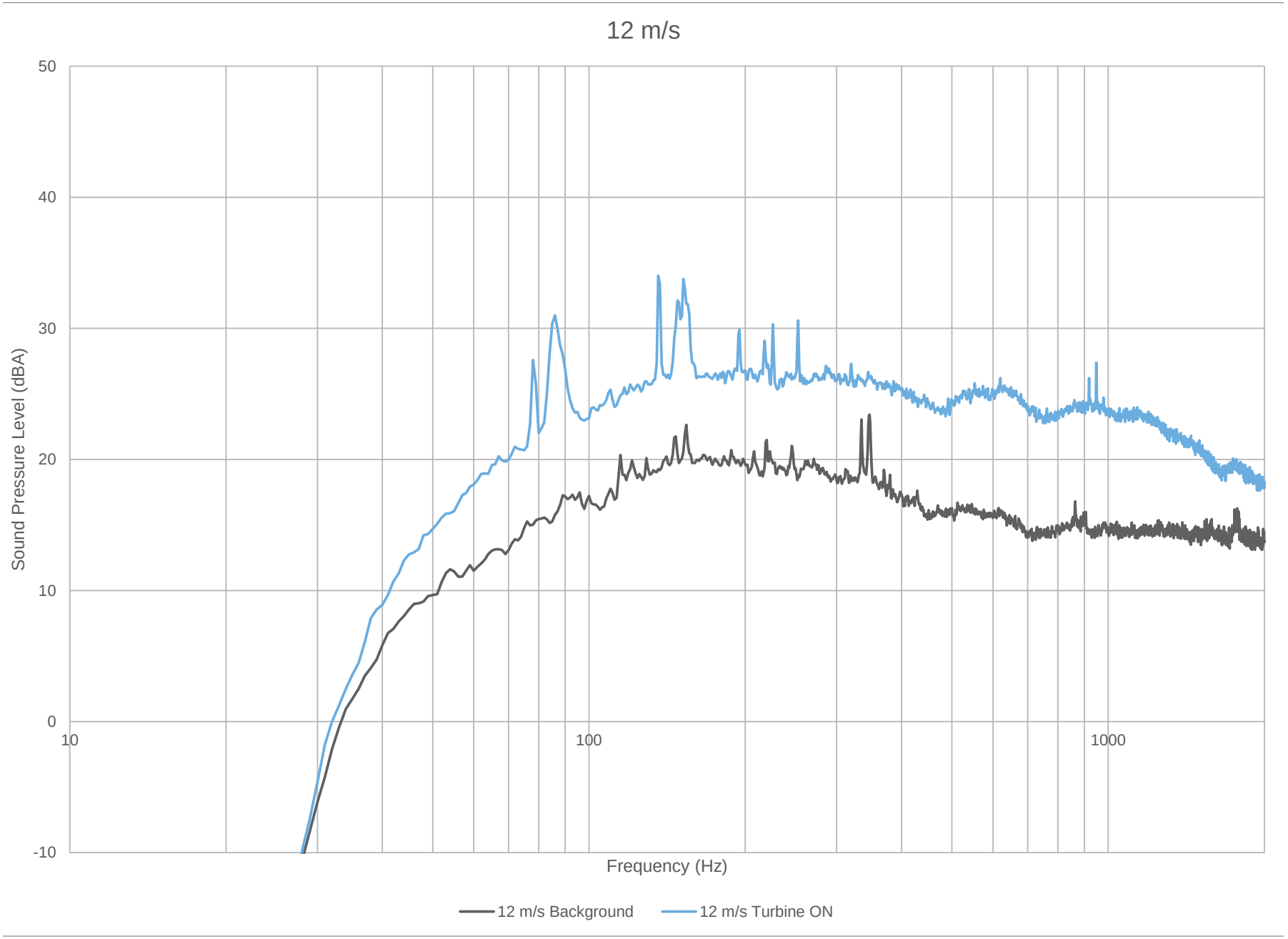
aercoustics	17283.03.T3.RP3	**Project Name**
	Scale: NTS Drawn by: CB Reviewed by: AM Date: Jan 2021 Revision: 3	North Kent Wind Farm - IEC 61400- 11 Edition 3.0 - Turbine T3
		Figure Title Plot of narrow band spectra - Turbine ON vs. Background at 10.5 m/s
		Figure D.07



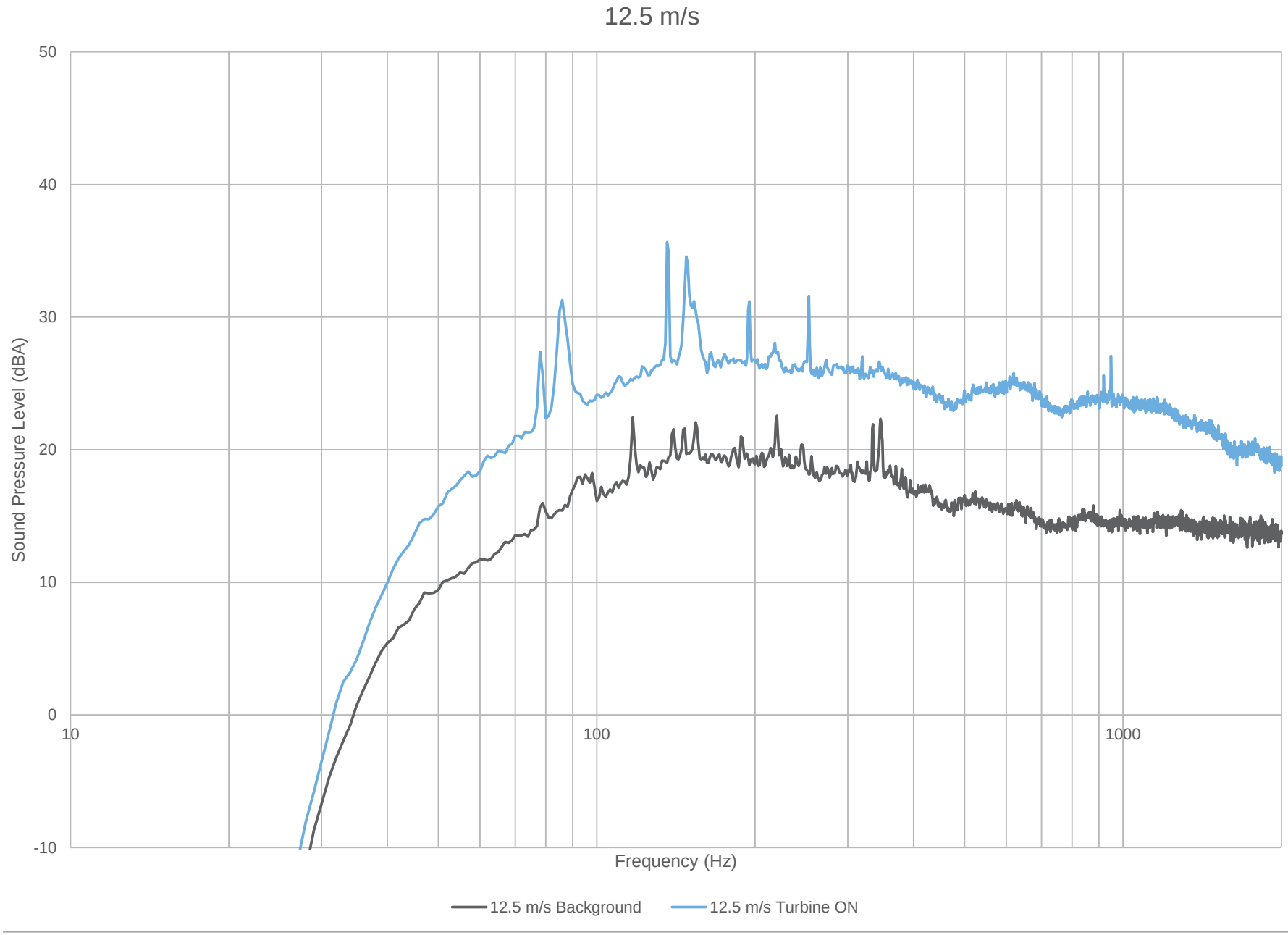
aercoustics	17283.03.T3.RP3	**Project Name**
	Scale: NTS Drawn by: CB Reviewed by: AM Date: Jan 2021 Revision: 3	North Kent Wind Farm - IEC 61400- 11 Edition 3.0 - Turbine T3
		Figure Title Plot of narrow band spectra - Turbine ON vs. Background at 11.0 m/s
		Figure D.08



aercoustics	17283.03.T3.RP3	**Project Name**
	Scale: NTS Drawn by: CB Reviewed by: AM Date: Jan 2021 Revision: 3	North Kent Wind Farm - IEC 61400- 11 Edition 3.0 - Turbine T3
		Figure Title Plot of narrow band spectra - Turbine ON vs. Background at 11.5 m/s
		Figure D.09



aercoustics	17283.03.T3.RP3	**Project Name**
	Scale: NTS Drawn by: CB Reviewed by: AM Date: Jan 2021 Revision: 3	North Kent Wind Farm - IEC 61400- 11 Edition 3.0 - Turbine T3
		Figure Title Plot of narrow band spectra - Turbine ON vs. Background at 12.0 m/s
		Figure D.10



aercoustics	17283.03.T3.RP3	**Project Name**
	Scale: NTS Drawn by: CB Reviewed by: AM Date: Jan 2021 Revision: 3	North Kent Wind Farm - IEC 61400- 11 Edition 3.0 - Turbine T3
		Figure Title Plot of narrow band spectra - Turbine ON vs. Background at 12.5 m/s

Figure D.11

Table D.01 Tonality Assessment Table - 7.5 m/s

Project: North Kent Wind Farm - IEC 61400- 11 Edition 3.0 - Turbine T3

Created on: 1/28/2021

Report ID: 17283.03.T3.RP3

Measurement #	Centre frequency (Hz)	Background adjusted criterion level (dB)	Masking level (dB)	Tone level (dB)	Determination of tonality (dB)	Frequency dependent audibility criterion (dB)	Tonal Audibility (dB)
61	58	19.3	37.5	36.2	-1.3	-2.0	0.7
27	58	20.2	38.4	36.6	-1.8	-2.0	0.2
82	58	19.1	37.4	35.9	-1.5	-2.0	0.5
60	58	20.5	38.7	36.5	-2.2	-2.0	-0.2
26	58	19.6	37.9	36.1	-1.8	-2.0	0.2
452	58	20.4	38.7	37.3	-1.4	-2.0	0.6
169	62	21.2	39.5	39.4	-0.1	-2.0	1.9
67	62	21.2	39.5	37.5	-1.9	-2.0	0.1
478	62	20.0	38.2	38.9	0.7	-2.0	2.7
171	62	19.7	37.9	39.1	1.2	-2.0	3.2
118	62	20.0	38.2	39.6	1.3	-2.0	3.3
30	62	19.2	37.4	39.1	1.7	-2.0	3.7
241	62	21.3	39.5	39.8	0.3	-2.0	2.3
352	62	18.2	36.4	39.7	3.3	-2.0	5.3
521	62	21.7	39.9	38.4	-1.5	-2.0	0.5
87	62	20.6	38.9	38.5	-0.3	-2.0	1.7
114	62	21.1	39.3	38.0	-1.3	-2.0	0.7
83	62	18.6	36.9	39.3	2.5	-2.0	4.5
471	62	21.5	39.7	38.7	-1.0	-2.0	1.0
109	62	19.7	37.9	38.4	0.5	-2.0	2.5
249	62	20.1	38.3	40.9	2.6	-2.0	4.6
111	62	21.4	39.6	39.0	-0.6	-2.0	1.4
515	63	22.9	41.1	37.1	-4.1	-2.0	-2.1
80	63	20.8	39.0	36.6	-2.4	-2.0	-0.4
459	63	19.4	37.6	38.8	1.2	-2.0	3.2
81	63	20.0	38.2	34.8	-3.4	-2.0	-1.4
292	63	20.3	38.5	38.3	-0.2	-2.0	1.8
50	63	21.3	39.6	40.4	0.9	-2.0	2.9
248	63	20.5	38.7	39.1	0.3	-2.0	2.3
133	63	21.5	39.8	36.9	-2.9	-2.0	-0.9
134	63	20.9	39.2	40.5	1.3	-2.0	3.3
291	63	20.6	38.8	36.0	-2.8	-2.0	-0.8
39	63	18.7	36.9	39.5	2.6	-2.0	4.6
260	63	22.1	40.3	38.3	-2.0	-2.0	0.0
293	63	20.4	38.6	39.8	1.2	-2.0	3.2
513	64	21.9	40.2	37.3	-2.9	-2.0	-0.9
351	64	19.2	37.4	37.4	0.0	-2.0	2.0
132	64	21.2	39.4	37.1	-2.3	-2.0	-0.3
366	64	24.3	42.5	36.9	-5.6	-2.0	-3.6
360	64	20.8	39.1	36.3	-2.7	-2.0	-0.7
121	64	20.5	38.7	37.0	-1.7	-2.0	0.3
126	64	21.3	39.5	34.8	-4.7	-2.0	-2.7
462	64	19.7	38.0	37.7	-0.3	-2.0	1.7
509	64	20.8	39.1	37.2	-1.9	-2.0	0.1
25	65	19.8	38.0	39.0	1.0	-2.0	3.0
117	65	21.6	39.9	37.2	-2.6	-2.0	-0.6
131	65	19.4	37.7	39.1	1.4	-2.0	3.4
350	65	20.8	39.1	39.6	0.6	-2.0	2.6
65	65	20.8	39.0	38.9	-0.1	-2.0	1.9
29	65	19.6	37.9	36.9	-1.0	-2.0	1.0
91	65	21.4	39.6	38.2	-1.4	-2.0	0.6
349	65	21.0	39.3	39.7	0.4	-2.0	2.4
510	65	20.8	39.0	36.9	-2.1	-2.0	-0.1
359	65	19.8	38.0	37.4	-0.6	-2.0	1.4

Table D.01 Tonality Assessment Table - 7.5 m/s

Project: North Kent Wind Farm - IEC 61400- 11 Edition 3.0 - Turbine T3

Created on: 1/28/2021

Report ID: 17283.03.T3.RP3

130	65	21.8	40.0	37.6	-2.4	-2.0	-0.4
202	65	20.1	38.3	38.7	0.4	-2.0	2.4
24	65	20.3	38.6	37.8	-0.8	-2.0	1.2
240	65	20.5	38.8	38.7	0.0	-2.0	2.0
99	65	20.9	39.1	37.5	-1.6	-2.0	0.4
107	65	19.8	38.0	36.4	-1.6	-2.0	0.4
63	65	20.1	38.3	37.3	-1.0	-2.0	1.0
66	65	21.9	40.2	38.4	-1.7	-2.0	0.3
88	65	20.3	38.5	36.9	-1.6	-2.0	0.4
28	65	19.9	38.2	37.4	-0.8	-2.0	1.2
700	65	22.6	40.8	39.9	-1.0	-2.0	1.0
456	65	18.8	37.0	38.1	1.1	-2.0	3.1
289	65	20.9	39.1	39.0	-0.1	-2.0	1.9
122	66	20.8	39.1	36.2	-2.9	-2.0	-0.9
108	66	20.4	38.6	35.6	-3.0	-2.0	-1.0
64	66	20.9	39.1	37.1	-2.1	-2.0	-0.1
262	66	21.2	39.4	37.3	-2.1	-2.0	-0.1
511	66	21.2	39.4	36.5	-3.0	-2.0	-1.0
62	66	18.5	36.7	37.1	0.3	-2.0	2.3
461	67	21.1	39.3	37.9	-1.4	-2.0	0.6
123	67	21.8	40.1	37.3	-2.8	-2.0	-0.8
125	67	22.0	40.3	37.8	-2.5	-2.0	-0.5
368	67	23.0	41.2	37.9	-3.3	-2.0	-1.3
89	68	21.5	39.7	37.8	-2.0	-2.0	0.0
288	68	21.5	39.7	38.0	-1.7	-2.0	0.3
356	68	23.3	41.5	38.4	-3.2	-2.0	-1.2
105	68	21.2	39.4	37.1	-2.3	-2.0	-0.3
455	68	19.1	37.3	38.0	0.6	-2.0	2.6
106	68	20.1	38.3	37.7	-0.6	-2.0	1.4
477	68	20.3	38.5	37.1	-1.5	-2.0	0.6
514	68	22.6	40.9	38.5	-2.4	-2.0	-0.4
472	69	22.5	40.8	38.5	-2.3	-2.0	-0.3
712	69	25.3	43.5	37.9	-5.6	-2.0	-3.6
Average	64				-0.7	-2.0	1.3

Table D.02 Tonality Assessment Table - 8 m/s

Created on: 1/28/2021

Project: North Kent Wind Farm - IEC 61400- 11 Edition 3.0 - Turbine T3
Report ID: 17283.03.T3.RP3

Measurement #	Centre frequency (Hz)	Background adjusted criterion level (dB)	Masking level (dB)	Tone level (dB)	Determination of tonality (dB)	Frequency dependent audibility criterion (dB)	Tonal Audibility (dB)
4	64	19.0	37.2	39.6	2.4	-2.0	4.4
508	64	22.0	40.3	38.3	-2.0	-2.0	0.0
773	64	21.9	40.2	38.8	-1.3	-2.0	0.7
501	64	21.7	39.9	38.9	-1.1	-2.0	0.9
502	64	21.7	40.0	39.4	-0.6	-2.0	1.4
192	65	19.5	37.7	40.3	2.6	-2.0	4.6
201	65	20.9	39.2	37.4	-1.7	-2.0	0.3
345	65	19.8	38.0	39.6	1.5	-2.0	3.5
19	65	19.2	37.5	38.7	1.2	-2.0	3.2
238	65	21.8	40.1	39.5	-0.5	-2.0	1.5
193	65	18.9	37.2	39.7	2.5	-2.0	4.5
627	65	21.8	40.0	38.4	-1.6	-2.0	0.4
163	65	21.2	39.4	39.7	0.3	-2.0	2.3
442	65	20.4	38.7	39.9	1.3	-2.0	3.3
598	65	21.5	39.8	40.1	0.3	-2.0	2.3
774	65	23.7	41.9	38.1	-3.8	-2.0	-1.8
237	65	21.8	40.0	38.4	-1.6	-2.0	0.4
14	65	21.3	39.5	39.6	0.1	-2.0	2.1
200	65	19.9	38.1	38.9	0.8	-2.0	2.8
597	65	20.0	38.3	39.6	1.3	-2.0	3.3
336	65	21.9	40.1	39.3	-0.8	-2.0	1.2
347	67	22.4	40.7	36.4	-4.2	-2.0	-2.2
6	67	20.1	38.3	38.8	0.5	-2.0	2.5
164	67	21.7	40.0	39.1	-0.9	-2.0	1.1
450	67	21.7	40.0	37.4	-2.5	-2.0	-0.5
104	67	22.8	41.0	35.8	-5.2	-2.0	-3.2
22	67	20.0	38.3	38.1	-0.2	-2.0	1.8
476	67	19.4	37.6	37.2	-0.4	-2.0	1.6
7	67	21.0	39.3	36.8	-2.5	-2.0	-0.5
475	68	20.8	39.0	37.8	-1.2	-2.0	0.8
325	68	22.6	40.8	38.9	-1.9	-2.0	0.1
23	68	20.6	38.9	38.4	-0.5	-2.0	1.5
21	68	19.9	38.1	38.7	0.6	-2.0	2.6
428	68	22.2	40.4	39.2	-1.2	-2.0	0.8
394	68	22.3	40.5	38.0	-2.5	-2.0	-0.5
358	68	21.9	40.1	38.8	-1.4	-2.0	0.6
103	68	22.7	40.9	38.2	-2.7	-2.0	-0.7
443	68	20.6	38.8	38.8	-0.1	-2.0	1.9
427	68	22.7	40.9	37.7	-3.2	-2.0	-1.2
453	68	21.1	39.3	39.4	0.1	-2.0	2.1
395	68	23.8	42.0	39.4	-2.6	-2.0	-0.6
8	68	21.1	39.3	37.5	-1.8	-2.0	0.2
102	68	23.1	41.3	37.9	-3.4	-2.0	-1.4
116	68	21.4	39.7	39.1	-0.5	-2.0	1.5
367	68	24.0	42.3	38.2	-4.0	-2.0	-2.0
460	68	21.4	39.7	40.5	0.8	-2.0	2.8
20	68	19.8	38.0	37.7	-0.3	-2.0	1.7
454	68	19.4	37.6	38.8	1.2	-2.0	3.2
90	68	21.1	39.3	37.7	-1.7	-2.0	0.4
100	68	21.3	39.6	36.6	-3.0	-2.0	-1.0
263	69	21.4	39.6	39.5	-0.1	-2.0	1.9
172	69	22.0	40.3	40.8	0.5	-2.0	2.5
101	69	21.5	39.7	39.7	0.0	-2.0	2.0
115	69	22.1	40.3	38.1	-2.2	-2.0	-0.2

Table D.02 Tonality Assessment Table - 8 m/s

Project: North Kent Wind Farm - IEC 61400- 11 Edition 3.0 - Turbine T3

Report ID: 17283.03.T3.RP3

Created on: 1/28/2021

348	69	22.0	40.2	37.5	-2.6	-2.0	-0.6
317	69	23.0	41.2	39.7	-1.5	-2.0	0.5
166	69	22.1	40.3	37.7	-2.6	-2.0	-0.6
369	69	23.7	41.9	39.2	-2.7	-2.0	-0.7
451	69	22.0	40.2	36.5	-3.7	-2.0	-1.7
135	69	21.9	40.1	38.5	-1.6	-2.0	0.4
346	69	20.4	38.7	37.5	-1.2	-2.0	0.8
449	69	20.8	39.0	38.5	-0.5	-2.0	1.5
636	69	22.6	40.8	38.1	-2.7	-2.0	-0.7
706	70	22.4	40.7	39.1	-1.5	-2.0	0.5
124	70	22.3	40.5	38.8	-1.7	-2.0	0.3
Average	67				-0.7	-2.0	1.3

Table D.03 Tonality Assessment Table - 8.5 m/s

Project: North Kent Wind Farm - IEC 61400- 11 Edition 3.0 - Turbine T3

Created on: 1/28/2021

Report ID: 17283.03.T3.RP3

Measurement #	Centre frequency (Hz)	Background adjusted criterion level (dB)	Masking level (dB)	Tone level (dB)	Determination of tonality (dB)	Frequency dependent audibility criterion (dB)	Tonal Audibility (dB)
398	58	22.5	40.7	37.0	-3.7	-2.0	-1.7
182	64	20.4	38.6	38.9	0.3	-2.0	2.3
808	64	25.1	43.3	34.7	-8.7	-2.0	-6.7
162	64	21.5	39.7	39.3	-0.4	-2.0	1.6
500	64	21.4	39.6	37.0	-2.6	-2.0	-0.6
273	64	22.1	40.3	39.1	-1.2	-2.0	0.8
234	64	20.4	38.6	38.3	-0.3	-2.0	1.7
235	64	20.6	38.8	38.1	-0.7	-2.0	1.3
236	64	21.5	39.7	39.1	-0.6	-2.0	1.4
181	64	20.1	38.3	38.9	0.6	-2.0	2.6
191	64	20.8	39.1	39.6	0.5	-2.0	2.6
198	65	21.6	39.8	38.8	-1.0	-2.0	1.0
339	65	20.3	38.5	38.8	0.3	-2.0	2.3
184	65	20.6	38.8	38.9	0.1	-2.0	2.1
153	65	21.3	39.5	40.0	0.5	-2.0	2.5
282	65	20.1	38.4	39.1	0.7	-2.0	2.7
279	65	21.5	39.7	40.2	0.4	-2.0	2.4
432	65	20.9	39.1	39.0	-0.1	-2.0	1.9
274	65	22.0	40.3	39.9	-0.4	-2.0	1.6
152	65	22.7	40.9	39.5	-1.5	-2.0	0.5
281	65	19.9	38.2	40.3	2.1	-2.0	4.1
280	65	20.9	39.2	40.1	1.0	-2.0	3.0
275	65	22.2	40.5	40.2	-0.3	-2.0	1.7
433	65	21.3	39.5	37.9	-1.6	-2.0	0.4
441	65	21.1	39.3	39.7	0.4	-2.0	2.4
596	65	21.2	39.4	39.3	-0.1	-2.0	1.9
18	65	20.3	38.6	38.7	0.1	-2.0	2.1
503	65	21.4	39.6	38.6	-1.0	-2.0	1.0
507	65	23.0	41.2	38.4	-2.9	-2.0	-0.9
276	65	23.0	41.2	40.9	-0.3	-2.0	1.7
333	65	21.2	39.4	40.9	1.5	-2.0	3.5
155	65	21.1	39.3	38.4	-0.8	-2.0	1.2
340	65	20.0	38.3	39.9	1.6	-2.0	3.6
506	65	22.1	40.4	39.2	-1.1	-2.0	0.9
440	65	21.4	39.6	39.4	-0.2	-2.0	1.8
3	65	19.3	37.6	39.0	1.4	-2.0	3.4
324	65	21.6	39.9	38.7	-1.2	-2.0	0.8
12	65	19.8	38.1	38.4	0.3	-2.0	2.3
626	65	21.0	39.2	38.5	-0.7	-2.0	1.3
11	65	21.2	39.5	38.1	-1.4	-2.0	0.6
595	65	20.1	38.4	38.6	0.2	-2.0	2.2
13	65	20.8	39.0	38.7	-0.3	-2.0	1.7
323	65	21.7	39.9	38.3	-1.6	-2.0	0.4
341	65	19.5	37.8	39.8	2.0	-2.0	4.0
335	65	21.7	39.9	39.2	-0.7	-2.0	1.3
332	65	21.3	39.6	40.0	0.4	-2.0	2.4
190	65	20.2	38.5	39.6	1.1	-2.0	3.1
183	66	20.8	39.0	37.6	-1.5	-2.0	0.5
10	66	21.6	39.9	36.8	-3.1	-2.0	-1.1
16	67	19.9	38.1	37.3	-0.8	-2.0	1.2
445	67	21.0	39.3	37.5	-1.8	-2.0	0.2
343	67	21.3	39.6	37.8	-1.7	-2.0	0.3
15	67	19.8	38.0	37.8	-0.2	-2.0	1.8
176	67	21.5	39.7	36.5	-3.2	-2.0	-1.2

Table D.03 Tonality Assessment Table - 8.5 m/s

Project: North Kent Wind Farm - IEC 61400- 11 Edition 3.0 - Turbine T3

Created on: 1/28/2021

Report ID: 17283.03.T3.RP3

474	68	21.7	39.9	38.3	-1.6	-2.0	0.4
283	68	20.9	39.1	38.7	-0.4	-2.0	1.6
337	68	21.9	40.1	39.0	-1.1	-2.0	0.9
435	68	21.7	39.9	38.3	-1.6	-2.0	0.4
326	68	22.3	40.6	38.2	-2.4	-2.0	-0.4
429	68	22.2	40.5	39.8	-0.6	-2.0	1.4
342	68	20.5	38.7	39.1	0.3	-2.0	2.3
156	68	22.4	40.7	38.3	-2.4	-2.0	-0.4
196	68	22.3	40.6	38.2	-2.4	-2.0	-0.4
430	68	23.6	41.8	39.0	-2.8	-2.0	-0.8
393	68	21.1	39.3	37.5	-1.8	-2.0	0.2
344	68	20.8	39.0	37.3	-1.7	-2.0	0.3
284	68	20.2	38.5	39.6	1.1	-2.0	3.1
17	68	19.6	37.8	38.6	0.8	-2.0	2.8
437	69	22.0	40.2	36.9	-3.3	-2.0	-1.3
392	69	22.2	40.5	39.8	-0.6	-2.0	1.4
327	69	21.5	39.8	37.5	-2.3	-2.0	-0.3
434	69	22.4	40.6	38.0	-2.6	-2.0	-0.6
473	69	21.9	40.2	40.4	0.2	-2.0	2.2
264	69	21.7	40.0	40.8	0.8	-2.0	2.8
710	69	24.1	42.3	40.4	-1.9	-2.0	0.1
396	69	24.1	42.3	40.7	-1.6	-2.0	0.4
175	69	21.3	39.5	38.8	-0.7	-2.0	1.4
338	69	21.5	39.7	38.5	-1.3	-2.0	0.7
447	69	21.7	40.0	36.8	-3.2	-2.0	-1.2
357	69	23.0	41.3	40.1	-1.2	-2.0	0.8
448	69	21.8	40.0	37.8	-2.3	-2.0	-0.3
488	69	22.8	41.0	39.7	-1.3	-2.0	0.7
391	69	21.1	39.3	40.5	1.2	-2.0	3.2
318	70	21.9	40.1	39.2	-0.9	-2.0	1.1
Average	66				-0.6	-2.0	1.4

Table D.04 Tonality Assessment Table - 9 m/s

Project: North Kent Wind Farm - IEC 61400- 11 Edition 3.0 - Turbine T3

Created on: 1/28/2021

Report ID: 17283.03.T3.RP3

Measurement #	Centre frequency (Hz)	Background adjusted criterion level (dB)	Masking level (dB)	Tone level (dB)	Determination of tonality (dB)	Frequency dependent audibility criterion (dB)	Tonal Audibility (dB)
373	67	19.1	37.4	38.1	0.7	-2.0	2.7
983	67	25.8	44.1	37.2	-6.9	-2.0	-4.9
151	67	23.0	41.2	38.0	-3.2	-2.0	-1.2
490	68	20.7	39.0	38.4	-0.6	-2.0	1.4
371	68	21.1	39.4	39.9	0.5	-2.0	2.5
800	68	24.0	42.2	38.7	-3.6	-2.0	-1.6
9	68	22.1	40.3	38.6	-1.7	-2.0	0.3
267	68	24.0	42.3	38.9	-3.4	-2.0	-1.4
491	68	20.4	38.6	38.2	-0.4	-2.0	1.6
618	68	21.6	39.9	38.5	-1.4	-2.0	0.6
798	68	23.5	41.8	39.0	-2.8	-2.0	-0.8
624	68	23.9	42.1	39.0	-3.1	-2.0	-1.1
277	68	22.2	40.4	40.4	-0.1	-2.0	1.9
372	68	20.8	39.0	37.7	-1.3	-2.0	0.7
185	69	21.1	39.3	37.1	-2.2	-2.0	-0.2
489	69	23.0	41.2	41.4	0.1	-2.0	2.2
268	69	21.0	39.2	38.6	-0.7	-2.0	1.3
328	69	20.8	39.1	38.4	-0.6	-2.0	1.4
178	69	21.9	40.2	36.6	-3.5	-2.0	-1.5
319	69	23.0	41.2	40.7	-0.5	-2.0	1.5
370	69	23.0	41.3	40.3	-0.9	-2.0	1.1
174	69	21.6	39.9	40.1	0.3	-2.0	2.3
397	69	22.7	40.9	38.5	-2.4	-2.0	-0.4
431	69	23.2	41.5	38.1	-3.4	-2.0	-1.4
438	69	21.2	39.5	37.6	-1.9	-2.0	0.1
179	69	20.7	38.9	38.2	-0.7	-2.0	1.3
265	70	24.2	42.4	40.3	-2.2	-2.0	-0.1
639	70	21.5	39.7	40.1	0.3	-2.0	2.4
713	70	24.4	42.7	41.7	-1.0	-2.0	1.0
177	70	22.5	40.8	37.2	-3.5	-2.0	-1.5
266	70	24.2	42.4	39.5	-2.9	-2.0	-0.9
826	92	28.2	46.4	45.3	-1.2	-2.0	0.8
822	104	27.5	45.8	45.6	-0.2	-2.0	1.8
505	116	26.1	44.4	36.3	-8.0	-2.0	-6.0
Average	72				-1.5	-2.0	0.5

Table D.05 Tonality Assessment Table - 9.5 m/s

Project: North Kent Wind Farm - IEC 61400- 11 Edition 3.0 - Turbine T3

Created on: 1/28/2021

Report ID: 17283.03.T3.RP3

Measurement #	Centre frequency (Hz)	Background adjusted criterion level (dB)	Masking level (dB)	Tone level (dB)	Determination of tonality (dB)	Frequency dependent audibility criterion (dB)	Tonal Audibility (dB)
929	125	26.3	44.5	42.6	-1.9	-2.0	0.1
1030	128	27.1	45.4	42.5	-2.8	-2.0	-0.8
1031	130	26.4	44.7	39.4	-5.3	-2.0	-3.3
856	130	26.5	44.8	37.9	-6.9	-2.0	-4.8
499	130	26.5	44.8	39.7	-5.1	-2.0	-3.1
663	130	27.6	45.9	40.8	-5.0	-2.0	-3.0
586	130	27.6	45.9	38.7	-7.2	-2.0	-5.2
976	130	27.7	46.0	40.2	-5.8	-2.0	-3.8
650	131	27.1	45.4	39.0	-6.4	-2.0	-4.4
968	131	28.4	46.7	40.7	-6.0	-2.0	-4.0
493	131	25.4	43.7	34.8	-9.0	-2.0	-6.9
770	131	27.9	46.2	43.3	-2.9	-2.0	-0.9
575	131	27.4	45.7	41.8	-3.9	-2.0	-1.9
787	131	27.9	46.2	39.8	-6.4	-2.0	-4.4
669	131	27.8	46.1	36.1	-10.0	-2.0	-8.0
805	131	28.3	46.6	40.5	-6.1	-2.0	-4.1
574	131	27.4	45.7	36.6	-9.1	-2.0	-7.1
766	131	26.8	45.1	40.9	-4.2	-2.0	-2.2
894	131	28.2	46.5	43.4	-3.0	-2.0	-1.0
771	131	27.6	45.9	36.4	-9.6	-2.0	-7.6
653	131	27.4	45.7	39.6	-6.1	-2.0	-4.1
794	131	27.0	45.3	40.5	-4.9	-2.0	-2.8
769	131	28.1	46.4	43.8	-2.7	-2.0	-0.6
892	131	28.3	46.5	41.3	-5.3	-2.0	-3.2
963	131	27.3	45.6	39.1	-6.4	-2.0	-4.4
695	131	26.8	45.1	39.8	-5.2	-2.0	-3.2
576	131	27.1	45.4	40.3	-5.0	-2.0	-3.0
654	131	27.6	45.8	41.0	-4.9	-2.0	-2.9
668	131	27.8	46.1	40.3	-5.7	-2.0	-3.7
494	131	25.0	43.3	35.9	-7.4	-2.0	-5.4
664	131	27.8	46.0	41.2	-4.8	-2.0	-2.8
992	131	28.8	47.1	37.2	-9.9	-2.0	-7.8
187	131	25.6	43.9	35.9	-8.0	-2.0	-5.9
496	132	26.1	44.4	38.0	-6.4	-2.0	-4.4
655	132	26.9	45.2	43.2	-2.0	-2.0	0.1
993	132	28.8	47.1	40.1	-7.0	-2.0	-5.0
590	132	26.4	44.7	40.1	-4.6	-2.0	-2.6
970	132	28.6	46.9	40.2	-6.6	-2.0	-4.6
781	132	26.9	45.1	42.2	-3.0	-2.0	-1.0
806	132	28.4	46.7	37.8	-8.9	-2.0	-6.9
329	132	26.0	44.3	38.1	-6.2	-2.0	-4.2
902	132	29.0	47.3	40.9	-6.4	-2.0	-4.4
579	132	28.2	46.5	41.3	-5.2	-2.0	-3.2
971	132	27.3	45.5	40.0	-5.6	-2.0	-3.5
691	132	26.1	44.4	42.5	-1.9	-2.0	0.1
660	132	26.6	44.9	42.8	-2.2	-2.0	-0.2
782	132	27.6	45.9	43.4	-2.4	-2.0	-0.4
802	132	27.3	45.6	38.8	-6.8	-2.0	-4.8
857	132	26.7	45.0	43.4	-1.7	-2.0	0.3
666	132	26.5	44.8	41.4	-3.4	-2.0	-1.4
680	132	27.6	45.9	42.4	-3.4	-2.0	-1.4
889	132	28.7	47.0	41.0	-6.0	-2.0	-4.0
645	132	28.0	46.3	38.8	-7.5	-2.0	-5.5
679	132	27.5	45.8	43.9	-1.9	-2.0	0.1

Table D.05 Tonality Assessment Table - 9.5 m/s

Project: North Kent Wind Farm - IEC 61400- 11 Edition 3.0 - Turbine T3

Created on: 1/28/2021

Report ID: 17283.03.T3.RP3

646	132	28.1	46.4	41.3	-5.1	-2.0	-3.0
795	132	28.1	46.4	40.5	-6.0	-2.0	-4.0
271	132	25.6	43.9	35.1	-8.9	-2.0	-6.9
588	132	26.9	45.2	40.8	-4.4	-2.0	-2.4
577	132	26.9	45.2	42.4	-2.8	-2.0	-0.8
1032	132	26.4	44.6	38.6	-6.1	-2.0	-4.1
619	132	27.2	45.4	42.3	-3.1	-2.0	-1.1
749	132	27.7	46.0	40.7	-5.3	-2.0	-3.3
269	133	25.6	43.9	40.9	-3.0	-2.0	-1.0
979	133	28.2	46.5	41.6	-4.9	-2.0	-2.9
321	133	26.9	45.2	33.4	-11.8	-2.0	-9.8
984	133	28.0	46.3	40.1	-6.2	-2.0	-4.1
644	133	28.0	46.3	42.7	-3.5	-2.0	-1.5
678	134	27.5	45.8	43.1	-2.7	-2.0	-0.6
714	134	28.0	46.3	40.3	-6.0	-2.0	-3.9
812	134	27.8	46.1	41.1	-5.0	-2.0	-3.0
492	134	25.1	43.4	34.9	-8.5	-2.0	-6.5
779	134	27.5	45.8	37.9	-7.9	-2.0	-5.9
320	137	26.9	45.2	35.7	-9.5	-2.0	-7.4
Average	132				-5.0	-2.0	-2.9

Table D.06 Tonality Assessment Table - 9.5 m/s (2)

Created on: 1/28/2021

Project: North Kent Wind Farm - IEC 61400- 11 Edition 3.0 - Turbine T3
Report ID: 17283.03.T3.RP3

Measurement #	Centre frequency (Hz)	Background adjusted criterion level (dB)	Masking level (dB)	Tone level (dB)	Determination of tonality (dB)	Frequency dependent audibility criterion (dB)	Tonal Audibility (dB)
492	58	20.8	39.0	35.8	-3.2	-2.0	-1.2
929	62	23.8	42.0	36.7	-5.3	-2.0	-3.3
493	65	21.0	39.3	36.7	-2.6	-2.0	-0.6
1031	65	21.9	40.2	36.5	-3.7	-2.0	-1.7
187	65	21.1	39.4	38.9	-0.5	-2.0	1.5
680	65	22.9	41.1	40.2	-1.0	-2.0	1.0
892	65	24.8	43.0	35.8	-7.2	-2.0	-5.2
577	65	21.5	39.8	37.9	-1.9	-2.0	0.1
993	65	24.2	42.4	37.9	-4.6	-2.0	-2.6
992	65	24.6	42.8	37.1	-5.7	-2.0	-3.7
805	65	24.3	42.5	38.0	-4.5	-2.0	-2.4
766	65	22.1	40.3	38.5	-1.8	-2.0	0.2
976	65	23.7	41.9	37.8	-4.1	-2.0	-2.1
576	65	22.0	40.2	38.1	-2.1	-2.0	-0.1
1030	65	22.8	41.0	34.7	-6.3	-2.0	-4.3
894	65	24.5	42.8	36.9	-5.9	-2.0	-3.9
664	65	23.0	41.2	36.7	-4.5	-2.0	-2.5
494	65	19.5	37.7	37.3	-0.5	-2.0	1.5
574	65	22.2	40.4	38.4	-2.0	-2.0	0.0
963	65	23.3	41.6	35.1	-6.5	-2.0	-4.5
856	65	22.4	40.7	38.5	-2.2	-2.0	-0.2
499	65	22.8	41.0	37.1	-3.9	-2.0	-1.9
575	66	22.0	40.2	38.7	-1.5	-2.0	0.5
902	66	25.3	43.6	34.2	-9.4	-2.0	-7.4
971	66	23.1	41.4	35.2	-6.1	-2.0	-4.1
666	66	21.4	39.7	38.6	-1.1	-2.0	0.9
1032	66	21.7	39.9	38.2	-1.7	-2.0	0.3
968	67	24.6	42.9	35.6	-7.3	-2.0	-5.3
889	67	25.8	44.0	33.5	-10.5	-2.0	-8.5
979	67	24.6	42.9	35.8	-7.0	-2.0	-5.0
321	68	23.5	41.7	36.3	-5.4	-2.0	-3.4
401	68	21.6	39.9	36.7	-3.2	-2.0	-1.2
271	68	20.6	38.9	38.9	0.0	-2.0	2.0
496	68	22.1	40.3	36.4	-4.0	-2.0	-2.0
320	68	24.2	42.5	39.8	-2.7	-2.0	-0.7
329	68	21.6	39.9	38.2	-1.7	-2.0	0.3
Average	66				-3.3	-2.0	-1.3

Table D.07 Tonality Assessment Table - 10 m/s

Created on: 1/28/2021

Project: North Kent Wind Farm - IEC 61400- 11 Edition 3.0 - Turbine T3
Report ID: 17283.03.T3.RP3

Measurement #	Centre frequency (Hz)	Background adjusted criterion level (dB)	Masking level (dB)	Tone level (dB)	Determination of tonality (dB)	Frequency dependent audibility criterion (dB)	Tonal Audibility (dB)
820	116	27.4	45.7	50.4	4.7	-2.0	6.7
1241	116	25.9	44.2	39.7	-4.5	-2.0	-2.5
793	116	25.8	44.1	38.4	-5.7	-2.0	-3.7
1202	117	26.2	44.5	42.7	-1.8	-2.0	0.2
1274	117	26.1	44.3	39.4	-4.9	-2.0	-2.9
1197	117	25.4	43.7	42.1	-1.7	-2.0	0.4
819	118	27.0	45.3	50.2	4.9	-2.0	6.9
864	122	24.8	43.1	35.8	-7.3	-2.0	-5.3
1188	124	26.3	44.6	41.4	-3.2	-2.0	-1.2
1227	125	26.2	44.5	41.3	-3.2	-2.0	-1.2
1007	127	24.9	43.2	41.5	-1.6	-2.0	0.4
817	127	25.8	44.1	46.7	2.6	-2.0	4.6
1186	128	24.5	42.8	41.9	-0.9	-2.0	1.1
862	128	25.5	43.8	33.9	-9.9	-2.0	-7.9
1165	128	25.2	43.5	41.5	-2.0	-2.0	0.0
907	128	27.4	45.6	38.2	-7.5	-2.0	-5.5
962	128	26.3	44.6	43.6	-1.0	-2.0	1.0
755	128	26.0	44.3	42.7	-1.7	-2.0	0.3
1026	128	26.5	44.8	42.0	-2.8	-2.0	-0.8
1029	128	25.7	44.0	41.0	-3.0	-2.0	-1.0
944	128	28.3	46.6	43.9	-2.8	-2.0	-0.8
764	128	25.8	44.1	43.6	-0.5	-2.0	1.5
937	128	26.7	44.9	42.8	-2.1	-2.0	-0.1
855	128	26.1	44.4	41.6	-2.9	-2.0	-0.8
730	129	27.0	45.3	40.3	-4.9	-2.0	-2.9
694	130	26.5	44.7	35.9	-8.8	-2.0	-6.8
786	130	27.9	46.2	38.8	-7.4	-2.0	-5.3
585	130	27.0	45.2	38.4	-6.9	-2.0	-4.8
745	130	26.3	44.6	35.1	-9.6	-2.0	-7.5
816	130	26.0	44.3	44.9	0.7	-2.0	2.7
756	130	27.8	46.1	42.1	-4.0	-2.0	-2.0
945	130	28.0	46.3	40.0	-6.4	-2.0	-4.4
739	130	26.0	44.3	37.8	-6.6	-2.0	-4.5
989	130	27.8	46.0	39.1	-6.9	-2.0	-4.9
966	130	28.4	46.7	40.7	-6.1	-2.0	-4.1
740	131	26.7	45.0	39.3	-5.7	-2.0	-3.7
991	131	28.7	47.0	37.2	-9.8	-2.0	-7.8
891	131	28.2	46.5	41.8	-4.7	-2.0	-2.7
741	131	26.9	45.2	39.7	-5.5	-2.0	-3.5
909	131	27.2	45.5	43.7	-1.8	-2.0	0.2
693	131	26.7	45.0	40.0	-5.0	-2.0	-3.0
967	131	28.4	46.7	34.8	-11.9	-2.0	-9.9
865	131	27.1	45.4	34.6	-10.7	-2.0	-8.7
651	131	27.4	45.7	39.9	-5.8	-2.0	-3.8
652	131	27.7	46.0	44.7	-1.3	-2.0	0.7
748	131	26.8	45.1	38.4	-6.7	-2.0	-4.7
990	131	29.0	47.3	41.2	-6.1	-2.0	-4.1
804	131	27.9	46.2	40.1	-6.1	-2.0	-4.1
747	131	27.1	45.4	39.9	-5.5	-2.0	-3.5
746	131	26.9	45.2	34.4	-10.8	-2.0	-8.8
589	131	26.7	45.0	40.3	-4.7	-2.0	-2.7
765	131	26.2	44.5	41.7	-2.8	-2.0	-0.8
904	132	28.1	46.3	42.4	-3.9	-2.0	-1.9
402	132	25.3	43.6	37.3	-6.3	-2.0	-4.3

Table D.07 Tonality Assessment Table - 10 m/s

Project: North Kent Wind Farm - IEC 61400- 11 Edition 3.0 - Turbine T3

Created on: 1/28/2021

Report ID: 17283.03.T3.RP3

692	132	26.5	44.7	43.1	-1.7	-2.0	0.3
893	132	28.0	46.3	42.8	-3.6	-2.0	-1.5
908	132	27.8	46.1	42.4	-3.7	-2.0	-1.7
964	132	26.9	45.2	41.4	-3.9	-2.0	-1.8
580	132	27.8	46.1	37.5	-8.7	-2.0	-6.7
620	132	27.6	45.9	41.4	-4.4	-2.0	-2.4
803	132	27.5	45.8	40.1	-5.6	-2.0	-3.6
661	132	26.9	45.2	44.4	-0.8	-2.0	1.2
690	132	26.0	44.3	44.5	0.2	-2.0	2.2
948	133	28.3	46.6	41.2	-5.4	-2.0	-3.4
827	134	29.1	47.4	41.1	-6.3	-2.0	-4.3
Average	129				-2.9	-2.0	-0.9

Table D.08 Tonality Assessment Table - 10 m/s (2)

Project: North Kent Wind Farm - IEC 61400- 11 Edition 3.0 - Turbine T3

Created on: 1/28/2021

Report ID: 17283.03.T3.RP3

Measurement #	Centre frequency (Hz)	Background adjusted criterion level (dB)	Masking level (dB)	Tone level (dB)	Determination of tonality (dB)	Frequency dependent audibility criterion (dB)	Tonal Audibility (dB)
864	61	21.6	39.9	37.4	-2.4	-2.0	-0.4
944	64	25.2	43.4	35.6	-7.8	-2.0	-5.8
862	64	21.6	39.8	37.9	-1.8	-2.0	0.2
1007	64	21.6	39.8	34.5	-5.3	-2.0	-3.3
1029	64	21.4	39.6	36.3	-3.3	-2.0	-1.3
962	64	22.5	40.7	30.4	-10.4	-2.0	-8.4
585	65	21.2	39.4	38.2	-1.3	-2.0	0.7
937	65	23.5	41.7	33.5	-8.2	-2.0	-6.2
945	65	25.4	43.6	36.5	-7.1	-2.0	-5.1
1026	65	21.5	39.8	37.6	-2.2	-2.0	-0.2
786	65	23.7	41.9	38.9	-3.0	-2.0	-1.0
741	65	21.1	39.4	38.8	-0.6	-2.0	1.4
756	65	24.2	42.4	34.8	-7.6	-2.0	-5.6
891	65	24.0	42.3	37.1	-5.2	-2.0	-3.2
990	65	24.5	42.7	38.5	-4.2	-2.0	-2.2
989	65	23.9	42.2	38.0	-4.1	-2.0	-2.1
765	65	21.1	39.3	39.0	-0.3	-2.0	1.7
991	65	24.7	43.0	35.4	-7.5	-2.0	-5.5
966	65	24.0	42.2	37.6	-4.7	-2.0	-2.7
907	65	23.5	41.7	37.3	-4.5	-2.0	-2.5
865	65	22.4	40.6	36.3	-4.3	-2.0	-2.3
908	66	23.2	41.5	37.4	-4.1	-2.0	-2.1
748	66	22.2	40.5	38.6	-1.9	-2.0	0.1
893	66	24.8	43.0	33.0	-10.0	-2.0	-8.0
964	66	22.7	41.0	37.0	-4.0	-2.0	-2.0
740	66	21.1	39.3	38.8	-0.5	-2.0	1.5
967	66	24.9	43.1	33.9	-9.3	-2.0	-7.3
804	66	23.1	41.3	34.9	-6.4	-2.0	-4.4
402	66	21.0	39.3	37.1	-2.2	-2.0	-0.2
909	66	22.6	40.8	39.5	-1.3	-2.0	0.7
693	66	21.3	39.6	38.9	-0.7	-2.0	1.3
747	66	22.0	40.3	39.0	-1.2	-2.0	0.8
904	67	24.4	42.6	33.8	-8.8	-2.0	-6.8
Average	65				-3.5	-2.0	-1.5

Table D.09 Tonality Assessment Table - 10.5 m/s

Created on: 1/28/2021

Project: North Kent Wind Farm - IEC 61400- 11 Edition 3.0 - Turbine T3
Report ID: 17283.03.T3.RP3

Measurement #	Centre frequency (Hz)	Background adjusted criterion level (dB)	Masking level (dB)	Tone level (dB)	Determination of tonality (dB)	Frequency dependent audibility criterion (dB)	Tonal Audibility (dB)
1008	128	24.2	42.5	41.2	-1.3	-2.0	0.7
1024	128	25.7	44.0	42.1	-1.9	-2.0	0.1
923	128	25.5	43.8	41.3	-2.5	-2.0	-0.5
942	128	28.2	46.5	42.5	-4.0	-2.0	-2.0
736	129	25.4	43.7	36.6	-7.1	-2.0	-5.1
854	130	26.6	44.9	40.6	-4.3	-2.0	-2.3
761	131	24.1	42.4	37.8	-4.6	-2.0	-2.6
737	131	24.8	43.1	41.4	-1.7	-2.0	0.3
731	131	27.2	45.4	39.4	-6.1	-2.0	-4.0
890	132	26.9	45.1	41.4	-3.8	-2.0	-1.7
647	132	27.7	46.0	40.7	-5.2	-2.0	-3.2
1011	132	24.2	42.5	38.2	-4.2	-2.0	-2.2
792	132	26.3	44.6	39.8	-4.8	-2.0	-2.8
754	132	26.0	44.3	41.1	-3.3	-2.0	-1.3
735	132	25.8	44.1	38.8	-5.2	-2.0	-3.2
662	132	27.1	45.4	42.7	-2.7	-2.0	-0.7
725	132	24.9	43.2	37.9	-5.3	-2.0	-3.3
949	132	28.2	46.5	41.6	-5.0	-2.0	-3.0
844	132	25.3	43.6	37.8	-5.7	-2.0	-3.7
727	132	24.5	42.8	41.3	-1.6	-2.0	0.4
715	133	28.2	46.5	37.7	-8.8	-2.0	-6.8
833	133	26.4	44.7	36.3	-8.4	-2.0	-6.4
848	133	24.7	43.0	38.9	-4.1	-2.0	-2.1
726	134	24.9	43.2	39.7	-3.5	-2.0	-1.4
758	134	26.9	45.2	33.2	-12.0	-2.0	-10.0
752	136	25.9	44.2	38.8	-5.4	-2.0	-3.4
813	136	26.8	45.1	40.4	-4.7	-2.0	-2.7
1028	140	26.0	44.3	37.5	-6.7	-2.0	-4.7
Average	132				-4.3	-2.0	-2.2

Table D.10 Tonality Assessment Table - 10.5 m/s (2)

Created on: 1/28/2021

Project: North Kent Wind Farm - IEC 61400- 11 Edition 3.0 - Turbine T3
Report ID: 17283.03.T3.RP3

Measurement #	Centre frequency (Hz)	Background adjusted criterion level (dB)	Masking level (dB)	Tone level (dB)	Determination of tonality (dB)	Frequency dependent audibility criterion (dB)	Tonal Audibility (dB)
923	64	22.2	40.5	33.6	-6.9	-2.0	-4.9
1024	65	21.4	39.6	37.6	-2.0	-2.0	0.0
854	65	22.3	40.5	39.4	-1.1	-2.0	0.9
736	65	21.0	39.2	37.1	-2.2	-2.0	-0.2
761	65	19.7	38.0	39.2	1.3	-2.0	3.3
1008	65	19.9	38.2	37.7	-0.4	-2.0	1.6
731	66	22.6	40.9	36.7	-4.2	-2.0	-2.2
1011	66	19.2	37.5	36.7	-0.8	-2.0	1.2
890	66	22.9	41.1	36.9	-4.2	-2.0	-2.2
949	66	24.1	42.4	35.2	-7.1	-2.0	-5.1
844	66	19.9	38.1	38.2	0.1	-2.0	2.1
737	66	19.7	38.0	39.6	1.6	-2.0	3.6
752	69	22.4	40.6	37.6	-3.0	-2.0	-1.0
952	69	25.7	43.9	31.8	-12.1	-2.0	-10.1
1028	69	21.8	40.1	36.6	-3.5	-2.0	-1.5
758	70	22.0	40.2	37.3	-2.9	-2.0	-0.9
828	86	26.7	45.0	45.2	0.2	-2.0	2.2
Average	68				-1.8	-2.0	0.2

Table D.11 Tonality Assessment Table - 11 m/s

Created on: 1/28/2021

Project: North Kent Wind Farm - IEC 61400- 11 Edition 3.0 - Turbine T3
Report ID: 17283.03.T3.RP3

