

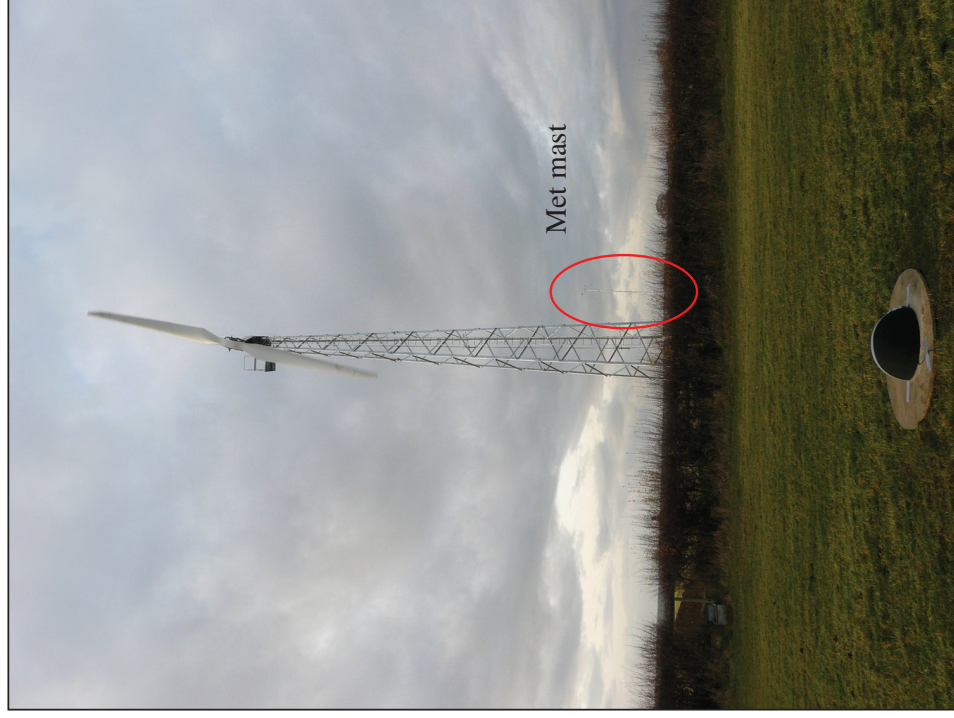


Appendix B

Photos of Noise Measurement Equipment



**Photographs of Noise Measurement Equipment
(Gaia-Wind Turbine on 21st November 2008)**





**Photographs of Noise Measurement Equipment
(Gaia-Wind Turbine on 16th January 2009)**



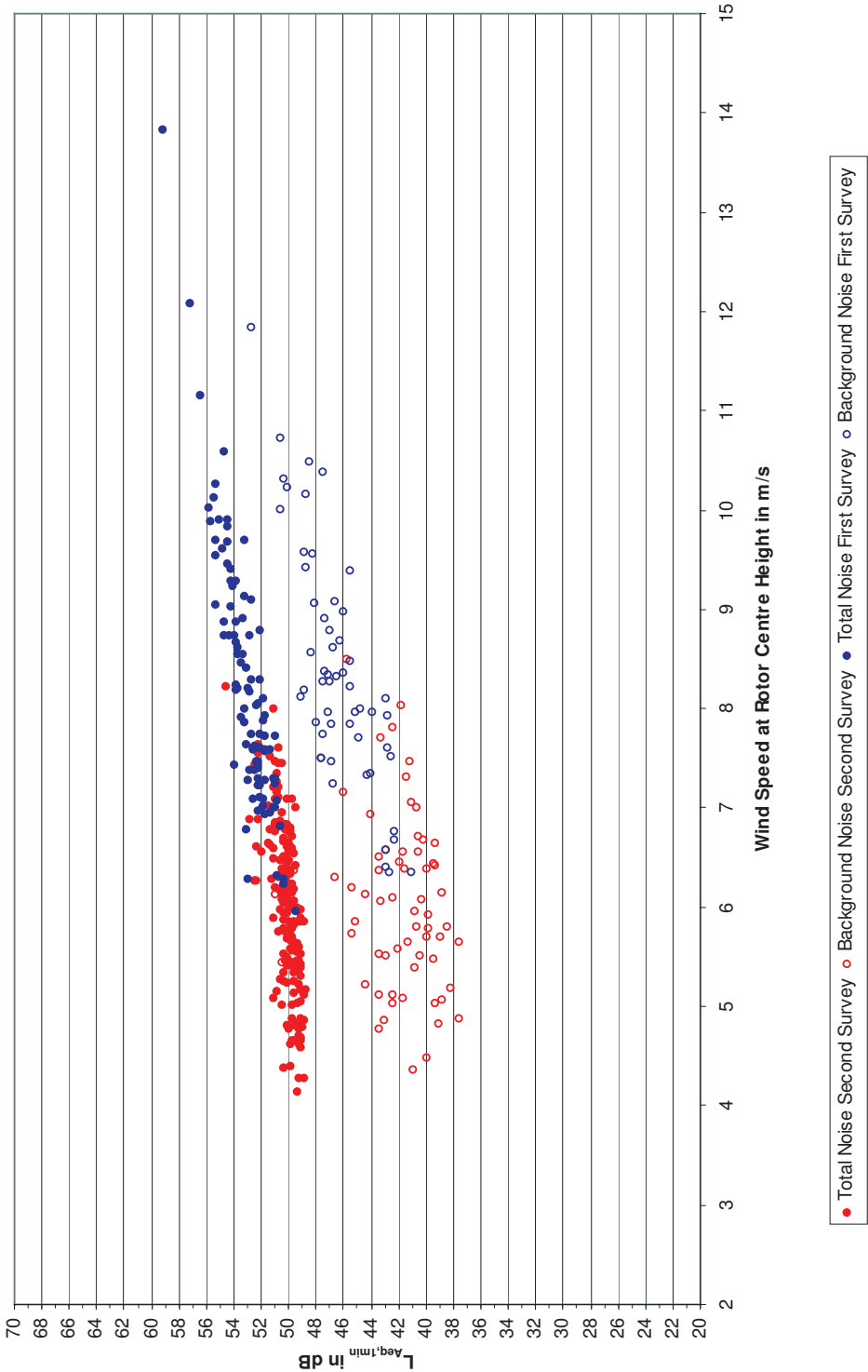


Appendix C

Noise Data for Calculation of Sound Power Level

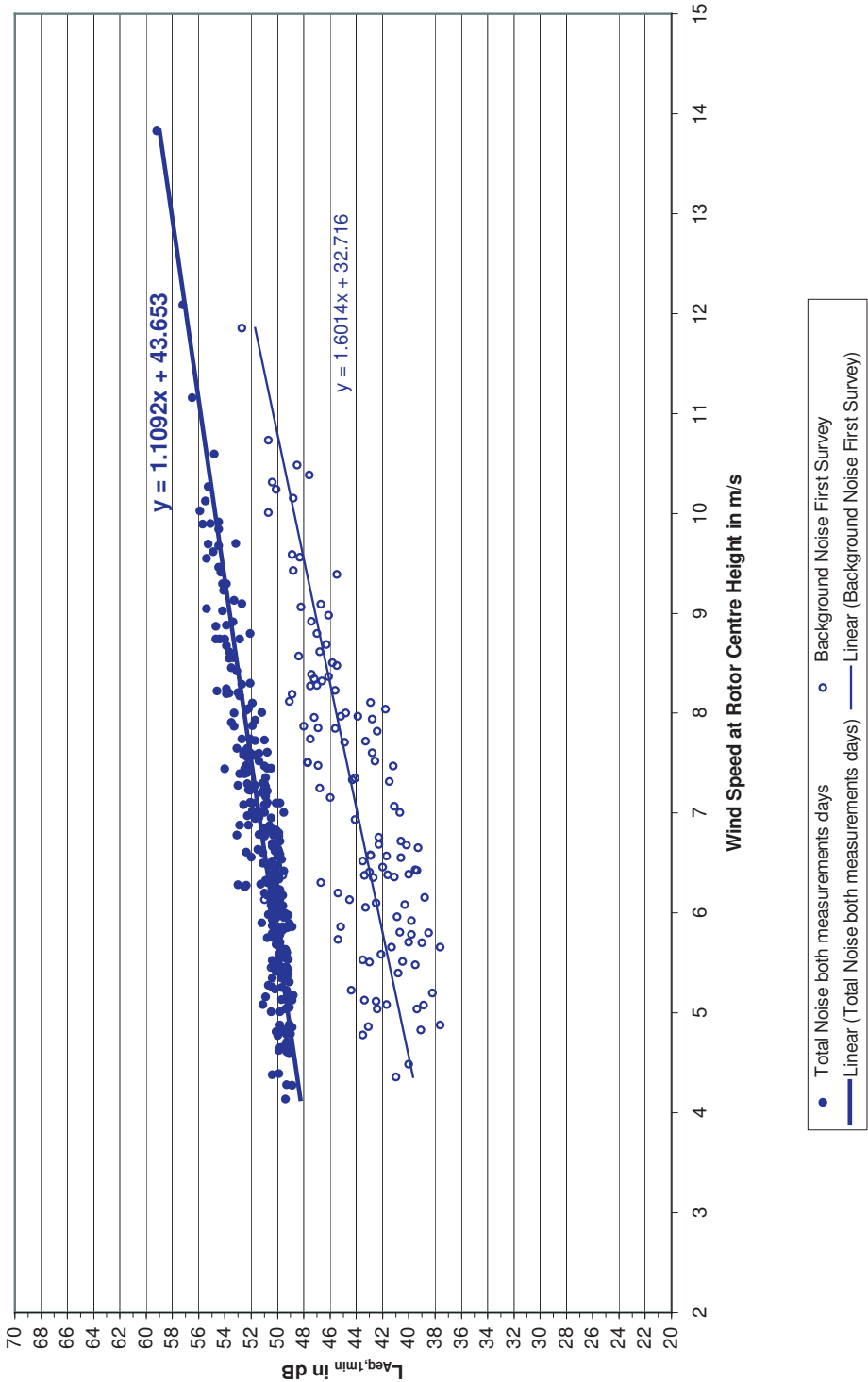


Gaia-Wind 11kW - Turbine Test at Molton Mowbray 21/11/2008 and 16/01/2009
Sound Pressure Level at Reference Point





