Appendix 5.11-A

Noise Report

Appendix 5.11 - A

This Appendix contains the full technical analysis of potential noise effects from the Project and applicable regulatory requirements. The information contained in this section was obtained from review of existing data available for the Project Area, including above water and underwater sound monitoring, and from acoustic modeling. The Project has been planned, sited, and designed to avoid or minimize acoustic effects. The findings demonstrate there will be no adverse sound effects on humans or wildlife from the Project. While temporary and limited sound impacts are anticipated during construction, measures will be implemented to prevent and minimize these impacts. Potential impacts and mitigation measures are discussed below in Sections 4 and 5.

1.0 Introduction and Regulatory Requirements

As specified in the USACE scope, the noise analysis discussed in this section includes an assessment of the magnitude and frequency of underwater noise and vibration. The potential for adversely affecting fish and marine mammal habitats and migration is discussed in Sections 5.4 and 5.5 of the Draft EIS that deal with Finfish Resources and Protected Marine Species, and a summary of those results is given at the end of this Appendix.

The MEPA Scope requires baseline sound level monitoring at the nearest representative locations along the south coast of Barnstable and Yarmouth and the east coast of Martha's Vineyard to determine whether sound from the Project will be measurable above background noise levels. In addition to baseline monitoring, acoustic modeling of potential sound effects was performed and the results are presented below. This section also addresses the ability of the Project to meet the Community Sound Level Criteria contained in the MADEP Noise Policy (DAQC Policy 90-001).

1.1 Acoustic Concepts

The loudness of a sound is dependant on the radiated sound power of the source and the propagation and attenuation characteristics of the medium that the sound energy passes through. For airborne and underwater sound the standard unit of measurement is the decibel (dB), a logarithmic scale formed by taking 20 times the $\log_{10}$ of a ratio of two pressures: the measured sound pressure divided by a reference sound pressure. Above air sound is referenced to 20 µPa[1], while underwater sound is referenced to 1 µPA. As a result, an identical sound pressure wave in air and underwater is recorded differently in the two fluids. For example, a sound pressure of 80 dB in air is equivalent to 106 dB underwater, i.e., the underwater scale is shifted 26 dB higher than the air scale. There are also substantial differences in ambient (background) sound levels in air and in the ocean, and in the frequency weighting that is used in the two media. Thus, the reader should not try to equate dB levels reported for water with those in air, or vice-versa.

The human ear can perceive sounds in a frequency range from about 20 to 20,000 Hertz (Hz),[2] with hearing sensitivity greatest in the mid-range of 1,000 to 4,000 Hz. While the threshold of hearing is 0 dB in the mid-range, it rises rapidly for lower frequencies of sound, and very low frequency sounds below 20 Hz are essentially inaudible. Data from recent hearing threshold studies[3, 4] have been compiled to produce Table 1 which gives the hearing threshold for the human ear at frequencies from 16 to 16,000 Hz.

To account for the human ear's sensitivities to certain frequencies, an A-weighting filter is commonly used for describing environmental sound levels. A-weighting filters the frequency spectrum of sound levels as the human ear naturally does (attenuating low and high frequency energy similar to the way people hear sound). Sound levels that are A-weighted to reflect human response are presented as dBA (also as "A" in tables and graphs). The hearing capabilities of and the frequency responses of marine mammals vary widely. Therefore, underwater sound levels are presented as unweighted or linear dBL (also as "L" in tables and graphs). For both airborne and underwater sound, the frequency component of the measured sound is important in the analysis. Frequency information has been provided as sound spectrograms by 1/3 octave frequency bands for the airborne and underwater sound level events.

[1] MicroPascals = 10^{-6} Newton/m^2.
[2] The frequency unit Hertz is equivalent to cycles per second.
[3] Bies, D. and Hansen, C., Engineering Noise Control, Theory and Practice, 2nd Ed., Chapman & Hall, New York, 1996, p. 55.
[4] Berglund, B., Hassmen, P., and Job, R., "Sources and effects of low-frequency noise," J. Acoust. Soc. Am., 99(5), May 1996, p. 2986.

The logarithmic decibel scale compresses the full range of acoustic energy into a compact linear scale, ranging from 0 dB, the level considered to be threshold of human hearing, to 120 dB considered to be the threshold of pain, see Table 2. Negative decibels are sound pressure levels below the reference pressure. When two separate sounds are added together, the result in decibels is different than one might expect because of the logarithmic scale. For example, if a sound of 70 dB is added to another sound of 70 dB, the total is only a 3-decibel increase (or 73 dB), not a doubling to 140 dB. Thus, every 3 dB increase represents a doubling of sound energy. For broadband sounds, a 3 dBA change is the minimum change perceptible to the human ear, a 5 dBA change is noticeable and a 10 dBA change sounds twice (or half) as loud.[5]

According to ANSI standards, an audible pure tone occurs when a 1/3-octave band in the time-averaged (L_{eq}) spectrum formed by adding the new sound to the existing baseline levels is higher than the numerical mean of the two adjacent bands by 5 to 15 dB, with the threshold of 5 dB corresponding to high frequencies (> 500 Hz) and the 15 dB threshold corresponding to low frequencies (< 125 Hz).[6] The definition of a pure tone in the DEP Noise Policy is slightly different; it uses whole octave bands and a 3 dB threshold (see Section 1.2). The ANSI 1/3-octave band definition of pure tone was used in this analysis.

The air acoustic environment near the Project site results from wind and wave sound as well as sound from vessels, recreational boats and over-flying aircraft. Moving inland, other sources associated with human activity are added in, principally motor vehicle traffic and commercial activity. Typical airborne sound levels are presented in Table 2.

For underwater sound, the typical measurement range of interest is from 80 dBL (still water conditions) to upwards of 180 dBL, generally thought to be the threshold level for preventing injury or harassment to marine mammals and sea turtles.[7] The ambient sound in the sea comes from many sources, natural and man-made, including turbulence in ocean currents, tides, surface waves, cavitations (collapse of air bubbles) in near-surface waves, low-level seismic activity, sea animals, and ship traffic. The ambient underwater sound level is highly variable in time and by location. Just as one example, a one-knot current can produce turbulent pressure changes (sound waves) of 116 dBL.[8] Typical ambient sound levels in Nantucket Sound are 95-115 dBL for winds of five to 30 mph.

Sound levels can be measured and presented in various forms. The most common sound metrics used in community impact assessments are the equivalent sound level (L_{eq}), the maximum sound level (L_{max}), and the background sound level (L_{90}). The L_{eq} is the energy averaged A-weighted sound level that includes both steady background sounds and transient short-term sounds. The L_{eq} equals the level of a steady sound, which when averaged over the sampled time period is equivalent in energy to the time-varying (fluctuating) sound level which actually occurred during the same time period. The L_{eq} provides a uniform method for comparing time varying sound levels. The L_{max} is the maximum sound level measured during a time period, and in this report refers to the L_{max} RMS 'fast' level with a 0.125 second time constant. The L_{90} is the A-weighted sound level that is exceeded for 90 percent of the time during the time period. The L_{90} can be thought of as the quietest ten percent of any time period and it generally does not include transient sound events. The L_{90} is used to determine compliance with the MADEP Noise Policy.

1.2 Regulatory Requirements

There are no local or federal noise control regulations with decibels limits that apply to the Project. The MADEP regulates sound through Regulation 310 CMR 7.10 that prohibits "unnecessary emissions" of sound. The MADEP's Policy Statement 90-001 interprets a violation of this noise regulation to have occurred if the source causes either:

[5]American Society of Heating, Refrigerating and Air Conditioning Engineers, Inc., 1989 ASHRAE Handbook, Fundamentals, (I-P) Edition, Atlanta, GA, 1989.
[6] American National Standards Institute, ANSI S12.9-1996/Part 4, "Noise Assessment and Prediction of Long-Term Community Response," New York, 1996, page 15.
[7] National Marine Fisheries Service, letter from Ms. Patricia Kurkal, Regional Administrator to Ms. Christine Godfrey, U.S. Army Corps of Engineers, June 27, 2002.
[8] Urick, R., Principles of Underwater Sound, 3rd Edition, McGraw-Hill, 1983, p. 206.

(1) An increase in the broadband sound level of more than 10 dBA above the ambient background; or
(2) A "pure tone" condition.

These are the MADEP Community Sound Level Criteria and apply within the three nautical mile limit.

The ambient background level is defined as the lowest existing L_{90} level measured during equipment operating hours. A "pure tone" condition is defined by the MADEP Noise Policy to occur when any whole octave band sound pressure level exceeds both of the two adjacent whole octave band sound pressure levels by 3 dB or more in the spectrum formed by adding the new source to the existing ambient level. The Noise Policy does not apply to construction activities.

All Project operations and most construction will occur outside the three nautical mile limit. Some construction activity will occur on land in Yarmouth where the Submarine Cable System will come ashore and connect into the regional power grid. The Town of Yarmouth Code does not, however, regulate sound from construction activities. Neither does the Cape Cod Commission, which only regulates sound from wireless communication sites. While the MADEP Noise Policy does not apply to the Project, the Secretary of the EOEA included a requirement in the MEPA Certificate that: "For informational purposes, the EIR should address the ability of the project to meet the performance standards contained in the DEP Noise Policy (DAQC Policy 90-001)." The sections below provide the requested information and show that the Project would comply with the Noise Policy if it were subject to it.

2.0 Studies Completed To-Date

2.1 Sound Measurements During the SMDS Pile Driving

To construct a Scientific Measurement Devices Station (SMDS) in the Horseshoe Shoal area, three support piles were driven into the seabed. Condition #2 of the USACE permit (#199902477) for this work required monitoring of the underwater sound level during the pile driving. Specifically:

"Underwater sound pressure level measurements will be made at an Initial Safety Zone radius of 500 meters to determine compliance with the 180 dB NMFS threshold. Hydrophone measurements will use the L_{max} RMS "fast" setting, and data will be analyzed on a real-time basis to ensure continuing compliance. If measured levels exceed the threshold, a site-specific Safety Zone radius corresponding to the 180 dB threshold will be established and the NMFS approved observer will be advised of the expanded action area for observation of marine animals."

Underwater sound measurements were made with a 8104 Brüel and Kjaer (B&K) hydrophone and a B&K 2260 sound analyzer. On-board calibration of the hydrophone measurement chain was completed using a B&K Type 4229 Hydrophone Calibrator. During the measurements, the hydrophone was submerged to a depth of 5 meters, roughly to 1/3 to 1/2 of the distance to the seafloor. The hydrophone was weighed down to resist current flow and to allow the hydrophone to hang vertically in the water. The hydrophone cable was attached to a floatation device to decouple the microphone from the ship's movements. The hydrophone sound measurements were monitored in real time, with the results reported directly to the Project Engineer and the designated marine mammal spotter carrying out his responsibilities from the construction barge.

Above water sound level measurements were made with a Type 1[9] Larson Davis (LD) 824 real time sound level analyzer, equipped with a ½ in precision condenser microphone. The microphone was fitted with an outdoor windscreen and was mounted eight feet above the ship deck, away from vertical reflecting surfaces. Prior to and directly following completion of the surveys as well as during set intervals during the measurement program, the sound measurement equipment was properly field calibrated with a Type 1 calibrator that is traceable to the National Institute of Standards and Technology (NIST).

All measurements were made during weather conditions that were conducive to accurate sound monitoring in the analysis - i.e., no precipitation and winds below 12 mph and seas at 5 feet or less.

[9] ANSI S1.4-1983 American National Standard Specification for Sound Level Meters and ANSI S1.40-1984 American National Standard Specification for Acoustic Calibrators.

The underwater L_{max} sound levels ranged from 145 to 167 dBL at a distance of 500 m, with the peak energy occurring in the 500 Hz 1/3-octave band. The ambient underwater L_{max} level was 123 dBL. The extensive sound monitoring effort demonstrated full compliance with the USACE sound level criterion for protecting marine mammals. The monitoring data were reported to the NMFS. The above water L_{max} sound levels during pile driving ranged from 70 to 89 dBA at a distance of 500 m, with the peak energy occurring in the 400 Hz and 1,000 Hz 1/3-octave bands.

2.2 Baseline Sound Level Monitoring and Acoustic Modeling- Summary

2.2.1 Above Water and Underwater Sound at Two Off-Shore Sites

Short-term existing daytime sound level measurements were made above water and underwater at two locations in the vicinity of the Project Area where recreational boaters travel: at Buoy G5 in the North Shipping Channel about one mile north of the edge of the Proposed Alternative location for the Wind Park, and at Buoy R20 at the edge of the Main Channel about 1/3 mile south of the Proposed Alternative location. The above water baseline L_{90} levels were 35 and 37 dBA, respectively, at Buoys G5 and R20. The corresponding above water L_{eq} levels were 46 and 51 dBA. The underwater L_{eq} levels were 90 and 93 dBL, respectively. More details are provided in Section 3.1.

2.2.2 Above Water Sound at Three Representative Coastal Sites

The MEPA Certificate requires baseline sound level monitoring at "the nearest representative locations along the south coast of Barnstable and Yarmouth and the east coast of the Vineyard." Three monitoring sites were located on the coast at Point Gammon in Yarmouth (4.7 miles from the closest WTG at the northeast corner of the Proposed Alternative location for the Wind Park), at Oregon Beach, Cotuit in Barnstable (5.5 miles from the closest WTG at the northwest corner of the Proposed Alternative location for the Wind Park), and at Cape Poge Wildlife Refuge at the tip of Cape Poge on Martha's Vineyard (5.4 miles from the closest WTG at the southwest corner of the Proposed Alternative location for the Wind Park). Existing sound levels were measured with Type 1 real-time sound level analyzers equipped with windscreens over periods of four to seven days at each location in November and December, 2002. As the monitoring sites are in secluded locations and the time of year ensured little or no motor vehicle traffic, boat traffic, or beach-goers, the measured sound levels are a conservative (i.e., low) estimate of baseline conditions. The baseline measurements covered a full range of meteorological conditions with winds blowing both on-shore and off-shore and wind speeds from zero to 28 mph.

At Point Gammon (November 15-22), measured L_{90} levels ranged from 27 to 66 dBA, and baseline L_{eq} levels were 35 to 71 dBA. At Oregon Beach (November 14-18), measured L_{90} levels ranged from 34 to 57 dBA , and baseline L_{eq} levels were 41 to 61 dBA. At Cape Poge (November 25- December 2), measured L_{90} levels ranged from 37 to 70 dBA, and baseline L_{eq} levels were 40 to 73 dBA. At all three sites, baseline sound levels are directly correlated to surface wind speed, and on-shore winds produce higher baseline levels than offshore winds. Full details of the baseline monitoring study are given in Section 3.2.

2.3 Noise Studies Conducted for Other Comparable Projects

2.3.1 Sound Measurements During Monopile Pile Driving

During construction of the Utgruden Wind Park in the Baltic Sea between the Swedish mainland and the island of Öland in 2000, both above water and underwater sound level measurements were made during monopile pile driving.[10] The Utgruden WTGs are 1.7 MW units mounted on monopile foundations similar in size to the monopiles planned for the Project. Sound level measurements were made on September 18, 2000. Weather conditions at the time were partly cloudy skies, wind speeds of two to nine mph and waves of two to five feet. Sound level measurements were made with Brüel & Kjaer (B&K) 8100 and 8101 hydrophones, DAT-tape recorders, a B&K 4223 hydrophone calibrator, a B&K 2143 frequency analyzer and a B&K 4231 calibrator.

[10] Ødegaard & Danneskiold-Samsøe A/S, "Offshore Wind-Turbine Construction, Offshore Pile-Driving Underwater and Above-Water Noise Measurements and Analysis," Report No. 00.877, Copenhagen, Denmark, October 2000.

The underwater Sound Exposure Level (SEL) from pile driving was 173 dBL at 320 m and 166 dBL at 720 m from the monopile; the decrease in sound with distance fits the attenuation curve for spherical wave spreading. Analysis of the sound pressure time history reveals the highest L_{max} level was 181.7 dBL at 320 m that corresponds to 177.8 dBL at 500 m and 174.7 dBL at 720 m. Frequency plots show the peak energy from pile driving occurred between 200 and 1,000 Hz, with underwater sound levels falling below background levels for frequencies below 5 Hz. These are the best available data sets and were used to model underwater sound impacts from monopile pile driving for the Project because of similarities in environmental conditions between Nantucket Sound and Baltic Sea.

The above water SEL from pile-driving was 80 dBA at 320 m from the monopile, and the highest L_{max} level is estimated to be 86 dBA at 320 m. Frequency plots show the peak energy from pile driving occurs below 800 Hz. These data were used to model above water sound impacts from monopile pile driving for the Project.

2.3.2 Underwater Sound Measurements During Operation of a Monopile WTG

As part of the environmental impact study for an offshore Wind Park in the Baltic Sea, underwater sound level measurements were made close to the monopile foundation of an operating WTG in the sea near the Swedish island of Gotland.[11] The Gotland WTGs are 550 kW units mounted on monopile foundations; one WTG was operated at its design speed during the study. Sound level measurements were made on January 26, 2000 at a distance of 20 m from the monopile with a Brüel & Kjaer (B&K) 8101 hydrophone. The data reveal most of the sound energy occurs in the frequency range of 63 to 500 Hz. The peak 1/3-octave band L_{eq} was 95 dBL at 160 Hz. Preliminary underwater sound data from an on-going measurement study of a 1.5 MW GE WTG at the Utgrunden Wind Park shows a similar sound spectrum, with the peak energy shifted to a lower frequency. These measurements were made at a distance of 100 m from the monopile using a Reson TC4032 hydrophone. The results show the peak 1/3-octave band L_{eq} of 85 dBL at 63 Hz. Underwater sound levels for the Project were calculated from these two sets of measurements with the spectrum peak at 31.5 Hz.

3.0 Existing Conditions

3.1 Above Water and Underwater Sound at Two Off-Shore Sites

Short-term existing daytime sound level measurements were made above water and underwater at two locations in the areas where recreational boaters travel: at Buoy G5 in the North Shipping Channel about one mile north of the edge of the Proposed Alternative location of the Wind Park, and at Buoy R20 at the edge of the Main Channel about 1/3 mile south of the Proposed Alternative location. A Type 1 Larson Davis 824 real time sound level analyzer equipped with a windscreen was used to make 20-minute above water measurements, while the B&K equipment listed in Section 2.1 was simultaneously employed for the underwater measurements. These data were collected on October 22, 2002 between 10 a.m. and 12 noon. The weather conditions were clear skies, light winds (4 mph average), and light seas (0.5-1.5 foot waves). The boat engine was shut-off during the measurements and the dominant sounds were wave interaction with the boat hull (the boat was allowed to drift), periodic over flying aircraft and distant boat traffic.

The above water baseline L_{90} levels were 35 and 37 dBA, respectively, at Buoys G5 and R20. The corresponding above water L_{eq} levels were 46 and 51 dBA. The L_{eq} 1/3-octave band spectrum is shown in Figure 1. The wind speed during these measurements approximates the cut-in wind speed conditions for the WTGs (see Section 3.2). To estimate baseline L_{eq} levels for the design wind speed condition of the proposed Wind Park, the sound levels were increased by 14 dBA, the average observed difference between the two conditions for long term monitoring done at three shoreline locations (see Section 3.2).

The underwater L_{eq} levels were 90 and 93 dBL, respectively. The sound level at Buoy R20 is slightly higher due to the shallower water and greater current. The depth at Buoy R20 is more representative of the water depth on Horseshoe Shoal, and so the R20 measurements are used as the underwater baseline for the proposed Wind

[11] Ødegaard & Danneskiold-Samsøe A/S, "Offshore Wind Turbines-VVM, Underwater Noise Measurements, Analysis, and Predictions," Report No. 00.792, rev. 1, Copenhagen, Denmark, March 2000.

Park. The L_{eq} 1/3-octave band spectrum of underwater sound under light winds (4 mph average) that approximate the WTG cut-in wind speed is shown in Figure 2 along with projected underwater L_{eq} levels for the design wind speed condition. The ambient underwater sound levels were scaled by a factor of 7.2 dBL per doubling of wind speed, as has been observed in studies of sound spectra in coastal waters.[12]

3.2 Above Water Sound at Three Representative Coastal Sites

The MEPA Certificate required baseline sound level monitoring at "the nearest representative locations along the south coast of Barnstable and Yarmouth and the east coast of the Vineyard". Along the coasts there is a wide variety of existing land use and population density. If representative locations were targeted at areas with the most people, then logical choices would be Hyannisport, the shore along Lewis Bay in Yarmouth and Edgartown harbor. These areas, however, have high levels of human activity and motor vehicle traffic, and baseline sound levels are higher than those found at uninhabited areas along the coast. To ensure the measured sound levels are a conservative (i.e., low) estimate of baseline conditions along the entire coast, secluded areas along the coast were sought out. In the same vein, measurements were taken in November and December, 2002, a time of year with little or no beach traffic (cars, trucks or boats). The three monitoring sites were located on the coast at Point Gammon in Yarmouth (4.7 miles from the closest WTG at the northeast corner of the Proposed Alternative location of the Wind Park), at Oregon Beach, Cotuit in Barnstable (5.5 miles from the closest WTG at the northwest corner of the Proposed Alternative location of the Wind Park), and at Cape Poge Wildlife Refuge at the tip of Cape Poge on Martha's Vineyard (5.4 miles from the closest WTG at the southwest corner of the Proposed Alternative location of the Wind Park). The baseline measurements covered a full range of meteorological conditions with winds blowing both on-shore and offshore and wind speeds 0 to 28 mph.

Point Gammon is on a private peninsula (Great Island) in Yarmouth that sticks out into Nantucket Sound. The monitoring location was above a south-facing beach on the south tip of Great Island. The equipment was located 100 feet from the high water mark where the grade is 20 feet above the beach. The microphone (with wind screen) was mounted 7 feet above grade, and all equipment was chained to a flag pole in a waterproof case. The principal sounds at this site were the wind and ocean waves, periodic over-flying aircraft, and an occasional passing ferryboat. There was no vehicle or pedestrian access to this location during the measurement program that lasted seven days from November 15 to 22, 2002.

Oregon Beach is a public beach located off Main Street and Oregon Way, south of Cotuit Center in Barnstable. The coast generally faces southeast at this point on the Cape. The equipment was located 80 feet from the high water mark where the grade is a few feet above the beach. The microphone (with wind screen) was mounted 7 feet above grade, and all equipment was chained to the tree in a waterproof case. The principal sounds at this site were the wind and ocean waves, sea birds, periodic over-flying aircraft, and occasional motor vehicles and pedestrians accessing the beach area. Monitoring lasted more than four days from November 14 to 18, 2002.

Cape Poge Wildlife Refuge on Chappaquidick Island, Martha's Vineyard is a wildlife refuge and recreational area with facilities for swimming and shore fishing. It is a very isolated location, travel to which requires a four-wheel drive vehicle. The coast faces east towards the ocean at the monitoring location that was setup near the lighthouse above the beach. The equipment was located 40 feet from the high water mark on a sand dune where the grade is 20 feet above the ocean. The microphone (with wind screen) was mounted 8 feet above grade, with the tripod was lashed to a low split-rail fence, and all equipment was protected in a waterproof case. The principal sounds at this site were the wind and ocean waves, and sea birds. Measurements were taken for seven days from November 25 through December 2, 2002.

At Point Gammon (November 15-22), measured L_{90} levels ranged from 35 to 66 dBA, and baseline L_{eq} levels were 42 to 71 dBA. At Oregon Beach (November 14-18), measured L_{90} levels ranged from 34 to 57 dBA, and baseline L_{eq} levels were 41 to 61 dBA. At Cape Poge (November 25-December 2), measured L_{90} levels ranged from 37 to 70 dBA, and baseline L_{eq} levels were 40 to 73 dBA. At all three sites, baseline sound levels are directly correlated to surface wind speed, and on-shore winds produce higher baseline levels than offshore winds, which is expected because offshore winds both suppress wave action at the shoreline and shield the coast from the sound of ocean waves by the wind shadow effect.

[12] Urick, R., Principles of Underwater Sound, 3rd Edition, McGraw-Hill, 1983, p. 213.

The baseline sound data were examined in detail for the two wind conditions for which Project's acoustic effects are quantified in Section 4: the cut-in wind speed of the WTGs (8 mph at hub height) and the design wind speed of the WTGs (30 mph at hub height). The closest National Weather Service station to the Project is the Hyannis Airport station that measures winds at a height of 3 m. Under neutral atmospheric stability (e.g., high winds), the wind speed power law[13] over the oceans' surface predicts that a 30 mph wind at WTG hub height (75 m) corresponds to a 16 mph wind (14 knots) at a height of 3 m. For an 8 mph wind speed at hub height, the corresponding 3 m wind speed is 5 mph (five knots). The measured 1-hour L_{eq} and L_{90} sound levels for the two wind conditions are summarized in Table 3. Figures 3 through 11 present representative 1/3 octave band spectra for measured L_{eq} levels at the three monitoring locations, covering: (1) the cut-in wind speed condition (regardless of wind direction); (2) the design wind speed for on-shore winds; and (3) the design wind speed for off-shore winds. The distinction between on-and off-shore winds at the design wind speed condition is important for two reasons: (1) baseline sound levels are lower for off-shore winds as discussed above; and (2) sound from the Project will be 27 dBA lower under off-shore winds over 2-3 mph due to the wind shadow effect.[14]

4.0 Analysis of Impacts

The Project has been planned, sited, and designed to avoid or minimize noise impacts. The findings of noise studies conducted for the Project indicate that no adverse impacts to humans or wildlife relative to noise are anticipated as a result of this Project. While temporary and limited impacts are anticipated during construction, measures will be implemented to prevent and minimize these impacts. The analysis of sound effects for the Project utilized acoustic modeling both above water (airborne sound) and underwater, and the modeling methodology is discussed in Section 4.1. Section 4.2 presents the modeling results for areas seaward of the State Territorial Limit and Section 4.3 discusses the results for areas within the State Territorial Limit (inside 3-miles).

4.1 Acoustic Modeling Methodology

The analysis of sound effects for the Project utilized baseline sound level monitoring and acoustic modeling both above water (airborne sound) and underwater. Above water sound levels were predicted at two buoys (G5 and R20) in the shipping channels north and south of the Wind Park (to represent areas where recreational boaters travel), in Lewis Bay, and at 10 upland locations along the south shore of the Cape and the east shore of Martha's Vineyard. These 13 modeling locations are listed in Table 4. Modeling locations 1, 2, 4, 9 and 13 are identical to the monitoring locations discussed in Section 3.2, and thus baseline sound level measurements exist for these five locations. For the other modeling locations, conservative baseline sound level measurements were assigned as follows. The measurements made at Point Gammon (location 4) were used for both locations 3 and 4. The measurements made at Oregon Beach (location 9) were used for locations 5-10, and the measurements made at Cape Poge (location 13) were used for locations 11-13. For reasons discussed in Section 3.2, actual baseline sound levels along the coast will be higher than the baseline levels assumed in this analysis.

Above water acoustic modeling assumed standard methods. The sound level downwind of a source decreases with distance due to: 1) geometric wave spreading, 2) air absorption and 3) excess attenuation owing to wind and temperature gradients, atmospheric turbulence and ground characteristics.[15] The surface of the sea was conservatively considered to be a reflective plane (under windy conditions the sea's surface does scatter and absorb some sound energy) and thus wave spreading assumed hemispherical divergence (except for infrasound under certain conditions, see below). The wind gradient near the surface is nearly always positive, that is wind speed increases with height due to the surface boundary condition. Upwind from a source, a shadow zone is formed by refraction upward of sound waves. Similarly, the normal daytime temperature gradient where temperature declines with increasing altitude also produces upward refraction. Downwind and under temperature inversion conditions, the effect of refraction is to eliminate the shadow zone and erase most or all of the excess attenuation effects, but not to reduce attenuation from air absorption or hemispherical wave

[13] Houghton, D. (Ed.), Handbook of Applied Meteorology, John Wiley & Sons, 1985, pp. 922-924. For design and cut-in wind speeds, corresponding average wave heights of 1 and 5 feet are assumed, representing roughness lengths z_o = 0.01 m and 0.10 m, respectively.
[14] Beranek, L., Noise and Vibration Control, Institute of Noise Control Engineering, 1988, pp. 187-190.
[15] "Sound Propagation Outdoors" in Beranek, L., Noise and Vibration Control, Institute of Noise Control Engineering, 1988, pp. 164-190 and American National Standards Institute, ANSI S1.26-1995, "Method for Calculation of the Absorption of Sound by the Atmosphere," 1995.

spreading.[16] For this analysis, downwind sound propagation and a temperature inversion condition at sea were assumed, and consequently excess attenuation effects were assumed to be zero. For construction impacts, modeling was performed only for calm to moderate winds (<10 mph) when conditions are ideal for installation of the WTG foundation piles. Sound source data for installation of similar sized piles at the Utgrunden Wind Park were used in the acoustic modeling (see Section 2.3.1). For operational effects, acoustic modeling was performed for two wind conditions: (1) the WTG cut-in wind speed (8 mph at hub height); and (2) the WTG design wind speed (30 mph at hub height). Event (1) represents the Project operating condition when existing sound levels will be lowest, and Event (2) represents the maximum sound levels from the Project. Sound source data for the WTGs were provided by GE Wind Energy from recent tests performed at a GE 3.6 MW unit operating near Barrax, Spain.

Under high wind conditions (20 mph and above), research has shown that refraction due to wind gradients causes a transition from standard hemispherical to slower cylindrical wave spreading at a downwind distance of approximately 2 km for infrasound (sound waves with a frequency below 20 Hz).[17] Mid-frequency sound propagation under these conditions was found by researchers to follow hemispherical wave spreading.[17] This refinement was included in the model for the design wind speed condition. Only the onshore wind condition was modeled because under offshore winds sound from the Project will be 27 dBA lower due to the wind shadow effect[18] and existing sound levels during offshore winds are only 1-14 dBA lower than during onshore winds (see Table 3). The results of the above water acoustic modeling are summarized at the end of this Appendix.

Sound wave propagation and attenuation underwater is a very complex phenomena influenced by gradients of temperature, salinity, currents, sea surface turbulence, and bottom conditions. Research has shown spherical wave spreading, together with seawater absorption, provides a reasonable fit to measured underwater sound levels under a wide variety of conditions.[19] For sound transmission loss in shallow water as opposed to the open sea, empirical data show spherical wave spreading explains measured sound levels near the source (defined as < 4 km for the Project site), and cylindrical wave spreading occurs at great distances (defined at > 28 km for the Project site) with a transition in between.[20] Since the 8 km distance from the Project to nearby shorelines defines the area of greatest interest for underwater effects, spherical wave spreading is a reasonable model for this study. Thus, the underwater modeling for the Project assumed spherical wave spreading and standard seawater sound absorption factors.[21] Sound source data for construction and operational effects underwater were taken from data collected at the Utgrunden and Gotland Wind Parks (see Sections 2.3.1 and 2.3.2) which have similar environmental conditions to Nantucket Sound and provide the best available data. The results of the underwater acoustic modeling are summarized at the end of this Appendix.

As noted in Section 1.1, a 3-dBA change in above water sound is the minimum perceptible to the human ear. Adding a new sound equal to an existing baseline level increases that level by exactly 3 dBA. Thus, if sounds from the Project are equal to or greater than the existing average baseline level (L_{eq}), it is assumed that a change will be perceived. Likewise, when broadband sound from the Project is less than the existing level, it will be inaudible unless it creates a pure tone, i.e. a 1/3-octave band in the L_{eq} spectrum formed by adding the Project to the existing baseline that is higher than the numerical mean of the two adjacent 1/3-octave bands by 5-15 dB (see Section 1.1).

[16] Beranek, L., Noise and Vibration Control, Institute of Noise Control Engineering, 1988, pp. 185-188.
[17] Hawkins, J., Application of Ray Theory to Propagation of Low Frequency Noise from Wind Turbines, NASA Contractor Report 178367, NASA Langley Research Center, Hampton, VA, 1987. Data from the second Medicine Bow, WY wind turbine tests show downwind sound levels for a 10 Hz signal follow classic ray theory and switch from hemispherical (-6 dB/doubling of distance) to cylindrical (-3 dB/doubling of distance) wave spreading at 2 km.
[18] Beranek, L., Noise and Vibration Control, Institute of Noise Control Engineering, 1988, pp. 187-190.
[19] Urick, R., Principles of Underwater Sound, 3rd Edition, McGraw Hill, New York, 1983, p. 110.
[20] Ibid, pp. 177-178.
[21] Etter, P., Underwater Acoustic Modeling: Principles, Techniques and Applications, Elsevier Applied Science, New York, 1991, p. 65.

4.2 Seaward of State Territorial Limit (Beyond 3-miles)

4.2.1 Above Water Sound

4.2.1.1 Construction Effects

The sound effects of construction will be temporary and are associated with the installation of 130 16-foot diameter monopiles (one for each WTG), installation of six smaller 4-foot diameter piles for the ESP, and vessel traffic for transporting equipment, piles, and workers to the site. The jet plow embedment process for laying submarine power cables with a cable barge (see Section 4.2.3.4 of the Draft EIS) produces no sound beyond typical vessel traffic in Nantucket Sound. The principal sound from construction will therefore be temporary pile driving of the WTG monopiles using a drop hammer similar to an IHC S-600. The driving rate will be in the range of 2 to 36 impacts per minute. Sound data from installation of similar sized piles at the Utgrunden Wind Park were used in the acoustic modeling (see Section 2.3.1). Only one monopile will be driven at a time, and sound levels will depend on the distance from the receiver to the particular point in the Wind Park array and whether the receiver is upwind or downwind of the location where the monopile is being driven. (In the former case, the wind shadow effect substantially reduces sound levels).

Table 5 summarizes the predicted minimum and maximum temporary sound levels (L_{max}) at Buoys G5 and R20 (the receivers) from pile driving in the Wind Park. The minimum impacts are associated with pile driving at the WTG location farthest away from the receiver, while maximum impacts are associated with pile driving at the WTG location closest to the receiver. The predicted construction impacts are 31 dBA to 76 dBA when the receiver is downwind of the pile driving activity and 8 dBA to 49 dBA when the receiver is upwind of the activity. Existing average sound levels (L_{eq}) at sea in the vicinity of the Project are now approximately 46 to 51 dBA (see Section 3.1). These existing levels represent daytime conditions for a non-motorized vessel (e.g., a sailboat) running downwind in light wind conditions. For such boaters, the acoustic modeling results reveal that sometimes the temporary pile driving activity will be audible (i.e., above existing levels) and sometimes it will not, depending on a boater's distance from the monopile being driven and whether he is upwind or downwind of the activity. It should also be noted that occupants of sailboats tacking upwind or motorboats will experience higher baseline sound levels, and for these boaters it is less likely that temporary sound from Project construction will be audible.

4.2.1.2 Operational Effects

Acoustic modeling was performed for two wind conditions: (1) the WTG cut-in wind speed (8 mph at hub height); and (2) the WTG design wind speed (30 mph at hub height). Event (1) represents the Project operating condition when existing sound levels will be lowest, and Event (2) represents the maximum sound levels from the Project. WTG sound-source data were provided by GE Wind Energy from recent tests performed at a GE 3.6 MW unit operating near Barrax, Spain. Simultaneous operation of all 130 WTGs was assumed in the modeling.

Figures 12 and 13 present the frequency spectra of the maximum continuous sound levels from Project operation for the cut-in wind speed at Buoys G5 and R20, along with the existing baseline sound spectra. Buoys R5 and G20 are along the edges of the North Channel and Main Channel closest to the Wind Park and represent the closest likely approach by a recreational boater to the Wind Park. Existing sound levels are 46 to 51 dBA and represent daytime conditions for a non-motorized vessel (e.g., a sailboat) running downwind when the average surface wind speed is about 5 mph. (Occupants of a sailboat tacking upwind or a motorboat would experience higher baseline sound levels). For such boaters, Project operational sound levels of 30 to 34 dBA are well below existing sound levels of 46 to 51 dBA, and the spectrum formed by adding the Project to the existing baseline levels contains no pure tones in the vicinity of the 80 Hz band where the Project has an energy peak (see Table 6); therefore the Project will be inaudible. The results also reveal that low-frequency sound from the Project (< 63 Hz) is below the threshold of human hearing and would be inaudible regardless of the baseline sound levels.

Figures 14 and 15 present the frequency spectra of the maximum continuous sound levels from Project operation for the design wind speed at Buoys G5 and R20, along with the existing baseline sound spectra. Buoys R5 and G20 are along the edges of the North Channel and Main Channel closest to the Wind Park and represent the closest likely approach by a recreational boater to the Wind Park. Existing sound levels are 60 to 65 dBA and represent daytime conditions for a non-motorized vessel (e.g., a sailboat) running downwind when the average

surface wind speed is 16 mph. (Occupants of a sailboat tacking upwind or a motorboat would experience higher baseline sound levels). For such boaters, Project operational sound levels of 40 to 45 dBA are well below existing sound levels of 60 to 65 dBA, and the spectrum formed by adding the Project to the existing baseline levels contains no pure tones in the vicinity of the 63 Hz band where the Project has an energy peak (see Table 6); therefore, the Project will be inaudible. The results also reveal that low-frequency sound from the Project (< 63 Hz) is below the threshold of human hearing and would be inaudible regardless of the baseline sound levels.

The Wind Park will be equipped with foghorns for boating safety. Several different devices will be deployed around the perimeter of the Wind Park, each with a different characteristic sound. The horns will operate only when fog is present, day or night, and will have a ½-mile audible range. Thus, boaters traveling near the Wind Park in dense fog will certainly hear these warning devices, just as they now hear various gongs and bells in Nantucket Sound from fixed buoy locations. Persons on land (5+ miles away) will not hear the foghorns.

4.2.2 Underwater Sound

4.2.2.1 Construction Effects

The underwater sound effects of construction will be temporary and are associated with the installation of 130 16-foot diameter monopiles (one for each WTG), installation of six smaller 4-foot diameter piles for the ESP, and vessel traffic for transporting equipment, piles, and workers to the site. The jet plow embedment process for laying submarine power cables with a cable barge (see Section 4.2.3.4 of the Draft EIS) produces no sound beyond typical vessel traffic in Nantucket Sound. The principal sound from construction will therefore be temporary pile driving of the WTG monopiles using a drop hammer similar to an IHC S-600. The driving rate will be in the range of 2 to 36 impacts per minute. It is anticipated that the process of completing one string of WTGs (10 WTGs with associated inner-array cable and scour mats) will take up to approximately one month and installation of all 130 WTGs will occur over two construction seasons. Sound data from installation of similar sized piles at the Utgrunden Wind Park were used in the acoustic modeling (see Section 2.3.1). Only one monopile will be driven at a time, and sound levels will depend on the distance from the underwater receiver to the monopile in the Wind Park being driven. For additional information on construction noise effects to finfish and protected marine species, please refer to Section 5.4 and 5.5 of the DEIS/DEIR.
Figures 38 and 39 present predicted temporary underwater L_{max} sound levels throughout Nantucket Sound for pile driving at the southwest and northeast corners of the Wind Park. The levels range from 170 dBL at a distance of 1,220 m to 145 dBL at a distance of 21 km. The frequency spectrum of the underwater sound at a distance of 500 m from the pile is shown in Figure 40. The pile driving peak energy occurs in the 31.5 Hz 1/3-octave band.

4.2.2.2 Operational Effects

Acoustic modeling of underwater operational sound was performed for the design wind condition using sound source data provided by GE Wind Energy from recent tests at the Utgrunden and Gotland Wind Parks (see Section 2.3.2) which have similar environmental conditions to Nantucket Sound and provide the best available data. Baseline underwater sound levels under the design condition are 107.2 dBL (see Section 3.1). Figure 41 presents the L_{eq} spectrums for the baseline level and Project operational sound at distances of 20 m and 100 m from a single monopile. The total level of baseline plus Project sound falls from 109.1 dBL at 20 m to 107.5 dBL at 50 m to 107.2 dBL at 120 m. Thus, underwater levels fall to the baseline level within a relatively short distance (120 meters) of each monopile, which is far less than the spacing between WTG monopiles.

4.3 Within State Territorial Limit (Inside 3-miles)

4.3.1 Lewis Bay

4.3.1.1 Above Water Sound

4.3.1.1.1 Construction Effects

The sound effects of construction will be temporary and are associated with the installation of 130 16-foot diameter monopiles (one for each WTG), installation of six smaller 4-foot diameter piles for the ESP, and vessel

traffic for transporting equipment, piles, and workers to the site. Upland construction activities are discussed below. The jet plow embedment process for laying submarine power cables with a cable barge (see Section 4.2.3.4 of the Draft EIS) produces no sound beyond typical vessel traffic in Nantucket Sound. The principal sound from construction at sea will therefore be temporary pile driving of the WTG monopiles using a drop hammer similar to an IHC S-600. The driving rate will be in the range of 2 to 36 impacts per minute. Sound data from installation of similar sized piles at the Utgrunden Wind Park were used in the acoustic modeling (see Section 2.3.1). Only one monopile will be driven at a time, and sound levels will depend on the distance from the receiver to the particular point in the Wind Park array and whether the receiver is upwind (offshore winds) or downwind (onshore winds) of the location where the monopile is being driven. (In the former case, the wind shadow effect from offshore winds will substantially reduce sound levels).

Table 7 summarizes the predicted minimum and maximum temporary sound levels (L_{max}) in Lewis Bay from pile driving in the Wind Park. The minimum impacts are associated with pile driving at the WTG location farthest away from the receiver, while maximum impacts are associated with pile driving at the WTG location closest to the receiver. The predicted construction impacts are 20 dBA to 34 dBA when the wind is onshore and –7 dBA to 7 dBA when winds are offshore. Existing average sound levels (L_{eq}) for Lewis Bay for calm to moderate (<10 mph) wind conditions are 46 to 59 dBA with onshore winds and 41 to 58 dBA with offshore winds (see Sections 4 and 3.2). As shown in Table 7, all temporary pile driving sound will be below existing levels and will therefore be inaudible.

The upland construction activities include Horizontal Directional Drilling (HDD) for the borehole containing the Submarine Cable System from Lewis Bay to the transition vault on nearby land and overland laying of cable from the transition vault to the Barnstable Switching Station using excavators and backhoes. The HDD operation involves a drilling rig, mud pump, and a small crane to move sections of the conduit pipe into position. An HDD rig powered by a diesel engine in the range of 440 to 740 hp will be used, and the larger engine is assumed in this study to be conservative. Temporary, maximum (L_{max}) sound levels for the HDD rig (78 dBA @ 50 feet) are comparable to those for the excavators and backhoes (80 to 84 dBA @ 50 feet), which are typical pieces of roadway construction equipment. Average (L_{eq}) sound levels are about 5 dBA less due to the fact that the equipment runs at maximum load only a fraction of the time. Upland construction activities will be temporary and will be audible to persons near the cable corridor. The exact temporary sound levels experienced by residents for the HDD and cable laying will depend on their distance from the construction activity. For example, a person standing 200 feet from the equipment would hear sound levels (L_{eq}) in the range of 61 to 67 dBA.

4.3.1.1.2 Operational Effects

Acoustic modeling was performed for two wind conditions: (1) the WTG cut-in wind speed (8 mph at hub height); and (2) the WTG design wind speed (30 mph at hub height). Event (1) represents the Project operating condition when existing sound levels will be lowest, and Event (2) represents the maximum sound levels from the Project. WTG sound-source data were provided by GE Wind Energy from recent tests performed at a GE 3.6 MW unit operating near Barrax, Spain. Simultaneous operation of all 130 WTGs was assumed in the modeling.

Figure 16 presents the frequency spectrum of the maximum continuous sound level from Project operation for the cut-in wind speed at Lewis Bay, along with the existing baseline sound spectrum. The maximum operational sound level of 14 dBA is well below existing sound levels for onshore winds (46 to 58 dBA), and the spectrum formed by adding the Project to the existing baseline levels contains no pure tones in the vicinity of the 80 Hz band where the Project has an energy peak (see Table 8); therefore the Project will be inaudible. The results also reveal that all sound from the Project is below the threshold of human hearing and would be inaudible regardless of the baseline sound levels.

Figure 17 presents the frequency spectrum of the maximum continuous sound level from Project operation for the design wind speed at Lewis Bay, along with the existing baseline sound spectrum. The maximum operational sound level of 21 dBA is well below existing sound levels for onshore winds (54 to 60 dBA), and the spectrum formed by adding the Project to the existing baseline levels contains no pure tones in the vicinity of the 63 Hz band where the Project sound has an energy peak (see Table 8); therefore, the Project will be inaudible. The results also reveal that low-frequency sound from the Project (< 63 Hz) is below the threshold of human hearing, and would be inaudible regardless of the baseline sound levels.

The foghorns deployed around the Wind Park for boating safety will not be audible at Lewis Bay (see Section 4.2.1.2).

4.3.1.2 Underwater Sound

4.3.1.2.1 Construction Effects

The underwater sound effects of construction will be temporary and are associated with the installation of 130 16-foot diameter monopiles (one for each WTG), installation of six smaller 4-foot diameter piles for the ESP, and vessel traffic for transporting equipment, piles, and workers to the site. The jet plow embedment process for laying submarine power cables with a cable barge (see Section 4.2.3.4 of the Draft EIS) produces no sound beyond typical vessel traffic in Lewis Bay. The principal sound from construction will therefore be temporary pile driving of the WTG monopiles using a drop hammer similar to an IHC S-600. The driving rate will be in the range of 2 to 36 impacts per minute. Sound data from installation of similar sized piles at the Utgrunden Wind Park were used in the acoustic modeling (see Section 2.3.1). Only one monopile will be driven at a time, and sound levels will depend on the distance from the underwater receiver to the monopile in the Wind Park being driven.

Figures 38 and 39 reveal that predicted temporary underwater L_{max} sound levels in Lewis Bay from pile driving would range from 145 to 155 dBL, depending on which monopile is being driven. As these predictions ignore the barrier attenuation provided by the land-mass of Great Island in Yarmouth, actual L_{max} underwater sound levels are likely to be less.

4.3.1.2.2 Operational Effects

There will be no measurable underwater sound effects from Project operation in Lewis Bay (see Section 4.2.2.2).

4.3.2 Upland

4.3.2.1 Above Water Sound

4.3.2.1.1 Construction Effects

The sound effects of construction will be temporary and are associated with the installation of 130 16-foot diameter monopiles (one for each WTG), installation of six smaller 4-foot diameter piles for the ESP, and vessel traffic for transporting equipment, piles, and workers to the site. Upland construction activities are discussed below. The jet plow embedment process for laying submarine power cables with a cable barge (see Section 4.2.3.4 of the Draft EIS) produces no sound beyond typical vessel traffic in Nantucket Sound. The principal sound from construction at sea will therefore be temporary pile driving of the WTG monopiles using a drop hammer similar to an IHC S-600. The driving rate will be in the range of 2 to 36 impacts per minute. Sound data from installation of similar sized piles at the Utgrunden Wind Park were used in the acoustic modeling (see Section 2.3.1). Only one monopile will be driven at a time, and sound levels will depend on the distance from the receiver to the particular point in the Wind Park array and whether the receiver is upwind (offshore winds) or downwind (onshore winds) of the location where the monopile is being driven. (In the former case, the wind shadow effect from offshore winds will substantially reduce sound levels).

Table 9 summarizes the predicted minimum and maximum temporary sound levels (L_{max}) at upland locations from pile driving in the Wind Park. The minimum impacts are associated with pile driving at the WTG location farthest away from the receiver, while maximum impacts are associated with pile driving at the WTG location closest to the receiver. Table 9 also lists existing average sound levels (L_{eq}) for these upland locations for calm to moderate (<10 mph) wind conditions (see Sections 4 and 3.2). As shown in Table 9, pile driving sound will be below existing levels at 8 of the 10 upland locations and will therefore be inaudible along most of the coast. At Point Gammon in Yarmouth, the temporary sound of construction may be barely audible when pile driving is done for the monopiles in the northeast corner of the Wind Park closest to shore (sounds up to 43 dBA when winds are onshore) if existing sound levels are very low (possibly as low as 35 dBA). At Cape Poge on the northeast tip of Martha's Vineyard, the temporary sound of construction may be barely audible when pile driving is done for the

monopiles in the southwest corner of the Wind Park closest to the Vineyard (sounds up to 40 dBA when winds are onshore) if existing sound levels are very low (possibly as low as 40 dBA). Even in these unlikely instances, the temporary short-term sound levels will be very low and would not be annoying to residents or interfere with any activities.

The upland construction activities include HDD for the borehole containing the Submarine Cable System from Lewis Bay to the transition vault on nearby land and overland laying of cable from the transition vault to the Barnstable Switching Station using excavators and backhoes. The HDD operation involves a drilling rig, mud pump and a small crane to move sections of the conduit pipe into position. An HDD rig powered by a diesel engine in the range of 440 to 740 hp will be used, and the larger engine is assumed in this study to be conservative. Temporary maximum (L_{max}) sound levels for the HDD rig (78 dBA @ 50 feet) are comparable to those for the excavators and backhoes (80 to 84 dBA @ 50 feet), which are typical pieces of roadway construction equipment. Average (L_{eq}) sound levels are about 5 dBA less due to the fact the equipment runs at maximum load only a fraction of the time. Upland construction activities will be temporary and will be audible to persons near the cable corridor. The exact temporary sound levels experienced by residents for the HDD and cable laying will depend on their distance from the construction activity. For example, a person standing 200 feet from the equipment would hear sound levels (L_{eq}) in the range of 61 to 67 dBA.

4.3.2.1.2 Operational Effects

Acoustic modeling was performed for two wind conditions: (1) the WTG cut-in wind speed (8 mph at hub height); and (2) the WTG design wind speed (30 mph at hub height). Event (1) represents the Project operating condition when existing sound levels will be lowest, and Event (2) represents the maximum sound levels from the Project. WTG sound-source data were provided by GE Wind Energy from recent tests performed at a GE 3.6 MW unit operating near Barrax, Spain. Simultaneous operation of all 130 WTGs was assumed in the modeling.

Figures 18 through 27 present the frequency spectra of the maximum continuous sound levels from Project operation for the cut-in wind speed at upland locations along the shore of the Cape and Martha's Vineyard, along with the existing baseline sound spectra. The maximum operational sound levels of 11 to 18 dBA are well below existing sound levels for onshore winds (41 to 63 dBA), and the spectrum formed by adding the Project to the existing baseline levels contains no pure tones in the vicinity of the 80 Hz band where the project has an energy peak (see Table 10); therefore the Project will be inaudible. The results also reveal that low-frequency sound from the Project (< 125 Hz) is below the threshold of human hearing and would be inaudible regardless of the baseline sound levels.

Figures 28 through 37 present the frequency spectra of the maximum continuous sound levels from Project operation for the design wind speed at upland locations along the shore of the Cape and Martha's Vineyard, along with the existing baseline sound spectra. The maximum operational sound levels of 19 to 26 dBA are well below existing sound levels for onshore winds (54 to 71 dBA), and the spectrum formed by adding the Project to the existing baseline levels contains no pure tones in the vicinity of the 63 Hz band where the Project has an energy peak (see Table 11); therefore the Project will be inaudible. The results also reveal that low-frequency sound from the Project (< 63 Hz) is below the threshold of human hearing and would be inaudible regardless of the baseline sound levels.

The foghorns deployed around the Wind Park for boating safety will not be audible at upland locations (see Section 4.2.1.2).

4.3.2.2 Underwater Sound Near the Shores of Cape Cod and Martha's Vineyard

4.3.2.2.1 Construction Effects

The underwater sound effects of construction will be temporary and are associated with the installation of 130 16-foot diameter monopiles (one for each WTG), installation of six smaller 4-foot diameter piles for the ESP, and vessel traffic for transporting equipment, piles, and workers to the site. The jet plow embedment process for laying submarine power cables with a cable barge (see Section 4.2.3.4 of the Draft EIS) produces no sound beyond typical vessel traffic in Nantucket Sound. The principal sound from construction will therefore be

temporary pile driving of the WTG monopiles using a drop hammer similar to an IHC S-600. The driving rate will be in the range of 2 to 36 impacts per minute. Sound data from installation of similar sized piles at the Utgrunden Wind Park were used in the acoustic modeling (see Section 2.3.1). Only one monopile will be driven at a time, and temporary sound levels will depend on the distance from the underwater receiver to the monopile in the Wind Park being driven. Figures 38 and 39 show the predicted underwater L_{max} sound levels in coastal waters off Cape Cod and Martha's Vineyard.

4.3.2.2.2 Operational Effects

There will be no measurable underwater sound effects from Project operation in the coastal waters off Cape Cod and Martha's Vineyard (see Section 4.2.2.2).

5.0 Regulatory Compliance and Mitigation

5.1 Performance Standards of DEP Noise Policy (DAQC Policy 90-001)

Table 12 illustrates that the Project would increase the existing broadband L_{90} sound level by 0.5 to 2 dBA at Buoys G5 and R20 and by only 0.0 to 0.1 dBA at all other locations including Lewis Bay and upland areas of Cape Cod and Martha's Vineyard. In addition, the Project would not create a pure tone condition at any of the modeling locations (see Sections 4.2, 4.3, and the model output at the end of this Appendix). Thus, the Project fully complies with the performance standards contained in the DEP Noise Policy.

5.2 Mitigation for Potential Impacts from Noise

5.2.1 Above Water Sound

Construction noise impacts will be temporary, unavoidable, and are primarily associated with the laying of the Upland Transmission Line from the transition vault at the shore of Lewis Bay along existing roadways to the Barnstable Switching Station using standard roadway construction equipment. Noise mitigation for this upland activity will consist of scheduling all work during the daytime hours and ensuring that all equipment has properly functioning noise mufflers. Pile driving of the WTG monopiles in the Wind Park will generally be inaudible at all upland locations.

The Project design has mitigated potential operational sound effects to the extent practicable through the selection of state-of-the-art, very low noise WTGs and their siting offshore over 5 miles from any populated areas. Project operation will be inaudible at all upland locations.

5.2.2 Underwater Sound

Construction noise impacts will be temporary, unavoidable, and are primarily associated with pile driving the monopiles in the Wind Park. Predicted maximum underwater sound levels at a distance of 500 meters will be below the 180 dBL threshold set by the NMFS to prevent injury or harassment to marine mammals, sea turtles and fish.. Noise mitigation will consist of having a NMFS approved observer present during initial pile driving activities to ensure no listed marine species are within the 500 meter Initial Safety Radius during construction, similar to the procedure used during the installation of the SMDS foundation piles. See sections 5.5 and 5.4 of the Draft EIS for further information on protected marine species and finfish.

The use of state-of-the-art, very low noise WTGs will minimize operational sound effects. There will be no measurable underwater sound from Project operation beyond 120 meters from each monopile and Project operations will not adversely affect marine mammals, sea turtles or fish. See sections 5.5 and 5.4 of the Draft EIS for further information on protected marine species and finfish.

Tables

Table 1: Threshold of Human Hearing

Frequency (Hz)	Sound Pressure Level (dB re 20 µPa)
16	92
20	84
25	76
31	68
40	60
50	52
63	40
80	34
100	28
125	22
250	13
500	8
1,000	5
2,000	0
4,000	0
8,000	10
16,000	20

Table 2: Various Indoor and Outdoor Sound Levels

Outdoor Sound Levels	Sound Pressure (µPA)		Sound Level (dBA)	Indoor Sound Levels
	6,324,555	-	110	Rock Band at 5 m
Jet Over-Flight at 300 m		-	105	
	2,000,000	-	100	Inside New York Subway Train
Gas Lawn Mower at 1 m		-	95	
	632,456	-	90	Food Blender at 1 m
Diesel Truck at 15 m		-	85	
Noisy Urban Area--Daytime	200,000	-	80	Garbage Disposal at 1 m
		-	75	Shouting at 1 m
Gas Lawn Mower at 30 m	63,246	-	70	Vacuum Cleaner at 3 m
Suburban Commercial Area		-	65	Normal Speech at 1 m
Quiet Urban Area -- Daytime	20,000	-	60	
		-	55	Quiet Conversation at 1m
Quiet Urban Area--Nighttime	6,325	-	50	Dishwasher Next Room
		-	45	
Quiet Suburb--Nighttime	2,000	-	40	Empty Theater or Library
		-	35	
Quiet Rural Area--Nighttime	632	-	30	Quiet Bedroom at Night
		-	25	Empty Concert Hall
Rustling Leaves	200	-	20	Average Whisper
		-	15	Broadcast and Recording Studios
	63	-	10	
		-	5	Human Breathing
Reference Pressure Level	20	-	0	Threshold of Hearing

Notes:
µPa - MicroPascals describe sound pressure levels (force/area).
dBA - A-weighted decibels describe sound pressure on a logarithmic scale with respect to 20 µPa.

Table 3: Existing Sound Levels At Three Representative Coastal Sites (dBA) (November-December, 2002)

	3 meter wind speed (mph)	Point Gammon Yarmouth	Oregon Beach Barnstable	Cape Poge Martha's Vineyard
L_{eq} Levels				
All Conditions	0-28	35-71	41-61	40-73
Cut-In Wind Speed	5	47-57	46-58	41-63
Design Wind Speed				
On-Shore	16	61-68	54-60	62-71
Off-Shore	16	51-67	48-58	51-69
L_{90} Levels				
All Conditions	0-28	27-66	34-57	37-70
Cut-In Wind Speed	5	39-54	34-52	39-66
Design Wind Speed				
On-Shore	16	59-65	50-56	59-67
Off-Shore	16	46-58	36-54	45-64

Table 4: Locations Selected for Modeling Sound Effects of the Project

Modeling Location No.	Description
1	Buoy G5, North channel
2	Buoy R20, Main Channel
3	Bass River Beach, Yarmouth
4	Point Gammon, Yarmouth
5	Lewis Bay, Yarmouth
6	Hyannisport, Barnstable
7	Hyannis Point, Barnstable
8	Wianno Beach, Barnstable
9	Oregon Beach, Barnstable
10	New Seabury, Mashpee
11	Oak Bluffs, Martha's Vineyard
12	Edgartown, Martha's Vineyard
13	Cape Poge, Martha's Vineyard

Table 5: Predicted Above Water Maximum Sound Levels (Lmax) At Two Seaward Locations Near the Wind Park From Pile Driving for the Wind Park Foundations (dBA)

	Buoy G5	Buoy R20
Receiver Downwind	35 to 76	31 to 66
Receiver Upwind	8 to 49	4 to 39

Table 6: Examination of The Sound Spectrum For Pure Tones At Two Seaward Locations Near The Wind Park (dB)

	1/3-Octave Band Sound Level (L_{eq}) 50 Hz	63 Hz	80 Hz	100 Hz	Pure Tone Created ?
Cut-In Wind Speed Condition*					
Buoy G5 Existing Baseline	57	57	57	55	
Baseline + Project	57	57	57	55	No
Buoy R20 Existing Baseline	63	65	62	60	
Baseline + Project	63	65	62	60	No
Design Wind Speed Condition**					
Buoy G5 Existing Baseline	71	71	71	69	
Baseline + Project	71	71	71	69	No
Buoy R20 Existing Baseline	77	79	76	74	
Baseline + Project	77	79	76	74	No

* Project sound spectrum has an energy peak at 80 Hz.

** Project sound spectrum has an energy peak at 63 Hz.

Table 7: Predicted Above Water Maximum Sound Levels (Lmax) In Lewis Bay From Pile Driving For The Wind Park Foundations (dBA)

	Existing Sound Levels (L_{eq})	Pile Driving Sound (L_{max})
Onshore Wind	46 to 59	20 to 34
Offshore Wind	41 to 58	-7 to 7

Table 8: Examination of The Sound Spectrum For Pure Tones At Lewis Bay (dB)

	1/3-Octave Band Sound Level (L_{eq}) 50 Hz	63 Hz	80 Hz	100 Hz	Pure Tone Created ?
Cut-In Wind Speed Condition*					
Existing Baseline	42	41	39	38	
Baseline + Project	42	41	40	38	No
Design Wind Speed Condition**					
Existing Baseline	52	51	49	47	
Baseline + Project	52	51	49	47	No

* Project sound spectrum has an energy peak at 80 Hz.
** Project sound spectrum has an energy peak at 63 Hz.

Table 9: Predicted Above Water Maximum Sound Levels (Lmax) At Upland Locations From Pile Driving For The Wind Park Foundations (dBA)

Modeling Location	Winds 0-10 mph	Existing Sound Levels (L_{eq})	Pile Driving Sound (L_{max})
Bass River Beach, Yarmouth	Onshore	35 to 60	17 to 31
	Offshore	35 to 59	-10 to 4
Point Gammon, Yarmouth	Onshore	35 to 60	25 to 43
	Offshore	35 to 59	-2 to 16
Hyannisport, Barnstable	Onshore	46 to 59	23 to 37
	Offshore	41 to 58	-4 to 10
Hyannis Point, Barnstable	Onshore	46 to 59	23 to 38
	Offshore	41 to 58	-4 to 11
Wianno Beach, Barnstable	Onshore	46 to 59	22 to 40
	Offshore	41 to 58	-5 to 13
Oregon Beach, Barnstable	Onshore	46 to 59	20 to 38
	Offshore	41 to 58	-7 to 11
New Seabury, Mashpee	Onshore	46 to 59	19 to 36
	Offshore	41 to 58	-8 to 9
Oak Bluffs, Martha's Vineyard	Onshore	40 to 72	15 to 29
	Offshore	40 to 62	-12 to 2
Edgartown, Martha's Vineyard	Onshore	40 to 72	16 to 29
	Offshore	40 to 62	-11 to 2
Cape Poge, Martha's Vineyard	Onshore	40 to 72	22 to 40
	Offshore	40 to 62	-5 to 13

Table 10: Examination Of The Sound Spectrum For Pure Tones At Upland Locations For The Cut-In Wind Speed Condition (dB)

	1/3-Octave Band Sound Level (L_{eq})				Pure Tone Created ?
	50 Hz	63 Hz	80 Hz	100 Hz	
Bass River Beach, Yarmouth					
Existing Baseline	44	38	42	41	
Baseline + Project	44	39	42	41	No
Point Gammon, Yarmouth					
Existing Baseline	44	38	42	41	
Baseline + Project	44	40	43	41	No
Hyannisport, Barnstable					
Existing Baseline	42	41	39	38	
Baseline + Project	43	41	40	30	No
Hyannis Point, Barnstable					
Existing Baseline	42	41	39	38	
Baseline + Project	43	42	40	38	No
Wianno Beach, Barnstable					
Existing Baseline	42	41	39	38	
Baseline + Project	43	42	40	38	No
Oregon Beach, Barnstable					
Existing Baseline	42	41	39	38	
Baseline + Project	43	41	40	38	No
New Seabury, Mashpee					
Existing Baseline	42	41	39	38	
Baseline + Project	43	41	40	38	No
Oak Bluffs, Martha's Vineyard					
Existing Baseline	40	38	36	34	
Baseline + Project	40	39	37	34	No
Edgartown, Martha's Vineyard					
Existing Baseline	40	38	36	34	
Baseline + Project	40	38	37	34	No
Cape Pogue, Martha's Vineyard					
Existing Baseline	40	38	36	34	
Baseline + Project	41	39	38	34	No

Note: Project sound spectrum has an energy peak at 80 Hz.

Table 11: Examination of The Sound Spectrum For Pure Tones At Upland Locations For The Design Wind Speed Condition (dB)

	1/3-Octave Band Sound Level (L_{eq})				Pure Tone Created ?
	50 Hz	63 Hz	80 Hz	100 Hz	
Bass River Beach, Yarmouth					
Existing Baseline	67	64	62	58	
Baseline + Project	67	64	62	58	No
Point Gammon, Yarmouth					
Existing Baseline	67	64	62	58	
Baseline + Project	67	64	62	58	No
Hyannisport, Barnstable					
Existing Baseline	52	51	49	47	
Baseline + Project	53	52	49	47	No
Hyannis Point, Barnstable					
Existing Baseline	52	51	49	47	
Baseline + Project	53	52	49	47	No
Wianno Beach, Barnstable					
Existing Baseline	52	51	49	47	
Baseline + Project	53	52	49	47	No
Oregon Beach, Barnstable					
Existing Baseline	52	51	49	47	
Baseline + Project	53	52	49	47	No
New Seabury, Mashpee					
Existing Baseline	52	51	49	47	
Baseline + Project	53	52	49	47	No
Oak Bluffs, Martha's Vineyard					
Existing Baseline	71	67	63	60	
Baseline + Project	71	67	63	60	No
Edgartown, Martha's Vineyard					
Existing Baseline	71	67	63	60	
Baseline + Project	71	67	63	60	No
Cape Pogue, Martha's Vineyard					
Existing Baseline	71	67	63	60	
Baseline + Project	71	67	63	60	No

Note: Project sound spectrum has an energy peak at 63 Hz.

Table 12: MADEP Noise Policy Compliance Demonstration For All Modeling Locations (dBA)

Location	Lowest Baseline (L_{90})	Project (L_{eq})	Baseline + Project	Increase
Cut-In Wind Speed Condition				
Buoy G5	35	30	36	1
Buoy R20	37	34	39	2
All Other Locations	34-39	11-18	34-39	0 to 0.1
Design Wind Speed Condition				
Buoy G5	49	40	49	0.5
Buoy R20	51	45	52	1
All Other Locations	50-59	19-26	50-59	0

Figures

FIGURE 1: FREQUENCY SPECTRUM OF THE AMBIENT ABOVE WATER SOUND LEVELS AT TWO OFF-SHORE LOCATIONS FOR THE WTG CUT-IN AND DESIGN WIND SPEEDS

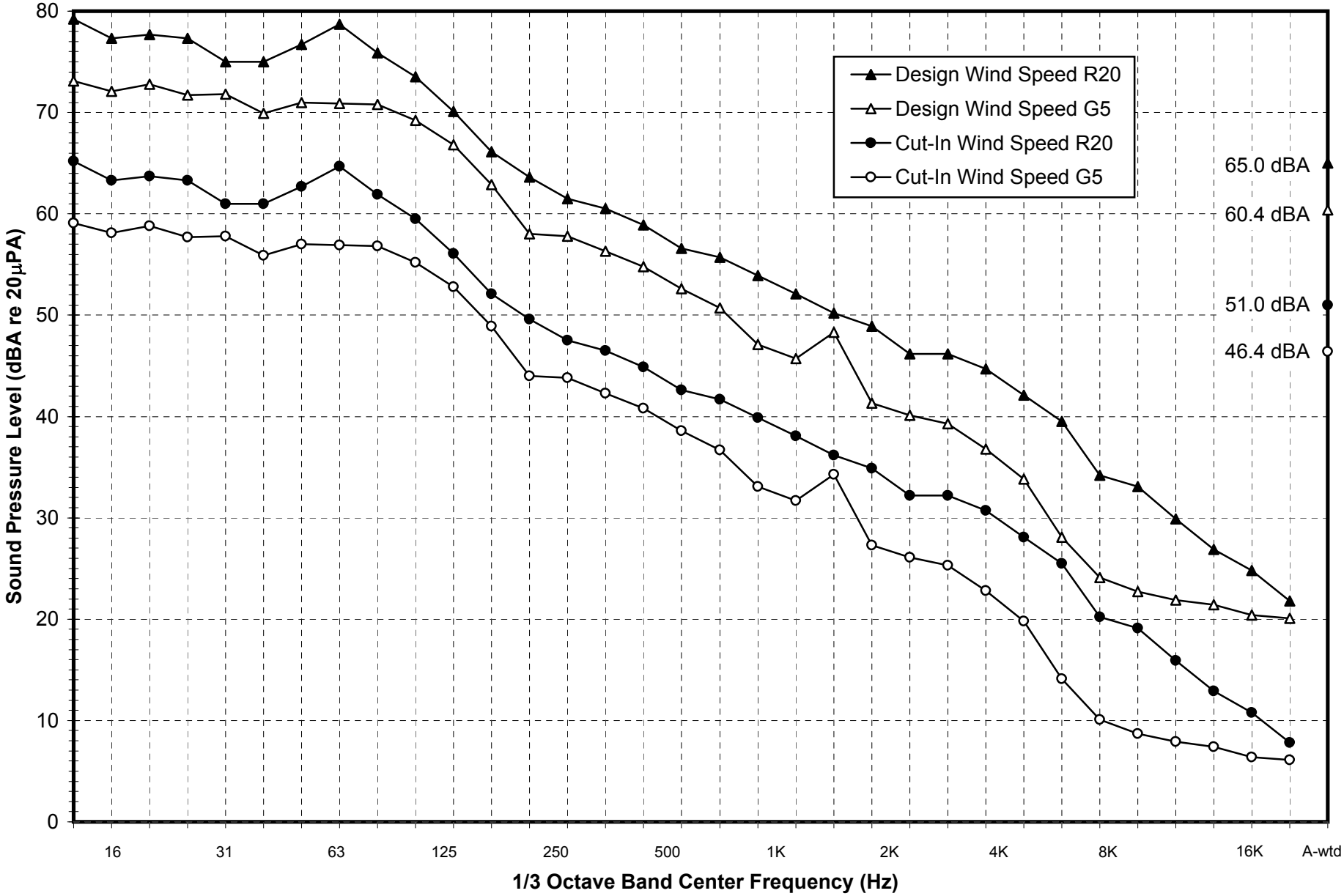


FIGURE 2: FREQUENCY SPECTRUM OF THE AMBIENT UNDERWATER SOUND LEVELS AT BUOY R20 FOR THE WTG CUT-IN AND DESIGN WIND SPEEDS

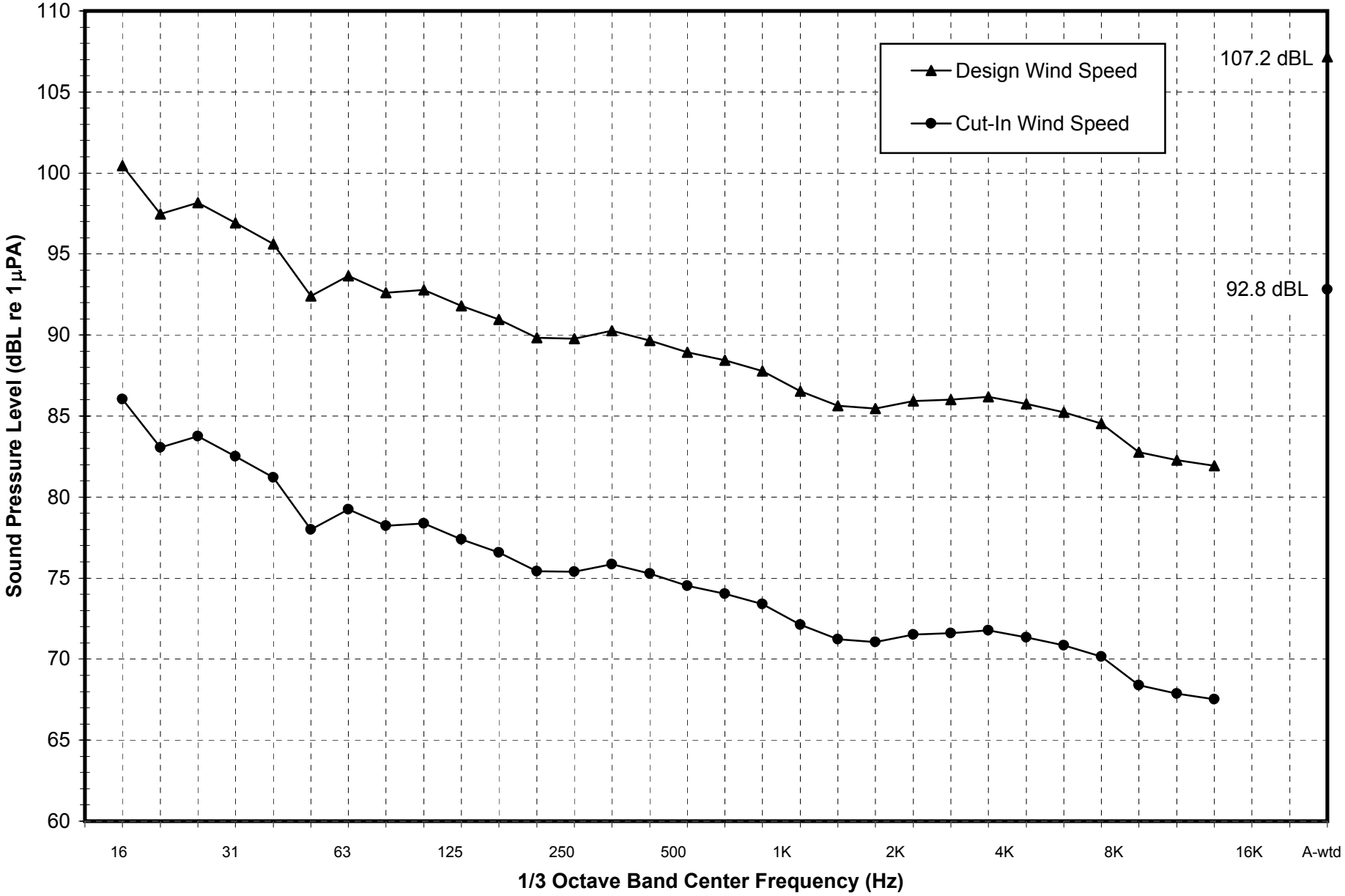


FIGURE 3: BASELINE SOUND LEVELS MEASURED AT POINT GAMMON (November 15-22, 2002)
FOR THE CUT-IN WIND SPEED (8 mph @ Hub Height)

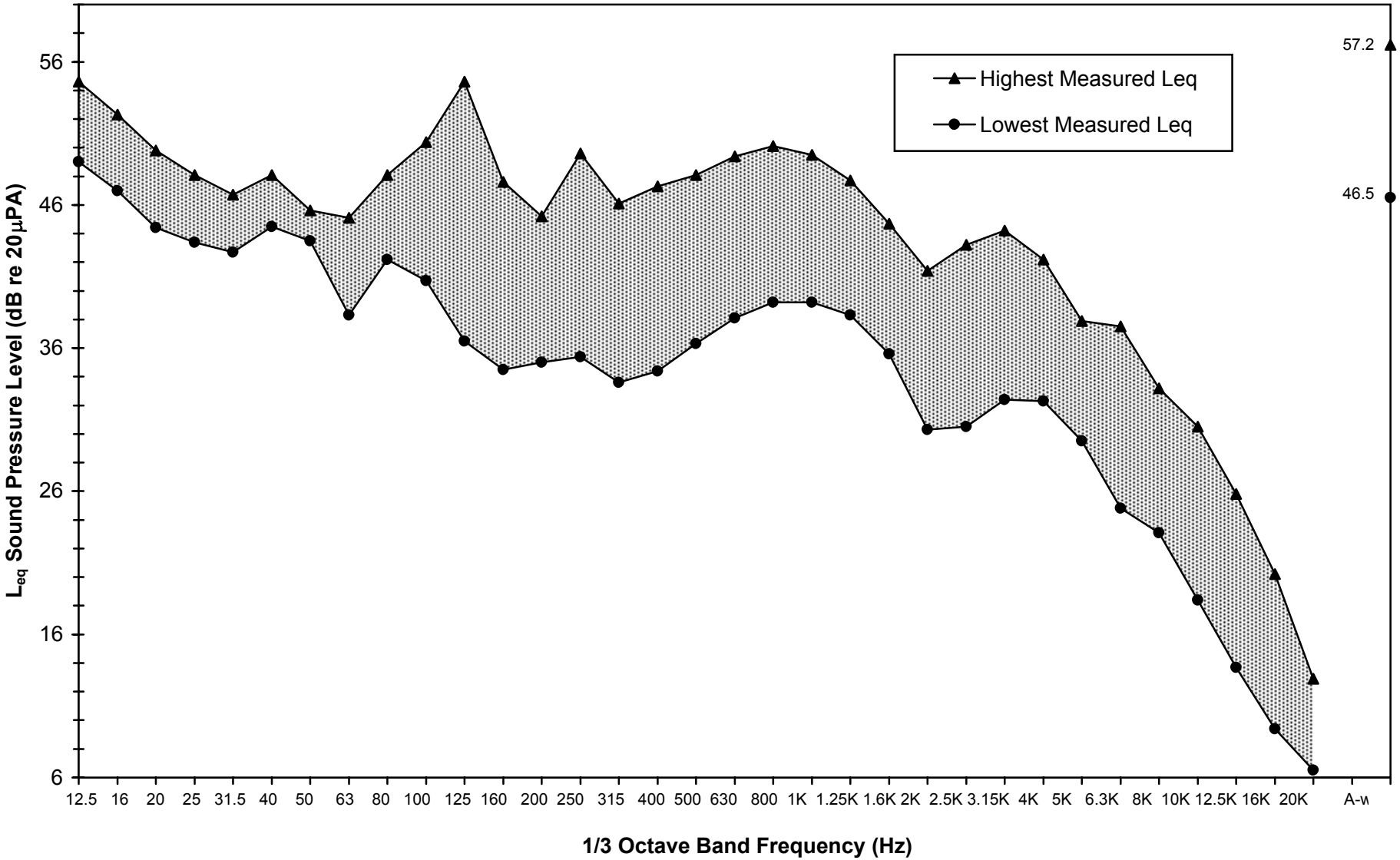


FIGURE 4: BASELINE SOUND LEVELS MEASURED AT POINT GAMMON (November 15-22, 2002) FOR THE DESIGN WIND SPEED (30 mph @ Hub Height) AND ON-SHORE WINDS

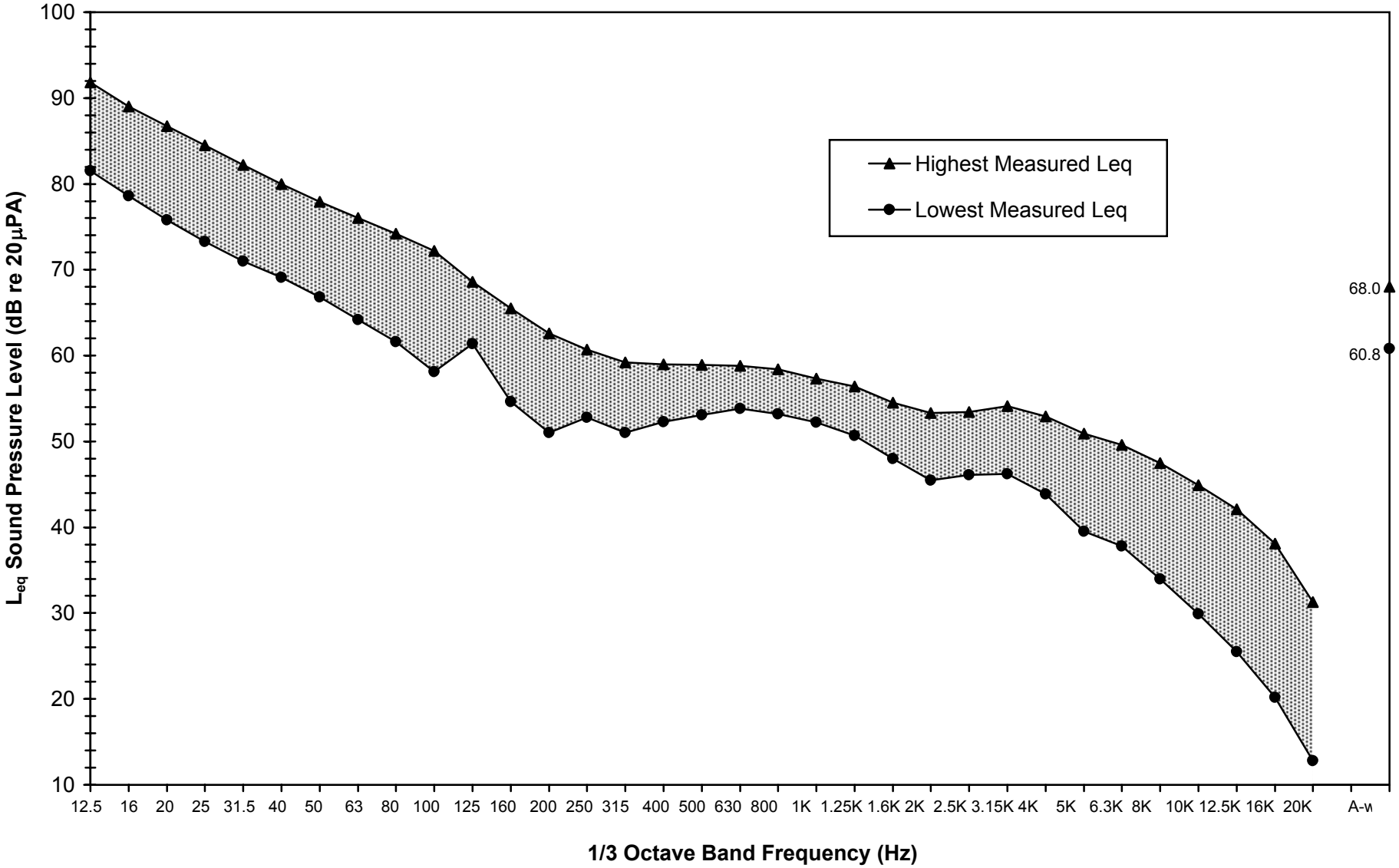


FIGURE 5: BASELINE SOUND LEVELS MEASURED AT POINT GAMMON (November 15-22, 2002) FOR THE DESIGN WIND SPEED (30 mph @ Hub Height) AND OFF-SHORE WINDS

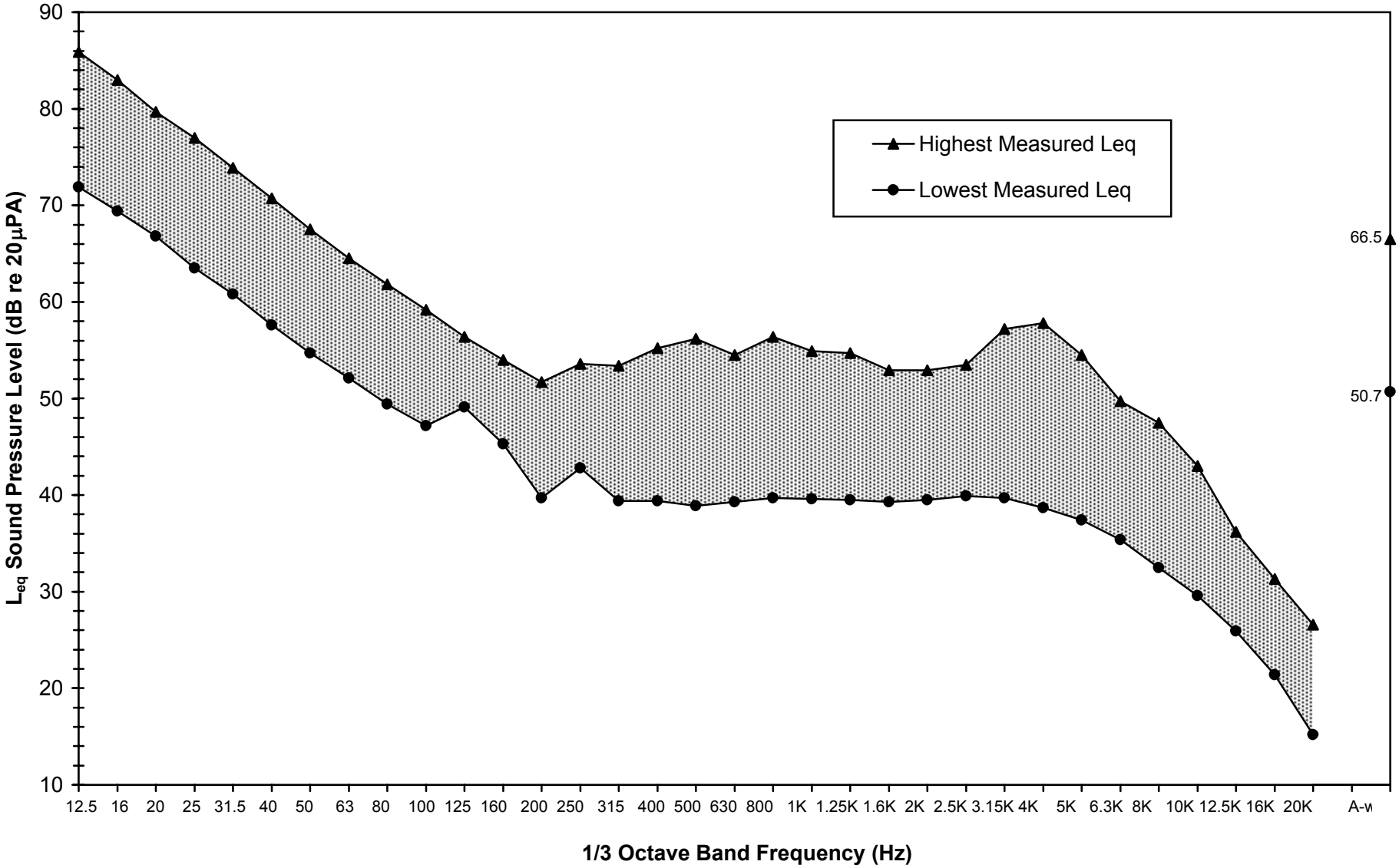


FIGURE 6: BASELINE SOUND LEVELS MEASURED AT OREGON BEACH (November 14-18, 2002)
FOR THE CUT-IN WIND SPEED (8 mph @ Hub Height)

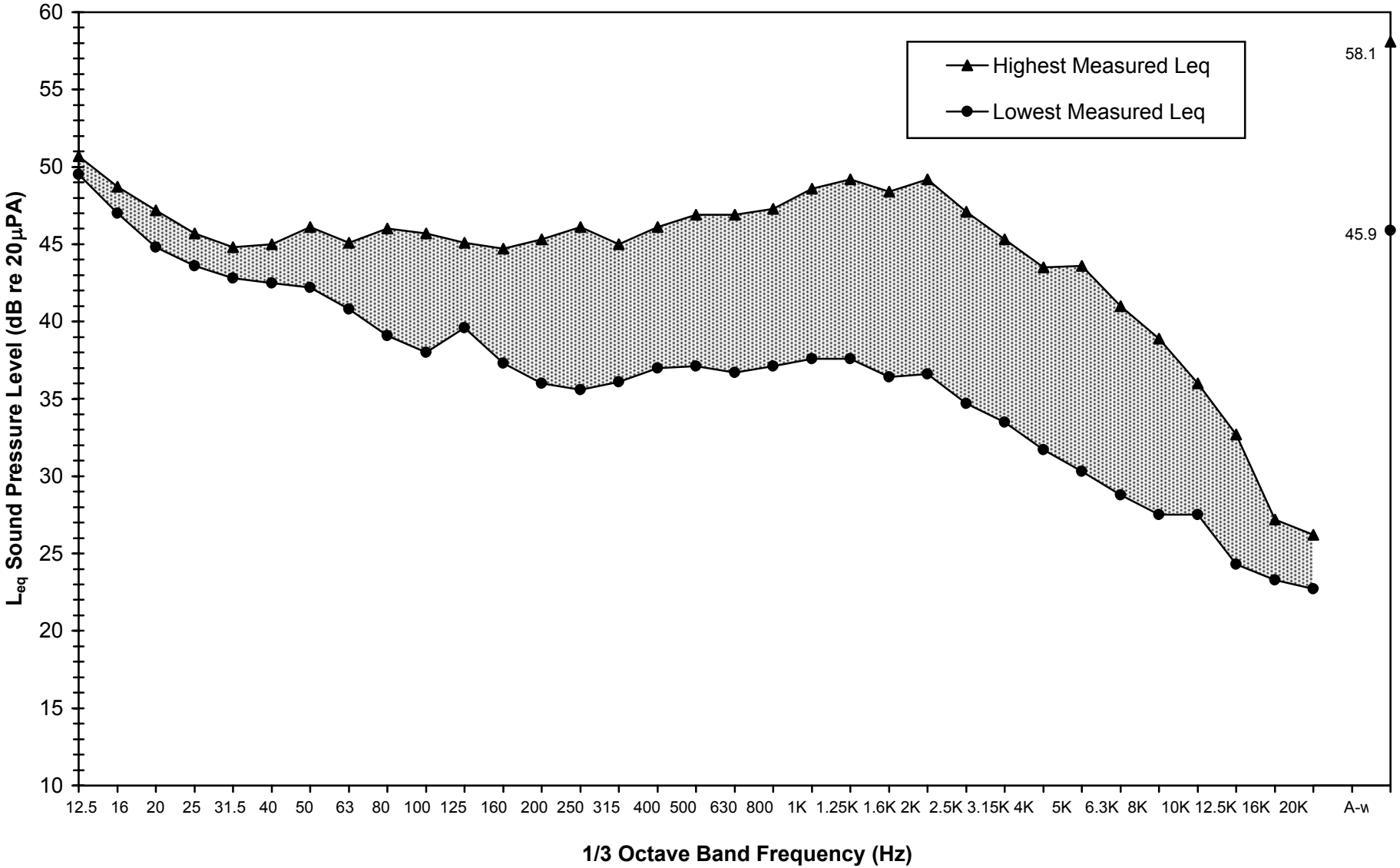


FIGURE 7: BASELINE SOUND LEVELS MEASURED AT OREGON BEACH (November 14-18, 2002) FOR THE DESIGN WIND SPEED (30 mph @ Hub Height) AND ON-SHORE WINDS

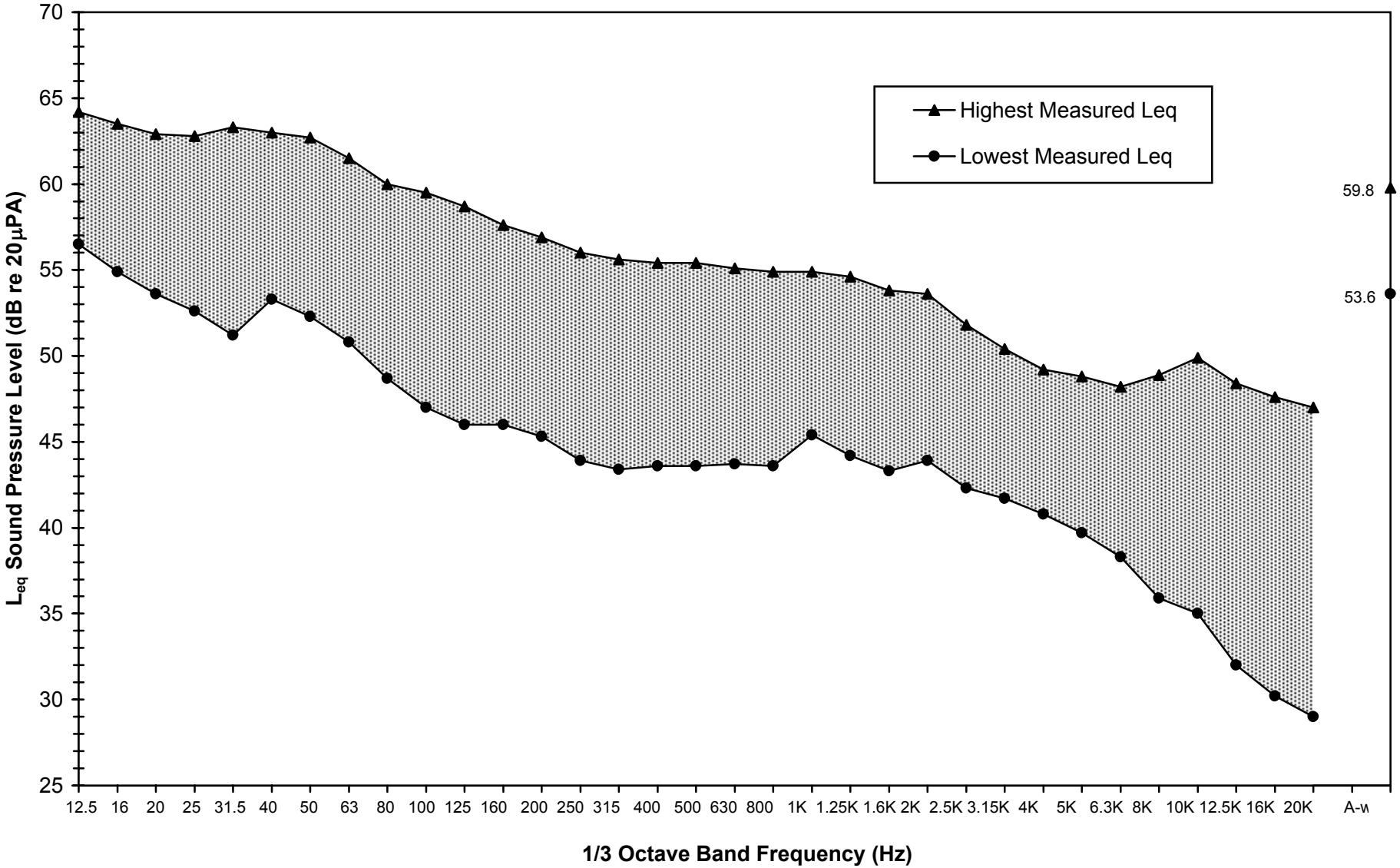


FIGURE 8: BASELINE SOUND LEVELS MEASURED AT OREGON BEACH (November 14-18, 2002) FOR THE DESIGN WIND SPEED (30 mph @ Hub Height) AND OFF-SHORE WINDS

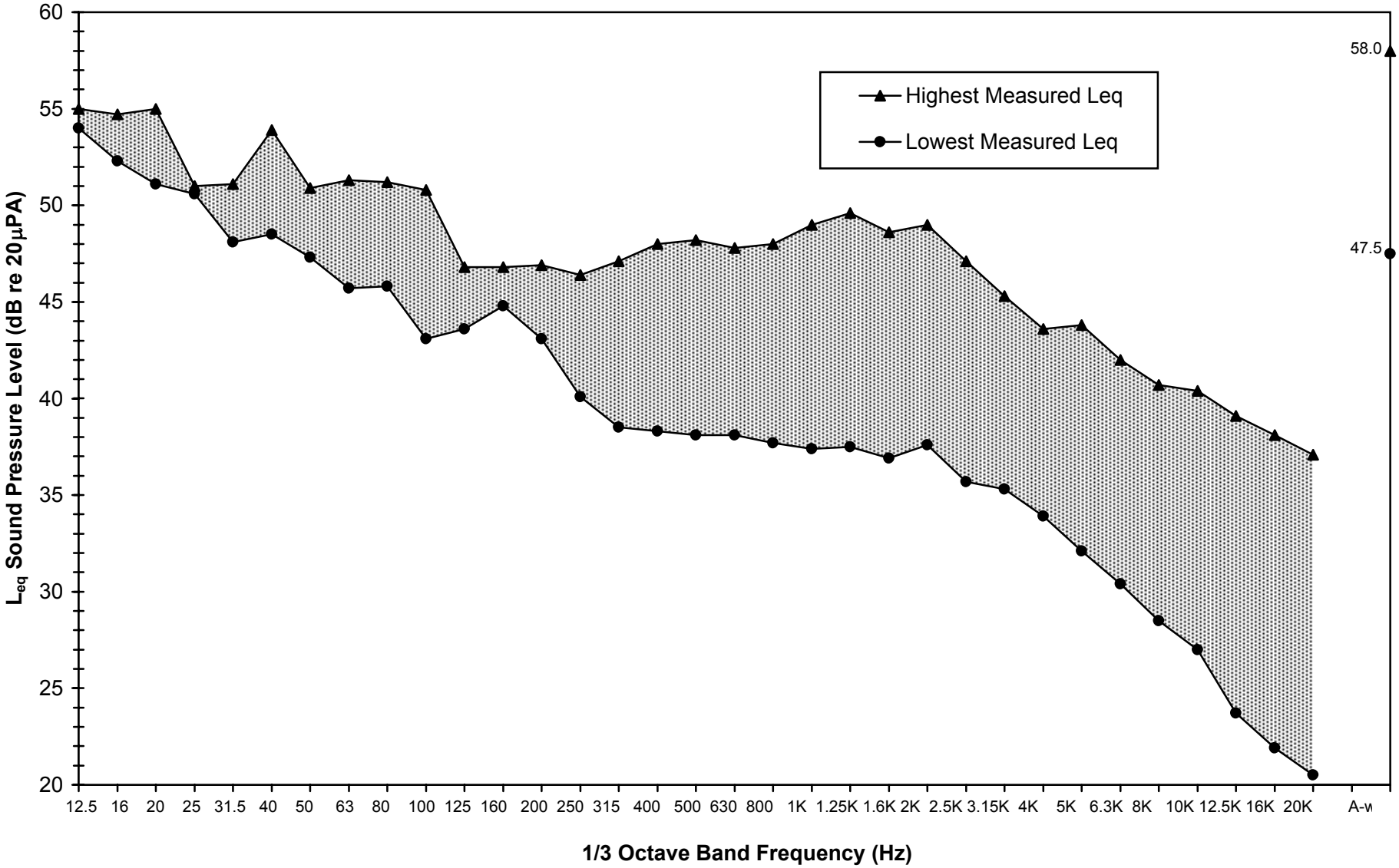


FIGURE 9: BASELINE SOUND LEVELS MEASURED AT CAPE POGE (Nov. 25-Dec. 3, 2002)
FOR THE CUT-IN WIND SPEED (8 mph @ Hub Height)

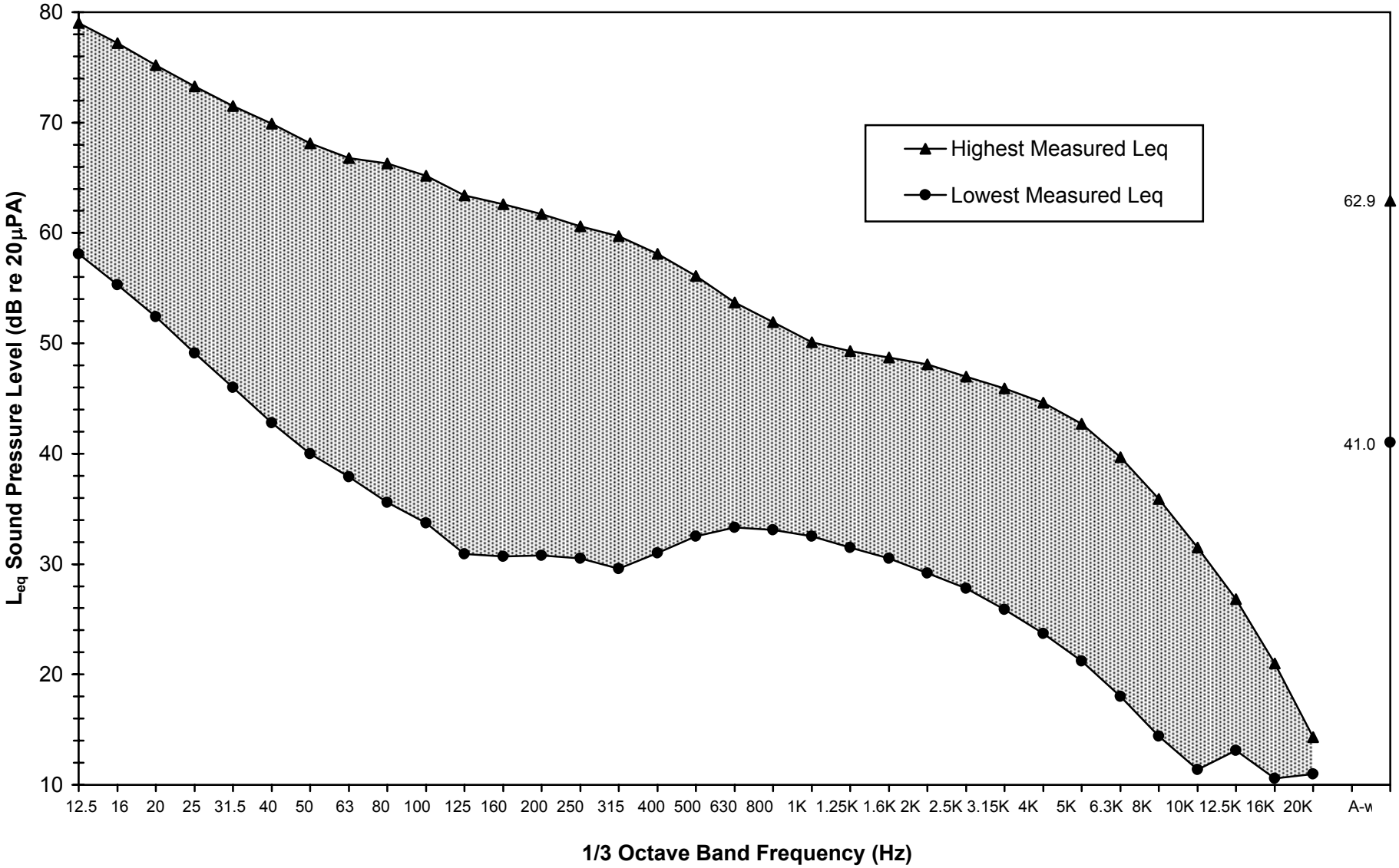


FIGURE 10: BASELINE SOUND LEVELS MEASURED AT CAPE POGE (Nov. 25-Dec. 3, 2002)
FOR THE DESIGN WIND SPEED (30 mph @ Hub Height) AND ON-SHORE WINDS

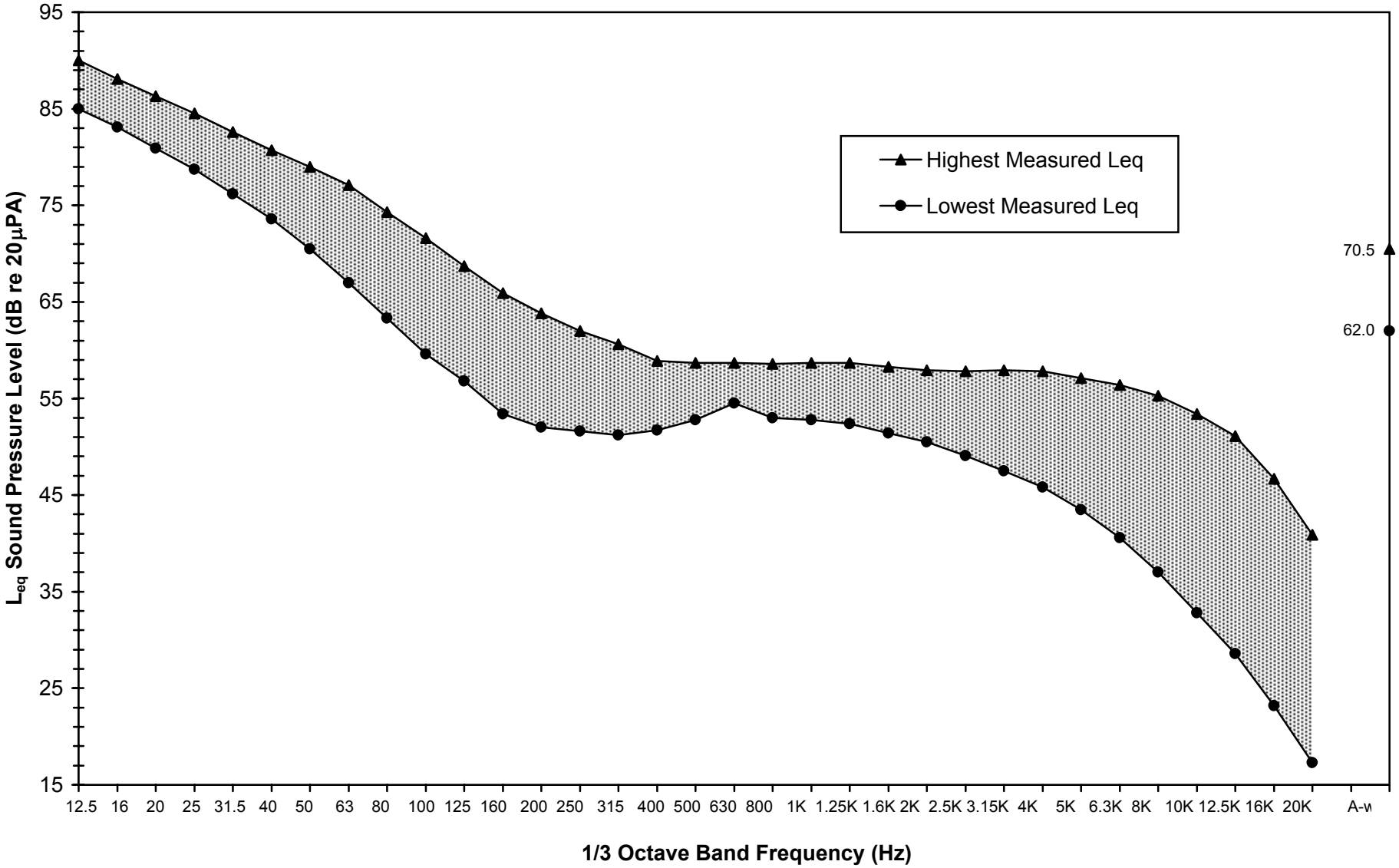


FIGURE 11: BASELINE SOUND LEVELS MEASURED AT CAPE POGE (Nov. 25-Dec. 3, 2002)
FOR THE DESIGN WIND SPEED (30 mph @ Hub Height) AND OFF-SHORE WINDS

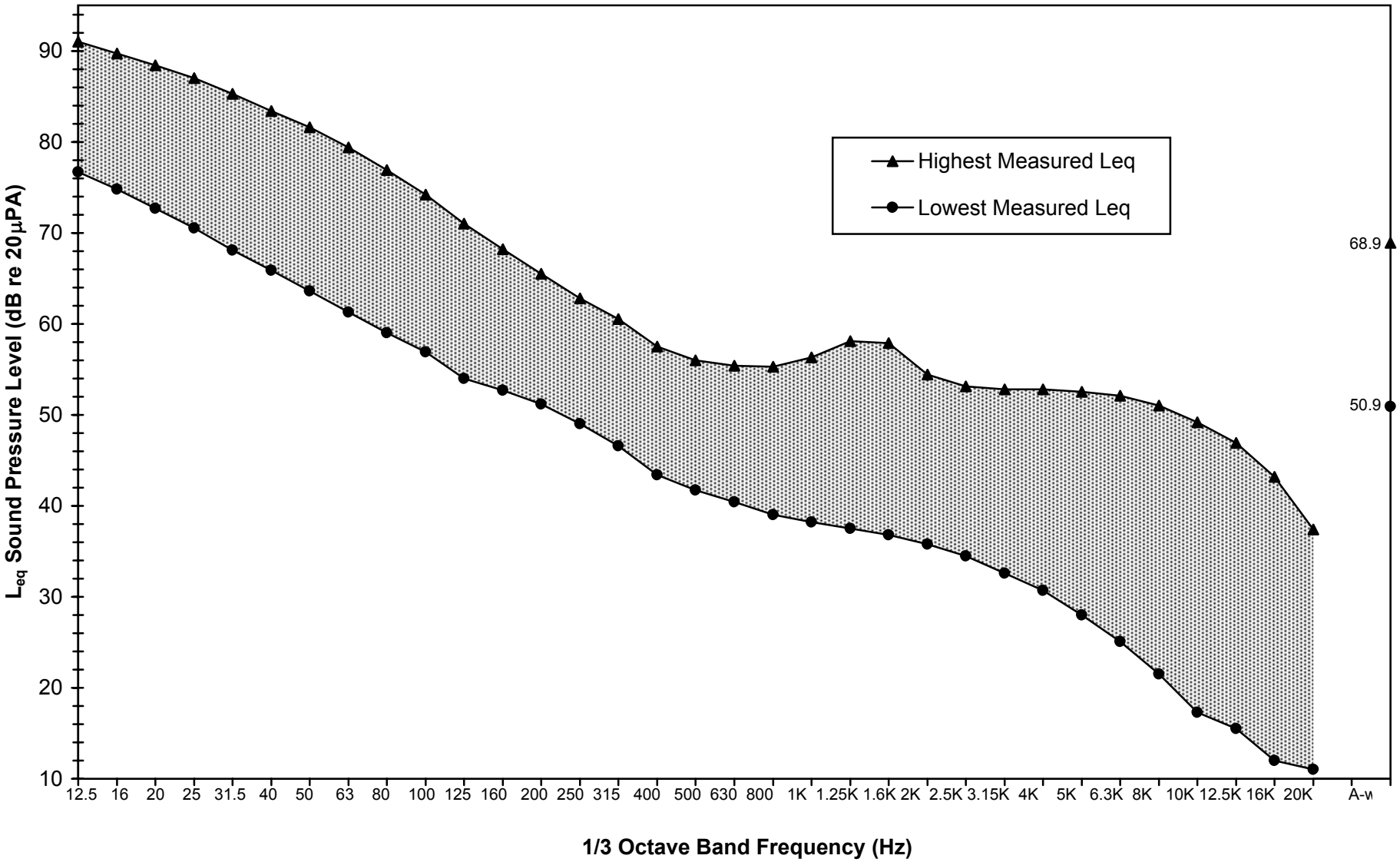


FIGURE 12: MAXIMUM CONTINUOUS SOUND LEVEL FROM PROJECT OPERATION AT BUOY G5 FOR THE CUT-IN WIND SPEED

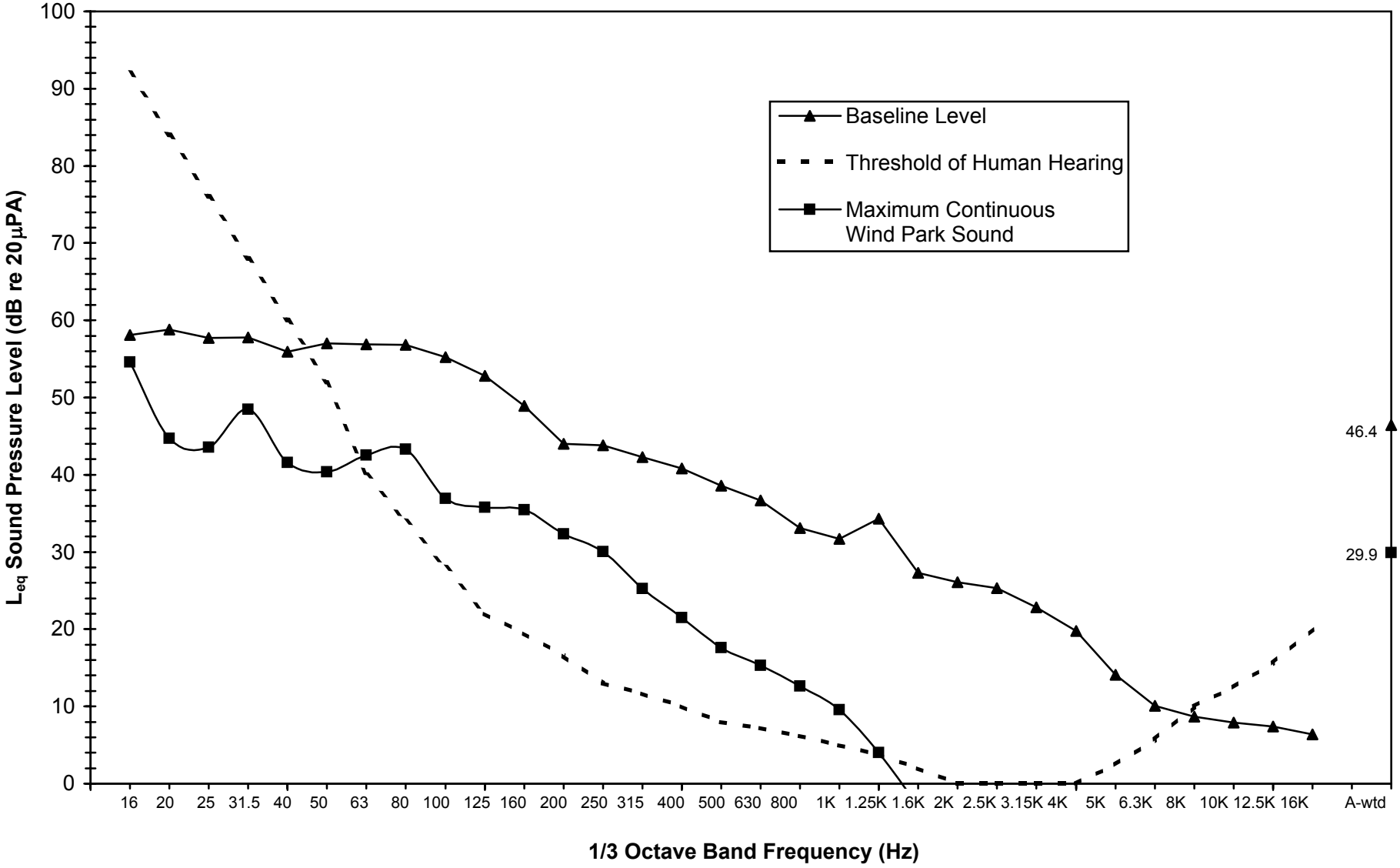


FIGURE 13: MAXIMUM CONTINUOUS SOUND LEVEL FROM PROJECT OPERATION AT BUOY R20 FOR THE CUT-IN WIND SPEED

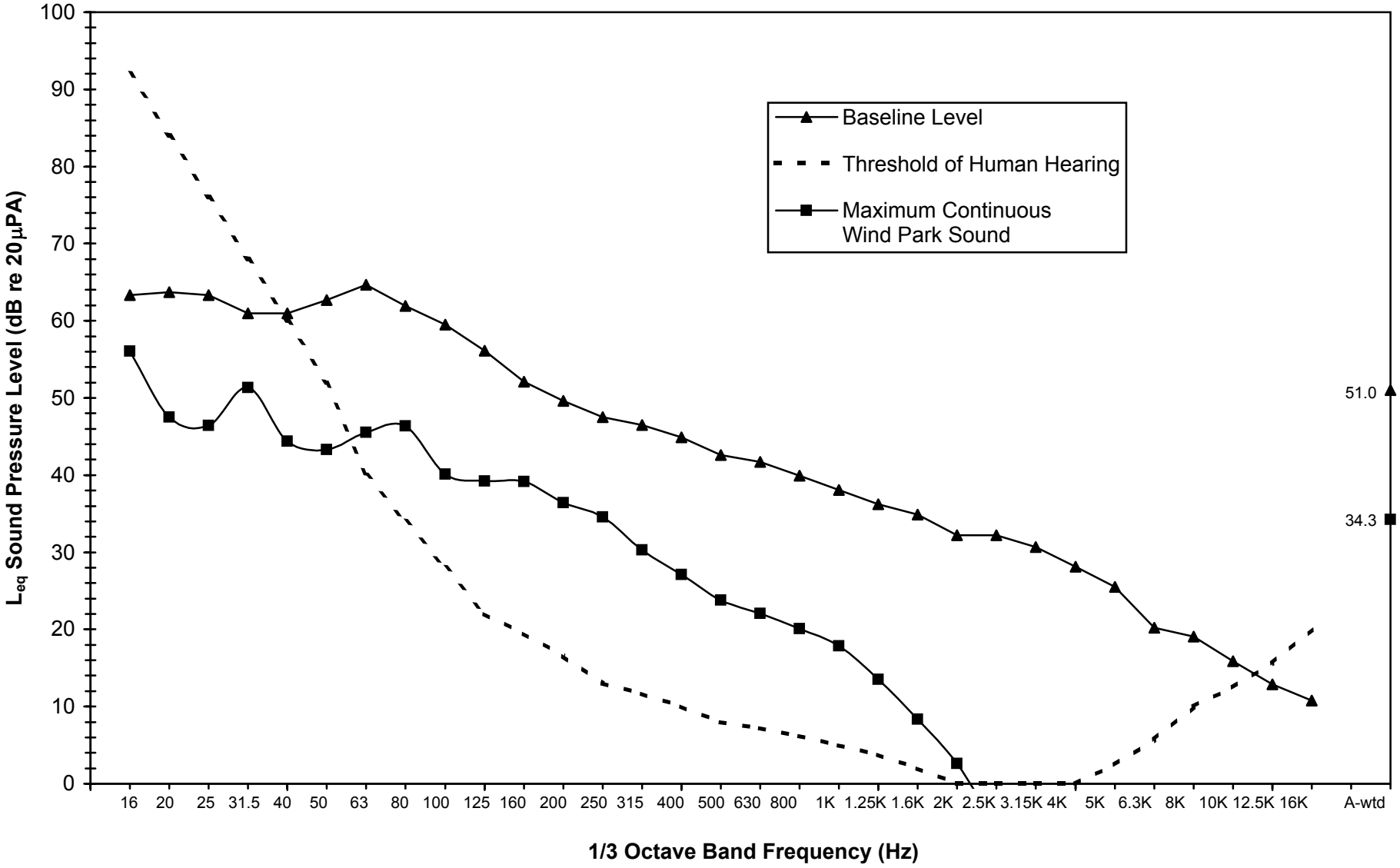


FIGURE 14: MAXIMUM CONTINUOUS SOUND LEVEL FROM PROJECT OPERATION AT BUOY G5 FOR THE DESIGN WIND SPEED

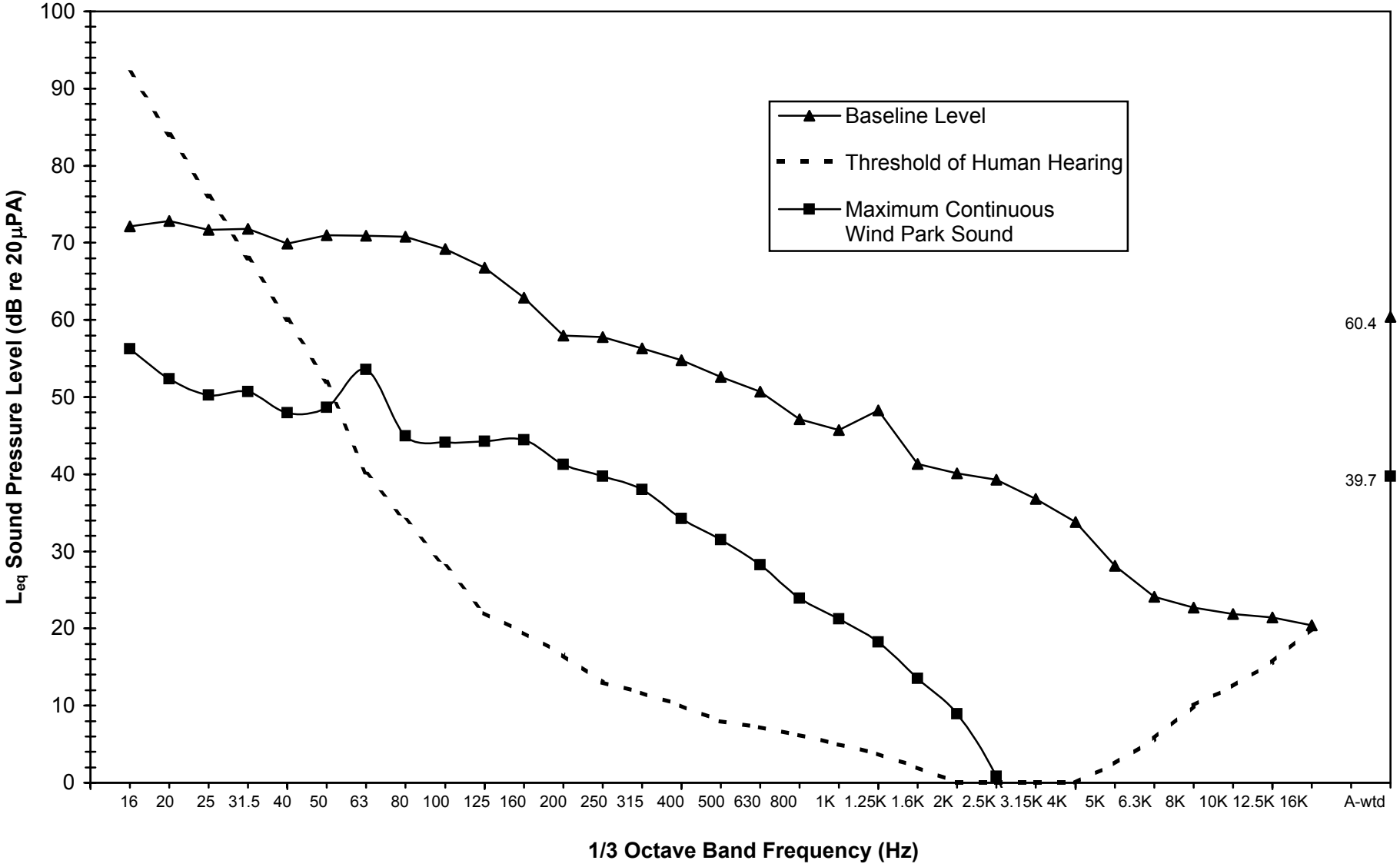


FIGURE 15: MAXIMUM CONTINUOUS SOUND LEVEL FROM PROJECT OPERATION AT BUOY R20 FOR THE DESIGN WIND SPEED

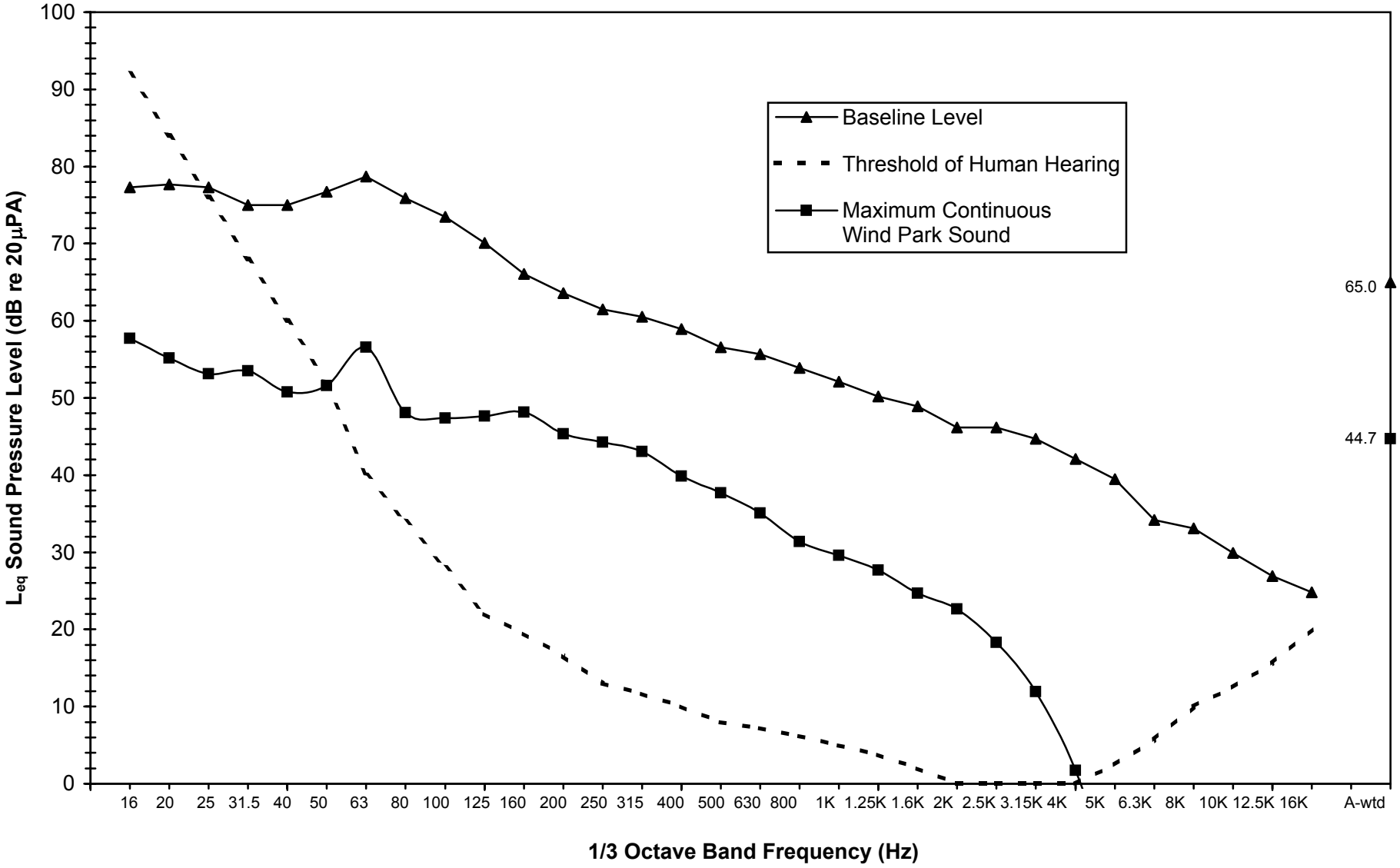


FIGURE 16: MAXIMUM CONTINUOUS SOUND LEVEL FROM PROJECT OPERATION AT LEWIS BAY, YARMOUTH FOR THE CUT-IN WIND SPEED

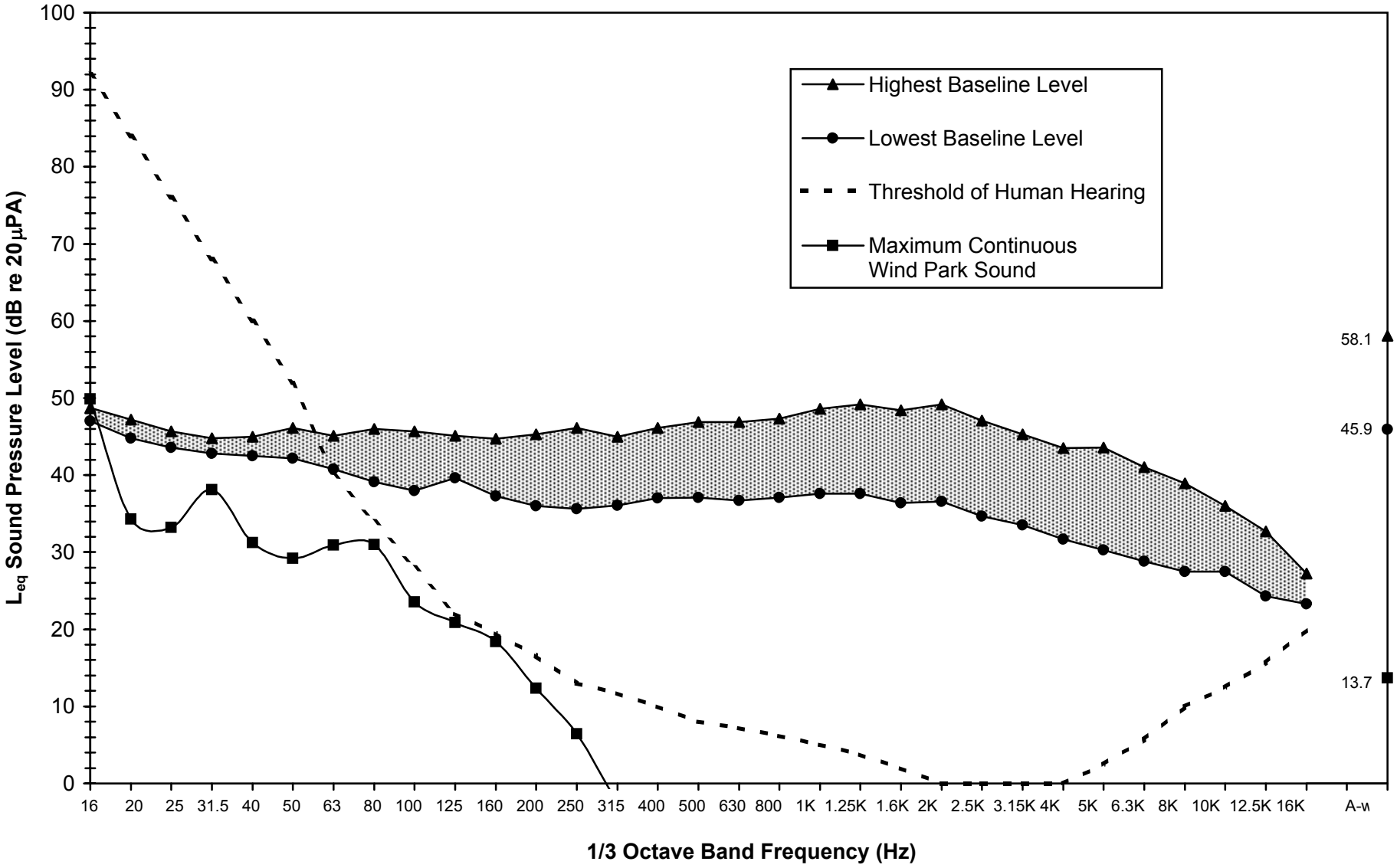


FIGURE 17: MAXIMUM CONTINUOUS SOUND LEVEL FROM PROJECT OPERATION AT LEWIS BAY, YARMOUTH FOR THE DESIGN WIND SPEED AND ON-SHORE WINDS