Measurement #	Centre frequency (Hz)	Background adjusted criterion level (dB)	Masking level (dB)	Tone level (dB)	Determination of tonality (dB)	Frequency dependent audibility criterion (dB)	Tonal Audibility (dB)
838	116	24.7	43.0	36.2	-6.8	-2.0	-4.8
961	128	25.7	44.0	43.9	0.0	-2.0	2.0
842	129	26.2	44.5	35.3	-9.2	-2.0	-7.2
851	130	26.8	45.1	37.2	-7.9	-2.0	-5.9
997	130	23.7	42.0	38.3	-3.7	-2.0	-1.7
785	131	28.7	47.0	39.2	-7.8	-2.0	-5.8
938	131	27.7	46.0	37.1	-8.9	-2.0	-6.9
789	131	28.0	46.3	37.9	-8.4	-2.0	-6.4
928	132	27.8	46.1	41.8	-4.2	-2.0	-2.2
720	132	25.6	43.9	40.4	-3.6	-2.0	-1.6
957	132	25.6	43.9	43.5	-0.4	-2.0	1.6
956	132	25.4	43.7	41.1	-2.7	-2.0	-0.7
788	132	28.3	46.6	44.2	-2.4	-2.0	-0.4
955	132	25.5	43.8	37.1	-6.7	-2.0	-4.7
1027	132	26.8	45.1	33.4	-11.7	-2.0	-9.7
849	132	26.3	44.6	38.9	-5.7	-2.0	-3.7
951	132	28.9	47.2	39.7	-7.5	-2.0	-5.4
925	132	25.7	44.0	39.9	-4.2	-2.0	-2.1
850	132	26.4	44.7	40.2	-4.6	-2.0	-2.6
996	132	25.1	43.4	36.3	-7.2	-2.0	-5.2
919	132	26.6	44.9	43.1	-1.8	-2.0	0.2
760	132	24.8	43.1	40.9	-2.2	-2.0	-0.2
581	132	27.6	45.9	39.4	-6.5	-2.0	-4.5
734	133	25.4	43.7	38.7	-5.0	-2.0	-3.0
846	133	25.8	44.1	39.6	-4.5	-2.0	-2.4
852	133	26.4	44.7	41.2	-3.5	-2.0	-1.5
1023	133	26.2	44.5	39.6	-4.9	-2.0	-2.8
853	134	25.2	43.5	41.2	-2.3	-2.0	-0.2
950	134	28.9	47.2	40.7	-6.5	-2.0	-4.5
648	134	27.3	45.5	39.2	-6.3	-2.0	-4.3
847	134	25.6	43.9	38.0	-5.9	-2.0	-3.9
732	136	26.4	44.7	39.4	-5.2	-2.0	-3.2
718	136	25.6	43.9	41.9	-2.1	-2.0	-0.1
719	137	26.2	44.5	38.0	-6.5	-2.0	-4.5
835	137	24.5	42.8	39.6	-3.1	-2.0	-1.1
751	137	26.1	44.4	36.8	-7.7	-2.0	-5.6
Average	132				-4.5	-2.0	-2.4

Table D.12 Tonality Assessment Table - 11 m/s (2)

Created on: 1/28/2021

Project: North Kent Wind Farm - IEC 61400- 11 Edition 3.0 - Turbine T3
Report ID: 17283.03.T3.RP3

Measurement #	Centre frequency (Hz)	Background adjusted criterion level (dB)	Masking level (dB)	Tone level (dB)	Determination of tonality (dB)	Frequency dependent audibility criterion (dB)	Tonal Audibility (dB)
961	65	21.8	40.1	36.1	-4.0	-2.0	-2.0
851	65	23.2	41.4	38.5	-2.9	-2.0	-0.9
842	65	21.3	39.6	37.1	-2.5	-2.0	-0.5
997	65	19.1	37.3	38.7	1.3	-2.0	3.4
938	66	23.7	42.0	33.7	-8.3	-2.0	-6.3
955	66	21.1	39.3	37.9	-1.5	-2.0	0.5
956	66	20.6	38.9	37.6	-1.3	-2.0	0.7
957	66	20.5	38.7	36.4	-2.3	-2.0	-0.3
951	66	25.3	43.6	36.5	-7.1	-2.0	-5.1
1023	66	22.2	40.4	34.0	-6.4	-2.0	-4.4
850	66	21.3	39.5	39.5	0.0	-2.0	2.0
789	66	23.1	41.4	39.2	-2.2	-2.0	-0.2
785	66	24.3	42.5	39.9	-2.6	-2.0	-0.6
919	66	23.5	41.7	33.9	-7.9	-2.0	-5.9
849	66	21.9	40.1	37.6	-2.5	-2.0	-0.5
925	66	22.8	41.0	34.8	-6.2	-2.0	-4.2
581	66	22.8	41.1	39.1	-2.0	-2.0	0.0
718	68	22.1	40.3	36.4	-3.9	-2.0	-1.9
719	69	21.5	39.7	37.3	-2.4	-2.0	-0.4
996	69	21.7	40.0	36.4	-3.6	-2.0	-1.6
751	69	22.0	40.2	37.0	-3.2	-2.0	-1.2
905	69	24.7	42.9	33.8	-9.1	-2.0	-7.1
1027	70	21.8	40.0	38.6	-1.5	-2.0	0.5
939	71	23.1	41.4	40.0	-1.4	-2.0	0.6
995	71	23.7	42.0	39.3	-2.7	-2.0	-0.7
Average	67				-2.8	-2.0	-0.8

Table D.13 Tonality Assessment Table - 11.5 m/s

Created on: 1/28/2021

Project: North Kent Wind Farm - IEC 61400- 11 Edition 3.0 - Turbine T3
Report ID: 17283.03.T3.RP3

Measurement #	Centre frequency (Hz)	Background adjusted criterion level (dB)	Masking level (dB)	Tone level (dB)	Determination of tonality (dB)	Frequency dependent audibility criterion (dB)	Tonal Audibility (dB)
1267	116	26.0	44.3	42.8	-1.4	-2.0	0.6
1246	116	27.4	45.7	35.7	-9.9	-2.0	-7.9
863	127	25.2	43.5	36.8	-6.7	-2.0	-4.7
924	127	25.7	44.0	39.5	-4.4	-2.0	-2.4
1166	127	25.6	43.9	41.2	-2.7	-2.0	-0.7
1006	128	25.9	44.1	41.7	-2.5	-2.0	-0.5
1022	129	24.8	43.1	38.6	-4.5	-2.0	-2.5
1021	130	25.0	43.3	40.0	-3.3	-2.0	-1.3
1012	130	24.9	43.2	34.5	-8.7	-2.0	-6.7
1020	131	25.6	43.9	38.0	-5.9	-2.0	-3.8
1019	131	25.1	43.4	36.2	-7.1	-2.0	-5.1
1013	132	23.8	42.1	40.5	-1.6	-2.0	0.4
958	132	24.6	42.9	41.3	-1.6	-2.0	0.4
1002	132	26.0	44.3	36.6	-7.7	-2.0	-5.7
1009	132	25.0	43.3	38.3	-5.0	-2.0	-3.0
953	132	28.1	46.4	34.8	-11.6	-2.0	-9.6
922	132	25.9	44.2	34.0	-10.2	-2.0	-8.2
999	132	25.5	43.8	41.9	-1.9	-2.0	0.1
839	132	26.4	44.7	39.6	-5.1	-2.0	-3.1
998	133	24.9	43.2	38.7	-4.5	-2.0	-2.5
973	133	28.0	46.3	40.4	-5.9	-2.0	-3.9
959	134	24.7	43.0	40.3	-2.7	-2.0	-0.7
790	134	27.9	46.2	39.8	-6.3	-2.0	-4.3
1014	134	25.7	44.0	36.5	-7.5	-2.0	-5.5
814	135	25.7	44.0	39.8	-4.2	-2.0	-2.2
753	136	26.5	44.8	38.3	-6.5	-2.0	-4.5
791	136	26.8	45.0	36.7	-8.3	-2.0	-6.3
1010	136	24.9	43.2	36.3	-6.9	-2.0	-4.9
866	138	25.8	44.1	37.0	-7.1	-2.0	-5.1
Average	131				-4.8	-2.0	-2.8

Table D.14 Tonality Assessment Table - 11.5 m/s (2)

Created on: 1/28/2021

Project: North Kent Wind Farm - IEC 61400- 11 Edition 3.0 - Turbine T3
Report ID: 17283.03.T3.RP3

Measurement #	Centre frequency (Hz)	Background adjusted criterion level (dB)	Masking level (dB)	Tone level (dB)	Determination of tonality (dB)	Frequency dependent audibility criterion (dB)	Tonal Audibility (dB)
1006	64	23.4	41.7	34.1	-7.6	-2.0	-5.6
1022	65	20.6	38.8	38.6	-0.2	-2.0	1.8
1166	65	21.9	40.2	38.2	-1.9	-2.0	0.1
924	65	22.3	40.6	35.6	-4.9	-2.0	-2.9
1002	65	23.6	41.8	37.8	-4.1	-2.0	-2.1
1019	65	21.6	39.8	37.4	-2.4	-2.0	-0.4
922	65	22.3	40.6	33.9	-6.7	-2.0	-4.7
1021	65	21.1	39.3	38.9	-0.4	-2.0	1.6
1012	65	20.5	38.8	38.1	-0.7	-2.0	1.3
863	65	22.2	40.4	36.1	-4.3	-2.0	-2.3
839	66	22.7	41.0	36.3	-4.7	-2.0	-2.7
1020	66	21.9	40.2	37.2	-3.0	-2.0	-1.0
999	66	21.6	39.8	33.0	-6.9	-2.0	-4.9
1013	66	19.1	37.4	36.6	-0.8	-2.0	1.2
958	66	19.6	37.9	37.3	-0.5	-2.0	1.5
998	66	20.7	39.0	34.5	-4.5	-2.0	-2.4
1009	68	21.8	40.0	32.0	-8.1	-2.0	-6.1
1010	68	20.9	39.2	34.1	-5.1	-2.0	-3.1
791	69	22.6	40.9	37.0	-3.8	-2.0	-1.8
953	69	25.2	43.5	33.3	-10.2	-2.0	-8.2
866	69	22.1	40.3	35.5	-4.8	-2.0	-2.8
Average	66				-3.3	-2.0	-1.3

Table D.15 Tonality Assessment Table - 12 m/s

Created on: 1/28/2021

Project: North Kent Wind Farm - IEC 61400- 11 Edition 3.0 - Turbine T3
Report ID: 17283.03.T3.RP3

Measurement #	Centre frequency (Hz)	Background adjusted criterion level (dB)	Masking level (dB)	Tone level (dB)	Determination of tonality (dB)	Frequency dependent audibility criterion (dB)	Tonal Audibility (dB)
1316	116	25.6	43.9	42.9	-0.9	-2.0	1.1
1317	116	26.2	44.5	41.0	-3.5	-2.0	-1.5
1263	116	25.7	44.0	39.8	-4.2	-2.0	-2.2
1260	116	25.8	44.1	40.5	-3.6	-2.0	-1.6
1312	116	26.4	44.6	41.3	-3.3	-2.0	-1.3
1262	116	25.2	43.5	41.3	-2.2	-2.0	-0.2
759	116	25.7	44.0	36.9	-7.0	-2.0	-5.0
1276	127	27.1	45.4	42.0	-3.4	-2.0	-1.4
1162	127	27.1	45.4	40.5	-4.9	-2.0	-2.9
1161	128	24.9	43.2	44.3	1.1	-2.0	3.1
1018	132	25.6	43.9	38.7	-5.2	-2.0	-3.2
926	132	25.8	44.1	42.2	-1.9	-2.0	0.1
960	132	25.0	43.3	41.4	-1.9	-2.0	0.1
1016	133	25.5	43.8	38.3	-5.5	-2.0	-3.5
1167	134	25.5	43.8	38.5	-5.3	-2.0	-3.3
934	134	26.5	44.8	38.7	-6.1	-2.0	-4.1
941	134	27.9	46.2	39.1	-7.2	-2.0	-5.2
1168	135	25.8	44.1	38.7	-5.4	-2.0	-3.4
1003	136	27.9	46.2	36.3	-9.9	-2.0	-7.9
1266	136	26.3	44.6	41.1	-3.5	-2.0	-1.5
Average	127				-3.5	-2.0	-1.5

Table D.16 Tonality Assessment Table - 12.5 m/s

Created on: 1/28/2021

Project: North Kent Wind Farm - IEC 61400- 11 Edition 3.0 - Turbine T3
Report ID: 17283.03.T3.RP3

Measurement #	Centre frequency (Hz)	Background adjusted criterion level (dB)	Masking level (dB)	Tone level (dB)	Determination of tonality (dB)	Frequency dependent audibility criterion (dB)	Tonal Audibility (dB)
1311	116	24.8	43.0	41.8	-1.3	-2.0	0.8
1304	116	26.2	44.5	43.6	-0.8	-2.0	1.2
1313	116	26.4	44.7	41.0	-3.7	-2.0	-1.6
1248	116	26.7	45.0	37.6	-7.4	-2.0	-5.4
1289	116	25.6	43.9	41.6	-2.3	-2.0	-0.3
1250	116	26.4	44.6	39.3	-5.4	-2.0	-3.3
1259	116	25.4	43.7	41.2	-2.4	-2.0	-0.4
1189	117	27.8	46.1	37.6	-8.5	-2.0	-6.5
1176	117	25.9	44.1	42.9	-1.3	-2.0	0.7
1314	128	27.0	45.2	40.1	-5.2	-2.0	-3.2
1288	128	26.0	44.3	41.7	-2.6	-2.0	-0.6
1261	129	25.5	43.8	42.7	-1.1	-2.0	1.0
1228	129	27.3	45.6	41.1	-4.4	-2.0	-2.4
1001	131	27.1	45.4	37.3	-8.1	-2.0	-6.1
1017	133	24.6	42.9	37.2	-5.7	-2.0	-3.7
1015	133	27.1	45.4	38.5	-6.9	-2.0	-4.8
940	135	28.1	46.4	38.5	-8.0	-2.0	-6.0
920	135	27.8	46.1	34.3	-11.8	-2.0	-9.8
Average	124				-3.9	-2.0	-1.9

Appendix E
Measurement Data

Table E.01 Measurement data - Turbine ON

Project: North Kent Wind Farm - IEC 61400- 11 Edition 3.0 - Turbine T3

Report ID: 17283.03.T3.RP3

Created on: 1/27/2021

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

Data Point #	Standardized Wind Speed (m/s)	Laeq (as measured)	LAeq (adjusted for windscreen IL)	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				1803	183.0	288.5	-1.2	12.4	7.9	6.7	0.2	89956.8	80
2				1787	183.0	288.5	-1.2	12.4	8.7	6.5	0.2	89956.7	80
3	8.7	52.3	52.6	1874	283.0	288.5	-1.0	12.2	8.9	6.9	0.2	89810.3	80
4	8.2	52.6	52.9	1604	283.0	288.5	-1.4	12.1	8.3	6.3	0.2	88812.4	80
5				1446	283.0	285.9	-1.6	12.2	8.4	5.9	0.2	88812.4	80
6	8.0	52.4	52.7	1482	283.0	285.2	-1.6	12.4	8.0	6.7	0.2	88812.4	80
7	8.1	52.6	52.9	1544	283.0	285.2	-1.5	12.4	9.1	6.9	0.2	88812.5	80
8	8.2	52.8	53.1	1567	283.0	285.2	-1.5	12.5	10.0	6.8	0.2	88812.5	80
9	8.9	52.8	53.0	1936	283.0	285.2	-0.8	12.5	9.7	7.8	0.2	88806.1	80
10	8.7	52.6	52.8	1867	283.0	285.2	-1.1	12.3	9.1	6.7	0.3	88761.5	80
11	8.7	52.6	52.9	1845	283.0	285.2	-1.1	12.3	9.0	6.0	0.3	88761.6	80
12	8.7	52.4	52.7	1861	283.0	285.2	-1.1	12.3	8.8	5.9	0.3	88761.6	80
13	8.7	52.9	53.1	1839	283.0	285.9	-1.1	12.2	8.7	6.1	0.3	88761.6	80
14	8.2	52.4	52.6	1598	283.0	288.4	-1.4	12.1	9.0	6.3	0.3	88761.6	80
15	8.3	52.5	52.8	1621	283.0	288.3	-1.4	12.4	8.2	6.4	0.3	88793.6	80
16	8.6	52.8	53.1	1816	283.0	288.3	-1.2	12.4	8.9	6.6	0.3	89010.9	80
17	8.7	52.2	52.5	1829	283.0	288.4	-1.1	12.3	9.0	6.7	0.3	89010.9	80
18	8.3	52.2	52.5	1633	283.0	288.4	-1.4	12.2	9.0	5.6	0.3	89011.1	80
19	8.1	52.7	52.9	1524	283.0	288.4	-1.5	12.3	8.3	6.0	0.3	89011.0	80
20	7.9	52.5	52.8	1439	283.0	288.4	-1.7	12.4	8.2	5.6	0.3	89011.0	80
21	8.1	52.7	52.9	1541	283.0	288.4	-1.6	12.5	7.1	5.1	0.3	89081.6	80
22	8.2	52.4	52.7	1574	283.0	288.4	-1.5	12.5	7.2	5.4	0.3	89562.2	80
23	7.9	52.7	53.0	1450	283.0	288.4	-1.6	12.5	8.3	6.0	0.3	89562.2	80
24	7.7	52.3	52.5	1317	283.0	288.4	-1.8	12.3	7.7	6.2	0.3	89562.3	80
25	7.5	51.7	52.0	1247	283.0	288.4	-1.9	12.1	7.3	6.2	0.3	89562.4	80
26	7.4	51.9	52.2	1205	283.0	288.4	-2.1	11.9	8.5	6.1	0.3	89562.3	80
27	7.4	51.7	51.9	1188	283.0	288.4	-2.2	11.9	8.4	6.4	0.3	89466.9	80
28	7.3	52.8	53.1	1143	283.0	286.9	-2.2	11.7	7.5	7.1	0.4	88813.1	79
29	7.3	51.5	51.7	1158	283.0	284.9	-2.1	11.8	7.9	6.7	0.4	88813.1	80
30	7.3	51.1	51.4	1141	283.0	284.9	-2.1	11.7	7.5	7.6	0.4	88813.1	80
31	7.2	50.7	51.0	1066	283.0	284.9	-2.1	11.4	6.0	7.0	0.4	88813.1	80
32	6.9	50.6	50.9	952	283.0	284.8	-1.8	11.0	6.8	6.6	0.4	88813.2	80
33	6.6	49.2	49.5	846	283.0	282.8	-1.6	10.7	7.3	5.7	0.4	88820.1	77
34	6.4	48.1	48.4	780	283.0	281.5	-1.5	10.3	6.7	5.5	0.4	88867.5	80
35	6.4	48.2	48.5	762	283.0	281.5	-1.5	10.2	7.4	5.8	0.4	88867.6	80
36	6.6	49.0	49.2	846	283.0	281.5	-1.5	10.6	7.9	6.1	0.4	88867.6	80
37	6.9	49.9	50.1	957	283.0	281.5	-1.5	11.1	8.0	5.5	0.4	88867.6	80
38	7.2	51.5	51.8	1100	283.0	281.5	-2.0	11.6	8.1	6.6	0.4	88867.6	80
39	7.3	51.3	51.6	1129	283.0	281.5	-2.2	11.6	7.0	7.3	0.4	88872.8	80
40	7.1	50.9	51.2	1045	283.0	281.5	-2.2	11.3	7.5	7.0	0.5	88867.7	79
41	7.0	50.4	50.7	989	283.0	281.5	-2.2	11.2	7.4	6.8	0.5	88867.6	79
42	6.9	49.8	50.1	956	283.0	281.5	-2.1	11.0	8.2	7.0	0.5	88867.7	80
43	7.1	50.6	50.9	1025	283.0	281.5	-2.2	11.3	7.7	6.3	0.5	88867.7	79
44	6.9	49.8	50.0	957	283.0	281.5	-1.7	11.0	7.3	5.7	0.5	88867.8	79
45	6.6	49.6	49.9	841	283.0	281.5	-1.6	10.6	8.0	6.1	0.5	88854.3	80
46	6.5	48.9	49.2	814	283.0	281.5	-1.5	10.5	7.5	5.4	0.5	88762.6	80
47	6.7	49.6	49.9	891	283.0	281.5	-1.6	10.8	7.6	5.3	0.5	88762.6	80
48	6.9	49.9	50.2	953	283.0	281.5	-1.6	11.0	6.7	5.1	0.5	88762.7	80
49	7.1	50.3	50.6	1039	283.0	281.5	-1.6	11.4	8.0	6.1	0.5	88762.6	80
50	7.3	51.3	51.6	1115	283.0	281.5	-2.0	11.6	8.2	7.4	0.5	88762.6	80
51	7.2	51.5	51.8	1073	283.0	281.5	-2.2	11.4	7.6	6.7	0.5	88735.9	80
52	7.1	50.8	51.1	1047	283.0	281.5	-2.2	11.4	7.8	6.1	0.5	88510.8	80
53	7.2	51.6	51.9	1091	283.0	281.5	-2.2	11.5	7.8	6.6	0.5	88510.9	80
54	7.2	51.3	51.6	1085	283.0	281.5	-2.1	11.5	7.4	7.1	0.5	88510.9	79
55	7.0	51.8	52.1	1011	283.0	279.7	-2.2	11.3	7.5	6.8	0.5	88510.9	79
56	7.1	51.0	51.2	1045	283.0	277.9	-1.7	11.4	7.3	6.1	0.5	88510.8	78
57	7.1	50.9	51.1	1061	283.0	277.9	-1.6	11.4	7.5	6.0	0.5	88536.6	78
58	7.2	50.6	50.9	1081	283.0	277.9	-1.5	11.5	8.7	5.4	0.4	88670.3	77
59	7.2	51.1	51.3	1093	283.0	277.9	-1.5	11.5	8.2	5.3	0.4	88670.4	74
60	7.4	51.7	52.0	1188	283.0	277.9	-1.6	11.9	7.4	4.8	0.4	88670.4	78
61	7.5	51.8	52.1	1216	283.0	277.9	-1.6	12.0	6.9	5.1	0.4	88670.4	80
62	7.4	51.3	51.6	1162	283.0	277.9	-2.0	11.8	8.4	5.6	0.4	88670.4	80
63	7.5	52.5	52.8	1224	283.0	279.6	-2.2	12.0	7.8	5.5	0.4	88769.7	80
64	7.7	52.4	52.7	1317	283.0	282.1	-2.1	12.3	8.9	5.6	0.5	89419.3	80
65	7.6	52.2	52.5	1274	283.0	282.1	-2.1	12.2	8.1	4.9	0.5	89419.2	80
66	7.6	52.4	52.7	1282	283.0	282.1	-2.2	12.2	7.8	5.0	0.5	89419.3	80
67	7.4	51.7	52.0	1175	283.0	282.1	-2.2	11.8	6.9	5.6	0.5	89419.3	79
68	7.0	50.6	50.9	1012	283.0	282.1	-1.7	11.2	6.9	5.9	0.5	89419.3	78
69	6.7	48.8	49.1	874	283.0	282.1	-1.6	10.7	6.9	6.1	0.5	89380.9	78
70	6.5	48.5	48.7	795	283.0	282.1	-1.6	10.4	7.1	7.1	0.5	89117.6	79
71	6.4	48.2	48.4	771	283.0	282.0	-1.6	10.3	7.2	7.6	0.5	89117.6	77
72	6.4	48.2	48.5	781	283.0	282.0	-1.5	10.3	7.2	7.3	0.5	89117.6	79
73	6.4	48.3	48.6	778	283.0	282.0	-1.5	10.3	7.4	7.2	0.5	89117.7	79
74	6.5	48.1	48.4	785	283.0	282.0	-2.0	10.3	7.4	7.7	0.5	89117.7	80
75	6.4	48.0	48.3	782	283.0	282.0	-2.2	10.3	7.0	7.4	0.5	88990.0	80
76	6.5	48.7	49.0	817	283.0	282.0	-2.2	10.5	7.2	6.5	0.5	88117.4	80
77	6.5	48.5	48.8	817	283.0	282.0	-2.1	10.5	6.9	6.2	0.5	88117.4	79
78	6.6	48.8	49.0	824	283.0	282.0	-2.2	10.5	6.6	6.3	0.5	88117.4	79
79	7.0	50.3	50.6	985	283.0	282.0	-2.2	11.2	7.6	6.8	0.5	88117.4	80
80	7.4	51.6	51.9	1161	283.0	282.0	-1.7	11.8	7.8	6.1	0.5	88117.4	79
81	7.4	51.2	51.5	1183	283.0	282.0	-1.6	11.9	7.7	6.3	0.5	88218.4	78
82	7.4	51.1	51.3	1188	283.0	282.0	-1.5	11.9	8.4	6.7	0.5	88868.8	78
83	7.3	51.1	51.4	1124	283.0	282.0	-1.5	11.6	7.3	6.1	0.5	88868.8	77
84	7.0	50.9	51.2	983	283.0	282.0	-1.5	11.1	6.2	6.2	0.5	88868.8	76
85	6.9	51.6	51.9	934	283.0	281.5	-1.5	11.0	7.7	6.0	0.5	88868.9	78
86	7.0	52.1	52.5	997	283.0	277.9	-2.0	11.2	7.3	6.1	0.5	88868.9	77
87	7.3	51.4	51.6	1111	283.0	277.7	-2.2	11.6	7.7	5.8	0.5	88884.3	78
88	7.5	53.0	53.3	1245	283.0	277.0	-2.2	12.1	7.8	6.7	0.5	88919.8	79

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

Data Point #	Standardized Wind Speed (m/s)	Laeq (as measured)	LAeq (adjusted for windscreen IL)	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	7.7	53.4	53.7	1347	283.0	273.4	-2.1	12.5	8.8	6.5	0.5	88920.0	80
90	7.8	52.8	53.0	1366	283.0	273.2	-2.0	12.5	8.1	5.9	0.5	88920.0	80
91	7.6	52.2	52.4	1272	283.0	273.1	-2.1	12.2	8.2	6.2	0.5	88920.0	80
92	7.4	51.5	51.7	1186	283.0	273.1	-1.8	11.8	8.1	6.0	0.5	88920.1	80
93	7.2	51.1	51.4	1103	283.0	273.2	-1.6	11.5	7.6	5.9	0.5	88887.1	80
94	7.2	50.7	51.0	1080	283.0	273.2	-1.6	11.5	6.8	5.1	0.5	88671.5	77
95	7.2	50.7	51.0	1083	283.0	273.2	-1.6	11.5	6.9	5.3	0.5	88671.6	80
96	7.2	51.1	51.4	1093	283.0	273.2	-1.6	11.5	7.5	5.2	0.5	88671.6	80
97	7.1	50.8	51.0	1047	283.0	273.2	-1.6	11.4	8.1	5.9	0.5	88671.6	80
98	7.2	51.1	51.4	1105	283.0	273.1	-2.0	11.6	8.6	5.5	0.5	88671.6	80
99	7.6	52.8	53.1	1293	283.0	273.1	-2.1	12.3	8.7	6.0	0.5	88760.6	80
100	7.8	53.0	53.3	1362	283.0	273.1	-2.1	12.5	8.1	6.2	0.5	89315.9	80
101	8.0	53.2	53.4	1464	283.0	273.1	-2.0	12.6	9.2	7.0	0.5	89315.9	80
102	8.1	53.3	53.6	1502	283.0	273.1	-1.9	12.6	8.7	5.9	0.5	89316.0	80
103	8.0	53.0	53.3	1455	283.0	273.2	-1.9	12.6	8.4	5.6	0.5	89316.0	80
104	7.8	52.7	53.0	1357	283.0	273.2	-1.7	12.5	7.3	5.0	0.5	89316.1	80
105	7.7	52.8	53.1	1331	283.0	273.2	-1.5	12.4	8.7	5.4	0.5	89281.4	71
106	7.7	52.8	53.1	1345	283.0	273.2	-1.5	12.4	8.9	6.3	0.5	89013.6	72
107	7.5	51.6	51.9	1214	283.0	273.2	-1.5	11.9	8.2	6.8	0.5	89013.5	72
108	7.4	51.5	51.8	1183	283.0	273.2	-1.6	11.8	7.9	6.5	0.5	89013.5	72
109	7.3	51.4	51.6	1122	283.0	273.2	-1.5	11.6	8.0	6.5	0.5	89013.5	72
110	7.1	50.8	51.1	1045	283.0	273.2	-2.0	11.4	7.3	6.8	0.5	89013.6	73
111	7.3	51.9	52.1	1128	283.0	273.1	-2.2	11.6	7.8	7.3	0.5	88966.8	76
112	7.2	51.5	51.7	1108	283.0	273.1	-2.2	11.5	7.3	6.9	0.5	88618.4	75
113	7.1	51.1	51.4	1030	283.0	273.1	-2.2	11.3	7.3	6.4	0.5	88618.4	74
114	7.4	52.2	52.4	1164	283.0	273.1	-2.1	11.8	8.4	6.2	0.5	88618.3	74
115	8.0	53.4	53.7	1462	283.0	273.2	-1.5	12.6	9.0	6.0	0.5	88618.4	72
116	7.9	53.8	54.0	1442	283.0	273.2	-1.8	12.6	7.7	6.7	0.5	88618.4	72
117	7.6	53.4	53.6	1285	283.0	273.2	-1.8	12.2	8.6	6.2	0.5	88702.5	73
118	7.3	52.1	52.3	1154	283.0	273.2	-1.9	11.7	7.7	6.6	0.5	89211.1	80
119	7.2	51.4	51.7	1100	283.0	273.1	-1.9	11.5	8.0	5.7	0.5	89211.2	80
120	7.5	52.9	53.2	1232	283.0	273.1	-1.9	12.0	8.8	6.8	0.5	89211.2	80
121	7.5	52.4	52.7	1208	283.0	273.1	-1.9	11.9	7.9	6.9	0.5	89211.2	80
122	7.5	53.3	53.6	1209	283.0	275.3	-1.7	12.0	8.1	6.7	0.5	89211.2	80
123	7.7	52.7	53.0	1341	283.0	276.0	-1.5	12.4	8.6	7.2	0.5	89106.1	78
124	7.8	53.1	53.4	1396	283.0	276.0	-1.5	12.6	8.0	7.1	0.5	88420.6	79
125	7.7	52.9	53.2	1350	283.0	276.0	-1.5	12.4	8.7	6.4	0.5	88420.6	79
126	7.5	52.1	52.3	1235	283.0	276.0	-1.6	12.0	7.6	6.3	0.5	88420.7	78
127				983	283.0	278.2	3.5	11.1	8.3	5.7	0.9	100115.0	55
128				1534	283.0	278.2	3.7	10.9	8.9	6.8	0.9	100114.7	55
129				1123	283.0	278.3	1.3	11.3	8.7	7.9	0.9	100114.3	55
130	7.7	51.4	51.7	1315	283.0	278.3	0.1	12.0	8.2	7.6	0.9	100114.2	55
131	7.6	51.7	52.0	1282	283.0	278.3	-1.8	12.1	7.3	6.9	1.0	100114.1	56
132	7.5	53.4	53.7	1241	283.0	277.1	-1.9	12.1	8.1	7.1	1.0	100113.9	56
133	7.4	51.7	52.0	1191	283.0	275.0	-1.9	11.8	8.7	6.8	1.0	100113.7	56
134	7.3	51.5	51.7	1136	283.0	274.9	-1.9	11.6	8.2	6.7	1.0	100113.3	56
135	7.8	52.3	52.6	1358	283.0	274.9	-1.2	12.3	7.3	6.8	1.0	100112.7	56
136				1597	283.0	273.8	-0.8	12.6	8.0	5.5	1.0	100111.3	55
137	7.7	52.3	52.5	1351	283.0	270.7	-1.8	12.3	7.2	5.4	1.0	100103.0	55
138	7.1	50.0	50.2	1030	283.0	270.7	-1.9	11.2	6.2	5.2	1.0	99363.0	55
139	6.6	48.7	49.0	830	283.0	270.6	-1.9	10.5	7.3	4.4	1.0	98845.8	55
140				873	283.0	269.8	-1.9	10.8	7.9	5.4	1.0	98891.9	55
141				975	283.0	267.0	-1.9	11.1	8.2	5.4	1.0	99133.6	55
142				981	283.0	267.0	-1.9	11.1	8.0	4.8	1.0	99283.4	56
143				1131	283.0	267.0	-1.9	11.7	8.6	4.7	1.0	99705.3	57
144				1436	283.0	267.0	-1.7	12.5	8.2	4.8	1.0	99991.4	57
145				1840	283.0	267.0	-1.2	12.7	8.7	6.1	1.0	100102.3	57
146				2104	283.0	267.0	-0.5	12.7	9.2	6.1	1.0	100109.0	57
147				2343	283.0	267.0	-0.1	12.6	9.2	6.2	1.0	100110.1	57
148				2233	283.0	267.0	-0.5	12.2	9.6	5.4	1.0	100111.0	57
149				1909	283.0	267.0	-1.0	12.1	8.7	4.9	1.1	100111.8	57
150				1734	283.0	267.0	-1.3	12.1	8.8	6.4	1.1	100112.1	57
151	8.8	53.0	53.3	1890	283.0	269.2	-1.0	12.3	9.9	9.0	1.1	100111.8	57
152	8.5	52.4	52.6	1751	283.0	271.8	-1.3	12.2	9.7	9.2	1.1	100112.1	57
153	8.4	52.3	52.6	1696	283.0	271.8	-1.3	12.2	8.1	8.8	1.1	100112.4	57
154	8.5	52.5	52.8	1750	283.0	271.9	-1.3	12.3	9.3	8.4	1.1	100112.9	56
155	8.5	52.6	52.9	1736	283.0	274.7	-1.3	12.3	9.2	8.8	1.1	100113.3	54
156	8.3	52.5	52.7	1646	283.0	275.4	-1.4	12.3	8.9	7.7	1.1	100113.8	54
157	8.4	52.8	53.1	1692	283.0	275.4	-1.4	12.3	8.4	7.0	1.1	100114.0	54
158	8.3	53.1	53.4	1628	283.0	275.5	-1.4	12.3	8.8	7.2	1.1	100114.0	54
159	8.6	53.4	53.6	1789	283.0	278.6	-1.1	12.4	8.8	7.5	1.1	100114.0	54
160	9.0	52.6	52.8	2018	283.0	279.0	-0.6	12.4	9.4	8.6	1.1	100113.9	54
161	9.0	52.2	52.4	1990	283.0	279.0	-0.6	12.2	11.0	7.7	1.1	100114.1	55
162	8.5	52.3	52.5	1769	283.0	279.0	-0.9	12.1	8.6	7.4	1.1	100114.3	55
163	8.1	52.6	52.9	1537	283.0	279.0	-1.2	12.1	8.8	8.4	1.1	100114.1	55
164	7.9	52.6	52.8	1437	283.0	279.0	-1.4	12.3	7.9	8.3	1.1	100114.2	55
165	8.3	52.7	52.9	1658	283.0	279.0	-1.2	12.4	9.5	7.4	1.1	100114.5	55
166	8.1	52.4	52.7	1535	283.0	279.0	-1.5	12.3	9.1	7.2	1.1	100114.6	55
167	7.7	52.5	52.7	1326	283.0	279.0	-1.8	12.4	9.0	7.0	1.1	100114.6	54
168	7.6	52.3	52.6	1301	283.0	279.0	-1.9	12.2	8.6	6.6	1.1	100114.7	54
169	7.4	51.4	51.7	1170	283.0	279.0	-1.9	11.7	7.9	6.9	1.1	100114.6	54
170	7.1	50.5	50.8	1059	283.0	278.9	-1.9	11.4	7.5	7.9	1.1	100114.5	54
171	7.3	51.2	51.4	1155	283.0	278.9	-2.2	11.7	8.7	8.8	1.1	100114.4	54
172	8.0	53.0	53.3	1466	283.0	278.9	-1.5	12.5	8.6	7.7	1.1	100114.9	55
173				1746	283.0	276.1	-1.3	12.7	8.7	8.2	1.1	100115.0	55
174	8.8	53.0	53.3	1889	283.0	274.6	-1.2	12.6	9.1	8.1	1.1	100115.3	55
175	8.7	53.2	53.4	1872	283.0	274.6	-1.4	12.6	8.7	7.2	1.1	100115.7	55
176	8.5	52.8	53.0	1730	283.0	274.6	-1.6	12.5	8.3	7.2	1.1	100115.8	55

Table E.01 Measurement data - Turbine ON

Project: North Kent Wind Farm - IEC 61400- 11 Edition 3.0 - Turbine T3

Report ID: 17283.03.T3.RP3

Created on: 1/27/2021

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

Data Point #	Standardized Wind Speed (m/s)	Laeq (as measured)	LAeq (adjusted for windscreen IL)	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	8.8	52.8	53.1	1914	283.0	274.6	-1.1	12.5	9.2	7.7	1.1	100115.6	55
178	8.9	52.2	52.4	1955	283.0	274.7	-1.0	12.4	9.3	6.9	1.1	100115.8	54
179	8.8	52.6	52.9	1925	283.0	274.7	-0.9	12.3	8.6	5.9	1.1	100116.2	54
180	9.0	53.2	53.6	2002	283.0	274.4	-0.9	12.2	8.7	7.0	1.1	100116.1	54
181	8.7	53.2	53.5	1853	283.0	271.3	-1.1	12.2	8.4	5.8	1.1	100116.3	54
182	8.3	52.3	52.5	1611	283.0	271.1	-1.5	12.2	8.4	6.1	1.1	100116.3	54
183	8.4	52.5	52.8	1700	283.0	271.0	-1.3	12.3	8.2	6.3	1.1	100116.3	54
184	8.4	52.6	52.8	1678	283.0	271.0	-1.4	12.3	7.9	7.2	1.1	100116.0	56
185	9.0	52.5	52.8	2014	283.0	271.1	-0.2	12.4	8.4	6.8	1.1	100116.2	56
186	9.2	52.4	52.7	2108	283.0	271.1	0.1	12.2	9.9	7.5	1.1	100116.1	56
187	9.4	52.6	52.8	2188	283.0	271.1	-0.3	12.2	10.1	7.9	1.1	100115.9	56
188	9.1	52.4	52.7	2047	283.0	271.1	-0.8	12.1	9.6	7.3	1.1	100116.1	56
189	8.9	52.6	52.9	1937	283.0	271.1	-0.9	12.1	9.3	8.4	1.1	100115.9	56
190	8.6	52.4	52.7	1799	283.0	271.1	-1.2	12.2	8.4	8.8	1.1	100105.2	54
191	8.3	52.6	52.8	1621	283.0	271.1	-1.4	12.1	7.8	8.1	1.1	100103.2	54
192	8.1	52.5	52.8	1539	283.0	271.1	-1.5	12.2	7.9	7.3	1.1	100103.6	54
193	8.1	52.3	52.6	1527	283.0	271.1	-1.6	12.3	8.3	7.5	1.1	100103.4	54
194	8.1	52.5	52.8	1541	283.0	271.1	-1.6	12.4	7.7	7.0	1.1	100103.6	54
195	8.1	52.6	52.8	1531	283.0	271.1	-1.6	12.4	8.0	6.6	1.1	100103.7	54
196	8.7	53.0	53.3	1839	283.0	271.1	-0.6	12.5	9.4	5.9	1.2	100103.7	55
197	8.8	52.6	52.9	1909	283.0	271.1	-0.8	12.3	9.1	6.0	1.2	100103.7	55
198	8.5	52.6	52.8	1733	283.0	271.1	-1.3	12.3	8.8	6.5	1.2	100103.6	55
199	8.6	52.6	52.9	1778	283.0	271.1	-1.2	12.3	8.6	6.7	1.2	100103.7	55
200	8.2	52.3	52.6	1572	283.0	271.1	-1.5	12.2	7.6	6.7	1.2	100103.6	55
201	8.0	52.6	52.8	1472	283.0	271.1	-1.6	12.3	8.1	7.0	1.2	100103.6	55
202	7.5	53.2	53.6	1252	283.0	269.5	-1.9	12.1	7.6	6.6	1.2	100103.8	55
203				1126	283.0	266.9	-1.9	11.6	6.3	6.2	1.2	100103.8	55
204				1010	283.0	266.9	-1.9	11.2	7.0	6.5	1.2	100103.9	55
205				972	283.0	266.9	-1.9	11.0	7.7	6.4	1.2	100103.9	55
206				992	283.0	266.9	-1.9	11.1	7.9	5.7	1.2	100104.0	55
207				1416	283.0	266.9	-1.3	12.5	8.3	4.6	1.2	100104.3	55
208				1489	283.0	266.9	-1.3	12.6	8.7	5.5	1.2	100104.1	55
209				1363	283.0	266.9	-1.5	12.5	7.3	5.7	1.2	100104.1	55
210				1286	283.0	266.9	-1.5	12.2	7.1	5.8	1.2	100104.0	55
211				1235	283.0	266.9	-1.6	12.0	8.3	6.5	1.2	100103.9	55
212				1291	283.0	266.9	-1.8	12.2	8.5	6.7	1.2	100104.1	55
213				1392	283.0	266.9	-1.8	12.6	9.2	5.9	1.1	100104.4	55
214				1343	283.0	266.9	-1.8	12.4	8.0	5.7	1.1	100104.3	55
215				1259	283.0	266.9	-1.9	12.1	7.6	5.9	1.1	100104.4	55
216				1231	283.0	266.9	-1.9	12.0	7.5	6.1	1.1	100104.3	55
217				1201	283.0	265.7	-1.9	11.9	8.1	5.5	1.1	100104.4	55
218				1386	283.0	263.7	-1.8	12.5	10.1	5.1	1.1	100104.5	55
219				1455	283.0	263.7	-2.0	12.6	8.9	4.9	1.1	100104.5	55
220				1612	283.0	263.7	-1.8	12.7	9.3	3.7	1.1	100104.5	56
221				1863	283.0	263.7	-1.4	12.7	9.8	4.3	1.1	100104.5	56
222				2023	283.0	265.2	-1.0	12.7	9.7	5.9	1.1	100104.4	56
223				2120	283.0	267.7	-0.8	12.5	9.7	6.4	1.1	100104.2	56
224				2288	283.0	267.7	-0.3	12.3	9.9	7.9	1.1	100104.0	56
225				2339	283.0	267.7	-0.1	12.2	9.8	7.4	1.1	100104.2	55
226				2218	283.0	267.7	-0.5	12.2	9.3	6.5	1.1	100104.4	55
227				2417	283.0	267.7	-0.2	12.2	10.3	7.7	1.1	100104.2	55
228				2379	283.0	267.7	-0.4	12.1	10.5	8.8	1.1	100104.0	55
229				2078	283.0	267.7	-0.8	12.1	9.0	9.4	1.1	100104.0	55
230				1975	283.0	267.7	-0.9	12.2	10.1	10.0	1.1	100103.8	55
231				1623	283.0	279.1	2.1	11.5	9.5	5.6	1.8	100073.0	53
232	8.5	50.8	51.1	1733	283.0	279.0	1.0	11.8	8.3	6.6	1.8	100072.4	53
233	8.3	51.3	51.6	1640	283.0	279.0	0.0	12.0	8.4	6.0	1.8	100071.5	53
234	8.5	51.8	52.1	1749	283.0	279.0	-1.2	12.0	8.6	5.6	1.8	100069.9	53
235	8.3	51.6	51.9	1621	283.0	279.0	-1.4	12.0	9.2	6.1	1.8	100067.6	53
236	8.3	51.9	52.1	1646	283.0	279.0	-1.4	12.1	8.8	6.2	1.8	100066.3	53
237	8.2	51.7	52.0	1599	283.0	279.0	-1.5	12.1	7.8	6.1	1.8	100057.6	53
238	7.9	52.0	52.2	1433	283.0	279.0	-1.7	12.2	7.8	5.1	1.8	100047.3	53
239	7.8	52.4	52.7	1377	283.0	279.0	-1.7	12.4	6.9	5.0	1.8	100031.2	53
240	7.6	52.0	52.2	1303	283.0	279.0	-1.9	12.3	7.5	6.5	1.8	99992.0	53
241	7.3	50.8	51.1	1136	283.0	279.0	-1.8	11.6	6.9	7.6	1.8	99838.9	53
242	6.8	49.4	49.7	922	283.0	279.1	-1.6	10.9	6.7	7.0	1.8	99955.9	52
243	6.7	49.3	49.5	876	283.0	282.4	-1.6	10.7	7.8	7.1	1.9	99987.7	52
244	6.9	49.6	49.8	937	283.0	283.6	-1.6	11.0	7.7	8.0	1.9	99938.7	52
245	6.9	49.9	50.1	947	283.0	284.5	-1.6	11.0	8.2	7.6	1.9	99878.6	52
246	7.1	50.2	50.5	1031	283.0	288.2	-1.6	11.3	7.6	6.9	1.9	100064.1	52
247	7.2	50.4	50.7	1084	283.0	288.4	-1.4	11.5	8.4	7.1	1.9	100063.7	52
248	7.3	51.0	51.2	1150	283.0	288.4	-2.2	11.7	8.7	6.9	1.9	100065.8	52
249	7.3	51.0	51.3	1118	283.0	288.4	-2.2	11.6	8.2	6.6	1.9	100067.3	51
250	7.1	50.3	50.5	1056	283.0	288.4	-2.2	11.3	8.0	6.1	1.9	100067.5	51
251	7.0	49.6	49.9	973	283.0	288.4	-2.2	11.0	7.9	5.9	1.9	100067.9	51
252	6.8	49.4	49.7	904	283.0	288.4	-2.2	10.8	8.0	6.9	1.9	100068.6	51
253	6.9	49.9	50.1	949	283.0	288.5	-2.0	11.0	8.8	7.1	1.9	100069.4	51
254	7.0	50.0	50.3	996	283.0	291.5	-1.6	11.2	8.1	7.2	1.8	100069.3	51
255	6.7	48.4	48.6	868	283.0	291.8	-1.6	10.7	8.5	5.9	1.7	100069.6	52
256	6.4	47.2	47.5	751	283.0	291.8	-1.6	10.1	6.6	5.9	1.7	100069.9	52
257	6.4	48.9	49.2	759	283.0	291.6	-1.6	10.2	6.7	5.7	1.7	100070.0	52
258	6.6	49.7	49.9	855	283.0	288.3	-1.6	10.6	5.9	6.0	1.7	100069.5	52
259	6.8	49.4	49.6	903	283.0	287.9	-1.7	10.8	7.0	7.0	1.7	100069.1	52
260	7.3	51.6	51.9	1133	283.0	285.3	-2.2	11.7	8.4	7.2	1.7	100068.9	52
261	7.4	51.4	51.7	1187	283.0	284.0	-2.2	11.8	8.8	7.0	1.7	100068.3	53
262	7.5	51.6	51.9	1227	283.0	284.0	-2.2	12.0	8.5	6.5	1.7	100067.2	53
263	8.0	52.8	53.0	1482	283.0	284.0	-1.7	12.6	8.7	6.8	1.7	100064.8	53
264	8.7	53.2	53.4	1866	283.0	284.1	-0.9	12.7	10.4	5.9	1.7	100061.3	53

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

Data Point #	Standardized Wind Speed (m/s)	Laeq (as measured)	LAeq (adjusted for windscreen IL)	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	8.9	53.3	53.6	1973	283.0	284.1	-0.9	12.6	9.4	6.4	1.7	100053.3	53
266	8.8	53.2	53.5	1898	283.0	284.1	-0.9	12.5	9.2	5.7	1.7	100050.5	53
267	9.1	53.0	53.3	2046	283.0	284.1	-0.7	12.5	8.8	7.7	1.8	100050.8	53
268	9.1	52.6	52.8	2060	283.0	284.1	-0.7	12.3	9.3	6.0	1.8	100051.3	53
269	9.3	52.4	52.7	2162	283.0	284.1	-0.6	12.2	8.7	5.2	1.8	100053.0	53
270	9.0	52.5	52.8	1990	283.0	284.1	-0.9	12.2	8.8	6.2	1.8	100069.0	53
271	9.3	53.4	53.8	2123	283.0	280.9	-0.8	12.2	9.5	7.1	1.8	100075.4	53
272	9.0	52.5	52.7	2016	283.0	280.7	-0.9	12.2	8.8	7.7	1.9	100076.5	52
273	8.3	52.3	52.6	1624	283.0	280.7	-1.4	12.1	8.9	6.9	1.9	100077.0	52
274	8.4	52.3	52.6	1713	283.0	280.7	-1.3	12.2	9.0	7.4	1.9	100077.3	52
275	8.5	52.2	52.4	1746	283.0	280.7	-1.3	12.2	8.6	8.3	1.9	100077.4	52
276	8.5	52.7	52.9	1733	283.0	280.7	-1.3	12.3	9.0	7.8	1.9	100077.5	52
277	8.9	52.5	52.8	1942	283.0	280.7	-1.0	12.3	9.3	7.3	1.9	100077.4	52
278	8.8	52.5	52.8	1892	283.0	280.7	-1.1	12.2	9.2	7.1	1.9	100077.5	51
279	8.5	52.9	53.1	1760	283.0	280.7	-1.2	12.2	9.0	6.4	1.9	100077.5	51
280	8.5	52.4	52.6	1726	283.0	280.7	-1.3	12.2	8.6	6.6	1.9	100077.6	51
281	8.4	52.1	52.4	1715	283.0	280.7	-1.3	12.2	8.3	5.8	1.9	100077.6	51
282	8.4	52.1	52.4	1710	283.0	280.7	-1.3	12.3	8.0	5.9	1.9	100077.5	51
283	8.4	52.3	52.6	1706	283.0	280.7	-1.1	12.3	8.6	5.6	1.9	100077.5	51
284	8.3	52.3	52.5	1619	283.0	280.7	-1.1	12.3	9.0	6.1	1.9	100077.6	51
285	8.2	52.4	52.6	1599	283.0	280.7	-1.2	12.3	7.4	6.3	1.9	100077.5	51
286	8.2	52.2	52.4	1575	283.0	280.7	-1.2	12.4	8.7	7.3	1.9	100077.5	51
287	8.0	52.2	52.5	1464	283.0	280.7	-1.3	12.4	7.8	7.7	1.9	100077.4	51
288	7.7	52.2	52.5	1330	283.0	280.7	-1.5	12.3	7.0	7.3	1.9	100077.5	51
289	7.5	52.0	52.3	1255	283.0	280.7	-1.8	12.1	6.9	8.7	1.9	100074.5	51
290	7.4	51.5	51.8	1188	283.0	280.7	-1.9	11.8	7.0	7.8	2.0	100065.2	49
291	7.5	51.6	51.9	1208	283.0	280.7	-1.9	11.9	7.9	7.4	2.0	100065.4	49
292	7.3	51.5	51.8	1154	283.0	280.7	-1.9	11.7	7.3	7.6	2.0	100065.6	49
293	7.3	51.1	51.3	1133	283.0	280.7	-1.9	11.6	7.4	7.8	2.0	100065.5	49
294	7.2	50.8	51.1	1089	283.0	280.7	-1.9	11.5	6.8	7.1	2.0	100065.6	49
295	7.0	50.0	50.2	978	283.0	280.7	-2.1	11.1	6.3	6.9	2.0	100065.5	49
296	6.6	48.5	48.8	841	283.0	280.7	-2.2	10.5	6.8	6.3	1.9	100065.5	49
297	6.7	48.9	49.1	872	283.0	280.7	-2.2	10.7	7.9	6.3	1.9	100065.5	49
298	6.8	49.2	49.5	927	283.0	280.7	-2.2	10.9	7.1	6.0	1.9	100065.4	49
299	6.4	47.9	48.2	780	283.0	280.7	-2.2	10.3	6.1	5.7	1.9	100064.8	49
300	6.2	47.0	47.3	670	283.0	280.7	-2.2	9.7	5.2	5.9	1.9	100064.1	49
301	6.1	47.2	47.4	653	283.0	280.7	-1.7	9.6	7.5	6.9	1.9	100063.9	50
302	6.4	47.9	48.2	748	283.0	280.7	-1.6	10.1	8.4	6.1	1.9	100066.0	51
303	6.3	47.8	48.1	718	283.0	280.7	-1.6	10.0	6.7	6.7	1.9	100066.4	51
304	6.1	46.7	47.0	652	283.0	280.7	-1.6	9.6	8.1	6.9	1.9	100066.1	51
305	6.1	46.4	46.6	640	283.0	280.6	-1.6	9.6	6.3	6.2	1.9	100065.1	51
306	6.3	47.3	47.5	714	283.0	280.6	-1.6	10.0	6.5	5.2	1.9	100064.4	51
307	6.6	48.9	49.2	852	283.0	280.6	-2.1	10.6	6.0	5.7	1.9	100061.6	51
308	7.0	49.8	50.1	975	283.0	280.6	-2.2	11.1	7.2	7.1	1.9	100051.8	52
309	7.1	50.9	51.2	1045	283.0	280.5	-2.2	11.4	7.0	5.8	1.9	100053.2	52
310	7.2	51.5	51.7	1108	283.0	277.9	-2.2	11.6	7.8	5.4	1.9	100053.9	52
311	7.0	51.9	52.2	996	283.0	276.7	-2.2	11.2	7.5	5.6	1.9	100054.2	52
312	6.9	49.7	49.9	944	283.0	274.0	-1.8	11.0	7.2	6.8	1.9	100054.1	52
313	6.9	49.7	49.9	964	283.0	274.0	-1.6	11.1	7.3	6.7	1.9	100053.3	54
314	7.0	49.6	49.9	985	283.0	273.9	-1.6	11.1	8.4	6.7	1.9	100051.8	54
315	6.8	49.5	49.7	932	283.0	274.0	-1.6	10.9	8.0	6.0	1.9	100050.9	54
316	7.2	52.0	52.3	1070	283.0	275.0	-1.4	11.5	8.0	6.3	1.9	100048.5	54
317	8.2	52.7	53.0	1584	283.0	277.6	0.7	12.6	8.8	6.7	1.9	100033.9	54
318	8.6	52.6	52.8	1789	283.0	277.5	1.1	12.6	8.7	7.3	1.9	99926.2	54
319	8.9	53.1	53.4	1934	283.0	277.5	1.1	12.6	9.6	8.8	2.1	99847.3	52
320	9.3	53.1	53.4	2144	283.0	277.6	1.0	12.6	10.3	7.6	2.1	99418.2	52
321	9.5	52.7	53.0	2221	283.0	277.6	0.5	12.4	10.3	7.5	2.1	98218.2	52
322	8.9	52.1	52.3	1985	283.0	277.6	-0.7	12.1	9.3	8.9	2.1	98803.0	52
323	8.7	52.4	52.7	1839	283.0	277.6	-1.1	12.1	8.3	8.6	2.1	99372.3	52
324	8.3	52.5	52.7	1613	283.0	277.6	-1.4	12.2	9.0	8.2	2.1	99027.0	52
325	8.1	52.3	52.6	1535	283.0	277.5	-1.5	12.2	8.4	7.6	2.1	98556.3	49
326	8.5	52.7	52.9	1719	283.0	277.5	-1.3	12.4	8.5	7.2	2.1	97744.2	49
327	8.7	52.5	52.7	1850	283.0	277.5	-1.1	12.4	9.1	6.5	2.1	98872.2	49
328	9.2	52.6	52.9	2106	283.0	277.5	0.0	12.3	8.9	6.7	2.1	100049.7	49
329	9.3	52.3	52.5	2140	283.0	277.5	-0.7	12.3	8.9	6.7	2.1	100049.8	49
330	9.1	52.7	53.0	2048	283.0	277.5	-0.8	12.2	9.0	6.7	2.1	100050.6	49
331				2001	283.0	274.8	-0.9	12.2	8.6	7.8	2.1	100039.0	52
332	8.6	52.6	52.8	1819	283.0	274.0	-1.2	12.2	9.2	7.5	2.1	100038.0	52
333	8.5	52.7	53.0	1742	283.0	274.0	-1.3	12.2	9.3	7.0	2.1	100038.4	52
334	8.6	52.7	53.0	1809	283.0	274.0	-1.2	12.3	9.5	6.8	2.1	100038.7	52
335	8.6	52.4	52.7	1819	283.0	274.0	-1.2	12.2	9.3	6.7	2.1	100038.9	52
336	8.2	52.5	52.8	1595	283.0	274.0	-1.5	12.1	7.7	6.7	2.1	100039.0	52
337	8.4	52.6	52.8	1676	283.0	273.9	-1.4	12.3	8.3	7.4	2.1	100039.3	51
338	8.6	52.4	52.7	1797	283.0	274.0	-1.2	12.3	8.3	8.0	2.1	100039.3	51
339	8.6	52.3	52.6	1791	283.0	274.0	-1.2	12.3	9.1	8.5	2.1	100039.3	51
340	8.6	52.2	52.5	1794	283.0	274.0	-1.2	12.3	8.6	8.3	2.1	100039.4	51
341	8.4	52.2	52.5	1696	283.0	274.0	-1.3	12.2	8.5	7.1	2.1	100039.3	51
342	8.3	52.4	52.7	1628	283.0	274.0	-1.6	12.3	8.8	7.1	2.1	100039.0	51
343	8.5	52.5	52.7	1746	283.0	274.0	-1.6	12.4	8.7	7.4	2.1	100026.8	49
344	8.6	52.4	52.7	1795	283.0	274.0	-1.5	12.3	8.2	8.6	2.1	100026.7	49
345	8.1	52.2	52.5	1503	283.0	274.0	-1.9	12.2	7.6	8.2	2.1	100026.8	49
346	7.9	52.6	52.9	1445	283.0	274.0	-2.0	12.4	8.8	8.1	2.1	100026.7	49
347	8.1	52.8	53.1	1521	283.0	273.9	-1.9	12.5	8.3	7.6	2.1	100026.8	49
348	7.8	52.4	52.7	1364	283.0	274.0	-1.9	12.4	8.2	7.1	2.1	100026.7	49
349	7.6	52.4	52.6	1275	283.0	274.0	-1.9	12.2	8.1	7.8	2.1	100026.6	50
350	7.6	52.1	52.4	1290	283.0	274.0	-1.9	12.2	7.8	6.9	2.1	100026.7	50
351	7.5	51.5	51.8	1235	283.0	274.0	-1.9	12.0	7.0	6.3	2.1	100026.7	50
352	7.3	51.0	51.3	1129	283.0	274.0	-1.9	11.6	6.1	6.2	2.1	100026.7	50