Gaia-Wind 11kW - Turbine Test at Molton Mowbray 21/11/2008 and 16/01/2009
Sound Pressure Level at Reference Point - Regression Line of Combined Measurements





Appendix D

1/3 Octave Band Data

For Reference Wind Speed of 8 m/s
at Rotor Centre Height

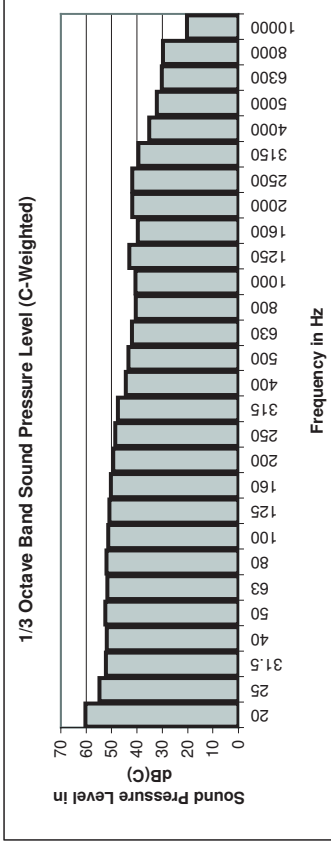
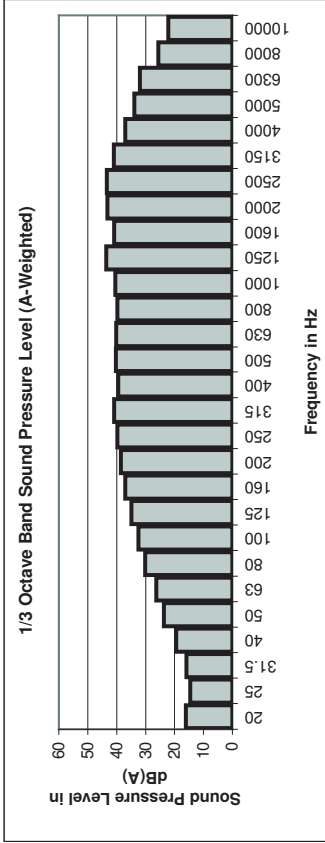
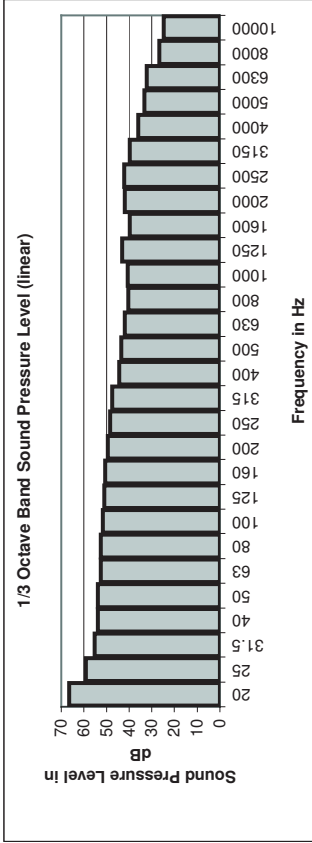


1/3 Octave Band Levels - Sound Pressure Level for a wind speed of 8 m/s at rotor centre height (Measurement Date 21/11/2008)

f (Hz)	L _{W,1/3 Octave} (dB(lin))	L _{W,1/3 Octave} (dB(A))	L _{W,1/3 Octave} (dB(C))
20	66.6	16.1	60.4
25	59.2	14.5	54.8
31.5	55.3	15.9	52.3
40	53.9 *	19.3 *	51.9 *
50	53.8 *	23.6 *	52.5 *
63	52.5 *	26.3 *	51.7 *
80	52.5 **	30.0 **	52.0 **
100	51.6	32.5	51.3
125	51.1	35.0	50.9
160	50.5	37.1	50.4
200	49.4	38.5	49.4
250	48.4	39.8	48.4
315	47.5	40.9	47.5
400	44.3 *	39.9 *	44.3 *
500	43.4 **	40.2 **	43.4 **
630	42.0 **	40.1 **	42.0 **
800	40.5	39.7	40.5
1000	40.5	40.5	40.5
1250	43.0	43.6	43.0
1600	39.8	40.8	39.7
2000	42.0	43.2	41.8
2500	42.2	43.5	41.9
3150	39.9	41.1	39.4
4000	35.9	36.9	35.1
5000	33.4	33.9	32.1
6300	32.2	32.1	30.2
8000	26.8	25.7	29.8
10000	24.7 *	22.2 *	20.3 *