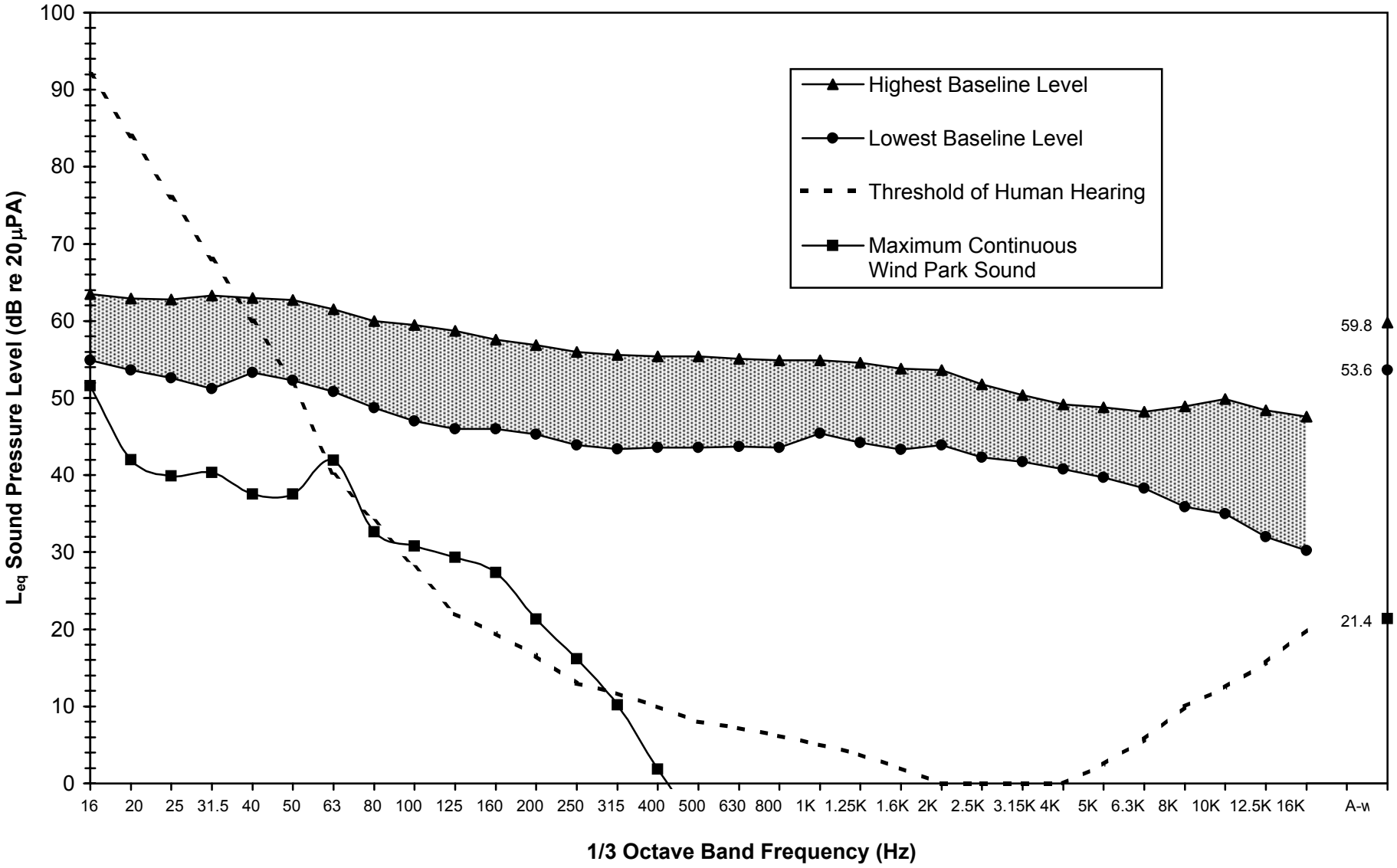


FIGURE 18: MAXIMUM CONTINUOUS SOUND LEVEL FROM PROJECT OPERATION AT BASS RIVER BEACH, YARMOUTH FOR THE CUT-IN WIND SPEED

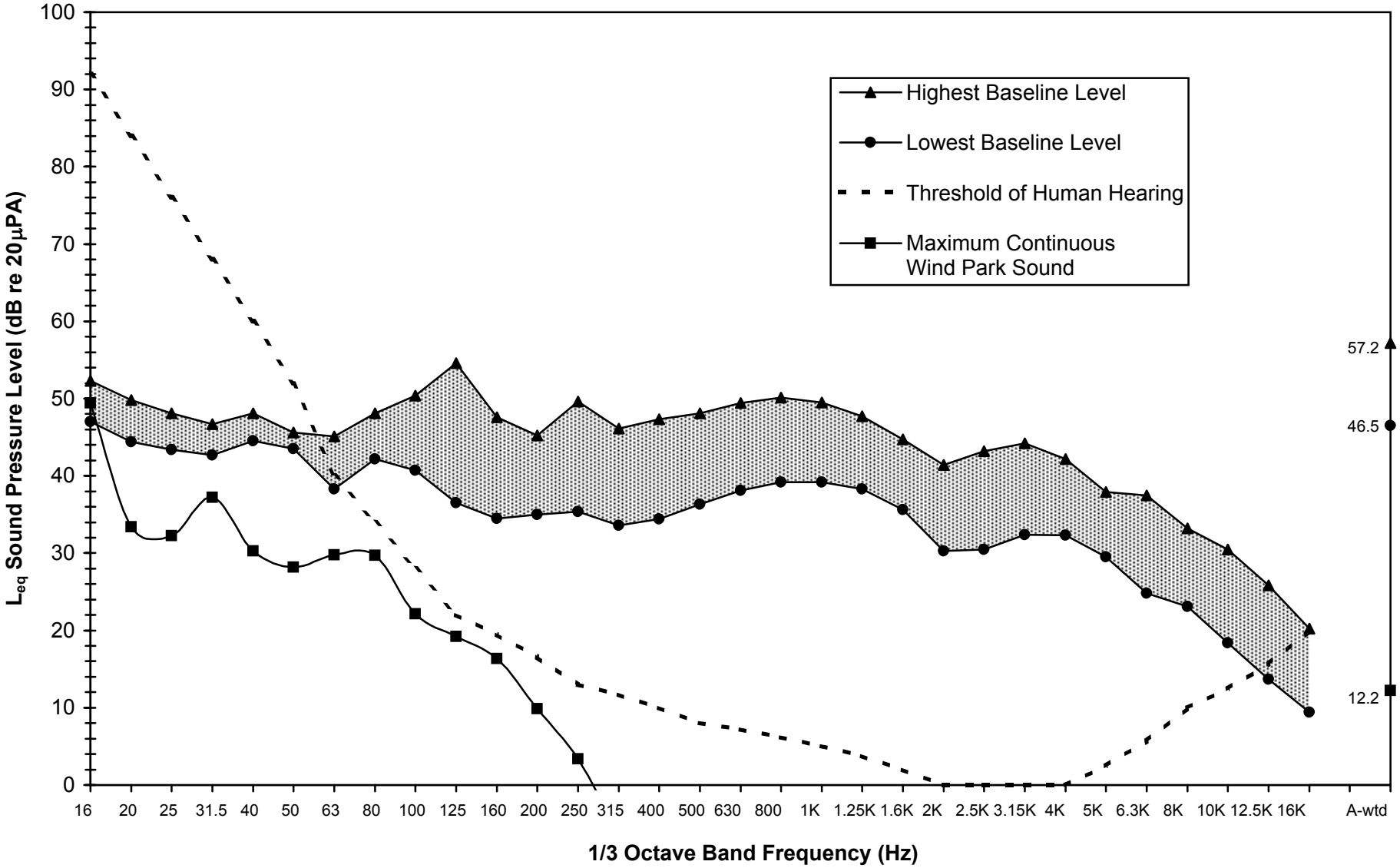


FIGURE 19: MAXIMUM CONTINUOUS SOUND LEVEL FROM PROJECT OPERATION AT POINT GAMMON, YARMOUTH FOR THE CUT-IN WIND SPEED

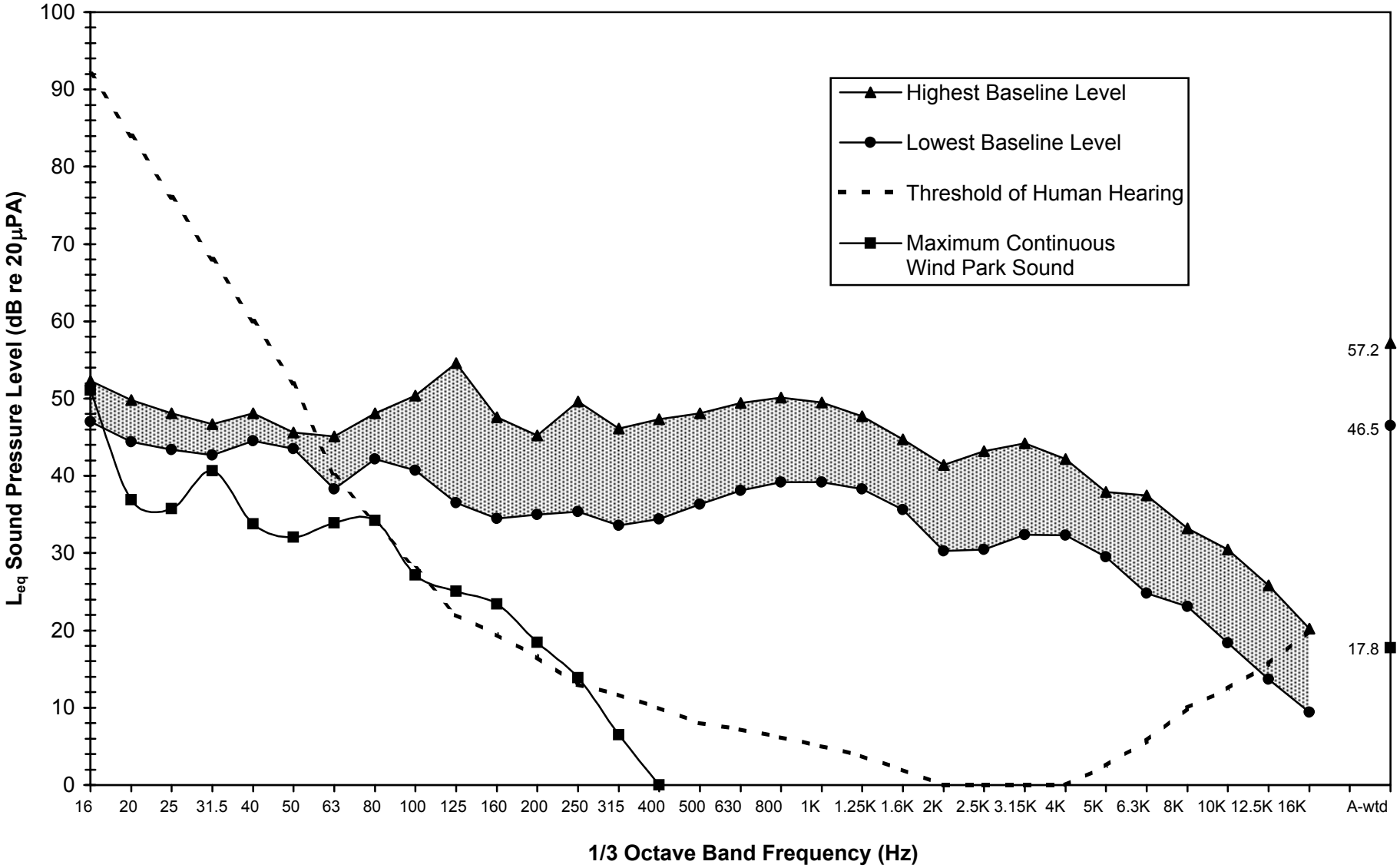


FIGURE 20: MAXIMUM CONTINUOUS SOUND LEVEL FROM PROJECT OPERATION AT HYANNISPORT, BARNSTABLE FOR THE CUT-IN WIND SPEED

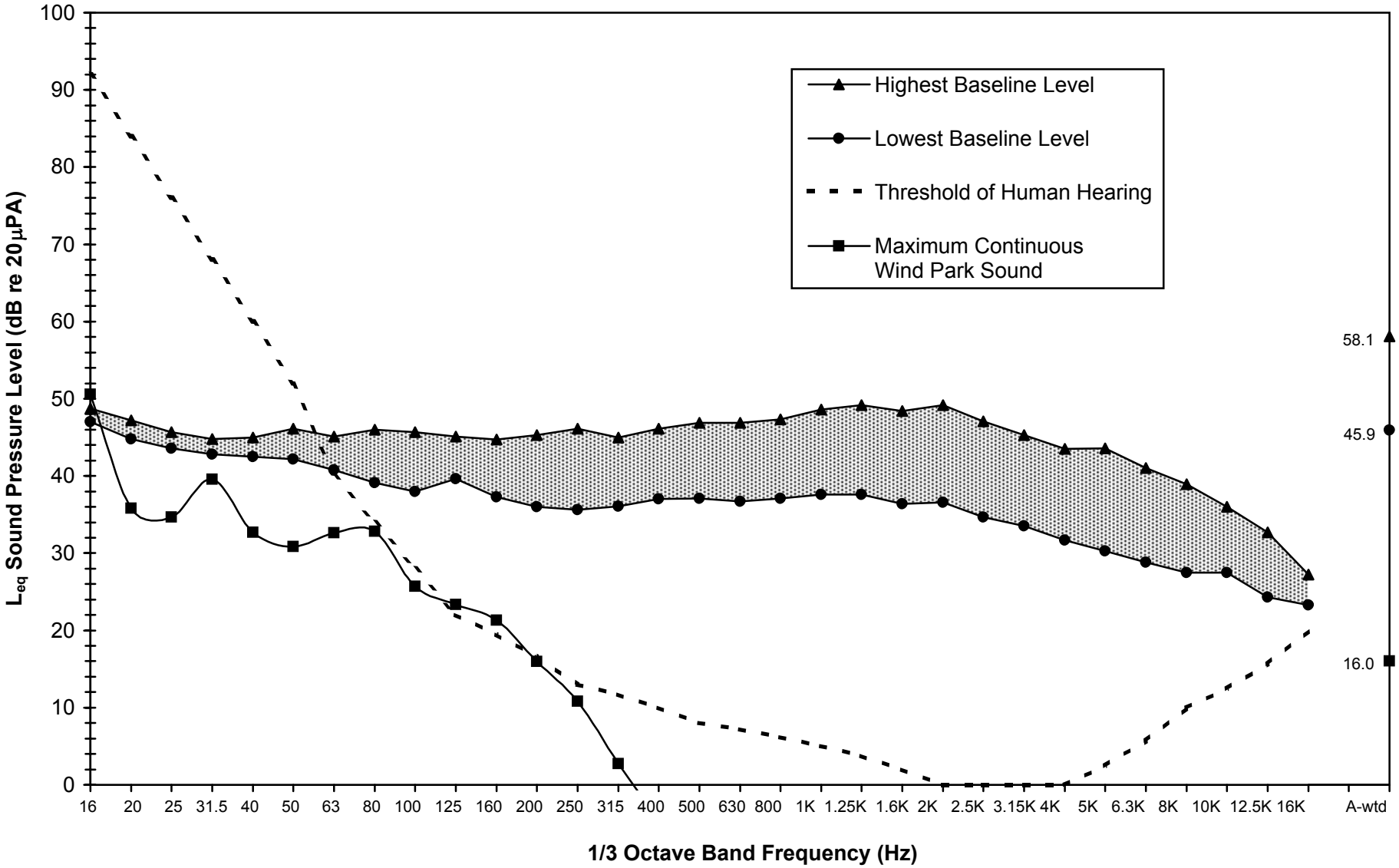


FIGURE 21: MAXIMUM CONTINUOUS SOUND LEVEL FROM PROJECT OPERATION AT HYANNIS POINT, BARNSTABLE FOR THE CUT-IN WIND SPEED

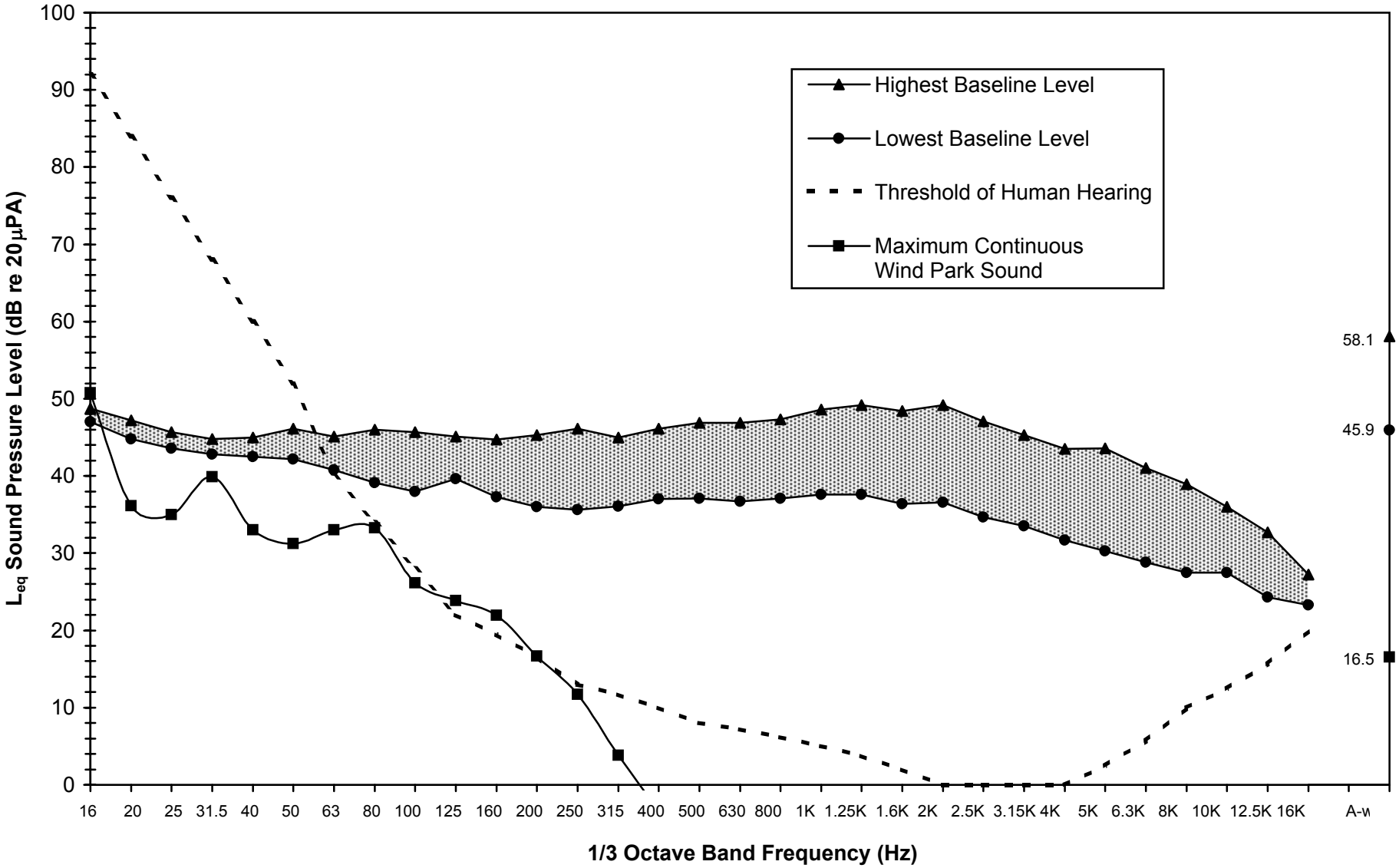


FIGURE 22: MAXIMUM CONTINUOUS SOUND LEVEL FROM PROJECT OPERATION AT WIANNO BEACH, BARNSTABLE FOR THE CUT-IN WIND SPEED

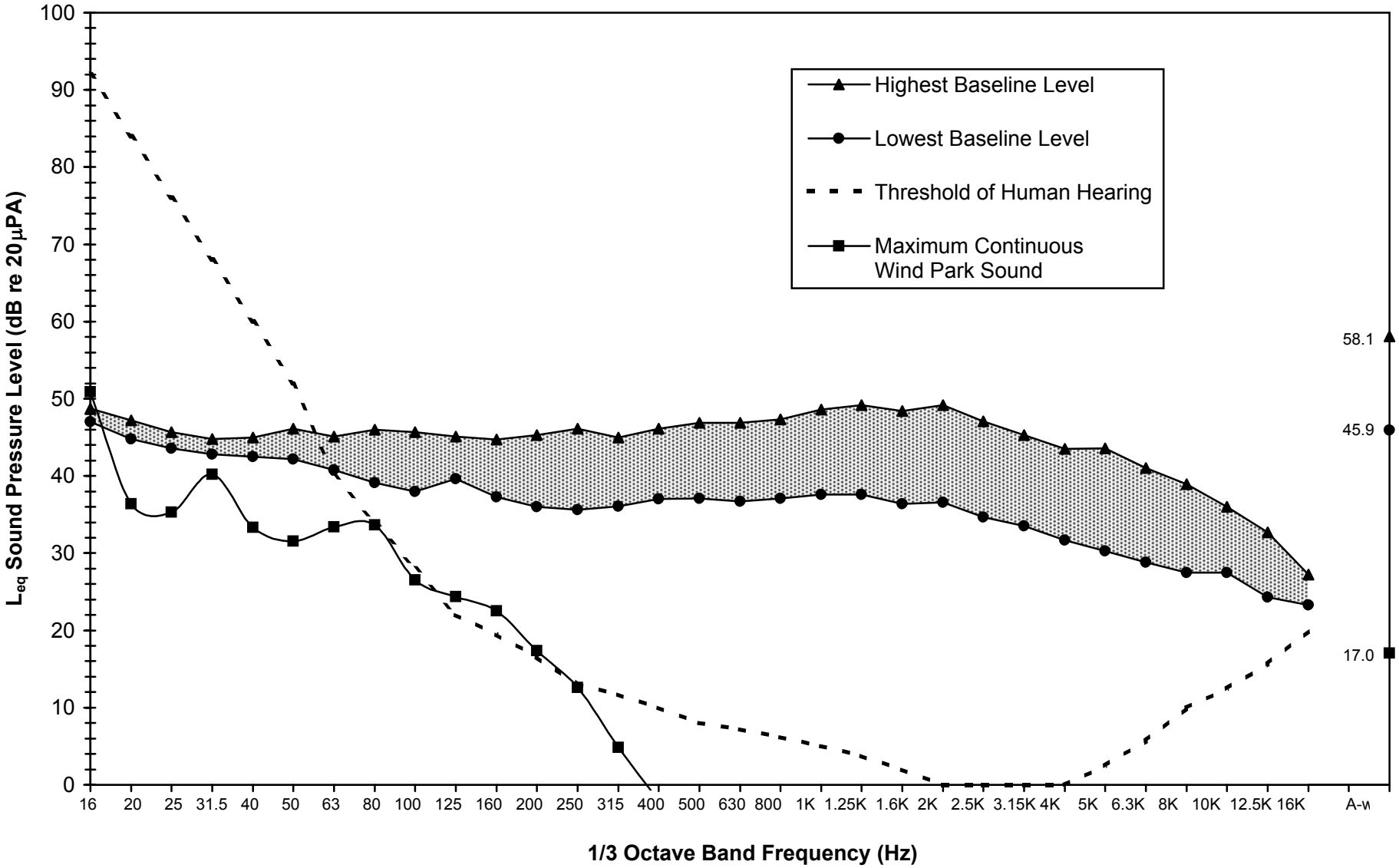


FIGURE 23: MAXIMUM CONTINUOUS SOUND LEVEL FROM PROJECT OPERATION AT OREGON BEACH, BARNSTABLE FOR THE CUT-IN WIND SPEED

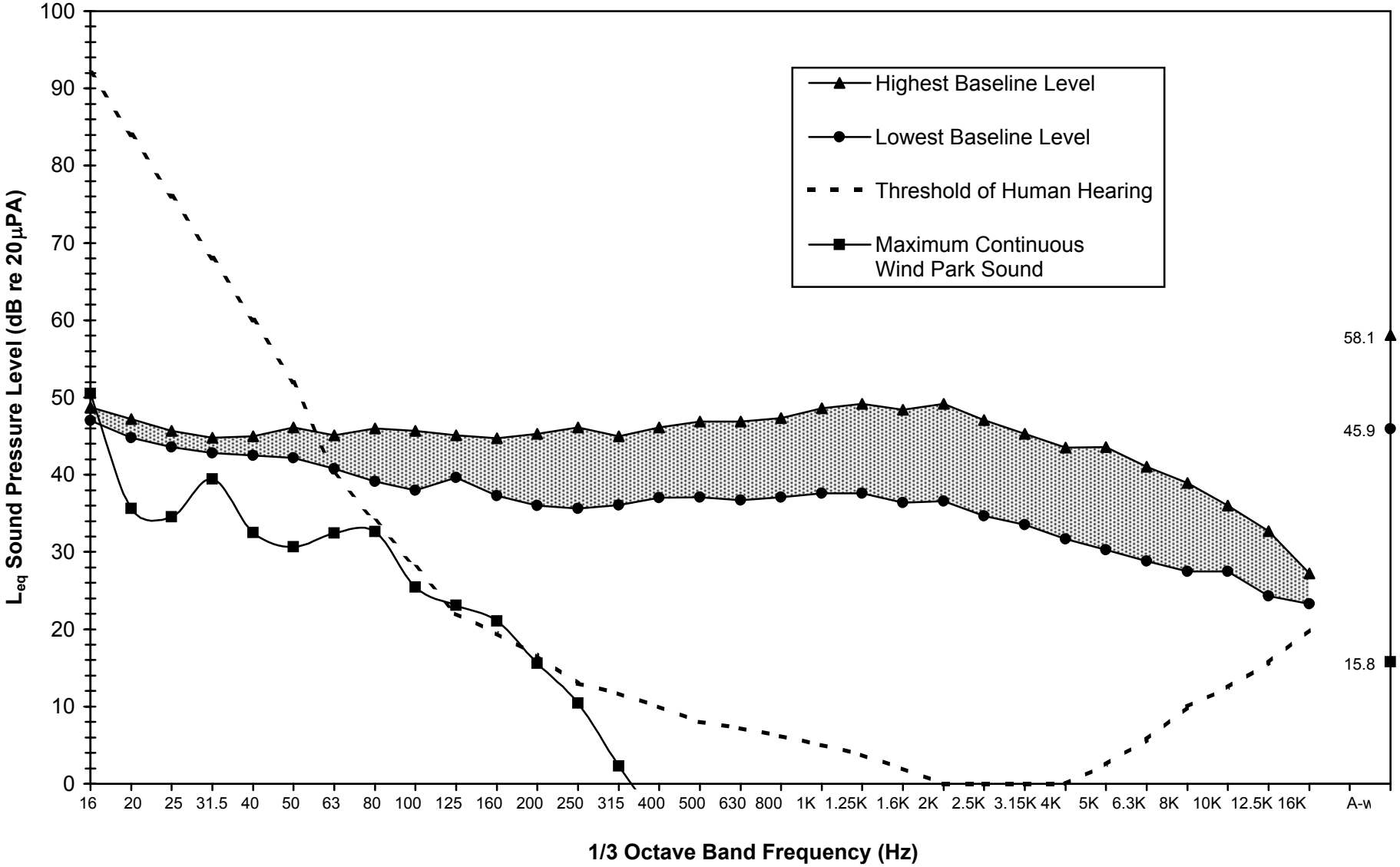


FIGURE 24: MAXIMUM CONTINUOUS SOUND LEVEL FROM PROJECT OPERATION AT NEW SEABURY, MASHPEE FOR THE CUT-IN WIND SPEED

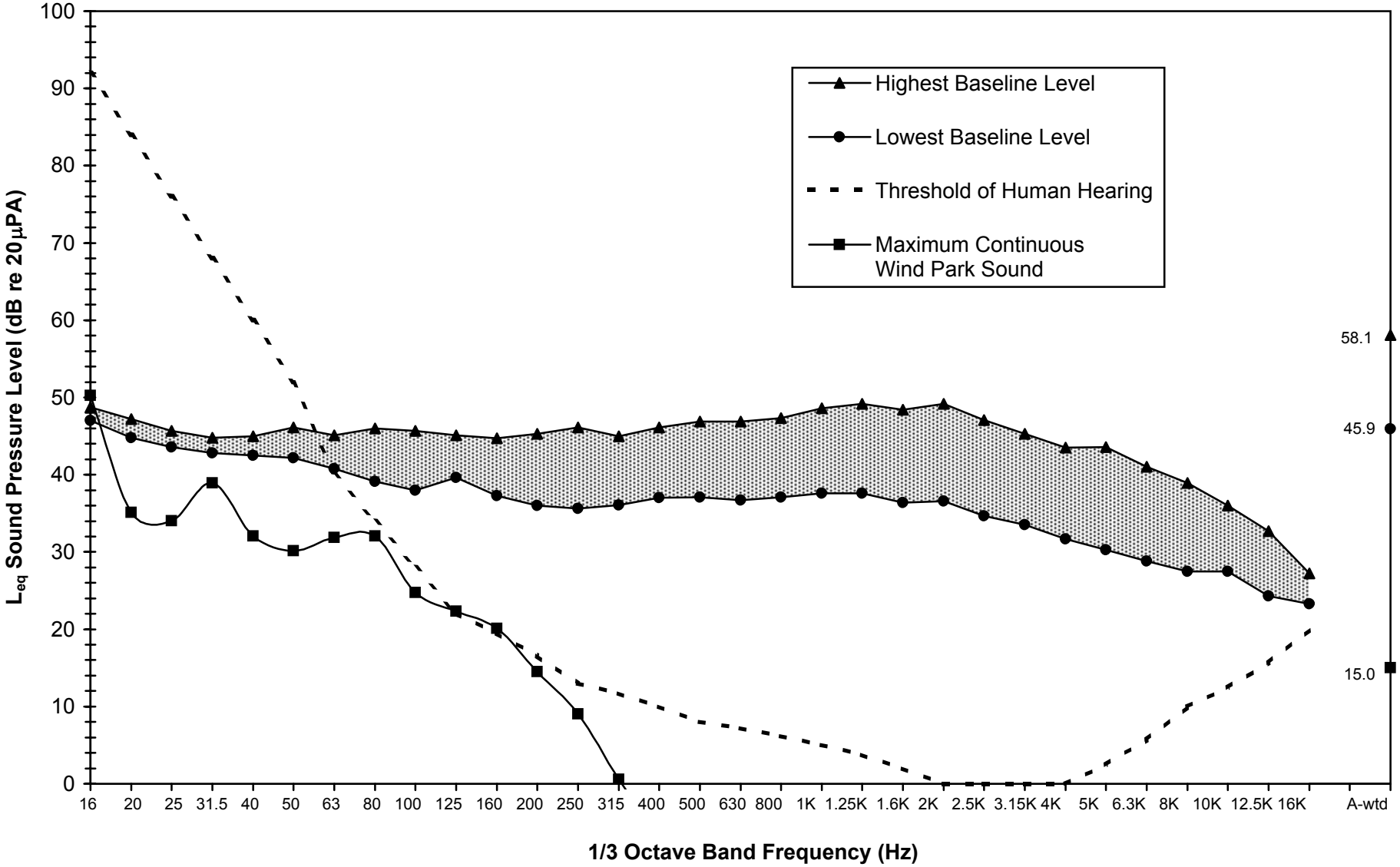


FIGURE 25: MAXIMUM CONTINUOUS SOUND LEVEL FROM PROJECT OPERATION AT OAK BLUFFS, MV FOR THE CUT-IN WIND SPEED

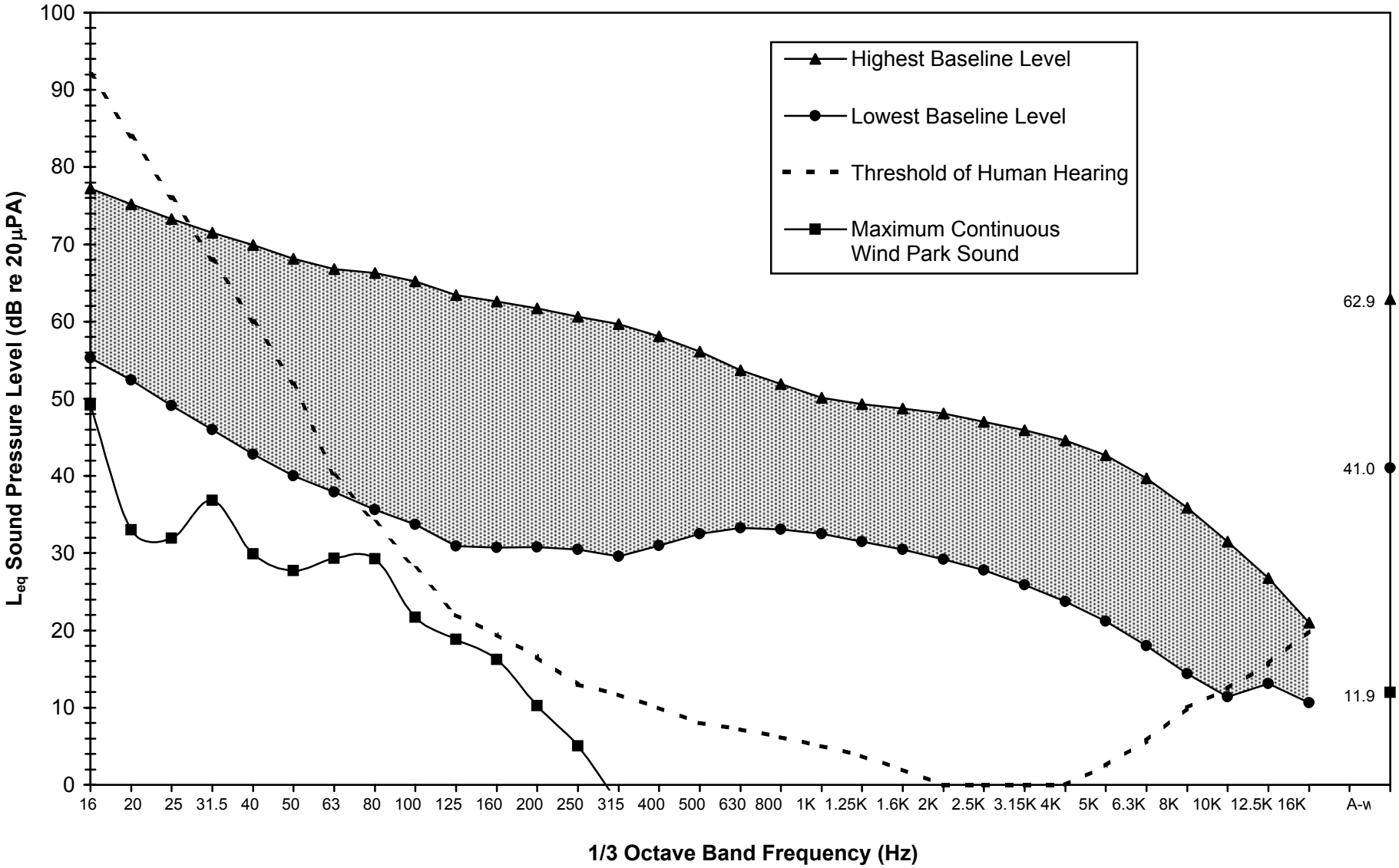


FIGURE 26: MAXIMUM CONTINUOUS SOUND LEVEL FROM PROJECT OPERATION AT EDGARTOWN, MV FOR THE CUT-IN WIND SPEED

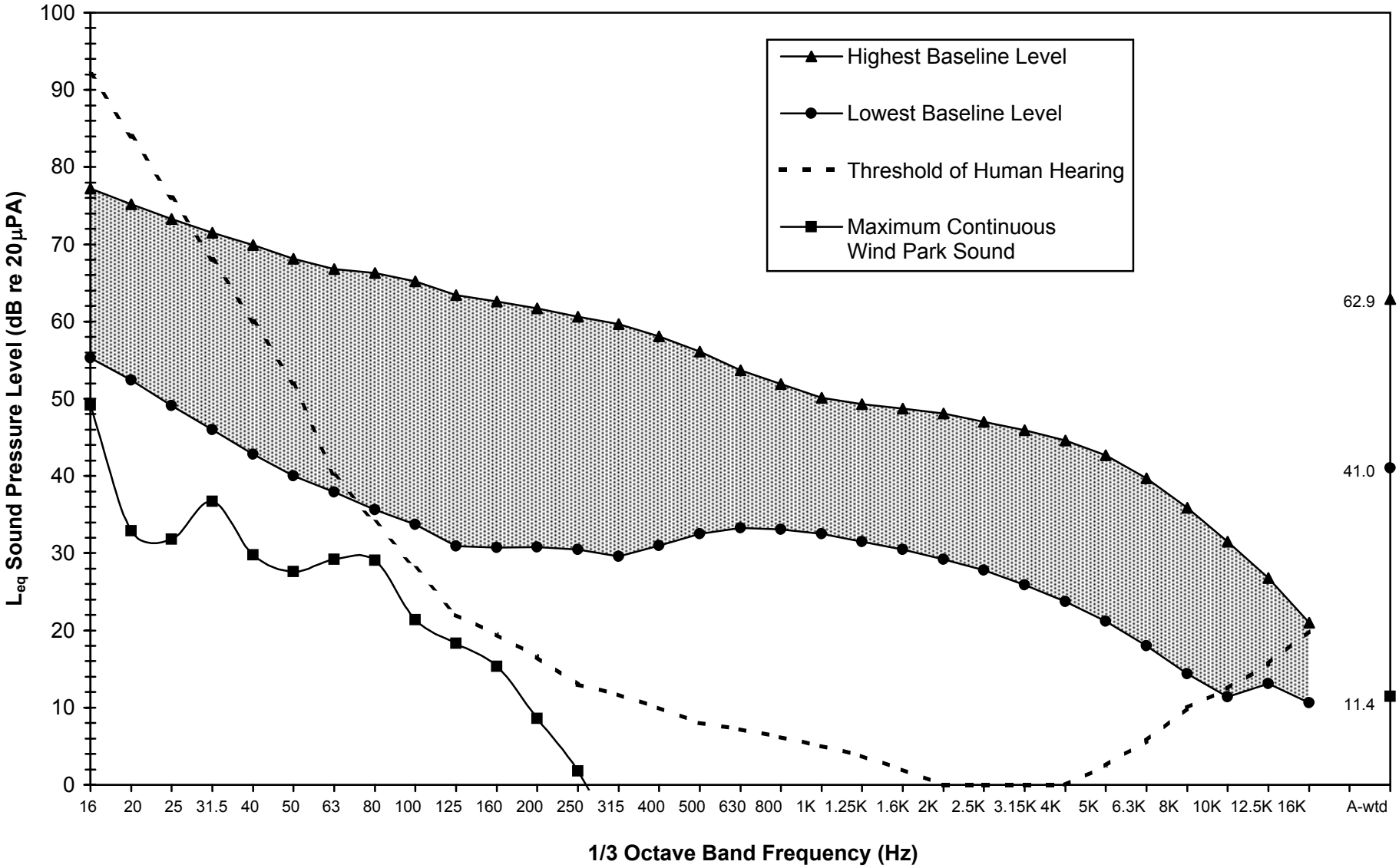


FIGURE 27: MAXIMUM CONTINUOUS SOUND LEVEL FROM PROJECT OPERATION AT CAPE POGE, MV FOR THE CUT-IN WIND SPEED

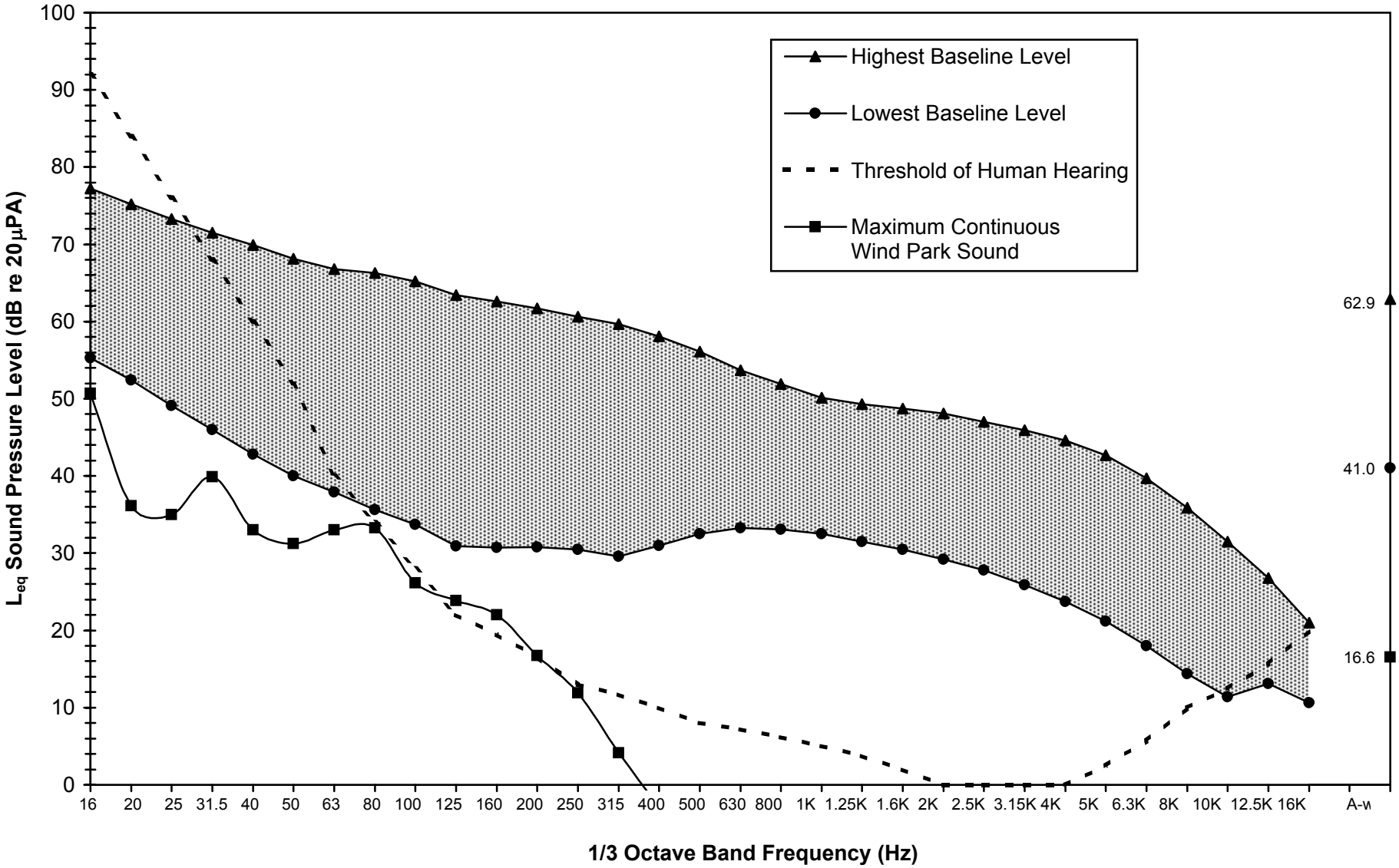


FIGURE 28: MAXIMUM CONTINUOUS SOUND LEVEL FROM PROJECT OPERATION AT BASS RIVER BEACH, YARMOUTH FOR THE DESIGN WIND SPEED AND ON-SHORE WINDS

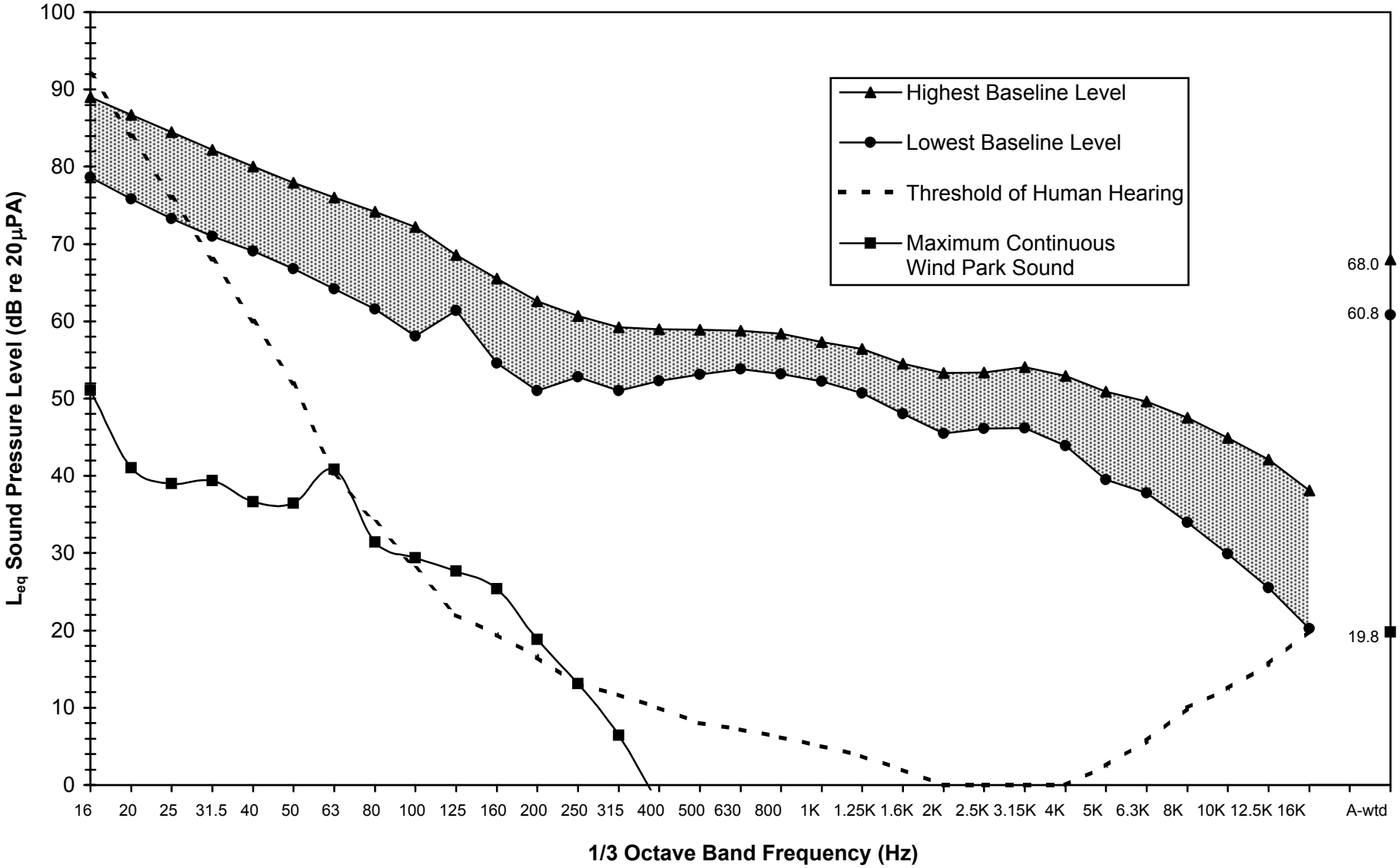


FIGURE 29: MAXIMUM CONTINUOUS SOUND LEVEL FROM PROJECT OPERATION AT POINT GAMMON, YARMOUTH FOR THE DESIGN WIND SPEED AND ON-SHORE WINDS

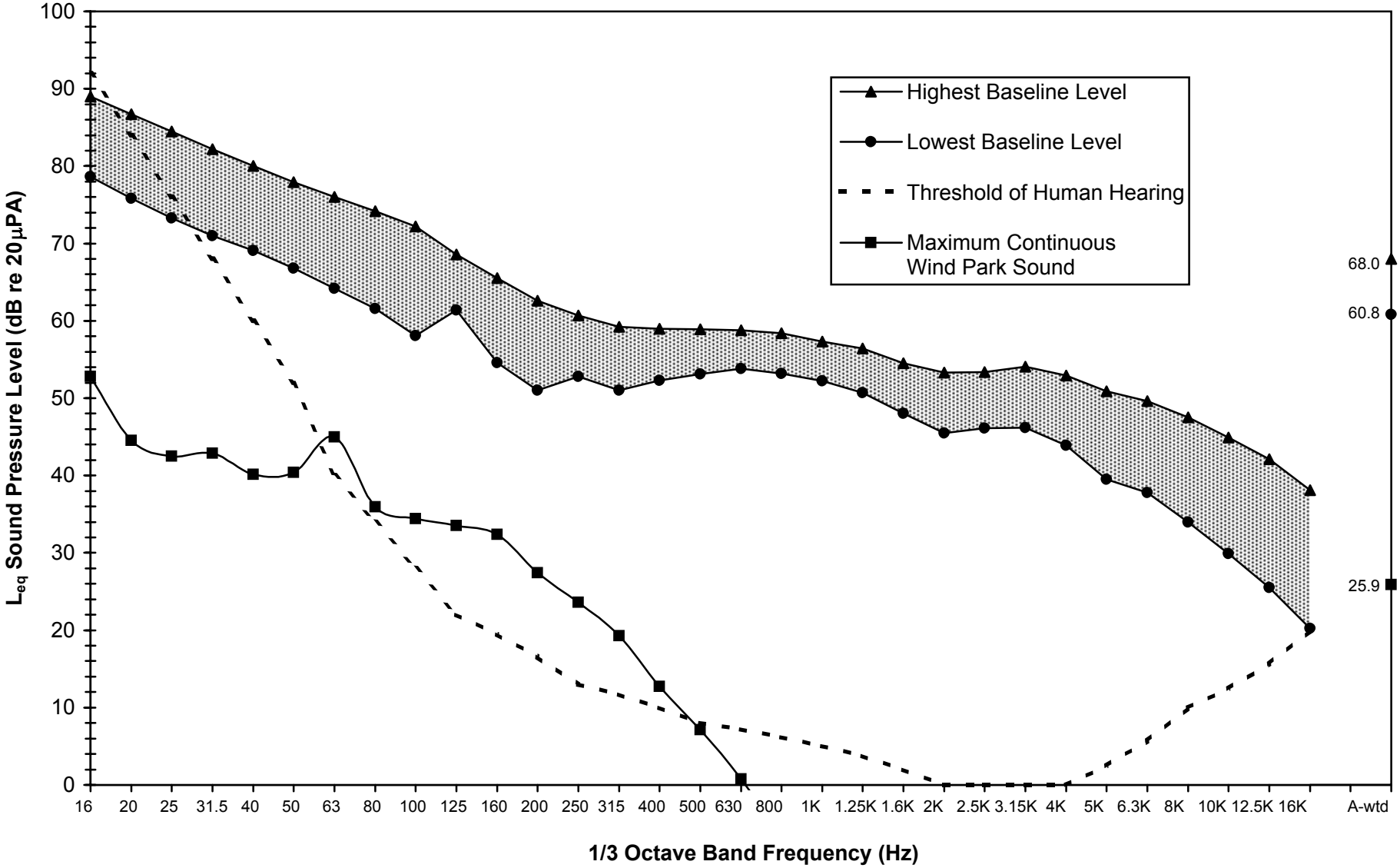


FIGURE 30: MAXIMUM CONTINUOUS SOUND LEVEL FROM PROJECT OPERATION AT HYANNISPORT, BARNSTABLE FOR THE DESIGN WIND SPEED AND ON-SHORE WINDS

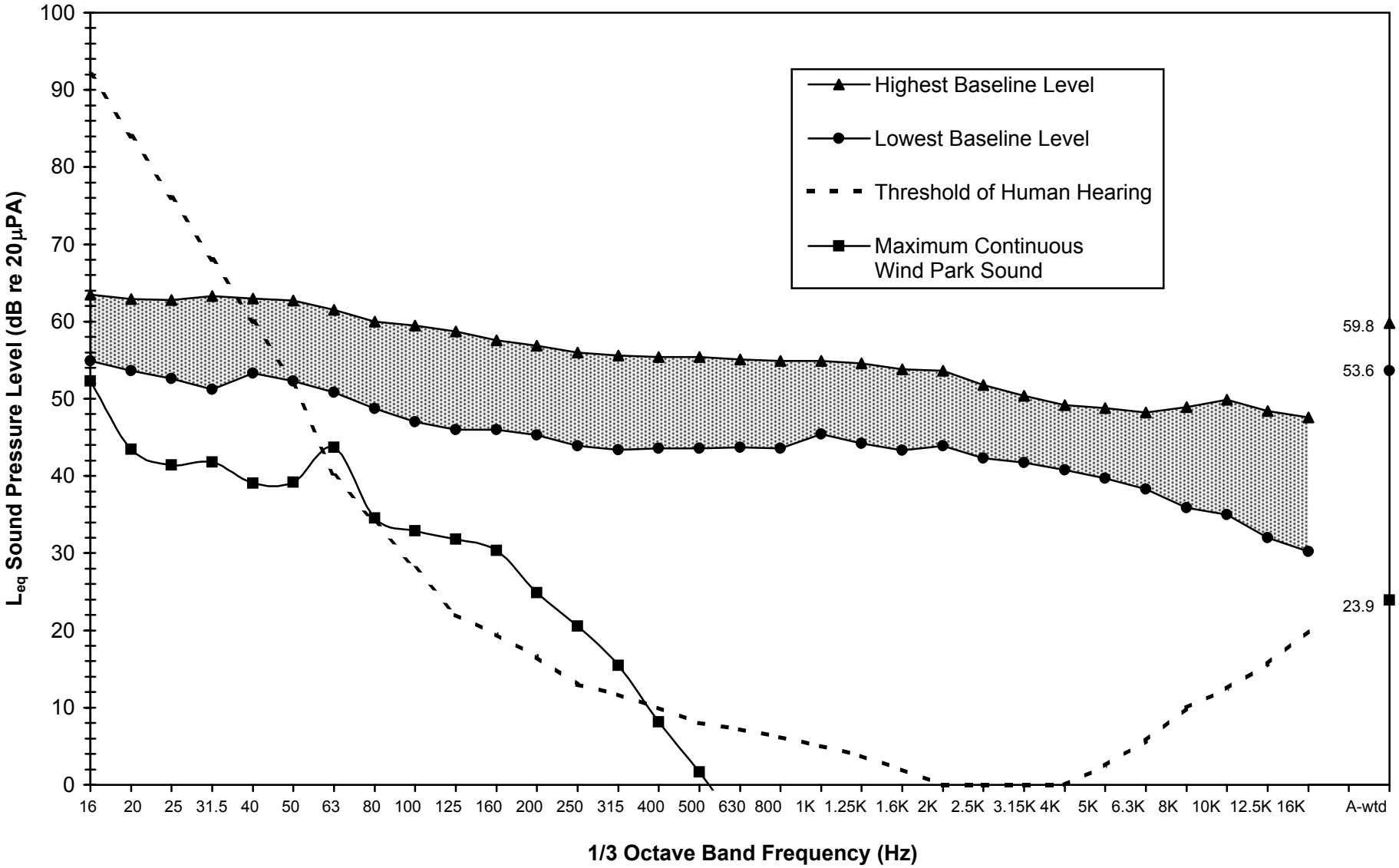


FIGURE 31: MAXIMUM CONTINUOUS SOUND LEVEL FROM PROJECT OPERATION AT HYANNIS POINT, BARNSTABLE FOR THE DESIGN WIND SPEED AND ON-SHORE WINDS

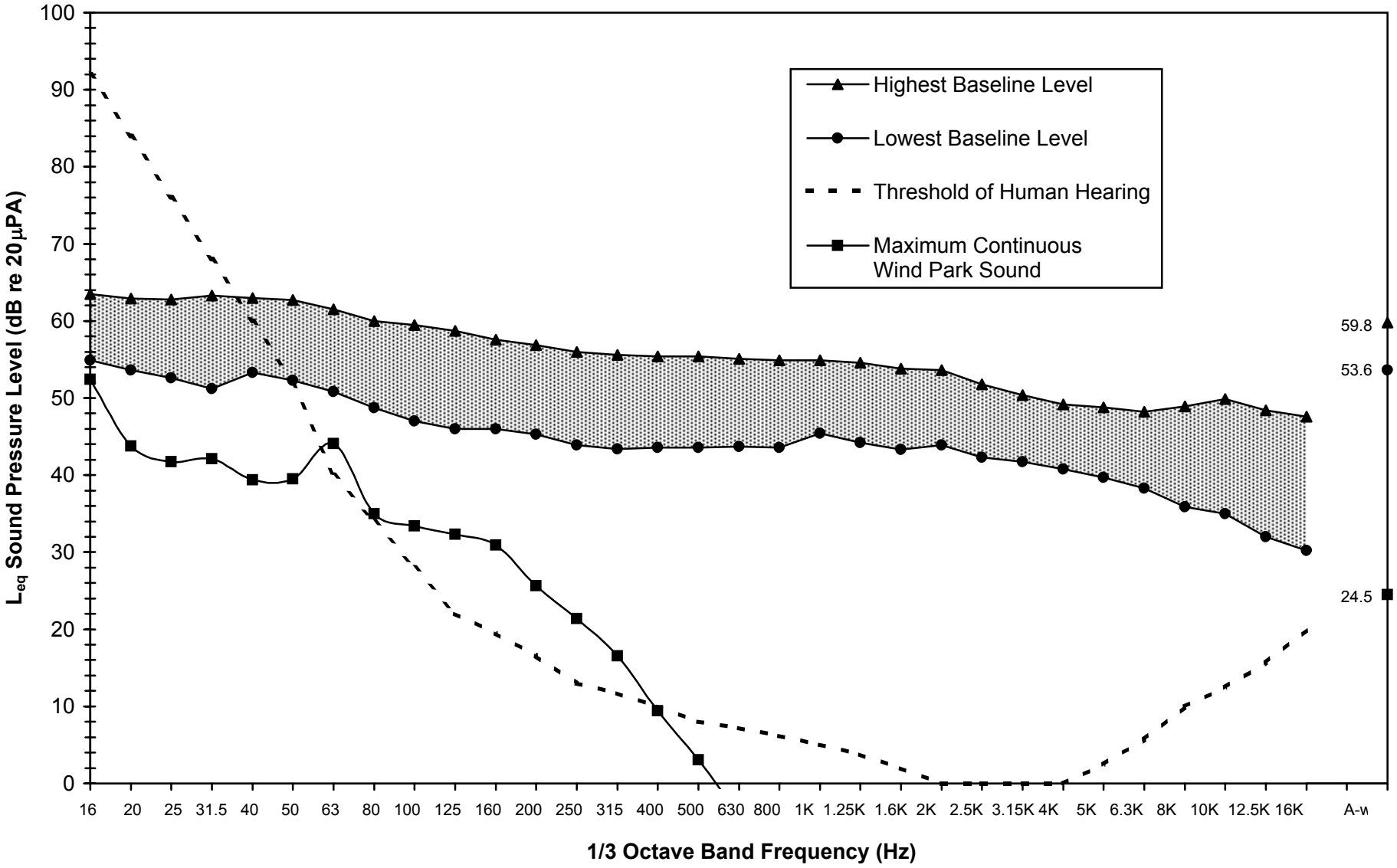


FIGURE 32: MAXIMUM CONTINUOUS SOUND LEVEL FROM PROJECT OPERATION AT WIANNO BEACH, BARNSTABLE FOR THE DESIGN WIND SPEED AND ON-SHORE WINDS

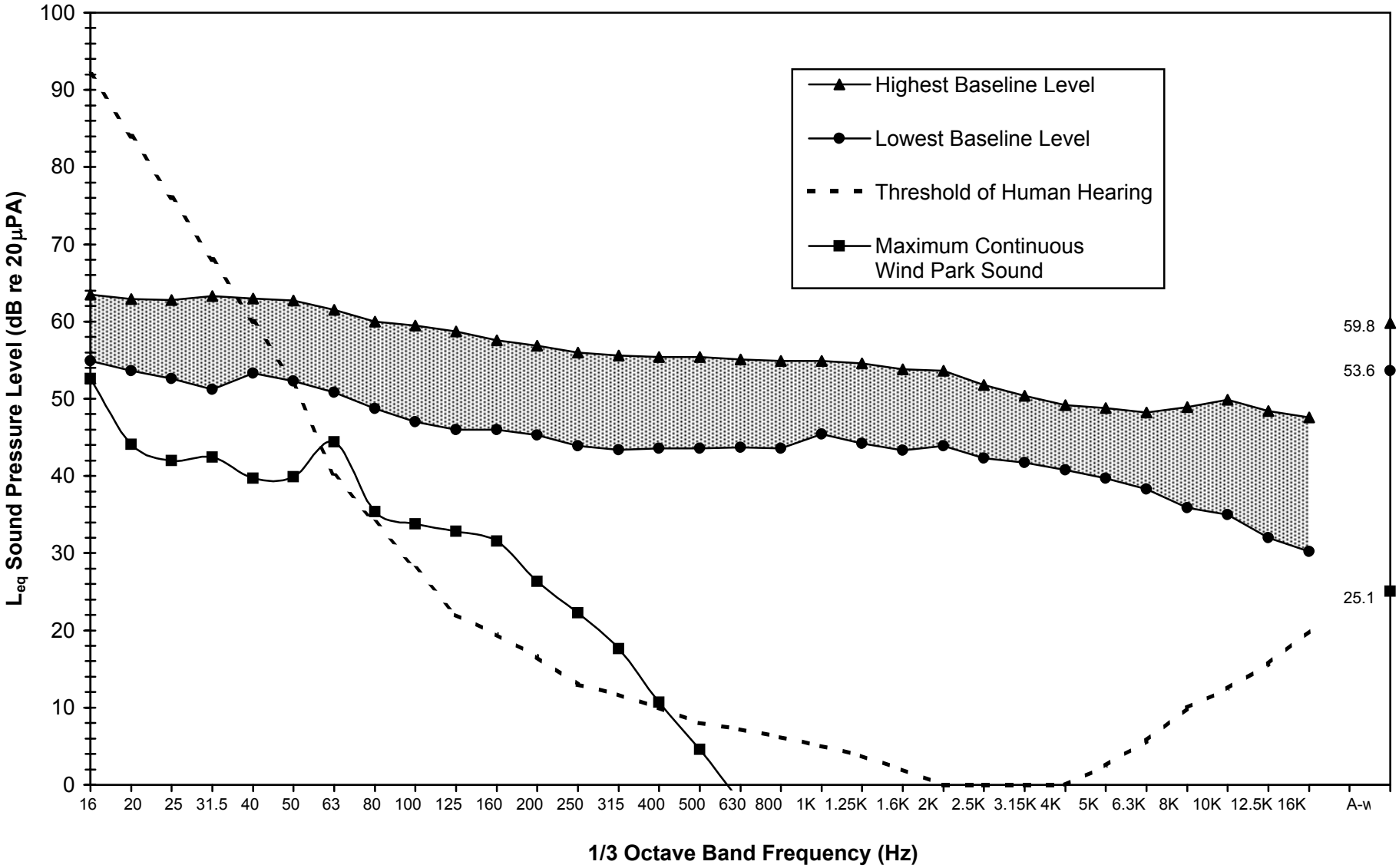


FIGURE 33: MAXIMUM CONTINUOUS SOUND LEVEL FROM PROJECT OPERATION AT OREGON BEACH, BARNSTABLE FOR THE DESIGN WIND SPEED AND ON-SHORE WINDS

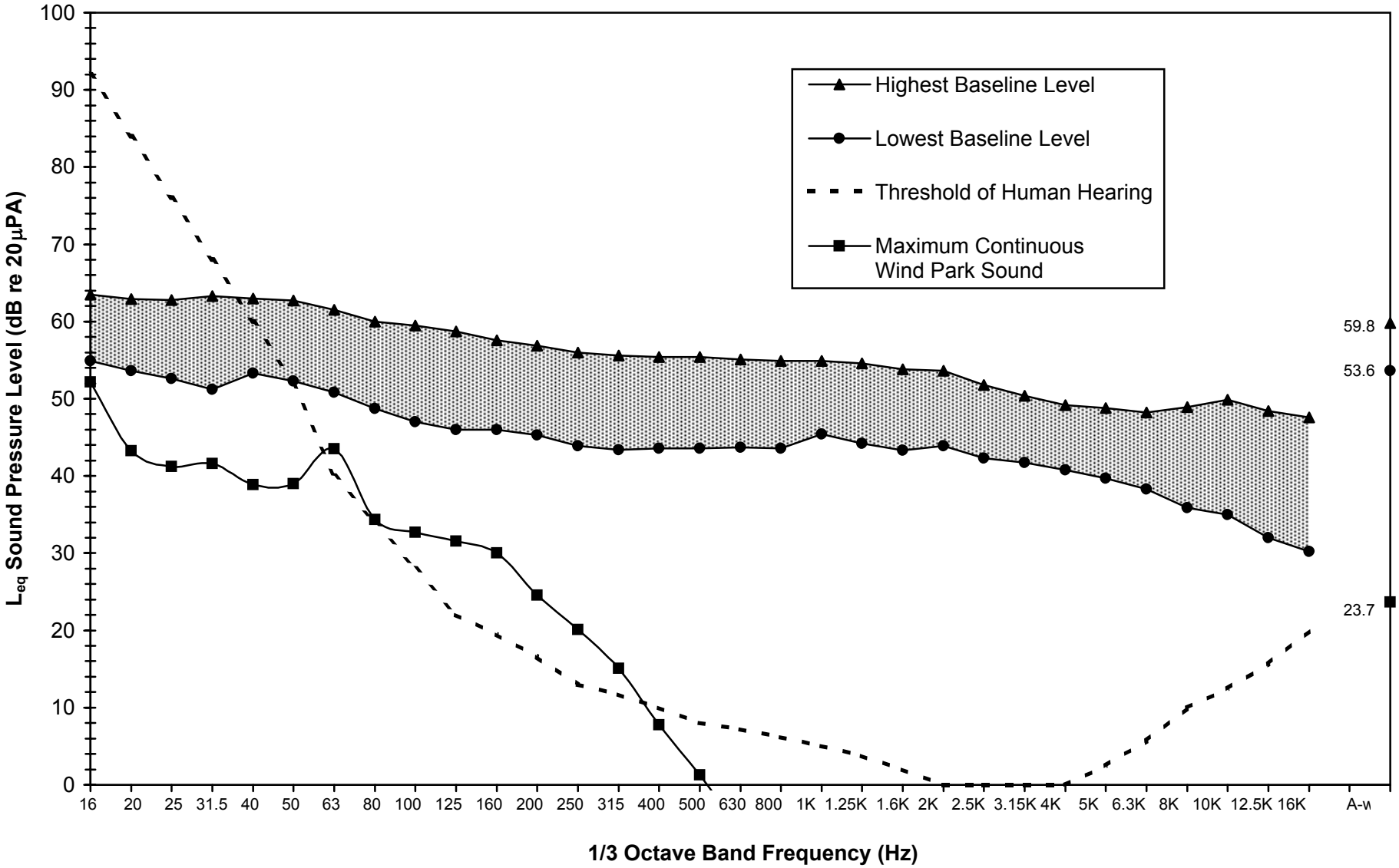


FIGURE 34: MAXIMUM CONTINUOUS SOUND LEVEL FROM PROJECT OPERATION AT NEW SEABURY, MASHPEE FOR THE DESIGN WIND SPEED AND ON-SHORE WINDS

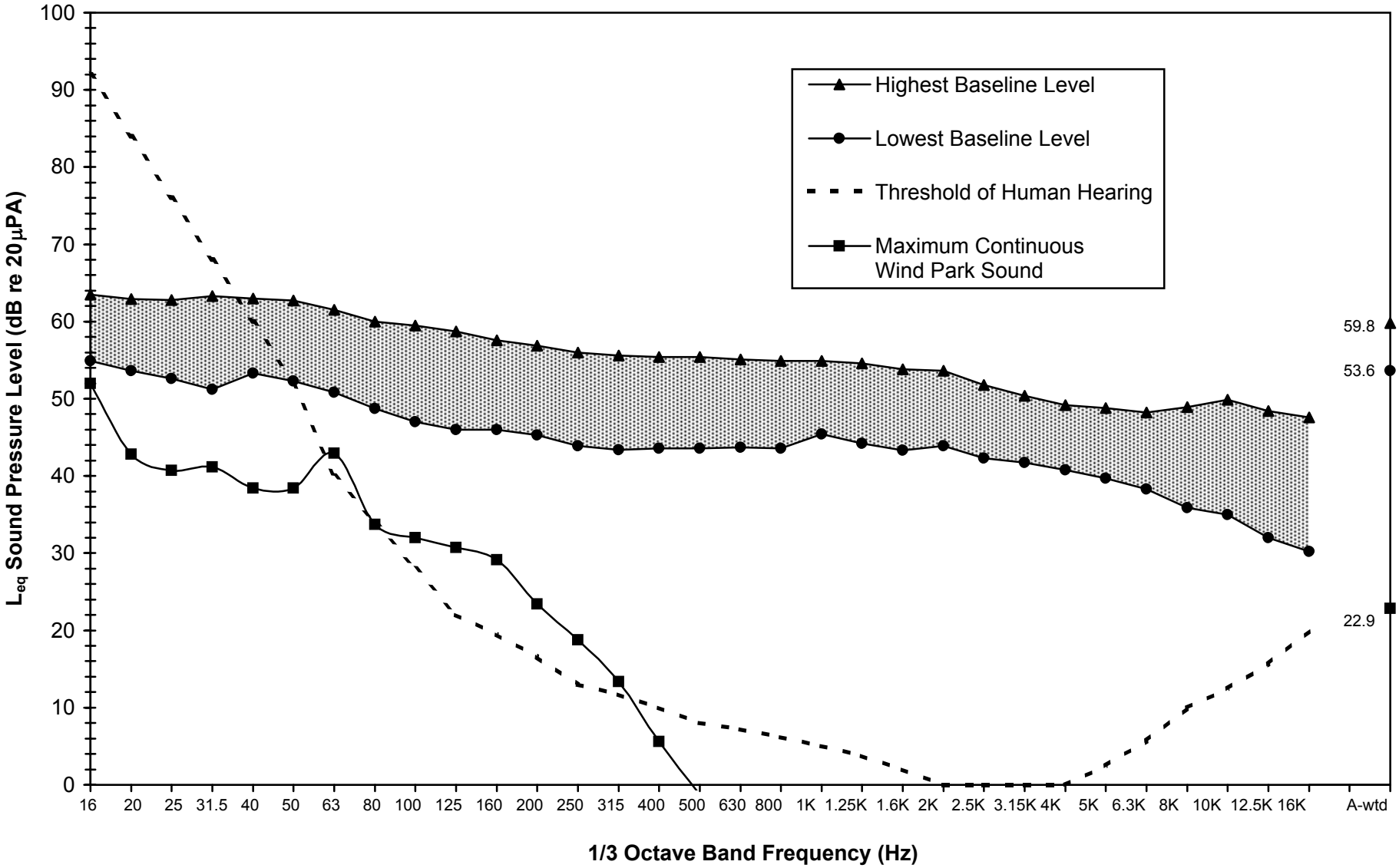


FIGURE 35: MAXIMUM CONTINUOUS SOUND LEVEL FROM PROJECT OPERATION AT OAK BLUFFS, MV FOR THE DESIGN WIND SPEED AND ON-SHORE WINDS

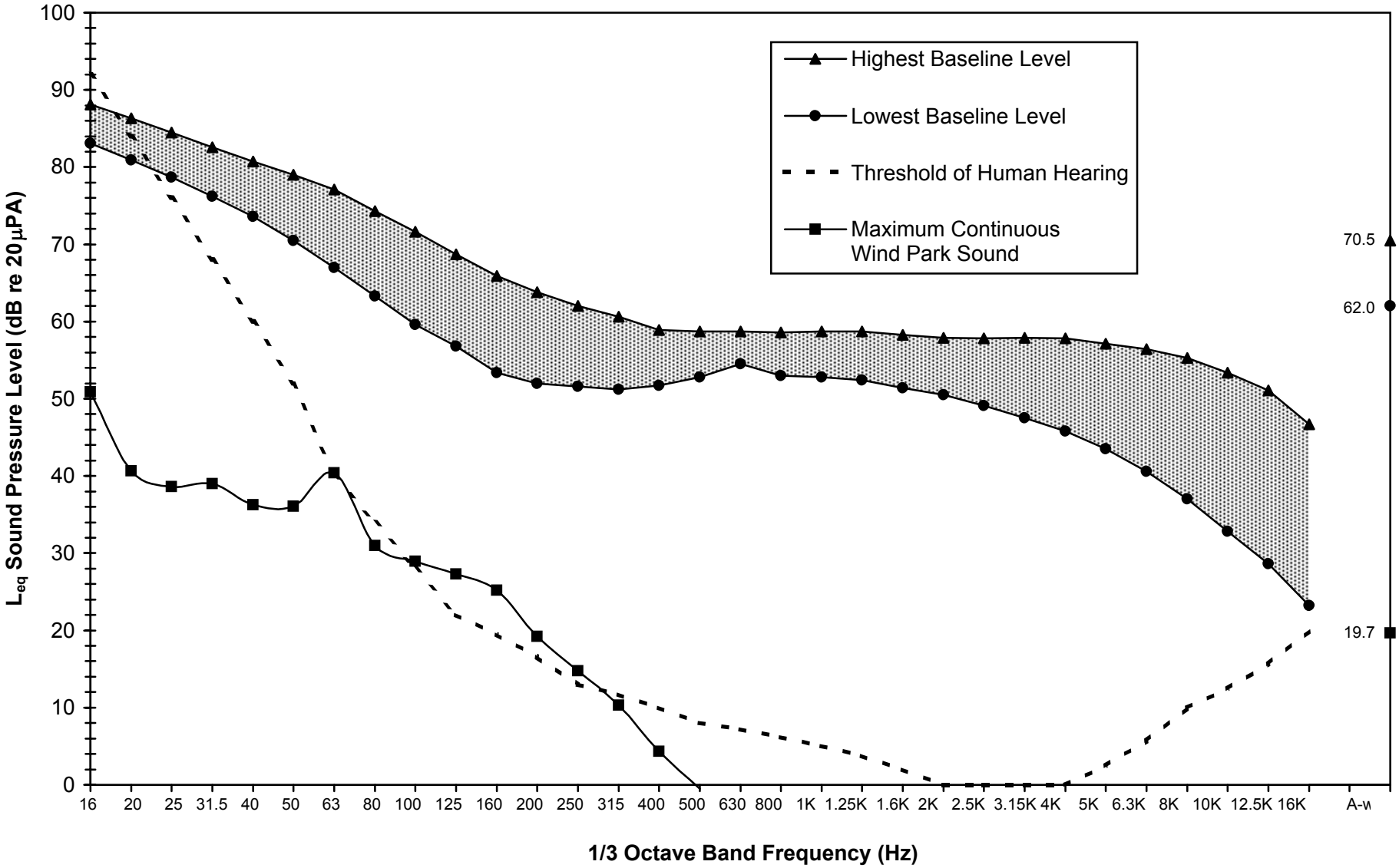


FIGURE 36: MAXIMUM CONTINUOUS SOUND LEVEL FROM PROJECT OPERATION AT EDGARTOWN, MV FOR THE DESIGN WIND SPEED AND ON-SHORE WINDS

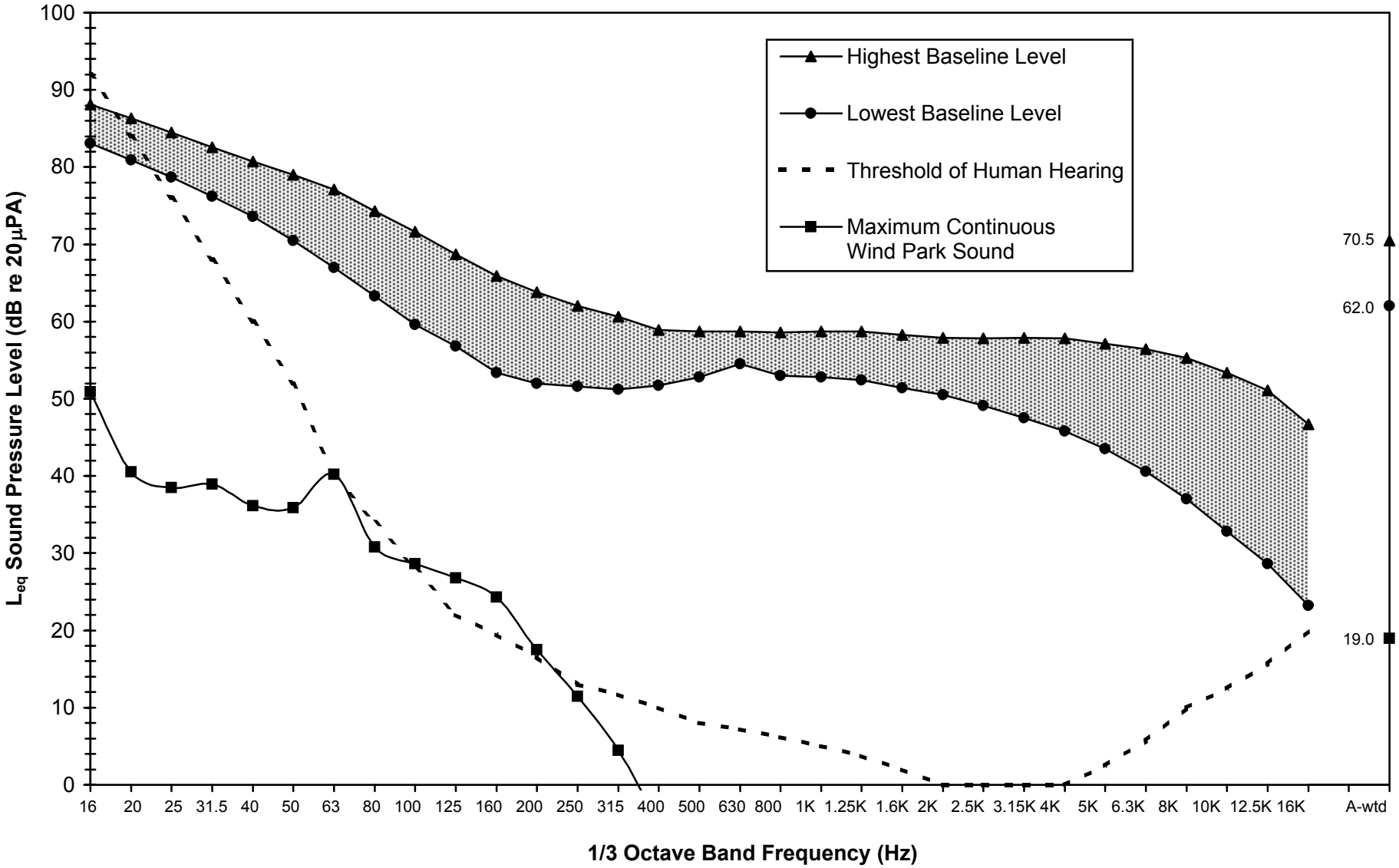
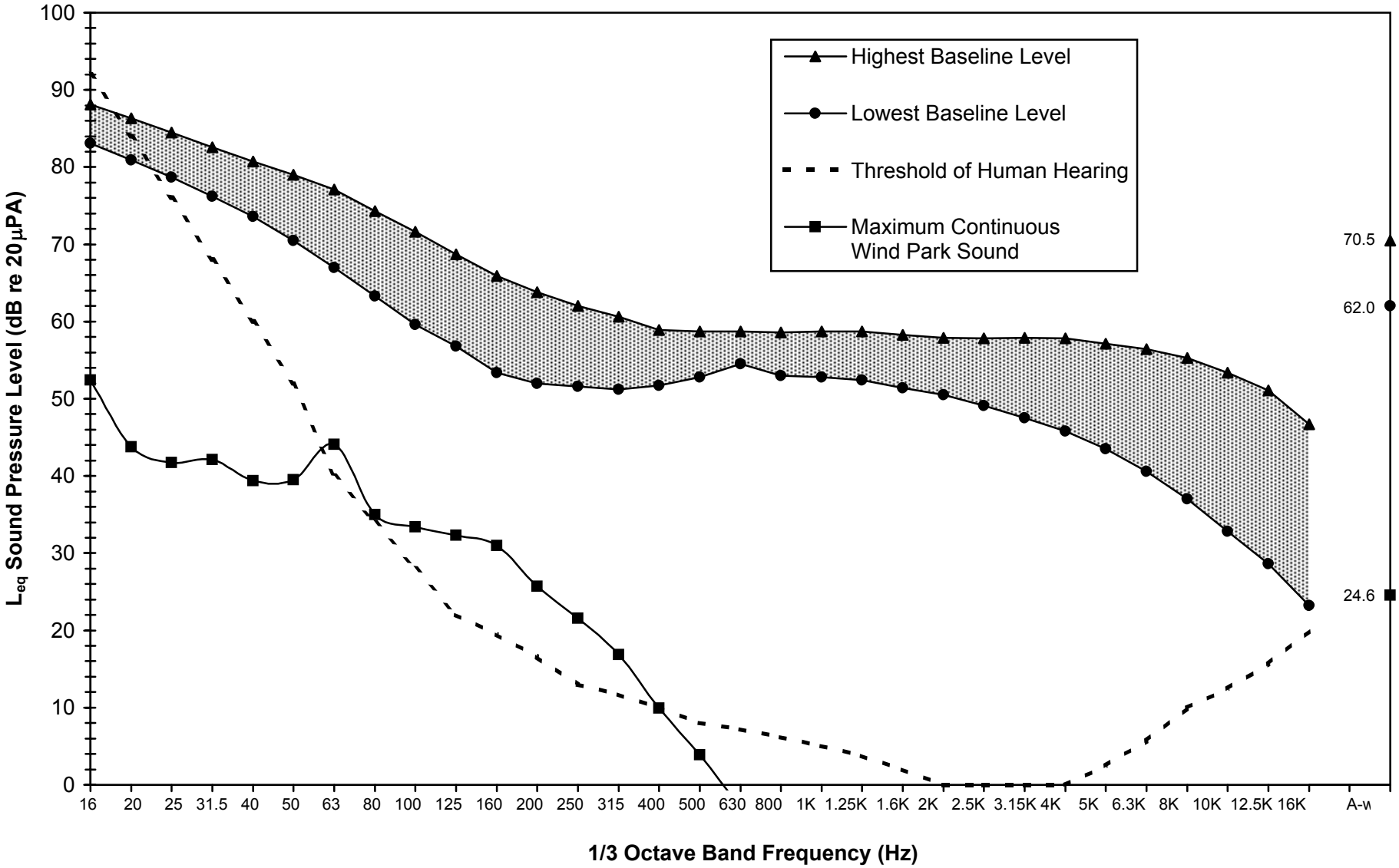


FIGURE 37: MAXIMUM CONTINUOUS SOUND LEVEL FROM PROJECT OPERATION AT CAPE POGE, MV FOR THE DESIGN WIND SPEED AND ON-SHORE WINDS



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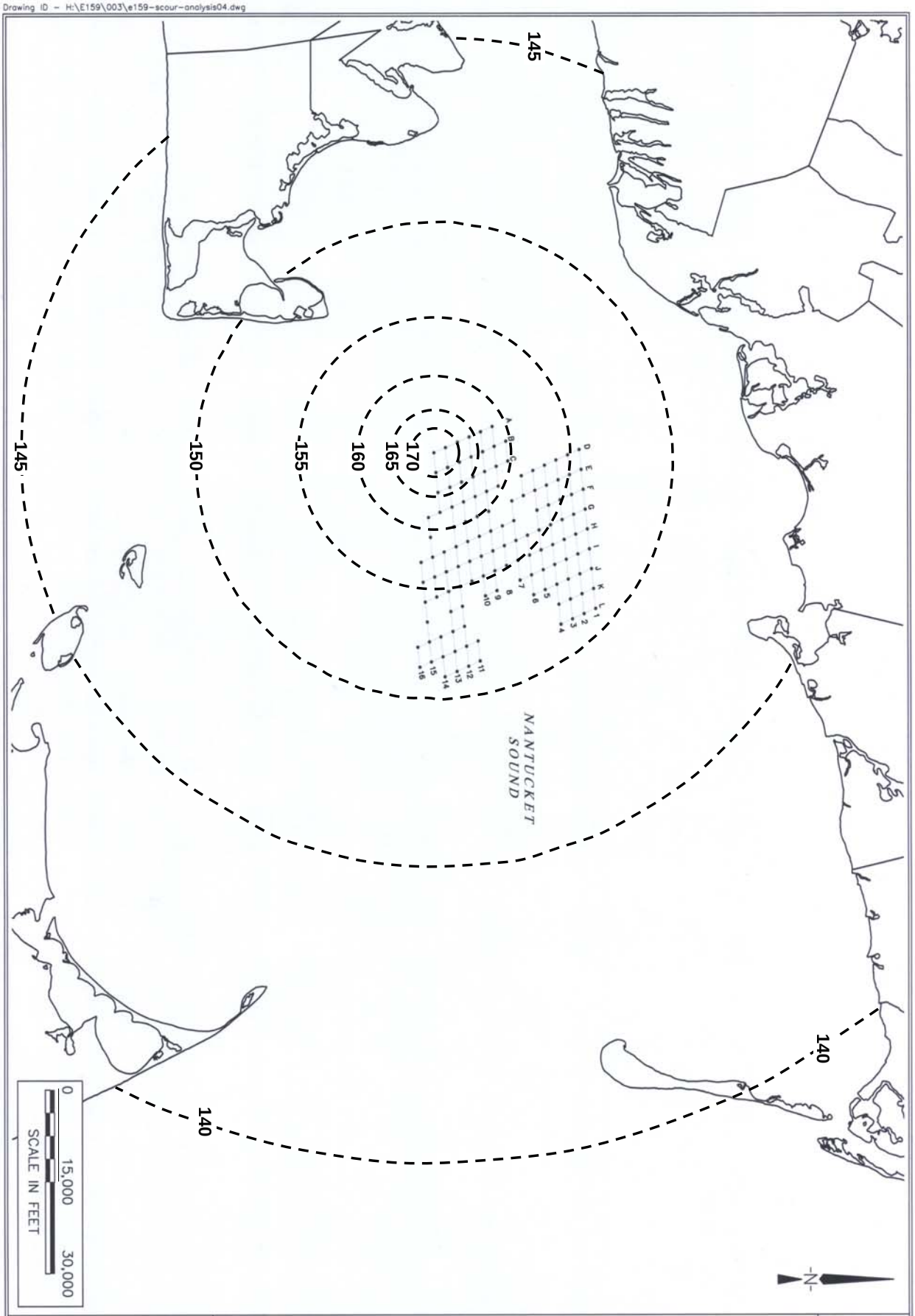


Cape Wind™
Energy for Life.

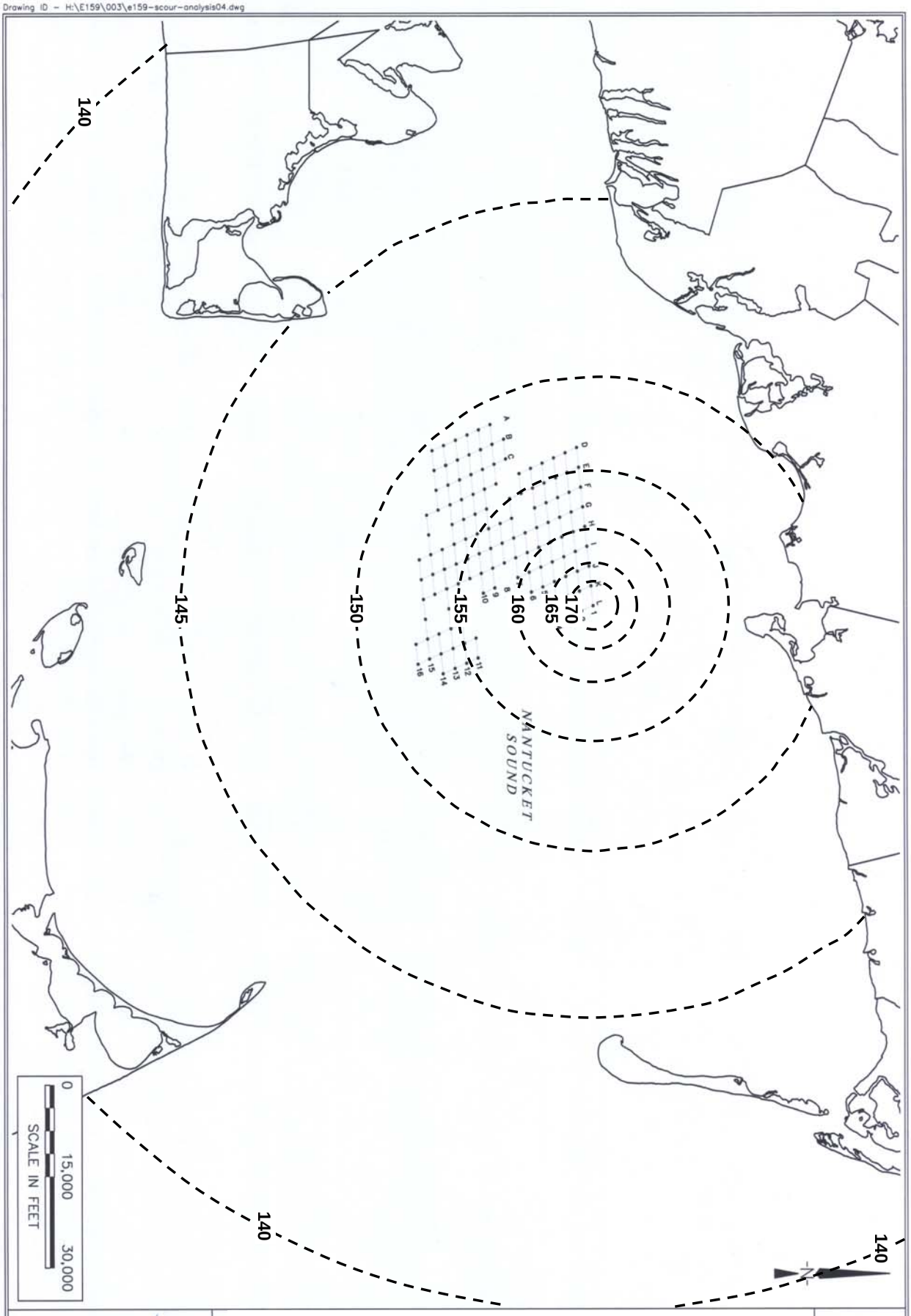
Underwater Sound Levels in (dBL) During Impact Pile Driving Operations – WTG A13

NOAA Chart #13237, Nantucket Sound & Approaches
Cape Wind Project

FIGURE NO. 38

PROJECT NO. E159-003

Drawing ID - H:\E159\003\e159-scour-analysis04.dwg



Cape Wind
Energy for Life.

Underwater Sound Levels in (dBL) During Impact Pile Driving Operations – WTG L1

NOAA Chart #13237, Nantucket Sound & Approaches
Cape Wind Project

FIGURE NO. 39

PROJECT NO. E159-003

FIGURE 40: PREDICTED FREQUENCY SPECTRUM OF THE UNDERWATER SOUND PRESSURE LEVEL AT 500 METERS FROM THE PILE DURING IMPACT PILE DRIVING

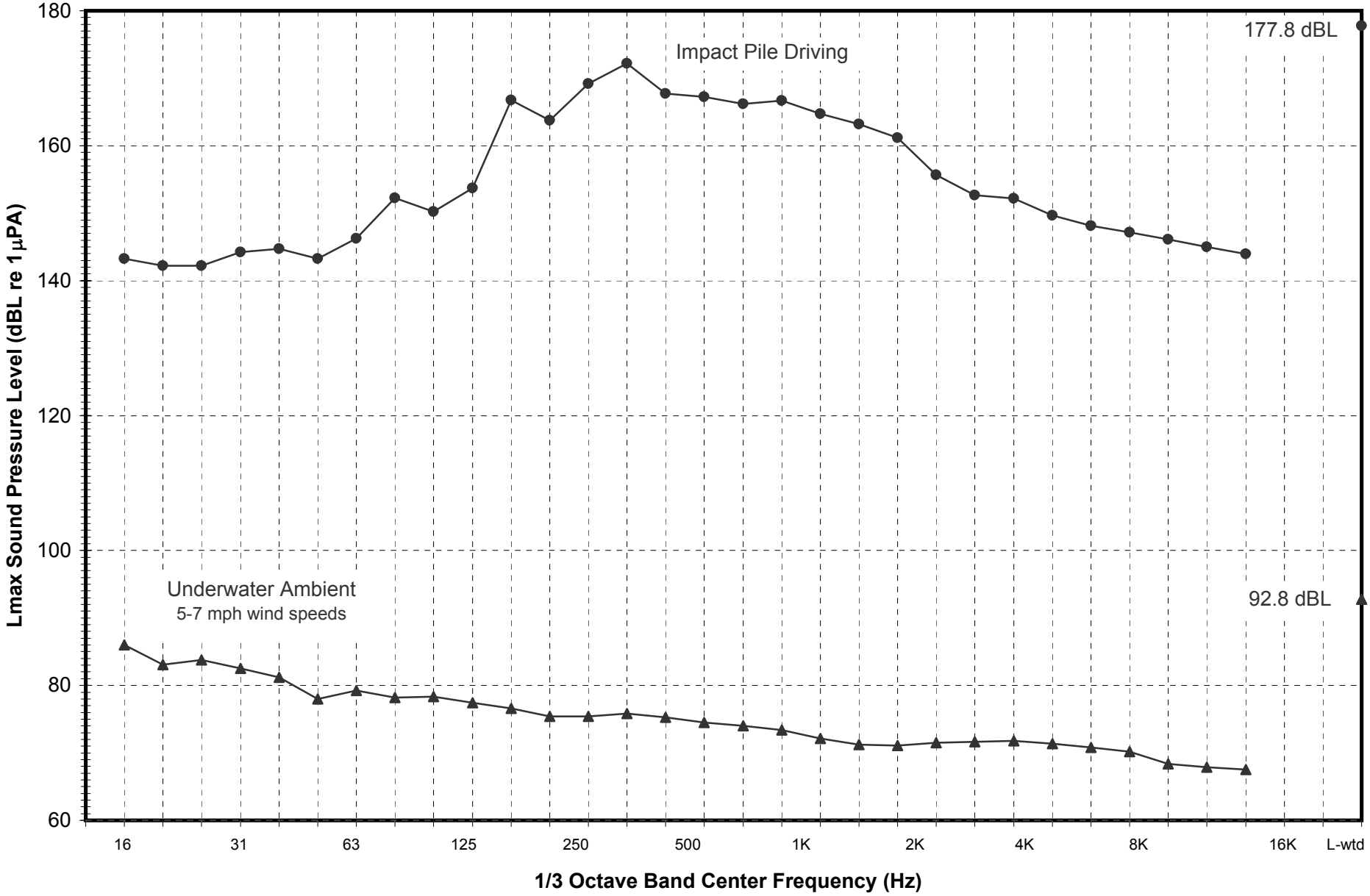
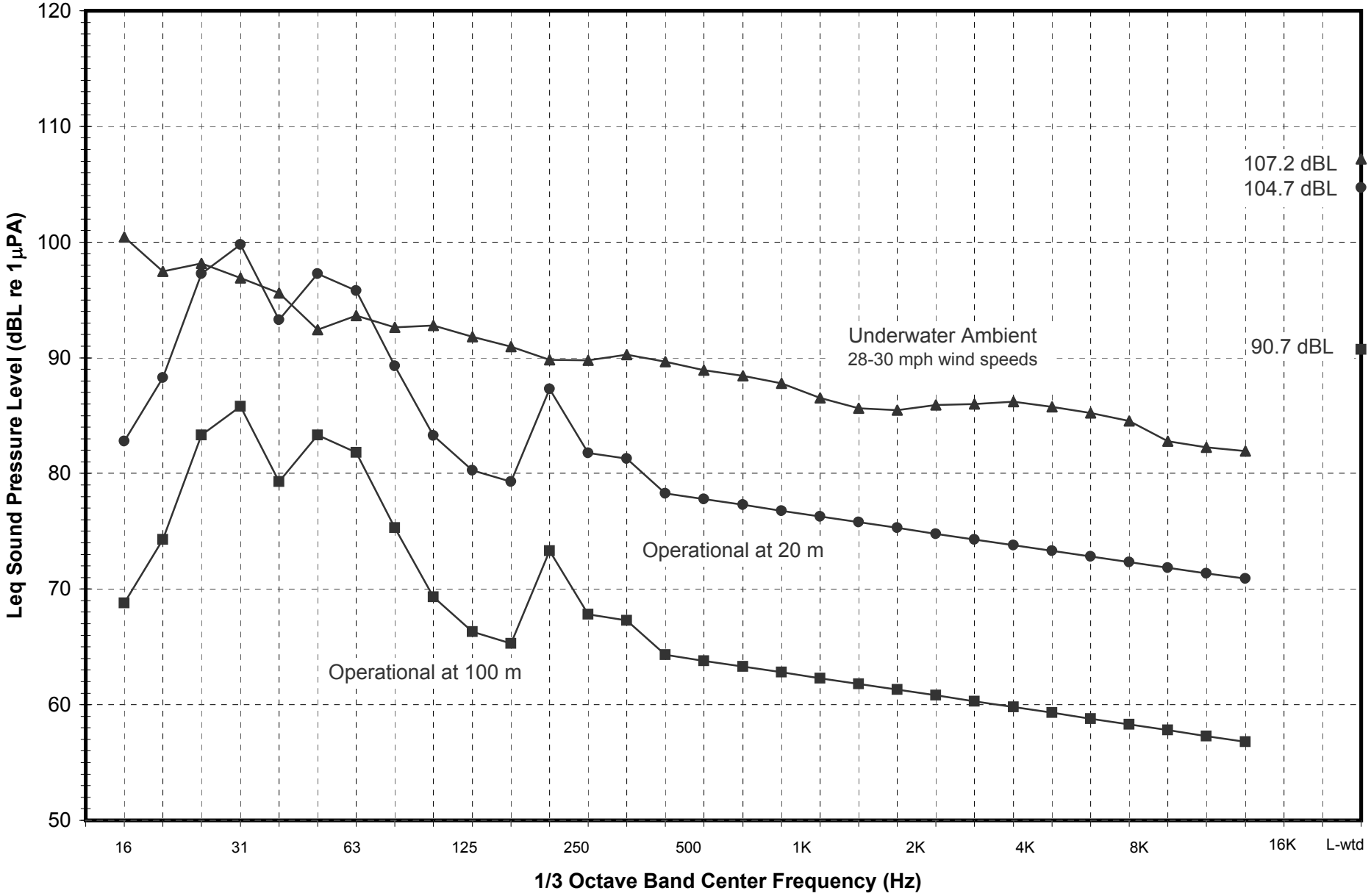


FIGURE 41: PREDICTED FREQUENCY SPECTRUM OF THE UNDERWATER SOUND PRESSURE LEVEL AT 20 METERS AND 100 METERS FROM THE WTG



Baseline Conditions

Green Buoy 5 – Above Water Baseline Measurement
Weather: sunny/clear, winds calm to 7 mph, waves 1/2 to 1-1/2 feet.
Dominant sounds: wave interaction with aluminum boat hull.
Secondary sounds: periodic aircraft over flights and distant watercraft. Periodic short-term radio communications also noted during the test.

SLM & RTA Summary
Translated: 12-Dec-2002 11:12:47

File Translated: W:\Noisedata\L&D\2127\data_006.slmdl
Model Number: 824
Serial Number: A1327
Firmware Rev: 3.530
Software Version: 3.070
Name: Larson Davis 824
Descr1: Tech Environmental, Inc.
Descr2: Erik Kalapinski, EIT, INCE
Setup: ENV-OSP.ssa
Setup Descr: SLM & Real-Time Analyzer
Location:
Note 1:
Note 2:

Overall Measurement
Start Time: 22-Oct-2002 11:24:15

Ln Start Level: 0 dB

L (1.00)	57.3
L (5.00)	52.7
L (50.00)	41.5
L (90.00)	34.7
L (95.00)	33.2
L (99.00)	30.9

Interval Records: Enabled Number Interval Records: 21
Time History: Disabled Number History Records: 0

Current Any Data
Start Time: 22-Oct-2002 11:24:15
Elapsed Time: 00:20:01.1

	A Weight		C Weight		Flat	
Leq:	46.4 dBA		64.8 dBC		67.3 dBF	
SEL:	77.2 dBA		95.6 dBC		98.1 dBF	
Peak:	78.5 dBA		100.7 dBC		101.9 dBF	
	22-Oct-2002	11:30:25	22-Oct-2002	11:41:48	22-Oct-2002	11:41:48
Lmax (slow):	59.3 dBA		80.9 dBC		82.6 dBF	
	22-Oct-2002	11:41:15	22-Oct-2002	11:41:49	22-Oct-2002	11:41:49
Lmin (slow):	32.4 dBA		51.6 dBC		53.9 dBF	
	22-Oct-2002	11:33:43	22-Oct-2002	11:33:40	22-Oct-2002	11:38:40
Lmax (fast):	63.8 dBA		88.3 dBC		89.8 dBF	
	22-Oct-2002	11:38:00	22-Oct-2002	11:41:48	22-Oct-2002	11:41:48
Lmin (fast):	27.4 dBA		48.7 dBC		51.2 dBF	
	22-Oct-2002	11:34:21	22-Oct-2002	11:34:12	22-Oct-2002	11:34:12

Red Buoy 20 – Above Water Baseline Measurement
Weather: sunny/clear, winds calm to 7 mph, waves 1/2 to 1-1/2 feet.
Dominant sounds: wave interaction with aluminum boat hull.
Secondary sounds: periodic aircraft over flights and distant watercraft. Periodic short-term radio communications also noted during the test.

SLM & RTA Summary
Translated: 12-Dec-2002 11:06:56

File Translated: W:\Noisedata\L&D\2127\data_005.slmdl
Model Number: 824
Serial Number: A1327
Firmware Rev: 3.530
Software Version: 3.070
Name: Larson Davis 824
Descr1: Tech Environmental, Inc.
Descr2: Erik Kalapinski, EIT, INCE
Setup: ENV-OSP.ssa
Setup Descr: SLM & Real-Time Analyzer
Location:
Note 1:
Note 2:

Overall Measurement
Start Time: 22-Oct-2002 10:25:30

Ln Start Level: 0 dB

L (1.00)	61.5
L (5.00)	56.7
L (50.00)	44.7
L (90.00)	36.8
L (95.00)	34.9
L (99.00)	31.1

Interval Records: Enabled Number Interval Records: 21
Time History: Disabled Number History Records: 0

Current Any Data
Start Time: 22-Oct-2002 10:25:30
Elapsed Time: 00:20:01.3

	A Weight		C Weight		Flat	
Leq:	51.0 dBA		70.5 dBC		73.8 dBF	
SEL:	81.8 dBA		101.3 dBC		104.6 dBF	
Peak:	92.5 dBA		103.6 dBC		106.7 dBF	
	22-Oct-2002	10:27:52	22-Oct-2002	10:29:29	22-Oct-2002	10:27:14
Lmax (slow):	68.9 dBA		87.9 dBC		93.0 dBF	
	22-Oct-2002	10:27:53	22-Oct-2002	10:27:14	22-Oct-2002	10:27:15
Lmin (slow):	33.6 dBA		49.8 dBC		52.4 dBF	
	22-Oct-2002	10:43:33	22-Oct-2002	10:43:33	22-Oct-2002	10:43:33
Lmax (fast):	76.0 dBA		94.0 dBC		97.3 dBF	
	22-Oct-2002	10:27:52	22-Oct-2002	10:41:54	22-Oct-2002	10:27:14
Lmin (fast):	26.9 dBA		48.0 dBC		50.6 dBF	
	22-Oct-2002	10:41:36	22-Oct-2002	10:44:47	22-Oct-2002	10:43:32

Instrument:	2260
Application:	BZ7202 version 1.1
Start Time:	10/22/02 11:23:14 AM
End Time:	10/22/02 11:43:14 AM
Elapsed Time:	0:20:00
Bandwidth:	1/3 Octave
Peaks Over:	180.0 dB
Range:	49.5-129.5 dB

	Time	Frequency
Broad-band measurements:	S F I	A L
Broad-band statistics:	F	L
Octave measurements:	F	L

Instrument Serial Number:	2350000
Microphone Serial Number:	
Input:	Microphone
Pol. Voltage:	0 V
S. I. Correction:	Frontal

Calibration Time:	10/22/02 07:01:07 AM
Calibration Level:	136.0 dB
Sensitivity:	-85.4 dB
ZF0023:	Not used

Location:
Cape Wind Project -
Horseshoe Shoals

Operator:
Erik Kalapinski, INC

Site name:
Green Buoy G5

Keywords:
Underwater baseline ambient sound testing

Weather:
Clear, winds calm to 7 mph, waves 1/2 to 1-1/2 feet

	Start time	End time	Elapsed time	LLeq [dB]
Value				89.5
Time	11:23:14 AM	11:43:14 AM	0:20:00	
Date	10/22/02	10/22/02		

Instrument:	2260
Application:	BZ7202 version 1.1
Start Time:	10/22/02 10:24:19 AM
End Time:	10/22/02 10:44:24 AM
Elapsed Time:	0:20:05
Bandwidth:	1/3 Octave
Peaks Over:	180.0 dB
Range:	49.5-129.5 dB

	Time	Frequency
Broad-band measurements:	S F I	A L
Broad-band statistics:	F	L
Octave measurements:	F	L

Instrument Serial Number:	2350000
Microphone Serial Number:	
Input:	Microphone
Pol. Voltage:	0 V
S. I. Correction:	Frontal

Calibration Time:	10/22/02 07:01:07 AM
Calibration Level:	136.0 dB
Sensitivity:	-85.4 dB
ZF0023:	Not used

Location:
Cape Wind Project -
Horseshoe Shoals

Operator:
Erik Kalapinski, INCE

Site name:
Red Buoy R20

Keywords:
Underwater baseline ambient sound testing

Weather:
Clear, winds calm to 7 mph, waves 1/2 to 1-1/2 feet

	Start time	End time	Elapsed time	LLeq [dB]
Value				92.8
Time	10:24:19 AM	10:44:54 AM	0:20:05	
Date	10/22/02	10/22/02		

SSA Intervals	Gammon Point - Part 1	
Translated:	26-Nov-02	13:42:38
File Translated:	Data_002.slmdl	
Model Number:	824	
Serial Number:	A1327	
Firmware Rev:	3.53	
Software Version:	3.07	
Name:	Larson Davis 824	
Descr1:	Tech Environmental, Inc.	
Descr2:	Cape Wind Baseline Study	
Setup:	CAPEWIND.ssa	
Setup Descr:	SLM & Real-Time Analyzer	
Location:		
Note 1:		
Note 2:		

Weighting:	A
Peak Weighting:	Flat
Detector:	Fast
RTA Detector:	Fast

Rec #	Date	Time	Duration	Leq	L90.00
1	15-Nov-02	13:38:52	00:17.9	60.4	59.233
2	15-Nov-02	13:39:22	20:37.3	60.6	59.311
3	15-Nov-02	14:00:00	1:00:00	60.9	59.436
4	15-Nov-02	15:00:00	1:00:00	60.8	59.178
5	15-Nov-02	16:00:00	1:00:00	60	58.452
6	15-Nov-02	17:00:00	1:00:00	59.8	57.467
7	15-Nov-02	18:00:00	1:00:00	59.5	57.061
8	15-Nov-02	19:00:00	1:00:00	60	57.913
9	15-Nov-02	20:00:00	1:00:00	59.3	56.577
10	15-Nov-02	21:00:00	1:00:00	57.8	54.913
11	15-Nov-02	22:00:00	1:00:00	57.1	53.999
12	15-Nov-02	23:00:00	1:00:00	54.4	50.28
13	16-Nov-02	0:00:00	1:00:00	51.4	46.78
14	16-Nov-02	1:00:00	1:00:00	47.9	44.491
15	16-Nov-02	2:00:00	1:00:00	46.7	44.452
16	16-Nov-02	3:00:00	1:00:00	45.8	43.42
17	16-Nov-02	4:00:00	1:00:00	44	40.608
18	16-Nov-02	5:00:00	1:00:00	41.8	34.874
19	16-Nov-02	6:00:00	1:00:00	46.3	37.733
20	16-Nov-02	7:00:00	1:00:00	46.9	39.764
21	16-Nov-02	8:00:00	1:00:00	50	42.741
22	16-Nov-02	9:00:00	1:00:00	51.1	47.069
23	16-Nov-02	10:00:00	1:00:00	50.7	46.467
24	16-Nov-02	11:00:00	1:00:00	51.5	47.358
25	16-Nov-02	12:00:00	1:00:00	50	45.663
26	16-Nov-02	13:00:00	1:00:00	49.4	44.639
27	16-Nov-02	14:00:00	1:00:00	50.4	46.897
28	16-Nov-02	15:00:00	1:00:00	49.3	46.092

29	16-Nov-02	16:00:00	1:00:00	51.4	47.006
30	16-Nov-02	17:00:00	1:00:00	49.5	46.178
31	16-Nov-02	18:00:00	1:00:00	50.7	46.46
32	16-Nov-02	19:00:00	1:00:00	51.8	48.256
33	16-Nov-02	20:00:00	1:00:00	54.1	50.069
34	16-Nov-02	21:00:00	1:00:00	55.8	52.327
35	16-Nov-02	22:00:00	1:00:00	57.2	53.788
36	16-Nov-02	23:00:00	1:00:00	57.4	52.225
37	17-Nov-02	0:00:00	1:00:00	55.9	51.069
38	17-Nov-02	1:00:00	1:00:00	55.9	52.069
39	17-Nov-02	2:00:00	1:00:00	53.2	49.178
40	17-Nov-02	3:00:00	1:00:00	54.2	50.538
41	17-Nov-02	4:00:00	1:00:00	54.4	50.069
42	17-Nov-02	5:00:00	1:00:00	52	47.061
43	17-Nov-02	6:00:00	1:00:00	53.7	49.592
44	17-Nov-02	7:00:00	1:00:00	52.6	46.999
45	17-Nov-02	8:00:00	1:00:00	55	48.116
46	17-Nov-02	9:00:00	1:00:00	57	53.077
47	17-Nov-02	10:00:00	1:00:00	57.2	52.6
48	17-Nov-02	11:00:00	1:00:00	57.4	53.881
49	17-Nov-02	12:00:00	1:00:00	57.7	55.139
50	17-Nov-02	13:00:00	1:00:00	57.4	55.194
51	17-Nov-02	14:00:00	1:00:00	56.4	54.03
52	17-Nov-02	15:00:00	1:00:00	57.3	55.311
53	17-Nov-02	16:00:00	1:00:00	56.8	54.694
54	17-Nov-02	17:00:00	1:00:00	55.6	53.42
55	17-Nov-02	18:00:00	1:00:00	54.8	52.194
56	17-Nov-02	19:00:00	1:00:00	52.6	49.952
57	17-Nov-02	20:00:00	1:00:00	51.6	47.991
58	17-Nov-02	21:00:00	1:00:00	55.5	50.788
59	17-Nov-02	22:00:00	1:00:00	55.6	51.858
60	17-Nov-02	23:00:00	1:00:00	55.1	52.436
61	18-Nov-02	0:00:00	1:00:00	57.2	53.217
62	18-Nov-02	1:00:00	1:00:00	57.4	54.077
63	18-Nov-02	2:00:00	1:00:00	52.8	49.272
64	18-Nov-02	3:00:00	1:00:00	61.5	55.452
65	18-Nov-02	4:00:00	1:00:00	61.1	58.561
66	18-Nov-02	5:00:00	1:00:00	62.6	60.092
67	18-Nov-02	6:00:00	1:00:00	65	62.381
68	18-Nov-02	7:00:00	1:00:00	68	65.217
69	18-Nov-02	8:00:00	1:00:00	68.2	65.475
70	18-Nov-02	9:00:00	1:00:00	69	65.725
71	18-Nov-02	10:00:00	1:00:00	70.1	66.397
72	18-Nov-02	11:00:00	1:00:00	69.3	65.553
73	18-Nov-02	12:00:00	1:00:00	68.2	65.272
74	18-Nov-02	13:00:00	1:00:00	67.4	63.35
75	18-Nov-02	14:00:00	21:44.5	64.1	61.428

SSA Intervals	Gammon Point - Part 2	
Translated:	26-Nov-02	13:48:39
File Translated:	Data_003.slmdl	
Model Number:	824	
Serial Number:	A1327	
Firmware Rev:	3.53	
Software Version:	3.07	
Name:	Larson Davis 824	
Descr1:	Tech Environmental, Inc.	
Descr2:	Cape Wind Baseline Study	
Setup:	CAPEWIND.ssa	
Setup Descr:	SLM & Real-Time Analyzer	
Location:		
Note 1:		
Note 2:		

Weighting:	A
Peak Weighting:	Flat
Detector:	Fast
RTA Detector:	Fast

Rec #	Date	Time	Duration	Leq	L90.00
1	18-Nov-02	14:23:52	1:00:00	62.4	58.374
2	18-Nov-02	15:23:52	1:00:00	67.4	59.905
3	18-Nov-02	16:23:52	1:00:00	70.6	61.96
4	18-Nov-02	17:23:52	1:00:00	71.1	63.538
5	18-Nov-02	18:23:52	1:00:00	70.3	62.147
6	18-Nov-02	19:23:52	1:00:00	66.5	57.663
7	18-Nov-02	20:23:52	1:00:00	62.3	56.389
8	18-Nov-02	21:23:52	1:00:00	57.6	56.21
9	18-Nov-02	22:23:52	1:00:00	58.9	56.045
10	18-Nov-02	23:23:52	1:00:00	56.1	54.1
11	19-Nov-02	0:23:52	1:00:00	55.5	53.561
12	19-Nov-02	1:23:52	1:00:00	55.6	53.233
13	19-Nov-02	2:23:52	1:00:00	51.6	49.663
14	19-Nov-02	3:23:52	1:00:00	49.7	48.116
15	19-Nov-02	4:23:52	1:00:00	48.4	47.022
16	19-Nov-02	5:23:52	1:00:00	48.8	46.42
17	19-Nov-02	6:23:52	1:00:00	48.9	46.163
18	19-Nov-02	7:23:52	1:00:00	49.9	45.108
19	19-Nov-02	8:23:52	1:00:00	52.3	45.077
20	19-Nov-02	9:23:52	1:00:00	50.4	42.186
21	19-Nov-02	10:23:52	1:00:00	51.2	42.772
22	19-Nov-02	11:23:52	1:00:00	50.6	42.577
23	19-Nov-02	12:23:52	1:00:00	50.6	40.21
24	19-Nov-02	13:23:52	1:00:00	49.8	40.624
25	19-Nov-02	14:23:52	1:00:00	50.3	39.585
26	19-Nov-02	15:23:52	1:00:00	51.3	42.545
27	19-Nov-02	16:23:52	1:00:00	50.4	43.116
28	19-Nov-02	17:23:52	1:00:00	52	46.491

29	19-Nov-02	18:23:52	1:00:00	54.8	51.436
30	19-Nov-02	19:23:52	1:00:00	56.3	54.178
31	19-Nov-02	20:23:52	1:00:00	56.4	54.061
32	19-Nov-02	21:23:52	1:00:00	55.8	52.233
33	19-Nov-02	22:23:52	1:00:00	54.4	50.881
34	19-Nov-02	23:23:52	1:00:00	53.2	49.366
35	20-Nov-02	0:23:52	1:00:00	51.3	47.6
36	20-Nov-02	1:23:52	1:00:00	48.7	45.092
37	20-Nov-02	2:23:52	1:00:00	45	40.678
38	20-Nov-02	3:23:52	1:00:00	43	37.772
39	20-Nov-02	4:23:52	1:00:00	46.7	39.772
40	20-Nov-02	5:23:52	1:00:00	49.7	44.295
41	20-Nov-02	6:23:52	1:00:00	49.8	43.928
42	20-Nov-02	7:23:52	1:00:00	50	43.874
43	20-Nov-02	8:23:52	1:00:00	52	45.108
44	20-Nov-02	9:23:52	1:00:00	51.7	45.35
45	20-Nov-02	10:23:52	1:00:00	52.5	45.264
46	20-Nov-02	11:23:52	1:00:00	53.1	46.827
47	20-Nov-02	12:23:52	1:00:00	51.2	45.725
48	20-Nov-02	13:23:52	1:00:00	54.7	44.178
49	20-Nov-02	14:23:52	1:00:00	49.6	39.991
50	20-Nov-02	15:23:52	1:00:00	58.3	44.249
51	20-Nov-02	16:23:52	1:00:00	47.2	41.311
52	20-Nov-02	17:23:52	1:00:00	48.2	43.616
53	20-Nov-02	18:23:52	1:00:00	49.4	45.452
54	20-Nov-02	19:23:52	1:00:00	51.3	45.999
55	20-Nov-02	20:23:52	1:00:00	46.3	43.819
56	20-Nov-02	21:23:52	1:00:00	48.8	40.608
57	20-Nov-02	22:23:52	1:00:00	43.1	37.436
58	20-Nov-02	23:23:52	1:00:00	45.3	38.866
59	21-Nov-02	0:23:52	1:00:00	45.9	39.616
60	21-Nov-02	1:23:52	1:00:00	44.4	37.936
61	21-Nov-02	2:23:52	1:00:00	40.1	32.678
62	21-Nov-02	3:23:52	1:00:00	34.8	27.28
63	21-Nov-02	4:23:52	1:00:00	39.3	29.178
64	21-Nov-02	5:23:52	1:00:00	45.5	35.397
65	21-Nov-02	6:23:52	1:00:00	53.7	38.358
66	21-Nov-02	7:23:52	1:00:00	49	37.327
67	21-Nov-02	8:23:52	1:00:00	50.7	42.014
68	21-Nov-02	9:23:52	1:00:00	50.2	43.46
69	21-Nov-02	10:23:52	1:00:00	51.9	45.858
70	21-Nov-02	11:23:52	1:00:00	53.7	48.077
71	21-Nov-02	12:23:52	1:00:00	53.5	48.139
72	21-Nov-02	13:23:52	1:00:00	53.6	47.522
73	21-Nov-02	14:23:52	1:00:00	50.8	44.991
74	21-Nov-02	15:23:52	1:00:00	53.3	42.991
75	21-Nov-02	16:23:52	1:00:00	50.1	38.866
76	21-Nov-02	17:23:52	1:00:00	51	40.366
77	21-Nov-02	18:23:52	1:00:00	48.4	41.991
78	21-Nov-02	19:23:52	1:00:00	51.6	43.756
79	21-Nov-02	20:23:52	1:00:00	46	40.874

80	21-Nov-02	21:23:52	1:00:00	46.5	37.608
81	21-Nov-02	22:23:52	1:00:00	42.4	34.975
82	21-Nov-02	23:23:52	1:00:00	43	35.725
83	22-Nov-02	0:23:52	1:00:00	45	37.288
84	22-Nov-02	1:23:52	1:00:00	45.6	38.311
85	22-Nov-02	2:23:52	1:00:00	46.9	40.061
86	22-Nov-02	3:23:52	1:00:00	50.8	44.897
87	22-Nov-02	4:23:52	1:00:00	45.9	43.491
88	22-Nov-02	5:23:52	1:00:00	49.5	41.944
89	22-Nov-02	6:23:52	1:00:00	49.9	38.78
90	22-Nov-02	7:23:52	1:00:00	45.3	37.405
91	22-Nov-02	8:23:52	1:00:00	47.5	39.538
92	22-Nov-02	9:23:52	1:00:00	45.4	39.827
93	22-Nov-02	10:23:52	1:00:00	48.9	41.577
94	22-Nov-02	11:23:52	1:00:00	49.7	40.389
95	22-Nov-02	12:23:52	13:07.3	48.7	39.686

SSA Intervals Cape Poge
Translated: 4-Dec-02 9:53:54
File Translated: W:\Noisedata\L&D\2212\Cape Poge\25Nov15s.slmdl
Model Number: 824
Serial Number: A1327
Firmware Rev: 3.53
Software Version: 3.07
Name: Larson Davis 824
Descr1: Tech Environmental, Inc.
Descr2: Cape Wind Baseline Study
Setup: CAPEWIND.ssa
Setup Descr: SLM & Real-Time Analyzer
Location:
Note 1:
Note 2:

Weighting: A
Peak Weighting: Flat
Detector: Fast
RTA Detector: Fast

Rec #	Date	Time	Duration	Leq	L90.00
1	25-Nov-02	15:30:07	29:52.5	53.9	47.366
2	25-Nov-02	16:00:00	1:00:00	50.6	46.553
3	25-Nov-02	17:00:00	1:00:00	53.3	50.045
4	25-Nov-02	18:00:00	1:00:00	60.7	51.381
5	25-Nov-02	19:00:00	1:00:00	51.2	48.694
6	25-Nov-02	20:00:00	1:00:00	49.8	48.022
7	25-Nov-02	21:00:00	1:00:00	48.6	46.545
8	25-Nov-02	22:00:00	1:00:00	44.9	42.28
9	25-Nov-02	23:00:00	1:00:00	41	38.842
10	26-Nov-02	0:00:00	1:00:00	40.1	37.264
11	26-Nov-02	1:00:00	1:00:00	46.6	40.163
12	26-Nov-02	2:00:00	1:00:00	53.2	49.6
13	26-Nov-02	3:00:00	1:00:00	59.2	56.522
14	26-Nov-02	4:00:00	1:00:00	61	58.983
15	26-Nov-02	5:00:00	1:00:00	61.5	59.46
16	26-Nov-02	6:00:00	1:00:00	60.4	58.358
17	26-Nov-02	7:00:00	1:00:00	59	57.045
18	26-Nov-02	8:00:00	1:00:00	57.3	55.1
19	26-Nov-02	9:00:00	1:00:00	56.6	54.124
20	26-Nov-02	10:00:00	1:00:00	59.1	55.983
21	26-Nov-02	11:00:00	1:00:00	62	59.631
22	26-Nov-02	12:00:00	1:00:00	65.6	63.647
23	26-Nov-02	13:00:00	1:00:00	64.9	62.616
24	26-Nov-02	14:00:00	1:00:00	63.6	61.202
25	26-Nov-02	15:00:00	1:00:00	63.6	61.163
26	26-Nov-02	16:00:00	1:00:00	63.4	61.116
27	26-Nov-02	17:00:00	1:00:00	61.8	59.608
28	26-Nov-02	18:00:00	1:00:00	60.2	57.639
29	26-Nov-02	19:00:00	1:00:00	59.1	56.788
30	26-Nov-02	20:00:00	1:00:00	60	58.389
31	26-Nov-02	21:00:00	1:00:00	61	58.569

32	26-Nov-02	22:00:00	1:00:00	62.9	58.139
33	26-Nov-02	23:00:00	1:00:00	67.4	60.108
34	27-Nov-02	0:00:00	1:00:00	73	65.319
35	27-Nov-02	1:00:00	1:00:00	71.1	64.233
36	27-Nov-02	2:00:00	1:00:00	72.1	65.577
37	27-Nov-02	3:00:00	1:00:00	69.1	60.499
38	27-Nov-02	4:00:00	1:00:00	66.1	61.663
39	27-Nov-02	5:00:00	1:00:00	71.8	68.311
40	27-Nov-02	6:00:00	1:00:00	72.6	69.569
41	27-Nov-02	7:00:00	1:00:00	71.9	69.186
42	27-Nov-02	8:00:00	1:00:00	71.9	68.999
43	27-Nov-02	9:00:00	1:00:00	71.2	68.311
44	27-Nov-02	10:00:00	1:00:00	70.5	67.491
45	27-Nov-02	11:00:00	1:00:00	72	69.053
46	27-Nov-02	12:00:00	1:00:00	72.4	69.256
47	27-Nov-02	13:00:00	1:00:00	70.4	66.71
48	27-Nov-02	14:00:00	1:00:00	69.6	65.858
49	27-Nov-02	15:00:00	1:00:00	68.6	65.405
50	27-Nov-02	16:00:00	1:00:00	68	65.241
51	27-Nov-02	17:00:00	1:00:00	66.8	64.303
52	27-Nov-02	18:00:00	1:00:00	65.7	63.311
53	27-Nov-02	19:00:00	1:00:00	65	62.506
54	27-Nov-02	20:00:00	1:00:00	64.8	61.78
55	27-Nov-02	21:00:00	1:00:00	64.7	60.803
56	27-Nov-02	22:00:00	1:00:00	63.7	59.436
57	27-Nov-02	23:00:00	1:00:00	63.3	59.46
58	28-Nov-02	0:00:00	1:00:00	62.9	60.194
59	28-Nov-02	1:00:00	1:00:00	62.7	60.069
60	28-Nov-02	2:00:00	1:00:00	62	59.397
61	28-Nov-02	3:00:00	1:00:00	62.2	59.514
62	28-Nov-02	4:00:00	1:00:00	63.9	60.53
63	28-Nov-02	5:00:00	1:00:00	64.1	61.139
64	28-Nov-02	6:00:00	1:00:00	64	61.163
65	28-Nov-02	7:00:00	1:00:00	64.4	61.155
66	28-Nov-02	8:00:00	1:00:00	65	61.186
67	28-Nov-02	9:00:00	1:00:00	64.3	60.077
68	28-Nov-02	10:00:00	1:00:00	61.8	57.835
69	28-Nov-02	11:00:00	1:00:00	60.1	56.038
70	28-Nov-02	12:00:00	1:00:00	60.3	56.725
71	28-Nov-02	13:00:00	1:00:00	59.9	57.124
72	28-Nov-02	14:00:00	1:00:00	59.6	56.842
73	28-Nov-02	15:00:00	1:00:00	59.4	56.538
74	28-Nov-02	16:00:00	1:00:00	60.8	57.733
75	28-Nov-02	17:00:00	1:00:00	60.6	57.96
76	28-Nov-02	18:00:00	1:00:00	62	58.663
77	28-Nov-02	19:00:00	1:00:00	62.4	58.624
78	28-Nov-02	20:00:00	1:00:00	58.7	55.725
79	28-Nov-02	21:00:00	1:00:00	59.6	55.092
80	28-Nov-02	22:00:00	1:00:00	59.6	54.147
81	28-Nov-02	23:00:00	1:00:00	58.2	52.78
82	29-Nov-02	0:00:00	1:00:00	58.2	53.819
83	29-Nov-02	1:00:00	1:00:00	57.9	53.944
84	29-Nov-02	2:00:00	1:00:00	56.7	53.749
85	29-Nov-02	3:00:00	1:00:00	55.3	53.217

86	29-Nov-02	4:00:00	1:00:00	55.6	53.616
87	29-Nov-02	5:00:00	1:00:00	54.9	53.006
88	29-Nov-02	6:00:00	1:00:00	54.2	51.124
89	29-Nov-02	7:00:00	1:00:00	52.7	48.835
90	29-Nov-02	8:00:00	1:00:00	51.1	47.827
91	29-Nov-02	9:00:00	1:00:00	53.9	49.631
92	29-Nov-02	10:00:00	1:00:00	55.1	49.163
93	29-Nov-02	11:00:00	1:00:00	57.4	49.803
94	29-Nov-02	12:00:00	1:00:00	55.6	49.147
95	29-Nov-02	13:00:00	1:00:00	60.4	49.725
96	29-Nov-02	14:00:00	1:00:00	59.8	54.17
97	29-Nov-02	15:00:00	1:00:00	60.5	55.256
98	29-Nov-02	16:00:00	1:00:00	63.2	56.85
99	29-Nov-02	17:00:00	1:00:00	62.9	57.21
100	29-Nov-02	18:00:00	1:00:00	61.6	57.577
101	29-Nov-02	19:00:00	1:00:00	59.7	56.147
102	29-Nov-02	20:00:00	1:00:00	59.3	54.928
103	29-Nov-02	21:00:00	1:00:00	58.9	54.022
104	29-Nov-02	22:00:00	1:00:00	59.2	52.335
105	29-Nov-02	23:00:00	1:00:00	57.6	50.6
106	30-Nov-02	0:00:00	1:00:00	57.9	50.6
107	30-Nov-02	1:00:00	1:00:00	59.7	52.967
108	30-Nov-02	2:00:00	1:00:00	58.3	52.78
109	30-Nov-02	3:00:00	1:00:00	55.9	52.967
110	30-Nov-02	4:00:00	1:00:00	56.9	54.21
111	30-Nov-02	5:00:00	1:00:00	57.5	54.655
112	30-Nov-02	6:00:00	1:00:00	57.2	53.85
113	30-Nov-02	7:00:00	1:00:00	56.7	52.389
114	30-Nov-02	8:00:00	1:00:00	56.6	52.249
115	30-Nov-02	9:00:00	1:00:00	57.5	52.256
116	30-Nov-02	10:00:00	1:00:00	56.7	51.491
117	30-Nov-02	11:00:00	1:00:00	56.5	50.561
118	30-Nov-02	12:00:00	1:00:00	57.6	51.436
119	30-Nov-02	13:00:00	1:00:00	59.4	53.866
120	30-Nov-02	14:00:00	1:00:00	57.9	53.631
121	30-Nov-02	15:00:00	1:00:00	57	54.045
122	30-Nov-02	16:00:00	1:00:00	58.6	55.022
123	30-Nov-02	17:00:00	1:00:00	58.6	55.397
124	30-Nov-02	18:00:00	1:00:00	58.8	55.53
125	30-Nov-02	19:00:00	1:00:00	57.5	53.608
126	30-Nov-02	20:00:00	1:00:00	56.6	52.03
127	30-Nov-02	21:00:00	1:00:00	55.9	51.389
128	30-Nov-02	22:00:00	1:00:00	57.1	54.131
129	30-Nov-02	23:00:00	1:00:00	55.9	53.116
130	1-Dec-02	0:00:00	1:00:00	56.1	52.374
131	1-Dec-02	1:00:00	1:00:00	55.5	51.733
132	1-Dec-02	2:00:00	1:00:00	56.7	53.366
133	1-Dec-02	3:00:00	1:00:00	59.8	56.194
134	1-Dec-02	4:00:00	1:00:00	60.3	57.827
135	1-Dec-02	5:00:00	1:00:00	62	59.006
136	1-Dec-02	6:00:00	1:00:00	64.2	60.303
137	1-Dec-02	7:00:00	1:00:00	66.7	62.069
138	1-Dec-02	8:00:00	1:00:00	67.9	63.35
139	1-Dec-02	9:00:00	1:00:00	67.3	62.733

140	1-Dec-02	10:00:00	1:00:00	67.9	63.022
141	1-Dec-02	11:00:00	1:00:00	66.5	61.67
142	1-Dec-02	12:00:00	1:00:00	68.5	62.139
143	1-Dec-02	13:00:00	1:00:00	70.7	63.616
144	1-Dec-02	14:00:00	1:00:00	70	63.038
145	1-Dec-02	15:00:00	1:00:00	68.9	62.514
146	1-Dec-02	16:00:00	1:00:00	69	62.522
147	1-Dec-02	17:00:00	1:00:00	69.4	63.194
148	1-Dec-02	18:00:00	1:00:00	69	63.256
149	1-Dec-02	19:00:00	1:00:00	68.9	63.053
150	1-Dec-02	20:00:00	1:00:00	70.3	64.225
151	1-Dec-02	21:00:00	1:00:00	68.2	63.022
152	1-Dec-02	22:00:00	1:00:00	65.5	60.585
153	1-Dec-02	23:00:00	1:00:00	65.4	59.483
154	2-Dec-02	0:00:00	1:00:00	63.7	55.733
155	2-Dec-02	1:00:00	1:00:00	58.6	52.233
156	2-Dec-02	2:00:00	1:00:00	54.9	49.819
157	2-Dec-02	3:00:00	1:00:00	52.2	48.577
158	2-Dec-02	4:00:00	1:00:00	54.3	48.608
159	2-Dec-02	5:00:00	1:00:00	55.8	51.1
160	2-Dec-02	6:00:00	1:00:00	60.8	55.022
161	2-Dec-02	7:00:00	1:00:00	60.9	57.045
162	2-Dec-02	8:00:00	1:00:00	62	57.506
163	2-Dec-02	9:00:00	1:00:00	58.8	55.663
164	2-Dec-02	10:00:00	1:00:00	59.1	54.467
165	2-Dec-02	11:00:00	1:00:00	58.8	52.999
166	2-Dec-02	12:00:00	1:00:00	57.3	49.803
167	2-Dec-02	13:00:00	1:00:00	60.6	49.795
168	2-Dec-02	14:00:00	1:00:00	55.5	46.725
169	2-Dec-02	15:00:00	1:00:00	50.9	44.639
170	2-Dec-02	16:00:00	1:00:00	52.7	45.139
171	2-Dec-02	17:00:00	1:00:00	56.3	49.6
172	2-Dec-02	18:00:00	1:00:00	54.4	51.124
173	2-Dec-02	19:00:00	1:00:00	54.5	51.241
174	2-Dec-02	20:00:00	1:00:00	56.1	52.92
175	2-Dec-02	21:00:00	1:00:00	59.4	56.053
176	2-Dec-02	22:00:00	1:00:00	60.2	58.116
177	2-Dec-02	23:00:00	1:00:00	60.1	57.452
178	3-Dec-02	0:00:00	1:00:00	57.3	54.452
179	3-Dec-02	1:00:00	1:00:00	53.9	49.6
180	3-Dec-02	2:00:00	1:00:00	52.8	49.1
181	3-Dec-02	3:00:00	1:00:00	58.8	51.397
182	3-Dec-02	4:00:00	1:00:00	64.1	56.717
183	3-Dec-02	5:00:00	1:00:00	64.1	60.077
184	3-Dec-02	6:00:00	1:00:00	66.3	62.155
185	3-Dec-02	7:00:00	1:00:00	68.5	64.092
186	3-Dec-02	8:00:00	1:00:00	67.5	63.71
187	3-Dec-02	9:00:00	1:00:00	66.5	63.413
188	3-Dec-02	10:00:00	1:00:00	66.5	63.444
189	3-Dec-02	11:00:00	35:03.8	65.9	63.092

CEL SoundTrack - dB2 3.0 © CEL Instruments Ltd 1998

W:\NOISED~1\CEL\2212\DATA0001.DTA Oregon Beach

- Run summary -

Instrument	CEL-593.C1T Version 7.21 Type 1
Instrument ID (DPB)	117350
Run mode	Third-octave band Environmental
Run start	11/14/2003 11:56:22
Run end	11/18/2003 15:25:35
Run duration	004 03:29:13.50
Last calibration	11/14/2003 11:53:04
Measurement range	5 - 80 dB
Microphone response	Random Incidence
Polarizing voltage	Off
Time weighting	F
Frequency weighting	L, A
Exchange rate (Q)	3
Period time	60 min
Periods too short for LNs	No
Profiles recorded	No
Profile sample interval	1 s
Number of records	99
Events enabled	No
Overload occurred	Yes
Low battery occurred	No
Pause was used	No

- Period result profile -

Overload occurred	Yes
Low battery occurred	No
Pause was used	No
Frequency weighting	A
Band	Broadband
Period time	60 min
Periods too short for LNs	No
First period listed	1 : 99

Period number	Flags OBPZ	Date and Time	Leq dB, (A)
1	O---	11/14/2003 11:56:22	51.1
2 Outlier-excluded	O---	11/14/2003 12:56:22	67.2
3	O---	11/14/2003 13:56:22	48.6
4	O---	11/14/2003 14:56:22	48.1
5	O---	11/14/2003 15:56:22	49.5
6	O---	11/14/2003 16:56:22	50.1
7	O---	11/14/2003 17:56:22	50.8
8	----	11/14/2003 18:56:22	53.2
9	----	11/14/2003 19:56:22	53.4
10	O---	11/14/2003 20:56:22	53.5
11	----	11/14/2003 21:56:22	53.0
12	----	11/14/2003 22:56:22	51.9
13	----	11/14/2003 23:56:22	49.7
14	----	11/15/2003 00:56:22	45.9
15	O---	11/15/2003 01:56:22	45.4
16	O---	11/15/2003 02:56:22	47.4

17	O---	11/15/2003 03:56:22	48.3
18	----	11/15/2003 04:56:22	48.7
19	O---	11/15/2003 05:56:22	55.0
20	O---	11/15/2003 06:56:22	52.0
21	O---	11/15/2003 07:56:22	53.2
22	O---	11/15/2003 08:56:22	55.1
23	O---	11/15/2003 09:56:22	55.6
24	O---	11/15/2003 10:56:22	53.6
25	O---	11/15/2003 11:56:22	51.7
26	O---	11/15/2003 12:56:22	50.4
27	O---	11/15/2003 13:56:22	53.3
28	O---	11/15/2003 14:56:22	47.5
29	O---	11/15/2003 15:56:22	48.6
30	O---	11/15/2003 16:56:22	48.7
31	O---	11/15/2003 17:56:22	49.2
32	----	11/15/2003 18:56:22	50.1
33	O---	11/15/2003 19:56:22	51.4
34	----	11/15/2003 20:56:22	52.8
35	----	11/15/2003 21:56:22	53.2
36	----	11/15/2003 22:56:22	52.4
37	----	11/15/2003 23:56:22	50.3
38	----	11/16/2003 00:56:22	46.2
39	----	11/16/2003 01:56:22	41.4
40	O---	11/16/2003 02:56:22	45.9
41	O---	11/16/2003 03:56:22	52.4
42	O---	11/16/2003 04:56:22	53.6
43	O---	11/16/2003 05:56:22	56.0
44	O---	11/16/2003 06:56:22	58.4
45	O---	11/16/2003 07:56:22	59.0
46	O---	11/16/2003 08:56:22	59.2
47	O---	11/16/2003 09:56:22	58.9
48	O---	11/16/2003 10:56:22	58.2
49	O---	11/16/2003 11:56:22	57.3
50	O---	11/16/2003 12:56:22	56.4
51	O---	11/16/2003 13:56:22	55.9
52	O---	11/16/2003 14:56:22	56.4
53	O---	11/16/2003 15:56:22	57.0
54	O---	11/16/2003 16:56:22	57.9
55	O---	11/16/2003 17:56:22	57.7
56	O---	11/16/2003 18:56:22	57.5
57	O---	11/16/2003 19:56:22	58.6
58	O---	11/16/2003 20:56:22	59.8
59	O---	11/16/2003 21:56:22	59.8
60	O---	11/16/2003 22:56:22	61.1
61	O---	11/16/2003 23:56:22	60.6
62	O---	11/17/2003 00:56:22	60.3
63	O---	11/17/2003 01:56:22	59.7
64	O---	11/17/2003 02:56:22	59.1
65	O---	11/17/2003 03:56:22	58.9
66	O---	11/17/2003 04:56:22	59.2
67	O---	11/17/2003 05:56:22	59.2
68	O---	11/17/2003 06:56:22	58.9
69	O---	11/17/2003 07:56:22	59.0
70	O---	11/17/2003 08:56:22	59.1
71	O---	11/17/2003 09:56:22	59.3
72	O---	11/17/2003 10:56:22	58.1
73	O---	11/17/2003 11:56:22	56.9
74	O---	11/17/2003 12:56:22	55.2
75	O---	11/17/2003 13:56:22	53.5
76	O---	11/17/2003 14:56:22	51.9

77	O---	11/17/2003 15:56:22	52.1
78	O---	11/17/2003 16:56:22	52.4
79	O---	11/17/2003 17:56:22	54.4
80	O---	11/17/2003 18:56:22	54.1
81	O---	11/17/2003 19:56:22	56.1
82	O---	11/17/2003 20:56:22	58.0
83	O---	11/17/2003 21:56:22	57.4
84	O---	11/17/2003 22:56:22	57.3
85	O---	11/17/2003 23:56:22	55.5
86	O---	11/18/2003 00:56:22	54.0
87	O---	11/18/2003 01:56:22	52.3
88	O---	11/18/2003 02:56:22	48.9
89	O---	11/18/2003 03:56:22	48.6
90	O---	11/18/2003 04:56:22	49.6
91	O---	11/18/2003 05:56:22	55.3
92	O---	11/18/2003 06:56:22	53.3
93	O---	11/18/2003 07:56:22	54.1
94	O---	11/18/2003 08:56:22	54.7
95	O---	11/18/2003 09:56:22	53.7
96	O---	11/18/2003 10:56:22	51.7
97	O---	11/18/2003 11:56:22	58.5
98	O---	11/18/2003 12:56:22	53.0
99	O---	11/18/2003 13:56:22	54.2

- Period result profile -

Overload occurred	Yes
Low battery occurred	No
Pause was used	No
Frequency weighting	A
Band	Broadband
Period time	60 min
Periods too short for LNs	No
First period listed	1 : 99

Period number	Flags OBPZ	Date and Time	LN90.0% F dB, (A)
1	O---	11/14/2003 11:56:22	43.0
2	O---	11/14/2003 12:56:22	40.0
3	O---	11/14/2003 13:56:22	39.0
4	O---	11/14/2003 14:56:22	41.0
5	O---	11/14/2003 15:56:22	43.0
6	O---	11/14/2003 16:56:22	44.0
7	O---	11/14/2003 17:56:22	44.0
8	----	11/14/2003 18:56:22	45.0
9	----	11/14/2003 19:56:22	44.0
10	O---	11/14/2003 20:56:22	46.0
11	----	11/14/2003 21:56:22	46.0
12	----	11/14/2003 22:56:22	47.0
13	----	11/14/2003 23:56:22	44.0
14	----	11/15/2003 00:56:22	41.0
15	O---	11/15/2003 01:56:22	42.0
16	O---	11/15/2003 02:56:22	44.0
17	O---	11/15/2003 03:56:22	45.0
18	----	11/15/2003 04:56:22	45.0
19	O---	11/15/2003 05:56:22	45.0
20	O---	11/15/2003 06:56:22	47.0
21	O---	11/15/2003 07:56:22	48.0
22	O---	11/15/2003 08:56:22	50.0
23	O---	11/15/2003 09:56:22	52.0

24	O---	11/15/2003 10:56:22	50.0
25	O---	11/15/2003 11:56:22	48.0
26	O---	11/15/2003 12:56:22	47.0
27	O---	11/15/2003 13:56:22	44.0
28	O---	11/15/2003 14:56:22	44.0
29	O---	11/15/2003 15:56:22	45.0
30	O---	11/15/2003 16:56:22	45.0
31	O---	11/15/2003 17:56:22	45.0
32	----	11/15/2003 18:56:22	46.0
33	O---	11/15/2003 19:56:22	45.0
34	----	11/15/2003 20:56:22	45.0
35	----	11/15/2003 21:56:22	46.0
36	----	11/15/2003 22:56:22	46.0
37	----	11/15/2003 23:56:22	44.0
38	----	11/16/2003 00:56:22	39.0
39	----	11/16/2003 01:56:22	34.0
40	O---	11/16/2003 02:56:22	37.0
41	O---	11/16/2003 03:56:22	50.0
42	O---	11/16/2003 04:56:22	51.0
43	O---	11/16/2003 05:56:22	53.0
44	O---	11/16/2003 06:56:22	55.0
45	O---	11/16/2003 07:56:22	55.0
46	O---	11/16/2003 08:56:22	56.0
47	O---	11/16/2003 09:56:22	55.0
48	O---	11/16/2003 10:56:22	54.0
49	O---	11/16/2003 11:56:22	53.0
50	O---	11/16/2003 12:56:22	52.0
51	O---	11/16/2003 13:56:22	52.0
52	O---	11/16/2003 14:56:22	53.0
53	O---	11/16/2003 15:56:22	53.0
54	O---	11/16/2003 16:56:22	54.0
55	O---	11/16/2003 17:56:22	53.0
56	O---	11/16/2003 18:56:22	53.0
57	O---	11/16/2003 19:56:22	54.0
58	O---	11/16/2003 20:56:22	55.0
59	O---	11/16/2003 21:56:22	55.0
60	O---	11/16/2003 22:56:22	56.0
61	O---	11/16/2003 23:56:22	56.0
62	O---	11/17/2003 00:56:22	57.0
63	O---	11/17/2003 01:56:22	56.0
64	O---	11/17/2003 02:56:22	56.0
65	O---	11/17/2003 03:56:22	55.0
66	O---	11/17/2003 04:56:22	54.0
67	O---	11/17/2003 05:56:22	53.0
68	O---	11/17/2003 06:56:22	52.0
69	O---	11/17/2003 07:56:22	51.0
70	O---	11/17/2003 08:56:22	51.0
71	O---	11/17/2003 09:56:22	52.0
72	O---	11/17/2003 10:56:22	52.0
73	O---	11/17/2003 11:56:22	52.0
74	O---	11/17/2003 12:56:22	51.0
75	O---	11/17/2003 13:56:22	50.0
76	O---	11/17/2003 14:56:22	48.0
77	O---	11/17/2003 15:56:22	49.0
78	O---	11/17/2003 16:56:22	49.0
79	O---	11/17/2003 17:56:22	52.0
80	O---	11/17/2003 18:56:22	51.0
81	O---	11/17/2003 19:56:22	53.0
82	O---	11/17/2003 20:56:22	54.0
83	O---	11/17/2003 21:56:22	52.0

84	O---	11/17/2003 22:56:22	52.0
85	O---	11/17/2003 23:56:22	48.0
86	O---	11/18/2003 00:56:22	46.0
87	O---	11/18/2003 01:56:22	46.0
88	O---	11/18/2003 02:56:22	40.0
89	O---	11/18/2003 03:56:22	40.0
90	O---	11/18/2003 04:56:22	42.0
91	O---	11/18/2003 05:56:22	46.0
92	O---	11/18/2003 06:56:22	50.0
93	O---	11/18/2003 07:56:22	51.0
94	O---	11/18/2003 08:56:22	51.0
95	O---	11/18/2003 09:56:22	50.0
96	O---	11/18/2003 10:56:22	48.0
97	O---	11/18/2003 11:56:22	47.0
98	O---	11/18/2003 12:56:22	44.0
99	O---	11/18/2003 13:56:22	41.0

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- Run summary -

Instrument	CEL-593.C1T Version 7.21 Type 1
Instrument ID (DPB)	117350
Run mode	Third-octave band Environmental
Run start	11/18/2003 15:28:16
Run end	11/18/2003 21:27:06
Run duration	000 5:58:50.00
Last calibration	11/18/2003 15:20:04
Measurement range	5 - 80 dB
Microphone response	Random Incidence
Polarizing voltage	Off
Time weighting	F
Frequency weighting	L, A
Exchange rate (Q)	3
Period time	60 min
Periods too short for LNs	No
Profiles recorded	No
Profile sample interval	1 s
Number of records	5
Events enabled	No
Overload occurred	Yes
Low battery occurred	Yes
Pause was used	No

- Period result profile -

Overload occurred	Yes
Low battery occurred	Yes
Pause was used	No
Frequency weighting	A
Band	Broadband
Period time	60 min
Periods too short for LNs	No
First period listed	1 : 5

Period number	Flags	Date and Time	Leq

	OBPZ		dB, (A)
1	O---	11/18/2003 15:28:16	51.6
2	O---	11/18/2003 16:28:16	49.5
3	O---	11/18/2003 17:28:16	53.7
4	O---	11/18/2003 18:28:16	48.4
5	O---	11/18/2003 19:28:16	48.7

- Period result profile -

Overload occurred	Yes
Low battery occurred	Yes
Pause was used	No
Frequency weighting	A
Band	Broadband
Period time	60 min
Periods too short for LNs	No
First period listed	1 : 5

Period number	Flags	Date and Time	LN90.0% F
	OBPZ		dB, (A)
1	O---	11/18/2003 15:28:16	43.0
2	O---	11/18/2003 16:28:16	44.0
3	O---	11/18/2003 17:28:16	43.0
4	O---	11/18/2003 18:28:16	39.0
5	O---	11/18/2003 19:28:16	36.0

Calculations

PREDICTED ABOVE WATER IMPACT SOUND LEVELS (Lmax)
FROM PILE DRIVING AT WTG LOCATIONS -
MINIMUM AND MAXIMUM IMPACTS

1/3 Octave Bands		16	20	25	31	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	L	A
Buoy G5	min	1.2	6.2	7.2	8.2	11.2	16.2	17.5	26.1	33.4	33.5	37.1	36.1	37.4	35.0	29.9	29.5	24.7	14.5	6.7	0.2	-16.3	-30.1	-49.3	-95.5	-161.9	-256.8	-403.5	-636.3	-991.1	44.0	34.9
	max	24.1	29.1	30.1	31.1	34.1	39.1	41.0	50.0	58.0	58.9	63.9	64.8	68.7	69.5	68.3	72.2	71.9	66.7	64.5	65.1	58.7	60.0	63.9	53.2	43.6	38.5	31.0	16.9	-1.7	78.9	76.0
Buoy R20	min	-0.2	4.8	5.8	6.8	9.8	14.8	15.9	24.4	31.7	31.6	34.9	33.6	34.4	31.4	25.5	24.3	18.7	7.6	-1.3	-9.2	-27.6	-44.2	-67.7	-120.7	-197.7	-309.6	-482.6	-756.7	-1175.0	41.3	31.4
	max	16.9	21.9	22.9	23.9	26.9	31.9	33.8	42.8	50.7	51.6	56.4	57.1	60.7	61.2	59.7	63.1	62.4	56.7	53.9	53.8	46.4	46.2	47.9	33.7	18.5	4.5	-16.7	-52.3	-104.0	69.8	66.1
Bass River Beach, Yarmouth	min	-5.5	-0.5	0.5	1.5	4.5	9.5	9.9	18.0	24.6	23.5	25.5	22.1	20.2	13.7	3.7	-2.0	-12.5	-28.9	-43.7	-59.3	-88.3	-120.9	-169.0	-259.8	-397.2	-604.5	-925.7	-1432.4	-2208.5	31.0	17.7
	max	-0.3	4.7	5.7	6.7	9.7	14.7	15.9	24.4	31.7	31.5	34.9	33.5	34.3	31.3	25.4	24.2	18.5	7.4	-1.5	-9.5	-27.9	-44.6	-68.3	-121.4	-198.8	-311.2	-485.0	-760.3	-1180.6	41.2	31.3
Point Gammon, Yarmouth	min	-2.9	2.1	3.1	4.1	7.1	12.1	13.0	21.3	28.3	27.8	30.5	28.3	27.9	23.5	15.9	12.7	5.1	-8.3	-19.7	-30.9	-53.7	-77.2	-111.1	-180.2	-282.9	-435.3	-671.2	-1044.1	-1614.5	36.2	24.6
	max	4.5	9.5	10.5	11.5	14.5	19.5	21.0	29.7	37.3	37.7	41.7	41.4	43.5	42.3	38.5	39.5	36.3	27.8	21.9	17.8	4.7	-3.9	-15.2	-49.4	-96.4	-160.8	-260.1	-418.5	-659.0	50.1	42.8
Lewis Bay, Yarmouth	min	-4.6	0.4	1.4	2.4	5.4	10.4	11.0	19.1	25.9	25.0	27.2	24.3	23.0	17.3	8.1	3.4	-6.0	-21.3	-34.8	-48.7	-75.5	-104.6	-147.5	-230.1	-354.6	-541.4	-830.7	-1287.4	-1986.6	32.7	20.1
	max	0.7	5.7	6.7	7.7	10.7	15.7	17.0	25.5	32.9	32.9	36.4	35.3	36.4	33.8	28.5	27.8	22.8	12.3	4.2	-2.8	-19.9	-34.5	-55.1	-103.4	-173.2	-273.4	-428.4	-674.2	-1049.0	43.1	33.8
Hyannisport, Barnstable	min	-3.5	1.5	2.5	3.5	6.5	11.5	12.2	20.5	27.4	26.7	29.3	26.8	26.1	21.2	13.0	9.3	1.0	-13.0	-25.2	-37.4	-61.6	-87.1	-124.3	-198.3	-308.8	-473.6	-728.8	-1132.0	-1748.8	34.9	22.9
	max	2.2	7.2	8.2	9.2	12.2	17.2	18.5	27.2	34.6	34.8	38.5	37.7	39.3	37.3	32.7	32.7	28.5	18.9	11.7	6.0	-9.3	-21.4	-37.9	-80.0	-139.8	-224.4	-355.0	-562.6	-878.7	45.8	37.3
Hyannis Point, Barnstable	min	-3.5	1.5	2.5	3.5	6.5	11.5	12.2	20.5	27.4	26.8	29.3	26.9	26.2	21.2	13.1	9.4	1.1	-12.9	-25.0	-37.2	-61.4	-86.9	-124.0	-197.8	-308.2	-472.7	-727.4	-1129.8	-1745.5	34.9	22.9
	max	2.4	7.4	8.4	9.4	12.4	17.4	18.8	27.4	34.9	35.1	38.9	38.1	39.8	37.9	33.3	33.5	29.4	19.9	12.9	7.4	-7.7	-19.3	-35.2	-76.4	-134.7	-216.8	-343.7	-545.4	-852.4	46.3	37.9
Wianno Beach, Barnstable	min	-3.9	1.1	2.1	3.1	6.1	11.1	11.7	20.0	26.8	26.1	28.5	25.9	25.0	19.8	11.3	7.2	-1.5	-16.0	-28.6	-41.4	-66.6	-93.4	-132.6	-209.7	-325.2	-497.9	-765.3	-1187.6	-1833.9	34.1	21.9
	max	3.2	8.2	9.2	10.2	13.2	18.2	19.6	28.3	35.8	36.0	39.9	39.3	41.2	39.5	35.3	35.8	32.0	22.9	16.3	11.3	-3.0	-13.4	-27.6	-66.0	-120.0	-195.2	-311.5	-496.5	-777.9	47.6	39.7
Oregon Beach, Barnstable	min	-4.8	0.2	1.2	2.2	5.2	10.2	10.7	18.9	25.6	24.7	26.8	23.8	22.3	16.4	7.0	2.1	-7.6	-23.1	-37.0	-51.3	-78.6	-108.6	-152.7	-237.3	-364.9	-556.7	-853.7	-1322.6	-2040.4	32.3	19.5
	max	2.5	7.5	8.5	9.5	12.5	17.5	18.8	27.5	34.9	35.1	38.9	38.2	39.9	38.0	33.4	33.6	29.5	20.1	13.1	7.6	-7.4	-19.0	-34.8	-75.8	-133.8	-215.6	-341.9	-542.7	-848.3	46.3	38.0
New Seabury, Mashpee	min	-5.2	-0.2	0.8	1.8	4.8	9.8	10.3	18.4	25.1	24.1	26.1	23.0	21.3	15.1	5.4	0.1	-9.9	-25.9	-40.2	-55.1	-83.2	-114.5	-160.5	-248.1	-380.4	-579.6	-888.2	-1375.2	-2120.9	31.6	18.6
	max	1.5	6.5	7.5	8.5	11.5	16.5	17.8	26.4	33.8	33.9	37.6	36.7	38.1	35.8	30.9	30.6	26.1	16.1	8.5	2.2	-13.8	-27.0	-45.2	-90.0	-154.0	-245.2	-386.2	-610.0	-951.0	44.6	35.8
Oak Bluffs, MV	min	-6.4	-1.4	-0.4	0.6	3.6	8.6	8.9	16.9	23.3	22.0	23.6	19.8	17.2	9.9	-1.0	-7.8	-19.4	-37.0	-53.1	-70.5	-102.0	-138.3	-192.2	-291.8	-443.2	-672.7	#####	-1588.9	-2448.0	29.2	15.4
	max	-1.3	3.7	4.7	5.7	8.7	13.7	14.8	23.2	30.4	30.1	33.3	31.6	32.0	28.5	22.0	20.1	13.7	1.8	-7.9	-17.0	-37.0	-56.0	-83.3	-142.0	-228.2	-354.5	-550.0	-859.4	-1332.0	39.3	28.8
Edgartown, MV	min	-6.0	-1.0	0.0	1.0	4.0	9.0	9.3	17.3	23.8	22.6	24.3	20.7	18.4	11.5	0.9	-5.5	-16.6	-33.7	-49.3	-65.9	-96.4	-131.2	-182.7	-278.8	-424.5	-644.9	-986.4	-1525.1	-2350.3	29.9	16.3
	max	-1.1	3.9	4.9	5.9	8.9	13.9	14.9	23.4	30.6	30.3	33.5	31.9	32.3	28.9	22.5	20.7	14.4	2.6	-7.0	-16.0	-35.7	-54.4	-81.2	-139.1	-224.0	-348.4	-540.8	-845.3	-1310.5	39.6	29.1
Cape Poge, MV	min	-3.8	1.2	2.2	3.2	6.2	11.2	11.9	20.2	27.1	26.4	28.9	26.3	25.5	20.4	12.1	8.1	-0.4	-14.7	-27.1	-39.6	-64.4	-90.6	-128.9	-204.6	-317.9	-487.0	-748.9	-1162.7	-1795.8	34.4	22.3
	max	3.4	8.4	9.4	10.4	13.4	18.4	19.9	28.6	36.1	36.4	40.3	39.8	41.7	40.1	36.0	36.6	33.0	24.0	17.5	12.8	-1.2	-11.3	-24.8	-62.2	-114.6	-187.4	-299.8	-478.8	-750.8	48.2	40.4

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Lmax)
FROM PILE DRIVING OF WTG MONOPILES

ODS Report Report no. 00.877, Figure 11, 2dB subtracted across the spectrum to account for peak to Lmax calculation

Sound Pressure Data 320 meters from the pile	34	39	40	41	44	49	51	60	68	69	74	75	79	80	79	83	83	78	76	77	71	73	78	69	62	61	60	56	53	90	88
Lmax at 320 meters	32	37	38	39	42	47	49	58	66	67	72	73	77	78	77	81	81	76	74	75	69	71	76	67	60	59	58	54	51	88	86

Data for the graph Atmos. Absorption per 1 km air temp 59F 70% RH	0.0000	0.0000	0.0000	0.0000	0.0000	0.0670	0.1050	0.1630	0.2510	0.3810	0.5650	0.8150	1.1300	1.5100	1.9200	2.3600	2.8400	3.3800	4.0800	5.0500	6.5100	8.7500	12.2000	17.7000	26.4000	39.9000	61.1000	93.7000	144.0000		