Table E.01 Measurement data - Turbine ON

Project: North Kent Wind Farm - IEC 61400- 11 Edition 3.0 - Turbine T3

Report ID: 17283.03.T3.RP3

Created on: 1/27/2021

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

Data Point #	Standardized Wind Speed (m/s)	Laeq (as measured)	LAeq (adjusted for windscreen IL)	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				993	283.0	272.7	-1.8	11.2	6.7	6.5	2.1	100026.8	50
354	7.2	50.8	51.1	1070	283.0	270.3	-1.6	11.4	8.9	5.7	2.0	100017.9	50
355	7.2	50.7	51.0	1076	283.0	270.3	-1.6	11.5	8.7	4.9	2.0	100012.8	51
356	7.6	52.3	52.5	1259	283.0	270.3	-1.0	12.1	8.8	7.1	2.0	100012.9	51
357	8.3	53.1	53.4	1638	283.0	270.3	-0.3	12.7	8.5	6.9	2.0	100012.9	51
358	8.0	52.5	52.8	1476	283.0	270.3	-1.3	12.5	9.0	8.3	2.0	100013.0	51
359	7.7	51.9	52.2	1313	283.0	270.3	-1.6	12.3	7.8	8.4	2.0	100013.1	51
360	7.4	51.6	51.8	1205	283.0	270.3	-1.9	11.9	6.9	7.9	2.0	100013.2	50
361	7.1	50.8	51.0	1050	283.0	270.3	-1.9	11.3	6.6	7.2	2.0	100013.2	49
362	6.9	50.3	50.5	950	283.0	270.2	-1.9	11.0	7.3	6.1	2.0	100013.4	49
363	7.0	50.2	50.5	983	283.0	270.2	-1.9	11.1	8.5	5.8	2.0	100013.3	49
364	6.9	50.0	50.3	948	283.0	270.2	-1.9	11.0	8.3	6.6	2.0	100013.2	49
365	6.9	50.5	50.8	959	283.0	270.2	-1.9	11.1	6.7	6.9	2.0	100013.2	49
366	7.4	52.3	52.6	1196	283.0	270.2	-2.1	11.9	8.6	8.0	2.0	100013.1	50
367	7.8	53.1	53.3	1393	283.0	270.2	-1.9	12.6	7.7	7.8	2.0	100013.2	50
368	7.7	52.9	53.1	1313	283.0	270.2	-2.1	12.3	7.1	8.1	2.0	100013.4	50
369	8.1	53.2	53.4	1508	283.0	270.2	-1.4	12.6	9.1	6.9	2.0	100013.3	50
370	8.8	53.2	53.5	1897	283.0	270.2	-0.5	12.7	9.9	8.3	2.0	100013.3	50
371	9.1	53.0	53.3	2040	283.0	270.3	-0.4	12.6	9.3	8.8	2.0	100013.5	50
372	9.1	53.0	53.2	2061	283.0	270.3	-0.8	12.5	8.3	7.7	2.1	100013.4	50
373	9.2	52.8	53.1	2101	283.0	270.3	-0.8	12.4	9.3	8.2	2.1	100013.4	50
374	9.1	52.3	52.6	2052	283.0	270.3	-0.8	12.2	8.7	7.8	2.1	100013.5	50
375	9.0	53.4	53.7	2030	283.0	268.8	-0.9	12.2	9.6	6.7	2.1	100013.5	50
376				2031	283.0	267.3	-0.9	12.2	9.8	6.8	2.1	100013.4	50
377				2104	283.0	267.3	-0.8	12.2	9.4	7.1	2.1	100013.4	50
378				2118	283.0	267.3	-0.8	12.2	9.3	7.9	2.1	100013.5	51
379				1917	283.0	267.3	-1.0	12.2	9.1	8.8	2.2	100013.5	51
380				1740	283.0	267.3	-1.2	12.1	9.4	8.2	2.2	100013.6	51
381				1596	283.0	267.3	-1.5	12.2	9.4	8.1	2.2	100013.6	51
382				1671	283.0	267.3	-1.4	12.2	8.9	7.4	2.2	100013.6	51
383				1606	283.0	267.3	-1.4	12.2	7.6	9.0	2.2	100013.5	51
384				1257	283.0	267.3	-1.9	12.1	7.3	7.9	2.2	100013.4	49
385				1161	283.0	267.3	-1.9	11.8	7.6	6.8	2.2	100013.0	48
386	7.3	51.6	51.8	1149	283.0	270.2	-1.9	11.7	7.5	6.9	2.2	100012.7	48
387	7.1	50.4	50.6	1033	283.0	270.8	-1.9	11.3	6.7	6.7	2.2	100012.6	48
388	7.0	50.5	50.7	1012	283.0	270.8	-1.9	11.3	6.8	5.9	2.2	100012.7	48
389	7.2	51.0	51.2	1101	283.0	270.7	-1.8	11.6	7.8	6.5	2.2	100012.4	48
390	7.2	51.1	51.3	1079	283.0	270.8	-1.6	11.5	8.4	6.3	2.2	100012.4	50
391	8.3	52.5	52.8	1662	283.0	270.8	-0.1	12.7	8.5	5.2	2.2	100012.1	50
392	8.5	52.9	53.1	1761	283.0	270.8	-0.9	12.6	8.3	5.7	2.2	100011.9	50
393	8.3	52.7	52.9	1638	283.0	270.8	-1.1	12.6	8.0	6.1	2.2	100011.8	50
394	8.0	52.8	53.1	1484	283.0	270.8	-1.3	12.6	7.5	5.9	2.2	100011.7	50
395	8.2	53.2	53.5	1588	283.0	270.8	-1.5	12.6	8.7	8.3	2.2	100011.5	51
396	8.5	53.4	53.6	1730	283.0	270.8	-1.0	12.7	8.9	7.4	2.2	100011.4	52
397	9.0	52.7	52.9	2020	283.0	270.8	-0.1	12.5	8.7	6.9	2.2	100011.3	52
398	8.5	52.4	52.6	1741	283.0	270.8	-1.2	12.3	9.0	6.8	2.2	100011.2	52
399	8.9	52.6	52.9	1949	283.0	270.8	-0.3	12.4	9.8	7.0	2.2	100010.9	52
400	9.2	52.3	52.6	2113	283.0	270.7	-0.2	12.3	10.4	7.0	2.2	100010.5	52
401	9.7	52.4	52.7	2298	283.0	270.8	-0.1	12.2	9.2	8.5	2.2	100010.2	50
402	9.8	52.1	52.4	2350	283.0	270.8	-0.4	12.2	9.5	7.9	2.3	100009.9	49
403				2563	283.0	270.4	-0.1	12.2	9.2	7.7	2.3	100009.6	49
404				2388	283.0	267.2	-0.2	12.1	9.7	7.8	2.3	100008.9	49
405				2158	283.0	267.1	-0.6	12.1	9.5	9.7	2.3	100008.3	49
406				2006	283.0	267.0	-0.7	12.2	8.9	7.9	2.3	100007.8	49
407				1992	283.0	267.1	-0.4	12.1	9.7	9.5	2.3	100008.1	49
408				1800	283.0	267.1	-1.2	12.2	8.5	9.3	2.3	100008.3	49
409				1705	283.0	267.1	-1.3	12.2	7.5	8.9	2.3	100008.6	49
410				1645	283.0	267.1	-1.4	12.2	8.9	8.0	2.3	100008.1	49
411				1669	283.0	267.1	-1.4	12.2	9.2	7.5	2.3	100006.6	49
412				1881	283.0	267.0	-1.1	12.3	8.7	7.4	2.3	100000.3	49
413				1986	283.0	267.0	-0.9	12.3	9.8	6.6	2.3	99957.7	49
414				1923	283.0	267.0	-1.0	12.2	8.6	5.8	2.3	99619.3	49
415				1806	283.0	267.0	-1.1	12.2	8.4	6.6	2.3	99976.7	49
416				1647	283.0	267.0	-1.4	12.2	8.5	5.8	2.3	99868.3	49
417				1922	283.0	267.0	-1.0	12.3	9.2	6.0	2.3	99546.5	49
418				1962	283.0	267.0	-0.9	12.2	8.4	5.9	2.3	99616.8	49
419				1621	283.0	267.0	-1.4	12.1	7.2	7.4	2.3	99622.2	50
420				1484	283.0	267.0	-1.6	12.2	7.3	7.0	2.4	99258.9	50
421				1381	283.0	267.0	-1.7	12.3	8.0	7.7	2.4	100003.8	50
422				1459	283.0	267.1	-1.7	12.5	9.6	8.0	2.4	100003.5	50
423				1458	283.0	267.0	-1.6	12.5	8.9	8.1	2.4	100003.1	50
424				1503	283.0	267.0	-1.6	12.6	8.8	8.0	2.4	100001.2	50
425				1507	283.0	267.0	-1.8	12.6	7.6	6.9	2.4	99984.1	49
426				1604	283.0	267.0	-1.5	12.6	8.1	7.5	2.4	99137.8	48
427	8.2	53.6	53.9	1600	283.0	268.2	-1.7	12.5	7.4	7.3	2.4	98012.3	48
428	8.0	52.8	53.1	1498	283.0	271.0	-1.9	12.6	8.0	6.7	2.4	99563.5	48
429	8.3	53.0	53.3	1614	283.0	271.0	-1.8	12.6	9.1	7.8	2.4	99851.2	48
430	8.7	53.2	53.5	1859	283.0	271.7	-1.4	12.6	10.0	8.2	2.4	99990.4	48
431	8.8	52.7	52.9	1916	283.0	275.6	-1.0	12.3	9.4	7.4	2.4	100003.7	48
432	8.5	52.1	52.4	1759	283.0	275.6	-1.2	12.3	8.3	7.3	2.4	100005.8	48
433	8.4	52.2	52.4	1672	283.0	275.6	-1.4	12.3	8.3	7.7	2.4	100005.9	48
434	8.6	52.5	52.8	1810	283.0	275.6	-1.2	12.4	8.5	8.0	2.4	100009.7	48
435	8.4	52.6	52.8	1714	283.0	275.6	-1.3	12.3	8.5	7.7	2.4	100011.0	48
436	8.4	52.3	52.5	1716	283.0	275.6	-1.3	12.3	7.6	7.0	2.4	100011.3	48
437	8.7	52.5	52.8	1859	283.0	275.6	-1.1	12.4	9.1	7.0	2.5	100011.7	47
438	8.9	52.8	53.1	1970	283.0	278.0	-0.9	12.3	9.1	6.5	2.5	100011.7	47
439	8.8	52.2	52.4	1908	283.0	280.0	-1.0	12.2	9.8	5.9	2.5	100011.7	47
440	8.7	52.3	52.6	1855	283.0	280.0	-1.1	12.2	10.2	6.4	2.5	100011.7	47

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

Data Point #	Standardized Wind Speed (m/s)	Laeq (as measured)	LAeq (adjusted for windscreen IL)	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	8.5	52.2	52.4	1730	283.0	280.0	-1.3	12.2	10.3	6.6	2.5	100011.9	47
442	8.2	52.0	52.2	1567	283.0	280.0	-1.5	12.2	9.6	5.2	2.5	100011.8	47
443	8.0	52.4	52.7	1453	283.0	279.9	-1.6	12.3	8.4	5.2	2.5	100011.8	48
444	8.3	52.6	52.9	1616	283.0	279.9	-1.5	12.4	9.5	6.2	2.5	100011.5	48
445	8.4	52.9	53.2	1703	283.0	279.9	-1.3	12.4	10.2	6.2	2.5	100011.7	48
446	8.4	52.6	52.9	1711	283.0	279.9	-1.3	12.4	9.3	7.9	2.5	100011.6	48
447	8.5	52.7	53.0	1742	283.0	279.9	-1.3	12.4	9.1	9.2	2.5	100011.5	48
448	8.4	52.7	53.0	1668	283.0	279.9	-1.1	12.3	9.9	9.0	2.5	100011.5	48
449	8.1	52.3	52.5	1533	283.0	279.9	-1.2	12.3	8.9	8.1	2.6	100011.5	47
450	8.2	52.4	52.6	1590	283.0	279.9	-1.2	12.5	8.4	8.4	2.6	100011.4	47
451	8.1	52.2	52.5	1527	283.0	279.9	-1.2	12.4	7.9	8.7	2.6	100011.6	47
452	7.7	52.4	52.7	1345	283.0	279.9	-1.5	12.4	6.4	7.8	2.6	100011.5	47
453	8.0	52.9	53.1	1451	283.0	279.9	-1.4	12.6	7.4	8.0	2.6	100011.3	47
454	7.8	52.7	52.9	1388	283.0	279.9	-1.8	12.5	7.6	7.0	2.6	100011.1	47
455	7.7	52.0	52.3	1315	283.0	279.9	-2.1	12.3	8.4	6.6	2.5	100010.6	47
456	7.4	51.1	51.3	1175	283.0	279.9	-2.2	11.8	7.8	7.0	2.5	100010.6	47
457	7.0	49.8	50.0	1005	283.0	279.9	-2.2	11.2	6.7	7.0	2.5	100010.7	47
458	7.0	50.1	50.3	1009	283.0	279.9	-2.2	11.3	7.7	6.6	2.5	100010.5	47
459	7.4	51.4	51.6	1181	283.0	279.9	-2.2	11.9	8.1	6.8	2.5	100010.4	47
460	7.9	52.8	53.1	1408	283.0	279.9	-1.6	12.6	8.4	6.3	2.5	100010.3	47
461	7.7	52.2	52.5	1343	283.0	279.9	-1.5	12.5	8.1	6.6	2.5	100009.8	47
462	7.5	51.5	51.8	1213	283.0	279.9	-1.6	11.9	7.1	6.8	2.5	100009.3	47
463	6.9	49.5	49.8	953	283.0	279.9	-1.6	11.0	6.9	6.5	2.5	100008.9	47
464	6.4	47.7	48.0	778	283.0	280.0	-1.6	10.3	7.1	5.9	2.5	100008.0	47
465	6.3	47.2	47.5	713	283.0	280.0	-1.6	10.0	6.9	5.3	2.5	100006.9	47
466	6.2	47.1	47.4	690	283.0	280.0	-2.0	9.9	7.7	5.3	2.5	100003.0	48
467	6.2	47.5	47.8	701	283.0	280.0	-2.2	10.0	6.5	5.3	2.4	99990.7	49
468	6.4	48.0	48.2	755	283.0	279.9	-2.2	10.2	6.7	4.2	2.4	99989.5	49
469	6.8	49.3	49.5	909	283.0	279.9	-2.2	10.9	7.9	4.6	2.4	99988.4	49
470	7.1	50.5	50.7	1049	283.0	279.9	-2.2	11.4	7.7	6.2	2.4	99988.3	49
471	7.3	51.5	51.7	1113	283.0	279.2	-2.2	11.7	7.4	5.7	2.4	99987.9	49
472	7.7	52.8	53.0	1335	283.0	274.6	-1.5	12.4	8.4	6.7	2.4	99988.0	49
473	8.5	52.9	53.1	1740	283.0	273.9	-0.5	12.7	9.2	5.8	2.5	99988.2	49
474	8.4	53.1	53.4	1684	283.0	273.9	-1.0	12.6	8.2	5.7	2.5	99988.3	49
475	8.2	52.8	53.0	1590	283.0	274.0	-1.2	12.6	8.2	5.9	2.5	99988.5	49
476	7.8	52.5	52.8	1379	283.0	274.0	-1.4	12.5	7.5	6.3	2.5	99988.7	49
477	7.7	52.1	52.4	1329	283.0	274.0	-1.5	12.4	7.7	6.3	2.5	99988.7	49
478	7.3	50.9	51.1	1158	283.0	274.0	-1.8	11.7	7.3	6.3	2.5	99986.9	49
479	7.0	51.4	51.7	1008	283.0	273.0	-1.9	11.2	6.8	6.9	2.7	99975.8	49
480	7.1	50.8	51.1	1051	283.0	270.5	-1.9	11.4	7.2	7.1	2.7	99975.7	49
481	7.2	50.7	51.0	1088	283.0	270.5	-1.9	11.5	6.5	6.3	2.7	99975.6	49
482	6.9	49.6	49.9	959	283.0	270.5	-1.9	11.0	6.8	6.6	2.7	99975.6	49
483	6.4	48.0	48.3	768	283.0	270.5	-1.9	10.2	6.9	5.6	2.7	99975.6	49
484	6.2	47.6	47.9	704	283.0	270.6	-2.1	10.0	7.1	6.4	2.7	99975.6	49
485	6.3	48.1	48.3	745	283.0	270.6	-2.2	10.2	7.6	6.4	2.7	99975.7	48
486	6.7	49.6	49.9	873	283.0	270.6	-2.2	10.8	7.4	5.5	2.7	99975.7	48
487	7.3	51.6	51.8	1118	283.0	270.5	-2.0	11.7	6.9	7.3	2.7	99975.7	48
488	8.3	53.0	53.3	1655	283.0	270.5	-0.1	12.7	8.1	8.2	2.7	99975.5	48
489	9.0	53.1	53.4	2023	283.0	270.5	0.6	12.7	9.5	8.9	2.7	99975.5	48
490	9.1	52.6	52.9	2068	283.0	270.5	0.2	12.6	9.4	9.1	2.7	99975.5	47
491	9.2	52.5	52.8	2113	283.0	270.5	-0.3	12.6	9.1	8.4	2.7	99975.6	46
492	9.6	52.5	52.8	2270	283.0	270.5	-0.4	12.3	9.3	8.5	2.7	99975.7	46
493	9.5	52.2	52.5	2213	283.0	270.5	-0.5	12.2	8.7	8.8	2.7	99975.7	46
494	9.3	52.2	52.5	2138	283.0	270.5	-0.6	12.1	9.0	7.8	2.7	99975.7	46
495	9.0	52.0	52.2	1997	283.0	270.5	-0.8	12.1	8.1	7.1	2.7	99975.7	46
496	9.6	52.5	52.7	2273	283.0	270.5	-0.3	12.3	9.2	7.9	2.7	99975.8	46
497				2578	283.0	270.5	0.4	12.3	10.4	7.1	2.7	99975.7	46
498				2483	283.0	270.5	-0.1	12.1	10.7	7.6	2.7	99975.5	46
499	9.3	52.4	52.7	2138	283.0	270.5	-0.7	12.1	9.8	8.0	2.7	99975.8	46
500	8.5	52.1	52.4	1757	283.0	270.5	-1.2	12.1	8.5	8.5	2.7	99975.8	46
501	8.2	52.4	52.7	1587	283.0	270.5	-1.5	12.1	8.7	8.7	2.7	99975.6	46
502	8.1	52.5	52.8	1543	283.0	270.5	-1.5	12.2	8.9	8.0	2.7	99972.1	46
503	8.3	52.4	52.7	1654	283.0	270.5	-1.4	12.3	8.5	7.8	2.7	99962.2	46
504	8.6	52.3	52.5	1784	283.0	270.5	-1.2	12.3	9.4	7.5	2.7	99962.1	46
505	8.8	52.7	53.0	1881	283.0	270.5	-1.1	12.3	10.3	7.8	2.7	99961.3	46
506	8.6	52.4	52.6	1777	283.0	270.5	-1.2	12.2	8.9	8.8	2.7	99958.3	46
507	8.5	52.4	52.6	1744	283.0	270.5	-1.3	12.2	8.2	8.2	2.7	99661.1	46
508	8.0	52.1	52.4	1452	283.0	270.5	-1.4	12.1	7.2	8.4	2.7	98823.5	46
509	7.5	51.6	51.9	1219	283.0	270.5	-1.6	12.0	7.9	7.1	2.7	98973.5	45
510	7.5	51.5	51.7	1230	283.0	270.5	-1.6	12.1	8.4	7.8	2.7	99951.8	45
511	7.6	51.7	52.0	1272	283.0	270.5	-1.6	12.2	7.0	7.6	2.7	99936.7	45
512	7.4	51.3	51.6	1182	283.0	270.5	-1.6	11.9	7.6	8.1	2.7	99416.6	45
513	7.5	52.3	52.6	1220	283.0	271.4	-1.8	12.1	9.2	7.4	2.7	98627.4	45
514	7.6	52.1	52.4	1285	283.0	274.7	-2.1	12.3	7.5	7.3	2.7	99560.8	45
515	7.4	51.3	51.5	1163	283.0	274.7	-2.2	11.8	8.4	7.0	2.7	98753.4	45
516	7.1	50.6	50.9	1041	283.0	274.7	-2.2	11.3	8.0	8.2	2.7	96894.6	45
517	6.7	49.3	49.6	892	283.0	274.7	-2.2	10.8	7.7	7.7	2.7	99511.7	45
518	6.9	50.2	50.4	940	283.0	274.6	-2.2	11.0	8.1	6.9	2.7	99972.3	45
519	7.2	51.0	51.2	1066	283.0	274.6	-1.9	11.5	8.8	7.2	2.7	99974.2	45
520	7.4	51.5	51.7	1180	283.0	274.7	-1.6	11.9	9.3	6.8	2.7	99973.6	46
521	7.3	51.5	51.7	1128	283.0	275.1	-1.6	11.7	8.3	6.5	2.7	99969.2	46
522	6.9	50.2	50.5	963	283.0	278.5	-1.6	11.1	9.2	6.1	2.7	99927.8	46
523	6.7	49.2	49.5	869	283.0	279.0	-1.6	10.7	8.7	6.0	2.7	99635.3	46
524	6.5	48.2	48.4	809	283.0	279.0	-1.6	10.4	7.3	8.0	2.7	99971.7	46
525	6.5	48.0	48.2	808	283.0	279.0	-1.8	10.4	7.8	8.0	2.7	99972.6	46
526	6.4	48.1	48.3	770	283.0	279.0	-2.2	10.3	7.9	7.3	2.7	99971.5	46
527	6.5	48.2	48.5	784	283.0	279.0	-2.2	10.3	8.1	7.0	2.7	99964.6	46
528	6.4	48.2	48.4	770	283.0	279.0	-2.2	10.3	7.9	6.5	2.7	99931.6	46

Table E.01 Measurement data - Turbine ON

Project: North Kent Wind Farm - IEC 61400- 11 Edition 3.0 - Turbine T3

Report ID: 17283.03.T3.RP3

Created on: 1/27/2021

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

Data Point #	Standardized Wind Speed (m/s)	Laeq (as measured)	LAeq (adjusted for windscreen &L)	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	6.3	47.3	47.5	739	283.0	279.0	-2.2	10.2	6.8	6.5	2.7	98133.6	46
530	6.5	47.9	48.1	784	283.0	279.0	-2.2	10.3	7.9	6.0	2.7	99722.5	46
531	6.4	48.1	48.4	777	283.0	278.9	-2.0	10.3	6.5	5.7	2.7	99925.3	46
532	6.4	50.4	50.8	773	283.0	277.7	-1.6	10.4	7.0	6.8	2.8	99929.3	47
533	6.7	50.1	50.4	882	283.0	273.0	-1.6	10.8	7.5	6.5	2.8	99864.5	47
534	6.9	49.8	50.1	944	283.0	272.7	-1.6	11.0	6.9	6.0	2.8	99909.6	47
535	6.9	51.6	51.9	952	283.0	269.3	-1.6	11.1	6.7	4.7	2.8	99953.2	47
536				1061	283.0	266.9	-1.6	11.4	7.1	5.7	2.8	99911.8	47
537				1110	283.0	266.9	-1.7	11.6	7.0	6.0	2.8	98856.6	47
538				1111	283.0	266.7	-2.2	11.6	7.3	5.7	2.9	97200.8	47
539				1241	283.0	263.0	-2.2	12.1	8.0	4.5	2.9	97313.2	47
540				1590	283.0	262.4	-1.3	12.7	8.7	5.0	2.9	97375.8	47
541				2268	283.0	262.4	0.5	12.8	11.1	5.0	2.9	97354.9	47
542				2635	283.0	262.5	1.1	12.7	11.6	4.6	2.9	97409.2	47
543				2378	283.0	262.4	-0.5	12.1	10.6	5.2	2.9	97514.4	47
544				1974	283.0	262.4	-0.9	12.1	11.1	6.6	3.0	97457.0	48
545				2003	283.0	262.4	-0.8	12.2	9.5	6.3	3.0	97382.3	48
546				2081	283.0	262.5	-0.8	12.2	8.3	6.8	3.0	97365.7	48
547				2019	283.0	262.5	-0.9	12.2	8.3	8.3	3.0	97395.1	48
548				1979	283.0	262.5	-1.0	12.2	8.7	6.8	3.0	97419.1	48
549				1761	283.0	262.5	-1.2	12.1	8.5	7.2	3.0	97552.4	48
550				1498	283.0	262.5	-1.6	12.1	9.0	8.1	3.0	99635.9	47
551				1916	283.0	262.5	-0.6	12.4	10.1	7.0	3.0	99974.0	47
552				1956	283.0	262.5	-0.7	12.3	9.3	7.8	3.0	99974.2	47
553				2266	283.0	262.5	0.2	12.2	10.2	7.7	3.0	99974.5	47
554				2295	283.0	262.5	-0.2	12.2	10.1	7.1	3.0	99975.0	47
555				2242	283.0	262.5	-0.5	12.1	9.2	7.4	3.0	99974.9	46
556				2260	283.0	262.5	-0.4	12.2	9.9	7.2	3.0	99974.7	46
557				2509	283.0	262.5	0.0	12.2	10.6	7.8	3.0	99973.5	46
558				2546	283.0	262.5	-0.1	12.1	10.2	7.8	3.0	99969.7	46
559				2446	283.0	262.5	-0.2	12.1	10.4	8.4	3.0	99955.1	46
560				2592	283.0	262.5	-0.1	12.2	10.7	8.3	3.0	98810.6	46
561				2526	283.0	262.5	-0.2	12.1	10.6	8.2	3.0	98990.7	46
562				2536	283.0	262.5	-0.2	12.1	10.3	8.4	3.0	99970.0	46
563				2446	283.0	262.5	-0.3	12.1	10.1	9.0	3.0	99969.7	46
564				2255	283.0	262.5	-0.5	12.1	9.7	9.3	3.0	99966.6	46
565				1979	283.0	262.5	-0.9	12.1	9.9	8.8	3.0	99963.7	46
566				1723	283.0	262.5	-1.3	12.1	9.2	7.3	3.0	99951.7	46
567				1541	283.0	262.5	-1.5	12.2	8.4	7.4	3.0	99517.5	47
568				1519	283.0	262.5	-1.6	12.2	9.0	7.6	3.0	99845.4	47
569				1431	283.0	262.5	-1.7	12.2	8.8	7.2	3.0	99942.5	47
570				1213	283.0	262.5	-1.9	12.0	7.7	6.8	3.0	99905.0	47
571				1026	283.0	262.5	-1.9	11.3	7.8	6.5	3.0	99154.5	47
572				832	283.0	262.4	-1.8	10.5	6.9	6.2	3.0	99964.8	47
573				2524	262.0	250.9	1.0	12.2	9.7	7.3	3.2	99938.6	48
574	9.6	52.5	52.8	2290	262.0	250.9	-0.2	12.1	10.7	7.5	3.2	99930.3	48
575	9.5	52.5	52.7	2237	262.0	250.9	-0.5	12.1	10.4	8.5	3.3	99930.5	48
576	9.3	52.2	52.5	2159	262.0	250.9	-0.6	12.2	8.7	9.2	3.3	99934.7	48
577	9.4	52.2	52.4	2180	262.0	250.9	-0.6	12.2	9.7	9.3	3.3	99941.1	48
578	9.2	52.1	52.3	2104	262.0	250.9	-0.7	12.1	9.8	8.8	3.3	99944.5	48
579	9.6	53.3	53.6	2282	262.0	250.9	-0.4	12.2	9.7	8.1	3.3	99946.7	48
580	9.9	52.6	52.8	2395	262.0	251.0	-0.2	12.2	10.2	9.7	3.3	99947.1	48
581	10.8	52.4	52.7	2517	262.0	251.0	-0.2	12.2	11.3	8.4	3.3	99934.0	46
582				2513	262.0	251.9	-0.2	12.1	10.4	7.0	3.3	99931.8	46
583				2488	262.0	254.9	-0.2	12.1	10.5	8.1	3.3	99931.9	46
584				2519	262.0	254.9	-0.2	12.1	10.7	8.4	3.3	99933.3	46
585	10.0	51.9	52.1	2446	262.0	254.9	-0.3	12.1	9.9	8.2	3.3	99933.6	46
586	9.7	52.1	52.3	2327	262.0	254.9	-0.4	12.1	9.8	7.7	3.3	99933.5	46
587	9.1	52.3	52.5	2064	262.0	254.9	-0.4	12.1	10.0	7.7	3.3	99945.2	47
588	9.7	52.1	52.4	2309	262.0	254.9	0.1	12.2	9.0	8.5	3.3	99944.3	47
589	9.8	52.0	52.2	2355	262.0	255.4	-0.1	12.1	9.9	7.9	3.3	99941.8	47
590	9.5	51.8	52.0	2240	262.0	258.8	-0.2	12.2	10.1	7.7	3.3	99939.1	47
591	9.2	51.9	52.1	2090	262.0	259.0	-0.4	12.1	9.6	7.7	3.3	99938.9	47
592	9.0	52.1	52.4	2032	262.0	259.0	-0.5	12.1	9.5	8.7	3.3	99946.0	47
593	9.1	52.5	52.7	2071	262.0	259.0	-0.7	12.2	9.1	7.8	3.3	99947.9	44
594	9.0	51.6	51.9	1998	262.0	259.0	-0.8	12.2	9.4	7.9	3.3	99948.1	44
595	8.7	51.7	52.0	1844	262.0	259.0	-1.1	12.1	8.6	7.8	3.3	99948.4	44
596	8.5	51.9	52.2	1745	262.0	259.0	-1.2	12.2	7.7	7.8	3.3	99948.5	44
597	8.2	51.5	51.8	1576	262.0	259.0	-1.5	12.2	7.5	7.5	3.3	99948.6	44
598	7.9	51.8	52.0	1446	262.0	259.0	-1.6	12.2	7.5	7.9	3.3	99948.7	44
599	8.0	51.8	52.1	1455	262.0	259.0	-1.7	12.3	8.0	7.6	3.3	99936.7	44
600	8.2	51.8	52.1	1607	262.0	259.0	-1.5	12.4	7.7	6.8	3.3	99936.4	44
601	8.3	51.9	52.1	1628	262.0	259.0	-1.4	12.4	8.4	7.3	3.3	99936.3	44
602	8.4	52.1	52.3	1675	262.0	259.0	-1.4	12.4	8.2	7.8	3.3	99936.7	44
603	8.5	52.5	52.7	1745	262.0	259.0	-1.2	12.4	9.1	6.7	3.3	99936.6	44
604	8.0	52.3	52.6	1456	262.0	259.0	-1.6	12.3	7.6	6.9	3.3	99936.5	44
605	7.9	52.8	53.0	1434	262.0	259.0	-1.7	12.5	7.7	6.1	3.2	99936.6	45
606	8.0	52.7	52.9	1478	262.0	259.0	-1.6	12.5	8.4	6.4	3.2	99936.7	45
607	7.9	52.7	53.0	1447	262.0	259.0	-1.7	12.6	7.8	6.9	3.2	99936.7	45
608	8.4	53.0	53.2	1668	262.0	259.0	-1.4	12.7	8.3	7.2	3.2	99936.2	45
609	8.8	52.9	53.2	1911	262.0	259.0	-0.9	12.6	9.4	7.0	3.2	99935.1	45
610	8.8	52.5	52.8	1887	262.0	259.0	-1.1	12.4	9.4	7.2	3.2	99934.3	45
611	8.3	52.0	52.3	1629	262.0	259.0	-1.4	12.3	8.6	7.6	3.2	99934.1	46
612	8.2	52.1	52.4	1574	262.0	259.0	-1.5	12.4	9.0	6.5	3.2	99934.2	46
613	8.9	52.9	53.1	1948	262.0	258.9	-0.8	12.5	9.4	6.9	3.2	99933.9	46
614	9.2	51.8	52.1	2102	262.0	259.0	-0.3	12.3	8.9	7.7	3.2	99935.0	46
615	9.0	51.5	51.8	2017	262.0	259.0	-0.8	12.2	8.8	8.3	3.2	99937.2	46
616	9.0	52.4	52.6	2031	262.0	259.0	-0.8	12.2	8.9	8.8	3.3	99937.8	46

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

Data Point #	Standardized Wind Speed (m/s)	Laeq (as measured)	LAeq (adjusted for windscreen &L)	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	9.0	51.8	52.1	2011	262.0	259.0	-0.8	12.2	9.2	7.5	3.3	99938.0	46
618	9.2	52.2	52.4	2084	262.0	259.0	-0.7	12.2	9.6	7.9	3.3	99938.1	46
619	9.4	52.3	52.5	2197	262.0	259.0	-0.5	12.2	9.4	7.0	3.3	99938.3	46
620	10.0	52.2	52.5	2427	262.0	259.0	-0.1	12.2	9.5	7.5	3.3	99938.4	46
621	9.0	51.9	52.1	2035	262.0	259.0	-0.8	12.0	9.4	7.8	3.3	99938.4	46
622	8.5	52.0	52.2	1756	262.0	258.9	-1.3	12.1	9.4	9.3	3.3	99930.1	46
623	8.9	52.4	52.7	1946	262.0	258.9	-1.0	12.3	9.5	8.3	3.4	99925.4	46
624	8.8	52.4	52.6	1933	262.0	258.9	-1.0	12.2	9.8	8.7	3.4	99925.4	46
625	8.8	52.2	52.5	1880	262.0	259.0	-1.1	12.2	8.5	7.7	3.4	99925.5	46
626	8.3	51.6	51.9	1618	262.0	259.0	-1.4	12.1	7.8	7.7	3.4	99925.6	46
627	7.9	51.7	52.0	1424	262.0	259.0	-1.7	12.1	8.0	6.2	3.4	99925.6	46
628	7.6	51.7	52.0	1301	262.0	259.0	-1.8	12.2	7.7	5.5	3.4	99933.7	47
629	7.5	51.8	52.0	1236	262.0	259.0	-1.9	12.1	8.0	6.3	3.4	99938.2	47
630	7.4	50.9	51.1	1161	262.0	259.0	-1.9	11.8	7.6	6.6	3.4	99938.2	47
631	7.0	49.8	50.0	988	262.0	259.0	-1.9	11.2	7.9	7.9	3.4	99938.2	47
632	6.9	49.4	49.7	951	262.0	259.0	-1.9	11.1	7.7	7.6	3.4	99938.0	47
633	6.8	49.1	49.4	931	262.0	259.0	-1.9	11.0	8.4	6.7	3.4	99937.9	47
634	6.8	49.0	49.2	929	262.0	259.0	-2.1	11.0	8.2	6.2	3.4	99937.7	46
635	7.1	50.8	51.0	1032	262.0	258.9	-2.1	11.4	8.4	6.2	3.4	99937.4	45
636	8.2	52.6	52.9	1587	262.0	259.0	0.2	12.6	9.4	7.0	3.4	99937.1	45
637	8.8	52.5	52.7	1933	262.0	259.0	1.1	12.6	9.0	6.0	3.4	99936.7	45
638	8.7	52.3	52.6	1849	262.0	259.0	-0.5	12.6	8.9	5.5	3.4	99936.2	45
639	9.0	52.8	53.1	2002	262.0	259.0	-1.2	12.6	10.6	5.7	3.4	99935.8	45
640	9.2	52.8	53.1	2110	262.0	258.9	-0.8	12.5	10.4	7.0	3.4	99927.3	46
641	8.9	52.9	53.1	1941	262.0	258.9	-1.0	12.2	10.2	7.2	3.4	99922.6	47
642	8.8	52.8	53.1	1929	262.0	259.0	-0.9	12.3	10.1	5.6	3.4	99922.4	47
643	9.0	52.3	52.6	2030	262.0	258.9	-0.7	12.2	9.2	6.3	3.4	99922.4	47
644	9.3	52.7	52.9	2123	262.0	258.9	-0.5	12.3	9.6	6.4	3.4	99922.3	47
645	9.4	52.1	52.3	2207	262.0	258.9	0.1	12.2	10.0	6.1	3.4	99922.1	47
646	9.7	52.4	52.6	2328	262.0	259.0	0.0	12.2	10.7	6.5	3.5	99922.2	48
647	10.7	52.4	52.6	2604	262.0	259.0	0.3	12.3	11.2	5.9	3.6	99922.1	48
648	11.2	52.3	52.5	2673	262.0	259.0	1.5	12.4	11.7	6.1	3.6	99922.0	48
649				2576	262.0	259.0	1.1	12.2	10.7	6.2	3.6	99922.1	48
650	9.7	52.1	52.3	2334	262.0	259.0	-0.3	12.1	9.5	7.9	3.6	99922.0	48
651	9.8	52.2	52.5	2348	262.0	259.0	-0.4	12.1	9.1	8.1	3.6	99922.1	48
652	9.8	52.7	53.0	2350	262.0	259.0	-0.3	12.2	10.1	8.1	3.6	99922.2	48
653	9.6	52.2	52.5	2276	262.0	259.0	-0.5	12.1	9.3	9.0	3.7	99922.8	48
654	9.4	52.1	52.4	2197	262.0	259.0	-0.5	12.1	10.1	8.9	3.7	99923.2	48
655	9.4	52.2	52.4	2179	262.0	259.0	-0.5	12.2	10.2	8.6	3.7	99923.7	48
656	9.0	52.2	52.4	2031	262.0	259.0	-0.8	12.2	9.8	8.1	3.7	99924.1	48
657	8.7	52.5	52.7	1871	262.0	259.0	-1.1	12.2	9.7	8.7	3.7	99918.2	47
658	8.5	52.2	52.4	1735	262.0	258.9	-1.3	12.2	9.3	8.7	3.7	99910.7	46
659	8.8	52.8	53.1	1897	262.0	258.8	-0.7	12.3	9.6	7.5	3.7	99910.8	46
660	9.4	52.9	53.1	2166	262.0	255.2	0.2	12.3	9.4	7.8	3.7	99911.1	46
661	10.0	52.2	52.5	2424	262.0	254.3	0.4	12.2	10.8	8.9	3.7	99911.3	46
662	10.6	51.8	52.1	2486	262.0	254.4	0.0	12.2	11.1	6.9	3.7	99911.4	46
663	9.6	52.3	52.6	2279	262.0	254.4	-0.5	12.1	10.8	6.6	3.6	99911.5	47
664	9.3	52.4	52.6	2123	262.0	254.4	-0.6	12.1	9.9	7.1	3.6	99911.4	48
665	9.1	52.6	52.8	2051	262.0	254.4	-0.6	12.2	8.8	6.5	3.6	99911.2	48
666	9.5	52.2	52.5	2217	262.0	254.4	-0.2	12.2	9.1	7.0	3.6	99910.8	48
667				2303	262.0	253.5	-0.4	12.2	9.8	7.3	3.6	99910.0	48
668	9.4	52.9	53.2	2185	262.0	250.6	-0.6	12.2	9.1	8.0	3.6	99909.6	48
669	9.5	52.6	52.9	2241	262.0	250.6	-0.4	12.1	9.6	6.7	3.6	99905.2	48
670	8.8	52.5	52.8	1898	262.0	250.6	-1.0	12.1	8.6	9.1	3.6	99896.3	47
671	8.9	52.6	52.9	1936	262.0	250.5	-1.0	12.2	9.4	9.6	3.6	99896.4	47
672	8.7	52.8	53.0	1876	262.0	250.4	-1.1	12.2	9.0	8.6	3.6	99896.8	47
673	8.5	52.9	53.1	1751	262.0	247.1	-1.2	12.2	8.0	7.5	3.6	99896.5	47
674				2049	262.0	246.2	-0.3	12.3	8.3	5.8	3.6	99896.2	47
675				1965	262.0	246.2	-0.9	12.2	8.6	5.4	3.6	99896.1	47
676				1751	262.0	246.2	-1.2	12.1	8.0	5.6	3.6	99895.9	47
677				1756	262.0	246.3	-1.2	12.2	8.0	7.1	3.6	99895.7	47
678	9.4	52.7	52.9	2201	262.0	249.4	0.3	12.4	9.5	7.9	3.6	99895.5	47
679	9.7	53.1	53.4	2305	262.0	251.1	0.3	12.2	10.2	7.5	3.6	99895.7	47
680	9.5	52.5	52.7	2231	262.0	251.1	-0.4	12.2	10.3	7.8	3.6	99895.6	47
681	9.2	52.1	52.3	2090	262.0	252.2	-0.7	12.1	8.5	6.5	3.6	99895.8	47
682	8.6	51.8	52.0	1818	262.0	254.4	-1.1	12.1	8.4	6.1	3.7	99896.0	47
683	8.2	52.0	52.2	1571	262.0	254.4	-1.5	12.1	9.5	6.5	3.7	99896.0	47
684	8.0	52.3	52.5	1499	262.0	254.3	-1.6	12.2	8.7	7.7	3.7	99896.0	47
685	8.6	52.4	52.7	1808	262.0	255.0	-1.0	12.3	9.8	7.4	3.7	99896.1	47
686	8.8	52.1	52.4	1908	262.0	257.6	-0.9	12.3	9.6	7.9	3.7	99896.1	47
687	9.2	52.1	52.3	2117	262.0	257.6	-0.2	12.2	10.3	9.1	3.7	99896.1	46
688	9.0	52.7	52.9	2017	262.0	257.6	-0.8	12.2	8.9	8.4	3.7	99896.1	46
689	8.9	53.3	53.6	1977	262.0	257.6	-0.6	12.2	10.7	7.3	3.7	99896.2	46
690	9.8	52.0	52.3	2357	262.0	257.7	0.9	12.2	10.7	6.6	3.7	99896.1	46
691	9.6	51.7	52.0	2276	262.0	257.7	0.1	12.2	10.1	7.1	3.7	99896.1	46
692	9.8	52.1	52.3	2353	262.0	257.7	-0.2	12.2	10.0	8.8	3.7	99896.2	46
693	10.2	52.0	52.2	2482	262.0	257.7	-0.2	12.1	9.9	8.6	3.7	99896.0	45
694	9.8	51.6	51.9	2338	262.0	257.7	-0.4	12.1	9.6	8.3	3.7	99896.2	45
695	9.5	51.9	52.2	2220	262.0	257.7	-0.6	12.1	10.3	8.7	3.7	99896.1	45
696	8.9	51.8	52.1	1939	262.0	257.7	-1.0	12.1	9.3	8.2	3.7	99896.0	45
697	8.4	51.9	52.1	1712	262.0	257.7	-1.3	12.1	8.8	7.5	3.7	99896.0	45
698	8.0	52.0	52.3	1458	262.0	257.7	-1.6	12.1	7.9	7.8	3.7	99896.0	45
699	7.9	52.0	52.2	1445	262.0	257.7	-1.6	12.2	8.0	8.5	3.7	99896.0	44
700	7.7	51.7	52.0	1344	262.0	257.7	-1.8	12.2	8.1	7.8	3.7	99896.0	44
701	7.6	52.1	52.3	1283	262.0	258.0	-1.9	12.3	8.0	9.0	3.7	99896.0	44
702	7.5	51.6	51.8	1231	262.0	260.7	-1.9	12.1	8.3	9.1	3.7	99896.1	44
703	7.6	51.9	52.2	1279	262.0	260.8	-1.9	12.3	8.6	8.9	3.7	99896.0	44
704	7.7	52.1	52.4	1309	262.0	260.8	-1.7	12.4	7.4	8.0	3.7	99896.0	44

Table E.01 Measurement data - Turbine ON

Project: North Kent Wind Farm - IEC 61400- 11 Edition 3.0 - Turbine T3

Report ID: 17283.03.T3.RP3

Created on: 1/27/2021

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

Data Point #	Standardized Wind Speed (m/s)	Laeq (as measured)	LAeq (adjusted for windscreen IL)	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	8.1	52.4	52.7	1519	262.0	260.8	-1.3	12.7	7.3	7.6	3.7	99895.9	44
706	8.1	52.1	52.4	1506	262.0	260.8	-1.3	12.6	7.6	6.9	3.7	99895.8	44
707	8.0	52.5	52.7	1463	262.0	260.7	-1.4	12.6	8.9	5.7	3.7	99895.8	44
708	8.0	52.5	52.8	1471	262.0	260.8	-1.3	12.6	8.7	5.2	3.7	99895.7	44
709	8.1	52.5	52.8	1527	262.0	260.8	-1.2	12.6	9.5	6.1	3.7	99895.8	44
710	8.6	52.9	53.1	1816	262.0	260.7	-0.9	12.7	9.8	7.5	3.7	99895.8	44
711	8.6	52.9	53.2	1784	262.0	260.8	-1.1	12.5	9.5	7.6	3.6	99895.9	46
712	7.7	52.8	53.1	1349	262.0	260.7	-1.6	12.4	8.1	7.2	3.6	99895.9	46
713	9.0	53.0	53.2	2003	262.0	262.1	0.9	12.6	9.9	8.4	3.6	99895.8	46
714	9.4	52.6	52.8	2207	262.0	264.6	0.8	12.4	9.1	8.8	3.6	99895.7	46
715	10.3	52.5	52.7	2483	262.0	264.6	1.0	12.3	10.9	9.4	3.6	99895.6	46
716				2639	262.0	264.6	1.3	12.3	10.3	9.9	3.6	99895.5	45
717				2732	262.0	264.6	3.9	12.7	10.7	8.7	3.6	99895.6	45
718	10.8	52.5	52.8	2710	262.0	264.6	5.2	12.6	11.3	8.4	3.6	99895.8	45
719	11.2	52.7	53.1	2719	262.0	264.6	6.8	12.7	11.8	9.2	3.6	99895.9	45
720	11.2	52.3	52.6	2571	262.0	264.6	5.5	12.1	11.8	8.6	3.6	99896.3	45
721				2521	262.0	264.6	3.6	11.9	10.3	8.2	3.6	99896.4	45
722				2545	262.0	264.6	2.6	12.0	9.9	6.9	3.6	99896.3	45
723				2535	262.0	262.8	1.9	12.1	10.5	7.0	3.6	99896.2	46
724				2690	262.0	260.6	4.0	12.6	10.4	7.0	3.6	99896.2	46
725	10.3	51.6	51.9	2622	262.0	260.6	3.7	12.2	10.8	7.9	3.6	99896.6	46
726	10.5	51.7	52.0	2632	262.0	260.6	3.6	12.3	11.0	8.6	3.6	99896.8	46
727	10.4	51.8	52.0	2651	262.0	260.5	4.2	12.3	10.9	8.7	3.6	99896.9	46
728				2650	262.0	260.6	4.6	12.3	10.6	8.7	3.6	99896.8	46
729				2656	262.0	259.2	3.4	12.0	10.1	8.8	3.7	99896.7	45
730	10.0	53.0	53.3	2443	262.0	256.6	1.9	12.0	10.2	7.8	3.7	99896.8	45
731	10.6	52.2	52.5	2495	262.0	256.6	1.8	12.1	11.1	7.5	3.7	99896.7	45
732	10.8	52.1	52.4	2681	262.0	256.6	3.2	12.5	11.3	6.5	3.7	99896.8	45
733				2654	262.0	256.7	3.5	12.4	12.3	6.9	3.7	99896.7	46
734	10.8	52.1	52.4	2658	262.0	256.7	4.5	12.4	11.3	6.9	3.8	99896.6	47
735	10.7	51.5	51.8	2632	262.0	256.7	4.4	12.3	11.3	6.8	3.8	99896.5	47
736	10.4	51.3	51.6	2555	262.0	256.7	2.8	12.0	10.9	6.9	3.8	99896.7	47
737	10.4	51.4	51.7	2613	262.0	256.7	2.9	12.2	10.9	7.5	3.8	99896.7	47
738	9.9			2584	262.0	256.7	2.0	12.1	9.9	7.6	3.8	99896.7	47
739	9.9	51.7	51.9	2413	262.0	256.7	1.1	12.0	10.2	8.0	3.8	99896.6	47
740	10.0	52.4	52.6	2449	262.0	256.7	0.8	12.1	10.7	8.7	3.9	99896.8	46
741	10.2	52.3	52.6	2468	262.0	256.7	0.3	12.1	10.3	9.1	3.9	99896.7	46
742				2588	262.0	256.7	0.2	12.2	10.1	9.2	3.9	99896.6	46
743				2681	262.0	256.7	1.7	12.5	10.7	8.8	3.9	99896.7	46
744				2658	262.0	256.7	2.2	12.3	10.3	7.6	3.9	99896.6	46
745	10.2	52.9	53.2	2472	262.0	256.5	0.8	12.1	9.9	8.4	3.9	99896.0	46
746	9.8	52.3	52.6	2344	262.0	253.4	0.0	12.1	10.6	9.2	3.9	99883.7	45
747	9.8	52.2	52.5	2340	262.0	253.2	-0.4	12.2	11.0	7.6	3.9	99883.8	45
748	9.9	51.9	52.2	2386	262.0	253.2	-0.4	12.1	11.1	7.4	3.9	99883.8	45
749	9.7	52.6	52.9	2315	262.0	253.2	-0.4	12.1	10.3	7.8	3.9	99883.7	45
750				2655	262.0	253.1	1.2	12.5	10.6	8.0	3.9	99883.8	45
751	10.9	52.4	52.6	2727	262.0	253.1	3.5	12.7	11.4	8.1	3.9	99883.8	45
752	10.5	52.1	52.4	2716	262.0	253.2	4.8	12.7	11.1	7.7	3.9	99871.0	44
753	11.5	52.3	52.6	2699	262.0	253.2	6.0	12.6	12.1	6.9	3.9	99870.4	44
754	10.7	51.7	52.0	2586	262.0	253.1	4.8	12.1	11.2	7.2	3.9	99870.4	44
755	10.0	51.3	51.6	2449	262.0	253.1	2.6	11.8	11.6	7.3	3.9	99870.4	44
756	10.2	52.3	52.5	2473	262.0	253.1	1.9	12.0	10.1	7.6	3.9	99870.5	44
757				2539	262.0	253.1	1.7	12.1	10.5	7.7	3.9	99870.4	45
758	10.3	53.4	53.7	2711	262.0	253.2	3.7	12.6	10.9	7.6	4.0	99870.4	46
759	12.0	53.4	53.8	2756	262.0	253.2	6.2	12.8	12.6	9.0	4.0	99870.4	46
760	10.8	52.3	52.6	2666	262.0	253.2	6.1	12.4	11.3	8.6	4.0	99870.5	46
761	10.6	51.3	51.6	2594	262.0	253.2	5.2	12.1	11.2	7.7	4.0	99870.5	46
762				2596	262.0	253.2	4.9	12.1	10.6	7.0	4.0	99870.5	46
763				2531	262.0	253.2	3.2	11.9	10.7	8.0	4.0	99871.4	46
764	9.9	51.6	51.9	2402	262.0	253.2	1.7	11.9	10.6	9.2	4.1	99871.5	46
765	9.9	52.2	52.5	2412	262.0	253.1	1.6	12.1	10.2	10.5	4.1	99870.7	46
766	9.5	52.0	52.3	2250	262.0	253.1	0.8	12.1	10.4	9.1	4.1	99870.8	46
767				2557	262.0	253.1	1.1	12.2	10.6	7.5	4.1	99870.7	46
768				2545	262.0	253.2	0.5	12.1	9.6	6.8	4.1	99870.7	46
769	9.6	52.4	52.6	2286	262.0	253.1	-0.4	12.1	9.7	7.9	4.1	99871.4	46
770	9.6	52.4	52.6	2289	262.0	253.1	-0.4	12.1	10.2	7.4	4.1	99884.2	44
771	9.6	52.0	52.3	2275	262.0	253.2	-0.5	12.1	9.6	8.3	4.1	99884.3	44
772	8.9	52.2	52.5	1952	262.0	253.2	-0.9	12.1	8.8	7.8	4.1	99884.1	44
773	8.1	52.3	52.5	1523	262.0	253.2	-1.6	12.2	8.5	9.1	4.1	99884.1	44
774	8.2	52.2	52.5	1574	262.0	253.2	-1.5	12.2	9.2	8.0	4.1	99884.2	44
775	8.2	52.0	52.2	1577	262.0	253.1	-1.5	12.2	8.5	7.4	4.1	99874.1	43
776	7.9	52.6	52.8	1407	262.0	253.1	-1.7	12.2	7.1	7.3	4.1	99870.7	42
777	7.8	52.3	52.6	1397	262.0	253.2	-1.7	12.2	8.6	6.8	4.1	99870.5	42
778	8.2	52.9	53.1	1585	262.0	253.2	-1.3	12.5	10.1	7.4	4.1	99870.6	42
779	9.6	52.4	52.7	2253	262.0	253.2	0.8	12.5	10.3	8.0	4.1	99870.7	42
780	8.9	52.0	52.2	1974	262.0	253.2	-0.6	12.1	8.9	8.5	4.1	99870.6	42
781	9.4	52.2	52.4	2167	262.0	253.2	-0.3	12.3	9.6	8.7	4.0	99870.6	43
782	9.6	52.6	52.8	2288	262.0	253.2	-0.4	12.2	10.2	8.3	4.0	99870.6	43
783				2557	262.0	253.2	0.0	12.3	9.2	9.3	4.0	99870.6	43
784				2554	262.0	253.1	0.0	12.1	10.6	8.2	4.0	99870.6	43
785	10.9	52.6	52.9	2580	262.0	253.1	-0.1	12.1	11.4	7.7	4.0	99870.6	43
786	10.2	52.3	52.5	2480	262.0	253.1	-0.2	12.1	11.5	7.4	4.0	99870.8	43
787	9.5	52.3	52.5	2238	262.0	253.2	-0.4	12.1	11.0	9.8	4.0	99861.6	44
788	10.8	52.6	52.9	2518	262.0	253.2	0.2	12.2	11.3	8.5	4.0	99858.5	45
789	11.0	53.0	53.3	2564	262.0	256.4	-0.1	12.2	11.5	9.3	4.0	99858.5	45
790	11.4	52.5	52.8	2656	262.0	257.0	0.9	12.4	11.9	8.0	4.0	99858.4	45
791	11.3	52.4	52.7	2727	262.0	257.0	3.3	12.7	11.8	7.4	4.0	99858.5	45
792	10.7	51.7	52.0	2616	262.0	257.0	3.0	12.3	11.2	6.8	4.0	99858.5	45