* Difference between total noise and bg noise < 6 dB

** Difference between total noise and bg noise < 3 dB, no correction applied



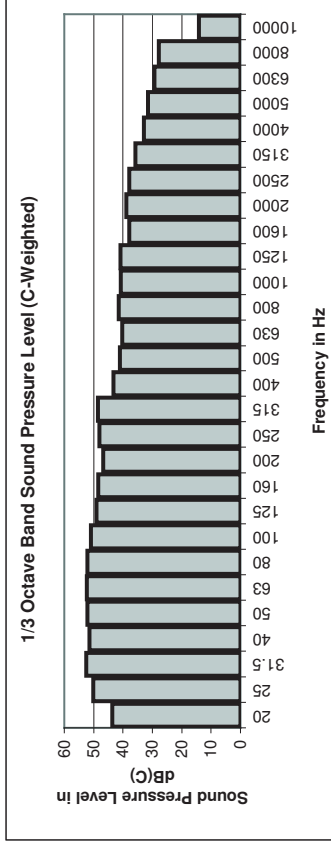
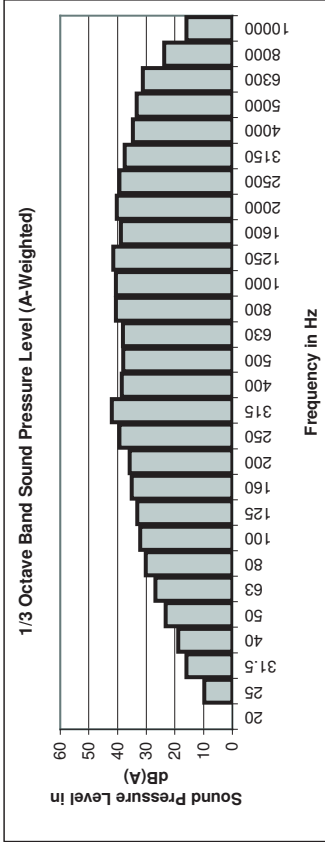
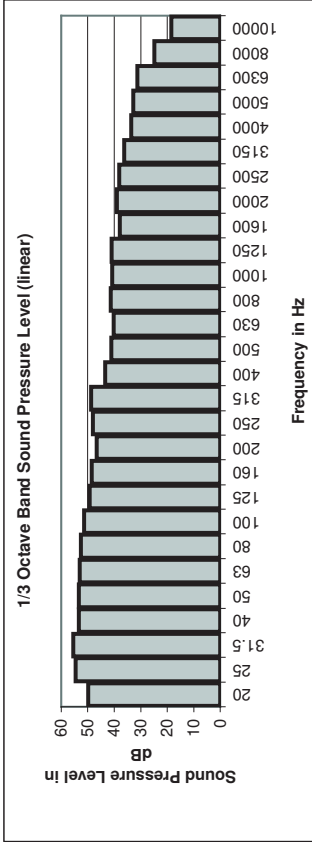


1/3 Octave Band Levels - Sound Pressure Level for a wind speed of 8 m/s at rotor centre height (Measurement Date 16/01/2009)

f (Hz)	L _{W,1/3 Octave} (dB)	L _{W,1/3 Octave} (dB(A))	L _{W,1/3 Octave} (dB(C))
20	49.8 *	-0.7 *	43.6 *
25	54.5	9.8	50.1
31.5	55.5 *	16.1 *	52.5 *
40	53.4 *	18.8 *	51.4 *
50	53.4 **	23.2 **	52.1 **
63	53.1 **	26.9 **	52.3 **
80	52.7 **	30.2 **	52.2 **
100	51.3 *	32.2 *	51.0 *
125	49.3 *	33.2 *	49.1 *
160	48.4	35.0	48.3
200	46.7	35.8	46.7
250	48.1	39.5	48.1
315	48.6	42.0	48.6
400	43.3	38.5	43.3
500	41.1	37.9	41.1
630	40.2	38.3	40.2
800	41.4	40.6	41.4
1000	40.7	40.7	40.7
1250	41.0	41.6	41.0
1600	37.9	38.9	37.8
2000	39.0	40.2	38.8
2500	38.2	39.5	37.9
3150	36.2	37.4	35.7
4000	33.6	34.6	32.8
5000	32.8	33.3	31.5
6300	31.3	31.2	29.3
8000	24.8	23.7	27.8
10000	18.6 *	16.1 *	14.2 *