																	Hertz														
	1/3 Octave Bands		**16***	**20**	**25**	**31**	**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**	**L**	**A**
	Distance (ft)	**Distance (m)**																															
1-D	36461	11113	1.2	6.2	7.2	8.2	11.2	16.2	17.5	26.1	33.4	33.5	37.1	36.1	37.4	35.0	29.9	29.5	24.7	14.5	6.7	0.2	-16.3	-30.1	-49.3	-95.5	-161.9	-256.8	-403.5	-636.3	-991.1	44.0	34.9
1-E	34712	10580	1.6	6.6	7.6	8.6	11.6	16.6	17.9	26.5	33.9	34.0	37.7	36.8	38.3	36.0	31.1	30.9	26.4	16.5	8.9	2.8	-13.2	-26.2	-44.2	-88.6	-152.0	-242.3	-381.8	-603.3	-940.8	44.8	36.0
1-F	33198	10119	2.0	7.0	8.0	9.0	12.0	17.0	18.3	27.0	34.4	34.5	38.3	37.5	39.0	36.9	32.2	32.2	27.9	18.2	10.9	5.0	-10.5	-22.8	-39.7	-82.5	-143.4	-229.7	-363.0	-574.7	-897.1	45.5	36.9
1-G	31901	9723	2.3	7.3	8.3	9.3	12.3	17.3	18.7	27.4	34.8	35.0	38.8	38.0	39.7	37.7	33.1	33.3	29.2	19.6	12.6	7.0	-8.1	-19.9	-35.9	-77.4	-136.1	-218.9	-346.8	-550.2	-859.7	46.1	37.8
1-H	30902	9419	2.6	7.6	8.6	9.6	12.6	17.6	19.0	27.7	35.1	35.3	39.2	38.5	40.2	38.3	33.9	34.2	30.1	20.8	13.9	8.5	-6.3	-17.6	-33.0	-73.4	-130.4	-210.6	-334.4	-531.3	-830.9	46.7	38.4
1-I	30238	9217	2.8	7.8	8.8	9.8	12.8	17.8	19.2	27.9	35.4	35.6	39.4	38.8	40.6	38.8	34.4	34.7	30.8	21.5	14.7	9.5	-5.1	-16.1	-31.0	-70.7	-126.7	-205.1	-326.2	-518.8	-811.8	47.0	38.9
1-J	29887	9110	2.9	7.9	8.9	9.9	12.9	17.9	19.3	28.0	35.5	35.7	39.6	38.9	40.7	39.0	34.6	35.0	31.2	22.0	15.2	10.1	-4.5	-15.3	-30.0	-69.3	-124.7	-202.1	-321.8	-512.1	-801.7	47.2	39.1
1-K	29951	9129	2.9	7.9	8.9	9.9	12.9	17.9	19.3	28.0	35.5	35.7	39.5	38.9	40.7	38.9	34.6	35.0	31.1	21.9	15.1	10.0	-4.6	-15.5	-30.2	-69.6	-125.0	-202.7	-322.6	-513.3	-803.5	47.2	39.1
1-L	30294	9234	2.8	7.8	8.8	9.8	12.8	17.8	19.2	27.9	35.3	35.6	39.4	38.8	40.5	38.7	34.3	34.7	30.8	21.5	14.7	9.4	-5.2	-16.2	-31.2	-70.9	-127.0	-205.5	-326.9	-519.8	-813.4	47.0	38.9
2-D	34504	10517	1.7	6.7	7.7	8.7	11.7	16.7	18.0	26.6	34.0	34.1	37.8	36.9	38.4	36.1	31.3	31.1	26.6	16.7	9.2	3.1	-12.8	-25.7	-43.6	-87.7	-150.8	-240.5	-379.2	-599.4	-934.8	44.9	36.1
2-E	32687	9963	2.1	7.1	8.1	9.1	12.1	17.1	18.5	27.1	34.6	34.7	38.5	37.7	39.3	37.2	32.6	32.6	28.4	18.7	11.5	5.8	-9.6	-21.6	-38.2	-80.5	-140.5	-225.4	-356.6	-565.1	-882.4	45.7	37.3
2-F	31092	9477	2.6	7.6	8.6	9.6	12.6	17.6	19.0	27.6	35.1	35.3	39.1	38.4	40.1	38.2	33.7	34.0	30.0	20.6	13.6	8.2	-6.7	-18.0	-33.6	-74.1	-131.5	-212.2	-336.8	-534.9	-836.4	46.6	38.3
2-G	29821	9089	2.9	7.9	8.9	9.9	12.9	17.9	19.3	28.0	35.5	35.7	39.6	39.0	40.8	39.0	34.7	35.1	31.2	22.0	15.3	10.2	-4.4	-15.2	-29.8	-69.1	-124.3	-201.6	-321.0	-510.9	-799.8	47.2	39.2
2-H	28840	8790	3.2	8.2	9.2	10.2	13.2	18.2	19.7	28.3	35.8	36.1	40.0	39.4	41.3	39.7	35.4	36.0	32.2	23.2	16.6	11.7	-2.6	-12.9	-26.9	-65.1	-118.7	-193.4	-308.7	-492.3	-771.5	47.8	39.9
2-I	28214	8600	3.4	8.4	9.4	10.4	13.4	18.4	19.9	28.5	36.1	36.3	40.3	39.7	41.7	40.1	35.9	36.5	32.9	23.9	17.4	12.6	-1.4	-11.5	-25.0	-62.6	-115.1	-188.2	-300.9	-480.5	-753.4	48.1	40.3
2-J	27917	8509	3.5	8.5	9.5	10.5	13.5	18.5	20.0	28.6	36.2	36.4	40.4	39.9	41.8	40.3	36.1	36.8	33.2	24.2	17.8	13.1	-0.8	-10.8	-24.1	-61.4	-113.4	-185.7	-297.2	-474.8	-744.8	48.3	40.6
2-K	27991	8532	3.5	8.5	9.5	10.5	13.5	18.5	19.9	28.6	36.1	36.4	40.4	39.8	41.8	40.2	36.1	36.7	33.1	24.2	17.7	13.0	-1.0	-11.0	-24.4	-61.7	-113.9	-186.3	-298.2	-476.3	-747.0	48.2	40.5
2-L	28502	8687	3.3	8.3	9.3	10.3	13.3	18.3	19.8	28.4	36.0	36.2	40.1	39.6	41.5	39.9	35.7	36.3	32.6	23.6	17.0	12.2	-1.9	-12.1	-25.9	-63.8	-116.8	-190.6	-304.5	-485.9	-761.7	48.0	40.1
3-D	32551	9921	2.2	7.2	8.2	9.2	12.2	17.2	18.5	27.2	34.6	34.8	38.5	37.7	39.3	37.3	32.7	32.7	28.5	18.9	11.7	6.0	-9.3	-21.3	-37.8	-80.0	-139.8	-224.3	-354.9	-562.5	-878.5	45.8	37.4
3-E	30674	9349	2.7	7.7	8.7	9.7	12.7	17.7	19.1	27.7	35.2	35.4	39.2	38.6	40.3	38.5	34.1	34.4	30.4	21.0	14.2	8.8	-5.9	-17.1	-32.3	-72.5	-129.1	-208.7	-331.6	-527.0	-824.4	46.8	38.6
3-F	29068	8860	3.2	8.2	9.2	10.2	13.2	18.2	19.6	28.3	35.8	36.0	39.9	39.3	41.2	39.5	35.3	35.8	32.0	22.9	16.3	11.3	-3.0	-13.4	-27.6	-66.0	-120.0	-195.3	-311.6	-496.6	-778.0	47.6	39.7
3-G	27741	8455	3.6	8.6	9.6	10.6	13.6	18.6	20.0	28.7	36.2	36.5	40.5	40.0	41.9	40.4	36.3	36.9	33.4	24.5	18.1	13.4	-0.5	-10.4	-23.6	-60.7	-112.4	-184.2	-295.0	-471.5	-739.7	48.4	40.7
3-H	26763	8157	3.9	8.9	9.9	10.9	13.9	18.9	20.3	29.0	36.6	36.9	40.9	40.4	42.5	41.0	37.0	37.8	34.4	25.6	19.4	14.9	1.3	-8.1	-20.7	-56.7	-106.8	-176.0	-282.8	-453.0	-711.5	49.0	41.4
3-I	26144	7969	4.1	9.1	10.1	11.1	14.1	19.1	20.6	29.3	36.8	37.2	41.2	40.8	42.8	41.4	37.5	38.4	35.0	26.4	20.2	15.9	2.4	-6.7	-18.9	-54.2	-103.3	-170.9	-275.1	-441.3	-693.6	49.3	41.9
3-J	25944	7908	4.1	9.1	10.1	11.1	14.1	19.1	20.6	29.3	36.9	37.2	41.3	40.9	43.0	41.6	37.7	38.6	35.2	26.6	20.5	16.2	2.8	-6.3	-18.2	-53.4	-102.2	-169.2	-272.6	-437.5	-687.8	49.4	42.1
3-K	26129	7964	4.1	9.1	10.1	11.1	14.1	19.1	20.6	29.3	36.8	37.2	41.2	40.8	42.9	41.4	37.5	38.4	35.0	26.4	20.2	15.9	2.5	-6.7	-18.8	-54.2	-103.2	-170.7	-274.9	-441.0	-693.2	49.3	41.9
3-L	26687	8134	3.9	8.9	9.9	10.9	13.9	18.9	20.4	29.1	36.6	36.9	40.9	40.5	42.5	41.1	37.1	37.9	34.5	25.7	19.5	15.0	1.4	-8.0	-20.5	-56.4	-106.4	-175.4	-281.9	-451.6	-709.3	49.0	41.5
4-D	30586	9323	2.7	7.7	8.7	9.7	12.7	17.7	19.1	27.8	35.2	35.5	39.3	38.6	40.4	38.5	34.1	34.4	30.5	21.1	14.3	9.0	-5.8	-16.9	-32.1	-72.1	-128.6	-208.0	-330.5	-525.4	-821.8	46.8	38.7
4-E	28686	8743	3.3	8.3	9.3	10.3	13.3	18.3	19.7	28.4	35.9	36.2	40.1	39.5	41.4	39.8	35.5	36.1	32.4	23.3	16.8	11.9	-2.3	-12.6	-26.4	-64.5	-117.8	-192.1	-306.8	-489.4	-767.0	47.8	40.0
4-F	27010	8233	3.8	8.8	9.8	10.8	13.8	18.8	20.3	29.0	36.5	36.8	40.8	40.3	42.3	40.9	36.8	37.6	34.1	25.3	19.0	14.5	0.8	-8.7	-21.4	-57.7	-108.3	-178.1	-285.9	-457.7	-718.6	48.8	41.2
4-G	25686	7829	4.2	9.2	10.2	11.2	14.2	19.2	20.7	29.4	37.0	37.3	41.4	41.0	43.1	41.7	37.9	38.8	35.5	26.9	20.8	16.6	3.3	-5.7	-17.5	-52.4	-100.7	-167.0	-269.4	-432.6	-680.4	49.6	42.3
4-H	24715	7533	4.6	9.6	10.6	11.6	14.6	19.6	21.1	29.8	37.4	37.8	41.8	41.5	43.7	42.4	38.7	39.7	36.5	28.1	22.2	18.1	5.1	-3.4	-14.6	-48.4	-95.1	-158.9	-257.2	-414.2	-652.3	50.2	43.0
4-I	24127	7354	4.8	9.8	10.8	11.8	14.8	19.8	21.3	30.0	37.6	38.0	42.1	41.8	44.0	42.8	39.2	40.3	37.2	28.8	23.0	19.1	6.3	-2.0	-12.8	-46.0	-91.7	-153.9	-249.9	-403.0	-635.3	50.6	43.5
4-J	23969	7306	4.8	9.8	10.8	11.8	14.8	19.8	21.4	30.1	37.7	38.1	42.2	41.9	44.1	42.9	39.3	40.4	37.3	29.0	23.2	19.3	6.6	-1.6	-12.3	-45.4	-90.8	-152.6	-247.9	-400.0	-630.7	50.7	43.6
4-K	24241	7389	4.7	9.7	10.7	11.7	14.7	19.7	21.3	30.0	37.6	38.0	42.0	41.7	44.0	42.7	39.1	40.2	37.0	28.7	22.8	18.9	6.0	-2.3	-13.1	-46.5	-92.4	-154.9	-251.3	-405.2	-638.6	50.5	43.4
4-L	24954	7606	4.5	9.5	10.5	11.5	14.5	19.5	21.0	29.7	37.3	37.7	41.7	41.4	43.5	42.2	38.5	39.5	36.3	27.8	21.9	17.8	4.7	-4.0	-15.3	-49.4	-96.5	-160.9	-260.2	-418.7	-659.2	50.1	42.8
5-D	28625	8725	3.3	8.3	9.3	10.3	13.3	18.3	19.7	28.4	35.9	36.2	40.1	39.5	41.4	39.8	35.6	36.2	32.5	23.4	16.9	12.0	-2.2	-12.4	-26.3	-64.3	-117.5	-191.6	-306.1	-488.3	-765.3	47.9	40.0
5-E	26686	8134	3.9	8.9	9.9	10.9	13.9	18.9	20.4	29.1	36.6	36.9	40.9	40.5	42.5	41.1	37.1	37.9	34.5	25.7	19.5	15.0	1.4	-8.0	-20.5	-56.4	-106.4	-175.4	-281.9	-451.5	-709.3	49.0	41.5
5-F	24967	7610	4.5	9.5	10.5	11.5	14.5	19.5	21.0	29.7	37.3	37.6	41.7	41.4	43.5	42.2	38.5	39.5	36.3	27.8	21.8	17.7	4.7	-4.0	-15.3	-49.5	-96.6	-161.0	-260.4	-418.9	-659.6	50.0	42.8
5-G	23625	7201	5.0	10.0	11.0	12.0	15.0	20.0	21.5	30.2	37.8	38.2	42.3	42.1	44.3	43.2	39.6	40.7	37.7	29.4	23.7	19.9	7.2	-0.8	-11.3	-44.0	-88.8	-149.7	-243.6	-393.5	-620.8	50.9	43.9
5-H	22653	6905	5.3	10.3	11.3	12.3	15.3	20.3	21.9	30.6	38.2	38.7	42.8	42.6	45.0	43.9	40.4	41.7	38.8	30.6	25.1	21.5	9.1	1.5	-8.3	-40.0	-83.2	-141.5	-231.4	-375.0	-592.7	51.6	44.7
5-I	22145	6750	5.5	10.5	11.5	12.5	15.5	20.5	22.1	30.8	38.5	38.9	43.1	42.9	45.3	44.3	40.8	42.2	39.3	31.3	25.8	22.3	10.0	2.7	-6.7	-37.9	-80.3	-137.2	-225.0	-365.3	-578.0	51.9	45.2
5-J	22020	6712	5.6	10.6	11.6	12.6	15.6	20.6	22.1	30.9	38.5	39.0	43.1	43.0	45.4	44.3	40.9	42.3	39.5	31.4	26.0	22.5	10.3	3.0	-6.4	-37.4	-79.6	-136.2	-223.5	-363.0	-574.3	52.0	45.3
6-D	26684	8133	3.9	8.9	9.9	10.9	13.9	18.9	20.4	29.1	36.6	36.9	40.9	40.5	42.5	41.1	37.1	37.9	34.5	25.7	19.5	15.0	1.4	-8.0	-20.5	-56.4	-106.4	-175.4	-281.8	-451.5	-709.2	49.0	41.5
6-E	24680	7523	4.6	9.6	10.6	11.6	14.6	19.6	21.1	29.8	37.4	37.8	41.8	41.5	43.7	42.4	38.7	39.7	36.6	28.1	22.2	18.2	5.2	-3.3	-14.4	-48.3	-94.9	-158.6	-256.8	-413.5	-651.3	50.2	43.1
6-G	21604	6585	5.7	10.7	11.7	12.7	15.7	20.7	22.3	31.1	38.7	39.2	43.3	43.2	45.6	44.7	41.3	42.7	39.9	31.9	26.6	23.2	11.1	3.9	-5.1	-35.7	-77.2	-132.7	-218.2	-355.1	-562.3	52.3	45.7
6-H	20643	6292	6.1	11.1	12.1	13.1	16.1	21.1	22.7	31.5	39.2	39.6	43.9	43.8	46.3	45.4	42.1	43.7	41.0	33.2	27.9	24.8	13.0	6.2	-2.1	-31.7	-71.6	-124.5	-206.2	-336.8	-534.5	53.0	46.5
6-I	20123	6134	6.3	11.3	12.3	13.3	16.3	21.3	23.0	31.7	39.4	39.9	44.1	44.1	46.6	45.8	42.6	44.2	41.6	33.8	28.7	25.6	14.0	7.5	-0.5	-29.6	-68.6	-120.1	-199.6	-326.9	-519.4	53.4	47.0
6-J	20093	6124	6.4	11.4	12.4	13.4	16.4	21.4	23.0	31.8	39.4	39.9	44.2	44.1	46.6	45.8	42.6	44.2	41.7	33.9	28.7	25.7	14.0	7.6	-0.4	-29.5	-68.4	-119.9	-199.2	-326.3	-518.5	53.4	47.0
7-B	29674	9045	3.0	8.0	9.0	10.0	13.0	18.0	19.4	28.1	35.6	35.8	39.7	39.0	40.9	39.1	34.8	35.2	31.4	22.2	15.5	10.4	-4.1	-14.8	-29.4	-68.5	-123.4	-200.4	-319.1	-508.1	-795.5	47.3	39.3
7-C	27173	8282	3.7	8.7	9.7	10.7	13.7	18.7	20.2	28.9	36.4	36.7	40.7	40.2	42.3	40.7	36.7	37.5	33.9	25.1	18.8	14.3	0.5	-9.1	-21.9	-58.4	-109.2	-179.5	-288.0	-460.8	-723.3	48.7	41.1
7-E	22729	6928	5.3	10.3	11.3	12.3	15.3	20.3	21.8	30.6	38.2	38.6	42.8	42.6	44.9	43.8	40.3	41.6	38.7	30.5	25.0	21.3	8.9	1.3	-8.5	-40.3	-83.7	-142.2	-232.4	-376.4	-594.9	51.5	44.7
7-F	20941	6383	6.0	11.0	12.0	13.0	16.0	21.0	22.6	31.4	39.0	39.5	43.7	43.6	46.1	45.2	41.8	43.4	40.7	32.8	27.5	24.3	12.4	5.5	-3.0	-33.0	-73.3	-127.1	-209.9	-342.4	-543.1	52.8	46.3
7-G	19519	5949	6.6	11.6	12.6	13.6	16.6	21.6	23.2	32.0	39.7	40.2	44.5	44.4	47.0	46.3	43.1	44.8	42.3	34.6	29.6	26.6	15.2	9.0	1.4	-27.1	-65.0	-115.0	-192.0	-315.3	-501.9	53.8	47.6
7-H	18536	5650	7.1	12.1	13.1	14.1	17.1	22.1	23.7	32.5	40.2	40.7	45.0	45.1	47.7	47.0	44.0	45.8	43.5	35.9	31.0	28.3	17.1	11.4	4.4	-23.0	-59.3	-106.6	-179.6	-296.6	-473.3	54.6	48.5
7-I	18108	5519	7.3	12.3	13.3	14.3	17.3	22.3	23.9	32.7	40.4	41.0	45.3	45.3	48.0	47.4	44.4	46.3	44.0	36.5	31.7	29.1	18.0	12.4	5.8	-21.2	-56.8	-103.0	-174.2	-288.4	-460.9	55.0	49.0
8-A	30697	9357	2.7	7.7	8.7	9.7	12.7	17.7	19.1	27.7	35.2	35.4	39.2	38.6	40.3	38.5	34.0	34.3	30.4	21.0	14.1	8.8	-6.0	-17.1	-32.4	-72.6	-129.3	-208.9	-331.9	-527.5	-825.0	46.8	38.6
8-B	27988	8531	3.5	8.5	9.5	10.5	13.5	18.5	19.9	28.6	36.1	36.4	40.4	39.8	41.8	40.2	36.1	36.7	33.1	24.2	17.7	13.0	-1.0	-11.0	-24.4	-61.7	-113.8	-186.3	-298.1	-476.2	-746.9	48.2	40.5
8-C	25403	7743	4.3	9.3	10.3	11.3	14.3	19.3	20.8	29.5	37.1	37.5	41.5	41.1	43.3	41.9	38.1	39.1	35.8	27.2	21.2	17.0	3.8	-5.0	-16.6	-51.2	-99.1	-164.6	-265.9	-427.2	-672.2	49.8	42.5
8-D	22958	6997	5.2	10.2	11.2	12.2	15.2	20.2	21.8	30.5	38.1	38.5	42.7	42.4	44.8	43.7	40.1	41.4	38.4	30.2	24.6	21.0	8.5	0.7	-9.2	-41.3	-85.0	-144.1	-235.2	-380.8	-601.5	51.4	44.5
8-F	18950	5776	6.9	11.9	12.9	13.9	16.9	21.9	23.5	32.3	40.0	40.5	44.8	44.8	47.4	46.7	43.6	45.4	43.0	35.4	30.4	27.6	16.3	10.4	3.1	-24.7	-61.7	-110.2	-184.8	-304.5	-485.4	54.3	48.1
8-G	17410	5306	7.6	12.6	13.6	14.6	17.6	22.6	24.3	33.1	40.8	41.4	45.7	45.8	48.5	48.0	45.1	47.0	44.8	37.4	32.8	30.3	19.4	14.1	8.0	-18.2	-52.7	-97.0	-165.4	-275.1	-440.6	55.6	49.7
8-H	16466	5019	8.1	13.1	14.1	15.1	18.1	23.1	24.8	33.6	41.3	41.9	46.3	46.4	49.3	48.8	46.0	48.1	46.0	38.7	34.2	31.9	21.4	16.5	11.0	-14.2	-47.1	-89.0	-153.4	-257.0	-413.2	56.4	50.7

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Lmax)
FROM PILE DRIVING OF WTG MONOPILES

9-A	29127	8878	3.1	8.1	9.1	10.1	13.1	18.1	19.6	28.2	35.7	36.0	39.9	39.3	41.2	39.5	35.2	35.7	31.9	22.8	16.2	11.2	-3.1	-13.6	-27.7	-66.3	-120.3	-195.8	-312.3	-497.8	-779.7	47.6	39.7
9-B	26357	8034	4.0	9.0	10.0	11.0	14.0	19.0	20.5	29.2	36.7	37.1	41.1	40.6	42.7	41.3	37.4	38.2	34.8	26.1	19.9	15.5	2.1	-7.2	-19.5	-55.1	-104.5	-172.6	-277.8	-445.3	-699.8	49.2	41.7
9-C	23686	7219	4.9	9.9	10.9	11.9	14.9	19.9	21.5	30.2	37.8	38.2	42.3	42.0	44.3	43.1	39.5	40.7	37.7	29.3	23.6	19.8	7.1	-1.0	-11.4	-44.2	-89.2	-150.2	-244.4	-394.6	-622.5	50.9	43.9
9-D	21153	6448	5.9	10.9	11.9	12.9	15.9	20.9	22.5	31.3	38.9	39.4	43.6	43.5	45.9	45.0	41.7	43.2	40.5	32.5	27.2	23.9	12.0	5.0	-3.7	-33.8	-74.5	-128.9	-212.6	-346.5	-549.2	52.6	46.1
9-E	18905	5762	6.9	11.9	12.9	13.9	16.9	21.9	23.5	32.3	40.0	40.5	44.8	44.8	47.5	46.7	43.7	45.4	43.0	35.4	30.5	27.7	16.4	10.5	3.3	-24.5	-61.4	-109.8	-184.3	-303.6	-484.0	54.3	48.2
9-F	16930	5160	7.8	12.8	13.8	14.8	17.8	22.8	24.5	33.3	41.1	41.6	46.0	46.1	48.9	48.4	45.5	47.6	45.4	38.1	33.5	31.1	20.4	15.3	9.5	-16.2	-49.8	-92.9	-159.3	-265.9	-426.7	56.0	50.2
9-G	15391	4691	8.7	13.7	14.7	15.7	18.7	23.7	25.4	34.2	42.0	42.6	47.0	47.2	50.1	49.7	47.1	49.3	47.4	40.3	35.9	33.8	23.6	19.2	14.4	-9.7	-40.7	-79.7	-139.7	-236.4	-381.9	57.4	51.9
9-H	14404	4390	9.3	14.3	15.3	16.3	19.3	24.3	26.0	34.8	42.6	43.2	47.7	48.0	50.9	50.7	48.1	50.4	48.6	41.7	37.5	35.6	25.7	21.8	17.6	-5.4	-34.8	-71.2	-127.2	-217.4	-353.1	58.3	53.0
9-I	14164	4317	9.4	14.4	15.4	16.4	19.4	24.4	26.1	35.0	42.7	43.4	47.9	48.1	51.1	50.9	48.4	50.7	49.0	42.0	37.9	36.1	26.2	22.4	18.4	-4.4	-33.4	-69.1	-124.1	-212.8	-346.1	58.6	53.3
10-A	27638	8424	3.6	8.6	9.6	10.6	13.6	18.6	20.0	28.7	36.3	36.6	40.5	40.0	42.0	40.4	36.4	37.0	33.5	24.6	18.2	13.5	-0.3	-10.2	-23.3	-60.3	-111.8	-183.4	-293.8	-469.6	-736.8	48.4	40.8
10-B	24773	7551	4.5	9.5	10.5	11.5	14.5	19.5	21.1	29.8	37.4	37.7	41.8	41.5	43.7	42.4	38.6	39.7	36.5	28.0	22.1	18.0	5.0	-3.5	-14.7	-48.7	-95.4	-159.3	-258.0	-415.3	-654.0	50.2	43.0
10-C	22024	6713	5.6	10.6	11.6	12.6	15.6	20.6	22.1	30.9	38.5	39.0	43.1	43.0	45.4	44.3	40.9	42.3	39.5	31.4	26.0	22.5	10.3	2.9	-6.4	-37.4	-79.6	-136.2	-223.5	-363.0	-574.4	52.0	45.3
10-D	19401	5913	6.7	11.7	12.7	13.7	16.7	21.7	23.3	32.1	39.8	40.3	44.5	44.5	47.1	46.3	43.2	44.9	42.5	34.8	29.8	26.8	15.4	9.3	1.7	-26.6	-64.3	-114.0	-190.5	-313.1	-498.4	53.9	47.7
10-E	17018	5187	7.8	12.8	13.8	14.8	17.8	22.8	24.5	33.3	41.0	41.6	46.0	46.1	48.8	48.3	45.5	47.5	45.3	38.0	33.4	30.9	20.2	15.1	9.2	-16.6	-50.3	-93.7	-160.4	-267.6	-429.2	55.9	50.1
10-F	14944	4555	8.9	13.9	14.9	15.9	18.9	23.9	25.6	34.5	42.2	42.9	47.3	47.5	50.5	50.1	47.5	49.8	47.9	40.9	36.6	34.7	24.5	20.4	15.9	-7.7	-38.0	-75.9	-134.0	-227.8	-368.9	57.8	52.4
10-G	13356	4071	9.9	14.9	15.9	16.9	19.9	24.9	26.7	35.5	43.3	44.0	48.5	48.8	51.9	51.7	49.2	51.7	50.1	43.3	39.2	37.6	28.0	24.5	21.1	-0.9	-28.5	-62.1	-113.8	-197.3	-322.6	59.4	54.2
10-H	12385	3775	10.6	15.6	16.6	17.6	20.6	25.6	27.3	36.2	44.0	44.7	49.2	49.6	52.7	52.7	50.3	52.9	51.4	44.8	40.9	39.5	30.1	27.1	24.3	3.4	-22.6	-53.6	-101.3	-178.5	-294.2	60.4	55.5
10-I	12248	3733	10.7	15.7	16.7	17.7	20.7	25.7	27.4	36.3	44.1	44.8	49.4	49.7	52.9	52.8	50.5	53.1	51.6	45.0	41.1	39.7	30.4	27.4	24.8	4.0	-21.8	-52.4	-99.5	-175.9	-290.2	60.6	55.7
11-A	26226	7994	4.0	9.0	10.0	11.0	14.0	19.0	20.5	29.2	36.8	37.1	41.1	40.7	42.8	41.4	37.5	38.3	34.9	26.3	20.1	15.7	2.3	-6.9	-19.1	-54.6	-103.8	-171.5	-276.1	-442.8	-696.0	49.3	41.8
11-B	23256	7089	5.1	10.1	11.1	12.1	15.1	20.1	21.6	30.4	38.0	38.4	42.5	42.3	44.6	43.4	39.9	41.1	38.1	29.9	24.2	20.5	7.9	0.0	-10.1	-42.5	-86.7	-146.6	-239.0	-386.5	-610.1	51.2	44.2
11-C	20470	6239	6.2	11.2	12.2	13.2	16.2	21.2	22.8	31.6	39.2	39.7	43.9	43.9	46.4	45.5	42.3	43.8	41.2	33.4	28.2	25.0	13.3	6.7	-1.6	-31.0	-70.6	-123.1	-204.0	-333.5	-529.4	53.1	46.7
11-D	17678	5388	7.5	12.5	13.5	14.5	17.5	22.5	24.1	32.9	40.6	41.2	45.5	45.6	48.3	47.7	44.8	46.7	44.5	37.1	32.3	29.8	18.9	13.5	7.1	-19.4	-54.2	-99.3	-168.7	-280.2	-448.4	55.3	49.4
11-E	15209	4636	8.8	13.8	14.8	15.8	18.8	23.8	25.5	34.3	42.1	42.7	47.1	47.3	50.3	49.9	47.3	49.5	47.6	40.5	36.2	34.2	24.0	19.7	15.0	-8.9	-39.6	-78.2	-137.4	-232.9	-376.6	57.5	52.1
11-F	12987	3958	10.2	15.2	16.2	17.2	20.2	25.2	26.9	35.8	43.6	44.2	48.8	49.1	52.2	52.0	49.7	52.2	50.6	43.8	39.9	38.3	28.8	25.5	22.3	0.8	-26.2	-58.9	-109.0	-190.1	-311.8	59.8	54.7
11-G	11307	3446	11.4	16.4	17.4	18.4	21.4	26.4	28.1	37.0	44.8	45.6	50.2	50.6	53.8	53.8	51.6	54.4	53.0	46.5	42.8	41.6	32.6	30.0	28.0	8.2	-16.0	-44.2	-87.4	-157.7	-262.6	61.7	56.9
11-H	10368	3160	12.1	17.1	18.1	19.1	22.1	27.1	28.9	37.8	45.6	46.4	51.0	51.5	54.8	54.9	52.8	55.7	54.4	48.0	44.5	43.5	34.8	32.6	31.3	12.5	-10.2	-35.9	-75.2	-139.4	-235.0	62.8	58.3
11-K	13096	3992	10.1	15.1	16.1	17.1	20.1	25.1	26.8	35.7	43.5	44.2	48.7	49.0	52.1	51.9	49.5	52.0	50.4	43.7	39.7	38.1	28.5	25.2	22.0	0.3	-26.9	-59.8	-110.4	-192.3	-314.9	59.7	54.6
11-L	15365	4683	8.7	13.7	14.7	15.7	18.7	23.7	25.4	34.2	42.0	42.6	47.0	47.2	50.1	49.8	47.1	49.3	47.4	40.3	35.9	33.9	23.7	19.3	14.5	-9.5	-40.5	-79.5	-139.4	-235.9	-381.2	57.4	51.9
12-A	24918	7595	4.5	9.5	10.5	11.5	14.5	19.5	21.0	29.7	37.3	37.7	41.7	41.4	43.6	42.3	38.5	39.5	36.3	27.8	21.9	17.8	4.8	-3.9	-15.2	-49.3	-96.3	-160.6	-259.8	-418.0	-658.2	50.1	42.9
12-B	21867	6665	5.6	10.6	11.6	12.6	15.6	20.6	22.2	31.0	38.6	39.0	43.2	43.0	45.5	44.5	41.0	42.4	39.7	31.6	26.2	22.7	10.6	3.3	-5.9	-36.8	-78.7	-134.9	-221.5	-360.1	-569.9	52.1	45.4
12-C	18929	5770	6.9	11.9	12.9	13.9	16.9	21.9	23.5	32.3	40.0	40.5	44.8	44.8	47.4	46.7	43.7	45.4	43.0	35.4	30.5	27.6	16.4	10.4	3.2	-24.6	-61.6	-110.0	-184.6	-304.1	-484.8	54.3	48.2
12-D	16045	4890	8.3	13.3	14.3	15.3	18.3	23.3	25.0	33.8	41.6	42.2	46.6	46.7	49.6	49.2	46.4	48.5	46.5	39.3	34.9	32.7	22.2	17.6	12.3	-12.4	-44.6	-85.3	-148.0	-248.9	-400.9	56.8	51.1
12-E	13463	4103	9.8	14.8	15.8	16.8	19.8	24.8	26.6	35.4	43.2	43.9	48.4	48.7	51.8	51.6	49.1	51.6	49.9	43.1	39.1	37.4	27.7	24.2	20.7	-1.3	-29.1	-63.0	-115.1	-199.3	-325.7	59.3	54.1
12-F	11073	3375	11.5	16.5	17.5	18.5	21.5	26.5	28.3	37.2	45.0	45.8	50.4	50.8	54.0	54.1	51.9	54.7	53.3	46.9	43.2	42.1	33.1	30.6	28.8	9.3	-14.5	-42.1	-84.4	-153.1	-255.7	62.0	57.2
12-G	9247	2819	13.1	18.1	19.1	20.1	23.1	28.1	29.9	38.8	46.7	47.5	52.2	52.7	56.1	56.3	54.3	57.3	56.2	50.0	46.7	45.9	37.5	35.8	35.2	17.6	-3.1	-25.9	-60.6	-117.6	-202.0	64.3	60.0
12-H	8351	2546	14.0	19.0	20.0	21.0	24.0	29.0	30.8	39.8	47.6	48.4	53.1	53.7	57.2	57.5	55.6	58.7	57.7	51.7	48.5	47.9	39.7	38.5	38.5	21.8	2.6	-17.8	-48.8	-100.0	-175.5	65.6	61.5
12-I	8632	2631	13.7	18.7	19.7	20.7	23.7	28.7	30.5	39.5	47.3	48.1	52.8	53.4	56.8	57.1	55.2	58.3	57.2	51.1	47.9	47.3	39.0	37.7	37.5	20.5	0.8	-20.3	-52.5	-105.5	-183.8	65.2	61.0
12-J	10036	3059	12.4	17.4	18.4	19.4	22.4	27.4	29.2	38.1	45.9	46.7	51.3	51.8	55.2	55.3	53.3	56.1	54.9	48.6	45.1	44.2	35.6	33.6	32.4	14.0	-8.1	-32.9	-70.9	-133.0	-225.3	63.3	58.8
12-K	12142	3701	10.7	15.7	16.7	17.7	20.7	25.7	27.5	36.4	44.2	44.9	49.4	49.8	53.0	52.9	50.6	53.2	51.8	45.1	41.3	39.9	30.7	27.7	25.2	4.5	-21.1	-51.5	-98.2	-173.8	-287.0	60.7	55.8
12-L	14659	4468	9.1	14.1	15.1	16.1	19.1	24.1	25.8	34.7	42.4	43.1	47.5	47.8	50.7	50.4	47.8	50.1	48.3	41.3	37.1	35.2	25.2	21.1	16.8	-6.5	-36.3	-73.4	-130.4	-222.3	-360.6	58.1	52.7
13-A	23735	7235	4.9	9.9	10.9	11.9	14.9	19.9	21.5	30.2	37.8	38.2	42.3	42.0	44.3	43.1	39.5	40.6	37.6	29.3	23.5	19.7	7.0	-1.1	-11.6	-44.4	-89.5	-150.6	-245.0	-395.6	-624.0	50.8	43.8
13-B	20595	6277	6.1	11.1	12.1	13.1	16.1	21.1	22.7	31.5	39.2	39.7	43.9	43.8	46.3	45.4	42.2	43.7	41.1	33.2	28.0	24.8	13.1	6.4	-2.0	-31.5	-71.3	-124.1	-205.5	-335.8	-533.0	53.0	46.6
13-C	17573	5356	7.5	12.5	13.5	14.5	17.5	22.5	24.2	33.0	40.7	41.3	45.6	45.7	48.4	47.8	44.9	46.9	44.6	37.2	32.5	30.0	19.1	13.7	7.5	-18.9	-53.6	-98.4	-167.4	-278.2	-445.4	55.4	49.5
13-D	14548	4434	9.2	14.2	15.2	16.2	19.2	24.2	25.9	34.7	42.5	43.1	47.6	47.8	50.8	50.5	48.0	50.3	48.5	41.5	37.3	35.4	25.4	21.4	17.2	-6.0	-35.7	-72.5	-129.0	-220.2	-357.3	58.2	52.8
13-F	9203	2805	13.1	18.1	19.1	20.1	23.1	28.1	30.0	38.9	46.7	47.5	52.2	52.7	56.1	56.3	54.4	57.4	56.3	50.1	46.7	46.0	37.6	36.0	35.4	17.8	-2.8	-25.5	-60.0	-116.7	-200.7	64.4	60.0
13-G	7216	2200	15.3	20.3	21.3	22.3	25.3	30.3	32.1	41.1	49.0	49.8	54.5	55.2	58.7	59.1	57.4	60.6	59.8	53.9	50.9	50.6	42.8	42.0	42.8	27.3	10.0	-7.4	-33.7	-77.6	-141.9	67.5	63.5
13-H	6409	1953	16.3	21.3	22.3	23.3	26.3	31.3	33.2	42.1	50.0	50.9	55.7	56.4	60.0	60.4	58.8	62.2	61.4	55.6	52.8	52.6	45.0	44.7	46.0	31.4	15.4	0.2	-22.9	-61.5	-117.8	68.9	65.1
13-I	7048	2148	15.5	20.5	21.5	22.5	25.5	30.5	32.3	41.3	49.2	50.0	54.8	55.4	59.0	59.4	57.7	61.0	60.1	54.3	51.3	51.0	43.2	42.6	43.5	28.2	11.1	-5.8	-31.5	-74.2	-136.8	67.8	63.8
13-J	8885	2708	13.4	18.4	19.4	20.4	23.4	28.4	30.3	39.2	47.1	47.9	52.5	53.1	56.5	56.8	54.8	57.9	56.8	50.7	47.4	46.7	38.4	36.9	36.6	19.3	-0.8	-22.6	-55.8	-110.5	-191.3	64.9	60.6
13-K	11388	3471	11.3	16.3	17.3	18.3	21.3	26.3	28.1	37.0	44.8	45.5	50.1	50.5	53.7	53.7	51.5	54.2	52.9	46.3	42.6	41.4	32.4	29.8	27.7	7.8	-16.5	-44.9	-88.4	-159.2	-265.0	61.6	56.8
13-L	14232	4338	9.4	14.4	15.4	16.4	19.4	24.4	26.1	34.9	42.7	43.3	47.8	48.1	51.1	50.8	48.3	50.6	48.9	41.9	37.8	36.0	26.1	22.2	18.2	-4.7	-33.8	-69.7	-125.0	-214.1	-348.1	58.5	53.2
14-D	13222	4030	10.0	15.0	16.0	17.0	20.0	25.0	26.7	35.6	43.4	44.1	48.6	48.9	52.0	51.8	49.4	51.9	50.2	43.5	39.5	37.9	28.3	24.8	21.5	-0.3	-27.7	-60.9	-112.0	-194.7	-318.6	59.5	54.4
14-E	10286	3135	12.2	17.2	18.2	19.2	22.2	27.2	29.0	37.9	45.7	46.5	51.1	51.6	54.9	55.0	52.9	55.8	54.5	48.2	44.7	43.7	35.0	32.9	31.5	12.8	-9.7	-35.1	-74.2	-137.8	-232.6	62.9	58.4
14-F	7454	2272	15.0	20.0	21.0	22.0	25.0	30.0	31.8	40.8	48.7	49.5	54.2	54.9	58.4	58.8	57.0	60.2	59.4	53.4	50.4	50.0	42.1	41.3	41.9	26.2	8.4	-9.6	-36.9	-82.3	-148.9	67.1	63.1
14-G	5217	1590	18.1	23.1	24.1	25.1	28.1	33.1	35.0	43.9	51.9	52.8	57.6	58.4	62.0	62.6	61.2	64.6	64.1	58.5	55.8	55.9	48.7	48.8	51.0	37.6	23.6	11.5	-6.6	-37.5	-81.9	71.3	67.8
14-H	4408	1344	19.5	24.5	25.5	26.5	29.5	34.5	36.5	45.4	53.4	54.3	59.1	60.0	63.7	64.4	63.0	66.6	66.1	60.6	58.1	58.4	51.4	51.9	54.6	42.0	29.4	19.5	4.7	-21.0	-57.4	73.3	69.9
14-J	8182	2494	14.2	19.2	20.2	21.2	24.2	29.2	31.0	39.9	47.8	48.6	53.3	53.9	57.4	57.7	55.9	59.0	58.0	52.0	48.8	48.3	40.2	39.0	39.1	22.6	3.7	-16.2	-46.6	-96.7	-170.5	65.9	61.7
14-K	11068	3374	11.5	16.5	17.5	18.5	21.5	26.5	28.3	37.2	45.0	45.8	50.4	50.8	54.1	54.1	51.9	54.7	53.3	46.9	43.2	42.1	33.1	30.7	28.8	9.3	-14.5	-42.1	-84.3	-153.0	-255.6	62.0	57.3
14-L	14124	4305	9.4	14.4	15.4	16.4	19.4	24.4	26.2	35.0	42.8	43.4	47.9	48.2	51.2	50.9	48.4	50.8	49.0	42.1	38.0	36.2	26.3	22.5	18.6	-4.2	-33.1	-68.8	-123.6	-212.1	-345.0	58.6	53.3
15-F	5926	1806	17.0	22.0	23.0	24.0	27.0	32.0	33.9	42.8	50.7	51.6	56.4	57.1	60.8	61.3	59.7	63.1	62.5	56.7	53.9	53.9	46.5	46.3	48.0	33.8	18.7	4.7	-16.3	-51.8	-103.3	69.8	66.2
15-G	3225	983	22.3	27.3	28.3	29.3	32.3	37.3	39.2	48.2	56.1	57.1	62.0	62.9	66.7	67.5	66.3	70.0	69.7	64.4	62.0	62.5	55.9	56.9	60.5	49.2	38.5	31.7	21.8	3.7	-20.9	76.7	73.7
15-H	2616	797	24.1	29.1	30.1	31.1	34.1	39.1	41.0	50.0	58.0	58.9	63.9	64.8	68.7	69.5	68.3	72.2	71.9	66.7	64.5	65.1	58.7	60.0	63.9	53.2	43.6	38.5	31.0	16.9	-1.7	78.9	76.0
15-I	4928	1502	18.6	23.6	24.6	25.6	28.6	33.6	35.5	44.4	52.4	53.3	58.1	58.9	62.6	63.2	61.8	65.3	64.8	59.2	56.6	56.7	49.6	49.9	52.2	39.1	25.6	14.4	-2.6	-31.7	-73.2	72.0	68.5
15-J	7911	2411	14.5	19.5	20.5	21.5	24.5	29.5	31.3	40.2	48.1	48.9	53.7	54.3	57.8	58.1	56.3	59.4	58.5	52.5	49.4	48.9	40.9	39.8	40.2	23.9	5.4	-13.8	-43.0	-91.3	-162.5	66.3	62.2
15-K	11063	3372	11.5	16.5	17.5	18.5	21.5	26.5	28.3	37.2	45.0	45.8	50.4	50.8	54.1	54.1	51.9	54.7	53.3	46.9	43.2	42.1	33.1	30.7	28.8	9.3	-14.5	-42.0	-84.2	-152.9	-255.4	62.0	57.3
16-J	8190	2496	14.2	19.2	20.2	21.2	24.2	29.2	31.0	39.9	47.8	48.6	53.3	53.9	57.4	57.7	55.9	59.0	58.0	52.0	48.8	48.3	40.2	39.0	39.1	22.6	3.6	-16.3	-46.7	-96.8	-170.8	65.9	61.7
16-K	11449	3490	11.2	16.2	17.2	18.2	21.2	26.2	28.0	36.9	44.7	45.5	50.0	50.5	53.7	53.7	51.5	54.2	52.8	46.2	42.5	41.3	32.2	29.6	27.5	7.6	-16.9	-45.4	-89.2	-160.4	-266.8	61.5	56.7
		Minimum:	1.2	6.2	7.2	8.2	11.2	16.2	17.5	26.1	33.4	33.5	37.1	36.1	37.4	35.0	29.9	29.5	24.7	14.5	6.7	0.2	-16.3	-30.1	-49.3	-95.5	-161.9	-256.8	-403.5	-636.3	-991.1	44.0	34.9
		Maximum:	24.1	29.1	30.1	31.1	34.1	39.1	41.0	50.0	58.0	58.9	63.9	64.8	68.7	69.5	68.3	72.2	71.9	66.7	64.5	65.1	58.7	60.0	63.9	53.2	43.6	38.5	31.0	16.9	-1.7	78.9	76.0

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Lmax)
FROM PILE DRIVING OF WTG MONOPILES

ODS Report Report no. 00.877, Figure 11, 2dB subtracted across the spectrum to account for peak to Lmax calculation

Sound Pressure Data	34	39	40	41	44	49	51	60	68	69	74	75	79	80	79	83	83	78	76	77	71	73	78	69	62	61	60	56	53	90	88
320 meters from the pile																															
Lmax at 320 meters	32	37	38	39	42	47	49	58	66	67	72	73	77	78	77	81	81	76	74	75	69	71	76	67	60	59	58	54	51	88	86

Data for the graph

Atmos. Absorption per 1 km	0.0000	0.0000	0.0000	0.0000	0.0000	0.0670	0.1050	0.1630	0.2510	0.3810	0.5650	0.8150	1.1300	1.5100	1.9200	2.3600	2.8400	3.3800	4.0800	5.0500	6.5100	8.7500	12.2000	17.7000	26.4000	39.9000	61.1000	93.7000	144.0000			
air temp 59F 70% RH																																

																		Hertz														
	1/3 Octave Bands		**16***	**20**	**25**	**31**	**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**	**L**	**A**
	Distance (ft)	**Distance (m)**																															
1-D	9747	2971	12.6	17.6	18.6	19.6	22.6	27.6	29.5	38.4	46.2	47.0	51.6	52.1	55.5	55.6	53.6	56.6	55.4	49.1	45.7	44.8	36.3	34.4	33.5	15.3	-6.3	-30.3	-67.1	-127.3	-216.7	63.7	59.2
1-E	7419	2261	15.0	20.0	21.0	22.0	25.0	30.0	31.9	40.8	48.7	49.5	54.3	54.9	58.4	58.8	57.1	60.3	59.4	53.5	50.5	50.1	42.2	41.4	42.0	26.3	8.7	-9.2	-36.4	-81.6	-147.9	67.1	63.1
1-F	5950	1813	16.9	21.9	22.9	23.9	26.9	31.9	33.8	42.8	50.7	51.6	56.4	57.1	60.7	61.2	59.7	63.1	62.4	56.7	53.9	53.8	46.4	46.2	47.9	33.7	18.5	4.5	-16.7	-52.3	-104.0	69.8	66.1
1-G	6059	1847	16.8	21.8	22.8	23.8	26.8	31.8	33.7	42.6	50.5	51.4	56.2	56.9	60.5	61.0	59.5	62.8	62.2	56.4	53.6	53.5	46.1	45.8	47.4	33.1	17.8	3.5	-18.1	-54.5	-107.3	69.6	65.9
1-H	7684	2342	14.7	19.7	20.7	21.7	24.7	29.7	31.6	40.5	48.4	49.2	53.9	54.6	58.1	58.4	56.7	59.8	58.9	53.0	49.9	49.5	41.5	40.5	41.0	25.0	6.9	-11.7	-40.0	-86.8	-155.8	66.7	62.6
1-I	10084	3074	12.3	17.3	18.3	19.3	22.3	27.3	29.2	38.1	45.9	46.7	51.3	51.8	55.1	55.2	53.2	56.1	54.9	48.5	45.0	44.1	35.4	33.4	32.3	13.8	-8.4	-33.3	-71.5	-133.9	-226.7	63.2	58.7
1-J	12848	3916	10.2	15.2	16.2	17.2	20.2	25.2	27.0	35.9	43.7	44.3	48.9	49.2	52.3	52.2	49.8	52.3	50.8	44.0	40.1	38.6	29.1	25.8	22.8	1.4	-25.4	-57.7	-107.2	-187.5	-307.7	59.9	54.9
1-K	15795	4814	8.5	13.5	14.5	15.5	18.5	23.5	25.2	34.0	41.7	42.3	46.7	46.9	49.8	49.4	46.7	48.8	46.8	39.7	35.3	33.1	22.8	18.2	13.1	-11.4	-43.1	-83.2	-144.9	-244.2	-393.7	57.0	51.4
1-L	18931	5770	6.9	11.9	12.9	13.9	16.9	21.9	23.5	32.3	40.0	40.5	44.8	44.8	47.4	46.7	43.6	45.4	43.0	35.4	30.5	27.6	16.4	10.4	3.2	-24.6	-61.6	-110.0	-184.6	-304.1	-484.8	54.3	48.1
2-D	10654	3247	11.9	16.9	17.9	18.9	21.9	26.9	28.7	37.6	45.4	46.1	50.8	51.2	54.5	54.6	52.5	55.3	54.0	47.6	44.0	42.9	34.1	31.8	30.3	11.2	-11.9	-38.4	-78.9	-145.0	-243.4	62.5	57.8
2-E	8750	2667	13.6	18.6	19.6	20.6	23.6	28.6	30.4	39.3	47.2	48.0	52.7	53.3	56.7	56.9	55.0	58.1	57.0	50.9	47.7	47.0	38.7	37.3	37.0	20.0	0.0	-21.4	-54.1	-107.8	-187.3	65.1	60.8
2-F	7822	2384	14.6	19.6	20.6	21.6	24.6	29.6	31.4	40.3	48.2	49.0	53.8	54.4	57.9	58.2	56.4	59.6	58.7	52.7	49.6	49.1	41.1	40.1	40.5	24.4	6.0	-12.9	-41.8	-89.6	-159.8	66.5	62.4
2-G	8142	2482	14.2	19.2	20.2	21.2	24.2	29.2	31.1	40.0	47.9	48.7	53.4	54.0	57.4	57.8	55.9	59.1	58.1	52.1	48.9	48.4	40.3	39.1	39.3	22.8	3.9	-15.9	-46.0	-95.9	-169.3	66.0	61.8
2-H	9591	2923	12.8	17.8	18.8	19.8	22.8	27.8	29.6	38.5	46.4	47.1	51.8	52.3	55.7	55.8	53.9	56.8	55.6	49.4	46.0	45.2	36.6	34.8	34.0	16.0	-5.3	-28.9	-65.1	-124.3	-212.1	63.9	59.4
2-I	11782	3591	11.0	16.0	17.0	18.0	21.0	26.0	27.8	36.7	44.5	45.2	49.8	50.2	53.3	53.3	51.1	53.7	52.3	45.7	41.9	40.7	31.5	28.7	26.4	6.1	-18.9	-48.4	-93.5	-166.9	-276.5	61.1	56.3
2-J	14437	4400	9.2	14.2	15.2	16.2	19.2	24.2	26.0	34.8	42.6	43.2	47.7	47.9	50.9	50.6	48.1	50.4	48.6	41.6	37.4	35.6	25.6	21.7	17.5	-5.5	-35.0	-71.5	-127.6	-218.1	-354.1	58.3	52.9
2-K	17181	5237	7.7	12.7	13.7	14.7	17.7	22.7	24.4	33.2	40.9	41.5	45.8	45.9	48.7	48.2	45.3	47.3	45.1	37.8	33.1	30.7	19.9	14.7	8.7	-17.3	-51.3	-95.1	-162.5	-270.7	-434.0	55.8	49.9
2-L	20131	6136	6.3	11.3	12.3	13.3	16.3	21.3	23.0	31.7	39.4	39.9	44.1	44.1	46.6	45.8	42.6	44.2	41.6	33.8	28.7	25.6	14.0	7.5	-0.5	-29.6	-68.6	-120.2	-199.7	-327.0	-519.6	53.4	47.0
3-D	11801	3597	11.0	16.0	17.0	18.0	21.0	26.0	27.8	36.6	44.5	45.2	49.7	50.1	53.3	53.3	51.0	53.7	52.3	45.7	41.9	40.6	31.4	28.7	26.3	6.0	-19.0	-48.5	-93.8	-167.2	-277.1	61.1	56.2
3-E	10309	3142	12.2	17.2	18.2	19.2	22.2	27.2	29.0	37.9	45.7	46.4	51.1	51.6	54.9	55.0	52.9	55.7	54.5	48.1	44.6	43.6	34.9	32.8	31.5	12.7	-9.8	-35.4	-74.5	-138.3	-233.3	62.9	58.3
3-F	9735	2967	12.7	17.7	18.7	19.7	22.7	27.7	29.5	38.4	46.2	47.0	51.6	52.2	55.5	55.7	53.7	56.6	55.4	49.1	45.7	44.9	36.3	34.4	33.5	15.4	-6.2	-30.2	-67.0	-127.1	-216.4	63.7	59.2
3-G	10224	3116	12.2	17.2	18.2	19.2	22.2	27.2	29.0	37.9	45.8	46.5	51.2	51.7	55.0	55.1	53.0	55.9	54.6	48.3	44.8	43.8	35.1	33.0	31.8	13.1	-9.3	-34.6	-73.3	-136.6	-230.8	63.0	58.5
3-H	11594	3534	11.1	16.1	17.1	18.1	21.1	26.1	27.9	36.8	44.6	45.3	49.9	50.3	53.5	53.5	51.3	54.0	52.6	46.0	42.3	41.0	31.9	29.2	27.0	6.9	-17.7	-46.7	-91.1	-163.2	-271.0	61.3	56.5
3-I	13598	4145	9.8	14.8	15.8	16.8	19.8	24.8	26.5	35.4	43.1	43.8	48.3	48.6	51.6	51.4	49.0	51.4	49.7	42.9	38.8	37.1	27.4	23.9	20.3	-1.9	-29.9	-64.2	-116.8	-201.9	-329.6	59.1	53.9
3-J	16011	4880	8.3	13.3	14.3	15.3	18.3	23.3	25.0	33.9	41.6	42.2	46.6	46.8	49.6	49.2	46.4	48.6	46.6	39.4	34.9	32.7	22.3	17.6	12.4	-12.3	-44.4	-85.1	-147.6	-248.3	-399.9	56.8	51.2
3-K	18720	5706	7.0	12.0	13.0	14.0	17.0	22.0	23.6	32.4	40.1	40.6	44.9	44.9	47.6	46.9	43.8	45.6	43.3	35.7	30.8	28.0	16.8	10.9	3.8	-23.7	-60.4	-108.2	-181.9	-300.1	-478.7	54.5	48.4
3-L	21491	6550	5.8	10.8	11.8	12.8	15.8	20.8	22.4	31.1	38.8	39.2	43.4	43.3	45.7	44.7	41.4	42.8	40.1	32.1	26.7	23.4	11.3	4.2	-4.7	-35.2	-76.5	-131.7	-216.8	-352.9	-559.0	52.4	45.8
4-D	13160	4011	10.0	15.0	16.0	17.0	20.0	25.0	26.8	35.7	43.4	44.1	48.6	49.0	52.0	51.9	49.5	52.0	50.3	43.6	39.6	38.0	28.4	25.0	21.7	0.0	-27.3	-60.4	-111.2	-193.5	-316.8	59.6	54.5
4-E	11986	3653	10.8	15.8	16.8	17.8	20.8	25.8	27.6	36.5	44.3	45.0	49.6	50.0	53.1	53.1	50.8	53.4	52.0	45.4	41.6	40.2	31.0	28.1	25.7	5.2	-20.2	-50.2	-96.2	-170.8	-282.5	60.9	56.0
4-F	11719	3572	11.0	16.0	17.0	18.0	21.0	26.0	27.8	36.7	44.5	45.2	49.8	50.2	53.4	53.4	51.1	53.8	52.4	45.8	42.1	40.8	31.6	28.9	26.6	6.4	-18.5	-47.8	-92.7	-165.7	-274.7	61.2	56.4
4-G	12278	3742	10.6	15.6	16.6	17.6	20.6	25.6	27.4	36.3	44.1	44.8	49.3	49.7	52.9	52.8	50.5	53.1	51.6	44.9	41.1	39.7	30.4	27.4	24.7	3.9	-21.9	-52.7	-99.9	-176.5	-291.0	60.6	55.6
4-H	13603	4146	9.8	14.8	15.8	16.8	19.8	24.8	26.5	35.3	43.1	43.8	48.3	48.6	51.6	51.4	49.0	51.4	49.7	42.9	38.8	37.1	27.4	23.8	20.3	-1.9	-30.0	-64.3	-116.9	-202.0	-329.8	59.1	53.9
4-I	15515	4729	8.6	13.6	14.6	15.6	18.6	23.6	25.3	34.1	41.9	42.5	46.9	47.1	50.0	49.6	46.9	49.1	47.2	40.1	35.7	33.6	23.3	18.9	14.0	-10.2	-41.4	-80.8	-141.3	-238.8	-385.5	57.2	51.7
4-J	17787	5421	7.4	12.4	13.4	14.4	17.4	22.4	24.1	32.9	40.6	41.1	45.5	45.5	48.3	47.7	44.7	46.6	44.4	36.9	32.2	29.6	18.7	13.2	6.8	-19.8	-54.9	-100.3	-170.1	-282.3	-451.6	55.2	49.3
4-K	20345	6201	6.3	11.3	12.3	13.3	16.3	21.3	22.9	31.6	39.3	39.8	44.0	43.9	46.5	45.6	42.4	44.0	41.4	33.6	28.4	25.3	13.6	7.0	-1.2	-30.5	-69.8	-122.0	-202.4	-331.1	-525.8	53.2	46.8
4-L	23068	7031	5.2	10.2	11.2	12.2	15.2	20.2	21.7	30.5	38.1	38.5	42.6	42.4	44.7	43.6	40.0	41.3	38.3	30.1	24.5	20.8	8.3	0.5	-9.6	-41.7	-85.6	-145.0	-236.6	-382.9	-604.7	51.3	44.4
5-D	14684	4476	9.1	14.1	15.1	16.1	19.1	24.1	25.8	34.6	42.4	43.0	47.5	47.7	50.7	50.4	47.8	50.1	48.3	41.3	37.0	35.1	25.1	21.0	16.7	-6.6	-36.5	-73.6	-130.7	-222.8	-361.3	58.0	52.7
5-E	13841	4219	9.6	14.6	15.6	16.6	19.6	24.6	26.3	35.2	43.0	43.6	48.1	48.4	51.4	51.2	48.7	51.1	49.4	42.5	38.4	36.7	26.9	23.2	19.5	-3.0	-31.4	-66.3	-120.0	-206.6	-336.7	58.9	53.7
5-F	13729	4184	9.7	14.7	15.7	16.7	19.7	24.7	26.4	35.3	43.0	43.7	48.2	48.5	51.5	51.3	48.8	51.3	49.5	42.7	38.6	36.9	27.2	23.5	19.9	-2.5	-30.7	-65.4	-118.5	-204.5	-333.4	59.0	53.8
5-G	14347	4373	9.3	14.3	15.3	16.3	19.3	24.3	26.0	34.9	42.6	43.3	47.7	48.0	51.0	50.7	48.2	50.5	48.7	41.8	37.6	35.8	25.8	21.9	17.8	-5.2	-34.4	-70.7	-126.4	-216.3	-351.5	58.4	53.1
5-H	15621	4761	8.5	13.5	14.5	15.5	18.5	23.5	25.3	34.1	41.8	42.4	46.9	47.0	49.9	49.5	46.8	49.0	47.1	39.9	35.5	33.4	23.1	18.6	13.7	-10.6	-42.1	-81.7	-142.7	-240.8	-388.6	57.1	51.6
5-I	17376	5296	7.6	12.6	13.6	14.6	17.6	22.6	24.3	33.1	40.8	41.4	45.7	45.8	48.6	48.0	45.1	47.1	44.9	37.5	32.8	30.3	19.5	14.2	8.1	-18.1	-52.5	-96.7	-164.9	-274.4	-439.6	55.6	49.7
5-J	19581	5968	6.6	11.6	12.6	13.6	16.6	21.6	23.2	32.0	39.7	40.2	44.4	44.4	47.0	46.2	43.1	44.7	42.3	34.5	29.5	26.5	15.1	8.8	1.2	-27.3	-65.4	-115.5	-192.8	-316.5	-503.6	53.8	47.5
6-D	16334	4979	8.2	13.2	14.2	15.2	18.2	23.2	24.8	33.7	41.4	42.0	46.4	46.5	49.4	48.9	46.1	48.2	46.2	38.9	34.4	32.2	21.6	16.8	11.4	-13.7	-46.3	-87.8	-151.7	-254.5	-409.3	56.5	50.8
6-E	15719	4791	8.5	13.5	14.5	15.5	18.5	23.5	25.2	34.0	41.8	42.4	46.8	47.0	49.9	49.4	46.7	48.9	46.9	39.8	35.4	33.3	22.9	18.4	13.4	-11.1	-42.6	-82.5	-143.9	-242.7	-391.5	57.1	51.5
6-G	16367	4989	8.1	13.1	14.1	15.1	18.1	23.1	24.8	33.7	41.4	42.0	46.4	46.5	49.3	48.9	46.1	48.2	46.1	38.9	34.4	32.1	21.6	16.8	11.3	-13.8	-46.5	-88.1	-152.1	-255.1	-410.3	56.5	50.8
6-H	17620	5371	7.5	12.5	13.5	14.5	17.5	22.5	24.2	33.0	40.7	41.2	45.6	45.6	48.4	47.8	44.9	46.8	44.6	37.2	32.4	29.9	19.0	13.6	7.3	-19.1	-53.9	-98.8	-168.0	-279.1	-446.7	55.4	49.5
6-I	19334	5893	6.7	11.7	12.7	13.7	16.7	21.7	23.3	32.1	39.8	40.3	44.6	44.5	47.2	46.4	43.3	45.0	42.5	34.9	29.9	27.0	15.6	9.4	1.9	-26.3	-63.9	-113.4	-189.7	-311.8	-496.5	54.0	47.8
6-J	21438	6534	5.8	10.8	11.8	12.8	15.8	20.8	22.4	31.1	38.8	39.2	43.4	43.3	45.7	44.8	41.4	42.9	40.1	32.2	26.8	23.4	11.4	4.3	-4.6	-35.0	-76.2	-131.3	-216.1	-351.9	-557.5	52.4	45.8
7-B	20476	6241	6.2	11.2	12.2	13.2	16.2	21.2	22.8	31.6	39.2	39.7	43.9	43.9	46.4	45.5	42.3	43.8	41.2	33.4	28.2	25.0	13.3	6.7	-1.6	-31.0	-70.6	-123.1	-204.1	-333.6	-529.6	53.1	46.7
7-C	19015	5796	6.8	11.8	12.8	13.8	16.8	21.8	23.5	32.3	39.9	40.5	44.8	44.7	47.4	46.7	43.6	45.3	42.9	35.3	30.3	27.5	16.2	10.2	2.9	-25.0	-62.1	-110.7	-185.6	-305.7	-487.2	54.2	48.1
7-E	17606	5366	7.5	12.5	13.5	14.5	17.5	22.5	24.2	33.0	40.7	41.2	45.6	45.7	48.4	47.8	44.9	46.8	44.6	37.2	32.5	29.9	19.0	13.7	7.4	-19.1	-53.8	-98.7	-167.8	-278.8	-446.3	55.4	49.5
7-F	17751	5410	7.4	12.4	13.4	14.4	17.4	22.4	24.1	32.9	40.6	41.2	45.5	45.6	48.3	47.7	44.8	46.7	44.4	37.0	32.2	29.7	18.7	13.3	6.9	-19.7	-54.7	-100.0	-169.7	-281.6	-450.5	55.3	49.3
7-G	18460	5627	7.1	12.1	13.1	14.1	17.1	22.1	23.7	32.5	40.2	40.8	45.1	45.1	47.8	47.1	44.1	45.9	43.6	36.0	31.2	28.4	17.3	11.6	4.7	-22.6	-58.8	-106.0	-178.6	-295.1	-471.1	54.7	48.6
7-H	19693	6002	6.5	11.5	12.5	13.5	16.5	21.5	23.2	31.9	39.6	40.1	44.4	44.3	46.9	46.1	43.0	44.6	42.1	34.4	29.3	26.4	14.8	8.5	0.8	-27.8	-66.0	-116.5	-194.2	-318.7	-506.9	53.7	47.4
7-I	21338	6504	5.8	10.8	11.8	12.8	15.8	20.8	22.4	31.2	38.8	39.3	43.5	43.3	45.8	44.9	41.5	43.0	40.2	32.3	26.9	23.6	11.6	4.6	-4.3	-34.6	-75.6	-130.4	-214.9	-350.0	-554.6	52.5	45.9
8-A	23535	7174	5.0	10.0	11.0	12.0	15.0	20.0	21.5	30.3	37.9	38.3	42.4	42.1	44.4	43.2	39.6	40.8	37.8	29.5	23.8	20.0	7.4	-0.6	-11.0	-43.6	-88.3	-148.9	-242.5	-391.8	-618.2	51.0	44.0
8-B	21894	6673	5.6	10.6	11.6	12.6	15.6	20.6	22.2	30.9	38.6	39.0	43.2	43.0	45.4	44.4	41.0	42.4	39.6	31.6	26.1	22.7	10.5	3.3	-6.0	-36.9	-78.8	-135.1	-221.9	-360.6	-570.7	52.1	45.4
8-C	20636	6290	6.1	11.1	12.1	13.1	16.1	21.1	22.7	31.5	39.2	39.6	43.9	43.8	46.3	45.4	42.1	43.7	41.0	33.2	28.0	24.8	13.0	6.3	-2.1	-31.7	-71.5	-124.5	-206.1	-336.6	-534.2	53.0	46.5
8-D	19830	6044	6.5	11.5	12.5	13.5	16.5	21.5	23.1	31.9	39.5	40.0	44.3	44.2	46.8	46.0	42.8	44.5	42.0	34.2	29.1	26.1	14.6	8.2	0.4	-28.4	-66.8	-117.6	-195.9	-321.3	-510.9	53.6	47.3
8-F	19759	6023	6.5	11.5	12.5	13.5	16.5	21.5	23.1	31.9	39.6	40.1	44.3	44.3	46.9	46.1	42.9	44.6	42.0	34.3	29.2	26.2	14.7	8.4	0.6	-28.1	-66.4	-117.0	-195.0	-319.9	-508.8	53.7	47.4

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Lmax)
FROM PILE DRIVING OF WTG MONOPILES

8-G	20576	6272	6.2	11.2	12.2	13.2	16.2	21.2	22.8	31.5	39.2	39.7	43.9	43.8	46.3	45.4	42.2	43.7	41.1	33.3	28.0	24.9	13.1	6.4	-1.9	-31.5	-71.2	-124.0	-205.3	-335.5	-532.5	53.0	46.6
8-H	21755	6631	5.7	10.7	11.7	12.7	15.7	20.7	22.2	31.0	38.6	39.1	43.3	43.1	45.5	44.5	41.1	42.6	39.8	31.7	26.3	22.9	10.8	3.6	-5.5	-36.3	-78.0	-133.9	-220.1	-357.9	-566.7	52.2	45.5
9-A	24819	7565	4.5	9.5	10.5	11.5	14.5	19.5	21.0	29.8	37.3	37.7	41.8	41.4	43.6	42.3	38.6	39.6	36.4	28.0	22.0	18.0	4.9	-3.6	-14.9	-48.9	-95.7	-159.7	-258.5	-416.1	-655.3	50.1	42.9
9-B	23369	7123	5.0	10.0	11.0	12.0	15.0	20.0	21.6	30.3	37.9	38.3	42.5	42.2	44.5	43.4	39.8	41.0	38.0	29.7	24.1	20.3	7.7	-0.2	-10.5	-42.9	-87.4	-147.5	-240.4	-388.6	-613.4	51.1	44.1
9-C	22291	6794	5.5	10.5	11.5	12.5	15.5	20.5	22.0	30.8	38.4	38.8	43.0	42.8	45.2	44.1	40.7	42.0	39.2	31.1	25.6	22.0	9.8	2.3	-7.2	-38.5	-81.1	-138.5	-226.9	-368.1	-582.2	51.8	45.1
9-D	21688	6610	5.7	10.7	11.7	12.7	15.7	20.7	22.3	31.0	38.7	39.1	43.3	43.1	45.6	44.6	41.2	42.6	39.9	31.8	26.4	23.0	10.9	3.7	-5.3	-36.0	-77.6	-133.4	-219.3	-356.6	-564.7	52.2	45.6
9-E	21499	6553	5.8	10.8	11.8	12.8	15.8	20.8	22.4	31.1	38.8	39.2	43.4	43.3	45.7	44.7	41.4	42.8	40.1	32.1	26.7	23.3	11.3	4.2	-4.8	-35.3	-76.5	-131.8	-216.9	-353.1	-559.2	52.4	45.8
9-F	21815	6649	5.6	10.6	11.6	12.6	15.6	20.6	22.2	31.0	38.6	39.1	43.2	43.1	45.5	44.5	41.1	42.5	39.7	31.7	26.3	22.8	10.7	3.4	-5.7	-36.6	-78.4	-134.4	-220.9	-359.1	-568.4	52.1	45.5
9-G	22596	6887	5.3	10.3	11.3	12.3	15.3	20.3	21.9	30.7	38.3	38.7	42.8	42.6	45.0	43.9	40.4	41.7	38.8	30.7	25.1	21.5	9.2	1.6	-8.1	-39.8	-82.9	-141.0	-230.7	-373.9	-591.0	51.6	44.8
9-H	23811	7258	4.9	9.9	10.9	11.9	14.9	19.9	21.4	30.2	37.8	38.1	42.2	42.0	44.2	43.0	39.4	40.6	37.5	29.2	23.4	19.6	6.9	-1.3	-11.8	-44.8	-89.9	-151.3	-245.9	-397.0	-626.2	50.8	43.8
9-I	25338	7723	4.3	9.3	10.3	11.3	14.3	19.3	20.9	29.6	37.1	37.5	41.5	41.2	43.3	42.0	38.2	39.1	35.9	27.3	21.3	17.1	4.0	-4.8	-16.4	-51.0	-98.7	-164.1	-265.0	-426.0	-670.3	49.8	42.5
10-A	26208	7988	4.1	9.1	10.1	11.1	14.1	19.1	20.5	29.2	36.8	37.1	41.1	40.7	42.8	41.4	37.5	38.3	35.0	26.3	20.1	15.8	2.3	-6.9	-19.0	-54.5	-103.7	-171.4	-275.9	-442.5	-695.4	49.3	41.8
10-B	24961	7608	4.5	9.5	10.5	11.5	14.5	19.5	21.0	29.7	37.3	37.6	41.7	41.4	43.5	42.2	38.5	39.5	36.3	27.8	21.8	17.7	4.7	-4.0	-15.3	-49.4	-96.5	-160.9	-260.3	-418.8	-659.4	50.1	42.8
10-C	24047	7329	4.8	9.8	10.8	11.8	14.8	19.8	21.3	30.1	37.7	38.0	42.1	41.8	44.1	42.9	39.2	40.3	37.3	28.9	23.1	19.2	6.4	-1.8	-12.5	-45.7	-91.3	-153.2	-248.9	-401.5	-633.0	50.6	43.6
10-D	23524	7170	5.0	10.0	11.0	12.0	15.0	20.0	21.5	30.3	37.9	38.3	42.4	42.1	44.4	43.3	39.6	40.8	37.8	29.5	23.8	20.0	7.4	-0.6	-10.9	-43.6	-88.3	-148.9	-242.3	-391.6	-617.9	51.0	44.0
10-E	23461	7151	5.0	10.0	11.0	12.0	15.0	20.0	21.6	30.3	37.9	38.3	42.4	42.2	44.4	43.3	39.7	40.9	37.9	29.6	23.9	20.1	7.5	-0.5	-10.8	-43.3	-87.9	-148.3	-241.5	-390.4	-616.0	51.0	44.1
10-F	23831	7264	4.9	9.9	10.9	11.9	14.9	19.9	21.4	30.2	37.7	38.1	42.2	42.0	44.2	43.0	39.4	40.5	37.5	29.2	23.4	19.5	6.8	-1.3	-11.9	-44.8	-90.0	-151.4	-246.2	-397.4	-626.8	50.8	43.7
10-G	24634	7509	4.6	9.6	10.6	11.6	14.6	19.6	21.1	29.8	37.4	37.8	41.9	41.5	43.7	42.5	38.7	39.8	36.6	28.2	22.3	18.3	5.3	-3.2	-14.3	-48.1	-94.6	-158.2	-256.2	-412.6	-650.0	50.3	43.1
10-H	25850	7879	4.2	9.2	10.2	11.2	14.2	19.2	20.7	29.4	36.9	37.3	41.3	40.9	43.0	41.6	37.8	38.7	35.3	26.7	20.6	16.3	3.0	-6.0	-18.0	-53.0	-101.6	-168.4	-271.4	-435.7	-685.1	49.5	42.1
10-I	27464	8371	3.6	8.6	9.6	10.6	13.6	18.6	20.1	28.8	36.3	36.6	40.6	40.1	42.1	40.5	36.5	37.2	33.6	24.8	18.4	13.8	0.0	-9.8	-22.8	-59.6	-110.9	-181.9	-291.6	-466.3	-731.7	48.5	40.9
11-A	27738	8454	3.6	8.6	9.6	10.6	13.6	18.6	20.0	28.7	36.2	36.5	40.5	40.0	41.9	40.4	36.3	36.9	33.4	24.5	18.1	13.4	-0.5	-10.4	-23.6	-60.7	-112.4	-184.2	-295.0	-471.5	-739.6	48.4	40.7
11-B	26599	8107	3.9	8.9	9.9	10.9	13.9	18.9	20.4	29.1	36.7	37.0	41.0	40.5	42.6	41.1	37.2	38.0	34.5	25.8	19.6	15.2	1.6	-7.8	-20.2	-56.1	-105.9	-174.7	-280.8	-449.9	-706.8	49.0	41.5
11-C	25814	7868	4.2	9.2	10.2	11.2	14.2	19.2	20.7	29.4	37.0	37.3	41.3	40.9	43.0	41.7	37.8	38.7	35.4	26.7	20.7	16.4	3.1	-6.0	-17.9	-52.9	-101.4	-168.1	-271.0	-435.0	-684.1	49.5	42.2
11-D	25483	7767	4.3	9.3	10.3	11.3	14.3	19.3	20.8	29.5	37.1	37.4	41.5	41.1	43.2	41.9	38.1	39.0	35.7	27.1	21.1	16.9	3.7	-5.2	-16.9	-51.6	-99.5	-165.3	-266.8	-428.7	-674.5	49.7	42.4
11-E	25447	7756	4.3	9.3	10.3	11.3	14.3	19.3	20.8	29.5	37.1	37.4	41.5	41.1	43.2	41.9	38.1	39.0	35.8	27.2	21.2	17.0	3.8	-5.1	-16.8	-51.4	-99.3	-165.0	-266.4	-428.0	-673.5	49.7	42.4
11-F	25909	7897	4.2	9.2	10.2	11.2	14.2	19.2	20.6	29.4	36.9	37.3	41.3	40.9	43.0	41.6	37.7	38.6	35.3	26.6	20.5	16.2	2.9	-6.2	-18.1	-53.3	-102.0	-168.9	-272.2	-436.8	-686.8	49.5	42.1
11-G	26702	8139	3.9	8.9	9.9	10.9	13.9	18.9	20.4	29.1	36.6	36.9	40.9	40.5	42.5	41.1	37.1	37.9	34.4	25.7	19.5	15.0	1.4	-8.0	-20.5	-56.5	-106.5	-175.5	-282.1	-451.8	-709.7	49.0	41.5
11-H	27866	8493	3.5	8.5	9.5	10.5	13.5	18.5	20.0	28.7	36.2	36.5	40.4	39.9	41.9	40.3	36.2	36.8	33.2	24.3	17.9	13.2	-0.8	-10.7	-24.0	-61.2	-113.1	-185.3	-296.6	-473.9	-743.3	48.3	40.6
11-K	33122	10095	2.0	7.0	8.0	9.0	12.0	17.0	18.4	27.0	34.4	34.6	38.3	37.5	39.1	37.0	32.3	32.3	28.0	18.3	11.0	5.1	-10.3	-22.6	-39.5	-82.2	-143.0	-229.1	-362.0	-573.3	-894.9	45.5	37.0
11-L	35237	10740	1.5	6.5	7.5	8.5	11.5	16.5	17.8	26.4	33.8	33.9	37.5	36.6	38.0	35.7	30.7	30.5	25.9	15.9	8.3	2.0	-14.1	-27.4	-45.7	-90.6	-155.0	-246.6	-388.3	-613.2	-955.9	44.5	35.7
12-A	29301	8931	3.1	8.1	9.1	10.1	13.1	18.1	19.5	28.2	35.7	35.9	39.8	39.2	41.1	39.4	35.1	35.6	31.8	22.6	16.0	11.0	-3.4	-14.0	-28.3	-67.0	-121.3	-197.2	-314.5	-501.0	-784.7	47.5	39.6
12-B	28300	8626	3.4	8.4	9.4	10.4	13.4	18.4	19.8	28.5	36.0	36.3	40.2	39.7	41.6	40.0	35.8	36.4	32.8	23.8	17.3	12.5	-1.6	-11.7	-25.3	-62.9	-115.6	-188.9	-302.0	-482.1	-755.9	48.1	40.3
12-C	27633	8422	3.6	8.6	9.6	10.6	13.6	18.6	20.1	28.7	36.3	36.6	40.5	40.0	42.0	40.4	36.4	37.0	33.5	24.6	18.2	13.5	-0.3	-10.2	-23.3	-60.3	-111.8	-183.3	-293.7	-469.5	-736.6	48.4	40.8
12-D	27392	8349	3.7	8.7	9.7	10.7	13.7	18.7	20.1	28.8	36.4	36.7	40.6	40.1	42.1	40.6	36.5	37.3	33.7	24.9	18.5	13.9	0.1	-9.6	-22.6	-59.3	-110.4	-181.3	-290.7	-464.9	-729.6	48.6	40.9
12-E	27427	8360	3.7	8.7	9.7	10.7	13.7	18.7	20.1	28.8	36.3	36.6	40.6	40.1	42.1	40.6	36.5	37.2	33.7	24.8	18.5	13.9	0.1	-9.7	-22.7	-59.4	-110.6	-181.6	-291.1	-465.6	-730.7	48.6	40.9
12-F	27951	8520	3.5	8.5	9.5	10.5	13.5	18.5	19.9	28.6	36.2	36.4	40.4	39.9	41.8	40.2	36.1	36.8	33.1	24.2	17.8	13.0	-0.9	-10.9	-24.3	-61.5	-113.6	-186.0	-297.7	-475.5	-745.8	48.3	40.5
12-G	28775	8770	3.2	8.2	9.2	10.2	13.2	18.2	19.7	28.4	35.9	36.1	40.0	39.5	41.4	39.7	35.5	36.0	32.3	23.2	16.7	11.8	-2.4	-12.8	-26.7	-64.9	-118.3	-192.8	-307.9	-491.1	-769.6	47.8	39.9
12-H	29903	9114	2.9	7.9	8.9	9.9	12.9	17.9	19.3	28.0	35.5	35.7	39.6	38.9	40.7	39.0	34.6	35.0	31.2	21.9	15.2	10.0	-4.5	-15.3	-30.0	-69.4	-124.8	-202.3	-322.0	-512.4	-802.1	47.2	39.1
12-I	31399	9570	2.5	7.5	8.5	9.5	12.5	17.5	18.9	27.5	35.0	35.2	39.0	38.3	39.9	38.0	33.5	33.7	29.7	20.2	13.2	7.7	-7.2	-18.7	-34.5	-75.4	-133.2	-214.7	-340.6	-540.7	-845.3	46.4	38.1
12-J	33085	10084	2.0	7.0	8.0	9.0	12.0	17.0	18.4	27.0	34.4	34.6	38.3	37.5	39.1	37.0	32.3	32.3	28.0	18.3	11.0	5.2	-10.3	-22.5	-39.4	-82.1	-142.8	-228.8	-361.6	-572.6	-893.9	45.6	37.0
12-K	35002	10669	1.5	6.5	7.5	8.5	11.5	16.5	17.8	26.5	33.9	33.9	37.6	36.7	38.1	35.8	30.9	30.7	26.1	16.2	8.6	2.3	-13.7	-26.8	-45.0	-89.7	-153.6	-244.7	-385.4	-608.8	-949.1	44.6	35.8
12-L	37075	11300	1.0	6.0	7.0	8.0	11.0	16.0	17.3	25.9	33.3	33.3	36.9	35.8	37.1	34.6	29.5	29.0	24.1	13.9	5.9	-0.8	-17.4	-31.4	-51.0	-97.9	-165.3	-261.8	-411.1	-647.9	-1008.8	43.7	34.6
13-A	30926	9426	2.6	7.6	8.6	9.6	12.6	17.6	19.0	27.7	35.1	35.3	39.1	38.5	40.2	38.3	33.9	34.1	30.1	20.8	13.8	8.5	-6.4	-17.7	-33.1	-73.5	-130.6	-210.8	-334.7	-531.8	-831.6	46.6	38.4
13-B	30026	9152	2.9	7.9	8.9	9.9	12.9	17.9	19.3	27.9	35.4	35.7	39.5	38.9	40.7	38.9	34.5	34.9	31.0	21.8	15.0	9.8	-4.7	-15.6	-30.4	-69.9	-125.5	-203.3	-323.5	-514.8	-805.7	47.1	39.0
13-C	29487	8988	3.0	8.0	9.0	10.0	13.0	18.0	19.4	28.1	35.6	35.9	39.7	39.1	41.0	39.2	34.9	35.4	31.6	22.4	15.7	10.7	-3.7	-14.4	-28.8	-67.7	-122.4	-198.8	-316.8	-504.6	-790.1	47.4	39.4
13-D	29335	8941	3.1	8.1	9.1	10.1	13.1	18.1	19.5	28.2	35.7	35.9	39.8	39.2	41.0	39.3	35.1	35.5	31.7	22.6	15.9	10.9	-3.5	-14.1	-28.4	-67.1	-121.5	-197.5	-314.9	-501.7	-785.8	47.5	39.5
13-F	29989	9141	2.9	7.9	8.9	9.9	12.9	17.9	19.3	28.0	35.4	35.7	39.5	38.9	40.7	38.9	34.6	34.9	31.1	21.8	15.1	9.9	-4.7	-15.5	-30.3	-69.7	-125.2	-203.0	-323.1	-514.1	-804.6	47.1	39.1
13-G	30831	9397	2.6	7.6	8.6	9.6	12.6	17.6	19.0	27.7	35.2	35.4	39.2	38.5	40.2	38.4	33.9	34.2	30.2	20.9	14.0	8.6	-6.2	-17.5	-32.8	-73.1	-130.0	-210.0	-333.5	-530.0	-828.9	46.7	38.5
13-H	31901	9723	2.3	7.3	8.3	9.3	12.3	17.3	18.7	27.4	34.8	35.0	38.8	38.0	39.7	37.7	33.1	33.3	29.2	19.6	12.6	7.0	-8.1	-19.9	-35.9	-77.4	-136.1	-218.9	-346.9	-550.2	-859.8	46.1	37.8
13-I	33404	10181	1.9	6.9	7.9	8.9	11.9	16.9	18.3	26.9	34.3	34.5	38.2	37.4	38.9	36.8	32.1	32.0	27.7	17.9	10.6	4.7	-10.9	-23.3	-40.3	-83.4	-144.6	-231.4	-365.5	-578.6	-903.1	45.4	36.8
13-J	35110	10702	1.5	6.5	7.5	8.5	11.5	16.5	17.8	26.4	33.8	33.9	37.6	36.6	38.1	35.8	30.8	30.6	26.0	16.0	8.4	2.2	-13.9	-27.1	-45.3	-90.1	-154.2	-245.6	-386.7	-610.8	-952.2	44.6	35.7
13-K	36952	11263	1.1	6.1	7.1	8.1	11.1	16.1	17.3	25.9	33.3	33.3	36.9	35.9	37.2	34.7	29.5	29.1	24.2	14.0	6.1	-0.6	-17.2	-31.2	-50.7	-97.4	-164.6	-260.8	-409.5	-645.5	-1005.3	43.8	34.6
13-L	39038	11899	0.6	5.6	6.6	7.6	10.6	15.6	16.8	25.4	32.7	32.7	36.2	35.1	36.2	33.5	28.1	27.4	22.3	11.7	3.5	-3.6	-20.9	-35.8	-56.7	-105.7	-176.4	-278.1	-435.4	-684.9	-1065.3	42.8	33.4
14-D	31291	9538	2.5	7.5	8.5	9.5	12.5	17.5	18.9	27.5	35.0	35.2	39.0	38.3	40.0	38.1	33.6	33.8	29.8	20.3	13.4	7.9	-7.0	-18.5	-34.1	-74.9	-132.6	-213.8	-339.3	-538.7	-842.2	46.5	38.2
14-E	31497	9600	2.5	7.5	8.5	9.5	12.5	17.5	18.8	27.5	34.9	35.1	38.9	38.2	39.9	38.0	33.4	33.6	29.6	20.1	13.1	7.6	-7.4	-19.0	-34.7	-75.8	-133.8	-215.5	-341.8	-542.6	-848.1	46.3	38.0
14-F	32036	9764	2.3	7.3	8.3	9.3	12.3	17.3	18.7	27.3	34.8	34.9	38.7	38.0	39.6	37.6	33.0	33.2	29.0	19.5	12.4	6.8	-8.4	-20.2	-36.3	-77.9	-136.9	-220.0	-348.5	-552.7	-863.6	46.1	37.7
14-G	32881	10022	2.1	7.1	8.1	9.1	12.1	17.1	18.4	27.1	34.5	34.6	38.4	37.6	39.2	37.1	32.4	32.5	28.2	18.5	11.3	5.5	-9.9	-22.1	-38.8	-81.3	-141.6	-227.0	-359.0	-568.7	-888.0	45.7	37.1
14-H	34017	10368	1.8	6.8	7.8	8.8	11.8	16.8	18.1	26.7	34.2	34.3	38.0	37.1	38.6	36.4	31.6	31.5	27.1	17.3	9.8	3.8	-12.0	-24.6	-42.1	-85.8	-148.1	-236.5	-373.1	-590.2	-920.8	45.1	36.4
14-J	37045	11291	1.0	6.0	7.0	8.0	11.0	16.0	17.3	25.9	33.3	33.3	36.9	35.8	37.1	34.7	29.5	29.0	24.2	13.9	6.0	-0.7	-17.4	-31.4	-50.9	-97.8	-165.1	-261.6	-410.7	-647.3	-1008.0	43.7	34.6
14-K	38937	11868	0.6	5.6	6.6	7.6	10.6	15.6	16.8	25.4	32.7	32.7	36.2	35.1	36.2	33.6	28.2	27.4	22.4	11.8	3.6	-3.5	-20.7	-35.6	-56.4	-105.3	-175.8	-277.3	-434.2	-683.0	-1062.4	42.9	33.5
14-L	40966	12486	0.2	5.2	6.2	7.2	10.2	15.2	16.4	24.9	32.2	32.1	35.5	34.3	35.3	32.4	26.8	25.8	20.5	9.6	1.1	-6.5	-24.3	-40.0	-62.3	-113.3	-187.2	-294.0	-459.3	-721.2	-1120.8	42.1	32.4
15-F	34077	10387	1.8	6.8	7.8	8.8	11.8	16.8	18.1	26.7	34.1	34.2	37.9	37.1	38.6	36.4	31.6	31.4	27.0	17.2	9.7	3.7	-12.1	-24.8	-42.3	-86.0	-148.4	-237.0	-373.9	-591.3	-922.5	45.1	36.4
15-G	34960	10656	1.6	6.6	7.6	8.6	11.6	16.6	17.9	26.5	33.9	34.0	37.6	36.7	38.1	35.9	30.9	30.7	26.2	16.2	8.6	2.4	-13.6	-26.7	-44.9	-89.5	-153.4	-244.3	-384.9	-608.0	-947.9	44.7	35.8
15-H	36100	11003	1.3	6.3	7.3	8.3	11.3	16.3	17.6	26.2	33.5	33.6	37.2	36.2	37.6	35.2	30.1	29.8	25.1	14.9	7.2	0.7	-15.7	-29.3	-48.2	-94.1	-159.8	-253.8	-399.0	-629.5	-980.7	44.1	35.1
15-I	37493	11428	0.9	5.9	6.9	7.9	10.9	15.9	17.2	25.8	33.1	33.2	36.7	35.7	36.9	34.4	29.2	28.6	23.7	13.4	5.4	-1.4	-18.2	-32.4	-52.2	-99.6	-167.7	-265.3	-416.3	-655.7	-1020.9	43.5	34.3
15-J	39071	11909	0.6	5.6	6.6	7.6	10.6	15.6	16.8	25.4	32.7	32.7	36.2	35.0	36.1	33.5	28.1	27.3	22.2	11.7	3.4	-3.7	-20.9	-35.9	-56.8	-105.8	-176.5	-278.4	-435.8	-685.5	-1066.3	42.8	33.4
15-K	40883	12461	0.2	5.2	6.2	7.2	10.2	15.2	16.4	24.9	32.2	32.1	35.6	34.3	35.3	32.5	26.9	25.9	20.5	9.7	1.2	-6.3	-24.1	-39.8	-62.0	-112.9	-186.7	-293.3	-458.2	-719.6	-1118.4	42.1	32.4
16-J	41074	12519	0.2	5.2	6.2	7.2	10.2	15.2	16.3	24.9	32.2	32.1	35.5	34.3	35.2	32.4	26.7	25.7	20.4	9.5	0.9	-6.6	-24.5	-40.3	-62.6	-113.7	-187.8	-294.9	-460.6	-723.2	-1123.9	42.0	32.3
16-K	42850	13061	-0.2	4.8	5.8	6.8	9.8	14.8	15.9	24.4	31.7	31.6	34.9	33.6	34.4	31.4	25.5	24.3	18.7	7.6	-1.3	-9.2	-27.6	-44.2	-67.7	-120.7	-197.7	-309.6	-482.6	-756.7	-1175.0	41.3	31.4
		Minimum:	-0.2	4.8	5.8	6.8	9.8	14.8	15.9	24.4	31.7	31.6	34.9	33.6	34.4	31.4	25.5	24.3	18.7	7.6	-1.3	-9.2	-27.6	-44.2	-67.7	-120.7	-197.7	-309.6	-482.6	-756.7	-1175.0	41.3	31.4
		Maximum:	16.9	21.9	22.9	23.9	26.9	31.9	33.8	42.8	50.7	51.6	56.4	57.1	60.7	61.2	59.7	63.1	62.4	56.7	53.9	53.8	46.4	46.2	47.9	33.7	18.5	4.5	-16.7	-52.3	-104.0	69.8	66.1

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Lmax)
FROM PILE DRIVING OF WTG MONOPILES

ODS Report Report no. 00.877, Figure 11, 2dB subtracted across the spectrum to account for peak to Lmax calculation

Sound Pressure Data	34	39	40	41	44	49	51	60	68	69	74	75	79	80	79	83	83	78	76	77	71	73	78	69	62	61	60	56	53	90	88
320 meters from the pile																															
Lmax at 320 meters	32	37	38	39	42	47	49	58	66	67	72	73	77	78	77	81	81	76	74	75	69	71	76	67	60	59	58	54	51	88	86

Data for the graph

Atmos. Absorption per 1 km	0.0000	0.0000	0.0000	0.0000	0.0000	0.0670	0.1050	0.1630	0.2510	0.3810	0.5650	0.8150	1.1300	1.5100	1.9200	2.3600	2.8400	3.3800	4.0800	5.0500	6.5100	8.7500	12.2000	17.7000	26.4000	39.9000	61.1000	93.7000	144.0000		
air temp 59F 70% RH																															

																		Hertz													
	1/3 Octave Bands		**16***	**20**	**25**	**31**	**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**	**L**	**A**
	Distance (ft)	**Distance (m)**																															
1-D	61568	18766	-3.4	1.6	2.6	3.6	6.6	11.6	12.4	20.7	27.6	27.0	29.6	27.2	26.6	21.8	13.8	10.2	2.1	-11.8	-23.7	-35.6	-59.5	-84.4	-120.8	-193.4	-301.9	-463.3	-713.4	-1108.4	-1712.7	35.2	23.3
1-E	58983	17978	-3.0	2.0	3.0	4.0	7.0	12.0	12.8	21.2	28.1	27.6	30.3	28.0	27.6	23.1	15.3	12.1	4.3	-9.1	-20.7	-32.0	-55.2	-78.9	-113.5	-183.4	-287.5	-442.2	-681.5	-1059.9	-1638.6	35.9	24.3
1-F	56449	17206	-2.6	2.4	3.4	4.4	7.4	12.4	13.3	21.6	28.6	28.2	31.0	28.8	28.6	24.3	16.9	14.0	6.5	-6.6	-17.7	-28.5	-50.9	-73.5	-106.4	-173.6	-273.5	-421.4	-650.3	-1012.3	-1565.8	36.7	25.3
1-G	53974	16451	-2.2	2.8	3.8	4.8	7.8	12.8	13.7	22.1	29.1	28.7	31.6	29.7	29.6	25.6	18.4	15.8	8.7	-4.0	-14.7	-25.0	-46.7	-68.2	-99.4	-164.0	-259.7	-401.1	-619.9	-965.8	-1494.7	37.5	26.3
1-H	51558	15715	-1.8	3.2	4.2	5.2	8.2	13.2	14.1	22.6	29.7	29.3	32.3	30.5	30.6	26.8	19.9	17.6	10.8	-1.5	-11.9	-21.6	-42.6	-63.0	-92.5	-154.6	-246.3	-381.2	-590.1	-920.4	-1425.3	38.2	27.3
1-I	49274	15019	-1.4	3.6	4.6	5.6	8.6	13.6	14.6	23.0	30.2	29.9	33.0	31.3	31.6	28.0	21.4	19.3	12.9	0.8	-9.1	-18.4	-38.7	-58.1	-86.0	-145.8	-233.6	-362.5	-561.9	-877.5	-1359.7	39.0	28.3
1-J	47113	14360	-1.0	4.0	5.0	6.0	9.0	14.0	15.0	23.5	30.7	30.4	33.6	32.0	32.5	29.1	22.8	21.0	14.8	3.1	-6.5	-15.3	-34.9	-53.4	-79.9	-137.3	-221.6	-344.7	-535.2	-836.9	-1297.6	39.7	29.3
1-K	44994	13714	-0.6	4.4	5.4	6.4	9.4	14.4	15.5	24.0	31.2	31.0	34.3	32.8	33.4	30.2	24.1	22.6	16.7	5.3	-3.9	-12.3	-31.3	-48.8	-73.8	-129.0	-209.7	-327.2	-509.1	-797.0	-1236.7	40.5	30.3
1-L	43045	13120	-0.3	4.7	5.7	6.7	9.7	14.7	15.9	24.4	31.7	31.5	34.9	33.5	34.3	31.3	25.4	24.2	18.5	7.4	-1.5	-9.5	-27.9	-44.6	-68.3	-121.4	-198.8	-311.2	-485.0	-760.3	-1180.6	41.2	31.3
2-D	62288	18985	-3.5	1.5	2.5	3.5	6.5	11.5	12.3	20.6	27.5	26.8	29.4	27.0	26.3	21.4	13.3	9.7	1.5	-12.5	-24.6	-36.6	-60.7	-86.0	-122.8	-196.2	-305.8	-469.2	-722.2	-1121.9	-1733.4	35.0	23.1
2-E	59712	18200	-3.1	1.9	2.9	3.9	6.9	11.9	12.7	21.0	28.0	27.4	30.1	27.8	27.3	22.7	14.9	11.6	3.7	-9.9	-21.5	-33.0	-56.4	-80.5	-115.5	-186.2	-291.6	-448.1	-690.5	-1073.6	-1659.5	35.7	24.0
2-F	57219	17441	-2.7	2.3	3.3	4.3	7.3	12.3	13.1	21.5	28.5	28.0	30.7	28.6	28.3	23.9	16.4	13.4	5.9	-7.4	-18.6	-29.6	-52.2	-75.2	-108.5	-176.6	-277.8	-427.7	-659.8	-1026.8	-1587.9	36.5	25.0
2-G	54843	16716	-2.4	2.6	3.6	4.6	7.6	12.6	13.5	21.9	29.0	28.5	31.4	29.4	29.3	25.1	17.9	15.2	7.9	-4.9	-15.8	-26.3	-48.2	-70.1	-101.8	-167.4	-264.6	-408.2	-630.6	-982.2	-1519.7	37.2	25.9
2-H	52541	16014	-2.0	3.0	4.0	5.0	8.0	13.0	14.0	22.4	29.5	29.1	32.0	30.1	30.2	26.3	19.3	16.9	10.0	-2.6	-13.0	-23.0	-44.2	-65.2	-95.3	-158.5	-251.8	-389.3	-602.2	-938.9	-1453.6	37.9	26.9
2-I	50274	15324	-1.6	3.4	4.4	5.4	8.4	13.4	14.4	22.8	30.0	29.6	32.7	30.9	31.2	27.4	20.7	18.6	12.0	-0.2	-10.3	-19.8	-40.4	-60.3	-88.9	-149.6	-239.2	-370.7	-574.2	-896.3	-1388.4	38.6	27.9
2-J	48134	14671	-1.2	3.8	4.8	5.8	8.8	13.8	14.8	23.3	30.4	30.2	33.3	31.7	32.1	28.6	22.1	20.2	13.9	2.0	-7.7	-16.8	-36.7	-55.7	-82.8	-141.3	-227.2	-353.1	-547.8	-856.1	-1326.9	39.4	28.8
2-K	46221	14088	-0.9	4.1	5.1	6.1	9.1	14.1	15.2	23.7	30.9	30.7	33.9	32.3	32.9	29.6	23.3	21.7	15.6	4.0	-5.4	-14.0	-33.4	-51.5	-77.3	-133.8	-216.6	-337.4	-524.2	-820.1	-1272.0	40.1	29.7
2-L	44332	13512	-0.5	4.5	5.5	6.5	9.5	14.5	15.6	24.1	31.3	31.2	34.5	33.0	33.7	30.6	24.6	23.2	17.4	6.0	-3.1	-11.3	-30.1	-47.4	-71.9	-126.5	-206.0	-321.8	-500.9	-784.6	-1217.6	40.7	30.7
3-D	63002	19203	-3.6	1.4	2.4	3.4	6.4	11.4	12.2	20.5	27.4	26.7	29.2	26.8	26.0	21.1	12.9	9.2	0.9	-13.2	-25.4	-37.6	-61.9	-87.5	-124.8	-198.9	-309.8	-475.1	-731.0	-1135.3	-1753.9	34.8	22.8
3-E	60477	18433	-3.2	1.8	2.8	3.8	6.8	11.8	12.6	20.9	27.8	27.2	29.9	27.6	27.0	22.3	14.4	11.0	3.0	-10.7	-22.4	-34.1	-57.7	-82.1	-117.7	-189.2	-295.8	-454.4	-699.9	-1087.9	-1681.4	35.5	23.7
3-F	58053	17694	-2.9	2.1	3.1	4.1	7.1	12.1	13.0	21.3	28.3	27.8	30.5	28.3	28.0	23.5	15.9	12.8	5.1	-8.2	-19.6	-30.7	-53.6	-77.0	-110.9	-179.8	-282.4	-434.5	-670.1	-1042.4	-1611.8	36.2	24.7
3-G	55738	16989	-2.5	2.5	3.5	4.5	7.5	12.5	13.4	21.7	28.8	28.3	31.1	29.1	28.9	24.7	17.3	14.5	7.2	-5.8	-16.8	-27.5	-49.7	-72.0	-104.4	-170.9	-269.5	-415.6	-641.6	-999.0	-1545.4	36.9	25.6
3-H	53514	16311	-2.1	2.9	3.9	4.9	7.9	12.9	13.8	22.2	29.2	28.8	31.8	29.8	29.8	25.8	18.7	16.2	9.1	-3.6	-14.2	-24.4	-45.9	-67.2	-98.1	-162.2	-257.2	-397.3	-614.2	-957.2	-1481.5	37.6	26.5
3-I	51394	15665	-1.8	3.2	4.2	5.2	8.2	13.2	14.2	22.6	29.7	29.4	32.4	30.5	30.7	26.9	20.0	17.7	11.0	-1.4	-11.7	-21.4	-42.3	-62.7	-92.1	-154.0	-245.4	-379.9	-588.1	-917.4	-1420.6	38.3	27.4
3-J	49339	15039	-1.4	3.6	4.6	5.6	8.6	13.6	14.6	23.0	30.2	29.9	33.0	31.2	31.6	27.9	21.3	19.3	12.8	0.8	-9.2	-18.5	-38.8	-58.3	-86.2	-146.0	-234.0	-363.0	-562.7	-878.7	-1361.6	39.0	28.3
3-K	47417	14453	-1.1	3.9	4.9	5.9	8.9	13.9	15.0	23.4	30.6	30.4	33.5	31.9	32.4	28.9	22.6	20.8	14.6	2.8	-6.9	-15.8	-35.5	-54.1	-80.8	-138.5	-223.2	-347.2	-539.0	-842.6	-1306.3	39.6	29.2
3-L	45715	13934	-0.8	4.2	5.2	6.2	9.2	14.2	15.3	23.8	31.0	30.8	34.0	32.5	33.1	29.8	23.7	22.1	16.1	4.6	-4.8	-13.3	-32.5	-50.4	-75.9	-131.9	-213.7	-333.2	-518.0	-810.6	-1257.4	40.2	30.0
4-D	63749	19431	-3.7	1.3	2.3	3.3	6.3	11.3	12.1	20.3	27.2	26.5	29.1	26.5	25.8	20.7	12.5	8.6	0.2	-13.9	-26.3	-38.6	-63.2	-89.1	-126.9	-201.8	-313.9	-481.2	-740.2	-1149.3	-1775.3	34.6	22.6
4-E	61262	18673	-3.3	1.7	2.7	3.7	6.7	11.7	12.4	20.8	27.7	27.1	29.7	27.3	26.7	21.9	14.0	10.4	2.4	-11.4	-23.4	-35.2	-59.0	-83.8	-119.9	-192.2	-300.2	-460.8	-709.6	-1102.7	-1704.0	35.3	23.5
4-F	58936	17964	-3.0	2.0	3.0	4.0	7.0	12.0	12.8	21.2	28.1	27.6	30.3	28.0	27.6	23.1	15.4	12.1	4.4	-9.1	-20.6	-32.0	-55.1	-78.8	-113.4	-183.2	-287.3	-441.8	-681.0	-1059.0	-1637.2	36.0	24.3
4-G	56654	17268	-2.6	2.4	3.4	4.4	7.4	12.4	13.2	21.6	28.6	28.1	30.9	28.8	28.5	24.2	16.8	13.8	6.4	-6.8	-17.9	-28.8	-51.2	-74.0	-106.9	-174.4	-274.6	-423.1	-652.9	-1016.2	-1571.7	36.6	25.2
4-H	54508	16614	-2.3	2.7	3.7	4.7	7.7	12.7	13.6	22.0	29.0	28.6	31.5	29.5	29.4	25.3	18.1	15.4	8.2	-4.6	-15.4	-25.8	-47.6	-69.4	-100.9	-166.1	-262.7	-405.5	-626.4	-975.9	-1510.0	37.3	26.1
4-I	52449	15987	-2.0	3.0	4.0	5.0	8.0	13.0	14.0	22.4	29.5	29.1	32.1	30.2	30.3	26.3	19.4	16.9	10.1	-2.5	-12.9	-22.9	-44.1	-65.0	-95.1	-158.1	-251.3	-388.6	-601.1	-937.2	-1450.9	37.9	26.9
4-J	50534	15403	-1.6	3.4	4.4	5.4	8.4	13.4	14.3	22.8	29.9	29.6	32.6	30.8	31.1	27.3	20.6	18.4	11.8	-0.5	-10.6	-20.2	-40.8	-60.8	-89.6	-150.7	-240.6	-372.8	-577.4	-901.2	-1395.9	38.6	27.8
4-K	48738	14855	-1.3	3.7	4.7	5.7	8.7	13.7	14.7	23.1	30.3	30.0	33.1	31.5	31.8	28.2	21.7	19.8	13.4	1.4	-8.5	-17.6	-37.7	-57.0	-84.5	-143.7	-230.6	-358.1	-555.3	-867.4	-1344.3	39.2	28.6
4-L	47080	14350	-1.0	4.0	5.0	6.0	9.0	14.0	15.0	23.5	30.7	30.4	33.6	32.0	32.5	29.1	22.8	21.0	14.9	3.1	-6.5	-15.3	-34.9	-53.4	-79.8	-137.2	-221.4	-344.4	-534.8	-836.3	-1296.6	39.7	29.3
5-D	64542	19672	-3.8	1.2	2.2	3.2	6.2	11.2	11.9	20.2	27.1	26.4	28.9	26.3	25.5	20.4	12.0	8.1	-0.4	-14.7	-27.2	-39.7	-64.5	-90.8	-129.1	-204.9	-318.3	-487.7	-749.9	-1164.2	-1798.1	34.4	22.3
5-E	62199	18958	-3.5	1.5	2.5	3.5	6.5	11.5	12.3	20.6	27.5	26.9	29.4	27.0	26.4	21.5	13.4	9.8	1.6	-12.4	-24.4	-36.5	-60.6	-85.8	-122.5	-195.8	-305.3	-468.5	-721.1	-1120.2	-1730.9	35.0	23.1
5-F	59890	18254	-3.1	1.9	2.9	3.9	6.9	11.9	12.7	21.0	28.0	27.4	30.0	27.7	27.3	22.6	14.8	11.4	3.6	-10.1	-21.7	-33.3	-56.7	-80.9	-116.1	-186.9	-292.6	-449.6	-692.7	-1076.9	-1664.6	35.7	24.0
5-G	57730	17596	-2.8	2.2	3.2	4.2	7.2	12.2	13.0	21.4	28.4	27.9	30.6	28.4	28.1	23.7	16.1	13.0	5.4	-7.9	-19.2	-30.3	-53.0	-76.3	-110.0	-178.6	-280.6	-431.9	-666.1	-1036.4	-1602.6	36.3	24.8
5-H	55622	16954	-2.5	2.5	3.5	4.5	7.5	12.5	13.4	21.8	28.8	28.3	31.2	29.1	29.0	24.7	17.4	14.6	7.3	-5.7	-16.7	-27.3	-49.5	-71.8	-104.0	-170.4	-268.9	-414.6	-640.2	-996.8	-1542.0	36.9	25.6
5-I	53631	16347	-2.2	2.8	3.8	4.8	7.8	12.8	13.8	22.2	29.2	28.8	31.7	29.8	29.8	25.7	18.6	16.1	9.0	-3.7	-14.3	-24.6	-46.1	-67.5	-98.4	-162.7	-257.8	-398.3	-615.6	-959.4	-1484.9	37.6	26.4
5-J	51811	15792	-1.9	3.1	4.1	5.1	8.1	13.1	14.1	22.5	29.6	29.3	32.2	30.4	30.5	26.7	19.8	17.4	10.6	-1.8	-12.2	-22.0	-43.0	-63.6	-93.2	-155.6	-247.7	-383.3	-593.2	-925.2	-1432.6	38.1	27.2
6-D	65392	19931	-3.9	1.1	2.1	3.1	6.1	11.1	11.8	20.1	26.9	26.2	28.6	26.0	25.1	20.0	11.5	7.5	-1.2	-15.6	-28.2	-40.9	-65.9	-92.6	-131.5	-208.1	-323.0	-494.6	-760.4	-1180.1	-1822.5	34.2	22.0
6-E	63115	19237	-3.6	1.4	2.4	3.4	6.4	11.4	12.2	20.4	27.3	26.7	29.2	26.7	26.0	21.0	12.9	9.1	0.8	-13.3	-25.5	-37.8	-62.1	-87.7	-125.1	-199.4	-310.4	-476.0	-732.4	-1137.4	-1757.1	34.8	22.8
6-G	58728	17900	-3.0	2.0	3.0	4.0	7.0	12.0	12.9	21.2	28.2	27.6	30.3	28.1	27.7	23.2	15.5	12.3	4.6	-8.9	-20.4	-31.7	-54.7	-78.4	-112.8	-182.4	-286.1	-440.1	-678.4	-1055.1	-1631.2	36.0	24.4
6-H	56696	17281	-2.6	2.4	3.4	4.4	7.4	12.4	13.2	21.6	28.6	28.1	30.9	28.8	28.5	24.2	16.7	13.8	6.3	-6.8	-18.0	-28.8	-51.3	-74.1	-107.1	-174.6	-274.9	-423.4	-653.4	-1017.0	-1572.9	36.6	25.2
6-I	54867	16723	-2.4	2.6	3.6	4.6	7.6	12.6	13.5	21.9	29.0	28.5	31.4	29.4	29.3	25.1	17.9	15.1	7.9	-4.9	-15.8	-26.3	-48.2	-70.1	-101.9	-167.5	-264.7	-408.4	-630.9	-982.6	-1520.4	37.2	25.9
6-J	53130	16194	-2.1	2.9	3.9	4.9	7.9	12.9	13.9	22.2	29.3	28.9	31.9	29.9	30.0	26.0	18.9	16.4	9.5	-3.2	-13.7	-23.9	-45.2	-66.4	-97.0	-160.7	-255.1	-394.2	-609.5	-950.0	-1470.5	37.7	26.7
7-B	70994	21639	-4.6	0.4	1.4	2.4	5.4	10.4	11.0	19.2	25.9	25.0	27.3	24.4	23.0	17.3	8.2	3.5	-5.9	-21.1	-34.7	-48.6	-75.3	-104.4	-147.1	-229.7	-353.9	-540.4	-829.2	-1285.2	-1983.2	32.8	20.1
7-C	68605	20911	-4.3	0.7	1.7	2.7	5.7	10.7	11.3	19.5	26.3	25.5	27.9	25.1	23.9	18.4	9.6	5.2	-3.9	-18.8	-31.9	-45.3	-71.3	-99.4	-140.5	-220.5	-340.8	-520.9	-799.9	-1240.4	-1914.7	33.4	20.9
7-E	64067	19528	-3.7	1.3	2.3	3.3	6.3	11.3	12.0	20.3	27.2	26.5	29.0	26.4	25.6	20.6	12.3	8.4	0.0	-14.3	-26.6	-39.1	-63.7	-89.8	-127.8	-203.0	-315.7	-483.8	-744.1	-1155.3	-1784.5	34.5	22.5
7-F	61942	18880	-3.4	1.6	2.6	3.6	6.6	11.6	12.3	20.6	27.6	26.9	29.5	27.1	26.5	21.6	13.6	9.9	1.8	-12.1	-24.1	-36.1	-60.1	-85.2	-121.8	-194.8	-303.9	-466.4	-718.0	-1115.4	-1723.5	35.1	23.2
7-G	59913	18262	-3.1	1.9	2.9	3.9	6.9	11.9	12.7	21.0	27.9	27.4	30.0	27.7	27.2	22.6	14.8	11.4	3.5	-10.1	-21.8	-33.3	-56.7	-80.9	-116.1	-187.0	-292.7	-449.8	-693.0	-1077.4	-1665.2	35.7	24.0
7-H	57972	17670	-2.8	2.2	3.2	4.2	7.2	12.2	13.0	21.3	28.3	27.8	30.5	28.4	28.0	23.6	16.0	12.8	5.2	-8.1	-19.5	-30.6	-53.5	-76.8	-110.7	-179.5	-281.9	-433.9	-669.1	-1040.9	-1609.5	36.2	24.7
7-I	56135	17110	-2.6	2.4	3.4	4.4	7.4	12.4	13.3	21.7	28.7	28.2	31.0	29.0	28.8	24.5	17.1	14.2	6.8	-6.2	-17.3	-28.1	-50.4	-72.9	-105.5	-172.4	-271.7	-418.8	-646.5	-1006.4	-1556.8	36.8	25.4
8-A	74249	22631	-5.0	0.0	1.0	2.0	5.0	10.0	10.5	18.7	25.4	24.4	26.5	23.4	21.8	15.8	6.3	1.2	-8.6	-24.4	-38.4	-53.0	-80.7	-111.2	-156.2	-242.2	-371.9	-567.0	-869.2	-1346.2	-2076.5	32.0	19.1
8-B	71850	21900	-4.7	0.3	1.3	2.3	5.3	10.3	10.8	19.0	25.8	24.9	27.1	24.1	22.7	16.9	7.7	2.9	-6.6	-22.0	-35.6	-49.8	-76.7	-106.2	-149.5	-233.0	-358.7	-547.4	-839.7	-1301.2	-2007.8	32.6	19.9
8-C	69521	21190	-4.4	0.6	1.6	2.6	5.6	10.6	11.2	19.4	26.2	25.3	27.6	24.8	23.6	18.0	9.1	4.5	-4.7	-19.7	-33.0	-46.6	-72.8	-101.3	-143.0	-224.0	-345.8	-528.4	-811.1	-1257.6	-1940.9	33.1	20.6
8-D	67244	20496	-4.1	0.9	1.9	2.9	5.9	10.9	11.5	19.8	26.6	25.8	28.2	25.5	24.4	19.1	10.4	6.1	-2.7	-17.4	-30.3	-43.4	-69.0	-96.5	-136.7	-215.3	-333.2	-509.8	-783.2	-1214.9	-1875.6	33.7	21.4
8-F	63023	19209	-3.6	1.4	2.4	3.4	6.4	11.4	12.2	20.4	27.4	26.7	29.2	26.8	26.0	21.1	12.9	9.2	0.9	-13.2	-25.4	-37.6	-62.0	-87.5	-124.8	-199.0	-309.9	-475.2	-731.2	-1135.7	-1754.5	34.8	22.8

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Lmax)
FROM PILE DRIVING OF WTG MONOPILES

8-G	61119	18629	-3.3	1.7	2.7	3.7	6.7	11.7	12.5	20.8	27.7	27.1	29.7	27.4	26.8	22.0	14.1	10.5	2.5	-11.3	-23.2	-35.0	-58.8	-83.5	-119.5	-191.7	-299.4	-459.7	-707.8	-1100.0	-1699.8	35.3	23.5
8-H	59220	18050	-3.0	2.0	3.0	4.0	7.0	12.0	12.8	21.1	28.1	27.5	30.2	28.0	27.5	22.9	15.2	11.9	4.1	-9.4	-21.0	-32.4	-55.6	-79.5	-114.2	-184.3	-288.9	-444.1	-684.5	-1064.3	-1645.4	35.9	24.2
9-A	75045	22874	-5.1	-0.1	0.9	1.9	4.9	9.9	10.4	18.5	25.2	24.3	26.3	23.2	21.5	15.4	5.9	0.6	-9.3	-25.1	-39.3	-54.1	-82.0	-112.9	-158.4	-245.2	-376.3	-573.5	-879.0	-1361.1	-2099.4	31.8	18.9
9-B	72715	22164	-4.8	0.2	1.2	2.2	5.2	10.2	10.7	18.9	25.6	24.7	26.9	23.8	22.4	16.5	7.2	2.3	-7.4	-22.8	-36.6	-50.9	-78.1	-108.0	-151.9	-236.3	-363.4	-554.5	-850.4	-1317.4	-2032.5	32.4	19.6
9-C	70444	21471	-4.5	0.5	1.5	2.5	5.5	10.5	11.0	19.2	26.0	25.2	27.4	24.5	23.2	17.6	8.5	3.9	-5.5	-20.6	-34.0	-47.8	-74.3	-103.2	-145.6	-227.6	-350.9	-535.9	-822.5	-1274.9	-1967.4	32.9	20.3
9-D	68283	20813	-4.3	0.7	1.7	2.7	5.7	10.7	11.4	19.6	26.4	25.6	27.9	25.2	24.0	18.6	9.8	5.4	-3.6	-18.5	-31.5	-44.9	-70.8	-98.7	-139.6	-219.3	-339.0	-518.3	-795.9	-1234.4	-1905.4	33.4	21.0
9-E	66183	20173	-4.0	1.0	2.0	3.0	6.0	11.0	11.7	19.9	26.8	26.0	28.4	25.8	24.8	19.6	11.0	6.9	-1.8	-16.4	-29.1	-42.0	-67.2	-94.2	-133.7	-211.2	-327.4	-501.1	-770.1	-1195.0	-1845.2	34.0	21.7
9-F	64172	19560	-3.7	1.3	2.3	3.3	6.3	11.3	12.0	20.3	27.1	26.4	28.9	26.4	25.6	20.5	12.2	8.3	-0.1	-14.4	-26.8	-39.2	-63.9	-90.0	-128.1	-203.4	-316.3	-484.7	-745.4	-1157.3	-1787.5	34.5	22.4
9-G	62265	18978	-3.5	1.5	2.5	3.5	6.5	11.5	12.3	20.6	27.5	26.9	29.4	27.0	26.3	21.5	13.4	9.7	1.5	-12.5	-24.5	-36.6	-60.7	-85.9	-122.7	-196.1	-305.7	-469.0	-721.9	-1121.5	-1732.7	35.0	23.1
9-H	60522	18447	-3.2	1.8	2.8	3.8	6.8	11.8	12.6	20.9	27.8	27.2	29.9	27.5	27.0	22.3	14.4	11.0	3.0	-10.7	-22.5	-34.2	-57.8	-82.2	-117.8	-189.4	-296.1	-454.8	-700.5	-1088.8	-1682.7	35.5	23.7
9-I	58818	17928	-3.0	2.0	3.0	4.0	7.0	12.0	12.9	21.2	28.2	27.6	30.3	28.1	27.7	23.1	15.4	12.2	4.5	-9.0	-20.5	-31.8	-54.9	-78.6	-113.0	-182.8	-286.6	-440.8	-679.5	-1056.8	-1633.8	36.0	24.4
10-A	75900	23134	-5.2	-0.2	0.8	1.8	4.8	9.8	10.3	18.4	25.1	24.1	26.1	22.9	21.2	15.0	5.4	0.0	-10.0	-26.0	-40.3	-55.3	-83.4	-114.7	-160.8	-248.5	-381.0	-580.5	-889.5	-1377.1	-2123.9	31.6	18.6
10-B	73656	22450	-4.9	0.1	1.1	2.1	5.1	10.1	10.6	18.8	25.5	24.5	26.6	23.6	22.0	16.1	6.7	1.6	-8.1	-23.8	-37.7	-52.2	-79.7	-110.0	-154.6	-239.9	-368.6	-562.2	-861.9	-1335.1	-2059.5	32.1	19.3
10-C	71456	21780	-4.7	0.3	1.3	2.3	5.3	10.3	10.9	19.1	25.8	25.0	27.2	24.2	22.9	17.1	7.9	3.1	-6.3	-21.6	-35.2	-49.2	-76.0	-105.4	-148.4	-231.5	-356.5	-544.2	-834.9	-1293.9	-1996.4	32.7	20.0
10-D	69300	21123	-4.4	0.6	1.6	2.6	5.6	10.6	11.2	19.4	26.2	25.4	27.7	24.9	23.7	18.1	9.2	4.7	-4.5	-19.5	-32.7	-46.3	-72.4	-100.8	-142.4	-223.2	-344.6	-526.6	-808.4	-1253.4	-1934.6	33.2	20.7
10-E	67270	20504	-4.1	0.9	1.9	2.9	5.9	10.9	11.5	19.7	26.6	25.8	28.2	25.5	24.4	19.1	10.4	6.1	-2.8	-17.5	-30.4	-43.5	-69.1	-96.5	-136.7	-215.4	-333.4	-510.0	-783.5	-1215.4	-1876.4	33.7	21.3
10-F	65300	19903	-3.9	1.1	2.1	3.1	6.1	11.1	11.8	20.1	26.9	26.2	28.7	26.1	25.2	20.0	11.6	7.5	-1.1	-15.5	-28.1	-40.8	-65.8	-92.4	-131.2	-207.8	-322.5	-493.9	-759.3	-1178.4	-1819.8	34.2	22.0
10-G	63472	19346	-3.6	1.4	2.4	3.4	6.4	11.4	12.1	20.4	27.3	26.6	29.1	26.6	25.9	20.9	12.6	8.8	0.5	-13.7	-25.9	-38.3	-62.7	-88.5	-126.1	-200.7	-312.4	-478.9	-736.8	-1144.1	-1767.4	34.7	22.7
10-H	61791	18834	-3.4	1.6	2.6	3.6	6.6	11.6	12.4	20.7	27.6	27.0	29.6	27.1	26.5	21.7	13.6	10.1	1.9	-12.0	-24.0	-35.9	-59.9	-84.9	-121.4	-194.3	-303.1	-465.2	-716.1	-1112.6	-1719.2	35.2	23.3
10-I	60139	18330	-3.2	1.8	2.8	3.8	6.8	11.8	12.6	20.9	27.9	27.3	30.0	27.7	27.2	22.5	14.6	11.3	3.3	-10.3	-22.0	-33.6	-57.1	-81.4	-116.8	-187.9	-293.9	-451.6	-695.8	-1081.6	-1671.7	35.6	23.9
11-A	76856	23426	-5.3	-0.3	0.7	1.7	4.7	9.7	10.2	18.3	24.9	23.9	25.9	22.7	20.9	14.6	4.8	-0.7	-10.8	-26.9	-41.4	-56.6	-85.0	-116.7	-163.5	-252.2	-386.3	-588.3	-901.2	-1395.0	-2151.3	31.4	18.3
11-B	74617	22743	-5.0	0.0	1.0	2.0	5.0	10.0	10.5	18.6	25.3	24.3	26.4	23.3	21.7	15.6	6.1	0.9	-9.0	-24.7	-38.8	-53.5	-81.3	-112.0	-157.2	-243.6	-373.9	-570.0	-873.7	-1353.1	-2087.1	31.9	19.0
11-C	72493	22096	-4.8	0.2	1.2	2.2	5.2	10.2	10.8	18.9	25.7	24.8	26.9	23.9	22.5	16.6	7.3	2.4	-7.2	-22.6	-36.4	-50.6	-77.8	-107.5	-151.3	-235.4	-362.2	-552.7	-847.6	-1313.3	-2026.2	32.4	19.7
11-D	70451	21473	-4.5	0.5	1.5	2.5	5.5	10.5	11.0	19.2	26.0	25.2	27.4	24.5	23.2	17.6	8.5	3.9	-5.5	-20.6	-34.0	-47.8	-74.4	-103.2	-145.6	-227.6	-350.9	-536.0	-822.6	-1275.0	-1967.6	32.9	20.3
11-E	68445	20862	-4.3	0.7	1.7	2.7	5.7	10.7	11.3	19.6	26.4	25.6	27.9	25.1	24.0	18.5	9.7	5.3	-3.8	-18.6	-31.7	-45.1	-71.0	-99.0	-140.0	-219.9	-339.9	-519.6	-797.9	-1237.4	-1910.1	33.4	21.0
11-F	66608	20302	-4.0	1.0	2.0	3.0	6.0	11.0	11.6	19.9	26.7	25.9	28.3	25.7	24.7	19.4	10.8	6.6	-2.2	-16.8	-29.6	-42.6	-68.0	-95.1	-134.9	-212.8	-329.7	-504.6	-775.3	-1203.0	-1857.4	33.9	21.6
11-G	64829	19760	-3.8	1.2	2.2	3.2	6.2	11.2	11.9	20.1	27.0	26.3	28.8	26.2	25.3	20.2	11.8	7.9	-0.7	-15.0	-27.5	-40.1	-65.0	-91.4	-129.9	-206.0	-319.9	-490.0	-753.5	-1169.6	-1806.3	34.3	22.2
11-H	63181	19258	-3.6	1.4	2.4	3.4	6.4	11.4	12.1	20.4	27.3	26.7	29.2	26.7	26.0	21.0	12.8	9.1	0.7	-13.4	-25.6	-37.9	-62.2	-87.9	-125.3	-199.6	-310.8	-476.5	-733.2	-1138.7	-1759.0	34.8	22.8
11-K	59042	17996	-3.0	2.0	3.0	4.0	7.0	12.0	12.8	21.1	28.1	27.6	30.3	28.0	27.6	23.0	15.3	12.1	4.3	-9.2	-20.7	-32.1	-55.3	-79.1	-113.7	-183.6	-287.9	-442.6	-682.3	-1061.0	-1640.2	35.9	24.3
11-L	57899	17648	-2.8	2.2	3.2	4.2	7.2	12.2	13.0	21.3	28.3	27.8	30.6	28.4	28.0	23.6	16.0	12.9	5.3	-8.0	-19.4	-30.5	-53.3	-76.6	-110.4	-179.2	-281.5	-433.3	-668.2	-1039.6	-1607.4	36.3	24.7
12-A	77826	23721	-5.4	-0.4	0.6	1.6	4.6	9.6	10.0	18.1	24.8	23.7	25.7	22.4	20.5	14.2	4.3	-1.3	-11.6	-27.9	-42.5	-57.9	-86.6	-118.7	-166.2	-255.9	-391.6	-596.2	-913.1	-1413.2	-2179.1	31.2	18.0
12-B	75644	23056	-5.2	-0.2	0.8	1.8	4.8	9.8	10.3	18.5	25.1	24.1	26.2	23.0	21.3	15.2	5.5	0.2	-9.8	-25.7	-40.0	-54.9	-83.0	-114.2	-160.1	-247.5	-379.6	-578.4	-886.3	-1372.3	-2116.5	31.7	18.7
12-C	73546	22417	-4.9	0.1	1.1	2.1	5.1	10.1	10.6	18.8	25.5	24.5	26.7	23.6	22.1	16.1	6.7	1.7	-8.1	-23.7	-37.6	-52.1	-79.5	-109.8	-154.3	-239.5	-368.0	-561.3	-860.6	-1333.0	-2056.4	32.2	19.3
12-D	71561	21812	-4.7	0.3	1.3	2.3	5.3	10.3	10.9	19.1	25.8	24.9	27.1	24.2	22.8	17.0	7.9	3.1	-6.4	-21.7	-35.3	-49.4	-76.2	-105.6	-148.7	-231.9	-357.1	-545.1	-836.2	-1295.8	-1999.5	32.6	19.9
12-E	69636	21225	-4.4	0.6	1.6	2.6	5.6	10.6	11.2	19.4	26.2	25.3	27.6	24.8	23.5	17.9	9.0	4.4	-4.8	-19.8	-33.1	-46.7	-73.0	-101.5	-143.4	-224.5	-346.5	-529.3	-812.5	-1259.7	-1944.2	33.1	20.6
12-F	67879	20690	-4.2	0.8	1.8	2.8	5.8	10.8	11.4	19.6	26.5	25.7	28.0	25.3	24.2	18.8	10.0	5.7	-3.3	-18.1	-31.1	-44.3	-70.1	-97.8	-138.4	-217.7	-336.8	-515.0	-791.0	-1226.8	-1893.8	33.5	21.1
12-G	66149	20162	-4.0	1.0	2.0	3.0	6.0	11.0	11.7	19.9	26.8	26.0	28.5	25.8	24.8	19.6	11.1	6.9	-1.8	-16.3	-29.1	-41.9	-67.2	-94.2	-133.6	-211.1	-327.2	-500.8	-769.7	-1194.3	-1844.2	34.0	21.7
12-H	64590	19687	-3.8	1.2	2.2	3.2	6.2	11.2	11.9	20.2	27.1	26.4	28.8	26.3	25.4	20.3	12.0	8.0	-0.5	-14.8	-27.2	-39.8	-64.6	-90.9	-129.2	-205.1	-318.6	-488.1	-750.5	-1165.1	-1799.5	34.4	22.3
12-I	63102	19234	-3.6	1.4	2.4	3.4	6.4	11.4	12.2	20.4	27.3	26.7	29.2	26.7	26.0	21.0	12.9	9.1	0.8	-13.3	-25.5	-37.7	-62.1	-87.7	-125.1	-199.3	-310.3	-475.9	-732.2	-1137.2	-1756.8	34.8	22.8
12-J	61766	18826	-3.4	1.6	2.6	3.6	6.6	11.6	12.4	20.7	27.6	27.0	29.6	27.2	26.5	21.7	13.7	10.1	1.9	-12.0	-23.9	-35.9	-59.8	-84.9	-121.3	-194.2	-303.0	-465.0	-715.8	-1112.1	-1718.4	35.2	23.3
12-K	60590	18468	-3.2	1.8	2.8	3.8	6.8	11.8	12.6	20.9	27.8	27.2	29.9	27.5	27.0	22.3	14.4	10.9	2.9	-10.8	-22.6	-34.3	-57.9	-82.4	-118.0	-189.6	-296.4	-455.3	-701.3	-1090.1	-1684.7	35.5	23.7
12-L	59551	18151	-3.1	1.9	2.9	3.9	6.9	11.9	12.7	21.1	28.0	27.4	30.1	27.9	27.4	22.8	15.0	11.7	3.8	-9.7	-21.3	-32.8	-56.1	-80.2	-115.1	-185.6	-290.7	-446.8	-688.5	-1070.6	-1654.9	35.8	24.1
13-A	78850	24033	-5.5	-0.5	0.5	1.5	4.5	9.5	9.9	18.0	24.6	23.5	25.5	22.1	20.2	13.7	3.7	-2.0	-12.5	-28.9	-43.7	-59.3	-88.3	-120.9	-169.0	-259.8	-397.2	-604.5	-925.7	-1432.4	-2208.5	31.0	17.7
13-B	76697	23377	-5.3	-0.3	0.7	1.7	4.7	9.7	10.2	18.3	25.0	23.9	25.9	22.7	20.9	14.7	4.9	-0.5	-10.7	-26.8	-41.2	-56.3	-84.7	-116.4	-163.0	-251.6	-385.4	-587.0	-899.3	-1392.1	-2146.7	31.4	18.4
13-C	74682	22763	-5.0	0.0	1.0	2.0	5.0	10.0	10.5	18.6	25.3	24.3	26.4	23.3	21.7	15.6	6.1	0.9	-9.0	-24.8	-38.9	-53.6	-81.4	-112.1	-157.4	-243.8	-374.3	-570.5	-874.5	-1354.3	-2088.9	31.9	19.0
13-D	72747	22173	-4.8	0.2	1.2	2.2	5.2	10.2	10.7	18.9	25.6	24.7	26.9	23.8	22.4	16.5	7.2	2.2	-7.4	-22.9	-36.7	-51.0	-78.2	-108.1	-152.0	-236.4	-363.6	-554.7	-850.8	-1318.1	-2033.5	32.4	19.6
13-F	69155	21079	-4.4	0.6	1.6	2.6	5.6	10.6	11.2	19.4	26.2	25.4	27.7	24.9	23.7	18.2	9.3	4.8	-4.4	-19.3	-32.5	-46.1	-72.2	-100.5	-142.0	-222.6	-343.8	-525.4	-806.6	-1250.7	-1930.4	33.2	20.7
13-G	67522	20581	-4.2	0.8	1.8	2.8	5.8	10.8	11.5	19.7	26.5	25.7	28.1	25.4	24.3	18.9	10.2	5.9	-3.0	-17.7	-30.6	-43.8	-69.5	-97.1	-137.4	-216.3	-334.8	-512.1	-786.6	-1220.1	-1883.6	33.6	21.3
13-H	65974	20109	-4.0	1.0	2.0	3.0	6.0	11.0	11.7	20.0	26.8	26.1	28.5	25.9	24.9	19.7	11.2	7.0	-1.7	-16.2	-28.9	-41.7	-66.9	-93.8	-133.1	-210.4	-326.2	-499.4	-767.5	-1191.1	-1839.2	34.0	21.8
13-I	64587	19686	-3.8	1.2	2.2	3.2	6.2	11.2	11.9	20.2	27.1	26.4	28.8	26.3	25.4	20.3	12.0	8.0	-0.5	-14.8	-27.2	-39.8	-64.6	-90.9	-129.2	-205.0	-318.6	-488.0	-750.5	-1165.1	-1799.4	34.4	22.3
13-J	63387	19320	-3.6	1.4	2.4	3.4	6.4	11.4	12.1	20.4	27.3	26.6	29.1	26.6	25.9	20.9	12.7	8.9	0.5	-13.6	-25.8	-38.1	-62.6	-88.3	-125.9	-200.4	-311.9	-478.2	-735.7	-1142.5	-1764.9	34.7	22.7
13-K	62261	18977	-3.5	1.5	2.5	3.5	6.5	11.5	12.3	20.6	27.5	26.9	29.4	27.0	26.3	21.5	13.4	9.7	1.5	-12.4	-24.5	-36.6	-60.7	-85.9	-122.7	-196.1	-305.7	-469.0	-721.9	-1121.4	-1732.6	35.0	23.1
13-L	61288	18680	-3.3	1.7	2.7	3.7	6.7	11.7	12.4	20.7	27.7	27.1	29.7	27.3	26.7	21.9	14.0	10.4	2.3	-11.5	-23.4	-35.2	-59.0	-83.9	-120.0	-192.3	-300.3	-461.0	-709.9	-1103.1	-1704.7	35.3	23.4
14-D	73981	22549	-5.0	0.0	1.0	2.0	5.0	10.0	10.6	18.7	25.4	24.5	26.6	23.5	21.9	15.9	6.5	1.4	-8.4	-24.1	-38.1	-52.7	-80.2	-110.7	-155.5	-241.2	-370.4	-564.8	-865.9	-1341.2	-2068.9	32.1	19.2
14-E	72223	22014	-4.8	0.2	1.2	2.2	5.2	10.2	10.8	19.0	25.7	24.8	27.0	24.0	22.6	16.7	7.5	2.6	-6.9	-22.4	-36.1	-50.3	-77.3	-107.0	-150.6	-234.4	-360.7	-550.5	-844.3	-1308.2	-2018.4	32.5	19.7
14-F	70500	21489	-4.5	0.5	1.5	2.5	5.5	10.5	11.0	19.2	26.0	25.1	27.4	24.5	23.2	17.5	8.5	3.8	-5.5	-20.7	-34.1	-47.9	-74.4	-103.3	-145.8	-227.8	-351.2	-536.4	-823.2	-1275.9	-1969.0	32.9	20.3
14-G	68937	21012	-4.3	0.7	1.7	2.7	5.7	10.7	11.3	19.5	26.3	25.5	27.8	25.0	23.8	18.3	9.4	4.9	-4.2	-19.1	-32.3	-45.8	-71.8	-100.1	-141.4	-221.8	-342.6	-523.6	-804.0	-1246.6	-1924.2	33.3	20.8
14-H	67483	20569	-4.2	0.8	1.8	2.8	5.8	10.8	11.5	19.7	26.5	25.8	28.1	25.4	24.3	19.0	10.3	6.0	-2.9	-17.7	-30.6	-43.8	-69.4	-97.0	-137.3	-216.2	-334.6	-511.7	-786.1	-1219.4	-1882.5	33.6	21.3
14-J	64931	19791	-3.8	1.2	2.2	3.2	6.2	11.2	11.9	20.1	27.0	26.3	28.8	26.2	25.3	20.2	11.8	7.8	-0.8	-15.1	-27.6	-40.3	-65.2	-91.6	-130.2	-206.4	-320.5	-490.9	-754.7	-1171.5	-1809.3	34.3	22.1
14-K	63904	19478	-3.7	1.3	2.3	3.3	6.3	11.3	12.0	20.3	27.2	26.5	29.0	26.5	25.7	20.7	12.4	8.5	0.1	-14.1	-26.4	-38.9	-63.4	-89.4	-127.3	-202.4	-314.8	-482.5	-742.1	-1152.2	-1779.8	34.6	22.5
14-L	62995	19201	-3.6	1.4	2.4	3.4	6.4	11.4	12.2	20.5	27.4	26.7	29.2	26.8	26.0	21.1	12.9	9.2	0.9	-13.2	-25.4	-37.6	-61.9	-87.5	-124.8	-198.9	-309.8	-475.0	-730.9	-1135.2	-1753.7	34.8	22.8
15-F	71887	21911	-4.7	0.3	1.3	2.3	5.3	10.3	10.8	19.0	25.8	24.9	27.1	24.1	22.7	16.9	7.7	2.8	-6.7	-22.0	-35.7	-49.8	-76.7	-106.3	-149.6	-233.1	-358.9	-547.7	-840.2	-1301.9	-2008.8	32.6	19.8
15-G	70356	21444	-4.5	0.5	1.5	2.5	5.5	10.5	11.1	19.3	26.0	25.2	27.4	24.5	23.3	17.6	8.6	3.9	-5.4	-20.5	-33.9	-47.7	-74.2	-103.0	-145.4	-227.2	-350.4	-535.2	-821.4	-1273.2	-1964.9	32.9	20.3
15-H	69018	21037	-4.4	0.6	1.6	2.6	5.6	10.6	11.3	19.5	26.3	25.4	27.8	24.9	23.8	18.2	9.4	4.9	-4.2	-19.2	-32.4	-45.9	-72.0	-100.2	-141.6	-222.1	-343.0	-524.3	-804.9	-1248.1	-1926.5	33.3	20.8
15-I	67739	20647	-4.2	0.8	1.8	2.8	5.8	10.8	11.4	19.7	26.5	25.7	28.1	25.3	24.2	18.8	10.1	5.8	-3.2	-17.9	-30.9	-44.1	-69.8	-97.5	-138.1	-217.2	-336.0	-513.8	-789.2	-1224.2	-1889.8	33.6	21.2
15-J	66587	20296	-4.0	1.0	2.0	3.0	6.0	11.0	11.6	19.9	26.7	25.9	28.3	25.7	24.7	19.4	10.8	6.6	-2.2	-16.8	-29.6	-42.5	-67.9	-95.1	-134.8	-212.7	-329.6	-504.4	-775.1	-1202.6	-1856.8	33.9	21.6
15-K	65585	19990	-3.9	1.1	2.1	3.1	6.1	11.1	11.8	20.0	26.9	26.1	28.6	26.0	25.1	19.9	11.4	7.3	-1.3	-15.8	-28.4	-41.2	-66.2	-93.0	-132.0	-208.9	-324.1	-496.2	-762.8	-1183.8	-1828.0	34.1	21.9
16-J	68230	20797	-4.3	0.7	1.7	2.7	5.7	10.7	11.4	19.6	26.4	25.6	27.9	25.2	24.1	18.6	9.8	5.4	-3.6	-18.4	-31.5	-44.8	-70.7	-98.6	-139.4	-219.1	-338.7	-517.8	-795.3	-1233.4	-1903.9	33.5	21.0
16-K	67284	20508	-4.1	0.9	1.9	2.9	5.9	10.9	11.5	19.7	26.6	25.8	28.2	25.5	24.4	19.1	10.4	6.1	-2.8	-17.5	-30.4	-43.5	-69.1	-96.6	-136.8	-215.4	-333.5	-510.1	-783.6	-1215.6	-1876.8	33.7	21.3
		Minimum:	-5.5	-0.5	0.5	1.5	4.5	9.5	9.9	18.0	24.6	23.5	25.5	22.1	20.2	13.7	3.7	-2.0	-12.5	-28.9	-43.7	-59.3	-88.3	-120.9	-169.0	-259.8	-397.2	-604.5	-925.7	-1432.4	-2208.5	31.0	17.7
		Maximum:	-0.3	4.7	5.7	6.7	9.7	14.7	15.9	24.4	31.7	31.5	34.9	33.5	34.3	31.3	25.4	24.2	18.5	7.4	-1.5	-9.5	-27.9	-44.6	-68.3	-121.4	-198.8	-311.2	-485.0	-760.3	-1180.6	41.2	31.3

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Lmax)
FROM PILE DRIVING OF WTG MONOPILES

ODS Report Report no. 00.877, Figure 11, 2dB subtracted across the spectrum to account for peak to Lmax calculation

Sound Pressure Data			34	39	40	41	44	49	51	60	68	69	74	75	79	80	79	83	83	78	76	77	71	73	78	69	62	61	60	56	53	90	88
320 meters from the pile																																	
Lmax at 320 meters			32	37	38	39	42	47	49	58	66	67	72	73	77	78	77	81	81	76	74	75	69	71	76	67	60	59	58	54	51	88	86
Data for the graph																																
Atmos. Absorption per 1 km			0.0000	0.0000	0.0000	0.0000	0.0000	0.0670	0.1050	0.1630	0.2510	0.3810	0.5650	0.8150	1.1300	1.5100	1.9200	2.3600	2.8400	3.3800	4.0800	5.0500	6.5100	8.7500	12.2000	17.7000	26.4000	39.9000	61.1000	93.7000	144.0000		
air temp 59F 70% RH																																

																			Hertz													
	1/3 Octave Bands		16*	20	25	31	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	L	A
	Distance (ft)	Distance (m)																														
1-D	39341	11991	0.5	5.5	6.5	7.5	10.5	15.5	16.7	25.3	32.6	32.6	36.1	34.9	36.0	33.3	27.9	27.1	22.0	11.4	3.1	-4.1	-21.4	-36.5	-57.6	-106.9	-178.1	-280.6	-439.2	-690.6	-1074.1	42.7	33.3
1-E	36893	11245	1.1	6.1	7.1	8.1	11.1	16.1	17.4	25.9	33.3	33.3	36.9	35.9	37.2	34.7	29.6	29.1	24.3	14.1	6.2	-0.5	-17.1	-31.0	-50.5	-97.2	-164.3	-260.3	-408.8	-644.4	-1003.6	43.8	34.7
1-F	34555	10532	1.7	6.7	7.7	8.7	11.7	16.7	18.0	26.6	34.0	34.1	37.8	36.9	38.3	36.1	31.2	31.0	26.6	16.6	9.1	3.0	-12.9	-25.8	-43.7	-87.9	-151.1	-241.0	-379.8	-600.3	-936.2	44.8	36.1
1-G	32360	9863	2.2	7.2	8.2	9.2	12.2	17.2	18.6	27.2	34.7	34.8	38.6	37.8	39.4	37.4	32.8	32.9	28.7	19.1	12.0	6.3	-9.0	-20.9	-37.3	-79.2	-138.7	-222.7	-352.6	-558.9	-873.0	45.9	37.5
1-H	30327	9244	2.8	7.8	8.8	9.8	12.8	17.8	19.2	27.8	35.3	35.5	39.4	38.7	40.5	38.7	34.3	34.7	30.7	21.4	14.6	9.4	-5.3	-16.3	-31.3	-71.1	-127.2	-205.8	-327.3	-520.5	-814.4	47.0	38.8
1-I	28547	8701	3.3	8.3	9.3	10.3	13.3	18.3	19.7	28.4	35.9	36.2	40.1	39.6	41.5	39.8	35.7	36.2	32.5	23.5	17.0	12.1	-2.0	-12.2	-26.0	-63.9	-117.0	-191.0	-305.1	-486.8	-763.0	47.9	40.1
1-J	27049	8245	3.8	8.8	9.8	10.8	13.8	18.8	20.2	28.9	36.5	36.8	40.8	40.3	42.3	40.8	36.8	37.6	34.1	25.3	19.0	14.4	0.8	-8.8	-21.6	-57.9	-108.5	-178.4	-286.4	-458.4	-719.8	48.8	41.2
1-K	25783	7859	4.2	9.2	10.2	11.2	14.2	19.2	20.7	29.4	37.0	37.3	41.3	40.9	43.1	41.7	37.8	38.7	35.4	26.8	20.7	16.4	3.1	-5.9	-17.8	-52.8	-101.2	-167.8	-270.6	-434.4	-683.2	49.5	42.2
1-L	24946	7604	4.5	9.5	10.5	11.5	14.5	19.5	21.0	29.7	37.3	37.7	41.7	41.4	43.5	42.3	38.5	39.5	36.3	27.8	21.9	17.8	4.7	-3.9	-15.2	-49.4	-96.4	-160.8	-260.1	-418.5	-659.0	50.1	42.8
2-D	40189	12249	0.3	5.3	6.3	7.3	10.3	15.3	16.5	25.1	32.4	32.3	35.8	34.6	35.6	32.9	27.3	26.4	21.2	10.5	2.0	-5.3	-22.9	-38.3	-60.0	-110.2	-182.8	-287.6	-449.6	-706.5	-1098.4	42.4	32.8
2-E	37794	11520	0.9	5.9	6.9	7.9	10.9	15.9	17.1	25.7	33.0	33.1	36.6	35.5	36.7	34.2	29.0	28.4	23.4	13.1	5.0	-1.8	-18.7	-33.0	-53.1	-100.8	-169.4	-267.8	-420.0	-661.4	-1029.5	43.4	34.1
2-F	35553	10837	1.4	6.4	7.4	8.4	11.4	16.4	17.7	26.3	33.7	33.8	37.4	36.5	37.8	35.5	30.5	30.2	25.6	15.5	7.9	1.5	-14.7	-28.1	-46.6	-91.9	-156.7	-249.2	-392.2	-619.2	-965.0	44.4	35.5
2-G	33504	10212	1.9	6.9	7.9	8.9	11.9	16.9	18.3	26.9	34.3	34.4	38.2	37.3	38.9	36.7	32.0	31.9	27.6	17.8	10.5	4.6	-11.0	-23.5	-40.6	-83.8	-145.2	-232.2	-366.8	-580.5	-906.0	45.3	36.7
2-H	31635	9642	2.4	7.4	8.4	9.4	12.4	17.4	18.8	27.4	34.9	35.1	38.9	38.2	39.8	37.9	33.3	33.5	29.4	19.9	12.9	7.4	-7.7	-19.3	-35.2	-76.3	-134.6	-216.7	-343.5	-545.2	-852.1	46.3	38.0
2-I	29937	9125	2.9	7.9	8.9	9.9	12.9	17.9	19.3	28.0	35.5	35.7	39.5	38.9	40.7	38.9	34.6	35.0	31.1	21.9	15.1	10.0	-4.6	-15.4	-30.1	-69.5	-124.9	-202.5	-322.4	-513.1	-803.1	47.2	39.1
2-J	28539	8699	3.3	8.3	9.3	10.3	13.3	18.3	19.8	28.4	35.9	36.2	40.1	39.6	41.5	39.8	35.7	36.2	32.5	23.5	17.0	12.1	-2.0	-12.2	-26.0	-63.9	-117.0	-190.9	-305.0	-486.6	-762.8	47.9	40.1
2-K	27513	8386	3.6	8.6	9.6	10.6	13.6	18.6	20.1	28.8	36.3	36.6	40.6	40.1	42.1	40.5	36.5	37.1	33.6	24.7	18.4	13.7	-0.1	-9.9	-22.9	-59.8	-111.1	-182.3	-292.2	-467.2	-733.2	48.5	40.9
2-L	26738	8150	3.9	8.9	9.9	10.9	13.9	18.9	20.4	29.1	36.6	36.9	40.9	40.5	42.5	41.0	37.1	37.8	34.4	25.6	19.4	14.9	1.3	-8.1	-20.6	-56.6	-106.7	-175.8	-282.5	-452.5	-710.8	49.0	41.4
3-D	41059	12515	0.2	5.2	6.2	7.2	10.2	15.2	16.3	24.9	32.2	32.1	35.5	34.3	35.2	32.4	26.7	25.7	20.4	9.5	0.9	-6.6	-24.4	-40.2	-62.5	-113.6	-187.7	-294.8	-460.4	-722.9	-1123.5	42.0	32.3
3-E	38759	11814	0.7	5.7	6.7	7.7	10.7	15.7	16.9	25.4	32.8	32.8	36.3	35.2	36.3	33.7	28.3	27.6	22.5	12.0	3.8	-3.2	-20.4	-35.2	-55.9	-104.6	-174.8	-275.8	-431.9	-679.6	-1057.3	43.0	33.6
3-F	36630	11165	1.1	6.1	7.1	8.1	11.1	16.1	17.4	26.0	33.4	33.4	37.0	36.0	37.3	34.9	29.8	29.3	24.6	14.3	6.5	-0.1	-16.6	-30.5	-49.7	-96.2	-162.8	-258.2	-405.6	-639.5	-996.0	43.9	34.8
3-G	34700	10577	1.6	6.6	7.6	8.6	11.6	16.6	17.9	26.5	33.9	34.0	37.7	36.8	38.3	36.0	31.1	30.9	26.4	16.5	8.9	2.8	-13.2	-26.2	-44.1	-88.5	-151.9	-242.2	-381.6	-603.1	-940.4	44.8	36.0
3-H	32964	10047	2.1	7.1	8.1	9.1	12.1	17.1	18.4	27.0	34.5	34.6	38.4	37.6	39.1	37.1	32.4	32.4	28.1	18.4	11.2	5.4	-10.1	-22.3	-39.1	-81.6	-142.1	-227.7	-360.1	-570.3	-890.4	45.6	37.1
3-I	31459	9589	2.5	7.5	8.5	9.5	12.5	17.5	18.8	27.5	35.0	35.1	38.9	38.2	39.9	38.0	33.5	33.7	29.6	20.1	13.1	7.7	-7.3	-18.9	-34.6	-75.6	-133.6	-215.2	-341.3	-541.8	-847.0	46.4	38.1
3-J	30175	9197	2.8	7.8	8.8	9.8	12.8	17.8	19.2	27.9	35.4	35.6	39.4	38.8	40.6	38.8	34.4	34.8	30.9	21.6	14.8	9.6	-5.0	-16.0	-30.8	-70.5	-126.3	-204.5	-325.4	-517.6	-810.0	47.0	38.9
3-K	29211	8903	3.1	8.1	9.1	10.1	13.1	18.1	19.5	28.2	35.7	36.0	39.8	39.3	41.1	39.4	35.2	35.6	31.9	22.7	16.1	11.1	-3.2	-13.8	-28.0	-66.6	-120.8	-196.5	-313.4	-499.3	-782.2	47.6	39.6
3-L	28615	8722	3.3	8.3	9.3	10.3	13.3	18.3	19.7	28.4	35.9	36.2	40.1	39.5	41.4	39.8	35.6	36.2	32.5	23.4	16.9	12.0	-2.1	-12.4	-26.2	-64.2	-117.4	-191.5	-305.9	-488.1	-765.0	47.9	40.0
4-D	41990	12798	0.0	5.0	6.0	7.0	10.0	15.0	16.1	24.6	31.9	31.8	35.2	33.9	34.8	31.9	26.1	25.0	19.5	8.5	-0.2	-8.0	-26.1	-42.3	-65.2	-117.3	-192.9	-302.5	-471.9	-740.5	-1150.3	41.6	31.9
4-E	39768	12121	0.4	5.4	6.4	7.4	10.4	15.4	16.6	25.2	32.5	32.5	35.9	34.8	35.8	33.1	27.6	26.8	21.6	10.9	2.5	-4.7	-22.2	-37.4	-58.8	-108.5	-180.5	-284.1	-444.4	-698.6	-1086.3	42.5	33.0
4-F	37786	11517	0.9	5.9	6.9	7.9	10.9	15.9	17.1	25.7	33.1	33.1	36.6	35.5	36.8	34.2	29.0	28.4	23.5	13.1	5.0	-1.8	-18.7	-33.0	-53.1	-100.7	-169.3	-267.7	-419.9	-661.3	-1029.3	43.4	34.2
4-G	35936	10953	1.3	6.3	7.3	8.3	11.3	16.3	17.6	26.2	33.6	33.6	37.3	36.3	37.6	35.3	30.3	29.9	25.2	15.1	7.4	0.9	-15.4	-28.9	-47.7	-93.4	-158.9	-252.4	-397.0	-626.4	-976.0	44.2	35.2
4-H	34325	10462	1.7	6.7	7.7	8.7	11.7	16.7	18.0	26.6	34.1	34.2	37.8	37.0	38.4	36.2	31.4	31.2	26.8	16.9	9.4	3.3	-12.5	-25.3	-43.0	-87.0	-149.8	-239.0	-377.0	-596.0	-929.6	45.0	36.2
4-I	32938	10040	2.1	7.1	8.1	9.1	12.1	17.1	18.4	27.0	34.5	34.6	38.4	37.6	39.1	37.1	32.4	32.4	28.1	18.5	11.2	5.4	-10.0	-22.2	-39.0	-81.5	-142.0	-227.5	-359.7	-569.8	-889.7	45.6	37.1
4-J	31830	9702	2.4	7.4	8.4	9.4	12.4	17.4	18.7	27.4	34.8	35.0	38.8	38.1	39.7	37.8	33.2	33.4	29.2	19.7	12.7	7.1	-8.0	-19.7	-35.7	-77.1	-135.7	-218.3	-346.0	-548.9	-857.7	46.2	37.8
4-K	31011	9452	2.6	7.6	8.6	9.6	12.6	17.6	19.0	27.6	35.1	35.3	39.1	38.4	40.1	38.3	33.8	34.1	30.0	20.7	13.7	8.3	-6.5	-17.9	-33.3	-73.8	-131.0	-211.5	-335.8	-533.4	-834.1	46.6	38.4
4-L	30498	9296	2.7	7.7	8.7	9.7	12.7	17.7	19.1	27.8	35.3	35.5	39.3	38.7	40.4	38.6	34.2	34.5	30.6	21.2	14.4	9.1	-5.6	-16.7	-31.8	-71.8	-128.1	-207.2	-329.4	-523.7	-819.3	46.9	38.7
5-D	42990	13103	-0.2	4.8	5.8	6.8	9.8	14.8	15.9	24.4	31.7	31.5	34.9	33.5	34.3	31.3	25.5	24.2	18.6	7.5	-1.5	-9.4	-27.8	-44.5	-68.1	-121.2	-198.5	-310.7	-484.3	-759.3	-1179.1	41.3	31.3
5-E	40948	12481	0.2	5.2	6.2	7.2	10.2	15.2	16.4	24.9	32.2	32.1	35.5	34.3	35.3	32.4	26.8	25.8	20.5	9.6	1.1	-6.4	-24.2	-40.0	-62.2	-113.2	-187.1	-293.9	-459.0	-720.8	-1120.3	42.1	32.4
5-F	39026	11895	0.6	5.6	6.6	7.6	10.6	15.6	16.8	25.4	32.7	32.7	36.2	35.1	36.2	33.5	28.1	27.4	22.3	11.7	3.5	-3.6	-20.9	-35.8	-56.7	-105.6	-176.3	-278.0	-435.3	-684.7	-1065.0	42.9	33.5
5-G	37333	11379	1.0	6.0	7.0	8.0	11.0	16.0	17.2	25.8	33.2	33.2	36.8	35.7	37.0	34.5	29.3	28.7	23.9	13.6	5.6	-1.1	-17.9	-32.0	-51.8	-98.9	-166.8	-264.0	-414.3	-652.7	-1016.3	43.6	34.4
5-H	35808	10914	1.3	6.3	7.3	8.3	11.3	16.3	17.6	26.2	33.6	33.7	37.3	36.4	37.7	35.4	30.3	30.0	25.3	15.3	7.5	1.1	-15.2	-28.6	-47.4	-92.9	-158.2	-251.3	-395.4	-624.0	-972.3	44.3	35.3
5-I	34512	10519	1.7	6.7	7.7	8.7	11.7	16.7	18.0	26.6	34.0	34.1	37.8	36.9	38.4	36.1	31.3	31.1	26.6	16.7	9.2	3.1	-12.8	-25.7	-43.6	-87.8	-150.9	-240.6	-379.3	-599.5	-935.0	44.9	36.1
5-J	33543	10224	1.9	6.9	7.9	8.9	11.9	16.9	18.2	26.9	34.3	34.4	38.1	37.3	38.8	36.7	32.0	31.9	27.5	17.8	10.4	4.5	-11.1	-23.6	-40.7	-83.9	-145.4	-232.6	-367.3	-581.2	-907.1	45.3	36.7
6-D	44068	13432	-0.5	4.5	5.5	6.5	9.5	14.5	15.7	24.2	31.4	31.2	34.5	33.1	33.9	30.7	24.7	23.4	17.6	6.3	-2.8	-11.0	-29.7	-46.8	-71.2	-125.4	-204.5	-319.6	-497.6	-779.6	-1210.0	40.8	30.8
6-E	42129	12841	-0.1	4.9	5.9	6.9	9.9	14.9	16.1	24.6	31.9	31.8	35.2	33.9	34.7	31.8	26.0	24.9	19.4	8.4	-0.4	-8.2	-26.3	-42.6	-65.6	-117.8	-193.7	-303.6	-473.7	-743.1	-1154.3	41.6	31.8
6-G	38669	11786	0.7	5.7	6.7	7.7	10.7	15.7	16.9	25.5	32.8	32.8	36.3	35.2	36.3	33.7	28.4	27.7	22.6	12.1	3.9	-3.1	-20.2	-35.0	-55.7	-104.2	-174.3	-275.0	-430.8	-677.9	-1054.7	43.0	33.7
6-H	37257	11356	1.0	6.0	7.0	8.0	11.0	16.0	17.3	25.8	33.2	33.2	36.8	35.8	37.0	34.5	29.3	28.8	24.0	13.7	5.7	-1.0	-17.7	-31.8	-51.6	-98.6	-166.3	-263.4	-413.3	-651.3	-1014.1	43.6	34.5
6-I	36154	11020	1.3	6.3	7.3	8.3	11.3	16.3	17.5	26.1	33.5	33.6	37.2	36.2	37.5	35.2	30.1	29.7	25.0	14.9	7.1	0.6	-15.8	-29.4	-48.4	-94.3	-160.1	-254.2	-399.7	-630.5	-982.3	44.1	35.1
6-J	35291	10757	1.5	6.5	7.5	8.5	11.5	16.5	17.8	26.4	33.8	33.8	37.5	36.6	38.0	35.7	30.7	30.4	25.8	15.8	8.2	1.9	-14.2	-27.5	-45.9	-90.9	-155.3	-247.1	-389.0	-614.2	-957.5	44.5	35.6
7-B	49346	15041	-1.4	3.6	4.6	5.6	8.6	13.6	14.6	23.0	30.2	29.9	32.9	31.2	31.6	27.9	21.3	19.3	12.8	0.8	-9.2	-18.5	-38.8	-58.3	-86.2	-146.0	-234.0	-363.1	-562.8	-878.9	-1361.8	39.0	28.3
7-C	47205	14388	-1.1	3.9	4.9	5.9	8.9	13.9	15.0	23.5	30.6	30.4	33.6	32.0	32.5	29.0	22.7	20.9	14.7	3.0	-6.6	-15.5	-35.1	-53.6	-80.2	-137.7	-222.1	-345.5	-536.4	-838.6	-1300.2	39.7	29.3
7-E	43354	13214	-0.3	4.7	5.7	6.7	9.7	14.7	15.8	24.3	31.6	31.4	34.8	33.4	34.2	31.1	25.2	23.9	18.3	7.1	-1.9	-9.9	-28.4	-45.3	-69.1	-122.6	-200.5	-313.7	-488.8	-766.2	-1189.5	41.1	31.2
7-F	41680	12704	0.0	5.0	6.0	7.0	10.0	15.0	16.2	24.7	32.0	31.9	35.3	34.0	34.9	32.0	26.3	25.2	19.8	8.9	0.2	-7.5	-25.5	-41.6	-64.3	-116.1	-191.2	-299.9	-468.1	-734.6	-1141.4	41.8	32.0
7-G	40193	12251	0.3	5.3	6.3	7.3	10.3	15.3	16.5	25.1	32.4	32.3	35.8	34.6	35.6	32.9	27.3	26.4	21.2	10.5	2.0	-5.3	-22.9	-38.3	-60.1	-110.2	-182.8	-287.6	-449.7	-706.6	-1098.6	42.4	32.8
7-H	38904	11858	0.6	5.6	6.6	7.6	10.6	15.6	16.8	25.4	32.7	32.7	36.2	35.1	36.2	33.6	28.2	27.5	22.4	11.9	3.6	-3.5	-20.6	-35.5	-56.3	-105.1	-175.6	-277.0	-433.7	-682.3	-1061.5	42.9	33.5
7-I	37832	11531	0.9	5.9	6.9	7.9	10.9	15.9	17.1	25.7	33.0	33.1	36.6	35.5	36.7	34.2	28.9	28.3	23.4	13.0	5.0	-1.9	-18.8	-33.1	-53.2	-100.9	-169.6	-268.1	-420.5	-662.1	-1030.6	43.4	34.1
8-A	52563	16021	-2.0	3.0	4.0	5.0	8.0	13.0	14.0	22.4	29.4	29.1	32.0	30.1	30.2	26.3	19.3	16.9	10.0	-2.6	-13.1	-23.1	-44.3	-65.2	-95.4	-158.5	-251.9	-389.5	-602.5	-939.3	-1454.2	37.9	26.9
8-B	50391	15359	-1.6	3.4	4.4	5.4	8.4	13.4	14.4	22.8	29.9	29.6	32.6	30.9	31.1	27.4	20.7	18.5	11.9	-0.3	-10.5	-20.0	-40.6	-60.5	-89.2	-150.1	-239.8	-371.7	-575.7	-898.5	-1391.8	38.6	27.8
8-C	48340	14734	-1.3	3.7	4.7	5.7	8.7	13.7	14.8	23.2	30.4	30.1	33.2	31.6	32.0	28.4	22.0	20.1	13.7	1.8	-8.0	-17.1	-37.1	-56.1	-83.4	-142.1	-228.4	-354.8	-550.4	-860.0	-1332.9	39.3	28.8
8-D	46407	14145	-0.9	4.1	5.1	6.1	9.1	14.1	15.2	23.6	30.8	30.6	33.8	32.3	32.8	29.5	23.2	21.5	15.5	3.8	-5.6	-14.3	-33.7	-51.9	-77.9	-134.6	-217.6	-338.9	-526.5	-823.6	-1277.3	40.0	29.7
8-F	43072	13128	-0.3	4.7	5.7	6.7	9.7	14.7	15.9	24.4	31.7	31.5	34.9	33.5	34.3	31.3	25.4	24.1	18.5	7.4	-1.6	-9.5	-27.9	-44.6	-68.3	-121.5	-199.0	-311.4	-485.3	-760.8	-1181.4	41.2	31.3