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

Data Point #	Standardized Wind Speed (m/s)	Laeq (as measured)	LAeq (adjusted for windscreen IL)	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	9.8	51.4	51.7	2376	262.0	257.0	1.6	12.0	10.9	7.1	4.0	99858.5	44
794	9.6	52.0	52.3	2283	262.0	257.0	1.0	12.1	10.4	6.5	4.1	99858.5	43
795	9.4	52.4	52.6	2186	262.0	257.0	-0.3	12.2	10.2	6.5	4.1	99858.4	43
796	8.7	52.2	52.5	1871	262.0	257.0	-1.0	12.1	9.8	6.2	4.1	99858.5	43
797	8.9	52.2	52.4	1961	262.0	257.0	-0.7	12.3	9.7	6.1	4.1	99858.5	43
798	8.8	52.2	52.5	1931	262.0	257.0	-0.9	12.2	8.2	6.3	4.1	99858.4	43
799	9.0	52.5	52.8	2025	262.0	257.0	-0.9	12.3	8.1	5.8	4.2	99858.5	43
800	9.0	52.8	53.0	2004	262.0	257.0	-0.9	12.2	9.3	5.8	4.2	99858.5	42
801	9.0	52.5	52.8	2018	262.0	257.0	-0.5	12.3	9.1	5.8	4.2	99858.5	42
802	9.4	52.3	52.6	2179	262.0	257.0	0.2	12.2	9.6	5.9	4.2	99858.5	42
803	10.0	52.6	52.8	2426	262.0	257.0	0.4	12.2	10.3	6.9	4.2	99858.4	42
804	9.8	52.9	53.1	2352	262.0	255.1	-0.3	12.1	9.9	7.2	4.2	99858.4	42
805	9.5	52.3	52.6	2248	262.0	253.3	-0.5	12.1	10.8	7.1	4.3	99858.4	43
806	9.3	52.2	52.4	2125	262.0	253.3	-0.6	12.1	10.1	7.4	4.3	99858.5	43
807	8.7	52.5	52.7	1866	262.0	253.3	-1.1	12.1	9.4	6.8	4.3	99858.5	43
808	8.3	52.5	52.7	1636	262.0	253.3	-1.4	12.1	8.9	8.7	4.3	99858.5	43
809	8.0	52.4	52.6	1452	262.0	253.5	-1.6	12.1	8.6	9.9	4.3	99858.5	43
810	8.1	53.0	53.2	1553	262.0	256.6	-1.5	12.2	9.3	9.5	4.3	99858.5	43
811	8.7	52.7	52.9	1859	262.0	257.5	-0.7	12.3	9.3	10.0	4.3	99848.6	42
812	9.5	52.6	52.9	2216	262.0	257.5	0.0	12.4	10.2	8.8	4.3	99845.2	41
813	10.4	52.8	53.1	2711	262.0	257.5	3.7	12.6	10.9	9.7	4.3	99845.2	41
814	11.3	52.4	52.7	2682	262.0	260.4	4.6	12.5	11.8	10.0	4.3	99845.3	41
815				2601	262.0	261.6	3.6	12.1	10.4	10.0	4.3	99845.3	41
816	10.0	51.4	51.6	2423	262.0	261.6	1.8	11.9	11.1	8.8	4.3	99852.5	40
817	10.2	52.1	52.3	2468	262.0	261.6	1.7	12.1	10.8	7.8	4.3	99858.4	40
818				2525	262.0	261.7	1.4	12.1	10.7	7.7	4.3	99858.4	40
819	9.9	53.2	53.4	2410	262.0	261.7	0.6	12.1	9.7	7.7	4.3	99858.5	40
820	9.8	53.3	53.4	2362	262.0	265.0	0.0	12.1	10.4	8.2	4.3	99858.5	40
821				2278	262.0	265.0	-0.5	12.1	9.1	7.4	4.3	99858.5	40
822	8.8	52.2	52.4	1881	262.0	265.0	-1.0	12.1	8.9	8.2	4.2	99851.3	40
823	8.5	53.2	53.4	1749	262.0	267.6	-1.1	12.2	9.5	7.2	4.2	99845.4	41
824	8.5	52.6	52.8	1768	262.0	269.4	-1.2	12.2	9.0	7.8	4.2	99845.3	41
825	8.5	52.7	52.9	1733	262.0	269.4	-1.3	12.2	8.3	7.5	4.2	99845.4	41
826	8.8	53.3	53.5	1910	262.0	269.3	-1.0	12.3	7.9	7.6	4.2	99845.4	41
827	9.8	53.0	53.2	2354	262.0	269.3	0.7	12.4	9.3	7.5	4.2	99845.4	41
828	10.3	52.3	52.5	2638	262.0	269.3	1.6	12.3	10.8	6.8	4.2	99846.7	41
829				2684	262.0	269.3	3.0	12.5	10.7	7.3	4.2	99845.4	42
830				2610	262.0	269.2	2.3	12.2	9.7	7.6	4.2	99845.5	42
831				2657	262.0	265.8	3.0	12.4	10.7	8.6	4.2	99845.5	42
832				2637	262.0	265.1	3.1	12.3	10.8	9.5	4.2	99845.5	42
833	10.7	52.1	52.4	2653	262.0	265.1	3.7	12.3	11.2	9.2	4.2	99845.5	42
834				2670	262.0	265.1	4.4	12.4	10.7	8.2	4.2	99845.4	41
835	11.0	53.1	53.5	2692	262.0	263.9	6.1	12.6	11.5	8.2	4.3	99845.5	41
836				2635	262.0	261.2	6.0	12.3	10.7	8.6	4.3	99845.6	41
837				2610	262.0	261.1	5.4	12.2	10.4	8.0	4.3	99845.5	41
838	10.9	51.9	52.2	2670	262.0	261.1	6.6	12.4	11.4	7.6	4.3	99845.6	41
839	11.5	52.9	53.2	2626	262.0	261.2	6.4	12.2	12.0	7.9	4.3	99845.7	41
840				2561	262.0	261.2	5.4	12.0	10.3	7.5	4.3	99845.6	42
841				2525	262.0	259.4	4.1	12.0	10.8	9.4	4.3	99845.6	42
842	10.9	52.3	52.6	2559	262.0	257.5	3.3	12.0	11.4	8.9	4.3	99845.6	42
843				2614	262.0	257.5	3.2	12.2	10.2	9.9	4.3	99845.7	42
844	10.4	51.2	51.5	2622	262.0	257.5	3.0	12.2	11.0	9.1	4.3	99845.7	42
845				2644	262.0	257.5	3.5	12.3	10.6	7.5	4.3	99845.7	42
846	11.1	52.3	52.6	2660	262.0	257.5	4.0	12.4	11.6	9.4	4.3	99838.6	42
847	11.2	51.8	52.0	2660	262.0	257.5	4.7	12.4	11.8	9.5	4.4	99832.8	41
848	10.4	51.4	51.7	2633	262.0	257.5	4.8	12.3	10.9	8.8	4.4	99832.7	41
849	11.1	52.4	52.7	2619	262.0	257.5	4.4	12.2	11.7	9.0	4.4	99832.7	41
850	11.1	52.8	53.2	2617	262.0	257.5	4.3	12.2	11.7	6.9	4.4	99832.7	41
851	11.2	52.6	52.9	2590	262.0	257.5	3.5	12.1	11.7	9.5	4.4	99832.7	41
852	11.2	52.0	52.2	2652	262.0	257.5	4.1	12.3	11.7	9.6	4.4	99832.7	41
853	11.1	51.6	51.9	2659	262.0	257.5	4.9	12.4	11.7	9.6	4.4	99832.9	41
854	10.7	52.2	52.5	2581	262.0	257.5	3.8	12.1	11.2	9.1	4.4	99832.8	41
855	10.0	51.7	51.9	2441	262.0	257.5	2.3	11.9	10.4	8.5	4.4	99832.8	41
856	9.7	51.6	51.9	2325	262.0	257.5	1.6	12.1	10.9	8.2	4.4	99832.7	41
857	9.7	52.0	52.3	2300	262.0	257.4	1.2	12.2	10.6	8.9	4.4	99832.7	41
858				1190	262.0	255.6	8.5	10.6	9.6	7.5	4.9	99740.8	43
859				1860	262.0	252.5	6.8	9.7	8.9	8.3	4.9	99740.7	43
860				1789	262.0	251.2	6.1	10.1	10.4	7.6	4.9	99740.6	43
861				2045	262.0	251.2	5.2	10.5	11.3	7.0	4.9	99740.6	43
862	9.9	51.0	51.3	2417	262.0	248.6	5.8	11.5	12.3	7.8	4.9	99740.6	43
863	11.3	50.8	51.1	2533	262.0	247.1	6.5	11.8	11.9	7.6	4.9	99740.6	43
864	9.9	50.2	50.5	2381	262.0	247.1	4.4	11.2	8.9	7.5	4.9	99740.5	43
865	10.2	51.8	52.1	2482	262.0	247.1	3.1	11.7	10.6	8.0	4.9	99740.6	43
866	11.4	52.4	52.7	2717	262.0	247.1	6.5	12.7	12.0	8.8	4.9	99729.7	44
867				2604	262.0	246.5	6.7	12.2	10.8	11.4	4.9	99727.9	44
868				2581	262.0	243.5	6.7	12.0	11.3	11.4	4.9	99727.9	44
869				2547	262.0	243.4	6.3	11.9	11.6	10.1	4.9	99727.9	44
870				2502	262.0	243.4	5.1	11.7	11.2	10.6	4.9	99727.9	44
871				2443	262.0	243.4	3.1	11.6	11.1	10.5	4.9	99727.9	44
872				1940	262.0	243.4	0.9	11.7	10.2	10.1	4.9	99727.8	43
873				2138	262.0	243.3	1.3	12.1	10.8	7.8	4.9	99727.8	43
874				2292	262.0	243.4	1.1	12.1	9.8	8.1	4.9	99727.7	43
875				2389	262.0	243.3	0.9	12.1	9.8	8.0	4.9	99727.8	43
876				2403	262.0	243.3	0.5	12.0	9.9	6.7	4.9	99727.8	43
877				2265	262.0	243.3	-0.4	12.1	9.7	6.5	4.9	99727.7	43
878				2427	262.0	243.3	-0.1	12.2	10.0	7.8	4.9	99739.9	45
879				2503	262.0	243.4	-0.1	12.1	10.6	6.9	4.9	99740.6	45
880				2681	262.0	243.4	1.4	12.4	11.4	6.9	4.9	99740.7	45

Table E.01 Measurement data - Turbine ON

Project: North Kent Wind Farm - IEC 61400- 11 Edition 3.0 - Turbine T3

Report ID: 17283.03.T3.RP3

Created on: 1/27/2021

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

Data Point #	Standardized Wind Speed (m/s)	Laeq (as measured)	LAeq (adjusted for windscreen IL)	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				2609	262.0	243.4	1.7	12.2	10.5	8.4	4.9	99740.7	45
882				2343	262.0	243.4	0.1	12.0	10.4	7.4	4.9	99740.6	45
883				2390	262.0	243.4	-0.2	12.1	10.7	6.7	4.9	99740.7	45
884				2435	262.0	243.4	-0.2	12.2	11.1	7.8	4.9	99731.1	46
885				2624	262.0	243.4	0.0	12.2	11.9	7.3	4.9	99727.8	46
886				2442	262.0	243.4	-0.3	12.1	11.8	10.1	4.9	99727.7	46
887				2321	262.0	245.0	-0.3	12.1	11.4	8.5	4.9	99727.6	46
888	9.2	52.8	53.0	2098	262.0	247.1	-0.7	12.1	10.7	8.2	4.9	99727.8	46
889	9.5	53.0	53.2	2231	262.0	247.1	0.1	12.3	10.5	9.5	4.9	99727.7	46
890	10.6	52.5	52.7	2517	262.0	247.1	0.7	12.2	11.1	8.9	5.0	99727.7	44
891	10.0	53.4	53.7	2451	262.0	249.3	0.1	12.1	11.6	8.4	5.0	99727.7	44
892	9.5	52.6	52.9	2235	262.0	251.0	-0.4	12.1	9.9	9.4	5.0	99727.7	44
893	9.8	52.6	52.8	2358	262.0	251.0	-0.3	12.1	9.7	9.5	5.0	99727.8	44
894	9.4	52.6	52.8	2205	262.0	251.0	-0.5	12.1	9.4	8.5	5.0	99727.7	44
895	8.9	52.4	52.6	1981	262.0	251.0	-0.9	12.1	9.8	8.3	5.0	99727.7	44
896	9.0	52.9	53.2	1996	262.0	250.4	-0.8	12.2	8.7	7.5	5.0	99727.6	43
897	9.1	52.6	52.8	2044	262.0	247.3	-0.8	12.2	9.5	8.5	5.0	99727.6	43
898	9.0	52.6	52.8	2013	262.0	247.2	-0.8	12.2	9.5	9.0	5.0	99727.6	43
899	9.2	53.0	53.2	2084	262.0	247.3	-0.7	12.2	11.0	8.9	5.0	99727.5	43
900	9.0	52.9	53.1	1997	262.0	247.3	-0.8	12.1	9.7	9.1	5.0	99727.6	43
901	8.7	53.6	53.8	1840	262.0	247.2	-0.9	12.2	9.1	7.9	5.1	99727.6	43
902	9.3	53.5	53.7	2142	262.0	247.2	0.0	12.2	8.8	8.7	5.1	99727.5	43
903				2046	262.0	247.2	-0.7	12.2	10.4	10.0	5.1	99727.5	43
904	9.9	52.7	52.9	2397	262.0	247.2	0.0	12.3	11.1	10.5	5.1	99727.6	43
905	11.2	53.5	53.8	2719	262.0	247.2	2.4	12.6	11.7	8.4	5.1	99727.6	43
906				2694	262.0	247.3	3.1	12.5	10.0	10.1	5.1	99727.7	43
907	10.0	52.1	52.4	2449	262.0	247.3	1.6	12.1	10.3	8.1	5.2	99727.6	43
908	9.8	52.9	53.1	2367	262.0	247.3	1.1	12.2	9.9	6.4	5.2	99727.5	42
909	9.9	52.3	52.5	2408	262.0	247.2	0.7	12.1	10.2	8.3	5.2	99727.6	42
910				2381	262.0	246.8	0.2	12.1	10.6	8.7	5.2	99727.5	42
911				2376	262.0	244.9	-0.2	12.1	10.1	9.0	5.2	99727.6	42
912				2680	262.0	244.0	1.2	12.4	10.4	10.3	5.2	99727.6	42
913				2720	262.0	244.0	3.1	12.6	9.4	10.7	5.2	99710.2	43
914				2555	262.0	244.0	1.7	12.1	9.8	10.9	5.2	99701.0	43
915				2705	262.0	244.0	3.3	12.6	11.6	9.6	5.2	99701.4	43
916				2735	262.0	244.0	5.3	12.7	12.0	9.0	5.2	99701.4	43
917				2665	262.0	244.0	4.9	12.4	11.9	7.5	5.2	99701.5	43
918				2689	262.0	244.9	6.1	12.5	13.5	6.0	5.2	99701.4	43
919	10.8	52.3	52.6	2635	262.0	248.1	5.7	12.2	11.4	7.0	5.1	99710.4	43
920	12.5	52.7	53.0	2686	262.0	248.1	6.9	12.5	13.1	7.3	5.1	99715.2	43
921	13.9	52.5	52.8	2748	262.0	248.1	8.8	12.8	14.6	8.3	5.1	99715.4	43
922	11.7	53.2	53.6	2635	262.0	249.0	8.8	12.3	12.3	8.0	5.1	99715.2	43
923	10.7	51.6	51.9	2501	262.0	251.5	6.4	11.8	11.3	9.7	5.1	99715.2	43
924	11.4	51.1	51.4	2518	262.0	251.6	4.8	11.9	12.0	8.0	5.1	99715.1	43
925	10.8	51.7	52.0	2639	262.0	251.6	5.7	12.2	11.4	8.2	5.1	99652.3	42
926	12.0	51.7	52.0	2645	262.0	251.6	5.9	12.3	12.5	10.7	5.1	99715.2	42
927	13.6	52.2	52.4	2694	262.0	251.9	6.9	12.5	14.3	9.5	5.1	99715.1	42
928	10.9	52.6	52.9	2663	262.0	255.1	7.4	12.3	11.4	10.7	5.1	99715.1	42
929	9.4	50.9	51.1	2193	262.0	255.2	3.7	11.7	10.5	9.4	5.1	99715.1	42
930	9.0	51.8	52.1	1990	262.0	255.2	1.9	11.9	9.1	9.6	5.1	99715.0	42
931				2493	262.0	255.1	1.9	12.1	9.8	11.5	5.2	99706.0	41
932				2528	262.0	255.2	1.8	12.2	10.7	10.5	5.2	99701.1	41
933				2661	262.0	255.2	2.7	12.4	10.6	10.8	5.2	99701.1	41
934	11.8	52.4	52.7	2673	262.0	255.2	3.7	12.4	12.4	9.7	5.2	99701.1	41
935				2661	262.0	255.2	4.1	12.4	10.6	9.2	5.2	99701.1	41
936				2668	262.0	255.2	5.1	12.4	10.6	8.4	5.2	99701.1	41
937	10.2	53.0	53.3	2479	262.0	253.8	3.2	11.9	9.6	7.8	5.2	99701.1	41
938	10.9	52.6	52.9	2605	262.0	250.4	2.9	12.4	11.4	8.8	5.2	99701.2	42
939	11.1	53.0	53.3	2824	262.0	250.5	7.2	13.1	11.6	9.7	5.2	99701.1	42
940	12.6	53.5	53.9	2689	262.0	250.4	7.3	12.5	13.2	9.2	5.2	99701.0	42
941	11.9	52.7	53.0	2634	262.0	250.5	7.2	12.3	12.5	8.0	5.2	99700.9	42
942	10.6	52.2	52.4	2519	262.0	250.5	5.2	11.9	11.1	8.5	5.2	99694.6	42
943				2501	262.0	250.5	3.3	11.8	10.1	8.9	5.2	99687.0	41
944	9.9	52.4	52.6	2397	262.0	250.4	1.9	11.9	11.1	10.1	5.2	99686.9	41
945	9.8	52.3	52.5	2378	262.0	250.5	1.6	12.1	10.2	9.2	5.2	99687.0	41
946	9.1	52.2	52.4	2037	262.0	250.4	0.2	12.1	9.3	7.7	5.2	99687.0	41
947	9.0	52.9	53.1	2032	262.0	250.4	-0.4	12.2	9.4	9.6	5.2	99686.9	41
948	10.1	52.6	52.9	2460	262.0	250.5	0.6	12.3	10.3	8.1	5.2	99686.9	41
949	10.5	52.8	53.0	2527	262.0	250.5	0.2	12.2	11.0	9.3	5.3	99686.9	41
950	10.8	53.3	53.6	2663	262.0	250.5	1.5	12.4	11.3	10.1	5.3	99686.9	41
951	11.1	52.9	53.1	2610	262.0	250.5	0.8	12.2	11.7	10.5	5.3	99687.0	41
952	10.5	53.0	53.3	2717	262.0	250.5	3.2	12.6	11.0	10.0	5.3	99687.0	41
953	11.6	52.8	53.1	2672	262.0	250.5	3.6	12.5	12.2	10.5	5.3	99687.0	41
954	11.8	52.5	52.8	2753	262.0	250.5	6.3	12.8	12.4	10.8	5.3	99693.2	41
955	11.1	52.6	53.0	2605	262.0	250.5	4.9	12.2	11.6	10.7	5.3	99700.9	41
956	11.1	52.3	52.6	2605	262.0	250.5	4.6	12.2	11.7	11.1	5.3	99700.8	41
957	11.0	52.9	53.2	2612	262.0	251.9	4.8	12.2	11.5	11.4	5.3	99700.9	41
958	11.4	51.7	52.0	2637	262.0	254.4	5.0	12.3	12.0	10.0	5.3	99700.7	41
959	11.6	51.7	52.0	2671	262.0	254.4	6.0	12.4	12.1	10.9	5.3	99700.7	41
960	12.2	52.0	52.3	2626	262.0	254.4	6.0	12.3	12.9	9.7	5.2	99694.4	41
961	11.1	51.6	51.9	2530	262.0	254.4	4.3	11.9	11.6	10.7	5.2	99686.8	41
962	9.9	51.4	51.7	2406	262.0	254.4	2.3	11.8	11.0	9.6	5.2	99686.7	41
963	9.6	52.2	52.5	2293	262.0	254.4	1.6	12.1	10.4	9.1	5.2	99686.7	41
964	9.8	52.1	52.4	2374	262.0	254.4	1.5	12.2	10.0	8.2	5.2	99686.6	41
965				2630	262.0	254.4	1.8	12.2	10.4	7.3	5.2	99686.8	41
966	9.8	52.8	53.0	2372	262.0	254.4	0.5	12.1	9.9	7.0	5.2	99688.2	42
967	9.9	52.5	52.7	2404	262.0	254.4	0.0	12.1	9.9	7.1	5.1	99686.8	43
968	9.7	52.5	52.7	2314	262.0	254.4	-0.4	12.1	10.2	8.0	5.1	99686.7	43

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

Data Point #	Standardized Wind Speed (m/s)	Laeq (as measured)	LAeq (adjusted for windscreen IL)	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	9.0	53.0	53.2	2033	262.0	254.2	-0.8	12.1	8.9	8.7	5.1	99686.8	43
970	9.3	53.1	53.3	2131	262.0	250.9	-0.2	12.3	8.8	8.3	5.1	99686.9	43
971	9.6	52.3	52.5	2282	262.0	250.3	0.4	12.2	10.2	7.0	5.1	99687.0	43
972				2520	262.0	250.3	0.6	12.2	10.1	7.5	5.1	99693.2	43
973	11.3	52.9	53.1	2652	262.0	250.3	1.2	12.3	11.9	6.8	5.1	99700.6	43
974				2646	262.0	250.3	1.4	12.3	9.0	6.3	5.1	99700.7	43
975				2645	262.0	248.7	2.1	12.3	10.3	7.2	5.1	99700.7	43
976	9.6	52.1	52.3	2258	262.0	247.3	0.1	12.0	8.9	7.2	5.1	99700.5	43
977	8.8	52.7	52.9	1896	262.0	247.3	-1.0	12.1	10.3	8.6	5.1	99700.6	43
978	8.8	53.4	53.6	1909	262.0	247.3	-1.0	12.2	9.0	6.9	5.1	99700.6	43
979	9.4	53.1	53.4	2168	262.0	247.4	-0.2	12.3	10.9	7.9	5.2	99700.7	44
980				2184	262.0	247.4	0.0	12.2	10.5	9.2	5.2	99700.7	44
981				1883	262.0	247.4	-1.0	12.1	9.9	9.5	5.2	99700.7	44
982	8.6	53.0	53.3	1798	262.0	247.4	-1.2	12.2	10.6	9.4	5.2	99700.6	44
983	8.9	53.5	53.7	1966	262.0	247.7	-0.9	12.3	11.1	8.3	5.2	99700.6	44
984	9.7	52.7	53.0	2305	262.0	250.7	0.6	12.3	9.2	8.4	5.2	99695.7	43
985				2663	262.0	250.6	2.1	12.4	9.7	9.1	5.2	99686.7	42
986				2655	262.0	250.6	2.5	12.3	10.3	8.9	5.2	99686.7	42
987				2620	262.0	250.7	2.1	12.2	10.3	10.6	5.2	99686.7	42
988				2604	262.0	250.7	2.0	12.2	10.0	10.0	5.2	99686.8	42
989	9.9	52.6	52.9	2383	262.0	250.7	0.8	12.0	10.8	9.4	5.2	99686.8	42
990	9.8	53.7	53.9	2367	262.0	250.7	0.3	12.1	10.6	9.1	5.2	99686.9	43
991	9.9	53.1	53.3	2422	262.0	250.7	0.0	12.1	9.4	10.4	5.2	99687.0	44
992	9.4	52.8	53.1	2170	262.0	250.8	-0.6	12.0	10.5	10.4	5.2	99686.9	44
993	9.4	52.9	53.2	2172	262.0	250.8	-0.5	12.2	9.2	10.4	5.2	99686.9	44
994				2703	262.0	250.7	2.4	12.8	10.4	11.1	5.2	99686.9	44
995	11.2	53.2	53.4	2830	262.0	250.7	6.3	13.2	11.8	11.6	5.2	99687.0	44
996	10.9	52.1	52.4	2713	262.0	250.8	7.0	12.6	11.4	10.5	5.2	99686.9	43
997	10.8	50.7	51.0	2565	262.0	250.8	5.2	12.0	11.3	9.6	5.2	99686.9	42
998	11.4	51.9	52.2	2628	262.0	250.7	5.5	12.3	11.9	7.6	5.2	99686.9	42
999	11.3	51.8	52.1	2635	262.0	250.8	5.8	12.3	11.8	7.0	5.2	99687.0	42
1000	12.9	52.0	52.3	2679	262.0	250.7	6.9	12.5	13.6	7.2	5.2	99686.9	42
1001	12.7	52.1	52.4	2631	262.0	250.7	7.1	12.3	13.3	7.3	5.2	99687.0	42
1002	11.4	51.4	51.7	2592	262.0	250.7	6.3	12.1	12.0	6.9	5.2	99687.0	43
1003	11.8	53.3	53.6	2686	262.0	250.7	7.7	12.5	12.4	6.3	5.2	99687.0	44
1004	13.1	52.8	53.1	2712	262.0	250.7	9.0	12.7	13.8	7.1	5.2	99687.1	44
1005	12.0	52.6	52.9	2662	262.0	250.8	9.5	12.4	12.6	9.0	5.2	99686.9	44
1006	11.7	51.5	51.8	2493	262.0	250.8	7.4	11.8	12.3	10.6	5.2	99687.1	44
1007	10.2	51.0	51.3	2481	262.0	250.8	5.4	11.7	10.7	9.2	5.2	99687.2	44
1008	10.7	50.9	51.2	2569	262.0	250.8	5.0	12.0	11.2	9.0	5.2	99687.0	43
1009	11.7	51.9	52.2	2674	262.0	250.8	6.2	12.5	12.3	9.8	5.3	99687.1	42
1010	11.7	51.8	52.2	2709	262.0	250.8	7.7	12.6	12.3	9.5	5.3	99687.1	42
1011	10.6	51.5	51.9	2626	262.0	250.8	7.4	12.2	11.1	8.2	5.3	99687.0	42
1012	11.5	52.4	52.7	2566	262.0	250.8	6.3	12.0	12.1	9.7	5.3	99687.1	42
1013	11.7	51.5	51.8	2620	262.0	250.8	6.5	12.2	12.3	8.8	5.3	99687.0	42
1014	11.7	53.0	53.4	2666	262.0	250.8	7.2	12.4	12.2	10.8	5.3	99681.1	42
1015	12.5	53.8	54.1	2652	262.0	250.8	7.6	12.3	13.1	9.1	5.3	99674.1	41
1016	11.8	51.8	52.1	2590	262.0	250.7	7.0	12.1	12.4	9.1	5.3	99674.1	41
1017	12.6	51.3	51.6	2633	262.0	250.7	7.2	12.3	13.2	9.4	5.3	99674.2	41
1018	12.1	51.5	51.8	2623	262.0	250.7	8.1	12.2	12.7	7.9	5.3	99674.3	41
1019	11.6	51.3	51.6	2587	262.0	250.7	7.4	12.1	12.2	9.5	5.3	99670.9	41
1020	11.6	51.3	51.6	2601	262.0	250.7	7.1	12.1	12.1	10.3	5.3	99660.9	41
1021	11.6	51.1	51.4	2564	262.0	250.7	6.2	12.0	12.2	9.7	5.3	99661.0	41
1022	11.4	51.0	51.3	2549	262.0	250.7	5.2	12.0	11.9	8.7	5.3	99661.0	41
1023	11.0	52.3	52.6	2661	262.0	250.7	6.1	12.4	11.5	7.8	5.3	99661.0	41
1024	10.3	51.5	51.8	2565	262.0	250.7	4.8	12.0	10.8	10.0	5.3	99661.0	41
1025				2536	262.0	250.7	3.0	11.9	10.0	9.1	5.3	99661.1	41
1026	10.0	52.2	52.5	2436	262.0	250.7	1.8	12.0	10.6	9.7	5.3	99661.1	42
1027	11.1	52.7	53.0	2711	262.0	250.7	3.8	12.6	11.6	9.6	5.3	99661.0	42
1028	10.7	52.4	52.7	2759	262.0	250.7	6.3	12.8	11.2	8.9	5.3	99660.9	42
1029	10.2	52.1	52.4	2475	262.0	250.7	4.1	12.0	11.2	9.8	5.3	99660.9	42
1030	9.3	52.7	53.0	2145	262.0	250.7	2.0	11.9	10.7	8.8	5.3	99661.0	42
1031	9.5	52.2	52.5	2217	262.0	250.6	1.5	12.1	9.6	8.7	5.3	99660.9	42
1032	9.7	52.6	52.9	2314	262.0	247.4	1.5	12.2	9.6	8.9	5.3	99661.0	42
1033				2450	262.0	246.6	1.4	12.2	10.6	8.9	5.3	99661.0	42
1034				2070	262.0	246.6	-0.3	12.1	9.9	8.7	5.3	99661.1	42
1035				1875	262.0	246.5	-1.0	12.1	8.1	8.5	5.3	99661.2	42
1036				1626	262.0	243.5	-1.4	12.1	7.6	7.5	5.3	99661.1	42
1037				1660	262.0	242.6	-1.4	12.2	8.0	8.2	5.3	99658.1	42
1038				1726	262.0	242.6	-1.3	12.3	9.2	7.6	5.3	99648.8	43
1039				2235	262.0	242.6	0.8	12.4	10.0	8.3	5.3	99648.8	43
1040				2707	262.0	242.6	3.8	12.8	11.2	8.5	5.3	99648.6	43
1041				2653	262.0	242.6	4.0	12.3	11.8	9.6	5.3	99648.7	43
1042				2547	262.0	242.6	2.2	12.0	10.7	7.7	5.3	99648.7	43
1043				2293	262.0	242.6	1.2	12.1	11.2	6.8	5.3	99648.9	43
1044				2639	262.0	242.6	1.9	12.3	11.4	7.1	5.4	99649.0	44
1045				2716	262.0	242.6	3.8	12.6	11.4	8.0	5.4	99649.0	44
1046				2650	262.0	242.1	3.8	12.3	11.2	7.1	5.4	99649.1	44
1047				2639	262.0	239.1	3.9	12.3	10.5	6.9	5.4	99649.2	44
1048				2636	262.0	239.0	4.0	12.2	12.2	6.5	5.4	99649.2	44
1049				2349	262.0	239.0	1.9	11.9	10.6	6.6	5.4	99649.1	44
1050				2481	262.0	238.9	1.9	12.1	10.9	7.4	5.4	99649.2	46
1051				2495	262.0	238.9	1.5	12.1	10.8	6.2	5.4	99649.2	46
1052				1287	262.0	242.3	15.0	10.6	13.0	8.5	6.4	99520.2	41
1053				1564	262.0	241.9	13.9	11.1	13.8	8.5	6.4	99520.1	41
1054				1727	262.0	242.0	12.5	11.4	14.2	7.5	6.4	99520.2	41
1055				1759	262.0	241.9	9.9	11.5	12.4	6.7	6.5	99520.2	41
1056				2033	262.0	241.9	8.1	11.6	11.8	7.1	6.5	99520.2	41

Table E.01 Measurement data - Turbine ON

Project: North Kent Wind Farm - IEC 61400- 11 Edition 3.0 - Turbine T3

Report ID: 17283.03.T3.RP3

Created on: 1/27/2021

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

Data Point #	Standardized Wind Speed (m/s)	Laeq (as measured)	LAeq (adjusted for windscreen &L)	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				2268	262.0	241.9	7.1	11.6	10.7	6.9	6.5	99520.2	41
1058				2394	262.0	241.9	5.5	11.6	10.8	8.8	6.5	99520.2	41
1059				2383	262.0	241.9	3.5	11.5	10.6	10.5	6.5	99520.3	41
1060				2599	262.0	241.9	5.2	12.2	12.1	8.8	6.6	99520.3	41
1061				2598	262.0	241.9	5.8	12.1	12.0	8.8	6.6	99520.3	40
1062				2531	262.0	241.9	4.7	11.9	10.9	7.5	6.6	99520.2	40
1063				2723	262.0	241.9	8.0	12.7	12.7	7.0	6.6	99520.0	40
1064				2676	262.0	241.9	9.4	12.5	13.1	7.4	6.6	99520.0	40
1065				2608	262.0	241.9	8.9	12.1	12.4	9.1	6.6	99520.1	40
1066				2577	262.0	242.0	8.4	12.0	14.3	8.2	6.7	99520.1	41
1067				2604	262.0	242.0	8.4	12.1	12.3	7.4	6.7	99520.1	41
1068				2655	262.0	241.9	9.0	12.3	12.5	8.3	6.7	99520.1	41
1069				2679	262.0	241.9	9.8	12.4	14.3	8.7	6.7	99520.1	41
1070				2524	262.0	241.9	8.1	11.8	12.6	9.0	6.7	99520.2	41
1071				2619	262.0	241.9	8.0	12.2	12.1	9.8	6.7	99520.2	41
1072				2620	262.0	242.0	7.8	12.1	13.0	10.3	6.7	99520.1	41
1073				2526	262.0	242.0	5.8	11.8	11.4	10.1	6.7	99520.1	40
1074				2573	262.0	241.9	5.1	12.0	12.3	9.9	6.7	99520.2	40
1075				2715	262.0	241.9	7.1	12.6	12.7	8.0	6.7	99520.1	40
1076				2727	262.0	241.9	8.4	12.6	13.7	8.1	6.7	99520.2	40
1077				2637	262.0	241.9	7.8	12.2	12.6	9.3	6.7	99520.2	40
1078				2628	262.0	241.9	7.4	12.2	12.6	10.2	6.7	99520.3	40
1079				2680	262.0	241.9	8.1	12.4	13.3	9.6	6.7	99520.3	41
1080				2796	262.0	241.9	10.8	13.0	13.9	10.2	6.7	99520.4	41
1081				2693	262.0	242.0	11.2	12.5	13.0	9.4	6.7	99520.4	41
1082				2612	262.0	242.0	10.4	12.2	13.5	11.0	6.7	99520.4	41
1083				2704	262.0	242.0	11.7	12.5	13.9	10.0	6.7	99520.4	41
1084				2622	262.0	242.0	11.5	12.2	13.6	10.5	6.7	99520.5	40
1085				2483	262.0	241.9	9.3	11.7	11.8	10.7	6.7	99520.5	40
1086				2500	262.0	241.9	7.5	11.8	12.5	9.1	6.7	99520.5	40
1087				2744	262.0	241.9	10.5	12.8	14.5	9.7	6.7	99520.5	40
1088				2742	262.0	244.5	11.8	12.8	14.5	10.9	6.7	99520.4	40
1089				2734	262.0	245.8	12.9	12.7	15.1	10.4	6.7	99520.4	40
1090				2689	262.0	245.8	13.4	12.5	15.4	9.4	6.7	99520.4	39
1091				2648	262.0	245.8	13.5	12.3	15.2	8.5	6.7	99520.3	39
1092				2540	262.0	245.8	12.3	11.9	13.6	11.5	6.7	99520.3	39
1093				2620	262.0	245.8	12.6	12.2	14.6	11.0	6.7	99520.3	39
1094				2650	262.0	245.8	13.1	12.3	15.4	9.5	6.7	99520.0	39
1095				2524	262.0	245.8	11.6	11.9	14.6	9.0	6.7	99520.1	39
1096				2468	262.0	245.8	9.7	11.6	12.1	11.6	6.6	99512.9	39
1097				2595	262.0	245.8	9.7	12.2	12.9	12.3	6.6	99507.5	39
1098				2711	262.0	245.8	11.2	12.6	14.8	12.3	6.6	99507.5	39
1099				2697	262.0	245.8	12.1	12.5	14.7	12.3	6.6	99507.5	39
1100				2607	262.0	245.8	11.3	12.1	14.1	10.9	6.6	99507.5	39
1101				2522	262.0	245.8	9.9	11.8	12.8	9.4	6.6	99507.6	39
1102				2450	262.0	245.8	7.4	11.5	12.1	9.9	6.6	99516.1	39
1103				2493	262.0	245.8	5.5	11.7	10.9	10.4	6.6	99520.2	39
1104				2614	262.0	245.8	5.9	12.1	11.2	10.2	6.6	99520.3	39
1105				2611	262.0	245.8	5.3	12.1	11.0	11.1	6.6	99520.2	39
1106				2675	262.0	245.8	6.2	12.3	11.4	8.7	6.6	99520.2	39
1107				2639	262.0	245.8	6.1	12.2	10.9	8.5	6.6	99520.2	39
1108				2744	262.0	245.8	8.0	12.8	11.8	10.5	6.5	99520.1	39
1109				2727	262.0	245.8	9.4	12.6	12.8	10.5	6.5	99520.3	40
1110				2604	262.0	245.8	8.1	12.1	11.8	11.0	6.5	99520.3	40
1111				2753	262.0	245.8	10.3	12.7	14.2	11.6	6.5	99520.2	40
1112				2632	262.0	245.8	9.8	12.2	13.6	11.9	6.5	99520.2	40
1113				2582	262.0	245.8	9.2	12.1	13.1	12.2	6.5	99520.3	40
1114				2617	262.0	245.8	8.9	12.2	12.7	10.2	6.5	99520.2	40
1115				2669	262.0	245.8	9.9	12.4	13.9	9.7	6.5	99520.2	39
1116				2653	262.0	245.8	9.9	12.3	15.0	9.5	6.5	99520.2	39
1117				2567	262.0	245.7	8.7	12.0	12.5	9.8	6.5	99520.1	39
1118				2609	262.0	245.7	8.7	12.1	13.6	10.4	6.5	99520.1	39
1119				2637	262.0	245.8	8.8	12.3	12.3	10.3	6.5	99520.1	39
1120				2699	262.0	245.8	9.9	12.5	13.2	9.4	6.4	99520.2	39
1121				2691	262.0	245.8	10.7	12.5	13.1	7.2	6.4	99520.1	40
1122				2604	262.0	245.8	10.0	12.1	11.8	7.5	6.4	99520.1	40
1123				2568	262.0	245.7	9.1	12.0	12.7	9.4	6.4	99520.1	40
1124				2615	262.0	245.8	9.1	12.1	12.6	8.1	6.4	99520.1	40
1125				2532	262.0	245.7	7.7	11.9	13.1	7.4	6.4	99520.2	40
1126				2429	262.0	245.7	4.3	11.5	11.1	7.1	6.4	99512.9	40
1127				2548	262.0	245.8	3.5	11.9	11.1	6.5	6.4	99507.4	40
1128				2656	262.0	245.8	4.7	12.3	12.0	7.3	6.4	99507.6	40
1129				2684	262.0	245.7	5.6	12.5	12.3	7.2	6.4	99507.7	40
1130				2761	262.0	245.7	7.9	12.8	13.4	7.2	6.4	99507.7	40
1131				2828	262.0	245.7	10.7	13.2	14.1	8.6	6.4	99507.7	40
1132				2688	262.0	245.7	10.5	12.5	14.5	7.5	6.4	99507.6	41
1133				2733	262.0	245.8	12.0	12.8	13.9	7.9	6.4	99507.6	41
1134				2697	262.0	245.8	12.8	12.6	14.7	8.7	6.4	99507.6	41
1135				2656	262.0	245.8	13.2	12.4	14.5	9.2	6.4	99507.6	41
1136				2614	262.0	245.8	12.9	12.2	15.1	9.3	6.4	99507.7	41
1137				2570	262.0	245.8	12.4	12.0	15.3	9.1	6.4	99507.5	41
1138				2520	262.0	245.7	11.2	11.9	13.8	9.2	6.5	99501.2	40
1139				2544	262.0	245.7	10.5	12.0	12.6	9.1	6.5	99494.3	39
1140				2619	262.0	245.7	10.8	12.2	12.5	7.3	6.5	99494.3	39
1141				2626	262.0	245.7	11.0	12.3	13.3	7.9	6.5	99494.3	39
1142				2647	262.0	245.8	11.4	12.4	13.9	7.7	6.5	99494.2	39
1143				2600	262.0	245.8	11.1	12.1	13.4	6.4	6.5	99494.3	39
1144				2501	262.0	245.8	9.3	11.8	13.2	6.5	6.5	99494.3	40

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

Data Point #	Standardized Wind Speed (m/s)	Laeq (as measured)	LAeq (adjusted for windscreen &L)	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				2623	262.0	245.8	9.7	12.2	14.0	6.3	6.5	99494.2	40
1146				2592	262.0	245.8	9.4	12.1	12.1	6.3	6.5	99494.2	40
1147				2514	262.0	243.4	8.0	11.8	12.3	6.7	6.5	99494.4	40
1148				2507	262.0	242.8	6.2	11.8	12.2	7.1	6.5	99494.3	40
1149	8.4	52.4	52.7	1714	262.0	247.2	14.0	11.7	12.5	11.0	7.0	99469.0	37
1150	14.1	51.2	51.5	2492	262.0	247.2	14.5	12.0	14.8	10.8	7.0	99469.1	37
1151	15.2	51.3	51.7	2551	262.0	247.2	14.4	12.0	15.9	12.0	7.0	99469.1	37
1152	15.9	54.1	54.5	2568	262.0	247.2	14.4	12.0	16.6	13.0	7.0	99469.0	37
1153	14.0	51.3	51.6	2527	262.0	247.2	14.1	11.9	14.7	12.0	7.0	99468.9	37
1154	15.0	55.4	55.8	2534	262.0	247.2	13.9	11.9	15.8	12.3	7.0	99468.8	37
1155	14.5	53.5	53.8	2574	262.0	247.2	14.3	12.1	15.2	12.0	7.0	99455.7	36
1156	13.9	51.9	52.2	2488	262.0	247.2	13.4	11.7	14.6	11.3	7.0	99455.2	36
1157	14.2	53.0	53.4	2521	262.0	247.2	12.9	11.8	14.9	10.6	7.0	99455.1	36
1158	12.9	53.2	53.6	2500	262.0	247.2	12.2	11.7	13.5	9.5	7.0	99455.0	36
1159				2427	262.0	247.2	10.5	11.6	14.1	11.2	7.0	99455.0	36
1160	13.4	51.5	51.8	2534	262.0	247.2	10.1	11.9	14.0	8.6	7.0	99456.1	36
1161	12.1	51.5	51.8	2537	262.0	247.2	9.3	11.9	12.7	10.0	7.0	99468.4	37
1162	12.0	53.2	53.6	2538	262.0	247.2	8.2	11.9	12.6	10.2	7.0	99468.5	37
1163	13.8	52.9	53.2	2707	262.0	247.2	9.9	12.6	14.5	10.4	7.0	99468.6	37
1164	13.5	52.1	52.4	2689	262.0	247.1	10.5	12.5	14.2	9.2	7.0	99468.6	37
1165	10.1	50.5	50.8	2461	262.0	247.1	7.6	11.6	12.8	9.8	7.0	99468.6	37
1166	11.5	51.0	51.3	2524	262.0	247.1	6.2	11.8	12.1	9.4	7.0	99467.6	37
1167	11.9	51.8	52.1	2680	262.0	247.1	7.9	12.4	12.5	9.4	7.0	99455.2	38
1168	11.8	51.9	52.2	2682	262.0	247.1	8.5	12.4	12.4	8.6	7.0	99455.3	38
1169				2547	262.0	244.7	6.9	11.9	11.6	9.0	7.0	99455.2	38
1170				2581	262.0	243.5	6.4	12.0	12.2	8.6	7.0	99455.3	38
1171				2701	262.0	243.5	7.7	12.5	12.9	9.7	7.0	99455.2	38
1172				2685	262.0	243.5	8.5	12.4	13.4	8.5	7.0	99457.4	38
1173				2586	262.0	243.5	7.4	12.0	13.1	6.9	7.0	99468.6	38
1174	13.3	52.4	52.7	2768	244.0	243.5	12.6	12.8	13.9	10.2	7.0	99443.4	37
1175	14.2	52.2	52.5	2712	244.0	243.6	13.2	12.6	14.9	10.4	7.0	99443.5	37
1176	12.7	51.8	52.1	2546	244.0	243.6	11.7	11.9	13.4	9.8	7.0	99443.5	37
1177	12.9	51.6	51.9	2616	244.0	243.5	11.7	12.2	13.6	8.9	7.0	99443.4	37
1178	13.8	53.0	53.3	2683	244.0	243.5	12.5	12.5	14.5	8.1	7.1	99443.3	37
1179	15.3	54.5	54.8	2675	244.0	243.5	13.2	12.5	16.1	9.6	7.1	99443.3	37
1180	14.7	51.6	51.9	2687	244.0	243.6	13.9	12.5	15.4	10.3	7.1	99443.5	37
1181	14.4	53.0	53.4	2588	244.0	243.6	13.0	12.1	15.1	10.1	7.1	99443.6	37
1182	15.7	52.9	53.3	2736	244.0	243.6	14.7	12.7	16.5	9.6	7.1	99443.5	37
1183	16.2	52.6	52.9	2705	244.0	243.5	15.4	12.6	17.0	10.4	7.1	99443.5	37
1184	16.1	52.0	52.3	2643	244.0	243.5	15.5	12.3	16.8	10.3	7.1	99443.5	37
1185	14.5	50.9	51.2	2494	244.0	243.6	14.0	11.8	15.2	9.7	7.1	99443.6	37
1186	10.2	50.8	51.1	2476	244.0	243.5	12.3	11.7	14.1	11.2	7.1	99443.6	37
1187	14.0	51.8	52.1	2510	244.0	243.6	11.4	11.8	14.7	10.3	7.1	99443.6	37
1188	10.2	52.4	52.8	2468	244.0	243.5	9.5	11.6	13.2	9.8	7.1	99443.8	37
1189	12.4	52.6	52.8	2645	244.0	243.5	10.1	12.3	13.0	8.0	7.1	99443.7	37
1190				2834	244.0	243.6	13.2	13.1	14.1	9.6	7.2	99443.7	37
1191	14.3	53.9	54.2	2721	244.0	243.6	13.8	12.6	15.0	8.5	7.2	99443.6	37
1192	15.7	53.3	53.6	2730	244.0	243.6	14.7	12.7	16.4	10.3	7.2	99443.8	37
1193	15.7	52.6	52.9	2669	244.0	243.6	14.9	12.4	16.5	12.7	7.2	99443.7	37
1194	15.9	52.8	53.2	2632	244.0	243.5	14.7	12.3	16.7	11.5	7.2	99443.8	37
1195	16.0	52.6	52.9	2697	244.0	243.5	15.8	12.6	16.8	13.0	7.2	99443.8	37
1196	14.8	52.3	52.6	2627	244.0	243.5	15.7	12.2	15.5	10.4	7.2	99443.6	36
1197	10.1	51.1	51.4	2463	244.0	243.5	13.6	11.6	14.8	9.6	7.2	99443.7	36
1198	14.3	52.0	52.3	2527	244.0	243.5	12.8	11.9	15.0	9.0	7.2	99443.7	36
1199				2572	244.0	243.5	12.4	12.0	12.9	8.9	7.2	99443.7	36
1200	14.4	53.3	53.6	2723	244.0	243.6	14.0	12.7	15.1	7.6	7.2	99443.6	36
1201	14.7	52.2	52.5	2654	244.0	243.5	14.1	12.3	15.5	8.9	7.2	99443.7	36
1202	10.2	52.1	52.4	2482	244.0	243.6	12.0	11.7	13.8	10.0	7.3	99443.6	37
1203	14.2	52.9	53.3	2610	244.0	243.5	12.1	12.2	14.9	9.0	7.3	99443.7	37
1204	15.4	53.7	54.0	2790	244.0	243.5	14.7	12.9	16.1	8.2	7.3	99443.7	37
1205	15.1	53.0	53.3	2723	244.0	243.6	15.3	12.6	15.9	8.7	7.3	99443.8	37
1206	16.0	52.8	53.2	2722	244.0	243.5	16.2	12.6	16.8	9.4	7.3	99443.7	37
1207	15.0	51.3	51.6	2581	244.0	243.6	15.3	12.0	15.7	9.3	7.3	99443.8	37
1208				2524	244.0	243.6	14.2	11.9	14.2	8.6	7.3	99443.8	36
1209	15.3	54.2	54.6	2664	244.0	243.6	15.0	12.4	16.0	8.1	7.3	99443.8	36
1210	16.4	54.0	54.4	2662	244.0	243.5	15.5	12.4	17.2	11.0	7.3	99443.9	36
1211	16.0	52.7	53.0	2736	244.0	243.5	16.8	12.8	16.8	9.9	7.3	99443.9	36
1212	17.5	55.2	55.5	2740	244.0	243.5	18.0	12.8	18.3	13.0	7.3	99443.9	36
1213	17.0	53.6	54.0	2634	244.0	243.6	17.6	12.3	17.8	10.5	7.3	99443.8	36
1214	15.8	51.7	52.0	2543	244.0	243.5	16.2	11.9	16.6	11.1	7.3	99443.8	35
1215	17.1	54.3	54.7	2631	244.0	243.5	16.6	12.3	18.0	12.0	7.3	99443.8	35
1216	15.9	55.5	55.9	2629	244.0	243.5	16.8	12.3	16.7	11.6	7.3	99443.8	35
1217	16.4	57.6	58.0	2619	244.0	243.5	16.6	12.2	17.2	11.5	7.3	99443.9	35
1218	16.2	52.8	53.1	2551	244.0	243.6	15.8	12.0	17.0	10.2	7.3	99443.8	35
1219	16.2	53.0	53.4	2678	244.0	243.6	16.7	12.5	17.0	10.4	7.3	99443.6	35
1220	16.1	52.9	53.3	2636	244.0	243.6	16.7	12.3	16.9	9.3	7.3	99443.6	35
1221	16.8	56.7	57.1	2647	244.0	243.6	16.9	12.3	17.7	9.6	7.3	99443.6	35
1222	16.7	52.1	52.4	2567	244.0	243.5	16.3	12.0	17.6	9.7	7.3	99443.7	35
1223	14.6	53.8	54.2	2499	244.0	243.6	15.0	11.8	15.4	10.8	7.3	99443.7	35
1224				2497	244.0	243.6	13.8	11.7	13.9	11.0	7.3	99443.7	35
1225				2534	244.0	243.6	12.9	11.9	14.7	13.3	7.3	99443.7	35
1226				2575	244.0	243.5	12.6	12.0	14.5	12.3	7.3	99443.8	35
1227	10.0	51.0	51.3	2445	244.0	243.6	10.2	11.6	11.5	12.5	7.3	99443.8	35
1228	12.5	52.2	52.5	2555	244.0	243.6	9.7	11.9	13.2	11.7	7.3	99443.8	35
1229	13.3	52.7	52.9	2758	244.0	243.5	11.7	12.7	13.9	10.0	7.3	99443.8	35
1230	14.0	52.6	52.9	2746	244.0	243.5	12.9	12.7	14.6	9.7	7.3	99443.8	35
1231	13.3	52.7	53.0	2603	244.0	243.5	11.7	12.1	14.0	10.8	7.2	99443.8	35
1232	15.1	53.2	53.6	2700	244.0	243.5	13.0	12.5	15.8	9.4	7.2	99443.8	35