* Difference between total noise and bg noise < 6 dB

** Difference between total noise and bg noise < 3 dB, no correction applied





Appendix E

Spectra for Tonality Assessment

For Reference Wind Speed of 8 m/s
at Rotor Centre Height

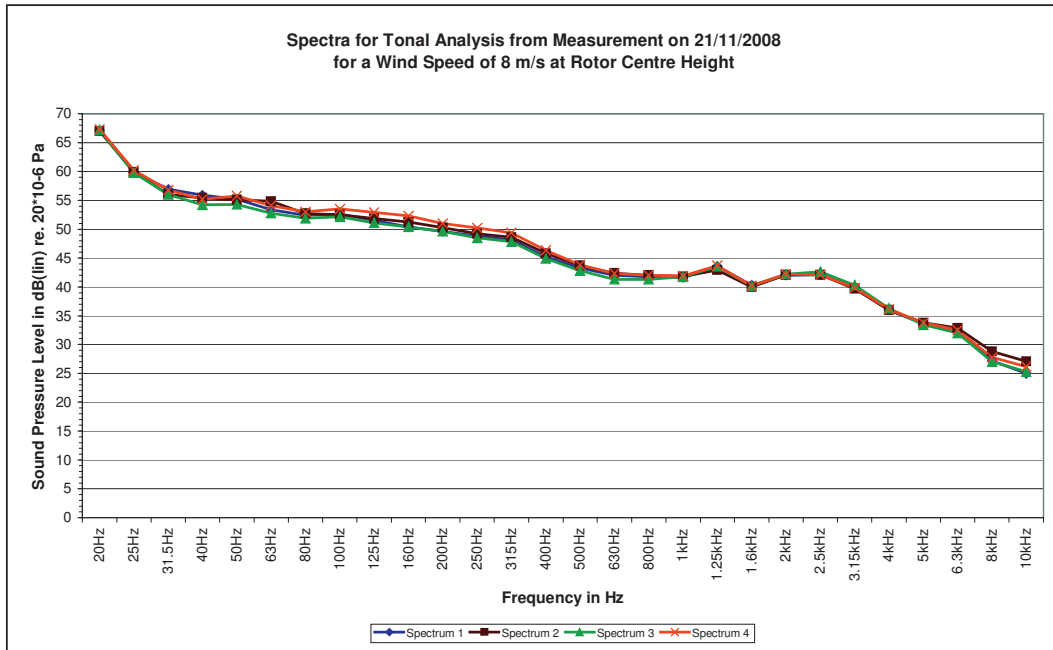


Figure 1: Linear 1/3 Octave Band Spectra for Total Measured Noise at Reference Point on 21/11/2008

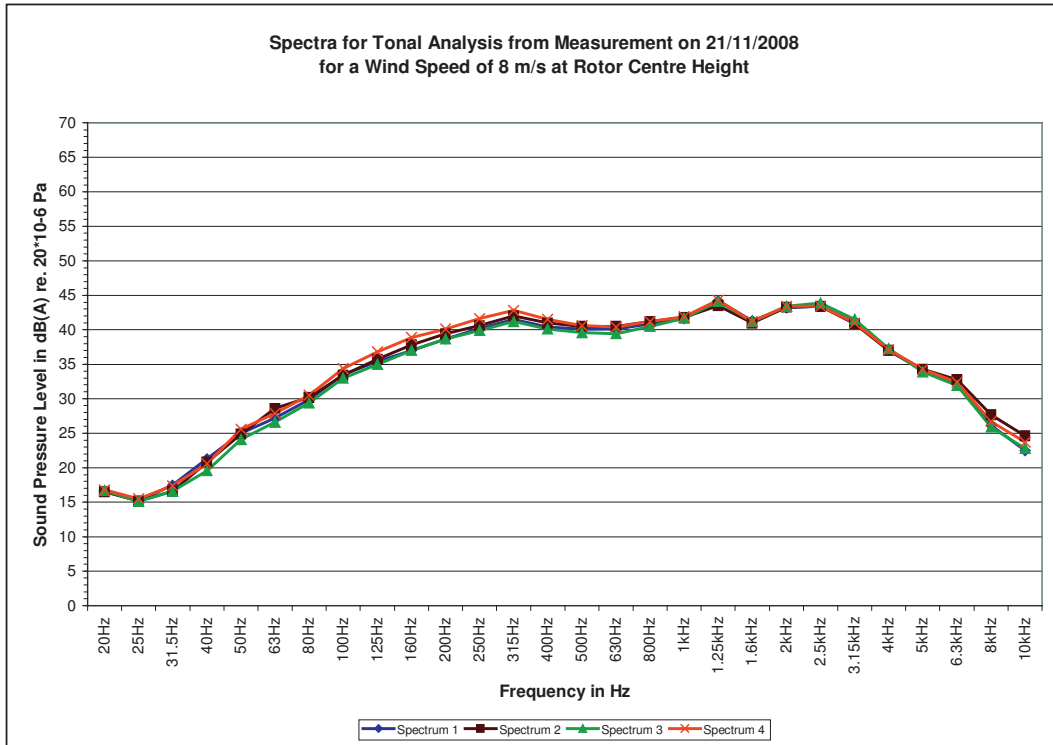


Figure 2: A-Weighted 1/3 Octave Band Spectra for Total Measured Noise at Reference Point on 21/11/2008