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Lmax)
FROM PILE DRIVING OF WTG MONOPILES

8-G	41750	12725	0.0	5.0	6.0	7.0	10.0	15.0	16.2	24.7	32.0	31.9	35.3	34.0	34.9	32.0	26.3	25.2	19.7	8.8	0.1	-7.6	-25.6	-41.7	-64.5	-116.3	-191.6	-300.5	-469.0	-736.0	-1143.4	41.7	32.0
8-H	40527	12352	0.3	5.3	6.3	7.3	10.3	15.3	16.5	25.0	32.3	32.2	35.7	34.5	35.5	32.7	27.1	26.2	20.9	10.1	1.6	-5.8	-23.5	-39.1	-61.0	-111.5	-184.7	-290.4	-453.8	-712.9	-1108.2	42.2	32.6
9-A	53534	16317	-2.1	2.9	3.9	4.9	7.9	12.9	13.8	22.2	29.2	28.8	31.8	29.8	29.8	25.8	18.7	16.1	9.1	-3.6	-14.2	-24.4	-45.9	-67.3	-98.1	-162.3	-257.3	-397.5	-614.4	-957.6	-1482.1	37.6	26.5
9-B	51457	15684	-1.8	3.2	4.2	5.2	8.2	13.2	14.2	22.6	29.7	29.3	32.3	30.5	30.7	26.8	20.0	17.7	10.9	-1.4	-11.7	-21.5	-42.4	-62.8	-92.2	-154.2	-245.8	-380.4	-588.8	-918.6	-1422.4	38.3	27.4
9-C	49494	15086	-1.5	3.5	4.5	5.5	8.5	13.5	14.5	23.0	30.1	29.8	32.9	31.2	31.5	27.8	21.2	19.2	12.7	0.6	-9.4	-18.7	-39.0	-58.6	-86.7	-146.6	-234.8	-364.3	-564.6	-881.7	-1366.0	38.9	28.2
9-D	47704	14540	-1.1	3.9	4.9	5.9	8.9	13.9	14.9	23.4	30.5	30.3	33.4	31.8	32.3	28.8	22.4	20.5	14.3	2.5	-7.2	-16.2	-36.0	-54.7	-81.6	-139.6	-224.8	-349.6	-542.5	-848.0	-1314.6	39.5	29.0
9-E	46036	14032	-0.8	4.2	5.2	6.2	9.2	14.2	15.2	23.7	30.9	30.7	33.9	32.4	33.0	29.7	23.5	21.8	15.8	4.2	-5.2	-13.8	-33.1	-51.1	-76.8	-133.1	-215.5	-335.8	-521.9	-816.6	-1266.6	40.1	29.8
9-F	44542	13576	-0.6	4.4	5.4	6.4	9.4	14.4	15.6	24.1	31.3	31.1	34.4	33.0	33.6	30.5	24.4	23.0	17.2	5.8	-3.4	-11.6	-30.5	-47.9	-72.5	-127.3	-207.2	-323.5	-503.5	-788.5	-1223.7	40.7	30.6
9-G	43240	13180	-0.3	4.7	5.7	6.7	9.7	14.7	15.8	24.4	31.6	31.5	34.8	33.4	34.2	31.2	25.3	24.0	18.4	7.2	-1.8	-9.8	-28.2	-45.0	-68.8	-122.2	-199.9	-312.8	-487.4	-764.0	-1186.2	41.2	31.2
9-H	42193	12860	-0.1	4.9	5.9	6.9	9.9	14.9	16.1	24.6	31.9	31.8	35.1	33.8	34.7	31.7	26.0	24.8	19.3	8.3	-0.5	-8.2	-26.4	-42.7	-65.8	-118.1	-194.0	-304.1	-474.4	-744.3	-1156.1	41.6	31.7
9-I	41288	12585	0.1	5.1	6.1	7.1	10.1	15.1	16.3	24.8	32.1	32.0	35.4	34.2	35.1	32.2	26.6	25.6	20.2	9.3	0.7	-6.9	-24.8	-40.7	-63.2	-114.5	-189.0	-296.7	-463.3	-727.3	-1130.1	41.9	32.2
10-A	54577	16635	-2.3	2.7	3.7	4.7	7.7	12.7	13.6	22.0	29.0	28.6	31.5	29.5	29.4	25.2	18.0	15.4	8.2	-4.7	-15.5	-25.9	-47.7	-69.5	-101.1	-166.4	-263.1	-406.0	-627.3	-977.2	-1512.0	37.3	26.1
10-B	52614	16037	-2.0	3.0	4.0	5.0	8.0	13.0	13.9	22.4	29.4	29.1	32.0	30.1	30.2	26.2	19.3	16.8	9.9	-2.6	-13.1	-23.1	-44.4	-65.3	-95.5	-158.7	-252.2	-389.9	-603.1	-940.3	-1455.7	37.9	26.9
10-C	50746	15467	-1.7	3.3	4.3	5.3	8.3	13.3	14.3	22.7	29.8	29.5	32.5	30.8	31.0	27.2	20.4	18.2	11.6	-0.7	-10.9	-20.5	-41.2	-61.3	-90.2	-151.5	-241.8	-374.6	-580.1	-905.2	-1402.0	38.5	27.7
10-D	48987	14931	-1.4	3.6	4.6	5.6	8.6	13.6	14.6	23.1	30.2	30.0	33.1	31.4	31.7	28.1	21.6	19.6	13.1	1.1	-8.8	-18.0	-38.2	-57.5	-85.2	-144.6	-232.0	-360.1	-558.4	-872.1	-1351.5	39.1	28.5
10-E	47419	14453	-1.1	3.9	4.9	5.9	8.9	13.9	15.0	23.4	30.6	30.4	33.5	31.9	32.4	28.9	22.6	20.8	14.5	2.8	-6.9	-15.8	-35.5	-54.1	-80.8	-138.5	-223.3	-347.2	-539.0	-842.6	-1306.4	39.6	29.2
10-F	45995	14019	-0.8	4.2	5.2	6.2	9.2	14.2	15.3	23.7	30.9	30.7	33.9	32.4	33.0	29.7	23.5	21.9	15.8	4.3	-5.1	-13.7	-33.0	-51.0	-76.7	-133.0	-215.3	-335.5	-521.4	-815.9	-1265.5	40.1	29.9
10-G	44791	13652	-0.6	4.4	5.4	6.4	9.4	14.4	15.5	24.0	31.2	31.1	34.3	32.9	33.5	30.3	24.3	22.8	16.9	5.5	-3.7	-12.0	-30.9	-48.4	-73.3	-128.3	-208.6	-325.6	-506.6	-793.2	-1230.8	40.6	30.4
10-H	43829	13359	-0.4	4.6	5.6	6.6	9.6	14.6	15.7	24.2	31.5	31.3	34.6	33.2	34.0	30.9	24.9	23.6	17.8	6.6	-2.5	-10.6	-29.3	-46.3	-70.5	-124.5	-203.2	-317.6	-494.7	-775.1	-1203.2	40.9	30.9
10-I	43033	13116	-0.3	4.7	5.7	6.7	9.7	14.7	15.9	24.4	31.7	31.5	34.9	33.5	34.3	31.3	25.4	24.2	18.5	7.4	-1.5	-9.5	-27.9	-44.6	-68.2	-121.4	-198.7	-311.1	-484.8	-760.1	-1180.3	41.2	31.3
11-A	55732	16987	-2.5	2.5	3.5	4.5	7.5	12.5	13.4	21.8	28.8	28.3	31.2	29.1	28.9	24.7	17.3	14.5	7.2	-5.8	-16.8	-27.5	-49.7	-72.0	-104.3	-170.8	-269.5	-415.5	-641.5	-998.9	-1545.2	36.9	25.6
11-B	53800	16398	-2.2	2.8	3.8	4.8	7.8	12.8	13.7	22.1	29.2	28.8	31.7	29.7	29.7	25.6	18.5	15.9	8.9	-3.9	-14.5	-24.8	-46.4	-67.9	-98.9	-163.3	-258.8	-399.7	-617.7	-962.6	-1489.7	37.5	26.4
11-C	52026	15857	-1.9	3.1	4.1	5.1	8.1	13.1	14.1	22.5	29.6	29.2	32.2	30.3	30.4	26.5	19.6	17.3	10.4	-2.0	-12.4	-22.3	-43.4	-64.1	-93.9	-156.5	-248.9	-385.1	-595.8	-929.2	-1438.8	38.1	27.1
11-D	50413	15366	-1.6	3.4	4.4	5.4	8.4	13.4	14.4	22.8	29.9	29.6	32.6	30.9	31.1	27.4	20.7	18.5	11.9	-0.4	-10.5	-20.0	-40.6	-60.6	-89.3	-150.2	-239.9	-371.8	-576.0	-898.9	-1392.4	38.6	27.8
11-E	48886	14901	-1.4	3.6	4.6	5.6	8.6	13.6	14.7	23.1	30.3	30.0	33.1	31.4	31.8	28.2	21.6	19.6	13.2	1.2	-8.6	-17.8	-38.0	-57.3	-84.9	-144.2	-231.4	-359.3	-557.1	-870.2	-1348.6	39.1	28.5
11-F	47613	14512	-1.1	3.9	4.9	5.9	8.9	13.9	14.9	23.4	30.6	30.3	33.5	31.8	32.3	28.8	22.4	20.6	14.4	2.6	-7.1	-16.0	-35.8	-54.5	-81.3	-139.3	-224.3	-348.8	-541.4	-846.3	-1312.0	39.6	29.1
11-G	46473	14165	-0.9	4.1	5.1	6.1	9.1	14.1	15.2	23.6	30.8	30.6	33.8	32.3	32.8	29.4	23.2	21.5	15.4	3.8	-5.7	-14.4	-33.8	-52.1	-78.1	-134.8	-218.0	-339.4	-527.3	-824.8	-1279.2	40.0	29.6
11-H	45552	13884	-0.7	4.3	5.3	6.3	9.3	14.3	15.3	23.8	31.0	30.8	34.1	32.6	33.2	29.9	23.8	22.2	16.2	4.7	-4.6	-13.1	-32.2	-50.1	-75.4	-131.2	-212.8	-331.8	-516.0	-807.5	-1252.7	40.3	30.1
11-K	44151	13457	-0.5	4.5	5.5	6.5	9.5	14.5	15.6	24.1	31.4	31.2	34.5	33.1	33.8	30.7	24.7	23.3	17.5	6.2	-2.9	-11.1	-29.8	-47.0	-71.4	-125.8	-205.0	-320.3	-498.7	-781.2	-1212.4	40.8	30.8
11-L	44084	13437	-0.5	4.5	5.5	6.5	9.5	14.5	15.7	24.2	31.4	31.2	34.5	33.1	33.8	30.7	24.7	23.4	17.6	6.3	-2.8	-11.0	-29.7	-46.9	-71.2	-125.5	-204.6	-319.7	-497.8	-779.9	-1210.5	40.8	30.8
12-A	56909	17346	-2.7	2.3	3.3	4.3	7.3	12.3	13.2	21.5	28.5	28.0	30.8	28.7	28.4	24.1	16.6	13.6	6.1	-7.0	-18.2	-29.1	-51.7	-74.5	-107.7	-175.4	-276.0	-425.2	-656.0	-1021.0	-1579.0	36.6	25.1
12-B	55057	16781	-2.4	2.6	3.6	4.6	7.6	12.6	13.5	21.9	28.9	28.5	31.3	29.3	29.2	25.0	17.8	15.0	7.8	-5.1	-16.0	-26.6	-48.5	-70.6	-102.4	-168.2	-265.8	-410.0	-633.2	-986.2	-1525.8	37.1	25.9
12-C	53338	16257	-2.1	2.9	3.9	4.9	7.9	12.9	13.8	22.2	29.3	28.9	31.8	29.9	29.9	25.9	18.8	16.3	9.3	-3.4	-14.0	-24.1	-45.6	-66.9	-97.6	-161.6	-256.2	-395.9	-612.0	-953.9	-1476.4	37.7	26.6
12-D	51802	15789	-1.9	3.1	4.1	5.1	8.1	13.1	14.1	22.5	29.6	29.3	32.2	30.4	30.5	26.7	19.8	17.4	10.6	-1.8	-12.2	-22.0	-43.0	-63.6	-93.2	-155.6	-247.7	-383.3	-593.1	-925.0	-1432.3	38.1	27.2
12-E	50370	15353	-1.6	3.4	4.4	5.4	8.4	13.4	14.4	22.8	29.9	29.6	32.7	30.9	31.1	27.4	20.7	18.5	11.9	-0.3	-10.4	-20.0	-40.5	-60.5	-89.2	-150.0	-239.7	-371.5	-575.4	-898.1	-1391.2	38.6	27.8
12-F	49197	14995	-1.4	3.6	4.6	5.6	8.6	13.6	14.6	23.0	30.2	29.9	33.0	31.3	31.6	28.0	21.4	19.4	13.0	0.9	-9.0	-18.3	-38.5	-58.0	-85.8	-145.5	-233.2	-361.8	-561.0	-876.1	-1357.5	39.0	28.4
12-G	48130	14670	-1.2	3.8	4.8	5.8	8.8	13.8	14.8	23.3	30.4	30.2	33.3	31.7	32.1	28.6	22.1	20.2	13.9	2.0	-7.7	-16.8	-36.7	-55.6	-82.8	-141.3	-227.2	-353.1	-547.8	-856.0	-1326.8	39.4	28.8
12-H	47295	14416	-1.1	3.9	4.9	5.9	8.9	13.9	15.0	23.4	30.6	30.4	33.6	32.0	32.4	29.0	22.6	20.9	14.7	2.9	-6.7	-15.6	-35.3	-53.8	-80.4	-138.0	-222.6	-346.2	-537.5	-840.3	-1302.8	39.7	29.2
12-I	46652	14220	-1.0	4.0	5.0	6.0	9.0	14.0	15.1	23.6	30.8	30.6	33.7	32.2	32.7	29.3	23.1	21.4	15.2	3.6	-5.9	-14.7	-34.1	-52.4	-78.6	-135.5	-219.0	-340.9	-529.5	-828.2	-1284.3	39.9	29.5
12-J	46219	14088	-0.9	4.1	5.1	6.1	9.1	14.1	15.2	23.7	30.9	30.7	33.9	32.3	32.9	29.6	23.3	21.7	15.6	4.0	-5.4	-14.0	-33.4	-51.5	-77.3	-133.8	-216.6	-337.3	-524.2	-820.1	-1271.9	40.1	29.7
12-K	46027	14029	-0.8	4.2	5.2	6.2	9.2	14.2	15.2	23.7	30.9	30.7	33.9	32.4	33.0	29.7	23.5	21.8	15.8	4.2	-5.2	-13.8	-33.1	-51.1	-76.8	-133.1	-215.5	-335.8	-521.8	-816.5	-1266.4	40.1	29.8
12-L	46040	14033	-0.8	4.2	5.2	6.2	9.2	14.2	15.2	23.7	30.9	30.7	33.9	32.4	33.0	29.7	23.5	21.8	15.8	4.2	-5.2	-13.8	-33.1	-51.1	-76.8	-133.1	-215.6	-335.9	-522.0	-816.7	-1266.7	40.1	29.8
13-A	58144	17722	-2.9	2.1	3.1	4.1	7.1	12.1	13.0	21.3	28.3	27.8	30.5	28.3	27.9	23.5	15.9	12.7	5.1	-8.3	-19.7	-30.9	-53.7	-77.2	-111.1	-180.2	-282.9	-435.3	-671.2	-1044.1	-1614.5	36.2	24.6
13-B	56343	17173	-2.6	2.4	3.4	4.4	7.4	12.4	13.3	21.6	28.7	28.2	31.0	28.9	28.7	24.4	17.0	14.0	6.6	-6.5	-17.6	-28.4	-50.7	-73.3	-106.1	-173.2	-272.9	-420.5	-649.0	-1010.3	-1562.8	36.7	25.3
13-C	54727	16681	-2.3	2.7	3.7	4.7	7.7	12.7	13.6	21.9	29.0	28.6	31.4	29.4	29.3	25.2	18.0	15.2	8.0	-4.8	-15.6	-26.1	-48.0	-69.8	-101.5	-166.9	-263.9	-407.3	-629.1	-980.0	-1516.3	37.2	26.0
13-D	53264	16235	-2.1	2.9	3.9	4.9	7.9	12.9	13.8	22.2	29.3	28.9	31.8	29.9	29.9	25.9	18.9	16.3	9.3	-3.3	-13.9	-24.0	-45.5	-66.7	-97.4	-161.3	-255.8	-395.3	-611.1	-952.5	-1474.3	37.7	26.6
13-F	50789	15480	-1.7	3.3	4.3	5.3	8.3	13.3	14.3	22.7	29.8	29.5	32.5	30.7	31.0	27.2	20.4	18.2	11.5	-0.7	-10.9	-20.5	-41.3	-61.4	-90.3	-151.6	-242.0	-374.9	-580.6	-906.0	-1403.2	38.5	27.7
13-G	49825	15187	-1.5	3.5	4.5	5.5	8.5	13.5	14.5	22.9	30.1	29.7	32.8	31.1	31.4	27.7	21.0	18.9	12.4	0.3	-9.8	-19.2	-39.6	-59.3	-87.6	-147.9	-236.7	-367.0	-568.7	-887.9	-1375.5	38.8	28.1
13-H	49004	14936	-1.4	3.6	4.6	5.6	8.6	13.6	14.6	23.1	30.2	29.9	33.0	31.4	31.7	28.1	21.5	19.6	13.1	1.1	-8.8	-18.0	-38.2	-57.5	-85.3	-144.7	-232.1	-360.3	-558.6	-872.4	-1351.9	39.1	28.4
13-I	48466	14772	-1.3	3.7	4.7	5.7	8.7	13.7	14.7	23.2	30.4	30.1	33.2	31.5	31.9	28.4	21.9	20.0	13.6	1.7	-8.1	-17.3	-37.3	-56.4	-83.7	-142.6	-229.1	-355.8	-551.9	-862.3	-1336.5	39.3	28.7
13-J	48167	14681	-1.2	3.8	4.8	5.8	8.8	13.8	14.8	23.3	30.4	30.2	33.3	31.7	32.1	28.5	22.1	20.2	13.9	2.0	-7.8	-16.8	-36.8	-55.7	-82.9	-141.4	-227.4	-353.4	-548.2	-856.7	-1327.9	39.4	28.8
13-K	48005	14632	-1.2	3.8	4.8	5.8	8.8	13.8	14.8	23.3	30.5	30.2	33.3	31.7	32.1	28.6	22.2	20.3	14.0	2.2	-7.6	-16.6	-36.5	-55.4	-82.4	-140.8	-226.5	-352.0	-546.3	-853.7	-1323.2	39.4	28.9
13-L	48088	14657	-1.2	3.8	4.8	5.8	8.8	13.8	14.8	23.3	30.4	30.2	33.3	31.7	32.1	28.6	22.1	20.3	13.9	2.1	-7.7	-16.7	-36.6	-55.6	-82.7	-141.1	-227.0	-352.7	-547.3	-855.2	-1325.6	39.4	28.9
14-D	54771	16694	-2.3	2.7	3.7	4.7	7.7	12.7	13.6	21.9	29.0	28.5	31.4	29.4	29.3	25.1	17.9	15.2	8.0	-4.9	-15.7	-26.2	-48.0	-69.9	-101.6	-167.1	-264.2	-407.6	-629.7	-980.8	-1517.6	37.2	26.0
14-E	53544	16320	-2.2	2.8	3.8	4.8	7.8	12.8	13.8	22.2	29.2	28.8	31.8	29.8	29.8	25.8	18.7	16.1	9.1	-3.6	-14.2	-24.4	-46.0	-67.3	-98.2	-162.4	-257.4	-397.6	-614.6	-957.8	-1482.4	37.6	26.5
14-F	52438	15983	-2.0	3.0	4.0	5.0	8.0	13.0	14.0	22.4	29.5	29.1	32.1	30.2	30.3	26.3	19.4	17.0	10.1	-2.5	-12.9	-22.9	-44.1	-64.9	-95.0	-158.1	-251.2	-388.5	-600.9	-937.0	-1450.6	37.9	26.9
14-G	51548	15712	-1.8	3.2	4.2	5.2	8.2	13.2	14.1	22.6	29.7	29.3	32.3	30.5	30.6	26.8	19.9	17.6	10.9	-1.5	-11.8	-21.6	-42.6	-63.0	-92.5	-154.6	-246.3	-381.2	-590.0	-920.3	-1425.0	38.2	27.3
14-H	50843	15497	-1.7	3.3	4.3	5.3	8.3	13.3	14.3	22.7	29.8	29.5	32.5	30.7	30.9	27.1	20.4	18.2	11.5	-0.8	-11.0	-20.6	-41.3	-61.5	-90.5	-151.9	-242.3	-375.4	-581.3	-907.0	-1404.8	38.5	27.6
14-J	50014	15244	-1.6	3.4	4.4	5.4	8.4	13.4	14.4	22.9	30.0	29.7	32.8	31.0	31.3	27.6	20.9	18.8	12.2	0.1	-10.0	-19.5	-39.9	-59.7	-88.1	-148.6	-237.7	-368.6	-571.0	-891.4	-1381.0	38.7	28.0
14-K	49962	15229	-1.6	3.4	4.4	5.4	8.4	13.4	14.5	22.9	30.0	29.7	32.8	31.0	31.3	27.6	20.9	18.8	12.3	0.1	-9.9	-19.4	-39.8	-59.6	-88.0	-148.4	-237.4	-368.1	-570.4	-890.5	-1379.5	38.8	28.0
14-L	50085	15266	-1.6	3.4	4.4	5.4	8.4	13.4	14.4	22.9	30.0	29.7	32.7	31.0	31.2	27.5	20.9	18.7	12.2	0.0	-10.1	-19.6	-40.0	-59.9	-88.3	-148.9	-238.1	-369.1	-571.9	-892.8	-1383.0	38.7	28.0
15-F	54119	16496	-2.2	2.8	3.8	4.8	7.8	12.8	13.7	22.1	29.1	28.7	31.6	29.6	29.6	25.5	18.3	15.7	8.6	-4.2	-14.9	-25.2	-46.9	-68.5	-99.8	-164.6	-260.6	-402.3	-621.7	-968.6	-1498.9	37.4	26.2
15-G	53286	16241	-2.1	2.9	3.9	4.9	7.9	12.9	13.8	22.2	29.3	28.9	31.8	29.9	29.9	25.9	18.8	16.3	9.3	-3.3	-13.9	-24.1	-45.5	-66.8	-97.4	-161.4	-255.9	-395.4	-611.4	-952.9	-1474.9	37.7	26.6
15-H	52688	16059	-2.0	3.0	4.0	5.0	8.0	13.0	13.9	22.3	29.4	29.0	32.0	30.1	30.2	26.2	19.2	16.8	9.8	-2.7	-13.2	-23.2	-44.5	-65.5	-95.7	-159.0	-252.6	-390.5	-604.0	-941.7	-1457.8	37.9	26.8
15-I	52238	15922	-1.9	3.1	4.1	5.1	8.1	13.1	14.0	22.4	29.5	29.1	32.1	30.2	30.3	26.4	19.5	17.1	10.2	-2.2	-12.7	-22.6	-43.7	-64.5	-94.5	-157.3	-250.1	-386.8	-598.5	-933.2	-1444.8	38.0	27.0
15-J	51967	15840	-1.9	3.1	4.1	5.1	8.1	13.1	14.1	22.5	29.6	29.2	32.2	30.3	30.5	26.6	19.7	17.3	10.5	-2.0	-12.3	-22.2	-43.3	-63.9	-93.7	-156.2	-248.6	-384.6	-595.1	-928.1	-1437.1	38.1	27.1
15-K	51920	15825	-1.9	3.1	4.1	5.1	8.1	13.1	14.1	22.5	29.6	29.2	32.2	30.4	30.5	26.6	19.7	17.3	10.5	-1.9	-12.3	-22.1	-43.2	-63.8	-93.6	-156.0	-248.3	-384.2	-594.5	-927.3	-1435.7	38.1	27.2
16-J	53894	16427	-2.2	2.8	3.8	4.8	7.8	12.8	13.7	22.1	29.2	28.7	31.7	29.7	29.7	25.6	18.5	15.9	8.8	-4.0	-14.6	-24.9	-46.5	-68.1	-99.1	-163.7	-259.3	-400.4	-618.9	-964.3	-1492.4	37.5	26.3
16-K	53887	16425	-2.2	2.8	3.8	4.8	7.8	12.8	13.7	22.1	29.2	28.8	31.7	29.7	29.7	25.6	18.5	15.9	8.8	-3.9	-14.6	-24.9	-46.5	-68.0	-99.1	-163.7	-259.3	-400.4	-618.8	-964.2	-1492.2	37.5	26.3
		Minimum:	-2.9	2.1	3.1	4.1	7.1	12.1	13.0	21.3	28.3	27.8	30.5	28.3	27.9	23.5	15.9	12.7	5.1	-8.3	-19.7	-30.9	-53.7	-77.2	-111.1	-180.2	-282.9	-435.3	-671.2	-1044.1	-1614.5	36.2	24.6
		Maximum:	4.5	9.5	10.5	11.5	14.5	19.5	21.0	29.7	37.3	37.7	41.7	41.4	43.5	42.3	38.5	39.5	36.3	27.8	21.9	17.8	4.7	-3.9	-15.2	-49.4	-96.4	-160.8	-260.1	-418.5	-659.0	50.1	42.8

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Lmax)
FROM PILE DRIVING OF WTG MONOPILES

ODS Report Report no. 00.877, Figure 11, 2dB subtracted across the spectrum to account for peak to Lmax calculation

Sound Pressure Data	34	39	40	41	44	49	51	60	68	69	74	75	79	80	79	83	83	78	76	77	71	73	78	69	62	61	60	56	53	90	88
320 meters from the pile																															
Lmax at 320 meters	32	37	38	39	42	47	49	58	66	67	72	73	77	78	77	81	81	76	74	75	69	71	76	67	60	59	58	54	51	88	86

Data for the graph

Atmos. Absorption per 1 km	0.0000	0.0000	0.0000	0.0000	0.0000	0.0670	0.1050	0.1630	0.2510	0.3810	0.5650	0.8150	1.1300	1.5100	1.9200	2.3600	2.8400	3.3800	4.0800	5.0500	6.5100	8.7500	12.2000	17.7000	26.4000	39.9000	61.1000	93.7000	144.0000		
air temp 59F 70% RH																															

																		Hertz													
	1/3 Octave Bands		**16***	**20**	**25**	**31**	**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**	**L**	**A**
	Distance (ft)	**Distance (m)**																														
1-D	50940	15527	-1.7	3.3	4.3	5.3	8.3	13.3	14.3	22.7	29.8	29.5	32.5	30.7	30.9	27.1	20.3	18.1	11.4	-0.9	-11.1	-20.8	-41.5	-61.7	-90.8	-152.4	-242.9	-376.2	-582.5	-908.8	-1407.6	38.4	27.6
1-E	48839	14886	-1.4	3.6	4.6	5.6	8.6	13.6	14.7	23.1	30.3	30.0	33.1	31.4	31.8	28.2	21.7	19.7	13.3	1.3	-8.6	-17.8	-37.9	-57.2	-84.8	-144.1	-231.2	-358.9	-556.5	-869.3	-1347.2	39.1	28.5
1-F	46846	14279	-1.0	4.0	5.0	6.0	9.0	14.0	15.1	23.5	30.7	30.5	33.7	32.1	32.6	29.2	22.9	21.2	15.1	3.4	-6.2	-14.9	-34.5	-52.9	-79.1	-136.3	-220.1	-342.5	-531.9	-831.9	-1289.9	39.8	29.4
1-G	44993	13714	-0.6	4.4	5.4	6.4	9.4	14.4	15.5	24.0	31.2	31.0	34.3	32.8	33.4	30.2	24.1	22.6	16.8	5.3	-3.9	-12.3	-31.3	-48.8	-73.8	-129.0	-209.7	-327.2	-509.1	-797.0	-1236.6	40.5	30.3
1-H	43279	13191	-0.3	4.7	5.7	6.7	9.7	14.7	15.8	24.3	31.6	31.5	34.8	33.4	34.2	31.2	25.3	24.0	18.3	7.1	-1.8	-9.8	-28.3	-45.1	-68.9	-122.3	-200.1	-313.1	-487.9	-764.7	-1187.4	41.1	31.2
1-I	41769	12731	0.0	5.0	6.0	7.0	10.0	15.0	16.2	24.7	32.0	31.9	35.3	34.0	34.9	32.0	26.3	25.2	19.7	8.8	0.1	-7.6	-25.7	-41.8	-64.6	-116.4	-191.7	-300.7	-469.2	-736.3	-1143.9	41.7	32.0
1-J	40476	12337	0.3	5.3	6.3	7.3	10.3	15.3	16.5	25.0	32.3	32.3	35.7	34.5	35.5	32.7	27.1	26.2	20.9	10.2	1.7	-5.8	-23.4	-39.0	-60.9	-111.3	-184.4	-290.0	-453.2	-712.0	-1106.7	42.3	32.7
1-K	39320	11985	0.5	5.5	6.5	7.5	10.5	15.5	16.7	25.3	32.6	32.6	36.1	34.9	36.0	33.3	27.9	27.1	22.0	11.4	3.1	-4.1	-21.4	-36.4	-57.5	-106.8	-177.9	-280.4	-438.9	-690.2	-1073.5	42.7	33.3
1-L	38471	11726	0.7	5.7	6.7	7.7	10.7	15.7	17.0	25.5	32.9	32.9	36.4	35.3	36.4	33.8	28.5	27.8	22.8	12.3	4.2	-2.8	-19.9	-34.5	-55.1	-103.4	-173.2	-273.4	-428.4	-674.2	-1049.0	43.1	33.8
2-D	52062	15868	-1.9	3.1	4.1	5.1	8.1	13.1	14.1	22.5	29.6	29.2	32.2	30.3	30.4	26.5	19.6	17.2	10.4	-2.1	-12.5	-22.3	-43.4	-64.1	-94.0	-156.6	-249.1	-385.4	-596.3	-929.9	-1439.8	38.1	27.1
2-E	49998	15239	-1.6	3.4	4.4	5.4	8.4	13.4	14.4	22.9	30.0	29.7	32.8	31.0	31.3	27.6	20.9	18.8	12.2	0.1	-10.0	-19.4	-39.9	-59.7	-88.1	-148.6	-237.6	-368.4	-570.8	-891.1	-1380.5	38.7	28.0
2-F	48084	14656	-1.2	3.8	4.8	5.8	8.8	13.8	14.8	23.3	30.4	30.2	33.3	31.7	32.1	28.6	22.1	20.3	13.9	2.1	-7.7	-16.7	-36.6	-55.5	-82.7	-141.1	-227.0	-352.7	-547.2	-855.1	-1325.5	39.4	28.9
2-G	46336	14123	-0.9	4.1	5.1	6.1	9.1	14.1	15.2	23.7	30.9	30.6	33.8	32.3	32.9	29.5	23.3	21.6	15.5	3.9	-5.6	-14.2	-33.6	-51.8	-77.7	-134.3	-217.2	-338.3	-525.6	-822.3	-1275.3	40.0	29.7
2-H	44740	13637	-0.6	4.4	5.4	6.4	9.4	14.4	15.5	24.0	31.2	31.1	34.3	32.9	33.6	30.4	24.3	22.8	17.0	5.6	-3.6	-11.9	-30.8	-48.3	-73.1	-128.1	-208.3	-325.2	-505.9	-792.2	-1229.4	40.6	30.5
2-I	43270	13189	-0.3	4.7	5.7	6.7	9.7	14.7	15.8	24.3	31.6	31.5	34.8	33.4	34.2	31.2	25.3	24.0	18.3	7.2	-1.8	-9.8	-28.3	-45.1	-68.9	-122.3	-200.1	-313.0	-487.8	-764.6	-1187.1	41.2	31.2
2-J	42030	12811	0.0	5.0	6.0	7.0	10.0	15.0	16.1	24.6	31.9	31.8	35.2	33.9	34.8	31.8	26.1	25.0	19.5	8.5	-0.3	-8.0	-26.1	-42.4	-65.3	-117.4	-193.1	-302.8	-472.4	-741.2	-1151.4	41.6	31.8
2-K	41063	12516	0.2	5.2	6.2	7.2	10.2	15.2	16.3	24.9	32.2	32.1	35.5	34.3	35.2	32.4	26.7	25.7	20.4	9.5	0.9	-6.6	-24.4	-40.2	-62.6	-113.6	-187.7	-294.8	-460.5	-723.0	-1123.6	42.0	32.3
2-L	40233	12263	0.3	5.3	6.3	7.3	10.3	15.3	16.5	25.1	32.4	32.3	35.8	34.6	35.6	32.8	27.3	26.4	21.1	10.4	2.0	-5.4	-23.0	-38.4	-60.2	-110.4	-183.1	-288.0	-450.2	-707.4	-1099.7	42.4	32.8
3-D	53178	16209	-2.1	2.9	3.9	4.9	7.9	12.9	13.8	22.2	29.3	28.9	31.9	29.9	30.0	26.0	18.9	16.4	9.4	-3.2	-13.8	-23.9	-45.3	-66.5	-97.1	-160.9	-255.3	-394.6	-610.1	-950.9	-1471.9	37.7	26.6
3-E	51190	15603	-1.8	3.2	4.2	5.2	8.2	13.2	14.2	22.6	29.7	29.4	32.4	30.6	30.8	27.0	20.2	17.9	11.2	-1.2	-11.4	-21.1	-41.9	-62.3	-91.5	-153.2	-244.3	-378.2	-585.5	-913.5	-1414.8	38.3	27.5
3-F	49357	15044	-1.4	3.6	4.6	5.6	8.6	13.6	14.6	23.0	30.2	29.9	32.9	31.2	31.6	27.9	21.3	19.3	12.8	0.7	-9.2	-18.5	-38.8	-58.3	-86.3	-146.1	-234.1	-363.2	-562.9	-879.1	-1362.1	39.0	28.3
3-G	47700	14539	-1.1	3.9	4.9	5.9	8.9	13.9	14.9	23.4	30.5	30.3	33.4	31.8	32.3	28.8	22.4	20.6	14.3	2.5	-7.2	-16.2	-36.0	-54.7	-81.6	-139.6	-224.8	-349.5	-542.5	-847.9	-1314.5	39.5	29.0
3-H	46197	14081	-0.9	4.1	5.1	6.1	9.1	14.1	15.2	23.7	30.9	30.7	33.9	32.4	32.9	29.6	23.4	21.7	15.7	4.0	-5.4	-14.0	-33.4	-51.5	-77.3	-133.8	-216.4	-337.2	-523.9	-819.7	-1271.3	40.1	29.8
3-I	44873	13677	-0.6	4.4	5.4	6.4	9.4	14.4	15.5	24.0	31.2	31.0	34.3	32.8	33.5	30.3	24.2	22.7	16.9	5.4	-3.8	-12.1	-31.1	-48.6	-73.5	-128.6	-209.0	-326.3	-507.6	-794.7	-1233.2	40.5	30.4
3-J	43700	13320	-0.4	4.6	5.6	6.6	9.6	14.6	15.7	24.2	31.5	31.4	34.7	33.3	34.0	30.9	25.0	23.7	17.9	6.7	-2.3	-10.4	-29.0	-46.0	-70.1	-124.0	-202.5	-316.6	-493.1	-772.7	-1199.5	41.0	31.0
3-K	42755	13032	-0.2	4.8	5.8	6.8	9.8	14.8	16.0	24.5	31.7	31.6	35.0	33.6	34.4	31.4	25.6	24.4	18.8	7.7	-1.2	-9.1	-27.4	-44.0	-67.4	-120.3	-197.2	-308.8	-481.4	-754.9	-1172.3	41.3	31.5
3-L	42073	12824	-0.1	4.9	5.9	6.9	9.9	14.9	16.1	24.6	31.9	31.8	35.2	33.9	34.8	31.8	26.1	24.9	19.4	8.4	-0.3	-8.1	-26.2	-42.5	-65.5	-117.6	-193.4	-303.2	-473.0	-742.0	-1152.7	41.6	31.8
4-D	54331	16560	-2.3	2.7	3.7	4.7	7.7	12.7	13.6	22.0	29.1	28.6	31.5	29.5	29.5	25.4	18.2	15.5	8.4	-4.4	-15.2	-25.5	-47.3	-69.0	-100.4	-165.4	-261.7	-404.0	-624.3	-972.6	-1505.0	37.3	26.2
4-E	52396	15970	-2.0	3.0	4.0	5.0	8.0	13.0	14.0	22.4	29.5	29.1	32.1	30.2	30.3	26.4	19.4	17.0	10.1	-2.4	-12.9	-22.8	-44.0	-64.8	-94.9	-157.9	-251.0	-388.1	-600.4	-936.2	-1449.4	38.0	27.0
4-F	50683	15448	-1.7	3.3	4.3	5.3	8.3	13.3	14.3	22.7	29.9	29.5	32.6	30.8	31.0	27.2	20.5	18.3	11.6	-0.6	-10.8	-20.4	-41.1	-61.2	-90.0	-151.2	-241.4	-374.1	-579.3	-904.0	-1400.2	38.5	27.7
4-G	49073	14957	-1.4	3.6	4.6	5.6	8.6	13.6	14.6	23.1	30.2	29.9	33.0	31.3	31.7	28.1	21.5	19.5	13.1	1.0	-8.9	-18.1	-38.3	-57.7	-85.5	-145.0	-232.5	-360.8	-559.4	-873.7	-1353.9	39.1	28.4
4-H	47659	14526	-1.1	3.9	4.9	5.9	8.9	13.9	14.9	23.4	30.5	30.3	33.4	31.8	32.3	28.8	22.4	20.6	14.3	2.5	-7.2	-16.1	-35.9	-54.6	-81.4	-139.5	-224.6	-349.2	-542.0	-847.1	-1313.3	39.5	29.1
4-I	46414	14147	-0.9	4.1	5.1	6.1	9.1	14.1	15.2	23.6	30.8	30.6	33.8	32.3	32.8	29.5	23.2	21.5	15.5	3.8	-5.6	-14.3	-33.7	-51.9	-77.9	-134.6	-217.6	-338.9	-526.6	-823.7	-1277.5	40.0	29.7
4-J	45375	13830	-0.7	4.3	5.3	6.3	9.3	14.3	15.4	23.9	31.1	30.9	34.1	32.7	33.3	30.0	23.9	22.3	16.4	4.9	-4.4	-12.8	-31.9	-49.7	-74.9	-130.5	-211.8	-330.4	-513.8	-804.2	-1247.6	40.4	30.2
4-K	44538	13575	-0.6	4.4	5.4	6.4	9.4	14.4	15.6	24.1	31.3	31.1	34.4	33.0	33.6	30.5	24.4	23.0	17.2	5.8	-3.4	-11.6	-30.5	-47.8	-72.5	-127.3	-207.2	-323.5	-503.4	-788.4	-1223.6	40.7	30.6
4-L	43907	13383	-0.4	4.6	5.6	6.6	9.6	14.6	15.7	24.2	31.4	31.3	34.6	33.2	33.9	30.8	24.8	23.5	17.7	6.5	-2.6	-10.7	-29.4	-46.5	-70.7	-124.8	-203.6	-318.3	-495.6	-776.6	-1205.4	40.9	30.9
5-D	55529	16925	-2.5	2.5	3.5	4.5	7.5	12.5	13.4	21.8	28.8	28.4	31.2	29.2	29.0	24.8	17.5	14.7	7.3	-5.6	-16.6	-27.2	-49.3	-71.6	-103.8	-170.1	-268.4	-413.8	-639.0	-995.1	-1539.4	37.0	25.7
5-E	53744	16381	-2.2	2.8	3.8	4.8	7.8	12.8	13.7	22.1	29.2	28.8	31.7	29.7	29.7	25.7	18.6	16.0	8.9	-3.8	-14.5	-24.7	-46.3	-67.7	-98.7	-163.1	-258.5	-399.2	-617.0	-961.5	-1488.1	37.5	26.4
5-F	52065	15870	-1.9	3.1	4.1	5.1	8.1	13.1	14.0	22.5	29.6	29.2	32.2	30.3	30.4	26.5	19.6	17.2	10.4	-2.1	-12.5	-22.4	-43.4	-64.1	-94.0	-156.6	-249.1	-385.4	-596.3	-930.0	-1439.9	38.1	27.1
5-G	50577	15416	-1.7	3.3	4.3	5.3	8.3	13.3	14.3	22.8	29.9	29.6	32.6	30.8	31.0	27.3	20.5	18.4	11.7	-0.5	-10.7	-20.2	-40.9	-60.9	-89.7	-150.8	-240.9	-373.2	-578.0	-902.0	-1397.1	38.5	27.7
5-H	49215	15001	-1.4	3.6	4.6	5.6	8.6	13.6	14.6	23.0	30.2	29.9	33.0	31.3	31.6	28.0	21.4	19.4	12.9	0.9	-9.0	-18.3	-38.6	-58.0	-85.9	-145.5	-233.3	-362.0	-561.2	-876.4	-1358.0	39.0	28.4
5-I	48025	14638	-1.2	3.8	4.8	5.8	8.8	13.8	14.8	23.3	30.5	30.2	33.3	31.7	32.1	28.6	22.2	20.3	14.0	2.1	-7.6	-16.6	-36.5	-55.4	-82.5	-140.9	-226.6	-352.2	-546.5	-854.0	-1323.8	39.4	28.9
5-J	47092	14354	-1.0	4.0	5.0	6.0	9.0	14.0	15.0	23.5	30.7	30.4	33.6	32.0	32.5	29.1	22.8	21.0	14.8	3.1	-6.5	-15.3	-34.9	-53.4	-79.8	-137.2	-221.4	-344.5	-535.0	-836.5	-1297.0	39.7	29.3
6-D	56779	17306	-2.7	2.3	3.3	4.3	7.3	12.3	13.2	21.6	28.6	28.1	30.9	28.7	28.5	24.1	16.7	13.7	6.3	-6.9	-18.1	-29.0	-51.4	-74.2	-107.3	-174.9	-275.3	-424.1	-654.4	-1018.5	-1575.3	36.6	25.2
6-E	55074	16786	-2.4	2.6	3.6	4.6	7.6	12.6	13.5	21.9	28.9	28.5	31.3	29.3	29.2	25.0	17.7	15.0	7.7	-5.2	-16.1	-26.6	-48.6	-70.6	-102.5	-168.3	-265.9	-410.1	-633.4	-986.5	-1526.3	37.1	25.8
6-G	52001	15850	-1.9	3.1	4.1	5.1	8.1	13.1	14.1	22.5	29.6	29.2	32.2	30.3	30.4	26.6	19.7	17.3	10.5	-2.0	-12.4	-22.3	-43.3	-64.0	-93.8	-156.4	-248.8	-384.9	-595.5	-928.8	-1438.0	38.1	27.1
6-H	50721	15460	-1.7	3.3	4.3	5.3	8.3	13.3	14.3	22.7	29.9	29.5	32.6	30.8	31.0	27.2	20.5	18.3	11.6	-0.7	-10.9	-20.5	-41.1	-61.2	-90.2	-151.4	-241.7	-374.4	-579.8	-904.7	-1401.3	38.5	27.7
6-I	49691	15146	-1.5	3.5	4.5	5.5	8.5	13.5	14.5	22.9	30.1	29.8	32.8	31.1	31.4	27.7	21.1	19.0	12.5	0.4	-9.6	-19.0	-39.4	-59.0	-87.2	-147.4	-235.9	-365.9	-567.1	-885.4	-1371.7	38.8	28.1
6-J	48834	14885	-1.4	3.6	4.6	5.6	8.6	13.6	14.7	23.1	30.3	30.0	33.1	31.4	31.8	28.2	21.7	19.7	13.3	1.3	-8.6	-17.8	-37.9	-57.2	-84.8	-144.0	-231.1	-358.9	-556.5	-869.3	-1347.1	39.1	28.5
7-B	61723	18813	-3.4	1.6	2.6	3.6	6.6	11.6	12.4	20.7	27.6	27.0	29.6	27.2	26.5	21.7	13.7	10.1	2.0	-11.9	-23.9	-35.8	-59.8	-84.8	-121.2	-194.0	-302.7	-464.6	-715.3	-1111.3	-1717.2	35.2	23.3
7-C	59827	18235	-3.1	1.9	2.9	3.9	6.9	11.9	12.7	21.0	28.0	27.4	30.1	27.8	27.3	22.6	14.8	11.5	3.6	-10.0	-21.7	-33.2	-56.6	-80.7	-115.9	-186.7	-292.2	-449.1	-691.9	-1075.7	-1662.8	35.7	24.0
7-E	56422	17197	-2.6	2.4	3.4	4.4	7.4	12.4	13.3	21.6	28.6	28.2	31.0	28.9	28.6	24.3	16.9	14.0	6.6	-6.5	-17.7	-28.5	-50.8	-73.5	-106.3	-173.5	-273.3	-421.2	-650.0	-1011.8	-1565.0	36.7	25.3
7-F	54932	16743	-2.4	2.6	3.6	4.6	7.6	12.6	13.5	21.9	28.9	28.5	31.4	29.3	29.2	25.1	17.8	15.1	7.9	-5.0	-15.9	-26.4	-48.3	-70.3	-102.1	-167.7	-265.1	-408.9	-631.7	-983.8	-1522.2	37.2	25.9
7-G	53593	16335	-2.2	2.8	3.8	4.8	7.8	12.8	13.8	22.2	29.2	28.8	31.7	29.8	29.8	25.7	18.7	16.1	9.0	-3.6	-14.3	-24.5	-46.0	-67.4	-98.3	-162.5	-257.6	-398.0	-615.2	-958.7	-1483.8	37.6	26.5
7-H	52407	15974	-2.0	3.0	4.0	5.0	8.0	13.0	14.0	22.4	29.5	29.1	32.1	30.2	30.3	26.3	19.4	17.0	10.1	-2.4	-12.9	-22.8	-44.0	-64.9	-94.9	-157.9	-251.0	-388.2	-600.5	-936.4	-1449.7	37.9	27.0
7-I	51380	15661	-1.8	3.2	4.2	5.2	8.2	13.2	14.2	22.6	29.7	29.4	32.4	30.5	30.7	26.9	20.0	17.8	11.0	-1.4	-11.6	-21.4	-42.3	-62.7	-92.0	-153.9	-245.3	-379.8	-587.9	-917.1	-1420.2	38.3	27.4
8-A	64870	19772	-3.8	1.2	2.2	3.2	6.2	11.2	11.9	20.1	27.0	26.3	28.8	26.2	25.3	20.2	11.8	7.8	-0.7	-15.1	-27.6	-40.2	-65.1	-91.5	-130.0	-206.1	-320.1	-490.4	-754.0	-1170.4	-1807.5	34.3	22.2
8-B	62935	19183	-3.6	1.4	2.4	3.4	6.4	11.4	12.2	20.5	27.4	26.7	29.3	26.8	26.1	21.1	13.0	9.2	0.9	-13.1	-25.3	-37.5	-61.8	-87.4	-124.6	-198.7	-309.4	-474.5	-730.2	-1134.1	-1752.0	34.8	22.9
8-C	61110	18626	-3.3	1.7	2.7	3.7	6.7	11.7	12.5	20.8	27.7	27.1	29.7	27.4	26.8	22.0	14.1	10.6	2.5	-11.3	-23.2	-35.0	-58.7	-83.5	-119.5	-191.6	-299.3	-459.6	-707.7	-1099.8	-1699.6	35.3	23.5
8-D	59392	18103	-3.1	1.9	2.9	3.9	6.9	11.9	12.8	21.1	28.0	27.5	30.2	27.9	27.5	22.9	15.1	11.8	4.0	-9.6	-21.2	-32.6	-55.9	-79.8	-114.6	-185.0	-289.8	-445.5	-686.6	-1067.6	-1650.3	35.8	24.2
8-F	56402	17191	-2.6	2.4	3.4	4.4	7.4	12.4	13.3	21.6	28.6	28.2	31.0	28.9	28.6	24.3	16.9	14.0	6.6	-6.5	-17.6	-28.4	-50.8	-73.4	-106.2	-173.4	-273.2	-421.0	-649.8	-1011.4	-1564.5	36.7	25.3

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Lmax)
FROM PILE DRIVING OF WTG MONOPILES

8-G	55203	16826	-2.4	2.6	3.6	4.6	7.6	12.6	13.5	21.9	28.9	28.4	31.3	29.3	29.1	24.9	17.7	14.9	7.6	-5.3	-16.2	-26.8	-48.8	-70.9	-102.8	-168.8	-266.6	-411.2	-635.0	-988.9	-1530.0	37.1	25.8
8-H	54055	16476	-2.2	2.8	3.8	4.8	7.8	12.8	13.7	22.1	29.1	28.7	31.6	29.6	29.6	25.5	18.4	15.7	8.6	-4.1	-14.8	-25.2	-46.8	-68.4	-99.6	-164.3	-260.2	-401.8	-620.9	-967.4	-1497.1	37.4	26.3
9-A	66006	20119	-4.0	1.0	2.0	3.0	6.0	11.0	11.7	20.0	26.8	26.1	28.5	25.8	24.9	19.7	11.1	7.0	-1.7	-16.2	-28.9	-41.7	-67.0	-93.9	-133.2	-210.5	-326.4	-499.7	-767.9	-1191.7	-1840.1	34.0	21.8
9-B	64148	19552	-3.7	1.3	2.3	3.3	6.3	11.3	12.0	20.3	27.1	26.5	29.0	26.4	25.6	20.5	12.2	8.4	-0.1	-14.3	-26.7	-39.2	-63.8	-89.9	-128.0	-203.4	-316.1	-484.5	-745.1	-1156.8	-1786.8	34.5	22.4
9-C	62394	19018	-3.5	1.5	2.5	3.5	6.5	11.5	12.3	20.6	27.5	26.8	29.4	27.0	26.3	21.4	13.3	9.6	1.4	-12.6	-24.7	-36.8	-60.9	-86.2	-123.1	-196.6	-306.4	-470.1	-723.5	-1123.9	-1736.5	35.0	23.0
9-D	60797	18531	-3.3	1.7	2.7	3.7	6.7	11.7	12.5	20.8	27.8	27.2	29.8	27.5	26.9	22.2	14.2	10.8	2.8	-11.0	-22.8	-34.6	-58.2	-82.8	-118.6	-190.4	-297.6	-457.0	-703.9	-1093.9	-1690.6	35.4	23.6
9-E	59294	18073	-3.0	2.0	3.0	4.0	7.0	12.0	12.8	21.1	28.1	27.5	30.2	27.9	27.5	22.9	15.2	11.9	4.1	-9.5	-21.0	-32.5	-55.7	-79.6	-114.4	-184.6	-289.3	-444.7	-685.4	-1065.7	-1647.5	35.9	24.2
9-F	57937	17659	-2.8	2.2	3.2	4.2	7.2	12.2	13.0	21.3	28.3	27.8	30.6	28.4	28.0	23.6	16.0	12.9	5.2	-8.1	-19.4	-30.6	-53.4	-76.7	-110.6	-179.4	-281.7	-433.6	-668.7	-1040.3	-1608.5	36.3	24.7
9-G	56733	17292	-2.7	2.3	3.3	4.3	7.3	12.3	13.2	21.6	28.6	28.1	30.9	28.8	28.5	24.2	16.7	13.8	6.3	-6.9	-18.0	-28.9	-51.4	-74.1	-107.2	-174.7	-275.1	-423.7	-653.8	-1017.7	-1574.0	36.6	25.2
9-H	55736	16988	-2.5	2.5	3.5	4.5	7.5	12.5	13.4	21.7	28.8	28.3	31.1	29.1	28.9	24.7	17.3	14.5	7.2	-5.8	-16.8	-27.5	-49.7	-72.0	-104.3	-170.9	-269.5	-415.5	-641.6	-998.9	-1545.3	36.9	25.6
9-I	54829	16712	-2.4	2.6	3.6	4.6	7.6	12.6	13.5	21.9	29.0	28.5	31.4	29.4	29.3	25.1	17.9	15.2	8.0	-4.9	-15.8	-26.2	-48.1	-70.1	-101.8	-167.3	-264.5	-408.1	-630.4	-981.9	-1519.3	37.2	25.9
10-A	67195	20481	-4.1	0.9	1.9	2.9	5.9	10.9	11.5	19.8	26.6	25.8	28.2	25.5	24.4	19.1	10.4	6.2	-2.7	-17.4	-30.3	-43.4	-68.9	-96.4	-136.5	-215.1	-333.0	-509.4	-782.5	-1214.0	-1874.2	33.7	21.4
10-B	65437	19945	-3.9	1.1	2.1	3.1	6.1	11.1	11.8	20.0	26.9	26.2	28.6	26.0	25.1	19.9	11.5	7.4	-1.2	-15.6	-28.2	-41.0	-66.0	-92.7	-131.6	-208.3	-323.3	-495.0	-760.9	-1181.0	-1823.8	34.2	22.0
10-C	63760	19434	-3.7	1.3	2.3	3.3	6.3	11.3	12.1	20.3	27.2	26.5	29.0	26.5	25.8	20.7	12.5	8.6	0.2	-14.0	-26.3	-38.7	-63.2	-89.1	-126.9	-201.9	-314.0	-481.3	-740.3	-1149.5	-1775.6	34.6	22.6
10-D	62173	18950	-3.4	1.6	2.6	3.6	6.6	11.6	12.3	20.6	27.5	26.9	29.5	27.0	26.4	21.5	13.4	9.8	1.6	-12.4	-24.4	-36.5	-60.5	-85.7	-122.5	-195.7	-305.2	-468.3	-720.8	-1119.8	-1730.1	35.1	23.1
10-E	60751	18517	-3.2	1.8	2.8	3.8	6.8	11.8	12.5	20.8	27.8	27.2	29.8	27.5	26.9	22.2	14.3	10.8	2.8	-10.9	-22.8	-34.5	-58.1	-82.7	-118.5	-190.2	-297.3	-456.6	-703.3	-1093.1	-1689.3	35.4	23.6
10-F	59441	18118	-3.1	1.9	2.9	3.9	6.9	11.9	12.7	21.1	28.0	27.5	30.2	27.9	27.4	22.8	15.1	11.8	3.9	-9.6	-21.2	-32.7	-55.9	-79.9	-114.8	-185.2	-290.1	-445.9	-687.2	-1068.5	-1651.7	35.8	24.1
10-G	58311	17773	-2.9	2.1	3.1	4.1	7.1	12.1	12.9	21.3	28.3	27.7	30.5	28.2	27.9	23.4	15.8	12.6	4.9	-8.5	-19.9	-31.1	-54.0	-77.5	-111.6	-180.8	-283.8	-436.7	-673.3	-1047.3	-1619.3	36.1	24.6
10-H	57378	17489	-2.8	2.2	3.2	4.2	7.2	12.2	13.1	21.4	28.4	27.9	30.7	28.5	28.3	23.8	16.3	13.3	5.7	-7.5	-18.8	-29.8	-52.5	-75.5	-109.0	-177.2	-278.6	-429.0	-661.8	-1029.8	-1592.5	36.4	24.9
10-I	56556	17238	-2.6	2.4	3.4	4.4	7.4	12.4	13.2	21.6	28.6	28.1	30.9	28.8	28.6	24.3	16.8	13.9	6.4	-6.7	-17.8	-28.7	-51.1	-73.8	-106.7	-174.0	-274.1	-422.3	-651.7	-1014.3	-1568.9	36.7	25.3
11-A	68482	20873	-4.3	0.7	1.7	2.7	5.7	10.7	11.3	19.6	26.4	25.6	27.9	25.1	24.0	18.5	9.7	5.2	-3.8	-18.7	-31.8	-45.1	-71.1	-99.1	-140.1	-220.0	-340.1	-519.9	-798.4	-1238.1	-1911.1	33.4	20.9
11-B	66741	20343	-4.1	0.9	1.9	2.9	5.9	10.9	11.6	19.8	26.7	25.9	28.3	25.6	24.6	19.3	10.7	6.5	-2.3	-16.9	-29.7	-42.8	-68.2	-95.4	-135.3	-213.3	-330.5	-505.7	-777.0	-1205.4	-1861.2	33.8	21.5
11-C	65135	19853	-3.9	1.1	2.1	3.1	6.1	11.1	11.8	20.1	27.0	26.2	28.7	26.1	25.2	20.1	11.7	7.6	-1.0	-15.3	-27.9	-40.5	-65.5	-92.0	-130.8	-207.2	-321.6	-492.5	-757.2	-1175.3	-1815.1	34.3	22.1
11-D	63679	19409	-3.7	1.3	2.3	3.3	6.3	11.3	12.1	20.3	27.2	26.6	29.1	26.6	25.8	20.8	12.5	8.7	0.3	-13.9	-26.2	-38.5	-63.1	-88.9	-126.7	-201.5	-313.5	-480.6	-739.3	-1148.0	-1773.3	34.6	22.6
11-E	62275	18982	-3.5	1.5	2.5	3.5	6.5	11.5	12.3	20.6	27.5	26.9	29.4	27.0	26.3	21.4	13.4	9.7	1.5	-12.5	-24.5	-36.6	-60.7	-86.0	-122.8	-196.1	-305.8	-469.1	-722.1	-1121.7	-1733.1	35.0	23.1
11-F	61095	18622	-3.3	1.7	2.7	3.7	6.7	11.7	12.5	20.8	27.7	27.1	29.7	27.4	26.8	22.0	14.1	10.6	2.5	-11.3	-23.2	-35.0	-58.7	-83.4	-119.4	-191.6	-299.2	-459.5	-707.5	-1099.5	-1699.2	35.4	23.5
11-G	60010	18291	-3.1	1.9	2.9	3.9	6.9	11.9	12.7	21.0	27.9	27.3	30.0	27.7	27.2	22.6	14.7	11.4	3.4	-10.2	-21.9	-33.5	-56.9	-81.1	-116.4	-187.4	-293.2	-450.6	-694.2	-1079.2	-1668.0	35.7	23.9
11-H	59100	18014	-3.0	2.0	3.0	4.0	7.0	12.0	12.8	21.1	28.1	27.5	30.2	28.0	27.6	23.0	15.3	12.0	4.2	-9.3	-20.8	-32.2	-55.4	-79.2	-113.8	-183.9	-288.2	-443.1	-683.0	-1062.1	-1641.9	35.9	24.3
11-K	57417	17501	-2.8	2.2	3.2	4.2	7.2	12.2	13.1	21.4	28.4	27.9	30.7	28.5	28.2	23.8	16.3	13.3	5.7	-7.6	-18.8	-29.9	-52.5	-75.6	-109.1	-177.4	-278.9	-429.3	-662.3	-1030.5	-1593.6	36.4	24.9
11-L	57145	17418	-2.7	2.3	3.3	4.3	7.3	12.3	13.1	21.5	28.5	28.0	30.8	28.6	28.3	24.0	16.5	13.5	5.9	-7.3	-18.5	-29.5	-52.1	-75.0	-108.3	-176.3	-277.3	-427.1	-658.9	-1025.4	-1585.8	36.5	25.0
12-A	69776	21268	-4.5	0.5	1.5	2.5	5.5	10.5	11.1	19.3	26.1	25.3	27.6	24.7	23.5	17.9	8.9	4.3	-4.9	-19.9	-33.3	-46.9	-73.2	-101.8	-143.7	-225.0	-347.2	-530.5	-814.3	-1262.3	-1948.2	33.1	20.5
12-B	68098	20756	-4.2	0.8	1.8	2.8	5.8	10.8	11.4	19.6	26.4	25.6	28.0	25.2	24.1	18.7	9.9	5.5	-3.5	-18.3	-31.3	-44.6	-70.4	-98.3	-139.1	-218.6	-338.0	-516.8	-793.6	-1230.9	-1900.1	33.5	21.1
12-C	66534	20280	-4.0	1.0	2.0	3.0	6.0	11.0	11.6	19.9	26.7	26.0	28.4	25.7	24.7	19.4	10.8	6.6	-2.1	-16.7	-29.5	-42.5	-67.8	-95.0	-134.7	-212.5	-329.3	-504.0	-774.4	-1201.6	-1855.3	33.9	21.6
12-D	65134	19853	-3.9	1.1	2.1	3.1	6.1	11.1	11.8	20.1	27.0	26.2	28.7	26.1	25.2	20.1	11.7	7.6	-1.0	-15.3	-27.9	-40.5	-65.5	-92.0	-130.8	-207.2	-321.6	-492.5	-757.2	-1175.3	-1815.1	34.3	22.1
12-E	63806	19448	-3.7	1.3	2.3	3.3	6.3	11.3	12.0	20.3	27.2	26.5	29.0	26.5	25.7	20.7	12.4	8.6	0.2	-14.0	-26.3	-38.7	-63.3	-89.2	-127.0	-202.0	-314.2	-481.7	-740.9	-1150.4	-1777.0	34.6	22.5
12-F	62708	19113	-3.5	1.5	2.5	3.5	6.5	11.5	12.2	20.5	27.4	26.8	29.3	26.9	26.2	21.2	13.1	9.4	1.1	-12.9	-25.0	-37.2	-61.4	-86.9	-124.0	-197.8	-308.2	-472.7	-727.4	-1129.8	-1745.5	34.9	22.9
12-G	61677	18799	-3.4	1.6	2.6	3.6	6.6	11.6	12.4	20.7	27.6	27.0	29.6	27.2	26.6	21.7	13.7	10.1	2.0	-11.9	-23.8	-35.8	-59.7	-84.7	-121.1	-193.8	-302.5	-464.2	-714.7	-1110.5	-1715.9	35.2	23.3
12-H	60835	18543	-3.3	1.7	2.7	3.7	6.7	11.7	12.5	20.8	27.8	27.2	29.8	27.4	26.9	22.1	14.2	10.8	2.7	-11.0	-22.9	-34.6	-58.3	-82.9	-118.7	-190.6	-297.8	-457.3	-704.3	-1094.7	-1691.7	35.4	23.6
12-I	60136	18330	-3.2	1.8	2.8	3.8	6.8	11.8	12.6	20.9	27.9	27.3	30.0	27.7	27.2	22.5	14.6	11.3	3.3	-10.3	-22.0	-33.6	-57.1	-81.4	-116.7	-187.9	-293.9	-451.6	-695.7	-1081.5	-1671.7	35.6	23.9
12-J	59598	18166	-3.1	1.9	2.9	3.9	6.9	11.9	12.7	21.0	28.0	27.4	30.1	27.8	27.4	22.8	15.0	11.7	3.8	-9.8	-21.4	-32.9	-56.2	-80.3	-115.2	-185.8	-290.9	-447.2	-689.1	-1071.4	-1656.2	35.8	24.1
12-K	59250	18059	-3.0	2.0	3.0	4.0	7.0	12.0	12.8	21.1	28.1	27.5	30.2	27.9	27.5	22.9	15.2	11.9	4.1	-9.4	-21.0	-32.4	-55.6	-79.5	-114.3	-184.5	-289.0	-444.4	-684.8	-1064.9	-1646.2	35.9	24.2
12-L	59056	18000	-3.0	2.0	3.0	4.0	7.0	12.0	12.8	21.1	28.1	27.6	30.3	28.0	27.6	23.0	15.3	12.1	4.3	-9.2	-20.8	-32.1	-55.3	-79.1	-113.7	-183.7	-287.9	-442.8	-682.4	-1061.3	-1640.6	35.9	24.3
13-A	71112	21675	-4.6	0.4	1.4	2.4	5.4	10.4	11.0	19.1	25.9	25.0	27.2	24.3	23.0	17.3	8.1	3.4	-6.0	-21.3	-34.8	-48.7	-75.5	-104.6	-147.5	-230.1	-354.6	-541.4	-830.7	-1287.4	-1986.6	32.7	20.1
13-B	69472	21175	-4.4	0.6	1.6	2.6	5.6	10.6	11.2	19.4	26.2	25.4	27.6	24.8	23.6	18.0	9.1	4.5	-4.6	-19.6	-32.9	-46.5	-72.7	-101.2	-142.9	-223.8	-345.5	-528.0	-810.5	-1256.7	-1939.5	33.1	20.6
13-C	67994	20725	-4.2	0.8	1.8	2.8	5.8	10.8	11.4	19.6	26.4	25.7	28.0	25.2	24.1	18.7	10.0	5.6	-3.4	-18.2	-31.2	-44.5	-70.3	-98.1	-138.8	-218.2	-337.4	-515.9	-792.4	-1229.0	-1897.1	33.5	21.1
13-D	66651	20315	-4.1	0.9	1.9	2.9	5.9	10.9	11.6	19.8	26.7	25.9	28.3	25.6	24.7	19.4	10.8	6.6	-2.2	-16.8	-29.6	-42.6	-68.0	-95.2	-135.0	-213.0	-330.0	-504.9	-775.9	-1203.8	-1858.6	33.9	21.6
13-F	64319	19604	-3.7	1.3	2.3	3.3	6.3	11.3	12.0	20.2	27.1	26.4	28.9	26.4	25.5	20.5	12.1	8.2	-0.3	-14.5	-26.9	-39.4	-64.1	-90.3	-128.5	-204.0	-317.1	-485.9	-747.2	-1160.0	-1791.7	34.5	22.4
13-G	63374	19316	-3.6	1.4	2.4	3.4	6.4	11.4	12.1	20.4	27.3	26.6	29.1	26.7	25.9	20.9	12.7	8.9	0.6	-13.6	-25.8	-38.1	-62.5	-88.3	-125.8	-200.4	-311.9	-478.1	-735.6	-1142.3	-1764.6	34.7	22.7
13-H	62532	19060	-3.5	1.5	2.5	3.5	6.5	11.5	12.2	20.5	27.4	26.8	29.4	26.9	26.2	21.3	13.2	9.5	1.3	-12.7	-24.8	-37.0	-61.1	-86.5	-123.5	-197.1	-307.2	-471.2	-725.2	-1126.5	-1740.4	35.0	23.0
13-I	61924	18875	-3.4	1.6	2.6	3.6	6.6	11.6	12.3	20.6	27.6	26.9	29.5	27.1	26.5	21.6	13.6	10.0	1.8	-12.1	-24.1	-36.1	-60.1	-85.2	-121.8	-194.8	-303.8	-466.3	-717.7	-1115.1	-1723.0	35.1	23.2
13-J	61510	18748	-3.4	1.6	2.6	3.6	6.6	11.6	12.4	20.7	27.6	27.0	29.6	27.2	26.6	21.8	13.8	10.3	2.2	-11.7	-23.6	-35.5	-59.4	-84.3	-120.6	-193.2	-301.5	-462.9	-712.6	-1107.3	-1711.1	35.2	23.4
13-K	61187	18650	-3.3	1.7	2.7	3.7	6.7	11.7	12.5	20.8	27.7	27.1	29.7	27.3	26.8	22.0	14.0	10.5	2.4	-11.4	-23.3	-35.1	-58.9	-83.6	-119.7	-191.9	-299.7	-460.2	-708.7	-1101.3	-1701.8	35.3	23.5
13-L	61057	18610	-3.3	1.7	2.7	3.7	6.7	11.7	12.5	20.8	27.7	27.1	29.7	27.4	26.8	22.0	14.1	10.6	2.5	-11.2	-23.1	-34.9	-58.7	-83.4	-119.3	-191.4	-299.0	-459.2	-707.1	-1098.8	-1698.1	35.4	23.5
14-D	68201	20788	-4.3	0.7	1.7	2.7	5.7	10.7	11.4	19.6	26.4	25.6	27.9	25.2	24.1	18.6	9.8	5.4	-3.6	-18.4	-31.4	-44.8	-70.6	-98.5	-139.3	-219.0	-338.5	-517.6	-794.9	-1232.8	-1903.1	33.5	21.0
14-E	67045	20435	-4.1	0.9	1.9	2.9	5.9	10.9	11.5	19.8	26.6	25.8	28.2	25.5	24.5	19.2	10.5	6.3	-2.6	-17.2	-30.1	-43.2	-68.7	-96.1	-136.1	-214.5	-332.1	-508.2	-780.7	-1211.2	-1869.9	33.8	21.4
14-F	65981	20111	-4.0	1.0	2.0	3.0	6.0	11.0	11.7	20.0	26.8	26.1	28.5	25.9	24.9	19.7	11.1	7.0	-1.7	-16.2	-28.9	-41.7	-66.9	-93.8	-133.1	-210.4	-326.3	-499.4	-767.6	-1191.2	-1839.4	34.0	21.8
14-G	65095	19841	-3.8	1.2	2.2	3.2	6.2	11.2	11.8	20.1	27.0	26.3	28.7	26.1	25.2	20.1	11.7	7.7	-0.9	-15.3	-27.8	-40.5	-65.4	-91.9	-130.7	-207.0	-321.4	-492.2	-756.7	-1174.6	-1813.9	34.3	22.1
14-H	64354	19615	-3.7	1.3	2.3	3.3	6.3	11.3	12.0	20.2	27.1	26.4	28.9	26.3	25.5	20.4	12.1	8.2	-0.3	-14.5	-27.0	-39.5	-64.2	-90.4	-128.6	-204.1	-317.3	-486.1	-747.6	-1160.7	-1792.7	34.5	22.3
14-J	63322	19301	-3.6	1.4	2.4	3.4	6.4	11.4	12.1	20.4	27.3	26.6	29.2	26.7	25.9	20.9	12.7	8.9	0.6	-13.5	-25.8	-38.0	-62.5	-88.2	-125.7	-200.2	-311.6	-477.7	-734.9	-1141.3	-1763.1	34.7	22.7
14-K	63100	19233	-3.6	1.4	2.4	3.4	6.4	11.4	12.2	20.4	27.3	26.7	29.2	26.7	26.0	21.1	12.9	9.1	0.8	-13.3	-25.5	-37.7	-62.1	-87.7	-125.1	-199.3	-310.3	-475.9	-732.2	-1137.2	-1756.7	34.8	22.8
14-L	63008	19205	-3.6	1.4	2.4	3.4	6.4	11.4	12.2	20.5	27.4	26.7	29.2	26.8	26.0	21.1	12.9	9.2	0.9	-13.2	-25.4	-37.6	-61.9	-87.5	-124.8	-199.0	-309.8	-475.1	-731.1	-1135.4	-1754.1	34.8	22.8
15-F	67668	20625	-4.2	0.8	1.8	2.8	5.8	10.8	11.5	19.7	26.5	25.7	28.1	25.3	24.3	18.9	10.2	5.8	-3.1	-17.9	-30.8	-44.0	-69.7	-97.4	-137.9	-216.9	-335.6	-513.2	-788.4	-1222.8	-1887.8	33.6	21.2
15-G	66824	20368	-4.1	0.9	1.9	2.9	5.9	10.9	11.6	19.8	26.7	25.9	28.3	25.6	24.6	19.3	10.7	6.4	-2.4	-17.0	-29.8	-42.9	-68.3	-95.6	-135.5	-213.7	-330.9	-506.3	-778.0	-1207.0	-1863.6	33.8	21.5
15-H	66179	20171	-4.0	1.0	2.0	3.0	6.0	11.0	11.7	19.9	26.8	26.0	28.4	25.8	24.8	19.6	11.0	6.9	-1.8	-16.4	-29.1	-42.0	-67.2	-94.2	-133.7	-211.2	-327.4	-501.1	-770.1	-1194.9	-1845.1	34.0	21.7
15-I	65639	20007	-3.9	1.1	2.1	3.1	6.1	11.1	11.8	20.0	26.9	26.1	28.6	26.0	25.0	19.8	11.4	7.3	-1.4	-15.8	-28.5	-41.2	-66.3	-93.1	-132.2	-209.1	-324.4	-496.7	-763.4	-1184.8	-1829.6	34.1	21.9
15-J	65239	19885	-3.9	1.1	2.1	3.1	6.1	11.1	11.8	20.1	26.9	26.2	28.7	26.1	25.2	20.0	11.6	7.6	-1.0	-15.4	-28.0	-40.7	-65.7	-92.2	-131.1	-207.6	-322.2	-493.4	-758.5	-1177.3	-1818.1	34.2	22.0
15-K	65018	19818	-3.8	1.2	2.2	3.2	6.2	11.2	11.9	20.1	27.0	26.3	28.7	26.1	25.3	20.1	11.7	7.7	-0.9	-15.2	-27.7	-40.4	-65.3	-91.8	-130.4	-206.7	-320.9	-491.6	-755.8	-1173.1	-1811.8	34.3	22.1
16-J	67129	20461	-4.1	0.9	1.9	2.9	5.9	10.9	11.5	19.8	26.6	25.8	28.2	25.5	24.5	19.1	10.5	6.2	-2.6	-17.3	-30.2	-43.3	-68.8	-96.2	-136.3	-214.8	-332.6	-508.8	-781.7	-1212.7	-1872.3	33.7	21.4
16-K	66946	20405	-4.1	0.9	1.9	2.9	5.9	10.9	11.6	19.8	26.6	25.9	28.3	25.6	24.5	19.2	10.6	6.3	-2.5	-17.1	-30.0	-43.0	-68.5	-95.8	-135.8	-214.1	-331.6	-507.3	-779.5	-1209.3	-1867.1	33.8	21.5
		Minimum:	-4.6	0.4	1.4	2.4	5.4	10.4	11.0	19.1	25.9	25.0	27.2	24.3	23.0	17.3	8.1	3.4	-6.0	-21.3	-34.8	-48.7	-75.5	-104.6	-147.5	-230.1	-354.6	-541.4	-830.7	-1287.4	-1986.6	32.7	20.1
		Maximum:	0.7	5.7	6.7	7.7	10.7	15.7	17.0	25.5	32.9	32.9	36.4	35.3	36.4	33.8	28.5	27.8	22.8	12.3	4.2	-2.8	-19.9	-34.5	-55.1	-103.4	-173.2	-273.4	-428.4	-674.2	-1049.0	43.1	33.8

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Lmax)
FROM PILE DRIVING OF WTG MONOPILES

ODS Report Report no. 00.877, Figure 11, 2dB subtracted across the spectrum to account for peak to Lmax calculation

Sound Pressure Data			34	39	40	41	44	49	51	60	68	69	74	75	79	80	79	83	83	78	76	77	71	73	78	69	62	61	60	56	53	90	88
320 meters from the pile																																	
Lmax at 320 meters			32	37	38	39	42	47	49	58	66	67	72	73	77	78	77	81	81	76	74	75	69	71	76	67	60	59	58	54	51	88	86

Data for the graph

Atmos. Absorption per 1 km			0.0000	0.0000	0.0000	0.0000	0.0000	0.0670	0.1050	0.1630	0.2510	0.3810	0.5650	0.8150	1.1300	1.5100	1.9200	2.3600	2.8400	3.3800	4.0800	5.0500	6.5100	8.7500	12.2000	17.7000	26.4000	39.9000	61.1000	93.7000	144.0000		
air temp 59F 70% RH																																

																		Hertz														
	1/3 Octave Bands		**16***	**20**	**25**	**31**	**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**	**L**	**A**
	Distance (ft)	**Distance (m)**																															
1-D	39392	12007	0.5	5.5	6.5	7.5	10.5	15.5	16.7	25.3	32.6	32.6	36.1	34.9	36.0	33.3	27.9	27.1	21.9	11.3	3.0	-4.2	-21.5	-36.6	-57.7	-107.1	-178.3	-281.0	-439.8	-691.5	-1075.5	42.7	33.3
1-E	37695	11490	0.9	5.9	6.9	7.9	10.9	15.9	17.1	25.7	33.1	33.1	36.6	35.6	36.8	34.3	29.0	28.5	23.5	13.2	5.1	-1.7	-18.5	-32.8	-52.8	-100.4	-168.8	-267.0	-418.8	-659.6	-1026.7	43.4	34.2
1-F	36186	11030	1.3	6.3	7.3	8.3	11.3	16.3	17.5	26.1	33.5	33.6	37.2	36.2	37.5	35.2	30.1	29.7	25.0	14.8	7.1	0.6	-15.8	-29.5	-48.5	-94.4	-160.3	-254.5	-400.1	-631.1	-983.2	44.1	35.1
1-G	34915	10642	1.6	6.6	7.6	8.6	11.6	16.6	17.9	26.5	33.9	34.0	37.6	36.7	38.1	35.9	31.0	30.7	26.2	16.2	8.7	2.4	-13.6	-26.6	-44.8	-89.4	-153.1	-243.9	-384.3	-607.1	-946.6	44.7	35.9
1-H	33886	10328	1.8	6.8	7.8	8.8	11.8	16.8	18.2	26.8	34.2	34.3	38.0	37.2	38.7	36.5	31.7	31.6	27.2	17.4	10.0	4.0	-11.7	-24.3	-41.8	-85.3	-147.3	-235.4	-371.5	-587.7	-917.0	45.2	36.5
1-I	33152	10105	2.0	7.0	8.0	9.0	12.0	17.0	18.4	27.0	34.4	34.6	38.3	37.5	39.0	37.0	32.2	32.2	27.9	18.2	10.9	5.1	-10.4	-22.7	-39.6	-82.4	-143.2	-229.3	-362.4	-573.8	-895.8	45.5	37.0
1-J	32735	9978	2.1	7.1	8.1	9.1	12.1	17.1	18.5	27.1	34.5	34.7	38.4	37.7	39.3	37.2	32.5	32.6	28.3	18.7	11.5	5.7	-9.6	-21.7	-38.4	-80.7	-140.8	-225.8	-357.2	-566.0	-883.8	45.7	37.2
1-K	32560	9924	2.2	7.2	8.2	9.2	12.2	17.2	18.5	27.2	34.6	34.8	38.5	37.7	39.3	37.3	32.7	32.7	28.5	18.9	11.7	6.0	-9.3	-21.4	-37.9	-80.0	-139.8	-224.4	-355.0	-562.6	-878.7	45.8	37.3
1-L	32797	9997	2.1	7.1	8.1	9.1	12.1	17.1	18.5	27.1	34.5	34.7	38.4	37.6	39.2	37.2	32.5	32.5	28.3	18.6	11.4	5.6	-9.8	-21.9	-38.6	-80.9	-141.2	-226.4	-358.0	-567.1	-885.6	45.7	37.2
2-D	40761	12424	0.2	5.2	6.2	7.2	10.2	15.2	16.4	24.9	32.2	32.2	35.6	34.4	35.4	32.5	26.9	26.0	20.7	9.8	1.3	-6.2	-23.9	-39.6	-61.7	-112.4	-186.0	-292.3	-456.7	-717.3	-1114.9	42.1	32.5
2-E	39132	11927	0.6	5.6	6.6	7.6	10.6	15.6	16.8	25.4	32.7	32.7	36.1	35.0	36.1	33.5	28.0	27.3	22.2	11.6	3.3	-3.8	-21.0	-36.0	-57.0	-106.0	-176.9	-278.9	-436.6	-686.6	-1068.0	42.8	33.4
2-F	37734	11501	0.9	5.9	6.9	7.9	10.9	15.9	17.1	25.7	33.1	33.1	36.6	35.6	36.8	34.3	29.0	28.4	23.5	13.1	5.1	-1.7	-18.6	-32.9	-52.9	-100.5	-169.0	-267.3	-419.2	-660.3	-1027.8	43.4	34.2
2-G	36572	11147	1.2	6.2	7.2	8.2	11.2	16.2	17.4	26.0	33.4	33.4	37.0	36.0	37.3	34.9	29.8	29.4	24.6	14.4	6.6	0.0	-16.5	-30.3	-49.6	-95.9	-162.5	-257.7	-404.8	-638.4	-994.4	43.9	34.9
2-H	35656	10868	1.4	6.4	7.4	8.4	11.4	16.4	17.7	26.3	33.7	33.7	37.4	36.4	37.8	35.5	30.5	30.1	25.5	15.4	7.7	1.3	-14.9	-28.3	-46.9	-92.3	-157.3	-250.1	-393.5	-621.1	-968.0	44.3	35.4
2-I	34970	10659	1.5	6.5	7.5	8.5	11.5	16.5	17.9	26.5	33.9	34.0	37.6	36.7	38.1	35.9	30.9	30.7	26.1	16.2	8.6	2.4	-13.7	-26.8	-44.9	-89.6	-153.5	-244.4	-385.0	-608.2	-948.2	44.7	35.8
2-J	34620	10552	1.6	6.6	7.6	8.6	11.6	16.6	18.0	26.6	34.0	34.1	37.7	36.9	38.3	36.1	31.2	31.0	26.5	16.6	9.1	2.9	-13.0	-26.0	-43.9	-88.2	-151.5	-241.5	-380.6	-601.5	-938.1	44.8	36.0
2-K	34580	10540	1.6	6.6	7.6	8.6	11.6	16.6	18.0	26.6	34.0	34.1	37.8	36.9	38.3	36.1	31.2	31.0	26.5	16.6	9.1	2.9	-13.0	-25.9	-43.8	-88.0	-151.2	-241.2	-380.1	-600.8	-937.0	44.8	36.1
2-L	34778	10600	1.6	6.6	7.6	8.6	11.6	16.6	17.9	26.5	33.9	34.0	37.7	36.8	38.2	36.0	31.1	30.9	26.3	16.4	8.8	2.7	-13.3	-26.3	-44.4	-88.8	-152.4	-242.8	-382.6	-604.5	-942.7	44.7	35.9
3-D	42131	12841	-0.1	4.9	5.9	6.9	9.9	14.9	16.1	24.6	31.9	31.8	35.2	33.9	34.7	31.8	26.0	24.9	19.4	8.4	-0.4	-8.2	-26.3	-42.6	-65.6	-117.8	-193.7	-303.6	-473.7	-743.1	-1154.3	41.6	31.8
3-E	40601	12375	0.3	5.3	6.3	7.3	10.3	15.3	16.4	25.0	32.3	32.2	35.7	34.4	35.4	32.6	27.0	26.1	20.8	10.0	1.5	-5.9	-23.6	-39.2	-61.2	-111.8	-185.1	-291.0	-454.7	-714.3	-1110.3	42.2	32.6
3-F	39296	11978	0.5	5.5	6.5	7.5	10.5	15.5	16.8	25.3	32.6	32.6	36.1	34.9	36.0	33.4	27.9	27.2	22.0	11.4	3.1	-4.0	-21.3	-36.4	-57.5	-106.7	-177.8	-280.2	-438.6	-689.7	-1072.8	42.7	33.3
3-G	38245	11657	0.8	5.8	6.8	7.8	10.8	15.8	17.0	25.6	32.9	32.9	36.5	35.4	36.5	34.0	28.7	28.0	23.0	12.6	4.5	-2.5	-19.5	-34.0	-54.4	-102.5	-171.9	-271.5	-425.6	-669.9	-1042.5	43.2	33.9
3-H	37427	11408	1.0	6.0	7.0	8.0	11.0	16.0	17.2	25.8	33.2	33.2	36.7	35.7	36.9	34.4	29.2	28.7	23.8	13.5	5.5	-1.3	-18.0	-32.2	-52.1	-99.3	-167.3	-264.8	-415.4	-654.5	-1019.0	43.5	34.4
3-I	36870	11238	1.1	6.1	7.1	8.1	11.1	16.1	17.4	25.9	33.3	33.3	36.9	35.9	37.2	34.8	29.6	29.1	24.3	14.1	6.2	-0.5	-17.0	-31.0	-50.4	-97.1	-164.2	-260.1	-408.5	-644.0	-1002.9	43.8	34.7
3-J	36551	11141	1.2	6.2	7.2	8.2	11.2	16.2	17.4	26.0	33.4	33.4	37.0	36.1	37.3	34.9	29.8	29.4	24.6	14.4	6.6	0.0	-16.5	-30.3	-49.5	-95.8	-162.4	-257.5	-404.6	-638.0	-993.7	43.9	34.9
3-K	36544	11139	1.2	6.2	7.2	8.2	11.2	16.2	17.4	26.0	33.4	33.5	37.0	36.1	37.3	34.9	29.8	29.4	24.6	14.4	6.6	0.0	-16.5	-30.3	-49.5	-95.8	-162.3	-257.4	-404.5	-637.8	-993.5	43.9	34.9
3-L	36822	11223	1.1	6.1	7.1	8.1	11.1	16.1	17.4	26.0	33.3	33.4	36.9	35.9	37.2	34.8	29.6	29.2	24.4	14.1	6.2	-0.4	-17.0	-30.9	-50.3	-96.9	-163.9	-259.7	-407.9	-643.1	-1001.5	43.8	34.7
4-D	43541	13271	-0.4	4.6	5.6	6.6	9.6	14.6	15.8	24.3	31.5	31.4	34.7	33.3	34.1	31.0	25.1	23.8	18.1	6.9	-2.1	-10.2	-28.8	-45.7	-69.7	-123.4	-201.6	-315.3	-491.1	-769.7	-1194.9	41.0	31.1
4-E	42079	12826	-0.1	4.9	5.9	6.9	9.9	14.9	16.1	24.6	31.9	31.8	35.2	33.9	34.7	31.8	26.1	24.9	19.4	8.4	-0.3	-8.1	-26.2	-42.5	-65.5	-117.6	-193.4	-303.2	-473.0	-742.2	-1152.8	41.6	31.8
4-F	40911	12470	0.2	5.2	6.2	7.2	10.2	15.2	16.4	24.9	32.2	32.1	35.6	34.3	35.3	32.5	26.8	25.9	20.5	9.7	1.1	-6.4	-24.2	-39.9	-62.1	-113.0	-186.9	-293.6	-458.6	-720.2	-1119.2	42.1	32.4
4-G	39917	12167	0.4	5.4	6.4	7.4	10.4	15.4	16.6	25.2	32.5	32.4	35.9	34.7	35.7	33.0	27.5	26.7	21.4	10.8	2.4	-4.9	-22.4	-37.7	-59.3	-109.1	-181.3	-285.4	-446.3	-701.4	-1090.6	42.5	33.0
4-H	39189	11945	0.6	5.6	6.6	7.6	10.6	15.6	16.8	25.3	32.7	32.6	36.1	35.0	36.1	33.4	28.0	27.2	22.1	11.5	3.3	-3.9	-21.1	-36.1	-57.2	-106.3	-177.2	-279.3	-437.3	-687.7	-1069.7	42.8	33.4
4-I	38714	11800	0.7	5.7	6.7	7.7	10.7	15.7	16.9	25.5	32.8	32.8	36.3	35.2	36.3	33.7	28.3	27.6	22.6	12.1	3.9	-3.2	-20.3	-35.1	-55.8	-104.4	-174.5	-275.4	-431.4	-678.8	-1056.0	43.0	33.6
4-J	38504	11736	0.7	5.7	6.7	7.7	10.7	15.7	16.9	25.5	32.9	32.8	36.4	35.3	36.4	33.8	28.5	27.8	22.8	12.3	4.1	-2.9	-19.9	-34.6	-55.2	-103.6	-173.3	-273.7	-428.8	-674.8	-1050.0	43.1	33.7
4-K	38566	11755	0.7	5.7	6.7	7.7	10.7	15.7	16.9	25.5	32.8	32.8	36.3	35.2	36.4	33.8	28.4	27.7	22.7	12.2	4.0	-3.0	-20.0	-34.7	-55.4	-103.8	-173.7	-274.2	-429.6	-676.0	-1051.8	43.0	33.7
4-L	38882	11851	0.6	5.6	6.6	7.6	10.6	15.6	16.9	25.4	32.7	32.7	36.2	35.1	36.2	33.6	28.2	27.5	22.4	11.9	3.7	-3.4	-20.6	-35.4	-56.3	-105.1	-175.5	-276.8	-433.5	-681.9	-1060.8	42.9	33.5
5-D	44998	13715	-0.6	4.4	5.4	6.4	9.4	14.4	15.5	24.0	31.2	31.0	34.3	32.8	33.4	30.2	24.1	22.6	16.7	5.3	-3.9	-12.3	-31.3	-48.8	-73.9	-129.1	-209.7	-327.3	-509.1	-797.1	-1236.8	40.5	30.3
5-E	43691	13317	-0.4	4.6	5.6	6.6	9.6	14.6	15.7	24.3	31.5	31.4	34.7	33.3	34.0	30.9	25.0	23.7	17.9	6.7	-2.3	-10.4	-29.0	-46.0	-70.1	-123.9	-202.4	-316.5	-493.0	-772.5	-1199.2	41.0	31.0
5-F	42570	12975	-0.2	4.8	5.8	6.8	9.8	14.8	16.0	24.5	31.8	31.7	35.0	33.7	34.5	31.5	25.7	24.5	19.0	7.9	-0.9	-8.8	-27.1	-43.5	-66.9	-119.6	-196.2	-307.3	-479.1	-751.4	-1167.0	41.4	31.6
5-G	41691	12707	0.0	5.0	6.0	7.0	10.0	15.0	16.2	24.7	32.0	31.9	35.3	34.0	34.9	32.0	26.3	25.2	19.8	8.8	0.2	-7.5	-25.5	-41.6	-64.4	-116.1	-191.2	-300.0	-468.2	-734.9	-1141.7	41.8	32.0
5-H	41019	12503	0.2	5.2	6.2	7.2	10.2	15.2	16.3	24.9	32.2	32.1	35.5	34.3	35.2	32.4	26.8	25.8	20.4	9.6	1.0	-6.5	-24.4	-40.1	-62.4	-113.5	-187.5	-294.5	-459.9	-722.2	-1122.4	42.0	32.4
5-I	40577	12368	0.3	5.3	6.3	7.3	10.3	15.3	16.4	25.0	32.3	32.2	35.7	34.5	35.4	32.6	27.1	26.1	20.8	10.0	1.5	-5.9	-23.6	-39.2	-61.2	-111.7	-185.0	-290.8	-454.5	-713.9	-1109.6	42.2	32.6
5-J	40464	12334	0.3	5.3	6.3	7.3	10.3	15.3	16.5	25.0	32.3	32.3	35.7	34.5	35.5	32.7	27.1	26.2	20.9	10.2	1.7	-5.7	-23.4	-38.9	-60.8	-111.3	-184.4	-289.9	-453.1	-711.7	-1106.4	42.3	32.7
6-D	46503	14174	-0.9	4.1	5.1	6.1	9.1	14.1	15.1	23.6	30.8	30.6	33.8	32.2	32.8	29.4	23.2	21.5	15.4	3.7	-5.8	-14.5	-33.9	-52.1	-78.2	-134.9	-218.1	-339.7	-527.7	-825.4	-1280.1	40.0	29.6
6-E	45288	13804	-0.7	4.3	5.3	6.3	9.3	14.3	15.4	23.9	31.1	30.9	34.2	32.7	33.3	30.1	23.9	22.4	16.5	5.0	-4.3	-12.7	-31.8	-49.5	-74.7	-130.2	-211.4	-329.7	-512.7	-802.5	-1245.1	40.4	30.2
6-G	43388	13225	-0.3	4.7	5.7	6.7	9.7	14.7	15.8	24.3	31.6	31.4	34.8	33.4	34.2	31.1	25.2	23.9	18.2	7.0	-1.9	-10.0	-28.5	-45.3	-69.2	-122.8	-200.7	-314.0	-489.2	-766.8	-1190.5	41.1	31.1
6-H	42794	13044	-0.2	4.8	5.8	6.8	9.8	14.8	15.9	24.5	31.7	31.6	34.9	33.6	34.4	31.4	25.6	24.4	18.8	7.7	-1.2	-9.1	-27.5	-44.0	-67.5	-120.4	-197.4	-309.1	-481.9	-755.6	-1173.4	41.3	31.4
6-I	42494	12952	-0.1	4.9	5.9	6.9	9.9	14.9	16.0	24.5	31.8	31.7	35.0	33.7	34.6	31.6	25.8	24.6	19.0	8.0	-0.8	-8.7	-26.9	-43.4	-66.7	-119.3	-195.7	-306.6	-478.2	-750.0	-1164.8	41.5	31.6
6-J	42437	12935	-0.1	4.9	5.9	6.9	9.9	14.9	16.0	24.5	31.8	31.7	35.1	33.7	34.6	31.6	25.8	24.6	19.1	8.0	-0.8	-8.6	-26.8	-43.3	-66.5	-119.0	-195.4	-306.2	-477.5	-748.9	-1163.1	41.5	31.6
7-B	50844	15497	-1.7	3.3	4.3	5.3	8.3	13.3	14.3	22.7	29.8	29.5	32.5	30.7	30.9	27.1	20.4	18.2	11.5	-0.8	-11.0	-20.6	-41.3	-61.5	-90.5	-151.9	-242.3	-375.4	-581.3	-907.0	-1404.8	38.5	27.6
7-C	49342	15040	-1.4	3.6	4.6	5.6	8.6	13.6	14.6	23.0	30.2	29.9	33.0	31.2	31.6	27.9	21.3	19.3	12.8	0.8	-9.2	-18.5	-38.8	-58.3	-86.2	-146.0	-234.0	-363.0	-562.8	-878.8	-1361.7	39.0	28.3
7-E	46890	14292	-1.0	4.0	5.0	6.0	9.0	14.0	15.1	23.5	30.7	30.5	33.7	32.1	32.6	29.2	22.9	21.2	15.0	3.3	-6.2	-15.0	-34.6	-53.0	-79.3	-136.5	-220.3	-342.9	-532.5	-832.7	-1291.2	39.8	29.4
7-F	45956	14007	-0.8	4.2	5.2	6.2	9.2	14.2	15.3	23.7	30.9	30.7	34.0	32.4	33.0	29.7	23.5	21.9	15.9	4.3	-5.1	-13.7	-32.9	-50.9	-76.6	-132.8	-215.1	-335.2	-521.0	-815.1	-1264.3	40.1	29.9
7-G	45230	13786	-0.7	4.3	5.3	6.3	9.3	14.3	15.4	23.9	31.1	30.9	34.2	32.7	33.3	30.1	24.0	22.5	16.5	5.1	-4.2	-12.6	-31.7	-49.4	-74.5	-130.0	-211.0	-329.2	-512.0	-801.5	-1243.5	40.4	30.2
7-H	44722	13631	-0.6	4.4	5.4	6.4	9.4	14.4	15.5	24.0	31.2	31.1	34.3	32.9	33.6	30.4	24.3	22.9	17.0	5.6	-3.6	-11.9	-30.8	-48.2	-73.1	-128.0	-208.2	-325.0	-505.7	-791.9	-1228.9	40.6	30.5
7-I	44427	13541	-0.5	4.5	5.5	6.5	9.5	14.5	15.6	24.1	31.3	31.2	34.4	33.0	33.7	30.5	24.5	23.1	17.3	5.9	-3.2	-11.5	-30.3	-47.6	-72.2	-126.8	-206.6	-322.6	-502.1	-786.4	-1220.4	40.7	30.6
8-A	53850	16414	-2.2	2.8	3.8	4.8	7.8	12.8	13.7	22.1	29.2	28.8	31.7	29.7	29.7	25.6	18.5	15.9	8.8	-3.9	-14.6	-24.9	-46.5	-68.0	-99.0	-163.5	-259.1	-400.1	-618.3	-963.5	-1491.2	37.5	26.3
8-B	52274	15933	-1.9	3.1	4.1	5.1	8.1	13.1	14.0	22.4	29.5	29.1	32.1	30.2	30.3	26.4	19.5	17.1	10.2	-2.3	-12.7	-22.6	-43.8	-64.6	-94.6	-157.4	-250.3	-387.1	-598.9	-933.9	-1445.9	38.0	27.0
8-C	50856	15501	-1.7	3.3	4.3	5.3	8.3	13.3	14.3	22.7	29.8	29.5	32.5	30.7	30.9	27.1	20.4	18.1	11.5	-0.8	-11.0	-20.6	-41.4	-61.5	-90.5	-151.9	-242.4	-375.5	-581.4	-907.3	-1405.2	38.5	27.6
8-D	49600	15118	-1.5	3.5	4.5	5.5	8.5	13.5	14.5	23.0	30.1	29.8	32.9	31.2	31.5	27.8	21.2	19.1	12.6	0.5	-9.5	-18.9	-39.2	-58.8	-87.0	-147.0	-235.4	-365.2	-565.9	-883.6	-1369.1	38.9	28.2
8-F	47671	14530	-1.1	3.9	4.9	5.9	8.9	13.9	14.9	23.4	30.5	30.3	33.4	31.8	32.3	28.8	22.4	20.6	14.3	2.5	-7.2	-16.1	-35.9	-54.7	-81.5	-139.5	-224.7	-349.3	-542.1	-847.4	-1313.6	39.5	29.1

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Lmax)
FROM PILE DRIVING OF WTG MONOPILES

8-G	47090	14353	-1.0	4.0	5.0	6.0	9.0	14.0	15.0	23.5	30.7	30.4	33.6	32.0	32.5	29.1	22.8	21.0	14.8	3.1	-6.5	-15.3	-34.9	-53.4	-79.8	-137.2	-221.4	-344.5	-534.9	-836.4	-1296.9	39.7	29.3
8-H	46610	14207	-0.9	4.1	5.1	6.1	9.1	14.1	15.1	23.6	30.8	30.6	33.8	32.2	32.7	29.4	23.1	21.4	15.3	3.6	-5.9	-14.6	-34.1	-52.4	-78.5	-135.4	-218.7	-340.6	-529.0	-827.4	-1283.1	39.9	29.6
9-A	55194	16823	-2.4	2.6	3.6	4.6	7.6	12.6	13.5	21.9	28.9	28.4	31.3	29.3	29.1	24.9	17.7	14.9	7.6	-5.3	-16.2	-26.7	-48.8	-70.8	-102.8	-168.8	-266.5	-411.1	-634.9	-988.7	-1529.7	37.1	25.8
9-B	53704	16369	-2.2	2.8	3.8	4.8	7.8	12.8	13.7	22.1	29.2	28.8	31.7	29.8	29.7	25.7	18.6	16.0	8.9	-3.8	-14.4	-24.7	-46.2	-67.7	-98.6	-163.0	-258.2	-398.9	-616.5	-960.8	-1487.0	37.5	26.4
9-C	52366	15961	-2.0	3.0	4.0	5.0	8.0	13.0	14.0	22.4	29.5	29.1	32.1	30.2	30.3	26.4	19.4	17.0	10.1	-2.4	-12.8	-22.8	-43.9	-64.8	-94.8	-157.8	-250.8	-387.9	-600.0	-935.6	-1448.5	38.0	27.0
9-D	51236	15617	-1.8	3.2	4.2	5.2	8.2	13.2	14.2	22.6	29.7	29.4	32.4	30.6	30.8	26.9	20.1	17.9	11.1	-1.2	-11.5	-21.2	-42.0	-62.3	-91.6	-153.4	-244.5	-378.6	-586.1	-914.4	-1416.1	38.3	27.5
9-E	50240	15313	-1.6	3.4	4.4	5.4	8.4	13.4	14.4	22.8	30.0	29.6	32.7	30.9	31.2	27.5	20.8	18.6	12.0	-0.2	-10.3	-19.8	-40.3	-60.2	-88.8	-149.5	-239.0	-370.4	-573.8	-895.7	-1387.4	38.7	27.9
9-F	49447	15071	-1.5	3.5	4.5	5.5	8.5	13.5	14.6	23.0	30.1	29.8	32.9	31.2	31.5	27.9	21.3	19.2	12.7	0.6	-9.3	-18.6	-39.0	-58.5	-86.5	-146.4	-234.6	-363.9	-564.0	-880.8	-1364.7	38.9	28.2
9-G	48857	14891	-1.4	3.6	4.6	5.6	8.6	13.6	14.7	23.1	30.3	30.0	33.1	31.4	31.8	28.2	21.6	19.7	13.3	1.3	-8.6	-17.8	-37.9	-57.2	-84.9	-144.1	-231.3	-359.0	-556.8	-869.7	-1347.7	39.1	28.5
9-H	48514	14787	-1.3	3.7	4.7	5.7	8.7	13.7	14.7	23.2	30.3	30.1	33.2	31.5	31.9	28.4	21.9	19.9	13.6	1.6	-8.2	-17.3	-37.4	-56.5	-83.9	-142.8	-229.4	-356.2	-552.5	-863.2	-1337.8	39.2	28.7
9-I	48309	14725	-1.3	3.7	4.7	5.7	8.7	13.7	14.8	23.2	30.4	30.1	33.3	31.6	32.0	28.5	22.0	20.1	13.7	1.8	-7.9	-17.0	-37.0	-56.0	-83.3	-142.0	-228.2	-354.5	-550.0	-859.4	-1332.0	39.3	28.8
10-A	56587	17248	-2.6	2.4	3.4	4.4	7.4	12.4	13.2	21.6	28.6	28.1	30.9	28.8	28.6	24.2	16.8	13.9	6.4	-6.7	-17.8	-28.7	-51.1	-73.8	-106.7	-174.1	-274.2	-422.5	-652.0	-1014.9	-1569.7	36.7	25.2
10-B	55209	16828	-2.4	2.6	3.6	4.6	7.6	12.6	13.5	21.8	28.9	28.4	31.3	29.3	29.1	24.9	17.7	14.9	7.6	-5.3	-16.2	-26.8	-48.8	-70.9	-102.9	-168.8	-266.6	-411.2	-635.1	-989.0	-1530.2	37.1	25.8
10-C	53953	16445	-2.2	2.8	3.8	4.8	7.8	12.8	13.7	22.1	29.2	28.7	31.6	29.7	29.6	25.6	18.4	15.8	8.7	-4.0	-14.7	-25.0	-46.6	-68.2	-99.3	-163.9	-259.6	-400.9	-619.6	-965.5	-1494.1	37.5	26.3
10-D	52838	16105	-2.0	3.0	4.0	5.0	8.0	13.0	13.9	22.3	29.4	29.0	31.9	30.0	30.1	26.1	19.1	16.7	9.7	-2.9	-13.4	-23.4	-44.8	-65.8	-96.2	-159.6	-253.4	-391.8	-605.9	-944.5	-1462.1	37.8	26.8
10-E	51929	15828	-1.9	3.1	4.1	5.1	8.1	13.1	14.1	22.5	29.6	29.2	32.2	30.4	30.5	26.6	19.7	17.3	10.5	-1.9	-12.3	-22.2	-43.2	-63.8	-93.6	-156.1	-248.4	-384.3	-594.7	-927.4	-1436.0	38.1	27.2
10-F	51185	15601	-1.8	3.2	4.2	5.2	8.2	13.2	14.2	22.6	29.7	29.4	32.4	30.6	30.8	27.0	20.2	17.9	11.2	-1.2	-11.4	-21.1	-41.9	-62.2	-91.5	-153.2	-244.2	-378.2	-585.5	-913.4	-1414.6	38.3	27.5
10-G	50661	15442	-1.7	3.3	4.3	5.3	8.3	13.3	14.3	22.7	29.9	29.5	32.6	30.8	31.0	27.2	20.5	18.3	11.6	-0.6	-10.8	-20.4	-41.0	-61.1	-90.0	-151.2	-241.3	-373.9	-579.0	-903.6	-1399.6	38.5	27.7
10-H	50376	15355	-1.6	3.4	4.4	5.4	8.4	13.4	14.4	22.8	29.9	29.6	32.6	30.9	31.1	27.4	20.7	18.5	11.9	-0.3	-10.4	-20.0	-40.5	-60.5	-89.2	-150.0	-239.7	-371.5	-575.5	-898.2	-1391.4	38.6	27.8
10-I	50276	15324	-1.6	3.4	4.4	5.4	8.4	13.4	14.4	22.8	29.9	29.6	32.7	30.9	31.2	27.4	20.7	18.6	12.0	-0.2	-10.3	-19.8	-40.4	-60.3	-88.9	-149.7	-239.2	-370.7	-574.3	-896.4	-1388.5	38.6	27.9
11-A	58078	17702	-2.9	2.1	3.1	4.1	7.1	12.1	13.0	21.3	28.3	27.8	30.5	28.3	28.0	23.5	15.9	12.8	5.1	-8.2	-19.6	-30.8	-53.6	-77.0	-111.0	-179.9	-282.5	-434.7	-670.4	-1042.9	-1612.6	36.2	24.7
11-B	56727	17291	-2.7	2.3	3.3	4.3	7.3	12.3	13.2	21.6	28.6	28.1	30.9	28.8	28.5	24.2	16.7	13.8	6.3	-6.8	-18.0	-28.9	-51.4	-74.1	-107.1	-174.7	-275.0	-423.7	-653.8	-1017.6	-1573.8	36.6	25.2
11-C	55541	16929	-2.5	2.5	3.5	4.5	7.5	12.5	13.4	21.8	28.8	28.4	31.2	29.1	29.0	24.8	17.5	14.6	7.3	-5.6	-16.6	-27.2	-49.3	-71.6	-103.8	-170.1	-268.4	-413.9	-639.2	-995.3	-1539.7	37.0	25.7
11-D	54565	16632	-2.3	2.7	3.7	4.7	7.7	12.7	13.6	22.0	29.0	28.6	31.5	29.5	29.4	25.3	18.1	15.4	8.2	-4.6	-15.4	-25.9	-47.7	-69.5	-101.0	-166.3	-263.0	-405.9	-627.1	-977.0	-1511.7	37.3	26.1
11-E	53670	16359	-2.2	2.8	3.8	4.8	7.8	12.8	13.8	22.1	29.2	28.8	31.7	29.8	29.8	25.7	18.6	16.0	9.0	-3.7	-14.4	-24.6	-46.2	-67.6	-98.5	-162.8	-258.1	-398.6	-616.1	-960.1	-1486.0	37.5	26.4
11-F	53048	16169	-2.1	2.9	3.9	4.9	7.9	12.9	13.9	22.3	29.3	29.0	31.9	30.0	30.0	26.0	19.0	16.5	9.5	-3.1	-13.6	-23.7	-45.1	-66.2	-96.7	-160.4	-254.6	-393.5	-608.4	-948.4	-1468.1	37.7	26.7
11-G	52559	16020	-2.0	3.0	4.0	5.0	8.0	13.0	14.0	22.4	29.5	29.1	32.0	30.1	30.2	26.3	19.3	16.9	10.0	-2.6	-13.1	-23.0	-44.3	-65.2	-95.4	-158.5	-251.9	-389.5	-602.4	-939.3	-1454.1	37.9	26.9
11-H	52284	15936	-1.9	3.1	4.1	5.1	8.1	13.1	14.0	22.4	29.5	29.1	32.1	30.2	30.3	26.4	19.5	17.1	10.2	-2.3	-12.7	-22.7	-43.8	-64.6	-94.6	-157.5	-250.4	-387.2	-599.0	-934.1	-1446.2	38.0	27.0
11-K	52704	16064	-2.0	3.0	4.0	5.0	8.0	13.0	13.9	22.3	29.4	29.0	32.0	30.1	30.2	26.2	19.2	16.8	9.8	-2.7	-13.2	-23.3	-44.5	-65.5	-95.8	-159.1	-252.7	-390.7	-604.2	-942.0	-1458.2	37.9	26.8
11-L	53168	16206	-2.1	2.9	3.9	4.9	7.9	12.9	13.8	22.2	29.3	28.9	31.9	29.9	30.0	26.0	18.9	16.4	9.4	-3.2	-13.8	-23.9	-45.3	-66.5	-97.1	-160.9	-255.3	-394.5	-609.9	-950.7	-1471.6	37.7	26.6
12-A	59569	18157	-3.1	1.9	2.9	3.9	6.9	11.9	12.7	21.0	28.0	27.4	30.1	27.8	27.4	22.8	15.0	11.7	3.8	-9.7	-21.4	-32.9	-56.2	-80.2	-115.1	-185.7	-290.8	-447.0	-688.8	-1070.9	-1655.4	35.8	24.1
12-B	58290	17767	-2.9	2.1	3.1	4.1	7.1	12.1	12.9	21.3	28.3	27.7	30.5	28.3	27.9	23.4	15.8	12.6	4.9	-8.4	-19.9	-31.1	-54.0	-77.5	-111.5	-180.7	-283.7	-436.5	-673.0	-1046.9	-1618.6	36.2	24.6
12-C	57158	17422	-2.7	2.3	3.3	4.3	7.3	12.3	13.1	21.5	28.5	28.0	30.8	28.6	28.3	24.0	16.5	13.4	5.9	-7.3	-18.5	-29.5	-52.1	-75.1	-108.4	-176.4	-277.4	-427.2	-659.1	-1025.6	-1586.2	36.5	25.0
12-D	56238	17141	-2.6	2.4	3.4	4.4	7.4	12.4	13.3	21.7	28.7	28.2	31.0	28.9	28.7	24.4	17.0	14.1	6.7	-6.4	-17.4	-28.2	-50.5	-73.1	-105.8	-172.8	-272.3	-419.7	-647.8	-1008.4	-1559.7	36.8	25.4
12-E	55412	16890	-2.4	2.6	3.6	4.6	7.6	12.6	13.4	21.8	28.8	28.4	31.2	29.2	29.0	24.8	17.5	14.7	7.4	-5.5	-16.5	-27.1	-49.1	-71.3	-103.4	-169.6	-267.7	-412.9	-637.6	-992.9	-1536.0	37.0	25.7
12-F	54867	16723	-2.4	2.6	3.6	4.6	7.6	12.6	13.5	21.9	29.0	28.5	31.4	29.4	29.3	25.1	17.9	15.1	7.9	-4.9	-15.8	-26.3	-48.2	-70.2	-101.9	-167.5	-264.7	-408.4	-630.9	-982.6	-1520.4	37.2	25.9
12-G	54432	16591	-2.3	2.7	3.7	4.7	7.7	12.7	13.6	22.0	29.1	28.6	31.5	29.5	29.4	25.3	18.1	15.5	8.3	-4.5	-15.3	-25.7	-47.5	-69.2	-100.7	-165.8	-262.3	-404.8	-625.5	-974.5	-1507.9	37.3	26.1
12-H	54204	16521	-2.3	2.7	3.7	4.7	7.7	12.7	13.7	22.0	29.1	28.7	31.6	29.6	29.5	25.4	18.3	15.6	8.5	-4.3	-15.0	-25.4	-47.1	-68.7	-100.0	-164.9	-261.0	-403.0	-622.7	-970.2	-1501.3	37.4	26.2
12-I	54179	16514	-2.3	2.7	3.7	4.7	7.7	12.7	13.7	22.0	29.1	28.7	31.6	29.6	29.5	25.4	18.3	15.7	8.5	-4.2	-15.0	-25.3	-47.0	-68.7	-99.9	-164.8	-260.9	-402.8	-622.4	-969.7	-1500.6	37.4	26.2
12-J	54321	16557	-2.3	2.7	3.7	4.7	7.7	12.7	13.6	22.0	29.1	28.6	31.5	29.5	29.5	25.4	18.2	15.5	8.4	-4.4	-15.2	-25.5	-47.3	-69.0	-100.4	-165.4	-261.7	-403.9	-624.1	-972.4	-1504.7	37.3	26.2
12-K	54672	16664	-2.3	2.7	3.7	4.7	7.7	12.7	13.6	22.0	29.0	28.6	31.4	29.4	29.3	25.2	18.0	15.3	8.1	-4.7	-15.6	-26.0	-47.9	-69.7	-101.3	-166.7	-263.6	-406.8	-628.5	-978.9	-1514.8	37.2	26.0
12-L	55186	16821	-2.4	2.6	3.6	4.6	7.6	12.6	13.5	21.9	28.9	28.4	31.3	29.3	29.1	24.9	17.7	14.9	7.6	-5.3	-16.2	-26.7	-48.7	-70.8	-102.8	-168.7	-266.5	-411.0	-634.8	-988.6	-1529.5	37.1	25.8
13-A	61099	18623	-3.3	1.7	2.7	3.7	6.7	11.7	12.5	20.8	27.7	27.1	29.7	27.4	26.8	22.0	14.1	10.6	2.5	-11.3	-23.2	-35.0	-58.7	-83.5	-119.4	-191.6	-299.3	-459.5	-707.6	-1099.6	-1699.3	35.3	23.5
13-B	59864	18246	-3.1	1.9	2.9	3.9	6.9	11.9	12.7	21.0	28.0	27.4	30.0	27.8	27.3	22.6	14.8	11.5	3.6	-10.0	-21.7	-33.3	-56.6	-80.8	-116.0	-186.8	-292.4	-449.4	-692.4	-1076.4	-1663.8	35.7	24.0
13-C	58819	17928	-3.0	2.0	3.0	4.0	7.0	12.0	12.9	21.2	28.2	27.6	30.3	28.1	27.7	23.1	15.4	12.2	4.5	-9.0	-20.5	-31.8	-54.9	-78.6	-113.0	-182.8	-286.6	-440.8	-679.5	-1056.8	-1633.8	36.0	24.4
13-D	57960	17666	-2.8	2.2	3.2	4.2	7.2	12.2	13.0	21.3	28.3	27.8	30.6	28.4	28.0	23.6	16.0	12.9	5.2	-8.1	-19.5	-30.6	-53.4	-76.8	-110.6	-179.5	-281.9	-433.8	-668.9	-1040.7	-1609.2	36.2	24.7
13-F	56683	17277	-2.6	2.4	3.4	4.4	7.4	12.4	13.2	21.6	28.6	28.1	30.9	28.8	28.5	24.2	16.7	13.8	6.3	-6.8	-18.0	-28.8	-51.3	-74.0	-107.0	-174.5	-274.8	-423.3	-653.2	-1016.7	-1572.5	36.6	25.2
13-G	56319	17166	-2.6	2.4	3.4	4.4	7.4	12.4	13.3	21.6	28.7	28.2	31.0	28.9	28.7	24.4	17.0	14.1	6.7	-6.4	-17.5	-28.3	-50.7	-73.3	-106.0	-173.1	-272.8	-420.3	-648.7	-1009.9	-1562.1	36.7	25.3
13-H	56078	17093	-2.6	2.4	3.4	4.4	7.4	12.4	13.3	21.7	28.7	28.2	31.1	29.0	28.8	24.5	17.1	14.2	6.9	-6.2	-17.2	-28.0	-50.3	-72.7	-105.3	-172.2	-271.4	-418.4	-645.8	-1005.4	-1555.1	36.8	25.4
13-I	56130	17108	-2.6	2.4	3.4	4.4	7.4	12.4	13.3	21.7	28.7	28.2	31.0	29.0	28.8	24.5	17.1	14.2	6.8	-6.2	-17.3	-28.1	-50.3	-72.9	-105.5	-172.4	-271.7	-418.8	-646.4	-1006.3	-1556.6	36.8	25.4
13-J	56377	17184	-2.6	2.4	3.4	4.4	7.4	12.4	13.3	21.6	28.7	28.2	31.0	28.9	28.7	24.3	16.9	14.0	6.6	-6.5	-17.6	-28.4	-50.8	-73.4	-106.2	-173.3	-273.1	-420.8	-649.5	-1011.0	-1563.7	36.7	25.3
13-K	56729	17291	-2.7	2.3	3.3	4.3	7.3	12.3	13.2	21.6	28.6	28.1	30.9	28.8	28.5	24.2	16.7	13.8	6.3	-6.9	-18.0	-28.9	-51.4	-74.1	-107.1	-174.7	-275.0	-423.7	-653.8	-1017.6	-1573.8	36.6	25.2
13-L	57298	17465	-2.7	2.3	3.3	4.3	7.3	12.3	13.1	21.5	28.5	28.0	30.7	28.6	28.3	23.9	16.4	13.3	5.8	-7.4	-18.7	-29.7	-52.3	-75.4	-108.8	-176.9	-278.2	-428.4	-660.8	-1028.3	-1590.2	36.4	25.0
14-D	59705	18198	-3.1	1.9	2.9	3.9	6.9	11.9	12.7	21.0	28.0	27.4	30.1	27.8	27.3	22.7	14.9	11.6	3.7	-9.9	-21.5	-33.0	-56.4	-80.5	-115.5	-186.2	-291.5	-448.1	-690.4	-1073.4	-1659.3	35.7	24.0
14-E	59047	17998	-3.0	2.0	3.0	4.0	7.0	12.0	12.8	21.1	28.1	27.6	30.3	28.0	27.6	23.0	15.3	12.1	4.3	-9.2	-20.8	-32.1	-55.3	-79.1	-113.7	-183.7	-287.9	-442.7	-682.3	-1061.1	-1640.4	35.9	24.3
14-F	58533	17841	-2.9	2.1	3.1	4.1	7.1	12.1	12.9	21.2	28.2	27.7	30.4	28.2	27.8	23.3	15.6	12.4	4.7	-8.7	-20.1	-31.4	-54.4	-78.0	-112.2	-181.7	-285.0	-438.5	-676.0	-1051.5	-1625.6	36.1	24.5
14-G	58216	17744	-2.9	2.1	3.1	4.1	7.1	12.1	13.0	21.3	28.3	27.7	30.5	28.3	27.9	23.4	15.8	12.7	5.0	-8.4	-19.8	-31.0	-53.9	-77.3	-111.3	-180.5	-283.3	-435.9	-672.1	-1045.5	-1616.5	36.2	24.6
14-H	58077	17702	-2.9	2.1	3.1	4.1	7.1	12.1	13.0	21.3	28.3	27.8	30.5	28.3	28.0	23.5	15.9	12.8	5.1	-8.2	-19.6	-30.8	-53.6	-77.0	-110.9	-179.9	-282.5	-434.7	-670.4	-1042.9	-1612.5	36.2	24.7
14-J	58323	17777	-2.9	2.1	3.1	4.1	7.1	12.1	12.9	21.3	28.3	27.7	30.5	28.2	27.9	23.4	15.7	12.6	4.9	-8.5	-19.9	-31.1	-54.1	-77.5	-111.6	-180.9	-283.9	-436.8	-673.4	-1047.5	-1619.6	36.1	24.6
14-K	58770	17913	-3.0	2.0	3.0	4.0	7.0	12.0	12.9	21.2	28.2	27.6	30.3	28.1	27.7	23.2	15.5	12.3	4.5	-8.9	-20.4	-31.7	-54.8	-78.5	-112.9	-182.6	-286.4	-440.4	-678.9	-1055.9	-1632.4	36.0	24.4
14-L	59353	18091	-3.0	2.0	3.0	4.0	7.0	12.0	12.8	21.1	28.1	27.5	30.2	27.9	27.5	22.9	15.1	11.8	4.0	-9.5	-21.1	-32.6	-55.8	-79.7	-114.5	-184.9	-289.6	-445.2	-686.1	-1066.8	-1649.2	35.8	24.2
15-F	60398	18409	-3.2	1.8	2.8	3.8	6.8	11.8	12.6	20.9	27.9	27.3	29.9	27.6	27.1	22.4	14.5	11.1	3.1	-10.6	-22.3	-34.0	-57.5	-82.0	-117.5	-188.9	-295.4	-453.8	-699.0	-1086.4	-1679.2	35.5	23.8
15-G	60127	18327	-3.2	1.8	2.8	3.8	6.8	11.8	12.6	21.0	27.9	27.3	30.0	27.7	27.2	22.5	14.7	11.3	3.3	-10.3	-22.0	-33.6	-57.1	-81.4	-116.7	-187.8	-293.9	-451.5	-695.6	-1081.4	-1671.4	35.6	23.9
15-H	60061	18307	-3.1	1.9	2.9	3.9	6.9	11.9	12.6	21.0	27.9	27.3	30.0	27.7	27.2	22.5	14.7	11.3	3.4	-10.2	-21.9	-33.5	-57.0	-81.2	-116.5	-187.6	-293.5	-451.0	-694.8	-1080.1	-1669.5	35.6	23.9
15-I	60139	18330	-3.2	1.8	2.8	3.8	6.8	11.8	12.6	20.9	27.9	27.3	30.0	27.7	27.2	22.5	14.6	11.3	3.3	-10.3	-22.0	-33.6	-57.1	-81.4	-116.8	-187.9	-293.9	-451.6	-695.8	-1081.6	-1671.7	35.6	23.9
15-J	60367	18400	-3.2	1.8	2.8	3.8	6.8	11.8	12.6	20.9	27.9	27.3	29.9	27.6	27.1	22.4	14.5	11.1	3.1	-10.5	-22.3	-34.0	-57.5	-81.9	-117.4	-188.8	-295.2	-453.5	-698.6	-1085.9	-1678.3	35.6	23.8
15-K	60794	18530	-3.3	1.7	2.7	3.7	6.7	11.7	12.5	20.8	27.8	27.2	29.8	27.5	26.9	22.2	14.2	10.8	2.8	-11.0	-22.8	-34.6	-58.2	-82.8	-118.6	-190.4	-297.6	-457.0	-703.8	-1093.9	-1690.5	35.4	23.6
16-J	62378	19013	-3.5	1.5	2.5	3.5	6.5	11.5	12.3	20.6	27.5	26.8	29.4	27.0	26.3	21.4	13.3	9.6	1.4	-12.6	-24.7	-36.7	-60.9	-86.2	-123.0	-196.5	-306.3	-470.0	-723.3	-1123.6	-1736.0	35.0	23.1
16-K	62825	19149	-3.5	1.5	2.5	3.5	6.5	11.5	12.2	20.5	27.4	26.7	29.3	26.8	26.1	21.2	13.0	9.3	1.0	-13.0	-25.2	-37.4	-61.6	-87.1	-124.3	-198.3	-308.8	-473.6	-728.8	-1132.0	-1748.8	34.9	22.9
		Minimum:	-3.5	1.5	2.5	3.5	6.5	11.5	12.2	20.5	27.4	26.7	29.3	26.8	26.1	21.2	13.0	9.3	1.0	-13.0	-25.2	-37.4	-61.6	-87.1	-124.3	-198.3	-308.8	-473.6	-728.8	-1132.0	-1748.8	34.9	22.9
		Maximum:	2.2	7.2	8.2	9.2	12.2	17.2	18.5	27.2	34.6	34.8	38.5	37.7	39.3	37.3	32.7	32.7	28.5	18.9	11.7	6.0	-9.3	-21.4	-37.9	-80.0	-139.8	-224.4	-355.0	-562.6	-878.7	45.8	37.3

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Lmax)
FROM PILE DRIVING OF WTG MONOPILES

ODS Report Report no. 00.877, Figure 11, 2dB subtracted across the spectrum to account for peak to Lmax calculation

Sound Pressure Data	34	39	40	41	44	49	51	60	68	69	74	75	79	80	79	83	83	78	76	77	71	73	78	69	62	61	60	56	53	90	88	
320 meters from the pile																																
Lmax at 320 meters	32	37	38	39	42	47	49	58	66	67	72	73	77	78	77	81	81	76	74	75	69	71	76	67	60	59	58	54	51	88	86	

Data for the graph

Atmos. Absorption per 1 km	0.0000	0.0000	0.0000	0.0000	0.0000	0.0670	0.1050	0.1630	0.2510	0.3810	0.5650	0.8150	1.1300	1.5100	1.9200	2.3600	2.8400	3.3800	4.0800	5.0500	6.5100	8.7500	12.2000	17.7000	26.4000	39.9000	61.1000	93.7000	144.0000			
air temp 59F 70% RH																																

																			Hertz													
	1/3 Octave Bands		**16***	**20**	**25**	**31**	**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**	**L**	**A**
	Distance (ft)	**Distance (m)**																														
1-D	36242	11046	1.2	6.2	7.2	8.2	11.2	16.2	17.5	26.1	33.5	33.5	37.2	36.2	37.5	35.1	30.0	29.6	24.9	14.8	7.0	0.5	-15.9	-29.6	-48.6	-94.6	-160.6	-254.9	-400.7	-632.1	-984.8	44.1	35.1
1-E	34794	10605	1.6	6.6	7.6	8.6	11.6	16.6	17.9	26.5	33.9	34.0	37.7	36.8	38.2	36.0	31.1	30.8	26.3	16.4	8.8	2.6	-13.3	-26.4	-44.4	-88.9	-152.5	-242.9	-382.8	-604.8	-943.1	44.7	35.9
1-F	33573	10233	1.9	6.9	7.9	8.9	11.9	16.9	18.2	26.9	34.3	34.4	38.1	37.3	38.8	36.7	31.9	31.9	27.5	17.7	10.4	4.5	-11.2	-23.6	-40.8	-84.0	-145.6	-232.8	-367.6	-581.8	-907.9	45.3	36.7
1-G	32635	9947	2.1	7.1	8.1	9.1	12.1	17.1	18.5	27.1	34.6	34.7	38.5	37.7	39.3	37.3	32.6	32.7	28.4	18.8	11.6	5.9	-9.5	-21.5	-38.1	-80.3	-140.3	-225.0	-356.0	-564.1	-880.9	45.8	37.3
1-H	31980	9748	2.3	7.3	8.3	9.3	12.3	17.3	18.7	27.3	34.8	35.0	38.7	38.0	39.6	37.7	33.1	33.2	29.1	19.6	12.5	6.9	-8.3	-20.0	-36.2	-77.7	-136.5	-219.6	-347.8	-551.7	-862.0	46.1	37.7
1-I	31647	9646	2.4	7.4	8.4	9.4	12.4	17.4	18.8	27.4	34.9	35.1	38.9	38.1	39.8	37.9	33.3	33.5	29.4	19.9	12.9	7.4	-7.7	-19.3	-35.2	-76.4	-134.7	-216.8	-343.7	-545.4	-852.4	46.3	37.9
1-J	31655	9649	2.4	7.4	8.4	9.4	12.4	17.4	18.8	27.4	34.9	35.1	38.9	38.1	39.8	37.9	33.3	33.5	29.4	19.9	12.9	7.4	-7.7	-19.3	-35.2	-76.4	-134.7	-216.9	-343.8	-545.6	-852.7	46.3	37.9
1-K	31923	9730	2.3	7.3	8.3	9.3	12.3	17.3	18.7	27.4	34.8	35.0	38.8	38.0	39.7	37.7	33.1	33.3	29.1	19.6	12.5	6.9	-8.2	-19.9	-36.0	-77.5	-136.2	-219.1	-347.1	-550.6	-860.4	46.1	37.8
1-L	32611	9940	2.2	7.2	8.2	9.2	12.2	17.2	18.5	27.1	34.6	34.7	38.5	37.7	39.3	37.3	32.6	32.7	28.5	18.8	11.6	5.9	-9.4	-21.5	-38.0	-80.2	-140.1	-224.8	-355.7	-563.6	-880.2	45.8	37.3
2-D	37737	11502	0.9	5.9	6.9	7.9	10.9	15.9	17.1	25.7	33.1	33.1	36.6	35.6	36.8	34.3	29.0	28.4	23.5	13.1	5.1	-1.7	-18.6	-32.9	-53.0	-100.5	-169.0	-267.3	-419.3	-660.4	-1027.9	43.4	34.2
2-E	36366	11084	1.2	6.2	7.2	8.2	11.2	16.2	17.5	26.1	33.5	33.5	37.1	36.1	37.4	35.0	30.0	29.5	24.8	14.6	6.8	0.3	-16.2	-29.9	-49.0	-95.1	-161.3	-256.0	-402.3	-634.5	-988.4	44.0	35.0
2-F	35263	10748	1.5	6.5	7.5	8.5	11.5	16.5	17.8	26.4	33.8	33.9	37.5	36.6	38.0	35.7	30.7	30.5	25.9	15.9	8.2	1.9	-14.2	-27.4	-45.8	-90.7	-155.1	-246.8	-388.6	-613.7	-956.6	44.5	35.6
2-G	34424	10492	1.7	6.7	7.7	8.7	11.7	16.7	18.0	26.6	34.0	34.1	37.8	36.9	38.4	36.2	31.3	31.2	26.7	16.8	9.3	3.2	-12.7	-25.5	-43.3	-87.4	-150.4	-239.9	-378.2	-597.8	-932.5	44.9	36.2
2-H	33865	10322	1.8	6.8	7.8	8.8	11.8	16.8	18.2	26.8	34.2	34.3	38.0	37.2	38.7	36.5	31.7	31.6	27.2	17.4	10.0	4.0	-11.7	-24.3	-41.7	-85.2	-147.2	-235.2	-371.3	-587.3	-916.4	45.2	36.5
2-I	33571	10232	1.9	6.9	7.9	8.9	11.9	16.9	18.2	26.9	34.3	34.4	38.1	37.3	38.8	36.7	31.9	31.9	27.5	17.8	10.4	4.5	-11.2	-23.6	-40.8	-84.0	-145.5	-232.8	-367.6	-581.7	-907.9	45.3	36.7
2-J	33636	10252	1.9	6.9	7.9	8.9	11.9	16.9	18.2	26.8	34.3	34.4	38.1	37.3	38.8	36.7	31.9	31.8	27.4	17.7	10.3	4.4	-11.3	-23.8	-41.0	-84.3	-145.9	-233.3	-368.4	-583.0	-909.8	45.3	36.7
2-K	34002	10364	1.8	6.8	7.8	8.8	11.8	16.8	18.1	26.7	34.2	34.3	38.0	37.1	38.6	36.4	31.6	31.5	27.1	17.3	9.8	3.8	-11.9	-24.6	-42.1	-85.7	-148.0	-236.4	-373.0	-589.9	-920.3	45.1	36.4
2-L	34620	10552	1.6	6.6	7.6	8.6	11.6	16.6	18.0	26.6	34.0	34.1	37.7	36.9	38.3	36.1	31.2	31.0	26.5	16.6	9.1	2.9	-13.0	-26.0	-43.9	-88.2	-151.5	-241.5	-380.6	-601.6	-938.1	44.8	36.0
3-D	39233	11958	0.5	5.5	6.5	7.5	10.5	15.5	16.8	25.3	32.7	32.6	36.1	35.0	36.1	33.4	28.0	27.2	22.1	11.5	3.2	-3.9	-21.2	-36.2	-57.3	-106.4	-177.4	-279.7	-437.8	-688.5	-1070.9	42.8	33.3
3-E	37964	11572	0.8	5.8	6.8	7.8	10.8	15.8	17.1	25.7	33.0	33.0	36.5	35.5	36.7	34.1	28.8	28.2	23.3	12.9	4.8	-2.1	-19.0	-33.4	-53.6	-101.4	-170.3	-269.2	-422.1	-664.6	-1034.4	43.3	34.1
3-F	36951	11263	1.1	6.1	7.1	8.1	11.1	16.1	17.3	25.9	33.3	33.3	36.9	35.9	37.2	34.7	29.5	29.1	24.2	14.0	6.1	-0.6	-17.2	-31.2	-50.7	-97.4	-164.6	-260.8	-409.5	-645.5	-1005.3	43.8	34.6
3-G	36222	11040	1.2	6.2	7.2	8.2	11.2	16.2	17.5	26.1	33.5	33.6	37.2	36.2	37.5	35.1	30.1	29.7	24.9	14.8	7.0	0.5	-15.9	-29.5	-48.6	-94.5	-160.5	-254.8	-400.5	-631.8	-984.3	44.1	35.1
3-H	35750	10897	1.4	6.4	7.4	8.4	11.4	16.4	17.6	26.2	33.6	33.7	37.3	36.4	37.7	35.4	30.4	30.0	25.4	15.3	7.6	1.2	-15.1	-28.5	-47.2	-92.7	-157.8	-250.9	-394.7	-622.9	-970.7	44.3	35.3
3-I	35563	10839	1.4	6.4	7.4	8.4	11.4	16.4	17.7	26.3	33.7	33.8	37.4	36.5	37.8	35.5	30.5	30.2	25.6	15.5	7.8	1.5	-14.7	-28.1	-46.6	-91.9	-156.8	-249.3	-392.3	-619.3	-965.3	44.4	35.5
3-J	35633	10861	1.4	6.4	7.4	8.4	11.4	16.4	17.7	26.3	33.7	33.7	37.4	36.4	37.8	35.5	30.5	30.1	25.5	15.4	7.8	1.4	-14.8	-28.2	-46.8	-92.2	-157.2	-249.9	-393.2	-620.7	-967.3	44.3	35.4
3-K	36026	10981	1.3	6.3	7.3	8.3	11.3	16.3	17.6	26.2	33.6	33.6	37.2	36.3	37.6	35.2	30.2	29.8	25.1	15.0	7.3	0.8	-15.5	-29.1	-48.0	-93.8	-159.4	-253.2	-398.1	-628.1	-978.6	44.2	35.2
3-L	36688	11182	1.1	6.1	7.1	8.1	11.1	16.1	17.4	26.0	33.4	33.4	37.0	36.0	37.3	34.9	29.7	29.3	24.5	14.3	6.4	-0.2	-16.7	-30.6	-49.9	-96.4	-163.1	-258.6	-406.3	-640.6	-997.7	43.9	34.8
4-D	40767	12426	0.2	5.2	6.2	7.2	10.2	15.2	16.4	24.9	32.2	32.2	35.6	34.4	35.4	32.5	26.9	26.0	20.6	9.8	1.3	-6.2	-23.9	-39.6	-61.7	-112.5	-186.1	-292.4	-456.8	-717.4	-1115.1	42.1	32.5
4-E	39566	12060	0.5	5.5	6.5	7.5	10.5	15.5	16.7	25.2	32.6	32.5	36.0	34.8	35.9	33.2	27.7	26.9	21.8	11.1	2.8	-4.4	-21.8	-36.9	-58.2	-107.7	-179.3	-282.5	-441.9	-694.8	-1080.5	42.6	33.2
4-F	38688	11792	0.7	5.7	6.7	7.7	10.7	15.7	16.9	25.5	32.8	32.8	36.3	35.2	36.3	33.7	28.3	27.6	22.6	12.1	3.9	-3.1	-20.3	-35.0	-55.7	-104.3	-174.4	-275.2	-431.1	-678.3	-1055.3	43.0	33.6
4-G	38010	11586	0.8	5.8	6.8	7.8	10.8	15.8	17.1	25.6	33.0	33.0	36.5	35.5	36.6	34.1	28.8	28.2	23.2	12.8	4.7	-2.1	-19.1	-33.5	-53.7	-101.6	-170.6	-269.6	-422.7	-665.5	-1035.8	43.3	34.0
4-H	37619	11466	0.9	5.9	6.9	7.9	10.9	15.9	17.2	25.7	33.1	33.1	36.7	35.6	36.8	34.3	29.1	28.5	23.6	13.3	5.2	-1.6	-18.4	-32.6	-52.6	-100.1	-168.4	-266.3	-417.8	-658.1	-1024.5	43.5	34.2
4-I	37503	11431	0.9	5.9	6.9	7.9	10.9	15.9	17.2	25.8	33.1	33.2	36.7	35.7	36.9	34.4	29.2	28.6	23.7	13.4	5.4	-1.4	-18.2	-32.4	-52.3	-99.6	-167.7	-265.4	-416.4	-655.9	-1021.2	43.5	34.3
4-J	37660	11479	0.9	5.9	6.9	7.9	10.9	15.9	17.2	25.7	33.1	33.1	36.7	35.6	36.8	34.3	29.1	28.5	23.6	13.2	5.2	-1.6	-18.4	-32.7	-52.7	-100.2	-168.6	-266.7	-418.3	-658.9	-1025.7	43.4	34.2
4-K	38098	11612	0.8	5.8	6.8	7.8	10.8	15.8	17.0	25.6	33.0	33.0	36.5	35.4	36.6	34.0	28.8	28.1	23.2	12.7	4.6	-2.3	-19.2	-33.7	-54.0	-102.0	-171.1	-270.3	-423.8	-667.2	-1038.3	43.3	34.0
4-L	38785	11822	0.6	5.6	6.6	7.6	10.6	15.6	16.9	25.4	32.8	32.8	36.3	35.2	36.3	33.7	28.3	27.6	22.5	12.0	3.8	-3.3	-20.4	-35.2	-56.0	-104.7	-174.9	-276.0	-432.3	-680.1	-1058.1	43.0	33.6
5-D	42342	12906	-0.1	4.9	5.9	6.9	9.9	14.9	16.0	24.6	31.8	31.7	35.1	33.8	34.6	31.7	25.9	24.7	19.2	8.1	-0.7	-8.5	-26.7	-43.0	-66.2	-118.7	-194.9	-305.4	-476.3	-747.1	-1160.4	41.5	31.7
5-E	41292	12586	0.1	5.1	6.1	7.1	10.1	15.1	16.3	24.8	32.1	32.0	35.4	34.2	35.1	32.2	26.6	25.6	20.2	9.3	0.6	-6.9	-24.8	-40.7	-63.2	-114.5	-189.0	-296.7	-463.3	-727.3	-1130.2	41.9	32.2
5-F	40459	12332	0.3	5.3	6.3	7.3	10.3	15.3	16.5	25.0	32.3	32.3	35.7	34.5	35.5	32.7	27.1	26.2	20.9	10.2	1.7	-5.7	-23.4	-38.9	-60.8	-111.3	-184.3	-289.8	-453.0	-711.7	-1106.2	42.3	32.7
5-G	39884	12157	0.4	5.4	6.4	7.4	10.4	15.4	16.6	25.2	32.5	32.4	35.9	34.7	35.8	33.0	27.5	26.7	21.5	10.8	2.4	-4.9	-22.4	-37.6	-59.2	-109.0	-181.1	-285.1	-445.9	-700.8	-1089.7	42.5	33.0
5-H	39542	12052	0.5	5.5	6.5	7.5	10.5	15.5	16.7	25.2	32.6	32.5	36.0	34.9	35.9	33.2	27.8	27.0	21.8	11.2	2.8	-4.4	-21.8	-36.9	-58.2	-107.7	-179.2	-282.3	-441.6	-694.4	-1079.8	42.6	33.2
5-I	39441	12022	0.5	5.5	6.5	7.5	10.5	15.5	16.7	25.3	32.6	32.6	36.0	34.9	36.0	33.3	27.8	27.0	21.9	11.3	3.0	-4.2	-21.6	-36.7	-57.9	-107.3	-178.6	-281.4	-440.4	-692.5	-1076.9	42.7	33.2
5-J	39682	12095	0.5	5.5	6.5	7.5	10.5	15.5	16.7	25.2	32.5	32.5	36.0	34.8	35.9	33.1	27.7	26.8	21.7	11.0	2.7	-4.6	-22.0	-37.2	-58.6	-108.2	-180.0	-283.4	-443.4	-697.0	-1083.9	42.6	33.1
6-D	43961	13399	-0.4	4.6	5.6	6.6	9.6	14.6	15.7	24.2	31.4	31.3	34.6	33.2	33.9	30.8	24.8	23.4	17.7	6.4	-2.6	-10.8	-29.5	-46.6	-70.9	-125.0	-203.9	-318.7	-496.3	-777.6	-1207.0	40.9	30.8
6-E	43000	13107	-0.2	4.8	5.8	6.8	9.8	14.8	15.9	24.4	31.7	31.5	34.9	33.5	34.3	31.3	25.4	24.2	18.6	7.4	-1.5	-9.4	-27.8	-44.5	-68.1	-121.2	-198.6	-310.8	-484.4	-759.5	-1179.3	41.3	31.3
6-G	41681	12704	0.0	5.0	6.0	7.0	10.0	15.0	16.2	24.7	32.0	31.9	35.3	34.0	34.9	32.0	26.3	25.2	19.8	8.9	0.2	-7.5	-25.5	-41.6	-64.3	-116.1	-191.2	-299.9	-468.1	-734.7	-1141.4	41.8	32.0
6-H	41407	12621	0.1	5.1	6.1	7.1	10.1	15.1	16.3	24.8	32.1	32.0	35.4	34.1	35.1	32.2	26.5	25.5	20.1	9.1	0.5	-7.1	-25.0	-41.0	-63.5	-115.0	-189.6	-297.7	-464.7	-729.5	-1133.5	41.9	32.2
6-I	41431	12628	0.1	5.1	6.1	7.1	10.1	15.1	16.3	24.8	32.1	32.0	35.4	34.1	35.0	32.2	26.5	25.4	20.0	9.1	0.5	-7.1	-25.1	-41.0	-63.6	-115.1	-189.8	-297.9	-465.0	-729.9	-1134.2	41.9	32.1
6-J	41712	12714	0.0	5.0	6.0	7.0	10.0	15.0	16.2	24.7	32.0	31.9	35.3	34.0	34.9	32.0	26.3	25.2	19.8	8.8	0.1	-7.5	-25.6	-41.7	-64.4	-116.2	-191.4	-300.2	-468.5	-735.2	-1142.3	41.8	32.0
7-B	47960	14618	-1.2	3.8	4.8	5.8	8.8	13.8	14.8	23.3	30.5	30.2	33.4	31.7	32.2	28.6	22.2	20.4	14.1	2.2	-7.5	-16.5	-36.4	-55.3	-82.3	-140.6	-226.3	-351.7	-545.7	-852.8	-1321.9	39.4	28.9
7-C	46670	14225	-1.0	4.0	5.0	6.0	9.0	14.0	15.1	23.6	30.8	30.6	33.7	32.2	32.7	29.3	23.0	21.3	15.2	3.6	-6.0	-14.7	-34.2	-52.5	-78.6	-135.6	-219.1	-341.1	-529.8	-828.6	-1284.9	39.9	29.5
7-E	44707	13627	-0.6	4.4	5.4	6.4	9.4	14.4	15.5	24.0	31.2	31.1	34.3	32.9	33.6	30.4	24.3	22.9	17.0	5.6	-3.6	-11.9	-30.8	-48.2	-73.0	-127.9	-208.1	-324.9	-505.5	-791.6	-1228.4	40.6	30.5
7-F	44045	13425	-0.5	4.5	5.5	6.5	9.5	14.5	15.7	24.2	31.4	31.3	34.6	33.1	33.9	30.7	24.8	23.4	17.6	6.3	-2.8	-10.9	-29.6	-46.8	-71.1	-125.3	-204.4	-319.4	-497.3	-779.2	-1209.4	40.9	30.8
7-G	43610	13292	-0.4	4.6	5.6	6.6	9.6	14.6	15.8	24.3	31.5	31.4	34.7	33.3	34.1	31.0	25.0	23.7	18.0	6.8	-2.2	-10.3	-28.9	-45.8	-69.9	-123.6	-202.0	-315.8	-492.0	-771.0	-1196.9	41.0	31.0
7-H	43410	13231	-0.3	4.7	5.7	6.7	9.7	14.7	15.8	24.3	31.6	31.4	34.8	33.4	34.1	31.1	25.2	23.9	18.2	7.0	-2.0	-10.0	-28.5	-45.4	-69.3	-122.8	-200.9	-314.2	-489.5	-767.2	-1191.1	41.1	31.1
7-I	43434	13239	-0.3	4.7	5.7	6.7	9.7	14.7	15.8	24.3	31.6	31.4	34.7	33.4	34.1	31.1	25.2	23.9	18.2	7.0	-2.0	-10.0	-28.6	-45.4	-69.4	-122.9	-201.0	-314.4	-489.8	-767.7	-1191.8	41.1	31.1
8-A	50875	15507	-1.7	3.3	4.3	5.3	8.3	13.3	14.3	22.7	29.8	29.5	32.5	30.7	30.9	27.1	20.4	18.1	11.5	-0.8	-11.0	-20.7	-41.4	-61.6	-90.6	-152.0	-242.5	-375.6	-581.7	-907.6	-1405.7	38.4	27.6
8-B	49491	15085	-1.5	3.5	4.5	5.5	8.5	13.5	14.5	23.0	30.1	29.8	32.9	31.2	31.5	27.8	21.2	19.2	12.7	0.6	-9.4	-18.7	-39.0	-58.6	-86.7	-146.6	-234.8	-364.3	-564.6	-881.6	-1365.9	38.9	28.2
8-C	48285	14717	-1.3	3.7	4.7	5.7	8.7	13.7	14.8	23.2	30.4	30.1	33.3	31.6	32.0	28.5	22.0	20.1	13.8	1.9	-7.9	-17.0	-37.0	-56.0	-83.2	-141.9	-228.1	-354.3	-549.7	-858.9	-1331.3	39.3	28.8
8-D	47264	14406	-1.1	3.9	4.9	5.9	8.9	13.9	15.0	23.5	30.6	30.4	33.6	32.0	32.5	29.0	22.7	20.9	14.7	2.9	-6.7	-15.5	-35.2	-53.8	-80.3	-137.9	-222.4	-345.9	-537.1	-839.7	-1301.9	39.7	29.2
8-F	45852	13976	-0.8	4.2	5.2	6.2	9.2	14.2	15.3	23.8	31.0	30.8	34.0	32.5	33.1	29.8	23.6	22.0	16.0	4.4	-5.0	-13.5	-32.8	-50.7	-76.3	-132.4	-214.5	-334.3	-519.7	-813.2	-1261.3	40.2	29.9