Table E.01 Measurement data - Turbine ON

Project: North Kent Wind Farm - IEC 61400- 11 Edition 3.0 - Turbine T3

Report ID: 17283.03.T3.RP3

Created on: 1/27/2021

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

Data Point #	Standardized Wind Speed (m/s)	Laeq (as measured)	LAeq (adjusted for windscreen IL)	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	14.3	52.3	52.6	2742	244.0	243.6	14.2	12.7	15.0	9.1	7.2	99443.9	35
1234	15.7	52.5	52.8	2703	244.0	243.5	14.8	12.6	16.5	11.3	7.2	99443.7	35
1235	15.5	51.5	51.7	2691	244.0	243.5	15.2	12.5	16.3	10.1	7.2	99443.8	35
1236	14.9	52.4	52.7	2558	244.0	243.5	14.1	11.9	15.7	9.0	7.2	99443.8	35
1237	14.1	51.3	51.6	2536	244.0	243.5	13.3	11.9	14.8	10.1	7.2	99443.8	36
1238	14.0	53.2	53.6	2604	244.0	243.5	13.1	12.1	14.7	9.8	7.2	99443.8	36
1239	13.8	53.3	53.7	2653	244.0	243.5	13.5	12.3	14.5	10.7	7.2	99443.8	36
1240	14.7	52.0	52.3	2502	244.0	243.6	11.7	11.7	15.5	10.0	7.2	99443.8	36
1241	10.2	51.8	52.1	2476	244.0	243.5	9.6	11.7	12.2	11.1	7.2	99443.8	36
1242	13.5	52.0	52.3	2702	244.0	243.6	11.5	12.5	14.2	12.0	7.2	99443.8	36
1243	13.4	51.4	51.7	2638	244.0	243.6	11.2	12.2	14.1	10.8	7.2	99443.8	36
1244	13.6	51.8	52.1	2610	244.0	243.5	10.6	12.1	14.3	12.0	7.2	99443.8	36
1245	12.8	52.3	52.7	2589	244.0	243.5	10.0	12.0	13.5	10.3	7.2	99443.8	36
1246	11.7	53.3	53.7	2629	244.0	243.6	9.8	12.2	12.3	9.4	7.2	99443.8	36
1247	12.9	52.7	53.0	2758	244.0	243.6	12.0	12.8	13.6	9.4	7.2	99443.9	36
1248	12.5	52.8	53.1	2668	244.0	243.6	11.8	12.3	13.1	9.7	7.2	99443.9	36
1249	13.3	52.8	53.2	2688	244.0	243.6	12.4	12.4	14.0	10.0	7.2	99443.8	37
1250	12.5	53.3	53.6	2604	244.0	243.6	11.7	12.1	13.1	8.4	7.2	99443.8	37
1251	14.8	54.1	54.4	2690	244.0	243.5	12.6	12.5	15.6	9.4	7.2	99443.8	37
1252	15.3	53.2	53.6	2722	244.0	243.5	13.7	12.6	16.1	10.3	7.2	99443.8	37
1253	14.3	51.6	51.9	2657	244.0	243.5	13.8	12.3	15.0	10.7	7.2	99443.9	37
1254	15.4	52.0	52.3	2597	244.0	243.5	13.3	12.1	16.1	10.1	7.2	99443.9	37
1255	14.5	52.7	53.1	2542	244.0	243.6	12.2	11.9	15.2	10.8	7.2	99443.8	37
1256	13.0	52.4	52.7	2551	244.0	243.5	11.4	11.9	13.6	8.9	7.2	99443.8	37
1257	13.9	51.9	52.2	2635	244.0	243.5	11.8	12.2	14.6	11.1	7.2	99443.8	37
1258	13.6	50.3	50.6	2503	244.0	243.6	10.1	11.7	14.3	10.9	7.2	99443.9	37
1259	12.6	51.3	51.5	2554	244.0	243.5	9.1	11.9	13.2	11.1	7.2	99443.9	37
1260	11.9	51.3	51.5	2624	244.0	243.5	9.2	12.1	12.5	11.0	7.2	99443.9	37
1261	12.3	51.1	51.4	2610	244.0	243.5	8.8	12.1	12.9	10.9	7.2	99443.9	37
1262	12.1	51.3	51.6	2622	244.0	243.5	8.4	12.1	12.6	9.7	7.2	99444.0	37
1263	12.1	51.6	51.9	2661	244.0	243.5	8.8	12.3	12.7	9.4	7.2	99443.9	37
1264	13.1	51.5	51.8	2649	244.0	243.6	8.9	12.3	13.8	9.7	7.2	99443.9	37
1265	13.0	52.0	52.3	2687	244.0	243.6	9.4	12.4	13.6	8.4	7.2	99443.8	37
1266	11.8	52.3	52.6	2694	244.0	243.5	10.3	12.4	12.4	9.4	7.2	99443.7	38
1267	11.7	51.5	51.7	2541	244.0	243.5	8.3	11.9	12.2	10.2	7.2	99443.8	38
1268	13.2	52.6	52.9	2681	244.0	243.6	9.6	12.4	13.9	10.2	7.2	99443.8	38
1269	14.2	53.0	53.3	2812	244.0	243.5	12.1	13.1	14.9	9.3	7.2	99443.7	38
1270	16.1	53.8	54.1	2883	244.0	243.5	15.1	13.4	16.9	9.4	7.2	99443.8	38
1271	15.8	52.1	52.4	2711	244.0	243.5	15.2	12.6	16.6	9.0	7.2	99443.8	38
1272	15.2	50.9	51.2	2610	244.0	243.5	14.6	12.2	16.0	8.8	7.2	99443.8	38
1273	15.0	52.3	52.6	2620	244.0	243.5	14.6	12.2	15.8	9.0	7.2	99443.9	38
1274	9.9	52.0	52.3	2420	244.0	243.6	12.2	11.5	14.0	9.4	7.2	99443.8	38
1275				2520	244.0	243.6	11.4	11.9	14.5	9.6	7.2	99443.7	38
1276	12.2	52.9	53.2	2525	244.0	243.5	10.4	11.8	12.8	8.3	7.2	99443.6	38
1277	12.9	53.4	53.8	2640	244.0	243.5	10.8	12.3	13.6	8.9	7.2	99443.6	38
1278	13.4	53.2	53.5	2592	244.0	243.6	10.3	12.0	14.0	9.8	7.1	99443.7	38
1279	13.0	51.8	52.1	2618	244.0	243.5	10.0	12.3	13.7	9.8	7.1	99443.7	37
1280	15.7	53.7	53.9	2905	244.0	243.6	14.5	13.5	16.5	10.5	7.1	99443.7	37
1281	15.7	53.1	53.4	2776	244.0	243.5	15.4	12.9	16.5	10.3	7.1	99443.6	37
1282	15.2	51.8	52.1	2590	244.0	243.6	14.3	12.1	16.0	8.8	7.1	99443.6	37
1283	14.8	51.4	51.7	2585	244.0	243.6	13.7	12.1	15.5	9.3	7.1	99443.7	37
1284	16.1	51.6	51.9	2653	244.0	243.5	14.4	12.3	16.9	10.9	7.1	99443.7	37
1285	15.5	52.1	52.3	2674	244.0	243.6	15.1	12.5	16.3	9.1	7.1	99443.7	37
1286	14.5	54.6	55.0	2554	244.0	243.6	14.0	12.0	15.3	10.8	7.1	99443.6	37
1287	14.7	54.7	55.1	2618	244.0	243.5	14.1	12.2	15.4	10.5	7.1	99443.5	37
1288	12.7	53.6	54.0	2569	244.0	243.5	13.4	12.0	13.3	9.7	7.1	99443.5	37
1289	12.6	52.3	52.6	2517	244.0	243.5	12.2	11.8	13.2	8.3	7.1	99443.4	37
1290				2613	244.0	243.5	12.4	12.2	14.6	9.3	7.1	99443.6	37
1291	15.4	53.0	53.3	2802	244.0	243.6	15.0	13.0	16.2	10.9	7.1	99443.6	38
1292	14.8	54.7	55.1	2690	244.0	243.6	15.1	12.4	15.5	10.4	7.1	99443.5	38
1293	14.8	52.6	52.9	2574	244.0	243.6	14.0	12.1	15.5	9.4	7.1	99443.4	38
1294	15.9	53.1	53.4	2629	244.0	243.6	14.5	12.2	16.7	9.3	7.1	99443.4	38
1295	14.6	52.4	52.8	2625	244.0	243.6	14.6	12.2	15.3	10.4	7.1	99443.3	37
1296	14.3	52.6	52.9	2540	244.0	243.6	13.6	11.9	15.1	9.1	7.1	99443.4	37
1297				2627	244.0	243.6	13.8	12.2	14.8	9.7	7.1	99443.5	37
1298	15.0	53.9	54.3	2657	244.0	243.6	14.3	12.3	15.8	12.0	7.1	99443.4	37
1299	15.1	52.8	53.1	2628	244.0	243.6	14.1	12.2	15.8	11.9	7.1	99443.4	37
1300	14.9	53.4	53.8	2566	244.0	243.6	13.3	12.0	15.6	9.7	7.1	99443.4	37
1301	14.3	52.3	52.6	2547	244.0	243.6	12.4	11.9	15.0	10.7	7.1	99443.3	37
1302	13.5	51.4	51.7	2558	244.0	243.5	11.7	12.0	14.2	10.8	7.1	99443.4	37
1303	14.0	51.2	51.4	2571	244.0	243.5	11.2	12.0	14.7	9.2	7.1	99443.4	37
1304	12.3	51.5	51.8	2530	244.0	243.5	9.9	11.8	12.9	10.4	7.1	99443.4	37
1305	13.7	51.8	52.1	2644	244.0	243.5	10.3	12.3	14.3	10.1	7.1	99443.3	37
1306	14.4	53.0	53.3	2769	244.0	243.6	12.5	12.8	15.1	11.3	7.1	99443.2	37
1307	13.7	52.8	53.1	2695	244.0	243.6	12.8	12.5	14.4	10.7	7.1	99443.3	37
1308	13.5	51.7	52.0	2657	244.0	243.5	12.9	12.3	14.2	8.7	7.1	99443.3	37
1309	12.9	51.6	51.8	2582	244.0	243.6	12.0	12.0	13.6	8.9	7.1	99443.4	37
1310	13.2	51.5	51.8	2576	244.0	243.6	11.4	12.0	13.9	9.4	7.1	99443.5	37
1311	12.7	51.5	51.8	2593	244.0	243.5	11.1	12.0	13.4	10.0	7.1	99443.3	37
1312	12.1	52.3	52.6	2602	244.0	243.5	10.6	12.1	12.7	9.1	7.1	99443.3	37
1313	12.7	52.5	52.9	2592	244.0	243.5	10.3	12.1	13.3	8.0	7.1	99443.3	38
1314	12.6	52.1	52.4	2565	244.0	243.6	9.1	12.0	13.3	7.9	7.1	99443.3	38
1315	12.9	52.5	52.8	2670	244.0	243.6	10.2	12.3	13.6	7.6	7.1	99443.3	38
1316	12.2	51.6	51.8	2651	244.0	243.5	10.0	12.3	12.8	7.4	7.1	99443.3	38
1317	12.2	52.3	52.6	2655	244.0	243.5	10.2	12.3	12.8	7.4	7.1	99443.3	38
1318	14.8	52.4	52.7	2765	244.0	243.5	12.2	12.9	15.6	9.0	7.1	99443.3	38
1319	14.6	52.0	52.2	2767	244.0	243.5	13.8	12.8	15.3	9.3	7.1	99443.3	38
1320	13.5	53.0	53.4	2647	244.0	243.5	13.3	12.3	14.2	10.6	7.1	99443.3	39

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

Data Point #	Standardized Wind Speed (m/s)	Laeq (as measured)	LAeq (adjusted for windscreen IL)	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	14.6	52.6	52.8	2681	244.0	243.5	14.0	12.5	15.3	8.4	7.1	99443.3	39
1322	14.0	52.0	52.3	2597	244.0	243.5	13.4	12.1	14.7	8.1	7.1	99443.3	39
1323	14.3	52.1	52.4	2649	244.0	243.6	13.7	12.3	15.0	8.0	7.1	99443.5	39
1324	14.7	52.0	52.3	2660	244.0	243.6	14.3	12.4	15.4	8.8	7.1	99443.5	39
1325	15.2	53.1	53.4	2669	244.0	243.5	14.7	12.4	16.0	10.4	7.0	99438.5	39
1326	14.8	52.0	52.3	2621	244.0	243.5	14.4	12.2	15.5	10.0	7.0	99430.2	39
1327	15.1	53.6	54.0	2614	244.0	243.6	14.3	12.2	15.8	11.1	7.0	99430.2	39
1328	14.7	52.8	53.2	2550	244.0	243.5	13.5	11.9	15.4	11.3	7.0	99430.3	39
1329	14.3	52.0	52.3	2568	244.0	243.5	13.0	12.0	15.0	11.0	7.0	99430.2	39
1330	14.6	51.4	51.6	2607	244.0	243.5	13.0	12.2	15.4	8.8	7.0	99430.3	39
1331	14.1	51.6	51.9	2610	244.0	243.5	12.8	12.1	14.8	7.5	7.0	99437.9	39

Table E.02 Measurement data - Background

Project: North Kent Wind Farm - IEC 61400- 11 Edition 3.0 - Turbine T3

Report ID: 17283.03.T3.RP3

Created on: 1/27/2021

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

Data Point #	Standardized Wind Speed (m/s)	Laeq (as measured)	LAeq (adjusted for windscreen IL)	Rotor RPM	10m Anemometer Wind Speed (m/s)	Air Temperature (-C)	Pressure (Pa)	Relative Humidity (%)
1	5.9	35.2	35.4	0.3	5.0	1	89014.5	80
2	5.6	36.8	36.9	0.4	4.8	1	89014.6	80
3	6.7	35.8	35.9	0.3	5.7	1	89014.6	80
4	6.4	36.5	36.7	0.4	5.5	1	89014.6	80
5	4.9	38.1	38.4	0.4	4.2	1	89100.1	80
6	5.5	34.1	34.4	0.4	4.7	1	89619.2	80
7	6.0	33.0	33.2	0.3	5.1	1	89619.3	80
8	7.0	36.3	36.6	0.3	6.0	1	89619.4	79
9	7.3	36.1	36.4	0.2	6.2	1	89619.4	79
10	7.6	38.0	38.2	0.3	6.4	1	89619.3	74
11	6.6	35.8	36.0	0.5	5.6	1	89546.0	78
12	7.5	35.2	35.3	0.3	6.4	1	89067.3	80
13	6.4	31.7	31.9	0.2	5.5	1	89067.3	80
14	8.1	33.4	33.5	0.3	6.9	1	89067.3	80
15	8.3	33.6	33.8	0.3	7.1	1	89067.4	80
16	7.9	34.1	34.3	0.3	6.7	1	89067.3	80
17	8.1	35.7	36.0	0.5	6.9	1	88961.4	80
18	7.4	36.1	36.4	0.4	6.3	1	88264.3	80
19	7.3	38.0	38.2	0.3	6.3	1	88264.3	80
20	6.4	39.5	39.7	0.2	5.4	1	88264.3	80
21	6.7	35.6	35.8	0.3	5.7	1	88264.4	80
22	8.1	37.5	37.7	0.3	6.9	1	88264.4	80
23	7.6	37.3	37.5	0.3	6.4	1	88322.3	80
24	9.3	38.1	38.2	0.3	7.9	1	88673.2	80
25	8.9	37.3	37.5	0.2	7.6	1	88673.2	80
26	7.7	36.7	37.0	0.2	6.6	1	88673.2	80
27	6.9	35.2	35.4	0.2	5.8	1	88673.2	80
28	8.6	35.8	36.0	0.3	7.3	1	88673.2	80
29	8.6	33.0	33.2	0.3	7.4	1	88652.2	74
30	8.1	34.9	35.2	0.4	6.9	1	88513.9	78
31	7.0	32.8	33.1	0.5	6.0	1	88513.8	77
32	6.7	33.4	33.7	0.3	5.7	1	88513.8	77
33	6.8	32.6	32.9	0.2	5.8	1	88513.7	76
34	7.3	32.7	32.9	0.3	6.2	1	88513.8	79
35	8.1	32.3	32.5	0.3	6.9	1	88538.5	80
36	6.4	33.5	33.7	0.3	5.4	1	88619.8	80
37	6.9	32.3	32.5	0.3	5.8	1	88620.0	80
38	6.5	31.4	31.6	0.3	5.6	1	88619.9	80
39	6.4	32.0	32.2	0.4	5.4	1	88620.0	80
40	6.1	32.6	32.7	0.4	5.2	1	88620.0	80
41	6.4	31.7	31.9	0.3	5.4	1	88741.3	80
42	6.9	32.2	32.4	0.3	5.8	1	89461.2	80
43	7.3	32.1	32.3	0.3	6.2	1	89461.1	80
44	7.1	32.6	32.7	0.2	6.0	1	89461.1	80
45	7.2	34.6	34.8	0.2	6.2	1	89461.2	80
46	6.3	35.0	35.3	0.2	5.3	1	89461.2	80
47	7.9	33.7	33.9	0.3	6.7	1	89376.4	80
48	8.0	32.8	33.0	0.4	6.8	1	88817.1	80
49	6.9	33.7	33.9	0.2	5.9	1	88817.1	80
50	6.9	34.0	34.3	0.2	5.9	1	88817.1	80
51	6.4	34.1	34.3	0.1	5.5	1	88817.1	80
52	5.6	33.9	34.1	0.3	4.8	1	88817.1	80
53	5.5	33.3	33.5	0.4	4.6	1	88930.1	80
54	6.4	31.7	31.8	0.4	5.4	1	89671.8	80
55	5.9	31.9	32.1	0.4	5.0	1	89671.9	80
56	5.1	32.2	32.3	0.4	4.3	1	89671.8	80
57	5.4	31.6	31.8	0.3	4.6	1	89671.9	80
58	6.6	32.7	32.9	0.3	5.6	1	89672.0	80
59	6.3	35.0	35.3	0.3	5.4	1	89558.9	80
60	6.7	35.4	35.7	0.4	5.7	1	88817.3	80
61	6.8	34.2	34.6	0.2	5.8	1	88817.3	80
62	5.6	36.3	36.4	0.3	4.8	1	88817.4	80
63	7.0	40.8	40.9	0.4	6.0	1	88817.4	80
64	7.8	39.3	39.4	0.2	6.7	1	88817.4	80
65	6.3	36.1	36.2	0.2	5.4	1	88765.2	80
66	6.6	35.3	35.5	0.2	5.6	1	88422.3	80
67	6.6	36.9	37.1	0.3	5.6	1	88422.4	80
68	7.9	34.5	34.6	0.2	6.7	1	88422.4	80
69	8.8	34.8	35.0	0.1	7.5	1	88422.5	80
70	9.6	35.5	35.7	0.2	8.1	1	88422.5	80
71	8.8	36.6	36.8	0.3	7.5	1	88317.1	80
72	7.9	38.3	38.6	0.4	6.7	1	87621.7	80
73	7.0	37.5	37.8	0.3	6.0	1	87621.8	80
74	7.4	37.6	37.9	0.4	6.3	1	87621.8	80
75	6.8	37.8	38.0	0.5	5.8	1	87621.7	80
76	5.9	38.6	38.8	0.5	5.0	1	87621.8	80
77				0.4	4.7	1	87765.2	80
78	7.1	40.5	40.9	0.3	6.0	1	88712.5	80
79	6.7	42.0	42.4	0.3	5.7	1	88712.5	80
80	5.9	38.1	38.4	0.3	5.0	1	88712.6	80
81	7.3	38.9	39.2	0.2	6.2	1	88712.6	80
82	7.7	36.7	37.0	0.3	6.5	1	88712.5	80
83	7.9	36.7	36.9	0.3	6.8	1	88633.0	80

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

Data Point #	Standardized Wind Speed (m/s)	Laeq (as measured)	LAeq (adjusted for windscreen IL)	Rotor RPM	10m Anemometer Wind Speed (m/s)	Air Temperature (-C)	Pressure (Pa)	Relative Humidity (%)
84	6.7	36.6	36.8	0.3	5.7	1	88068.1	80
85	6.5	34.3	34.5	0.2	5.5	1	88068.2	80
86	7.4	35.5	35.7	0.2	6.3	1	88068.1	80
87	7.1	35.5	35.7	0.3	6.1	1	88068.2	80
88	6.9	35.2	35.4	0.4	5.8	1	88068.3	80
89	6.8	35.7	35.9	0.4	5.8	1	88028.4	80
90	6.4	34.5	34.6	0.3	5.4	1	87765.0	80
91	6.3	36.0	36.2	0.4	5.4	1	87765.0	80
92	6.8	37.2	37.4	0.4	5.8	1	87765.1	80
93	8.0	42.3	42.5	0.4	6.8	1	87765.1	80
94	8.7	39.5	39.8	0.4	7.4	1	87765.0	80
95	9.7	38.1	38.4	0.3	8.2	1	87765.1	80
96	9.2	36.8	37.0	0.3	7.8	1	87765.1	80
97	8.0	34.9	35.1	0.3	6.8	1	81206.2	56
98	8.1	37.9	38.2	0.3	6.9	1	92906.7	56
99	9.8	36.5	36.7	0.3	8.3	1	100107.0	56
100	10.8	36.4	36.6	0.4	9.2	1	100103.2	56
101	9.4	39.2	39.6	0.3	8.0	1	100109.0	56
102	9.2	41.2	41.7	0.2	7.8	1	100110.9	55
103	8.2	35.0	35.2	0.3	7.0	1	100114.8	55
104	7.9	37.2	37.5	0.3	6.7	1	100115.9	55
105	8.1	37.7	38.0	0.3	6.9	1	100115.5	55
106	8.3	34.8	35.0	0.3	7.1	1	100115.3	55
107	8.2	34.3	34.5	0.2	6.9	1	100116.1	55
108	7.5	33.7	34.0	0.2	6.3	1	100119.0	55
109	6.7	32.7	32.9	0.3	5.7	1	100121.1	55
110	7.1	34.7	34.8	0.2	6.0	1	100120.5	55
111	6.3	33.0	33.2	0.2	5.4	1	100122.0	55
112	5.9	33.0	33.2	0.2	5.0	1	100122.9	55
113	6.4	35.3	35.5	0.2	5.4	1	100122.2	55
114	6.9	34.8	35.1	0.2	5.9	1	100119.7	56
115	7.1	32.9	33.1	0.2	6.1	1	100119.6	56
116	6.7	31.9	32.0	0.2	5.7	1	100121.1	56
117	7.2	32.3	32.5	0.3	6.1	1	100119.9	56
118	8.1	31.5	31.7	0.3	6.9	1	100117.8	56
119	7.9	31.5	31.7	0.3	6.7	1	100118.8	56
120	7.6	32.0	32.1	0.3	6.5	1	100120.6	56
121	6.9	33.1	33.3	0.3	5.9	1	100122.2	56
122	8.2	33.7	33.9	0.3	7.0	1	100119.7	56
123	7.6	34.0	34.2	0.4	6.5	1	100121.1	56
124	7.6	34.7	34.9	0.4	6.5	1	100121.2	56
125	8.9	37.6	37.8	0.4	7.6	1	100118.1	56
126	8.4	36.7	37.0	0.3	7.2	1	100120.3	56
127	8.3	33.2	33.4	0.3	7.1	1	100120.8	56
128	7.0	32.8	33.0	0.3	6.0	1	100123.1	56
129	7.8	35.3	35.6	0.4	6.7	1	100122.1	56
130	6.7	33.6	33.8	0.5	5.7	1	100123.9	56
131	8.5	35.0	35.3	0.3	7.3	1	100120.8	56
132	7.3	34.1	34.2	0.3	6.2	1	100122.6	57
133	7.3	33.1	33.2	0.3	6.2	1	100122.8	57
134	7.7	33.0	33.1	0.3	6.5	1	100122.4	57
135	6.7	36.5	36.8	0.4	5.7	1	100123.8	57
136	6.9	34.3	34.5	0.5	5.9	1	100123.7	57
137	6.5	35.2	35.4	0.4	5.5	1	100124.2	57
138	7.0	34.6	34.8	0.4	6.0	1	100123.4	57
139	7.5	33.5	33.7	0.5	6.4	1	100122.8	57
140	6.2	33.5	33.6	0.4	5.3	1	100124.6	57
141	5.3	33.5	33.6	0.4	4.5	1	100125.5	57
142	5.8	35.8	35.9	0.4	4.9	1	100125.1	57
143	6.6	37.4	37.7	0.4	5.6	1	100124.1	57
144	7.3	40.7	41.0	0.5	6.2	1	100122.4	58
145	8.4	38.3	38.5	0.5	7.1	1	100120.3	58
146	8.3	35.8	35.9	0.5	7.1	1	100120.7	58
147	8.6	35.5	35.7	0.4	7.3	1	100120.1	58
148	9.1	36.5	36.7	0.4	7.8	1	100118.8	58
149	9.1	37.3	37.6	0.6	7.7	1	100119.5	58
150	6.7	37.9	38.2	0.5	5.7	1	100125.8	55
151	7.2	39.4	39.8	0.4	6.1	1	100125.5	55
152	7.2	36.0	36.3	0.3	6.1	1	100125.5	55
153	6.8	36.0	36.2	0.3	5.8	1	100125.9	55
154	8.2	35.0	35.2	0.5	7.0	1	100124.9	55
155	7.9	35.4	35.7	0.4	6.7	1	100125.3	55
156	7.2	37.0	37.3	0.4	6.1	1	100125.6	56
157	9.6	42.1	42.6	0.3	8.2	1	100122.8	56
158	10.4	39.8	40.2	0.4	8.9	1	100121.6	56
159	9.3	36.1	36.3	0.4	7.9	1	100123.6	56
160	9.1	36.2	36.5	0.4	7.7	1	100124.1	56
161	9.5	36.2	36.4	0.3	8.1	1	100122.2	55
162	9.7	35.8	36.0	0.3	8.2	1	100113.0	54
163	10.0	36.2	36.4	0.4	8.5	1	100113.0	54
164	8.8	37.9	38.2	0.5	7.5	1	100113.4	54
165	7.4	36.3	36.6	0.4	6.3	1	100113.9	54
166	7.1	37.2	37.5	0.5	6.1	1	100114.1	54

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

Data Point #	Standardized Wind Speed (m/s)	Laeq (as measured)	LAeq (adjusted for windscreen IL)	Rotor RPM	10m Anemometer Wind Speed (m/s)	Air Temperature (-C)	Pressure (Pa)	Relative Humidity (%)
167	6.7	35.5	35.7	0.5	5.7	1	100114.3	54
168	5.5	36.4	36.6	0.5	4.6	1	100114.3	55
169	5.4	36.5	36.8	0.5	4.6	1	100114.4	55
170	6.4	35.5	35.7	0.4	5.4	1	100114.0	55
171	9.2	36.5	36.7	0.3	7.8	1	100113.0	55
172	8.7	35.4	35.5	0.3	7.4	1	100113.3	55
173	9.7	36.7	37.0	0.4	8.3	1	100114.1	55
174	9.1	38.2	38.5	0.5	7.7	1	100113.2	55
175	7.8	39.6	40.0	0.3	6.6	1	100113.8	55
176	10.2	36.3	36.6	0.4	8.7	1	100113.0	55
177	9.6	36.0	36.2	0.4	8.2	1	100113.3	55
178	9.0	38.0	38.4	0.5	7.6	1	100113.7	55
179	8.5	37.8	38.1	0.5	7.2	1	100116.9	55
180	8.0	38.2	38.6	0.4	6.8	1	100127.0	54
181	8.1	36.8	37.0	0.3	6.9	1	100127.0	54
182	6.8	34.6	34.8	0.3	5.7	1	100127.6	54
183	8.9	44.5	44.9	0.4	7.5	1	100104.3	55
184	7.8	36.4	36.7	0.4	6.6	1	100104.5	54
185	7.8	34.3	34.5	0.3	6.6	1	100104.5	54
186	7.7	35.7	35.9	0.3	6.6	1	100104.6	54
187	8.6	34.6	34.9	0.3	7.3	1	100104.5	54
188	7.5	38.2	38.6	0.3	6.3	1	100104.8	54
189	7.7	37.5	37.9	0.3	6.6	1	100104.6	54
190	7.1	34.7	34.9	0.3	6.0	1	100104.8	55
191	7.5	35.2	35.5	0.2	6.3	1	100104.8	55
192	6.9	34.6	34.8	0.3	5.9	1	100104.8	55
193	7.4	36.7	36.8	0.4	6.3	1	100104.7	55
194	6.6	37.0	37.1	0.3	5.6	1	100104.8	55
195	7.7	37.8	37.8	0.3	6.5	1	100104.6	55
196	7.0	40.9	41.0	0.3	6.0	1	100104.7	56
197	8.1	39.8	39.8	0.2	6.9	1	100104.6	56
198	8.3	40.3	40.4	0.2	7.1	1	100104.5	56
199	8.5	40.1	40.2	0.2	7.2	1	100104.4	56
200	8.1	39.7	39.8	0.3	6.9	1	100104.5	56
201	8.5	39.9	40.0	0.3	7.3	1	100104.6	55
202	7.2	37.1	37.2	0.4	6.1	1	100104.7	55
203	6.9	37.0	37.2	0.3	5.8	1	100104.7	55
204	6.6	36.2	36.3	0.3	5.6	1	100104.9	55
205	7.2	35.9	36.0	0.3	6.1	1	100104.7	55
206	6.6	34.4	34.6	0.3	5.6	1	100104.9	55
207	7.5	33.7	33.8	0.3	6.4	1	100104.5	56
208	8.5	35.1	35.3	0.3	7.2	1	100104.3	57
209	8.6	33.4	33.5	0.3	7.3	1	100104.1	57
210	8.2	41.5	41.9	0.3	7.0	1	100104.1	57
211	7.8	45.5	45.9	0.2	6.7	1	100104.4	57
212	8.4	40.9	41.3	0.3	7.2	1	100104.3	57
213	7.7	36.0	36.2	0.5	6.5	1	100104.5	55
214	8.3	33.6	33.8	0.5	7.1	1	100104.4	55
215	8.0	33.9	34.1	0.4	6.8	1	100104.3	55
216	8.8	34.2	34.4	0.3	7.5	1	100104.0	55
217	8.4	33.4	33.6	0.3	7.1	1	100104.0	55
218	7.0	35.2	35.4	0.4	6.0	1	100103.9	55
219	6.2	35.0	35.3	0.4	5.3	1	100104.9	55
220	6.9	36.0	36.3	0.3	5.9	1	100102.8	55
221	7.6	34.6	34.8	0.3	6.5	1	100101.7	55
222	8.2	35.1	35.4	0.3	7.0	1	100099.1	55
223	8.8	37.3	37.6	0.4	7.5	1	100089.9	55
224	7.6	34.8	35.0	0.4	6.5	1	99945.4	55
225	8.1	34.1	34.3	0.3	6.9	1	98030.7	54
226	8.1	35.1	35.4	0.3	6.9	1	97988.1	54
227	8.0	36.1	36.3	0.3	6.8	1	98385.1	54
228	8.3	34.8	35.0	0.3	7.1	1	98399.0	54
229	9.3	40.4	40.8	0.3	7.9	1	99085.0	54
230	7.6	38.3	38.7	0.4	6.4	1	99648.9	54
231	7.9	38.9	39.3	0.3	6.8	1	99719.6	53
232	7.8	37.8	38.1	0.2	6.6	1	99962.1	53
233	9.2	40.9	41.2	0.1	7.9	1	100053.0	53
234	7.9	40.4	40.7	0.2	6.7	1	100061.7	53
235	8.1	44.5	45.0	0.2	6.9	1	100071.0	53
236	9.3	39.1	39.4	0.2	7.9	1	100076.7	53
237	8.1	35.7	36.0	0.2	6.9	1	100078.0	53
238	7.8	34.6	34.8	0.3	6.6	1	100082.8	53
239	7.7	35.4	35.6	0.2	6.5	1	100085.3	53
240	7.7	35.2	35.4	0.2	6.5	1	100086.3	53
241	7.3	36.5	36.7	0.3	6.2	1	100085.1	53
242	7.3	35.2	35.4	0.2	6.2	1	100079.2	53
243	10.0	35.8	36.0	0.2	8.5	1	100056.9	53
244	9.6	37.6	37.8	0.3	8.2	1	99466.4	54
245	9.2	38.5	38.7	0.3	7.9	1	100083.7	54
246	9.6	37.6	37.8	0.3	8.2	1	100092.6	54
247	9.7	35.8	36.0	0.4	8.3	1	100093.8	54
248	9.9	34.8	35.0	0.5	8.4	1	100090.1	54
249	9.2	37.7	38.0	0.4	7.8	1	100080.5	53

Table E.02 Measurement data - Background

Project: North Kent Wind Farm - IEC 61400- 11 Edition 3.0 - Turbine T3

Report ID: 17283.03.T3.RP3

Created on: 1/27/2021

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

Data Point #	Standardized Wind Speed (m/s)	Laeq (as measured)	LAeq (adjusted for windscreen IL)	Rotor RPM	10m Anemometer Wind Speed (m/s)	Air Temperature (-C)	Pressure (Pa)	Relative Humidity (%)
250	8.4	37.1	37.4	0.2	7.1	1	100005.3	52
251	9.7	38.0	38.3	0.2	8.2	1	99476.4	52
252	9.7	37.8	38.0	0.3	8.3	1	98058.6	52
253	10.0	35.0	35.1	0.4	8.5	1	100043.2	52
254	9.7	35.6	35.7	0.3	8.2	1	99942.2	52
255	8.7	34.4	34.5	0.2	7.4	1	99745.0	53
256	9.3	34.9	35.1	0.2	7.9	1	99937.6	53
257	8.9	34.3	34.4	0.2	7.6	1	100071.3	53
258	8.8	37.0	37.3	0.2	7.5	1	99954.3	53
259	7.9	35.7	36.0	0.2	6.7	1	100059.5	53
260	8.5	34.5	34.6	0.2	7.2	1	99381.8	53
261	7.9	34.0	34.2	0.3	6.7	1	100065.5	53
262	9.2	34.1	34.3	0.2	7.8	1	99685.4	52
263	8.8	36.3	36.6	0.2	7.5	1	99842.7	52
264	9.2	35.4	35.6	0.2	7.8	1	99478.5	52
265	6.9	34.1	34.3	0.3	5.8	1	100073.7	52
266	7.7	34.9	35.1	0.3	6.5	1	100094.9	52
267	7.1	35.5	35.7	0.2	6.0	1	100102.1	53
268	6.8	36.1	36.3	0.4	5.8	1	100103.4	53
269	8.3	35.6	35.8	0.6	7.1	1	100103.5	53
270	8.2	35.4	35.6	0.6	7.0	1	100103.2	53
271	7.6	35.5	35.7	0.5	6.5	1	100102.8	53
272	7.7	36.6	36.9	0.5	6.6	1	100102.2	53
273	8.0	38.3	38.7	0.5	6.8	1	100101.8	54
274	8.0	36.7	37.0	0.3	6.8	1	100101.4	54
275	8.8	36.2	36.5	0.3	7.4	1	100101.2	54
276	9.2	36.7	36.9	0.3	7.9	1	100101.5	54
277	7.4	38.2	38.5	0.3	6.3	1	100102.8	54
278	8.1	36.2	36.3	0.3	6.9	1	100103.4	54
279	8.5	34.7	34.8	0.2	7.2	1	100103.9	54
280	7.3	35.6	35.8	0.3	6.2	1	100104.0	54
281	7.6	44.1	44.6	0.3	6.4	1	100103.9	54
282	7.2	41.1	41.5	0.2	6.1	1	100103.7	54
283				0.4	6.0	1	100103.2	54
284	6.8	42.6	43.0	0.4	5.8	1	100102.5	54
285	6.6	35.8	35.9	0.3	5.6	1	100101.1	54
286	6.9	36.3	36.5	0.2	5.9	1	100099.0	54
287	7.5	36.0	36.1	0.2	6.4	1	100095.4	54
288	7.5	34.5	34.6	0.2	6.4	1	100084.5	54
289	8.1	34.1	34.2	0.2	6.9	1	100038.1	54
290	7.3	33.4	33.6	0.3	6.2	1	99099.9	54
291	7.3	34.1	34.2	0.3	6.2	1	98877.4	55
292	7.0	34.3	34.4	0.3	5.9	1	98630.1	55
293	9.5	35.5	35.7	0.3	8.1	1	99251.9	55
294	10.8	36.3	36.4	0.4	9.2	1	100040.1	55
295	9.9	33.0	33.2	0.3	8.4	1	99720.7	55
296	8.2	37.0	37.1	0.5	7.0	1	99331.1	55
297	9.8	38.6	39.0	0.4	8.4	2	100004.2	54
298	10.7	40.2	40.6	0.4	9.1	2	100059.1	54
299	9.6	39.0	39.3	0.4	8.2	2	100060.3	54
300	9.1	41.9	42.2	0.4	7.7	2	100056.1	54
301	9.8	45.6	46.0	0.3	8.3	2	99880.6	54
302	8.6	44.2	44.5	0.1	7.3	2	99487.9	54
303	9.3	37.8	38.1	0.2	7.9	2	100052.6	52
304	7.7	35.2	35.3	0.2	6.6	2	100058.6	52
305	6.4	37.7	38.0	0.4	5.5	2	98921.9	52
306	6.6	37.2	37.4	0.6	5.6	2	99557.0	52
307	7.1	39.7	39.8	0.7	6.0	2	98512.4	52
308	8.1	37.9	38.0	0.6	6.9	2	99208.1	52
309	8.4	37.6	37.8	0.6	7.2	2	100096.2	53
310	8.8	38.0	38.2	0.4	7.5	2	100099.3	53
311	8.6	37.0	37.2	0.3	7.3	2	100099.9	53
312	7.9	38.8	39.1	0.4	6.7	2	100100.2	53
313	7.3	37.1	37.3	0.4	6.2	2	100100.0	53
314	7.0	36.5	36.8	0.3	6.0	2	100100.0	53
315	6.9	34.4	34.5	0.5	5.9	2	100099.8	54
316	6.7	34.2	34.4	0.5	5.7	2	100099.8	54
317	8.1	36.6	36.9	0.5	6.9	2	100099.4	54
318	8.0	39.7	40.1	0.5	6.8	2	100098.4	54
319	7.6	39.9	40.2	0.4	6.5	2	100096.9	54
320	7.4	39.0	39.3	0.4	6.3	2	100094.5	54
321	6.8	36.5	36.7	0.3	5.8	2	100073.3	53
322	5.8	35.9	36.1	0.2	4.9	2	100040.8	53
323	6.9	34.9	35.1	0.3	5.9	2	98994.2	53
324	6.5	36.1	36.4	0.4	5.5	2	99292.4	53
325	6.5	37.6	37.9	0.3	5.5	2	98726.2	53
326	6.6	37.3	37.6	0.4	5.6	2	100052.9	53
327	7.0	39.0	39.3	0.4	6.0	2	100060.3	54
328	10.4	41.7	42.0	0.2	8.8	4	99832.7	40
329	10.4	45.6	46.0	0.2	8.8	4	99832.6	40
330	10.6	39.5	39.8	0.2	9.0	4	99832.7	40
331	8.9	40.6	40.9	0.4	7.6	4	99832.8	40
332	8.2	38.7	38.9	0.4	7.0	4	99832.7	40

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

Data Point #	Standardized Wind Speed (m/s)	Laeq (as measured)	LAeq (adjusted for windscreen IL)	Rotor RPM	10m Anemometer Wind Speed (m/s)	Air Temperature (-C)	Pressure (Pa)	Relative Humidity (%)
333	7.9	38.4	38.6	0.4	6.7	4	99822.0	41
334	9.3	38.2	38.4	0.5	7.9	4	99820.0	41
335	9.6	38.0	38.2	0.7	8.2	4	99820.1	41
336	9.3	39.0	39.1	0.6	7.9	4	99820.2	41
337	8.6	37.2	37.3	0.7	7.3	4	99820.1	41
338	8.6	40.5	40.8	0.5	7.3	4	99820.0	41
339	9.6	39.5	39.7	0.4	8.2	4	99820.2	43
340	8.8	38.8	39.1	0.5	7.5	4	99820.2	43
341	8.2	40.9	41.2	0.7	7.0	4	99820.0	43
342	9.6	39.6	39.9	0.5	8.1	4	99820.3	43
343	10.1	41.0	41.3	0.5	8.6	4	99820.2	43
344	8.7	44.8	45.2	0.6	7.4	4	99820.3	43
345	9.9	41.3	41.6	0.5	8.4	4	99820.2	44
346	11.2	45.6	45.9	0.4	9.5	4	99820.3	44
347	11.7	43.9	44.1	0.5	10.0	4	99820.3	44
348	11.8	48.1	48.4	0.5	10.0	4	99820.2	44
349	13.2	47.7	47.9	0.4	11.2	4	99820.2	44
350	11.8	46.6	46.9	0.4	10.0	4	99820.2	44
351	12.7	44.2	44.5	0.4	10.8	4	99808.4	41
352	11.5	39.2	39.4	0.2	9.8	4	99806.3	41
353	8.9	40.3	40.6	0.3	7.6	4	99806.2	41
354	7.3	38.3	38.5	0.2	6.2	4	99806.3	41
355	7.6	41.8	42.1	0.4	6.5	4	99806.3	41
356	8.0	41.3	41.6	0.5	6.8	4	99806.2	41
357	8.3	39.5	39.8	0.4	7.0	4	99806.3	43
358	7.4	38.3	38.5	0.4	6.3	4	99806.3	43
359	9.0	40.5	40.8	0.5	7.7	4	99806.4	43
360	8.5	38.7	38.9	0.5	7.2	4	99806.3	43
361	10.0	38.8	39.0	0.3	8.5	4	99806.4	43
362	10.9	38.2	38.4	0.3	9.3	4	99806.4	43
363	10.5	38.3	38.5	0.3	8.9	4	99806.4	43
364	9.5	38.1	38.3	0.4	8.1	4	99806.2	42
365	8.8	46.3	46.7	0.6	7.4	4	99806.3	42
366	9.1	46.4	46.8	0.6	7.7	4	99806.4	42
367	7.9	44.2	44.6	0.4	6.7	4	99806.3	42
368	8.7	41.1	41.4	0.3	7.4	4	99806.3	42
369	7.5	40.4	40.7	0.3	6.4	4	99806.3	44
370	8.8	42.1	42.5	0.6	7.5	4	99806.4	44
371	9.0	43.4	43.7	0.6	7.6	4	99806.3	44
372	10.6	42.3	42.6	0.6	9.0	4	99806.3	44
373	10.5	42.1	42.3	0.7	9.0	4	99806.4	44
374	10.4	40.4	40.6	0.7	8.8	4	99806.3	44
375	8.7	45.0	45.4	0.6	7.4	5	99806.4	43
376	7.4	40.9	41.2	0.5	6.3	5	99806.4	43
377	9.9	39.6	39.8	0.4	8.4	5	99806.4	43
378	9.7	40.8	41.1	0.5	8.2	5	99806.3	43
379	10.3	39.5	39.8	0.4	8.8	5	99806.3	43
380	9.8	42.8	43.2	0.5	8.4	5	99806.2	43
381	11.2	38.6	38.8	0.4	9.6	5	99806.3	43
382	10.4	39.1	39.3	0.4	8.9	5	99806.4	43
383	9.5	44.8	45.2	0.5	8.1	5	99806.3	43
384	8.8	43.0	43.4	0.5	7.5	5	99806.3	43
385	9.6	40.9	41.2	0.3	8.2	5	99806.2	43
386	9.0	36.9	37.1	0.4	7.7	5	99806.3	43
387	8.7	35.9	36.1	0.5	7.4	5	99806.4	42
388	8.9	39.0	39.3	0.5	7.5	5	99806.3	42
389	10.1	39.6	39.9	0.4	8.6	5	99806.3	42
390	10.4	47.0	47.5	0.4	8.8	5	99806.4	42
391				0.5	8.7	5	99806.5	42
392	10.1	45.1	45.5	0.4	8.6	5	99806.5	42
393	9.3	42.8	43.1	0.3	7.9	5	99796.1	41
394	9.8	37.7	37.9	0.4	8.3	5	99792.4	41
395	10.2	40.3	40.6	0.4	8.7	5	99792.5	41
396	9.5	44.0	44.4	0.4	8.1	5	99792.5	41
397	11.6	40.2	40.5	0.4	9.9	5	99792.5	41
398	11.9	44.2	44.6	0.4	10.2	5	99792.5	41
399	11.9	39.7	40.0	0.4	10.1	5	99792.5	40
400	10.5	46.5	46.9	0.4	8.9	5	99792.5	40
401	8.9	45.5	45.9	0.4	7.6	5	99792.6	40
402	8.2	40.4	40.7	0.4	6.9	5	99792.5	40
403	10.9	38.9	39.2	0.4	9.3	5	99792.4	40
404	9.1	41.0	41.4	0.4	7.7	5	99792.5	40
405	9.5	42.6	42.9	0.4	8.1	5	99792.5	40
406	9.7	39.5	39.7	0.4	8.2	5	99792.5	40
407	9.6	37.2	37.4	0.5	8.2	5	99792.5	40
408	10.4	39.7	40.0	0.5	8.8	5	99792.4	40
409	11.8	40.8	41.1	0.4	10.1	5	99792.5	40
410	9.6	39.5	39.8	0.4	8.2	5	99792.5	40
411	9.2	39.5	39.8	0.4	7.8	5	99792.6	40
412	9.1	45.0	45.4	0.5	7.8	5	99792.6	40
413	11.8	44.0	44.4	0.4	10.0	5	99792.5	40
414	9.7	43.2	43.6	0.4	8.3	5	99792.5	40
415	12.1	41.2	41.5	0.6	10.3	5	99792.3	40

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

Data Point #	Standardized Wind Speed (m/s)	Laeq (as measured)	LAeq (adjusted for windscreen IL)	Rotor RPM	10m Anemometer Wind Speed (m/s)	Air Temperature (-C)	Pressure (Pa)	Relative Humidity (%)
416	13.2	43.9	44.2	0.4	11.2	5	99790.3	40
417	13.6	40.6	40.9	0.3	11.6	5	99779.4	41
418	13.6	39.8	40.0	0.5	11.6	5	99779.5	41
419	11.6	40.1	40.4	0.4	9.8	5	99779.6	41
420	11.8	41.2	41.5	0.5	10.1	5	99779.6	41
421	11.1	41.8	42.1	0.6	9.5	5	99779.6	41
422	9.9	46.4	46.8	0.6	8.5	5	99781.0	41
423	9.0	45.3	45.7	0.5	7.7	5	99779.6	40
424	10.5	47.0	47.5	0.5	9.0	5	99779.6	40
425	8.8	41.5	41.7	0.6	7.5	5	99779.6	40
426	11.4	45.8	46.2	0.5	9.7	5	99779.6	40
427	11.4	45.3	45.7	0.4	9.7	5	99779.6	40
428	12.3	39.7	39.9	0.5	10.5	5	99779.6	40
429	11.2	42.4	42.7	0.5	9.6	4	99779.5	40
430	11.0	43.0	43.3	0.7	9.3	4	99779.5	40
431	11.8	39.9	40.2	0.5	10.0	4	99779.5	40
432	12.8	46.3	46.7	0.5	10.9	4	99779.5	40
433	11.4	47.3	47.7	0.7	9.7	4	99779.5	40
434	9.5	43.3	43.7	0.5	8.1	4	99779.4	41
435	9.9	43.0	43.4	0.6	8.5	4	99779.5	41
436	10.1	43.9	44.3	0.7	8.6	4	99779.5	41
437	10.1	48.5	48.9	0.6	8.6	4	99779.6	41
438	8.9	45.0	45.4	0.5	7.5	4	99779.5	41
439	11.3	49.2	49.6	0.6	9.6	4	99779.4	41
440	12.5	47.3	47.7	0.6	10.6	4	99778.8	41
441	10.3	46.7	47.1	0.5	8.8	4	99766.0	42
442	8.6	46.2	46.6	0.5	7.4	4	99765.9	42
443	9.1	43.6	44.0	0.6	7.8	4	99766.0	42
444	11.9	41.5	41.8	0.5	10.1	4	99765.9	42
445	11.5	44.7	45.1	0.4	9.8	4	99765.9	42
446	9.8	40.6	41.0	0.5	8.4	5	99769.2	42
447	10.7	40.8	41.2	0.5	9.1	5	99779.4	41
448	9.8	38.5	38.8	0.5	8.4	5	99779.3	41
449	10.2	40.6	41.0	0.3	8.7	5	99779.3	41
450	8.5	40.6	41.0	0.3	7.3	5	99779.1	41
451	8.8	38.3	38.6	0.3	7.5	5	99779.1	41
452	7.9	37.8	38.1	0.4	6.7	5	99779.1	42
453	7.8	38.9	39.2	0.3	6.6	4	99779.1	42
454	10.7	36.5	36.8	0.3	9.1	4	99779.1	42
455	10.9	36.1	36.3	0.3	9.3	4	99779.1	42
456	10.5	35.9	36.1	0.3	9.0	4	99779.1	42
457	10.1	36.8	37.0	0.4	8.6	4	99779.2	42
458	9.0	37.0	37.2	0.3	7.6	4	99780.6	42
459	10.1	36.1	36.3	0.3	8.6	4	99779.2	43
460	8.5	36.0	36.1	0.4	7.2	4	99779.2	43
461	9.2	36.9	37.2	0.4	7.8	4	99779.3	43
462	10.2	35.0	35.1	0.4	8.6	4	99779.3	43
463	8.5	36.4	36.6	0.5	7.2	4	99779.3	43
464	9.2	36.2	36.4	0.4	7.8	4	99779.2	43
465	10.8	44.3	44.7	0.4	9.2	4	99779.3	44
466	9.7	43.3	43.6	0.5	8.2	4	99779.2	44
467	9.6	35.0	35.1	0.5	8.2	4	99779.2	44
468	8.1	37.4	37.6	0.4	6.9	4	99779.2	44
469	7.4	38.4	38.6	0.4	6.3	4	99779.2	44
470	7.1	35.2	35.3	0.5	6.0	4	99779.1	44
471	7.7	36.5	36.7	0.5	6.5	4	99779.1	44
472	9.3	37.7	37.9	0.5	7.9	4	99779.1	44
473	8.2	41.3	41.7	0.8	7.0	4	99779.1	44
474	7.6	38.4	38.6	0.7	6.5	4	99779.1	44
475	8.8	37.3	37.6	0.4	7.5	4	99779.1	44
476	8.8	38.0	38.2	0.4	7.5	5	99779.1	45
477	9.1	43.1	43.5	0.5	7.8	5	99779.2	46
478	10.5	44.2	44.6	0.5	9.0	5	99779.1	46
479	10.3	41.5	41.8	0.4	8.7	5	99779.1	46
480	9.2	40.7	40.9	0.4	7.8	5	99779.2	46
481	10.9	42.1	42.4	0.4	9.3	5	99779.2	46
482	9.2	42.0	42.4	0.4	7.9	5	99779.2	44
483	9.5	38.2	38.4	0.5	8.0	5	99779.1	43
484	9.8	41.3	41.6	0.5	8.4	5	99779.1	43
485	11.6	43.6	43.9	0.5	9.8	5	99779.3	43
486	10.6	40.3	40.6	0.5	9.0	5	99779.1	43
487	10.1	44.6	45.0	0.5	8.6	5	99779.3	43
488	10.3	45.1	45.5	0.6	8.8	5	99773.4	42
489	10.6	48.4	48.8	0.5	9.0	5	99766.0	41
490	9.2	44.0	44.4	0.5	7.9	5	99766.0	41
491	10.6	46.6	47.1	0.6	9.1	5	99765.9	41
492	12.5	46.5	46.9	0.6	10.6	5	99766.0	41
493	11.2	46.2	46.7	0.5	9.5	5	99765.9	41
494	11.2	45.3	45.7	0.4	9.6	5	99765.8	41
495	10.6	47.9	48.4	0.4	9.1	5	99765.5	41
496	11.2	46.9	47.3	0.6	9.5	5	99765.3	41
497	11.4	39.4	39.6	0.5	9.7	5	99764.6	41
498	11.1	48.7	49.2	0.4	9.4	5	99763.6	41

Table E.02 Measurement data - Background

Project: North Kent Wind Farm - IEC 61400- 11 Edition 3.0 - Turbine T3

Report ID: 17283.03.T3.RP3

Created on: 1/27/2021

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

Data Point #	Standardized Wind Speed (m/s)	Laeq (as measured)	LAeq (adjusted for windscreen IL)	Rotor RPM	10m Anemometer Wind Speed (m/s)	Air Temperature (-C)	Pressure (Pa)	Relative Humidity (%)
499	10.5	46.9	47.3	0.6	8.9	5	99760.0	41
500	10.4	39.4	39.7	0.8	8.9	5	99754.2	41
501	11.4	40.2	40.5	0.6	9.7	5	99755.3	42
502	10.2	37.6	37.9	0.5	8.6	5	99757.5	42
503	10.6	36.8	37.1	0.4	9.0	5	99761.4	42
504	12.2	35.7	35.9	0.4	10.4	5	99764.8	42
505	10.8	34.9	35.1	0.4	9.2	5	99765.7	42
506	9.6	36.0	36.2	0.4	8.2	5	99765.9	41
507	12.3	35.2	35.3	0.4	10.5	5	99765.8	41
508	11.7	39.2	39.5	0.5	9.9	5	99765.8	41
509	11.3	37.5	37.8	0.6	9.6	5	99766.0	41
510	10.4	37.6	37.8	0.7	8.8	5	99766.1	41
511	9.9	45.7	46.2	0.5	8.4	5	99766.2	41
512	10.2	46.7	47.1	0.5	8.7	5	99766.2	42
513	10.3	43.2	43.5	0.5	8.8	5	99766.1	43
514	9.3	41.0	41.3	0.5	7.9	5	99766.0	43
515	9.3	41.5	41.8	0.5	7.9	5	99765.9	43
516	9.0	42.4	42.8	0.3	7.7	5	99765.8	43
517	7.1	38.6	38.8	0.4	6.0	5	99765.5	43
518	7.0	44.5	44.9	0.4	5.9	5	99765.4	44
519	8.8	42.8	43.2	0.4	7.5	5	99765.2	45
520	10.4	38.2	38.4	0.4	8.9	5	99765.8	45
521	8.3	41.5	41.8	0.5	7.1	5	99766.1	45
522	9.5	39.0	39.2	0.6	8.1	5	99766.1	45
523	10.5	44.3	44.8	0.5	8.9	5	99766.1	45
524	10.9	43.1	43.5	0.6	9.2	5	99766.1	44
525	9.7	41.1	41.4	0.7	8.2	5	99766.1	43
526	9.9	46.1	46.6	0.6	8.4	5	99766.2	43
527	9.1	43.0	43.2	0.5	7.8	5	99766.4	43
528	8.6	36.4	36.6	0.3	7.3	5	99766.4	43
529	9.8	40.6	40.9	0.3	8.4	5	99766.3	43
530	9.2	38.3	38.5	0.4	7.8	5	99757.1	44
531	7.8	42.7	43.1	0.4	6.7	5	99753.8	44
532	6.6	38.9	39.2	0.5	5.6	5	99753.7	44
533	6.4	39.6	39.9	0.6	5.4	5	99753.7	44
534	7.4	38.8	39.1	0.5	6.3	5	99753.8	44
535	8.5	37.8	37.9	0.6	7.2	6	99636.3	44
536	7.6	41.1	41.4	0.4	6.5	6	99642.1	45
537	7.4	42.6	43.0	0.4	6.3	6	99649.4	45
538	8.2	38.2	38.4	0.4	7.0	6	99649.4	45
539	7.8	44.6	45.0	0.5	6.6	6	99649.4	45
540	8.1	44.8	45.2	0.5	6.9	6	99649.4	45
541				0.6	5.8	6	99649.4	45
542	8.1	38.0	38.2	0.5	6.9	6	99643.4	45
543	6.3	37.4	37.6	0.5	5.4	6	99636.2	46
544	7.5	44.4	44.8	0.5	6.4	6	99636.2	46
545	8.9	43.5	44.0	0.4	7.6	6	99636.3	46
546	9.2	43.7	44.1	0.5	7.8	6	99636.1	46
547	9.1	37.7	38.0	0.5	7.8	6	99636.3	46
548	8.8	43.5	43.8	0.5	7.5	6	99636.4	45
549	8.6	46.4	46.8	0.4	7.4	6	99636.3	44
550	10.4	48.2	48.6	0.4	8.9	6	99636.2	44
551	10.1	47.1	47.5	0.5	8.6	6	99636.3	44
552				0.6	8.6	6	99636.3	44
553	10.7	46.6	47.0	0.5	9.1	6	99636.4	44
554	9.0	41.3	41.6	0.6	7.6	6	99636.2	44
555	8.8	43.0	43.3	0.6	7.5	6	99636.3	44
556	9.6	48.0	48.4	0.6	8.2	6	99636.3	44
557	11.1	47.9	48.3	0.5	9.5	6	99636.3	44
558	9.9	42.5	42.8	0.5	8.4	6	99636.4	44
559	9.5	47.1	47.6	0.5	8.0	6	99636.2	44
560	9.0	47.8	48.2	0.5	7.6	6	99634.1	45
561	8.7	45.8	46.2	0.4	7.4	6	99635.3	45
562	8.4	42.4	42.7	0.4	7.2	6	99636.1	45
563	7.3	41.1	41.4	0.5	6.2	6	99636.5	45
564	8.1	39.6	39.8	0.5	6.9	6	99636.5	45
565	8.4	40.6	41.0	0.4	7.1	6	99636.5	45
566	8.8	41.9	42.3	0.3	7.5	6	99636.5	45
567	9.3	43.4	43.8	0.3	7.9	6	99636.5	46
568	8.8	39.6	39.9	0.4	7.5	6	99636.5	46
569	9.5	45.9	46.3	0.4	8.1	6	99636.5	46
570	9.3	45.9	46.3	0.6	7.9	6	99636.5	46
571	8.9	42.6	43.0	0.5	7.5	6	99636.6	46
572	8.1	44.0	44.3	0.5	6.9	6	99632.0	45
573	8.7	43.6	44.0	0.4	7.4	6	99623.6	45
574	9.1	44.7	45.0	0.3	7.8	6	99623.6	45
575	7.7	46.7	47.1	0.4	6.6	6	99624.1	45
576	9.7	43.8	44.0	0.3	8.3	6	99624.1	45
577	10.5	40.3	40.5	0.4	9.0	6	99624.0	45
578	9.6	40.0	40.1	0.5	8.1	6	99624.0	44
579	9.3	39.3	39.4	0.4	7.9	6	99624.1	44
580	10.0	39.0	39.1	0.6	8.5	6	99623.9	44
581	9.2	39.5	39.8	0.5	7.8	6	99623.9	44