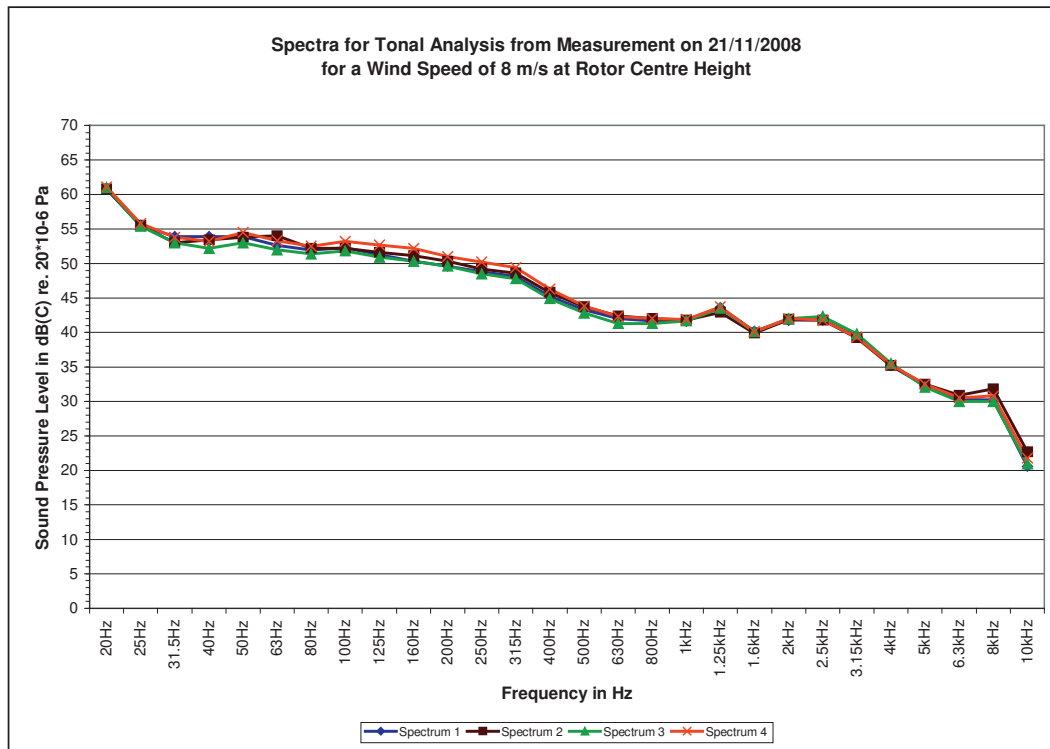


Figure 3: C-Weighted 1/3 Octave Band Spectra for Total Measured Noise at Reference Point on 21/11/2008