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Lmax)
FROM PILE DRIVING OF WTG MONOPILES

8-G	45554	13885	-0.7	4.3	5.3	6.3	9.3	14.3	15.3	23.8	31.0	30.8	34.1	32.6	33.2	29.9	23.8	22.2	16.2	4.7	-4.6	-13.1	-32.3	-50.1	-75.4	-131.2	-212.8	-331.9	-516.0	-807.6	-1252.8	40.3	30.1
8-H	45373	13830	-0.7	4.3	5.3	6.3	9.3	14.3	15.4	23.9	31.1	30.9	34.1	32.7	33.3	30.0	23.9	22.3	16.4	4.9	-4.4	-12.8	-31.9	-49.7	-74.9	-130.5	-211.8	-330.4	-513.8	-804.2	-1247.6	40.4	30.2
9-A	52315	15946	-1.9	3.1	4.1	5.1	8.1	13.1	14.0	22.4	29.5	29.1	32.1	30.2	30.3	26.4	19.5	17.0	10.2	-2.3	-12.8	-22.7	-43.9	-64.7	-94.7	-157.6	-250.5	-387.5	-599.4	-934.7	-1447.1	38.0	27.0
9-B	51018	15550	-1.7	3.3	4.3	5.3	8.3	13.3	14.2	22.7	29.8	29.4	32.5	30.7	30.9	27.1	20.3	18.0	11.3	-1.0	-11.2	-20.9	-41.6	-61.9	-91.0	-152.5	-243.3	-376.8	-583.4	-910.3	-1409.8	38.4	27.6
9-C	49893	15207	-1.5	3.5	4.5	5.5	8.5	13.5	14.5	22.9	30.0	29.7	32.8	31.1	31.3	27.6	21.0	18.9	12.3	0.2	-9.9	-19.3	-39.7	-59.5	-87.8	-148.2	-237.0	-367.6	-569.5	-889.2	-1377.5	38.8	28.0
9-D	48993	14933	-1.4	3.6	4.6	5.6	8.6	13.6	14.6	23.1	30.2	30.0	33.1	31.4	31.7	28.1	21.6	19.6	13.1	1.1	-8.8	-18.0	-38.2	-57.5	-85.2	-144.7	-232.0	-360.2	-558.4	-872.2	-1351.6	39.1	28.5
9-E	48243	14704	-1.2	3.8	4.8	5.8	8.8	13.8	14.8	23.2	30.4	30.1	33.3	31.6	32.0	28.5	22.0	20.1	13.8	1.9	-7.9	-16.9	-36.9	-55.9	-83.1	-141.7	-227.8	-354.0	-549.2	-858.1	-1330.1	39.3	28.8
9-F	47714	14543	-1.2	3.8	4.8	5.8	8.8	13.8	14.9	23.4	30.5	30.3	33.4	31.8	32.3	28.8	22.4	20.5	14.3	2.5	-7.2	-16.2	-36.0	-54.7	-81.6	-139.7	-224.9	-349.6	-542.7	-848.2	-1314.9	39.5	29.0
9-G	47402	14448	-1.1	3.9	4.9	5.9	8.9	13.9	15.0	23.4	30.6	30.4	33.5	31.9	32.4	28.9	22.6	20.8	14.6	2.8	-6.8	-15.7	-35.4	-54.1	-80.7	-138.5	-223.2	-347.1	-538.8	-842.3	-1305.9	39.6	29.2
9-H	47344	14431	-1.1	3.9	4.9	5.9	8.9	13.9	15.0	23.4	30.6	30.4	33.5	31.9	32.4	29.0	22.6	20.8	14.6	2.8	-6.8	-15.7	-35.3	-53.9	-80.5	-138.2	-222.8	-346.6	-538.1	-841.2	-1304.2	39.7	29.2
9-I	47435	14458	-1.1	3.9	4.9	5.9	8.9	13.9	15.0	23.4	30.6	30.4	33.5	31.9	32.4	28.9	22.6	20.8	14.5	2.7	-6.9	-15.8	-35.5	-54.1	-80.8	-138.6	-223.3	-347.4	-539.2	-843.0	-1306.9	39.6	29.2
10-A	53801	16399	-2.2	2.8	3.8	4.8	7.8	12.8	13.7	22.1	29.2	28.8	31.7	29.7	29.7	25.6	18.5	15.9	8.9	-3.9	-14.5	-24.8	-46.4	-67.9	-98.9	-163.4	-258.8	-399.7	-617.7	-962.6	-1489.8	37.5	26.4
10-B	52618	16038	-2.0	3.0	4.0	5.0	8.0	13.0	13.9	22.3	29.4	29.1	32.0	30.1	30.2	26.2	19.3	16.8	9.9	-2.6	-13.1	-23.1	-44.4	-65.3	-95.5	-158.8	-252.2	-390.0	-603.1	-940.4	-1455.8	37.9	26.9
10-C	51572	15719	-1.8	3.2	4.2	5.2	8.2	13.2	14.1	22.6	29.7	29.3	32.3	30.5	30.6	26.8	19.9	17.6	10.8	-1.6	-11.9	-21.7	-42.6	-63.1	-92.6	-154.7	-246.4	-381.4	-590.3	-920.7	-1425.7	38.2	27.3
10-D	50687	15449	-1.7	3.3	4.3	5.3	8.3	13.3	14.3	22.7	29.9	29.5	32.6	30.8	31.0	27.2	20.5	18.3	11.6	-0.6	-10.8	-20.4	-41.1	-61.2	-90.1	-151.3	-241.5	-374.1	-579.3	-904.1	-1400.3	38.5	27.7
10-E	50021	15246	-1.6	3.4	4.4	5.4	8.4	13.4	14.4	22.9	30.0	29.7	32.8	31.0	31.3	27.6	20.9	18.8	12.2	0.0	-10.0	-19.5	-39.9	-59.7	-88.2	-148.7	-237.8	-368.6	-571.1	-891.6	-1381.2	38.7	28.0
10-F	49537	15099	-1.5	3.5	4.5	5.5	8.5	13.5	14.5	23.0	30.1	29.8	32.9	31.2	31.5	27.8	21.2	19.1	12.6	0.6	-9.4	-18.8	-39.1	-58.7	-86.8	-146.8	-235.1	-364.6	-565.2	-882.5	-1367.3	38.9	28.2
10-G	49282	15021	-1.4	3.6	4.6	5.6	8.6	13.6	14.6	23.0	30.2	29.9	33.0	31.3	31.6	28.0	21.4	19.3	12.9	0.8	-9.1	-18.4	-38.7	-58.1	-86.1	-145.8	-233.6	-362.5	-562.0	-877.7	-1359.9	39.0	28.3
10-H	49275	15019	-1.4	3.6	4.6	5.6	8.6	13.6	14.6	23.0	30.2	29.9	33.0	31.3	31.6	28.0	21.4	19.3	12.9	0.8	-9.1	-18.4	-38.7	-58.1	-86.0	-145.8	-233.6	-362.5	-561.9	-877.5	-1359.7	39.0	28.3
10-I	49472	15079	-1.5	3.5	4.5	5.5	8.5	13.5	14.5	23.0	30.1	29.8	32.9	31.2	31.5	27.9	21.2	19.2	12.7	0.6	-9.4	-18.7	-39.0	-58.5	-86.6	-146.5	-234.7	-364.1	-564.4	-881.2	-1365.4	38.9	28.2
11-A	55382	16880	-2.4	2.6	3.6	4.6	7.6	12.6	13.4	21.8	28.9	28.4	31.2	29.2	29.1	24.8	17.5	14.8	7.5	-5.5	-16.4	-27.0	-49.1	-71.3	-103.3	-169.5	-267.6	-412.6	-637.2	-992.3	-1535.2	37.0	25.7
11-B	54228	16529	-2.3	2.7	3.7	4.7	7.7	12.7	13.7	22.0	29.1	28.7	31.6	29.6	29.5	25.4	18.3	15.6	8.5	-4.3	-15.0	-25.4	-47.1	-68.8	-100.1	-165.0	-261.2	-403.2	-623.0	-970.6	-1502.0	37.4	26.2
11-C	53246	16229	-2.1	2.9	3.9	4.9	7.9	12.9	13.8	22.2	29.3	28.9	31.8	29.9	29.9	25.9	18.9	16.4	9.4	-3.3	-13.9	-24.0	-45.4	-66.7	-97.3	-161.2	-255.7	-395.1	-610.9	-952.2	-1473.8	37.7	26.6
11-D	52500	16002	-2.0	3.0	4.0	5.0	8.0	13.0	14.0	22.4	29.5	29.1	32.0	30.2	30.2	26.3	19.3	16.9	10.0	-2.5	-13.0	-23.0	-44.2	-65.1	-95.2	-158.3	-251.6	-389.0	-601.7	-938.1	-1452.4	37.9	26.9
11-E	51842	15801	-1.9	3.1	4.1	5.1	8.1	13.1	14.1	22.5	29.6	29.2	32.2	30.4	30.5	26.6	19.8	17.4	10.6	-1.8	-12.2	-22.0	-43.1	-63.7	-93.3	-155.7	-247.9	-383.6	-593.6	-925.8	-1433.5	38.1	27.2
11-F	51470	15688	-1.8	3.2	4.2	5.2	8.2	13.2	14.2	22.6	29.7	29.3	32.3	30.5	30.7	26.8	20.0	17.7	10.9	-1.5	-11.8	-21.5	-42.4	-62.9	-92.3	-154.3	-245.8	-380.5	-589.0	-918.8	-1422.8	38.3	27.4
11-G	51242	15619	-1.8	3.2	4.2	5.2	8.2	13.2	14.2	22.6	29.7	29.4	32.4	30.6	30.8	26.9	20.1	17.9	11.1	-1.2	-11.5	-21.2	-42.0	-62.4	-91.6	-153.4	-244.6	-378.7	-586.2	-914.5	-1416.3	38.3	27.5
11-H	51236	15617	-1.8	3.2	4.2	5.2	8.2	13.2	14.2	22.6	29.7	29.4	32.4	30.6	30.8	26.9	20.1	17.9	11.1	-1.2	-11.5	-21.2	-42.0	-62.4	-91.6	-153.4	-244.5	-378.6	-586.1	-914.4	-1416.1	38.3	27.5
11-K	52481	15996	-2.0	3.0	4.0	5.0	8.0	13.0	14.0	22.4	29.5	29.1	32.1	30.2	30.2	26.3	19.4	16.9	10.0	-2.5	-13.0	-22.9	-44.1	-65.0	-95.1	-158.2	-251.4	-388.8	-601.5	-937.8	-1451.8	37.9	26.9
11-L	53214	16220	-2.1	2.9	3.9	4.9	7.9	12.9	13.8	22.2	29.3	28.9	31.8	29.9	29.9	25.9	18.9	16.4	9.4	-3.3	-13.8	-24.0	-45.4	-66.6	-97.2	-161.1	-255.5	-394.8	-610.5	-951.6	-1472.9	37.7	26.6
12-A	56959	17361	-2.7	2.3	3.3	4.3	7.3	12.3	13.2	21.5	28.5	28.0	30.8	28.7	28.4	24.1	16.6	13.6	6.1	-7.1	-18.3	-29.2	-51.7	-74.6	-107.8	-175.6	-276.3	-425.6	-656.6	-1021.9	-1580.4	36.5	25.1
12-B	55875	17031	-2.5	2.5	3.5	4.5	7.5	12.5	13.4	21.7	28.8	28.3	31.1	29.0	28.9	24.6	17.2	14.4	7.0	-6.0	-17.0	-27.7	-49.9	-72.3	-104.7	-171.4	-270.3	-416.7	-643.3	-1001.6	-1549.3	36.9	25.5
12-C	54951	16749	-2.4	2.6	3.6	4.6	7.6	12.6	13.5	21.9	28.9	28.5	31.4	29.3	29.2	25.1	17.8	15.1	7.9	-5.0	-15.9	-26.4	-48.3	-70.3	-102.1	-167.8	-265.2	-409.1	-631.9	-984.2	-1522.8	37.1	25.9
12-D	54256	16537	-2.3	2.7	3.7	4.7	7.7	12.7	13.6	22.0	29.1	28.7	31.6	29.6	29.5	25.4	18.2	15.6	8.5	-4.3	-15.1	-25.4	-47.2	-68.8	-100.2	-165.1	-261.3	-403.4	-623.3	-971.1	-1502.8	37.4	26.2
12-E	53659	16355	-2.2	2.8	3.8	4.8	7.8	12.8	13.8	22.1	29.2	28.8	31.7	29.8	29.8	25.7	18.6	16.0	9.0	-3.7	-14.4	-24.6	-46.1	-67.6	-98.5	-162.8	-258.0	-398.5	-616.0	-959.9	-1485.7	37.6	26.4
12-F	53359	16264	-2.1	2.9	3.9	4.9	7.9	12.9	13.8	22.2	29.3	28.9	31.8	29.9	29.9	25.9	18.8	16.3	9.3	-3.4	-14.0	-24.2	-45.6	-66.9	-97.6	-161.6	-256.3	-396.0	-612.3	-954.3	-1477.1	37.6	26.6
12-G	53181	16210	-2.1	2.9	3.9	4.9	7.9	12.9	13.8	22.2	29.3	28.9	31.9	29.9	30.0	26.0	18.9	16.4	9.4	-3.2	-13.8	-23.9	-45.3	-66.5	-97.1	-160.9	-255.3	-394.6	-610.1	-951.0	-1472.0	37.7	26.6
12-H	53208	16218	-2.1	2.9	3.9	4.9	7.9	12.9	13.8	22.2	29.3	28.9	31.8	29.9	29.9	25.9	18.9	16.4	9.4	-3.2	-13.8	-24.0	-45.4	-66.6	-97.2	-161.1	-255.5	-394.8	-610.4	-951.5	-1472.7	37.7	26.6
12-I	53455	16293	-2.1	2.9	3.9	4.9	7.9	12.9	13.8	22.2	29.3	28.9	31.8	29.8	29.8	25.8	18.7	16.2	9.2	-3.5	-14.1	-24.3	-45.8	-67.1	-97.9	-162.0	-256.9	-396.8	-613.5	-956.1	-1479.8	37.6	26.5
12-J	53861	16417	-2.2	2.8	3.8	4.8	7.8	12.8	13.7	22.1	29.2	28.8	31.7	29.7	29.7	25.6	18.5	15.9	8.8	-3.9	-14.6	-24.9	-46.5	-68.0	-99.1	-163.6	-259.1	-400.2	-618.5	-963.7	-1491.5	37.5	26.3
12-K	54474	16604	-2.3	2.7	3.7	4.7	7.7	12.7	13.6	22.0	29.0	28.6	31.5	29.5	29.4	25.3	18.1	15.4	8.3	-4.5	-15.3	-25.7	-47.5	-69.3	-100.8	-166.0	-262.5	-405.2	-626.0	-975.2	-1509.1	37.3	26.1
12-L	55245	16839	-2.4	2.6	3.6	4.6	7.6	12.6	13.5	21.8	28.9	28.4	31.3	29.2	29.1	24.9	17.6	14.9	7.6	-5.3	-16.3	-26.8	-48.8	-71.0	-103.0	-168.9	-266.8	-411.5	-635.5	-989.7	-1531.2	37.1	25.8
13-A	58571	17852	-2.9	2.1	3.1	4.1	7.1	12.1	12.9	21.2	28.2	27.7	30.4	28.2	27.8	23.3	15.6	12.4	4.7	-8.7	-20.2	-31.5	-54.5	-78.1	-112.3	-181.8	-285.3	-438.8	-676.5	-1052.2	-1626.7	36.1	24.5
13-B	57531	17535	-2.8	2.2	3.2	4.2	7.2	12.2	13.1	21.4	28.4	27.9	30.7	28.5	28.2	23.8	16.2	13.2	5.6	-7.7	-19.0	-30.0	-52.7	-75.8	-109.4	-177.8	-279.5	-430.3	-663.7	-1032.6	-1596.9	36.4	24.9
13-C	56691	17279	-2.6	2.4	3.4	4.4	7.4	12.4	13.2	21.6	28.6	28.1	30.9	28.8	28.5	24.2	16.7	13.8	6.3	-6.8	-18.0	-28.8	-51.3	-74.1	-107.0	-174.6	-274.8	-423.4	-653.3	-1016.9	-1572.7	36.6	25.2
13-D	56054	17085	-2.5	2.5	3.5	4.5	7.5	12.5	13.3	21.7	28.7	28.2	31.1	29.0	28.8	24.5	17.1	14.3	6.9	-6.2	-17.2	-28.0	-50.2	-72.7	-105.2	-172.1	-271.3	-418.2	-645.5	-1004.9	-1554.4	36.8	25.5
13-F	55244	16838	-2.4	2.6	3.6	4.6	7.6	12.6	13.5	21.8	28.9	28.4	31.3	29.2	29.1	24.9	17.6	14.9	7.6	-5.3	-16.3	-26.8	-48.8	-71.0	-103.0	-168.9	-266.8	-411.5	-635.5	-989.7	-1531.2	37.1	25.8
13-G	55127	16803	-2.4	2.6	3.6	4.6	7.6	12.6	13.5	21.9	28.9	28.5	31.3	29.3	29.2	25.0	17.7	14.9	7.7	-5.2	-16.1	-26.7	-48.6	-70.7	-102.6	-168.5	-266.1	-410.5	-634.1	-987.5	-1527.8	37.1	25.8
13-H	55134	16805	-2.4	2.6	3.6	4.6	7.6	12.6	13.5	21.9	28.9	28.5	31.3	29.3	29.2	25.0	17.7	14.9	7.7	-5.2	-16.1	-26.7	-48.7	-70.7	-102.6	-168.5	-266.2	-410.6	-634.1	-987.6	-1528.0	37.1	25.8
13-I	55447	16900	-2.5	2.5	3.5	4.5	7.5	12.5	13.4	21.8	28.8	28.4	31.2	29.2	29.0	24.8	17.5	14.7	7.4	-5.5	-16.5	-27.1	-49.2	-71.4	-103.5	-169.7	-267.9	-413.2	-638.0	-993.5	-1537.0	37.0	25.7
13-J	55948	17053	-2.5	2.5	3.5	4.5	7.5	12.5	13.3	21.7	28.7	28.3	31.1	29.0	28.8	24.6	17.2	14.3	7.0	-6.1	-17.1	-27.8	-50.0	-72.5	-104.9	-171.7	-270.7	-417.3	-644.2	-1002.9	-1551.4	36.8	25.5
13-K	56551	17237	-2.6	2.4	3.4	4.4	7.4	12.4	13.2	21.6	28.6	28.1	30.9	28.8	28.6	24.3	16.8	13.9	6.5	-6.7	-17.8	-28.6	-51.1	-73.8	-106.6	-174.0	-274.1	-422.2	-651.6	-1014.2	-1568.7	36.7	25.3
13-L	57373	17487	-2.8	2.2	3.2	4.2	7.2	12.2	13.1	21.4	28.5	27.9	30.7	28.5	28.3	23.8	16.3	13.3	5.7	-7.5	-18.8	-29.8	-52.4	-75.5	-109.0	-177.2	-278.6	-429.0	-661.7	-1029.7	-1592.3	36.4	24.9
14-D	57870	17639	-2.8	2.2	3.2	4.2	7.2	12.2	13.0	21.4	28.4	27.8	30.6	28.4	28.1	23.6	16.0	12.9	5.3	-8.0	-19.4	-30.5	-53.3	-76.6	-110.4	-179.1	-281.4	-433.0	-667.8	-1039.0	-1606.6	36.3	24.7
14-E	57433	17506	-2.8	2.2	3.2	4.2	7.2	12.2	13.1	21.4	28.4	27.9	30.7	28.5	28.2	23.8	16.3	13.2	5.7	-7.6	-18.8	-29.9	-52.5	-75.6	-109.1	-177.4	-278.9	-429.5	-662.5	-1030.8	-1594.1	36.4	24.9
14-F	57156	17421	-2.7	2.3	3.3	4.3	7.3	12.3	13.1	21.5	28.5	28.0	30.8	28.6	28.3	24.0	16.5	13.4	5.9	-7.3	-18.5	-29.5	-52.1	-75.0	-108.4	-176.4	-277.4	-427.2	-659.1	-1025.6	-1586.1	36.5	25.0
14-G	57077	17397	-2.7	2.3	3.3	4.3	7.3	12.3	13.1	21.5	28.5	28.0	30.8	28.6	28.4	24.0	16.5	13.5	6.0	-7.2	-18.4	-29.4	-51.9	-74.9	-108.1	-176.0	-277.0	-426.5	-658.1	-1024.1	-1583.8	36.5	25.0
14-H	57182	17429	-2.7	2.3	3.3	4.3	7.3	12.3	13.1	21.5	28.5	28.0	30.8	28.6	28.3	23.9	16.4	13.4	5.9	-7.3	-18.6	-29.5	-52.1	-75.1	-108.4	-176.5	-277.6	-427.4	-659.4	-1026.1	-1586.8	36.5	25.0
14-J	57923	17655	-2.8	2.2	3.2	4.2	7.2	12.2	13.0	21.3	28.3	27.8	30.6	28.4	28.0	23.6	16.0	12.9	5.3	-8.1	-19.4	-30.6	-53.4	-76.7	-110.5	-179.3	-281.7	-433.5	-668.5	-1040.0	-1608.1	36.3	24.7
14-K	58617	17867	-2.9	2.1	3.1	4.1	7.1	12.1	12.9	21.2	28.2	27.7	30.4	28.1	27.8	23.2	15.6	12.4	4.7	-8.8	-20.2	-31.5	-54.5	-78.2	-112.5	-182.0	-285.5	-439.2	-677.0	-1053.0	-1628.1	36.1	24.5
14-L	59442	18118	-3.1	1.9	2.9	3.9	6.9	11.9	12.7	21.1	28.0	27.5	30.2	27.9	27.4	22.8	15.1	11.8	3.9	-9.6	-21.2	-32.7	-55.9	-79.9	-114.8	-185.2	-290.1	-445.9	-687.2	-1068.5	-1651.7	35.8	24.1
15-F	59077	18007	-3.0	2.0	3.0	4.0	7.0	12.0	12.8	21.1	28.1	27.6	30.3	28.0	27.6	23.0	15.3	12.0	4.3	-9.2	-20.8	-32.2	-55.3	-79.1	-113.8	-183.8	-288.1	-442.9	-682.7	-1061.7	-1641.3	35.9	24.3
15-G	59044	17997	-3.0	2.0	3.0	4.0	7.0	12.0	12.8	21.1	28.1	27.6	30.3	28.0	27.6	23.0	15.3	12.1	4.3	-9.2	-20.7	-32.1	-55.3	-79.1	-113.7	-183.7	-287.9	-442.7	-682.3	-1061.0	-1640.3	35.9	24.3
15-H	59210	18047	-3.0	2.0	3.0	4.0	7.0	12.0	12.8	21.1	28.1	27.5	30.2	28.0	27.5	22.9	15.2	11.9	4.1	-9.4	-20.9	-32.4	-55.5	-79.4	-114.1	-184.3	-288.8	-444.0	-684.3	-1064.2	-1645.1	35.9	24.2
15-I	59529	18144	-3.1	1.9	2.9	3.9	6.9	11.9	12.7	21.1	28.0	27.5	30.1	27.9	27.4	22.8	15.0	11.7	3.9	-9.7	-21.3	-32.8	-56.1	-80.1	-115.0	-185.5	-290.6	-446.6	-688.3	-1070.1	-1654.2	35.8	24.1
15-J	59995	18287	-3.1	1.9	2.9	3.9	6.9	11.9	12.7	21.0	27.9	27.4	30.0	27.7	27.2	22.6	14.7	11.4	3.5	-10.2	-21.9	-33.4	-56.9	-81.1	-116.3	-187.3	-293.1	-450.5	-694.0	-1078.9	-1667.6	35.7	23.9
15-K	60660	18489	-3.2	1.8	2.8	3.8	6.8	11.8	12.5	20.9	27.8	27.2	29.8	27.5	27.0	22.2	14.3	10.9	2.9	-10.8	-22.6	-34.4	-58.0	-82.5	-118.2	-189.9	-296.8	-455.9	-702.2	-1091.4	-1686.7	35.5	23.7
16-J	62032	18907	-3.4	1.6	2.6	3.6	6.6	11.6	12.3	20.6	27.5	26.9	29.5	27.1	26.4	21.6	13.5	9.9	1.7	-12.2	-24.3	-36.3	-60.3	-85.4	-122.1	-195.2	-304.4	-467.1	-719.1	-1117.1	-1726.1	35.1	23.2
16-K	62709	19114	-3.5	1.5	2.5	3.5	6.5	11.5	12.2	20.5	27.4	26.8	29.3	26.9	26.2	21.2	13.1	9.4	1.1	-12.9	-25.0	-37.2	-61.4	-86.9	-124.0	-197.8	-308.2	-472.7	-727.4	-1129.8	-1745.5	34.9	22.9
		Minimum:	-3.5	1.5	2.5	3.5	6.5	11.5	12.2	20.5	27.4	26.8	29.3	26.9	26.2	21.2	13.1	9.4	1.1	-12.9	-25.0	-37.2	-61.4	-86.9	-124.0	-197.8	-308.2	-472.7	-727.4	-1129.8	-1745.5	34.9	22.9
		Maximum:	2.4	7.4	8.4	9.4	12.4	17.4	18.8	27.4	34.9	35.1	38.9	38.1	39.8	37.9	33.3	33.5	29.4	19.9	12.9	7.4	-7.7	-19.3	-35.2	-76.4	-134.7	-216.8	-343.7	-545.4	-852.4	46.3	37.9

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Lmax)
FROM PILE DRIVING OF WTG MONOPILES

ODS Report Report no. 00.877, Figure 11, 2dB subtracted across the spectrum to account for peak to Lmax calculation

Sound Pressure Data		34	39	40	41	44	49	51	60	68	69	74	75	79	80	79	83	83	78	76	77	71	73	78	69	62	61	60	56	53	90	88
320 meters from the pile																																
Lmax at 320 meters		32	37	38	39	42	47	49	58	66	67	72	73	77	78	77	81	81	76	74	75	69	71	76	67	60	59	58	54	51	88	86

Data for the graph

Atmos. Absorption per 1 km		0.0000	0.0000	0.0000	0.0000	0.0000	0.0670	0.1050	0.1630	0.2510	0.3810	0.5650	0.8150	1.1300	1.5100	1.9200	2.3600	2.8400	3.3800	4.0800	5.0500	6.5100	8.7500	12.2000	17.7000	26.4000	39.9000	61.1000	93.7000	144.0000		
air temp 59F 70% RH																																

																		Hertz														
	1/3 Octave Bands		16*	20	25	31	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	L	A
	Distance (ft)	Distance (m)																														
1-D	29105	8871	3.1	8.1	9.1	10.1	13.1	18.1	19.6	28.2	35.7	36.0	39.9	39.3	41.2	39.5	35.2	35.7	32.0	22.9	16.2	11.3	-3.0	-13.5	-27.7	-66.2	-120.2	-195.6	-312.1	-497.3	-779.1	47.6	39.7
1-E	29062	8858	3.2	8.2	9.2	10.2	13.2	18.2	19.6	28.3	35.8	36.0	39.9	39.3	41.2	39.5	35.3	35.8	32.0	22.9	16.3	11.3	-3.0	-13.4	-27.6	-66.0	-120.0	-195.2	-311.5	-496.5	-777.9	47.6	39.7
1-F	29352	8946	3.1	8.1	9.1	10.1	13.1	18.1	19.5	28.2	35.7	35.9	39.8	39.2	41.0	39.3	35.0	35.5	31.7	22.6	15.9	10.9	-3.5	-14.1	-28.4	-67.2	-121.6	-197.7	-315.1	-502.0	-786.2	47.5	39.5
1-G	30014	9148	2.9	7.9	8.9	9.9	12.9	17.9	19.3	27.9	35.4	35.7	39.5	38.9	40.7	38.9	34.5	34.9	31.0	21.8	15.0	9.9	-4.7	-15.6	-30.4	-69.8	-125.4	-203.2	-323.4	-514.5	-805.3	47.1	39.1
1-H	30995	9447	2.6	7.6	8.6	9.6	12.6	17.6	19.0	27.6	35.1	35.3	39.1	38.4	40.2	38.3	33.8	34.1	30.1	20.7	13.7	8.4	-6.5	-17.8	-33.3	-73.8	-131.0	-211.4	-335.6	-533.1	-833.6	46.6	38.4
1-I	32248	9829	2.3	7.3	8.3	9.3	12.3	17.3	18.6	27.3	34.7	34.9	38.6	37.9	39.5	37.5	32.9	33.0	28.8	19.2	12.1	6.5	-8.8	-20.7	-37.0	-78.8	-138.1	-221.8	-351.2	-556.7	-869.7	46.0	37.5
1-J	33774	10294	1.9	6.9	7.9	8.9	11.9	16.9	18.2	26.8	34.2	34.3	38.1	37.2	38.7	36.6	31.8	31.7	27.3	17.5	10.1	4.2	-11.5	-24.1	-41.4	-84.8	-146.7	-234.5	-370.1	-585.6	-913.7	45.2	36.6
1-K	35493	10818	1.4	6.4	7.4	8.4	11.4	16.4	17.7	26.3	33.7	33.8	37.4	36.5	37.9	35.6	30.6	30.3	25.6	15.6	7.9	1.6	-14.6	-27.9	-46.4	-91.7	-156.4	-248.7	-391.5	-618.0	-963.3	44.4	35.5
1-L	37522	11437	0.9	5.9	6.9	7.9	10.9	15.9	17.2	25.8	33.1	33.1	36.7	35.7	36.9	34.4	29.2	28.6	23.7	13.4	5.4	-1.4	-18.2	-32.4	-52.3	-99.7	-167.8	-265.5	-416.6	-656.3	-1021.7	43.5	34.3
2-D	31068	9470	2.6	7.6	8.6	9.6	12.6	17.6	19.0	27.6	35.1	35.3	39.1	38.4	40.1	38.2	33.8	34.0	30.0	20.6	13.7	8.2	-6.6	-18.0	-33.5	-74.0	-131.4	-212.0	-336.5	-534.5	-835.7	46.6	38.3
2-E	31077	9472	2.6	7.6	8.6	9.6	12.6	17.6	19.0	27.6	35.1	35.3	39.1	38.4	40.1	38.2	33.8	34.0	30.0	20.6	13.6	8.2	-6.6	-18.0	-33.5	-74.1	-131.4	-212.0	-336.6	-534.6	-836.0	46.6	38.3
2-F	31444	9584	2.5	7.5	8.5	9.5	12.5	17.5	18.9	27.5	35.0	35.1	38.9	38.2	39.9	38.0	33.5	33.7	29.6	20.2	13.2	7.7	-7.3	-18.8	-34.6	-75.6	-133.5	-215.1	-341.2	-541.6	-846.6	46.4	38.1
2-G	32095	9783	2.3	7.3	8.3	9.3	12.3	17.3	18.7	27.3	34.8	34.9	38.7	37.9	39.6	37.6	33.0	33.1	29.0	19.4	12.3	6.7	-8.5	-20.3	-36.5	-78.2	-137.2	-220.5	-349.3	-553.9	-865.4	46.0	37.6
2-H	33051	10074	2.0	7.0	8.0	9.0	12.0	17.0	18.4	27.0	34.4	34.6	38.3	37.5	39.1	37.0	32.3	32.3	28.0	18.3	11.1	5.2	-10.2	-22.5	-39.3	-82.0	-142.6	-228.5	-361.1	-571.9	-892.9	45.6	37.0
2-I	34278	10448	1.7	6.7	7.7	8.7	11.7	16.7	18.0	26.7	34.1	34.2	37.9	37.0	38.5	36.3	31.4	31.3	26.8	17.0	9.5	3.4	-12.4	-25.2	-42.9	-86.8	-149.5	-238.7	-376.4	-595.1	-928.3	45.0	36.3
2-J	35815	10916	1.3	6.3	7.3	8.3	11.3	16.3	17.6	26.2	33.6	33.7	37.3	36.4	37.7	35.4	30.3	30.0	25.3	15.2	7.5	1.1	-15.2	-28.6	-47.4	-92.9	-158.2	-251.4	-395.5	-624.1	-972.5	44.3	35.3
2-K	37497	11429	0.9	5.9	6.9	7.9	10.9	15.9	17.2	25.8	33.1	33.2	36.7	35.7	36.9	34.4	29.2	28.6	23.7	13.4	5.4	-1.4	-18.2	-32.4	-52.3	-99.6	-167.7	-265.3	-416.3	-655.8	-1021.0	43.5	34.3
2-L	39383	12004	0.5	5.5	6.5	7.5	10.5	15.5	16.7	25.3	32.6	32.6	36.1	34.9	36.0	33.3	27.9	27.1	21.9	11.3	3.0	-4.2	-21.5	-36.5	-57.7	-107.0	-178.3	-280.9	-439.7	-691.4	-1075.3	42.7	33.3
3-D	33012	10062	2.0	7.0	8.0	9.0	12.0	17.0	18.4	27.0	34.5	34.6	38.3	37.5	39.1	37.0	32.3	32.3	28.1	18.4	11.1	5.3	-10.1	-22.4	-39.2	-81.8	-142.4	-228.1	-360.7	-571.2	-891.8	45.6	37.1
3-E	33085	10084	2.0	7.0	8.0	9.0	12.0	17.0	18.4	27.0	34.4	34.6	38.3	37.5	39.1	37.0	32.3	32.3	28.0	18.3	11.0	5.2	-10.3	-22.5	-39.4	-82.1	-142.8	-228.7	-361.6	-572.6	-893.9	45.6	37.0
3-F	33471	10202	1.9	6.9	7.9	8.9	11.9	16.9	18.3	26.9	34.3	34.4	38.2	37.3	38.9	36.8	32.0	32.0	27.6	17.9	10.5	4.6	-11.0	-23.4	-40.5	-83.6	-145.0	-232.0	-366.4	-579.9	-905.0	45.4	36.8
3-G	34173	10416	1.7	6.7	7.7	8.7	11.7	16.7	18.1	26.7	34.1	34.2	37.9	37.0	38.5	36.3	31.5	31.4	26.9	17.1	9.6	3.6	-12.2	-25.0	-42.6	-86.4	-148.9	-237.8	-375.1	-593.1	-925.2	45.0	36.3
3-H	35132	10708	1.5	6.5	7.5	8.5	11.5	16.5	17.8	26.4	33.8	33.9	37.6	36.6	38.0	35.8	30.8	30.6	26.0	16.0	8.4	2.1	-14.0	-27.1	-45.4	-90.2	-154.4	-245.7	-387.0	-611.2	-952.9	44.6	35.7
3-I	36350	11079	1.2	6.2	7.2	8.2	11.2	16.2	17.5	26.1	33.5	33.5	37.1	36.1	37.4	35.1	30.0	29.6	24.8	14.7	6.8	0.3	-16.1	-29.8	-48.9	-95.1	-161.2	-255.8	-402.1	-634.2	-987.9	44.0	35.0
3-J	37792	11519	0.9	5.9	6.9	7.9	10.9	15.9	17.1	25.7	33.0	33.1	36.6	35.5	36.7	34.2	29.0	28.4	23.4	13.1	5.0	-1.8	-18.7	-33.0	-53.1	-100.8	-169.3	-267.8	-420.0	-661.4	-1029.5	43.4	34.2
3-K	39488	12036	0.5	5.5	6.5	7.5	10.5	15.5	16.7	25.3	32.6	32.6	36.0	34.9	35.9	33.3	27.8	27.0	21.8	11.2	2.9	-4.3	-21.7	-36.8	-58.0	-107.4	-178.9	-281.8	-441.0	-693.3	-1078.3	42.7	33.2
3-L	41312	12592	0.1	5.1	6.1	7.1	10.1	15.1	16.3	24.8	32.1	32.0	35.4	34.2	35.1	32.2	26.6	25.5	20.1	9.2	0.6	-7.0	-24.9	-40.8	-63.3	-114.6	-189.1	-296.9	-463.5	-727.7	-1130.8	41.9	32.2
4-D	34974	10660	1.5	6.5	7.5	8.5	11.5	16.5	17.9	26.5	33.9	34.0	37.6	36.7	38.1	35.9	30.9	30.7	26.1	16.2	8.6	2.4	-13.7	-26.8	-44.9	-89.6	-153.5	-244.4	-385.0	-608.2	-948.3	44.6	35.8
4-E	35068	10689	1.5	6.5	7.5	8.5	11.5	16.5	17.8	26.4	33.8	33.9	37.6	36.7	38.1	35.8	30.9	30.6	26.1	16.1	8.5	2.2	-13.8	-27.0	-45.2	-90.0	-154.0	-245.2	-386.2	-610.0	-951.0	44.6	35.8
4-F	35529	10829	1.4	6.4	7.4	8.4	11.4	16.4	17.7	26.3	33.7	33.8	37.4	36.5	37.8	35.5	30.5	30.2	25.6	15.6	7.9	1.5	-14.7	-28.0	-46.5	-91.8	-156.6	-249.0	-391.9	-618.7	-964.3	44.4	35.5
4-G	36222	11041	1.2	6.2	7.2	8.2	11.2	16.2	17.5	26.1	33.5	33.6	37.2	36.2	37.5	35.1	30.1	29.7	24.9	14.8	7.0	0.5	-15.9	-29.5	-48.6	-94.5	-160.5	-254.8	-400.5	-631.8	-984.3	44.1	35.1
4-H	37188	11335	1.0	6.0	7.0	8.0	11.0	16.0	17.3	25.9	33.2	33.3	36.8	35.8	37.0	34.6	29.4	28.9	24.0	13.7	5.8	-0.9	-17.6	-31.7	-51.4	-98.4	-165.9	-262.8	-412.5	-650.0	-1012.1	43.6	34.5
4-I	38416	11709	0.7	5.7	6.7	7.7	10.7	15.7	17.0	25.5	32.9	32.9	36.4	35.3	36.5	33.9	28.5	27.9	22.9	12.4	4.2	-2.7	-19.8	-34.4	-54.9	-103.2	-172.9	-272.9	-427.7	-673.1	-1047.4	43.1	33.8
4-J	39850	12146	0.4	5.4	6.4	7.4	10.4	15.4	16.6	25.2	32.5	32.4	35.9	34.7	35.8	33.1	27.6	26.7	21.5	10.8	2.4	-4.8	-22.3	-37.6	-59.1	-108.9	-180.9	-284.8	-445.5	-700.2	-1088.7	42.5	33.0
4-K	41506	12651	0.1	5.1	6.1	7.1	10.1	15.1	16.2	24.8	32.1	32.0	35.4	34.1	35.0	32.1	26.4	25.4	20.0	9.0	0.4	-7.2	-25.2	-41.2	-63.8	-115.4	-190.2	-298.5	-465.9	-731.4	-1136.4	41.8	32.1
4-L	43328	13206	-0.3	4.7	5.7	6.7	9.7	14.7	15.8	24.3	31.6	31.5	34.8	33.4	34.2	31.1	25.2	23.9	18.3	7.1	-1.9	-9.9	-28.4	-45.2	-69.1	-122.5	-200.4	-313.5	-488.5	-765.7	-1188.8	41.1	31.2
5-D	36951	11263	1.1	6.1	7.1	8.1	11.1	16.1	17.3	25.9	33.3	33.3	36.9	35.9	37.2	34.7	29.5	29.1	24.2	14.0	6.1	-0.6	-17.2	-31.2	-50.7	-97.4	-164.6	-260.8	-409.5	-645.5	-1005.2	43.8	34.6
5-E	37120	11314	1.0	6.0	7.0	8.0	11.0	16.0	17.3	25.9	33.2	33.3	36.8	35.8	37.1	34.6	29.4	28.9	24.1	13.8	5.9	-0.8	-17.5	-31.5	-51.2	-98.1	-165.6	-262.2	-411.6	-648.7	-1010.1	43.7	34.5
5-F	37584	11456	0.9	5.9	6.9	7.9	10.9	15.9	17.2	25.8	33.1	33.1	36.7	35.6	36.8	34.3	29.1	28.5	23.6	13.3	5.3	-1.5	-18.3	-32.6	-52.5	-99.9	-168.2	-266.1	-417.4	-657.5	-1023.5	43.5	34.3
5-G	38291	11671	0.8	5.8	6.8	7.8	10.8	15.8	17.0	25.6	32.9	32.9	36.4	35.3	36.5	33.9	28.6	28.0	23.0	12.5	4.4	-2.6	-19.6	-34.1	-54.6	-102.7	-172.2	-271.9	-426.1	-670.8	-1043.8	43.2	33.9
5-H	39252	11964	0.5	5.5	6.5	7.5	10.5	15.5	16.8	25.3	32.6	32.6	36.1	35.0	36.1	33.4	28.0	27.2	22.1	11.5	3.2	-4.0	-21.3	-36.3	-57.3	-106.5	-177.6	-279.9	-438.1	-688.9	-1071.5	42.8	33.3
5-I	40417	12319	0.3	5.3	6.3	7.3	10.3	15.3	16.5	25.0	32.3	32.3	35.7	34.5	35.5	32.7	27.2	26.3	21.0	10.2	1.7	-5.7	-23.3	-38.8	-60.7	-111.1	-184.1	-289.5	-452.5	-710.8	-1105.0	42.3	32.7
5-J	41879	12765	0.0	5.0	6.0	7.0	10.0	15.0	16.1	24.7	32.0	31.9	35.2	34.0	34.8	31.9	26.2	25.1	19.6	8.6	-0.1	-7.8	-25.9	-42.0	-64.9	-116.8	-192.3	-301.6	-470.6	-738.4	-1147.1	41.7	31.9
6-D	38939	11869	0.6	5.6	6.6	7.6	10.6	15.6	16.8	25.4	32.7	32.7	36.2	35.1	36.2	33.6	28.2	27.4	22.4	11.8	3.6	-3.5	-20.7	-35.6	-56.4	-105.3	-175.8	-277.3	-434.2	-683.0	-1062.5	42.9	33.5
6-E	39155	11935	0.6	5.6	6.6	7.6	10.6	15.6	16.8	25.3	32.7	32.7	36.1	35.0	36.1	33.4	28.0	27.3	22.2	11.6	3.3	-3.8	-21.1	-36.0	-57.1	-106.1	-177.0	-279.1	-436.9	-687.1	-1068.7	42.8	33.4
6-G	40306	12285	0.3	5.3	6.3	7.3	10.3	15.3	16.5	25.1	32.4	32.3	35.8	34.6	35.6	32.8	27.2	26.3	21.1	10.3	1.9	-5.5	-23.1	-38.6	-60.4	-110.7	-183.5	-288.6	-451.1	-708.8	-1101.8	42.3	32.8
6-H	41274	12580	0.1	5.1	6.1	7.1	10.1	15.1	16.3	24.8	32.1	32.0	35.4	34.2	35.1	32.3	26.6	25.6	20.2	9.3	0.7	-6.9	-24.8	-40.7	-63.2	-114.5	-188.9	-296.6	-463.1	-727.0	-1129.7	41.9	32.2
6-I	42480	12948	-0.1	4.9	5.9	6.9	9.9	14.9	16.0	24.5	31.8	31.7	35.0	33.7	34.6	31.6	25.8	24.6	19.1	8.0	-0.8	-8.7	-26.9	-43.3	-66.6	-119.2	-195.7	-306.5	-478.0	-749.7	-1164.4	41.5	31.6
6-J	43922	13388	-0.4	4.6	5.6	6.6	9.6	14.6	15.7	24.2	31.4	31.3	34.6	33.2	33.9	30.8	24.8	23.5	17.7	6.5	-2.6	-10.7	-29.4	-46.5	-70.8	-124.9	-203.7	-318.4	-495.8	-776.9	-1205.9	40.9	30.9
7-B	41118	12533	0.1	5.1	6.1	7.1	10.1	15.1	16.3	24.9	32.2	32.1	35.5	34.2	35.2	32.3	26.7	25.7	20.3	9.5	0.9	-6.7	-24.5	-40.4	-62.7	-113.9	-188.0	-295.3	-461.1	-724.1	-1125.2	42.0	32.3
7-C	40867	12456	0.2	5.2	6.2	7.2	10.2	15.2	16.4	24.9	32.2	32.1	35.6	34.3	35.3	32.5	26.9	25.9	20.6	9.7	1.2	-6.3	-24.1	-39.8	-62.0	-112.9	-186.6	-293.2	-458.0	-719.3	-1118.0	42.1	32.4
7-E	41156	12544	0.1	5.1	6.1	7.1	10.1	15.1	16.3	24.9	32.1	32.1	35.5	34.2	35.2	32.3	26.7	25.7	20.3	9.4	0.8	-6.7	-24.6	-40.4	-62.8	-114.0	-188.2	-295.6	-461.6	-724.8	-1126.3	42.0	32.3
7-F	41659	12698	0.0	5.0	6.0	7.0	10.0	15.0	16.2	24.7	32.0	31.9	35.3	34.0	34.9	32.0	26.3	25.3	19.8	8.9	0.2	-7.5	-25.5	-41.5	-64.3	-116.0	-191.1	-299.7	-467.8	-734.2	-1140.8	41.8	32.0
7-G	42400	12923	-0.1	4.9	5.9	6.9	9.9	14.9	16.0	24.6	31.8	31.7	35.1	33.8	34.6	31.6	25.8	24.7	19.1	8.1	-0.7	-8.5	-26.8	-43.2	-66.4	-118.9	-195.2	-305.9	-477.0	-748.2	-1162.1	41.5	31.6
7-H	43381	13223	-0.3	4.7	5.7	6.7	9.7	14.7	15.8	24.3	31.6	31.4	34.8	33.4	34.2	31.1	25.2	23.9	18.2	7.0	-1.9	-10.0	-28.5	-45.3	-69.2	-122.7	-200.7	-314.0	-489.1	-766.7	-1190.3	41.1	31.1
7-I	44562	13582	-0.6	4.4	5.4	6.4	9.4	14.4	15.6	24.1	31.3	31.1	34.4	33.0	33.6	30.5	24.4	23.0	17.1	5.8	-3.4	-11.7	-30.5	-47.9	-72.6	-127.4	-207.3	-323.7	-503.7	-788.9	-1224.3	40.7	30.5
8-A	43443	13241	-0.3	4.7	5.7	6.7	9.7	14.7	15.8	24.3	31.6	31.4	34.7	33.4	34.1	31.1	25.2	23.9	18.2	7.0	-2.0	-10.1	-28.6	-45.5	-69.4	-123.0	-201.0	-314.5	-489.9	-767.8	-1192.1	41.1	31.1
8-B	43010	13110	-0.2	4.8	5.8	6.8	9.8	14.8	15.9	24.4	31.7	31.5	34.9	33.5	34.3	31.3	25.4	24.2	18.6	7.4	-1.5	-9.4	-27.8	-44.5	-68.2	-121.3	-198.6	-310.9	-484.6	-759.7	-1179.6	41.3	31.3
8-C	42820	13051	-0.2	4.8	5.8	6.8	9.8	14.8	15.9	24.5	31.7	31.6	34.9	33.6	34.4	31.4	25.6	24.3	18.7	7.6	-1.2	-9.2	-27.5	-44.1	-67.6	-120.5	-197.6	-309.3	-482.2	-756.1	-1174.2	41.3	31.4
8-D	42881	13070	-0.2	4.8	5.8	6.8	9.8	14.8	15.9	24.4	31.7	31.6	34.9	33.6	34.4	31.4	25.5	24.3	18.7	7.6	-1.3	-9.2	-27.6	-44.2	-67.8	-120.8	-197.9	-309.8	-482.9	-757.3	-1175.9	41.3	31.4
8-F	43683	13315	-0.4	4.6	5.6	6.6	9.6	14.6	15.7	24.3	31.5	31.4	34.7	33.3	34.0	30.9	25.0	23.7	17.9	6.7	-2.3	-10.4	-29.0	-46.0	-70.1	-123.9	-202.4	-316.4	-492.9	-772.4	-1199.0	41.0	31.0

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Lmax)
FROM PILE DRIVING OF WTG MONOPILES

8-G	44513	13568	-0.5	4.5	5.5	6.5	9.5	14.5	15.6	24.1	31.3	31.1	34.4	33.0	33.7	30.5	24.4	23.0	17.2	5.8	-3.3	-11.6	-30.4	-47.8	-72.5	-127.2	-207.0	-323.3	-503.1	-788.0	-1222.9	40.7	30.6
8-H	45463	13857	-0.7	4.3	5.3	6.3	9.3	14.3	15.4	23.8	31.1	30.9	34.1	32.6	33.2	30.0	23.8	22.3	16.3	4.8	-4.5	-13.0	-32.1	-49.9	-75.2	-130.9	-212.3	-331.1	-514.9	-805.8	-1250.1	40.3	30.1
9-A	45248	13792	-0.7	4.3	5.3	6.3	9.3	14.3	15.4	23.9	31.1	30.9	34.2	32.7	33.3	30.1	24.0	22.4	16.5	5.1	-4.2	-12.7	-31.7	-49.4	-74.6	-130.0	-211.1	-329.3	-512.2	-801.8	-1244.0	40.4	30.2
9-B	44882	13680	-0.6	4.4	5.4	6.4	9.4	14.4	15.5	24.0	31.2	31.0	34.3	32.8	33.5	30.3	24.2	22.7	16.9	5.4	-3.8	-12.1	-31.1	-48.6	-73.5	-128.6	-209.1	-326.3	-507.7	-794.9	-1233.4	40.5	30.4
9-C	44748	13639	-0.6	4.4	5.4	6.4	9.4	14.4	15.5	24.0	31.2	31.1	34.3	32.9	33.6	30.4	24.3	22.8	17.0	5.6	-3.6	-11.9	-30.9	-48.3	-73.1	-128.1	-208.3	-325.2	-506.0	-792.4	-1229.6	40.6	30.5
9-D	44885	13681	-0.6	4.4	5.4	6.4	9.4	14.4	15.5	24.0	31.2	31.0	34.3	32.8	33.5	30.3	24.2	22.7	16.8	5.4	-3.8	-12.1	-31.1	-48.6	-73.5	-128.6	-209.1	-326.4	-507.7	-795.0	-1233.5	40.5	30.4
9-E	45191	13774	-0.7	4.3	5.3	6.3	9.3	14.3	15.4	23.9	31.1	30.9	34.2	32.7	33.4	30.1	24.0	22.5	16.6	5.1	-4.2	-12.6	-31.6	-49.3	-74.4	-129.8	-210.8	-328.9	-511.5	-800.7	-1242.4	40.4	30.2
9-F	45751	13945	-0.8	4.2	5.2	6.2	9.2	14.2	15.3	23.8	31.0	30.8	34.0	32.5	33.1	29.8	23.6	22.1	16.1	4.5	-4.8	-13.4	-32.6	-50.5	-76.0	-132.0	-213.9	-333.5	-518.4	-811.3	-1258.4	40.2	30.0
9-G	46530	14182	-0.9	4.1	5.1	6.1	9.1	14.1	15.1	23.6	30.8	30.6	33.8	32.2	32.8	29.4	23.1	21.5	15.4	3.7	-5.8	-14.5	-33.9	-52.2	-78.2	-135.1	-218.3	-339.9	-528.0	-825.9	-1280.8	39.9	29.6
9-H	47536	14489	-1.1	3.9	4.9	5.9	8.9	13.9	14.9	23.4	30.6	30.3	33.5	31.9	32.3	28.9	22.5	20.7	14.4	2.6	-7.0	-15.9	-35.7	-54.4	-81.1	-139.0	-223.9	-348.2	-540.5	-844.8	-1309.7	39.6	29.1
9-I	48685	14839	-1.3	3.7	4.7	5.7	8.7	13.7	14.7	23.2	30.3	30.0	33.1	31.5	31.8	28.3	21.8	19.8	13.4	1.4	-8.4	-17.6	-37.6	-56.8	-84.4	-143.5	-230.3	-357.6	-554.6	-866.4	-1342.8	39.2	28.6
10-A	47074	14348	-1.0	4.0	5.0	6.0	9.0	14.0	15.0	23.5	30.7	30.4	33.6	32.0	32.5	29.1	22.8	21.0	14.9	3.1	-6.4	-15.3	-34.9	-53.4	-79.8	-137.2	-221.3	-344.4	-534.8	-836.2	-1296.5	39.7	29.3
10-B	46806	14266	-1.0	4.0	5.0	6.0	9.0	14.0	15.1	23.6	30.7	30.5	33.7	32.1	32.7	29.3	23.0	21.2	15.1	3.4	-6.1	-14.9	-34.4	-52.8	-79.0	-136.1	-219.8	-342.2	-531.4	-831.1	-1288.8	39.8	29.5
10-C	46721	14241	-1.0	4.0	5.0	6.0	9.0	14.0	15.1	23.6	30.8	30.5	33.7	32.2	32.7	29.3	23.0	21.3	15.2	3.5	-6.0	-14.8	-34.3	-52.6	-78.8	-135.8	-219.4	-341.5	-530.4	-829.5	-1286.3	39.9	29.5
10-D	46847	14279	-1.0	4.0	5.0	6.0	9.0	14.0	15.1	23.5	30.7	30.5	33.7	32.1	32.6	29.2	22.9	21.2	15.1	3.4	-6.2	-14.9	-34.5	-52.9	-79.1	-136.3	-220.1	-342.5	-532.0	-831.9	-1289.9	39.8	29.4
10-E	47207	14389	-1.1	3.9	4.9	5.9	8.9	13.9	15.0	23.5	30.6	30.4	33.6	32.0	32.5	29.0	22.7	20.9	14.7	3.0	-6.6	-15.5	-35.1	-53.6	-80.2	-137.7	-222.1	-345.5	-536.4	-838.7	-1300.3	39.7	29.3
10-F	47778	14563	-1.2	3.8	4.8	5.8	8.8	13.8	14.9	23.3	30.5	30.3	33.4	31.8	32.2	28.7	22.3	20.5	14.2	2.4	-7.3	-16.3	-36.1	-54.9	-81.8	-139.9	-225.3	-350.2	-543.4	-849.4	-1316.7	39.5	29.0
10-G	48564	14802	-1.3	3.7	4.7	5.7	8.7	13.7	14.7	23.2	30.3	30.1	33.2	31.5	31.9	28.3	21.8	19.9	13.5	1.6	-8.3	-17.4	-37.4	-56.6	-84.0	-143.0	-229.6	-356.6	-553.2	-864.2	-1339.3	39.2	28.6
10-H	49583	15113	-1.5	3.5	4.5	5.5	8.5	13.5	14.5	23.0	30.1	29.8	32.9	31.2	31.5	27.8	21.2	19.1	12.6	0.5	-9.5	-18.8	-39.2	-58.8	-86.9	-147.0	-235.3	-365.0	-565.7	-883.3	-1368.6	38.9	28.2
10-I	50834	15494	-1.7	3.3	4.3	5.3	8.3	13.3	14.3	22.7	29.8	29.5	32.5	30.7	30.9	27.2	20.4	18.2	11.5	-0.8	-11.0	-20.6	-41.3	-61.5	-90.5	-151.8	-242.3	-375.3	-581.1	-906.8	-1404.5	38.5	27.6
11-A	48974	14927	-1.4	3.6	4.6	5.6	8.6	13.6	14.6	23.1	30.2	30.0	33.1	31.4	31.7	28.1	21.6	19.6	13.1	1.1	-8.7	-18.0	-38.1	-57.5	-85.2	-144.6	-231.9	-360.0	-558.2	-871.9	-1351.1	39.1	28.5
11-B	48725	14851	-1.3	3.7	4.7	5.7	8.7	13.7	14.7	23.1	30.3	30.0	33.1	31.5	31.8	28.2	21.7	19.8	13.4	1.4	-8.4	-17.6	-37.7	-56.9	-84.5	-143.6	-230.5	-358.0	-555.1	-867.2	-1343.9	39.2	28.6
11-C	48663	14832	-1.3	3.7	4.7	5.7	8.7	13.7	14.7	23.2	30.3	30.0	33.1	31.5	31.9	28.3	21.8	19.8	13.4	1.5	-8.4	-17.5	-37.6	-56.8	-84.3	-143.4	-230.2	-357.4	-554.4	-866.0	-1342.1	39.2	28.6
11-D	48902	14905	-1.4	3.6	4.6	5.6	8.6	13.6	14.7	23.1	30.3	30.0	33.1	31.4	31.7	28.2	21.6	19.6	13.2	1.2	-8.7	-17.9	-38.0	-57.3	-85.0	-144.3	-231.5	-359.4	-557.3	-870.5	-1349.0	39.1	28.5
11-E	49230	15005	-1.4	3.6	4.6	5.6	8.6	13.6	14.6	23.0	30.2	29.9	33.0	31.3	31.6	28.0	21.4	19.4	12.9	0.9	-9.1	-18.3	-38.6	-58.0	-85.9	-145.6	-233.4	-362.1	-561.4	-876.7	-1358.4	39.0	28.3
11-F	49859	15197	-1.5	3.5	4.5	5.5	8.5	13.5	14.5	22.9	30.0	29.7	32.8	31.1	31.3	27.7	21.0	18.9	12.4	0.2	-9.8	-19.2	-39.7	-59.4	-87.7	-148.0	-236.9	-367.3	-569.1	-888.5	-1376.5	38.8	28.1
11-G	50633	15433	-1.7	3.3	4.3	5.3	8.3	13.3	14.3	22.7	29.9	29.5	32.6	30.8	31.0	27.3	20.5	18.3	11.7	-0.6	-10.7	-20.3	-41.0	-61.1	-89.9	-151.0	-241.2	-373.6	-578.7	-903.1	-1398.8	38.5	27.7
11-H	51615	15732	-1.8	3.2	4.2	5.2	8.2	13.2	14.1	22.5	29.7	29.3	32.3	30.5	30.6	26.8	19.9	17.6	10.8	-1.6	-11.9	-21.7	-42.7	-63.2	-92.7	-154.9	-246.6	-381.7	-590.8	-921.5	-1427.0	38.2	27.3
11-K	55661	16966	-2.5	2.5	3.5	4.5	7.5	12.5	13.4	21.8	28.8	28.3	31.2	29.1	28.9	24.7	17.4	14.6	7.2	-5.8	-16.8	-27.4	-49.5	-71.9	-104.1	-170.6	-269.1	-414.9	-640.6	-997.5	-1543.2	36.9	25.6
11-L	57246	17449	-2.7	2.3	3.3	4.3	7.3	12.3	13.1	21.5	28.5	28.0	30.7	28.6	28.3	23.9	16.4	13.4	5.8	-7.4	-18.6	-29.6	-52.2	-75.2	-108.6	-176.7	-277.9	-427.9	-660.2	-1027.3	-1588.7	36.5	25.0
12-A	50852	15500	-1.7	3.3	4.3	5.3	8.3	13.3	14.3	22.7	29.8	29.5	32.5	30.7	30.9	27.1	20.4	18.2	11.5	-0.8	-11.0	-20.6	-41.4	-61.5	-90.5	-151.9	-242.4	-375.4	-581.4	-907.2	-1405.0	38.5	27.6
12-B	50653	15439	-1.7	3.3	4.3	5.3	8.3	13.3	14.3	22.7	29.9	29.5	32.6	30.8	31.0	27.2	20.5	18.3	11.6	-0.6	-10.8	-20.4	-41.0	-61.1	-90.0	-151.1	-241.3	-373.8	-578.9	-903.5	-1399.3	38.5	27.7
12-C	50641	15435	-1.7	3.3	4.3	5.3	8.3	13.3	14.3	22.7	29.9	29.5	32.6	30.8	31.0	27.3	20.5	18.3	11.7	-0.6	-10.8	-20.3	-41.0	-61.1	-89.9	-151.1	-241.2	-373.7	-578.8	-903.2	-1399.0	38.5	27.7
12-D	50896	15513	-1.7	3.3	4.3	5.3	8.3	13.3	14.3	22.7	29.8	29.5	32.5	30.7	30.9	27.1	20.3	18.1	11.4	-0.9	-11.1	-20.7	-41.4	-61.6	-90.7	-152.1	-242.6	-375.8	-581.9	-908.0	-1406.3	38.4	27.6
12-E	51242	15619	-1.8	3.2	4.2	5.2	8.2	13.2	14.2	22.6	29.7	29.4	32.4	30.6	30.8	26.9	20.1	17.9	11.1	-1.2	-11.5	-21.2	-42.0	-62.4	-91.6	-153.4	-244.6	-378.7	-586.2	-914.5	-1416.3	38.3	27.5
12-F	51906	15821	-1.9	3.1	4.1	5.1	8.1	13.1	14.1	22.5	29.6	29.2	32.2	30.4	30.5	26.6	19.7	17.4	10.5	-1.9	-12.3	-22.1	-43.2	-63.8	-93.5	-156.0	-248.2	-384.1	-594.4	-927.0	-1435.3	38.1	27.2
12-G	52703	16064	-2.0	3.0	4.0	5.0	8.0	13.0	13.9	22.3	29.4	29.0	32.0	30.1	30.2	26.2	19.2	16.8	9.8	-2.7	-13.2	-23.2	-44.5	-65.5	-95.8	-159.1	-252.7	-390.6	-604.2	-942.0	-1458.2	37.9	26.8
12-H	53663	16357	-2.2	2.8	3.8	4.8	7.8	12.8	13.8	22.1	29.2	28.8	31.7	29.8	29.8	25.7	18.6	16.0	9.0	-3.7	-14.4	-24.6	-46.2	-67.6	-98.5	-162.8	-258.0	-398.5	-616.0	-960.0	-1485.8	37.5	26.4
12-I	54862	16722	-2.4	2.6	3.6	4.6	7.6	12.6	13.5	21.9	29.0	28.5	31.4	29.4	29.3	25.1	17.9	15.1	7.9	-4.9	-15.8	-26.3	-48.2	-70.1	-101.9	-167.5	-264.7	-408.4	-630.8	-982.5	-1520.2	37.2	25.9
12-J	56166	17119	-2.6	2.4	3.4	4.4	7.4	12.4	13.3	21.7	28.7	28.2	31.0	28.9	28.7	24.4	17.1	14.2	6.8	-6.3	-17.3	-28.1	-50.4	-72.9	-105.6	-172.5	-271.9	-419.1	-646.9	-1007.0	-1557.7	36.8	25.4
12-K	57637	17568	-2.8	2.2	3.2	4.2	7.2	12.2	13.1	21.4	28.4	27.9	30.6	28.5	28.2	23.7	16.2	13.1	5.5	-7.8	-19.1	-30.2	-52.9	-76.1	-109.7	-178.2	-280.1	-431.1	-665.0	-1034.6	-1599.9	36.3	24.8
12-L	59221	18051	-3.0	2.0	3.0	4.0	7.0	12.0	12.8	21.1	28.1	27.5	30.2	28.0	27.5	22.9	15.2	11.9	4.1	-9.4	-21.0	-32.4	-55.6	-79.5	-114.2	-184.3	-288.9	-444.1	-684.5	-1064.4	-1645.4	35.9	24.2
13-A	52743	16076	-2.0	3.0	4.0	5.0	8.0	13.0	13.9	22.3	29.4	29.0	32.0	30.1	30.1	26.2	19.2	16.7	9.8	-2.8	-13.3	-23.3	-44.6	-65.6	-95.9	-159.2	-252.9	-391.0	-604.7	-942.7	-1459.4	37.8	26.8
13-B	52573	16024	-2.0	3.0	4.0	5.0	8.0	13.0	14.0	22.4	29.4	29.1	32.0	30.1	30.2	26.3	19.3	16.9	9.9	-2.6	-13.1	-23.1	-44.3	-65.2	-95.4	-158.6	-252.0	-389.6	-602.6	-939.5	-1454.5	37.9	26.9
13-C	52615	16037	-2.0	3.0	4.0	5.0	8.0	13.0	13.9	22.4	29.4	29.1	32.0	30.1	30.2	26.2	19.3	16.8	9.9	-2.6	-13.1	-23.1	-44.4	-65.3	-95.5	-158.7	-252.2	-389.9	-603.1	-940.3	-1455.7	37.9	26.9
13-D	52905	16126	-2.0	3.0	4.0	5.0	8.0	13.0	13.9	22.3	29.4	29.0	31.9	30.0	30.1	26.1	19.1	16.6	9.7	-2.9	-13.5	-23.5	-44.9	-65.9	-96.3	-159.9	-253.8	-392.3	-606.7	-945.8	-1464.0	37.8	26.7
13-F	53948	16443	-2.2	2.8	3.8	4.8	7.8	12.8	13.7	22.1	29.2	28.7	31.6	29.7	29.6	25.6	18.4	15.8	8.7	-4.0	-14.7	-25.0	-46.6	-68.2	-99.3	-163.9	-259.6	-400.9	-619.5	-965.4	-1494.0	37.5	26.3
13-G	54758	16690	-2.3	2.7	3.7	4.7	7.7	12.7	13.6	21.9	29.0	28.5	31.4	29.4	29.3	25.2	17.9	15.2	8.0	-4.8	-15.7	-26.1	-48.0	-69.9	-101.6	-167.1	-264.1	-407.5	-629.5	-980.6	-1517.2	37.2	26.0
13-H	55669	16968	-2.5	2.5	3.5	4.5	7.5	12.5	13.4	21.8	28.8	28.3	31.2	29.1	28.9	24.7	17.4	14.5	7.2	-5.8	-16.8	-27.4	-49.6	-71.9	-104.2	-170.6	-269.2	-415.0	-640.7	-997.7	-1543.4	36.9	25.6
13-I	56896	17342	-2.7	2.3	3.3	4.3	7.3	12.3	13.2	21.5	28.5	28.0	30.8	28.7	28.4	24.1	16.6	13.6	6.1	-7.0	-18.2	-29.1	-51.6	-74.5	-107.6	-175.3	-276.0	-425.1	-655.9	-1020.7	-1578.6	36.6	25.1
13-J	58254	17756	-2.9	2.1	3.1	4.1	7.1	12.1	12.9	21.3	28.3	27.7	30.5	28.3	27.9	23.4	15.8	12.6	5.0	-8.4	-19.8	-31.0	-53.9	-77.4	-111.4	-180.6	-283.5	-436.2	-672.6	-1046.2	-1617.6	36.2	24.6
13-K	59682	18191	-3.1	1.9	2.9	3.9	6.9	11.9	12.7	21.0	28.0	27.4	30.1	27.8	27.3	22.7	14.9	11.6	3.7	-9.8	-21.5	-33.0	-56.3	-80.4	-115.5	-186.1	-291.4	-447.9	-690.2	-1073.0	-1658.6	35.7	24.0
13-L	61305	18686	-3.3	1.7	2.7	3.7	6.7	11.7	12.4	20.7	27.7	27.1	29.7	27.3	26.7	21.9	13.9	10.4	2.3	-11.5	-23.4	-35.3	-59.1	-83.9	-120.0	-192.4	-300.4	-461.2	-710.1	-1103.5	-1705.2	35.3	23.4
14-D	54914	16738	-2.4	2.6	3.6	4.6	7.6	12.6	13.5	21.9	29.0	28.5	31.4	29.4	29.2	25.1	17.8	15.1	7.9	-5.0	-15.9	-26.4	-48.3	-70.3	-102.0	-167.7	-265.0	-408.8	-631.4	-983.5	-1521.7	37.2	25.9
14-E	55357	16873	-2.4	2.6	3.6	4.6	7.6	12.6	13.5	21.8	28.9	28.4	31.3	29.2	29.1	24.9	17.6	14.8	7.5	-5.5	-16.4	-27.0	-49.0	-71.2	-103.3	-169.4	-267.4	-412.4	-636.9	-991.8	-1534.4	37.0	25.7
14-F	55996	17068	-2.5	2.5	3.5	4.5	7.5	12.5	13.3	21.7	28.7	28.3	31.1	29.0	28.8	24.5	17.2	14.3	6.9	-6.1	-17.1	-27.9	-50.1	-72.6	-105.1	-171.9	-271.0	-417.7	-644.8	-1003.8	-1552.8	36.8	25.5
14-G	56807	17315	-2.7	2.3	3.3	4.3	7.3	12.3	13.2	21.6	28.6	28.1	30.9	28.7	28.5	24.1	16.7	13.7	6.2	-6.9	-18.1	-29.0	-51.5	-74.3	-107.4	-175.0	-275.5	-424.3	-654.8	-1019.0	-1576.1	36.6	25.2
14-H	57792	17615	-2.8	2.2	3.2	4.2	7.2	12.2	13.0	21.4	28.4	27.8	30.6	28.4	28.1	23.6	16.1	13.0	5.4	-7.9	-19.3	-30.4	-53.2	-76.4	-110.1	-178.8	-280.9	-432.4	-666.9	-1037.5	-1604.4	36.3	24.8
14-J	60238	18360	-3.2	1.8	2.8	3.8	6.8	11.8	12.6	20.9	27.9	27.3	30.0	27.6	27.1	22.4	14.6	11.2	3.2	-10.4	-22.2	-33.8	-57.3	-81.6	-117.0	-188.3	-294.5	-452.4	-697.0	-1083.4	-1674.6	35.6	23.8
14-K	61740	18818	-3.4	1.6	2.6	3.6	6.6	11.6	12.4	20.7	27.6	27.0	29.6	27.2	26.5	21.7	13.7	10.1	2.0	-11.9	-23.9	-35.9	-59.8	-84.8	-121.3	-194.1	-302.8	-464.7	-715.5	-1111.6	-1717.7	35.2	23.3
14-L	63336	19305	-3.6	1.4	2.4	3.4	6.4	11.4	12.1	20.4	27.3	26.6	29.2	26.7	25.9	20.9	12.7	8.9	0.6	-13.5	-25.8	-38.1	-62.5	-88.2	-125.7	-200.2	-311.6	-477.8	-735.1	-1141.6	-1763.5	34.7	22.7
15-F	58039	17690	-2.9	2.1	3.1	4.1	7.1	12.1	13.0	21.3	28.3	27.8	30.5	28.3	28.0	23.5	15.9	12.8	5.2	-8.2	-19.6	-30.7	-53.6	-76.9	-110.8	-179.8	-282.3	-434.4	-669.9	-1042.2	-1611.4	36.2	24.7
15-G	58884	17948	-3.0	2.0	3.0	4.0	7.0	12.0	12.8	21.2	28.1	27.6	30.3	28.1	27.7	23.1	15.4	12.2	4.4	-9.0	-20.6	-31.9	-55.0	-78.7	-113.2	-183.0	-287.0	-441.3	-680.3	-1058.0	-1635.7	36.0	24.3
15-H	59882	18252	-3.1	1.9	2.9	3.9	6.9	11.9	12.7	21.0	28.0	27.4	30.0	27.7	27.3	22.6	14.8	11.4	3.6	-10.1	-21.7	-33.3	-56.7	-80.9	-116.0	-186.9	-292.5	-449.5	-692.6	-1076.8	-1664.4	35.7	24.0
15-I	61040	18605	-3.3	1.7	2.7	3.7	6.7	11.7	12.5	20.8	27.7	27.1	29.7	27.4	26.8	22.0	14.1	10.6	2.6	-11.2	-23.1	-34.9	-58.6	-83.3	-119.3	-191.4	-298.9	-459.0	-706.9	-1098.5	-1697.6	35.4	23.5
15-J	62312	18993	-3.5	1.5	2.5	3.5	6.5	11.5	12.3	20.6	27.5	26.8	29.4	27.0	26.3	21.4	13.3	9.7	1.5	-12.5	-24.6	-36.7	-60.8	-86.0	-122.9	-196.3	-306.0	-469.4	-722.5	-1122.4	-1734.1	35.0	23.1
15-K	63759	19434	-3.7	1.3	2.3	3.3	6.3	11.3	12.1	20.3	27.2	26.5	29.0	26.5	25.8	20.7	12.5	8.6	0.2	-14.0	-26.3	-38.7	-63.2	-89.1	-126.9	-201.9	-314.0	-481.3	-740.3	-1149.5	-1775.6	34.6	22.6
16-J	64355	19616	-3.7	1.3	2.3	3.3	6.3	11.3	12.0	20.2	27.1	26.4	28.9	26.3	25.5	20.4	12.1	8.2	-0.3	-14.5	-27.0	-39.5	-64.2	-90.4	-128.6	-204.2	-317.3	-486.2	-747.6	-1160.7	-1792.7	34.5	22.3
16-K	65789	20052	-3.9	1.1	2.1	3.1	6.1	11.1	11.7	20.0	26.8	26.1	28.5	25.9	25.0	19.8	11.3	7.2	-1.5	-16.0	-28.6	-41.4	-66.6	-93.4	-132.6	-209.7	-325.2	-497.9	-765.3	-1187.6	-1833.9	34.1	21.9
		Minimum:	-3.9	1.1	2.1	3.1	6.1	11.1	11.7	20.0	26.8	26.1	28.5	25.9	25.0	19.8	11.3	7.2	-1.5	-16.0	-28.6	-41.4	-66.6	-93.4	-132.6	-209.7	-325.2	-497.9	-765.3	-1187.6	-1833.9	34.1	21.9
		Maximum:	3.2	8.2	9.2	10.2	13.2	18.2	19.6	28.3	35.8	36.0	39.9	39.3	41.2	39.5	35.3	35.8	32.0	22.9	16.3	11.3	-3.0	-13.4	-27.6	-66.0	-120.0	-195.2	-311.5	-496.5	-777.9	47.6	39.7

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Lmax)
FROM PILE DRIVING OF WTG MONOPILES

ODS Report Report no. 00.877, Figure 11, 2dB subtracted across the spectrum to account for peak to Lmax calculation

Sound Pressure Data		34	39	40	41	44	49	51	60	68	69	74	75	79	80	79	83	83	78	76	77	71	73	78	69	62	61	60	56	53	90	88
320 meters from the pile																																
Lmax at 320 meters		32	37	38	39	42	47	49	58	66	67	72	73	77	78	77	81	81	76	74	75	69	71	76	67	60	59	58	54	51	88	86

Data for the graph

Atmos. Absorption per 1 km		0.0000	0.0000	0.0000	0.0000	0.0000	0.0670	0.1050	0.1630	0.2510	0.3810	0.5650	0.8150	1.1300	1.5100	1.9200	2.3600	2.8400	3.3800	4.0800	5.0500	6.5100	8.7500	12.2000	17.7000	26.4000	39.9000	61.1000	93.7000	144.0000		
air temp 59F 70% RH																																

																		Hertz														
	1/3 Octave Bands		16*	20	25	31	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	L	A
	Distance (ft)	Distance (m)																														
1-D	29563	9011	3.0	8.0	9.0	10.0	13.0	18.0	19.4	28.1	35.6	35.8	39.7	39.1	40.9	39.2	34.9	35.3	31.5	22.3	15.6	10.5	-3.9	-14.6	-29.0	-68.0	-122.8	-199.4	-317.8	-506.0	-792.3	47.4	39.4
1-E	31622	9638	2.4	7.4	8.4	9.4	12.4	17.4	18.8	27.4	34.9	35.1	38.9	38.2	39.8	37.9	33.4	33.5	29.4	20.0	12.9	7.4	-7.6	-19.2	-35.1	-76.3	-134.5	-216.6	-343.4	-544.9	-851.7	46.3	38.0
1-F	33848	10317	1.8	6.8	7.8	8.8	11.8	16.8	18.2	26.8	34.2	34.3	38.0	37.2	38.7	36.5	31.7	31.6	27.2	17.4	10.0	4.0	-11.7	-24.2	-41.6	-85.1	-147.1	-235.1	-371.0	-587.0	-915.9	45.2	36.5
1-G	36263	11053	1.2	6.2	7.2	8.2	11.2	16.2	17.5	26.1	33.5	33.5	37.1	36.2	37.5	35.1	30.0	29.6	24.9	14.8	7.0	0.4	-16.0	-29.6	-48.7	-94.7	-160.7	-255.1	-401.0	-632.6	-985.5	44.1	35.0
1-H	38806	11828	0.6	5.6	6.6	7.6	10.6	15.6	16.9	25.4	32.8	32.8	36.3	35.1	36.3	33.6	28.3	27.5	22.5	12.0	3.7	-3.3	-20.5	-35.3	-56.0	-104.8	-175.0	-276.2	-432.5	-680.5	-1058.7	42.9	33.6
1-I	41399	12619	0.1	5.1	6.1	7.1	10.1	15.1	16.3	24.8	32.1	32.0	35.4	34.1	35.1	32.2	26.5	25.5	20.1	9.2	0.5	-7.1	-25.0	-41.0	-63.5	-115.0	-189.6	-297.6	-464.6	-729.4	-1133.3	41.9	32.2
1-J	44082	13436	-0.5	4.5	5.5	6.5	9.5	14.5	15.7	24.2	31.4	31.2	34.5	33.1	33.8	30.7	24.7	23.4	17.6	6.3	-2.8	-11.0	-29.7	-46.8	-71.2	-125.5	-204.6	-319.7	-497.8	-779.9	-1210.5	40.8	30.8
1-K	46834	14275	-1.0	4.0	5.0	6.0	9.0	14.0	15.1	23.5	30.7	30.5	33.7	32.1	32.6	29.2	22.9	21.2	15.1	3.4	-6.2	-14.9	-34.5	-52.8	-79.1	-136.2	-220.0	-342.4	-531.8	-831.6	-1289.6	39.8	29.5
1-L	49744	15162	-1.5	3.5	4.5	5.5	8.5	13.5	14.5	22.9	30.1	29.8	32.8	31.1	31.4	27.7	21.1	19.0	12.5	0.3	-9.7	-19.1	-39.5	-59.1	-87.4	-147.6	-236.2	-366.3	-567.7	-886.4	-1373.2	38.8	28.1
2-D	31505	9603	2.5	7.5	8.5	9.5	12.5	17.5	18.8	27.5	34.9	35.1	38.9	38.2	39.9	38.0	33.4	33.6	29.5	20.1	13.1	7.6	-7.4	-19.0	-34.8	-75.8	-133.8	-215.6	-341.9	-542.7	-848.3	46.3	38.0
2-E	33527	10219	1.9	6.9	7.9	8.9	11.9	16.9	18.3	26.9	34.3	34.4	38.1	37.3	38.8	36.7	32.0	31.9	27.6	17.8	10.5	4.5	-11.1	-23.5	-40.7	-83.9	-145.3	-232.4	-367.1	-580.9	-906.6	45.3	36.7
2-F	35746	10895	1.4	6.4	7.4	8.4	11.4	16.4	17.6	26.2	33.6	33.7	37.3	36.4	37.7	35.4	30.4	30.1	25.4	15.3	7.6	1.2	-15.0	-28.5	-47.2	-92.7	-157.8	-250.8	-394.6	-622.8	-970.6	44.3	35.4
2-G	38043	11595	0.8	5.8	6.8	7.8	10.8	15.8	17.1	25.6	33.0	33.0	36.5	35.4	36.6	34.1	28.8	28.2	23.2	12.8	4.7	-2.2	-19.1	-33.6	-53.8	-101.7	-170.8	-269.9	-423.1	-666.1	-1036.7	43.3	34.0
2-H	40476	12337	0.3	5.3	6.3	7.3	10.3	15.3	16.5	25.0	32.3	32.3	35.7	34.5	35.5	32.7	27.1	26.2	20.9	10.1	1.7	-5.8	-23.4	-39.0	-60.9	-111.3	-184.4	-290.0	-453.2	-712.0	-1106.7	42.3	32.7
2-I	43041	13119	-0.3	4.7	5.7	6.7	9.7	14.7	15.9	24.4	31.7	31.5	34.9	33.5	34.3	31.3	25.4	24.2	18.5	7.4	-1.5	-9.5	-27.9	-44.6	-68.2	-121.4	-198.8	-311.1	-484.9	-760.3	-1180.5	41.2	31.3
2-J	45746	13943	-0.8	4.2	5.2	6.2	9.2	14.2	15.3	23.8	31.0	30.8	34.0	32.5	33.1	29.8	23.6	22.1	16.1	4.5	-4.8	-13.4	-32.6	-50.5	-76.0	-132.0	-213.9	-333.4	-518.4	-811.2	-1258.3	40.2	30.0
2-K	48398	14752	-1.3	3.7	4.7	5.7	8.7	13.7	14.8	23.2	30.4	30.1	33.2	31.6	32.0	28.4	21.9	20.0	13.7	1.7	-8.1	-17.2	-37.2	-56.2	-83.6	-142.3	-228.7	-355.3	-551.1	-861.0	-1334.5	39.3	28.7
2-L	51179	15599	-1.8	3.2	4.2	5.2	8.2	13.2	14.2	22.6	29.8	29.4	32.4	30.6	30.8	27.0	20.2	17.9	11.2	-1.2	-11.4	-21.1	-41.9	-62.2	-91.5	-153.2	-244.2	-378.1	-585.4	-913.3	-1414.4	38.3	27.5
3-D	33472	10202	1.9	6.9	7.9	8.9	11.9	16.9	18.3	26.9	34.3	34.4	38.2	37.3	38.9	36.8	32.0	32.0	27.6	17.9	10.5	4.6	-11.0	-23.4	-40.5	-83.6	-145.0	-232.0	-366.4	-579.9	-905.0	45.4	36.8
3-E	35453	10806	1.4	6.4	7.4	8.4	11.4	16.4	17.7	26.3	33.7	33.8	37.4	36.5	37.9	35.6	30.6	30.3	25.7	15.6	8.0	1.6	-14.5	-27.8	-46.3	-91.5	-156.2	-248.4	-391.0	-617.3	-962.1	44.4	35.5
3-F	37588	11457	0.9	5.9	6.9	7.9	10.9	15.9	17.2	25.8	33.1	33.1	36.7	35.6	36.8	34.3	29.1	28.5	23.6	13.3	5.3	-1.5	-18.3	-32.6	-52.5	-99.9	-168.2	-266.1	-417.4	-657.5	-1023.6	43.5	34.3
3-G	39870	12152	0.4	5.4	6.4	7.4	10.4	15.4	16.6	25.2	32.5	32.4	35.9	34.7	35.8	33.0	27.5	26.7	21.5	10.8	2.4	-4.9	-22.3	-37.6	-59.1	-108.9	-181.0	-285.0	-445.7	-700.5	-1089.3	42.5	33.0
3-H	42248	12877	-0.1	4.9	5.9	6.9	9.9	14.9	16.1	24.6	31.9	31.8	35.1	33.8	34.7	31.7	25.9	24.8	19.3	8.2	-0.5	-8.3	-26.5	-42.8	-66.0	-118.3	-194.4	-304.6	-475.1	-745.3	-1157.7	41.5	31.7
3-I	44730	13634	-0.6	4.4	5.4	6.4	9.4	14.4	15.5	24.0	31.2	31.1	34.3	32.9	33.6	30.4	24.3	22.8	17.0	5.6	-3.6	-11.9	-30.8	-48.3	-73.1	-128.0	-208.2	-325.1	-505.8	-792.1	-1229.1	40.6	30.5
3-J	47313	14421	-1.1	3.9	4.9	5.9	8.9	13.9	15.0	23.4	30.6	30.4	33.6	32.0	32.4	29.0	22.6	20.8	14.6	2.9	-6.7	-15.6	-35.3	-53.9	-80.5	-138.1	-222.7	-346.3	-537.7	-840.7	-1303.4	39.7	29.2
3-K	50016	15245	-1.6	3.4	4.4	5.4	8.4	13.4	14.4	22.9	30.0	29.7	32.8	31.0	31.3	27.6	20.9	18.8	12.2	0.1	-10.0	-19.5	-39.9	-59.7	-88.2	-148.6	-237.7	-368.6	-571.1	-891.5	-1381.0	38.7	28.0
3-L	52691	16060	-2.0	3.0	4.0	5.0	8.0	13.0	13.9	22.3	29.4	29.0	32.0	30.1	30.2	26.2	19.2	16.8	9.8	-2.7	-13.2	-23.2	-44.5	-65.5	-95.7	-159.0	-252.6	-390.6	-604.1	-941.7	-1457.9	37.9	26.8
4-D	35474	10812	1.4	6.4	7.4	8.4	11.4	16.4	17.7	26.3	33.7	33.8	37.4	36.5	37.9	35.6	30.6	30.3	25.7	15.6	8.0	1.6	-14.6	-27.9	-46.4	-91.6	-156.3	-248.6	-391.2	-617.7	-962.7	44.4	35.5
4-E	37380	11394	1.0	6.0	7.0	8.0	11.0	16.0	17.2	25.8	33.2	33.2	36.8	35.7	36.9	34.5	29.2	28.7	23.8	13.5	5.5	-1.2	-18.0	-32.1	-51.9	-99.1	-167.0	-264.4	-414.9	-653.6	-1017.6	43.6	34.4
4-F	39491	12037	0.5	5.5	6.5	7.5	10.5	15.5	16.7	25.3	32.6	32.6	36.0	34.9	35.9	33.3	27.8	27.0	21.8	11.2	2.9	-4.3	-21.7	-36.8	-58.0	-107.5	-178.9	-281.8	-441.0	-693.4	-1078.4	42.7	33.2
4-G	41712	12714	0.0	5.0	6.0	7.0	10.0	15.0	16.2	24.7	32.0	31.9	35.3	34.0	34.9	32.0	26.3	25.2	19.8	8.8	0.1	-7.5	-25.6	-41.7	-64.4	-116.2	-191.4	-300.2	-468.5	-735.2	-1142.3	41.8	32.0
4-H	44040	13423	-0.5	4.5	5.5	6.5	9.5	14.5	15.7	24.2	31.4	31.3	34.6	33.1	33.9	30.7	24.8	23.4	17.6	6.3	-2.7	-10.9	-29.6	-46.8	-71.1	-125.3	-204.4	-319.4	-497.3	-779.1	-1209.3	40.9	30.8
4-I	46505	14175	-0.9	4.1	5.1	6.1	9.1	14.1	15.1	23.6	30.8	30.6	33.8	32.2	32.8	29.4	23.2	21.5	15.4	3.7	-5.8	-14.5	-33.9	-52.1	-78.2	-135.0	-218.2	-339.7	-527.7	-825.4	-1280.1	40.0	29.6
4-J	49028	14944	-1.4	3.6	4.6	5.6	8.6	13.6	14.6	23.1	30.2	29.9	33.0	31.4	31.7	28.1	21.5	19.5	13.1	1.1	-8.8	-18.1	-38.2	-57.6	-85.3	-144.8	-232.2	-360.5	-558.9	-872.9	-1352.6	39.1	28.4
4-K	51660	15746	-1.8	3.2	4.2	5.2	8.2	13.2	14.1	22.5	29.6	29.3	32.3	30.4	30.6	26.7	19.9	17.5	10.8	-1.7	-12.0	-21.8	-42.7	-63.3	-92.8	-155.0	-246.9	-382.1	-591.3	-922.4	-1428.3	38.2	27.3
4-L	54350	16566	-2.3	2.7	3.7	4.7	7.7	12.7	13.6	22.0	29.1	28.6	31.5	29.5	29.5	25.4	18.2	15.5	8.4	-4.4	-15.2	-25.6	-47.3	-69.0	-100.4	-165.5	-261.8	-404.2	-624.5	-972.9	-1505.5	37.3	26.1
5-D	37497	11429	0.9	5.9	6.9	7.9	10.9	15.9	17.2	25.8	33.1	33.2	36.7	35.7	36.9	34.4	29.2	28.6	23.7	13.4	5.4	-1.4	-18.2	-32.4	-52.3	-99.6	-167.7	-265.3	-416.3	-655.8	-1021.0	43.5	34.3
5-E	39336	11990	0.5	5.5	6.5	7.5	10.5	15.5	16.7	25.3	32.6	32.6	36.1	34.9	36.0	33.3	27.9	27.1	22.0	11.4	3.1	-4.1	-21.4	-36.4	-57.6	-106.8	-178.0	-280.6	-439.1	-690.5	-1073.9	42.7	33.3
5-F	41398	12618	0.1	5.1	6.1	7.1	10.1	15.1	16.3	24.8	32.1	32.0	35.4	34.1	35.1	32.2	26.5	25.5	20.1	9.2	0.5	-7.1	-25.0	-41.0	-63.5	-115.0	-189.6	-297.6	-464.6	-729.3	-1133.2	41.9	32.2
5-G	43537	13270	-0.4	4.6	5.6	6.6	9.6	14.6	15.8	24.3	31.5	31.4	34.7	33.3	34.1	31.0	25.1	23.8	18.1	6.9	-2.1	-10.2	-28.8	-45.7	-69.7	-123.3	-201.6	-315.2	-491.1	-769.6	-1194.8	41.0	31.1
5-H	45832	13970	-0.8	4.2	5.2	6.2	9.2	14.2	15.3	23.8	31.0	30.8	34.0	32.5	33.1	29.8	23.6	22.0	16.0	4.4	-4.9	-13.5	-32.7	-50.7	-76.2	-132.3	-214.4	-334.2	-519.4	-812.8	-1260.8	40.2	29.9
5-I	48195	14690	-1.2	3.8	4.8	5.8	8.8	13.8	14.8	23.3	30.4	30.2	33.3	31.6	32.1	28.5	22.1	20.2	13.8	2.0	-7.8	-16.9	-36.8	-55.8	-83.0	-141.6	-227.6	-353.6	-548.6	-857.2	-1328.7	39.4	28.8
5-J	50723	15460	-1.7	3.3	4.3	5.3	8.3	13.3	14.3	22.7	29.9	29.5	32.6	30.8	31.0	27.2	20.5	18.2	11.6	-0.7	-10.9	-20.5	-41.1	-61.2	-90.2	-151.4	-241.7	-374.4	-579.8	-904.8	-1401.3	38.5	27.7
6-D	39526	12048	0.5	5.5	6.5	7.5	10.5	15.5	16.7	25.3	32.6	32.5	36.0	34.9	35.9	33.2	27.8	27.0	21.8	11.2	2.8	-4.4	-21.7	-36.9	-58.1	-107.6	-179.1	-282.1	-441.4	-694.1	-1079.4	42.6	33.2
6-E	41328	12597	0.1	5.1	6.1	7.1	10.1	15.1	16.3	24.8	32.1	32.0	35.4	34.2	35.1	32.2	26.6	25.5	20.1	9.2	0.6	-7.0	-24.9	-40.8	-63.3	-114.7	-189.2	-297.0	-463.7	-728.0	-1131.2	41.9	32.2
6-G	45392	13836	-0.7	4.3	5.3	6.3	9.3	14.3	15.4	23.9	31.1	30.9	34.1	32.6	33.3	30.0	23.9	22.3	16.4	4.9	-4.4	-12.9	-32.0	-49.7	-75.0	-130.6	-211.9	-330.5	-514.0	-804.5	-1248.1	40.4	30.1
6-H	47644	14522	-1.1	3.9	4.9	5.9	8.9	13.9	14.9	23.4	30.5	30.3	33.5	31.8	32.3	28.8	22.4	20.6	14.3	2.5	-7.1	-16.1	-35.9	-54.6	-81.4	-139.4	-224.5	-349.1	-541.8	-846.9	-1312.9	39.5	29.1
6-I	49977	15233	-1.6	3.4	4.4	5.4	8.4	13.4	14.4	22.9	30.0	29.7	32.8	31.0	31.3	27.6	20.9	18.8	12.3	0.1	-10.0	-19.4	-39.9	-59.6	-88.0	-148.5	-237.5	-368.3	-570.6	-890.7	-1379.9	38.7	28.0
6-J	52461	15990	-2.0	3.0	4.0	5.0	8.0	13.0	14.0	22.4	29.5	29.1	32.1	30.2	30.3	26.3	19.4	16.9	10.0	-2.5	-12.9	-22.9	-44.1	-65.0	-95.1	-158.1	-251.3	-388.7	-601.2	-937.4	-1451.3	37.9	26.9
7-B	38474	11727	0.7	5.7	6.7	7.7	10.7	15.7	17.0	25.5	32.9	32.9	36.4	35.3	36.4	33.8	28.5	27.8	22.8	12.3	4.2	-2.8	-19.9	-34.5	-55.1	-103.4	-173.2	-273.4	-428.4	-674.2	-1049.1	43.1	33.8
7-C	39875	12154	0.4	5.4	6.4	7.4	10.4	15.4	16.6	25.2	32.5	32.4	35.9	34.7	35.8	33.0	27.5	26.7	21.5	10.8	2.4	-4.9	-22.4	-37.6	-59.1	-109.0	-181.1	-285.0	-445.8	-700.6	-1089.4	42.5	33.0
7-E	43289	13194	-0.3	4.7	5.7	6.7	9.7	14.7	15.8	24.3	31.6	31.5	34.8	33.4	34.2	31.1	25.3	24.0	18.3	7.1	-1.8	-9.8	-28.3	-45.1	-69.0	-122.4	-200.2	-313.2	-488.0	-764.9	-1187.6	41.1	31.2
7-F	45215	13782	-0.7	4.3	5.3	6.3	9.3	14.3	15.4	23.9	31.1	30.9	34.2	32.7	33.3	30.1	24.0	22.5	16.5	5.1	-4.2	-12.6	-31.7	-49.3	-74.5	-129.9	-211.0	-329.1	-511.8	-801.2	-1243.0	40.4	30.2
7-G	47281	14411	-1.1	3.9	4.9	5.9	8.9	13.9	15.0	23.4	30.6	30.4	33.6	32.0	32.4	29.0	22.7	20.9	14.7	2.9	-6.7	-15.6	-35.2	-53.8	-80.4	-138.0	-222.5	-346.1	-537.3	-840.1	-1302.4	39.7	29.2
7-H	49498	15087	-1.5	3.5	4.5	5.5	8.5	13.5	14.5	23.0	30.1	29.8	32.9	31.2	31.5	27.8	21.2	19.2	12.7	0.6	-9.4	-18.7	-39.0	-58.6	-86.7	-146.6	-234.8	-364.3	-564.7	-881.7	-1366.1	38.9	28.2
7-I	51811	15792	-1.9	3.1	4.1	5.1	8.1	13.1	14.1	22.5	29.6	29.3	32.2	30.4	30.5	26.7	19.8	17.4	10.6	-1.8	-12.2	-22.0	-43.0	-63.6	-93.2	-155.6	-247.7	-383.3	-593.2	-925.2	-1432.6	38.1	27.2
8-A	39377	12002	0.5	5.5	6.5	7.5	10.5	15.5	16.7	25.3	32.6	32.6	36.1	34.9	36.0	33.3	27.9	27.1	21.9	11.3	3.0	-4.1	-21.5	-36.5	-57.7	-107.0	-178.3	-280.9	-439.6	-691.3	-1075.1	42.7	33.3
8-B	40539	12356	0.3	5.3	6.3	7.3	10.3	15.3	16.5	25.0	32.3	32.2	35.7	34.5	35.5	32.7	27.1	26.2	20.9	10.1	1.6	-5.8	-23.5	-39.1	-61.1	-111.6	-184.8	-290.5	-454.0	-713.2	-1108.5	42.2	32.6
8-C	41921	12778	0.0	5.0	6.0	7.0	10.0	15.0	16.1	24.7	31.9	31.8	35.2	33.9	34.8	31.9	26.2	25.1	19.6	8.6	-0.1	-7.9	-25.9	-42.1	-65.0	-117.0	-192.5	-301.9	-471.1	-739.2	-1148.3	41.7	31.9
8-D	43524	13266	-0.4	4.6	5.6	6.6	9.6	14.6	15.8	24.3	31.5	31.4	34.7	33.3	34.1	31.0	25.1	23.8	18.1	6.9	-2.1	-10.2	-28.7	-45.6	-69.6	-123.3	-201.5	-315.1	-490.9	-769.4	-1194.4	41.1	31.1
8-F	47135	14367	-1.0	4.0	5.0	6.0	9.0	14.0	15.0	23.5	30.7	30.4	33.6	32.0	32.5	29.1	22.7	21.0	14.8	3.1	-6.5	-15.4	-35.0	-53.5	-80.0	-137.4	-221.7	-344.9	-535.5	-837.3	-1298.2	39.7	29.3

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Lmax)
FROM PILE DRIVING OF WTG MONOPILES

8-G	49228	15005	-1.4	3.6	4.6	5.6	8.6	13.6	14.6	23.0	30.2	29.9	33.0	31.3	31.6	28.0	21.4	19.4	12.9	0.9	-9.1	-18.3	-38.6	-58.0	-85.9	-145.6	-233.3	-362.1	-561.3	-876.6	-1358.4	39.0	28.3
8-H	51377	15660	-1.8	3.2	4.2	5.2	8.2	13.2	14.2	22.6	29.7	29.4	32.4	30.5	30.7	26.9	20.0	17.8	11.0	-1.4	-11.6	-21.4	-42.3	-62.7	-92.0	-153.9	-245.3	-379.8	-587.8	-917.1	-1420.1	38.3	27.4
9-A	41432	12629	0.1	5.1	6.1	7.1	10.1	15.1	16.3	24.8	32.1	32.0	35.4	34.1	35.0	32.2	26.5	25.4	20.0	9.1	0.5	-7.1	-25.1	-41.1	-63.6	-115.1	-189.8	-297.9	-465.0	-730.0	-1134.2	41.9	32.1
9-B	42582	12979	-0.2	4.8	5.8	6.8	9.8	14.8	16.0	24.5	31.8	31.7	35.0	33.7	34.5	31.5	25.7	24.5	19.0	7.9	-0.9	-8.8	-27.1	-43.6	-66.9	-119.6	-196.2	-307.4	-479.3	-751.6	-1167.3	41.4	31.5
9-C	43948	13395	-0.4	4.6	5.6	6.6	9.6	14.6	15.7	24.2	31.4	31.3	34.6	33.2	33.9	30.8	24.8	23.5	17.7	6.4	-2.6	-10.8	-29.5	-46.6	-70.8	-125.0	-203.9	-318.6	-496.1	-777.3	-1206.6	40.9	30.9
9-D	45536	13879	-0.7	4.3	5.3	6.3	9.3	14.3	15.3	23.8	31.0	30.9	34.1	32.6	33.2	29.9	23.8	22.2	16.3	4.7	-4.6	-13.1	-32.2	-50.0	-75.4	-131.2	-212.7	-331.7	-515.8	-807.2	-1252.2	40.3	30.1
9-E	47225	14394	-1.1	3.9	4.9	5.9	8.9	13.9	15.0	23.5	30.6	30.4	33.6	32.0	32.5	29.0	22.7	20.9	14.7	3.0	-6.6	-15.5	-35.1	-53.7	-80.2	-137.8	-222.2	-345.6	-536.6	-839.0	-1300.8	39.7	29.3
9-F	49105	14967	-1.4	3.6	4.6	5.6	8.6	13.6	14.6	23.1	30.2	29.9	33.0	31.3	31.7	28.0	21.5	19.5	13.0	1.0	-8.9	-18.2	-38.4	-57.8	-85.6	-145.1	-232.7	-361.1	-559.8	-874.3	-1354.8	39.0	28.4
9-G	51122	15582	-1.7	3.3	4.3	5.3	8.3	13.3	14.2	22.6	29.8	29.4	32.4	30.6	30.8	27.0	20.2	17.9	11.2	-1.1	-11.3	-21.0	-41.8	-62.1	-91.3	-152.9	-243.9	-377.7	-584.7	-912.3	-1412.8	38.4	27.5
9-H	53258	16233	-2.1	2.9	3.9	4.9	7.9	12.9	13.8	22.2	29.3	28.9	31.8	29.9	29.9	25.9	18.9	16.3	9.3	-3.3	-13.9	-24.0	-45.5	-66.7	-97.3	-161.2	-255.8	-395.2	-611.0	-952.4	-1474.1	37.7	26.6
9-I	55478	16910	-2.5	2.5	3.5	4.5	7.5	12.5	13.4	21.8	28.8	28.4	31.2	29.2	29.0	24.8	17.5	14.7	7.4	-5.6	-16.5	-27.1	-49.2	-71.5	-103.6	-169.9	-268.1	-413.4	-638.4	-994.1	-1537.9	37.0	25.7
10-A	43480	13253	-0.3	4.7	5.7	6.7	9.7	14.7	15.8	24.3	31.5	31.4	34.7	33.3	34.1	31.0	25.1	23.8	18.1	6.9	-2.1	-10.1	-28.7	-45.5	-69.5	-123.1	-201.3	-314.8	-490.4	-768.5	-1193.1	41.1	31.1
10-B	44657	13612	-0.6	4.4	5.4	6.4	9.4	14.4	15.5	24.0	31.3	31.1	34.4	32.9	33.6	30.4	24.4	22.9	17.1	5.7	-3.5	-11.8	-30.7	-48.1	-72.9	-127.7	-207.8	-324.5	-504.9	-790.7	-1227.0	40.6	30.5
10-C	45999	14020	-0.8	4.2	5.2	6.2	9.2	14.2	15.2	23.7	30.9	30.7	33.9	32.4	33.0	29.7	23.5	21.9	15.8	4.3	-5.1	-13.7	-33.0	-51.0	-76.7	-133.0	-215.3	-335.5	-521.5	-815.9	-1265.6	40.1	29.8
10-D	47529	14487	-1.1	3.9	4.9	5.9	8.9	13.9	14.9	23.4	30.6	30.3	33.5	31.9	32.3	28.9	22.5	20.7	14.5	2.7	-7.0	-15.9	-35.7	-54.3	-81.1	-139.0	-223.9	-348.1	-540.4	-844.7	-1309.5	39.6	29.1
10-E	49218	15002	-1.4	3.6	4.6	5.6	8.6	13.6	14.6	23.0	30.2	29.9	33.0	31.3	31.6	28.0	21.4	19.4	12.9	0.9	-9.0	-18.3	-38.6	-58.0	-85.9	-145.5	-233.3	-362.0	-561.2	-876.5	-1358.1	39.0	28.4
10-F	51067	15565	-1.7	3.3	4.3	5.3	8.3	13.3	14.2	22.7	29.8	29.4	32.5	30.6	30.8	27.0	20.2	18.0	11.3	-1.0	-11.3	-20.9	-41.7	-62.0	-91.1	-152.7	-243.6	-377.2	-584.0	-911.2	-1411.2	38.4	27.5
10-G	53040	16167	-2.1	2.9	3.9	4.9	7.9	12.9	13.9	22.3	29.3	29.0	31.9	30.0	30.0	26.0	19.0	16.5	9.5	-3.1	-13.6	-23.7	-45.1	-66.2	-96.7	-160.4	-254.6	-393.4	-608.3	-948.3	-1467.9	37.7	26.7
10-H	55156	16811	-2.4	2.6	3.6	4.6	7.6	12.6	13.5	21.9	28.9	28.5	31.3	29.3	29.2	25.0	17.7	14.9	7.7	-5.2	-16.2	-26.7	-48.7	-70.8	-102.7	-168.6	-266.3	-410.8	-634.4	-988.0	-1528.7	37.1	25.8
10-I	57479	17520	-2.8	2.2	3.2	4.2	7.2	12.2	13.1	21.4	28.4	27.9	30.7	28.5	28.2	23.8	16.3	13.2	5.6	-7.6	-18.9	-29.9	-52.6	-75.7	-109.3	-177.6	-279.2	-429.8	-663.0	-1031.7	-1595.4	36.4	24.9
11-A	45571	13890	-0.8	4.2	5.2	6.2	9.2	14.2	15.3	23.8	31.0	30.8	34.1	32.6	33.2	29.9	23.8	22.2	16.2	4.7	-4.6	-13.1	-32.3	-50.1	-75.5	-131.3	-212.9	-332.0	-516.2	-807.9	-1253.3	40.3	30.1
11-B	46726	14242	-1.0	4.0	5.0	6.0	9.0	14.0	15.1	23.6	30.8	30.5	33.7	32.2	32.7	29.3	23.0	21.3	15.2	3.5	-6.0	-14.8	-34.3	-52.6	-78.8	-135.8	-219.4	-341.5	-530.5	-829.6	-1286.5	39.9	29.5
11-C	48010	14633	-1.2	3.8	4.8	5.8	8.8	13.8	14.8	23.3	30.5	30.2	33.3	31.7	32.1	28.6	22.2	20.3	14.0	2.1	-7.6	-16.6	-36.5	-55.4	-82.4	-140.8	-226.6	-352.1	-546.3	-853.7	-1323.4	39.4	28.9
11-D	49590	15115	-1.5	3.5	4.5	5.5	8.5	13.5	14.5	23.0	30.1	29.8	32.9	31.2	31.5	27.8	21.2	19.1	12.6	0.5	-9.5	-18.8	-39.2	-58.8	-86.9	-147.0	-235.4	-365.1	-565.8	-883.5	-1368.8	38.9	28.2
11-E	51196	15605	-1.8	3.2	4.2	5.2	8.2	13.2	14.2	22.6	29.7	29.4	32.4	30.6	30.8	27.0	20.2	17.9	11.2	-1.2	-11.4	-21.1	-41.9	-62.3	-91.5	-153.2	-244.3	-378.3	-585.6	-913.7	-1414.9	38.3	27.5
11-F	53032	16164	-2.1	2.9	3.9	4.9	7.9	12.9	13.9	22.3	29.3	29.0	31.9	30.0	30.0	26.0	19.0	16.5	9.5	-3.1	-13.6	-23.7	-45.1	-66.2	-96.7	-160.4	-254.5	-393.3	-608.2	-948.1	-1467.7	37.7	26.7
11-G	54954	16750	-2.4	2.6	3.6	4.6	7.6	12.6	13.5	21.9	28.9	28.5	31.4	29.3	29.2	25.1	17.8	15.1	7.8	-5.0	-15.9	-26.4	-48.3	-70.3	-102.1	-167.8	-265.2	-409.1	-631.9	-984.3	-1522.9	37.1	25.9
11-H	57008	17376	-2.7	2.3	3.3	4.3	7.3	12.3	13.2	21.5	28.5	28.0	30.8	28.7	28.4	24.0	16.5	13.6	6.1	-7.1	-18.3	-29.3	-51.8	-74.7	-107.9	-175.8	-276.6	-426.0	-657.2	-1022.8	-1581.8	36.5	25.1
11-K	63835	19457	-3.7	1.3	2.3	3.3	6.3	11.3	12.0	20.3	27.2	26.5	29.0	26.5	25.7	20.7	12.4	8.6	0.2	-14.0	-26.4	-38.8	-63.3	-89.3	-127.1	-202.2	-314.4	-481.9	-741.2	-1151.0	-1777.8	34.6	22.5
11-L	66214	20182	-4.0	1.0	2.0	3.0	6.0	11.0	11.7	19.9	26.8	26.0	28.4	25.8	24.8	19.6	11.0	6.9	-1.9	-16.4	-29.1	-42.0	-67.3	-94.3	-133.8	-211.3	-327.6	-501.4	-770.5	-1195.6	-1846.1	34.0	21.7
12-A	47627	14517	-1.1	3.9	4.9	5.9	8.9	13.9	14.9	23.4	30.6	30.3	33.5	31.8	32.3	28.8	22.4	20.6	14.4	2.5	-7.1	-16.1	-35.8	-54.6	-81.4	-139.3	-224.4	-348.9	-541.6	-846.6	-1312.4	39.6	29.1
12-B	48777	14867	-1.3	3.7	4.7	5.7	8.7	13.7	14.7	23.1	30.3	30.0	33.1	31.4	31.8	28.2	21.7	19.7	13.3	1.3	-8.5	-17.7	-37.8	-57.0	-84.6	-143.8	-230.8	-358.4	-555.8	-868.2	-1345.4	39.2	28.6
12-C	50078	15264	-1.6	3.4	4.4	5.4	8.4	13.4	14.4	22.9	30.0	29.7	32.7	31.0	31.3	27.5	20.9	18.7	12.2	0.0	-10.1	-19.5	-40.0	-59.9	-88.3	-148.9	-238.1	-369.1	-571.8	-892.6	-1382.8	38.7	28.0
12-D	51615	15732	-1.8	3.2	4.2	5.2	8.2	13.2	14.1	22.5	29.7	29.3	32.3	30.5	30.6	26.8	19.9	17.6	10.8	-1.6	-11.9	-21.7	-42.7	-63.2	-92.7	-154.9	-246.6	-381.7	-590.8	-921.5	-1427.0	38.2	27.3
12-E	53176	16208	-2.1	2.9	3.9	4.9	7.9	12.9	13.8	22.2	29.3	28.9	31.9	29.9	30.0	26.0	18.9	16.4	9.4	-3.2	-13.8	-23.9	-45.3	-66.5	-97.1	-160.9	-255.3	-394.5	-610.0	-950.9	-1471.8	37.7	26.6
12-F	54999	16764	-2.4	2.6	3.6	4.6	7.6	12.6	13.5	21.9	28.9	28.5	31.4	29.3	29.2	25.0	17.8	15.0	7.8	-5.1	-16.0	-26.5	-48.4	-70.4	-102.3	-168.0	-265.4	-409.5	-632.5	-985.1	-1524.2	37.1	25.9
12-G	56917	17348	-2.7	2.3	3.3	4.3	7.3	12.3	13.2	21.5	28.5	28.0	30.8	28.7	28.4	24.1	16.6	13.6	6.1	-7.0	-18.2	-29.2	-51.7	-74.5	-107.7	-175.4	-276.1	-425.2	-656.1	-1021.1	-1579.2	36.6	25.1
12-H	58898	17952	-3.0	2.0	3.0	4.0	7.0	12.0	12.8	21.2	28.1	27.6	30.3	28.1	27.7	23.1	15.4	12.2	4.4	-9.1	-20.6	-31.9	-55.0	-78.8	-113.3	-183.1	-287.1	-441.5	-680.5	-1058.3	-1636.1	36.0	24.3
12-I	61093	18621	-3.3	1.7	2.7	3.7	6.7	11.7	12.5	20.8	27.7	27.1	29.7	27.4	26.8	22.0	14.1	10.6	2.5	-11.3	-23.2	-35.0	-58.7	-83.4	-119.4	-191.6	-299.2	-459.4	-707.5	-1099.5	-1699.1	35.4	23.5
12-J	63301	19294	-3.6	1.4	2.4	3.4	6.4	11.4	12.1	20.4	27.3	26.6	29.2	26.7	25.9	21.0	12.7	9.0	0.6	-13.5	-25.7	-38.0	-62.4	-88.1	-125.6	-200.1	-311.4	-477.5	-734.7	-1140.9	-1762.5	34.7	22.7
12-K	65604	19996	-3.9	1.1	2.1	3.1	6.1	11.1	11.8	20.0	26.9	26.1	28.6	26.0	25.0	19.8	11.4	7.3	-1.4	-15.8	-28.4	-41.2	-66.3	-93.0	-132.1	-209.0	-324.2	-496.4	-763.0	-1184.1	-1828.6	34.1	21.9
12-L	67957	20713	-4.2	0.8	1.8	2.8	5.8	10.8	11.4	19.6	26.5	25.7	28.0	25.3	24.2	18.7	10.0	5.6	-3.4	-18.1	-31.2	-44.4	-70.2	-98.0	-138.7	-218.0	-337.2	-515.6	-791.9	-1228.3	-1896.1	33.5	21.1
13-A	49676	15141	-1.5	3.5	4.5	5.5	8.5	13.5	14.5	22.9	30.1	29.8	32.9	31.1	31.4	27.8	21.1	19.0	12.5	0.4	-9.6	-19.0	-39.3	-59.0	-87.2	-147.3	-235.8	-365.8	-566.9	-885.1	-1371.3	38.8	28.1
13-B	50812	15488	-1.7	3.3	4.3	5.3	8.3	13.3	14.3	22.7	29.8	29.5	32.5	30.7	30.9	27.2	20.4	18.2	11.5	-0.8	-11.0	-20.6	-41.3	-61.4	-90.4	-151.7	-242.2	-375.1	-580.9	-906.4	-1403.9	38.5	27.6
13-C	52107	15882	-1.9	3.1	4.1	5.1	8.1	13.1	14.0	22.5	29.5	29.2	32.2	30.3	30.4	26.5	19.6	17.2	10.4	-2.1	-12.5	-22.4	-43.5	-64.2	-94.1	-156.8	-249.4	-385.8	-596.9	-930.8	-1441.1	38.0	27.1
13-D	53637	16349	-2.2	2.8	3.8	4.8	7.8	12.8	13.8	22.2	29.2	28.8	31.7	29.8	29.8	25.7	18.6	16.1	9.0	-3.7	-14.3	-24.6	-46.1	-67.5	-98.4	-162.7	-257.9	-398.3	-615.7	-959.5	-1485.0	37.6	26.4
13-F	56982	17368	-2.7	2.3	3.3	4.3	7.3	12.3	13.2	21.5	28.5	28.0	30.8	28.7	28.4	24.0	16.6	13.6	6.1	-7.1	-18.3	-29.2	-51.8	-74.7	-107.9	-175.7	-276.4	-425.8	-656.9	-1022.3	-1581.1	36.5	25.1
13-G	58861	17941	-3.0	2.0	3.0	4.0	7.0	12.0	12.8	21.2	28.2	27.6	30.3	28.1	27.7	23.1	15.4	12.2	4.4	-9.0	-20.5	-31.9	-55.0	-78.7	-113.2	-182.9	-286.9	-441.2	-680.0	-1057.6	-1635.1	36.0	24.4
13-H	60773	18524	-3.3	1.7	2.7	3.7	6.7	11.7	12.5	20.8	27.8	27.2	29.8	27.5	26.9	22.2	14.3	10.8	2.8	-11.0	-22.8	-34.5	-58.2	-82.8	-118.5	-190.3	-297.5	-456.8	-703.6	-1093.5	-1689.9	35.4	23.6
13-I	62962	19191	-3.6	1.4	2.4	3.4	6.4	11.4	12.2	20.5	27.4	26.7	29.3	26.8	26.1	21.1	12.9	9.2	0.9	-13.2	-25.3	-37.6	-61.9	-87.4	-124.7	-198.8	-309.6	-474.7	-730.5	-1134.6	-1752.8	34.8	22.8
13-J	65186	19869	-3.9	1.1	2.1	3.1	6.1	11.1	11.8	20.1	27.0	26.2	28.7	26.1	25.2	20.0	11.6	7.6	-1.0	-15.4	-27.9	-40.6	-65.6	-92.1	-130.9	-207.4	-321.9	-492.9	-757.9	-1176.3	-1816.6	34.2	22.1
13-K	67430	20553	-4.2	0.8	1.8	2.8	5.8	10.8	11.5	19.7	26.5	25.8	28.1	25.4	24.4	19.0	10.3	6.0	-2.9	-17.6	-30.5	-43.7	-69.3	-96.9	-137.2	-216.0	-334.3	-511.3	-785.4	-1218.4	-1881.0	33.7	21.3
13-L	69820	21281	-4.5	0.5	1.5	2.5	5.5	10.5	11.1	19.3	26.1	25.3	27.6	24.7	23.5	17.9	8.9	4.3	-4.9	-20.0	-33.3	-47.0	-73.3	-101.9	-143.9	-225.2	-347.5	-530.8	-814.8	-1263.2	-1949.5	33.1	20.5
14-D	55651	16962	-2.5	2.5	3.5	4.5	7.5	12.5	13.4	21.8	28.8	28.3	31.2	29.1	28.9	24.7	17.4	14.6	7.2	-5.8	-16.7	-27.4	-49.5	-71.8	-104.1	-170.5	-269.1	-414.8	-640.5	-997.3	-1542.9	36.9	25.6
14-E	57213	17438	-2.7	2.3	3.3	4.3	7.3	12.3	13.1	21.5	28.5	28.0	30.8	28.6	28.3	23.9	16.4	13.4	5.9	-7.3	-18.6	-29.6	-52.2	-75.2	-108.5	-176.6	-277.7	-427.7	-659.8	-1026.7	-1587.7	36.5	25.0
14-F	58961	17971	-3.0	2.0	3.0	4.0	7.0	12.0	12.8	21.2	28.1	27.6	30.3	28.0	27.6	23.1	15.4	12.1	4.4	-9.1	-20.7	-32.0	-55.1	-78.9	-113.4	-183.3	-287.4	-442.0	-681.3	-1059.5	-1637.9	36.0	24.3
14-G	60800	18532	-3.3	1.7	2.7	3.7	6.7	11.7	12.5	20.8	27.8	27.2	29.8	27.5	26.9	22.2	14.2	10.8	2.8	-11.0	-22.8	-34.6	-58.2	-82.8	-118.6	-190.4	-297.6	-457.1	-703.9	-1094.0	-1690.7	35.4	23.6
14-H	62763	19130	-3.5	1.5	2.5	3.5	6.5	11.5	12.2	20.5	27.4	26.7	29.3	26.8	26.1	21.2	13.1	9.4	1.1	-13.0	-25.1	-37.3	-61.5	-87.0	-124.1	-198.0	-308.5	-473.1	-728.1	-1130.8	-1747.0	34.9	22.9
14-J	66998	20421	-4.1	0.9	1.9	2.9	5.9	10.9	11.6	19.8	26.6	25.9	28.2	25.5	24.5	19.2	10.5	6.3	-2.5	-17.2	-30.0	-43.1	-68.6	-96.0	-136.0	-214.3	-331.9	-507.8	-780.1	-1210.3	-1868.5	33.8	21.4
14-K	69305	21124	-4.4	0.6	1.6	2.6	5.6	10.6	11.2	19.4	26.2	25.4	27.7	24.9	23.7	18.1	9.2	4.7	-4.5	-19.5	-32.7	-46.3	-72.5	-100.8	-142.4	-223.2	-344.6	-526.6	-808.5	-1253.5	-1934.7	33.2	20.7
14-L	71650	21839	-4.7	0.3	1.3	2.3	5.3	10.3	10.9	19.1	25.8	24.9	27.1	24.2	22.8	17.0	7.8	3.0	-6.5	-21.8	-35.4	-49.5	-76.4	-105.8	-149.0	-232.2	-357.6	-545.8	-837.3	-1297.5	-2002.0	32.6	19.9
15-F	60934	18573	-3.3	1.7	2.7	3.7	6.7	11.7	12.5	20.8	27.8	27.1	29.8	27.4	26.8	22.1	14.2	10.7	2.6	-11.1	-23.0	-34.7	-58.4	-83.1	-119.0	-191.0	-298.3	-458.1	-705.6	-1096.5	-1694.5	35.4	23.6
15-G	62797	19140	-3.5	1.5	2.5	3.5	6.5	11.5	12.2	20.5	27.4	26.7	29.3	26.8	26.1	21.2	13.0	9.3	1.0	-13.0	-25.1	-37.3	-61.6	-87.1	-124.2	-198.1	-308.7	-473.4	-728.5	-1131.5	-1748.0	34.9	22.9
15-H	64721	19727	-3.8	1.2	2.2	3.2	6.2	11.2	11.9	20.2	27.0	26.3	28.8	26.2	25.4	20.3	11.9	7.9	-0.6	-14.9	-27.4	-40.0	-64.8	-91.1	-129.6	-205.6	-319.3	-489.1	-752.1	-1167.6	-1803.2	34.4	22.2
15-I	66782	20355	-4.1	0.9	1.9	2.9	5.9	10.9	11.6	19.8	26.7	25.9	28.3	25.6	24.6	19.3	10.7	6.5	-2.4	-17.0	-29.8	-42.8	-68.2	-95.5	-135.4	-213.5	-330.7	-506.0	-777.5	-1206.2	-1862.4	33.8	21.5
15-J	68895	20999	-4.3	0.7	1.7	2.7	5.7	10.7	11.3	19.5	26.3	25.5	27.8	25.0	23.8	18.3	9.4	5.0	-4.1	-19.1	-32.2	-45.7	-71.8	-100.0	-141.3	-221.6	-342.4	-523.3	-803.4	-1245.8	-1923.0	33.3	20.8
15-K	71133	21681	-4.6	0.4	1.4	2.4	5.4	10.4	11.0	19.1	25.9	25.0	27.2	24.3	23.0	17.2	8.1	3.4	-6.0	-21.3	-34.8	-48.8	-75.5	-104.7	-147.5	-230.2	-354.7	-541.6	-830.9	-1287.8	-1987.2	32.7	20.1
16-J	70779	21573	-4.6	0.4	1.4	2.4	5.4	10.4	11.0	19.2	26.0	25.1	27.3	24.4	23.1	17.4	8.3	3.6	-5.7	-20.9	-34.4	-48.3	-74.9	-103.9	-146.5	-228.9	-352.8	-538.7	-826.6	-1281.2	-1977.0	32.8	20.2
16-K	72988	22247	-4.8	0.2	1.2	2.2	5.2	10.2	10.7	18.9	25.6	24.7	26.8	23.8	22.3	16.4	7.0	2.1	-7.6	-23.1	-37.0	-51.3	-78.6	-108.6	-152.7	-237.3	-364.9	-556.7	-853.7	-1322.6	-2040.4	32.3	19.5
		Minimum:	-4.8	0.2	1.2	2.2	5.2	10.2	10.7	18.9	25.6	24.7	26.8	23.8	22.3	16.4	7.0	2.1	-7.6	-23.1	-37.0	-51.3	-78.6	-108.6	-152.7	-237.3	-364.9	-556.7	-853.7	-1322.6	-2040.4	32.3	19.5
		Maximum:	2.5	7.5	8.5	9.5	12.5	17.5	18.8	27.5	34.9	35.1	38.9	38.2	39.9	38.0	33.4	33.6	29.5	20.1	13.1	7.6	-7.4	-19.0	-34.8	-75.8	-133.8	-215.6	-341.9	-542.7	-848.3	46.3	38.0

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Lmax)
FROM PILE DRIVING OF WTG MONOPILES

ODS Report Report no. 00.877, Figure 11, 2dB subtracted across the spectrum to account for peak to Lmax calculation

Sound Pressure Data			34	39	40	41	44	49	51	60	68	69	74	75	79	80	79	83	83	78	76	77	71	73	78	69	62	61	60	56	53	90	88
320 meters from the pile																																	
Lmax at 320 meters			32	37	38	39	42	47	49	58	66	67	72	73	77	78	77	81	81	76	74	75	69	71	76	67	60	59	58	54	51	88	86

Data for the graph

Atmos. Absorption per 1 km			0.0000	0.0000	0.0000	0.0000	0.0000	0.0670	0.1050	0.1630	0.2510	0.3810	0.5650	0.8150	1.1300	1.5100	1.9200	2.3600	2.8400	3.3800	4.0800	5.0500	6.5100	8.7500	12.2000	17.7000	26.4000	39.9000	61.1000	93.7000	144.0000		
air temp 59F 70% RH																																

																		Hertz														
	1/3 Octave Bands		**16***	**20**	**25**	**31**	**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**	**L**	**A**
	Distance (ft)	**Distance (m)**																															
1-D	33888	10329	1.8	6.8	7.8	8.8	11.8	16.8	18.2	26.8	34.2	34.3	38.0	37.2	38.7	36.5	31.7	31.6	27.2	17.4	10.0	4.0	-11.7	-24.3	-41.8	-85.3	-147.3	-235.4	-371.5	-587.7	-917.0	45.2	36.5
1-E	36963	11266	1.1	6.1	7.1	8.1	11.1	16.1	17.3	25.9	33.3	33.3	36.9	35.9	37.1	34.7	29.5	29.1	24.2	14.0	6.1	-0.6	-17.2	-31.2	-50.7	-97.5	-164.7	-260.9	-409.7	-645.7	-1005.6	43.7	34.6
1-F	40055	12209	0.4	5.4	6.4	7.4	10.4	15.4	16.6	25.1	32.4	32.4	35.8	34.7	35.7	32.9	27.4	26.5	21.3	10.6	2.2	-5.1	-22.7	-38.0	-59.7	-109.7	-182.1	-286.5	-448.0	-704.0	-1094.6	42.4	32.9
1-G	43204	13169	-0.3	4.7	5.7	6.7	9.7	14.7	15.9	24.4	31.6	31.5	34.8	33.5	34.2	31.2	25.3	24.0	18.4	7.2	-1.7	-9.7	-28.2	-44.9	-68.7	-122.0	-199.7	-312.5	-486.9	-763.3	-1185.2	41.2	31.2
1-H	46382	14137	-0.9	4.1	5.1	6.1	9.1	14.1	15.2	23.6	30.8	30.6	33.8	32.3	32.8	29.5	23.2	21.6	15.5	3.9	-5.6	-14.3	-33.7	-51.9	-77.8	-134.5	-217.5	-338.7	-526.2	-823.1	-1276.6	40.0	29.7
1-I	49515	15092	-1.5	3.5	4.5	5.5	8.5	13.5	14.5	23.0	30.1	29.8	32.9	31.2	31.5	27.8	21.2	19.2	12.7	0.6	-9.4	-18.7	-39.1	-58.6	-86.7	-146.7	-234.9	-364.5	-564.9	-882.1	-1366.6	38.9	28.2
1-J	52659	16050	-2.0	3.0	4.0	5.0	8.0	13.0	13.9	22.3	29.4	29.0	32.0	30.1	30.2	26.2	19.2	16.8	9.9	-2.7	-13.2	-23.2	-44.4	-65.4	-95.6	-158.9	-252.4	-390.3	-603.6	-941.1	-1456.9	37.9	26.8
1-K	55841	17020	-2.5	2.5	3.5	4.5	7.5	12.5	13.4	21.7	28.8	28.3	31.1	29.0	28.9	24.6	17.3	14.4	7.1	-5.9	-17.0	-27.7	-49.9	-72.2	-104.6	-171.3	-270.1	-416.4	-642.9	-1000.9	-1548.3	36.9	25.5
1-L	59110	18017	-3.0	2.0	3.0	4.0	7.0	12.0	12.8	21.1	28.1	27.5	30.2	28.0	27.6	23.0	15.3	12.0	4.2	-9.3	-20.8	-32.2	-55.4	-79.2	-113.9	-183.9	-288.2	-443.2	-683.1	-1062.3	-1642.2	35.9	24.3
2-D	35067	10688	1.5	6.5	7.5	8.5	11.5	16.5	17.8	26.4	33.8	33.9	37.6	36.7	38.1	35.8	30.9	30.6	26.1	16.1	8.5	2.2	-13.8	-27.0	-45.2	-90.0	-154.0	-245.2	-386.2	-610.0	-951.0	44.6	35.8
2-E	38146	11627	0.8	5.8	6.8	7.8	10.8	15.8	17.0	25.6	33.0	33.0	36.5	35.4	36.6	34.0	28.7	28.1	23.1	12.7	4.6	-2.3	-19.3	-33.8	-54.1	-102.1	-171.3	-270.7	-424.3	-668.0	-1039.6	43.2	33.9
2-F	41256	12575	0.1	5.1	6.1	7.1	10.1	15.1	16.3	24.8	32.1	32.0	35.4	34.2	35.1	32.3	26.6	25.6	20.2	9.3	0.7	-6.9	-24.8	-40.7	-63.1	-114.4	-188.8	-296.4	-462.9	-726.7	-1129.2	41.9	32.2
2-G	44311	13506	-0.5	4.5	5.5	6.5	9.5	14.5	15.6	24.1	31.3	31.2	34.5	33.0	33.7	30.6	24.6	23.2	17.4	6.0	-3.1	-11.3	-30.1	-47.3	-71.9	-126.4	-205.9	-321.6	-500.6	-784.2	-1217.0	40.8	30.7
2-H	47402	14448	-1.1	3.9	4.9	5.9	8.9	13.9	15.0	23.4	30.6	30.4	33.5	31.9	32.4	28.9	22.6	20.8	14.6	2.8	-6.8	-15.7	-35.4	-54.1	-80.7	-138.5	-223.2	-347.1	-538.8	-842.3	-1305.9	39.6	29.2
2-I	50559	15410	-1.7	3.3	4.3	5.3	8.3	13.3	14.3	22.8	29.9	29.6	32.6	30.8	31.0	27.3	20.6	18.4	11.7	-0.5	-10.7	-20.2	-40.9	-60.9	-89.7	-150.8	-240.8	-373.0	-577.8	-901.7	-1396.6	38.6	27.8
2-J	53770	16389	-2.2	2.8	3.8	4.8	7.8	12.8	13.7	22.1	29.2	28.8	31.7	29.7	29.7	25.7	18.5	16.0	8.9	-3.8	-14.5	-24.7	-46.3	-67.8	-98.8	-163.2	-258.6	-399.4	-617.3	-962.0	-1488.9	37.5	26.4
2-K	56844	17326	-2.7	2.3	3.3	4.3	7.3	12.3	13.2	21.5	28.6	28.1	30.8	28.7	28.5	24.1	16.6	13.7	6.2	-7.0	-18.2	-29.1	-51.6	-74.4	-107.5	-175.1	-275.7	-424.6	-655.2	-1019.7	-1577.1	36.6	25.1
2-L	60031	18297	-3.1	1.9	2.9	3.9	6.9	11.9	12.7	21.0	27.9	27.3	30.0	27.7	27.2	22.5	14.7	11.3	3.4	-10.2	-21.9	-33.5	-56.9	-81.2	-116.4	-187.5	-293.3	-450.7	-694.4	-1079.6	-1668.6	35.6	23.9
3-D	36369	11085	1.2	6.2	7.2	8.2	11.2	16.2	17.5	26.1	33.5	33.5	37.1	36.1	37.4	35.0	30.0	29.5	24.8	14.6	6.8	0.3	-16.2	-29.9	-49.0	-95.1	-161.3	-256.0	-402.3	-634.6	-988.5	44.0	35.0
3-E	39416	12014	0.5	5.5	6.5	7.5	10.5	15.5	16.7	25.3	32.6	32.6	36.1	34.9	36.0	33.3	27.9	27.1	21.9	11.3	3.0	-4.2	-21.5	-36.6	-57.8	-107.2	-178.5	-281.2	-440.1	-692.0	-1076.2	42.7	33.2
3-F	42462	12942	-0.1	4.9	5.9	6.9	9.9	14.9	16.0	24.5	31.8	31.7	35.1	33.7	34.6	31.6	25.8	24.6	19.1	8.0	-0.8	-8.6	-26.9	-43.3	-66.6	-119.1	-195.6	-306.4	-477.8	-749.4	-1163.8	41.5	31.6
3-G	45520	13875	-0.7	4.3	5.3	6.3	9.3	14.3	15.4	23.8	31.0	30.9	34.1	32.6	33.2	29.9	23.8	22.2	16.3	4.8	-4.6	-13.0	-32.2	-50.0	-75.3	-131.1	-212.7	-331.6	-515.6	-806.9	-1251.8	40.3	30.1
3-H	48578	14807	-1.3	3.7	4.7	5.7	8.7	13.7	14.7	23.2	30.3	30.1	33.2	31.5	31.9	28.3	21.8	19.9	13.5	1.6	-8.3	-17.4	-37.5	-56.6	-84.1	-143.0	-229.7	-356.7	-553.3	-864.4	-1339.7	39.2	28.6
3-I	51654	15744	-1.8	3.2	4.2	5.2	8.2	13.2	14.1	22.5	29.6	29.3	32.3	30.4	30.6	26.7	19.9	17.5	10.8	-1.6	-12.0	-21.8	-42.7	-63.2	-92.8	-155.0	-246.8	-382.0	-591.3	-922.2	-1428.1	38.2	27.3
3-J	54776	16696	-2.3	2.7	3.7	4.7	7.7	12.7	13.6	21.9	29.0	28.5	31.4	29.4	29.3	25.1	17.9	15.2	8.0	-4.9	-15.7	-26.2	-48.0	-70.0	-101.6	-167.1	-264.2	-407.7	-629.7	-980.9	-1517.7	37.2	26.0
3-K	57951	17664	-2.8	2.2	3.2	4.2	7.2	12.2	13.0	21.3	28.3	27.8	30.6	28.4	28.0	23.6	16.0	12.9	5.2	-8.1	-19.5	-30.6	-53.4	-76.7	-110.6	-179.4	-281.8	-433.7	-668.8	-1040.5	-1608.9	36.2	24.7
3-L	61029	18602	-3.3	1.7	2.7	3.7	6.7	11.7	12.5	20.8	27.7	27.1	29.7	27.4	26.8	22.1	14.1	10.6	2.6	-11.2	-23.1	-34.9	-58.6	-83.3	-119.3	-191.3	-298.9	-458.9	-706.7	-1098.3	-1697.3	35.4	23.5
4-D	37776	11514	0.9	5.9	6.9	7.9	10.9	15.9	17.1	25.7	33.1	33.1	36.6	35.6	36.8	34.2	29.0	28.4	23.5	13.1	5.0	-1.8	-18.7	-33.0	-53.1	-100.7	-169.3	-267.6	-419.8	-661.1	-1029.0	43.4	34.2
4-E	40760	12424	0.2	5.2	6.2	7.2	10.2	15.2	16.4	24.9	32.2	32.2	35.6	34.4	35.4	32.5	26.9	26.0	20.7	9.8	1.3	-6.2	-23.9	-39.6	-61.7	-112.4	-186.0	-292.3	-456.7	-717.3	-1114.9	42.1	32.5
4-F	43771	13341	-0.4	4.6	5.6	6.6	9.6	14.6	15.7	24.2	31.5	31.3	34.6	33.2	34.0	30.9	24.9	23.6	17.9	6.6	-2.4	-10.5	-29.2	-46.2	-70.3	-124.3	-202.9	-317.2	-494.0	-774.0	-1201.5	41.0	30.9
4-G	46799	14264	-1.0	4.0	5.0	6.0	9.0	14.0	15.1	23.6	30.7	30.5	33.7	32.1	32.7	29.3	23.0	21.2	15.1	3.4	-6.1	-14.9	-34.4	-52.8	-79.0	-136.1	-219.8	-342.1	-531.4	-831.0	-1288.6	39.8	29.5
4-H	49822	15186	-1.5	3.5	4.5	5.5	8.5	13.5	14.5	22.9	30.1	29.7	32.8	31.1	31.4	27.7	21.0	18.9	12.4	0.3	-9.8	-19.2	-39.6	-59.3	-87.6	-147.9	-236.7	-367.0	-568.7	-887.8	-1375.5	38.8	28.1
4-I	52904	16125	-2.0	3.0	4.0	5.0	8.0	13.0	13.9	22.3	29.4	29.0	31.9	30.0	30.1	26.1	19.1	16.6	9.7	-2.9	-13.5	-23.5	-44.9	-65.9	-96.3	-159.9	-253.8	-392.3	-606.7	-945.7	-1464.0	37.8	26.7
4-J	55967	17059	-2.5	2.5	3.5	4.5	7.5	12.5	13.3	21.7	28.7	28.3	31.1	29.0	28.8	24.5	17.2	14.3	7.0	-6.1	-17.1	-27.8	-50.1	-72.5	-105.0	-171.7	-270.8	-417.4	-644.4	-1003.3	-1551.9	36.8	25.5
4-K	59082	18008	-3.0	2.0	3.0	4.0	7.0	12.0	12.8	21.1	28.1	27.6	30.3	28.0	27.6	23.0	15.3	12.0	4.2	-9.2	-20.8	-32.2	-55.3	-79.2	-113.8	-183.8	-288.1	-443.0	-682.8	-1061.8	-1641.4	35.9	24.3
4-L	62207	18961	-3.5	1.5	2.5	3.5	6.5	11.5	12.3	20.6	27.5	26.9	29.4	27.0	26.4	21.5	13.4	9.8	1.6	-12.4	-24.5	-36.5	-60.6	-85.8	-122.6	-195.9	-305.4	-468.6	-721.2	-1120.4	-1731.1	35.0	23.1
5-D	39260	11966	0.5	5.5	6.5	7.5	10.5	15.5	16.8	25.3	32.6	32.6	36.1	35.0	36.1	33.4	28.0	27.2	22.1	11.5	3.2	-4.0	-21.3	-36.3	-57.4	-106.5	-177.6	-279.9	-438.1	-689.1	-1071.7	42.8	33.3
5-E	42132	12842	-0.1	4.9	5.9	6.9	9.9	14.9	16.1	24.6	31.9	31.8	35.2	33.9	34.7	31.8	26.0	24.9	19.4	8.4	-0.4	-8.2	-26.3	-42.6	-65.6	-117.8	-193.7	-303.6	-473.7	-743.2	-1154.4	41.6	31.8
5-F	45121	13753	-0.7	4.3	5.3	6.3	9.3	14.3	15.4	23.9	31.1	31.0	34.2	32.7	33.4	30.2	24.1	22.5	16.6	5.2	-4.1	-12.5	-31.5	-49.1	-74.2	-129.5	-210.4	-328.3	-510.6	-799.4	-1240.3	40.5	30.3
5-G	48058	14648	-1.2	3.8	4.8	5.8	8.8	13.8	14.8	23.3	30.5	30.2	33.3	31.7	32.1	28.6	22.2	20.3	14.0	2.1	-7.6	-16.7	-36.6	-55.5	-82.6	-141.0	-226.8	-352.5	-546.9	-854.7	-1324.7	39.4	28.9
5-H	51074	15567	-1.7	3.3	4.3	5.3	8.3	13.3	14.2	22.7	29.8	29.4	32.4	30.6	30.8	27.0	20.2	18.0	11.3	-1.0	-11.3	-21.0	-41.7	-62.0	-91.2	-152.8	-243.6	-377.3	-584.1	-911.4	-1411.4	38.4	27.5
5-I	54077	16483	-2.2	2.8	3.8	4.8	7.8	12.8	13.7	22.1	29.1	28.7	31.6	29.6	29.6	25.5	18.4	15.7	8.6	-4.1	-14.9	-25.2	-46.9	-68.5	-99.7	-164.4	-260.3	-401.9	-621.1	-967.8	-1497.7	37.4	26.3
5-J	57154	17421	-2.7	2.3	3.3	4.3	7.3	12.3	13.1	21.5	28.5	28.0	30.8	28.6	28.3	24.0	16.5	13.4	5.9	-7.3	-18.5	-29.5	-52.1	-75.0	-108.3	-176.3	-277.4	-427.2	-659.0	-1025.6	-1586.0	36.5	25.0
6-D	40797	12435	0.2	5.2	6.2	7.2	10.2	15.2	16.4	24.9	32.2	32.2	35.6	34.4	35.3	32.5	26.9	25.9	20.6	9.8	1.3	-6.2	-24.0	-39.7	-61.8	-112.6	-186.2	-292.6	-457.2	-718.0	-1116.0	42.1	32.5
6-E	43618	13295	-0.4	4.6	5.6	6.6	9.6	14.6	15.8	24.3	31.5	31.4	34.7	33.3	34.1	31.0	25.0	23.7	18.0	6.8	-2.2	-10.3	-28.9	-45.8	-69.9	-123.7	-202.0	-315.9	-492.1	-771.1	-1197.1	41.0	31.0
6-G	49431	15067	-1.5	3.5	4.5	5.5	8.5	13.5	14.6	23.0	30.1	29.8	32.9	31.2	31.5	27.9	21.3	19.2	12.7	0.7	-9.3	-18.6	-38.9	-58.5	-86.5	-146.4	-234.5	-363.8	-563.8	-880.5	-1364.2	38.9	28.3
6-H	52411	15975	-2.0	3.0	4.0	5.0	8.0	13.0	14.0	22.4	29.5	29.1	32.1	30.2	30.3	26.3	19.4	17.0	10.1	-2.4	-12.9	-22.8	-44.0	-64.9	-94.9	-158.0	-251.1	-388.3	-600.6	-936.5	-1449.8	37.9	27.0
6-I	55362	16874	-2.4	2.6	3.6	4.6	7.6	12.6	13.4	21.8	28.9	28.4	31.3	29.2	29.1	24.9	17.6	14.8	7.5	-5.5	-16.4	-27.0	-49.0	-71.2	-103.3	-169.4	-267.5	-412.5	-637.0	-991.9	-1534.6	37.0	25.7
6-J	58409	17803	-2.9	2.1	3.1	4.1	7.1	12.1	12.9	21.3	28.2	27.7	30.4	28.2	27.8	23.3	15.7	12.5	4.8	-8.6	-20.0	-31.2	-54.2	-77.7	-111.9	-181.2	-284.4	-437.5	-674.5	-1049.1	-1622.1	36.1	24.5
7-B	36911	11251	1.1	6.1	7.1	8.1	11.1	16.1	17.3	25.9	33.3	33.3	36.9	35.9	37.2	34.7	29.6	29.1	24.3	14.0	6.1	-0.5	-17.1	-31.1	-50.6	-97.3	-164.4	-260.5	-409.1	-644.8	-1004.1	43.8	34.7
7-C	39568	12060	0.5	5.5	6.5	7.5	10.5	15.5	16.7	25.2	32.6	32.5	36.0	34.8	35.9	33.2	27.7	26.9	21.8	11.1	2.8	-4.4	-21.8	-37.0	-58.3	-107.8	-179.3	-282.5	-442.0	-694.9	-1080.6	42.6	33.2
7-E	45119	13752	-0.7	4.3	5.3	6.3	9.3	14.3	15.4	23.9	31.1	31.0	34.2	32.7	33.4	30.2	24.1	22.5	16.6	5.2	-4.1	-12.5	-31.5	-49.1	-74.2	-129.5	-210.4	-328.3	-510.6	-799.4	-1240.3	40.5	30.3
7-F	47944	14613	-1.2	3.8	4.8	5.8	8.8	13.8	14.9	23.3	30.5	30.2	33.4	31.7	32.2	28.7	22.2	20.4	14.1	2.2	-7.5	-16.5	-36.4	-55.2	-82.3	-140.6	-226.2	-351.5	-545.5	-852.5	-1321.5	39.4	28.9
7-G	50815	15488	-1.7	3.3	4.3	5.3	8.3	13.3	14.3	22.7	29.8	29.5	32.5	30.7	30.9	27.2	20.4	18.2	11.5	-0.8	-11.0	-20.6	-41.3	-61.4	-90.4	-151.8	-242.2	-375.1	-580.9	-906.5	-1404.0	38.5	27.6
7-H	53759	16386	-2.2	2.8	3.8	4.8	7.8	12.8	13.7	22.1	29.2	28.8	31.7	29.7	29.7	25.7	18.6	16.0	8.9	-3.8	-14.5	-24.7	-46.3	-67.8	-98.8	-163.2	-258.6	-399.3	-617.2	-961.8	-1488.6	37.5	26.4
7-I	56731	17292	-2.7	2.3	3.3	4.3	7.3	12.3	13.2	21.6	28.6	28.1	30.9	28.8	28.5	24.2	16.7	13.8	6.3	-6.9	-18.0	-28.9	-51.4	-74.1	-107.2	-174.7	-275.0	-423.7	-653.8	-1017.6	-1573.9	36.6	25.2
8-A	36126	11011	1.3	6.3	7.3	8.3	11.3	16.3	17.5	26.1	33.5	33.6	37.2	36.2	37.6	35.2	30.1	29.7	25.0	14.9	7.1	0.6	-15.7	-29.3	-48.3	-94.2	-160.0	-254.0	-399.3	-630.0	-981.5	44.1	35.1
8-B	38619	11771	0.7	5.7	6.7	7.7	10.7	15.7	16.9	25.5	32.8	32.8	36.3	35.2	36.4	33.7	28.4	27.7	22.7	12.2	4.0	-3.0	-20.1	-34.9	-55.5	-104.0	-174.0	-274.6	-430.2	-677.0	-1053.3	43.0	33.7
8-C	41215	12562	0.1	5.1	6.1	7.1	10.1	15.1	16.3	24.8	32.1	32.0	35.5	34.2	35.1	32.3	26.6	25.6	20.2	9.4	0.7	-6.8	-24.7	-40.6	-63.0	-114.2	-188.6	-296.1	-462.4	-725.9	-1128.0	42.0	32.3
8-D	43932	13390	-0.4	4.6	5.6	6.6	9.6	14.6	15.7	24.2	31.4	31.3	34.6	33.2	33.9	30.8	24.8	23.5	17.7	6.4	-2.6	-10.8	-29.4	-46.5	-70.8	-124.9	-203.8	-318.5	-495.9	-777.0	-1206.1	40.9	30.9
8-F	49425	15065	-1.5	3.5	4.5	5.5	8.5	13.5	14.6	23.0	30.1	29.8	32.9	31.2	31.5	27.9	21.3	19.2	12.7	0.7	-9.3	-18.6	-38.9	-58.4	-86.5	-146.3	-234.4	-363.7	-563.8	-880.4	-1364.0	38.9	28.3