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

Data Point #	Standardized Wind Speed (m/s)	Laeq (as measured)	LAeq (adjusted for windscreen IL)	Rotor RPM	10m Anemometer Wind Speed (m/s)	Air Temperature (-C)	Pressure (Pa)	Relative Humidity (%)
582	8.7	39.1	39.4	0.4	7.4	6	99624.0	44
583	10.2	37.3	37.5	0.5	8.7	6	99624.0	44
584	10.8	36.1	36.3	0.6	9.2	6	99624.1	44
585	10.1	40.7	41.0	0.6	8.6	6	99624.0	44
586	10.1	42.9	43.3	0.5	8.6	6	99624.0	44
587				0.4	7.9	6	99624.0	44
588	9.3	46.8	47.2	0.4	8.0	6	99624.1	44
589	10.5	42.2	42.6	0.5	8.9	6	99624.1	44
590	10.0	43.2	43.6	0.4	8.5	6	99624.1	43
591	8.4	43.3	43.7	0.5	7.2	6	99624.1	43
592	9.2	39.5	39.8	0.3	7.8	6	99624.2	43
593	9.2	36.9	37.1	0.3	7.9	6	99624.2	43
594	9.7	41.1	41.4	0.4	8.2	6	99624.2	43
595	8.8	38.4	38.6	0.5	7.5	6	99624.2	43
596	8.0	37.5	37.7	0.5	6.8	6	99624.2	43
597	8.8	39.3	39.6	0.5	7.5	6	99624.2	43
598	10.2	47.7	48.2	0.5	8.7	6	99624.2	43
599	9.5	45.7	46.1	0.5	8.1	6	99624.0	43
600	11.3	46.3	46.7	0.6	9.6	6	99623.8	43
601	10.4	48.5	48.9	0.6	8.9	6	99623.5	43
602	11.6	47.1	47.5	0.5	9.8	6	99614.8	42
603	10.6	44.5	44.9	0.6	9.0	6	99609.8	42
604	12.1	46.4	46.8	0.6	10.3	6	99607.1	42
605	11.9	49.7	50.1	0.6	10.1	6	99605.6	42
606	10.8	46.2	46.6	0.6	9.2	6	99606.0	42
607	12.0	49.8	50.2	0.5	10.2	6	99606.5	42
608				0.5	8.7	6	99609.4	41
609	9.3	48.9	49.3	0.4	7.9	6	99610.2	41
610	11.4	48.2	48.6	0.5	9.7	6	99610.7	41
611	10.9	44.6	44.9	0.5	9.3	6	99610.7	41
612	11.7	47.4	47.8	0.5	9.9	6	99610.6	41
613	11.1	45.9	46.4	0.5	9.5	6	99610.4	41
614	12.1	46.0	46.5	0.4	10.3	6	99610.1	42
615	10.3	48.1	48.6	0.6	8.8	6	99610.2	42
616	9.2	43.9	44.3	0.5	7.8	6	99610.5	42
617	9.8	44.2	44.6	0.4	8.4	6	99610.5	42
618	10.2	45.0	45.4	0.5	8.7	6	99610.1	42
619	10.0	47.1	47.5	0.5	8.5	6	99608.9	42
620	10.1	49.7	50.2	0.7	8.6	6	99604.7	43
621	9.2	47.9	48.4	0.9	7.8	6	99593.9	43
622				0.7	9.5	6	99568.2	43
623	12.1	42.3	42.6	0.6	10.3	6	99558.1	43
624	11.0	41.8	42.1	0.6	9.4	6	99542.5	43
625	12.1	41.3	41.6	0.5	10.3	6	99502.9	43
626	11.7	41.6	41.9	0.6	9.9	6	99434.6	42
627	9.7	42.8	43.1	0.6	8.3	6	99292.7	42
628	8.5	47.5	48.0	0.6	7.2	6	99018.0	42
629	9.0	46.4	46.8	0.5	7.7	6	98679.6	42
630	9.8	47.4	47.8	0.3	8.4	6	98758.3	42
631	10.3	48.2	48.7	0.5	8.7	6	98767.2	42
632				0.6	9.3	6	98840.9	43
633				0.6	7.1	6	98993.7	43
634	11.4	49.0	49.5	0.5	9.7	6	98997.8	43
635	9.8	48.3	48.8	0.5	8.3	6	98916.0	43
636	11.7	49.4	49.8	0.6	10.0	6	98935.5	43
637	10.8	49.4	49.8	0.3	9.2	6	98928.0	43
638	9.4	45.6	46.0	0.5	8.0	6	98891.4	43
639	12.1	44.0	44.4	0.6	10.3	6	98760.3	43
640	11.2	46.1	46.5	0.6	9.5	6	98772.8	43
641	11.4	43.6	44.0	0.6	9.7	6	99272.0	43
642	12.7	40.6	40.9	0.5	10.8	6	99594.0	43
643	13.2	44.0	44.3	0.6	11.2	6	99472.8	43
644	13.3	46.9	47.2	0.5	11.3	6	98716.9	42
645				0.4	12.8	6	98556.5	42
646	13.7	49.4	49.9	0.4	11.7	6	98469.3	42
647	13.1	40.8	41.0	0.6	11.1	6	98350.9	42
648	10.7	46.6	47.0	0.4	9.1	6	98195.9	42
649	10.7	40.1	40.3	0.5	9.1	6	98056.1	42
650	12.1	43.6	43.9	0.5	10.3	6	98128.7	40
651	13.4	47.9	48.3	0.5	11.4	6	99528.9	40
652	12.3	48.0	48.4	0.5	10.4	6	99585.7	40
653	12.3	42.5	42.8	0.5	10.5	6	99595.1	40
654	12.5	48.3	48.7	0.6	10.7	6	99590.1	40
655	11.8	48.9	49.4	0.6	10.0	6	99501.3	40
656	11.4	48.9	49.3	0.6	9.7	6	98026.9	40
657	9.5	43.0	43.4	0.7	8.1	6	97547.6	40
658	9.5	38.5	38.7	0.5	8.1	6	97457.3	40
659	12.2	42.5	42.9	0.4	10.4	6	97521.5	40
660	11.8	42.3	42.6	0.4	10.0	6	97452.0	40
661	11.1	44.8	45.1	0.3	9.4	6	99187.1	40
662	10.6	38.8	39.0	0.4	9.0	6	98030.7	40
663	8.5	37.5	37.7	0.5	7.2	6	97286.3	40
664	9.3	41.0	41.3	0.5	7.9	6	97251.6	40

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

Data Point #	Standardized Wind Speed (m/s)	Laeq (as measured)	LAeq (adjusted for windscreen IL)	Rotor RPM	10m Anemometer Wind Speed (m/s)	Air Temperature (-C)	Pressure (Pa)	Relative Humidity (%)
665	10.1	38.2	38.4	0.7	8.6	6	97252.4	40
666	10.4	39.2	39.5	0.7	8.8	6	97244.9	40
667	10.7	39.9	40.2	0.5	9.1	6	99405.4	40
668	9.9	44.8	45.3	0.6	8.4	6	99603.7	41
669	8.3	45.3	45.7	0.7	7.1	6	99604.6	41
670	8.3	44.8	45.2	0.6	7.0	6	99609.3	41
671	8.9	46.6	47.1	0.5	7.5	6	99609.4	41
672	8.0	43.5	43.9	0.4	6.8	6	99608.1	41
673	10.8	45.9	46.3	0.4	9.2	6	99589.0	41
674	9.3	45.4	45.8	0.4	7.9	6	97840.1	42
675	8.9	45.6	46.1	0.4	7.6	6	97149.4	42
676	7.9	38.9	39.1	0.3	6.7	6	97208.7	42
677	7.9	38.8	39.0	0.5	6.7	6	97413.9	42
678	8.3	38.6	38.8	0.5	7.0	6	97709.9	42
679	9.7	44.5	44.9	0.5	8.2	6	97796.9	42
680	8.8	40.8	41.1	0.4	7.5	6	98295.3	43
681	9.1	42.1	42.4	0.5	7.7	6	98580.3	43
682	7.7	45.7	46.1	0.4	6.5	6	98641.5	43
683	8.1	40.4	40.6	0.4	6.9	6	98788.7	43
684	7.9	42.9	43.2	0.4	6.7	6	98844.5	43
685	12.0	47.2	47.6	0.3	10.2	6	98884.5	43
686	12.5	41.7	42.0	0.5	10.7	6	98886.9	42
687	11.0	47.6	48.1	0.6	9.4	6	98970.2	42
688	11.2	41.0	41.4	0.5	9.5	6	99028.6	42
689	10.8	42.9	43.3	0.4	9.2	6	99082.1	42
690	9.8	40.8	41.1	0.4	8.4	6	99194.1	42
691	11.1	37.9	38.1	0.6	9.4	6	99233.5	42
692	12.4	39.5	39.8	0.6	10.6	6	99278.6	40
693	11.5	42.0	42.4	0.4	9.8	6	99359.7	40
694	10.6	38.4	38.6	0.4	9.0	6	99397.4	40
695	11.8	42.7	43.0	0.4	10.0	7	99494.3	39
696	9.9	44.7	45.1	0.4	8.5	7	99494.3	39
697	9.5	44.4	44.7	0.4	8.1	7	99494.2	39
698	10.7	41.6	41.8	0.5	9.1	7	99494.3	39
699	9.7	40.4	40.6	0.5	8.3	7	99494.2	39
700	10.7	46.3	46.6	0.7	9.1	7	99494.1	39
701	10.5	44.9	45.2	0.6	8.9	7	99494.0	40
702				0.6	7.6	7	99493.9	40
703	8.3	46.3	46.6	0.5	7.1	7	99493.9	40
704	7.8	46.6	47.0	0.5	6.6	7	99493.9	40
705				0.5	7.1	7	99493.9	40
706	10.6	47.3	47.7	0.4	9.1	7	99493.8	40
707	12.1	45.1	45.5	0.5	10.3	7	99493.9	40
708	12.0	43.8	44.1	0.7	10.2	7	99493.8	40
709	11.9	45.2	45.5	0.7	10.1	7	99493.8	40
710	11.0	46.7	47.1	0.6	9.4	7	99493.9	40
711	11.1	42.0	42.3	0.5	9.5	7	99493.8	40
712	14.2	42.8	43.1	0.6	12.1	7	99491.4	40
713	13.8	49.3	49.7	0.6	11.8	7	99479.9	39
714	11.8	45.1	45.5	0.7	10.0	7	99479.8	39
715	10.0	48.5	48.9	0.6	8.5	7	99479.8	39
716	10.4	47.2	47.6	0.6	8.9	7	99479.8	39
717				0.6	8.0	7	99479.9	39
718				0.5	7.7	7	99479.8	39
719	10.4	46.3	46.7	0.5	8.9	7	99479.8	40
720				0.6	10.3	7	99479.8	40
721				0.6	9.5	7	99479.7	40
722				0.6	11.5	7	99479.7	40
723	12.5	48.7	49.1	0.6	10.6	7	99479.7	40
724	10.5	43.0	43.3	0.5	9.0	7	99479.8	39
725				0.6	7.2	7	99479.7	38
726				0.5	7.7	7	99479.8	38
727	11.1	49.1	49.6	0.5	9.4	7	99479.7	38
728	13.6	46.5	46.9	0.6	11.6	7	99479.8	38
729	13.0	44.7	45.1	0.5	11.0	7	99479.8	38
730				0.4	9.8	7	99479.7	38
731				0.3	10.1	7	99479.7	38
732	14.6	46.5	46.9	0.2	12.4	7	99479.7	38
733	11.5	40.5	40.8	0.4	9.8	7	99479.7	38
734	10.2	41.1	41.4	0.3	8.7	7	99479.6	38
735	10.7	41.7	42.0	0.3	9.1	7	99479.7	38
736	11.1	44.5	44.8	0.4	9.5	7	99479.6	38
737	9.9	45.2	45.6	0.6	8.4	7	99479.6	38
738	9.3	43.7	44.1	0.3	7.9	7	99479.4	38
739	11.1	44.6	45.0	0.4	9.4	7	99479.5	38
740	12.2	44.3	44.7	0.5	10.4	7	99479.3	38
741	14.5	46.6	47.0	0.6	12.4	7	99479.3	38
742	14.1	44.9	45.3	0.6	12.0	7	99479.2	38
743	13.1	43.4	43.7	0.4	11.1	7	99479.1	38
744	12.7	40.7	40.9	0.6	10.8	7	99479.0	38
745	12.4	42.9	43.3	0.5	10.5	7	99478.9	38
746	11.2	43.1	43.5	0.4	9.5	7	99478.7	38
747				0.3	9.9	7	99478.5	38

Table E.02 Measurement data - Background

Project: North Kent Wind Farm - IEC 61400- 11 Edition 3.0 - Turbine T3

Report ID: 17283.03.T3.RP3

Created on: 1/27/2021

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

Data Point #	Standardized Wind Speed (m/s)	Laeq (as measured)	LAeq (adjusted for windscreen IL)	Rotor RPM	10m Anemometer Wind Speed (m/s)	Air Temperature (-C)	Pressure (Pa)	Relative Humidity (%)
748				0.6	9.0	7	99478.2	38
749	10.5	47.1	47.5	0.6	9.0	7	99478.0	38
750	10.0	47.2	47.6	0.6	8.5	7	99477.9	38
751	10.9	43.5	43.8	0.5	9.3	7	99477.9	38
752				0.6	9.2	7	99477.8	38
753				0.6	10.5	7	99477.9	38
754	10.8	49.5	50.0	0.7	9.2	7	99477.9	38
755	9.0	45.9	46.2	0.7	7.6	7	99477.9	39
756				0.6	9.2	7	99478.1	39
757	9.8	46.5	46.8	0.4	8.3	7	99478.3	39
758	8.5	44.6	44.9	0.6	7.2	7	99478.2	39
759				0.6	7.5	7	99478.2	39
760	9.5	43.1	43.4	0.6	8.1	7	99478.2	39
761	9.4	49.0	49.4	0.8	8.0	7	99478.0	39
762	11.4	43.3	43.5	0.6	9.7	7	99443.4	39
763	10.9	46.0	46.3	0.5	9.3	7	99443.4	39
764	10.5	42.4	42.6	0.4	8.9	7	99443.4	39
765	10.5	45.4	45.7	0.6	9.0	7	99443.4	39
766	10.9	44.6	44.9	0.6	9.3	7	99443.4	39
767	9.9	42.9	43.1	0.5	8.4	7	99443.4	39
768	10.9	42.0	42.2	0.6	9.3	7	99443.4	39
769	9.3	42.9	43.0	0.5	7.9	7	99443.4	39
770	8.1	43.4	43.6	0.5	6.9	7	99443.4	39
771	9.1	44.3	44.6	0.4	7.8	7	99443.4	39
772				0.5	6.6	7	99443.5	39
773				0.6	7.1	7	99443.5	39
774	11.0	44.7	45.0	0.6	9.4	7	99443.5	39
775	12.7	43.7	43.9	0.6	10.8	7	99443.5	39
776	12.2	43.5	43.7	0.6	10.4	7	99443.5	39
777	12.4	41.3	41.4	0.5	10.6	7	99443.6	38
778	12.7	41.0	41.2	0.6	10.8	7	99443.5	38
779	11.3	41.4	41.6	0.6	9.6	7	99443.5	38
780	9.1	41.0	41.2	0.5	7.8	7	99443.6	38
781	8.5	42.1	42.4	0.6	7.3	7	99443.6	38
782	11.3	46.1	46.5	0.7	9.6	7	99441.2	38
783	11.6	44.8	45.2	0.6	9.8	7	99430.5	39
784	12.3	45.3	45.7	0.5	10.5	7	99430.6	39
785	11.5	46.0	46.4	0.6	9.7	7	99430.5	39
786	11.3	45.0	45.4	0.5	9.6	7	99430.5	39
787	8.8	45.6	45.9	0.7	7.5	7	99430.5	39
788	9.4	43.3	43.6	0.6	8.0	7	99430.6	39
789	9.6	43.7	44.0	0.6	8.1	7	99430.5	39
790	8.9	41.0	41.2	0.6	7.6	7	99430.6	39
791	9.8	41.5	41.8	0.4	8.4	7	99430.5	39
792	10.3	44.9	45.2	0.5	8.8	7	99430.6	39
793	11.0	43.4	43.7	0.6	9.4	7	99430.7	39
794	10.9	42.1	42.3	0.5	9.3	7	99430.7	39
795	11.3	43.9	44.1	0.5	9.6	7	99430.6	39
796	10.4	43.1	43.4	0.6	8.9	7	99430.7	39
797	10.3	42.8	42.9	0.7	8.8	7	99430.6	39
798	11.2	43.8	44.0	0.4	9.5	7	99430.6	39
799	11.2	42.1	42.2	0.4	9.6	7	99430.7	39
800	11.6	45.5	45.8	0.5	9.9	7	99430.5	39
801	12.1	46.6	46.9	0.5	10.3	7	99430.7	39
802				0.5	10.1	7	99430.7	39
803	11.0	45.2	45.5	0.6	9.3	7	99430.6	39
804	13.9	45.4	45.7	0.6	11.8	7	99430.7	39
805	12.1	45.5	45.9	0.6	10.3	7	99430.7	39
806	10.5	48.6	48.9	0.6	8.9	7	99430.6	39
807	9.3	44.1	44.4	0.6	7.9	7	99430.7	40
808	10.4	43.5	43.8	0.7	8.8	7	99430.6	40
809	11.5	43.9	44.1	0.6	9.8	7	99430.7	40
810	10.5	42.6	42.8	0.6	9.0	7	99430.7	40
811	10.6	43.7	43.9	0.5	9.0	7	99430.2	40
812	9.7	43.4	43.6	0.6	8.3	7	99428.6	40
813	9.6	43.7	43.9	0.5	8.2	7	99424.9	40
814	8.9	47.1	47.5	0.6	7.6	7	97773.5	40
815	8.9	43.4	43.6	0.5	7.5	7	96905.7	40
816	7.9	42.6	42.9	0.6	6.7	7	96893.9	40
817	9.4	44.2	44.5	0.6	8.0	7	96797.3	40
818	12.0	44.0	44.3	0.7	10.2	7	96806.8	40
819	11.3	46.3	46.7	0.5	9.6	7	96449.2	41
820	9.8	46.7	47.0	0.5	8.3	7	96700.1	41
821	12.0	48.3	48.7	0.6	10.2	7	97769.8	41
822	13.3	48.9	49.3	0.6	11.4	7	98118.3	41
823	13.7	43.8	44.0	0.4	11.7	7	98321.9	41
824	11.5	44.6	44.9	0.6	9.8	7	98344.3	41
825	11.2	46.2	46.5	0.5	9.5	7	98475.9	41
826	12.0	43.7	44.0	0.7	10.2	7	98458.5	41
827	11.8	42.3	42.5	0.6	10.0	7	98472.9	41
828	12.4	42.2	42.4	0.6	10.5	7	98610.9	41
829	10.9	42.8	43.0	0.6	9.3	7	98649.1	41
830	10.3	43.1	43.3	0.5	8.8	7	98527.0	41

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

Data Point #	Standardized Wind Speed (m/s)	Laeq (as measured)	LAeq (adjusted for windscreen IL)	Rotor RPM	10m Anemometer Wind Speed (m/s)	Air Temperature (-C)	Pressure (Pa)	Relative Humidity (%)
831	9.6	45.7	46.0	0.7	8.2	7	98646.1	40
832	9.6	46.5	46.8	0.6	8.2	7	98644.8	40
833	13.2	45.9	46.2	0.5	11.2	7	98665.7	40
834	12.8	46.2	46.6	0.5	10.9	7	98725.7	40
835	12.2	46.3	46.6	0.7	10.4	7	98792.7	40
836	11.8	46.5	46.8	0.6	10.0	7	98707.8	40
837	12.5	49.1	49.5	0.7	10.6	7	98617.4	40
838	10.8	48.2	48.5	0.6	9.2	7	98540.3	40
839				0.5	9.0	7	98666.7	40
840				0.5	10.1	7	98836.2	40
841				0.6	9.3	7	98855.9	40
842				0.6	11.8	7	98638.8	40
843	14.4	47.6	48.0	0.5	12.2	7	98513.0	40
844	14.9	49.3	49.7	0.7	12.7	7	98568.7	40
845				0.5	12.2	7	98531.1	40
846				0.4	11.1	7	98687.9	40
847				0.4	12.6	7	98855.7	40
848				0.6	11.5	7	98609.9	39
849	12.3	44.7	45.1	0.7	10.5	7	97923.6	39
850	14.3	43.9	44.2	0.7	12.2	7	96955.7	39
851	11.1	44.8	45.0	0.6	9.5	7	96984.5	39
852	12.1	45.9	46.1	0.6	10.3	7	96954.4	39
853	12.8	44.1	44.3	0.4	10.9	7	96910.4	39
854	13.0	46.4	46.6	0.5	11.0	7	96891.2	39
855	10.2	46.9	47.3	0.9	8.7	7	96904.7	39
856	11.3	45.3	45.7	0.7	9.6	7	96915.5	39
857	13.8	47.0	47.4	0.6	11.8	7	97252.9	39
858	11.1	45.3	45.5	0.7	9.5	7	97424.5	39
859	9.7	45.3	45.7	0.6	8.3	7	97586.8	39
860	11.4	47.4	47.7	0.4	9.7	7	97814.3	39
861	9.9	48.7	49.1	0.6	8.4	7	97674.6	39
862	10.4	45.7	45.9	0.5	8.8	7	97387.4	39
863	10.4	45.6	45.9	0.5	8.9	7	97305.4	39
864	9.6	44.9	45.1	0.5	8.2	7	97324.4	39
865	10.5	44.4	44.6	0.7	9.0	7	97449.2	39
866				0.6	8.5	7	97212.8	39
867	11.5	45.5	45.8	0.7	9.8	7	98170.3	39
868	11.7	47.4	47.8	0.6	9.9	7	98623.8	39
869	10.9	48.1	48.5	0.6	9.3	7	99372.2	39
870				0.5	10.1	7	98629.1	39
871				0.7	9.2	7	98831.0	39
872				0.6	8.7	7	99381.5	39
873	10.6	46.3	46.6	0.5	9.0	7	98609.1	39
874	8.7	46.2	46.5	0.5	7.4	7	97780.8	39
875	11.6	43.1	43.3	0.6	9.9	7	98566.4	39
876	14.2	48.0	48.3	0.6	12.1	7	97406.8	39
877	10.4	46.3	46.6	0.5	8.9	7	97626.7	39
878	11.3	43.6	43.8	0.6	9.6	7	99102.3	39
879	13.2	46.7	47.1	0.6	11.2	7	98751.0	39
880	10.4	48.1	48.5	0.6	8.8	7	98937.1	39
881	11.5	47.7	48.1	0.5	9.7	7	98823.1	39
882	11.4	47.2	47.5	0.6	9.7	7	99051.5	39
883				0.5	9.4	7	99362.3	39
884	12.7	44.9	45.1	0.5	10.8	7	98589.2	39
885	12.3	46.1	46.5	0.6	10.5	7	98619.4	40

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

Data Point #	Standardized Wind Speed (m/s)	Laeq (as measured)	LAeq (adjusted for windscreen IL)	Rotor RPM	10m Anemometer Wind Speed (m/s)	Air Temperature (-C)	Pressure (Pa)	Relative Humidity (%)

Appendix F
Information for the Regulator

Appendix F.01
Calibration Certificates

ISO17025

As Found CALIBRATION CERTIFICATE

Sales Region:	Americas
Account:	Aercoustics Engineering Ltd
Instrument:	Simcenter SCADAS
Manufacturer:	Siemens Industry Software B.V.
Type:	SCR05
Serial number(s):	53103922
Calibration method:	Two calibrated external standards (DC voltage and frequency) are used to calibrate the internal Simcenter SCADAS references: time/frequency accuracy of the internal system clock and amplitude accuracy of the internal signal sources. All input channels are calibrated against the internal references.
Ambient conditions:	The calibrations have been carried out in a controlled environment, at an ambient temperature of 22.5°C ± 0.3°C and a relative humidity of 32.7% ± 5%.
Calibration date:	January 29, 2020
Results:	The calibration results, together with their associated uncertainties, are included in this calibration certificate. Calibration results within specification.
Uncertainty:	The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%. The standard uncertainty of measurement has been determined in accordance with publication EA-4/02.
Traceability:	The measurements have been executed using methods for which the traceability to international standards has been demonstrated towards the Raad voor Accreditatie.

Breda, January 29, 2020

Calibration performed by:

A.v.Aalst Customer Support Engineer

Certificate approved by:

T.M. Schrijer, Quality Manager

The Raad voor Accreditatie is one of the signatories of the Multilateral Agreement of the European Cooperation for Accreditation (EA) for the mutual recognition of calibration certificates.

Reproduction of the complete certificate is allowed. Parts of the certificate may only be reproduced with written approval of the calibration laboratory.

This certificate is issued provided that neither Siemens Industry Software B.V. nor the Raad voor Accreditatie assumes any liability.

Siemens Industry Software B.V.
Weidehek 53
4824 AT Breda
The Netherlands
Phone: +31 76 573 6363

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Siemens Industry Software B.V.
Weidehek 53
4824 AT Breda
The Netherlands
Phone: +31 76 573 6363

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1 Explanation of the factory calibration procedure

The production process of an Simcenter SCADAS front-end consists of a number of stages. Every single board or module that will be part of the system is tested extensively on reliability and functionality before it is inserted in the Simcenter SCADAS frame.
After assembly, the amplitude accuracy and offset errors of all input and output channels are adjusted to a value as close to zero as possible. The adjustment procedure incorporates external measurement equipment, which is documented in the next section of this report.

As a final step, the front-end is submitted to a factory calibration. The factory calibration verifies whether all input and output channels meet their published specifications with respect to amplitude accuracy, offset, and a number of dynamic capabilities such as distortion, signal to noise ratio and inter-channel crosstalk. The measurements that are done as a part of the calibration use an internal reference source, which has been calibrated against an external standard (documented in the next section of this report).
The results of this calibration procedure are documented in the *Calibration Certificate* you have in front of you.

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4824 AT Breda
The Netherlands
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2 External reference - used equipment

	Type	Serial Number	Cal Certificate	Cal Date
Digital multimeter	Agilent 34401A	MY4140399	201902414.00	24 June 2019
Calibration software	2.15.0001	NA	NA	NA

The external reference (DMM) is calibrated on a yearly basis by a calibration laboratory that is ISO17025:2005 accredited by The Dutch Accreditation Council RvA.

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Weidehek 53
4824 AT Breda
The Netherlands
Phone: +31 76 573 6363

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3 System configuration

Frame	*Backplane Module*	*Conditioner*	*Unique number*	*Hardware version*	*Software version*	*Option*
Master (0)			0053103922			
	XSIDA BT GPS (0)		2009501008	2	0	
	VC8_E (1)		2010788002	0	0	
	VC8_E (2)		2010788018	0	0	
	XSII CF CN (3)		2012144006	10	0	
	PS12-2 MOB (4)		2010622010	12	11	

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4824 AT Breda
The Netherlands
Phone: +31 76 573 6363

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4 VC8_E_h0s0

4.1 Gain Accuracy after Adjustment

Description of calibration:
Determination of the amplitude accuracy of the input channels over all input ranges and available ADC bandwidths, by applying an accurate 1kHz -3dBFS (max 4V) sine wave which is generated by the internal reference generator. For charge amplifiers, the reference voltage signal is translated to a reference charge signal.
The reported values represent the deviations from the expected signal amplitude, both absolute (either in Volt or Coulomb, depending on the input channel type) and relative (in %).

AdcBw 102400Hz, Range 0.316V Alternating voltage 100mV < IR <= 316mV Spec: <= ±0.100% Uncertainty: 66µV	
Chan	Value
0,1,x,0	-0.049 mV, -0.022%
0,1,x,1	-0.051 mV, -0.023%
0,1,x,2	-0.054 mV, -0.024%
0,1,x,3	-0.042 mV, -0.019%
0,1,x,4	-0.050 mV, -0.022%
0,1,x,5	-0.047 mV, -0.021%
0,1,x,6	-0.056 mV, -0.025%
0,1,x,7	-0.049 mV, -0.022%
0,2,x,0	-0.057 mV, -0.025%
0,2,x,1	-0.058 mV, -0.026%
0,2,x,2	-0.039 mV, -0.017%
0,2,x,3	-0.048 mV, -0.021%
0,2,x,4	-0.052 mV, -0.023%
0,2,x,5	-0.057 mV, -0.025%
0,2,x,6	-0.043 mV, -0.019%
0,2,x,7	-0.045 mV, -0.020%

AdcBw 102400Hz, Range 1V Alternating voltage 316mV < IR <= 1V Spec: <= ±0.100% Uncertainty: 120µV	
Chan	Value
0,1,x,0	-0.122 mV, -0.017%
0,1,x,1	-0.122 mV, -0.017%
0,1,x,2	-0.131 mV, -0.019%
0,1,x,3	-0.092 mV, -0.013%
0,1,x,4	-0.124 mV, -0.017%
0,1,x,5	-0.113 mV, -0.016%
0,1,x,6	-0.142 mV, -0.020%
0,1,x,7	-0.110 mV, -0.016%
0,2,x,0	-0.126 mV, -0.018%
0,2,x,1	-0.139 mV, -0.020%
0,2,x,2	-0.085 mV, -0.012%
0,2,x,3	-0.107 mV, -0.015%
0,2,x,4	-0.122 mV, -0.017%
0,2,x,5	-0.122 mV, -0.017%
0,2,x,6	-0.093 mV, -0.013%
0,2,x,7	-0.109 mV, -0.015%

AdcBw 102400Hz, Range 3.16V Alternating voltage 1V < IR <= 3.16V Spec: <= ±0.100% Uncertainty: 310µV	
Chan	Value
0,1,x,0	-0.298 mV, -0.013%
0,1,x,1	-0.303 mV, -0.014%
0,1,x,2	-0.335 mV, -0.015%
0,1,x,3	-0.207 mV, -0.009%
0,1,x,4	-0.318 mV, -0.014%
0,1,x,5	-0.285 mV, -0.013%
0,1,x,6	-0.364 mV, -0.016%
0,1,x,7	-0.306 mV, -0.014%
0,2,x,0	-0.335 mV, -0.015%
0,2,x,1	-0.368 mV, -0.016%
0,2,x,2	-0.195 mV, -0.009%
0,2,x,3	-0.268 mV, -0.012%
0,2,x,4	-0.316 mV, -0.014%
0,2,x,5	-0.300 mV, -0.013%
0,2,x,6	-0.198 mV, -0.009%
0,2,x,7	-0.252 mV, -0.011%

Siemens Industry Software B.V.
Weidehek 53
4824 AT Breda
The Netherlands
Phone: +31 76 573 6363

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AdcBw 102400Hz, Range 10V
Alternating voltage 3.16V < IR <= 10V
Spec: <= ±0.100%
Uncertainty: 530µV

Chan	Value
0,1,x,0	-0.444 mV, -0.011%
0,1,x,1	-0.419 mV, -0.010%
0,1,x,2	-0.512 mV, -0.013%
0,1,x,3	-0.300 mV, -0.008%
0,1,x,4	-0.482 mV, -0.012%
0,1,x,5	-0.413 mV, -0.010%
0,1,x,6	-0.568 mV, -0.014%
0,1,x,7	-0.402 mV, -0.010%
0,2,x,0	-0.473 mV, -0.012%
0,2,x,1	-0.571 mV, -0.014%
0,2,x,2	-0.227 mV, -0.006%
0,2,x,3	-0.361 mV, -0.009%
0,2,x,4	-0.437 mV, -0.011%
0,2,x,5	-0.452 mV, -0.011%
0,2,x,6	-0.268 mV, -0.007%
0,2,x,7	-0.382 mV, -0.010%

AdcBw 102400Hz, Range 1nC
Alternating charge 316pC < IR <= 1nC
Spec: <= ±0.100%
Uncertainty: 9.2pC

Chan	Value
0,1,x,0	-0.112 pC, -0.016%
0,1,x,1	-0.108 pC, -0.015%
0,1,x,2	-0.119 pC, -0.017%
0,1,x,3	-0.073 pC, -0.010%
0,1,x,4	-0.114 pC, -0.016%
0,1,x,5	-0.097 pC, -0.014%
0,1,x,6	-0.132 pC, -0.019%
0,1,x,7	-0.102 pC, -0.014%
0,2,x,0	-0.123 pC, -0.017%
0,2,x,1	-0.137 pC, -0.019%
0,2,x,2	-0.080 pC, -0.011%
0,2,x,3	-0.099 pC, -0.014%
0,2,x,4	-0.113 pC, -0.016%
0,2,x,5	-0.118 pC, -0.017%
0,2,x,6	-0.088 pC, -0.013%
0,2,x,7	-0.105 pC, -0.015%

AdcBw 102400Hz, Range 10nC
Alternating charge 3.16nC < IR <= 10nC
Spec: <= ±0.100%
Uncertainty: 96pC

Chan	Value
0,1,x,0	-0.483 pC, -0.012%
0,1,x,1	-0.437 pC, -0.011%
0,1,x,2	-0.531 pC, -0.013%
0,1,x,3	-0.296 pC, -0.007%
0,1,x,4	-0.512 pC, -0.013%
0,1,x,5	-0.422 pC, -0.011%
0,1,x,6	-0.597 pC, -0.015%
0,1,x,7	-0.449 pC, -0.011%
0,2,x,0	-0.542 pC, -0.014%
0,2,x,1	-0.637 pC, -0.016%
0,2,x,2	-0.308 pC, -0.008%
0,2,x,3	-0.408 pC, -0.010%
0,2,x,4	-0.478 pC, -0.012%
0,2,x,5	-0.524 pC, -0.013%
0,2,x,6	-0.342 pC, -0.009%
0,2,x,7	-0.452 pC, -0.011%

AdcBw 102400Hz, Range 316pC
Alternating charge IR <= 316pC
Spec: <= ±0.100%
Uncertainty: 3.0pC

Chan	Value
0,1,x,0	-0.034 pC, -0.015%
0,1,x,1	-0.035 pC, -0.016%
0,1,x,2	-0.038 pC, -0.017%
0,1,x,3	-0.025 pC, -0.011%
0,1,x,4	-0.036 pC, -0.016%
0,1,x,5	-0.031 pC, -0.014%
0,1,x,6	-0.041 pC, -0.018%
0,1,x,7	-0.034 pC, -0.015%
0,2,x,0	-0.044 pC, -0.020%
0,2,x,1	-0.045 pC, -0.020%
0,2,x,2	-0.025 pC, -0.011%
0,2,x,3	-0.034 pC, -0.015%
0,2,x,4	-0.038 pC, -0.017%
0,2,x,5	-0.044 pC, -0.020%
0,2,x,6	-0.029 pC, -0.013%
0,2,x,7	-0.032 pC, -0.014%

AdcBw 102400Hz, Range 3.16nC
Alternating charge 1nC < IR <= 3.16nC
Spec: <= ±0.100%
Uncertainty: 30pC

Chan	Value
0,1,x,0	-0.316 pC, -0.014%
0,1,x,1	-0.304 pC, -0.014%
0,1,x,2	-0.341 pC, -0.015%
0,1,x,3	-0.195 pC, -0.009%
0,1,x,4	-0.332 pC, -0.015%
0,1,x,5	-0.281 pC, -0.013%
0,1,x,6	-0.376 pC, -0.017%
0,1,x,7	-0.327 pC, -0.015%
0,2,x,0	-0.368 pC, -0.016%
0,2,x,1	-0.401 pC, -0.018%
0,2,x,2	-0.228 pC, -0.010%
0,2,x,3	-0.289 pC, -0.013%
0,2,x,4	-0.330 pC, -0.015%
0,2,x,5	-0.333 pC, -0.015%
0,2,x,6	-0.229 pC, -0.010%
0,2,x,7	-0.286 pC, -0.013%

AdcBw 51200Hz, Range 0.316V
Alternating voltage 100mV < IR <= 316mV
Spec: <= ±0.100%
Uncertainty: 66µV

Chan	Value
0,1,x,0	-0.013 mV, -0.006%
0,1,x,1	-0.015 mV, -0.007%
0,1,x,2	-0.018 mV, -0.008%
0,1,x,3	-0.006 mV, -0.003%
0,1,x,4	-0.014 mV, -0.006%
0,1,x,5	-0.011 mV, -0.005%
0,1,x,6	-0.020 mV, -0.009%
0,1,x,7	-0.013 mV, -0.006%
0,2,x,0	-0.021 mV, -0.009%
0,2,x,1	-0.022 mV, -0.010%
0,2,x,2	-0.002 mV, -0.001%
0,2,x,3	-0.012 mV, -0.005%
0,2,x,4	-0.016 mV, -0.007%
0,2,x,5	-0.021 mV, -0.009%
0,2,x,6	-0.006 mV, -0.003%
0,2,x,7	-0.009 mV, -0.004%

Siemens Industry Software B.V.
Weidehek 53
4824 AT Breda
The Netherlands
Phone: +31 76 573 6363

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AdcBw 51200Hz, Range 1V Alternating voltage 316mV < IR <= 1V Spec: <= ±0.100% Uncertainty: 120µV	
Chan	Value
0,1,x,0	-0.045 mV, -0.006%
0,1,x,1	-0.042 mV, -0.006%
0,1,x,2	-0.052 mV, -0.007%
0,1,x,3	-0.011 mV, -0.002%
0,1,x,4	-0.047 mV, -0.007%
0,1,x,5	-0.032 mV, -0.005%
0,1,x,6	-0.064 mV, -0.009%
0,1,x,7	-0.031 mV, -0.004%
0,2,x,0	-0.048 mV, -0.007%
0,2,x,1	-0.061 mV, -0.009%
0,2,x,2	-0.005 mV, -0.001%
0,2,x,3	-0.029 mV, -0.004%
0,2,x,4	-0.043 mV, -0.006%
0,2,x,5	-0.043 mV, -0.006%
0,2,x,6	-0.014 mV, -0.002%
0,2,x,7	-0.030 mV, -0.004%

AdcBw 51200Hz, Range 10V Alternating voltage 3.16V < IR <= 10V Spec: <= ±0.100% Uncertainty: 530µV	
Chan	Value
0,1,x,0	-0.207 mV, -0.005%
0,1,x,1	-0.172 mV, -0.004%
0,1,x,2	-0.275 mV, -0.007%
0,1,x,3	-0.056 mV, -0.001%
0,1,x,4	-0.243 mV, -0.006%
0,1,x,5	-0.165 mV, -0.004%
0,1,x,6	-0.330 mV, -0.008%
0,1,x,7	-0.160 mV, -0.004%
0,2,x,0	-0.241 mV, -0.006%
0,2,x,1	-0.334 mV, -0.008%
0,2,x,2	0.013 mV, 0.000%
0,2,x,3	-0.122 mV, -0.003%
0,2,x,4	-0.202 mV, -0.005%
0,2,x,5	-0.214 mV, -0.005%
0,2,x,6	-0.029 mV, -0.001%
0,2,x,7	-0.141 mV, -0.004%

AdcBw 51200Hz, Range 1nC Alternating charge 316pC < IR <= 1nC Spec: <= ±0.100% Uncertainty: 9.2pC	
Chan	Value
0,1,x,0	-0.100 pC, -0.014%
0,1,x,1	-0.095 pC, -0.013%
0,1,x,2	-0.106 pC, -0.015%
0,1,x,3	-0.059 pC, -0.008%
0,1,x,4	-0.101 pC, -0.014%
0,1,x,5	-0.084 pC, -0.012%
0,1,x,6	-0.119 pC, -0.017%
0,1,x,7	-0.088 pC, -0.012%
0,2,x,0	-0.110 pC, -0.016%
0,2,x,1	-0.123 pC, -0.017%
0,2,x,2	-0.068 pC, -0.010%
0,2,x,3	-0.086 pC, -0.012%
0,2,x,4	-0.101 pC, -0.014%
0,2,x,5	-0.105 pC, -0.015%
0,2,x,6	-0.076 pC, -0.011%
0,2,x,7	-0.092 pC, -0.013%

AdcBw 51200Hz, Range 3.16V Alternating voltage 1V < IR <= 3.16V Spec: <= ±0.100% Uncertainty: 310µV	
Chan	Value
0,1,x,0	-0.138 mV, -0.006%
0,1,x,1	-0.135 mV, -0.006%
0,1,x,2	-0.173 mV, -0.008%
0,1,x,3	-0.038 mV, -0.002%
0,1,x,4	-0.157 mV, -0.007%
0,1,x,5	-0.115 mV, -0.005%
0,1,x,6	-0.203 mV, -0.009%
0,1,x,7	-0.142 mV, -0.006%
0,2,x,0	-0.174 mV, -0.008%
0,2,x,1	-0.208 mV, -0.009%
0,2,x,2	-0.030 mV, -0.001%
0,2,x,3	-0.104 mV, -0.005%
0,2,x,4	-0.151 mV, -0.007%
0,2,x,5	-0.138 mV, -0.006%
0,2,x,6	-0.033 mV, -0.001%
0,2,x,7	-0.088 mV, -0.004%

AdcBw 51200Hz, Range 316pC Alternating charge IR <= 316pC Spec: <= ±0.100% Uncertainty: 3.0pC	
Chan	Value
0,1,x,0	-0.030 pC, -0.013%
0,1,x,1	-0.030 pC, -0.014%
0,1,x,2	-0.034 pC, -0.015%
0,1,x,3	-0.020 pC, -0.009%
0,1,x,4	-0.031 pC, -0.014%
0,1,x,5	-0.026 pC, -0.012%
0,1,x,6	-0.037 pC, -0.016%
0,1,x,7	-0.029 pC, -0.013%
0,2,x,0	-0.039 pC, -0.018%
0,2,x,1	-0.040 pC, -0.018%
0,2,x,2	-0.021 pC, -0.009%
0,2,x,3	-0.029 pC, -0.013%
0,2,x,4	-0.033 pC, -0.015%
0,2,x,5	-0.039 pC, -0.018%
0,2,x,6	-0.025 pC, -0.011%
0,2,x,7	-0.027 pC, -0.012%

AdcBw 51200Hz, Range 3.16nC Alternating charge 1nC < IR <= 3.16nC Spec: <= ±0.100% Uncertainty: 30pC	
Chan	Value
0,1,x,0	-0.292 pC, -0.013%
0,1,x,1	-0.280 pC, -0.013%
0,1,x,2	-0.317 pC, -0.014%
0,1,x,3	-0.169 pC, -0.008%
0,1,x,4	-0.308 pC, -0.014%
0,1,x,5	-0.257 pC, -0.011%
0,1,x,6	-0.352 pC, -0.016%
0,1,x,7	-0.301 pC, -0.013%
0,2,x,0	-0.345 pC, -0.015%
0,2,x,1	-0.378 pC, -0.017%
0,2,x,2	-0.205 pC, -0.009%
0,2,x,3	-0.263 pC, -0.012%
0,2,x,4	-0.309 pC, -0.014%
0,2,x,5	-0.311 pC, -0.014%
0,2,x,6	-0.206 pC, -0.009%
0,2,x,7	-0.259 pC, -0.012%

Siemens Industry Software B.V.
Weidehek 53
4824 AT Breda
The Netherlands
Phone: +31 76 573 6363

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AdcBw 51200Hz, Range 10nC Alternating charge 3.16nC < IR <= 10nC Spec: <= ±0.100% Uncertainty: 96pC	
Chan	Value
0,1,x,0	-0.472 pC, -0.012%
0,1,x,1	-0.427 pC, -0.011%
0,1,x,2	-0.525 pC, -0.013%
0,1,x,3	-0.280 pC, -0.007%
0,1,x,4	-0.502 pC, -0.013%
0,1,x,5	-0.413 pC, -0.010%
0,1,x,6	-0.588 pC, -0.015%
0,1,x,7	-0.434 pC, -0.011%
0,2,x,0	-0.534 pC, -0.013%
0,2,x,1	-0.629 pC, -0.016%
0,2,x,2	-0.297 pC, -0.007%
0,2,x,3	-0.396 pC, -0.010%
0,2,x,4	-0.467 pC, -0.012%
0,2,x,5	-0.515 pC, -0.013%
0,2,x,6	-0.331 pC, -0.008%
0,2,x,7	-0.438 pC, -0.011%

AdcBw 25600Hz, Range 1V Alternating voltage 316mV < IR <= 1V Spec: <= ±0.100% Uncertainty: 120µV	
Chan	Value
0,1,x,0	-0.044 mV, -0.006%
0,1,x,1	-0.042 mV, -0.006%
0,1,x,2	-0.052 mV, -0.007%
0,1,x,3	-0.011 mV, -0.001%
0,1,x,4	-0.045 mV, -0.006%
0,1,x,5	-0.032 mV, -0.005%
0,1,x,6	-0.063 mV, -0.009%
0,1,x,7	-0.030 mV, -0.004%
0,2,x,0	-0.047 mV, -0.007%
0,2,x,1	-0.060 mV, -0.009%
0,2,x,2	-0.005 mV, -0.001%
0,2,x,3	-0.027 mV, -0.004%
0,2,x,4	-0.043 mV, -0.006%
0,2,x,5	-0.043 mV, -0.006%
0,2,x,6	-0.013 mV, -0.002%
0,2,x,7	-0.029 mV, -0.004%

AdcBw 25600Hz, Range 10V Alternating voltage 3.16V < IR <= 10V Spec: <= ±0.100% Uncertainty: 530µV	
Chan	Value
0,1,x,0	-0.190 mV, -0.005%
0,1,x,1	-0.169 mV, -0.004%
0,1,x,2	-0.255 mV, -0.006%
0,1,x,3	-0.042 mV, -0.001%
0,1,x,4	-0.222 mV, -0.006%
0,1,x,5	-0.163 mV, -0.004%
0,1,x,6	-0.311 mV, -0.008%
0,1,x,7	-0.143 mV, -0.004%
0,2,x,0	-0.219 mV, -0.005%
0,2,x,1	-0.316 mV, -0.008%
0,2,x,2	0.022 mV, 0.001%
0,2,x,3	-0.107 mV, -0.003%
0,2,x,4	-0.182 mV, -0.005%
0,2,x,5	-0.202 mV, -0.005%
0,2,x,6	-0.017 mV, -0.000%
0,2,x,7	-0.128 mV, -0.003%

AdcBw 25600Hz, Range 0.316V Alternating voltage 100mV < IR <= 316mV Spec: <= ±0.100% Uncertainty: 66µV	
Chan	Value
0,1,x,0	-0.013 mV, -0.006%
0,1,x,1	-0.014 mV, -0.006%
0,1,x,2	-0.017 mV, -0.008%
0,1,x,3	-0.005 mV, -0.002%
0,1,x,4	-0.014 mV, -0.006%
0,1,x,5	-0.010 mV, -0.005%
0,1,x,6	-0.020 mV, -0.009%
0,1,x,7	-0.012 mV, -0.005%
0,2,x,0	-0.021 mV, -0.009%
0,2,x,1	-0.022 mV, -0.010%
0,2,x,2	-0.002 mV, -0.001%
0,2,x,3	-0.012 mV, -0.005%
0,2,x,4	-0.016 mV, -0.007%
0,2,x,5	-0.021 mV, -0.009%
0,2,x,6	-0.006 mV, -0.003%
0,2,x,7	-0.008 mV, -0.004%

AdcBw 25600Hz, Range 3.16V Alternating voltage 1V < IR <= 3.16V Spec: <= ±0.100% Uncertainty: 310µV	
Chan	Value
0,1,x,0	-0.137 mV, -0.006%
0,1,x,1	-0.134 mV, -0.006%
0,1,x,2	-0.171 mV, -0.008%
0,1,x,3	-0.037 mV, -0.002%
0,1,x,4	-0.155 mV, -0.007%
0,1,x,5	-0.115 mV, -0.005%
0,1,x,6	-0.201 mV, -0.009%
0,1,x,7	-0.138 mV, -0.006%
0,2,x,0	-0.171 mV, -0.008%
0,2,x,1	-0.200 mV, -0.009%
0,2,x,2	-0.031 mV, -0.001%
0,2,x,3	-0.102 mV, -0.005%
0,2,x,4	-0.151 mV, -0.007%
0,2,x,5	-0.134 mV, -0.006%
0,2,x,6	-0.033 mV, -0.001%
0,2,x,7	-0.086 mV, -0.004%

AdcBw 25600Hz, Range 316pC Alternating charge IR <= 316pC Spec: <= ±0.100% Uncertainty: 3.0pC	
Chan	Value
0,1,x,0	-0.023 pC, -0.010%
0,1,x,1	-0.024 pC, -0.011%
0,1,x,2	-0.027 pC, -0.012%
0,1,x,3	-0.014 pC, -0.006%
0,1,x,4	-0.024 pC, -0.011%
0,1,x,5	-0.020 pC, -0.009%
0,1,x,6	-0.030 pC, -0.013%
0,1,x,7	-0.023 pC, -0.010%
0,2,x,0	-0.032 pC, -0.015%
0,2,x,1	-0.033 pC, -0.015%
0,2,x,2	-0.015 pC, -0.007%
0,2,x,3	-0.022 pC, -0.010%
0,2,x,4	-0.026 pC, -0.012%
0,2,x,5	-0.033 pC, -0.015%
0,2,x,6	-0.019 pC, -0.008%
0,2,x,7	-0.020 pC, -0.009%

Siemens Industry Software B.V.
Weidehek 53
4824 AT Breda
The Netherlands
Phone: +31 76 573 6363

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AdcBw 25600Hz, Range 1nC Alternating charge 316pC < IR <= 1nC Spec: <= ±0.100% Uncertainty: 9.2pC	
Chan	Value
0,1,x,0	-0.086 pC, -0.012%
0,1,x,1	-0.082 pC, -0.012%
0,1,x,2	-0.091 pC, -0.013%
0,1,x,3	-0.046 pC, -0.007%
0,1,x,4	-0.086 pC, -0.012%
0,1,x,5	-0.071 pC, -0.010%
0,1,x,6	-0.104 pC, -0.015%
0,1,x,7	-0.074 pC, -0.010%
0,2,x,0	-0.094 pC, -0.013%
0,2,x,1	-0.108 pC, -0.015%
0,2,x,2	-0.055 pC, -0.008%
0,2,x,3	-0.071 pC, -0.010%
0,2,x,4	-0.085 pC, -0.012%
0,2,x,5	-0.091 pC, -0.013%
0,2,x,6	-0.062 pC, -0.009%
0,2,x,7	-0.077 pC, -0.011%

AdcBw 25600Hz, Range 10nC Alternating charge 3.16nC < IR <= 10nC Spec: <= ±0.100% Uncertainty: 96pC	
Chan	Value
0,1,x,0	-0.365 pC, -0.009%
0,1,x,1	-0.326 pC, -0.008%
0,1,x,2	-0.416 pC, -0.010%
0,1,x,3	-0.177 pC, -0.004%
0,1,x,4	-0.394 pC, -0.010%
0,1,x,5	-0.311 pC, -0.008%
0,1,x,6	-0.480 pC, -0.012%
0,1,x,7	-0.328 pC, -0.008%
0,2,x,0	-0.429 pC, -0.011%
0,2,x,1	-0.527 pC, -0.013%
0,2,x,2	-0.195 pC, -0.005%
0,2,x,3	-0.291 pC, -0.007%
0,2,x,4	-0.364 pC, -0.009%
0,2,x,5	-0.415 pC, -0.010%
0,2,x,6	-0.229 pC, -0.006%
0,2,x,7	-0.333 pC, -0.008%

AdcBw 25600Hz, Range 3.16nC Alternating charge 1nC < IR <= 3.16nC Spec: <= ±0.100% Uncertainty: 30pC	
Chan	Value
0,1,x,0	-0.240 pC, -0.011%
0,1,x,1	-0.226 pC, -0.010%
0,1,x,2	-0.263 pC, -0.012%
0,1,x,3	-0.116 pC, -0.005%
0,1,x,4	-0.255 pC, -0.011%
0,1,x,5	-0.202 pC, -0.009%
0,1,x,6	-0.297 pC, -0.013%
0,1,x,7	-0.245 pC, -0.011%
0,2,x,0	-0.289 pC, -0.013%
0,2,x,1	-0.323 pC, -0.014%
0,2,x,2	-0.157 pC, -0.007%
0,2,x,3	-0.210 pC, -0.009%
0,2,x,4	-0.253 pC, -0.011%
0,2,x,5	-0.260 pC, -0.012%
0,2,x,6	-0.157 pC, -0.007%
0,2,x,7	-0.206 pC, -0.009%

Siemens Industry Software B.V.
Weidehek 53
4824 AT Breda
The Netherlands
Phone: +31 76 573 6363

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4.2 Residual Offset after Adjustment

Description of calibration:
Determination of the residual input offsets of the input channels over all input ranges and available ADC bandwidths, by internally shorting the input channels to ground.