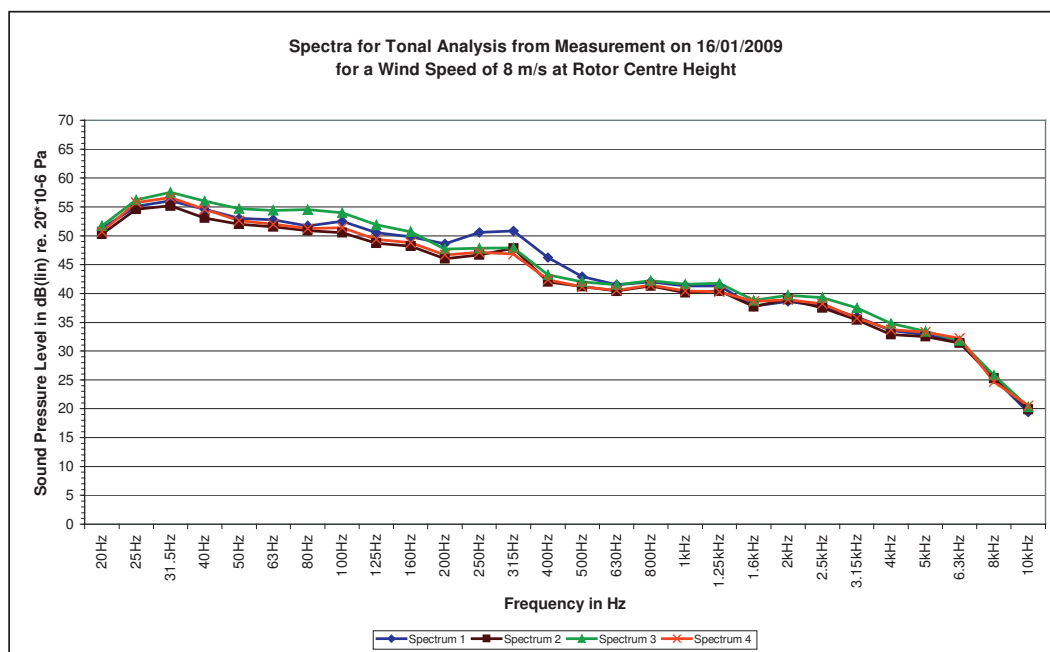


Figure 4: Linear 1/3 Octave Band Spectra for Total Measured Noise at Reference Point on 16/01/2009

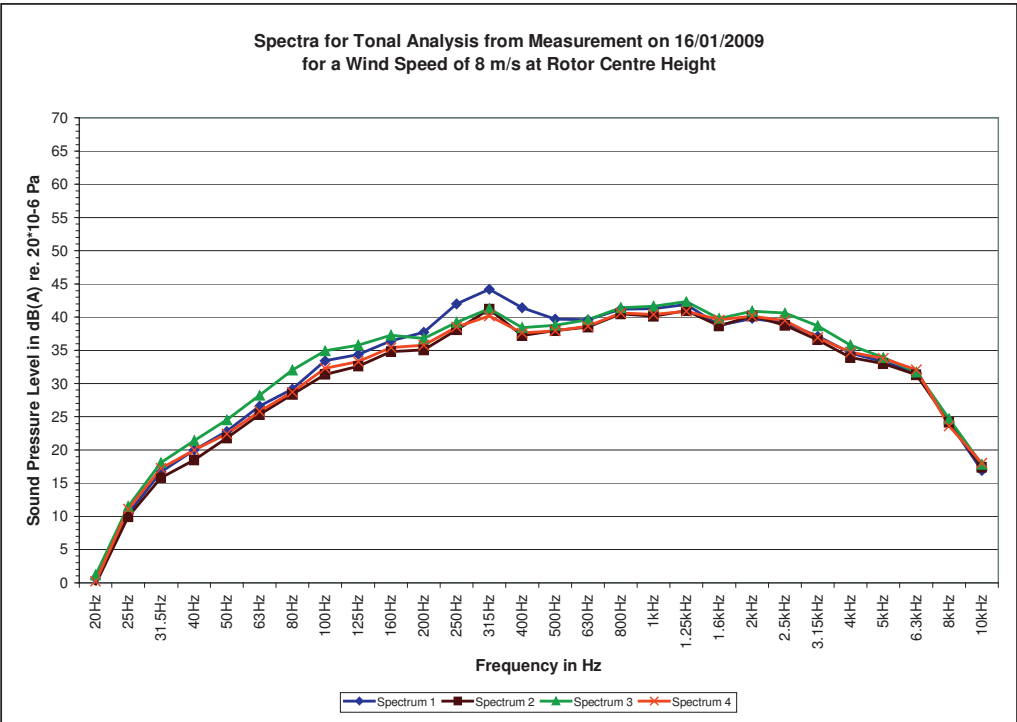


Figure 5: A-Weighted 1/3 Octave Band Spectra for Total Measured Noise at Reference Point on 16/01/2009