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Lmax)
FROM PILE DRIVING OF WTG MONOPILES

8-G	52298	15941	-1.9	3.1	4.1	5.1	8.1	13.1	14.0	22.4	29.5	29.1	32.1	30.2	30.3	26.4	19.5	17.1	10.2	-2.3	-12.7	-22.7	-43.8	-64.6	-94.6	-157.5	-250.4	-387.3	-599.2	-934.4	-1446.6	38.0	27.0
8-H	55189	16822	-2.4	2.6	3.6	4.6	7.6	12.6	13.5	21.9	28.9	28.4	31.3	29.3	29.1	24.9	17.7	14.9	7.6	-5.3	-16.2	-26.7	-48.7	-70.8	-102.8	-168.7	-266.5	-411.1	-634.8	-988.7	-1529.6	37.1	25.8
9-A	37935	11562	0.8	5.8	6.8	7.8	10.8	15.8	17.1	25.7	33.0	33.0	36.6	35.5	36.7	34.1	28.9	28.3	23.3	12.9	4.8	-2.0	-18.9	-33.3	-53.5	-101.3	-170.1	-269.0	-421.7	-664.1	-1033.6	43.3	34.1
9-B	40355	12300	0.3	5.3	6.3	7.3	10.3	15.3	16.5	25.0	32.4	32.3	35.7	34.5	35.5	32.8	27.2	26.3	21.0	10.3	1.8	-5.6	-23.2	-38.7	-60.5	-110.9	-183.7	-289.0	-451.7	-709.7	-1103.2	42.3	32.7
9-C	42897	13075	-0.2	4.8	5.8	6.8	9.8	14.8	15.9	24.4	31.7	31.6	34.9	33.6	34.4	31.4	25.5	24.3	18.7	7.6	-1.3	-9.3	-27.6	-44.3	-67.8	-120.8	-198.0	-310.0	-483.1	-757.6	-1176.4	41.3	31.4
9-D	45546	13882	-0.7	4.3	5.3	6.3	9.3	14.3	15.3	23.8	31.0	30.8	34.1	32.6	33.2	29.9	23.8	22.2	16.2	4.7	-4.6	-13.1	-32.2	-50.0	-75.4	-131.2	-212.8	-331.8	-515.9	-807.4	-1252.5	40.3	30.1
9-E	48209	14694	-1.2	3.8	4.8	5.8	8.8	13.8	14.8	23.3	30.4	30.2	33.3	31.6	32.0	28.5	22.1	20.2	13.8	1.9	-7.8	-16.9	-36.8	-55.8	-83.0	-141.6	-227.7	-353.7	-548.8	-857.5	-1329.1	39.4	28.8
9-F	50977	15538	-1.7	3.3	4.3	5.3	8.3	13.3	14.3	22.7	29.8	29.5	32.5	30.7	30.9	27.1	20.3	18.1	11.4	-0.9	-11.2	-20.8	-41.6	-61.8	-90.9	-152.4	-243.1	-376.5	-582.9	-909.5	-1408.6	38.4	27.6
9-G	53798	16398	-2.2	2.8	3.8	4.8	7.8	12.8	13.7	22.1	29.2	28.8	31.7	29.7	29.7	25.6	18.5	15.9	8.9	-3.9	-14.5	-24.8	-46.4	-67.9	-98.9	-163.3	-258.8	-399.6	-617.7	-962.5	-1489.7	37.5	26.4
9-H	56643	17265	-2.6	2.4	3.4	4.4	7.4	12.4	13.2	21.6	28.6	28.1	30.9	28.8	28.5	24.2	16.8	13.8	6.4	-6.8	-17.9	-28.8	-51.2	-74.0	-106.9	-174.4	-274.6	-423.0	-652.7	-1016.0	-1571.4	36.6	25.2
9-I	59534	18146	-3.1	1.9	2.9	3.9	6.9	11.9	12.7	21.1	28.0	27.5	30.1	27.9	27.4	22.8	15.0	11.7	3.9	-9.7	-21.3	-32.8	-56.1	-80.1	-115.0	-185.5	-290.6	-446.7	-688.3	-1070.2	-1654.4	35.8	24.1
10-A	39752	12116	0.4	5.4	6.4	7.4	10.4	15.4	16.6	25.2	32.5	32.5	35.9	34.8	35.8	33.1	27.6	26.8	21.6	10.9	2.6	-4.7	-22.1	-37.4	-58.8	-108.5	-180.4	-284.0	-444.2	-698.3	-1085.9	42.6	33.1
10-B	42140	12844	-0.1	4.9	5.9	6.9	9.9	14.9	16.1	24.6	31.9	31.8	35.2	33.9	34.7	31.8	26.0	24.9	19.4	8.4	-0.4	-8.2	-26.3	-42.6	-65.7	-117.9	-193.8	-303.7	-473.8	-743.3	-1154.6	41.6	31.8
10-C	44613	13598	-0.6	4.4	5.4	6.4	9.4	14.4	15.5	24.0	31.3	31.1	34.4	32.9	33.6	30.4	24.4	22.9	17.1	5.7	-3.4	-11.7	-30.6	-48.0	-72.7	-127.6	-207.6	-324.1	-504.4	-789.9	-1225.7	40.6	30.5
10-D	47200	14386	-1.1	3.9	4.9	5.9	8.9	13.9	15.0	23.5	30.7	30.4	33.6	32.0	32.5	29.0	22.7	20.9	14.7	3.0	-6.6	-15.4	-35.1	-53.6	-80.1	-137.7	-222.0	-345.4	-536.3	-838.5	-1300.1	39.7	29.3
10-E	49842	15192	-1.5	3.5	4.5	5.5	8.5	13.5	14.5	22.9	30.0	29.7	32.8	31.1	31.4	27.7	21.0	18.9	12.4	0.2	-9.8	-19.2	-39.6	-59.3	-87.7	-148.0	-236.8	-367.1	-568.9	-888.2	-1376.0	38.8	28.1
10-F	52574	16025	-2.0	3.0	4.0	5.0	8.0	13.0	14.0	22.4	29.4	29.1	32.0	30.1	30.2	26.3	19.3	16.9	9.9	-2.6	-13.1	-23.1	-44.3	-65.2	-95.4	-158.6	-252.0	-389.6	-602.6	-939.5	-1454.5	37.9	26.9
10-G	55338	16867	-2.4	2.6	3.6	4.6	7.6	12.6	13.5	21.8	28.9	28.4	31.3	29.2	29.1	24.9	17.6	14.8	7.5	-5.4	-16.4	-26.9	-49.0	-71.2	-103.2	-169.3	-267.3	-412.3	-636.7	-991.5	-1533.9	37.0	25.7
10-H	58164	17728	-2.9	2.1	3.1	4.1	7.1	12.1	13.0	21.3	28.3	27.8	30.5	28.3	27.9	23.5	15.8	12.7	5.0	-8.3	-19.7	-30.9	-53.8	-77.2	-111.2	-180.3	-283.0	-435.5	-671.5	-1044.5	-1615.0	36.2	24.6
10-I	61172	18645	-3.3	1.7	2.7	3.7	6.7	11.7	12.5	20.8	27.7	27.1	29.7	27.3	26.8	22.0	14.0	10.5	2.4	-11.4	-23.2	-35.1	-58.9	-83.6	-119.7	-191.9	-299.7	-460.1	-708.5	-1101.0	-1701.4	35.3	23.5
11-A	41613	12684	0.0	5.0	6.0	7.0	10.0	15.0	16.2	24.7	32.0	31.9	35.3	34.1	35.0	32.1	26.4	25.3	19.9	8.9	0.2	-7.4	-25.4	-41.4	-64.1	-115.8	-190.8	-299.4	-467.3	-733.4	-1139.4	41.8	32.1
11-B	43956	13398	-0.4	4.6	5.6	6.6	9.6	14.6	15.7	24.2	31.4	31.3	34.6	33.2	33.9	30.8	24.8	23.5	17.7	6.4	-2.6	-10.8	-29.5	-46.6	-70.9	-125.0	-203.9	-318.7	-496.2	-777.5	-1206.8	40.9	30.9
11-C	46322	14119	-0.9	4.1	5.1	6.1	9.1	14.1	15.2	23.7	30.9	30.6	33.8	32.3	32.9	29.5	23.3	21.6	15.5	3.9	-5.5	-14.2	-33.6	-51.7	-77.6	-134.2	-217.1	-338.2	-525.5	-822.0	-1274.9	40.0	29.7
11-D	48915	14909	-1.4	3.6	4.6	5.6	8.6	13.6	14.7	23.1	30.3	30.0	33.1	31.4	31.7	28.1	21.6	19.6	13.2	1.2	-8.7	-17.9	-38.0	-57.3	-85.0	-144.4	-231.6	-359.5	-557.5	-870.8	-1349.4	39.1	28.5
11-E	51465	15686	-1.8	3.2	4.2	5.2	8.2	13.2	14.2	22.6	29.7	29.3	32.3	30.5	30.7	26.8	20.0	17.7	10.9	-1.4	-11.7	-21.5	-42.4	-62.8	-92.3	-154.3	-245.8	-380.5	-588.9	-918.7	-1422.6	38.3	27.4
11-F	54145	16503	-2.2	2.8	3.8	4.8	7.8	12.8	13.7	22.1	29.1	28.7	31.6	29.6	29.6	25.5	18.3	15.7	8.6	-4.2	-14.9	-25.3	-47.0	-68.6	-99.9	-164.7	-260.7	-402.5	-622.0	-969.1	-1499.6	37.4	26.2
11-G	56858	17330	-2.7	2.3	3.3	4.3	7.3	12.3	13.2	21.5	28.6	28.1	30.8	28.7	28.5	24.1	16.6	13.7	6.2	-7.0	-18.2	-29.1	-51.6	-74.4	-107.5	-175.2	-275.8	-424.7	-655.4	-1020.0	-1577.5	36.6	25.1
11-H	59629	18175	-3.1	1.9	2.9	3.9	6.9	11.9	12.7	21.0	28.0	27.4	30.1	27.8	27.4	22.7	15.0	11.6	3.8	-9.8	-21.4	-32.9	-56.3	-80.3	-115.3	-185.9	-291.1	-447.5	-689.5	-1072.0	-1657.1	35.8	24.1
11-K	68266	20807	-4.3	0.7	1.7	2.7	5.7	10.7	11.4	19.6	26.4	25.6	27.9	25.2	24.0	18.6	9.8	5.4	-3.6	-18.4	-31.5	-44.8	-70.7	-98.6	-139.5	-219.2	-338.9	-518.1	-795.7	-1234.0	-1904.9	33.5	21.0
11-L	71163	21690	-4.6	0.4	1.4	2.4	5.4	10.4	10.9	19.1	25.9	25.0	27.2	24.3	23.0	17.2	8.1	3.3	-6.1	-21.3	-34.9	-48.8	-75.5	-104.7	-147.6	-230.3	-354.9	-541.8	-831.3	-1288.4	-1988.0	32.7	20.1
12-A	43470	13250	-0.3	4.7	5.7	6.7	9.7	14.7	15.8	24.3	31.6	31.4	34.7	33.4	34.1	31.0	25.1	23.8	18.1	6.9	-2.0	-10.1	-28.6	-45.5	-69.5	-123.1	-201.2	-314.7	-490.2	-768.3	-1192.8	41.1	31.1
12-B	45764	13949	-0.8	4.2	5.2	6.2	9.2	14.2	15.3	23.8	31.0	30.8	34.0	32.5	33.1	29.8	23.6	22.0	16.0	4.5	-4.9	-13.4	-32.6	-50.5	-76.0	-132.1	-214.0	-333.6	-518.6	-811.5	-1258.8	40.2	30.0
12-C	48128	14670	-1.2	3.8	4.8	5.8	8.8	13.8	14.8	23.3	30.4	30.2	33.3	31.7	32.1	28.6	22.1	20.2	13.9	2.0	-7.7	-16.8	-36.7	-55.6	-82.8	-141.3	-227.2	-353.1	-547.8	-856.0	-1326.8	39.4	28.8
12-D	50650	15438	-1.7	3.3	4.3	5.3	8.3	13.3	14.3	22.7	29.9	29.5	32.6	30.8	31.0	27.2	20.5	18.3	11.7	-0.6	-10.8	-20.4	-41.0	-61.1	-90.0	-151.1	-241.3	-373.8	-578.9	-903.4	-1399.2	38.5	27.7
12-E	53124	16192	-2.1	2.9	3.9	4.9	7.9	12.9	13.9	22.3	29.3	28.9	31.9	29.9	30.0	26.0	18.9	16.4	9.5	-3.2	-13.7	-23.8	-45.2	-66.4	-97.0	-160.7	-255.0	-394.1	-609.4	-949.9	-1470.3	37.7	26.7
12-F	55772	16999	-2.5	2.5	3.5	4.5	7.5	12.5	13.4	21.7	28.8	28.3	31.1	29.1	28.9	24.6	17.3	14.5	7.1	-5.9	-16.9	-27.6	-49.7	-72.1	-104.5	-171.0	-269.7	-415.8	-642.0	-999.6	-1546.4	36.9	25.6
12-G	58477	17824	-2.9	2.1	3.1	4.1	7.1	12.1	12.9	21.2	28.2	27.7	30.4	28.2	27.8	23.3	15.7	12.5	4.8	-8.6	-20.1	-31.3	-54.3	-77.9	-112.1	-181.5	-284.7	-438.0	-675.3	-1050.4	-1624.0	36.1	24.5
12-H	61160	18642	-3.3	1.7	2.7	3.7	6.7	11.7	12.5	20.8	27.7	27.1	29.7	27.3	26.8	22.0	14.0	10.5	2.5	-11.3	-23.2	-35.1	-58.8	-83.6	-119.6	-191.8	-299.6	-460.0	-708.3	-1100.8	-1701.0	35.3	23.5
12-I	64025	19515	-3.7	1.3	2.3	3.3	6.3	11.3	12.0	20.3	27.2	26.5	29.0	26.5	25.7	20.6	12.3	8.4	0.0	-14.2	-26.6	-39.0	-63.6	-89.7	-127.7	-202.9	-315.5	-483.4	-743.6	-1154.5	-1783.3	34.6	22.5
12-J	66838	20372	-4.1	0.9	1.9	2.9	5.9	10.9	11.6	19.8	26.7	25.9	28.3	25.6	24.6	19.3	10.6	6.4	-2.4	-17.0	-29.9	-42.9	-68.3	-95.6	-135.5	-213.7	-331.0	-506.5	-778.2	-1207.3	-1864.0	33.8	21.5
12-K	69693	21243	-4.4	0.6	1.6	2.6	5.6	10.6	11.2	19.4	26.1	25.3	27.6	24.7	23.5	17.9	9.0	4.4	-4.8	-19.9	-33.2	-46.8	-73.1	-101.6	-143.5	-224.7	-346.8	-529.8	-813.2	-1260.8	-1945.9	33.1	20.5
12-L	72556	22115	-4.8	0.2	1.2	2.2	5.2	10.2	10.7	18.9	25.7	24.7	26.9	23.9	22.4	16.6	7.3	2.4	-7.2	-22.7	-36.5	-50.7	-77.9	-107.7	-151.5	-235.7	-362.6	-553.2	-848.4	-1314.5	-2028.0	32.4	19.6
13-A	45330	13817	-0.7	4.3	5.3	6.3	9.3	14.3	15.4	23.9	31.1	30.9	34.2	32.7	33.3	30.0	23.9	22.4	16.4	5.0	-4.3	-12.8	-31.9	-49.6	-74.8	-130.4	-211.6	-330.0	-513.2	-803.3	-1246.3	40.4	30.2
13-B	47580	14502	-1.1	3.9	4.9	5.9	8.9	13.9	14.9	23.4	30.6	30.3	33.5	31.9	32.3	28.8	22.5	20.6	14.4	2.6	-7.1	-16.0	-35.7	-54.5	-81.2	-139.2	-224.2	-348.5	-541.0	-845.7	-1311.0	39.6	29.1
13-C	49896	15208	-1.5	3.5	4.5	5.5	8.5	13.5	14.5	22.9	30.0	29.7	32.8	31.0	31.3	27.6	21.0	18.9	12.3	0.2	-9.9	-19.3	-39.7	-59.5	-87.8	-148.2	-237.1	-367.6	-569.6	-889.2	-1377.6	38.8	28.0
13-D	52388	15968	-2.0	3.0	4.0	5.0	8.0	13.0	14.0	22.4	29.5	29.1	32.1	30.2	30.3	26.4	19.4	17.0	10.1	-2.4	-12.9	-22.8	-44.0	-64.8	-94.9	-157.9	-250.9	-388.1	-600.3	-936.1	-1449.2	38.0	27.0
13-F	57450	17511	-2.8	2.2	3.2	4.2	7.2	12.2	13.1	21.4	28.4	27.9	30.7	28.5	28.2	23.8	16.3	13.2	5.7	-7.6	-18.9	-29.9	-52.6	-75.7	-109.2	-177.5	-279.0	-429.6	-662.7	-1031.1	-1594.5	36.4	24.9
13-G	60092	18316	-3.2	1.8	2.8	3.8	6.8	11.8	12.6	21.0	27.9	27.3	30.0	27.7	27.2	22.5	14.7	11.3	3.4	-10.3	-22.0	-33.6	-57.0	-81.3	-116.6	-187.7	-293.7	-451.2	-695.2	-1080.7	-1670.4	35.6	23.9
13-H	62713	19115	-3.5	1.5	2.5	3.5	6.5	11.5	12.2	20.5	27.4	26.8	29.3	26.9	26.2	21.2	13.1	9.4	1.1	-12.9	-25.1	-37.2	-61.4	-86.9	-124.0	-197.8	-308.2	-472.7	-727.4	-1129.9	-1745.6	34.9	22.9
13-I	65559	19982	-3.9	1.1	2.1	3.1	6.1	11.1	11.8	20.0	26.9	26.2	28.6	26.0	25.1	19.9	11.4	7.3	-1.3	-15.8	-28.4	-41.1	-66.2	-92.9	-132.0	-208.8	-323.9	-496.0	-762.4	-1183.3	-1827.3	34.1	21.9
13-J	68368	20839	-4.3	0.7	1.7	2.7	5.7	10.7	11.4	19.6	26.4	25.6	27.9	25.1	24.0	18.5	9.7	5.3	-3.7	-18.5	-31.6	-45.0	-70.9	-98.9	-139.8	-219.6	-339.5	-519.0	-797.0	-1236.0	-1907.9	33.4	21.0
13-K	71167	21692	-4.6	0.4	1.4	2.4	5.4	10.4	10.9	19.1	25.9	25.0	27.2	24.3	23.0	17.2	8.1	3.3	-6.1	-21.3	-34.9	-48.8	-75.5	-104.8	-147.6	-230.4	-354.9	-541.8	-831.4	-1288.4	-1988.1	32.7	20.1
13-L	74075	22578	-5.0	0.0	1.0	2.0	5.0	10.0	10.5	18.7	25.4	24.4	26.5	23.5	21.9	15.9	6.4	1.3	-8.5	-24.2	-38.2	-52.8	-80.4	-110.9	-155.7	-241.5	-370.9	-565.6	-867.1	-1342.9	-2071.6	32.0	19.2
14-D	54134	16500	-2.2	2.8	3.8	4.8	7.8	12.8	13.7	22.1	29.1	28.7	31.6	29.6	29.6	25.5	18.3	15.7	8.6	-4.2	-14.9	-25.3	-47.0	-68.6	-99.8	-164.6	-260.6	-402.4	-621.8	-968.8	-1499.3	37.4	26.2
14-E	56552	17237	-2.6	2.4	3.4	4.4	7.4	12.4	13.2	21.6	28.6	28.1	30.9	28.8	28.6	24.3	16.8	13.9	6.4	-6.7	-17.8	-28.6	-51.1	-73.8	-106.7	-174.0	-274.1	-422.2	-651.6	-1014.3	-1568.8	36.7	25.3
14-F	59129	18023	-3.0	2.0	3.0	4.0	7.0	12.0	12.8	21.1	28.1	27.5	30.2	28.0	27.6	23.0	15.3	12.0	4.2	-9.3	-20.8	-32.2	-55.4	-79.3	-113.9	-184.0	-288.3	-443.4	-683.3	-1062.6	-1642.7	35.9	24.3
14-G	61716	18811	-3.4	1.6	2.6	3.6	6.6	11.6	12.4	20.7	27.6	27.0	29.6	27.2	26.5	21.7	13.7	10.1	2.0	-11.9	-23.9	-35.8	-59.8	-84.8	-121.2	-194.0	-302.7	-464.6	-715.2	-1111.2	-1717.0	35.2	23.3
14-H	64376	19622	-3.8	1.2	2.2	3.2	6.2	11.2	12.0	20.2	27.1	26.4	28.9	26.3	25.5	20.4	12.1	8.2	-0.3	-14.6	-27.0	-39.5	-64.2	-90.4	-128.6	-204.2	-317.4	-486.3	-747.9	-1161.1	-1793.3	34.5	22.3
14-J	69865	21295	-4.5	0.5	1.5	2.5	5.5	10.5	11.1	19.3	26.1	25.3	27.5	24.7	23.4	17.8	8.9	4.3	-5.0	-20.0	-33.4	-47.0	-73.4	-102.0	-144.0	-225.4	-347.7	-531.2	-815.4	-1264.0	-1950.8	33.1	20.5
14-K	72724	22166	-4.8	0.2	1.2	2.2	5.2	10.2	10.7	18.9	25.6	24.7	26.9	23.8	22.4	16.5	7.2	2.2	-7.4	-22.9	-36.7	-50.9	-78.1	-108.0	-152.0	-236.3	-363.5	-554.6	-850.5	-1317.6	-2032.8	32.4	19.6
14-L	75586	23039	-5.1	-0.1	0.9	1.9	4.9	9.9	10.3	18.5	25.2	24.2	26.2	23.0	21.3	15.2	5.5	0.2	-9.8	-25.7	-39.9	-54.8	-82.9	-114.0	-159.9	-247.3	-379.3	-577.9	-885.6	-1371.3	-2114.9	31.7	18.7
15-F	60815	18537	-3.3	1.7	2.7	3.7	6.7	11.7	12.5	20.8	27.8	27.2	29.8	27.5	26.9	22.2	14.2	10.8	2.8	-11.0	-22.8	-34.6	-58.3	-82.8	-118.7	-190.5	-297.7	-457.2	-704.1	-1094.3	-1691.1	35.4	23.6
15-G	63430	19334	-3.6	1.4	2.4	3.4	6.4	11.4	12.1	20.4	27.3	26.6	29.1	26.6	25.9	20.9	12.7	8.9	0.5	-13.6	-25.9	-38.2	-62.6	-88.4	-126.0	-200.6	-312.2	-478.6	-736.3	-1143.3	-1766.2	34.7	22.7
15-H	66024	20124	-4.0	1.0	2.0	3.0	6.0	11.0	11.7	19.9	26.8	26.1	28.5	25.8	24.9	19.7	11.1	7.0	-1.7	-16.2	-28.9	-41.8	-67.0	-93.9	-133.3	-210.6	-326.5	-499.8	-768.2	-1192.0	-1840.6	34.0	21.8
15-I	68732	20949	-4.3	0.7	1.7	2.7	5.7	10.7	11.3	19.5	26.3	25.5	27.8	25.0	23.9	18.4	9.5	5.1	-4.0	-18.9	-32.0	-45.5	-71.5	-99.6	-140.8	-221.0	-341.5	-521.9	-801.4	-1242.8	-1918.3	33.3	20.9
15-J	71444	21776	-4.7	0.3	1.3	2.3	5.3	10.3	10.9	19.1	25.8	25.0	27.2	24.2	22.9	17.1	7.9	3.1	-6.3	-21.6	-35.2	-49.2	-76.0	-105.3	-148.4	-231.4	-356.4	-544.1	-834.8	-1293.6	-1996.1	32.7	20.0
15-K	74239	22628	-5.0	0.0	1.0	2.0	5.0	10.0	10.5	18.7	25.4	24.4	26.5	23.4	21.8	15.8	6.3	1.2	-8.6	-24.3	-38.4	-53.0	-80.6	-111.2	-156.2	-242.1	-371.8	-566.9	-869.1	-1346.0	-2076.3	32.0	19.1
16-J	73031	22260	-4.8	0.2	1.2	2.2	5.2	10.2	10.7	18.8	25.6	24.6	26.8	23.8	22.3	16.4	7.0	2.0	-7.6	-23.2	-37.0	-51.4	-78.6	-108.7	-152.8	-237.5	-365.2	-557.1	-854.3	-1323.4	-2041.6	32.3	19.5
16-K	75796	23103	-5.2	-0.2	0.8	1.8	4.8	9.8	10.3	18.4	25.1	24.1	26.1	23.0	21.3	15.1	5.4	0.1	-9.9	-25.9	-40.2	-55.1	-83.2	-114.5	-160.5	-248.1	-380.4	-579.6	-888.2	-1375.2	-2120.9	31.6	18.6
		Minimum:	-5.2	-0.2	0.8	1.8	4.8	9.8	10.3	18.4	25.1	24.1	26.1	23.0	21.3	15.1	5.4	0.1	-9.9	-25.9	-40.2	-55.1	-83.2	-114.5	-160.5	-248.1	-380.4	-579.6	-888.2	-1375.2	-2120.9	31.6	18.6
		Maximum:	1.5	6.5	7.5	8.5	11.5	16.5	17.8	26.4	33.8	33.9	37.6	36.7	38.1	35.8	30.9	30.6	26.1	16.1	8.5	2.2	-13.8	-27.0	-45.2	-90.0	-154.0	-245.2	-386.2	-610.0	-951.0	44.6	35.8

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Lmax)
FROM PILE DRIVING OF WTG MONOPILES

ODS Report Report no. 00.877, Figure 11, 2dB subtracted across the spectrum to account for peak to Lmax calculation

Sound Pressure Data	34	39	40	41	44	49	51	60	68	69	74	75	79	80	79	83	83	78	76	77	71	73	78	69	62	61	60	56	53	90	88
320 meters from the pile																															
Lmax at 320 meters	32	37	38	39	42	47	49	58	66	67	72	73	77	78	77	81	81	76	74	75	69	71	76	67	60	59	58	54	51	88	86

Data for the graph

Atmos. Absorption per 1 km	0.0000	0.0000	0.0000	0.0000	0.0000	0.0670	0.1050	0.1630	0.2510	0.3810	0.5650	0.8150	1.1300	1.5100	1.9200	2.3600	2.8400	3.3800	4.0800	5.0500	6.5100	8.7500	12.2000	17.7000	26.4000	39.9000	61.1000	93.7000	144.0000		
air temp 59F 70% RH																															

																		Hertz													
	1/3 Octave Bands		**16***	**20**	**25**	**31**	**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**	**L**	**A**
	Distance (ft)	**Distance (m)**																														
1-D	57293	17463	-2.7	2.3	3.3	4.3	7.3	12.3	13.1	21.5	28.5	28.0	30.7	28.6	28.3	23.9	16.4	13.3	5.8	-7.4	-18.7	-29.7	-52.3	-75.3	-108.7	-176.9	-278.2	-428.3	-660.7	-1028.2	-1590.0	36.4	25.0
1-E	60255	18366	-3.2	1.8	2.8	3.8	6.8	11.8	12.6	20.9	27.9	27.3	29.9	27.6	27.1	22.4	14.6	11.2	3.2	-10.4	-22.2	-33.8	-57.3	-81.7	-117.1	-188.3	-294.6	-452.6	-697.2	-1083.8	-1675.1	35.6	23.8
1-F	63250	19279	-3.6	1.4	2.4	3.4	6.4	11.4	12.1	20.4	27.3	26.6	29.2	26.7	26.0	21.0	12.8	9.0	0.7	-13.4	-25.7	-37.9	-62.3	-88.0	-125.5	-199.9	-311.2	-477.1	-734.0	-1140.0	-1761.0	34.8	22.7
1-G	66290	20205	-4.0	1.0	2.0	3.0	6.0	11.0	11.7	19.9	26.8	26.0	28.4	25.8	24.8	19.5	11.0	6.8	-1.9	-16.5	-29.2	-42.1	-67.4	-94.5	-134.0	-211.6	-328.0	-502.0	-771.4	-1197.0	-1848.2	34.0	21.7
1-H	69373	21145	-4.4	0.6	1.6	2.6	5.6	10.6	11.2	19.4	26.2	25.4	27.7	24.8	23.6	18.1	9.2	4.6	-4.5	-19.5	-32.8	-46.4	-72.6	-101.0	-142.6	-223.5	-345.0	-527.2	-809.3	-1254.8	-1936.7	33.2	20.6
1-I	72420	22074	-4.8	0.2	1.2	2.2	5.2	10.2	10.8	18.9	25.7	24.8	26.9	23.9	22.5	16.6	7.4	2.5	-7.1	-22.6	-36.3	-50.5	-77.6	-107.4	-151.1	-235.2	-361.8	-552.1	-846.7	-1311.9	-2024.1	32.4	19.7
1-J	75473	23004	-5.1	-0.1	0.9	1.9	4.9	9.9	10.3	18.5	25.2	24.2	26.2	23.1	21.4	15.2	5.6	0.3	-9.7	-25.6	-39.8	-54.7	-82.7	-113.8	-159.6	-246.9	-378.6	-577.0	-884.2	-1369.1	-2111.6	31.7	18.7
1-K	78601	23958	-5.5	-0.5	0.5	1.5	4.5	9.5	9.9	18.0	24.7	23.6	25.5	22.2	20.2	13.8	3.8	-1.9	-12.3	-28.6	-43.4	-58.9	-87.9	-120.4	-168.3	-258.9	-395.9	-602.5	-922.6	-1427.8	-2201.3	31.0	17.8
1-L	81781	24927	-5.8	-0.8	0.2	1.2	4.2	9.2	9.5	17.6	24.2	23.0	24.8	21.3	19.1	12.4	2.0	-4.1	-14.9	-31.7	-47.0	-63.2	-93.1	-127.0	-177.1	-271.0	-413.4	-628.5	-961.6	-1487.3	-2292.5	30.3	16.9
2-D	57076	17397	-2.7	2.3	3.3	4.3	7.3	12.3	13.1	21.5	28.5	28.0	30.8	28.6	28.4	24.0	16.5	13.5	6.0	-7.2	-18.4	-29.4	-51.9	-74.9	-108.1	-176.0	-277.0	-426.5	-658.1	-1024.1	-1583.8	36.5	25.0
2-E	60138	18330	-3.2	1.8	2.8	3.8	6.8	11.8	12.6	20.9	27.9	27.3	30.0	27.7	27.2	22.5	14.6	11.3	3.3	-10.3	-22.0	-33.6	-57.1	-81.4	-116.7	-187.9	-293.9	-451.6	-695.8	-1081.6	-1671.7	35.6	23.9
2-F	63213	19267	-3.6	1.4	2.4	3.4	6.4	11.4	12.1	20.4	27.3	26.7	29.2	26.7	26.0	21.0	12.8	9.0	0.7	-13.4	-25.6	-37.9	-62.3	-87.9	-125.4	-199.7	-311.0	-476.8	-733.6	-1139.3	-1759.9	34.8	22.8
2-G	66244	20191	-4.0	1.0	2.0	3.0	6.0	11.0	11.7	19.9	26.8	26.0	28.4	25.8	24.8	19.5	11.0	6.8	-1.9	-16.4	-29.2	-42.1	-67.3	-94.4	-133.9	-211.4	-327.7	-501.6	-770.9	-1196.1	-1846.9	34.0	21.7
2-H	69306	21125	-4.4	0.6	1.6	2.6	5.6	10.6	11.2	19.4	26.2	25.4	27.7	24.9	23.7	18.1	9.2	4.7	-4.5	-19.5	-32.7	-46.3	-72.5	-100.8	-142.4	-223.2	-344.6	-526.6	-808.5	-1253.6	-1934.8	33.2	20.7
2-I	72448	22082	-4.8	0.2	1.2	2.2	5.2	10.2	10.8	18.9	25.7	24.8	26.9	23.9	22.5	16.6	7.4	2.4	-7.1	-22.6	-36.3	-50.6	-77.7	-107.4	-151.2	-235.3	-362.0	-552.3	-847.1	-1312.4	-2024.9	32.4	19.7
2-J	75621	23049	-5.2	-0.2	0.8	1.8	4.8	9.8	10.3	18.5	25.1	24.1	26.2	23.0	21.3	15.2	5.5	0.2	-9.8	-25.7	-40.0	-54.9	-82.9	-114.1	-160.0	-247.4	-379.5	-578.2	-886.0	-1371.9	-2115.9	31.7	18.7
2-K	78657	23975	-5.5	-0.5	0.5	1.5	4.5	9.5	9.9	18.0	24.7	23.6	25.5	22.1	20.2	13.8	3.8	-1.9	-12.3	-28.7	-43.4	-59.0	-87.9	-120.5	-168.5	-259.1	-396.2	-603.0	-923.3	-1428.8	-2202.9	31.0	17.8
2-L	81834	24943	-5.8	-0.8	0.2	1.2	4.2	9.2	9.5	17.6	24.2	23.0	24.8	21.3	19.1	12.3	2.0	-4.1	-14.9	-31.8	-47.1	-63.3	-93.2	-127.1	-177.3	-271.2	-413.7	-628.9	-962.3	-1488.3	-2294.0	30.3	16.9
3-D	57000	17374	-2.7	2.3	3.3	4.3	7.3	12.3	13.2	21.5	28.5	28.0	30.8	28.7	28.4	24.0	16.6	13.6	6.1	-7.1	-18.3	-29.3	-51.8	-74.7	-107.9	-175.7	-276.5	-425.9	-657.1	-1022.7	-1581.6	36.5	25.1
3-E	60118	18324	-3.2	1.8	2.8	3.8	6.8	11.8	12.6	21.0	27.9	27.3	30.0	27.7	27.2	22.5	14.7	11.3	3.4	-10.3	-22.0	-33.6	-57.1	-81.4	-116.7	-187.8	-293.8	-451.5	-695.5	-1081.2	-1671.1	35.6	23.9
3-F	63217	19268	-3.6	1.4	2.4	3.4	6.4	11.4	12.1	20.4	27.3	26.6	29.2	26.7	26.0	21.0	12.8	9.0	0.7	-13.4	-25.6	-37.9	-62.3	-87.9	-125.4	-199.8	-311.0	-476.8	-733.6	-1139.3	-1760.1	34.8	22.8
3-G	66306	20210	-4.0	1.0	2.0	3.0	6.0	11.0	11.7	19.9	26.7	26.0	28.4	25.8	24.8	19.5	11.0	6.8	-1.9	-16.5	-29.2	-42.2	-67.5	-94.5	-134.0	-211.7	-328.1	-502.1	-771.6	-1197.3	-1848.7	34.0	21.7
3-H	69396	21152	-4.4	0.6	1.6	2.6	5.6	10.6	11.2	19.4	26.2	25.4	27.7	24.8	23.6	18.1	9.1	4.6	-4.6	-19.6	-32.8	-46.4	-72.6	-101.0	-142.7	-223.6	-345.1	-527.4	-809.6	-1255.2	-1937.3	33.2	20.6
3-I	72496	22097	-4.8	0.2	1.2	2.2	5.2	10.2	10.8	18.9	25.7	24.8	26.9	23.9	22.5	16.6	7.3	2.4	-7.2	-22.6	-36.4	-50.6	-77.8	-107.6	-151.3	-235.5	-362.2	-552.7	-847.7	-1313.3	-2026.3	32.4	19.6
3-J	75654	23059	-5.2	-0.2	0.8	1.8	4.8	9.8	10.3	18.5	25.1	24.1	26.2	23.0	21.3	15.2	5.5	0.2	-9.8	-25.7	-40.0	-54.9	-83.0	-114.2	-160.1	-247.6	-379.6	-578.5	-886.4	-1372.5	-2116.8	31.7	18.7
3-K	78847	24033	-5.5	-0.5	0.5	1.5	4.5	9.5	9.9	18.0	24.6	23.5	25.5	22.1	20.2	13.7	3.7	-2.0	-12.5	-28.9	-43.7	-59.3	-88.3	-120.9	-169.0	-259.8	-397.2	-604.5	-925.6	-1432.4	-2208.4	31.0	17.7
3-L	81936	24974	-5.8	-0.8	0.2	1.2	4.2	9.2	9.5	17.6	24.1	23.0	24.8	21.2	19.1	12.3	1.9	-4.2	-15.0	-31.9	-47.2	-63.4	-93.3	-127.3	-177.6	-271.6	-414.2	-629.7	-963.5	-1490.2	-2296.9	30.3	16.9
4-D	57034	17384	-2.7	2.3	3.3	4.3	7.3	12.3	13.2	21.5	28.5	28.0	30.8	28.7	28.4	24.0	16.5	13.5	6.0	-7.2	-18.4	-29.3	-51.9	-74.8	-108.0	-175.9	-276.7	-426.2	-657.6	-1023.3	-1582.6	36.5	25.1
4-E	60200	18349	-3.2	1.8	2.8	3.8	6.8	11.8	12.6	20.9	27.9	27.3	30.0	27.6	27.1	22.5	14.6	11.2	3.3	-10.4	-22.1	-33.7	-57.2	-81.5	-116.9	-188.1	-294.3	-452.1	-696.5	-1082.7	-1673.5	35.6	23.9
4-F	63316	19299	-3.6	1.4	2.4	3.4	6.4	11.4	12.1	20.4	27.3	26.6	29.2	26.7	25.9	20.9	12.7	9.0	0.6	-13.5	-25.8	-38.0	-62.4	-88.2	-125.7	-200.1	-311.5	-477.6	-734.9	-1141.2	-1762.9	34.7	22.7
4-G	66463	20258	-4.0	1.0	2.0	3.0	6.0	11.0	11.6	19.9	26.7	26.0	28.4	25.7	24.7	19.4	10.9	6.7	-2.1	-16.7	-29.4	-42.4	-67.7	-94.8	-134.5	-212.3	-328.9	-503.4	-773.6	-1200.2	-1853.2	33.9	21.6
4-H	69578	21207	-4.4	0.6	1.6	2.6	5.6	10.6	11.2	19.4	26.2	25.3	27.6	24.8	23.6	18.0	9.0	4.5	-4.7	-19.7	-33.0	-46.6	-72.9	-101.4	-143.2	-224.3	-346.1	-528.9	-811.8	-1258.6	-1942.6	33.1	20.6
4-I	72736	22170	-4.8	0.2	1.2	2.2	5.2	10.2	10.7	18.9	25.6	24.7	26.9	23.8	22.4	16.5	7.2	2.2	-7.4	-22.9	-36.7	-51.0	-78.2	-108.1	-152.0	-236.4	-363.6	-554.6	-850.6	-1317.8	-2033.1	32.4	19.6
4-J	75866	23124	-5.2	-0.2	0.8	1.8	4.8	9.8	10.3	18.4	25.1	24.1	26.1	22.9	21.2	15.1	5.4	0.0	-10.0	-25.9	-40.3	-55.2	-83.3	-114.6	-160.7	-248.4	-380.8	-580.2	-889.1	-1376.5	-2122.9	31.6	18.6
4-K	79037	24091	-5.5	-0.5	0.5	1.5	4.5	9.5	9.9	18.0	24.6	23.5	25.4	22.0	20.1	13.6	3.6	-2.2	-12.6	-29.0	-43.9	-59.5	-88.6	-121.3	-169.5	-260.5	-398.3	-606.1	-928.0	-1435.9	-2213.8	30.9	17.7
4-L	82220	25061	-5.9	-0.9	0.1	1.1	4.1	9.1	9.5	17.5	24.1	22.9	24.7	21.1	19.0	12.2	1.8	-4.4	-15.3	-32.1	-47.5	-63.8	-93.8	-127.9	-178.4	-272.7	-415.8	-632.0	-967.0	-1495.5	-2305.1	30.2	16.8
5-D	57162	17423	-2.7	2.3	3.3	4.3	7.3	12.3	13.1	21.5	28.5	28.0	30.8	28.6	28.3	24.0	16.5	13.4	5.9	-7.3	-18.5	-29.5	-52.1	-75.1	-108.4	-176.4	-277.4	-427.2	-659.1	-1025.7	-1586.3	36.5	25.0
5-E	60273	18371	-3.2	1.8	2.8	3.8	6.8	11.8	12.6	20.9	27.9	27.3	29.9	27.6	27.1	22.4	14.6	11.2	3.2	-10.4	-22.2	-33.8	-57.3	-81.7	-117.1	-188.4	-294.7	-452.7	-697.4	-1084.1	-1675.6	35.6	23.8
5-F	63465	19344	-3.6	1.4	2.4	3.4	6.4	11.4	12.1	20.4	27.3	26.6	29.1	26.6	25.9	20.9	12.6	8.8	0.5	-13.7	-25.9	-38.2	-62.7	-88.5	-126.1	-200.7	-312.4	-478.9	-736.7	-1144.0	-1767.2	34.7	22.7
5-G	66577	20293	-4.0	1.0	2.0	3.0	6.0	11.0	11.6	19.9	26.7	25.9	28.3	25.7	24.7	19.4	10.8	6.6	-2.2	-16.8	-29.6	-42.5	-67.9	-95.1	-134.8	-212.7	-329.6	-504.3	-774.9	-1202.4	-1856.5	33.9	21.6
5-H	69754	21261	-4.4	0.6	1.6	2.6	5.6	10.6	11.1	19.4	26.1	25.3	27.6	24.7	23.5	17.9	8.9	4.3	-4.9	-19.9	-33.2	-46.9	-73.2	-101.8	-143.7	-224.9	-347.1	-530.3	-814.0	-1262.0	-1947.6	33.1	20.5
5-I	72908	22222	-4.8	0.2	1.2	2.2	5.2	10.2	10.7	18.9	25.6	24.7	26.8	23.8	22.3	16.4	7.1	2.1	-7.5	-23.0	-36.9	-51.2	-78.4	-108.4	-152.5	-237.0	-364.5	-556.1	-852.7	-1321.1	-2038.1	32.3	19.5
5-J	76081	23189	-5.2	-0.2	0.8	1.8	4.8	9.8	10.3	18.4	25.1	24.1	26.1	22.9	21.2	15.0	5.3	-0.1	-10.2	-26.2	-40.5	-55.5	-83.7	-115.1	-161.3	-249.2	-382.0	-582.0	-891.7	-1380.5	-2129.1	31.6	18.6
6-D	57365	17485	-2.8	2.2	3.2	4.2	7.2	12.2	13.1	21.4	28.5	27.9	30.7	28.6	28.3	23.9	16.3	13.3	5.7	-7.5	-18.8	-29.8	-52.4	-75.5	-108.9	-177.2	-278.6	-428.9	-661.6	-1029.5	-1592.1	36.4	24.9
6-E	60502	18441	-3.2	1.8	2.8	3.8	6.8	11.8	12.6	20.9	27.8	27.2	29.9	27.5	27.0	22.3	14.4	11.0	3.0	-10.7	-22.5	-34.1	-57.7	-82.2	-117.8	-189.3	-296.0	-454.6	-700.2	-1088.4	-1682.1	35.5	23.7
6-G	66871	20382	-4.1	0.9	1.9	2.9	5.9	10.9	11.6	19.8	26.6	25.9	28.3	25.6	24.6	19.2	10.6	6.4	-2.4	-17.1	-29.9	-42.9	-68.4	-95.7	-135.6	-213.8	-331.2	-506.7	-778.6	-1207.9	-1864.9	33.8	21.5
6-H	70067	21356	-4.5	0.5	1.5	2.5	5.5	10.5	11.1	19.3	26.1	25.2	27.5	24.6	23.4	17.7	8.7	4.1	-5.1	-20.2	-33.6	-47.3	-73.7	-102.4	-144.6	-226.1	-348.8	-532.8	-817.8	-1267.8	-1956.6	33.0	20.4
6-I	73180	22305	-4.9	0.1	1.1	2.1	5.1	10.1	10.7	18.8	25.6	24.6	26.8	23.7	22.2	16.3	6.9	1.9	-7.7	-23.3	-37.2	-51.6	-78.9	-109.0	-153.2	-238.1	-366.0	-558.3	-856.1	-1326.2	-2045.9	32.3	19.4
6-J	76369	23277	-5.2	-0.2	0.8	1.8	4.8	9.8	10.2	18.4	25.0	24.0	26.0	22.8	21.1	14.8	5.1	-0.3	-10.4	-26.4	-40.8	-55.9	-84.2	-115.7	-162.1	-250.3	-383.6	-584.3	-895.2	-1385.9	-2137.3	31.5	18.5
7-B	51236	15617	-1.8	3.2	4.2	5.2	8.2	13.2	14.2	22.6	29.7	29.4	32.4	30.6	30.8	26.9	20.1	17.9	11.1	-1.2	-11.5	-21.2	-42.0	-62.4	-91.6	-153.4	-244.5	-378.6	-586.1	-914.4	-1416.1	38.3	27.5
7-C	54417	16586	-2.3	2.7	3.7	4.7	7.7	12.7	13.6	22.0	29.1	28.6	31.5	29.5	29.5	25.3	18.1	15.5	8.3	-4.5	-15.3	-25.7	-47.4	-69.2	-100.6	-165.7	-262.2	-404.7	-625.3	-974.2	-1507.4	37.3	26.1
7-E	60794	18530	-3.3	1.7	2.7	3.7	6.7	11.7	12.5	20.8	27.8	27.2	29.8	27.5	26.9	22.2	14.2	10.8	2.8	-11.0	-22.8	-34.6	-58.2	-82.8	-118.6	-190.4	-297.6	-457.0	-703.8	-1093.9	-1690.5	35.4	23.6
7-F	63956	19494	-3.7	1.3	2.3	3.3	6.3	11.3	12.0	20.3	27.2	26.5	29.0	26.5	25.7	20.6	12.4	8.5	0.1	-14.1	-26.5	-38.9	-63.5	-89.5	-127.5	-202.6	-315.1	-482.9	-742.7	-1153.2	-1781.3	34.6	22.5
7-G	67123	20459	-4.1	0.9	1.9	2.9	5.9	10.9	11.5	19.8	26.6	25.8	28.2	25.5	24.5	19.1	10.5	6.2	-2.6	-17.3	-30.2	-43.3	-68.8	-96.2	-136.3	-214.8	-332.6	-508.8	-781.7	-1212.6	-1872.2	33.7	21.4
7-H	70330	21437	-4.5	0.5	1.5	2.5	5.5	10.5	11.1	19.3	26.0	25.2	27.4	24.5	23.3	17.6	8.6	3.9	-5.4	-20.5	-33.9	-47.7	-74.2	-103.0	-145.3	-227.1	-350.3	-535.0	-821.1	-1272.7	-1964.2	32.9	20.3
7-I	73545	22417	-4.9	0.1	1.1	2.1	5.1	10.1	10.6	18.8	25.5	24.5	26.7	23.6	22.1	16.1	6.7	1.7	-8.1	-23.7	-37.6	-52.1	-79.5	-109.8	-154.3	-239.5	-368.0	-561.3	-860.6	-1333.0	-2056.4	32.2	19.3
8-A	48310	14725	-1.3	3.7	4.7	5.7	8.7	13.7	14.8	23.2	30.4	30.1	33.3	31.6	32.0	28.5	22.0	20.1	13.7	1.8	-7.9	-17.0	-37.0	-56.0	-83.3	-142.0	-228.2	-354.5	-550.0	-859.4	-1332.0	39.3	28.8
8-B	51508	15700	-1.8	3.2	4.2	5.2	8.2	13.2	14.2	22.6	29.7	29.3	32.3	30.5	30.7	26.8	20.0	17.7	10.9	-1.5	-11.8	-21.6	-42.5	-62.9	-92.4	-154.4	-246.0	-380.8	-589.5	-919.5	-1423.9	38.2	27.3
8-C	54711	16676	-2.3	2.7	3.7	4.7	7.7	12.7	13.6	21.9	29.0	28.6	31.4	29.4	29.3	25.2	18.0	15.3	8.1	-4.8	-15.6	-26.1	-47.9	-69.8	-101.5	-166.9	-263.8	-407.1	-628.9	-979.7	-1515.9	37.2	26.0
8-D	57955	17665	-2.8	2.2	3.2	4.2	7.2	12.2	13.0	21.3	28.3	27.8	30.6	28.4	28.0	23.6	16.0	12.9	5.2	-8.1	-19.5	-30.6	-53.4	-76.8	-110.6	-179.4	-281.8	-433.7	-668.9	-1040.6	-1609.0	36.2	24.7
8-F	64313	19602	-3.7	1.3	2.3	3.3	6.3	11.3	12.0	20.2	27.1	26.4	28.9	26.4	25.5	20.5	12.1	8.2	-0.2	-14.5	-26.9	-39.4	-64.1	-90.3	-128.5	-204.0	-317.0	-485.8	-747.1	-1159.9	-1791.5	34.5	22.4

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Lmax)
FROM PILE DRIVING OF WTG MONOPILES

8-G	67495	20572	-4.2	0.8	1.8	2.8	5.8	10.8	11.5	19.7	26.5	25.8	28.1	25.4	24.3	19.0	10.3	6.0	-3.0	-17.7	-30.6	-43.8	-69.4	-97.0	-137.4	-216.2	-334.6	-511.8	-786.2	-1219.6	-1882.8	33.6	21.3
8-H	70723	21556	-4.6	0.4	1.4	2.4	5.4	10.4	11.0	19.2	26.0	25.1	27.3	24.4	23.1	17.4	8.4	3.7	-5.7	-20.9	-34.3	-48.2	-74.8	-103.8	-146.4	-228.7	-352.5	-538.2	-825.9	-1280.1	-1975.4	32.8	20.2
9-A	48689	14840	-1.3	3.7	4.7	5.7	8.7	13.7	14.7	23.1	30.3	30.0	33.1	31.5	31.8	28.3	21.7	19.8	13.4	1.4	-8.4	-17.6	-37.7	-56.9	-84.4	-143.5	-230.3	-357.7	-554.7	-866.5	-1342.9	39.2	28.6
9-B	51888	15815	-1.9	3.1	4.1	5.1	8.1	13.1	14.1	22.5	29.6	29.2	32.2	30.4	30.5	26.6	19.7	17.4	10.6	-1.9	-12.3	-22.1	-43.1	-63.8	-93.5	-155.9	-248.1	-384.0	-594.1	-926.6	-1434.8	38.1	27.2
9-C	55108	16797	-2.4	2.6	3.6	4.6	7.6	12.6	13.5	21.9	28.9	28.5	31.3	29.3	29.2	25.0	17.7	15.0	7.7	-5.2	-16.1	-26.6	-48.6	-70.7	-102.6	-168.4	-266.0	-410.4	-633.8	-987.1	-1527.3	37.1	25.8
9-D	58323	17777	-2.9	2.1	3.1	4.1	7.1	12.1	12.9	21.3	28.3	27.7	30.5	28.2	27.9	23.4	15.7	12.6	4.9	-8.5	-19.9	-31.1	-54.1	-77.5	-111.6	-180.9	-283.9	-436.8	-673.4	-1047.5	-1619.6	36.1	24.6
9-E	61515	18750	-3.4	1.6	2.6	3.6	6.6	11.6	12.4	20.7	27.6	27.0	29.6	27.2	26.6	21.8	13.8	10.3	2.1	-11.7	-23.6	-35.6	-59.4	-84.3	-120.6	-193.2	-301.6	-462.9	-712.7	-1107.4	-1711.2	35.2	23.4
9-F	64742	19733	-3.8	1.2	2.2	3.2	6.2	11.2	11.9	20.2	27.0	26.3	28.8	26.2	25.4	20.3	11.9	7.9	-0.6	-14.9	-27.4	-40.0	-64.8	-91.2	-129.7	-205.6	-319.4	-489.3	-752.4	-1168.0	-1803.8	34.4	22.2
9-G	67971	20717	-4.2	0.8	1.8	2.8	5.8	10.8	11.4	19.6	26.5	25.7	28.0	25.3	24.2	18.7	10.0	5.6	-3.4	-18.2	-31.2	-44.4	-70.2	-98.0	-138.7	-218.1	-337.3	-515.7	-792.1	-1228.5	-1896.5	33.5	21.1
9-H	71156	21688	-4.6	0.4	1.4	2.4	5.4	10.4	10.9	19.1	25.9	25.0	27.2	24.3	23.0	17.2	8.1	3.4	-6.1	-21.3	-34.8	-48.8	-75.5	-104.7	-147.6	-230.3	-354.8	-541.7	-831.2	-1288.2	-1987.8	32.7	20.1
9-I	74395	22676	-5.0	0.0	1.0	2.0	5.0	10.0	10.5	18.6	25.3	24.4	26.5	23.4	21.8	15.7	6.2	1.1	-8.8	-24.5	-38.6	-53.2	-80.9	-111.5	-156.6	-242.7	-372.7	-568.2	-871.0	-1348.9	-2080.7	32.0	19.1
10-A	49132	14975	-1.4	3.6	4.6	5.6	8.6	13.6	14.6	23.1	30.2	29.9	33.0	31.3	31.7	28.0	21.5	19.5	13.0	1.0	-8.9	-18.2	-38.4	-57.8	-85.6	-145.2	-232.8	-361.3	-560.2	-874.9	-1355.6	39.0	28.4
10-B	52338	15952	-2.0	3.0	4.0	5.0	8.0	13.0	14.0	22.4	29.5	29.1	32.1	30.2	30.3	26.4	19.4	17.0	10.2	-2.3	-12.8	-22.7	-43.9	-64.7	-94.7	-157.7	-250.6	-387.7	-599.7	-935.1	-1447.7	38.0	27.0
10-C	55552	16932	-2.5	2.5	3.5	4.5	7.5	12.5	13.4	21.8	28.8	28.4	31.2	29.1	29.0	24.8	17.4	14.6	7.3	-5.6	-16.6	-27.2	-49.4	-71.6	-103.8	-170.1	-268.5	-414.0	-639.3	-995.5	-1540.0	37.0	25.7
10-D	58808	17925	-3.0	2.0	3.0	4.0	7.0	12.0	12.9	21.2	28.2	27.6	30.3	28.1	27.7	23.1	15.5	12.2	4.5	-9.0	-20.5	-31.8	-54.9	-78.6	-113.0	-182.7	-286.6	-440.7	-679.4	-1056.6	-1633.5	36.0	24.4
10-E	62024	18905	-3.4	1.6	2.6	3.6	6.6	11.6	12.3	20.6	27.5	26.9	29.5	27.1	26.4	21.6	13.5	9.9	1.7	-12.2	-24.2	-36.3	-60.3	-85.4	-122.0	-195.2	-304.4	-467.1	-719.0	-1117.0	-1725.8	35.1	23.2
10-F	65282	19898	-3.9	1.1	2.1	3.1	6.1	11.1	11.8	20.1	26.9	26.2	28.7	26.1	25.2	20.0	11.6	7.5	-1.1	-15.5	-28.0	-40.8	-65.7	-92.3	-131.2	-207.7	-322.4	-493.7	-759.0	-1178.1	-1819.3	34.2	22.0
10-G	68500	20879	-4.3	0.7	1.7	2.7	5.7	10.7	11.3	19.6	26.4	25.5	27.9	25.1	24.0	18.5	9.7	5.2	-3.8	-18.7	-31.8	-45.2	-71.1	-99.1	-140.2	-220.1	-340.2	-520.0	-798.6	-1238.4	-1911.6	33.4	20.9
10-H	71712	21858	-4.7	0.3	1.3	2.3	5.3	10.3	10.9	19.0	25.8	24.9	27.1	24.1	22.8	17.0	7.8	3.0	-6.5	-21.9	-35.5	-49.6	-76.5	-105.9	-149.1	-232.5	-357.9	-546.3	-838.0	-1298.6	-2003.8	32.6	19.9
10-I	75097	22889	-5.1	-0.1	0.9	1.9	4.9	9.9	10.4	18.5	25.2	24.2	26.3	23.2	21.5	15.4	5.8	0.6	-9.4	-25.2	-39.4	-54.2	-82.1	-113.0	-158.6	-245.4	-376.6	-573.9	-879.6	-1362.1	-2100.8	31.8	18.8
11-A	49629	15127	-1.5	3.5	4.5	5.5	8.5	13.5	14.5	23.0	30.1	29.8	32.9	31.1	31.4	27.8	21.1	19.1	12.6	0.5	-9.5	-18.9	-39.3	-58.9	-87.1	-147.1	-235.6	-365.4	-566.3	-884.2	-1369.9	38.9	28.2
11-B	52887	16120	-2.0	3.0	4.0	5.0	8.0	13.0	13.9	22.3	29.4	29.0	31.9	30.0	30.1	26.1	19.1	16.6	9.7	-2.9	-13.4	-23.5	-44.8	-65.9	-96.3	-159.8	-253.7	-392.2	-606.5	-945.4	-1463.5	37.8	26.8
11-C	56056	17086	-2.5	2.5	3.5	4.5	7.5	12.5	13.3	21.7	28.7	28.2	31.1	29.0	28.8	24.5	17.1	14.3	6.9	-6.2	-17.2	-28.0	-50.2	-72.7	-105.3	-172.1	-271.3	-418.2	-645.5	-1004.9	-1554.5	36.8	25.5
11-D	59326	18083	-3.0	2.0	3.0	4.0	7.0	12.0	12.8	21.1	28.1	27.5	30.2	27.9	27.5	22.9	15.1	11.9	4.0	-9.5	-21.1	-32.5	-55.7	-79.7	-114.5	-184.7	-289.4	-445.0	-685.8	-1066.3	-1648.4	35.9	24.2
11-E	62538	19062	-3.5	1.5	2.5	3.5	6.5	11.5	12.2	20.5	27.4	26.8	29.4	26.9	26.2	21.3	13.2	9.5	1.3	-12.7	-24.8	-37.0	-61.1	-86.5	-123.5	-197.1	-307.2	-471.3	-725.3	-1126.6	-1740.6	35.0	23.0
11-F	65756	20042	-3.9	1.1	2.1	3.1	6.1	11.1	11.7	20.0	26.8	26.1	28.5	25.9	25.0	19.8	11.3	7.2	-1.5	-15.9	-28.6	-41.4	-66.5	-93.3	-132.5	-209.5	-325.0	-497.6	-764.9	-1187.0	-1832.9	34.1	21.9
11-G	68981	21025	-4.4	0.6	1.6	2.6	5.6	10.6	11.3	19.5	26.3	25.5	27.8	24.9	23.8	18.3	9.4	4.9	-4.2	-19.2	-32.3	-45.8	-71.9	-100.1	-141.5	-222.0	-342.8	-524.0	-804.5	-1247.5	-1925.5	33.3	20.8
11-H	72204	22008	-4.7	0.3	1.3	2.3	5.3	10.3	10.8	19.0	25.7	24.8	27.0	24.0	22.6	16.7	7.5	2.6	-6.9	-22.3	-36.1	-50.2	-77.3	-106.9	-150.5	-234.3	-360.6	-550.3	-844.1	-1307.9	-2017.9	32.5	19.7
11-K	81944	24977	-5.8	-0.8	0.2	1.2	4.2	9.2	9.5	17.6	24.1	23.0	24.8	21.2	19.1	12.3	1.9	-4.2	-15.0	-31.9	-47.2	-63.4	-93.4	-127.4	-177.6	-271.7	-414.3	-629.8	-963.6	-1490.4	-2297.2	30.3	16.9
11-L	85176	25962	-6.2	-1.2	-0.2	0.8	3.8	8.8	9.1	17.1	23.6	22.4	24.0	20.3	17.9	10.8	0.1	-6.4	-17.7	-35.0	-50.9	-67.8	-98.7	-134.1	-186.5	-284.0	-432.0	-656.1	-1003.3	-1550.9	-2389.8	29.6	16.0
12-A	50212	15305	-1.6	3.4	4.4	5.4	8.4	13.4	14.4	22.8	30.0	29.6	32.7	30.9	31.2	27.5	20.8	18.6	12.0	-0.1	-10.2	-19.7	-40.3	-60.1	-88.7	-149.4	-238.8	-370.2	-573.5	-895.2	-1386.6	38.7	27.9
12-B	53474	16299	-2.1	2.9	3.9	4.9	7.9	12.9	13.8	22.2	29.3	28.8	31.8	29.8	29.8	25.8	18.7	16.2	9.1	-3.5	-14.1	-24.3	-45.8	-67.2	-98.0	-162.1	-257.0	-397.0	-613.7	-956.5	-1480.4	37.6	26.5
12-C	56702	17283	-2.6	2.4	3.4	4.4	7.4	12.4	13.2	21.6	28.6	28.1	30.9	28.8	28.5	24.2	16.7	13.8	6.3	-6.8	-18.0	-28.9	-51.3	-74.1	-107.1	-174.6	-274.9	-423.5	-653.5	-1017.1	-1573.0	36.6	25.2
12-D	59960	18276	-3.1	1.9	2.9	3.9	6.9	11.9	12.7	21.0	27.9	27.4	30.0	27.7	27.2	22.6	14.8	11.4	3.5	-10.1	-21.8	-33.4	-56.8	-81.0	-116.2	-187.2	-293.0	-450.2	-693.6	-1078.2	-1666.6	35.7	23.9
12-E	63135	19244	-3.6	1.4	2.4	3.4	6.4	11.4	12.1	20.4	27.3	26.7	29.2	26.7	26.0	21.0	12.8	9.1	0.8	-13.3	-25.5	-37.8	-62.1	-87.8	-125.2	-199.5	-310.5	-476.2	-732.6	-1137.8	-1757.7	34.8	22.8
12-F	66354	20225	-4.0	1.0	2.0	3.0	6.0	11.0	11.7	19.9	26.7	26.0	28.4	25.7	24.8	19.5	10.9	6.8	-2.0	-16.5	-29.3	-42.2	-67.5	-94.6	-134.2	-211.9	-328.3	-502.5	-772.2	-1198.2	-1850.1	33.9	21.7
12-G	69619	21220	-4.4	0.6	1.6	2.6	5.6	10.6	11.2	19.4	26.2	25.3	27.6	24.8	23.5	18.0	9.0	4.4	-4.8	-19.8	-33.1	-46.7	-73.0	-101.5	-143.3	-224.4	-346.4	-529.2	-812.3	-1259.4	-1943.7	33.1	20.6
12-H	72788	22186	-4.8	0.2	1.2	2.2	5.2	10.2	10.7	18.9	25.6	24.7	26.9	23.8	22.4	16.5	7.2	2.2	-7.4	-22.9	-36.7	-51.0	-78.2	-108.2	-152.1	-236.6	-363.8	-555.1	-851.3	-1318.8	-2034.6	32.3	19.6
12-I	76106	23197	-5.2	-0.2	0.8	1.8	4.8	9.8	10.3	18.4	25.1	24.1	26.1	22.9	21.1	14.9	5.2	-0.1	-10.2	-26.2	-40.5	-55.5	-83.7	-115.1	-161.4	-249.3	-382.1	-582.2	-892.0	-1381.0	-2129.8	31.6	18.5
12-J	79333	24181	-5.6	-0.6	0.4	1.4	4.4	9.4	9.8	17.9	24.5	23.4	25.3	22.0	20.0	13.5	3.4	-2.4	-12.9	-29.3	-44.2	-59.9	-89.1	-121.9	-170.3	-261.7	-399.9	-608.5	-931.6	-1441.5	-2222.3	30.9	17.6
12-K	82559	25164	-5.9	-0.9	0.1	1.1	4.1	9.1	9.4	17.5	24.0	22.9	24.6	21.1	18.8	12.0	1.6	-4.6	-15.5	-32.5	-47.9	-64.3	-94.4	-128.6	-179.3	-274.0	-417.6	-634.8	-971.2	-1501.9	-2314.8	30.2	16.7
12-L	85767	26142	-6.2	-1.2	-0.2	0.8	3.8	8.8	9.0	17.0	23.5	22.3	23.9	20.2	17.7	10.6	-0.2	-6.8	-18.2	-35.6	-51.5	-68.6	-99.6	-135.3	-188.2	-286.3	-435.3	-660.9	-1010.5	-1562.0	-2406.8	29.5	15.8
13-A	50853	15500	-1.7	3.3	4.3	5.3	8.3	13.3	14.3	22.7	29.8	29.5	32.5	30.7	30.9	27.1	20.4	18.2	11.5	-0.8	-11.0	-20.6	-41.4	-61.5	-90.5	-151.9	-242.4	-375.5	-581.4	-907.2	-1405.1	38.5	27.6
13-B	54135	16500	-2.2	2.8	3.8	4.8	7.8	12.8	13.7	22.1	29.1	28.7	31.6	29.6	29.6	25.5	18.3	15.7	8.6	-4.2	-14.9	-25.3	-47.0	-68.6	-99.8	-164.6	-260.6	-402.4	-621.8	-968.9	-1499.3	37.4	26.2
13-C	57340	17477	-2.7	2.3	3.3	4.3	7.3	12.3	13.1	21.5	28.5	27.9	30.7	28.6	28.3	23.9	16.3	13.3	5.8	-7.5	-18.7	-29.7	-52.4	-75.4	-108.9	-177.1	-278.4	-428.7	-661.3	-1029.1	-1591.4	36.4	24.9
13-D	60618	18476	-3.2	1.8	2.8	3.8	6.8	11.8	12.6	20.9	27.8	27.2	29.9	27.5	27.0	22.3	14.4	10.9	2.9	-10.8	-22.6	-34.3	-57.9	-82.4	-118.1	-189.7	-296.6	-455.6	-701.7	-1090.6	-1685.5	35.5	23.7
13-F	67049	20437	-4.1	0.9	1.9	2.9	5.9	10.9	11.5	19.8	26.6	25.8	28.2	25.5	24.5	19.2	10.5	6.3	-2.6	-17.2	-30.1	-43.2	-68.7	-96.1	-136.1	-214.5	-332.2	-508.2	-780.8	-1211.2	-1870.0	33.8	21.4
13-G	70274	21419	-4.5	0.5	1.5	2.5	5.5	10.5	11.1	19.3	26.0	25.2	27.4	24.6	23.3	17.6	8.6	4.0	-5.3	-20.4	-33.8	-47.6	-74.1	-102.9	-145.1	-226.9	-350.0	-534.5	-820.4	-1271.7	-1962.5	33.0	20.4
13-H	73447	22387	-4.9	0.1	1.1	2.1	5.1	10.1	10.6	18.8	25.5	24.6	26.7	23.6	22.1	16.2	6.8	1.7	-8.0	-23.6	-37.5	-51.9	-79.3	-109.6	-154.0	-239.1	-367.5	-560.5	-859.4	-1331.2	-2053.6	32.2	19.4
13-I	76762	23397	-5.3	-0.3	0.7	1.7	4.7	9.7	10.2	18.3	25.0	23.9	25.9	22.7	20.9	14.6	4.9	-0.6	-10.7	-26.8	-41.3	-56.4	-84.8	-116.5	-163.2	-251.8	-385.7	-587.5	-900.1	-1393.3	-2148.6	31.4	18.3
13-J	79982	24379	-5.6	-0.6	0.4	1.4	4.4	9.4	9.8	17.8	24.4	23.3	25.2	21.8	19.8	13.2	3.0	-2.8	-13.4	-30.0	-45.0	-60.8	-90.1	-123.3	-172.1	-264.2	-403.5	-613.8	-939.6	-1453.6	-2240.9	30.7	17.4
13-K	83190	25356	-6.0	-1.0	0.0	1.0	4.0	9.0	9.3	17.4	23.9	22.7	24.5	20.9	18.6	11.7	1.2	-5.0	-16.1	-33.1	-48.6	-65.1	-95.4	-130.0	-181.0	-276.4	-421.1	-639.9	-978.9	-1513.7	-2332.9	30.0	16.5
13-L	86471	26356	-6.3	-1.3	-0.3	0.7	3.7	8.7	8.9	17.0	23.4	22.2	23.8	20.0	17.5	10.3	-0.6	-7.3	-18.8	-36.3	-52.3	-69.5	-100.8	-136.8	-190.1	-289.0	-439.2	-666.7	-1019.2	-1575.1	-2426.9	29.3	15.6
14-D	61319	18690	-3.3	1.7	2.7	3.7	6.7	11.7	12.4	20.7	27.7	27.1	29.7	27.3	26.7	21.9	13.9	10.4	2.3	-11.5	-23.4	-35.3	-59.1	-83.9	-120.1	-192.4	-300.5	-461.3	-710.3	-1103.7	-1705.6	35.3	23.4
14-E	64483	19654	-3.8	1.2	2.2	3.2	6.2	11.2	11.9	20.2	27.1	26.4	28.9	26.3	25.5	20.4	12.0	8.1	-0.4	-14.7	-27.1	-39.7	-64.4	-90.6	-128.9	-204.6	-318.0	-487.2	-749.2	-1163.1	-1796.4	34.4	22.3
14-F	67761	20654	-4.2	0.8	1.8	2.8	5.8	10.8	11.4	19.7	26.5	25.7	28.1	25.3	24.2	18.8	10.1	5.8	-3.2	-17.9	-30.9	-44.2	-69.9	-97.6	-138.1	-217.3	-336.1	-514.0	-789.5	-1224.6	-1890.5	33.6	21.2
14-G	70964	21630	-4.6	0.4	1.4	2.4	5.4	10.4	11.0	19.2	25.9	25.1	27.3	24.4	23.0	17.3	8.2	3.5	-5.9	-21.1	-34.6	-48.5	-75.2	-104.3	-147.1	-229.6	-353.8	-540.2	-828.9	-1284.6	-1982.3	32.8	20.1
14-H	74186	22612	-5.0	0.0	1.0	2.0	5.0	10.0	10.5	18.7	25.4	24.4	26.5	23.4	21.8	15.8	6.4	1.2	-8.6	-24.3	-38.3	-52.9	-80.6	-111.1	-156.0	-241.9	-371.5	-566.5	-868.4	-1345.0	-2074.7	32.0	19.1
14-J	80669	24588	-5.7	-0.7	0.3	1.3	4.3	9.3	9.7	17.7	24.3	23.2	25.0	21.6	19.5	12.9	2.6	-3.3	-14.0	-30.6	-45.7	-61.7	-91.3	-124.7	-174.1	-266.8	-407.3	-619.4	-948.0	-1466.5	-2260.6	30.6	17.2
14-K	83945	25586	-6.1	-1.1	-0.1	0.9	3.9	8.9	9.2	17.3	23.8	22.6	24.3	20.7	18.4	11.4	0.8	-5.6	-16.7	-33.8	-49.5	-66.1	-96.7	-131.5	-183.1	-279.3	-425.3	-646.1	-988.2	-1527.8	-2354.5	29.9	16.3
14-L	87205	26580	-6.4	-1.4	-0.4	0.6	3.6	8.6	8.9	16.9	23.3	22.0	23.6	19.8	17.2	9.9	-1.0	-7.8	-19.4	-37.0	-53.1	-70.5	-102.0	-138.3	-192.2	-291.8	-443.2	-672.7	-1028.2	-1588.9	-2448.0	29.2	15.4
15-F	68509	20882	-4.3	0.7	1.7	2.7	5.7	10.7	11.3	19.5	26.4	25.5	27.9	25.1	24.0	18.5	9.7	5.2	-3.8	-18.7	-31.8	-45.2	-71.1	-99.1	-140.2	-220.1	-340.2	-520.1	-798.7	-1238.6	-1911.9	33.4	20.9
15-G	71781	21879	-4.7	0.3	1.3	2.3	5.3	10.3	10.9	19.0	25.8	24.9	27.1	24.1	22.7	16.9	7.7	2.9	-6.6	-21.9	-35.6	-49.7	-76.6	-106.0	-149.3	-232.7	-358.3	-546.9	-838.9	-1299.9	-2005.8	32.6	19.9
15-H	74940	22842	-5.1	-0.1	0.9	1.9	4.9	9.9	10.4	18.6	25.3	24.3	26.3	23.2	21.6	15.5	5.9	0.7	-9.2	-25.0	-39.2	-54.0	-81.8	-112.7	-158.1	-244.8	-375.7	-572.6	-877.7	-1359.2	-2096.4	31.8	18.9
15-I	78195	23834	-5.4	-0.4	0.6	1.6	4.6	9.6	10.0	18.1	24.7	23.7	25.6	22.3	20.4	14.0	4.1	-1.6	-11.9	-28.2	-42.9	-58.4	-87.2	-119.5	-167.2	-257.3	-393.6	-599.2	-917.6	-1420.1	-2189.7	31.1	17.9
15-J	81414	24815	-5.8	-0.8	0.2	1.2	4.2	9.2	9.6	17.6	24.2	23.1	24.9	21.4	19.2	12.5	2.2	-3.8	-14.6	-31.4	-46.6	-62.7	-92.5	-126.3	-176.1	-269.6	-411.4	-625.5	-957.1	-1480.4	-2282.0	30.4	17.0
15-K	84670	25807	-6.1	-1.1	-0.1	0.9	3.9	8.9	9.2	17.2	23.7	22.5	24.2	20.5	18.1	11.1	0.4	-6.1	-17.3	-34.5	-50.3	-67.1	-97.8	-133.1	-185.1	-282.1	-429.3	-652.0	-997.1	-1541.4	-2375.3	29.7	16.1
16-J	82206	25056	-5.9	-0.9	0.1	1.1	4.1	9.1	9.5	17.5	24.1	22.9	24.7	21.1	19.0	12.2	1.8	-4.4	-15.3	-32.1	-47.5	-63.8	-93.8	-127.9	-178.3	-272.7	-415.7	-631.9	-966.9	-1495.3	-2304.7	30.2	16.8
16-K	85457	26047	-6.2	-1.2	-0.2	0.8	3.8	8.8	9.1	17.1	23.6	22.3	24.0	20.3	17.8	10.7	-0.1	-6.6	-17.9	-35.3	-51.2	-68.2	-99.1	-134.7	-187.3	-285.1	-433.6	-658.4	-1006.7	-1556.1	-2397.8	29.6	15.9
		Minimum:	-6.4	-1.4	-0.4	0.6	3.6	8.6	8.9	16.9	23.3	22.0	23.6	19.8	17.2	9.9	-1.0	-7.8	-19.4	-37.0	-53.1	-70.5	-102.0	-138.3	-192.2	-291.8	-443.2	-672.7	-1028.2	-1588.9	-2448.0	29.2	15.4
		Maximum:	-1.3	3.7	4.7	5.7	8.7	13.7	14.8	23.2	30.4	30.1	33.3	31.6	32.0	28.5	22.0	20.1	13.7	1.8	-7.9	-17.0	-37.0	-56.0	-83.3	-142.0	-228.2	-354.5	-550.0	-859.4	-1332.0	39.3	28.8

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Lmax)
FROM PILE DRIVING OF WTG MONOPILES

ODS Report Report no. 00.877, Figure 11, 2dB subtracted across the spectrum to account for peak to Lmax calculation

Sound Pressure Data 320 meters from the pile	34	39	40	41	44	49	51	60	68	69	74	75	79	80	79	83	83	78	76	77	71	73	78	69	62	61	60	56	53	90	88
Lmax at 320 meters	32	37	38	39	42	47	49	58	66	67	72	73	77	78	77	81	81	76	74	75	69	71	76	67	60	59	58	54	51	88	86

Data for the graph

Atmos. Absorption per 1 km air temp 59F 70% RH	0.0000	0.0000	0.0000	0.0000	0.0000	0.0670	0.1050	0.1630	0.2510	0.3810	0.5650	0.8150	1.1300	1.5100	1.9200	2.3600	2.8400	3.3800	4.0800	5.0500	6.5100	8.7500	12.2000	17.7000	26.4000	39.9000	61.1000	93.7000	144.0000		

	1/3 Octave Bands		16*	20	25	31	40	50	63	80	100	125	160	200	250	315	400	500	Hertz 630	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000	L	A
	Distance (ft)	Distance (m)																														
1-D	64356	19616	-3.7	1.3	2.3	3.3	6.3	11.3	12.0	20.2	27.1	26.4	28.9	26.3	25.5	20.4	12.1	8.2	-0.3	-14.5	-27.0	-39.5	-64.2	-90.4	-128.6	-204.2	-317.3	-486.2	-747.6	-1160.7	-1792.8	34.5	22.3
1-E	66515	20274	-4.0	1.0	2.0	3.0	6.0	11.0	11.6	19.9	26.7	26.0	28.4	25.7	24.7	19.4	10.8	6.7	-2.1	-16.7	-29.5	-42.4	-67.8	-94.9	-134.6	-212.5	-329.2	-503.8	-774.2	-1201.2	-1854.7	33.9	21.6
1-F	68770	20961	-4.3	0.7	1.7	2.7	5.7	10.7	11.3	19.5	26.3	25.5	27.8	25.0	23.9	18.4	9.5	5.0	-4.0	-18.9	-32.1	-45.5	-71.6	-99.7	-140.9	-221.1	-341.7	-522.2	-801.9	-1243.5	-1919.4	33.3	20.8
1-G	71109	21674	-4.6	0.4	1.4	2.4	5.4	10.4	11.0	19.1	25.9	25.0	27.2	24.3	23.0	17.3	8.1	3.4	-6.0	-21.3	-34.8	-48.7	-75.5	-104.6	-147.5	-230.1	-354.6	-541.4	-830.6	-1287.3	-1986.5	32.7	20.1
1-H	73543	22416	-4.9	0.1	1.1	2.1	5.1	10.1	10.6	18.8	25.5	24.5	26.7	23.6	22.1	16.1	6.7	1.7	-8.1	-23.7	-37.6	-52.1	-79.5	-109.8	-154.2	-239.5	-368.0	-561.2	-860.5	-1333.0	-2056.3	32.2	19.3
1-I	75999	23165	-5.2	-0.2	0.8	1.8	4.8	9.8	10.3	18.4	25.1	24.1	26.1	22.9	21.2	15.0	5.3	-0.1	-10.1	-26.1	-40.4	-55.4	-83.6	-114.9	-161.1	-248.9	-381.5	-581.3	-890.7	-1379.0	-2126.7	31.6	18.6
1-J	78497	23926	-5.5	-0.5	0.5	1.5	4.5	9.5	9.9	18.0	24.7	23.6	25.5	22.2	20.3	13.9	3.9	-1.8	-12.2	-28.5	-43.3	-58.8	-87.7	-120.1	-168.0	-258.5	-395.3	-601.7	-921.3	-1425.8	-2198.3	31.0	17.8
1-K	81122	24726	-5.8	-0.8	0.2	1.2	4.2	9.2	9.6	17.7	24.3	23.1	24.9	21.5	19.3	12.7	2.4	-3.6	-14.4	-31.1	-46.3	-62.3	-92.0	-125.6	-175.3	-268.5	-409.7	-623.1	-953.6	-1475.0	-2273.6	30.5	17.1
1-L	83799	25542	-6.0	-1.0	0.0	1.0	4.0	9.0	9.3	17.3	23.8	22.6	24.3	20.7	18.4	11.5	0.9	-5.5	-16.6	-33.7	-49.3	-65.9	-96.4	-131.2	-182.7	-278.8	-424.5	-644.9	-986.4	-1525.1	-2350.3	29.9	16.3
2-D	63257	19281	-3.6	1.4	2.4	3.4	6.4	11.4	12.1	20.4	27.3	26.6	29.2	26.7	25.9	21.0	12.8	9.0	0.7	-13.4	-25.7	-38.0	-62.4	-88.0	-125.5	-199.9	-311.2	-477.2	-734.1	-1140.1	-1761.2	34.8	22.7
2-E	65530	19974	-3.9	1.1	2.1	3.1	6.1	11.1	11.8	20.0	26.9	26.2	28.6	26.0	25.1	19.9	11.4	7.4	-1.3	-15.7	-28.3	-41.1	-66.2	-92.9	-131.9	-208.7	-323.8	-495.8	-762.1	-1182.7	-1826.4	34.2	21.9
2-F	67870	20687	-4.2	0.8	1.8	2.8	5.8	10.8	11.4	19.7	26.5	25.7	28.0	25.3	24.2	18.8	10.0	5.7	-3.3	-18.1	-31.1	-44.3	-70.1	-97.8	-138.4	-217.7	-336.7	-514.9	-790.8	-1226.6	-1893.6	33.6	21.1
2-G	70246	21411	-4.5	0.5	1.5	2.5	5.5	10.5	11.1	19.3	26.1	25.2	27.5	24.6	23.3	17.7	8.6	4.0	-5.3	-20.4	-33.8	-47.6	-74.0	-102.8	-145.1	-226.8	-349.8	-534.3	-820.0	-1271.2	-1961.7	33.0	20.4
2-H	72697	22158	-4.8	0.2	1.2	2.2	5.2	10.2	10.7	18.9	25.6	24.7	26.9	23.9	22.4	16.5	7.2	2.3	-7.3	-22.8	-36.6	-50.9	-78.1	-108.0	-151.9	-236.2	-363.3	-554.3	-850.1	-1317.1	-2032.0	32.4	19.6
2-I	75272	22943	-5.1	-0.1	0.9	1.9	4.9	9.9	10.4	18.5	25.2	24.2	26.3	23.1	21.5	15.3	5.7	0.5	-9.5	-25.4	-39.6	-54.4	-82.4	-113.4	-159.1	-246.1	-377.5	-575.4	-881.8	-1365.4	-2105.9	31.8	18.8
2-J	77901	23744	-5.4	-0.4	0.6	1.6	4.6	9.6	10.0	18.1	24.8	23.7	25.7	22.4	20.5	14.1	4.2	-1.4	-11.7	-27.9	-42.6	-58.0	-86.7	-118.9	-166.4	-256.2	-392.0	-596.8	-914.0	-1414.6	-2181.3	31.2	18.0
2-K	80454	24522	-5.7	-0.7	0.3	1.3	4.3	9.3	9.7	17.8	24.4	23.2	25.1	21.6	19.6	13.0	2.8	-3.2	-13.8	-30.4	-45.5	-61.4	-90.9	-124.2	-173.5	-266.0	-406.1	-617.6	-945.4	-1462.5	-2254.4	30.6	17.3
2-L	83182	25354	-6.0	-1.0	0.0	1.0	4.0	9.0	9.3	17.4	23.9	22.7	24.5	20.9	18.6	11.7	1.2	-5.0	-16.1	-33.1	-48.6	-65.1	-95.4	-129.9	-181.0	-276.4	-421.1	-639.9	-978.8	-1513.6	-2332.7	30.0	16.5
3-D	62272	18981	-3.5	1.5	2.5	3.5	6.5	11.5	12.3	20.6	27.5	26.9	29.4	27.0	26.3	21.5	13.4	9.7	1.5	-12.5	-24.5	-36.6	-60.7	-85.9	-122.7	-196.1	-305.8	-469.1	-722.0	-1121.6	-1733.0	35.0	23.1
3-E	64624	19697	-3.8	1.2	2.2	3.2	6.2	11.2	11.9	20.2	27.1	26.4	28.8	26.3	25.4	20.3	12.0	8.0	-0.5	-14.8	-27.3	-39.8	-64.6	-90.9	-129.3	-205.2	-318.8	-488.4	-750.9	-1165.7	-1800.5	34.4	22.3
3-F	67029	20430	-4.1	0.9	1.9	2.9	5.9	10.9	11.6	19.8	26.6	25.8	28.2	25.5	24.5	19.2	10.5	6.3	-2.6	-17.2	-30.1	-43.2	-68.7	-96.0	-136.1	-214.4	-332.1	-508.0	-780.5	-1210.8	-1869.4	33.8	21.4
3-G	69475	21176	-4.4	0.6	1.6	2.6	5.6	10.6	11.2	19.4	26.2	25.4	27.6	24.8	23.6	18.0	9.1	4.5	-4.6	-19.6	-32.9	-46.5	-72.7	-101.2	-142.9	-223.9	-345.6	-528.0	-810.6	-1256.7	-1939.6	33.1	20.6
3-H	71982	21940	-4.7	0.3	1.3	2.3	5.3	10.3	10.8	19.0	25.8	24.9	27.0	24.1	22.7	16.8	7.6	2.8	-6.7	-22.1	-35.8	-49.9	-76.9	-106.5	-149.9	-233.5	-359.4	-548.5	-841.4	-1303.7	-2011.5	32.5	19.8
3-I	74542	22721	-5.0	0.0	1.0	2.0	5.0	10.0	10.5	18.6	25.3	24.4	26.4	23.3	21.7	15.7	6.1	1.0	-8.9	-24.6	-38.7	-53.4	-81.1	-111.9	-157.0	-243.3	-373.5	-569.4	-872.8	-1351.7	-2085.0	31.9	19.0
3-J	77204	23532	-5.3	-0.3	0.7	1.7	4.7	9.7	10.1	18.2	24.9	23.8	25.8	22.6	20.8	14.4	4.6	-0.9	-11.1	-27.3	-41.8	-57.0	-85.5	-117.4	-164.4	-253.5	-388.2	-591.1	-905.5	-1401.6	-2161.3	31.3	18.2
3-K	79926	24362	-5.6	-0.6	0.4	1.4	4.4	9.4	9.8	17.8	24.5	23.3	25.2	21.8	19.8	13.2	3.1	-2.8	-13.4	-29.9	-44.9	-60.7	-90.0	-123.1	-172.0	-263.9	-403.2	-613.3	-938.9	-1452.6	-2239.3	30.7	17.4
3-L	82589	25173	-5.9	-0.9	0.1	1.1	4.1	9.1	9.4	17.5	24.0	22.8	24.6	21.0	18.8	12.0	1.6	-4.6	-15.6	-32.5	-47.9	-64.3	-94.4	-128.7	-179.4	-274.1	-417.8	-635.0	-971.6	-1502.4	-2315.7	30.1	16.7
4-D	61366	18704	-3.3	1.7	2.7	3.7	6.7	11.7	12.4	20.7	27.7	27.0	29.7	27.3	26.7	21.9	13.9	10.4	2.3	-11.5	-23.5	-35.3	-59.2	-84.0	-120.2	-192.6	-300.7	-461.7	-710.9	-1104.6	-1707.0	35.3	23.4
4-E	63813	19450	-3.7	1.3	2.3	3.3	6.3	11.3	12.0	20.3	27.2	26.5	29.0	26.5	25.7	20.7	12.4	8.6	0.2	-14.0	-26.3	-38.7	-63.3	-89.2	-127.1	-202.1	-314.3	-481.7	-741.0	-1150.5	-1777.2	34.6	22.5
4-F	66253	20194	-4.0	1.0	2.0	3.0	6.0	11.0	11.7	19.9	26.8	26.0	28.4	25.8	24.8	19.5	11.0	6.8	-1.9	-16.4	-29.2	-42.1	-67.4	-94.4	-133.9	-211.5	-327.8	-501.7	-771.0	-1196.3	-1847.2	34.0	21.7
4-G	68798	20970	-4.3	0.7	1.7	2.7	5.7	10.7	11.3	19.5	26.3	25.5	27.8	25.0	23.8	18.3	9.5	5.0	-4.1	-19.0	-32.1	-45.6	-71.6	-99.8	-141.0	-221.3	-341.8	-522.5	-802.2	-1244.0	-1920.2	33.3	20.8
4-H	71359	21750	-4.6	0.4	1.4	2.4	5.4	10.4	10.9	19.1	25.9	25.0	27.2	24.2	22.9	17.1	8.0	3.2	-6.2	-21.5	-35.1	-49.1	-75.9	-105.2	-148.2	-231.1	-356.0	-543.4	-833.7	-1292.0	-1993.7	32.7	20.0
4-I	73999	22555	-5.0	0.0	1.0	2.0	5.0	10.0	10.5	18.7	25.4	24.5	26.6	23.5	21.9	15.9	6.5	1.3	-8.4	-24.1	-38.1	-52.7	-80.2	-110.7	-155.5	-241.2	-370.5	-565.0	-866.1	-1341.5	-2069.4	32.1	19.2
4-J	76656	23365	-5.3	-0.3	0.7	1.7	4.7	9.7	10.2	18.3	25.0	23.9	26.0	22.7	21.0	14.7	4.9	-0.5	-10.7	-26.7	-41.2	-56.3	-84.6	-116.3	-162.9	-251.4	-385.2	-586.7	-898.8	-1391.3	-2145.6	31.4	18.4
4-K	79384	24196	-5.6	-0.6	0.4	1.4	4.4	9.4	9.8	17.9	24.5	23.4	25.3	21.9	20.0	13.4	3.4	-2.4	-12.9	-29.4	-44.3	-60.0	-89.1	-122.0	-170.5	-261.9	-400.2	-608.9	-932.2	-1442.4	-2223.8	30.8	17.6
4-L	82160	25042	-5.9	-0.9	0.1	1.1	4.1	9.1	9.5	17.5	24.1	22.9	24.7	21.2	19.0	12.2	1.8	-4.3	-15.2	-32.1	-47.4	-63.7	-93.7	-127.8	-178.2	-272.5	-415.5	-631.5	-966.3	-1494.4	-2303.4	30.2	16.8
5-D	60531	18450	-3.2	1.8	2.8	3.8	6.8	11.8	12.6	20.9	27.8	27.2	29.9	27.5	27.0	22.3	14.4	11.0	3.0	-10.7	-22.5	-34.2	-57.8	-82.2	-117.9	-189.4	-296.1	-454.8	-700.6	-1088.9	-1683.0	35.5	23.7
5-E	62965	19192	-3.6	1.4	2.4	3.4	6.4	11.4	12.2	20.5	27.4	26.7	29.3	26.8	26.1	21.1	12.9	9.2	0.9	-13.2	-25.3	-37.6	-61.9	-87.4	-124.7	-198.8	-309.6	-474.8	-730.5	-1134.6	-1752.8	34.8	22.8
5-F	65520	19971	-3.9	1.1	2.1	3.1	6.1	11.1	11.8	20.0	26.9	26.2	28.6	26.0	25.1	19.9	11.4	7.4	-1.3	-15.7	-28.3	-41.1	-66.1	-92.8	-131.8	-208.6	-323.7	-495.7	-762.0	-1182.6	-1826.2	34.2	21.9
5-G	68068	20747	-4.2	0.8	1.8	2.8	5.8	10.8	11.4	19.6	26.4	25.6	28.0	25.2	24.1	18.7	9.9	5.5	-3.4	-18.2	-31.3	-44.6	-70.4	-98.2	-139.0	-218.4	-337.8	-516.5	-793.3	-1230.3	-1899.3	33.5	21.1
5-H	70723	21556	-4.6	0.4	1.4	2.4	5.4	10.4	11.0	19.2	26.0	25.1	27.3	24.4	23.1	17.4	8.4	3.7	-5.7	-20.9	-34.3	-48.2	-74.8	-103.8	-146.4	-228.7	-352.5	-538.2	-825.9	-1280.1	-1975.4	32.8	20.2
5-I	73408	22375	-4.9	0.1	1.1	2.1	5.1	10.1	10.6	18.8	25.5	24.6	26.7	23.6	22.1	16.2	6.8	1.8	-7.9	-23.5	-37.4	-51.9	-79.3	-109.5	-153.9	-239.0	-367.3	-560.1	-858.9	-1330.4	-2052.4	32.2	19.4
5-J	76118	23201	-5.2	-0.2	0.8	1.8	4.8	9.8	10.3	18.4	25.1	24.0	26.1	22.9	21.1	14.9	5.2	-0.1	-10.2	-26.2	-40.5	-55.6	-83.8	-115.2	-161.4	-249.4	-382.2	-582.3	-892.1	-1381.2	-2130.1	31.6	18.5
6-D	59756	18214	-3.1	1.9	2.9	3.9	6.9	11.9	12.7	21.0	28.0	27.4	30.1	27.8	27.3	22.7	14.9	11.5	3.7	-9.9	-21.6	-33.1	-56.5	-80.6	-115.7	-186.4	-291.8	-448.5	-691.1	-1074.4	-1660.7	35.7	24.0
6-E	62256	18976	-3.5	1.5	2.5	3.5	6.5	11.5	12.3	20.6	27.5	26.9	29.4	27.0	26.3	21.5	13.4	9.7	1.5	-12.4	-24.5	-36.6	-60.7	-85.9	-122.7	-196.1	-305.7	-469.0	-721.8	-1121.3	-1732.5	35.0	23.1
6-G	67527	20582	-4.2	0.8	1.8	2.8	5.8	10.8	11.5	19.7	26.5	25.7	28.1	25.4	24.3	18.9	10.2	5.9	-3.0	-17.7	-30.7	-43.8	-69.5	-97.1	-137.5	-216.4	-334.8	-512.1	-786.6	-1220.2	-1883.7	33.6	21.3
6-H	70234	21407	-4.5	0.5	1.5	2.5	5.5	10.5	11.1	19.3	26.1	25.2	27.5	24.6	23.3	17.7	8.7	4.0	-5.3	-20.4	-33.8	-47.5	-74.0	-102.8	-145.0	-226.8	-349.8	-534.2	-819.9	-1270.9	-1961.4	33.0	20.4
6-I	72890	22217	-4.8	0.2	1.2	2.2	5.2	10.2	10.7	18.9	25.6	24.7	26.8	23.8	22.3	16.4	7.1	2.1	-7.5	-23.0	-36.8	-51.2	-78.4	-108.4	-152.4	-237.0	-364.4	-555.9	-852.5	-1320.7	-2037.6	32.3	19.5
6-J	75647	23057	-5.2	-0.2	0.8	1.8	4.8	9.8	10.3	18.5	25.1	24.1	26.2	23.0	21.3	15.2	5.5	0.2	-9.8	-25.7	-40.0	-54.9	-83.0	-114.2	-160.1	-247.5	-379.6	-578.4	-886.4	-1372.4	-2116.6	31.7	18.7
7-B	54078	16483	-2.2	2.8	3.8	4.8	7.8	12.8	13.7	22.1	29.1	28.7	31.6	29.6	29.6	25.5	18.4	15.7	8.6	-4.1	-14.9	-25.2	-46.9	-68.5	-99.7	-164.4	-260.3	-401.9	-621.1	-967.8	-1497.7	37.4	26.3
7-C	56523	17228	-2.6	2.4	3.4	4.4	7.4	12.4	13.2	21.6	28.6	28.1	30.9	28.8	28.6	24.3	16.8	13.9	6.5	-6.6	-17.8	-28.6	-51.0	-73.7	-106.6	-173.9	-273.9	-422.0	-651.3	-1013.7	-1567.9	36.7	25.3
7-E	61621	18782	-3.4	1.6	2.6	3.6	6.6	11.6	12.4	20.7	27.6	27.0	29.6	27.2	26.6	21.8	13.8	10.2	2.1	-11.8	-23.8	-35.7	-59.6	-84.6	-120.9	-193.6	-302.2	-463.8	-714.0	-1109.4	-1714.3	35.2	23.3
7-F	64242	19581	-3.7	1.3	2.3	3.3	6.3	11.3	12.0	20.2	27.1	26.4	28.9	26.4	25.6	20.5	12.2	8.3	-0.2	-14.4	-26.8	-39.3	-64.0	-90.1	-128.3	-203.7	-316.7	-485.2	-746.2	-1158.6	-1789.5	34.5	22.4
7-G	66913	20395	-4.1	0.9	1.9	2.9	5.9	10.9	11.6	19.8	26.6	25.9	28.3	25.6	24.6	19.2	10.6	6.4	-2.5	-17.1	-29.9	-43.0	-68.5	-95.8	-135.7	-214.0	-331.4	-507.1	-779.1	-1208.7	-1866.1	33.8	21.5
7-H	69660	21232	-4.4	0.6	1.6	2.6	5.6	10.6	11.2	19.4	26.2	25.3	27.6	24.7	23.5	17.9	9.0	4.4	-4.8	-19.8	-33.1	-46.8	-73.0	-101.6	-143.4	-224.6	-346.6	-529.5	-812.8	-1260.2	-1944.9	33.1	20.6
7-I	72458	22085	-4.8	0.2	1.2	2.2	5.2	10.2	10.8	18.9	25.7	24.8	26.9	23.9	22.5	16.6	7.4	2.4	-7.1	-22.6	-36.3	-50.6	-77.7	-107.5	-151.2	-235.3	-362.0	-552.4	-847.2	-1312.6	-2025.2	32.4	19.7
8-A	50827	15492	-1.7	3.3	4.3	5.3	8.3	13.3	14.3	22.7	29.8	29.5	32.5	30.7	30.9	27.2	20.4	18.2	11.5	-0.8	-11.0	-20.6	-41.3	-61.5	-90.5	-151.8	-242.2	-375.2	-581.1	-906.7	-1404.3	38.5	27.6
8-B	53263	16234	-2.1	2.9	3.9	4.9	7.9	12.9	13.8	22.2	29.3	28.9	31.8	29.9	29.9	25.9	18.9	16.3	9.3	-3.3	-13.9	-24.0	-45.5	-66.7	-97.4	-161.3	-255.8	-395.2	-611.1	-952.5	-1474.3	37.7	26.6
8-C	55780	17002	-2.5	2.5	3.5	4.5	7.5	12.5	13.4	21.7	28.8	28.3	31.1	29.1	28.9	24.6	17.3	14.5	7.1	-5.9	-16.9	-27.6	-49.8	-72.1	-104.5	-171.0	-269.8	-415.9	-642.1	-999.8	-1546.6	36.9	25.6
8-D	58398	17800	-2.9	2.1	3.1	4.1	7.1	12.1	12.9	21.3	28.2	27.7	30.4	28.2	27.8	23.3	15.7	12.5	4.8	-8.5	-20.0	-31.2	-54.2	-77.7	-111.9	-181.2	-284.3	-437.4	-674.3	-1048.9	-1621.7	36.1	24.5
8-F	63711	19419	-3.7	1.3	2.3	3.3	6.3	11.3	12.1	20.3	27.2	26.5	29.1	26.5	25.8	20.8	12.5	8.7	0.3	-13.9	-26.2	-38.6	-63.1	-89.0	-126.8	-201.7	-313.7	-480.9	-739.7	-1148.6	-1774.3	34.6	22.6

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Lmax)
FROM PILE DRIVING OF WTG MONOPILES

8-G	66405	20240	-4.0	1.0	2.0	3.0	6.0	11.0	11.6	19.9	26.7	26.0	28.4	25.7	24.7	19.5	10.9	6.7	-2.0	-16.6	-29.4	-42.3	-67.6	-94.7	-134.3	-212.0	-328.6	-502.9	-772.8	-1199.1	-1851.5	33.9	21.6
8-H	69224	21100	-4.4	0.6	1.6	2.6	5.6	10.6	11.2	19.4	26.2	25.4	27.7	24.9	23.7	18.1	9.2	4.7	-4.4	-19.4	-32.6	-46.2	-72.3	-100.7	-142.2	-222.9	-344.2	-526.0	-807.5	-1252.0	-1932.4	33.2	20.7
9-A	50056	15257	-1.6	3.4	4.4	5.4	8.4	13.4	14.4	22.9	30.0	29.7	32.7	31.0	31.3	27.6	20.9	18.8	12.2	0.0	-10.1	-19.5	-40.0	-59.8	-88.3	-148.8	-238.0	-368.9	-571.6	-892.2	-1382.2	38.7	28.0
9-B	52556	16019	-2.0	3.0	4.0	5.0	8.0	13.0	14.0	22.4	29.5	29.1	32.0	30.1	30.2	26.3	19.3	16.9	10.0	-2.6	-13.1	-23.0	-44.3	-65.2	-95.4	-158.5	-251.9	-389.4	-602.4	-939.2	-1454.0	37.9	26.9
9-C	55145	16808	-2.4	2.6	3.6	4.6	7.6	12.6	13.5	21.9	28.9	28.5	31.3	29.3	29.2	25.0	17.7	14.9	7.7	-5.2	-16.1	-26.7	-48.7	-70.7	-102.7	-168.6	-266.2	-410.7	-634.3	-987.8	-1528.4	37.1	25.8
9-D	57776	17610	-2.8	2.2	3.2	4.2	7.2	12.2	13.0	21.4	28.4	27.8	30.6	28.4	28.1	23.6	16.1	13.0	5.4	-7.9	-19.3	-30.4	-53.1	-76.4	-110.1	-178.8	-280.8	-432.3	-666.7	-1037.2	-1603.9	36.3	24.8
9-E	60472	18432	-3.2	1.8	2.8	3.8	6.8	11.8	12.6	20.9	27.8	27.2	29.9	27.6	27.0	22.3	14.4	11.0	3.0	-10.6	-22.4	-34.1	-57.7	-82.1	-117.7	-189.2	-295.8	-454.4	-699.9	-1087.8	-1681.3	35.5	23.8
9-F	63234	19274	-3.6	1.4	2.4	3.4	6.4	11.4	12.1	20.4	27.3	26.6	29.2	26.7	26.0	21.0	12.8	9.0	0.7	-13.4	-25.7	-37.9	-62.3	-88.0	-125.4	-199.8	-311.1	-477.0	-733.9	-1139.7	-1760.6	34.8	22.7
9-G	66041	20129	-4.0	1.0	2.0	3.0	6.0	11.0	11.7	19.9	26.8	26.1	28.5	25.8	24.9	19.6	11.1	7.0	-1.7	-16.2	-28.9	-41.8	-67.0	-93.9	-133.3	-210.6	-326.6	-499.9	-768.4	-1192.3	-1841.1	34.0	21.8
9-H	68833	20980	-4.3	0.7	1.7	2.7	5.7	10.7	11.3	19.5	26.3	25.5	27.8	25.0	23.8	18.3	9.5	5.0	-4.1	-19.0	-32.2	-45.6	-71.7	-99.8	-141.1	-221.4	-342.0	-522.8	-802.7	-1244.7	-1921.2	33.3	20.8
9-I	71732	21864	-4.7	0.3	1.3	2.3	5.3	10.3	10.9	19.0	25.8	24.9	27.1	24.1	22.8	17.0	7.8	2.9	-6.5	-21.9	-35.5	-49.6	-76.5	-105.9	-149.2	-232.5	-358.0	-546.5	-838.3	-1299.0	-2004.4	32.6	19.9
10-A	49345	15040	-1.4	3.6	4.6	5.6	8.6	13.6	14.6	23.0	30.2	29.9	32.9	31.2	31.6	27.9	21.3	19.3	12.8	0.8	-9.2	-18.5	-38.8	-58.3	-86.2	-146.0	-234.0	-363.1	-562.8	-878.9	-1361.7	39.0	28.3
10-B	51895	15818	-1.9	3.1	4.1	5.1	8.1	13.1	14.1	22.5	29.6	29.2	32.2	30.4	30.5	26.6	19.7	17.4	10.5	-1.9	-12.3	-22.1	-43.1	-63.8	-93.5	-156.0	-248.2	-384.0	-594.2	-926.8	-1435.0	38.1	27.2
10-C	54541	16624	-2.3	2.7	3.7	4.7	7.7	12.7	13.6	22.0	29.0	28.6	31.5	29.5	29.4	25.3	18.1	15.4	8.2	-4.6	-15.4	-25.8	-47.6	-69.5	-101.0	-166.2	-262.9	-405.7	-626.8	-976.5	-1511.0	37.3	26.1
10-D	57287	17461	-2.7	2.3	3.3	4.3	7.3	12.3	13.1	21.5	28.5	28.0	30.7	28.6	28.3	23.9	16.4	13.4	5.8	-7.4	-18.7	-29.7	-52.3	-75.3	-108.7	-176.9	-278.1	-428.3	-660.7	-1028.1	-1589.8	36.4	25.0
10-E	60043	18301	-3.1	1.9	2.9	3.9	6.9	11.9	12.6	21.0	27.9	27.3	30.0	27.7	27.2	22.5	14.7	11.3	3.4	-10.2	-21.9	-33.5	-57.0	-81.2	-116.5	-187.5	-293.4	-450.8	-694.6	-1079.8	-1669.0	35.6	23.9
10-F	62886	19168	-3.5	1.5	2.5	3.5	6.5	11.5	12.2	20.5	27.4	26.7	29.3	26.8	26.1	21.2	13.0	9.3	1.0	-13.1	-25.3	-37.4	-61.7	-87.2	-124.5	-198.5	-309.2	-474.1	-729.6	-1133.1	-1750.6	34.9	22.9
10-G	65726	20033	-3.9	1.1	2.1	3.1	6.1	11.1	11.7	20.0	26.9	26.1	28.6	25.9	25.0	19.8	11.3	7.2	-1.5	-15.9	-28.6	-41.4	-66.5	-93.3	-132.4	-209.4	-324.9	-497.4	-764.5	-1186.4	-1832.1	34.1	21.9
10-H	68580	20903	-4.3	0.7	1.7	2.7	5.7	10.7	11.3	19.5	26.3	25.5	27.9	25.1	23.9	18.4	9.6	5.2	-3.9	-18.8	-31.9	-45.3	-71.2	-99.3	-140.4	-220.4	-340.6	-520.7	-799.6	-1239.9	-1914.0	33.4	20.9
10-I	71629	21832	-4.7	0.3	1.3	2.3	5.3	10.3	10.9	19.1	25.8	24.9	27.1	24.2	22.8	17.0	7.8	3.0	-6.4	-21.8	-35.4	-49.4	-76.3	-105.7	-148.9	-232.1	-357.5	-545.6	-837.0	-1297.1	-2001.4	32.6	19.9
11-A	48658	14831	-1.3	3.7	4.7	5.7	8.7	13.7	14.7	23.2	30.3	30.0	33.2	31.5	31.9	28.3	21.8	19.8	13.4	1.5	-8.4	-17.5	-37.6	-56.8	-84.3	-143.4	-230.2	-357.4	-554.3	-865.9	-1342.0	39.2	28.6
11-B	51337	15647	-1.8	3.2	4.2	5.2	8.2	13.2	14.2	22.6	29.7	29.4	32.4	30.6	30.7	26.9	20.1	17.8	11.0	-1.3	-11.6	-21.3	-42.2	-62.6	-91.9	-153.8	-245.1	-379.4	-587.4	-916.3	-1419.0	38.3	27.4
11-C	54017	16464	-2.2	2.8	3.8	4.8	7.8	12.8	13.7	22.1	29.1	28.7	31.6	29.7	29.6	25.5	18.4	15.8	8.7	-4.1	-14.8	-25.1	-46.8	-68.3	-99.5	-164.2	-260.0	-401.4	-620.4	-966.7	-1496.0	37.4	26.3
11-D	56795	17311	-2.7	2.3	3.3	4.3	7.3	12.3	13.2	21.6	28.6	28.1	30.9	28.7	28.5	24.1	16.7	13.7	6.2	-6.9	-18.1	-29.0	-51.5	-74.3	-107.3	-175.0	-275.4	-424.2	-654.6	-1018.8	-1575.7	36.6	25.2
11-E	59625	18174	-3.1	1.9	2.9	3.9	6.9	11.9	12.7	21.0	28.0	27.4	30.1	27.8	27.4	22.7	15.0	11.6	3.8	-9.8	-21.4	-32.9	-56.2	-80.3	-115.3	-185.9	-291.1	-447.4	-689.5	-1072.0	-1657.0	35.8	24.1
11-F	62457	19037	-3.5	1.5	2.5	3.5	6.5	11.5	12.3	20.5	27.5	26.8	29.4	26.9	26.3	21.4	13.2	9.6	1.3	-12.6	-24.8	-36.9	-61.0	-86.3	-123.3	-196.8	-306.8	-470.6	-724.3	-1125.1	-1738.3	35.0	23.0
11-G	65355	19920	-3.9	1.1	2.1	3.1	6.1	11.1	11.8	20.1	26.9	26.2	28.6	26.0	25.1	20.0	11.5	7.5	-1.1	-15.5	-28.1	-40.9	-65.9	-92.5	-131.4	-208.0	-322.8	-494.3	-759.9	-1179.4	-1821.4	34.2	22.0
11-H	68272	20809	-4.3	0.7	1.7	2.7	5.7	10.7	11.4	19.6	26.4	25.6	27.9	25.2	24.0	18.6	9.8	5.4	-3.6	-18.5	-31.5	-44.9	-70.7	-98.6	-139.5	-219.2	-338.9	-518.2	-795.8	-1234.2	-1905.1	33.4	21.0
11-K	77221	23537	-5.3	-0.3	0.7	1.7	4.7	9.7	10.1	18.2	24.9	23.8	25.8	22.6	20.7	14.4	4.6	-0.9	-11.1	-27.3	-41.8	-57.1	-85.6	-117.5	-164.5	-253.6	-388.3	-591.3	-905.7	-1401.9	-2161.8	31.3	18.2
11-L	80254	24461	-5.7	-0.7	0.3	1.3	4.3	9.3	9.7	17.8	24.4	23.3	25.1	21.7	19.7	13.1	2.9	-3.0	-13.6	-30.2	-45.3	-61.2	-90.6	-123.8	-172.9	-265.2	-405.0	-616.0	-942.9	-1458.7	-2248.7	30.6	17.3
12-A	48076	14654	-1.2	3.8	4.8	5.8	8.8	13.8	14.8	23.3	30.4	30.2	33.3	31.7	32.1	28.6	22.1	20.3	14.0	2.1	-7.7	-16.7	-36.6	-55.5	-82.6	-141.1	-226.9	-352.6	-547.1	-855.0	-1325.3	39.4	28.9
12-B	50827	15492	-1.7	3.3	4.3	5.3	8.3	13.3	14.3	22.7	29.8	29.5	32.5	30.7	30.9	27.2	20.4	18.2	11.5	-0.8	-11.0	-20.6	-41.3	-61.5	-90.5	-151.8	-242.2	-375.2	-581.1	-906.7	-1404.3	38.5	27.6
12-C	53616	16342	-2.2	2.8	3.8	4.8	7.8	12.8	13.8	22.2	29.2	28.8	31.7	29.8	29.8	25.7	18.6	16.1	9.0	-3.7	-14.3	-24.5	-46.1	-67.5	-98.4	-162.6	-257.8	-398.1	-615.4	-959.1	-1484.4	37.6	26.4
12-D	56451	17206	-2.6	2.4	3.4	4.4	7.4	12.4	13.3	21.6	28.6	28.2	31.0	28.8	28.6	24.3	16.9	14.0	6.5	-6.6	-17.7	-28.5	-50.9	-73.5	-106.4	-173.6	-273.5	-421.4	-650.4	-1012.4	-1565.9	36.7	25.3
12-E	59301	18075	-3.0	2.0	3.0	4.0	7.0	12.0	12.8	21.1	28.1	27.5	30.2	27.9	27.5	22.9	15.2	11.9	4.1	-9.5	-21.1	-32.5	-55.7	-79.6	-114.4	-184.7	-289.3	-444.8	-685.5	-1065.9	-1647.7	35.9	24.2
12-F	62173	18950	-3.4	1.6	2.6	3.6	6.6	11.6	12.3	20.6	27.5	26.9	29.5	27.0	26.4	21.5	13.4	9.8	1.6	-12.4	-24.4	-36.5	-60.5	-85.7	-122.5	-195.7	-305.2	-468.3	-720.8	-1119.8	-1730.1	35.1	23.1
12-G	65147	19857	-3.9	1.1	2.1	3.1	6.1	11.1	11.8	20.1	27.0	26.2	28.7	26.1	25.2	20.1	11.6	7.6	-1.0	-15.3	-27.9	-40.6	-65.5	-92.0	-130.8	-207.2	-321.7	-492.6	-757.4	-1175.5	-1815.4	34.3	22.1
12-H	68056	20744	-4.2	0.8	1.8	2.8	5.8	10.8	11.4	19.6	26.4	25.6	28.0	25.2	24.1	18.7	9.9	5.6	-3.4	-18.2	-31.3	-44.6	-70.4	-98.2	-138.9	-218.4	-337.7	-516.4	-793.1	-1230.1	-1898.9	33.5	21.1
12-I	71120	21678	-4.6	0.4	1.4	2.4	5.4	10.4	11.0	19.1	25.9	25.0	27.2	24.3	23.0	17.2	8.1	3.4	-6.0	-21.3	-34.8	-48.8	-75.5	-104.7	-147.5	-230.2	-354.6	-541.5	-830.8	-1287.6	-1986.8	32.7	20.1
12-J	74131	22595	-5.0	0.0	1.0	2.0	5.0	10.0	10.5	18.7	25.4	24.4	26.5	23.4	21.9	15.9	6.4	1.3	-8.5	-24.2	-38.3	-52.9	-80.5	-111.0	-155.9	-241.7	-371.2	-566.0	-867.8	-1344.0	-2073.2	32.0	19.1
12-K	77152	23516	-5.3	-0.3	0.7	1.7	4.7	9.7	10.1	18.2	24.9	23.9	25.8	22.6	20.8	14.5	4.7	-0.9	-11.1	-27.2	-41.7	-57.0	-85.5	-117.3	-164.3	-253.3	-387.9	-590.7	-904.8	-1400.6	-2159.8	31.3	18.2
12-L	80179	24439	-5.7	-0.7	0.3	1.3	4.3	9.3	9.7	17.8	24.4	23.3	25.2	21.7	19.7	13.1	2.9	-3.0	-13.6	-30.2	-45.2	-61.1	-90.5	-123.7	-172.7	-264.9	-404.6	-615.4	-942.0	-1457.3	-2246.6	30.7	17.4
13-A	47561	14497	-1.1	3.9	4.9	5.9	8.9	13.9	14.9	23.4	30.6	30.3	33.5	31.9	32.3	28.9	22.5	20.7	14.4	2.6	-7.0	-16.0	-35.7	-54.4	-81.2	-139.1	-224.0	-348.4	-540.8	-845.3	-1310.5	39.6	29.1
13-B	50407	15364	-1.6	3.4	4.4	5.4	8.4	13.4	14.4	22.8	29.9	29.6	32.6	30.9	31.1	27.4	20.7	18.5	11.9	-0.4	-10.5	-20.0	-40.6	-60.6	-89.3	-150.2	-239.9	-371.8	-575.9	-898.8	-1392.3	38.6	27.8
13-C	53230	16225	-2.1	2.9	3.9	4.9	7.9	12.9	13.8	22.2	29.3	28.9	31.8	29.9	29.9	25.9	18.9	16.4	9.4	-3.3	-13.9	-24.0	-45.4	-66.6	-97.3	-161.1	-255.6	-395.0	-610.7	-951.9	-1473.4	37.7	26.6
13-D	56139	17111	-2.6	2.4	3.4	4.4	7.4	12.4	13.3	21.7	28.7	28.2	31.0	29.0	28.8	24.5	17.1	14.2	6.8	-6.2	-17.3	-28.1	-50.4	-72.9	-105.5	-172.4	-271.8	-418.8	-646.5	-1006.5	-1556.9	36.8	25.4
13-F	61997	18897	-3.4	1.6	2.6	3.6	6.6	11.6	12.3	20.6	27.5	26.9	29.5	27.1	26.4	21.6	13.5	9.9	1.7	-12.2	-24.2	-36.2	-60.2	-85.4	-122.0	-195.1	-304.2	-466.9	-718.6	-1116.5	-1725.1	35.1	23.2
13-G	64971	19803	-3.8	1.2	2.2	3.2	6.2	11.2	11.9	20.1	27.0	26.3	28.7	26.2	25.3	20.2	11.7	7.8	-0.8	-15.2	-27.7	-40.3	-65.2	-91.7	-130.3	-206.5	-320.7	-491.2	-755.2	-1172.3	-1810.4	34.3	22.1
13-H	67944	20709	-4.2	0.8	1.8	2.8	5.8	10.8	11.4	19.6	26.5	25.7	28.0	25.3	24.2	18.7	10.0	5.6	-3.3	-18.1	-31.1	-44.4	-70.2	-98.0	-138.6	-218.0	-337.1	-515.5	-791.8	-1228.0	-1895.7	33.5	21.1
13-I	71027	21649	-4.6	0.4	1.4	2.4	5.4	10.4	11.0	19.2	25.9	25.0	27.3	24.3	23.0	17.3	8.2	3.4	-5.9	-21.2	-34.7	-48.6	-75.3	-104.5	-147.2	-229.8	-354.1	-540.7	-829.6	-1285.8	-1984.1	32.8	20.1
13-J	74037	22567	-5.0	0.0	1.0	2.0	5.0	10.0	10.5	18.7	25.4	24.4	26.6	23.5	21.9	15.9	6.4	1.3	-8.5	-24.1	-38.2	-52.7	-80.3	-110.8	-155.6	-241.4	-370.7	-565.3	-866.6	-1342.2	-2070.5	32.1	19.2
13-K	77079	23494	-5.3	-0.3	0.7	1.7	4.7	9.7	10.1	18.3	24.9	23.9	25.9	22.6	20.8	14.5	4.7	-0.8	-11.0	-27.1	-41.6	-56.9	-85.3	-117.2	-164.1	-253.0	-387.5	-590.1	-903.9	-1399.2	-2157.7	31.4	18.3
13-L	80194	24443	-5.7	-0.7	0.3	1.3	4.3	9.3	9.7	17.8	24.4	23.3	25.1	21.7	19.7	13.1	2.9	-3.0	-13.6	-30.2	-45.2	-61.1	-90.5	-123.7	-172.7	-265.0	-404.6	-615.5	-942.2	-1457.6	-2247.0	30.7	17.3
14-D	55884	17033	-2.5	2.5	3.5	4.5	7.5	12.5	13.4	21.7	28.8	28.3	31.1	29.0	28.9	24.6	17.2	14.4	7.0	-6.0	-17.0	-27.7	-49.9	-72.3	-104.8	-171.4	-270.4	-416.8	-643.4	-1001.7	-1549.6	36.9	25.5
14-E	58799	17922	-3.0	2.0	3.0	4.0	7.0	12.0	12.9	21.2	28.2	27.6	30.3	28.1	27.7	23.1	15.5	12.2	4.5	-9.0	-20.5	-31.8	-54.9	-78.6	-113.0	-182.7	-286.5	-440.7	-679.3	-1056.4	-1633.3	36.0	24.4
14-F	61848	18851	-3.4	1.6	2.6	3.6	6.6	11.6	12.4	20.7	27.6	26.9	29.5	27.1	26.5	21.7	13.6	10.0	1.9	-12.0	-24.0	-36.0	-60.0	-85.0	-121.6	-194.5	-303.4	-465.6	-716.8	-1113.7	-1720.8	35.1	23.2
14-G	64844	19764	-3.8	1.2	2.2	3.2	6.2	11.2	11.9	20.1	27.0	26.3	28.8	26.2	25.3	20.2	11.8	7.9	-0.7	-15.0	-27.5	-40.1	-65.0	-91.4	-130.0	-206.0	-320.0	-490.1	-753.6	-1169.9	-1806.8	34.3	22.2
14-H	67876	20689	-4.2	0.8	1.8	2.8	5.8	10.8	11.4	19.6	26.5	25.7	28.0	25.3	24.2	18.8	10.0	5.7	-3.3	-18.1	-31.1	-44.3	-70.1	-97.8	-138.4	-217.7	-336.7	-514.9	-790.9	-1226.7	-1893.7	33.5	21.1
14-J	74031	22565	-5.0	0.0	1.0	2.0	5.0	10.0	10.5	18.7	25.4	24.5	26.6	23.5	21.9	15.9	6.4	1.3	-8.5	-24.1	-38.2	-52.7	-80.3	-110.8	-155.6	-241.4	-370.7	-565.2	-866.5	-1342.1	-2070.3	32.1	19.2
14-K	77145	23514	-5.3	-0.3	0.7	1.7	4.7	9.7	10.1	18.2	24.9	23.9	25.8	22.6	20.8	14.5	4.7	-0.9	-11.1	-27.2	-41.7	-57.0	-85.5	-117.3	-164.3	-253.3	-387.9	-590.6	-904.8	-1400.5	-2159.6	31.3	18.2
14-L	80270	24466	-5.7	-0.7	0.3	1.3	4.3	9.3	9.7	17.8	24.4	23.3	25.1	21.7	19.7	13.0	2.9	-3.0	-13.7	-30.2	-45.3	-61.2	-90.6	-123.9	-172.9	-265.3	-405.1	-616.1	-943.1	-1459.0	-2249.2	30.6	17.3
15-F	61749	18821	-3.4	1.6	2.6	3.6	6.6	11.6	12.4	20.7	27.6	27.0	29.6	27.2	26.5	21.7	13.7	10.1	1.9	-11.9	-23.9	-35.9	-59.8	-84.8	-121.3	-194.1	-302.9	-464.8	-715.6	-1111.8	-1718.0	35.2	23.3
15-G	64849	19766	-3.8	1.2	2.2	3.2	6.2	11.2	11.9	20.1	27.0	26.3	28.8	26.2	25.3	20.2	11.8	7.8	-0.7	-15.0	-27.5	-40.2	-65.0	-91.4	-130.0	-206.1	-320.0	-490.2	-753.7	-1170.0	-1806.9	34.3	22.2
15-H	67847	20680	-4.2	0.8	1.8	2.8	5.8	10.8	11.4	19.7	26.5	25.7	28.0	25.3	24.2	18.8	10.0	5.7	-3.3	-18.0	-31.0	-44.3	-70.0	-97.8	-138.4	-217.6	-336.6	-514.7	-790.6	-1226.2	-1892.9	33.6	21.2
15-I	70962	21629	-4.6	0.4	1.4	2.4	5.4	10.4	11.0	19.2	25.9	25.1	27.3	24.4	23.0	17.3	8.2	3.5	-5.9	-21.1	-34.6	-48.5	-75.2	-104.3	-147.1	-229.6	-353.8	-540.2	-828.8	-1284.6	-1982.3	32.8	20.1
15-J	74061	22574	-5.0	0.0	1.0	2.0	5.0	10.0	10.5	18.7	25.4	24.4	26.6	23.5	21.9	15.9	6.4	1.3	-8.5	-24.2	-38.2	-52.8	-80.4	-110.8	-155.7	-241.5	-370.9	-565.5	-866.9	-1342.7	-2071.1	32.0	19.2
15-K	77198	23530	-5.3	-0.3	0.7	1.7	4.7	9.7	10.1	18.2	24.9	23.8	25.8	22.6	20.8	14.4	4.6	-0.9	-11.1	-27.2	-41.8	-57.0	-85.5	-117.4	-164.4	-253.5	-388.1	-591.1	-905.4	-1401.5	-2161.1	31.3	18.2
16-J	74163	22605	-5.0	0.0	1.0	2.0	5.0	10.0	10.5	18.7	25.4	24.4	26.5	23.4	21.9	15.8	6.4	1.2	-8.6	-24.3	-38.3	-52.9	-80.5	-111.1	-156.0	-241.9	-371.4	-566.3	-868.1	-1344.6	-2074.1	32.0	19.1
16-K	77323	23568	-5.3	-0.3	0.7	1.7	4.7	9.7	10.1	18.2	24.9	23.8	25.8	22.5	20.7	14.4	4.6	-1.0	-11.2	-27.4	-41.9	-57.2	-85.7	-117.7	-164.8	-254.0	-388.8	-592.1	-906.9	-1403.8	-2164.7	31.3	18.2
		Minimum:	-6.0	-1.0	0.0	1.0	4.0	9.0	9.3	17.3	23.8	22.6	24.3	20.7	18.4	11.5	0.9	-5.5	-16.6	-33.7	-49.3	-65.9	-96.4	-131.2	-182.7	-278.8	-424.5	-644.9	-986.4	-1525.1	-2350.3	29.9	16.3
		Maximum:	-1.1	3.9	4.9	5.9	8.9	13.9	14.9	23.4	30.6	30.3	33.5	31.9	32.3	28.9	22.5	20.7	14.4	2.6	-7.0	-16.0	-35.7	-54.4	-81.2	-139.1	-224.0	-348.4	-540.8	-845.3	-1310.5	39.6	29.1

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Lmax)
FROM PILE DRIVING OF WTG MONOPILES

ODS Report Report no. 00.877, Figure 11, 2dB subtracted across the spectrum to account for peak to Lmax calculation

Sound Pressure Data	34	39	40	41	44	49	51	60	68	69	74	75	79	80	79	83	83	78	76	77	71	73	78	69	62	61	60	56	53	90	88
320 meters from the pile																															
Lmax at 320 meters	32	37	38	39	42	47	49	58	66	67	72	73	77	78	77	81	81	76	74	75	69	71	76	67	60	59	58	54	51	88	86

Data for the graph

Atmos. Absorption per 1 km	0.0000	0.0000	0.0000	0.0000	0.0000	0.0670	0.1050	0.1630	0.2510	0.3810	0.5650	0.8150	1.1300	1.5100	1.9200	2.3600	2.8400	3.3800	4.0800	5.0500	6.5100	8.7500	12.2000	17.7000	26.4000	39.9000	61.1000	93.7000	144.0000		
air temp 59F 70% RH																															

																		Hertz													
	1/3 Octave Bands		**16***	**20**	**25**	**31**	**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**	**L**	**A**
	Distance (ft)	**Distance (m)**																														
1-D	46357	14130	-0.9	4.1	5.1	6.1	9.1	14.1	15.2	23.7	30.8	30.6	33.8	32.3	32.8	29.5	23.2	21.6	15.5	3.9	-5.6	-14.2	-33.6	-51.8	-77.7	-134.4	-217.3	-338.5	-525.9	-822.7	-1275.9	40.0	29.7
1-E	48203	14692	-1.2	3.8	4.8	5.8	8.8	13.8	14.8	23.3	30.4	30.2	33.3	31.6	32.0	28.5	22.1	20.2	13.8	1.9	-7.8	-16.9	-36.8	-55.8	-83.0	-141.6	-227.6	-353.7	-548.7	-857.4	-1328.9	39.4	28.8
1-F	50202	15302	-1.6	3.4	4.4	5.4	8.4	13.4	14.4	22.8	30.0	29.6	32.7	30.9	31.2	27.5	20.8	18.6	12.1	-0.1	-10.2	-19.7	-40.2	-60.1	-88.7	-149.4	-238.8	-370.1	-573.4	-895.0	-1386.4	38.7	27.9
1-G	52328	15950	-2.0	3.0	4.0	5.0	8.0	13.0	14.0	22.4	29.5	29.1	32.1	30.2	30.3	26.4	19.4	17.0	10.2	-2.3	-12.8	-22.7	-43.9	-64.7	-94.7	-157.6	-250.6	-387.6	-599.6	-934.9	-1447.5	38.0	27.0
1-H	54591	16639	-2.3	2.7	3.7	4.7	7.7	12.7	13.6	22.0	29.0	28.6	31.5	29.5	29.4	25.2	18.0	15.3	8.2	-4.7	-15.5	-25.9	-47.7	-69.6	-101.1	-166.4	-263.2	-406.1	-627.5	-977.4	-1512.4	37.3	26.0
1-I	56913	17347	-2.7	2.3	3.3	4.3	7.3	12.3	13.2	21.5	28.5	28.0	30.8	28.7	28.4	24.1	16.6	13.6	6.1	-7.0	-18.2	-29.2	-51.7	-74.5	-107.7	-175.4	-276.1	-425.2	-656.1	-1021.0	-1579.1	36.6	25.1
1-J	59305	18076	-3.0	2.0	3.0	4.0	7.0	12.0	12.8	21.1	28.1	27.5	30.2	27.9	27.5	22.9	15.1	11.9	4.1	-9.5	-21.1	-32.5	-55.7	-79.6	-114.4	-184.7	-289.3	-444.8	-685.5	-1065.9	-1647.8	35.9	24.2
1-K	61849	18852	-3.4	1.6	2.6	3.6	6.6	11.6	12.4	20.7	27.6	26.9	29.5	27.1	26.5	21.7	13.6	10.0	1.9	-12.0	-24.0	-36.0	-60.0	-85.0	-121.6	-194.5	-303.4	-465.6	-716.8	-1113.7	-1720.8	35.1	23.2
1-L	64461	19648	-3.8	1.2	2.2	3.2	6.2	11.2	11.9	20.2	27.1	26.4	28.9	26.3	25.5	20.4	12.1	8.1	-0.4	-14.7	-27.1	-39.6	-64.4	-90.6	-128.9	-204.6	-317.9	-487.0	-748.9	-1162.7	-1795.8	34.4	22.3
2-D	45036	13727	-0.6	4.4	5.4	6.4	9.4	14.4	15.5	23.9	31.2	31.0	34.2	32.8	33.4	30.2	24.1	22.6	16.7	5.3	-4.0	-12.3	-31.4	-48.9	-74.0	-129.2	-210.0	-327.6	-509.6	-797.8	-1237.9	40.5	30.3
2-E	47020	14332	-1.0	4.0	5.0	6.0	9.0	14.0	15.0	23.5	30.7	30.5	33.6	32.1	32.6	29.1	22.8	21.1	14.9	3.2	-6.4	-15.2	-34.8	-53.2	-79.6	-137.0	-221.0	-343.9	-534.1	-835.1	-1294.9	39.8	29.4
2-F	49125	14973	-1.4	3.6	4.6	5.6	8.6	13.6	14.6	23.1	30.2	29.9	33.0	31.3	31.7	28.0	21.5	19.5	13.0	1.0	-8.9	-18.2	-38.4	-57.8	-85.6	-145.2	-232.8	-361.3	-560.1	-874.7	-1355.4	39.0	28.4
2-G	51319	15642	-1.8	3.2	4.2	5.2	8.2	13.2	14.2	22.6	29.7	29.4	32.4	30.6	30.7	26.9	20.1	17.8	11.1	-1.3	-11.6	-21.3	-42.2	-62.5	-91.9	-153.7	-245.0	-379.3	-587.1	-916.0	-1418.5	38.3	27.4
2-H	53625	16345	-2.2	2.8	3.8	4.8	7.8	12.8	13.8	22.2	29.2	28.8	31.7	29.8	29.8	25.7	18.6	16.1	9.0	-3.7	-14.3	-24.5	-46.1	-67.5	-98.4	-162.7	-257.8	-398.2	-615.6	-959.3	-1484.7	37.6	26.4
2-I	56086	17095	-2.6	2.4	3.4	4.4	7.4	12.4	13.3	21.7	28.7	28.2	31.1	29.0	28.8	24.5	17.1	14.2	6.9	-6.2	-17.3	-28.0	-50.3	-72.8	-105.3	-172.2	-271.5	-418.4	-645.9	-1005.5	-1555.4	36.8	25.4
2-J	58626	17869	-2.9	2.1	3.1	4.1	7.1	12.1	12.9	21.2	28.2	27.7	30.4	28.1	27.8	23.2	15.6	12.4	4.6	-8.8	-20.3	-31.5	-54.6	-78.2	-112.5	-182.0	-285.6	-439.2	-677.1	-1053.2	-1628.3	36.1	24.4
2-K	61115	18628	-3.3	1.7	2.7	3.7	6.7	11.7	12.5	20.8	27.7	27.1	29.7	27.4	26.8	22.0	14.1	10.5	2.5	-11.3	-23.2	-35.0	-58.8	-83.5	-119.5	-191.7	-299.3	-459.6	-707.8	-1099.9	-1699.7	35.3	23.5
2-L	63797	19445	-3.7	1.3	2.3	3.3	6.3	11.3	12.0	20.3	27.2	26.5	29.0	26.5	25.7	20.7	12.4	8.6	0.2	-14.0	-26.3	-38.7	-63.3	-89.2	-127.0	-202.0	-314.2	-481.6	-740.8	-1150.2	-1776.7	34.6	22.5
3-D	43836	13361	-0.4	4.6	5.6	6.6	9.6	14.6	15.7	24.2	31.5	31.3	34.6	33.2	34.0	30.8	24.9	23.5	17.8	6.5	-2.5	-10.6	-29.3	-46.3	-70.5	-124.5	-203.2	-317.7	-494.8	-775.2	-1203.4	40.9	30.9
3-E	45927	13999	-0.8	4.2	5.2	6.2	9.2	14.2	15.3	23.7	31.0	30.7	34.0	32.5	33.0	29.7	23.5	21.9	15.9	4.3	-5.1	-13.6	-32.9	-50.9	-76.5	-132.7	-214.9	-334.9	-520.6	-814.6	-1263.5	40.2	29.9
3-F	48128	14669	-1.2	3.8	4.8	5.8	8.8	13.8	14.8	23.3	30.4	30.2	33.3	31.7	32.1	28.6	22.1	20.2	13.9	2.0	-7.7	-16.8	-36.7	-55.6	-82.8	-141.3	-227.2	-353.0	-547.8	-856.0	-1326.8	39.4	28.8
3-G	50415	15366	-1.6	3.4	4.4	5.4	8.4	13.4	14.4	22.8	29.9	29.6	32.6	30.9	31.1	27.4	20.7	18.5	11.9	-0.4	-10.5	-20.0	-40.6	-60.6	-89.3	-150.2	-240.0	-371.9	-576.0	-899.0	-1392.5	38.6	27.8
3-H	52800	16094	-2.0	3.0	4.0	5.0	8.0	13.0	13.9	22.3	29.4	29.0	32.0	30.1	30.1	26.1	19.2	16.7	9.7	-2.8	-13.3	-23.4	-44.7	-65.7	-96.0	-159.5	-253.2	-391.5	-605.4	-943.8	-1461.0	37.8	26.8
3-I	55269	16846	-2.4	2.6	3.6	4.6	7.6	12.6	13.5	21.8	28.9	28.4	31.3	29.2	29.1	24.9	17.6	14.8	7.6	-5.4	-16.3	-26.9	-48.9	-71.0	-103.0	-169.0	-266.9	-411.7	-635.8	-990.2	-1531.9	37.1	25.8
3-J	57863	17637	-2.8	2.2	3.2	4.2	7.2	12.2	13.0	21.4	28.4	27.8	30.6	28.4	28.1	23.6	16.0	12.9	5.3	-8.0	-19.4	-30.5	-53.3	-76.6	-110.3	-179.1	-281.3	-433.0	-667.8	-1038.9	-1606.4	36.3	24.7
3-K	60537	18452	-3.2	1.8	2.8	3.8	6.8	11.8	12.6	20.9	27.8	27.2	29.9	27.5	27.0	22.3	14.4	11.0	3.0	-10.7	-22.5	-34.2	-57.8	-82.3	-117.9	-189.4	-296.1	-454.9	-700.7	-1089.1	-1683.2	35.5	23.7
3-L	63169	19254	-3.6	1.4	2.4	3.4	6.4	11.4	12.1	20.4	27.3	26.7	29.2	26.7	26.0	21.0	12.8	9.1	0.7	-13.4	-25.6	-37.8	-62.2	-87.8	-125.3	-199.6	-310.7	-476.4	-733.0	-1138.4	-1758.7	34.8	22.8
4-D	42724	13022	-0.2	4.8	5.8	6.8	9.8	14.8	16.0	24.5	31.7	31.6	35.0	33.6	34.5	31.5	25.6	24.4	18.8	7.7	-1.1	-9.0	-27.3	-43.9	-67.3	-120.2	-197.0	-308.5	-481.0	-754.3	-1171.4	41.4	31.5
4-E	44945	13699	-0.6	4.4	5.4	6.4	9.4	14.4	15.5	24.0	31.2	31.0	34.3	32.8	33.5	30.3	24.2	22.7	16.8	5.4	-3.9	-12.2	-31.2	-48.7	-73.7	-128.9	-209.4	-326.8	-508.5	-796.1	-1235.3	40.5	30.4
4-F	47208	14389	-1.1	3.9	4.9	5.9	8.9	13.9	15.0	23.5	30.6	30.4	33.6	32.0	32.5	29.0	22.7	20.9	14.7	3.0	-6.6	-15.5	-35.1	-53.6	-80.2	-137.7	-222.1	-345.5	-536.4	-838.7	-1300.3	39.7	29.3
4-G	49622	15125	-1.5	3.5	4.5	5.5	8.5	13.5	14.5	23.0	30.1	29.8	32.9	31.1	31.4	27.8	21.2	19.1	12.6	0.5	-9.5	-18.9	-39.3	-58.9	-87.0	-147.1	-235.5	-365.3	-566.2	-884.1	-1369.7	38.9	28.2
4-H	52086	15876	-1.9	3.1	4.1	5.1	8.1	13.1	14.0	22.5	29.6	29.2	32.2	30.3	30.4	26.5	19.6	17.2	10.4	-2.1	-12.5	-22.4	-43.5	-64.2	-94.0	-156.7	-249.2	-385.6	-596.6	-930.4	-1440.5	38.1	27.1
4-I	54654	16659	-2.3	2.7	3.7	4.7	7.7	12.7	13.6	22.0	29.0	28.6	31.4	29.4	29.4	25.2	18.0	15.3	8.1	-4.7	-15.6	-26.0	-47.8	-69.7	-101.3	-166.7	-263.5	-406.7	-628.2	-978.6	-1514.3	37.2	26.0
4-J	57263	17454	-2.7	2.3	3.3	4.3	7.3	12.3	13.1	21.5	28.5	28.0	30.7	28.6	28.3	23.9	16.4	13.4	5.8	-7.4	-18.6	-29.6	-52.3	-75.3	-108.7	-176.8	-278.0	-428.1	-660.4	-1027.6	-1589.2	36.5	25.0
4-K	59959	18276	-3.1	1.9	2.9	3.9	6.9	11.9	12.7	21.0	27.9	27.4	30.0	27.7	27.2	22.6	14.8	11.4	3.5	-10.1	-21.8	-33.4	-56.8	-81.0	-116.2	-187.2	-292.9	-450.2	-693.6	-1078.2	-1666.6	35.7	23.9
4-L	62718	19117	-3.5	1.5	2.5	3.5	6.5	11.5	12.2	20.5	27.4	26.8	29.3	26.9	26.2	21.2	13.1	9.4	1.1	-12.9	-25.1	-37.2	-61.4	-86.9	-124.0	-197.8	-308.2	-472.8	-727.5	-1130.0	-1745.8	34.9	22.9
5-D	41697	12709	0.0	5.0	6.0	7.0	10.0	15.0	16.2	24.7	32.0	31.9	35.3	34.0	34.9	32.0	26.3	25.2	19.8	8.8	0.1	-7.5	-25.5	-41.6	-64.4	-116.1	-191.3	-300.1	-468.3	-735.0	-1141.8	41.8	32.0
5-E	43942	13393	-0.4	4.6	5.6	6.6	9.6	14.6	15.7	24.2	31.4	31.3	34.6	33.2	33.9	30.8	24.8	23.5	17.7	6.4	-2.6	-10.8	-29.5	-46.5	-70.8	-124.9	-203.8	-318.6	-496.1	-777.2	-1206.4	40.9	30.9
5-F	46351	14128	-0.9	4.1	5.1	6.1	9.1	14.1	15.2	23.7	30.9	30.6	33.8	32.3	32.8	29.5	23.3	21.6	15.5	3.9	-5.6	-14.2	-33.6	-51.8	-77.7	-134.4	-217.3	-338.4	-525.8	-822.6	-1275.7	40.0	29.7
5-G	48796	14873	-1.3	3.7	4.7	5.7	8.7	13.7	14.7	23.1	30.3	30.0	33.1	31.4	31.8	28.2	21.7	19.7	13.3	1.3	-8.5	-17.7	-37.8	-57.1	-84.7	-143.9	-230.9	-358.5	-556.0	-868.5	-1346.0	39.1	28.5
5-H	51376	15659	-1.8	3.2	4.2	5.2	8.2	13.2	14.2	22.6	29.7	29.4	32.4	30.5	30.7	26.9	20.0	17.8	11.0	-1.4	-11.6	-21.4	-42.3	-62.7	-92.0	-153.9	-245.3	-379.8	-587.8	-917.0	-1420.1	38.3	27.4
5-I	54012	16463	-2.2	2.8	3.8	4.8	7.8	12.8	13.7	22.1	29.1	28.7	31.6	29.7	29.6	25.5	18.4	15.8	8.7	-4.1	-14.8	-25.1	-46.7	-68.3	-99.5	-164.2	-260.0	-401.4	-620.3	-966.6	-1495.8	37.4	26.3
5-J	56689	17279	-2.6	2.4	3.4	4.4	7.4	12.4	13.2	21.6	28.6	28.1	30.9	28.8	28.5	24.2	16.7	13.8	6.3	-6.8	-18.0	-28.8	-51.3	-74.0	-107.0	-174.5	-274.8	-423.4	-653.3	-1016.8	-1572.7	36.6	25.2
6-D	40751	12421	0.2	5.2	6.2	7.2	10.2	15.2	16.4	24.9	32.2	32.2	35.6	34.4	35.4	32.5	26.9	26.0	20.7	9.9	1.3	-6.2	-23.9	-39.6	-61.7	-112.4	-186.0	-292.2	-456.6	-717.1	-1114.6	42.1	32.5
6-E	43096	13136	-0.3	4.7	5.7	6.7	9.7	14.7	15.9	24.4	31.6	31.5	34.9	33.5	34.3	31.3	25.4	24.1	18.5	7.3	-1.6	-9.6	-28.0	-44.7	-68.4	-121.6	-199.1	-311.6	-485.6	-761.3	-1182.1	41.2	31.3
6-G	48177	14684	-1.2	3.8	4.8	5.8	8.8	13.8	14.8	23.3	30.4	30.2	33.3	31.6	32.1	28.5	22.1	20.2	13.9	2.0	-7.8	-16.8	-36.8	-55.7	-82.9	-141.5	-227.5	-353.5	-548.4	-856.9	-1328.2	39.4	28.8
6-H	50832	15494	-1.7	3.3	4.3	5.3	8.3	13.3	14.3	22.7	29.8	29.5	32.5	30.7	30.9	27.2	20.4	18.2	11.5	-0.8	-11.0	-20.6	-41.3	-61.5	-90.5	-151.8	-242.3	-375.3	-581.1	-906.8	-1404.5	38.5	27.6
6-I	53459	16294	-2.1	2.9	3.9	4.9	7.9	12.9	13.8	22.2	29.3	28.9	31.8	29.8	29.8	25.8	18.7	16.2	9.2	-3.5	-14.1	-24.3	-45.8	-67.1	-97.9	-162.0	-256.9	-396.9	-613.5	-956.2	-1479.9	37.6	26.5
6-J	56201	17130	-2.6	2.4	3.4	4.4	7.4	12.4	13.3	21.7	28.7	28.2	31.0	28.9	28.7	24.4	17.0	14.2	6.8	-6.3	-17.4	-28.2	-50.5	-73.0	-105.7	-172.7	-272.1	-419.4	-647.3	-1007.7	-1558.7	36.8	25.4
7-B	35342	10772	1.5	6.5	7.5	8.5	11.5	16.5	17.8	26.4	33.8	33.8	37.5	36.6	37.9	35.6	30.7	30.4	25.8	15.8	8.1	1.8	-14.3	-27.6	-46.0	-91.1	-155.6	-247.5	-389.6	-615.2	-958.9	44.5	35.6
7-C	37548	11445	0.9	5.9	6.9	7.9	10.9	15.9	17.2	25.8	33.1	33.1	36.7	35.6	36.9	34.4	29.1	28.6	23.7	13.3	5.3	-1.5	-18.2	-32.5	-52.4	-99.8	-168.0	-265.8	-416.9	-656.8	-1022.5	43.5	34.3
7-E	42350	12908	-0.1	4.9	5.9	6.9	9.9	14.9	16.0	24.6	31.8	31.7	35.1	33.8	34.6	31.7	25.9	24.7	19.2	8.1	-0.7	-8.5	-26.7	-43.1	-66.3	-118.7	-194.9	-305.4	-476.4	-747.3	-1160.6	41.5	31.7
7-F	44888	13682	-0.6	4.4	5.4	6.4	9.4	14.4	15.5	24.0	31.2	31.0	34.3	32.8	33.5	30.3	24.2	22.7	16.8	5.4	-3.8	-12.1	-31.1	-48.6	-73.5	-128.6	-209.1	-326.4	-507.8	-795.0	-1233.6	40.5	30.4
7-G	47507	14480	-1.1	3.9	4.9	5.9	8.9	13.9	14.9	23.4	30.6	30.3	33.5	31.9	32.3	28.9	22.5	20.7	14.5	2.7	-7.0	-15.9	-35.6	-54.3	-81.0	-138.9	-223.7	-347.9	-540.1	-844.3	-1308.9	39.6	29.1
7-H	50224	15308	-1.6	3.4	4.4	5.4	8.4	13.4	14.4	22.8	30.0	29.6	32.7	30.9	31.2	27.5	20.8	18.6	12.0	-0.2	-10.3	-19.7	-40.3	-60.2	-88.7	-149.5	-238.9	-370.3	-573.6	-895.4	-1387.0	38.7	27.9
7-I	53011	16158	-2.1	2.9	3.9	4.9	7.9	12.9	13.9	22.3	29.4	29.0	31.9	30.0	30.0	26.0	19.0	16.5	9.6	-3.0	-13.6	-23.7	-45.0	-66.2	-96.6	-160.3	-254.4	-393.2	-608.0	-947.8	-1467.1	37.8	26.7
8-A	32155	9801	2.3	7.3	8.3	9.3	12.3	17.3	18.6	27.3	34.7	34.9	38.7	37.9	39.6	37.6	33.0	33.1	28.9	19.4	12.2	6.6	-8.6	-20.4	-36.7	-78.4	-137.5	-221.0	-350.0	-555.0	-867.1	46.0	37.6
8-B	34320	10461	1.7	6.7	7.7	8.7	11.7	16.7	18.0	26.6	34.1	34.2	37.8	37.0	38.4	36.3	31.4	31.2	26.8	16.9	9.4	3.3	-12.5	-25.3	-43.0	-87.0	-149.8	-239.0	-376.9	-595.9	-929.5	45.0	36.2
8-C	36645	11169	1.1	6.1	7.1	8.1	11.1	16.1	17.4	26.0	33.4	33.4	37.0	36.0	37.3	34.9	29.8	29.3	24.5	14.3	6.5	-0.1	-16.6	-30.5	-49.8	-96.2	-162.9	-258.3	-405.7	-639.7	-996.4	43.9	34.8
8-D	39127	11926	0.6	5.6	6.6	7.6	10.6	15.6	16.8	25.4	32.7	32.7	36.2	35.0	36.1	33.5	28.0	27.3	22.2	11.6	3.3	-3.8	-21.0	-36.0	-57.0	-106.0	-176.8	-278.8	-436.5	-686.5	-1067.9	42.8	33.4
8-F	44300	13503	-0.5	4.5	5.5	6.5	9.5	14.5	15.6	24.1	31.3	31.2	34.5	33.0	33.8	30.6	24.6	23.2	17.4	6.1	-3.1	-11.3	-30.1	-47.3	-71.9	-126.3	-205.8	-321.5	-500.5	-784.0	-1216.7	40.8	30.7

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Lmax)
FROM PILE DRIVING OF WTG MONOPILES