AdcBw 102400Hz, Range 0.316V Direct voltage IR <= 316mV Spec: <= ±0.316 mV Uncertainty: 4.8µV	
Chan	Value
0,1,x,0	-0.041 mV
0,1,x,1	0.006 mV
0,1,x,2	0.026 mV
0,1,x,3	-0.001 mV
0,1,x,4	0.008 mV
0,1,x,5	0.013 mV
0,1,x,6	0.030 mV
0,1,x,7	-0.046 mV
0,2,x,0	0.025 mV
0,2,x,1	-0.015 mV
0,2,x,2	0.020 mV
0,2,x,3	0.002 mV
0,2,x,4	0.031 mV
0,2,x,5	0.021 mV
0,2,x,6	0.009 mV
0,2,x,7	0.023 mV

AdcBw 102400Hz, Range 3.16V Direct voltage 1V < IR <= 3.16V Spec: <= ±3.160 mV Uncertainty: 8µV	
Chan	Value
0,1,x,0	0.047 mV
0,1,x,1	0.088 mV
0,1,x,2	0.091 mV
0,1,x,3	0.051 mV
0,1,x,4	0.074 mV
0,1,x,5	0.070 mV
0,1,x,6	0.173 mV
0,1,x,7	0.035 mV
0,2,x,0	0.088 mV
0,2,x,1	0.055 mV
0,2,x,2	-0.018 mV
0,2,x,3	-0.017 mV
0,2,x,4	0.064 mV
0,2,x,5	0.119 mV
0,2,x,6	-0.018 mV
0,2,x,7	0.084 mV

AdcBw 51200Hz, Range 0.316V Direct voltage IR <= 316mV Spec: <= ±0.316 mV Uncertainty: 4.8µV	
Chan	Value
0,1,x,0	-0.046 mV
0,1,x,1	0.004 mV
0,1,x,2	0.023 mV
0,1,x,3	-0.012 mV
0,1,x,4	-0.001 mV
0,1,x,5	0.005 mV
0,1,x,6	0.024 mV
0,1,x,7	-0.052 mV
0,2,x,0	0.027 mV
0,2,x,1	-0.016 mV
0,2,x,2	0.015 mV
0,2,x,3	-0.004 mV
0,2,x,4	0.027 mV
0,2,x,5	0.017 mV
0,2,x,6	0.005 mV
0,2,x,7	0.020 mV

AdcBw 51200Hz, Range 3.16V Direct voltage 1V < IR <= 3.16V Spec: <= ±3.160 mV Uncertainty: 8µV	
Chan	Value
0,1,x,0	0.053 mV
0,1,x,1	0.099 mV
0,1,x,2	0.094 mV
0,1,x,3	0.037 mV
0,1,x,4	0.074 mV
0,1,x,5	0.065 mV
0,1,x,6	0.164 mV
0,1,x,7	0.037 mV
0,2,x,0	0.090 mV
0,2,x,1	0.079 mV
0,2,x,2	-0.017 mV
0,2,x,3	-0.009 mV
0,2,x,4	0.069 mV
0,2,x,5	0.128 mV
0,2,x,6	-0.025 mV
0,2,x,7	0.082 mV

AdcBw 102400Hz, Range 1V Direct voltage 316mV < IR <= 1V Spec: <= ±1.000 mV Uncertainty: 5.2µV	
Chan	Value
0,1,x,0	-0.020 mV
0,1,x,1	0.025 mV
0,1,x,2	0.040 mV
0,1,x,3	0.007 mV
0,1,x,4	0.023 mV
0,1,x,5	0.024 mV
0,1,x,6	0.061 mV
0,1,x,7	-0.029 mV
0,2,x,0	0.040 mV
0,2,x,1	0.002 mV
0,2,x,2	0.010 mV
0,2,x,3	-0.004 mV
0,2,x,4	0.039 mV
0,2,x,5	0.043 mV
0,2,x,6	-0.000 mV
0,2,x,7	0.038 mV

AdcBw 102400Hz, Range 10V Direct voltage 3.16V < IR <= 10V Spec: <= ±10.000 mV Uncertainty: 21µV	
Chan	Value
0,1,x,0	0.265 mV
0,1,x,1	0.297 mV
0,1,x,2	0.235 mV
0,1,x,3	0.150 mV
0,1,x,4	0.247 mV
0,1,x,5	0.190 mV
0,1,x,6	0.519 mV
0,1,x,7	0.218 mV
0,2,x,0	0.237 mV
0,2,x,1	0.258 mV
0,2,x,2	-0.091 mV
0,2,x,3	-0.056 mV
0,2,x,4	0.148 mV
0,2,x,5	0.371 mV
0,2,x,6	-0.092 mV
0,2,x,7	0.241 mV

AdcBw 51200Hz, Range 1V Direct voltage 316mV < IR <= 1V Spec: <= ±1.000 mV Uncertainty: 5.2µV	
Chan	Value
0,1,x,0	-0.021 mV
0,1,x,1	0.027 mV
0,1,x,2	0.043 mV
0,1,x,3	0.003 mV
0,1,x,4	0.016 mV
0,1,x,5	0.019 mV
0,1,x,6	0.059 mV
0,1,x,7	-0.032 mV
0,2,x,0	0.044 mV
0,2,x,1	0.003 mV
0,2,x,2	0.007 mV
0,2,x,3	-0.005 mV
0,2,x,4	0.037 mV
0,2,x,5	0.043 mV
0,2,x,6	-0.001 mV
0,2,x,7	0.035 mV

AdcBw 51200Hz, Range 10V Direct voltage 3.16V < IR <= 10V Spec: <= ±10.000 mV Uncertainty: 21µV	
Chan	Value
0,1,x,0	0.322 mV
0,1,x,1	0.324 mV
0,1,x,2	0.261 mV
0,1,x,3	0.176 mV
0,1,x,4	0.228 mV
0,1,x,5	0.205 mV
0,1,x,6	0.524 mV
0,1,x,7	0.235 mV
0,2,x,0	0.236 mV
0,2,x,1	0.305 mV
0,2,x,2	-0.105 mV
0,2,x,3	-0.025 mV
0,2,x,4	0.174 mV
0,2,x,5	0.389 mV
0,2,x,6	-0.088 mV
0,2,x,7	0.255 mV

Siemens Industry Software B.V.
Weidehek 53
4824 AT Breda
The Netherlands
Phone: +31 76 573 6363

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AdcBw 25600Hz, Range 0.316V Direct voltage IR <= 316mV Spec: <= ±0.316 mV Uncertainty: 4.8µV	
Chan	Value
0,1,x,0	-0.040 mV
0,1,x,1	0.004 mV
0,1,x,2	0.022 mV
0,1,x,3	-0.015 mV
0,1,x,4	-0.002 mV
0,1,x,5	0.004 mV
0,1,x,6	0.021 mV
0,1,x,7	-0.055 mV
0,2,x,0	0.026 mV
0,2,x,1	-0.018 mV
0,2,x,2	0.013 mV
0,2,x,3	-0.006 mV
0,2,x,4	0.025 mV
0,2,x,5	0.017 mV
0,2,x,6	0.002 mV
0,2,x,7	0.017 mV

AdcBw 25600Hz, Range 3.16V Direct voltage 1V < IR <= 3.16V Spec: <= ±3.160 mV Uncertainty: 8µV	
Chan	Value
0,1,x,0	0.068 mV
0,1,x,1	0.094 mV
0,1,x,2	0.093 mV
0,1,x,3	0.035 mV
0,1,x,4	0.070 mV
0,1,x,5	0.059 mV
0,1,x,6	0.183 mV
0,1,x,7	0.032 mV
0,2,x,0	0.087 mV
0,2,x,1	0.071 mV
0,2,x,2	-0.022 mV
0,2,x,3	-0.006 mV
0,2,x,4	0.063 mV
0,2,x,5	0.123 mV
0,2,x,6	-0.032 mV
0,2,x,7	0.083 mV

AdcBw 25600Hz, Range 1V Direct voltage 316mV < IR <= 1V Spec: <= ±1.000 mV Uncertainty: 5.2µV	
Chan	Value
0,1,x,0	-0.016 mV
0,1,x,1	0.026 mV
0,1,x,2	0.042 mV
0,1,x,3	-0.001 mV
0,1,x,4	0.016 mV
0,1,x,5	0.015 mV
0,1,x,6	0.058 mV
0,1,x,7	-0.035 mV
0,2,x,0	0.042 mV
0,2,x,1	0.004 mV
0,2,x,2	0.005 mV
0,2,x,3	-0.004 mV
0,2,x,4	0.034 mV
0,2,x,5	0.043 mV
0,2,x,6	-0.007 mV
0,2,x,7	0.034 mV

AdcBw 25600Hz, Range 10V Direct voltage 3.16V < IR <= 10V Spec: <= ±10.000 mV Uncertainty: 21µV	
Chan	Value
0,1,x,0	0.323 mV
0,1,x,1	0.348 mV
0,1,x,2	0.254 mV
0,1,x,3	0.167 mV
0,1,x,4	0.262 mV
0,1,x,5	0.202 mV
0,1,x,6	0.558 mV
0,1,x,7	0.234 mV
0,2,x,0	0.222 mV
0,2,x,1	0.287 mV
0,2,x,2	-0.096 mV
0,2,x,3	-0.013 mV
0,2,x,4	0.168 mV
0,2,x,5	0.386 mV
0,2,x,6	-0.121 mV
0,2,x,7	0.227 mV

Siemens Industry Software B.V.
Weidehek 53
4824 AT Breda
The Netherlands
Phone: +31 76 573 6363

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4.3 Total Harmonic Distortion

Description of calibration:
Determination of the harmonic distortion of the input channels over all input ranges, by applying an accurate 1kHz -3dBFS (max 4V) sine wave which is generated by the internal reference generator. For charge amplifiers, the reference voltage signal is translated to a reference charge signal. Harmonic components 2, 3, 4 and 5 are determined to calculate the harmonic content (either in Volt or Coulomb, depending on the input channel type) and the ratio between the fundamental tone and its harmonics (in dB).

Range 10V
Distortion 3.16V < IR <= 10V
Spec: <= -94.0dB
Uncertainty: 2.6µV

Chan	Value
0,1,x,0	15.130 µV, -108.4dB
0,1,x,1	16.033 µV, -107.9dB
0,1,x,2	15.130 µV, -108.4dB
0,1,x,3	15.193 µV, -108.4dB
0,1,x,4	14.764 µV, -108.7dB
0,1,x,5	14.535 µV, -108.8dB
0,1,x,6	14.970 µV, -108.5dB
0,1,x,7	15.130 µV, -108.4dB
0,2,x,0	15.032 µV, -108.5dB
0,2,x,1	14.861 µV, -108.6dB
0,2,x,2	15.460 µV, -108.3dB
0,2,x,3	14.843 µV, -108.6dB
0,2,x,4	15.199 µV, -108.4dB
0,2,x,5	14.790 µV, -108.6dB
0,2,x,6	15.012 µV, -108.5dB
0,2,x,7	12.472 µV, -110.1dB

Range 1 V
Distortion 316mV < IR <= 1V
Spec: <= -94.0dB
Uncertainty: 290nV

Chan	Value
0,1,x,0	4.993 µV, -103.0dB
0,1,x,1	5.114 µV, -102.8dB
0,1,x,2	5.063 µV, -102.9dB
0,1,x,3	4.827 µV, -103.3dB
0,1,x,4	4.503 µV, -103.9dB
0,1,x,5	4.901 µV, -103.2dB
0,1,x,6	4.833 µV, -103.3dB
0,1,x,7	4.710 µV, -103.5dB
0,2,x,0	5.548 µV, -102.1dB
0,2,x,1	5.151 µV, -102.8dB
0,2,x,2	5.395 µV, -102.4dB
0,2,x,3	5.281 µV, -102.5dB
0,2,x,4	5.069 µV, -102.9dB
0,2,x,5	4.680 µV, -103.6dB
0,2,x,6	5.133 µV, -102.8dB
0,2,x,7	4.896 µV, -103.2dB

Range 10nC
Distortion 3.16nC < IR <= 10nC
Spec: <= -94.0dB
Uncertainty: 2.6fC

Chan	Value
0,1,x,0	22.575 fC, -105.0dB
0,1,x,1	23.858 fC, -104.5dB
0,1,x,2	22.032 fC, -105.2dB
0,1,x,3	21.901 fC, -105.2dB
0,1,x,4	21.582 fC, -105.4dB
0,1,x,5	22.095 fC, -105.2dB
0,1,x,6	22.399 fC, -105.0dB
0,1,x,7	21.010 fC, -105.6dB
0,2,x,0	23.322 fC, -104.7dB
0,2,x,1	21.846 fC, -105.3dB
0,2,x,2	23.091 fC, -104.8dB
0,2,x,3	21.921 fC, -105.2dB
0,2,x,4	21.758 fC, -105.3dB
0,2,x,5	21.916 fC, -105.2dB
0,2,x,6	21.954 fC, -105.2dB
0,2,x,7	19.172 fC, -106.4dB

Range 3.16V
Distortion 1V < IR <= 3.16V
Spec: <= -94.0dB
Uncertainty: 0.8µV

Chan	Value
0,1,x,0	6.393 µV, -110.9dB
0,1,x,1	7.106 µV, -110.0dB
0,1,x,2	6.179 µV, -111.2dB
0,1,x,3	6.464 µV, -110.8dB
0,1,x,4	5.013 µV, -113.0dB
0,1,x,5	5.835 µV, -111.7dB
0,1,x,6	6.180 µV, -111.2dB
0,1,x,7	5.737 µV, -111.8dB
0,2,x,0	6.550 µV, -110.7dB
0,2,x,1	6.229 µV, -111.1dB
0,2,x,2	7.004 µV, -110.1dB
0,2,x,3	6.029 µV, -111.4dB
0,2,x,4	5.771 µV, -111.8dB
0,2,x,5	5.163 µV, -112.7dB
0,2,x,6	5.541 µV, -112.1dB
0,2,x,7	3.858 µV, -115.3dB

Range 0.316V
Distortion 100mV < IR <= 316mV
Spec: <= -91.0dB
Uncertainty: 140nV

Chan	Value
0,1,x,0	4.086 µV, -94.8dB
0,1,x,1	4.112 µV, -94.7dB
0,1,x,2	4.268 µV, -94.4dB
0,1,x,3	3.940 µV, -95.1dB
0,1,x,4	3.847 µV, -95.3dB
0,1,x,5	4.237 µV, -94.4dB
0,1,x,6	3.980 µV, -95.0dB
0,1,x,7	4.000 µV, -94.9dB
0,2,x,0	4.793 µV, -93.4dB
0,2,x,1	4.228 µV, -94.5dB
0,2,x,2	4.407 µV, -94.1dB
0,2,x,3	4.542 µV, -93.8dB
0,2,x,4	4.386 µV, -94.1dB
0,2,x,5	3.978 µV, -95.0dB
0,2,x,6	4.524 µV, -93.9dB
0,2,x,7	4.614 µV, -93.7dB

Range 3.16nC
Distortion 1nC < IR <= 3.16nC
Spec: <= -94.0dB
Uncertainty: 0.8fC

Chan	Value
0,1,x,0	13.711 fC, -104.2dB
0,1,x,1	14.478 fC, -103.8dB
0,1,x,2	13.340 fC, -104.5dB
0,1,x,3	13.892 fC, -104.1dB
0,1,x,4	12.516 fC, -105.0dB
0,1,x,5	13.134 fC, -104.6dB
0,1,x,6	13.476 fC, -104.4dB
0,1,x,7	13.443 fC, -104.4dB
0,2,x,0	13.853 fC, -104.2dB
0,2,x,1	13.538 fC, -104.4dB
0,2,x,2	14.280 fC, -103.9dB
0,2,x,3	13.001 fC, -104.7dB
0,2,x,4	13.131 fC, -104.6dB
0,2,x,5	12.593 fC, -105.0dB
0,2,x,6	12.742 fC, -104.9dB
0,2,x,7	10.527 fC, -106.5dB

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Weidehek 53
4824 AT Breda
The Netherlands
Phone: +31 76 573 6363

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Range 1nC **Distortion 316pC < IR <= 1nC** **Spec: <= -94.0dB** **Uncertainty: 290aC**	
Chan	Value
0,1,x,0	6.811 fC, -100.3dB
0,1,x,1	7.038 fC, -100.0dB
0,1,x,2	6.745 fC, -100.4dB
0,1,x,3	6.657 fC, -100.5dB
0,1,x,4	6.388 fC, -100.9dB
0,1,x,5	6.602 fC, -100.6dB
0,1,x,6	6.642 fC, -100.5dB
0,1,x,7	6.614 fC, -100.6dB
0,2,x,0	7.156 fC, -99.9dB
0,2,x,1	6.900 fC, -100.2dB
0,2,x,2	7.101 fC, -100.0dB
0,2,x,3	6.812 fC, -100.3dB
0,2,x,4	6.753 fC, -100.4dB
0,2,x,5	6.490 fC, -100.7dB
0,2,x,6	6.711 fC, -100.5dB
0,2,x,7	6.225 fC, -101.1dB

Range 0.316nC **Distortion IR <= 316pC** **Spec: <= -90.0dB** **Uncertainty: 140aC**	
Chan	Value
0,1,x,0	5.285 fC, -92.5dB
0,1,x,1	5.390 fC, -92.4dB
0,1,x,2	5.359 fC, -92.4dB
0,1,x,3	5.124 fC, -92.8dB
0,1,x,4	5.118 fC, -92.8dB
0,1,x,5	5.280 fC, -92.5dB
0,1,x,6	5.164 fC, -92.7dB
0,1,x,7	5.153 fC, -92.7dB
0,2,x,0	5.844 fC, -91.6dB
0,2,x,1	5.482 fC, -92.2dB
0,2,x,2	5.620 fC, -92.0dB
0,2,x,3	5.601 fC, -92.0dB
0,2,x,4	5.578 fC, -92.1dB
0,2,x,5	5.298 fC, -92.5dB
0,2,x,6	5.665 fC, -91.9dB
0,2,x,7	5.524 fC, -92.1dB

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4824 AT Breda
The Netherlands
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4.4 RMS Noise

Description of calibration:
Determination of the noise contribution of the input channels, by internally shorting the input channels to ground. The reported values are RMS values over the corresponding bandwidth.

Range 10V, Bw 80kHz Not in Scope Spec: < 311.0000µVrms	
Chan	Value
0,1,x,0	216.7485µVrms
0,1,x,1	216.7614µVrms
0,1,x,2	214.8468µVrms
0,1,x,3	213.8053µVrms
0,1,x,4	215.9026µVrms
0,1,x,5	219.5729µVrms
0,1,x,6	219.7146µVrms
0,1,x,7	215.8142µVrms
0,2,x,0	218.3628µVrms
0,2,x,1	221.0696µVrms
0,2,x,2	214.2157µVrms
0,2,x,3	218.9269µVrms
0,2,x,4	220.0045µVrms
0,2,x,5	218.1282µVrms
0,2,x,6	216.1959µVrms
0,2,x,7	215.3990µVrms

Range 10nC, Bw 80kHz Not in Scope Spec: < 331.0000fCrms	
Chan	Value
0,1,x,0	215.8045fCrms
0,1,x,1	216.9941fCrms
0,1,x,2	216.1960fCrms
0,1,x,3	214.7273fCrms
0,1,x,4	217.5446fCrms
0,1,x,5	219.2731fCrms
0,1,x,6	218.2882fCrms
0,1,x,7	217.3297fCrms
0,2,x,0	217.1634fCrms
0,2,x,1	220.8419fCrms
0,2,x,2	214.9494fCrms
0,2,x,3	220.9747fCrms
0,2,x,4	218.1535fCrms
0,2,x,5	218.5878fCrms
0,2,x,6	216.7794fCrms
0,2,x,7	215.6303fCrms

Range 10V, Bw 40kHz Not in Scope Spec: < 42.0000µVrms	
Chan	Value
0,1,x,0	30.9181µVrms
0,1,x,1	30.8018µVrms
0,1,x,2	30.7485µVrms
0,1,x,3	30.3597µVrms
0,1,x,4	31.1716µVrms
0,1,x,5	31.0868µVrms
0,1,x,6	30.9951µVrms
0,1,x,7	30.7461µVrms
0,2,x,0	31.0206µVrms
0,2,x,1	31.9563µVrms
0,2,x,2	30.7216µVrms
0,2,x,3	30.8766µVrms
0,2,x,4	30.4988µVrms
0,2,x,5	30.9135µVrms
0,2,x,6	30.8102µVrms
0,2,x,7	30.5171µVrms

Range 0.316V, Bw 80kHz Not in Scope Spec: < 10.5000µVrms	
Chan	Value
0,1,x,0	7.2660µVrms
0,1,x,1	7.3214µVrms
0,1,x,2	7.2946µVrms
0,1,x,3	7.1992µVrms
0,1,x,4	7.3114µVrms
0,1,x,5	7.3325µVrms
0,1,x,6	7.3711µVrms
0,1,x,7	7.2652µVrms
0,2,x,0	7.2960µVrms
0,2,x,1	7.3994µVrms
0,2,x,2	7.2058µVrms
0,2,x,3	7.2926µVrms
0,2,x,4	7.3461µVrms
0,2,x,5	7.3659µVrms
0,2,x,6	7.3076µVrms
0,2,x,7	7.2535µVrms

Range 0.316nC, Bw 80kHz Not in Scope Spec: < 12.1000fCrms	
Chan	Value
0,1,x,0	8.5153fCrms
0,1,x,1	8.4416fCrms
0,1,x,2	8.4369fCrms
0,1,x,3	8.3723fCrms
0,1,x,4	8.4944fCrms
0,1,x,5	8.5182fCrms
0,1,x,6	8.5782fCrms
0,1,x,7	8.4250fCrms
0,2,x,0	8.4958fCrms
0,2,x,1	8.4962fCrms
0,2,x,2	8.4766fCrms
0,2,x,3	8.4123fCrms
0,2,x,4	8.3687fCrms
0,2,x,5	8.4628fCrms
0,2,x,6	8.4581fCrms
0,2,x,7	8.5279fCrms

Range 0.316V, Bw 40kHz Not in Scope Spec: < 2.8000µVrms	
Chan	Value
0,1,x,0	2.0357µVrms
0,1,x,1	2.0497µVrms
0,1,x,2	2.0512µVrms
0,1,x,3	2.0459µVrms
0,1,x,4	2.0514µVrms
0,1,x,5	2.0597µVrms
0,1,x,6	2.0632µVrms
0,1,x,7	2.0369µVrms
0,2,x,0	2.0476µVrms
0,2,x,1	2.0539µVrms
0,2,x,2	2.0539µVrms
0,2,x,3	2.0433µVrms
0,2,x,4	2.0452µVrms
0,2,x,5	2.0505µVrms
0,2,x,6	2.0412µVrms
0,2,x,7	2.0421µVrms

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Weidehek 53
4824 AT Breda
The Netherlands
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Range 10nC, Bw 40kHz
Not in Scope
Spec: < 44.5000fCrms

Chan	Value
0,1,x,0	31.0753fCrms
0,1,x,1	30.9105fCrms
0,1,x,2	30.8196fCrms
0,1,x,3	30.6073fCrms
0,1,x,4	31.2063fCrms
0,1,x,5	31.3217fCrms
0,1,x,6	31.3508fCrms
0,1,x,7	31.1194fCrms
0,2,x,0	31.5090fCrms
0,2,x,1	32.0012fCrms
0,2,x,2	31.1604fCrms
0,2,x,3	30.9983fCrms
0,2,x,4	30.9020fCrms
0,2,x,5	31.0687fCrms
0,2,x,6	31.0902fCrms
0,2,x,7	30.9428fCrms

Range 0.316nC, Bw 40kHz
Not in Scope
Spec: < 5.3700fCrms

Chan	Value
0,1,x,0	3.6789fCrms
0,1,x,1	3.6917fCrms
0,1,x,2	3.6619fCrms
0,1,x,3	3.6698fCrms
0,1,x,4	3.7205fCrms
0,1,x,5	3.6734fCrms
0,1,x,6	3.6467fCrms
0,1,x,7	3.6184fCrms
0,2,x,0	3.6399fCrms
0,2,x,1	3.6885fCrms
0,2,x,2	3.6753fCrms
0,2,x,3	3.6790fCrms
0,2,x,4	3.6429fCrms
0,2,x,5	3.6177fCrms
0,2,x,6	3.6796fCrms
0,2,x,7	3.6760fCrms

Range 10V, Bw 20kHz
Noise 3.16V < IR <= 10V
Spec: <= 29.000 µV
Uncertainty: 3.4nV

Chan	Value
0,1,x,0	20.765 µV
0,1,x,1	20.457 µV
0,1,x,2	20.552 µV
0,1,x,3	20.616 µV
0,1,x,4	21.131 µV
0,1,x,5	20.611 µV
0,1,x,6	20.696 µV
0,1,x,7	20.492 µV
0,2,x,0	20.661 µV
0,2,x,1	20.746 µV
0,2,x,2	20.461 µV
0,2,x,3	21.064 µV
0,2,x,4	20.602 µV
0,2,x,5	20.534 µV
0,2,x,6	20.402 µV
0,2,x,7	20.331 µV

Range 0.316V, Bw 20kHz
Noise IR <= 316mV
Spec: <= 1.980 µV
Uncertainty: 2.0nV

Chan	Value
0,1,x,0	1.445 µV
0,1,x,1	1.453 µV
0,1,x,2	1.449 µV
0,1,x,3	1.444 µV
0,1,x,4	1.458 µV
0,1,x,5	1.452 µV
0,1,x,6	1.450 µV
0,1,x,7	1.442 µV
0,2,x,0	1.445 µV
0,2,x,1	1.455 µV
0,2,x,2	1.457 µV
0,2,x,3	1.449 µV
0,2,x,4	1.437 µV
0,2,x,5	1.450 µV
0,2,x,6	1.437 µV
0,2,x,7	1.439 µV

Range 10nC, Bw 20kHz
Noise 3.16nC < IR <= 10nC
Spec: <= 30.000 fC
Uncertainty: 2.8aC

Chan	Value
0,1,x,0	20.962 fC
0,1,x,1	20.729 fC
0,1,x,2	20.788 fC
0,1,x,3	20.515 fC
0,1,x,4	20.985 fC
0,1,x,5	20.725 fC
0,1,x,6	20.866 fC
0,1,x,7	20.652 fC
0,2,x,0	20.811 fC
0,2,x,1	21.074 fC
0,2,x,2	21.086 fC
0,2,x,3	20.973 fC
0,2,x,4	20.675 fC
0,2,x,5	20.724 fC
0,2,x,6	20.628 fC
0,2,x,7	20.565 fC

Range 0.316nC, Bw 20kHz
Noise IR <= 316pC
Spec: <= 3.960 fC
Uncertainty: 0.1aC

Chan	Value
0,1,x,0	2.681 fC
0,1,x,1	2.658 fC
0,1,x,2	2.668 fC
0,1,x,3	2.666 fC
0,1,x,4	2.686 fC
0,1,x,5	2.641 fC
0,1,x,6	2.679 fC
0,1,x,7	2.664 fC
0,2,x,0	2.632 fC
0,2,x,1	2.656 fC
0,2,x,2	2.630 fC
0,2,x,3	2.654 fC
0,2,x,4	2.641 fC
0,2,x,5	2.621 fC
0,2,x,6	2.661 fC
0,2,x,7	2.663 fC

Siemens Industry Software B.V.
Weidehek 53
4824 AT Breda
The Netherlands
Phone: +31 76 573 6363

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4.5 Spurious Free Floor

Description of calibration:
Determination of the peak spurious components generated by the input channels, by internally shorting the input channels to ground. The reported values are peak values over the corresponding bandwidth.

Range 10V, Bw 80kHz Not in Scope Spec: < 40.0000µV	
Chan	Value
0,1,x,0	22.6769µV
0,1,x,1	18.4080µV
0,1,x,2	20.0730µV
0,1,x,3	18.7440µV
0,1,x,4	17.1196µV
0,1,x,5	22.8682µV
0,1,x,6	19.7619µV
0,1,x,7	18.0397µV
0,2,x,0	21.0233µV
0,2,x,1	19.4723µV
0,2,x,2	20.6786µV
0,2,x,3	19.1631µV
0,2,x,4	21.4349µV
0,2,x,5	19.8588µV
0,2,x,6	20.3209µV
0,2,x,7	20.5862µV

Range 10nC, Bw 80kHz Not in Scope Spec: < 40.0000fC	
Chan	Value
0,1,x,0	18.8948fC
0,1,x,1	18.7457fC
0,1,x,2	18.1617fC
0,1,x,3	19.8080fC
0,1,x,4	22.1167fC
0,1,x,5	19.6563fC
0,1,x,6	17.1937fC
0,1,x,7	20.0113fC
0,2,x,0	18.8465fC
0,2,x,1	19.6487fC
0,2,x,2	18.0937fC
0,2,x,3	19.7589fC
0,2,x,4	18.6611fC
0,2,x,5	20.3128fC
0,2,x,6	18.8154fC
0,2,x,7	18.8315fC

Range 10V, Bw 40kHz Not in Scope Spec: < 3.0000µV	
Chan	Value
0,1,x,0	1.8426µV
0,1,x,1	1.5123µV
0,1,x,2	1.6849µV
0,1,x,3	1.7402µV
0,1,x,4	1.6418µV
0,1,x,5	1.6120µV
0,1,x,6	1.5807µV
0,1,x,7	1.4531µV
0,2,x,0	1.6576µV
0,2,x,1	1.6733µV
0,2,x,2	1.7523µV
0,2,x,3	1.9637µV
0,2,x,4	1.7779µV
0,2,x,5	2.0590µV
0,2,x,6	1.6229µV
0,2,x,7	2.0962µV

Range 10nC, Bw 40kHz Not in Scope Spec: < 3.0000fC	
Chan	Value
0,1,x,0	2.0347fC
0,1,x,1	1.4608fC
0,1,x,2	1.4590fC
0,1,x,3	1.4284fC
0,1,x,4	1.6482fC
0,1,x,5	1.8048fC
0,1,x,6	1.7736fC
0,1,x,7	1.4589fC
0,2,x,0	1.8589fC
0,2,x,1	1.7511fC
0,2,x,2	1.7128fC
0,2,x,3	2.1083fC
0,2,x,4	2.1011fC
0,2,x,5	1.5439fC
0,2,x,6	1.4979fC
0,2,x,7	1.4752fC

Range 0.316V, Bw 80kHz Not in Scope Spec: < 1.2000µV	
Chan	Value
0,1,x,0	0.6840µV
0,1,x,1	0.6457µV
0,1,x,2	0.6160µV
0,1,x,3	0.6390µV
0,1,x,4	0.6888µV
0,1,x,5	0.5820µV
0,1,x,6	0.6650µV
0,1,x,7	0.6728µV
0,2,x,0	0.6490µV
0,2,x,1	0.5856µV
0,2,x,2	0.5574µV
0,2,x,3	0.6535µV
0,2,x,4	0.5737µV
0,2,x,5	0.6133µV
0,2,x,6	0.5830µV
0,2,x,7	0.5414µV

Range 0.316nC, Bw 80kHz Not in Scope Spec: < 1.2000fC	
Chan	Value
0,1,x,0	0.6378fC
0,1,x,1	0.6319fC
0,1,x,2	0.5653fC
0,1,x,3	0.5911fC
0,1,x,4	0.5822fC
0,1,x,5	0.6677fC
0,1,x,6	0.6119fC
0,1,x,7	0.7362fC
0,2,x,0	0.7077fC
0,2,x,1	0.5909fC
0,2,x,2	0.6724fC
0,2,x,3	0.5616fC
0,2,x,4	0.6444fC
0,2,x,5	0.6774fC
0,2,x,6	0.6087fC
0,2,x,7	0.6612fC

Range 0.316V, Bw 40kHz Not in Scope Spec: < 0.1600µV	
Chan	Value
0,1,x,0	0.1035µV
0,1,x,1	0.0870µV
0,1,x,2	0.0859µV
0,1,x,3	0.0785µV
0,1,x,4	0.0850µV
0,1,x,5	0.1128µV
0,1,x,6	0.0829µV
0,1,x,7	0.1166µV
0,2,x,0	0.0892µV
0,2,x,1	0.0878µV
0,2,x,2	0.0833µV
0,2,x,3	0.0857µV
0,2,x,4	0.0796µV
0,2,x,5	0.0818µV
0,2,x,6	0.0796µV
0,2,x,7	0.0893µV

Range 0.316nC, Bw 40kHz Not in Scope Spec: < 0.3500fC	
Chan	Value
0,1,x,0	0.1381fC
0,1,x,1	0.1494fC
0,1,x,2	0.1669fC
0,1,x,3	0.1606fC
0,1,x,4	0.1401fC
0,1,x,5	0.1451fC
0,1,x,6	0.1462fC
0,1,x,7	0.1534fC
0,2,x,0	0.1465fC
0,2,x,1	0.1502fC
0,2,x,2	0.1544fC
0,2,x,3	0.1435fC
0,2,x,4	0.1561fC
0,2,x,5	0.1362fC
0,2,x,6	0.1380fC
0,2,x,7	0.1468fC

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Weidehek 53
4824 AT Breda
The Netherlands
Phone: +31 76 573 6363

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Range 10V, Bw 20kHz Spurious 3.16V < IR <= 10V Spec: <= 2.300 µV Uncertainty: 3.4nV	
Chan	Value
0,1,x,0	1.393 µV
0,1,x,1	1.343 µV
0,1,x,2	1.156 µV
0,1,x,3	1.267 µV
0,1,x,4	1.428 µV
0,1,x,5	1.051 µV
0,1,x,6	1.550 µV
0,1,x,7	1.036 µV
0,2,x,0	1.302 µV
0,2,x,1	1.367 µV
0,2,x,2	1.115 µV
0,2,x,3	1.134 µV
0,2,x,4	1.147 µV
0,2,x,5	1.502 µV
0,2,x,6	1.272 µV
0,2,x,7	1.182 µV

Range 10nC, Bw 20kHz Spurious 3.16nC < IR <= 10nC Spec: <= 2.500 fC Uncertainty: 2.8aC	
Chan	Value
0,1,x,0	1.668 fC
0,1,x,1	1.198 fC
0,1,x,2	1.133 fC
0,1,x,3	1.337 fC
0,1,x,4	1.585 fC
0,1,x,5	1.043 fC
0,1,x,6	1.251 fC
0,1,x,7	1.183 fC
0,2,x,0	1.022 fC
0,2,x,1	1.142 fC
0,2,x,2	1.147 fC
0,2,x,3	1.069 fC
0,2,x,4	1.222 fC
0,2,x,5	1.147 fC
0,2,x,6	1.135 fC
0,2,x,7	0.988 fC

ICP Not in Scope Spec: < 0.2600µVp	
Chan	Value
0,1,x,0	0.0733µVp
0,1,x,1	0.0883µVp
0,1,x,2	0.0865µVp
0,1,x,3	0.0793µVp
0,1,x,4	0.0813µVp
0,1,x,5	0.0773µVp
0,1,x,6	0.0857µVp
0,1,x,7	0.0887µVp
0,2,x,0	0.0741µVp
0,2,x,1	0.0797µVp
0,2,x,2	0.0704µVp
0,2,x,3	0.0777µVp
0,2,x,4	0.0840µVp
0,2,x,5	0.0868µVp
0,2,x,6	0.0773µVp
0,2,x,7	0.0805µVp

Range 0.316V, Bw 20kHz Spurious IR <= 316mV Spec: <= 0.130 µV Uncertainty: 2.0nV	
Chan	Value
0,1,x,0	0.071 µV
0,1,x,1	0.061 µV
0,1,x,2	0.073 µV
0,1,x,3	0.058 µV
0,1,x,4	0.058 µV
0,1,x,5	0.072 µV
0,1,x,6	0.075 µV
0,1,x,7	0.079 µV
0,2,x,0	0.063 µV
0,2,x,1	0.059 µV
0,2,x,2	0.061 µV
0,2,x,3	0.061 µV
0,2,x,4	0.067 µV
0,2,x,5	0.060 µV
0,2,x,6	0.061 µV
0,2,x,7	0.069 µV

Range 0.316nC, Bw 20kHz Spurious IR <= 316pC Spec: <= 0.300 fC Uncertainty: 0.1aC	
Chan	Value
0,1,x,0	0.107 fC
0,1,x,1	0.132 fC
0,1,x,2	0.106 fC
0,1,x,3	0.103 fC
0,1,x,4	0.109 fC
0,1,x,5	0.108 fC
0,1,x,6	0.105 fC
0,1,x,7	0.104 fC
0,2,x,0	0.111 fC
0,2,x,1	0.103 fC
0,2,x,2	0.109 fC
0,2,x,3	0.113 fC
0,2,x,4	0.107 fC
0,2,x,5	0.124 fC
0,2,x,6	0.104 fC
0,2,x,7	0.114 fC

Siemens Industry Software B.V.
Weidehek 53
4824 AT Breda
The Netherlands
Phone: +31 76 573 6363

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4.6 Inter-channel Crosstalk

Description of calibration:
Determination of the crosstalk between the input channels in a system. The channel under calibration is internally shorted to ground, while its neighbour channels are fed with a near full scale sine wave signal which is generated by the internal reference generator. This is done for two input range settings of the channel under calibration, and two signal frequencies. The reported results represent the measured crosstalk values in the channels under calibration (either in Volt or Coulomb, depending on the input channel type) and the ratio between the applied signal amplitude and the crosstalk values (in dB).

Range 0.316V, F 1K5
Crosstalk 100mV < IR <= 316mV
Spec: <= -120.0dB
Uncertainty: 68nV

Chan	Value
0,1,x,0	0.125 µV, -132.1dB
0,1,x,1	0.149 µV, -130.5dB
0,1,x,2	0.123 µV, -132.2dB
0,1,x,3	0.086 µV, -135.3dB
0,1,x,4	0.135 µV, -131.4dB
0,1,x,5	0.119 µV, -132.5dB
0,1,x,6	0.137 µV, -131.3dB
0,1,x,7	0.116 µV, -132.7dB
0,2,x,0	0.093 µV, -134.6dB
0,2,x,1	0.107 µV, -133.4dB
0,2,x,2	0.076 µV, -136.4dB
0,2,x,3	0.131 µV, -131.6dB
0,2,x,4	0.091 µV, -134.8dB
0,2,x,5	0.091 µV, -134.8dB
0,2,x,6	0.095 µV, -134.4dB
0,2,x,7	0.142 µV, -130.9dB

Range 0.316nC, F 1K5
Crosstalk IR <= 316pC
Spec: <= -118.0dB
Uncertainty: 68aC

Chan	Value
0,1,x,0	0.148 fC, -130.6dB
0,1,x,1	0.160 fC, -129.9dB
0,1,x,2	0.119 fC, -132.5dB
0,1,x,3	0.145 fC, -130.7dB
0,1,x,4	0.186 fC, -128.6dB
0,1,x,5	0.162 fC, -129.8dB
0,1,x,6	0.195 fC, -128.2dB
0,1,x,7	0.180 fC, -128.9dB
0,2,x,0	0.181 fC, -128.8dB
0,2,x,1	0.172 fC, -129.3dB
0,2,x,2	0.176 fC, -129.1dB
0,2,x,3	0.162 fC, -129.8dB
0,2,x,4	0.165 fC, -129.6dB
0,2,x,5	0.209 fC, -127.6dB
0,2,x,6	0.218 fC, -127.2dB
0,2,x,7	0.226 fC, -126.9dB

Range 0.316V, F 15K
Crosstalk 100mV < IR <= 316mV
Spec: <= -107.0dB
Uncertainty: 68nV

Chan	Value
0,1,x,0	0.585 µV, -118.6dB
0,1,x,1	0.954 µV, -114.4dB
0,1,x,2	0.984 µV, -114.1dB
0,1,x,3	0.768 µV, -116.3dB
0,1,x,4	0.894 µV, -115.0dB
0,1,x,5	0.955 µV, -114.4dB
0,1,x,6	0.961 µV, -114.3dB
0,1,x,7	0.896 µV, -114.9dB
0,2,x,0	0.559 µV, -119.0dB
0,2,x,1	0.923 µV, -114.7dB
0,2,x,2	0.973 µV, -114.2dB
0,2,x,3	0.794 µV, -116.0dB
0,2,x,4	0.904 µV, -114.9dB
0,2,x,5	0.924 µV, -114.7dB
0,2,x,6	0.924 µV, -114.7dB
0,2,x,7	0.893 µV, -115.0dB

Range 10V, F 1K5
Crosstalk 3.16V < IR <= 10V
Spec: <= -108.0dB
Uncertainty: 1.3µV

Chan	Value
0,1,x,0	0.388 µV, -122.2dB
0,1,x,1	0.256 µV, -125.8dB
0,1,x,2	0.255 µV, -125.9dB
0,1,x,3	0.531 µV, -119.5dB
0,1,x,4	0.398 µV, -122.0dB
0,1,x,5	0.513 µV, -119.8dB
0,1,x,6	0.583 µV, -118.7dB
0,1,x,7	0.802 µV, -115.9dB
0,2,x,0	0.378 µV, -122.4dB
0,2,x,1	0.181 µV, -128.8dB
0,2,x,2	0.248 µV, -126.1dB
0,2,x,3	0.798 µV, -115.9dB
0,2,x,4	0.455 µV, -120.8dB
0,2,x,5	0.390 µV, -122.2dB
0,2,x,6	0.512 µV, -119.8dB
0,2,x,7	0.577 µV, -118.8dB

Range 10nC, F 1K5
Crosstalk 3.16nC < IR <= 10nC
Spec: <= -109.0dB
Uncertainty: 1.3fC

Chan	Value
0,1,x,0	0.095 fC, -134.4dB
0,1,x,1	0.240 fC, -126.4dB
0,1,x,2	0.263 fC, -125.6dB
0,1,x,3	0.869 fC, -115.2dB
0,1,x,4	0.759 fC, -116.4dB
0,1,x,5	0.615 fC, -118.2dB
0,1,x,6	0.700 fC, -117.1dB
0,1,x,7	0.837 fC, -115.5dB
0,2,x,0	0.232 fC, -126.7dB
0,2,x,1	0.187 fC, -128.5dB
0,2,x,2	0.290 fC, -124.7dB
0,2,x,3	0.664 fC, -117.5dB
0,2,x,4	0.673 fC, -117.4dB
0,2,x,5	0.584 fC, -118.7dB
0,2,x,6	1.058 fC, -113.5dB
0,2,x,7	0.774 fC, -116.2dB

Range 10V, F 15K
Crosstalk 3.16V < IR <= 10V
Spec: <= -105.0dB
Uncertainty: 1.3µV

Chan	Value
0,1,x,0	1.006 µV, -113.9dB
0,1,x,1	1.497 µV, -110.5dB
0,1,x,2	1.614 µV, -109.8dB
0,1,x,3	1.257 µV, -112.0dB
0,1,x,4	1.554 µV, -110.1dB
0,1,x,5	1.563 µV, -110.1dB
0,1,x,6	1.489 µV, -110.5dB
0,1,x,7	1.073 µV, -113.4dB
0,2,x,0	0.915 µV, -114.7dB
0,2,x,1	1.669 µV, -109.5dB
0,2,x,2	1.597 µV, -109.9dB
0,2,x,3	1.370 µV, -111.2dB
0,2,x,4	1.105 µV, -113.1dB
0,2,x,5	1.249 µV, -112.0dB
0,2,x,6	1.261 µV, -112.0dB
0,2,x,7	1.300 µV, -111.7dB

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Weidehek 53
4824 AT Breda
The Netherlands
Phone: +31 76 573 6363

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Range 0.316nC, F 15K Crosstalk IR <= 316pC Spec: <= -118.0dB Uncertainty: 68aC	
Chan	Value
0,1,x,0	0.235 fC, -126.6dB
0,1,x,1	0.349 fC, -123.1dB
0,1,x,2	0.239 fC, -126.4dB
0,1,x,3	0.466 fC, -120.6dB
0,1,x,4	0.318 fC, -123.9dB
0,1,x,5	0.310 fC, -124.2dB
0,1,x,6	0.321 fC, -123.8dB
0,1,x,7	0.338 fC, -123.4dB
0,2,x,0	0.234 fC, -126.6dB
0,2,x,1	0.348 fC, -123.1dB
0,2,x,2	0.247 fC, -126.1dB
0,2,x,3	0.414 fC, -121.6dB
0,2,x,4	0.329 fC, -123.6dB
0,2,x,5	0.287 fC, -124.8dB
0,2,x,6	0.307 fC, -124.2dB
0,2,x,7	0.294 fC, -124.6dB

Range 10nC, F 15K Crosstalk 3.16nC < IR <= 10nC Spec: <= -109.0dB Uncertainty: 1.3fC	
Chan	Value
0,1,x,0	0.555 fC, -119.1dB
0,1,x,1	0.925 fC, -114.7dB
0,1,x,2	1.229 fC, -112.2dB
0,1,x,3	1.229 fC, -112.2dB
0,1,x,4	0.856 fC, -115.3dB
0,1,x,5	0.666 fC, -117.5dB
0,1,x,6	0.370 fC, -122.6dB
0,1,x,7	0.066 fC, -137.6dB
0,2,x,0	0.480 fC, -120.4dB
0,2,x,1	0.883 fC, -115.1dB
0,2,x,2	1.045 fC, -113.6dB
0,2,x,3	0.875 fC, -115.1dB
0,2,x,4	0.647 fC, -117.8dB
0,2,x,5	0.859 fC, -115.3dB
0,2,x,6	0.682 fC, -117.3dB
0,2,x,7	0.492 fC, -120.1dB

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Weidehek 53
4824 AT Breda
The Netherlands
Phone: +31 76 573 6363

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4.7 Inter-channel Phase Match

Description of calibration:
Determination of the phase difference between the input channels in a system, by applying an accurate -3dBFS (max 4V) sine wave which is generated by the internal reference generator. For charge amplifiers, the reference voltage signal is translated to a reference charge signal. The reported values represent the highest phase differences found between any of the channels in the system. This is done for two input range settings and two signal frequencies.

Range 10V, F 9k9 **Not in Scope** **Spec: < 0.3000°**	
Chan	Value
0,1,x,0	0.0413°
0,1,x,1	0.0271°
0,1,x,2	0.0355°
0,1,x,3	0.0210°
0,1,x,4	0.0247°
0,1,x,5	0.0413°
0,1,x,6	0.0333°
0,1,x,7	0.0400°
0,2,x,0	0.0296°
0,2,x,1	0.0262°
0,2,x,2	0.0228°
0,2,x,3	0.0410°
0,2,x,4	0.0232°
0,2,x,5	0.0343°
0,2,x,6	0.0252°
0,2,x,7	0.0244°

Range 10nC, F 9k9 **Not in Scope** **Spec: < 0.3000°**	
Chan	Value
0,1,x,0	0.0470°
0,1,x,1	0.0254°
0,1,x,2	0.0441°
0,1,x,3	0.0287°
0,1,x,4	0.0333°
0,1,x,5	0.0391°
0,1,x,6	0.0288°
0,1,x,7	0.0470°
0,2,x,0	0.0263°
0,2,x,1	0.0357°
0,2,x,2	0.0333°
0,2,x,3	0.0335°
0,2,x,4	0.0277°
0,2,x,5	0.0344°
0,2,x,6	0.0242°
0,2,x,7	0.0245°

Range 10V, F 19k9 **Not in Scope** **Spec: < 0.4000°**	
Chan	Value
0,1,x,0	0.0836°
0,1,x,1	0.0549°
0,1,x,2	0.0713°
0,1,x,3	0.0427°
0,1,x,4	0.0491°
0,1,x,5	0.0836°
0,1,x,6	0.0672°
0,1,x,7	0.0810°
0,2,x,0	0.0598°
0,2,x,1	0.0532°
0,2,x,2	0.0467°
0,2,x,3	0.0820°
0,2,x,4	0.0472°
0,2,x,5	0.0689°
0,2,x,6	0.0505°
0,2,x,7	0.0492°

Range 10nC, F 19K9 **Not in Scope** **Spec: < 0.4000°**	
Chan	Value
0,1,x,0	0.0961°
0,1,x,1	0.0509°
0,1,x,2	0.0913°
0,1,x,3	0.0583°
0,1,x,4	0.0673°
0,1,x,5	0.0787°
0,1,x,6	0.0578°
0,1,x,7	0.0961°
0,2,x,0	0.0529°
0,2,x,1	0.0727°
0,2,x,2	0.0676°
0,2,x,3	0.0674°
0,2,x,4	0.0578°
0,2,x,5	0.0688°
0,2,x,6	0.0506°
0,2,x,7	0.0509°

Range 0.316V, F 9k9 **Not in Scope** **Spec: < 0.3000°**	
Chan	Value
0,1,x,0	0.0712°
0,1,x,1	0.1000°
0,1,x,2	0.0753°
0,1,x,3	0.1232°
0,1,x,4	0.0842°
0,1,x,5	0.1099°
0,1,x,6	0.1190°
0,1,x,7	0.1382°
0,2,x,0	0.1299°
0,2,x,1	0.1033°
0,2,x,2	0.1187°
0,2,x,3	0.0942°
0,2,x,4	0.1148°
0,2,x,5	0.0848°
0,2,x,6	0.1161°
0,2,x,7	0.1382°

Range 0.316nC, F 9k9 **Not in Scope** **Spec: < 0.3000°**	
Chan	Value
0,1,x,0	0.0737°
0,1,x,1	0.0929°
0,1,x,2	0.0728°
0,1,x,3	0.1250°
0,1,x,4	0.0763°
0,1,x,5	0.1014°
0,1,x,6	0.1086°
0,1,x,7	0.1392°
0,2,x,0	0.1392°
0,2,x,1	0.1124°
0,2,x,2	0.1283°
0,2,x,3	0.1067°
0,2,x,4	0.1187°
0,2,x,5	0.0901°
0,2,x,6	0.1235°
0,2,x,7	0.1377°

Range 0.316V, F 19k9 **Not in Scope** **Spec: < 0.6000°**	
Chan	Value
0,1,x,0	0.1393°
0,1,x,1	0.1983°
0,1,x,2	0.1480°
0,1,x,3	0.2440°
0,1,x,4	0.1672°
0,1,x,5	0.2171°
0,1,x,6	0.2352°
0,1,x,7	0.2745°
0,2,x,0	0.2589°
0,2,x,1	0.2055°
0,2,x,2	0.2365°
0,2,x,3	0.1876°
0,2,x,4	0.2279°
0,2,x,5	0.1689°
0,2,x,6	0.2313°
0,2,x,7	0.2745°

Range 0.316nC, F 19K9 **Not in Scope** **Spec: < 0.6000°**	
Chan	Value
0,1,x,0	0.1498°
0,1,x,1	0.1877°
0,1,x,2	0.1484°
0,1,x,3	0.2537°
0,1,x,4	0.1551°
0,1,x,5	0.2061°
0,1,x,6	0.2196°
0,1,x,7	0.2828°
0,2,x,0	0.2828°
0,2,x,1	0.2294°
0,2,x,2	0.2613°
0,2,x,3	0.2191°
0,2,x,4	0.2434°
0,2,x,5	0.1855°
0,2,x,6	0.2536°
0,2,x,7	0.2810°

Siemens Industry Software B.V.
Weidehek 53
4824 AT Breda
The Netherlands
Phone: +31 76 573 6363

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5.1 Gain Accuracy after Adjustment

Description of calibration:
Determination of the amplitude accuracy of the input channels over all input ranges and available ADC bandwidths, by applying an accurate 1kHz -3dBFS (max 4V) sine wave which is generated by the internal reference generator. For charge amplifiers, the reference voltage signal is translated to a reference charge signal.
The reported values represent the deviations from the expected signal amplitude, both absolute (either in Volt or Coulomb, depending on the input channel type) and relative (in %).

BW 25k6 **Alternating voltage 3.16V < IR <= 10V** **Spec: <= ±0.100%** **Uncertainty: 530µV**	
Chan	Value
0,0,x,0	-0.962 mV, -0.024%
0,0,x,1	-1.590 mV, -0.040%

BW 51k2 **Alternating voltage 3.16V < IR <= 10V** **Spec: <= ±0.100%** **Uncertainty: 530µV**	
Chan	Value
0,0,x,0	-1.151 mV, -0.029%
0,0,x,1	-1.379 mV, -0.034%

BW 102k4 **Not in Scope** **Spec: 1.00000 ±0.10%**	
Chan	Value
0,0,x,0	999.69879m, -0.03%

Siemens Industry Software B.V.
Weidehek 53
4824 AT Breda
The Netherlands
Phone: +31 76 573 6363

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West Caldwell Calibration Laboratories Inc.

Certificate of Calibration

for

MICROPHONE & PREAMPLIFIER

Manufactured by:	**BRUEL & KJAER**
Model No:	**4189-2671 (ID#00366)**
Serial No:	**2625416-2369794**
Calibration Recall No:	**30268**

Submitted By:

Customer:	**Iwona Stasiewicz**
Company:	**Aercoustics Engineering Ltd**
Address:	**1004 Middlegate Road**
	Mississauga, ON.Cana L4Y0G1

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. 4189-2671 (BRUE

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

Within (X)

tolerance of the indicated specification. See attached Report of Calibration.
The information supplied relates to the calibrated item listed above.
West Caldwell Calibration Laboratories' calibration control system meets the following requirements, ISO 10012-1 MIL STD 45662A, ANSI/NCSL Z540-1, IEC Guide 25, ISO 9001:2015 and ISO 17025

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

Calibration Date: 26-Aug-19

Certificate No: 30268 -4

Approved by:

James Zhu

Quality Manager
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.

ISO/IEC 17025: 2005

West Caldwell Calibration Laboratories, Inc.
uncompromised calibration

1575 State Route 96, Victor NY 14564

ACCREDITED
Calibration Lab. Cert. # 1533.01

REPORT OF CALIBRATION

for

Brüel & Kjær Microphone & Preamplifier **Model No.: 4189&2671** **Serial No.: 2625416-2369794**

Mic. Model No.: 4189 **Serial No.: 2625416**

Preamp Model No.: 2671 **Serial No.: 2369794**

Company: Aercoustics Engineering Ltd. **I. D. No.: 00366**

Calibration results:

Before & after data same: ...X...