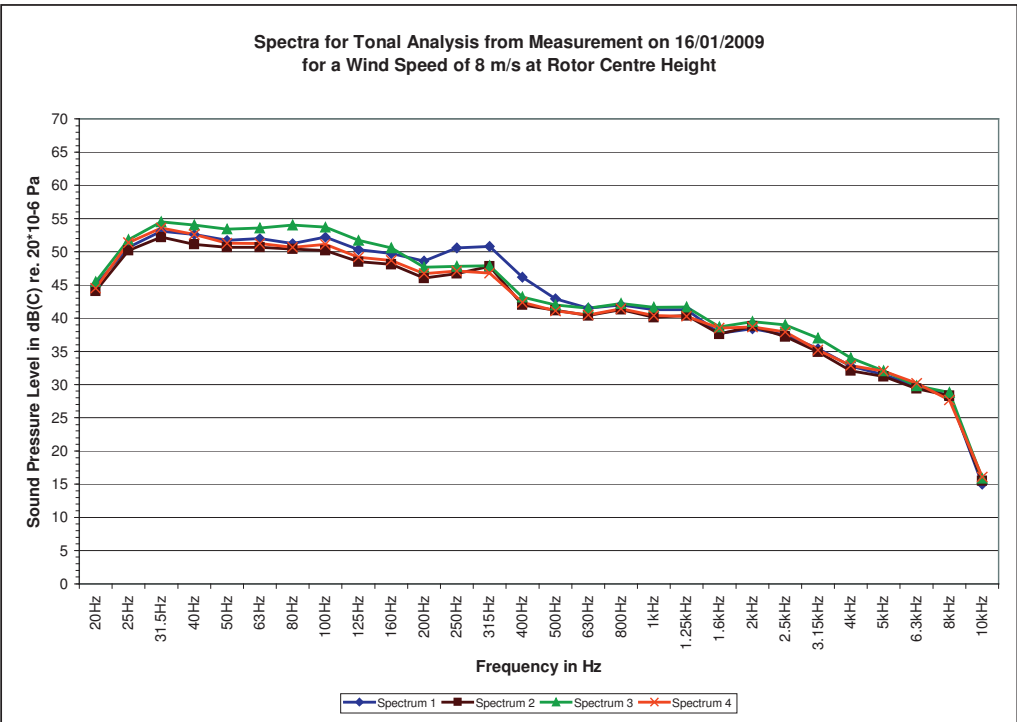


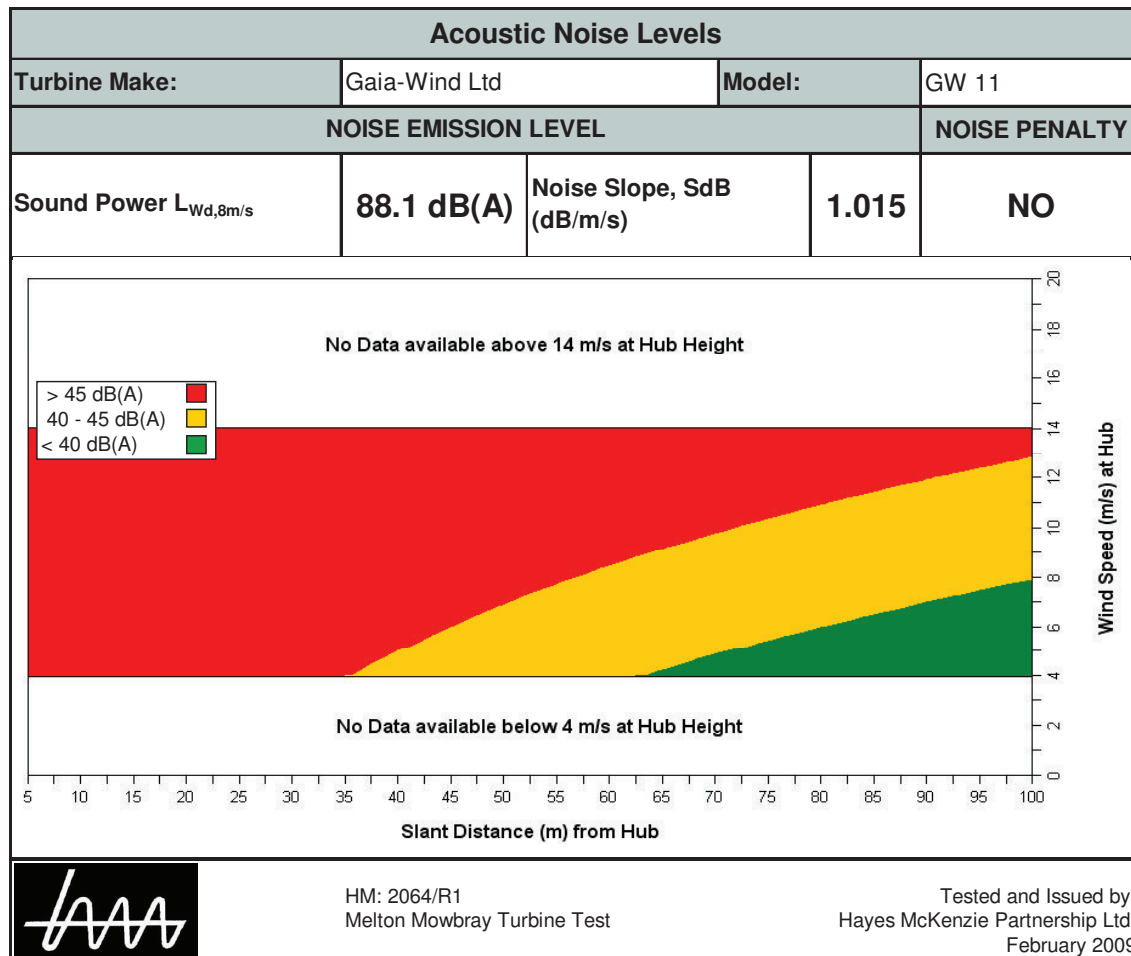
Figure 6: C-Weighted 1/3 Octave Band Spectra for Total Measured Noise at Reference Point on 16/01/2009



Appendix F

Noise Label

For Reference Wind Speed of 8 m/s
at Rotor Centre Height



HM: 2064/R1
Melton Mowbray Turbine Test

Tested and Issued by:
Hayes McKenzie Partnership Ltd.
February 2009