8-G	46965	14315	-1.0	4.0	5.0	6.0	9.0	14.0	15.0	23.5	30.7	30.5	33.7	32.1	32.6	29.2	22.9	21.1	15.0	3.2	-6.3	-15.1	-34.7	-53.1	-79.5	-136.8	-220.7	-343.5	-533.4	-834.1	-1293.3	39.8	29.4
8-H	49776	15172	-1.5	3.5	4.5	5.5	8.5	13.5	14.5	22.9	30.1	29.8	32.8	31.1	31.4	27.7	21.1	19.0	12.4	0.3	-9.7	-19.1	-39.5	-59.2	-87.5	-147.7	-236.4	-366.6	-568.1	-887.0	-1374.1	38.8	28.1
9-A	31152	9495	2.6	7.6	8.6	9.6	12.6	17.6	18.9	27.6	35.1	35.3	39.1	38.4	40.1	38.2	33.7	33.9	29.9	20.5	13.5	8.1	-6.8	-18.2	-33.7	-74.4	-131.8	-212.7	-337.5	-536.0	-838.1	46.5	38.3
9-B	33436	10191	1.9	6.9	7.9	8.9	11.9	16.9	18.3	26.9	34.3	34.5	38.2	37.4	38.9	36.8	32.0	32.0	27.6	17.9	10.6	4.7	-10.9	-23.3	-40.4	-83.5	-144.8	-231.7	-365.9	-579.2	-904.0	45.4	36.8
9-C	35878	10936	1.3	6.3	7.3	8.3	11.3	16.3	17.6	26.2	33.6	33.7	37.3	36.3	37.7	35.3	30.3	29.9	25.3	15.2	7.4	1.0	-15.3	-28.8	-47.6	-93.2	-158.6	-251.9	-396.2	-625.3	-974.4	44.2	35.3
9-D	38414	11708	0.7	5.7	6.7	7.7	10.7	15.7	17.0	25.5	32.9	32.9	36.4	35.3	36.5	33.9	28.5	27.9	22.9	12.4	4.2	-2.7	-19.8	-34.4	-54.9	-103.2	-172.8	-272.9	-427.7	-673.1	-1047.4	43.1	33.8
9-E	41056	12514	0.2	5.2	6.2	7.2	10.2	15.2	16.3	24.9	32.2	32.1	35.5	34.3	35.2	32.4	26.7	25.7	20.4	9.5	0.9	-6.6	-24.4	-40.2	-62.5	-113.6	-187.7	-294.8	-460.4	-722.9	-1123.4	42.0	32.3
9-F	43792	13348	-0.4	4.6	5.6	6.6	9.6	14.6	15.7	24.2	31.5	31.3	34.6	33.2	34.0	30.9	24.9	23.6	17.8	6.6	-2.4	-10.6	-29.2	-46.2	-70.4	-124.3	-203.0	-317.3	-494.2	-774.4	-1202.1	41.0	30.9
9-G	46593	14202	-0.9	4.1	5.1	6.1	9.1	14.1	15.1	23.6	30.8	30.6	33.8	32.2	32.7	29.4	23.1	21.4	15.3	3.6	-5.9	-14.6	-34.0	-52.3	-78.4	-135.3	-218.6	-340.4	-528.8	-827.1	-1282.7	39.9	29.6
9-H	49397	15056	-1.5	3.5	4.5	5.5	8.5	13.5	14.6	23.0	30.1	29.8	32.9	31.2	31.5	27.9	21.3	19.3	12.8	0.7	-9.3	-18.6	-38.9	-58.4	-86.4	-146.2	-234.3	-363.5	-563.4	-879.8	-1363.2	38.9	28.3
9-I	52318	15946	-2.0	3.0	4.0	5.0	8.0	13.0	14.0	22.4	29.5	29.1	32.1	30.2	30.3	26.4	19.5	17.0	10.2	-2.3	-12.8	-22.7	-43.9	-64.7	-94.7	-157.6	-250.5	-387.5	-599.4	-934.7	-1447.1	38.0	27.0
10-A	30243	9218	2.8	7.8	8.8	9.8	12.8	17.8	19.2	27.9	35.4	35.6	39.4	38.8	40.6	38.8	34.4	34.7	30.8	21.5	14.7	9.5	-5.1	-16.1	-31.0	-70.7	-126.7	-205.1	-326.2	-518.9	-811.9	47.0	38.9
10-B	32629	9945	2.2	7.2	8.2	9.2	12.2	17.2	18.5	27.1	34.6	34.7	38.5	37.7	39.3	37.3	32.6	32.7	28.4	18.8	11.6	5.9	-9.5	-21.5	-38.1	-80.3	-140.2	-225.0	-355.9	-564.0	-880.8	45.8	37.3
10-C	35175	10721	1.5	6.5	7.5	8.5	11.5	16.5	17.8	26.4	33.8	33.9	37.5	36.6	38.0	35.7	30.8	30.5	26.0	16.0	8.3	2.1	-14.0	-27.2	-45.5	-90.4	-154.6	-246.1	-387.5	-612.0	-954.1	44.6	35.7
10-D	37865	11541	0.9	5.9	6.9	7.9	10.9	15.9	17.1	25.7	33.0	33.0	36.6	35.5	36.7	34.2	28.9	28.3	23.4	13.0	4.9	-1.9	-18.8	-33.2	-53.3	-101.0	-169.8	-268.4	-420.9	-662.8	-1031.6	43.4	34.1
10-E	40598	12374	0.3	5.3	6.3	7.3	10.3	15.3	16.4	25.0	32.3	32.2	35.7	34.4	35.4	32.6	27.1	26.1	20.8	10.0	1.5	-5.9	-23.6	-39.2	-61.2	-111.8	-185.1	-291.0	-454.7	-714.3	-1110.2	42.2	32.6
10-F	43440	13241	-0.3	4.7	5.7	6.7	9.7	14.7	15.8	24.3	31.6	31.4	34.7	33.4	34.1	31.1	25.2	23.9	18.2	7.0	-2.0	-10.1	-28.6	-45.4	-69.4	-123.0	-201.0	-314.4	-489.9	-767.8	-1192.0	41.1	31.1
10-G	46297	14111	-0.9	4.1	5.1	6.1	9.1	14.1	15.2	23.7	30.9	30.7	33.9	32.3	32.9	29.5	23.3	21.6	15.6	3.9	-5.5	-14.2	-33.5	-51.7	-77.6	-134.1	-217.0	-338.0	-525.2	-821.5	-1274.1	40.0	29.7
10-H	49179	14990	-1.4	3.6	4.6	5.6	8.6	13.6	14.6	23.0	30.2	29.9	33.0	31.3	31.6	28.0	21.4	19.4	13.0	0.9	-9.0	-18.3	-38.5	-57.9	-85.8	-145.4	-233.1	-361.7	-560.7	-875.7	-1357.0	39.0	28.4
10-I	52266	15931	-1.9	3.1	4.1	5.1	8.1	13.1	14.0	22.4	29.5	29.1	32.1	30.2	30.3	26.4	19.5	17.1	10.2	-2.3	-12.7	-22.6	-43.8	-64.6	-94.5	-157.4	-250.3	-387.1	-598.8	-933.8	-1445.7	38.0	27.0
11-A	29395	8960	3.1	8.1	9.1	10.1	13.1	18.1	19.5	28.2	35.6	35.9	39.8	39.2	41.0	39.3	35.0	35.5	31.7	22.5	15.9	10.8	-3.6	-14.2	-28.5	-67.3	-121.9	-198.0	-315.7	-502.8	-787.5	47.5	39.5
11-B	31965	9743	2.3	7.3	8.3	9.3	12.3	17.3	18.7	27.3	34.8	35.0	38.7	38.0	39.6	37.7	33.1	33.2	29.1	19.6	12.5	6.9	-8.3	-20.0	-36.1	-77.6	-136.5	-219.4	-347.6	-551.4	-861.6	46.1	37.7
11-C	34591	10543	1.6	6.6	7.6	8.6	11.6	16.6	18.0	26.6	34.0	34.1	37.7	36.9	38.3	36.1	31.2	31.0	26.5	16.6	9.1	2.9	-13.0	-25.9	-43.8	-88.1	-151.3	-241.3	-380.3	-601.0	-937.3	44.8	36.1
11-D	37348	11384	1.0	6.0	7.0	8.0	11.0	16.0	17.2	25.8	33.2	33.2	36.8	35.7	37.0	34.5	29.3	28.7	23.9	13.6	5.6	-1.2	-17.9	-32.0	-51.8	-99.0	-166.8	-264.1	-414.5	-653.0	-1016.7	43.6	34.4
11-E	40183	12248	0.3	5.3	6.3	7.3	10.3	15.3	16.5	25.1	32.4	32.3	35.8	34.6	35.6	32.9	27.3	26.4	21.2	10.5	2.0	-5.3	-22.9	-38.3	-60.0	-110.2	-182.8	-287.6	-449.6	-706.5	-1098.3	42.4	32.8
11-F	43038	13118	-0.3	4.7	5.7	6.7	9.7	14.7	15.9	24.4	31.7	31.5	34.9	33.5	34.3	31.3	25.4	24.2	18.5	7.4	-1.5	-9.5	-27.9	-44.6	-68.2	-121.4	-198.8	-311.1	-484.9	-760.2	-1180.4	41.2	31.3
11-G	45970	14012	-0.8	4.2	5.2	6.2	9.2	14.2	15.3	23.7	30.9	30.7	34.0	32.4	33.0	29.7	23.5	21.9	15.9	4.3	-5.1	-13.7	-33.0	-51.0	-76.6	-132.9	-215.2	-335.3	-521.1	-815.4	-1264.7	40.1	29.9
11-H	48929	14914	-1.4	3.6	4.6	5.6	8.6	13.6	14.7	23.1	30.3	30.0	33.1	31.4	31.7	28.1	21.6	19.6	13.2	1.2	-8.7	-17.9	-38.1	-57.4	-85.1	-144.4	-231.7	-359.6	-557.7	-871.0	-1349.8	39.1	28.5
11-K	58031	17688	-2.9	2.1	3.1	4.1	7.1	12.1	13.0	21.3	28.3	27.8	30.5	28.3	28.0	23.5	15.9	12.8	5.2	-8.2	-19.6	-30.7	-53.6	-76.9	-110.8	-179.7	-282.3	-434.4	-669.8	-1042.0	-1611.2	36.2	24.7
11-L	61114	18628	-3.3	1.7	2.7	3.7	6.7	11.7	12.5	20.8	27.7	27.1	29.7	27.4	26.8	22.0	14.1	10.5	2.5	-11.3	-23.2	-35.0	-58.8	-83.5	-119.5	-191.7	-299.3	-459.6	-707.8	-1099.9	-1699.7	35.3	23.5
12-A	28700	8748	3.3	8.3	9.3	10.3	13.3	18.3	19.7	28.4	35.9	36.1	40.1	39.5	41.4	39.7	35.5	36.1	32.4	23.3	16.8	11.9	-2.3	-12.6	-26.5	-64.6	-117.9	-192.2	-307.0	-489.7	-767.4	47.8	40.0
12-B	31394	9569	2.5	7.5	8.5	9.5	12.5	17.5	18.9	27.5	35.0	35.2	39.0	38.3	39.9	38.0	33.5	33.7	29.7	20.2	13.2	7.7	-7.2	-18.7	-34.4	-75.4	-133.2	-214.7	-340.5	-540.6	-845.1	46.4	38.1
12-C	34168	10414	1.8	6.8	7.8	8.8	11.8	16.8	18.1	26.7	34.1	34.2	37.9	37.0	38.5	36.3	31.5	31.4	26.9	17.1	9.6	3.6	-12.2	-25.0	-42.6	-86.4	-148.9	-237.7	-375.0	-593.0	-925.1	45.0	36.3
12-D	37016	11283	1.1	6.1	7.1	8.1	11.1	16.1	17.3	25.9	33.3	33.3	36.9	35.9	37.1	34.7	29.5	29.0	24.2	13.9	6.0	-0.7	-17.3	-31.3	-50.9	-97.7	-165.0	-261.4	-410.4	-646.8	-1007.1	43.7	34.6
12-E	39895	12160	0.4	5.4	6.4	7.4	10.4	15.4	16.6	25.2	32.5	32.4	35.9	34.7	35.8	33.0	27.5	26.7	21.5	10.8	2.4	-4.9	-22.4	-37.7	-59.2	-109.0	-181.2	-285.2	-446.0	-701.0	-1090.0	42.5	33.0
12-F	42811	13049	-0.2	4.8	5.8	6.8	9.8	14.8	15.9	24.5	31.7	31.6	34.9	33.6	34.4	31.4	25.6	24.4	18.8	7.6	-1.2	-9.1	-27.5	-44.1	-67.6	-120.5	-197.5	-309.2	-482.1	-755.9	-1173.9	41.3	31.4
12-G	45834	13970	-0.8	4.2	5.2	6.2	9.2	14.2	15.3	23.8	31.0	30.8	34.0	32.5	33.1	29.8	23.6	22.0	16.0	4.4	-4.9	-13.5	-32.7	-50.7	-76.2	-132.3	-214.4	-334.2	-519.4	-812.8	-1260.8	40.2	29.9
12-H	48797	14873	-1.3	3.7	4.7	5.7	8.7	13.7	14.7	23.1	30.3	30.0	33.1	31.4	31.8	28.2	21.7	19.7	13.3	1.3	-8.5	-17.7	-37.8	-57.1	-84.7	-143.9	-230.9	-358.6	-556.0	-868.6	-1346.0	39.1	28.5
12-I	51920	15825	-1.9	3.1	4.1	5.1	8.1	13.1	14.1	22.5	29.6	29.2	32.2	30.4	30.5	26.6	19.7	17.3	10.5	-1.9	-12.3	-22.1	-43.2	-63.8	-93.6	-156.0	-248.3	-384.2	-594.5	-927.2	-1435.7	38.1	27.2
12-J	54987	16760	-2.4	2.6	3.6	4.6	7.6	12.6	13.5	21.9	28.9	28.5	31.4	29.3	29.2	25.0	17.8	15.1	7.8	-5.1	-16.0	-26.5	-48.4	-70.4	-102.2	-168.0	-265.4	-409.4	-632.3	-984.9	-1523.8	37.1	25.9
12-K	58065	17698	-2.9	2.1	3.1	4.1	7.1	12.1	13.0	21.3	28.3	27.8	30.5	28.3	28.0	23.5	15.9	12.8	5.1	-8.2	-19.6	-30.8	-53.6	-77.0	-110.9	-179.9	-282.5	-434.6	-670.2	-1042.7	-1612.2	36.2	24.7
12-L	61148	18638	-3.3	1.7	2.7	3.7	6.7	11.7	12.5	20.8	27.7	27.1	29.7	27.3	26.8	22.0	14.0	10.5	2.5	-11.3	-23.2	-35.0	-58.8	-83.6	-119.6	-191.8	-299.5	-459.9	-708.2	-1100.5	-1700.7	35.3	23.5
13-A	28123	8572	3.4	8.4	9.4	10.4	13.4	18.4	19.9	28.6	36.1	36.4	40.3	39.8	41.7	40.1	36.0	36.6	33.0	24.0	17.5	12.8	-1.2	-11.3	-24.8	-62.2	-114.6	-187.4	-299.8	-478.8	-750.8	48.2	40.4
13-B	30961	9437	2.6	7.6	8.6	9.6	12.6	17.6	19.0	27.6	35.1	35.3	39.1	38.5	40.2	38.3	33.8	34.1	30.1	20.7	13.8	8.4	-6.4	-17.7	-33.2	-73.6	-130.8	-211.1	-335.2	-532.4	-832.6	46.6	38.4
13-C	33805	10304	1.8	6.8	7.8	8.8	11.8	16.8	18.2	26.8	34.2	34.3	38.0	37.2	38.7	36.6	31.8	31.7	27.3	17.5	10.1	4.1	-11.6	-24.2	-41.5	-85.0	-146.9	-234.7	-370.5	-586.2	-914.6	45.2	36.5
13-D	36755	11203	1.1	6.1	7.1	8.1	11.1	16.1	17.4	26.0	33.3	33.4	37.0	36.0	37.2	34.8	29.7	29.2	24.4	14.2	6.3	-0.3	-16.8	-30.7	-50.1	-96.7	-163.5	-259.2	-407.1	-641.8	-999.6	43.8	34.8
13-F	42723	13022	-0.2	4.8	5.8	6.8	9.8	14.8	16.0	24.5	31.7	31.6	35.0	33.6	34.5	31.5	25.6	24.4	18.8	7.7	-1.1	-9.0	-27.3	-43.9	-67.3	-120.2	-197.0	-308.5	-481.0	-754.3	-1171.4	41.4	31.5
13-G	45759	13947	-0.8	4.2	5.2	6.2	9.2	14.2	15.3	23.8	31.0	30.8	34.0	32.5	33.1	29.8	23.6	22.0	16.1	4.5	-4.8	-13.4	-32.6	-50.5	-76.0	-132.0	-214.0	-333.5	-518.5	-811.4	-1258.7	40.2	30.0
13-H	48790	14871	-1.3	3.7	4.7	5.7	8.7	13.7	14.7	23.1	30.3	30.0	33.1	31.4	31.8	28.2	21.7	19.7	13.3	1.3	-8.5	-17.7	-37.8	-57.1	-84.7	-143.9	-230.9	-358.5	-555.9	-868.4	-1345.8	39.1	28.5
13-I	51941	15832	-1.9	3.1	4.1	5.1	8.1	13.1	14.1	22.5	29.6	29.2	32.2	30.3	30.5	26.6	19.7	17.3	10.5	-1.9	-12.3	-22.2	-43.2	-63.9	-93.6	-156.1	-248.4	-384.4	-594.8	-927.6	-1436.3	38.1	27.2
13-J	55017	16769	-2.4	2.6	3.6	4.6	7.6	12.6	13.5	21.9	28.9	28.5	31.3	29.3	29.2	25.0	17.8	15.0	7.8	-5.1	-16.0	-26.5	-48.5	-70.5	-102.3	-168.1	-265.5	-409.6	-632.7	-985.4	-1524.7	37.1	25.9
13-K	58117	17714	-2.9	2.1	3.1	4.1	7.1	12.1	13.0	21.3	28.3	27.8	30.5	28.3	28.0	23.5	15.9	12.7	5.1	-8.3	-19.7	-30.8	-53.7	-77.1	-111.1	-180.1	-282.7	-435.1	-670.9	-1043.6	-1613.7	36.2	24.6
13-L	61293	18682	-3.3	1.7	2.7	3.7	6.7	11.7	12.4	20.7	27.7	27.1	29.7	27.3	26.7	21.9	13.9	10.4	2.3	-11.5	-23.4	-35.2	-59.1	-83.9	-120.0	-192.3	-300.3	-461.1	-710.0	-1103.3	-1704.9	35.3	23.4
14-D	36591	11153	1.2	6.2	7.2	8.2	11.2	16.2	17.4	26.0	33.4	33.4	37.0	36.0	37.3	34.9	29.8	29.4	24.6	14.4	6.5	0.0	-16.6	-30.4	-49.6	-96.0	-162.6	-257.8	-405.1	-638.7	-994.9	43.9	34.8
14-E	39573	12062	0.5	5.5	6.5	7.5	10.5	15.5	16.7	25.2	32.6	32.5	36.0	34.8	35.9	33.2	27.7	26.9	21.8	11.1	2.8	-4.4	-21.8	-37.0	-58.3	-107.8	-179.4	-282.5	-442.0	-694.9	-1080.7	42.6	33.2
14-F	42692	13013	-0.2	4.8	5.8	6.8	9.8	14.8	16.0	24.5	31.7	31.6	35.0	33.6	34.5	31.5	25.6	24.4	18.9	7.8	-1.1	-9.0	-27.3	-43.8	-67.2	-120.0	-196.8	-308.3	-480.6	-753.7	-1170.5	41.4	31.5
14-G	45758	13947	-0.8	4.2	5.2	6.2	9.2	14.2	15.3	23.8	31.0	30.8	34.0	32.5	33.1	29.8	23.6	22.0	16.1	4.5	-4.8	-13.4	-32.6	-50.5	-76.0	-132.0	-214.0	-333.5	-518.5	-811.4	-1258.6	40.2	30.0
14-H	48859	14892	-1.4	3.6	4.6	5.6	8.6	13.6	14.7	23.1	30.3	30.0	33.1	31.4	31.8	28.2	21.6	19.7	13.3	1.3	-8.6	-17.8	-37.9	-57.2	-84.9	-144.1	-231.3	-359.1	-556.8	-869.7	-1347.8	39.1	28.5
14-J	55147	16809	-2.4	2.6	3.6	4.6	7.6	12.6	13.5	21.9	28.9	28.5	31.3	29.3	29.2	25.0	17.7	14.9	7.7	-5.2	-16.1	-26.7	-48.7	-70.7	-102.7	-168.6	-266.3	-410.7	-634.3	-987.9	-1528.4	37.1	25.8
14-K	58327	17778	-2.9	2.1	3.1	4.1	7.1	12.1	12.9	21.3	28.3	27.7	30.5	28.2	27.9	23.4	15.7	12.6	4.9	-8.5	-19.9	-31.1	-54.1	-77.5	-111.7	-180.9	-283.9	-436.8	-673.5	-1047.6	-1619.7	36.1	24.6
14-L	61512	18749	-3.4	1.6	2.6	3.6	6.6	11.6	12.4	20.7	27.6	27.0	29.6	27.2	26.6	21.8	13.8	10.3	2.2	-11.7	-23.6	-35.5	-59.4	-84.3	-120.6	-193.2	-301.5	-462.9	-712.7	-1107.4	-1711.1	35.2	23.4
15-F	42743	13028	-0.2	4.8	5.8	6.8	9.8	14.8	16.0	24.5	31.7	31.6	35.0	33.6	34.4	31.4	25.6	24.4	18.8	7.7	-1.1	-9.0	-27.4	-43.9	-67.4	-120.2	-197.1	-308.7	-481.2	-754.7	-1171.9	41.4	31.5
15-G	45920	13996	-0.8	4.2	5.2	6.2	9.2	14.2	15.3	23.7	31.0	30.7	34.0	32.5	33.0	29.7	23.5	21.9	15.9	4.3	-5.0	-13.6	-32.9	-50.9	-76.5	-132.7	-214.9	-334.9	-520.5	-814.4	-1263.3	40.2	29.9
15-H	48991	14933	-1.4	3.6	4.6	5.6	8.6	13.6	14.6	23.1	30.2	30.0	33.1	31.4	31.7	28.1	21.6	19.6	13.1	1.1	-8.8	-18.0	-38.2	-57.5	-85.2	-144.7	-232.0	-360.2	-558.4	-872.2	-1351.6	39.1	28.5
15-I	52175	15903	-1.9	3.1	4.1	5.1	8.1	13.1	14.0	22.4	29.5	29.2	32.1	30.3	30.4	26.5	19.5	17.2	10.3	-2.2	-12.6	-22.5	-43.6	-64.4	-94.3	-157.0	-249.7	-386.3	-597.7	-932.0	-1443.1	38.0	27.1
15-J	55338	16867	-2.4	2.6	3.6	4.6	7.6	12.6	13.5	21.8	28.9	28.4	31.3	29.2	29.1	24.9	17.6	14.8	7.5	-5.4	-16.4	-26.9	-49.0	-71.2	-103.2	-169.3	-267.3	-412.3	-636.7	-991.5	-1533.9	37.0	25.7
15-K	58538	17842	-2.9	2.1	3.1	4.1	7.1	12.1	12.9	21.2	28.2	27.7	30.4	28.2	27.8	23.3	15.6	12.4	4.7	-8.7	-20.2	-31.4	-54.4	-78.0	-112.2	-181.7	-285.1	-438.5	-676.1	-1051.5	-1625.8	36.1	24.5
16-J	55617	16952	-2.5	2.5	3.5	4.5	7.5	12.5	13.4	21.8	28.8	28.3	31.2	29.1	29.0	24.7	17.4	14.6	7.3	-5.7	-16.7	-27.3	-49.5	-71.8	-104.0	-170.4	-268.9	-414.6	-640.1	-996.7	-1541.9	36.9	25.6
16-K	58838	17934	-3.0	2.0	3.0	4.0	7.0	12.0	12.8	21.2	28.2	27.6	30.3	28.1	27.7	23.1	15.4	12.2	4.5	-9.0	-20.5	-31.8	-54.9	-78.6	-113.1	-182.9	-286.7	-441.0	-679.8	-1057.2	-1634.4	36.0	24.4
		Minimum:	-3.8	1.2	2.2	3.2	6.2	11.2	11.9	20.2	27.1	26.4	28.9	26.3	25.5	20.4	12.1	8.1	-0.4	-14.7	-27.1	-39.6	-64.4	-90.6	-128.9	-204.6	-317.9	-487.0	-748.9	-1162.7	-1795.8	34.4	22.3
		Maximum:	3.4	8.4	9.4	10.4	13.4	18.4	19.9	28.6	36.1	36.4	40.3	39.8	41.7	40.1	36.0	36.6	33.0	24.0	17.5	12.8	-1.2	-11.3	-24.8	-62.2	-114.6	-187.4	-299.8	-478.8	-750.8	48.2	40.4

PREDICTED ABOVE WATER MAXIMUM CONTINUOUS SOUND LEVELS (Leq)
FROM WIND PARK OPERATION AT THE CUT-IN WIND CONDITION

1/3 Octave Bands	16	20	25	31	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	L	A
Buoy R20	56.0	47.5	46.4	51.3	44.4	43.3	45.5	46.4	40.1	39.2	39.2	36.4	34.5	30.3	27.1	23.8	22.1	20.1	17.9	13.5	8.3	2.6	-5.6	-16.0	-30.9	-47.9	-66.1	-92.9	-133.2	59.0	34.3
Buoy G5	54.6	44.7	43.6	48.5	41.6	40.4	42.5	43.3	36.9	35.8	35.5	32.3	30.0	25.3	21.5	17.6	15.3	12.6	9.6	4.0	-2.8	-11.1	-23.0	-39.2	-63.0	-93.7	-133.5	-193.6	-285.5	56.9	29.9
Bass River Beach, Yarmouth	49.4	33.4	32.3	37.2	30.3	28.2	29.8	29.7	22.1	19.2	16.4	9.9	3.4	-6.3	-15.3	-24.7	-33.0	-42.1	-53.5	-70.5	-94.3	-128.4	-179.8	-258.6	-380.9	-564.3	-843.6	-1271.9	-1932.0	50.0	12.2
Point Gammon, Yarmouth	51.1	36.9	35.8	40.7	33.8	32.1	33.9	34.2	27.2	25.1	23.4	18.4	13.9	6.5	0.0	-6.8	-12.2	-18.3	-25.7	-37.3	-53.0	-74.7	-107.1	-155.6	-230.0	-339.2	-501.7	-750.2	-1132.9	52.0	17.8
Lewis Bay, Yarmouth	49.9	34.3	33.2	38.1	31.2	29.2	30.9	31.0	23.5	20.9	18.4	12.3	6.4	-2.6	-10.9	-19.5	-27.0	-35.4	-45.8	-61.4	-83.2	-114.2	-160.9	-232.2	-342.6	-507.4	-757.3	-1140.3	-1730.3	50.5	13.7
Hyannisport, Barnstable	50.6	35.8	34.7	39.6	32.7	30.9	32.6	32.9	25.7	23.3	21.3	15.9	10.8	2.7	-4.6	-12.2	-18.7	-25.8	-34.8	-48.4	-67.3	-94.0	-134.3	-195.4	-290.1	-430.8	-643.1	-968.1	-1468.4	51.4	16.0
Hyannis Point, Barnstable	50.7	36.1	35.0	39.9	33.0	31.2	33.0	33.3	26.1	23.9	21.9	16.7	11.7	3.8	-3.4	-10.8	-17.1	-24.0	-32.7	-46.0	-64.5	-90.5	-129.7	-189.3	-281.6	-418.4	-624.6	-940.2	-1426.1	51.6	16.5
Wianno Beach, Barnstable	50.9	36.4	35.3	40.2	33.3	31.6	33.4	33.7	26.6	24.4	22.5	17.4	12.6	4.9	-2.1	-9.3	-15.2	-21.9	-30.1	-42.7	-60.1	-84.3	-120.8	-175.9	-261.1	-387.2	-576.5	-866.3	-1312.6	51.8	17.0
Oregon Beach, Barnstable	50.5	35.6	34.5	39.4	32.5	30.7	32.4	32.6	25.4	23.1	21.0	15.6	10.4	2.3	-5.0	-12.6	-18.9	-26.0	-34.6	-47.6	-65.5	-90.3	-127.3	-183.2	-269.5	-397.2	-589.2	-883.6	-1337.0	51.3	15.8
New Seabury, Mashpee	50.3	35.1	34.0	38.9	32.0	30.2	31.9	32.0	24.8	22.3	20.1	14.5	9.0	0.6	-7.1	-15.2	-22.0	-29.7	-39.2	-53.5	-73.4	-101.5	-143.5	-207.0	-305.1	-450.8	-670.9	-1008.3	-1528.0	51.0	15.0
Oak Bluffs, MV	49.2	33.0	31.9	36.8	29.9	27.8	29.3	29.3	21.7	18.8	16.2	10.3	5.0	-2.4	-8.5	-14.4	-18.9	-23.9	-30.1	-40.0	-53.7	-72.7	-101.7	-145.5	-213.6	-313.6	-462.3	-690.2	-1041.0	49.8	11.9
Edgartown, MV	49.2	32.9	31.8	36.7	29.8	27.6	29.2	29.1	21.4	18.3	15.3	8.6	1.8	-8.3	-17.7	-27.6	-36.3	-46.1	-58.3	-76.4	-102.1	-139.1	-195.3	-281.8	-416.5	-619.1	-928.1	-1401.6	-2131.1	49.7	11.4
Cape Poge, MV	50.7	36.1	35.0	39.9	33.0	31.2	33.0	33.3	26.1	23.9	22.0	16.8	11.9	4.1	-2.8	-10.0	-15.9	-22.5	-30.6	-43.0	-60.0	-83.7	-119.4	-173.1	-256.0	-378.4	-561.6	-841.9	-1273.4	51.6	16.6

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Leq)
FROM WIND PARK OPERATIONS AT THE CUT-IN WIND CONDITION

																		Hertz													
	1/3 Octave Bands	**16***	**20**	**25**	**31**	**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**	**L**	**A**
Sound Power Data		112.0	105.6	104.5	109.4	102.5	101.6	103.9	104.9	98.9	98.3	98.7	96.5	95.3	91.8	89.3	86.7	85.7	84.5	83.2	80.0	76.5	73.1	68.2	62.7	55.3	49.4	48.4	47.8	47.6	116.3	95.4
Data for the graph																																
Atmos. Absorption per 1 km air temp 59F 70% RH		0.0000	0.0000	0.0000	0.0000	0.0000	0.0670	0.1050	0.1630	0.2510	0.3810	0.5650	0.8150	1.1300	1.5100	1.9200	2.3600	2.8400	3.3800	4.0800	5.0500	6.5100	8.7500	12.2000	17.7000	26.4000	39.9000	61.1000	93.7000	144.0000		

*Spherical wave spreading for up to 2 km, cylindrical wave spreading beyond 2 km.

																			Hertz													
	1/3 Octave Bands		**16***	**20**	**25**	**31**	**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**	**L**	**A**
	Distance (ft)	**Distance (m)**																															
1-D	36461	11113	30.5	16.7	15.6	20.5	13.6	12.0	13.8	14.2	7.2	5.2	3.5	-1.5	-6.2	-13.9	-20.9	-28.4	-34.8	-42.0	-51.0	-65.0	-84.7	-113.0	-156.3	-222.9	-327.0	-482.9	-719.5	-1082.4	-1641.6	31.6	-2.2
1-E	34712	10580	30.8	17.1	16.0	20.9	14.0	12.4	14.3	14.7	7.8	5.8	4.3	-0.6	-5.1	-12.6	-19.5	-26.7	-32.8	-39.7	-48.4	-61.9	-80.8	-107.9	-149.4	-213.0	-312.5	-461.2	-686.5	-1032.0	-1564.4	31.8	-1.6
1-F	33198	10119	31.0	17.5	16.4	21.3	14.4	12.8	14.8	15.2	8.3	6.4	4.9	0.2	-4.2	-11.6	-18.2	-25.3	-31.1	-37.8	-46.2	-59.2	-77.5	-103.5	-143.3	-204.5	-299.9	-442.4	-657.9	-988.4	-1497.6	32.1	-1.0
1-G	31901	9723	31.1	17.9	16.8	21.7	14.8	13.2	15.1	15.6	8.7	6.9	5.5	0.8	-3.4	-10.6	-17.1	-24.0	-29.7	-36.1	-44.2	-56.8	-74.5	-99.7	-138.2	-197.1	-289.1	-426.3	-633.4	-951.0	-1440.3	32.3	-0.5
1-H	30902	9419	31.3	18.1	17.0	21.9	15.0	13.5	15.4	15.9	9.1	7.2	5.9	1.4	-2.8	-9.9	-16.2	-23.0	-28.5	-34.8	-42.7	-55.0	-72.3	-96.8	-134.2	-191.5	-280.8	-413.9	-614.6	-922.2	-1396.2	32.5	-0.1
1-I	30238	9217	31.4	18.3	17.2	22.1	15.2	13.7	15.7	16.1	9.3	7.5	6.2	1.7	-2.4	-9.4	-15.7	-22.3	-27.7	-33.9	-41.7	-53.8	-70.8	-94.8	-131.5	-187.7	-275.3	-405.6	-602.0	-903.1	-1366.9	32.6	0.2
1-J	29887	9110	31.4	18.4	17.3	22.2	15.3	13.8	15.8	16.2	9.4	7.7	6.4	1.9	-2.2	-9.1	-15.4	-22.0	-27.3	-33.5	-41.1	-53.2	-70.0	-93.8	-130.1	-185.7	-272.4	-401.2	-595.4	-892.9	-1351.4	32.6	0.4
1-K	29951	9129	31.4	18.4	17.3	22.2	15.3	13.8	15.8	16.2	9.4	7.6	6.4	1.9	-2.2	-9.2	-15.4	-22.0	-27.4	-33.5	-41.2	-53.3	-70.1	-94.0	-130.4	-186.1	-272.9	-402.0	-596.6	-894.8	-1354.2	32.6	0.3
1-L	30294	9234	31.4	18.3	17.2	22.1	15.2	13.7	15.6	16.1	9.3	7.5	6.2	1.7	-2.4	-9.4	-15.7	-22.4	-27.8	-34.0	-41.8	-53.9	-70.9	-95.0	-131.7	-188.0	-275.8	-406.3	-603.1	-904.7	-1369.3	32.6	0.2
2-D	34504	10517	30.8	17.2	16.1	21.0	14.1	12.5	14.4	14.8	7.8	5.9	4.3	-0.5	-5.0	-12.5	-19.3	-26.5	-32.6	-39.5	-48.1	-61.5	-80.4	-107.3	-148.5	-211.9	-310.8	-458.6	-682.6	-1026.0	-1555.2	31.9	-1.5
2-E	32687	9963	31.0	17.7	16.6	21.5	14.6	13.0	14.9	15.3	8.4	6.6	5.1	0.4	-3.9	-11.2	-17.8	-24.8	-30.5	-37.1	-45.4	-58.3	-76.3	-102.0	-141.3	-201.6	-295.7	-436.1	-648.3	-973.7	-1475.0	32.1	-0.8
2-F	31092	9477	31.2	18.1	17.0	21.9	15.0	13.4	15.4	15.8	9.0	7.2	5.8	1.3	-2.9	-10.0	-16.4	-23.2	-28.7	-35.0	-43.0	-55.4	-72.7	-97.3	-134.9	-192.6	-282.4	-416.2	-618.2	-927.7	-1404.6	32.4	-0.1
2-G	29821	9089	31.4	18.4	17.3	22.2	15.3	13.8	15.8	16.3	9.5	7.7	6.4	1.9	-2.1	-9.1	-15.3	-21.9	-27.3	-33.4	-41.0	-53.1	-69.8	-93.6	-129.8	-185.3	-271.8	-400.4	-594.1	-891.0	-1348.4	32.6	0.4
2-H	28840	8790	31.6	18.7	17.6	22.5	15.6	14.1	16.1	16.6	9.8	8.1	6.9	2.5	-1.5	-8.3	-14.4	-20.9	-26.1	-32.1	-39.5	-51.3	-67.6	-90.7	-125.9	-179.8	-263.6	-388.2	-575.6	-862.7	-1305.1	32.8	0.8
2-I	28214	8600	31.7	18.9	17.8	22.7	15.8	14.4	16.3	16.8	10.1	8.4	7.2	2.8	-1.1	-7.9	-13.9	-20.3	-25.4	-31.2	-38.6	-50.1	-66.2	-88.8	-123.4	-176.2	-258.4	-380.4	-563.7	-844.7	-1277.4	33.0	1.1
2-J	27917	8509	31.7	19.0	17.9	22.8	15.9	14.5	16.4	16.9	10.2	8.5	7.3	3.0	-0.9	-7.6	-13.6	-20.0	-25.0	-30.8	-38.1	-49.5	-65.5	-87.9	-122.2	-174.5	-255.9	-376.7	-558.1	-836.1	-1264.3	33.0	1.3
2-K	27991	8532	31.7	19.0	17.9	22.8	15.9	14.4	16.4	16.9	10.2	8.4	7.3	2.9	-0.9	-7.7	-13.7	-20.0	-25.1	-30.9	-38.2	-49.7	-65.6	-88.2	-122.5	-174.9	-256.5	-377.6	-559.5	-838.2	-1267.6	33.0	1.2
2-L	28502	8687	31.6	18.8	17.7	22.6	15.7	14.3	16.2	16.7	10.0	8.2	7.0	2.7	-1.3	-8.1	-14.1	-20.6	-25.7	-31.6	-39.0	-50.6	-66.8	-89.7	-124.5	-177.8	-260.8	-384.0	-569.2	-853.0	-1290.1	32.9	1.0
3-D	32551	9921	31.0	17.7	16.6	21.5	14.6	13.0	14.9	15.4	8.5	6.6	5.2	0.5	-3.8	-11.1	-17.7	-24.6	-30.4	-36.9	-45.2	-58.0	-76.0	-101.6	-140.8	-200.8	-294.5	-434.4	-645.7	-969.8	-1469.0	32.2	-0.7
3-E	30674	9349	31.3	18.2	17.1	22.0	15.1	13.6	15.5	16.0	9.2	7.3	6.0	1.5	-2.7	-9.7	-16.0	-22.8	-28.2	-34.5	-42.3	-54.6	-71.8	-96.1	-133.3	-190.2	-278.9	-411.0	-610.2	-915.6	-1386.1	32.5	0.0
3-F	29068	8860	31.5	18.7	17.6	22.5	15.6	14.1	16.0	16.5	9.7	8.0	6.8	2.3	-1.6	-8.5	-14.6	-21.1	-26.4	-32.4	-39.9	-51.7	-68.1	-91.4	-126.8	-181.0	-265.5	-391.0	-579.9	-869.3	-1315.1	32.8	0.7
3-G	27741	8455	31.7	19.1	18.0	22.9	16.0	14.5	16.5	17.0	10.3	8.6	7.4	3.1	-0.8	-7.5	-13.5	-19.8	-24.8	-30.6	-37.8	-49.2	-65.1	-87.4	-121.5	-173.5	-254.4	-374.5	-554.7	-831.0	-1256.5	33.0	1.3
3-I	26144	7969	32.0	19.6	18.5	23.4	16.5	15.1	17.1	17.6	10.9	9.3	8.2	4.0	0.3	-6.2	-12.0	-18.1	-22.9	-28.4	-35.3	-46.3	-61.4	-82.6	-115.0	-164.4	-241.1	-354.6	-524.5	-784.9	-1185.9	33.4	2.1
3-J	25944	7908	32.0	19.7	18.6	23.5	16.6	15.1	17.1	17.7	11.0	9.3	8.3	4.1	0.4	-6.1	-11.8	-17.9	-22.7	-28.2	-35.0	-45.9	-60.9	-82.0	-114.2	-163.2	-239.4	-352.1	-520.7	-779.1	-1177.0	33.4	2.2
3-K	26129	7964	32.0	19.6	18.5	23.4	16.5	15.1	17.1	17.6	10.9	9.3	8.2	4.0	0.3	-6.2	-12.0	-18.1	-22.9	-28.4	-35.3	-46.2	-61.4	-82.6	-115.0	-164.3	-241.0	-354.4	-524.2	-784.5	-1185.3	33.4	2.1
3-L	26687	8134	31.9	19.4	18.3	23.2	16.3	14.9	16.9	17.4	10.7	9.0	7.9	3.7	-0.1	-6.7	-12.5	-18.7	-23.6	-29.2	-36.2	-47.3	-62.6	-84.3	-117.2	-167.5	-245.6	-361.3	-534.8	-800.6	-1209.9	33.3	1.8
4-D	30586	9323	31.3	18.2	17.1	22.0	15.1	13.6	15.5	16.0	9.2	7.4	6.1	1.5	-2.6	-9.7	-16.0	-22.7	-28.1	-34.4	-42.2	-54.5	-71.6	-95.8	-132.9	-189.7	-278.2	-410.0	-608.6	-913.1	-1382.2	32.5	0.1
4-E	28686	8743	31.6	18.8	17.7	22.6	15.7	14.2	16.2	16.7	9.9	8.2	6.9	2.6	-1.4	-8.2	-14.3	-20.7	-25.9	-31.9	-39.3	-51.0	-67.2	-90.2	-125.3	-178.9	-262.3	-386.3	-572.6	-858.3	-1298.3	32.9	0.9
4-F	27010	8233	31.9	19.3	18.2	23.1	16.2	14.8	16.7	17.3	10.5	8.9	7.8	3.5	-0.3	-6.9	-12.8	-19.0	-24.0	-29.6	-36.7	-47.9	-63.4	-85.2	-118.5	-169.3	-248.3	-365.4	-540.9	-809.9	-1224.2	33.2	1.7
4-G	25686	7829	32.1	19.7	18.6	23.5	16.6	15.2	17.2	17.8	11.1	9.5	8.4	4.3	0.6	-5.9	-11.6	-17.6	-22.4	-27.8	-34.6	-45.4	-60.3	-81.3	-113.2	-161.7	-237.2	-348.8	-515.8	-771.6	-1165.7	33.5	2.3
4-H	24715	7533	32.2	20.1	19.0	23.9	17.0	15.6	17.6	18.2	11.5	9.9	8.9	4.8	1.3	-5.1	-10.7	-16.6	-21.2	-26.5	-33.1	-43.6	-58.1	-78.3	-109.2	-156.2	-229.1	-336.7	-497.4	-743.6	-1122.7	33.7	2.8
4-I	24127	7354	32.3	20.3	19.2	24.1	17.2	15.8	17.8	18.4	11.7	10.2	9.2	5.2	1.7	-4.6	-10.1	-16.0	-20.5	-25.7	-32.1	-42.4	-56.7	-76.6	-106.8	-152.8	-224.2	-329.3	-486.2	-726.6	-1096.7	33.8	3.1
4-J	23969	7306	32.4	20.3	19.2	24.1	17.2	15.9	17.9	18.5	11.8	10.3	9.3	5.3	1.8	-4.5	-10.0	-15.8	-20.3	-25.4	-31.9	-42.1	-56.3	-76.1	-106.2	-151.9	-222.8	-327.4	-483.2	-722.0	-1089.7	33.9	3.2
4-K	24241	7389	32.3	20.2	19.1	24.0	17.1	15.8	17.8	18.3	11.7	10.1	9.2	5.1	1.6	-4.7	-10.2	-16.1	-20.6	-25.8	-32.3	-42.7	-57.0	-76.9	-107.3	-153.4	-225.1	-330.8	-488.4	-729.9	-1101.7	33.8	3.1
4-L	24954	7606	32.2	20.0	18.9	23.8	16.9	15.5	17.5	18.1	11.4	9.8	8.8	4.7	1.1	-5.3	-10.9	-16.9	-21.5	-26.8	-33.4	-44.0	-58.6	-79.1	-110.2	-157.5	-231.1	-339.7	-501.9	-750.5	-1133.2	33.6	2.7
5-D	28625	8725	31.6	18.8	17.7	22.6	15.7	14.2	16.2	16.7	9.9	8.2	7.0	2.6	-1.4	-8.2	-14.2	-20.7	-25.9	-31.8	-39.2	-50.9	-67.1	-90.0	-125.0	-178.5	-261.8	-385.5	-571.5	-856.5	-1295.6	32.9	0.9
5-E	26686	8134	31.9	19.4	18.3	23.2	16.3	14.9	16.9	17.4	10.7	9.0	7.9	3.7	-0.1	-6.7	-12.5	-18.7	-23.6	-29.2	-36.2	-47.3	-62.6	-84.3	-117.2	-167.5	-245.6	-361.3	-534.8	-800.5	-1209.9	33.3	1.8
5-F	24967	7610	32.2	20.0	18.9	23.8	16.9	15.5	17.5	18.1	11.4	9.8	8.8	4.7	1.1	-5.3	-10.9	-16.9	-21.5	-26.8	-33.5	-44.0	-58.7	-79.1	-110.3	-157.6	-231.2	-339.8	-502.2	-750.9	-1133.8	33.6	2.7
5-G	23625	7201	32.4	20.5	19.4	24.3	17.4	16.0	18.0	18.6	12.0	10.4	9.5	5.5	2.0	-4.2	-9.7	-15.4	-19.9	-25.0	-31.3	-41.5	-55.5	-75.0	-104.8	-149.9	-219.9	-323.0	-476.7	-712.0	-1074.4	34.0	3.4
5-H	22653	6905	32.6	20.8	19.7	24.6	17.7	16.4	18.4	19.0	12.4	10.9	10.0	6.1	2.7	-3.4	-8.7	-14.4	-18.7	-23.6	-29.7	-39.6	-53.2	-72.1	-100.8	-144.3	-211.7	-310.9	-458.2	-683.9	-1031.4	34.2	3.9
5-I	22145	6750	32.7	21.0	19.9	24.8	17.9	16.6	18.6	19.2	12.6	11.2	10.3	6.4	3.1	-3.0	-8.2	-13.8	-18.0	-22.9	-28.9	-38.7	-52.0	-70.5	-98.7	-141.3	-207.5	-304.5	-448.6	-669.2	-1008.9	34.3	4.2
5-J	22020	6712	32.7	21.1	20.0	24.9	18.0	16.6	18.7	19.3	12.7	11.2	10.4	6.5	3.2	-2.9	-8.1	-13.7	-17.9	-22.7	-28.7	-38.4	-51.7	-70.1	-98.2	-140.6	-206.4	-302.9	-446.2	-665.6	-1003.4	34.4	4.3
6-D	26684	8133	31.9	19.4	18.3	23.2	16.3	14.9	16.9	17.4	10.7	9.0	7.9	3.7	-0.1	-6.7	-12.5	-18.7	-23.6	-29.2	-36.2	-47.3	-62.6	-84.3	-117.2	-167.4	-245.6	-361.3	-534.7	-800.5	-1209.8	33.3	1.8
6-E	24680	7523	32.2	20.1	19.0	23.9	17.0	15.6	17.6	18.2	11.5	9.9	8.9	4.9	1.3	-5.1	-10.7	-16.6	-21.2	-26.4	-33.0	-43.5	-58.0	-78.2	-109.1	-156.0	-228.8	-336.3	-496.7	-742.6	-1121.2	33.7	2.8
6-G	21604	6585	32.8	21.2	20.1	25.0	18.1	16.8	18.9	19.5	12.9	11.4	10.6	6.8	3.5	-2.5	-7.7	-13.2	-17.4	-22.1	-28.0	-37.6	-50.7	-68.9	-96.5	-138.2	-202.9	-297.7	-438.3	-653.6	-985.0	34.5	4.5
6-H	20643	6292	33.0	21.6	20.5	25.4	18.5	17.2	19.3	19.9	13.4	11.9	11.2	7.4	4.2	-1.7	-6.7	-12.1	-16.1	-20.7	-26.4	-35.7	-48.4	-65.9	-92.5	-132.6	-194.8	-285.6	-420.0	-625.7	-942.4	34.7	5.1
6-I	20123	6134	33.1	21.9	20.8	25.7	18.8	17.5	19.5	20.2	13.6	12.2	11.5	7.8	4.6	-1.2	-6.2	-11.5	-15.5	-20.0	-25.6	-34.7	-47.2	-64.3	-90.4	-129.6	-190.4	-279.1	-410.1	-610.7	-919.4	34.9	5.4
6-J	20093	6124	33.1	21.9	20.8	25.7	18.8	17.5	19.5	20.2	13.6	12.2	11.5	7.8	4.7	-1.2	-6.2	-11.5	-15.4	-19.9	-25.5	-34.7	-47.1	-64.2	-90.2	-129.4	-190.1	-278.7	-409.5	-609.8	-918.0	34.9	5.4
7-B	29674	9045	31.4	18.5	17.4	22.3	15.4	13.9	15.8	16.3	9.5	7.7	6.5	2.0	-2.0	-9.0	-15.2	-21.8	-27.1	-33.2	-40.8	-52.8	-69.5	-93.1	-129.3	-184.5	-270.6	-398.6	-591.3	-886.8	-1341.9	32.7	0.5
7-C	27173	8282	31.8	19.3	18.2	23.1	16.2	14.7	16.7	17.2	10.5	8.8	7.7	3.4	-0.4	-7.1	-12.9	-19.2	-24.2	-29.8	-36.9	-48.2	-63.8	-85.7	-119.2	-170.2	-249.7	-367.4	-544.0	-814.6	-1231.4	33.2	1.6
7-E	22729	6928	32.6	20.8	19.7	24.6	17.7	16.3	18.4	19.0	12.4	10.9	10.0	6.1	2.7	-3.5	-8.8	-14.4	-18.8	-23.7	-29.9	-39.8	-53.4	-72.3	-101.1	-144.7	-212.4	-311.8	-459.7	-686.1	-1034.8	34.2	3.9
7-F	20941	6383	33.0	21.5	20.4	25.3	18.4	17.1	19.1	19.8	13.2	11.8	11.0	7.2	4.0	-1.9	-7.0	-12.4	-16.5	-21.2	-26.9	-36.3	-49.1	-66.8	-93.8	-134.4	-197.3	-289.4	-425.7	-634.4	-955.6	34.7	4.9
7-G	19519	5949	33.3	22.1	21.0	25.9	19.0	17.7	19.8	20.5	13.9	12.6	11.9	8.2	5.1	-0.7	-5.6	-10.8	-14.7	-19.1	-24.5	-33.5	-45.7	-62.4	-87.9	-126.1	-185.2	-271.5	-398.6	-593.1	-892.6	35.1	5.8
7-H	18536	5650	33.5	22.6	21.5	26.4	19.5	18.2	20.3	21.0	14.5	13.1	12.5	8.9	5.9	0.2	-4.6	-9.7	-13.4	-17.6	-22.9	-31.6	-43.3	-59.4	-83.8	-120.3	-176.9	-259.1	-379.8	-564.6	-849.0	35.4	6.4
7-I	18108	5519	33.6	22.8	21.7	26.6	19.7	18.4	20.5	21.2	14.7	13.4	12.8	9.2	6.2	0.6	-4.1	-9.1	-12.8	-17.0	-22.1	-30.7	-42.2	-58.0	-82.0	-117.8	-173.2	-253.6	-371.6	-552.2	-830.0	35.5	6.7
8-A	30697	9357	31.3	18.2	17.1	22.0	15.1	13.6	15.5	16.0	9.1	7.3	6.0	1.5	-2.7	-9.7	-16.1	-22.8	-28.3	-34.5	-42.4	-54.7	-71.8	-96.2	-133.4	-190.3	-279.1	-411.3	-610.7	-916.3	-1387.2	32.5	0.0
8-B	27988	8531	31.7	19.0	17.9	22.8	15.9	14.4	16.4	16.9	10.2	8.4	7.3	2.9	-0.9	-7.7	-13.7	-20.0	-25.1	-30.9	-38.2	-49.7	-65.6	-88.1	-122.5	-174.9	-256.5	-377.6	-559.4	-838.1	-1267.4	33.0	1.2

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Leq)
FROM WIND PARK OPERATIONS AT THE CUT-IN WIND CONDITION

8-C	25403	7743	32.1	19.8	18.7	23.6	16.7	15.3	17.3	17.9	11.2	9.6	8.6	4.4	0.8	-5.7	-11.3	-17.3	-22.0	-27.4	-34.2	-44.9	-59.7	-80.4	-112.0	-160.1	-234.9	-345.3	-510.5	-763.5	-1153.1	33.5	2.5
8-D	22958	6997	32.6	20.7	19.6	24.5	17.6	16.3	18.3	18.9	12.3	10.8	9.9	5.9	2.5	-3.6	-9.0	-14.7	-19.1	-24.0	-30.2	-40.2	-53.9	-73.0	-102.0	-146.0	-214.3	-314.7	-464.0	-692.7	-1044.9	34.1	3.8
8-F	18950	5776	33.4	22.4	21.3	26.2	19.3	18.0	20.1	20.7	14.2	12.9	12.2	8.6	5.6	-0.1	-5.0	-10.1	-13.9	-18.2	-23.6	-32.4	-44.3	-60.7	-85.5	-122.7	-180.4	-264.3	-387.7	-576.6	-867.4	35.3	6.2
8-G	17410	5306	33.8	23.1	22.0	26.9	20.0	18.8	20.9	21.6	15.1	13.8	13.2	9.7	6.8	1.3	-3.4	-8.3	-11.8	-15.9	-20.9	-29.3	-40.5	-55.8	-79.0	-113.7	-167.3	-244.8	-358.3	-531.9	-799.0	35.8	7.2
8-H	16466	5019	34.0	23.6	22.5	27.4	20.5	19.3	21.4	22.1	15.6	14.4	13.9	10.4	7.6	2.2	-2.3	-7.1	-10.5	-14.5	-19.3	-27.3	-38.2	-52.8	-75.0	-108.1	-159.2	-232.8	-340.2	-504.4	-757.1	36.1	7.9
9-A	29127	8878	31.5	18.7	17.6	22.5	15.6	14.1	16.0	16.5	9.7	8.0	6.7	2.3	-1.7	-8.6	-14.7	-21.2	-26.5	-32.5	-40.0	-51.8	-68.2	-91.5	-127.1	-181.4	-266.0	-391.8	-581.0	-871.0	-1317.8	32.8	0.7
9-B	26357	8034	32.0	19.5	18.4	23.3	16.4	15.0	17.0	17.5	10.8	9.2	8.1	3.9	0.1	-6.4	-12.2	-18.3	-23.2	-28.7	-35.7	-46.6	-61.9	-83.3	-115.9	-165.6	-242.9	-357.2	-528.5	-791.0	-1195.3	33.3	2.0
9-C	23686	7219	32.4	20.4	19.3	24.2	17.3	16.0	18.0	18.6	11.9	10.4	9.5	5.5	2.0	-4.3	-9.7	-15.5	-20.0	-25.1	-31.4	-41.6	-55.7	-75.2	-105.0	-150.2	-220.4	-323.8	-477.9	-713.8	-1077.2	33.9	3.4
9-D	21153	6448	32.9	21.4	20.3	25.2	18.3	17.0	19.1	19.7	13.1	11.7	10.9	7.1	3.8	-2.1	-7.2	-12.7	-16.8	-21.5	-27.3	-36.7	-49.6	-67.5	-94.6	-135.6	-199.1	-292.0	-429.7	-640.5	-965.0	34.6	4.8
9-E	18905	5762	33.4	22.4	21.3	26.2	19.3	18.0	20.1	20.8	14.3	12.9	12.3	8.6	5.6	-0.1	-5.0	-10.1	-13.9	-18.2	-23.5	-32.3	-44.2	-60.5	-85.3	-122.5	-180.0	-263.7	-386.9	-575.3	-865.3	35.3	6.2
9-F	16930	5160	33.9	23.4	22.3	27.2	20.3	19.0	21.1	21.8	15.4	14.1	13.5	10.1	7.2	1.8	-2.8	-7.7	-11.2	-15.2	-20.1	-28.3	-39.3	-54.3	-77.0	-110.9	-163.2	-238.7	-349.1	-517.9	-777.7	35.9	7.6
9-G	15391	4691	34.3	24.2	23.1	28.0	21.1	19.9	22.0	22.7	16.3	15.1	14.6	11.3	8.6	3.3	-1.1	-5.8	-9.0	-12.8	-17.3	-25.1	-35.4	-49.4	-70.4	-101.7	-150.0	-219.2	-319.6	-473.2	-709.3	36.5	8.7
9-H	14404	4390	34.6	24.8	23.7	28.6	21.7	20.5	22.6	23.4	17.0	15.8	15.4	12.1	9.5	4.3	0.0	-4.5	-7.6	-11.2	-15.5	-23.0	-32.9	-46.1	-66.2	-95.8	-141.4	-206.6	-300.7	-444.4	-665.4	36.9	9.5
9-I	14164	4317	34.7	24.9	23.8	28.7	21.8	20.6	22.8	23.5	17.1	16.0	15.6	12.3	9.7	4.6	0.3	-4.2	-7.2	-10.8	-15.1	-22.5	-32.3	-45.4	-65.2	-94.4	-139.4	-203.5	-296.1	-437.4	-654.8	37.0	9.7
10-A	27638	8424	31.8	19.1	18.0	22.9	16.0	14.5	16.5	17.0	10.3	8.6	7.4	3.1	-0.7	-7.4	-13.4	-19.7	-24.7	-30.5	-37.7	-49.0	-64.8	-87.1	-121.1	-172.9	-253.6	-373.2	-552.8	-828.0	-1252.0	33.1	1.4
10-B	24773	7551	32.2	20.1	19.0	23.9	17.0	15.6	17.6	18.1	11.5	9.9	8.9	4.8	1.2	-5.1	-10.7	-16.7	-21.3	-26.6	-33.1	-43.7	-58.2	-78.5	-109.5	-156.5	-229.6	-337.4	-498.5	-745.2	-1125.3	33.7	2.8
10-C	22024	6713	32.7	21.1	20.0	24.9	18.0	16.6	18.7	19.3	12.7	11.2	10.4	6.5	3.2	-2.9	-8.1	-13.7	-17.9	-22.7	-28.7	-38.4	-51.7	-70.2	-98.2	-140.6	-206.4	-303.0	-446.3	-665.7	-1003.6	34.4	4.3
10-D	19401	5913	33.3	22.2	21.1	26.0	19.1	17.8	19.9	20.5	14.0	12.6	11.9	8.3	5.2	-0.5	-5.5	-10.7	-14.5	-18.9	-24.3	-33.3	-45.4	-62.1	-87.4	-125.4	-184.2	-270.0	-396.3	-589.7	-887.3	35.1	5.9
10-E	17018	5187	33.9	23.3	22.2	27.1	20.2	19.0	21.1	21.8	15.3	14.0	13.5	10.0	7.2	1.7	-2.9	-7.8	-11.3	-15.3	-20.2	-28.5	-39.5	-54.6	-77.4	-111.4	-163.9	-239.8	-350.8	-520.5	-781.6	35.9	7.5
10-F	14944	4555	34.4	24.4	23.3	28.2	21.3	20.1	22.3	23.0	16.6	15.4	15.0	11.6	9.0	3.8	-0.6	-5.2	-8.4	-12.0	-16.5	-24.2	-34.3	-47.9	-68.5	-99.1	-146.1	-213.5	-311.1	-460.1	-689.4	36.7	9.1
10-G	13356	4071	34.9	25.4	24.3	29.2	22.3	21.2	23.3	24.1	17.7	16.6	16.2	13.0	10.5	5.5	1.3	-3.1	-6.0	-9.4	-13.6	-20.7	-30.2	-42.7	-61.6	-89.5	-132.4	-193.2	-280.5	-413.8	-618.8	37.4	10.4
10-H	12385	3775	35.2	26.1	25.0	29.9	23.0	21.8	24.0	24.8	18.4	17.3	17.0	13.9	11.5	6.6	2.5	-1.7	-4.5	-7.8	-11.7	-18.6	-27.6	-39.5	-57.4	-83.6	-123.9	-180.7	-261.8	-385.4	-575.5	37.9	11.3
10-I	94223	28719	26.4	8.5	7.4	12.3	5.4	2.5	3.7	3.1	-5.5	-9.8	-14.7	-24.1	-34.3	-48.7	-63.0	-78.2	-93.0	-109.7	-131.1	-162.2	-207.6	-275.3	-379.3	-542.8	-800.0	-1193.6	-1803.5	-2740.3	-4185.1	26.8	-15.1
11-A	26226	7994	32.0	19.6	18.5	23.4	16.5	15.0	17.0	17.6	10.9	9.2	8.1	3.9	0.2	-6.3	-12.1	-18.2	-23.0	-28.6	-35.5	-46.4	-61.6	-82.9	-115.4	-164.8	-241.8	-355.6	-526.0	-787.2	-1189.5	33.4	2.1
11-B	23256	7089	32.5	20.6	19.5	24.4	17.5	16.1	18.2	18.8	12.1	10.6	9.7	5.7	2.3	-3.9	-9.3	-15.0	-19.4	-24.5	-30.7	-40.8	-54.6	-73.9	-103.3	-147.8	-216.8	-318.4	-469.7	-701.4	-1058.1	34.0	3.6
11-C	20470	6239	33.1	21.7	20.6	25.5	18.6	17.3	19.4	20.0	13.4	12.0	11.3	7.5	4.4	-1.5	-6.6	-11.9	-15.9	-20.5	-26.1	-35.4	-48.0	-65.4	-91.8	-131.6	-193.3	-283.4	-416.7	-620.7	-934.7	34.8	5.2
11-D	17678	5388	33.7	23.0	21.9	26.8	19.9	18.6	20.7	21.4	14.9	13.6	13.0	9.5	6.6	1.1	-3.7	-8.6	-12.2	-16.3	-21.4	-29.8	-41.2	-56.7	-80.1	-115.3	-169.6	-248.2	-363.4	-539.7	-810.9	35.7	7.0
11-E	15209	4636	34.3	24.3	23.2	28.1	21.2	20.0	22.1	22.8	16.4	15.2	14.8	11.4	8.8	3.5	-0.9	-5.5	-8.8	-12.5	-17.0	-24.7	-35.0	-48.8	-69.7	-100.7	-148.4	-216.9	-316.1	-467.9	-701.2	36.6	8.9
11-F	12987	3958	35.0	25.7	24.6	29.5	22.6	21.4	23.6	24.3	18.0	16.9	16.5	13.3	10.9	5.9	1.8	-2.6	-5.5	-8.8	-12.9	-19.9	-29.2	-41.5	-60.0	-87.3	-129.1	-188.5	-273.4	-403.0	-602.3	37.6	10.8
11-G	11307	3446	35.6	26.9	25.8	30.7	23.8	22.6	24.8	25.6	19.3	18.3	18.0	15.0	12.7	7.9	4.0	-0.2	-2.8	-5.9	-9.6	-16.1	-24.7	-35.8	-52.6	-77.0	-114.4	-166.8	-240.9	-353.9	-527.4	38.5	12.4
11-H	10368	3160	36.0	27.6	26.5	31.4	24.5	23.4	25.6	26.4	20.1	19.1	18.9	15.9	13.8	9.1	5.3	1.3	-1.3	-4.2	-7.7	-13.9	-22.0	-32.5	-48.3	-71.2	-106.1	-154.7	-222.7	-326.3	-485.4	39.1	13.4
11-K	13096	3992	35.0	25.6	24.5	29.4	22.5	21.3	23.5	24.2	17.9	16.8	16.4	13.2	10.8	5.8	1.6	-2.7	-5.6	-9.0	-13.1	-20.2	-29.5	-41.8	-60.5	-88.0	-130.1	-189.9	-275.5	-406.2	-607.2	37.5	10.7
11-L	15365	4683	34.3	24.2	23.1	28.0	21.1	19.9	22.0	22.7	16.3	15.1	14.7	11.3	8.6	3.3	-1.1	-5.7	-9.0	-12.7	-17.3	-25.0	-35.4	-49.3	-70.3	-101.6	-149.7	-218.9	-319.1	-472.4	-708.2	36.5	8.7
12-A	24918	7595	32.2	20.0	18.9	23.8	16.9	15.5	17.5	18.1	11.4	9.8	8.8	4.7	1.1	-5.3	-10.9	-16.8	-21.5	-26.8	-33.4	-43.9	-58.5	-78.9	-110.1	-157.3	-230.8	-339.2	-501.3	-749.4	-1131.7	33.7	2.7
12-B	21867	6665	32.8	21.1	20.0	24.9	18.0	16.7	18.7	19.4	12.8	11.3	10.5	6.6	3.3	-2.7	-8.0	-13.5	-17.7	-22.5	-28.5	-38.1	-51.3	-69.7	-97.6	-139.7	-205.1	-301.0	-443.3	-661.2	-996.6	34.4	4.4
12-C	18929	5770	33.4	22.4	21.3	26.2	19.3	18.0	20.1	20.8	14.2	12.9	12.2	8.6	5.6	-0.1	-5.0	-10.1	-13.9	-18.2	-23.5	-32.3	-44.3	-60.6	-85.4	-122.6	-180.2	-264.0	-387.3	-576.0	-866.4	35.3	6.2
12-D	16045	4890	34.1	23.8	22.7	27.6	20.7	19.5	21.6	22.3	15.9	14.7	14.2	10.7	8.0	2.6	-1.9	-6.6	-10.0	-13.8	-18.5	-26.5	-37.1	-51.5	-73.2	-105.6	-155.6	-227.5	-332.2	-492.2	-738.4	36.3	8.2
12-E	13463	4103	34.9	25.4	24.3	29.2	22.3	21.1	23.2	24.0	17.6	16.5	16.1	12.9	10.4	5.4	1.2	-3.2	-6.2	-9.6	-13.8	-21.0	-30.5	-43.0	-62.1	-90.2	-133.3	-194.6	-282.6	-416.9	-623.5	37.4	10.3
12-F	11073	3375	35.7	27.1	26.0	30.9	24.0	22.8	25.0	25.8	19.5	18.5	18.2	15.2	12.9	8.2	4.3	0.2	-2.4	-5.5	-9.1	-15.6	-24.0	-35.0	-51.5	-75.6	-112.3	-163.8	-236.4	-347.0	-517.0	38.6	12.6
12-G	9247	2819	36.5	28.6	27.5	32.4	25.5	24.4	26.6	27.5	21.2	20.2	20.1	17.2	15.1	10.6	6.9	3.1	0.7	-2.0	-5.3	-11.2	-18.8	-28.5	-43.2	-64.2	-96.1	-140.0	-200.8	-293.3	-435.3	39.8	14.7
12-H	8351	2546	37.0	29.5	28.4	33.3	26.4	25.3	27.5	28.4	22.2	21.2	21.2	18.3	16.3	11.9	8.3	4.6	2.4	-0.2	-3.3	-9.0	-16.2	-25.3	-39.0	-58.5	-88.0	-128.3	-183.2	-266.8	-395.1	40.5	15.9
12-I	8632	2631	36.8	29.2	28.1	33.0	26.1	25.0	27.2	28.1	21.9	20.9	20.8	18.0	15.9	11.4	7.9	4.1	1.8	-0.8	-3.9	-9.7	-17.0	-26.3	-40.3	-60.3	-90.5	-132.0	-188.7	-275.1	-407.6	40.3	15.5
12-J	10036	3059	36.2	27.9	26.8	31.7	24.8	23.7	25.9	26.7	20.4	19.4	19.3	16.3	14.2	9.5	5.7	1.8	-0.7	-3.5	-7.0	-13.1	-21.1	-31.4	-46.8	-69.1	-103.2	-150.3	-216.2	-316.5	-470.6	39.3	13.8
12-K	12142	3701	35.3	26.3	25.2	30.1	23.2	22.0	24.2	24.9	18.6	17.5	17.3	14.1	11.8	6.9	2.8	-1.4	-4.2	-7.4	-11.2	-18.0	-26.9	-38.6	-56.3	-82.2	-121.8	-177.6	-257.1	-378.3	-564.7	38.0	11.5
12-L	14659	4468	34.5	24.6	23.5	28.4	21.5	20.3	22.4	23.2	16.8	15.6	15.2	11.9	9.3	4.1	-0.3	-4.8	-8.0	-11.6	-16.0	-23.5	-33.6	-47.0	-67.3	-97.4	-143.6	-209.9	-305.6	-451.8	-676.8	36.8	9.3
13-A	23735	7235	32.4	20.4	19.3	24.2	17.3	15.9	18.0	18.6	11.9	10.4	9.4	5.4	2.0	-4.3	-9.8	-15.5	-20.0	-25.1	-31.5	-41.7	-55.8	-75.4	-105.2	-150.5	-220.9	-324.4	-478.8	-715.2	-1079.3	33.9	3.3
13-B	20595	6277	33.0	21.7	20.6	25.5	18.6	17.2	19.3	19.9	13.4	12.0	11.2	7.4	4.3	-1.6	-6.7	-12.1	-16.1	-20.7	-26.3	-35.6	-48.3	-65.8	-92.3	-132.3	-194.4	-285.0	-419.1	-624.3	-940.3	34.8	5.1
13-C	17573	5356	33.7	23.0	21.9	26.8	19.9	18.7	20.8	21.5	15.0	13.7	13.1	9.6	6.7	1.2	-3.5	-8.5	-12.1	-16.2	-21.2	-29.6	-40.9	-56.3	-79.7	-114.7	-168.7	-246.9	-361.4	-536.7	-806.3	35.7	7.1
13-D	14548	4434	34.5	24.7	23.6	28.5	21.6	20.4	22.5	23.3	16.9	15.7	15.3	12.0	9.4	4.2	-0.1	-4.7	-7.8	-11.4	-15.8	-23.3	-33.3	-46.6	-66.8	-96.7	-142.7	-208.4	-303.5	-448.6	-671.9	36.9	9.4
13-F	9203	2805	36.5	28.7	27.6	32.5	25.6	24.5	26.7	27.5	21.3	20.3	20.2	17.3	15.2	10.6	7.0	3.1	0.8	-1.9	-5.2	-11.1	-18.7	-28.4	-43.0	-63.9	-95.7	-139.5	-199.9	-292.0	-433.3	39.9	14.8
13-G	7216	2200	37.6	30.8	29.7	34.6	27.7	26.6	28.8	29.7	23.5	22.6	22.6	19.9	18.0	13.7	10.2	6.7	4.6	2.2	-0.6	-5.9	-12.6	-21.0	-33.5	-51.1	-77.6	-113.2	-160.8	-233.1	-344.0	41.5	17.5
13-H	6409	1953	38.2	31.8	30.7	35.6	28.7	27.7	29.9	30.8	24.6	23.8	23.8	21.1	19.3	15.1	11.8	8.3	6.4	4.1	1.4	-3.7	-10.0	-17.8	-29.4	-45.7	-70.1	-102.3	-144.7	-209.0	-307.5	42.4	18.8
13-I	7048	2148	37.7	31.0	29.9	34.8	27.9	26.8	29.1	29.9	23.7	22.9	22.9	20.1	18.2	13.9	10.6	7.0	5.0	2.6	-0.2	-5.5	-12.1	-20.3	-32.6	-49.9	-76.0	-110.9	-157.5	-228.1	-336.4	41.7	17.8
13-J	8885	2708	36.7	29.0	27.9	32.8	25.9	24.8	27.0	27.8	21.6	20.6	20.5	17.7	15.6	11.1	7.5	3.7	1.4	-1.3	-4.5	-10.3	-17.8	-27.2	-41.5	-61.9	-92.8	-135.3	-193.7	-282.6	-419.0	40.1	15.2
13-K	11388	3471	35.6	26.8	25.7	30.6	23.7	22.6	24.7	25.5	19.2	18.2	17.9	14.9	12.6	7.8	3.8	-0.3	-2.9	-6.0	-9.8	-16.3	-24.9	-36.1	-52.9	-77.5	-115.1	-167.9	-242.5	-356.2	-531.0	38.4	12.3
13-L	14232	4338	34.6	24.9	23.8	28.7	21.8	20.6	22.7	23.5	17.1	15.9	15.5	12.2	9.7	4.5	0.2	-4.3	-7.3	-10.9	-15.2	-22.6	-32.5	-45.6	-65.5	-94.8	-140.0	-204.4	-297.4	-439.4	-657.8	37.0	9.7
14-D	13222	4030	35.0	25.5	24.4	29.3	22.4	21.2	23.4	24.2	17.8	16.7	16.3	13.1	10.7	5.6	1.5	-2.9	-5.8	-9.2	-13.3	-20.4	-29.8	-42.2	-61.1	-88.7	-131.2	-191.5	-277.9	-409.9	-612.8	37.5	10.5
14-E	10286	3135	36.0	27.7	26.6	31.5	24.6	23.5	25.7	26.5	20.2	19.2	19.0	16.0	13.8	9.2	5.4	1.4	-1.1	-4.0	-7.5	-13.7	-21.8	-32.2	-48.0	-70.7	-105.4	-153.6	-221.1	-323.9	-481.8	39.1	13.5
14-F	7454	2272	37.4	30.5	29.4	34.3	27.4	26.3	28.6	29.4	23.2	22.3	22.3	19.5	17.6	13.3	9.8	6.2	4.1	1.7	-1.2	-6.6	-13.4	-21.9	-34.6	-52.6	-79.8	-116.4	-165.5	-240.2	-354.7	41.3	17.1
14-G	5217	1590	40.0	33.6	32.5	37.4	30.5	29.5	31.7	32.6	26.5	25.7	25.8	23.2	21.5	17.4	14.2	10.9	9.2	7.1	4.7	0.0	-5.9	-12.8	-23.2	-37.5	-58.7	-86.1	-120.8	-173.2	-253.4	44.2	21.0
14-H	4408	1344	41.5	35.1	34.0	38.9	32.0	31.0	33.2	34.1	28.0	27.2	27.4	24.9	23.2	19.2	16.2	13.0	11.3	9.4	7.2	2.7	-2.8	-9.2	-18.7	-31.6	-50.7	-74.8	-104.2	-148.6	-216.4	45.7	22.8
14-J	8182	2494	37.0	29.7	28.6	33.5	26.6	25.5	27.7	28.6	22.4	21.4	21.4	18.5	16.6	12.1	8.6	4.9	2.7	0.2	-2.9	-8.5	-15.7	-24.6	-38.1	-57.4	-86.5	-126.0	-179.9	-261.8	-387.4	40.7	16.1
14-K	11068	3374	35.7	27.1	26.0	30.9	24.0	22.8	25.0	25.8	19.5	18.5	18.3	15.2	12.9	8.2	4.3	0.2	-2.4	-5.4	-9.1	-15.6	-24.0	-35.0	-51.5	-75.6	-112.3	-163.7	-236.3	-346.8	-516.7	38.6	12.6
14-L	14124	4305	34.7	24.9	23.8	28.7	21.8	20.7	22.8	23.5	17.2	16.0	15.6	12.3	9.8	4.6	0.4	-4.1	-7.2	-10.7	-15.0	-22.4	-32.2	-45.2	-65.0	-94.2	-139.0	-203.0	-295.3	-436.2	-653.0	37.1	9.7
15-F	5926	1806	38.9	32.5	31.4	36.3	29.4	28.4	30.6	31.5	25.3	24.5	24.6	21.9	20.1	16.0	12.7	9.3	7.5	5.3	2.7	-2.2	-8.4	-15.8	-27.0	-42.4	-65.5	-95.8	-135.1	-194.6	-285.6	43.1	19.6
15-G	3225	983	44.2	37.8	36.7	41.6	34.7	33.7	36.0	36.9	30.8	30.1	30.3	27.9	26.4	22.5	19.6	16.5	15.1	13.3	11.4	7.2	2.3	-3.3	-11.6	-22.5	-38.5	-57.7	-79.5	-112.1	-161.8	48.4	26.0
15-H	2616	797	46.0	39.6	38.5	43.4	36.5	35.5	37.8	38.8	32.7	32.0	32.2	29.8	28.4	24.6	21.8	18.8	17.4	15.8	13.9	10.0	5.3	0.1	-7.5	-17.4	-31.8	-48.4	-66.3	-92.9	-133.2	50.3	28.1
15-I	4928	1502	40.5	34.1	33.0	37.9	31.0	30.0	32.2	33.1	27.0	26.2	26.3	23.8	22.1	18.0	14.9	11.6	9.9	7.9	5.6	0.9	-4.8	-11.6	-21.6	-35.4	-55.9	-82.0	-114.9	-164.5	-240.2	44.7	21.6
15-J	7911	2411	37.2	30.0	28.9	33.8	26.9	25.8	28.0	28.9	22.7	21.8	21.7	18.9	16.9	12.5	9.0	5.4	3.2	0.7	-2.3	-7.8	-14.8	-23.6	-36.8	-55.6	-84.0	-122.4	-174.6	-253.8	-375.3	40.9	16.5
15-K	11063	3372	35.7	27.1	26.0	30.9	24.0	22.8	25.0	25.8	19.5	18.5	18.3	15.2	13.0	8.2	4.3	0.2	-2.4	-5.4	-9.1	-15.6	-24.0	-34.9	-51.5	-75.5	-112.3	-163.7	-236.2	-346.7	-516.5	38.6	12.6
16-J	8190	2496	37.0	29.7	28.6	33.5	26.6	25.5	27.7	28.6	22.3	21.4	21.4	18.5	16.6	12.1	8.6	4.9	2.7	0.1	-2.9	-8.5	-15.7	-24.7	-38.2	-57.4	-86.5	-126.1	-180.1	-262.0	-387.8	40.7	16.1
16-K	11449	3490	35.6	26.8	25.7	30.6	23.7	22.5	24.7	25.5	19.2	18.1	17.9	14.8	12.5	7.7	3.8	-0.4	-3.0	-6.1	-9.9	-16.5	-25.1	-36.3	-53.2	-77.9	-115.7	-168.7	-243.7	-358.0	-533.8	38.4	12.2
		Sum:	56.0	47.5	46.4	51.3	44.4	43.3	45.5	46.4	40.1	39.2	39.2	36.4	34.5	30.3	27.1	23.8	22.1	20.1	17.9	13.5	8.3	2.6	-5.6	-16.0	-30.9	-47.9	-66.1	-92.9	-133.2	59.0	34.3

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Leq)
FROM WIND PARK OPERATIONS AT THE CUT-IN WIND CONDITION

																		Hertz													
	1/3 Octave Bands	**16***	**20**	**25**	**31**	**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**	**L**	**A**
Sound Power Data		112.0	105.6	104.5	109.4	102.5	101.6	103.9	104.9	98.9	98.3	98.7	96.5	95.3	91.8	89.3	86.7	85.7	84.5	83.2	80.0	76.5	73.1	68.2	62.7	55.3	49.4	48.4	47.8	47.6	116.3	95.4

Data for the graph																															
Atmos. Absorption per 1 km	0.0000	0.0000	0.0000	0.0000	0.0000	0.0670	0.1050	0.1630	0.2510	0.3810	0.5650	0.8150	1.1300	1.5100	1.9200	2.3600	2.8400	3.3800	4.0800	5.0500	6.5100	8.7500	12.2000	17.7000	26.4000	39.9000	61.1000	93.7000	144.0000		
air temp 59F 70% RH																															

*Spherical wave spreading for up to 2 km, cylindrical wave spreading beyond 2 km.

																		Hertz													
	1/3 Octave Bands	**16***	**20**	**25**	**31**	**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**	**L**	**A**
	Distance (ft)	**Distance (m)**																													
1-D	9747	2971	36.3	28.2	27.1	32.0	25.1	24.0	26.1	27.0	20.7	19.7	19.6	16.6	14.5	9.9	6.2	2.2	-0.2	-3.0	-6.4	-12.4	-20.3	-30.3	-45.5	-67.3	-100.6	-146.6	-210.6	-308.0	-457.6	39.5	14.1
1-E	7419	2261	37.5	30.5	29.4	34.3	27.4	26.4	28.6	29.5	23.3	22.4	22.4	19.6	17.7	13.3	9.9	6.3	4.2	1.8	-1.1	-6.5	-13.3	-21.8	-34.5	-52.4	-79.5	-115.9	-164.8	-239.2	-353.1	41.3	17.2
1-F	5950	1813	38.8	32.4	31.3	36.2	29.3	28.3	30.6	31.5	25.3	24.5	24.5	21.9	20.1	15.9	12.7	9.3	7.4	5.2	2.6	-2.3	-8.5	-15.9	-27.1	-42.6	-65.7	-96.1	-135.6	-195.3	-286.7	43.1	19.6
1-G	6059	1847	38.7	32.3	31.2	36.1	29.2	28.2	30.4	31.3	25.1	24.3	24.3	21.7	19.9	15.7	12.4	9.0	7.1	4.9	2.4	-2.6	-8.8	-16.4	-27.6	-43.3	-66.8	-97.6	-137.7	-198.5	-291.6	42.9	19.4
1-H	7684	2342	37.3	30.2	29.1	34.0	27.1	26.1	28.3	29.1	22.9	22.0	22.0	19.2	17.3	12.9	9.4	5.8	3.7	1.2	-1.7	-7.2	-14.1	-22.8	-35.7	-54.1	-81.9	-119.4	-170.1	-247.0	-365.1	41.1	16.8
1-I	10084	3074	36.1	27.9	26.8	31.7	24.8	23.7	25.8	26.7	20.4	19.4	19.2	16.3	14.1	9.4	5.7	1.7	-0.8	-3.6	-7.1	-13.3	-21.2	-31.5	-47.0	-69.4	-103.6	-151.0	-217.1	-317.9	-472.7	39.2	13.7
1-J	12848	3916	35.1	25.8	24.7	29.6	22.7	21.5	23.7	24.4	18.1	17.0	16.6	13.5	11.0	6.0	1.9	-2.4	-5.3	-8.6	-12.6	-19.6	-28.8	-41.0	-59.4	-86.5	-127.9	-186.7	-270.7	-399.0	-596.1	37.7	10.9
1-K	15795	4814	34.2	24.0	22.9	27.8	20.9	19.6	21.8	22.5	16.1	14.8	14.3	10.9	8.2	2.9	-1.6	-6.3	-9.6	-13.4	-18.1	-25.9	-36.5	-50.7	-72.2	-104.1	-153.4	-224.3	-327.4	-484.9	-727.3	36.4	8.4
1-L	18931	5770	33.4	22.4	21.3	26.2	19.3	18.0	20.1	20.8	14.2	12.9	12.2	8.6	5.6	-0.1	-5.0	-10.1	-13.9	-18.2	-23.5	-32.3	-44.3	-60.6	-85.4	-122.6	-180.2	-264.0	-387.4	-576.1	-866.5	35.3	6.2
2-D	10654	3247	35.9	27.4	26.3	31.2	24.3	23.2	25.3	26.2	19.9	18.9	18.7	15.6	13.4	8.7	4.9	0.8	-1.7	-4.7	-8.3	-14.6	-22.9	-33.5	-49.6	-73.0	-108.6	-158.4	-228.2	-334.7	-498.2	38.9	13.1
2-E	8750	2667	36.7	29.1	28.0	32.9	26.0	24.9	27.1	28.0	21.7	20.8	20.7	17.8	15.8	11.3	7.7	3.9	1.6	-1.0	-4.2	-10.0	-17.4	-26.7	-40.8	-61.0	-91.6	-133.5	-191.0	-278.6	-412.9	40.2	15.3
2-F	7822	2384	37.2	30.1	29.0	33.9	27.0	25.9	28.1	29.0	22.8	21.9	21.8	19.0	17.1	12.7	9.2	5.5	3.4	0.9	-2.1	-7.6	-14.5	-23.3	-36.4	-55.0	-83.2	-121.3	-172.8	-251.1	-371.2	41.0	16.6
2-G	8142	2482	37.1	29.7	28.6	33.5	26.6	25.6	27.8	28.6	22.4	21.5	21.4	18.6	16.6	12.2	8.7	5.0	2.8	0.2	-2.8	-8.4	-15.5	-24.5	-38.0	-57.1	-86.1	-125.5	-179.1	-260.6	-385.7	40.7	16.2
2-H	9591	2923	36.3	28.3	27.2	32.1	25.2	24.1	26.3	27.1	20.9	19.9	19.7	16.8	14.7	10.1	6.4	2.5	0.1	-2.7	-6.0	-12.1	-19.8	-29.8	-44.8	-66.3	-99.2	-144.5	-207.5	-303.4	-450.6	39.6	14.3
2-I	11782	3591	35.5	26.5	25.4	30.3	23.4	22.3	24.4	25.2	18.9	17.8	17.6	14.5	12.2	7.3	3.3	-0.9	-3.6	-6.7	-10.5	-17.2	-26.0	-37.4	-54.7	-79.9	-118.6	-173.0	-250.1	-367.8	-548.6	38.2	11.9
2-J	14437	4400	34.6	24.7	23.6	28.5	21.6	20.5	22.6	23.3	16.9	15.8	15.4	12.1	9.5	4.3	0.0	-4.5	-7.6	-11.2	-15.6	-23.1	-33.0	-46.3	-66.3	-96.0	-141.7	-207.0	-301.3	-445.4	-666.9	36.9	9.5
2-K	17181	5237	33.8	23.2	22.1	27.0	20.1	18.9	21.0	21.7	15.2	13.9	13.4	9.9	7.0	1.5	-3.1	-8.0	-11.5	-15.6	-20.5	-28.8	-40.0	-55.1	-78.1	-112.4	-165.3	-241.9	-353.9	-525.3	-788.9	35.8	7.4
2-L	20131	6136	33.1	21.9	20.8	25.7	18.8	17.4	19.5	20.2	13.6	12.2	11.5	7.8	4.6	-1.2	-6.2	-11.5	-15.5	-20.0	-25.6	-34.7	-47.2	-64.3	-90.4	-129.6	-190.4	-279.2	-410.3	-610.9	-919.7	34.9	5.4
3-D	11801	3597	35.4	26.5	25.4	30.3	23.4	22.3	24.4	25.2	18.9	17.8	17.6	14.5	12.1	7.3	3.3	-0.9	-3.6	-6.8	-10.6	-17.3	-26.0	-37.5	-54.8	-80.1	-118.8	-173.2	-250.5	-368.3	-549.4	38.2	11.9
3-E	10309	3142	36.0	27.7	26.6	31.5	24.6	23.5	25.6	26.5	20.2	19.2	19.0	16.0	13.8	9.1	5.3	1.4	-1.2	-4.0	-7.5	-13.8	-21.9	-32.3	-48.1	-70.8	-105.6	-153.9	-221.5	-324.6	-482.8	39.1	13.5
3-F	9735	2967	36.3	28.2	27.1	32.0	25.1	24.0	26.2	27.0	20.7	19.7	19.6	16.7	14.5	9.9	6.2	2.3	-0.2	-3.0	-6.3	-12.4	-20.2	-30.3	-45.4	-67.3	-100.5	-146.4	-210.3	-307.7	-457.1	39.5	14.1
3-G	10224	3116	36.1	27.7	26.6	31.5	24.6	23.5	25.7	26.5	20.3	19.3	19.1	16.1	13.9	9.2	5.5	1.5	-1.0	-3.9	-7.4	-13.6	-21.6	-32.0	-47.7	-70.3	-104.8	-152.8	-219.8	-322.0	-479.0	39.2	13.6
3-I	13598	4145	34.8	25.3	24.2	29.1	22.2	21.0	23.1	23.9	17.5	16.4	16.0	12.8	10.3	5.2	1.0	-3.4	-6.4	-9.8	-14.0	-21.3	-30.8	-43.5	-62.7	-91.0	-134.5	-196.3	-285.2	-420.9	-629.6	37.3	10.2
3-J	16011	4880	34.1	23.8	22.7	27.6	20.7	19.5	21.6	22.4	15.9	14.7	14.2	10.8	8.0	2.7	-1.8	-6.6	-9.9	-13.7	-18.5	-26.4	-37.0	-51.4	-73.1	-105.4	-155.3	-227.1	-331.5	-491.2	-736.9	36.3	8.2
3-K	18720	5706	33.4	22.5	21.4	26.3	19.4	18.1	20.2	20.9	14.4	13.0	12.4	8.7	5.7	0.1	-4.8	-9.9	-13.6	-17.9	-23.2	-31.9	-43.8	-59.9	-84.5	-121.4	-178.4	-261.4	-383.3	-570.0	-857.2	35.3	6.3
3-L	21491	6550	32.8	21.3	20.2	25.1	18.2	16.9	18.9	19.5	12.9	11.5	10.7	6.9	3.6	-2.4	-7.6	-13.1	-17.2	-21.9	-27.8	-37.4	-50.5	-68.5	-96.0	-137.5	-201.9	-296.3	-436.1	-650.3	-980.0	34.5	4.6
4-D	13160	4011	35.0	25.6	24.5	29.4	22.5	21.3	23.4	24.2	17.8	16.7	16.4	13.2	10.7	5.7	1.6	-2.8	-5.7	-9.1	-13.2	-20.3	-29.7	-42.0	-60.8	-88.3	-130.6	-190.7	-276.7	-408.1	-610.0	37.5	10.6
4-E	11986	3653	35.4	26.4	25.3	30.2	23.3	22.1	24.3	25.1	18.7	17.7	17.4	14.3	11.9	7.0	3.1	-1.2	-3.9	-7.1	-10.9	-17.7	-26.5	-38.1	-55.6	-81.2	-120.4	-175.6	-254.1	-373.8	-557.7	38.1	11.7
4-F	11719	3572	35.5	26.6	25.5	30.4	23.5	22.3	24.5	25.3	19.0	17.9	17.6	14.5	12.2	7.4	3.4	-0.8	-3.5	-6.6	-10.4	-17.1	-25.8	-37.2	-54.4	-79.6	-118.0	-172.2	-248.9	-365.9	-545.8	38.3	12.0
4-G	12278	3742	35.3	26.2	25.1	30.0	23.1	21.9	24.1	24.8	18.5	17.4	17.1	14.0	11.6	6.7	2.7	-1.6	-4.4	-7.6	-11.5	-18.3	-27.3	-39.1	-56.9	-83.0	-122.9	-179.4	-259.7	-382.3	-570.7	37.9	11.4
4-H	13603	4146	34.8	25.3	24.2	29.1	22.2	21.0	23.1	23.9	17.5	16.4	16.0	12.8	10.3	5.2	1.0	-3.4	-6.4	-9.8	-14.1	-21.3	-30.8	-43.5	-62.7	-91.0	-134.5	-196.4	-285.3	-421.0	-629.8	37.3	10.2
4-I	15515	4729	34.3	24.1	23.0	27.9	21.0	19.8	21.9	22.7	16.2	15.0	14.6	11.2	8.5	3.2	-1.3	-5.9	-9.2	-13.0	-17.6	-25.4	-35.8	-49.8	-71.0	-102.5	-151.0	-220.8	-322.0	-476.8	-714.9	36.5	8.6
4-J	17787	5421	33.7	22.9	21.8	26.7	19.8	18.6	20.7	21.4	14.9	13.6	13.0	9.4	6.5	0.9	-3.8	-8.8	-12.4	-16.5	-21.6	-30.0	-41.5	-57.0	-80.6	-115.9	-170.5	-249.6	-365.5	-542.8	-815.7	35.6	6.9
4-K	20345	6201	33.1	21.8	20.7	25.6	18.7	17.4	19.4	20.1	13.5	12.1	11.4	7.6	4.5	-1.4	-6.4	-11.8	-15.7	-20.3	-25.9	-35.1	-47.7	-65.0	-91.3	-130.9	-192.2	-281.9	-414.3	-617.1	-929.2	34.8	5.3
4-L	23068	7031	32.5	20.7	19.6	24.5	17.6	16.2	18.2	18.8	12.2	10.7	9.8	5.8	2.4	-3.7	-9.1	-14.8	-19.2	-24.2	-30.4	-40.4	-54.2	-73.3	-102.5	-146.7	-215.2	-316.1	-466.1	-695.9	-1049.8	34.1	3.7
5-D	14684	4476	34.5	24.6	23.5	28.4	21.5	20.3	22.4	23.2	16.8	15.6	15.2	11.9	9.2	4.0	-0.3	-4.9	-8.0	-11.6	-16.1	-23.6	-33.6	-47.1	-67.4	-97.5	-143.9	-210.2	-306.1	-452.6	-677.9	36.8	9.3
5-E	13841	4219	34.8	25.1	24.0	28.9	22.0	20.8	23.0	23.7	17.4	16.2	15.8	12.6	10.0	4.9	0.7	-3.7	-6.8	-10.2	-14.5	-21.8	-31.4	-44.3	-63.8	-92.5	-136.6	-199.4	-289.9	-428.0	-640.4	37.2	10.0
5-F	13729	4184	34.8	25.2	24.1	29.0	22.1	20.9	23.0	23.8	17.4	16.3	15.9	12.7	10.2	5.1	0.9	-3.6	-6.6	-10.1	-14.3	-21.5	-31.2	-43.9	-63.3	-91.8	-135.6	-198.0	-287.7	-424.7	-635.4	37.2	10.1
5-G	14347	4373	34.6	24.8	23.7	28.6	21.7	20.5	22.6	23.4	17.0	15.8	15.4	12.1	9.6	4.4	0.1	-4.4	-7.5	-11.1	-15.4	-22.9	-32.8	-46.0	-65.9	-95.5	-140.9	-205.9	-299.6	-442.7	-662.9	37.0	9.6
5-H	15621	4761	34.2	24.1	23.0	27.9	21.0	19.7	21.9	22.6	16.2	14.9	14.5	11.1	8.4	3.1	-1.4	-6.1	-9.4	-13.1	-17.8	-25.6	-36.0	-50.1	-71.4	-103.1	-151.9	-222.1	-324.1	-479.9	-719.6	36.4	8.5
5-I	17376	5296	33.8	23.1	22.0	26.9	20.0	18.8	20.9	21.6	15.1	13.8	13.2	9.7	6.9	1.3	-3.3	-8.3	-11.8	-15.9	-20.9	-29.2	-40.4	-55.7	-78.9	-113.5	-167.0	-244.4	-357.7	-530.9	-797.5	35.8	7.2
5-J	19581	5968	33.2	22.1	21.0	25.9	19.0	17.7	19.8	20.4	13.9	12.5	11.8	8.1	5.1	-0.7	-5.7	-10.9	-14.7	-19.2	-24.6	-33.6	-45.9	-62.6	-88.1	-126.4	-185.8	-272.2	-399.8	-594.9	-895.3	35.1	5.8
6-D	16334	4979	34.0	23.7	22.6	27.5	20.6	19.3	21.5	22.2	15.7	14.5	14.0	10.5	7.8	2.4	-2.2	-7.0	-10.4	-14.3	-19.0	-27.1	-37.8	-52.4	-74.5	-107.3	-158.1	-231.2	-337.7	-500.6	-751.2	36.2	8.0
6-E	15719	4791	34.2	24.0	22.9	27.8	20.9	19.7	21.8	22.5	16.1	14.9	14.4	11.0	8.3	3.0	-1.5	-6.2	-9.5	-13.3	-17.9	-25.8	-36.3	-50.4	-71.8	-103.7	-152.8	-223.4	-325.9	-482.7	-723.9	36.4	8.5
6-G	16367	4989	34.0	23.7	22.6	27.5	20.6	19.3	21.4	22.1	15.7	14.5	13.9	10.5	7.7	2.3	-2.2	-7.0	-10.4	-14.3	-19.1	-27.1	-37.9	-52.5	-74.6	-107.5	-158.3	-231.6	-338.3	-501.6	-752.7	36.1	8.0
6-H	17620	5371	33.7	23.0	21.9	26.8	19.9	18.7	20.8	21.4	15.0	13.7	13.1	9.5	6.6	1.1	-3.6	-8.6	-12.1	-16.2	-21.3	-29.7	-41.0	-56.5	-79.9	-114.9	-169.1	-247.5	-362.3	-538.0	-808.4	35.7	7.1
6-I	19334	5893	33.3	22.2	21.1	26.0	19.1	17.8	19.9	20.6	14.0	12.7	12.0	8.3	5.3	-0.5	-5.4	-10.6	-14.4	-18.8	-24.2	-33.1	-45.3	-61.9	-87.1	-125.0	-183.7	-269.1	-395.0	-587.8	-884.4	35.1	5.9
6-J	21438	6534	32.9	21.3	20.2	25.1	18.2	16.9	18.9	19.5	13.0	11.5	10.7	6.9	3.6	-2.4	-7.5	-13.0	-17.1	-21.9	-27.7	-37.3	-50.3	-68.4	-95.8	-137.2	-201.5	-295.6	-435.1	-648.7	-977.6	34.5	4.6
7-B	20476	6241	33.1	21.7	20.6	25.5	18.6	17.3	19.4	20.0	13.4	12.0	11.3	7.5	4.4	-1.5	-6.6	-11.9	-15.9	-20.5	-26.2	-35.4	-48.0	-65.4	-91.8	-131.7	-193.4	-283.5	-416.8	-620.9	-935.0	34.8	5.2
7-C	19015	5796	33.4	22.4	21.3	26.2	19.3	18.0	20.0	20.7	14.2	12.8	12.2	8.5	5.5	-0.2	-5.1	-10.2	-14.0	-18.3	-23.7	-32.5	-44.5	-60.9	-85.8	-123.1	-181.0	-265.1	-389.0	-578.5	-870.2	35.2	6.1
7-E	17606	5366	33.7	23.0	21.9	26.8	19.9	18.7	20.8	21.4	15.0	13.7	13.1	9.6	6.7	1.1	-3.6	-8.5	-12.1	-16.2	-21.3	-29.7	-41.0	-56.4	-79.8	-114.9	-168.9	-247.3	-362.1	-537.6	-807.7	35.7	7.1
7-F	17751	5410	33.7	23.0	21.9	26.8	19.9	18.6	20.7	21.4	14.9	13.6	13.0	9.4	6.5	1.0	-3.7	-8.7	-12.3	-16.4	-21.5	-30.0	-41.4	-56.9	-80.5	-115.7	-170.2	-249.1	-364.8	-541.8	-814.2	35.6	7.0
7-G	18460	5627	33.5	22.6	21.5	26.4	19.5	18.2	20.3	21.0	14.5	13.2	12.5	8.9	6.0	0.3	-4.5	-9.6	-13.3	-17.5	-22.7	-31.4	-43.1	-59.1	-83.4	-119.9	-176.2	-258.1	-378.4	-562.4	-845.6	35.4	6.5
7-H	19693	6002	33.2	22.1	21.0	25.9	19.0	17.6	19.7	20.4	13.8	12.5	11.8	8.1	5.0	-0.8	-5.8	-11.0	-14.9	-19.3	-24.8	-33.9	-46.1	-63.0	-88.6	-127.1	-186.7	-273.6	-401.9	-598.2	-900.3	35.0	5.7
7-I	21338	6504	32.9	21.4	20.3	25.2	18.3	16.9	19.0	19.6	13.0	11.6	10.8	7.0	3.7	-2.3	-7.4	-12.9	-17.0	-21.7	-27.6	-37.1	-50.1	-68.1	-95.4	-136.7	-200.6	-294.3	-433.2	-645.8	-973.2	34.5	4.7
8-A	23535	7174	32.5	20.5	19.4	24.3	17.4	16.0	18.1	18.6	12.0	10.5	9.6	5.6	2.1	-4.1	-9.6	-15.3	-19.8	-24.8	-31.2	-41.3	-55.3	-74.8	-104.4	-149.4	-219.2	-321.9	-475.0	-709.5	-1070.5	34.0	3.4
8-B	21894	6673	32.8	21.1	20.0	24.9	18.0	16.7	18.7	19.3	12.8	11.3	10.5	6.6	3.3	-2.7	-8.0	-13.5	-17.7	-22.5	-28.5	-38.2	-51.4	-69.8	-97.7	-139.9	-205.3	-301.3	-443.8	-662.0	-997.8	34.4	4.4

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Leq)
FROM WIND PARK OPERATIONS AT THE CUT-IN WIND CONDITION

8-C	20636	6290	33.0	21.6	20.5	25.4	18.5	17.2	19.3	19.9	13.4	11.9	11.2	7.4	4.2	-1.7	-6.7	-12.1	-16.1	-20.7	-26.4	-35.7	-48.4	-65.9	-92.5	-132.6	-194.7	-285.5	-419.9	-625.5	-942.1	34.7	5.1
8-D	19830	6044	33.2	22.0	20.9	25.8	18.9	17.6	19.7	20.3	13.8	12.4	11.7	8.0	4.9	-0.9	-5.9	-11.2	-15.1	-19.5	-25.1	-34.1	-46.5	-63.4	-89.1	-127.9	-187.9	-275.4	-404.5	-602.2	-906.4	35.0	5.6
8-F	19759	6023	33.2	22.0	20.9	25.8	18.9	17.6	19.7	20.3	13.8	12.4	11.7	8.0	4.9	-0.9	-5.8	-11.1	-15.0	-19.4	-24.9	-34.0	-46.3	-63.2	-88.9	-127.5	-187.3	-274.5	-403.2	-600.1	-903.2	35.0	5.6
8-G	20576	6272	33.0	21.7	20.6	25.5	18.6	17.3	19.3	19.9	13.4	12.0	11.2	7.5	4.3	-1.6	-6.7	-12.0	-16.0	-20.6	-26.3	-35.6	-48.3	-65.7	-92.2	-132.2	-194.2	-284.8	-418.7	-623.8	-939.4	34.8	5.1
8-H	21755	6631	32.8	21.2	20.1	25.0	18.1	16.7	18.8	19.4	12.8	11.4	10.5	6.7	3.4	-2.6	-7.8	-13.4	-17.5	-22.3	-28.3	-37.9	-51.1	-69.3	-97.1	-139.1	-204.2	-299.6	-441.2	-657.9	-991.7	34.4	4.4
9-A	24819	7565	32.2	20.0	18.9	23.8	16.9	15.5	17.5	18.1	11.4	9.9	8.9	4.8	1.2	-5.2	-10.8	-16.7	-21.3	-26.6	-33.2	-43.8	-58.3	-78.7	-109.6	-156.8	-230.0	-338.0	-499.4	-746.6	-1127.3	33.7	2.8
9-B	23369	7123	32.5	20.6	19.5	24.4	17.5	16.1	18.1	18.7	12.1	10.6	9.6	5.7	2.2	-4.0	-9.4	-15.1	-19.6	-24.6	-30.9	-41.0	-54.9	-74.3	-103.7	-148.4	-217.8	-319.8	-471.8	-704.6	-1063.1	34.0	3.5
9-C	22291	6794	32.7	21.0	19.9	24.8	17.9	16.5	18.6	19.2	12.6	11.1	10.2	6.3	3.0	-3.1	-8.4	-14.0	-18.2	-23.1	-29.1	-38.9	-52.4	-71.0	-99.3	-142.2	-208.7	-306.3	-451.4	-673.5	-1015.4	34.3	4.1
9-D	21688	6610	32.8	21.2	20.1	25.0	18.1	16.8	18.8	19.4	12.9	11.4	10.6	6.7	3.4	-2.6	-7.8	-13.3	-17.5	-22.2	-28.2	-37.8	-50.9	-69.1	-96.8	-138.7	-203.6	-298.7	-439.9	-656.0	-988.7	34.5	4.5
9-E	21499	6553	32.8	21.3	20.2	25.1	18.2	16.9	18.9	19.5	12.9	11.5	10.7	6.8	3.6	-2.4	-7.6	-13.1	-17.2	-22.0	-27.8	-37.4	-50.5	-68.5	-96.1	-137.6	-202.0	-296.4	-436.3	-650.5	-980.3	34.5	4.6
9-F	21815	6649	32.8	21.2	20.1	25.0	18.1	16.7	18.8	19.4	12.8	11.3	10.5	6.6	3.3	-2.7	-7.9	-13.4	-17.6	-22.4	-28.4	-38.0	-51.2	-69.5	-97.4	-139.4	-204.7	-300.3	-442.3	-659.7	-994.3	34.4	4.4
9-G	22596	6887	32.6	20.9	19.8	24.7	17.8	16.4	18.4	19.0	12.4	10.9	10.1	6.1	2.8	-3.3	-8.7	-14.3	-18.6	-23.5	-29.6	-39.5	-53.1	-71.9	-100.6	-143.9	-211.3	-310.1	-457.2	-682.3	-1028.9	34.2	4.0
9-H	23811	7258	32.4	20.4	19.3	24.2	17.3	15.9	17.9	18.5	11.9	10.3	9.4	5.4	1.9	-4.4	-9.8	-15.6	-20.1	-25.2	-31.6	-41.8	-55.9	-75.6	-105.5	-151.0	-221.5	-325.4	-480.2	-717.4	-1082.7	33.9	3.3
9-I	25338	7723	32.1	19.9	18.8	23.7	16.8	15.3	17.4	17.9	11.2	9.6	8.6	4.5	0.8	-5.6	-11.3	-17.3	-22.0	-27.3	-34.0	-44.7	-59.5	-80.2	-111.8	-159.7	-234.3	-344.5	-509.2	-761.6	-1150.2	33.6	2.5
10-A	26208	7988	32.0	19.6	18.5	23.4	16.5	15.0	17.0	17.6	10.9	9.2	8.2	4.0	0.2	-6.3	-12.1	-18.2	-23.0	-28.5	-35.4	-46.4	-61.5	-82.8	-115.3	-164.7	-241.6	-355.4	-525.7	-786.7	-1188.7	33.4	2.1
10-B	24961	7608	32.2	20.0	18.9	23.8	16.9	15.5	17.5	18.1	11.4	9.8	8.8	4.7	1.1	-5.3	-10.9	-16.9	-21.5	-26.8	-33.4	-44.0	-58.6	-79.1	-110.2	-157.6	-231.2	-339.8	-502.1	-750.7	-1133.6	33.6	2.7
10-C	24047	7329	32.4	20.3	19.2	24.1	17.2	15.8	17.8	18.4	11.8	10.2	9.3	5.2	1.7	-4.6	-10.1	-15.9	-20.4	-25.6	-32.0	-42.3	-56.5	-76.3	-106.5	-152.3	-223.5	-328.3	-484.7	-724.3	-1093.1	33.9	3.2
10-D	23524	7170	32.5	20.5	19.4	24.3	17.4	16.0	18.1	18.6	12.0	10.5	9.6	5.6	2.1	-4.1	-9.6	-15.3	-19.8	-24.8	-31.1	-41.3	-55.3	-74.7	-104.4	-149.3	-219.1	-321.8	-474.8	-709.1	-1070.0	34.0	3.4
10-E	23461	7151	32.5	20.5	19.4	24.3	17.4	16.1	18.1	18.7	12.0	10.5	9.6	5.6	2.2	-4.1	-9.5	-15.2	-19.7	-24.7	-31.0	-41.2	-55.1	-74.5	-104.1	-148.9	-218.6	-321.0	-473.6	-707.3	-1067.2	34.0	3.5
10-F	23831	7264	32.4	20.4	19.3	24.2	17.3	15.9	17.9	18.5	11.9	10.3	9.4	5.4	1.9	-4.4	-9.9	-15.6	-20.1	-25.3	-31.6	-41.9	-56.0	-75.7	-105.6	-151.1	-221.7	-325.6	-480.6	-718.0	-1083.6	33.9	3.3
10-G	24634	7509	32.3	20.1	19.0	23.9	17.0	15.6	17.6	18.2	11.5	9.9	9.0	4.9	1.3	-5.0	-10.6	-16.5	-21.1	-26.4	-32.9	-43.4	-57.9	-78.1	-108.9	-155.7	-228.4	-335.7	-495.9	-741.2	-1119.1	33.7	2.9
10-H	25850	7879	32.0	19.7	18.6	23.5	16.6	15.2	17.2	17.7	11.0	9.4	8.3	4.2	0.5	-6.0	-11.7	-17.8	-22.6	-28.0	-34.9	-45.7	-60.7	-81.8	-113.8	-162.7	-238.6	-350.9	-518.9	-776.4	-1172.9	33.4	2.2
10-I	29817	24328	27.1	9.9	8.8	13.7	6.8	4.3	5.6	5.2	-2.9	-6.7	-10.7	-19.0	-27.9	-40.6	-53.1	-66.4	-79.1	-93.4	-111.8	-138.6	-177.6	-235.5	-324.3	-463.6	-682.7	-1017.0	-1533.8	-2327.4	-3551.4	27.6	-12.8
11-A	27738	8454	31.7	19.1	18.0	22.9	16.0	14.5	16.5	17.0	10.3	8.6	7.4	3.1	-0.8	-7.5	-13.5	-19.8	-24.8	-30.6	-37.8	-49.2	-65.1	-87.4	-121.5	-173.5	-254.4	-374.5	-554.7	-830.9	-1256.4	33.0	1.3
11-B	26599	8107	31.9	19.4	18.3	23.2	16.3	14.9	16.9	17.4	10.7	9.1	8.0	3.7	0.0	-6.6	-12.4	-18.6	-23.5	-29.1	-36.0	-47.1	-62.4	-84.0	-116.9	-167.0	-244.9	-360.2	-533.1	-798.0	-1206.0	33.3	1.9
11-C	25814	7868	32.0	19.7	18.6	23.5	16.6	15.2	17.2	17.7	11.0	9.4	8.4	4.2	0.5	-6.0	-11.7	-17.8	-22.5	-28.0	-34.8	-45.6	-60.6	-81.6	-113.7	-162.5	-238.3	-350.4	-518.2	-775.3	-1171.3	33.5	2.3
11-D	25483	7767	32.1	19.8	18.7	23.6	16.7	15.3	17.3	17.8	11.2	9.6	8.5	4.4	0.7	-5.7	-11.4	-17.4	-22.1	-27.5	-34.3	-45.0	-59.9	-80.6	-112.3	-160.6	-235.5	-346.3	-512.0	-765.8	-1156.7	33.5	2.4
11-E	25447	7756	32.1	19.8	18.7	23.6	16.7	15.3	17.3	17.9	11.2	9.6	8.5	4.4	0.8	-5.7	-11.4	-17.4	-22.1	-27.5	-34.2	-44.9	-59.8	-80.5	-112.2	-160.4	-235.2	-345.8	-511.3	-764.7	-1155.1	33.5	2.4
11-F	25909	7897	32.0	19.7	18.6	23.5	16.6	15.1	17.1	17.7	11.0	9.4	8.3	4.1	0.4	-6.1	-11.8	-17.9	-22.7	-28.1	-35.0	-45.8	-60.8	-81.9	-114.1	-163.0	-239.1	-351.6	-520.0	-778.1	-1175.5	33.4	2.2
11-G	26702	8139	31.9	19.4	18.3	23.2	16.3	14.9	16.9	17.4	10.7	9.0	7.9	3.7	-0.1	-6.7	-12.5	-18.7	-23.6	-29.2	-36.2	-47.3	-62.7	-84.3	-117.3	-167.6	-245.8	-361.5	-535.1	-801.0	-1210.6	33.3	1.8
11-H	27866	8493	31.7	19.0	17.9	22.8	15.9	14.5	16.4	17.0	10.2	8.5	7.3	3.0	-0.9	-7.6	-13.6	-19.9	-25.0	-30.8	-38.0	-49.5	-65.4	-87.8	-122.0	-174.2	-255.5	-376.1	-557.1	-834.6	-1262.0	33.0	1.3
11-K	33122	10095	31.0	17.5	16.4	21.3	14.4	12.9	14.8	15.2	8.3	6.4	4.9	0.2	-4.2	-11.5	-18.1	-25.2	-31.0	-37.7	-46.1	-59.0	-77.3	-103.3	-143.0	-204.1	-299.3	-441.5	-656.5	-986.2	-1494.2	32.1	-1.0
11-L	35237	10740	30.7	17.0	15.9	20.8	13.9	12.3	14.2	14.5	7.6	5.6	4.0	-0.9	-5.4	-13.0	-19.9	-27.2	-33.4	-40.4	-49.2	-62.8	-82.0	-109.5	-151.4	-216.0	-316.8	-467.7	-696.4	-1047.2	-1587.6	31.7	-1.8
12-A	29301	8931	31.5	18.6	17.5	22.4	15.5	14.0	16.0	16.4	9.7	7.9	6.7	2.2	-1.8	-8.7	-14.8	-21.4	-26.7	-32.7	-40.2	-52.1	-68.6	-92.0	-127.8	-182.4	-267.5	-393.9	-584.3	-876.0	-1325.4	32.7	0.6
12-B	28300	8626	31.6	18.9	17.8	22.7	15.8	14.3	16.3	16.8	10.0	8.3	7.1	2.8	-1.1	-7.9	-14.0	-20.4	-25.5	-31.4	-38.7	-50.3	-66.4	-89.1	-123.7	-176.7	-259.1	-381.5	-565.3	-847.1	-1281.2	32.9	1.1
12-C	27633	8422	31.8	19.1	18.0	22.9	16.0	14.5	16.5	17.0	10.3	8.6	7.5	3.1	-0.7	-7.4	-13.4	-19.7	-24.7	-30.5	-37.7	-49.0	-64.8	-87.1	-121.0	-172.9	-253.5	-373.1	-552.7	-827.9	-1251.7	33.1	1.4
12-D	27392	8349	31.8	19.2	18.1	23.0	16.1	14.6	16.6	17.1	10.4	8.7	7.6	3.3	-0.5	-7.2	-13.1	-19.4	-24.4	-30.1	-37.3	-48.6	-64.3	-86.4	-120.1	-171.5	-251.5	-370.1	-548.1	-820.9	-1241.1	33.1	1.5
12-E	27427	8360	31.8	19.2	18.1	23.0	16.1	14.6	16.6	17.1	10.4	8.7	7.6	3.3	-0.6	-7.2	-13.2	-19.5	-24.5	-30.2	-37.3	-48.6	-64.3	-86.5	-120.2	-171.7	-251.8	-370.6	-548.8	-821.9	-1242.6	33.1	1.5
12-F	27951	8520	31.7	19.0	17.9	22.8	15.9	14.4	16.4	16.9	10.2	8.5	7.3	3.0	-0.9	-7.7	-13.6	-20.0	-25.1	-30.9	-38.1	-49.6	-65.6	-88.0	-122.3	-174.7	-256.2	-377.1	-558.7	-837.1	-1265.8	33.0	1.2
12-G	28775	8770	31.6	18.8	17.7	22.6	15.7	14.2	16.1	16.6	9.9	8.1	6.9	2.5	-1.5	-8.3	-14.4	-20.8	-26.1	-32.0	-39.4	-51.1	-67.4	-90.5	-125.6	-179.4	-263.1	-387.4	-574.3	-860.8	-1302.2	32.8	0.9
12-H	29903	9114	31.4	18.4	17.3	22.2	15.3	13.8	15.8	16.2	9.4	7.7	6.4	1.9	-2.2	-9.1	-15.4	-22.0	-27.4	-33.5	-41.2	-53.2	-70.0	-93.8	-130.2	-185.8	-272.5	-401.4	-595.7	-893.4	-1352.0	32.6	0.4
12-I	31399	9570	31.2	18.0	16.9	21.8	14.9	13.4	15.3	15.7	8.9	7.1	5.7	1.1	-3.1	-10.3	-16.7	-23.5	-29.1	-35.4	-43.4	-55.9	-73.4	-98.2	-136.2	-194.3	-285.0	-420.1	-623.9	-936.5	-1418.1	32.4	-0.3
12-J	33085	10084	31.0	17.5	16.4	21.3	14.4	12.9	14.8	15.2	8.3	6.4	4.9	0.2	-4.2	-11.5	-18.1	-25.2	-31.0	-37.6	-46.0	-59.0	-77.2	-103.2	-142.9	-203.8	-299.0	-441.0	-655.8	-985.2	-1492.6	32.1	-1.0
12-K	35002	10669	30.7	17.1	16.0	20.9	14.0	12.3	14.2	14.6	7.7	5.7	4.1	-0.7	-5.3	-12.9	-19.7	-27.0	-33.1	-40.1	-48.9	-62.4	-81.5	-108.8	-150.5	-214.7	-314.9	-464.8	-692.0	-1040.4	-1577.2	31.8	-1.7
12-L	37075	11300	30.5	16.6	15.5	20.4	13.5	11.8	13.7	14.0	7.0	5.0	3.3	-1.8	-6.5	-14.3	-21.4	-29.0	-35.4	-42.7	-51.9	-66.1	-86.1	-114.8	-158.7	-226.4	-332.1	-490.5	-731.1	-1100.1	-1668.7	31.5	-2.5
13-A	30926	9426	31.3	18.1	17.0	21.9	15.0	13.5	15.4	15.9	9.1	7.2	5.9	1.3	-2.8	-9.9	-16.3	-23.0	-28.5	-34.8	-42.7	-55.1	-72.3	-96.8	-134.3	-191.6	-281.0	-414.2	-615.0	-922.9	-1397.2	32.4	-0.1
13-B	30026	9152	31.4	18.4	17.3	22.2	15.3	13.8	15.7	16.2	9.4	7.6	6.3	1.8	-2.3	-9.2	-15.5	-22.1	-27.5	-33.6	-41.4	-53.4	-70.3	-94.2	-130.7	-186.5	-273.5	-403.0	-598.0	-897.0	-1357.5	32.6	0.3
13-C	29487	8988	31.5	18.5	17.4	22.3	15.4	13.9	15.9	16.4	9.6	7.8	6.6	2.1	-1.9	-8.8	-15.0	-21.6	-26.9	-32.9	-40.5	-52.4	-69.1	-92.6	-128.5	-183.4	-269.0	-396.3	-587.8	-881.4	-1333.7	32.7	0.5
13-D	29335	8941	31.5	18.6	17.5	22.4	15.5	14.0	16.0	16.4	9.6	7.9	6.6	2.2	-1.8	-8.7	-14.9	-21.4	-26.7	-32.7	-40.3	-52.2	-68.7	-92.1	-127.9	-182.6	-267.8	-394.4	-584.9	-877.0	-1327.0	32.7	0.6
13-F	29989	9141	31.4	18.4	17.3	22.2	15.3	13.8	15.7	16.2	9.4	7.6	6.3	1.8	-2.2	-9.2	-15.5	-22.1	-27.5	-33.6	-41.3	-53.4	-70.2	-94.1	-130.5	-186.3	-273.2	-402.5	-597.3	-895.9	-1355.9	32.6	0.3
13-G	30831	9397	31.3	18.2	17.1	22.0	15.1	13.5	15.5	15.9	9.1	7.3	5.9	1.4	-2.8	-9.8	-16.2	-22.9	-28.4	-34.7	-42.6	-54.9	-72.1	-96.6	-133.9	-191.1	-280.2	-413.0	-613.2	-920.2	-1393.1	32.5	0.0
13-H	31901	9723	31.1	17.9	16.8	21.7	14.8	13.2	15.1	15.6	8.7	6.9	5.5	0.8	-3.4	-10.6	-17.1	-24.0	-29.7	-36.1	-44.2	-56.8	-74.5	-99.7	-138.2	-197.1	-289.1	-426.3	-633.4	-951.0	-1440.3	32.3	-0.5
13-I	33404	10181	30.9	17.5	16.4	21.3	14.4	12.8	14.7	15.1	8.2	6.3	4.8	0.1	-4.3	-11.7	-18.4	-25.5	-31.4	-38.1	-46.5	-59.6	-77.9	-104.1	-144.2	-205.6	-301.6	-445.0	-661.8	-994.3	-1506.7	32.0	-1.1
13-J	35110	10702	30.7	17.0	15.9	20.8	13.9	12.3	14.2	14.6	7.6	5.7	4.1	-0.8	-5.4	-12.9	-19.8	-27.1	-33.3	-40.2	-49.0	-62.6	-81.7	-109.1	-150.9	-215.3	-315.8	-466.2	-694.0	-1043.5	-1582.0	31.8	-1.7
13-K	36952	11263	30.5	16.6	15.5	20.4	13.5	11.8	13.7	14.0	7.1	5.0	3.3	-1.7	-6.4	-14.2	-21.3	-28.9	-35.3	-42.6	-51.8	-65.9	-85.8	-114.5	-158.2	-225.7	-331.1	-489.0	-728.8	-1096.5	-1663.3	31.5	-2.4
13-L	39038	11899	30.3	16.1	15.0	19.9	13.0	11.3	13.2	13.5	6.4	4.3	2.5	-2.7	-7.6	-15.7	-23.0	-30.9	-37.6	-45.2	-54.8	-69.6	-90.5	-120.5	-166.5	-237.4	-348.3	-514.9	-768.1	-1156.6	-1755.3	31.2	-3.1
14-D	31291	9538	31.2	18.0	16.9	21.8	14.9	13.4	15.3	15.8	8.9	7.1	5.7	1.2	-3.0	-10.2	-16.6	-23.4	-29.0	-35.3	-43.3	-55.7	-73.2	-97.9	-135.7	-193.7	-284.1	-418.7	-621.9	-933.4	-1413.4	32.4	-0.2
14-E	31497	9600	31.2	18.0	16.9	21.8	14.9	13.3	15.3	15.7	8.9	7.0	5.6	1.0	-3.2	-10.3	-16.8	-23.6	-29.2	-35.6	-43.6	-56.1	-73.6	-98.5	-136.6	-194.9	-285.8	-421.3	-625.8	-939.4	-1422.5	32.3	-0.3
14-F	32036	9764	31.1	17.8	16.7	21.6	14.7	13.2	15.1	15.5	8.7	6.8	5.4	0.8	-3.5	-10.7	-17.2	-24.1	-29.8	-36.3	-44.4	-57.1	-74.8	-100.1	-138.7	-197.9	-290.3	-428.0	-636.0	-954.9	-1446.3	32.3	-0.5
14-G	32881	10022	31.0	17.6	16.5	21.4	14.5	12.9	14.8	15.3	8.4	6.5	5.0	0.3	-4.0	-11.3	-17.9	-25.0	-30.8	-37.4	-45.7	-58.6	-76.7	-102.6	-142.1	-202.7	-297.3	-438.5	-651.9	-979.3	-1483.6	32.1	-0.9
14-H	34017	10368	30.9	17.3	16.2	21.1	14.2	12.6	14.5	14.9	8.0	6.1	4.5	-0.2	-4.7	-12.2	-18.9	-26.1	-32.0	-38.8	-47.4	-60.7	-79.3	-105.9	-146.6	-209.1	-306.7	-452.6	-673.4	-1012.0	-1533.8	31.9	-1.3
14-J	37045	11291	30.5	16.6	15.5	20.4	13.5	11.8	13.7	14.0	7.0	5.0	3.3	-1.7	-6.5	-14.3	-21.4	-29.0	-35.4	-42.7	-51.9	-66.1	-86.0	-114.7	-158.6	-226.2	-331.8	-490.2	-730.5	-1099.2	-1667.4	31.5	-2.4
14-K	38937	11868	30.3	16.1	15.0	19.9	13.0	11.3	13.2	13.5	6.5	4.3	2.5	-2.6	-7.6	-15.6	-23.0	-30.8	-37.5	-45.1	-54.7	-69.4	-90.2	-120.2	-166.1	-236.8	-347.5	-513.6	-766.2	-1153.7	-1750.9	31.2	-3.1
14-L	40966	12486	30.0	15.7	14.6	19.5	12.6	10.9	12.7	13.0	5.9	3.6	1.7	-3.6	-8.7	-17.0	-24.6	-32.7	-39.7	-47.6	-57.7	-73.0	-94.7	-126.1	-174.0	-248.2	-364.3	-538.7	-804.4	-1212.1	-1840.3	30.9	-3.8
15-F	34077	10387	30.8	17.3	16.2	21.1	14.2	12.6	14.5	14.9	8.0	6.0	4.5	-0.3	-4.7	-12.2	-19.0	-26.1	-32.1	-38.9	-47.5	-60.8	-79.4	-106.1	-146.8	-209.5	-307.2	-453.3	-674.5	-1013.7	-1536.4	31.9	-1.3
15-G	34960	10656	30.7	17.1	16.0	20.9	14.0	12.4	14.2	14.6	7.7	5.7	4.1	-0.7	-5.3	-12.8	-19.7	-27.0	-33.1	-40.1	-48.8	-62.3	-81.4	-108.7	-150.3	-214.4	-314.5	-464.3	-691.2	-1039.2	-1575.4	31.8	-1.7
15-H	36100	11003	30.6	16.8	15.7	20.6	13.7	12.1	13.9	14.3	7.3	5.3	3.7	-1.3	-5.9	-13.6	-20.6	-28.1	-34.4	-41.5	-50.5	-64.4	-83.9	-112.0	-154.9	-220.9	-324.0	-478.4	-712.7	-1072.0	-1625.7	31.6	-2.1
15-I	37493	11428	30.4	16.5	15.4	20.3	13.4	11.7	13.6	13.9	6.9	4.8	3.1	-2.0	-6.8	-14.6	-21.8	-29.4	-35.9	-43.3	-52.6	-66.9	-87.0	-116.0	-160.4	-228.7	-335.5	-495.7	-739.0	-1112.1	-1687.1	31.4	-2.6
15-J	39071	11909	30.2	16.1	15.0	19.9	13.0	11.3	13.2	13.5	6.4	4.3	2.5	-2.7	-7.7	-15.7	-23.1	-30.9	-37.6	-45.3	-54.9	-69.6	-90.5	-120.6	-166.6	-237.6	-348.6	-515.3	-768.7	-1157.6	-1756.8	31.2	-3.1
15-K	40883	12461	30.1	15.7	14.6	19.5	12.6	10.9	12.7	13.0	5.9	3.7	1.8	-3.5	-8.7	-16.9	-24.5	-32.6	-39.6	-47.5	-57.5	-72.8	-94.5	-125.8	-173.7	-247.8	-363.6	-537.7	-802.9	-1209.7	-1836.7	31.0	-3.7
16-J	41074	12519	30.0	15.7	14.6	19.5	12.6	10.8	12.7	12.9	5.8	3.6	1.7	-3.6	-8.8	-17.0	-24.7	-32.8	-39.8	-47.7	-57.8	-73.2	-94.9	-126.4	-174.5	-248.8	-365.1	-540.1	-806.5	-1215.2	-1845.1	30.9	-3.8
16-K	42850	13061	29.8	15.3	14.2	19.1	12.2	10.4	12.2	12.5	5.3	3.0	1.0	-4.4	-9.8	-18.2	-26.1	-34.4	-41.7	-49.9	-60.4	-76.3	-98.8	-131.5	-181.4	-258.8	-379.8	-562.0	-839.9	-1266.3	-1923.5	30.7	-4.4
		Sum:	54.6	44.7	43.6	48.5	41.6	40.4	42.5	43.3	36.9	35.8	35.5	32.3	30.0	25.3	21.5	17.6	15.3	12.6	9.6	4.0	-2.8	-11.1	-23.0	-39.2	-63.0	-93.7	-133.5	-193.6	-285.5	56.9	29.9

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Leq)
FROM WIND PARK OPERATIONS AT THE CUT-IN WIND CONDITION

																		Hertz													
	1/3 Octave Bands	**16***	**20**	**25**	**31**	**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**	**L**	**A**
Sound Power Data		112.0	105.6	104.5	109.4	102.5	101.6	103.9	104.9	98.9	98.3	98.7	96.5	95.3	91.8	89.3	86.7	85.7	84.5	83.2	80.0	76.5	73.1	68.2	62.7	55.3	49.4	48.4	47.8	47.6	116.3	95.4

Data for the graph																															
Atmos. Absorption per 1 km air temp 59F 70% RH	0.0000	0.0000	0.0000	0.0000	0.0000	0.0670	0.1050	0.1630	0.2510	0.3810	0.5650	0.8150	1.1300	1.5100	1.9200	2.3600	2.8400	3.3800	4.0800	5.0500	6.5100	8.7500	12.2000	17.7000	26.4000	39.9000	61.1000	93.7000	144.0000		

*Spherical wave spreading for up to 2 km, cylindrical wave spreading beyond 2 km.