Combined Sensitivity @ **250** **Hz** **and pressure of** **100.08** **kPa**

(Sens. with mic. and preamp.) **0** Volts Polarization voltage (External):

-26.50 dB re.1V/Pascal

47.32 mV/Pascal

0.50 Ko (- dB re 50 mV/Pascal)

Sensitivity: **Pass**

Freq. Response: **Pass**

All tests: **Pass**

Ambient Temperature:	20.2	°C
Ambient Humidity:	54.6	% RH
Ambient Pressure:	100.083	kPa
Calibration Date:	26-Aug-2019	
Re-calibration Due:	26-Aug-2020	
Report Number:	30268 -4	
Control Number:	30268	

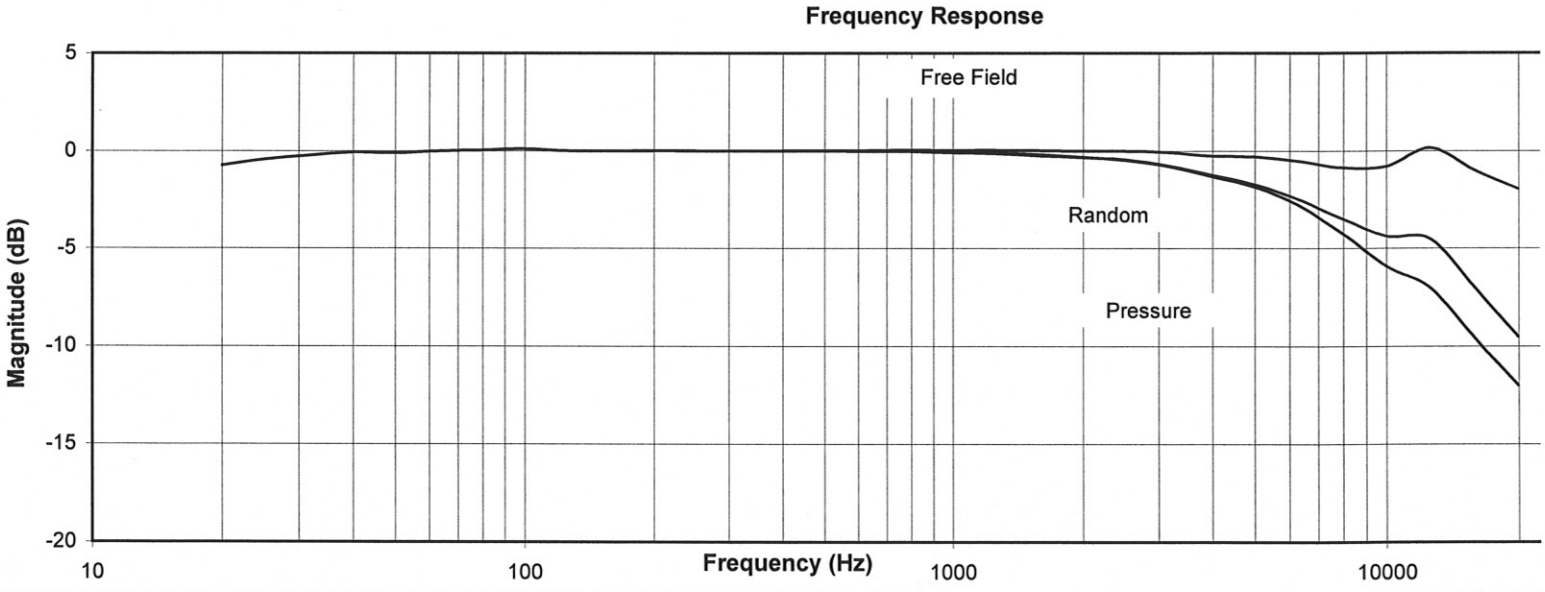
The above listed instrument meets or exceeds the tested manufacturer's specifications.

The IEC 651:1979 & 1993 Type 1 and ANSI S1.4 1983 Type 2 specification passed.

This Calibration is traceable through NIST test numbers: 683/290345-18

The expanded uncertainty of calibration: 0.12 dB at 95% confidence level with a coverage factor of k=2.

The pressure response recorded with electroacoustic method.



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 P4189&2671B&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 9001:2015, ISO 17025

Measurements performed by: .....

James Zhu

Calibrated on WCCL system type 9700

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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 & Preamplifier **Model No.: 4189&2671** **Serial No.: 2625416-2369794**
Company: Aercoustics Engineering Ltd. **I. D. No.: 00366**

Frequency Response (Reference = 0 dB @ 250Hz)

Frequency [Hz]	Pressure [dB]	Free Field (dB)	Random (dB)
19.95	-0.74	-0.74	-0.74
25.12	-0.43	-0.43	-0.43
31.62	-0.23	-0.23	-0.23
39.81	-0.06	-0.06	-0.06
50.12	-0.10	-0.10	-0.10
63.10	0.00	0.00	0.00
79.43	0.05	0.05	0.05
100.00	0.10	0.10	0.10
125.89	0.01	0.01	0.01
158.49	-0.01	-0.01	-0.01
199.53	0.00	0.00	0.00
251.19	0.00	0.00	0.00
316.23	0.00	0.00	0.00
398.11	0.00	0.01	0.00
501.19	-0.01	0.02	-0.01
630.96	-0.01	0.02	-0.01
794.33	-0.03	0.04	-0.03
1000.00	-0.07	0.03	-0.08
1258.93	-0.11	0.04	-0.14
1584.89	-0.19	0.03	-0.25
1995.26	-0.32	0.00	-0.33
2511.89	-0.48	-0.01	-0.45
3162.28	-0.79	-0.07	-0.75
3981.07	-1.32	-0.25	-1.23
5011.87	-1.87	-0.30	-1.73
6309.57	-2.81	-0.53	-2.50
7943.28	-4.23	-0.85	-3.48
10000.00	-5.91	-0.79	-4.38
12589.25	-7.03	0.16	-4.52
15848.93	-9.59	-1.00	-7.00
19952.62	-11.99	-1.94	-9.51

Freq. response: Expanded Uncertainty (dB) with coverage factor K = 2
20 to 63Hz 0.11 dB, 63 to 12.5kHz 0.10 dB, 12.5k to 16kHz 0.11 dB, 16k to 20kHz 0.5 dB.

Instruments used for calibration:			Date of Cal.	Traceability No.	Re-cal. Due Date
Brüel & Kjær	4226	S/N 1445428	16-Jul-2019	683/290345-18	16-Jul-2020
Brüel & Kjær	3560	S/N 2215835	28-Jun-2019	683/290345-18	28-Jun-2020
HP	33120A	S/N US360089	5-Jul-2019	,1010733	5-Jul-2020
HP	34401A	S/N US360942	5-Jul-2019	,1010733	5-Jul-2020

Cal. Date: 26-Aug-2019 **Tested by: James Zhu**

Calibrated on WCCL system type 9700

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West Caldwell Calibration Laboratories Inc.

Certificate of Calibration

for

ICP SENSOR SIGNAL CONDITIONER

Manufactured by:	**PCB PIEZOTRONICS**
Model No:	**480E09**
Serial No:	**34208**
Calibration Recall No:	**30781**

Submitted By:

Customer:	**Iwona Stasiewicz**
Company:	**Aercoustics Engineering Ltd**
Address:	**1004 Middlegate Road**
	Mississauga, ON.Cana L4Y0G1

The subject instrument was calibrated to the indicated specification using standards traceable to the SI through 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. **480E09 PCB PI**

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

Within (X)

tolerance of the indicated specification. See attached Report of Calibration.
The information supplied relates to the calibrated item listed above.
West Caldwell Calibration Laboratories' calibration control system meets the following requirements, ISO 10012-1 MIL STD 45662A, ANSI/NCSL Z540-1, IEC Guide 25, ISO 9001:2015 and ISO 17025

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

Calibration Date: **16-Mar-20**

Certificate No: **30781 - 2**

Approved by:

James Zhu

Quality Manager
ISO/IEC 17025:2005

uncompromised calibration **West Caldwell Calibration Laboratories, Inc.**
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

PCB Piezotronics ICP Signal Conditioner **Model No.: 480E09** **Serial No.: 34208**
Company: Aercoustics Enginering Ltd. **ID No.: XXXX**

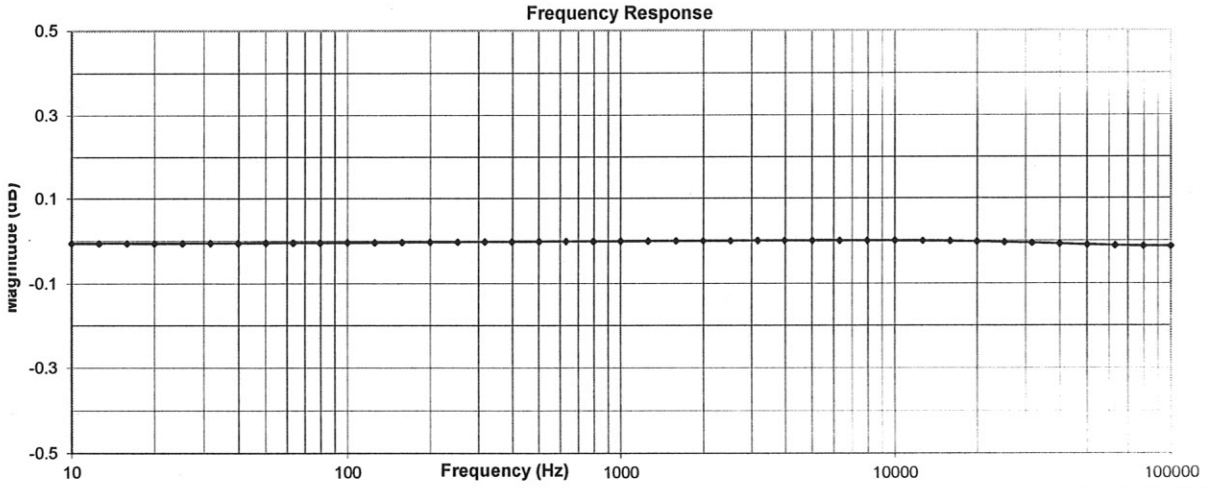
Calibration results:

Before & after data same:	...X...
DC Current and voltage:	**Pass**
Gain:	**Pass**
Noise:	**Pass**
Distortion:	**Pass**
Freq. Response:	**Pass**
All tests:	**Pass**

Laboratory Environment:		
Ambient Temperature:	20.4	°C
Ambient Humidity:	28.8	% RH
Ambient Pressure:	101.031	kPa
Calibration Date:	16-Mar-2020	
Calibration Due:	16-Mar-2021	
Report Number:	30781 -2	
Control Number:	30781	

The above listed instrument meets or exceeds the tested manufacturer's specifications.
This Calibration is traceable through NIST test numbers: ,1010733
The absolute uncertainty of calibration: See last page. Unless otherwise noted, the reported values are both "as found" and "as left" data.

The curve is the response recorded with accelerometer simulated 100mV input @ X1 Position.



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 480E09PCB**
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), ISO 9001:2015 and ISO 17025

Measurements performed by: .....
Matthew Smith

Calibrated on WCCL system type 9700

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

Calibration Data Record

for

PCB Piezotronics ICP Signal Conditioner **Model No.: 480E09** **Serial No.: 34208**
Company: Aercoustics Enginering Ltd.

Frequency Response (Reference = 0 dB @ 1000Hz) + - 0.2dB

Freq. (Hz)	Response [dB]	Freq. (Hz)	Response [dB]	Freq. (Hz)	Response [dB]
10.00	-0.01	316.23	0.00	10000.00	0.00
12.59	0.00	398.11	0.00	12589.25	0.00
15.85	-0.01	501.19	0.00	15848.93	0.00
19.95	-0.01	630.96	0.00	19952.62	0.00
25.12	0.00	794.33	0.00	25118.84	0.00
31.62	0.00	1000.00	0.00	31622.72	0.00
39.81	0.00	1258.93	0.00	39810.61	-0.01
50.12	0.00	1584.89	0.00	50118.55	-0.01
63.10	0.00	1995.26	0.00	63095.47	-0.01
79.43	0.00	2511.89	0.00	79432.43	-0.01
100.00	0.00	3162.28	0.00	99999.42	-0.01
125.89	0.00	3981.07	0.00		
158.49	0.00	5011.87	0.00		
199.53	0.00	6309.57	0.00		
251.19	0.00	7943.28	0.00		

Test	Function		Tolerance Min	Tolerance Max	Measured values Data	Measured values Out
1.0	Current		1.8	4.2	2.96	
	Voltage		15	30	26.98	
2.0	Gain accuracy (dB)	X 1	-0.2	0.2	-0.02	
		X 10	-0.2	0.2	-0.02	
		X 100	-0.2	0.2	-0.03	
3.0	Frequency response	See above			Pass	
4.0	Noise (uV) 2 to 22.4kHz				Pass	
5.0	Distortion				Pass	

Instruments used for calibration:			Date of Cal.	Traceability No.	Cal. Due Date
HP	33120A	S/N SG400116	3-Jul-2019	,1010733	3-Jul-2020
Brüel & Kjær	2636	S/N 1487493	10-Jul-2019	683/290345-18	10-Jul-2020
HP	34401A	S/N US361009	3-Jul-2019	,1010733	3-Jul-2020

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

Parameter	Test Instrumentation Uncertainty	DUT Uncertainty	Total DUT Uncertainty
Electrical Frequency Response(10 Hz to 20 kHz):	0.024	0.1	0.124
Electrical Frequency Response(10 kHz to 50 kHz):	0.04	0.1	0.14
lectrical Frequency Response(50 kHz to 100 kHz):	0.06	0.1	0.16
Random Noise Measure (100 Hz to 10 kHz):	0.3	0.1	0.40
DC Voltage Measure (10 V to 100 V):	0.20 %		
DC Current Measure (0.1 A to 1 A):	0.039 %		
AC Voltage Measure (1 V)(40 Hz to 1 kHz):	0.011 %		
AC Voltage Measure (1 V)(1 kHz to 20 kHz):	0.022 %		

Cal. Date: 16-Mar-2020 **Tested by:** Matthew Smith

Calibrated on WCCL system type 9700

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West Caldwell Calibration Laboratories Inc.

Certificate of Conformance

for

ACOUSTICAL CALIBRATOR

Manufactured by:	**BRUEL & KJAER**
Model No:	**4231**
Serial No:	**2053016**
Calibration Recall No:	**31157**

Submitted By:

Customer:	**Iwona Stasiewicz**
Company:	**Aercoustics Engineering Ltd**
Address:	**1004 Middlegate Road**
	Mississauga, ON.Cana L4Y0G1

The subject instrument was calibrated to the indicated specification using standards traceable to the SI through 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.
The information supplied relates to the calibrated item listed above and statment of conformance for ALL given specifications and standards fall under the decision rule: A=(L-(U95)), where A is acceptance limit, L is manufacturer specifications and U95 is confidence level of 95% at k=2. This includes but not limited to:1. Measured value does not meet manufacturer's tolerance, 2.Manufacturer's tolerance is too small compared to calibration and measurment capability uncertainties, 3. Test uncertainty ratio does not meet the 4:1 ratio due to test instrumentation limitations. The decision rule has been communicated and approved by customer during contract

West Caldwell Calibration Laboratories' calibration control system meets the following requirements, ISO 10012-1 MIL-STD-45662A, ANSI/NCSL Z540-1, IEC Guide 25, ISO 9001:2015, and ISO 17025.

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

Approved by:

James Zhu

Quality Manager
ISO/IEC 17025:2017

Calibration Date: 14-Aug-20

Certificate No: 31157 - 1

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: 2017
ACCREDITED
Calibration Lab. Cert. # 1533.01

REPORT OF CALIBRATION

for

Brüel & Kjær Acoustical Calibrator **Model No.: 4231** **Serial No.: 2053016**
Company: Aercoustics Engineering Ltd. **ID No.: XXXX**

Calibration results:

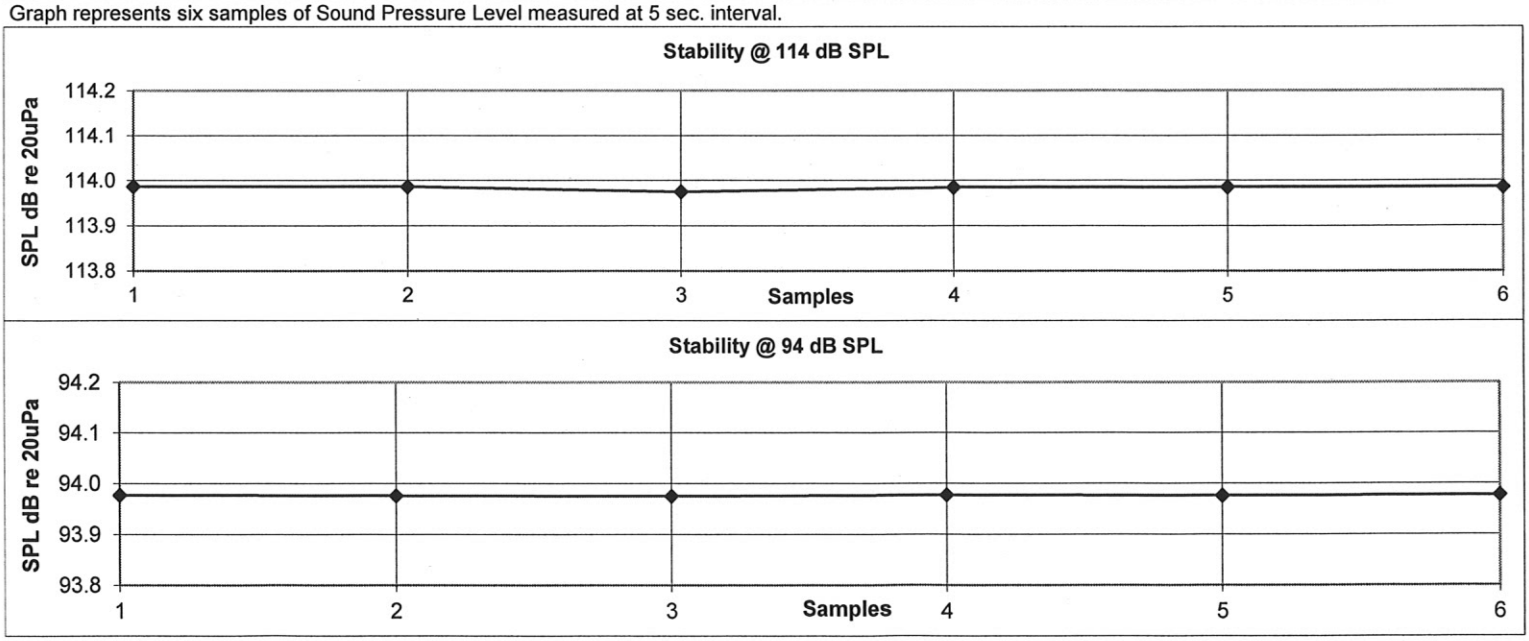
Before data: ..... **After data:** .....
Before & after data same: ...X.....
Sound Pressure Level at 999.9 Hz and pressure of 1013 hPa (mbar)
was 113.98 dB re 20 µPa
(Calibrator tested with ½" adaptor UC 0210)
IEC 1094-4 Type WS 2 P Microphone was used for measurement.

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

Laboratory Environment:		
Ambient Temperature:	23.5	°C
Ambient Humidity:	41.4	% RH
Ambient Pressure:	99.684	kPa
Calibration Date:	14-Aug-2020	
Calibration Due:	14-Aug-2021	
Report Number:	31157 -1	
Control Number:	31157	

The above listed instrument meets or exceeds the tested manufacturer's specifications
The IEC 942:1998 Class 1 specifications, passed.
The ANSI S1.40-1984 specifications, passed.
This Calibration is traceable through NIST test numbers: 684.07/O-0000001126-20
The absolute uncertainty of calibration: See last page. Unless otherwise noted, the reported values are both "as found" and "as left" data.

Graph represents six samples of Sound Pressure Level measured at 5 sec. 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), ISO 9001:2015 and ISO 17025

Cal. Date: 14-Aug-2020

Measurements performed by: .....
Matthew Smith

Calibrated on WCCL system type 9700

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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.: 2053016**
Company: Aercoustics Engineering Ltd.

All tested parameters: Pass

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

Sample	1	113.99 dB re 20 µPa	93.98 dB re 20 µPa	
	2	113.99	93.98	
	3	113.98	93.97	
	4	113.99	93.98	
	5	113.99	93.98	
	6	113.99	93.98	
	Average	**113.98** Spec. 114dB ± 0.2dB	**93.98**	Spec. 94 dB ± 0.2 dB

Frequency measured (Three samples at 30 sec. Interval)

Sample	1	999.86 Hz	999.89 Hz	
	2	999.87	999.85	
	3	999.86	999.87	
	Average	**999.86**	**999.87**	Spec. 1000 Hz ±0.1%

Distortion measured	-53.1 dB	-49.1 dB	Spec. ≤-40 dB

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

Parameter	Test Instrumentation Uncertainty	DUT Uncertainty	Total DUT Uncertainty
Acoustic Level ([114 & 94] @ 1 kHz):	**0.18**	**0.1**	**0.28**
Attenuator accuracy (Attenuation Measure):	**0.46**	**0.1**	**0.56**
Frequency Measure (DC to 10 MHz):	**6.0 parts in [10^6] Hz**		

Instruments used for calibration:			Date of Cal.	Traceability No.	Re-cal. Due Date
Brüel & Kjær	4231	S/N 2205492	2-Jul-2020	684.07/O-0000001126-20	2-Jul-2021
Brüel & Kjær	4134	S/N 1768848	2-Jul-2020	684.07/O-0000001126-20	2-Jul-2021
Brüel & Kjær	2669	S/N 1835080	2-Jul-2020	684.07/O-0000001126-20	2-Jul-2021
HP	34401A	S/N US361025	3-Jul-2020	,610119	3-Jul-2021
Brüel & Kjær	2636	S/N 1487493	3-Jul-2020	684.07/O-0000001126-20	3-Jul-2021
HP	33120A	S/N SG400116	3-Jul-2020	,610119	3-Jul-2021

Cal. Date: 14-Aug-2020 **Tested by: Matthew Smith**

Calibrated on WCCL system type 9700

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SOH Wind Engineering LLC
141 Leroy Road · Williston, VT 05495 · USA
Tel 802.316.4368 · Fax 802.735.9106 · www.sohwind.com

CERTIFICATE FOR CALIBRATION OF SONIC ANEMOMETER

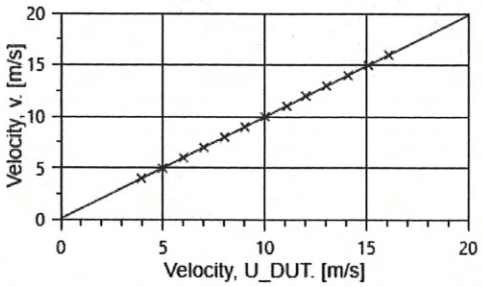
Certificate number: 20.US1.00288 **Date of issue:** February 04, 2020
Type: Vaisala Weather Transmitter, WXT536 **Serial number:** R2510790
Manufacturer: Vaisala, Oyj, Pl 26, FIN-00421 Helsinki, Finland
Client: Aercoustics Engineering Ltd., 1004 Middlegate RD, Suite 1100, S.Tower, Mississauga, ON L4Y 1M4, Canada

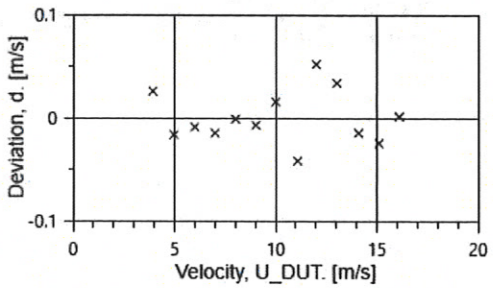
Anemometer received: January 30, 2020 **Anemometer calibrated:** February 04, 2020
Calibrated by: MEJ **Procedure:** MEASNET, IEC 61400-12-1:2017 Annex F
Certificate prepared by: EJF **Approved by:** Calibration engineer, EJF

Calibration equation obtained: v [m/s] = 0.98766 · U [m/s] + 0.07507

Standard uncertainty, slope: 0.00199 **Standard uncertainty, offset:** 0.28086
Covariance: -0.0000388 (m/s)²/m/s **Coefficient of correlation:** ρ = 0.999978
Absolute maximum deviation: 0.052 m/s at 11.995 m/s
Barometric pressure: 996.3 hPa **Relative humidity:** 21.4%

Succession	Velocity pressure, q. [Pa]	Temperature in wind tunnel [°C]	d.p. box [°C]	Wind velocity, v. [m/s]	Anemometer Output, U. [m/s]	Deviation, d. [m/s]	Uncertainty u_c (k=2) [m/s]
1-first	9.45	18.6	24.7	3.989	3.9367	0.026	0.023
13-last	14.68	18.9	24.8	4.974	4.9767	-0.016	0.026
2	21.30	18.6	24.7	5.989	5.9967	-0.009	0.030
12	28.88	18.9	24.7	6.977	7.0033	-0.015	0.034
3	37.96	18.6	24.7	7.995	8.0200	-0.001	0.038
11	47.86	19.0	24.7	8.983	9.0267	-0.007	0.042
4	59.19	18.6	24.7	9.984	10.0167	0.016	0.047
10	71.62	19.0	24.7	10.990	11.0933	-0.042	0.051
5	85.42	18.7	24.7	11.995	12.0167	0.052	0.055
9	99.87	19.0	24.7	12.978	13.0300	0.034	0.059
6	116.04	18.7	24.7	13.983	14.0967	-0.014	0.064
8	132.84	18.9	24.7	14.968	15.1033	-0.024	0.068
7	151.36	18.8	24.7	15.974	16.0967	0.001	0.072





AC-1746

EQUIPMENT USED

Serial Number	Description
Njord1	Wind tunnel, blockage factor = 1.0035
2254	Control cup anemometer
-	Mounting tube, D = 19 mm
TT004	Summit Electronics, 1XPT100, 0-10V Output, wind tunnel temp.
TP001	PR Electronics 5102, 0-10V Output, differential pressure box temp.
DP005	Setra Model 239, 0-1inWC, differential pressure transducer
HY004	Dwyer RHP-2D20, 0-10V Output, humidity transmitter
BP001	Setra Model 278, barometer
PL8	Pitot tube
XB002	Computer Board. 16 bit A/D data acquisition board
Njord1-PC	PC dedicated to data acquisition

The accuracies of all measurements were traceable to the SI through NIST or CIPM recognized NMI's.

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

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.12.01.004 for further details.

COMMENTS

This sensor was oriented in the 90° position during calibration.

Certificate number: 20.US1.00288

This certificate must not be reproduced, except in full, without the approval of SOH Wind Engineering LLC

SOH Wind Engineering LLC
141 Leroy Road · Williston, VT 05495 · USA
Tel 802.316.4368 · Fax 802.735.9106 · www.sohwind.com

CERTIFICATE FOR CALIBRATION OF SONIC ANEMOMETER

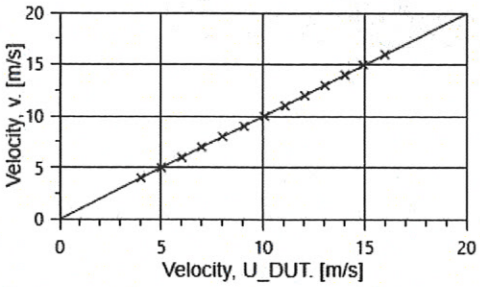
Certificate number: 20.US1.00287 **Date of issue:** February 04, 2020
Type: Vaisala Weather Transmitter, WXT536 **Serial number:** R2510790
Manufacturer: Vaisala, Oyj, Pl 26, FIN-00421 Helsinki, Finland
Client: Aercoustics Engineering Ltd., 1004 Middlegate RD, Suite 1100, S.Tower, Mississauga, ON L4Y 1M4, Canada

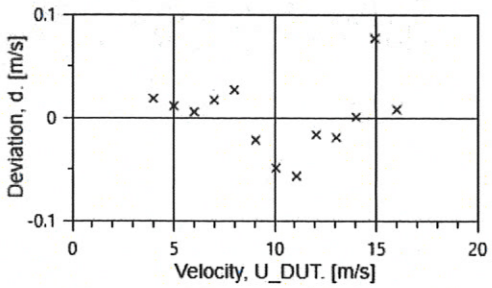
Anemometer received: January 30, 2020 **Anemometer calibrated:** February 04, 2020
Calibrated by: MEJ **Procedure:** MEASNET, IEC 61400-12-1:2017 Annex F
Certificate prepared by: EJF **Approved by:** Calibration engineer, EJF

Calibration equation obtained: v [m/s] = 0.99806 · U [m/s] + -0.02018

Standard uncertainty, slope: 0.00267 **Standard uncertainty, offset:** -1.41229
Covariance: -0.0000711 (m/s)²/m/s **Coefficient of correlation:** ρ = 0.999961
Absolute maximum deviation: 0.077 m/s at 14.964 m/s
Barometric pressure: 996.2 hPa **Relative humidity:** 21.6%

Succession	Velocity pressure, q. [Pa]	Temperature in wind tunnel [°C]	d.p. box [°C]	Wind velocity, v. [m/s]	Anemometer Output, U. [m/s]	Deviation, d. [m/s]	Uncertainty u_c (k=2) [m/s]
1-first	9.45	18.4	24.6	3.987	3.9967	0.018	0.023
13-last	14.73	18.7	24.7	4.981	5.0000	0.011	0.026
2	21.23	18.3	24.6	5.977	6.0033	0.005	0.030
12	28.92	18.7	24.7	6.980	6.9967	0.017	0.034
3	37.98	18.3	24.6	7.995	8.0033	0.027	0.038
11	48.08	18.7	24.7	9.000	9.0600	-0.022	0.042
4	59.20	18.4	24.6	9.981	10.0700	-0.049	0.047
10	71.57	18.8	24.7	10.981	11.0800	-0.057	0.051
5	85.40	18.4	24.6	11.990	12.0500	-0.017	0.055
9	100.00	18.7	24.7	12.982	13.0467	-0.019	0.059
6	116.12	18.5	24.6	13.983	14.0300	0.001	0.064
8	132.89	18.7	24.6	14.964	14.9367	0.077	0.068
7	151.26	18.6	24.7	15.963	16.0067	0.008	0.072





AC-1746

EQUIPMENT USED

Serial Number	Description
Njord1	Wind tunnel, blockage factor = 1.0035
2254	Control cup anemometer
-	Mounting tube, D = 19 mm
TT004	Summit Electronics, 1XPT100, 0-10V Output, wind tunnel temp.
TP001	PR Electronics 5102, 0-10V Output, differential pressure box temp.
DP005	Setra Model 239, 0-1inWC, differential pressure transducer
HY004	Dwyer RHP-2D20, 0-10V Output, humidity transmitter
BP001	Setra Model 278, barometer
PL8	Pitot tube
XB002	Computer Board. 16 bit A/D data acquisition board
Njord1-PC	PC dedicated to data acquisition

The accuracies of all measurements were traceable to the SI through NIST or CIPM recognized NMI's.

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

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.12.01.004 for further details.

COMMENTS

This sensor was oriented in the 0° position during calibration.

Certificate number: 20.US1.00287

This certificate must not be reproduced, except in full, without the approval of SOH Wind Engineering LLC

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CERTIFICATE OF CALIBRATION

SCC Accredited LAB — LAB Accrédité CCN — SCC Lab No 22
CLAS NRC·CNRC CLAS 2000-03
ilac-MRA

Customer: AERCOUSTICS ENGINEERING LTD
1004 MIDDLEGATE ROAD
SUITE 1100
MISSISSAUGA, ON L4Y 0G1
PO Number: TR2019.03.22_875FT-00

Certificate/SO Number: 9-Q1F7P-20-1 Revision 0

Manufacturer: Nokeval
Model Number: 7470
Description: Serial to Analog Converter
Serial Number: A198729
ID: NONE

As-Found: In Tolerance
As-Left: In Tolerance

Calibration Date: Mar 29, 2019
Due Date: Mar 29, 2021

Calibrated To: Manufacturer Specification
Calibration Procedure: 1-AC58014-0

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. Any measurements on an accredited calibration not covered by that Lab's Scope of Accreditation are listed in the notes section of the certificate. SCC, NRC, CLAS or ANAB do not guarantee the accuracy of an individual calibration by accredited laboratories.

Transcat calibrations, as applicable, are performed in compliance with the requirements of the Transcat Quality Manual QAC-P01-000 Revision 2.0, the customer's Purchase Order and/or Quality Agreement requirements, ISO 9001:2008, ANSI/NCSL Z540.1-1994 (R2002) or NQA-1, as applicable. Complete records of work performed are maintained by Transcat and are available for inspection. Laboratory standards used in the performance of this calibration are listed on this certificate.

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 national measurement institutes (NMI) that are signatories to the CIPM Mutual Recognition Arrangement, or accepted fundamental and/or natural physical constants, or by the use of specified methods, consensus standards or ratio type measurements. Documentation supporting traceability information is available for review upon written request at a Transcat facility. The measured quantity and the measurement uncertainty are required for further dissemination of traceability.

A binary decision rule, utilizing simple acceptance, and simple rejection criteria is used for the determination of compliance. When compliance statements are present, they are reported without factoring in the effects of uncertainty and comply with the guidelines established by ASME B89.7.3.1-2001 (R2011) as follows:
-The acceptance zone is defined as: less than or equal to the high limit, and/or greater than or equal to the low limit. The rejection zones are defined as greater than the high limit and/or less than the low limit.
-Single measurement results in the acceptance zone are be identified as in-tolerance. Single measurement results in the rejection zone are identified as out-of-tolerance (OOT).
-When all measurement results are in the acceptance zone for repeated measurements, for the same characteristic, the test is identified as in-tolerance. For repeated characteristic measurements, a single measurement result in the rejection zone, will cause the test to be identified as out-of-tolerance (OOT).

Uncertainties are reported with a coverage factor k=2, providing a level of confidence of approximately 95%. All calibrations have been performed using processes having a TUR of 4:1 or better (3:1 for mass calibrations), unless otherwise noted. The Test Uncertainty Ratio (TUR) is calculated in accordance with NCSL International RP-18. For mass calibrations: Conventional mass referenced to 8.0 g/cm³.

The results in this report relate only to the item calibrated or tested. Recorded calibration data is valid at the time of calibration within the stated uncertainties at the environmental conditions noted. The determination of compliance to the specification is specific to the model/serial no./ID no. referenced above based on the tolerances shown; these tolerances are either the original equipment manufacturers (OEM's) warranted specifications or the client's requested specifications. This certificate may not be reproduced except in full, without the written approval of Transcat. Additional information, if applicable may be included on separate report(s).

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CERTIFICATE OF CALIBRATION

Customer: AERCOUSTICS ENGINEERING LTD
1004 MIDDLEGATE ROAD
SUITE 1100
MISSISSAUGA, ON L4Y 0G1
PO Number: TR2019.03.22_875FT-00

SCC Accredited LAB — LAB Accrédité CCN — SCC Lab No 22
CLAS NRC·CNRC — CLAS 2000-03
ilac-MRA

Certificate/SO Number: 9-Q1F7P-20-1 Revision 0

As Found/As Left Data

Description	Setpoints	Accuracy	Low Limit	High Limit	As Found / As Left	OOT	Cal Process Uncertainty (k=2; ±)	Measurement Uncertainty (k=2; ±)	Units	TUR
DC Current % Source - 4-20mA Ch #1										
4 - 20mA	0%	±(0.1% Span)	3.984	4.016	4.003 mA		1.6e-004	1.9e-003	mA	100.0 : 1
	25%	±(0.1% Span)	7.984	8.016	8.001 mA		2.6e-004	1.9e-003	mA	61.5 : 1
	50%	±(0.1% Span)	11.984	12.016	12.002 mA		1.1e-003	2.2e-003	mA	14.5 : 1
	75%	±(0.1% Span)	15.984	16.016	16.000 mA		1.3e-003	2.3e-003	mA	12.3 : 1
	100%	±(0.1% Span)	19.984	20.016	19.998 mA		1.4e-003	2.3e-003	mA	11.4 : 1
DC Current % Source - 4-20mA Ch #2										
4 - 20mA	0%	±(0.1% Span)	3.984	4.016	3.999 mA		1.6e-004	1.9e-003	mA	100.0 : 1
	25%	±(0.1% Span)	7.984	8.016	7.998 mA		2.6e-004	1.9e-003	mA	61.5 : 1
	50%	±(0.1% Span)	11.984	12.016	11.999 mA		1.1e-003	2.2e-003	mA	14.5 : 1
	75%	±(0.1% Span)	15.984	16.016	15.998 mA		1.3e-003	2.3e-003	mA	12.3 : 1
	100%	±(0.1% Span)	19.984	20.016	19.997 mA		1.4e-003	2.3e-003	mA	11.4 : 1
DC Current % Source - 4-20mA Ch #3										
4 - 20mA	0%	±(0.1% Span)	3.984	4.016	3.999 mA		1.6e-004	1.9e-003	mA	100.0 : 1
	25%	±(0.1% Span)	7.984	8.016	7.998 mA		2.6e-004	1.9e-003	mA	61.5 : 1
	50%	±(0.1% Span)	11.984	12.016	12.003 mA		1.1e-003	2.2e-003	mA	14.5 : 1
	75%	±(0.1% Span)	15.984	16.016	16.001 mA		1.3e-003	2.3e-003	mA	12.3 : 1
	100%	±(0.1% Span)	19.984	20.016	19.999 mA		1.4e-003	2.3e-003	mA	11.4 : 1
DC Current % Source - 4-20mA Ch #4										
4 - 20mA	0%	±(0.1% Span)	3.984	4.016	4.001 mA		1.6e-004	1.9e-003	mA	100.0 : 1
	25%	±(0.1% Span)	7.984	8.016	7.998 mA		2.6e-004	1.9e-003	mA	61.5 : 1
	50%	±(0.1% Span)	11.984	12.016	12.002 mA		1.1e-003	2.2e-003	mA	14.5 : 1
	75%	±(0.1% Span)	15.984	16.016	15.999 mA		1.3e-003	2.3e-003	mA	12.3 : 1
	100%	±(0.1% Span)	19.984	20.016	19.996 mA		1.4e-003	2.3e-003	mA	11.4 : 1

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CERTIFICATE OF CALIBRATION

Customer: AERCOUSTICS ENGINEERING LTD
1004 MIDDLEGATE ROAD
SUITE 1100
MISSISSAUGA, ON L4Y 0G1
PO Number: TR2019.03.22_875FT-00

SCC Accredited LAB — LAB Accrédité CCN
SCC Lab No 22

CLAS MRC·CNRC
CLAS 2000-03

ilac-MRA

Certificate/SO Number: 9-Q1F7P-20-1 Revision 0

As Found/As Left Data

Description	Setpoints	Accuracy	Low Limit	High Limit	As Found / As Left	OOT	Cal Process Uncertainty (k=2; ±)	Measurement Uncertainty (k=2; ±)	Units	TUR
DC Current % Source - 0-20mA Ch #1										
0 - 20mA	0%	±(0.1% Span)	-0.020	0.020	0.004 mA		9.2e-007	2.3e-003	mA	100.0 : 1
	25%	±(0.1% Span)	4.980	5.020	4.999 mA		1.9e-004	2.3e-003	mA	100.0 : 1
	50%	±(0.1% Span)	9.980	10.020	9.999 mA		3.1e-004	2.3e-003	mA	64.5 : 1
	75%	±(0.1% Span)	14.980	15.020	15.000 mA		1.2e-003	2.6e-003	mA	16.7 : 1
	100%	±(0.1% Span)	19.980	20.020	19.998 mA		1.4e-003	2.7e-003	mA	14.3 : 1
DC Current % Source - 0-20mA Ch #2										
0 - 20mA	0%	±(0.1% Span)	-0.020	0.020	0.001 mA		9.2e-007	2.3e-003	mA	100.0 : 1
	25%	±(0.1% Span)	4.980	5.020	5.001 mA		1.9e-004	2.3e-003	mA	100.0 : 1
	50%	±(0.1% Span)	9.980	10.020	10.002 mA		3.1e-004	2.3e-003	mA	64.5 : 1
	75%	±(0.1% Span)	14.980	15.020	15.003 mA		1.2e-003	2.6e-003	mA	16.7 : 1
	100%	±(0.1% Span)	19.980	20.020	19.997 mA		1.4e-003	2.7e-003	mA	14.3 : 1
DC Current % Source - 0-20mA Ch #3										
0 - 20mA	0%	±(0.1% Span)	-0.020	0.020	0.002 mA		9.2e-007	2.3e-003	mA	100.0 : 1
	25%	±(0.1% Span)	4.980	5.020	5.001 mA		1.9e-004	2.3e-003	mA	100.0 : 1
	50%	±(0.1% Span)	9.980	10.020	10.001 mA		3.1e-004	2.3e-003	mA	64.5 : 1
	75%	±(0.1% Span)	14.980	15.020	15.000 mA		1.2e-003	2.6e-003	mA	16.7 : 1
	100%	±(0.1% Span)	19.980	20.020	19.999 mA		1.4e-003	2.7e-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	2.3e-003	mA	100.0 : 1
	25%	±(0.1% Span)	4.980	5.020	5.002 mA		1.9e-004	2.3e-003	mA	100.0 : 1
	50%	±(0.1% Span)	9.980	10.020	10.000 mA		3.1e-004	2.3e-003	mA	64.5 : 1
	75%	±(0.1% Span)	14.980	15.020	14.999 mA		1.2e-003	2.6e-003	mA	16.7 : 1
	100%	±(0.1% Span)	19.980	20.020	19.996 mA		1.4e-003	2.7e-003	mA	14.3 : 1

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SCC Accredited LAB — LAB Accrédité CCN
SCC Lab No 22

CLAS MRC·CNRC
CLAS 2000-03

ilac-MRA

Certificate/SO Number: 9-Q1F7P-20-1 Revision 0

As Found/As Left Data

Description	Setpoints	Accuracy	Low Limit	High Limit	As Found / As Left	OOT	Cal Process Uncertainty (k=2; ±)	Measurement Uncertainty (k=2; ±)	Units	TUR
DC Voltage % Source - 0-5V Ch#1										
0 -5V	0%	±(0.1% Span)	-0.0050	0.0050	0.0018 V		5.8e-007	5.8e-004	V	100.0 : 1
	20%	±(0.1% Span)	0.9950	1.0050	1.0009 V		5.6e-006	5.8e-004	V	100.0 : 1
	40%	±(0.1% Span)	1.9950	2.0050	2.0000 V		1.1e-005	5.8e-004	V	100.0 : 1
	60%	±(0.1% Span)	2.9950	3.0050	3.0010 V		1.6e-005	5.8e-004	V	100.0 : 1
	80%	±(0.1% Span)	3.9950	4.0050	4.0005 V		2.1e-005	5.8e-004	V	100.0 : 1
	100%	±(0.1% Span)	4.9950	5.0050	4.9997 V		2.6e-005	5.8e-004	V	100.0 : 1
DC Voltage % Source - 0-5V Ch#2										
0 -5V	0%	±(0.1% Span)	-0.0050	0.0050	0.0006 V		5.8e-007	5.8e-004	V	100.0 : 1
	20%	±(0.1% Span)	0.9950	1.0050	1.0002 V		5.6e-006	5.8e-004	V	100.0 : 1
	40%	±(0.1% Span)	1.9950	2.0050	2.0004 V		1.1e-005	5.8e-004	V	100.0 : 1
	60%	±(0.1% Span)	2.9950	3.0050	3.0006 V		1.6e-005	5.8e-004	V	100.0 : 1
	80%	±(0.1% Span)	3.9950	4.0050	4.0007 V		2.1e-005	5.8e-004	V	100.0 : 1
	100%	±(0.1% Span)	4.9950	5.0050	5.0014 V		2.6e-005	5.8e-004	V	100.0 : 1
DC Voltage % Source - 0-5V Ch#3										
0 -5V	0%	±(0.1% Span)	-0.0050	0.0050	0.0008 V		5.8e-007	5.8e-004	V	100.0 : 1
	20%	±(0.1% Span)	0.9950	1.0050	1.0002 V		5.6e-006	5.8e-004	V	100.0 : 1
	40%	±(0.1% Span)	1.9950	2.0050	1.9997 V		1.1e-005	5.8e-004	V	100.0 : 1
	60%	±(0.1% Span)	2.9950	3.0050	2.9988 V		1.6e-005	5.8e-004	V	100.0 : 1
	80%	±(0.1% Span)	3.9950	4.0050	4.0012 V		2.1e-005	5.8e-004	V	100.0 : 1
	100%	±(0.1% Span)	4.9950	5.0050	5.0015 V		2.6e-005	5.8e-004	V	100.0 : 1
DC Voltage % Source - 0-5V Ch#4										
0 -5V	0%	±(0.1% Span)	-0.0050	0.0050	0.0007 V		5.8e-007	5.8e-004	V	100.0 : 1
	20%	±(0.1% Span)	0.9950	1.0050	1.0018 V		5.6e-006	5.8e-004	V	100.0 : 1
	40%	±(0.1% Span)	1.9950	2.0050	2.0008 V		1.1e-005	5.8e-004	V	100.0 : 1
	60%	±(0.1% Span)	2.9950	3.0050	2.9993 V		1.6e-005	5.8e-004	V	100.0 : 1
	80%	±(0.1% Span)	3.9950	4.0050	3.9988 V		2.1e-005	5.8e-004	V	100.0 : 1
	100%	±(0.1% Span)	4.9950	5.0050	5.0009 V		2.6e-005	5.8e-004	V	100.0 : 1

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Certificate/SO Number: 9-Q1F7P-20-1 Revision 0

As Found/As Left Data

Description	Setpoints	Accuracy	Low Limit	High Limit	As Found / As Left	OOT	Cal Process Uncertainty (k=2; ±)	Measurement Uncertainty (k=2; ±)	Units	TUR
DC Voltage % Source - 0-10V Ch#1										
0 - 10V	0%	±(0.1% Span)	-0.010	0.010	0.002 V		5.8e-007	1.2e-003	V	100.0 : 1
	20%	±(0.1% Span)	1.990	2.010	2.000 V		1.1e-005	1.2e-003	V	100.0 : 1
	40%	±(0.1% Span)	3.990	4.010	4.000 V		2.1e-005	1.2e-003	V	100.0 : 1
	60%	±(0.1% Span)	5.990	6.010	6.002 V		3.1e-005	1.2e-003	V	100.0 : 1
	80%	±(0.1% Span)	7.990	8.010	8.000 V		4.1e-005	1.2e-003	V	100.0 : 1
	100%	±(0.1% Span)	9.990	10.010	10.000 V		5.2e-005	1.2e-003	V	100.0 : 1
DC Voltage % Source - 0-10V Ch#2										
0 - 10V	0%	±(0.1% Span)	-0.010	0.010	0.001 V		5.8e-007	1.2e-003	V	100.0 : 1
	20%	±(0.1% Span)	1.990	2.010	2.000 V		1.1e-005	1.2e-003	V	100.0 : 1
	40%	±(0.1% Span)	3.990	4.010	4.001 V		2.1e-005	1.2e-003	V	100.0 : 1
	60%	±(0.1% Span)	5.990	6.010	6.002 V		3.1e-005	1.2e-003	V	100.0 : 1
	80%	±(0.1% Span)	7.990	8.010	8.000 V		4.1e-005	1.2e-003	V	100.0 : 1
	100%	±(0.1% Span)	9.990	10.010	10.000 V		5.2e-005	1.2e-003	V	100.0 : 1
DC Voltage % Source - 0-10V Ch#3										
0 - 10V	0%	±(0.1% Span)	-0.010	0.010	0.001 V		5.8e-007	1.2e-003	V	100.0 : 1
	20%	±(0.1% Span)	1.990	2.010	2.000 V		1.1e-005	1.2e-003	V	100.0 : 1
	40%	±(0.1% Span)	3.990	4.010	4.001 V		2.1e-005	1.2e-003	V	100.0 : 1
	60%	±(0.1% Span)	5.990	6.010	6.001 V		3.1e-005	1.2e-003	V	100.0 : 1
	80%	±(0.1% Span)	7.990	8.010	8.000 V		4.1e-005	1.2e-003	V	100.0 : 1
	100%	±(0.1% Span)	9.990	10.010	9.999 V		5.2e-005	1.2e-003	V	100.0 : 1
DC Voltage % Source - 0-10V Ch#4										
0 - 10V	0%	±(0.1% Span)	-0.010	0.010	0.001 V		5.8e-007	1.2e-003	V	100.0 : 1
	20%	±(0.1% Span)	1.990	2.010	2.001 V		1.1e-005	1.2e-003	V	100.0 : 1
	40%	±(0.1% Span)	3.990	4.010	3.999 V		2.1e-005	1.2e-003	V	100.0 : 1
	60%	±(0.1% Span)	5.990	6.010	6.000 V		3.1e-005	1.2e-003	V	100.0 : 1
	80%	±(0.1% Span)	7.990	8.010	8.001 V		4.1e-005	1.2e-003	V	100.0 : 1
	100%	±(0.1% Span)	9.990	10.010	9.999 V		5.2e-005	1.2e-003	V	100.0 : 1

TRANSCAT CANADA
Trust in every measure

CERTIFICATE OF CALIBRATION

Customer: AERCOUSTICS ENGINEERING LTD
1004 MIDDLEGATE ROAD
SUITE 1100
MISSISSAUGA, ON L4Y 0G1
PO Number: TR2019.03.22_875FT-00

SCC Accredited LAB — LAB Accrédité CCN
SCC Lab No 22

CLAS NRC·CNRC
CLAS 2000-03

ilac-MRA

Certificate/SO Number: 9-Q1F7P-20-1 Revision 0

TRANSCAT CANADA
Trust in every measure

CERTIFICATE OF CALIBRATION

SCC Lab No 22

CLAS 2000-03

Customer: AERCOUSTICS ENGINEERING LTD
1004 MIDDLEGATE ROAD
SUITE 1100
MISSISSAUGA, ON L4Y 0G1
PO Number: TR2019.03.22_875FT-00

Certificate/SO Number: 9-Q1F7P-20-1 Revision 0

Traceable Standards

Asset	Manufacturer	Model Number	Description	Cal Date	Due Date	Traceability Number	Use
ED-0050	HP	3458A Opt 002	Digital Multimeter, 8.5 Digit	6-Jul-18	31-Jul-19	9-&ED-0050-12-1	AF/AL

The use of the standard is defined as: AF - used for as-found readings, AL - used for as-left readings.

Environmental Data

Temperature	Relative Humidity	Temp / RH Asset
74.75°F /23.75°C	18.40%	LEM-0003

SCC Accreditation & Design Mark is an Official Mark of the Standards Council of Canada, used under license.

Calibrated At:
916 Gateway
Burlington, ON L7L 5K7

Facility Responsible:
916 Gateway
Burlington, ON L7L 5K7
800-828-1470

Calibrated By:
Electronically Signed By:
Lawrence Loi
Lawrence Loi — Calibration Technician — Mar 29, 2019 15:33:38 -04:00

Reviewed By:
Electronically Signed By:
Tony Ghanbari
Tony Ghanbari — Lab Manager — Mar 29, 2019 15:39:53 -04:00

Unit Barcode: 900B0177370

Date Received: March 26, 2019
Service Level : R9

Customer Number: 9-322110-00C

Appendix F.02
Compliance Statement

1 Summary of Measurement Results

Sound power and tonal audibility levels from 17283.03.T3.RP3 are summarized in Table F1 and Table F2. Sound power levels are compared to the maximum sound power level in the proposed Noise Abatement Action Plan (NAAP) for the North Kent Wind Project. The NAAP is detailed in the DNV GL report *10207028-HOU-L-01-B Proposed Noise Abatement Action Plan (NAAP) for the North Kent Wind Project*, dated May 11th, 2020.

Table F1: Apparent Sound Power values from Table 11 of 17283.03.T3.RP3

Wind Speed (m/s)	Apparent L_{WA}, (dBA)	Maximum Sound Power Level (dBA)* NAAP
7.5	101.7	103.5
8.0	102.2	103.5
8.5	102.1	103.5
9.0	102.1	103.5
9.5	101.9	103.5
10.0	101.4	103.5
10.5	101.1	103.5
11.0	101.6	103.5
11.5	100.9	103.5
12.0	101.2	103.5
12.5	101.5	103.5

* Includes +0.5 dB, per Section E3.1 of the Compliance Protocol for Wind Turbine Noise

Table F2: Tonal Audibility values from Table 14 of 17283.03.T3.RP3

Wind Speed (m/s)	Frequency (Hz)	Tonal audibility, ΔL_a (dB)
7.5	64	1.3
8	67	1.3
8.5	66	1.4
9	72	0.5
9.5	66	-1.3
9.5	132	-2.9
10	65	-1.5
10	129	-0.9
10.5	68	0.2
10.5	132	-2.2
11	67	-0.8
11	132	-2.4
11.5	66	-1.3
11.5	131	-2.8
12	127	-1.5

Wind Speed (m/s)	Frequency (Hz)	Tonal audibility, ΔL_a (dB)
12.5	124	-1.9

2 Statement of Compliance

Based on the results presented in Table F1, the maximum apparent sound power level of T03 operating in its 2.628 MW reduced noise emission (-3 dB) mode is less than the maximum sound power level in the proposed NAAP. Therefore, based on the guidance in Section E3.1.1 and E3.1.3 of the Protocol, the measured sound power levels of North Kent Turbine T03 are considered acceptable and are compliant with the maximum allowable turbine emission levels in the proposed NAAP.

Appendix F.03
E-audit Checklist

Appendix F.03 - (2017 Compliance Protocol Appendix F6): E-Audit checklist for IEC 61400-11:2013
Wind Energy Project – Screening Document – Acoustic Audit Report – Emission IEC61400-11:2013 Standard
Information Required in the Acoustic Audit Report – Emission

Item #	Description	Complete?	Comment
1	Characterization of the wind turbine Items 1 to 26; IEC61400-11:2013, Section 10.2	✓	Report Section 2.1
2	Physical environment Items 27 to 33; IEC61400-11:2013, Section 10.3, Physical Environment	✓	Report Section 2.2, 3.1.4, 3.5, Appendix A
3	Measurement instrumentation Items 34 to 39; IEC61400-11:2013, Section 10.4, Instrumentation	✓	Report Section 3.1, Appendix F.01
4	Acoustic data Items 40 to 52; IEC61400-11:2013, Section 10.5, Acoustic Data	✓	Report Section 4, 3.3, Appendix C, Appendix D,
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	✓	Report Section 3.3, Appendix C, Appendix E
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	✓	Report Section 4.3, Appendix C
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	✓	Report Section 3 and Section 5, Appendix F, data in Excel provided separately
8	Items 68 to 72; IEC61400-11:2013, Section 10.5, Acoustic Data	⊘	Optional information, not provided in this report
9	Non-acoustic data Items 73 to 74 are from IEC61400-11:2013, Section 10.6, Non-Acoustic Data	⊘	Optional information, not provided in this report

End of Report