																		Hertz													
	1/3 Octave Bands	**16***	**20**	**25**	**31**	**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**	**L**	**A**
	Distance (ft)	**Distance (m)**																													
1-D	61568	18766	28.3	12.2	11.1	16.0	9.1	6.9	8.5	8.4	0.7	-2.3	-5.4	-12.2	-19.4	-30.0	-40.2	-51.0	-61.0	-72.4	-86.8	-108.2	-139.1	-184.6	-254.2	-362.9	-533.6	-792.8	-1191.6	-1804.0	-2748.1	28.9	-9.3
1-E	58983	17978	28.5	12.5	11.4	16.3	9.4	7.3	8.9	8.9	1.3	-1.6	-4.5	-11.2	-18.1	-28.4	-38.3	-48.8	-58.4	-69.3	-83.2	-103.9	-133.6	-177.3	-244.2	-348.6	-512.4	-761.0	-1143.1	-1729.8	-2634.3	29.1	-8.7
1-F	56449	17206	28.7	12.9	11.8	16.7	9.8	7.8	9.4	9.4	1.9	-1.0	-3.7	-10.2	-16.8	-26.9	-36.4	-46.6	-55.9	-66.4	-79.7	-99.6	-128.2	-170.1	-234.4	-334.5	-491.6	-729.8	-1095.6	-1657.1	-2522.7	29.3	-8.1
1-G	53974	16451	28.8	13.3	12.2	17.1	10.2	8.2	9.9	9.9	2.5	-0.3	-2.9	-9.2	-15.6	-25.3	-34.6	-44.4	-53.3	-63.4	-76.2	-95.4	-122.9	-163.2	-224.8	-320.8	-471.3	-699.3	-1049.1	-1586.0	-2413.7	29.5	-7.5
1-H	51558	15715	29.0	13.7	12.6	17.5	10.6	8.6	10.3	10.4	3.0	0.4	-2.1	-8.2	-14.4	-23.8	-32.8	-42.3	-50.8	-60.5	-72.8	-91.3	-117.7	-156.3	-215.4	-307.4	-451.5	-669.5	-1003.7	-1516.6	-2307.2	29.8	-6.9
1-I	49274	15019	29.2	14.1	13.0	17.9	11.0	9.1	10.8	10.9	3.6	1.1	-1.3	-7.3	-13.2	-22.4	-31.1	-40.3	-48.5	-57.8	-69.6	-87.4	-112.8	-149.8	-206.5	-294.6	-432.7	-641.4	-960.8	-1451.0	-2206.6	30.0	-6.2
1-J	47113	14360	29.4	14.5	13.4	18.3	11.4	9.5	11.3	11.4	4.2	1.7	-0.5	-6.3	-12.1	-21.0	-29.4	-38.3	-46.2	-55.2	-66.5	-83.6	-108.1	-143.7	-198.1	-282.6	-414.9	-614.7	-920.1	-1388.9	-2111.4	30.2	-5.6
1-K	44994	13714	29.6	14.9	13.8	18.7	11.8	10.0	11.7	11.9	4.7	2.3	0.2	-5.4	-10.9	-19.6	-27.8	-36.4	-44.0	-52.6	-63.5	-80.0	-103.5	-137.6	-189.8	-270.8	-397.5	-588.5	-880.3	-1327.9	-2018.0	30.5	-5.0
1-L	43045	13120	29.8	15.3	14.2	19.1	12.2	10.4	12.2	12.4	5.3	3.0	0.9	-4.5	-9.9	-18.4	-26.2	-34.6	-41.9	-50.2	-60.7	-76.6	-99.3	-132.0	-182.2	-259.9	-381.4	-564.4	-843.6	-1271.9	-1932.0	30.7	-4.4
2-D	62288	18985	28.2	12.0	10.9	15.8	8.9	6.8	8.4	8.3	0.6	-2.5	-5.6	-12.5	-19.7	-30.4	-40.7	-51.7	-61.8	-73.2	-87.8	-109.4	-140.6	-186.6	-257.0	-366.9	-539.5	-801.7	-1205.2	-1824.7	-2779.8	28.8	-9.4
2-E	59712	18200	28.4	12.4	11.3	16.2	9.3	7.2	8.8	8.8	1.1	-1.8	-4.8	-11.5	-18.4	-28.9	-38.8	-49.4	-59.2	-70.2	-84.2	-105.1	-135.2	-179.3	-247.0	-352.6	-518.4	-770.0	-1156.8	-1750.7	-2666.4	29.0	-8.8
2-F	57219	17441	28.6	12.8	11.7	16.6	9.7	7.6	9.3	9.2	1.7	-1.2	-4.0	-10.5	-17.2	-27.3	-37.0	-47.3	-56.6	-67.3	-80.8	-100.9	-129.9	-172.3	-237.4	-338.8	-497.9	-739.3	-1110.0	-1679.2	-2556.6	29.2	-8.3
2-G	54843	16716	28.8	13.2	12.1	17.0	10.1	8.0	9.7	9.7	2.3	-0.5	-3.2	-9.6	-16.0	-25.9	-35.2	-45.2	-54.2	-64.4	-77.4	-96.9	-124.8	-165.6	-228.2	-325.6	-478.5	-710.0	-1065.4	-1610.9	-2452.0	29.4	-7.7
2-H	52541	16014	29.0	13.5	12.4	17.3	10.4	8.5	10.1	10.2	2.8	0.1	-2.4	-8.6	-14.9	-24.5	-33.5	-43.2	-51.9	-61.7	-74.2	-92.9	-119.8	-159.1	-219.2	-312.8	-459.6	-681.6	-1022.2	-1544.8	-2350.5	29.7	-7.1
2-I	50274	15324	29.2	13.9	12.8	17.7	10.8	8.9	10.6	10.7	3.4	0.8	-1.6	-7.7	-13.7	-23.0	-31.8	-41.2	-49.5	-59.0	-71.0	-89.1	-114.9	-152.7	-210.4	-300.2	-440.9	-653.7	-979.6	-1479.7	-2250.7	29.9	-6.5
2-J	48134	14671	29.3	14.3	13.2	18.1	11.2	9.3	11.0	11.2	3.9	1.4	-0.9	-6.8	-12.6	-21.7	-30.2	-39.2	-47.3	-56.4	-68.0	-85.4	-110.3	-146.6	-202.1	-288.3	-423.3	-627.3	-939.3	-1418.2	-2156.4	30.1	-5.9
2-K	46221	14088	29.5	14.6	13.5	18.4	11.5	9.7	11.5	11.6	4.4	2.0	-0.2	-5.9	-11.6	-20.4	-28.7	-37.5	-45.3	-54.1	-65.2	-82.1	-106.2	-141.1	-194.6	-277.6	-407.6	-603.7	-903.3	-1363.2	-2072.1	30.3	-5.4
2-L	44332	13512	29.7	15.0	13.9	18.8	11.9	10.1	11.9	12.1	4.9	2.6	0.5	-5.1	-10.6	-19.2	-27.2	-35.8	-43.3	-51.8	-62.5	-78.8	-102.1	-135.7	-187.2	-267.1	-392.0	-580.3	-867.8	-1308.9	-1988.8	30.5	-4.8
3-D	63002	19203	28.2	12.0	10.9	15.8	8.9	6.7	8.2	8.1	0.4	-2.7	-5.8	-12.8	-20.0	-30.8	-41.2	-52.3	-62.5	-74.1	-88.8	-110.6	-142.2	-188.6	-259.7	-370.8	-545.3	-810.4	-1218.5	-1845.2	-2811.3	28.7	-9.6
3-E	60477	18433	28.4	12.3	11.2	16.1	9.2	7.1	8.7	8.6	1.0	-2.0	-5.0	-11.8	-18.8	-29.3	-39.4	-50.1	-59.9	-71.1	-85.3	-106.4	-136.8	-181.5	-250.0	-356.9	-524.6	-779.4	-1171.2	-1772.7	-2700.1	29.0	-9.0
3-F	58053	17694	28.5	12.7	11.6	16.5	9.6	7.5	9.1	9.1	1.5	-1.4	-4.2	-10.9	-17.6	-27.9	-37.6	-48.0	-57.5	-68.2	-81.9	-102.3	-131.6	-174.7	-240.6	-343.4	-504.8	-749.5	-1125.7	-1703.1	-2593.3	29.2	-8.5
3-G	55738	16989	28.7	13.0	11.9	16.8	9.9	7.9	9.5	9.5	2.1	-0.8	-3.5	-9.9	-16.5	-26.4	-35.9	-46.0	-55.1	-65.5	-78.7	-98.4	-126.7	-168.1	-231.7	-330.6	-485.8	-721.0	-1082.2	-1636.7	-2491.4	29.4	-7.9
3-I	51394	15665	29.1	13.7	12.6	17.5	10.6	8.7	10.4	10.5	3.1	0.5	-2.0	-8.1	-14.3	-23.7	-32.7	-42.1	-50.7	-60.3	-72.6	-91.0	-117.4	-155.8	-214.8	-306.4	-450.1	-667.5	-1000.6	-1511.9	-2300.0	29.8	-6.8
3-J	49339	15039	29.2	14.1	13.0	17.9	11.0	9.1	10.8	10.9	3.6	1.0	-1.3	-7.3	-13.2	-22.4	-31.1	-40.3	-48.5	-57.9	-69.7	-87.5	-112.9	-150.0	-206.8	-295.0	-433.2	-642.2	-962.0	-1452.8	-2209.5	30.0	-6.3
3-K	47417	14453	29.4	14.4	13.3	18.2	11.3	9.5	11.2	11.4	4.1	1.6	-0.6	-6.5	-12.2	-21.2	-29.6	-38.6	-46.5	-55.5	-66.9	-84.2	-108.8	-144.5	-199.3	-284.3	-417.4	-618.4	-925.8	-1397.6	-2124.8	30.2	-5.7
3-L	45715	13934	29.6	14.7	13.6	18.5	11.6	9.8	11.6	11.8	4.5	2.1	0.0	-5.7	-11.3	-20.1	-28.3	-37.0	-44.7	-53.5	-64.5	-81.2	-105.1	-139.7	-192.7	-274.8	-403.4	-597.4	-893.8	-1348.7	-2049.7	30.4	-5.2
4-D	63749	19431	28.1	11.8	10.7	15.6	8.7	6.5	8.1	8.0	0.3	-2.9	-6.0	-13.1	-20.4	-31.3	-41.8	-52.9	-63.2	-74.9	-89.8	-111.9	-143.7	-190.7	-262.6	-375.0	-551.4	-819.6	-1232.6	-1866.6	-2844.2	28.7	-9.7
4-E	61262	18673	28.3	12.2	11.1	16.0	9.1	6.9	8.5	8.5	0.8	-2.2	-5.3	-12.1	-19.2	-29.8	-40.0	-50.8	-60.7	-72.0	-86.4	-107.7	-138.5	-183.7	-253.0	-361.2	-531.1	-789.0	-1185.9	-1795.2	-2734.7	28.9	-9.2
4-F	58936	17964	28.5	12.5	11.4	16.3	9.4	7.3	8.9	8.9	1.3	-1.6	-4.5	-11.2	-18.1	-28.4	-38.3	-48.8	-58.4	-69.3	-83.2	-103.8	-133.5	-177.2	-244.0	-348.3	-512.0	-760.4	-1142.2	-1728.5	-2632.2	29.1	-8.7
4-G	56654	17268	28.6	12.9	11.8	16.7	9.8	7.7	9.4	9.4	1.8	-1.0	-3.8	-10.3	-16.9	-27.0	-36.6	-46.8	-56.1	-66.6	-80.0	-99.9	-128.6	-170.7	-235.2	-335.7	-493.3	-732.3	-1099.4	-1663.0	-2531.8	29.3	-8.1
4-H	54508	16614	28.8	13.2	12.1	17.0	10.1	8.1	9.8	9.8	2.3	-0.4	-3.1	-9.4	-15.9	-25.7	-35.0	-44.9	-53.9	-64.0	-77.0	-96.3	-124.0	-164.7	-226.9	-323.8	-475.7	-705.9	-1059.1	-1601.3	-2437.2	29.5	-7.6
4-I	52449	15987	29.0	13.5	12.4	17.3	10.4	8.5	10.2	10.2	2.8	0.2	-2.4	-8.6	-14.8	-24.4	-33.5	-43.1	-51.8	-61.6	-74.1	-92.8	-119.6	-158.8	-218.9	-312.3	-458.8	-680.5	-1020.4	-1542.2	-2346.5	29.7	-7.1
4-J	50534	15403	29.1	13.9	12.8	17.7	10.8	8.8	10.5	10.7	3.3	0.7	-1.7	-7.8	-13.8	-23.2	-32.0	-41.4	-49.8	-59.3	-71.4	-89.5	-115.5	-153.4	-211.4	-301.7	-443.1	-656.9	-984.4	-1487.2	-2262.1	29.9	-6.6
4-K	48738	14855	29.3	14.2	13.1	18.0	11.1	9.2	10.9	11.1	3.8	1.2	-1.1	-7.0	-12.9	-22.1	-30.6	-39.8	-47.9	-57.1	-68.8	-86.4	-111.6	-148.3	-204.5	-291.7	-428.3	-634.7	-950.7	-1435.6	-2183.0	30.0	-6.1
4-L	47080	14350	29.4	14.5	13.4	18.3	11.4	9.5	11.3	11.4	4.2	1.7	-0.5	-6.3	-12.0	-21.0	-29.4	-38.3	-46.2	-55.1	-66.5	-83.6	-108.0	-143.6	-198.0	-282.4	-414.7	-614.3	-919.5	-1387.9	-2109.9	30.2	-5.6
5-D	64542	19672	28.1	11.7	10.6	15.5	8.6	6.4	8.0	7.8	0.1	-3.1	-6.3	-13.4	-20.8	-31.8	-42.3	-53.6	-64.0	-75.9	-90.9	-113.2	-145.4	-192.9	-265.7	-379.4	-557.9	-829.4	-1247.4	-1889.4	-2879.1	28.6	-9.9
5-E	62199	18958	28.2	12.1	11.0	15.9	9.0	6.8	8.4	8.3	0.6	-2.5	-5.5	-12.5	-19.7	-30.4	-40.6	-51.6	-61.7	-73.1	-87.7	-109.3	-140.5	-186.3	-256.6	-366.4	-538.7	-800.6	-1203.5	-1822.1	-2775.9	28.8	-9.4
5-F	59890	18254	28.4	12.4	11.3	16.2	9.3	7.2	8.8	8.7	1.1	-1.9	-4.8	-11.6	-18.5	-29.0	-39.0	-49.6	-59.4	-70.4	-84.5	-105.4	-135.5	-179.8	-247.7	-353.6	-519.8	-772.2	-1160.2	-1755.8	-2674.2	29.0	-8.9
5-G	57730	17596	28.6	12.7	11.6	16.5	9.6	7.5	9.2	9.1	1.6	-1.3	-4.1	-10.7	-17.5	-27.7	-37.4	-47.7	-57.2	-67.9	-81.5	-101.7	-130.9	-173.8	-239.4	-341.6	-502.1	-745.6	-1119.6	-1693.8	-2579.1	29.2	-8.4
5-H	55622	16954	28.7	13.0	11.9	16.8	9.9	7.9	9.6	9.6	2.1	-0.7	-3.4	-9.9	-16.4	-26.4	-35.8	-45.9	-55.0	-65.4	-78.5	-98.2	-126.4	-167.8	-231.2	-329.9	-484.8	-719.6	-1080.0	-1633.3	-2486.3	29.4	-7.9
5-I	53631	16347	28.9	13.3	12.2	17.1	10.2	8.3	9.9	10.0	2.5	-0.2	-2.8	-9.1	-15.4	-25.1	-34.3	-44.1	-53.0	-63.0	-75.7	-94.8	-122.2	-162.2	-223.5	-318.9	-468.5	-695.1	-1042.6	-1576.1	-2398.6	29.6	-7.4
5-J	51811	15792	29.0	13.6	12.5	17.4	10.5	8.6	10.3	10.4	3.0	0.3	-2.2	-8.3	-14.5	-24.0	-33.0	-42.5	-51.1	-60.8	-73.2	-91.7	-118.3	-157.0	-216.4	-308.8	-453.6	-672.7	-1008.4	-1523.9	-2318.4	29.7	-6.9
6-D	65392	19931	28.0	11.6	10.5	15.4	8.5	6.3	7.8	7.7	-0.1	-3.3	-6.5	-13.7	-21.2	-32.3	-42.9	-54.3	-64.9	-76.8	-92.1	-114.6	-147.2	-195.3	-268.9	-384.1	-564.9	-839.8	-1263.4	-1913.8	-2916.5	28.6	-10.1
6-E	63115	19237	28.2	11.9	10.8	15.7	8.8	6.6	8.2	8.1	0.4	-2.7	-5.8	-12.8	-20.1	-30.9	-41.3	-52.4	-62.6	-74.2	-89.0	-110.8	-142.4	-188.9	-260.2	-371.5	-546.2	-811.8	-1220.7	-1848.4	-2816.3	28.7	-9.6
6-G	58728	17900	28.5	12.6	11.5	16.4	9.5	7.4	9.0	8.9	1.4	-1.6	-4.5	-11.1	-18.0	-28.3	-38.1	-48.6	-58.2	-69.0	-82.9	-103.4	-133.1	-176.6	-243.2	-347.2	-510.3	-757.9	-1138.3	-1722.5	-2623.1	29.1	-8.6
6-H	56696	17281	28.6	12.9	11.8	16.7	9.8	7.7	9.4	9.4	1.8	-1.0	-3.8	-10.3	-17.0	-27.0	-36.6	-46.8	-56.1	-66.6	-80.0	-100.0	-128.7	-170.8	-235.4	-335.9	-493.7	-732.8	-1100.2	-1664.2	-2533.6	29.3	-8.1
6-I	54867	16723	28.8	13.2	12.1	17.0	10.1	8.0	9.7	9.7	2.3	-0.5	-3.2	-9.6	-16.0	-25.9	-35.3	-45.2	-54.2	-64.5	-77.5	-96.9	-124.8	-165.7	-228.3	-325.8	-478.6	-710.3	-1065.8	-1611.6	-2453.0	29.4	-7.7
6-J	53130	16194	28.9	13.4	12.3	17.2	10.3	8.3	10.0	10.1	2.7	0.0	-2.6	-8.9	-15.2	-24.8	-34.0	-43.7	-52.5	-62.4	-75.0	-93.9	-121.1	-160.8	-221.5	-316.1	-464.4	-688.9	-1033.2	-1561.8	-2376.5	29.6	-7.3
7-B	70994	21639	27.7	10.9	9.8	14.7	7.8	5.5	6.9	6.7	-1.2	-4.6	-8.2	-15.8	-23.8	-35.6	-46.9	-59.1	-70.4	-83.3	-99.8	-124.0	-159.1	-210.9	-290.5	-415.0	-610.7	-908.7	-1368.4	-2074.5	-3163.1	28.2	-11.2
7-C	68605	20911	27.8	11.2	10.1	15.0	8.1	5.8	7.3	7.1	-0.7	-4.1	-7.5	-14.9	-22.7	-34.2	-45.2	-57.0	-68.1	-80.6	-96.5	-120.0	-154.0	-204.3	-281.3	-401.8	-591.1	-879.3	-1323.6	-2005.9	-3057.9	28.3	-10.7
7-E	64067	19528	28.1	11.8	10.7	15.6	8.7	6.5	8.1	7.9	0.2	-2.9	-6.1	-13.2	-20.6	-31.5	-42.0	-53.2	-63.6	-75.3	-90.3	-112.4	-144.4	-191.6	-263.8	-376.7	-554.0	-823.5	-1238.5	-1875.7	-2858.2	28.7	-9.8
7-F	61942	18880	28.2	12.1	11.0	15.9	9.0	6.8	8.4	8.3	0.7	-2.4	-5.5	-12.4	-19.5	-30.2	-40.5	-51.4	-61.4	-72.8	-87.3	-108.8	-139.9	-185.6	-255.6	-365.0	-536.6	-797.4	-1198.7	-1814.8	-2764.6	28.8	-9.3
7-G	59913	18262	28.4	12.4	11.3	16.2	9.3	7.2	8.8	8.7	1.1	-1.9	-4.8	-11.6	-18.5	-29.0	-39.0	-49.6	-59.4	-70.4	-84.5	-105.4	-135.6	-179.9	-247.8	-353.7	-520.0	-772.4	-1160.6	-1756.5	-2675.3	29.0	-8.9
7-H	57972	17670	28.5	12.7	11.6	16.5	9.6	7.5	9.1	9.1	1.5	-1.4	-4.2	-10.8	-17.6	-27.8	-37.6	-47.9	-57.4	-68.2	-81.8	-102.2	-131.5	-174.4	-240.3	-343.0	-504.1	-748.6	-1124.2	-1700.8	-2589.8	29.2	-8.4
7-I	56135	17110	28.7	13.0	11.9	16.8	9.9	7.8	9.5	9.5	2.0	-0.9	-3.6	-10.1	-16.7	-26.7	-36.2	-46.3	-55.5	-66.0	-79.3	-99.1	-127.5	-169.3	-233.2	-332.8	-489.0	-725.9	-1089.7	-1648.0	-2508.9	29.3	-8.0
8-A	74249	22631	27.5	10.5	9.4	14.3	7.4	5.0	6.4	6.1	-1.9	-5.4	-9.2	-17.0	-25.3	-37.4	-49.2	-61.8	-73.6	-87.1	-104.2	-129.4	-165.9	-220.0	-303.0	-432.9	-637.2	-948.7	-1429.4	-2167.8	-3306.3	27.9	-11.8
8-B	71850	21900	27.6	10.8	9.7	14.6	7.7	5.3	6.8	6.5	-1.4	-4.8	-8.5	-16.1	-24.2	-36.1	-47.5	-59.8	-71.3	-84.3	-100.9	-125.4	-160.9	-213.3	-293.8	-419.7	-617.7	-919.2	-1384.5	-2099.0	-3200.8	28.1	-11.4

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Leq)
FROM WIND PARK OPERATIONS AT THE CUT-IN WIND CONDITION

8-C	69521	21190	27.7	11.1	10.0	14.9	8.0	5.7	7.2	6.9	-0.9	-4.3	-7.8	-15.3	-23.1	-34.7	-45.9	-57.8	-69.0	-81.6	-97.8	-121.5	-156.0	-206.8	-284.8	-406.9	-598.6	-890.6	-1340.8	-2032.2	-3098.2	28.3	-10.9
8-D	67244	20496	27.9	11.4	10.3	15.2	8.3	6.0	7.5	7.3	-0.5	-3.7	-7.1	-14.4	-22.1	-33.4	-44.3	-55.9	-66.7	-79.0	-94.6	-117.7	-151.1	-200.5	-276.1	-394.3	-580.0	-862.6	-1298.1	-1966.9	-2998.0	28.4	-10.5
8-F	63023	19209	28.2	11.9	10.8	15.7	8.8	6.7	8.2	8.1	0.4	-2.7	-5.8	-12.8	-20.1	-30.9	-41.2	-52.3	-62.5	-74.1	-88.8	-110.7	-142.2	-188.6	-259.8	-371.0	-545.5	-810.7	-1218.9	-1845.8	-2812.2	28.7	-9.6
8-G	61119	18629	28.3	12.2	11.1	16.0	9.1	7.0	8.6	8.5	0.8	-2.2	-5.2	-12.1	-19.1	-29.7	-39.9	-50.6	-60.6	-71.9	-86.2	-107.5	-138.2	-183.3	-252.5	-360.4	-529.9	-787.3	-1183.2	-1791.1	-2728.4	28.9	-9.2
8-H	59220	18050	28.4	12.5	11.4	16.3	9.4	7.3	8.9	8.8	1.3	-1.7	-4.6	-11.3	-18.2	-28.6	-38.5	-49.0	-58.7	-69.6	-83.6	-104.3	-134.1	-178.0	-245.1	-349.9	-514.3	-763.9	-1147.6	-1736.6	-2644.7	29.1	-8.7
9-A	75045	22874	27.4	10.4	9.3	14.2	7.3	4.9	6.3	6.0	-2.0	-5.6	-9.4	-17.3	-25.7	-37.9	-49.8	-62.5	-74.4	-88.0	-105.3	-130.7	-167.6	-222.2	-306.0	-437.3	-643.7	-958.4	-1444.3	-2190.6	-3341.4	27.9	-11.9
9-B	72715	22164	27.6	10.7	9.6	14.5	7.6	5.2	6.7	6.4	-1.6	-5.0	-8.7	-16.5	-24.6	-36.6	-48.1	-60.5	-72.1	-85.3	-102.1	-126.8	-162.7	-215.7	-297.1	-424.5	-624.7	-929.8	-1400.7	-2123.8	-3238.8	28.0	-11.5
9-C	70444	21471	27.7	11.0	9.9	14.8	7.9	5.5	7.0	6.8	-1.1	-4.5	-8.1	-15.6	-23.6	-35.2	-46.5	-58.6	-69.9	-82.7	-99.0	-123.0	-157.9	-209.4	-288.4	-412.0	-606.2	-901.9	-1358.1	-2058.7	-3138.9	28.2	-11.1
9-D	68283	20813	27.8	11.3	10.2	15.1	8.2	5.9	7.4	7.2	-0.7	-4.0	-7.4	-14.8	-22.6	-34.0	-45.0	-56.8	-67.8	-80.2	-96.1	-119.5	-153.3	-203.4	-280.1	-400.0	-588.5	-875.4	-1317.6	-1996.7	-3043.8	28.4	-10.7
9-E	66183	20173	28.0	11.5	10.4	15.3	8.4	6.2	7.7	7.5	-0.2	-3.5	-6.8	-14.0	-21.6	-32.7	-43.5	-55.0	-65.7	-77.8	-93.2	-115.9	-148.9	-197.5	-272.0	-388.4	-571.3	-849.6	-1278.2	-1936.5	-2951.3	28.5	-10.2
9-F	64172	19560	28.1	11.8	10.7	15.6	8.7	6.5	8.0	7.9	0.2	-3.0	-6.2	-13.3	-20.6	-31.5	-42.1	-53.3	-63.7	-75.4	-90.4	-112.6	-144.6	-191.9	-264.2	-377.3	-554.9	-824.8	-1240.5	-1878.7	-2862.8	28.7	-9.8
9-G	62265	18978	28.2	12.1	11.0	15.9	9.0	6.8	8.4	8.3	0.6	-2.5	-5.6	-12.5	-19.7	-30.4	-40.7	-51.6	-61.7	-73.2	-87.8	-109.4	-140.6	-186.5	-256.9	-366.8	-539.3	-801.4	-1204.7	-1824.0	-2778.8	28.8	-9.4
9-H	60522	18447	28.3	12.3	11.2	16.1	9.2	7.1	8.7	8.6	1.0	-2.0	-5.0	-11.8	-18.8	-29.4	-39.4	-50.1	-60.0	-71.2	-85.4	-106.5	-136.9	-181.6	-250.2	-357.1	-525.0	-779.9	-1172.0	-1774.0	-2702.1	28.9	-9.0
9-I	58818	17928	28.5	12.5	11.4	16.3	9.4	7.3	9.0	8.9	1.3	-1.6	-4.5	-11.2	-18.0	-28.3	-38.2	-48.7	-58.3	-69.1	-83.0	-103.6	-133.3	-176.8	-243.6	-347.7	-511.0	-759.0	-1140.0	-1725.1	-2627.0	29.1	-8.6
10-A	75900	23134	27.4	10.3	9.2	14.1	7.2	4.8	6.2	5.9	-2.2	-5.8	-9.6	-17.6	-26.1	-38.4	-50.4	-63.2	-75.3	-89.0	-106.5	-132.1	-169.4	-224.6	-309.3	-442.0	-650.7	-968.9	-1460.4	-2215.1	-3379.0	27.8	-12.1
10-B	73656	22450	27.5	10.6	9.5	14.4	7.5	5.1	6.5	6.2	-1.7	-5.3	-9.0	-16.8	-25.1	-37.1	-48.8	-61.3	-73.1	-86.4	-103.4	-128.4	-164.7	-218.3	-300.7	-429.7	-632.4	-941.4	-1418.3	-2150.8	-3280.2	28.0	-11.7
10-C	71456	21780	27.6	10.9	9.8	14.7	7.8	5.4	6.9	6.6	-1.3	-4.7	-8.3	-16.0	-24.1	-35.8	-47.3	-59.4	-70.9	-83.9	-100.4	-124.7	-160.0	-212.2	-292.3	-417.5	-614.4	-914.4	-1377.1	-2087.7	-3183.4	28.1	-11.3
10-D	69300	21123	27.8	11.1	10.0	14.9	8.0	5.7	7.2	7.0	-0.9	-4.2	-7.7	-15.2	-23.0	-34.6	-45.7	-57.6	-68.8	-81.4	-97.5	-121.1	-155.5	-206.2	-284.0	-405.6	-596.8	-887.9	-1336.7	-2025.9	-3088.5	28.3	-10.9
10-E	67270	20504	27.9	11.4	10.3	15.2	8.3	6.0	7.5	7.3	-0.5	-3.7	-7.1	-14.4	-22.1	-33.4	-44.3	-55.9	-66.7	-79.0	-94.7	-117.8	-151.2	-200.5	-276.2	-394.4	-580.2	-862.9	-1298.6	-1967.6	-2999.2	28.4	-10.5
10-F	65300	19903	28.0	11.6	10.5	15.4	8.5	6.3	7.8	7.7	-0.1	-3.2	-6.5	-13.7	-21.2	-32.2	-42.9	-54.2	-64.8	-76.7	-92.0	-114.5	-147.0	-195.0	-268.6	-383.6	-564.1	-838.7	-1261.7	-1911.1	-2912.5	28.6	-10.1
10-G	63472	19346	28.1	11.9	10.8	15.7	8.8	6.6	8.2	8.0	0.3	-2.8	-5.9	-13.0	-20.3	-31.1	-41.6	-52.7	-63.0	-74.6	-89.4	-111.4	-143.2	-189.9	-261.5	-373.4	-549.2	-816.2	-1227.4	-1858.6	-2832.0	28.7	-9.7
10-H	61791	18834	28.3	12.1	11.0	15.9	9.0	6.9	8.4	8.3	0.7	-2.4	-5.4	-12.3	-19.5	-30.1	-40.3	-51.2	-61.3	-72.6	-87.1	-108.6	-139.6	-185.2	-255.1	-364.1	-535.4	-795.6	-1195.8	-1810.4	-2758.0	28.8	-9.3
10-I	128672	39219	25.1	5.7	4.6	9.5	2.6	-0.9	-0.1	-1.3	-10.8	-16.5	-23.3	-35.3	-48.9	-67.3	-85.9	-105.7	-125.5	-147.9	-176.7	-217.9	-278.7	-369.9	-510.1	-731.3	-1079.9	-1615.3	-2447.8	-3726.9	-5699.8	25.3	-19.4
11-A	76856	23426	27.3	10.2	9.1	14.0	7.1	4.7	6.1	5.7	-2.4	-6.0	-9.9	-18.0	-26.5	-38.9	-51.1	-64.0	-76.2	-90.1	-107.8	-133.7	-171.4	-227.3	-313.0	-447.3	-658.5	-980.7	-1478.3	-2242.6	-3421.1	27.8	-12.3
11-B	74617	22743	27.4	10.5	9.4	14.3	7.4	5.0	6.4	6.1	-1.9	-5.5	-9.3	-17.2	-25.5	-37.7	-49.5	-62.1	-74.0	-87.5	-104.7	-130.0	-166.7	-221.0	-304.4	-435.0	-640.2	-953.2	-1436.3	-2178.4	-3322.5	27.9	-11.9
11-C	72493	22096	27.6	10.7	9.6	14.5	7.6	5.3	6.7	6.4	-1.5	-5.0	-8.7	-16.4	-24.5	-36.4	-48.0	-60.3	-71.9	-85.1	-101.8	-126.5	-162.2	-215.1	-296.2	-423.3	-622.9	-927.1	-1396.5	-2117.5	-3229.1	28.1	-11.5
11-D	70451	21473	27.7	11.0	9.9	14.8	7.9	5.5	7.0	6.8	-1.1	-4.5	-8.1	-15.6	-23.6	-35.2	-46.5	-58.6	-69.9	-82.7	-99.0	-123.1	-157.9	-209.4	-288.4	-412.0	-606.2	-902.0	-1358.2	-2058.9	-3139.2	28.2	-11.1
11-E	68445	20862	27.8	11.2	10.1	15.0	8.1	5.8	7.3	7.1	-0.7	-4.0	-7.5	-14.9	-22.6	-34.1	-45.1	-56.9	-67.9	-80.4	-96.3	-119.7	-153.7	-203.8	-280.7	-400.9	-589.8	-877.4	-1320.6	-2001.3	-3050.9	28.3	-10.7
11-F	66608	20302	27.9	11.5	10.4	15.3	8.4	6.1	7.6	7.5	-0.3	-3.6	-6.9	-14.2	-21.8	-33.0	-43.8	-55.3	-66.1	-78.3	-93.8	-116.7	-149.8	-198.7	-273.6	-390.8	-574.8	-854.8	-1286.2	-1948.6	-2970.0	28.5	-10.3
11-G	64829	19760	28.1	11.7	10.6	15.5	8.6	6.4	7.9	7.8	0.0	-3.1	-6.4	-13.5	-20.9	-31.9	-42.5	-53.8	-64.3	-76.2	-91.3	-113.7	-146.0	-193.7	-266.8	-380.9	-560.3	-832.9	-1252.8	-1897.6	-2891.7	28.6	-10.0
11-H	63181	19258	28.2	11.9	10.8	15.7	8.8	6.6	8.2	8.1	0.4	-2.7	-5.9	-12.9	-20.1	-31.0	-41.3	-52.4	-62.7	-74.3	-89.0	-110.9	-142.5	-189.1	-260.4	-371.8	-546.8	-812.7	-1221.9	-1850.3	-2819.2	28.7	-9.6
11-K	59042	17996	28.5	12.5	11.4	16.3	9.4	7.3	8.9	8.9	1.3	-1.6	-4.6	-11.3	-18.1	-28.5	-38.3	-48.9	-58.5	-69.4	-83.3	-104.0	-133.7	-177.4	-244.4	-348.9	-512.9	-761.7	-1144.2	-1731.5	-2636.9	29.1	-8.7
11-L	57899	17648	28.5	12.7	11.6	16.5	9.6	7.5	9.1	9.1	1.6	-1.3	-4.2	-10.8	-17.6	-27.8	-37.5	-47.9	-57.3	-68.1	-81.7	-102.0	-131.3	-174.2	-240.0	-342.6	-503.5	-747.7	-1122.8	-1698.7	-2586.6	29.2	-8.4
12-A	77826	23721	27.3	10.1	9.0	13.9	7.0	4.5	5.9	5.5	-2.5	-6.2	-10.2	-18.3	-27.0	-39.5	-51.7	-64.8	-77.2	-91.2	-109.1	-135.3	-173.4	-229.9	-316.7	-452.7	-666.4	-992.6	-1496.5	-2270.4	-3463.8	27.7	-12.4
12-B	75644	23056	27.4	10.4	9.3	14.2	7.3	4.8	6.2	5.9	-2.1	-5.7	-9.6	-17.5	-26.0	-38.3	-50.2	-63.0	-75.0	-88.7	-106.1	-131.7	-168.8	-223.9	-308.3	-440.6	-648.6	-965.8	-1455.6	-2207.8	-3367.7	27.9	-12.1
12-C	73546	22417	27.5	10.6	9.5	14.4	7.5	5.1	6.6	6.3	-1.7	-5.2	-9.0	-16.8	-25.0	-37.0	-48.7	-61.2	-73.0	-86.3	-103.3	-128.2	-164.4	-218.0	-300.3	-429.1	-631.5	-940.0	-1416.3	-2147.6	-3275.4	28.0	-11.7
12-D	71561	21812	27.6	10.8	9.7	14.6	7.7	5.4	6.9	6.6	-1.3	-4.8	-8.4	-16.0	-24.1	-35.9	-47.3	-59.5	-71.0	-84.0	-100.5	-124.9	-160.3	-212.5	-292.7	-418.1	-615.3	-915.6	-1379.1	-2090.7	-3188.1	28.1	-11.3
12-E	69636	21225	27.7	11.1	10.0	14.9	8.0	5.7	7.2	6.9	-0.9	-4.3	-7.8	-15.3	-23.2	-34.8	-46.0	-57.9	-69.1	-81.8	-97.9	-121.7	-156.2	-207.1	-285.3	-407.5	-599.6	-892.0	-1343.0	-2035.5	-3103.3	28.3	-10.9
12-F	67879	20690	27.9	11.3	10.2	15.1	8.2	5.9	7.4	7.2	-0.6	-3.9	-7.3	-14.7	-22.4	-33.7	-44.7	-56.4	-67.4	-79.7	-95.5	-118.8	-152.5	-202.2	-278.5	-397.8	-585.2	-870.4	-1310.0	-1985.1	-3026.0	28.4	-10.6
12-G	66149	20162	28.0	11.5	10.4	15.3	8.4	6.2	7.7	7.5	-0.2	-3.5	-6.8	-14.0	-21.6	-32.7	-43.5	-55.0	-65.6	-77.7	-93.1	-115.9	-148.8	-197.4	-271.9	-388.2	-571.1	-849.1	-1277.6	-1935.5	-2949.8	28.5	-10.2
12-H	64590	19687	28.1	11.7	10.6	15.5	8.6	6.4	8.0	7.8	0.1	-3.1	-6.3	-13.4	-20.8	-31.8	-42.4	-53.6	-64.1	-75.9	-91.0	-113.3	-145.5	-193.0	-265.8	-379.6	-558.3	-830.0	-1248.4	-1890.8	-2881.2	28.6	-9.9
12-I	63102	19234	28.2	11.9	10.8	15.7	8.8	6.6	8.2	8.1	0.4	-2.7	-5.8	-12.8	-20.1	-30.9	-41.3	-52.4	-62.6	-74.2	-88.9	-110.8	-142.4	-188.9	-260.1	-371.4	-546.1	-811.7	-1220.4	-1848.1	-2815.7	28.7	-9.6
12-J	61766	18826	28.3	12.1	11.0	15.9	9.0	6.9	8.4	8.4	0.7	-2.3	-5.4	-12.3	-19.5	-30.1	-40.3	-51.2	-61.2	-72.6	-87.1	-108.5	-139.5	-185.1	-255.0	-364.0	-535.2	-795.2	-1195.4	-1809.7	-2756.9	28.8	-9.3
12-K	60590	18468	28.3	12.3	11.2	16.1	9.2	7.1	8.7	8.6	1.0	-2.0	-5.0	-11.9	-18.9	-29.4	-39.5	-50.2	-60.1	-71.2	-85.5	-106.6	-137.0	-181.8	-250.4	-357.5	-525.6	-780.8	-1173.3	-1776.0	-2705.1	28.9	-9.0
12-L	59551	18151	28.4	12.4	11.3	16.2	9.3	7.2	8.8	8.8	1.2	-1.8	-4.7	-11.5	-18.4	-28.8	-38.7	-49.3	-59.0	-70.0	-84.0	-104.8	-134.8	-178.9	-246.4	-351.7	-517.1	-768.0	-1153.8	-1746.1	-2659.3	29.0	-8.8
13-A	78850	24033	27.2	10.0	8.9	13.8	6.9	4.4	5.8	5.4	-2.7	-6.5	-10.5	-18.7	-27.5	-40.1	-52.4	-65.6	-78.2	-92.3	-110.5	-137.0	-175.6	-232.8	-320.6	-458.3	-674.8	-1005.1	-1515.6	-2299.7	-3508.8	27.7	-12.6
13-B	76697	23377	27.3	10.2	9.1	14.0	7.1	4.7	6.1	5.7	-2.3	-6.0	-9.9	-17.9	-26.5	-38.9	-50.9	-63.8	-76.0	-89.9	-107.5	-133.4	-171.0	-226.8	-312.4	-446.4	-657.2	-978.7	-1475.3	-2238.0	-3414.1	27.8	-12.2
13-C	74682	22763	27.4	10.5	9.4	14.3	7.4	4.9	6.4	6.1	-1.9	-5.5	-9.3	-17.2	-25.5	-37.7	-49.5	-62.1	-74.1	-87.6	-104.8	-130.1	-166.8	-221.2	-304.6	-435.3	-640.8	-954.0	-1437.5	-2180.2	-3325.4	27.9	-11.9
13-D	72747	22173	27.5	10.7	9.6	14.5	7.6	5.2	6.7	6.4	-1.6	-5.0	-8.7	-16.5	-24.7	-36.6	-48.2	-60.5	-72.2	-85.3	-102.2	-126.9	-162.7	-215.8	-297.2	-424.7	-625.0	-930.2	-1401.3	-2124.7	-3240.3	28.0	-11.5
13-F	69155	21079	27.8	11.1	10.0	14.9	8.0	5.7	7.2	7.0	-0.8	-4.2	-7.7	-15.1	-23.0	-34.5	-45.6	-57.5	-68.6	-81.2	-97.3	-120.9	-155.2	-205.8	-283.4	-404.8	-595.6	-886.1	-1334.0	-2021.7	-3082.2	28.3	-10.8
13-G	67522	20581	27.9	11.3	10.2	15.1	8.2	6.0	7.5	7.3	-0.5	-3.8	-7.2	-14.5	-22.2	-33.5	-44.5	-56.1	-67.0	-79.3	-95.0	-118.2	-151.7	-201.2	-277.1	-395.8	-582.3	-866.0	-1303.3	-1974.9	-3010.3	28.4	-10.5
13-H	65974	20109	28.0	11.6	10.5	15.4	8.5	6.2	7.7	7.6	-0.2	-3.4	-6.7	-13.9	-21.5	-32.6	-43.4	-54.8	-65.5	-77.5	-92.9	-115.6	-148.5	-196.9	-271.2	-387.3	-569.6	-847.0	-1274.3	-1930.5	-2942.1	28.5	-10.2
13-I	64587	19686	28.1	11.7	10.6	15.5	8.6	6.4	8.0	7.8	0.1	-3.1	-6.3	-13.4	-20.8	-31.8	-42.4	-53.6	-64.1	-75.9	-91.0	-113.3	-145.5	-193.0	-265.8	-379.6	-558.3	-829.9	-1248.3	-1890.7	-2881.1	28.6	-9.9
13-J	63387	19320	28.1	11.9	10.8	15.7	8.8	6.6	8.2	8.0	0.3	-2.8	-5.9	-12.9	-20.2	-31.1	-41.5	-52.6	-62.9	-74.5	-89.3	-111.3	-143.0	-189.7	-261.2	-373.0	-548.5	-815.2	-1225.8	-1856.2	-2828.2	28.7	-9.6
13-K	62261	18977	28.2	12.1	11.0	15.9	9.0	6.8	8.4	8.3	0.6	-2.5	-5.6	-12.5	-19.7	-30.4	-40.7	-51.6	-61.7	-73.2	-87.8	-109.4	-140.6	-186.5	-256.9	-366.7	-539.2	-801.3	-1204.6	-1823.9	-2778.6	28.8	-9.4
13-L	61288	18680	28.3	12.2	11.1	16.0	9.1	6.9	8.5	8.4	0.8	-2.2	-5.3	-12.1	-19.2	-29.8	-40.0	-50.8	-60.8	-72.0	-86.4	-107.7	-138.5	-183.8	-253.1	-361.4	-531.3	-789.4	-1186.4	-1796.0	-2735.8	28.9	-9.2
14-D	73981	22549	27.5	10.6	9.5	14.4	7.5	5.0	6.5	6.2	-1.8	-5.3	-9.1	-16.9	-25.2	-37.3	-49.0	-61.6	-73.4	-86.8	-103.8	-128.9	-165.3	-219.3	-301.9	-431.5	-635.0	-945.4	-1424.4	-2160.1	-3294.6	28.0	-11.8
14-E	72223	22014	27.6	10.8	9.7	14.6	7.7	5.3	6.8	6.5	-1.5	-4.9	-8.6	-16.3	-24.4	-36.3	-47.8	-60.1	-71.7	-84.7	-101.5	-126.0	-161.6	-214.4	-295.2	-421.8	-620.7	-923.8	-1391.5	-2109.7	-3217.2	28.1	-11.4
14-F	70500	21489	27.7	11.0	9.9	14.8	7.9	5.5	7.0	6.8	-1.1	-4.5	-8.1	-15.6	-23.6	-35.3	-46.6	-58.6	-70.0	-82.8	-99.1	-123.1	-158.0	-209.6	-288.6	-412.3	-606.6	-902.6	-1359.2	-2060.3	-3141.4	28.2	-11.1
14-G	68937	21012	27.8	11.2	10.1	15.0	8.1	5.8	7.3	7.0	-0.8	-4.1	-7.6	-15.1	-22.9	-34.4	-45.5	-57.3	-68.4	-81.0	-97.0	-120.5	-154.7	-205.2	-282.6	-403.6	-593.8	-883.4	-1329.9	-2015.4	-3072.5	28.3	-10.8
14-H	67483	20569	27.9	11.4	10.3	15.2	8.3	6.0	7.5	7.3	-0.5	-3.8	-7.2	-14.5	-22.2	-33.5	-44.4	-56.1	-67.0	-79.3	-95.0	-118.1	-151.6	-201.1	-277.0	-395.6	-582.0	-865.5	-1302.6	-1973.7	-3008.5	28.4	-10.5
14-J	64931	19791	28.0	11.7	10.6	15.5	8.6	6.4	7.9	7.8	0.0	-3.2	-6.4	-13.5	-21.0	-32.0	-42.6	-53.9	-64.4	-76.3	-91.5	-113.9	-146.3	-194.0	-267.2	-381.5	-561.1	-834.2	-1254.7	-1900.5	-2896.2	28.6	-10.0
14-K	63904	19478	28.1	11.8	10.7	15.6	8.7	6.5	8.1	8.0	0.2	-2.9	-6.1	-13.1	-20.5	-31.4	-41.9	-53.0	-63.4	-75.1	-90.0	-112.1	-144.1	-191.1	-263.2	-375.8	-552.7	-821.5	-1235.5	-1871.0	-2851.0	28.7	-9.8
14-L	62995	19201	28.2	12.0	10.9	15.8	8.9	6.7	8.2	8.1	0.4	-2.7	-5.8	-12.8	-20.0	-30.8	-41.2	-52.3	-62.5	-74.0	-88.8	-110.6	-142.1	-188.6	-259.7	-370.8	-545.3	-810.4	-1218.4	-1845.0	-2811.0	28.7	-9.6
15-F	71887	21911	27.6	10.8	9.7	14.6	7.7	5.3	6.8	6.5	-1.4	-4.8	-8.5	-16.2	-24.3	-36.1	-47.6	-59.8	-71.3	-84.4	-101.0	-125.4	-160.9	-213.4	-293.9	-419.9	-617.9	-919.6	-1385.2	-2100.1	-3202.4	28.1	-11.4
15-G	70356	21444	27.7	11.0	9.9	14.8	7.9	5.6	7.0	6.8	-1.1	-4.5	-8.0	-15.6	-23.5	-35.2	-46.5	-58.5	-69.8	-82.6	-98.9	-122.9	-157.7	-209.1	-288.0	-411.5	-605.4	-900.8	-1356.5	-2056.1	-3135.0	28.2	-11.1
15-H	69018	21037	27.8	11.2	10.1	15.0	8.1	5.7	7.2	7.0	-0.8	-4.2	-7.6	-15.1	-22.9	-34.4	-45.5	-57.4	-68.5	-81.0	-97.1	-120.7	-154.9	-205.4	-282.9	-404.1	-594.5	-884.4	-1331.4	-2017.8	-3076.1	28.3	-10.8
15-I	67739	20647	27.9	11.3	10.2	15.1	8.2	5.9	7.5	7.3	-0.6	-3.8	-7.2	-14.6	-22.3	-33.7	-44.6	-56.3	-67.2	-79.6	-95.3	-118.5	-152.2	-201.8	-278.0	-397.0	-584.1	-868.7	-1307.4	-1981.1	-3019.8	28.4	-10.6
15-J	66587	20296	27.9	11.5	10.4	15.3	8.4	6.1	7.6	7.5	-0.3	-3.6	-6.9	-14.2	-21.8	-33.0	-43.8	-55.3	-66.1	-78.2	-93.7	-116.6	-149.8	-198.6	-273.5	-390.7	-574.6	-854.5	-1285.8	-1948.0	-2969.1	28.5	-10.3
15-K	65585	19990	28.0	11.6	10.5	15.4	8.5	6.3	7.8	7.6	-0.1	-3.3	-6.6	-13.8	-21.3	-32.4	-43.1	-54.5	-65.1	-77.1	-92.4	-114.9	-147.6	-195.8	-269.7	-385.1	-566.4	-842.2	-1267.0	-1919.3	-2925.0	28.6	-10.1
16-J	68230	20797	27.8	11.3	10.2	15.1	8.2	5.9	7.4	7.2	-0.7	-4.0	-7.4	-14.8	-22.5	-33.9	-45.0	-56.7	-67.7	-80.1	-96.0	-119.4	-153.2	-203.2	-279.9	-399.7	-588.1	-874.7	-1316.6	-1995.2	-3041.4	28.4	-10.6
16-K	67284	20508	27.9	11.4	10.3	15.2	8.3	6.0	7.5	7.3	-0.5	-3.7	-7.1	-14.4	-22.1	-33.4	-44.3	-55.9	-66.8	-79.0	-94.7	-117.8	-151.2	-200.6	-276.2	-394.5	-580.3	-863.1	-1298.9	-1968.0	-2999.8	28.4	-10.5
		Sum:	49.4	33.4	32.3	37.2	30.3	28.2	29.8	29.7	22.1	19.2	16.4	9.9	3.4	-6.3	-15.3	-24.7	-33.0	-42.1	-53.5	-70.5	-94.3	-128.4	-179.8	-258.6	-380.9	-564.3	-843.6	-1271.9	-1932.0	50.0	12.2

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Leq)
FROM WIND PARK OPERATIONS AT THE CUT-IN WIND CONDITION

																		Hertz													
	1/3 Octave Bands	**16***	**20**	**25**	**31**	**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**	**L**	**A**
Sound Power Data		112.0	105.6	104.5	109.4	102.5	101.6	103.9	104.9	98.9	98.3	98.7	96.5	95.3	91.8	89.3	86.7	85.7	84.5	83.2	80.0	76.5	73.1	68.2	62.7	55.3	49.4	48.4	47.8	47.6	116.3	95.4

Data for the graph																															
Atmos. Absorption per 1 km	0.0000	0.0000	0.0000	0.0000	0.0000	0.0670	0.1050	0.1630	0.2510	0.3810	0.5650	0.8150	1.1300	1.5100	1.9200	2.3600	2.8400	3.3800	4.0800	5.0500	6.5100	8.7500	12.2000	17.7000	26.4000	39.9000	61.1000	93.7000	144.0000		
air temp 59F 70% RH																															

*Spherical wave spreading for up to 2 km, cylindrical wave spreading beyond 2 km.

																			Hertz													
	1/3 Octave Bands		**16***	**20**	**25**	**31**	**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**	**L**	**A**
	Distance (ft)	**Distance (m)**																															
1-D	39341	11991	30.2	16.0	14.9	19.8	12.9	11.2	13.1	13.4	6.3	4.2	2.4	-2.8	-7.8	-15.9	-23.3	-31.2	-37.9	-45.6	-55.3	-70.1	-91.1	-121.4	-167.7	-239.1	-350.8	-518.6	-773.8	-1165.3	-1768.7	31.2	-3.2
1-E	36893	11245	30.5	16.6	15.5	20.4	13.5	11.8	13.7	14.1	7.1	5.0	3.3	-1.7	-6.4	-14.2	-21.3	-28.8	-35.2	-42.5	-51.7	-65.8	-85.7	-114.3	-158.0	-225.3	-330.6	-488.3	-727.7	-1094.9	-1660.7	31.5	-2.4
1-F	34555	10532	30.8	17.2	16.1	21.0	14.1	12.5	14.4	14.8	7.8	5.9	4.3	-0.5	-5.0	-12.5	-19.4	-26.6	-32.6	-39.5	-48.2	-61.6	-80.5	-107.5	-148.7	-212.2	-311.2	-459.3	-683.6	-1027.5	-1557.5	31.8	-1.5
1-G	32360	9863	31.1	17.7	16.6	21.5	14.6	13.1	15.0	15.4	8.6	6.7	5.3	0.6	-3.7	-11.0	-17.5	-24.4	-30.2	-36.7	-44.9	-57.7	-75.6	-101.1	-140.0	-199.7	-293.0	-432.0	-642.1	-964.3	-1460.6	32.2	-0.7
1-H	30327	9244	31.3	18.3	17.2	22.1	15.2	13.7	15.6	16.1	9.3	7.5	6.2	1.7	-2.4	-9.5	-15.7	-22.4	-27.9	-34.0	-41.8	-54.0	-71.0	-95.1	-131.9	-188.2	-276.0	-406.7	-603.7	-905.6	-1370.8	32.6	0.2
1-I	28547	8701	31.6	18.8	17.7	22.6	15.7	14.2	16.2	16.7	9.9	8.2	7.0	2.6	-1.3	-8.1	-14.2	-20.6	-25.8	-31.7	-39.1	-50.7	-66.9	-89.8	-124.7	-178.1	-261.2	-384.6	-570.0	-854.3	-1292.1	32.9	1.0
1-J	27049	8245	31.8	19.3	18.2	23.1	16.2	14.7	16.7	17.3	10.5	8.9	7.7	3.5	-0.3	-7.0	-12.8	-19.1	-24.0	-29.7	-36.7	-47.9	-63.5	-85.3	-118.7	-169.5	-248.7	-365.9	-541.7	-811.0	-1225.9	33.2	1.7
1-K	25783	7859	32.1	19.7	18.6	23.5	16.6	15.2	17.2	17.7	11.0	9.4	8.4	4.2	0.5	-6.0	-11.7	-17.7	-22.5	-28.0	-34.8	-45.6	-60.5	-81.6	-113.6	-162.3	-238.1	-350.0	-517.6	-774.4	-1169.9	33.5	2.3
1-L	24946	7604	32.2	20.0	18.9	23.8	16.9	15.5	17.5	18.1	11.4	9.8	8.8	4.7	1.1	-5.3	-10.9	-16.8	-21.5	-26.8	-33.4	-44.0	-58.6	-79.0	-110.2	-157.5	-231.0	-339.6	-501.8	-750.3	-1132.9	33.6	2.7
2-D	40189	12249	30.1	15.9	14.8	19.7	12.8	11.0	12.9	13.2	6.1	3.9	2.0	-3.2	-8.3	-16.4	-24.0	-32.0	-38.8	-46.6	-56.5	-71.6	-93.0	-123.8	-171.0	-243.9	-357.8	-529.1	-789.8	-1189.7	-1806.1	31.0	-3.5
2-E	37794	11520	30.4	16.4	15.3	20.2	13.3	11.6	13.5	13.8	6.8	4.7	3.0	-2.1	-6.9	-14.8	-22.0	-29.7	-36.2	-43.6	-53.0	-67.4	-87.7	-116.9	-161.5	-230.4	-338.0	-499.4	-744.7	-1120.8	-1700.4	31.4	-2.7
2-F	35553	10837	30.7	16.9	15.8	20.7	13.8	12.2	14.1	14.5	7.5	5.5	3.9	-1.0	-5.6	-13.2	-20.2	-27.6	-33.8	-40.8	-49.7	-63.4	-82.7	-110.4	-152.7	-217.8	-319.5	-471.7	-702.4	-1056.3	-1601.5	31.7	-1.9
2-G	33504	10212	30.9	17.4	16.3	21.2	14.3	12.8	14.7	15.1	8.2	6.2	4.8	0.0	-4.4	-11.8	-18.5	-25.6	-31.5	-38.2	-46.6	-59.7	-78.1	-104.4	-144.5	-206.2	-302.5	-446.2	-663.7	-997.2	-1511.1	32.0	-1.1
2-H	31635	9642	31.2	17.9	16.8	21.7	14.8	13.3	15.2	15.7	8.8	7.0	5.6	1.0	-3.3	-10.4	-16.9	-23.7	-29.3	-35.8	-43.8	-56.4	-73.9	-98.9	-137.1	-195.6	-286.9	-423.0	-628.4	-943.3	-1428.6	32.3	-0.4
2-I	29937	9125	31.4	18.4	17.3	22.2	15.3	13.8	15.8	16.2	9.4	7.6	6.4	1.9	-2.2	-9.2	-15.4	-22.0	-27.4	-33.5	-41.2	-53.3	-70.1	-93.9	-130.3	-186.0	-272.8	-401.9	-596.3	-894.4	-1353.6	32.6	0.3
2-J	28539	8699	31.6	18.8	17.7	22.6	15.7	14.2	16.2	16.7	9.9	8.2	7.0	2.6	-1.3	-8.1	-14.2	-20.6	-25.8	-31.7	-39.1	-50.7	-66.9	-89.8	-124.7	-178.0	-261.1	-384.5	-569.9	-854.0	-1291.8	32.9	1.0
2-K	27513	8386	31.8	19.1	18.0	22.9	16.0	14.6	16.6	17.1	10.3	8.7	7.5	3.2	-0.6	-7.3	-13.3	-19.5	-24.6	-30.3	-37.5	-48.8	-64.5	-86.7	-120.6	-172.2	-252.5	-371.7	-550.4	-824.4	-1246.5	33.1	1.4
2-L	26738	8150	31.9	19.4	18.3	23.2	16.3	14.8	16.8	17.4	10.6	9.0	7.9	3.7	-0.1	-6.7	-12.6	-18.7	-23.7	-29.3	-36.3	-47.4	-62.8	-84.4	-117.4	-167.8	-246.1	-362.0	-535.8	-802.0	-1212.2	33.3	1.8
3-D	41059	12515	30.0	15.7	14.6	19.5	12.6	10.8	12.7	12.9	5.8	3.6	1.7	-3.6	-8.8	-17.0	-24.7	-32.8	-39.8	-47.7	-57.8	-73.1	-94.9	-126.3	-174.4	-248.7	-365.0	-539.9	-806.2	-1214.8	-1844.4	30.9	-3.8
3-E	38759	11814	30.3	16.2	15.1	20.0	13.1	11.4	13.2	13.5	6.5	4.4	2.6	-2.6	-7.5	-15.5	-22.8	-30.6	-37.3	-44.9	-54.4	-69.1	-89.8	-119.7	-165.4	-235.8	-346.0	-511.4	-762.9	-1148.6	-1743.0	31.2	-3.0
3-F	36630	11165	30.5	16.7	15.6	20.5	13.6	11.9	13.8	14.1	7.2	5.1	3.5	-1.5	-6.3	-14.0	-21.1	-28.6	-34.9	-42.2	-51.3	-65.3	-85.1	-113.5	-157.0	-223.9	-328.4	-485.0	-722.7	-1087.3	-1649.1	31.5	-2.3
3-G	34700	10577	30.8	17.1	16.0	20.9	14.0	12.4	14.3	14.7	7.8	5.8	4.3	-0.6	-5.1	-12.6	-19.5	-26.7	-32.8	-39.7	-48.4	-61.9	-80.8	-107.9	-149.3	-213.0	-312.4	-461.1	-686.3	-1031.7	-1563.9	31.8	-1.6
3-I	31459	9589	31.2	18.0	16.9	21.8	14.9	13.3	15.3	15.7	8.9	7.0	5.7	1.1	-3.2	-10.3	-16.7	-23.5	-29.1	-35.5	-43.5	-56.0	-73.5	-98.4	-136.4	-194.6	-285.5	-420.8	-625.1	-938.3	-1420.8	32.4	-0.3
3-J	30175	9197	31.4	18.3	17.2	22.1	15.2	13.7	15.7	16.1	9.3	7.5	6.2	1.7	-2.3	-9.3	-15.6	-22.3	-27.7	-33.8	-41.6	-53.7	-70.6	-94.6	-131.3	-187.3	-274.8	-404.8	-600.8	-901.2	-1364.1	32.6	0.2
3-K	29211	8903	31.5	18.6	17.5	22.4	15.5	14.0	16.0	16.5	9.7	7.9	6.7	2.3	-1.7	-8.6	-14.8	-21.3	-26.6	-32.6	-40.1	-51.9	-68.4	-91.8	-127.4	-181.9	-266.7	-392.8	-582.6	-873.4	-1321.5	32.8	0.7
3-L	28615	8722	31.6	18.8	17.7	22.6	15.7	14.2	16.2	16.7	9.9	8.2	7.0	2.6	-1.3	-8.2	-14.2	-20.7	-25.9	-31.8	-39.2	-50.8	-67.1	-90.0	-125.0	-178.5	-261.8	-385.4	-571.3	-856.2	-1295.1	32.9	0.9
4-D	41990	12798	29.9	15.5	14.4	19.3	12.4	10.6	12.4	12.7	5.6	3.3	1.3	-4.1	-9.3	-17.7	-25.4	-33.6	-40.8	-48.9	-59.1	-74.8	-96.9	-129.0	-178.1	-254.0	-372.7	-551.4	-823.7	-1241.5	-1885.5	30.8	-4.1
4-E	39768	12121	30.2	15.9	14.8	19.7	12.8	11.1	13.0	13.3	6.2	4.0	2.2	-3.0	-8.0	-16.2	-23.6	-31.6	-38.4	-46.1	-55.9	-70.9	-92.1	-122.6	-169.3	-241.5	-354.4	-523.9	-781.9	-1177.6	-1787.5	31.1	-3.4
4-F	37786	11517	30.4	16.4	15.3	20.2	13.3	11.6	13.5	13.8	6.8	4.7	3.0	-2.1	-6.9	-14.8	-22.0	-29.7	-36.2	-43.6	-53.0	-67.4	-87.7	-116.9	-161.5	-230.4	-338.0	-499.3	-744.5	-1120.6	-1700.1	31.4	-2.7
4-G	35936	10953	30.6	16.8	15.7	20.6	13.7	12.1	14.0	14.3	7.4	5.4	3.7	-1.2	-5.8	-13.5	-20.5	-27.9	-34.2	-41.3	-50.3	-64.1	-83.6	-111.5	-154.2	-219.9	-322.6	-476.4	-709.6	-1067.3	-1618.4	31.6	-2.0
4-H	34325	10462	30.8	17.2	16.1	21.0	14.1	12.5	14.4	14.8	7.9	5.9	4.4	-0.4	-4.9	-12.4	-19.2	-26.4	-32.4	-39.2	-47.9	-61.2	-80.0	-106.8	-147.8	-210.9	-309.3	-456.4	-679.2	-1020.9	-1547.4	31.9	-1.4
4-I	32938	10040	31.0	17.6	16.5	21.4	14.5	12.9	14.8	15.2	8.4	6.5	5.0	0.3	-4.1	-11.4	-18.0	-25.0	-30.8	-37.4	-45.8	-58.7	-76.9	-102.8	-142.3	-203.0	-297.8	-439.2	-653.0	-980.9	-1486.1	32.1	-0.9
4-J	31830	9702	31.1	17.9	16.8	21.7	14.8	13.2	15.2	15.6	8.7	6.9	5.5	0.9	-3.4	-10.6	-17.0	-23.9	-29.6	-36.0	-44.1	-56.7	-74.4	-99.5	-137.9	-196.7	-288.5	-425.4	-632.1	-949.0	-1437.2	32.3	-0.4
4-K	31011	9452	31.3	18.1	17.0	21.9	15.0	13.5	15.4	15.9	9.0	7.2	5.9	1.3	-2.9	-10.0	-16.3	-23.1	-28.6	-34.9	-42.9	-55.2	-72.5	-97.1	-134.6	-192.1	-281.7	-415.2	-616.6	-925.4	-1401.0	32.4	-0.1
4-L	30498	9296	31.3	18.3	17.2	22.1	15.2	13.6	15.6	16.0	9.2	7.4	6.1	1.6	-2.6	-9.6	-15.9	-22.6	-28.0	-34.3	-42.1	-54.3	-71.4	-95.6	-132.6	-189.2	-277.5	-408.9	-606.9	-910.6	-1378.4	32.5	0.1
5-D	42990	13103	29.8	15.3	14.2	19.1	12.2	10.4	12.2	12.4	5.3	3.0	1.0	-4.5	-9.8	-18.3	-26.2	-34.6	-41.8	-50.1	-60.6	-76.5	-99.1	-131.9	-182.0	-259.6	-381.0	-563.8	-842.6	-1270.3	-1929.6	30.7	-4.4
5-E	40948	12481	30.0	15.7	14.6	19.5	12.6	10.9	12.7	13.0	5.9	3.6	1.7	-3.6	-8.7	-17.0	-24.6	-32.7	-39.7	-47.6	-57.6	-72.9	-94.7	-126.0	-174.0	-248.1	-364.1	-538.5	-804.1	-1211.6	-1839.5	30.9	-3.8
5-F	39026	11895	30.3	16.1	15.0	19.9	13.0	11.3	13.2	13.5	6.4	4.3	2.5	-2.7	-7.6	-15.7	-23.0	-30.9	-37.6	-45.2	-54.8	-69.6	-90.4	-120.5	-166.4	-237.3	-348.2	-514.7	-767.9	-1156.3	-1754.8	31.2	-3.1
5-G	37333	11379	30.4	16.5	15.4	20.3	13.4	11.7	13.6	13.9	6.9	4.9	3.2	-1.9	-6.7	-14.5	-21.7	-29.3	-35.7	-43.1	-52.3	-66.6	-86.7	-115.6	-159.7	-227.8	-334.2	-493.7	-736.0	-1107.5	-1680.1	31.4	-2.5
5-H	35808	10914	30.6	16.9	15.8	20.7	13.8	12.1	14.0	14.4	7.4	5.4	3.8	-1.1	-5.8	-13.4	-20.4	-27.8	-34.0	-41.1	-50.1	-63.9	-83.3	-111.1	-153.7	-219.2	-321.6	-474.8	-707.2	-1063.6	-1612.8	31.7	-2.0
5-I	34512	10519	30.8	17.2	16.1	21.0	14.1	12.5	14.4	14.8	7.8	5.9	4.3	-0.5	-5.0	-12.5	-19.3	-26.5	-32.6	-39.5	-48.1	-61.5	-80.4	-107.4	-148.6	-211.9	-310.8	-458.7	-682.7	-1026.3	-1555.6	31.9	-1.5
5-J	33543	10224	30.9	17.4	16.3	21.2	14.3	12.7	14.7	15.1	8.2	6.2	4.7	0.0	-4.4	-11.8	-18.5	-25.6	-31.5	-38.2	-46.7	-59.8	-78.2	-104.5	-144.7	-206.4	-302.8	-446.7	-664.5	-998.4	-1512.8	32.0	-1.1
6-D	44068	13432	29.7	15.1	14.0	18.9	12.0	10.2	11.9	12.2	5.0	2.6	0.6	-5.0	-10.4	-19.0	-27.0	-35.5	-43.0	-51.4	-62.1	-78.4	-101.5	-135.0	-186.2	-265.6	-389.8	-577.1	-862.8	-1301.3	-1977.1	30.6	-4.7
6-E	42129	12841	29.9	15.4	14.3	19.2	12.3	10.6	12.4	12.7	5.5	3.3	1.3	-4.1	-9.4	-17.7	-25.5	-33.8	-40.9	-49.1	-59.3	-75.0	-97.2	-129.4	-178.6	-254.7	-373.9	-553.1	-826.3	-1245.5	-1891.6	30.8	-4.1
6-G	38669	11786	30.3	16.2	15.1	20.0	13.1	11.4	13.3	13.6	6.5	4.4	2.6	-2.5	-7.4	-15.4	-22.7	-30.5	-37.2	-44.7	-54.3	-68.9	-89.6	-119.4	-165.0	-235.3	-345.3	-510.3	-761.1	-1146.0	-1739.0	31.2	-3.0
6-H	37257	11356	30.5	16.5	15.4	20.3	13.4	11.8	13.6	14.0	7.0	4.9	3.2	-1.8	-6.6	-14.4	-21.6	-29.2	-35.6	-43.0	-52.2	-66.4	-86.5	-115.4	-159.4	-227.4	-333.6	-492.8	-734.5	-1105.3	-1676.7	31.4	-2.5
6-I	36154	11020	30.6	16.8	15.7	20.6	13.7	12.0	13.9	14.3	7.3	5.3	3.6	-1.3	-6.0	-13.7	-20.7	-28.1	-34.4	-41.6	-50.6	-64.5	-84.1	-112.1	-155.1	-221.2	-324.4	-479.1	-713.7	-1073.6	-1628.1	31.6	-2.1
6-J	35291	10757	30.7	17.0	15.9	20.8	13.9	12.3	14.2	14.5	7.6	5.6	4.0	-0.9	-5.5	-13.1	-20.0	-27.3	-33.5	-40.5	-49.3	-62.9	-82.1	-109.6	-151.6	-216.3	-317.3	-468.4	-697.5	-1048.7	-1590.0	31.7	-1.8
7-B	49346	15041	29.2	14.1	13.0	17.9	11.0	9.1	10.8	10.9	3.6	1.0	-1.3	-7.3	-13.2	-22.4	-31.1	-40.3	-48.5	-57.9	-69.7	-87.5	-112.9	-150.0	-206.8	-295.0	-433.3	-642.2	-962.1	-1453.0	-2209.8	30.0	-6.3
7-C	47205	14388	29.4	14.5	13.4	18.3	11.4	9.5	11.2	11.4	4.1	1.7	-0.6	-6.4	-12.1	-21.1	-29.5	-38.4	-46.3	-55.3	-66.6	-83.8	-108.3	-143.9	-198.5	-283.1	-415.7	-615.8	-921.9	-1391.5	-2115.4	30.2	-5.7
7-E	43354	13214	29.8	15.2	14.1	19.0	12.1	10.3	12.1	12.3	5.2	2.9	0.8	-4.7	-10.0	-18.6	-26.5	-34.9	-42.2	-50.6	-61.1	-77.1	-99.9	-132.9	-183.4	-261.6	-384.0	-568.2	-849.4	-1280.8	-1945.6	30.6	-4.5
7-F	41680	12704	30.0	15.5	14.4	19.3	12.4	10.7	12.5	12.8	5.7	3.4	1.5	-3.9	-9.1	-17.4	-25.2	-33.3	-40.4	-48.5	-58.7	-74.2	-96.3	-128.1	-176.9	-252.2	-370.1	-547.6	-817.9	-1232.6	-1871.9	30.8	-4.0
7-G	40193	12251	30.1	15.9	14.8	19.7	12.8	11.0	12.9	13.2	6.1	3.9	2.0	-3.2	-8.3	-16.4	-24.0	-32.0	-38.8	-46.7	-56.5	-71.6	-93.0	-123.8	-171.0	-243.9	-357.9	-529.2	-789.9	-1189.9	-1806.3	31.0	-3.5
7-H	38904	11858	30.3	16.1	15.0	19.9	13.0	11.3	13.2	13.5	6.5	4.3	2.5	-2.6	-7.6	-15.6	-22.9	-30.7	-37.4	-45.0	-54.6	-69.3	-90.2	-120.1	-165.9	-236.6	-347.2	-513.2	-765.6	-1152.8	-1749.4	31.2	-3.1
7-I	37832	11531	30.4	16.4	15.3	20.2	13.3	11.6	13.5	13.8	6.8	4.7	3.0	-2.1	-6.9	-14.8	-22.1	-29.7	-36.3	-43.7	-53.1	-67.5	-87.8	-117.0	-161.7	-230.6	-338.3	-499.9	-745.4	-1121.9	-1702.1	31.4	-2.7
8-A	52563	16021	29.0	13.5	12.4	17.3	10.4	8.5	10.1	10.2	2.8	0.1	-2.4	-8.6	-14.9	-24.5	-33.5	-43.2	-51.9	-61.7	-74.2	-93.0	-119.9	-159.2	-219.3	-312.9	-459.7	-681.9	-1022.6	-1545.5	-2351.5	29.7	-7.1
8-B	50391	15359	29.1	13.9	12.8	17.7	10.8	8.9	10.6	10.7	3.3	0.7	-1.7	-7.7	-13.8	-23.1	-31.9	-41.3	-49.6	-59.1	-71.2	-89.3	-115.2	-153.0	-210.9	-300.9	-441.9	-655.1	-981.8	-1483.1	-2255.8	29.9	-6.5

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Leq)
FROM WIND PARK OPERATIONS AT THE CUT-IN WIND CONDITION

8-C	48340	14734	29.3	14.3	13.2	18.1	11.2	9.3	11.0	11.2	3.9	1.3	-1.0	-6.9	-12.7	-21.8	-30.3	-39.4	-47.5	-56.6	-68.3	-85.8	-110.8	-147.2	-202.9	-289.4	-425.0	-629.8	-943.2	-1424.1	-2165.5	30.1	-6.0
8-D	46407	14145	29.5	14.6	13.5	18.4	11.5	9.7	11.4	11.6	4.4	1.9	-0.3	-6.0	-11.7	-20.6	-28.9	-37.7	-45.5	-54.3	-65.5	-82.4	-106.6	-141.7	-195.4	-278.7	-409.1	-606.0	-906.8	-1368.6	-2080.3	30.3	-5.4
8-F	43072	13128	29.8	15.3	14.2	19.1	12.2	10.4	12.2	12.4	5.3	3.0	0.9	-4.5	-9.9	-18.4	-26.3	-34.6	-41.9	-50.2	-60.7	-76.6	-99.3	-132.1	-182.3	-260.0	-381.6	-564.8	-844.1	-1272.7	-1933.2	30.7	-4.4
8-G	41750	12725	30.0	15.5	14.4	19.3	12.4	10.7	12.5	12.8	5.6	3.4	1.4	-3.9	-9.2	-17.5	-25.2	-33.4	-40.5	-48.6	-58.8	-74.3	-96.4	-128.3	-177.1	-252.6	-370.7	-548.4	-819.2	-1234.6	-1874.9	30.8	-4.0
8-H	40527	12352	30.1	15.8	14.7	19.6	12.7	11.0	12.8	13.1	6.0	3.8	1.9	-3.4	-8.5	-16.7	-24.2	-32.3	-39.2	-47.1	-57.0	-72.2	-93.7	-124.8	-172.3	-245.8	-360.6	-533.3	-796.2	-1199.4	-1821.0	31.0	-3.6
9-A	53534	16317	28.9	13.4	12.3	17.2	10.3	8.3	10.0	10.0	2.6	-0.2	-2.8	-9.0	-15.4	-25.1	-34.3	-44.0	-52.9	-62.9	-75.6	-94.6	-122.0	-161.9	-223.1	-318.4	-467.7	-693.9	-1040.8	-1573.4	-2394.3	29.6	-7.4
9-B	51457	15684	29.1	13.7	12.6	17.5	10.6	8.7	10.4	10.5	3.1	0.4	-2.1	-8.2	-14.3	-23.8	-32.7	-42.2	-50.7	-60.4	-72.7	-91.1	-117.5	-156.0	-215.0	-306.8	-450.7	-668.3	-1001.8	-1513.7	-2302.8	29.8	-6.8
9-C	49494	15086	29.2	14.0	12.9	17.8	10.9	9.0	10.8	10.9	3.6	1.0	-1.4	-7.3	-13.3	-22.5	-31.2	-40.5	-48.7	-58.0	-69.9	-87.7	-113.3	-150.5	-207.4	-295.9	-434.5	-644.1	-964.9	-1457.3	-2216.3	30.0	-6.3
9-D	47704	14540	29.4	14.4	13.3	18.2	11.3	9.4	11.1	11.3	4.0	1.5	-0.7	-6.6	-12.4	-21.4	-29.9	-38.8	-46.8	-55.9	-67.4	-84.7	-109.4	-145.4	-200.4	-285.9	-419.8	-622.0	-931.2	-1405.9	-2137.4	30.2	-5.8
9-E	46036	14032	29.5	14.7	13.6	18.5	11.6	9.7	11.5	11.7	4.5	2.0	-0.2	-5.9	-11.5	-20.3	-28.6	-37.3	-45.1	-53.9	-65.0	-81.8	-105.8	-140.6	-193.9	-276.6	-406.1	-601.4	-899.9	-1357.9	-2063.9	30.3	-5.3
9-F	44542	13576	29.7	15.0	13.9	18.8	11.9	10.1	11.8	12.0	4.9	2.5	0.4	-5.2	-10.7	-19.3	-27.4	-36.0	-43.5	-52.0	-62.8	-79.2	-102.5	-136.3	-188.1	-268.2	-393.8	-582.9	-871.8	-1315.0	-1998.1	30.5	-4.9
9-G	43240	13180	29.8	15.2	14.1	19.0	12.1	10.3	12.1	12.4	5.2	2.9	0.9	-4.6	-10.0	-18.5	-26.4	-34.8	-42.1	-50.4	-61.0	-76.9	-99.7	-132.6	-183.0	-261.0	-383.0	-566.8	-847.3	-1277.5	-1940.7	30.7	-4.5
9-H	42193	12860	29.9	15.4	14.3	19.2	12.3	10.6	12.4	12.6	5.5	3.2	1.3	-4.1	-9.4	-17.8	-25.6	-33.8	-41.0	-49.1	-59.4	-75.1	-97.4	-129.6	-178.9	-255.1	-374.4	-553.9	-827.5	-1247.4	-1894.5	30.8	-4.2
9-I	41288	12585	30.0	15.6	14.5	19.4	12.5	10.8	12.6	12.9	5.8	3.5	1.6	-3.7	-8.9	-17.2	-24.8	-33.0	-40.0	-48.0	-58.1	-73.5	-95.4	-127.0	-175.3	-250.0	-366.9	-542.7	-810.5	-1221.4	-1854.6	30.9	-3.9
10-A	54577	16635	28.8	13.2	12.1	17.0	10.1	8.1	9.8	9.8	2.3	-0.4	-3.1	-9.5	-15.9	-25.7	-35.0	-45.0	-53.9	-64.1	-77.1	-96.4	-124.2	-164.9	-227.1	-324.1	-476.3	-706.7	-1060.4	-1603.3	-2440.2	29.5	-7.6
10-B	52614	16037	29.0	13.5	12.4	17.3	10.4	8.4	10.1	10.2	2.8	0.1	-2.4	-8.7	-14.9	-24.5	-33.6	-43.2	-51.9	-61.8	-74.3	-93.1	-120.0	-159.3	-219.5	-313.2	-460.2	-682.5	-1023.5	-1546.9	-2353.8	29.7	-7.1
10-C	50746	15467	29.1	13.8	12.7	17.6	10.7	8.8	10.5	10.6	3.2	0.6	-1.8	-7.9	-13.9	-23.3	-32.2	-41.6	-50.0	-59.6	-71.7	-89.9	-116.0	-154.0	-212.3	-302.8	-444.8	-659.5	-988.4	-1493.3	-2271.5	29.8	-6.6
10-D	48987	14931	29.3	14.1	13.0	17.9	11.0	9.1	10.9	11.0	3.7	1.1	-1.2	-7.1	-13.0	-22.2	-30.8	-40.0	-48.2	-57.4	-69.2	-86.9	-112.2	-149.0	-205.4	-293.0	-430.4	-637.8	-955.4	-1442.7	-2194.0	30.0	-6.2
10-E	47419	14453	29.4	14.4	13.3	18.2	11.3	9.5	11.2	11.4	4.1	1.6	-0.6	-6.5	-12.2	-21.2	-29.6	-38.6	-46.5	-55.5	-67.0	-84.2	-108.8	-144.5	-199.3	-284.3	-417.5	-618.5	-925.9	-1397.7	-2124.9	30.2	-5.7
10-F	45995	14019	29.5	14.7	13.6	18.5	11.6	9.7	11.5	11.7	4.5	2.0	-0.1	-5.8	-11.5	-20.3	-28.5	-37.3	-45.0	-53.8	-64.9	-81.7	-105.7	-140.5	-193.8	-276.4	-405.7	-600.9	-899.1	-1356.7	-2062.1	30.3	-5.3
10-G	44791	13652	29.7	14.9	13.8	18.7	11.8	10.0	11.8	12.0	4.8	2.4	0.3	-5.3	-10.8	-19.5	-27.6	-36.2	-43.8	-52.3	-63.2	-79.6	-103.1	-137.0	-189.0	-269.6	-395.8	-586.0	-876.4	-1322.1	-2009.0	30.5	-5.0
10-H	43829	13359	29.8	15.1	14.0	18.9	12.0	10.2	12.0	12.2	5.0	2.7	0.7	-4.9	-10.3	-18.9	-26.8	-35.3	-42.7	-51.2	-61.8	-78.0	-101.0	-134.3	-185.3	-264.3	-387.9	-574.1	-858.3	-1294.4	-1966.6	30.6	-4.7
10-I	106638	32503	25.9	7.4	6.3	11.2	4.3	1.2	2.3	1.4	-7.5	-12.3	-17.9	-28.2	-39.6	-55.5	-71.3	-88.2	-104.8	-123.6	-147.6	-182.4	-233.3	-309.5	-426.6	-610.8	-901.0	-1345.7	-2035.8	-3096.0	-4731.1	26.2	-16.8
11-A	55732	16987	28.7	13.0	11.9	16.8	9.9	7.9	9.5	9.5	2.1	-0.8	-3.5	-9.9	-16.5	-26.4	-35.9	-46.0	-55.1	-65.5	-78.7	-98.4	-126.7	-168.1	-231.6	-330.6	-485.7	-721.0	-1082.1	-1636.5	-2491.2	29.4	-7.9
11-B	53800	16398	28.9	13.3	12.2	17.1	10.2	8.2	9.9	9.9	2.5	-0.2	-2.8	-9.1	-15.5	-25.2	-34.5	-44.3	-53.1	-63.2	-76.0	-95.1	-122.5	-162.7	-224.1	-319.8	-469.9	-697.2	-1045.8	-1581.0	-2406.0	29.5	-7.4
11-C	52026	15857	29.0	13.6	12.5	17.4	10.5	8.6	10.2	10.3	2.9	0.3	-2.2	-8.4	-14.6	-24.1	-33.1	-42.7	-51.3	-61.1	-73.5	-92.1	-118.7	-157.6	-217.2	-310.0	-455.3	-675.3	-1012.5	-1530.0	-2327.9	29.7	-7.0
11-D	50413	15366	29.1	13.9	12.8	17.7	10.8	8.9	10.6	10.7	3.3	0.7	-1.7	-7.7	-13.8	-23.1	-31.9	-41.3	-49.7	-59.1	-71.2	-89.3	-115.2	-153.1	-211.0	-301.0	-442.1	-655.4	-982.2	-1483.7	-2256.8	29.9	-6.5
11-E	48886	14901	29.3	14.2	13.1	18.0	11.1	9.2	10.9	11.0	3.7	1.2	-1.2	-7.1	-13.0	-22.1	-30.8	-39.9	-48.1	-57.3	-69.0	-86.7	-111.9	-148.7	-205.0	-292.5	-429.5	-636.6	-953.5	-1439.8	-2189.5	30.0	-6.1
11-F	47613	14512	29.4	14.4	13.3	18.2	11.3	9.4	11.2	11.3	4.0	1.6	-0.7	-6.5	-12.3	-21.3	-29.8	-38.8	-46.7	-55.8	-67.2	-84.5	-109.2	-145.1	-200.1	-285.4	-419.0	-620.9	-929.5	-1403.2	-2133.4	30.2	-5.8
11-G	46473	14165	29.5	14.6	13.5	18.4	11.5	9.6	11.4	11.6	4.3	1.9	-0.3	-6.1	-11.7	-20.6	-28.9	-37.7	-45.5	-54.4	-65.6	-82.5	-106.7	-141.8	-195.6	-279.0	-409.7	-606.8	-908.1	-1370.5	-2083.2	30.3	-5.5
11-H	45552	13884	29.6	14.8	13.7	18.6	11.7	9.8	11.6	11.8	4.6	2.2	0.0	-5.6	-11.2	-20.0	-28.2	-36.9	-44.6	-53.3	-64.3	-80.9	-104.7	-139.2	-192.0	-273.9	-402.1	-595.4	-890.8	-1344.0	-2042.6	30.4	-5.2
11-K	44151	13457	29.7	15.0	13.9	18.8	11.9	10.1	11.9	12.1	5.0	2.6	0.5	-5.0	-10.5	-19.1	-27.1	-35.6	-43.1	-51.5	-62.3	-78.5	-101.7	-135.2	-186.5	-266.1	-390.5	-578.1	-864.4	-1303.7	-1980.8	30.5	-4.8
11-L	44084	13437	29.7	15.1	14.0	18.9	12.0	10.2	11.9	12.2	5.0	2.6	0.6	-5.0	-10.4	-19.0	-27.0	-35.6	-43.0	-51.5	-62.2	-78.4	-101.5	-135.0	-186.3	-265.7	-390.0	-577.3	-863.1	-1301.8	-1977.8	30.6	-4.8
12-A	56909	17346	28.6	12.8	11.7	16.6	9.7	7.7	9.3	9.3	1.8	-1.1	-3.9	-10.4	-17.1	-27.2	-36.8	-47.0	-56.3	-66.9	-80.3	-100.4	-129.2	-171.4	-236.2	-337.1	-495.4	-735.5	-1104.2	-1670.3	-2543.0	29.3	-8.2
12-B	55057	16781	28.8	13.1	12.0	16.9	10.0	8.0	9.7	9.7	2.2	-0.6	-3.3	-9.7	-16.1	-26.0	-35.4	-45.4	-54.4	-64.7	-77.7	-97.2	-125.2	-166.2	-229.0	-326.8	-480.2	-712.6	-1069.4	-1617.1	-2461.4	29.4	-7.7
12-C	53338	16257	28.9	13.4	12.3	17.2	10.3	8.3	10.0	10.0	2.6	-0.1	-2.7	-9.0	-15.3	-25.0	-34.1	-43.9	-52.7	-62.7	-75.3	-94.3	-121.5	-161.4	-222.3	-317.3	-466.1	-691.5	-1037.1	-1567.7	-2385.7	29.6	-7.3
12-D	51802	15789	29.0	13.7	12.6	17.5	10.6	8.6	10.3	10.4	3.0	0.3	-2.2	-8.3	-14.5	-24.0	-33.0	-42.5	-51.1	-60.8	-73.2	-91.7	-118.2	-157.0	-216.4	-308.7	-453.5	-672.5	-1008.3	-1523.6	-2318.0	29.7	-6.9
12-E	50370	15353	29.1	13.9	12.8	17.7	10.8	8.9	10.6	10.7	3.3	0.7	-1.7	-7.7	-13.8	-23.1	-31.9	-41.2	-49.6	-59.1	-71.1	-89.2	-115.2	-152.9	-210.8	-300.8	-441.7	-654.9	-981.4	-1482.5	-2254.9	29.9	-6.5
12-F	49197	14995	29.2	14.1	13.0	17.9	11.0	9.1	10.8	11.0	3.6	1.1	-1.3	-7.2	-13.1	-22.3	-31.0	-40.2	-48.4	-57.7	-69.5	-87.2	-112.6	-149.6	-206.2	-294.2	-432.1	-640.4	-959.3	-1448.8	-2203.2	30.0	-6.2
12-G	48130	14670	29.3	14.3	13.2	18.1	11.2	9.3	11.0	11.2	3.9	1.4	-0.9	-6.8	-12.6	-21.7	-30.2	-39.2	-47.3	-56.4	-68.0	-85.4	-110.3	-146.6	-202.1	-288.3	-423.3	-627.2	-939.2	-1418.1	-2156.2	30.1	-5.9
12-H	47295	14416	29.4	14.4	13.3	18.2	11.3	9.5	11.2	11.4	4.1	1.6	-0.6	-6.4	-12.1	-21.1	-29.5	-38.5	-46.4	-55.4	-66.8	-84.0	-108.5	-144.2	-198.8	-283.6	-416.4	-616.9	-923.5	-1394.1	-2119.4	30.2	-5.7
12-I	46652	14220	29.5	14.6	13.5	18.4	11.5	9.6	11.4	11.5	4.3	1.8	-0.4	-6.1	-11.8	-20.7	-29.0	-37.9	-45.7	-54.6	-65.9	-82.8	-107.1	-142.4	-196.3	-280.0	-411.1	-609.0	-911.5	-1375.6	-2091.1	30.3	-5.5
12-J	46219	14088	29.5	14.6	13.5	18.4	11.5	9.7	11.5	11.6	4.4	2.0	-0.2	-5.9	-11.6	-20.4	-28.7	-37.5	-45.3	-54.1	-65.2	-82.1	-106.2	-141.1	-194.6	-277.6	-407.6	-603.6	-903.3	-1363.2	-2072.0	30.3	-5.4
12-K	46027	14029	29.5	14.7	13.6	18.5	11.6	9.7	11.5	11.7	4.5	2.0	-0.1	-5.9	-11.5	-20.3	-28.6	-37.3	-45.1	-53.8	-65.0	-81.8	-105.8	-140.6	-193.9	-276.5	-406.0	-601.3	-899.7	-1357.6	-2063.5	30.3	-5.3
12-L	46040	14033	29.5	14.7	13.6	18.5	11.6	9.7	11.5	11.7	4.5	2.0	-0.2	-5.9	-11.5	-20.3	-28.6	-37.3	-45.1	-53.9	-65.0	-81.8	-105.8	-140.6	-193.9	-276.6	-406.1	-601.4	-899.9	-1358.0	-2064.1	30.3	-5.3
13-A	58144	17722	28.5	12.6	11.5	16.4	9.5	7.5	9.1	9.1	1.5	-1.4	-4.3	-10.9	-17.7	-27.9	-37.7	-48.1	-57.6	-68.4	-82.1	-102.4	-131.8	-174.9	-241.0	-343.9	-505.5	-750.7	-1127.4	-1705.7	-2597.3	29.1	-8.5
13-B	56343	17173	28.7	12.9	11.8	16.7	9.8	7.8	9.4	9.4	1.9	-0.9	-3.7	-10.2	-16.8	-26.8	-36.4	-46.5	-55.8	-66.2	-79.5	-99.4	-128.0	-169.8	-234.0	-333.9	-490.8	-728.5	-1093.6	-1654.0	-2518.0	29.3	-8.0
13-C	54727	16681	28.8	13.2	12.1	17.0	10.1	8.1	9.7	9.8	2.3	-0.5	-3.2	-9.5	-16.0	-25.8	-35.2	-45.1	-54.1	-64.3	-77.3	-96.7	-124.5	-165.3	-227.7	-325.0	-477.5	-708.6	-1063.2	-1607.6	-2446.8	29.5	-7.7
13-D	53264	16235	28.9	13.4	12.3	17.2	10.3	8.3	10.0	10.1	2.6	-0.1	-2.7	-8.9	-15.2	-24.9	-34.1	-43.8	-52.6	-62.6	-75.2	-94.2	-121.4	-161.1	-222.1	-316.9	-465.5	-690.6	-1035.7	-1565.6	-2382.4	29.6	-7.3
13-F	50789	15480	29.1	13.8	12.7	17.6	10.7	8.8	10.5	10.6	3.2	0.6	-1.8	-7.9	-14.0	-23.4	-32.2	-41.6	-50.0	-59.6	-71.7	-90.0	-116.1	-154.1	-212.4	-303.1	-445.2	-660.0	-989.2	-1494.5	-2273.4	29.8	-6.6
13-G	49825	15187	29.2	14.0	12.9	17.8	10.9	9.0	10.7	10.8	3.5	0.9	-1.5	-7.5	-13.5	-22.7	-31.5	-40.8	-49.0	-58.4	-70.4	-88.3	-114.0	-151.4	-208.7	-297.7	-437.2	-648.2	-971.1	-1466.8	-2230.9	29.9	-6.4
13-H	49004	14936	29.3	14.1	13.0	17.9	11.0	9.1	10.9	11.0	3.7	1.1	-1.2	-7.1	-13.0	-22.2	-30.8	-40.0	-48.2	-57.5	-69.2	-86.9	-112.2	-149.1	-205.5	-293.1	-430.5	-638.0	-955.7	-1443.2	-2194.7	30.0	-6.2
13-I	48466	14772	29.3	14.2	13.1	18.0	11.1	9.2	11.0	11.1	3.8	1.3	-1.0	-6.9	-12.8	-21.9	-30.4	-39.5	-47.6	-56.8	-68.4	-86.0	-111.0	-147.5	-203.4	-290.1	-426.1	-631.4	-945.6	-1427.7	-2171.0	30.1	-6.0
13-J	48167	14681	29.3	14.3	13.2	18.1	11.2	9.3	11.0	11.2	3.9	1.4	-0.9	-6.8	-12.6	-21.7	-30.2	-39.3	-47.3	-56.4	-68.0	-85.5	-110.4	-146.7	-202.2	-288.5	-423.6	-627.7	-939.9	-1419.1	-2157.8	30.1	-5.9
13-K	48005	14632	29.4	14.3	13.2	18.1	11.2	9.3	11.1	11.2	3.9	1.4	-0.9	-6.7	-12.5	-21.6	-30.1	-39.1	-47.1	-56.2	-67.8	-85.2	-110.0	-146.2	-201.6	-287.6	-422.3	-625.7	-936.9	-1414.5	-2150.7	30.1	-5.9
13-L	48088	14657	29.3	14.3	13.2	18.1	11.2	9.3	11.1	11.2	3.9	1.4	-0.9	-6.7	-12.6	-21.6	-30.1	-39.2	-47.2	-56.3	-67.9	-85.3	-110.2	-146.5	-201.9	-288.0	-423.0	-626.7	-938.5	-1416.9	-2154.4	30.1	-5.9
14-D	54771	16694	28.8	13.2	12.1	17.0	10.1	8.0	9.7	9.7	2.3	-0.5	-3.2	-9.5	-16.0	-25.8	-35.2	-45.1	-54.1	-64.4	-77.3	-96.7	-124.6	-165.4	-227.9	-325.2	-477.9	-709.1	-1064.0	-1608.9	-2448.8	29.4	-7.7
14-E	53544	16320	28.9	13.4	12.3	17.2	10.3	8.3	10.0	10.0	2.6	-0.2	-2.8	-9.0	-15.4	-25.1	-34.3	-44.1	-52.9	-62.9	-75.6	-94.7	-122.0	-161.9	-223.1	-318.4	-467.8	-694.0	-1041.0	-1573.6	-2394.7	29.6	-7.4
14-F	52438	15983	29.0	13.5	12.4	17.3	10.4	8.5	10.2	10.2	2.8	0.2	-2.4	-8.6	-14.8	-24.4	-33.4	-43.1	-51.7	-61.6	-74.1	-92.8	-119.6	-158.8	-218.9	-312.3	-458.7	-680.4	-1020.2	-1541.9	-2346.0	29.7	-7.1
14-G	51548	15712	29.0	13.7	12.6	17.5	10.6	8.6	10.3	10.4	3.0	0.4	-2.1	-8.2	-14.4	-23.8	-32.8	-42.3	-50.8	-60.5	-72.8	-91.3	-117.7	-156.3	-215.4	-307.3	-451.4	-669.4	-1003.5	-1516.3	-2306.8	29.8	-6.8
14-H	50843	15497	29.1	13.8	12.7	17.6	10.7	8.8	10.5	10.6	3.2	0.6	-1.8	-7.9	-14.0	-23.4	-32.2	-41.7	-50.1	-59.7	-71.8	-90.0	-116.2	-154.3	-212.7	-303.4	-445.6	-660.7	-990.3	-1496.1	-2275.8	29.8	-6.7
14-J	50014	15244	29.2	14.0	12.9	17.8	10.9	8.9	10.7	10.8	3.4	0.8	-1.6	-7.6	-13.6	-22.9	-31.6	-40.9	-49.2	-58.7	-70.6	-88.6	-114.4	-151.9	-209.4	-298.8	-438.8	-650.5	-974.7	-1472.2	-2239.2	29.9	-6.4
14-K	49962	15229	29.2	14.0	12.9	17.8	10.9	8.9	10.7	10.8	3.4	0.9	-1.5	-7.5	-13.5	-22.8	-31.6	-40.9	-49.2	-58.6	-70.6	-88.5	-114.3	-151.8	-209.2	-298.5	-438.4	-649.9	-973.7	-1470.8	-2236.9	29.9	-6.4
14-L	50085	15266	29.2	13.9	12.8	17.7	10.8	8.9	10.6	10.8	3.4	0.8	-1.6	-7.6	-13.6	-22.9	-31.7	-41.0	-49.3	-58.8	-70.7	-88.7	-114.5	-152.1	-209.7	-299.2	-439.4	-651.4	-976.0	-1474.3	-2242.4	29.9	-6.5
15-F	54119	16496	28.8	13.3	12.2	17.1	10.2	8.2	9.8	9.9	2.4	-0.3	-2.9	-9.3	-15.7	-25.4	-34.7	-44.6	-53.5	-63.6	-76.4	-95.6	-123.2	-163.6	-225.4	-321.6	-472.5	-701.1	-1051.8	-1590.2	-2420.1	29.5	-7.5
15-G	53286	16241	28.9	13.4	12.3	17.2	10.3	8.3	10.0	10.1	2.6	-0.1	-2.7	-8.9	-15.2	-24.9	-34.1	-43.8	-52.6	-62.6	-75.3	-94.2	-121.4	-161.2	-222.1	-317.0	-465.7	-690.8	-1036.1	-1566.2	-2383.4	29.6	-7.3
15-H	52688	16059	29.0	13.5	12.4	17.3	10.4	8.4	10.1	10.2	2.8	0.1	-2.5	-8.7	-14.9	-24.5	-33.6	-43.3	-52.0	-61.9	-74.4	-93.2	-120.1	-159.5	-219.8	-313.6	-460.8	-683.5	-1024.9	-1549.1	-2357.0	29.6	-7.1
15-I	52238	15922	29.0	13.6	12.5	17.4	10.5	8.5	10.2	10.3	2.9	0.2	-2.3	-8.5	-14.7	-24.3	-33.3	-42.9	-51.5	-61.3	-73.8	-92.4	-119.2	-158.2	-218.1	-311.1	-457.1	-677.9	-1016.5	-1536.1	-2337.2	29.7	-7.0
15-J	51967	15840	29.0	13.6	12.5	17.4	10.5	8.6	10.3	10.3	2.9	0.3	-2.2	-8.4	-14.6	-24.1	-33.1	-42.7	-51.3	-61.0	-73.4	-92.0	-118.6	-157.5	-217.0	-309.6	-454.8	-674.6	-1011.4	-1528.4	-2325.3	29.7	-7.0
15-K	51920	15825	29.0	13.6	12.5	17.4	10.5	8.6	10.3	10.4	3.0	0.3	-2.2	-8.4	-14.6	-24.1	-33.1	-42.6	-51.2	-61.0	-73.3	-91.9	-118.5	-157.3	-216.8	-309.4	-454.5	-674.0	-1010.5	-1527.0	-2323.2	29.7	-6.9
16-J	53894	16427	28.9	13.3	12.2	17.1	10.2	8.2	9.9	9.9	2.5	-0.3	-2.9	-9.2	-15.6	-25.3	-34.5	-44.4	-53.2	-63.3	-76.1	-95.2	-122.7	-162.9	-224.5	-320.3	-470.7	-698.3	-1047.6	-1583.7	-2410.2	29.5	-7.4
16-K	53887	16425	28.9	13.3	12.2	17.1	10.2	8.2	9.9	9.9	2.5	-0.2	-2.9	-9.2	-15.6	-25.3	-34.5	-44.4	-53.2	-63.3	-76.1	-95.2	-122.7	-162.9	-224.5	-320.3	-470.6	-698.2	-1047.5	-1583.5	-2409.9	29.5	-7.4
		Sum:	51.1	36.9	35.8	40.7	33.8	32.1	33.9	34.2	27.2	25.1	23.4	18.4	13.9	6.5	0.0	-6.8	-12.2	-18.3	-25.7	-37.3	-53.0	-74.7	-107.1	-155.6	-230.0	-339.2	-501.7	-750.2	-1132.9	52.0	17.8

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Leq)
FROM WIND PARK OPERATIONS AT THE CUT-IN WIND CONDITION

																		Hertz													
	1/3 Octave Bands	**16***	**20**	**25**	**31**	**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**	**L**	**A**
Sound Power Data		112.0	105.6	104.5	109.4	102.5	101.6	103.9	104.9	98.9	98.3	98.7	96.5	95.3	91.8	89.3	86.7	85.7	84.5	83.2	80.0	76.5	73.1	68.2	62.7	55.3	49.4	48.4	47.8	47.6	116.3	95.4

Data for the graph																															
Atmos. Absorption per 1 km	0.0000	0.0000	0.0000	0.0000	0.0000	0.0670	0.1050	0.1630	0.2510	0.3810	0.5650	0.8150	1.1300	1.5100	1.9200	2.3600	2.8400	3.3800	4.0800	5.0500	6.5100	8.7500	12.2000	17.7000	26.4000	39.9000	61.1000	93.7000	144.0000		
air temp 59F 70% RH																															

*Spherical wave spreading for up to 2 km, cylindrical wave spreading beyond 2 km.

																			Hertz													
	1/3 Octave Bands		**16***	**20**	**25**	**31**	**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**	**L**	**A**
	Distance (ft)	**Distance (m)**																															
1-D	50940	15527	29.1	13.8	12.7	17.6	10.7	8.8	10.5	10.6	3.2	0.6	-1.9	-8.0	-14.0	-23.4	-32.3	-41.7	-50.2	-59.8	-72.0	-90.2	-116.4	-154.6	-213.0	-303.9	-446.4	-661.9	-992.1	-1498.9	-2280.0	29.8	-6.7
1-E	48839	14886	29.3	14.2	13.1	18.0	11.1	9.2	10.9	11.0	3.7	1.2	-1.1	-7.1	-13.0	-22.1	-30.7	-39.9	-48.0	-57.3	-69.0	-86.6	-111.8	-148.6	-204.8	-292.2	-429.1	-636.0	-952.6	-1438.5	-2187.4	30.0	-6.1
1-F	46846	14279	29.5	14.5	13.4	18.3	11.4	9.6	11.3	11.5	4.2	1.8	-0.4	-6.2	-11.9	-20.8	-29.2	-38.1	-45.9	-54.8	-66.1	-83.2	-107.5	-142.9	-197.1	-281.1	-412.7	-611.4	-915.1	-1381.2	-2099.6	30.2	-5.6
1-G	44993	13714	29.6	14.9	13.8	18.7	11.8	10.0	11.7	11.9	4.7	2.4	0.2	-5.4	-10.9	-19.6	-27.8	-36.4	-44.0	-52.6	-63.5	-80.0	-103.5	-137.6	-189.8	-270.8	-397.5	-588.5	-880.2	-1327.9	-2017.9	30.5	-5.0
1-H	43279	13191	29.8	15.2	14.1	19.0	12.1	10.3	12.1	12.4	5.2	2.9	0.9	-4.6	-10.0	-18.5	-26.4	-34.8	-42.2	-50.5	-61.0	-77.0	-99.8	-132.7	-183.1	-261.2	-383.3	-567.3	-848.0	-1278.6	-1942.3	30.7	-4.5
1-I	41769	12731	30.0	15.5	14.4	19.3	12.4	10.7	12.5	12.7	5.6	3.4	1.4	-4.0	-9.2	-17.5	-25.2	-33.4	-40.5	-48.6	-58.8	-74.4	-96.5	-128.4	-177.2	-252.7	-370.9	-548.7	-819.6	-1235.2	-1875.8	30.8	-4.0
1-J	40476	12337	30.1	15.8	14.7	19.6	12.7	11.0	12.8	13.1	6.0	3.8	1.9	-3.4	-8.4	-16.6	-24.2	-32.2	-39.1	-47.0	-56.9	-72.1	-93.6	-124.7	-172.1	-245.5	-360.2	-532.7	-795.2	-1198.0	-1818.7	31.0	-3.6
1-K	39320	11985	30.2	16.0	14.9	19.8	12.9	11.2	13.1	13.4	6.3	4.2	2.4	-2.8	-7.8	-15.9	-23.3	-31.1	-37.9	-45.6	-55.3	-70.1	-91.1	-121.3	-167.6	-239.0	-350.7	-518.3	-773.4	-1164.7	-1767.8	31.2	-3.2
1-L	38471	11726	30.3	16.2	15.1	20.0	13.1	11.4	13.3	13.6	6.6	4.5	2.7	-2.4	-7.3	-15.3	-22.6	-30.3	-37.0	-44.5	-54.0	-68.6	-89.2	-118.9	-164.2	-234.2	-343.6	-507.8	-757.4	-1140.3	-1730.3	31.3	-2.9
2-D	52062	15868	29.0	13.6	12.5	17.4	10.5	8.5	10.2	10.3	2.9	0.3	-2.3	-8.4	-14.6	-24.2	-33.2	-42.7	-51.4	-61.1	-73.5	-92.1	-118.8	-157.7	-217.4	-310.2	-455.6	-675.7	-1013.1	-1531.1	-2329.4	29.7	-7.0
2-E	49998	15239	29.2	14.0	12.9	17.8	10.9	8.9	10.7	10.8	3.4	0.9	-1.6	-7.6	-13.6	-22.9	-31.6	-40.9	-49.2	-58.7	-70.6	-88.6	-114.3	-151.9	-209.4	-298.7	-438.7	-650.3	-974.4	-1471.8	-2238.5	29.9	-6.4
2-F	48084	14656	29.3	14.3	13.2	18.1	11.2	9.3	11.1	11.2	3.9	1.4	-0.9	-6.7	-12.6	-21.6	-30.1	-39.2	-47.2	-56.3	-67.9	-85.3	-110.2	-146.4	-201.9	-288.0	-422.9	-626.7	-938.4	-1416.8	-2154.2	30.1	-5.9
2-G	46336	14123	29.5	14.6	13.5	18.4	11.5	9.7	11.4	11.6	4.4	1.9	-0.3	-6.0	-11.6	-20.5	-28.8	-37.6	-45.4	-54.2	-65.4	-82.3	-106.4	-141.5	-195.1	-278.3	-408.5	-605.1	-905.5	-1366.5	-2077.1	30.3	-5.4
2-H	44740	13637	29.7	14.9	13.8	18.7	11.8	10.0	11.8	12.0	4.8	2.4	0.3	-5.3	-10.8	-19.5	-27.6	-36.2	-43.7	-52.3	-63.1	-79.5	-103.0	-136.9	-188.8	-269.3	-395.4	-585.4	-875.5	-1320.6	-2006.8	30.5	-4.9
2-I	43270	13189	29.8	15.2	14.1	19.0	12.1	10.3	12.1	12.4	5.2	2.9	0.9	-4.6	-10.0	-18.5	-26.4	-34.8	-42.1	-50.5	-61.0	-77.0	-99.7	-132.7	-183.1	-261.1	-383.3	-567.2	-847.8	-1278.4	-1941.9	30.7	-4.5
2-J	42030	12811	29.9	15.5	14.4	19.3	12.4	10.6	12.4	12.7	5.6	3.3	1.3	-4.1	-9.3	-17.7	-25.4	-33.7	-40.8	-48.9	-59.2	-74.8	-97.0	-129.1	-178.2	-254.2	-373.0	-551.9	-824.5	-1242.7	-1887.3	30.8	-4.1
2-K	41063	12516	30.0	15.7	14.6	19.5	12.6	10.8	12.7	12.9	5.8	3.6	1.7	-3.6	-8.8	-17.0	-24.7	-32.8	-39.8	-47.7	-57.8	-73.1	-94.9	-126.3	-174.4	-248.8	-365.1	-539.9	-806.3	-1214.9	-1844.6	30.9	-3.8
2-L	40233	12263	30.1	15.8	14.7	19.6	12.7	11.0	12.9	13.1	6.1	3.9	2.0	-3.2	-8.3	-16.5	-24.0	-32.0	-38.9	-46.7	-56.6	-71.7	-93.1	-124.0	-171.2	-244.1	-358.2	-529.6	-790.6	-1191.0	-1808.0	31.0	-3.5
3-D	53178	16209	28.9	13.4	12.3	17.2	10.3	8.3	10.0	10.1	2.7	-0.1	-2.6	-8.9	-15.2	-24.9	-34.0	-43.7	-52.5	-62.5	-75.1	-94.0	-121.2	-160.9	-221.7	-316.4	-464.8	-689.5	-1034.1	-1563.1	-2378.6	29.6	-7.3
3-E	51190	15603	29.1	13.8	12.7	17.6	10.7	8.7	10.4	10.5	3.1	0.5	-2.0	-8.1	-14.2	-23.6	-32.5	-42.0	-50.5	-60.1	-72.3	-90.6	-116.9	-155.3	-214.0	-305.3	-448.5	-665.0	-996.8	-1506.0	-2291.0	29.8	-6.8
3-F	49357	15044	29.2	14.1	13.0	17.9	11.0	9.1	10.8	10.9	3.6	1.0	-1.3	-7.3	-13.2	-22.4	-31.1	-40.3	-48.6	-57.9	-69.7	-87.5	-113.0	-150.1	-206.9	-295.1	-433.4	-642.4	-962.3	-1453.4	-2210.3	30.0	-6.3
3-G	47700	14539	29.4	14.4	13.3	18.2	11.3	9.4	11.1	11.3	4.0	1.5	-0.7	-6.6	-12.4	-21.4	-29.8	-38.8	-46.8	-55.9	-67.4	-84.7	-109.4	-145.3	-200.4	-285.9	-419.8	-621.9	-931.2	-1405.7	-2137.2	30.2	-5.8
3-I	44873	13677	29.6	14.9	13.8	18.7	11.8	10.0	11.8	12.0	4.8	2.4	0.3	-5.3	-10.9	-19.6	-27.7	-36.3	-43.8	-52.4	-63.3	-79.8	-103.2	-137.3	-189.4	-270.1	-396.5	-587.0	-878.0	-1324.5	-2012.6	30.5	-5.0
3-J	43700	13320	29.8	15.1	14.0	18.9	12.0	10.2	12.0	12.3	5.1	2.8	0.7	-4.8	-10.2	-18.8	-26.7	-35.2	-42.6	-51.0	-61.6	-77.7	-100.7	-133.9	-184.8	-263.5	-386.8	-572.5	-855.9	-1290.7	-1960.9	30.6	-4.6
3-K	42755	13032	29.9	15.3	14.2	19.1	12.2	10.4	12.2	12.5	5.3	3.1	1.1	-4.4	-9.7	-18.2	-26.0	-34.3	-41.6	-49.8	-60.3	-76.1	-98.6	-131.2	-181.1	-258.2	-379.0	-560.8	-838.1	-1263.6	-1919.2	30.7	-4.3
3-L	42073	12824	29.9	15.5	14.4	19.3	12.4	10.6	12.4	12.7	5.5	3.3	1.3	-4.1	-9.3	-17.7	-25.5	-33.7	-40.9	-49.0	-59.3	-74.9	-97.1	-129.2	-178.4	-254.4	-373.4	-552.4	-825.3	-1243.9	-1889.2	30.8	-4.1
4-D	54331	16560	28.8	13.2	12.1	17.0	10.1	8.1	9.8	9.8	2.4	-0.4	-3.0	-9.4	-15.8	-25.6	-34.9	-44.7	-53.7	-63.8	-76.7	-96.0	-123.7	-164.2	-226.2	-322.8	-474.3	-703.7	-1055.8	-1596.3	-2429.4	29.5	-7.6
4-E	52396	15970	29.0	13.6	12.5	17.4	10.5	8.5	10.2	10.2	2.8	0.2	-2.4	-8.6	-14.8	-24.4	-33.4	-43.0	-51.7	-61.5	-74.0	-92.7	-119.5	-158.7	-218.7	-312.0	-458.4	-679.9	-1019.4	-1540.7	-2344.1	29.7	-7.1
4-F	50683	15448	29.1	13.8	12.7	17.6	10.7	8.8	10.5	10.6	3.3	0.7	-1.8	-7.8	-13.9	-23.3	-32.1	-41.5	-49.9	-59.5	-71.6	-89.8	-115.8	-153.8	-212.0	-302.5	-444.3	-658.7	-987.2	-1491.5	-2268.7	29.8	-6.6
4-G	49073	14957	29.3	14.1	13.0	17.9	11.0	9.1	10.9	11.0	3.7	1.1	-1.2	-7.2	-13.1	-22.3	-30.9	-40.1	-48.3	-57.5	-69.3	-87.0	-112.4	-149.3	-205.8	-293.5	-431.1	-638.9	-957.0	-1445.2	-2197.7	30.0	-6.2
4-H	47659	14526	29.4	14.4	13.3	18.2	11.3	9.4	11.1	11.3	4.0	1.5	-0.7	-6.6	-12.3	-21.4	-29.8	-38.8	-46.8	-55.8	-67.3	-84.6	-109.3	-145.2	-200.2	-285.6	-419.4	-621.4	-930.4	-1404.5	-2135.4	30.2	-5.8
4-I	46414	14147	29.5	14.6	13.5	18.4	11.5	9.7	11.4	11.6	4.4	1.9	-0.3	-6.0	-11.7	-20.6	-28.9	-37.7	-45.5	-54.3	-65.5	-82.4	-106.6	-141.7	-195.4	-278.7	-409.2	-606.1	-907.0	-1368.8	-2080.6	30.3	-5.4
4-J	45375	13830	29.6	14.8	13.7	18.6	11.7	9.9	11.6	11.8	4.6	2.2	0.1	-5.6	-11.1	-19.9	-28.1	-36.7	-44.4	-53.0	-64.0	-80.6	-104.3	-138.7	-191.3	-272.9	-400.6	-593.2	-887.4	-1338.9	-2034.8	30.4	-5.1
4-K	44538	13575	29.7	15.0	13.9	18.8	11.9	10.1	11.8	12.1	4.9	2.5	0.4	-5.2	-10.7	-19.3	-27.4	-36.0	-43.5	-52.0	-62.8	-79.2	-102.5	-136.3	-188.1	-268.2	-393.7	-582.9	-871.7	-1314.8	-1997.9	30.5	-4.9
4-L	43907	13383	29.7	15.1	14.0	18.9	12.0	10.2	12.0	12.2	5.0	2.7	0.6	-4.9	-10.3	-18.9	-26.9	-35.4	-42.8	-51.2	-61.9	-78.1	-101.1	-134.5	-185.6	-264.7	-388.5	-575.1	-859.8	-1296.7	-1970.0	30.6	-4.7
5-D	55529	16925	28.7	13.0	11.9	16.8	9.9	7.9	9.6	9.6	2.1	-0.7	-3.4	-9.8	-16.4	-26.3	-35.7	-45.8	-54.9	-65.3	-78.4	-98.0	-126.2	-167.5	-230.8	-329.4	-484.1	-718.5	-1078.3	-1630.7	-2482.2	29.4	-7.9
5-E	53744	16381	28.9	13.3	12.2	17.1	10.2	8.2	9.9	10.0	2.5	-0.2	-2.8	-9.1	-15.5	-25.2	-34.4	-44.2	-53.1	-63.1	-75.9	-95.0	-122.4	-162.5	-223.9	-319.5	-469.4	-696.5	-1044.8	-1579.4	-2403.6	29.5	-7.4
5-F	52065	15870	29.0	13.6	12.5	17.4	10.5	8.5	10.2	10.3	2.9	0.3	-2.3	-8.4	-14.6	-24.2	-33.2	-42.7	-51.4	-61.1	-73.5	-92.1	-118.8	-157.8	-217.4	-310.2	-455.6	-675.8	-1013.2	-1531.2	-2329.6	29.7	-7.0
5-G	50577	15416	29.1	13.9	12.8	17.7	10.8	8.8	10.5	10.6	3.3	0.7	-1.8	-7.8	-13.9	-23.2	-32.0	-41.4	-49.8	-59.3	-71.4	-89.6	-115.6	-153.5	-211.6	-301.9	-443.4	-657.4	-985.2	-1488.4	-2264.0	29.9	-6.6
5-H	49215	15001	29.2	14.1	13.0	17.9	11.0	9.1	10.8	11.0	3.6	1.1	-1.3	-7.2	-13.2	-22.4	-31.0	-40.2	-48.4	-57.7	-69.5	-87.3	-112.7	-149.7	-206.3	-294.3	-432.2	-640.6	-959.7	-1449.3	-2204.0	30.0	-6.2
5-I	48025	14638	29.4	14.3	13.2	18.1	11.2	9.3	11.1	11.2	3.9	1.4	-0.9	-6.7	-12.5	-21.6	-30.1	-39.1	-47.2	-56.3	-67.8	-85.2	-110.1	-146.3	-201.7	-287.7	-422.4	-625.9	-937.3	-1415.1	-2151.6	30.1	-5.9
5-J	47092	14354	29.4	14.5	13.4	18.3	11.4	9.5	11.3	11.4	4.2	1.7	-0.5	-6.3	-12.0	-21.0	-29.4	-38.3	-46.2	-55.1	-66.5	-83.6	-108.1	-143.6	-198.0	-282.5	-414.8	-614.4	-919.7	-1388.3	-2110.5	30.2	-5.6
6-D	56779	17306	28.6	12.9	11.8	16.7	9.8	7.7	9.3	9.3	1.8	-1.0	-3.8	-10.4	-17.0	-27.1	-36.7	-46.9	-56.2	-66.7	-80.2	-100.1	-128.9	-171.1	-235.7	-336.4	-494.3	-733.9	-1101.8	-1666.5	-2537.2	29.3	-8.2
6-E	55074	16786	28.8	13.1	12.0	16.9	10.0	8.0	9.7	9.7	2.2	-0.6	-3.3	-9.7	-16.1	-26.0	-35.4	-45.4	-54.5	-64.7	-77.8	-97.3	-125.3	-166.3	-229.1	-326.9	-480.3	-712.9	-1069.7	-1617.6	-2462.1	29.4	-7.7
6-G	52001	15850	29.0	13.6	12.5	17.4	10.5	8.6	10.3	10.3	2.9	0.3	-2.2	-8.4	-14.6	-24.1	-33.1	-42.7	-51.3	-61.1	-73.4	-92.0	-118.7	-157.6	-217.1	-309.8	-455.1	-675.0	-1012.0	-1529.3	-2326.8	29.7	-7.0
6-H	50721	15460	29.1	13.8	12.7	17.6	10.7	8.8	10.5	10.6	3.3	0.6	-1.8	-7.9	-13.9	-23.3	-32.1	-41.6	-50.0	-59.5	-71.6	-89.8	-115.9	-153.9	-212.2	-302.7	-444.6	-659.2	-988.0	-1492.5	-2270.4	29.8	-6.6
6-I	49691	15146	29.2	14.0	12.9	17.8	10.9	9.0	10.7	10.8	3.5	0.9	-1.4	-7.4	-13.4	-22.7	-31.4	-40.6	-48.9	-58.3	-70.2	-88.1	-113.7	-151.0	-208.2	-297.0	-436.1	-646.5	-968.6	-1462.9	-2225.0	29.9	-6.4
6-J	48834	14885	29.3	14.2	13.1	18.0	11.1	9.2	10.9	11.0	3.7	1.2	-1.1	-7.1	-13.0	-22.1	-30.7	-39.9	-48.0	-57.2	-69.0	-86.6	-111.8	-148.6	-204.8	-292.2	-429.1	-635.9	-952.5	-1438.3	-2187.2	30.0	-6.1
7-B	61723	18813	28.3	12.1	11.0	15.9	9.0	6.9	8.5	8.4	0.7	-2.3	-5.4	-12.3	-19.4	-30.1	-40.3	-51.2	-61.2	-72.6	-87.0	-108.5	-139.4	-185.0	-254.8	-363.8	-534.8	-794.7	-1194.6	-1808.5	-2755.0	28.9	-9.3
7-C	59827	18235	28.4	12.4	11.3	16.2	9.3	7.2	8.8	8.7	1.1	-1.8	-4.8	-11.6	-18.5	-28.9	-38.9	-49.5	-59.3	-70.3	-84.4	-105.3	-135.4	-179.7	-247.5	-353.3	-519.3	-771.4	-1159.0	-1754.1	-2671.5	29.0	-8.9
7-E	56422	17197	28.7	12.9	11.8	16.7	9.8	7.8	9.4	9.4	1.9	-0.9	-3.7	-10.2	-16.8	-26.9	-36.4	-46.6	-55.8	-66.3	-79.7	-99.5	-128.1	-170.1	-234.3	-334.4	-491.4	-729.5	-1095.1	-1656.3	-2521.5	29.3	-8.1
7-F	54932	16743	28.8	13.1	12.0	16.9	10.0	8.0	9.7	9.7	2.2	-0.5	-3.2	-9.6	-16.1	-25.9	-35.3	-45.3	-54.3	-64.6	-77.6	-97.0	-125.0	-165.9	-228.5	-326.1	-479.2	-711.1	-1067.1	-1613.5	-2455.9	29.4	-7.7
7-G	53593	16335	28.9	13.4	12.3	17.2	10.3	8.3	9.9	10.0	2.6	-0.2	-2.8	-9.1	-15.4	-25.1	-34.3	-44.1	-52.9	-63.0	-75.7	-94.7	-122.1	-162.1	-223.3	-318.7	-468.2	-694.6	-1041.9	-1575.0	-2396.9	29.6	-7.4
7-H	52407	15974	29.0	13.6	12.5	17.4	10.5	8.5	10.2	10.2	2.8	0.2	-2.4	-8.6	-14.8	-24.4	-33.4	-43.0	-51.7	-61.5	-74.0	-92.7	-119.5	-158.7	-218.7	-312.1	-458.5	-680.0	-1019.6	-1541.0	-2344.6	29.7	-7.1
7-I	51380	15661	29.1	13.7	12.6	17.5	10.6	8.7	10.4	10.5	3.1	0.5	-2.0	-8.1	-14.3	-23.7	-32.6	-42.1	-50.7	-60.3	-72.6	-91.0	-117.3	-155.8	-214.7	-306.4	-450.0	-667.3	-1000.3	-1511.5	-2299.4	29.8	-6.8
8-A	64870	19772	28.0	11.7	10.6	15.5	8.6	6.4	7.9	7.8	0.0	-3.1	-6.4	-13.5	-20.9	-32.0	-42.6	-53.9	-64.4	-76.2	-91.4	-113.8	-146.1	-193.8	-266.9	-381.2	-560.6	-833.4	-1253.6	-1898.8	-2893.5	28.6	-10.0
8-B	62935	19183	28.2	12.0	10.9	15.8	8.9	6.7	8.2	8.1	0.4	-2.6	-5.8	-12.8	-20.0	-30.8	-41.2	-52.2	-62.4	-74.0	-88.7	-110.5	-142.0	-188.4	-259.5	-370.5	-544.8	-809.6	-1217.3	-1843.2	-2808.3	28.8	-9.5

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Leq)
FROM WIND PARK OPERATIONS AT THE CUT-IN WIND CONDITION

8-C	61110	18626	28.3	12.2	11.1	16.0	9.1	7.0	8.6	8.5	0.8	-2.2	-5.2	-12.1	-19.1	-29.7	-39.8	-50.6	-60.6	-71.8	-86.2	-107.4	-138.1	-183.3	-252.4	-360.4	-529.8	-787.2	-1183.1	-1790.9	-2728.0	28.9	-9.1
8-D	59392	18103	28.4	12.5	11.4	16.3	9.4	7.3	8.9	8.8	1.2	-1.7	-4.7	-11.4	-18.3	-28.7	-38.6	-49.2	-58.8	-69.8	-83.8	-104.6	-134.5	-178.4	-245.8	-350.9	-515.7	-766.0	-1150.8	-1741.6	-2652.3	29.0	-8.8
8-F	56402	17191	28.7	12.9	11.8	16.7	9.8	7.8	9.4	9.4	1.9	-0.9	-3.7	-10.2	-16.8	-26.8	-36.4	-46.6	-55.8	-66.3	-79.6	-99.5	-128.1	-170.0	-234.2	-334.3	-491.2	-729.2	-1094.7	-1655.7	-2520.7	29.3	-8.1
8-G	55203	16826	28.7	13.1	12.0	16.9	10.0	8.0	9.6	9.7	2.2	-0.6	-3.3	-9.7	-16.2	-26.1	-35.5	-45.5	-54.6	-64.9	-78.0	-97.5	-125.5	-166.6	-229.6	-327.6	-481.4	-714.5	-1072.2	-1621.3	-2467.8	29.4	-7.8
8-H	54055	16476	28.8	13.3	12.2	17.1	10.2	8.2	9.9	9.9	2.4	-0.3	-2.9	-9.2	-15.6	-25.4	-34.7	-44.5	-53.4	-63.5	-76.3	-95.5	-123.1	-163.4	-225.1	-321.2	-472.0	-700.3	-1050.6	-1588.3	-2417.3	29.5	-7.5
9-A	66006	20119	28.0	11.5	10.4	15.3	8.4	6.2	7.7	7.6	-0.2	-3.4	-6.7	-14.0	-21.5	-32.6	-43.4	-54.8	-65.5	-77.6	-92.9	-115.7	-148.5	-197.0	-271.3	-387.5	-569.9	-847.4	-1274.9	-1931.4	-2943.5	28.5	-10.2
9-B	64148	19552	28.1	11.8	10.7	15.6	8.7	6.5	8.0	7.9	0.2	-3.0	-6.2	-13.2	-20.6	-31.5	-42.0	-53.2	-63.6	-75.4	-90.4	-112.5	-144.6	-191.8	-264.1	-377.2	-554.7	-824.5	-1240.1	-1878.1	-2861.8	28.7	-9.8
9-C	62394	19018	28.2	12.0	10.9	15.8	8.9	6.8	8.3	8.2	0.6	-2.5	-5.6	-12.6	-19.8	-30.5	-40.8	-51.7	-61.9	-73.3	-88.0	-109.6	-140.9	-186.9	-257.4	-367.5	-540.3	-803.0	-1207.1	-1827.7	-2784.5	28.8	-9.4
9-D	60797	18531	28.3	12.3	11.2	16.1	9.2	7.0	8.6	8.5	0.9	-2.1	-5.1	-11.9	-19.0	-29.5	-39.6	-50.4	-60.3	-71.5	-85.7	-106.9	-137.5	-182.4	-251.2	-358.6	-527.3	-783.3	-1177.2	-1781.9	-2714.2	28.9	-9.1
9-E	59294	18073	28.4	12.5	11.4	16.3	9.4	7.3	8.9	8.8	1.2	-1.7	-4.6	-11.4	-18.2	-28.6	-38.5	-49.1	-58.7	-69.7	-83.7	-104.4	-134.3	-178.2	-245.4	-350.3	-514.9	-764.8	-1149.0	-1738.8	-2648.0	29.0	-8.7
9-F	57937	17659	28.5	12.7	11.6	16.5	9.6	7.5	9.1	9.1	1.5	-1.3	-4.2	-10.8	-17.6	-27.8	-37.5	-47.9	-57.4	-68.1	-81.8	-102.1	-131.4	-174.3	-240.2	-342.8	-503.8	-748.1	-1123.5	-1699.8	-2588.2	29.2	-8.4
9-G	56733	17292	28.6	12.9	11.8	16.7	9.8	7.7	9.3	9.3	1.8	-1.0	-3.8	-10.3	-17.0	-27.1	-36.6	-46.8	-56.1	-66.7	-80.1	-100.1	-128.8	-170.9	-235.5	-336.1	-494.0	-733.3	-1100.9	-1665.2	-2535.2	29.3	-8.1
9-H	55736	16988	28.7	13.0	11.9	16.8	9.9	7.9	9.5	9.5	2.1	-0.8	-3.5	-9.9	-16.5	-26.4	-35.9	-46.0	-55.1	-65.5	-78.7	-98.4	-126.7	-168.1	-231.6	-330.6	-485.8	-721.0	-1082.2	-1636.6	-2491.3	29.4	-7.9
9-I	54829	16712	28.8	13.2	12.1	17.0	10.1	8.0	9.7	9.7	2.3	-0.5	-3.2	-9.6	-16.0	-25.9	-35.2	-45.2	-54.2	-64.4	-77.4	-96.8	-124.7	-165.6	-228.1	-325.5	-478.3	-709.8	-1065.1	-1610.6	-2451.4	29.4	-7.7
10-A	67195	20481	27.9	11.4	10.3	15.2	8.3	6.0	7.5	7.4	-0.4	-3.7	-7.1	-14.4	-22.1	-33.3	-44.2	-55.8	-66.7	-78.9	-94.6	-117.6	-151.0	-200.3	-275.9	-394.0	-579.6	-862.0	-1297.2	-1965.5	-2995.9	28.4	-10.4
10-B	65437	19945	28.0	11.6	10.5	15.4	8.5	6.3	7.8	7.7	-0.1	-3.3	-6.5	-13.7	-21.2	-32.3	-43.0	-54.3	-64.9	-76.9	-92.2	-114.7	-147.3	-195.4	-269.1	-384.3	-565.2	-840.4	-1264.2	-1915.0	-2918.5	28.6	-10.1
10-C	63760	19434	28.1	11.8	10.7	15.6	8.7	6.5	8.1	8.0	0.3	-2.9	-6.0	-13.1	-20.4	-31.3	-41.8	-52.9	-63.2	-74.9	-89.8	-111.9	-143.8	-190.7	-262.6	-375.0	-551.5	-819.8	-1232.8	-1866.9	-2844.6	28.7	-9.7
10-D	62173	18950	28.2	12.1	11.0	15.9	9.0	6.8	8.4	8.3	0.6	-2.5	-5.5	-12.5	-19.6	-30.3	-40.6	-51.6	-61.7	-73.1	-87.7	-109.2	-140.4	-186.2	-256.5	-366.3	-538.5	-800.3	-1203.0	-1821.4	-2774.8	28.8	-9.4
10-E	60751	18517	28.3	12.3	11.2	16.1	9.2	7.0	8.6	8.5	0.9	-2.1	-5.1	-11.9	-19.0	-29.5	-39.6	-50.3	-60.2	-71.4	-85.7	-106.8	-137.4	-182.3	-251.0	-358.4	-526.9	-782.8	-1176.3	-1780.6	-2712.1	28.9	-9.1
10-F	59441	18118	28.4	12.5	11.4	16.3	9.4	7.2	8.9	8.8	1.2	-1.7	-4.7	-11.4	-18.3	-28.7	-38.6	-49.2	-58.9	-69.9	-83.9	-104.6	-134.6	-178.6	-246.0	-351.1	-516.1	-766.6	-1151.7	-1743.0	-2654.5	29.0	-8.8
10-G	58311	17773	28.5	12.6	11.5	16.4	9.5	7.4	9.1	9.0	1.5	-1.4	-4.3	-11.0	-17.8	-28.0	-37.8	-48.2	-57.8	-68.6	-82.3	-102.7	-132.2	-175.4	-241.6	-344.9	-506.9	-752.7	-1130.5	-1710.5	-2604.7	29.1	-8.5
10-H	57378	17489	28.6	12.8	11.7	16.6	9.7	7.6	9.2	9.2	1.7	-1.2	-4.0	-10.6	-17.3	-27.4	-37.1	-47.4	-56.8	-67.4	-81.0	-101.2	-130.2	-172.8	-238.0	-339.7	-499.2	-741.2	-1113.0	-1683.7	-2563.6	29.2	-8.3
10-I	114656	34947	25.6	6.7	5.6	10.5	3.6	0.4	1.4	0.4	-8.7	-13.9	-19.9	-30.8	-43.0	-59.8	-76.6	-94.6	-112.4	-132.5	-158.2	-195.3	-249.9	-331.5	-457.0	-654.7	-966.2	-1443.8	-2185.7	-3325.6	-5083.6	25.9	-17.8
11-A	68482	20873	27.8	11.2	10.1	15.0	8.1	5.8	7.3	7.1	-0.7	-4.0	-7.5	-14.9	-22.7	-34.1	-45.2	-56.9	-68.0	-80.4	-96.3	-119.8	-153.8	-203.9	-280.8	-401.1	-590.1	-877.8	-1321.3	-2002.4	-3052.6	28.3	-10.7
11-B	66741	20343	27.9	11.5	10.4	15.3	8.4	6.1	7.6	7.4	-0.4	-3.6	-6.9	-14.2	-21.8	-33.1	-43.9	-55.5	-66.2	-78.4	-93.9	-116.9	-150.1	-199.0	-274.1	-391.5	-575.9	-856.4	-1288.7	-1952.5	-2975.9	28.5	-10.3
11-C	65135	19853	28.0	11.7	10.6	15.5	8.6	6.3	7.9	7.7	0.0	-3.2	-6.5	-13.6	-21.1	-32.1	-42.8	-54.1	-64.6	-76.5	-91.7	-114.2	-146.7	-194.6	-267.9	-382.6	-562.8	-836.7	-1258.6	-1906.4	-2905.2	28.6	-10.0
11-D	63679	19409	28.1	11.9	10.8	15.7	8.8	6.6	8.1	8.0	0.3	-2.8	-6.0	-13.1	-20.4	-31.2	-41.7	-52.8	-63.2	-74.8	-89.7	-111.8	-143.6	-190.5	-262.3	-374.6	-550.8	-818.8	-1231.2	-1864.6	-2841.1	28.7	-9.7
11-E	62275	18982	28.2	12.1	11.0	15.9	9.0	6.8	8.4	8.3	0.6	-2.5	-5.6	-12.5	-19.7	-30.4	-40.7	-51.6	-61.8	-73.2	-87.8	-109.4	-140.6	-186.5	-256.9	-366.8	-539.4	-801.5	-1204.9	-1824.3	-2779.3	28.8	-9.4
11-F	61095	18622	28.3	12.2	11.1	16.0	9.1	7.0	8.6	8.5	0.8	-2.2	-5.2	-12.1	-19.1	-29.7	-39.8	-50.6	-60.6	-71.8	-86.2	-107.4	-138.1	-183.2	-252.4	-360.3	-529.7	-787.0	-1182.8	-1790.4	-2727.3	28.9	-9.1
11-G	60010	18291	28.4	12.4	11.3	16.2	9.3	7.1	8.8	8.7	1.1	-1.9	-4.9	-11.6	-18.6	-29.0	-39.0	-49.7	-59.5	-70.6	-84.7	-105.6	-135.8	-180.2	-248.2	-354.3	-520.8	-773.6	-1162.4	-1759.3	-2679.5	29.0	-8.9
11-H	59100	18014	28.5	12.5	11.4	16.3	9.4	7.3	8.9	8.9	1.3	-1.7	-4.6	-11.3	-18.1	-28.5	-38.4	-48.9	-58.6	-69.5	-83.4	-104.1	-133.9	-177.6	-244.7	-349.2	-513.4	-762.4	-1145.3	-1733.2	-2639.4	29.1	-8.7
11-K	57417	17501	28.6	12.8	11.7	16.6	9.7	7.6	9.2	9.2	1.7	-1.2	-4.0	-10.6	-17.3	-27.5	-37.1	-47.4	-56.8	-67.5	-81.0	-101.2	-130.3	-172.9	-238.2	-339.9	-499.6	-741.7	-1113.7	-1684.9	-2565.3	29.2	-8.3
11-L	57145	17418	28.6	12.8	11.7	16.6	9.7	7.6	9.3	9.3	1.7	-1.1	-3.9	-10.5	-17.2	-27.3	-36.9	-47.2	-56.6	-67.2	-80.7	-100.8	-129.7	-172.1	-237.1	-338.4	-497.3	-738.4	-1108.6	-1677.0	-2553.3	29.2	-8.2
12-A	69776	21268	27.7	11.1	10.0	14.9	8.0	5.6	7.1	6.9	-1.0	-4.3	-7.9	-15.4	-23.3	-34.9	-46.1	-58.0	-69.2	-81.9	-98.1	-121.9	-156.5	-207.5	-285.8	-408.3	-600.7	-893.7	-1345.6	-2039.5	-3109.5	28.2	-11.0
12-B	68098	20756	27.8	11.3	10.2	15.1	8.2	5.9	7.4	7.2	-0.6	-3.9	-7.4	-14.7	-22.5	-33.9	-44.9	-56.6	-67.6	-80.0	-95.8	-119.1	-152.9	-202.8	-279.4	-399.0	-587.0	-873.1	-1314.1	-1991.4	-3035.6	28.4	-10.6
12-C	66534	20280	27.9	11.5	10.4	15.3	8.4	6.1	7.6	7.5	-0.3	-3.5	-6.9	-14.2	-21.7	-32.9	-43.8	-55.3	-66.0	-78.2	-93.7	-116.5	-149.6	-198.5	-273.3	-390.4	-574.2	-853.9	-1284.8	-1946.5	-2966.8	28.5	-10.3
12-D	65134	19853	28.0	11.7	10.6	15.5	8.6	6.3	7.9	7.7	0.0	-3.2	-6.5	-13.6	-21.1	-32.1	-42.8	-54.1	-64.6	-76.5	-91.7	-114.2	-146.7	-194.6	-267.9	-382.6	-562.8	-836.7	-1258.6	-1906.4	-2905.2	28.6	-10.0
12-E	63806	19448	28.1	11.8	10.7	15.6	8.7	6.5	8.1	8.0	0.3	-2.9	-6.0	-13.1	-20.4	-31.3	-41.8	-53.0	-63.3	-75.0	-89.9	-112.0	-143.9	-190.8	-262.8	-375.3	-551.9	-820.3	-1233.6	-1868.3	-2846.7	28.7	-9.7
12-F	62708	19113	28.2	12.0	10.9	15.8	8.9	6.7	8.3	8.2	0.5	-2.6	-5.7	-12.7	-19.9	-30.7	-41.0	-52.0	-62.2	-73.7	-88.4	-110.1	-141.5	-187.7	-258.6	-369.2	-542.9	-806.8	-1213.0	-1836.7	-2798.3	28.8	-9.5
12-G	61677	18799	28.3	12.1	11.0	15.9	9.0	6.9	8.5	8.4	0.7	-2.3	-5.4	-12.3	-19.4	-30.1	-40.3	-51.1	-61.2	-72.5	-87.0	-108.4	-139.3	-184.9	-254.6	-363.5	-534.5	-794.1	-1193.7	-1807.1	-2752.9	28.9	-9.3
12-H	60835	18543	28.3	12.3	11.2	16.1	9.2	7.0	8.6	8.5	0.9	-2.1	-5.1	-12.0	-19.0	-29.5	-39.6	-50.4	-60.3	-71.5	-85.8	-107.0	-137.6	-182.5	-251.4	-358.8	-527.6	-783.8	-1177.9	-1783.0	-2715.9	28.9	-9.1
12-I	60136	18330	28.4	12.4	11.3	16.2	9.3	7.1	8.7	8.7	1.1	-1.9	-4.9	-11.7	-18.7	-29.1	-39.1	-49.8	-59.6	-70.7	-84.8	-105.8	-136.1	-180.5	-248.7	-355.0	-521.8	-775.2	-1164.8	-1762.9	-2685.1	29.0	-8.9
12-J	59598	18166	28.4	12.4	11.3	16.2	9.3	7.2	8.8	8.8	1.2	-1.8	-4.7	-11.5	-18.4	-28.8	-38.7	-49.3	-59.1	-70.1	-84.1	-104.9	-134.9	-179.0	-246.6	-352.0	-517.4	-768.6	-1154.7	-1747.5	-2661.4	29.0	-8.8
12-K	59250	18059	28.4	12.5	11.4	16.3	9.4	7.3	8.9	8.8	1.3	-1.7	-4.6	-11.3	-18.2	-28.6	-38.5	-49.0	-58.7	-69.7	-83.6	-104.3	-134.2	-178.0	-245.2	-350.1	-514.6	-764.3	-1148.1	-1737.5	-2646.1	29.1	-8.7
12-L	59056	18000	28.5	12.5	11.4	16.3	9.4	7.3	8.9	8.9	1.3	-1.6	-4.6	-11.3	-18.1	-28.5	-38.3	-48.9	-58.5	-69.4	-83.3	-104.0	-133.8	-177.5	-244.5	-349.0	-513.0	-761.9	-1144.5	-1731.9	-2637.5	29.1	-8.7
13-A	71112	21675	27.6	10.9	9.8	14.7	7.8	5.4	6.9	6.7	-1.2	-4.7	-8.2	-15.9	-23.9	-35.6	-47.0	-59.2	-70.6	-83.5	-99.9	-124.2	-159.3	-211.3	-290.9	-415.7	-611.6	-910.1	-1370.6	-2077.9	-3168.3	28.2	-11.2
13-B	69472	21175	27.7	11.1	10.0	14.9	8.0	5.7	7.2	7.0	-0.9	-4.3	-7.8	-15.3	-23.1	-34.7	-45.9	-57.8	-68.9	-81.6	-97.7	-121.4	-155.8	-206.7	-284.6	-406.6	-598.2	-890.0	-1339.9	-2030.8	-3096.1	28.3	-10.9
13-C	67994	20725	27.8	11.3	10.2	15.1	8.2	5.9	7.4	7.2	-0.6	-3.9	-7.3	-14.7	-22.4	-33.8	-44.8	-56.5	-67.5	-79.9	-95.7	-119.0	-152.7	-202.6	-279.0	-398.4	-586.1	-871.8	-1312.2	-1988.4	-3031.1	28.4	-10.6
13-D	66651	20315	27.9	11.5	10.4	15.3	8.4	6.1	7.6	7.5	-0.3	-3.6	-6.9	-14.2	-21.8	-33.0	-43.8	-55.4	-66.1	-78.3	-93.8	-116.7	-149.9	-198.8	-273.8	-391.0	-575.2	-855.3	-1287.0	-1949.9	-2971.9	28.5	-10.3
13-F	64319	19604	28.1	11.8	10.7	15.6	8.7	6.5	8.0	7.9	0.2	-3.0	-6.2	-13.3	-20.7	-31.6	-42.2	-53.4	-63.8	-75.6	-90.6	-112.8	-145.0	-192.3	-264.8	-378.1	-556.1	-826.6	-1243.3	-1883.0	-2869.3	28.6	-9.8
13-G	63374	19316	28.1	11.9	10.8	15.7	8.8	6.6	8.2	8.1	0.4	-2.8	-5.9	-12.9	-20.2	-31.1	-41.5	-52.6	-62.9	-74.5	-89.3	-111.2	-142.9	-189.6	-261.2	-372.9	-548.4	-815.0	-1225.5	-1855.8	-2827.7	28.7	-9.6
13-H	62532	19060	28.2	12.0	10.9	15.8	8.9	6.7	8.3	8.2	0.5	-2.5	-5.7	-12.6	-19.8	-30.6	-40.9	-51.9	-62.0	-73.5	-88.1	-109.8	-141.2	-187.3	-257.9	-368.2	-541.5	-804.7	-1209.7	-1831.7	-2790.6	28.8	-9.5
13-I	61924	18875	28.2	12.1	11.0	15.9	9.0	6.8	8.4	8.3	0.7	-2.4	-5.5	-12.4	-19.5	-30.2	-40.4	-51.3	-61.4	-72.8	-87.3	-108.8	-139.9	-185.6	-255.6	-364.9	-536.5	-797.2	-1198.3	-1814.2	-2763.8	28.8	-9.3
13-J	61510	18748	28.3	12.2	11.1	16.0	9.1	6.9	8.5	8.4	0.8	-2.3	-5.3	-12.2	-19.3	-30.0	-40.1	-51.0	-61.0	-72.3	-86.7	-108.1	-139.0	-184.4	-254.0	-362.6	-533.1	-792.1	-1190.6	-1802.4	-2745.6	28.9	-9.2
13-K	61187	18650	28.3	12.2	11.1	16.0	9.1	7.0	8.5	8.5	0.8	-2.2	-5.2	-12.1	-19.2	-29.8	-39.9	-50.7	-60.7	-71.9	-86.3	-107.6	-138.3	-183.5	-252.7	-360.8	-530.5	-788.1	-1184.5	-1793.1	-2731.4	28.9	-9.2
13-L	61057	18610	28.3	12.2	11.1	16.0	9.1	7.0	8.6	8.5	0.9	-2.2	-5.2	-12.0	-19.1	-29.7	-39.8	-50.6	-60.5	-71.8	-86.1	-107.4	-138.0	-183.1	-252.2	-360.1	-529.4	-786.5	-1182.1	-1789.3	-2725.6	28.9	-9.1
14-D	68201	20788	27.8	11.3	10.2	15.1	8.2	5.9	7.4	7.2	-0.7	-4.0	-7.4	-14.8	-22.5	-33.9	-45.0	-56.7	-67.7	-80.1	-96.0	-119.3	-153.2	-203.1	-279.7	-399.6	-587.8	-874.4	-1316.1	-1994.4	-3040.2	28.4	-10.6
14-E	67045	20435	27.9	11.4	10.3	15.2	8.3	6.0	7.6	7.4	-0.4	-3.7	-7.0	-14.3	-22.0	-33.2	-44.1	-55.7	-66.5	-78.8	-94.4	-117.4	-150.7	-199.9	-275.3	-393.2	-578.4	-860.2	-1294.4	-1961.2	-2989.3	28.4	-10.4
14-F	65981	20111	28.0	11.5	10.4	15.3	8.4	6.2	7.7	7.6	-0.2	-3.4	-6.7	-13.9	-21.5	-32.6	-43.4	-54.8	-65.5	-77.5	-92.9	-115.6	-148.5	-196.9	-271.2	-387.3	-569.7	-847.1	-1274.4	-1930.6	-2942.4	28.5	-10.2
14-G	65095	19841	28.0	11.7	10.6	15.5	8.6	6.3	7.9	7.7	0.0	-3.2	-6.4	-13.6	-21.1	-32.1	-42.7	-54.1	-64.6	-76.5	-91.7	-114.1	-146.6	-194.4	-267.8	-382.4	-562.4	-836.2	-1257.8	-1905.2	-2903.4	28.6	-10.0
14-H	64354	19615	28.1	11.8	10.7	15.6	8.7	6.5	8.0	7.9	0.1	-3.0	-6.2	-13.3	-20.7	-31.7	-42.2	-53.4	-63.8	-75.6	-90.7	-112.9	-145.0	-192.4	-264.9	-378.3	-556.4	-827.1	-1243.9	-1884.0	-2870.8	28.6	-9.9
14-J	63322	19301	28.2	11.9	10.8	15.7	8.8	6.6	8.2	8.1	0.4	-2.7	-5.9	-12.9	-20.2	-31.0	-41.5	-52.5	-62.8	-74.4	-89.2	-111.2	-142.8	-189.5	-261.0	-372.6	-547.9	-814.4	-1224.6	-1854.4	-2825.4	28.7	-9.6
14-K	63100	19233	28.2	11.9	10.8	15.7	8.8	6.6	8.2	8.1	0.4	-2.7	-5.8	-12.8	-20.1	-30.9	-41.3	-52.4	-62.6	-74.2	-88.9	-110.8	-142.4	-188.9	-260.1	-371.4	-546.1	-811.7	-1220.4	-1848.0	-2815.6	28.7	-9.6
14-L	63008	19205	28.2	11.9	10.8	15.7	8.8	6.7	8.2	8.1	0.4	-2.7	-5.8	-12.8	-20.1	-30.8	-41.2	-52.3	-62.5	-74.1	-88.8	-110.6	-142.2	-188.6	-259.7	-370.9	-545.4	-810.5	-1218.7	-1845.3	-2811.6	28.7	-9.6
15-F	67668	20625	27.9	11.3	10.2	15.1	8.2	5.9	7.5	7.3	-0.5	-3.8	-7.2	-14.6	-22.3	-33.6	-44.6	-56.2	-67.1	-79.5	-95.2	-118.4	-152.0	-201.6	-277.7	-396.6	-583.5	-867.8	-1306.1	-1979.0	-3016.7	28.4	-10.5
15-G	66824	20368	27.9	11.4	10.3	15.2	8.3	6.1	7.6	7.4	-0.4	-3.6	-7.0	-14.3	-21.9	-33.1	-44.0	-55.5	-66.3	-78.5	-94.1	-117.0	-150.3	-199.3	-274.4	-392.0	-576.6	-857.4	-1290.2	-1954.8	-2979.5	28.5	-10.4
15-H	66179	20171	28.0	11.5	10.4	15.3	8.4	6.2	7.7	7.5	-0.2	-3.5	-6.8	-14.0	-21.6	-32.7	-43.5	-55.0	-65.7	-77.8	-93.2	-115.9	-148.9	-197.5	-272.0	-388.4	-571.3	-849.5	-1278.1	-1936.3	-2951.1	28.5	-10.2
15-I	65639	20007	28.0	11.6	10.5	15.4	8.5	6.3	7.8	7.6	-0.1	-3.3	-6.6	-13.8	-21.3	-32.4	-43.1	-54.5	-65.1	-77.1	-92.4	-115.0	-147.7	-196.0	-269.9	-385.4	-566.9	-842.9	-1268.0	-1920.8	-2927.4	28.5	-10.1
15-J	65239	19885	28.0	11.6	10.5	15.4	8.5	6.3	7.9	7.7	0.0	-3.2	-6.5	-13.7	-21.1	-32.2	-42.8	-54.2	-64.7	-76.7	-91.9	-114.4	-146.9	-194.8	-268.3	-383.2	-563.6	-838.0	-1260.5	-1909.4	-2909.8	28.6	-10.0
15-K	65018	19818	28.0	11.7	10.6	15.5	8.6	6.3	7.9	7.7	0.0	-3.2	-6.4	-13.6	-21.0	-32.0	-42.7	-54.0	-64.5	-76.4	-91.6	-114.0	-146.4	-194.2	-267.5	-382.0	-561.8	-835.2	-1256.4	-1903.0	-2900.1	28.6	-10.0
16-J	67129	20461	27.9	11.4	10.3	15.2	8.3	6.0	7.6	7.4	-0.4	-3.7	-7.1	-14.4	-22.0	-33.3	-44.2	-55.8	-66.6	-78.9	-94.5	-117.5	-150.9	-200.1	-275.6	-393.7	-579.1	-861.2	-1296.0	-1963.6	-2993.0	28.4	-10.4
16-K	66946	20405	27.9	11.4	10.3	15.2	8.3	6.1	7.6	7.4	-0.4	-3.7	-7.0	-14.3	-21.9	-33.2	-44.1	-55.6	-66.4	-78.6	-94.2	-117.2	-150.5	-199.6	-274.9	-392.6	-577.6	-858.9	-1292.5	-1958.3	-2984.9	28.4	-10.4
		Sum:	49.9	34.3	33.2	38.1	31.2	29.2	30.9	31.0	23.5	20.9	18.4	12.3	6.4	-2.6	-10.9	-19.5	-27.0	-35.4	-45.8	-61.4	-83.2	-114.2	-160.9	-232.2	-342.6	-507.4	-757.3	-1140.3	-1730.3	50.5	13.7

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Leq)
FROM WIND PARK OPERATIONS AT THE CUT-IN WIND CONDITION

																		Hertz													
	1/3 Octave Bands	**16***	**20**	**25**	**31**	**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**	**L**	**A**
Sound Power Data		112.0	105.6	104.5	109.4	102.5	101.6	103.9	104.9	98.9	98.3	98.7	96.5	95.3	91.8	89.3	86.7	85.7	84.5	83.2	80.0	76.5	73.1	68.2	62.7	55.3	49.4	48.4	47.8	47.6	116.3	95.4
Data for the graph																																
Atmos. Absorption per 1 km air temp 59F 70% RH		0.0000	0.0000	0.0000	0.0000	0.0000	0.0670	0.1050	0.1630	0.2510	0.3810	0.5650	0.8150	1.1300	1.5100	1.9200	2.3600	2.8400	3.3800	4.0800	5.0500	6.5100	8.7500	12.2000	17.7000	26.4000	39.9000	61.1000	93.7000	144.0000		

*Spherical wave spreading for up to 2 km, cylindrical wave spreading beyond 2 km.

																		Hertz													
	1/3 Octave Bands	**16***	**20**	**25**	**31**	**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**	**L**	**A**
	Distance (ft)	**Distance (m)**																														
1-D	39392	12007	30.2	16.0	14.9	19.8	12.9	11.2	13.1	13.4	6.3	4.2	2.3	-2.9	-7.8	-15.9	-23.3	-31.2	-38.0	-45.7	-55.4	-70.2	-91.2	-121.5	-167.9	-239.4	-351.2	-519.2	-774.8	-1166.8	-1770.9	31.1	-3.3
1-E	37695	11490	30.4	16.4	15.3	20.2	13.3	11.6	13.5	13.8	6.8	4.7	3.0	-2.1	-6.9	-14.7	-21.9	-29.6	-36.1	-43.5	-52.9	-67.2	-87.5	-116.6	-161.2	-229.9	-337.2	-498.2	-742.8	-1118.0	-1696.1	31.4	-2.7
1-F	36186	11030	30.6	16.8	15.7	20.6	13.7	12.0	13.9	14.3	7.3	5.3	3.6	-1.3	-6.0	-13.7	-20.7	-28.2	-34.5	-41.6	-50.6	-64.5	-84.1	-112.2	-155.2	-221.4	-324.7	-479.5	-714.3	-1074.5	-1629.5	31.6	-2.1
1-G	34915	10642	30.7	17.1	16.0	20.9	14.0	12.4	14.3	14.6	7.7	5.7	4.2	-0.7	-5.2	-12.8	-19.7	-26.9	-33.0	-40.0	-48.7	-62.3	-81.3	-108.5	-150.2	-214.2	-314.2	-463.7	-690.4	-1037.9	-1573.4	31.8	-1.7
1-H	33886	10328	30.9	17.3	16.2	21.1	14.2	12.6	14.6	15.0	8.0	6.1	4.6	-0.2	-4.6	-12.1	-18.8	-25.9	-31.9	-38.7	-47.2	-60.4	-79.0	-105.5	-146.1	-208.4	-305.6	-451.0	-670.9	-1008.2	-1528.0	31.9	-1.3
1-I	33152	10105	31.0	17.5	16.4	21.3	14.4	12.9	14.8	15.2	8.3	6.4	4.9	0.2	-4.2	-11.5	-18.2	-25.2	-31.1	-37.7	-46.1	-59.1	-77.4	-103.4	-143.1	-204.2	-299.5	-441.8	-657.1	-987.1	-1495.5	32.1	-1.0
1-J	32735	9978	31.0	17.6	16.5	21.4	14.5	13.0	14.9	15.3	8.4	6.5	5.1	0.4	-3.9	-11.2	-17.8	-24.8	-30.6	-37.2	-45.5	-58.4	-76.4	-102.2	-141.5	-201.9	-296.1	-436.7	-649.2	-975.1	-1477.2	32.1	-0.8
1-K	32560	9924	31.0	17.7	16.6	21.5	14.6	13.0	14.9	15.4	8.5	6.6	5.2	0.5	-3.8	-11.1	-17.7	-24.6	-30.4	-37.0	-45.2	-58.0	-76.0	-101.7	-140.8	-200.9	-294.6	-434.5	-645.9	-970.0	-1469.4	32.2	-0.7
1-L	32797	9997	31.0	17.6	16.5	21.4	14.5	13.0	14.9	15.3	8.4	6.5	5.1	0.4	-4.0	-11.3	-17.9	-24.9	-30.7	-37.3	-45.6	-58.5	-76.6	-102.3	-141.7	-202.2	-296.6	-437.4	-650.4	-976.9	-1479.9	32.1	-0.8
2-D	40761	12424	30.1	15.7	14.6	19.5	12.6	10.9	12.7	13.0	5.9	3.7	1.8	-3.5	-8.6	-16.8	-24.4	-32.5	-39.5	-47.4	-57.4	-72.6	-94.2	-125.5	-173.2	-247.1	-362.6	-536.2	-800.6	-1206.2	-1831.3	31.0	-3.7
2-E	39132	11927	30.2	16.1	15.0	19.9	13.0	11.3	13.1	13.4	6.4	4.2	2.4	-2.7	-7.7	-15.7	-23.1	-31.0	-37.7	-45.3	-55.0	-69.7	-90.7	-120.8	-166.8	-237.9	-349.1	-516.0	-769.9	-1159.3	-1759.5	31.2	-3.2
2-F	37734	11501	30.4	16.4	15.3	20.2	13.3	11.6	13.5	13.8	6.8	4.7	3.0	-2.1	-6.9	-14.8	-22.0	-29.6	-36.2	-43.6	-52.9	-67.3	-87.6	-116.7	-161.3	-230.1	-337.5	-498.7	-743.5	-1119.1	-1697.8	31.4	-2.7
2-G	36572	11147	30.5	16.7	15.6	20.5	13.6	11.9	13.8	14.2	7.2	5.1	3.5	-1.5	-6.2	-14.0	-21.0	-28.5	-34.9	-42.1	-51.2	-65.2	-85.0	-113.4	-156.7	-223.5	-327.9	-484.3	-721.6	-1085.6	-1646.5	31.5	-2.3
2-H	35656	10868	30.6	16.9	15.8	20.7	13.8	12.2	14.1	14.4	7.5	5.5	3.9	-1.1	-5.7	-13.3	-20.3	-27.7	-33.9	-40.9	-49.8	-63.6	-83.0	-110.7	-153.1	-218.4	-320.3	-472.9	-704.3	-1059.2	-1606.1	31.7	-1.9
2-I	34970	10659	30.7	17.1	16.0	20.9	14.0	12.3	14.2	14.6	7.7	5.7	4.1	-0.7	-5.3	-12.8	-19.7	-27.0	-33.1	-40.1	-48.8	-62.4	-81.4	-108.7	-150.4	-214.5	-314.6	-464.4	-691.4	-1039.5	-1575.8	31.8	-1.7
2-J	34620	10552	30.8	17.2	16.1	21.0	14.1	12.4	14.3	14.7	7.8	5.8	4.3	-0.5	-5.1	-12.6	-19.4	-26.7	-32.7	-39.6	-48.3	-61.7	-80.6	-107.7	-149.0	-212.5	-311.7	-460.1	-684.8	-1029.4	-1560.3	31.8	-1.5
2-K	34580	10540	30.8	17.2	16.1	21.0	14.1	12.5	14.4	14.7	7.8	5.8	4.3	-0.5	-5.0	-12.6	-19.4	-26.6	-32.7	-39.6	-48.2	-61.7	-80.6	-107.6	-148.8	-212.3	-311.4	-459.6	-684.0	-1028.2	-1558.6	31.8	-1.5
2-L	34778	10600	30.8	17.1	16.0	20.9	14.0	12.4	14.3	14.7	7.8	5.8	4.2	-0.6	-5.2	-12.7	-19.5	-26.8	-32.9	-39.8	-48.5	-62.0	-81.0	-108.1	-149.6	-213.4	-313.0	-462.0	-687.8	-1034.0	-1567.4	31.8	-1.6
3-D	42131	12841	29.9	15.4	14.3	19.2	12.3	10.6	12.4	12.7	5.5	3.3	1.3	-4.1	-9.4	-17.7	-25.5	-33.8	-40.9	-49.1	-59.3	-75.0	-97.3	-129.4	-178.6	-254.7	-373.9	-553.1	-826.4	-1245.6	-1891.7	30.8	-4.1
3-E	40601	12375	30.1	15.8	14.7	19.6	12.7	10.9	12.8	13.1	6.0	3.8	1.9	-3.4	-8.5	-16.7	-24.3	-32.3	-39.3	-47.2	-57.1	-72.3	-93.9	-125.0	-172.6	-246.2	-361.2	-534.2	-797.6	-1201.6	-1824.3	31.0	-3.7
3-F	39296	11978	30.2	16.1	15.0	19.9	13.0	11.2	13.1	13.4	6.3	4.2	2.4	-2.8	-7.8	-15.8	-23.2	-31.1	-37.9	-45.5	-55.2	-70.0	-91.0	-121.3	-167.5	-238.9	-350.5	-518.1	-773.0	-1164.0	-1766.7	31.2	-3.2
3-G	38245	11657	30.3	16.3	15.2	20.1	13.2	11.5	13.4	13.7	6.7	4.5	2.8	-2.3	-7.2	-15.1	-22.4	-30.1	-36.7	-44.2	-53.7	-68.2	-88.7	-118.2	-163.3	-232.9	-341.8	-505.0	-753.2	-1133.8	-1720.4	31.3	-2.9
3-I	36870	11238	30.5	16.6	15.5	20.4	13.5	11.9	13.7	14.1	7.1	5.0	3.4	-1.7	-6.4	-14.2	-21.3	-28.8	-35.2	-42.5	-51.6	-65.7	-85.7	-114.2	-157.9	-225.2	-330.4	-488.0	-727.2	-1094.2	-1659.6	31.5	-2.4
3-J	36551	11141	30.5	16.7	15.6	20.5	13.6	11.9	13.8	14.2	7.2	5.1	3.5	-1.5	-6.2	-13.9	-21.0	-28.5	-34.9	-42.1	-51.2	-65.2	-84.9	-113.3	-156.6	-223.4	-327.7	-484.0	-721.2	-1085.0	-1645.6	31.5	-2.3
3-K	36544	11139	30.5	16.7	15.6	20.5	13.6	11.9	13.8	14.2	7.2	5.1	3.5	-1.5	-6.2	-13.9	-21.0	-28.5	-34.9	-42.1	-51.2	-65.2	-84.9	-113.3	-156.6	-223.4	-327.7	-483.9	-721.1	-1084.8	-1645.3	31.5	-2.3
3-L	36822	11223	30.5	16.6	15.5	20.4	13.5	11.9	13.7	14.1	7.1	5.0	3.4	-1.6	-6.4	-14.1	-21.2	-28.8	-35.2	-42.4	-51.6	-65.7	-85.5	-114.1	-157.7	-224.9	-330.0	-487.4	-726.3	-1092.8	-1657.5	31.5	-2.4
4-D	43541	13271	29.8	15.2	14.1	19.0	12.1	10.3	12.1	12.3	5.1	2.8	0.8	-4.8	-10.1	-18.7	-26.6	-35.1	-42.4	-50.8	-61.4	-77.5	-100.3	-133.5	-184.2	-262.6	-385.5	-570.6	-852.9	-1286.2	-1953.9	30.6	-4.6
4-E	42079	12826	29.9	15.5	14.4	19.3	12.4	10.6	12.4	12.7	5.5	3.3	1.3	-4.1	-9.3	-17.7	-25.5	-33.7	-40.9	-49.0	-59.3	-74.9	-97.1	-129.3	-178.4	-254.5	-373.4	-552.5	-825.4	-1244.1	-1889.4	30.8	-4.1
4-F	40911	12470	30.0	15.7	14.6	19.5	12.6	10.9	12.7	13.0	5.9	3.7	1.8	-3.6	-8.7	-16.9	-24.5	-32.6	-39.6	-47.5	-57.6	-72.9	-94.6	-125.9	-173.8	-247.9	-363.8	-538.0	-803.4	-1210.5	-1837.9	30.9	-3.8
4-G	39917	12167	30.2	15.9	14.8	19.7	12.8	11.1	12.9	13.2	6.2	4.0	2.1	-3.1	-8.1	-16.3	-23.7	-31.7	-38.5	-46.3	-56.1	-71.1	-92.4	-123.0	-169.9	-242.3	-355.6	-525.7	-784.7	-1181.9	-1794.1	31.1	-3.4
4-H	39189	11945	30.2	16.1	15.0	19.9	13.0	11.3	13.1	13.4	6.4	4.2	2.4	-2.8	-7.7	-15.8	-23.2	-31.0	-37.7	-45.4	-55.1	-69.8	-90.8	-120.9	-167.1	-238.2	-349.6	-516.7	-771.0	-1161.0	-1762.0	31.2	-3.2
4-I	38714	11800	30.3	16.2	15.1	20.0	13.1	11.4	13.2	13.6	6.5	4.4	2.6	-2.5	-7.5	-15.4	-22.8	-30.6	-37.2	-44.8	-54.4	-69.0	-89.7	-119.6	-165.2	-235.6	-345.6	-510.8	-762.0	-1147.3	-1741.0	31.2	-3.0
4-J	38504	11736	30.3	16.2	15.1	20.0	13.1	11.4	13.3	13.6	6.6	4.5	2.7	-2.4	-7.3	-15.3	-22.6	-30.4	-37.0	-44.5	-54.1	-68.6	-89.3	-119.0	-164.4	-234.4	-343.9	-508.2	-758.0	-1141.2	-1731.7	31.3	-3.0
4-K	38566	11755	30.3	16.2	15.1	20.0	13.1	11.4	13.3	13.6	6.6	4.4	2.7	-2.5	-7.4	-15.3	-22.7	-30.4	-37.1	-44.6	-54.1	-68.7	-89.4	-119.1	-164.6	-234.7	-344.4	-509.0	-759.2	-1143.0	-1734.5	31.3	-3.0
4-L	38882	11851	30.3	16.1	15.0	19.9	13.0	11.3	13.2	13.5	6.5	4.3	2.5	-2.6	-7.5	-15.6	-22.9	-30.7	-37.4	-45.0	-54.6	-69.3	-90.1	-120.1	-165.8	-236.5	-347.0	-512.9	-765.2	-1152.1	-1748.4	31.2	-3.1
5-D	44998	13715	29.6	14.9	13.8	18.7	11.8	10.0	11.7	11.9	4.7	2.3	0.2	-5.4	-10.9	-19.6	-27.8	-36.4	-44.0	-52.6	-63.5	-80.0	-103.5	-137.6	-189.9	-270.8	-397.5	-588.6	-880.3	-1328.1	-2018.1	30.5	-5.0
5-E	43691	13317	29.8	15.1	14.0	18.9	12.0	10.2	12.0	12.3	5.1	2.8	0.7	-4.8	-10.2	-18.8	-26.7	-35.2	-42.6	-51.0	-61.6	-77.7	-100.7	-133.9	-184.7	-263.5	-386.7	-572.4	-855.7	-1290.5	-1960.5	30.6	-4.6
5-F	42570	12975	29.9	15.4	14.3	19.2	12.3	10.5	12.3	12.5	5.4	3.1	1.1	-4.3	-9.6	-18.0	-25.9	-34.2	-41.4	-49.6	-60.0	-75.8	-98.2	-130.7	-180.3	-257.2	-377.5	-558.6	-834.6	-1258.2	-1911.1	30.7	-4.3
5-G	41691	12707	30.0	15.5	14.4	19.3	12.4	10.7	12.5	12.8	5.6	3.4	1.5	-3.9	-9.1	-17.5	-25.2	-33.4	-40.5	-48.5	-58.7	-74.2	-96.3	-128.2	-176.9	-252.3	-370.2	-547.7	-818.1	-1233.0	-1872.3	30.8	-4.0
5-H	41019	12503	30.0	15.7	14.6	19.5	12.6	10.8	12.7	12.9	5.8	3.6	1.7	-3.6	-8.7	-17.0	-24.6	-32.7	-39.7	-47.7	-57.7	-73.1	-94.8	-126.2	-174.3	-248.5	-364.7	-539.4	-805.4	-1213.6	-1842.7	30.9	-3.8
5-I	40577	12368	30.1	15.8	14.7	19.6	12.7	10.9	12.8	13.1	6.0	3.8	1.9	-3.4	-8.5	-16.7	-24.3	-32.3	-39.3	-47.1	-57.1	-72.3	-93.8	-124.9	-172.5	-246.0	-361.0	-533.9	-797.1	-1200.9	-1823.2	31.0	-3.6
5-J	40464	12334	30.1	15.8	14.7	19.6	12.7	11.0	12.8	13.1	6.0	3.8	1.9	-3.4	-8.4	-16.6	-24.2	-32.2	-39.1	-47.0	-56.9	-72.1	-93.6	-124.6	-172.1	-245.4	-360.1	-532.5	-795.0	-1197.7	-1818.2	31.0	-3.6
6-D	46503	14174	29.5	14.6	13.5	18.4	11.5	9.6	11.4	11.6	4.3	1.9	-0.3	-6.1	-11.7	-20.6	-28.9	-37.8	-45.6	-54.4	-65.6	-82.6	-106.8	-141.9	-195.7	-279.2	-409.9	-607.2	-908.7	-1371.3	-2084.5	30.3	-5.5
6-E	45288	13804	29.6	14.8	13.7	18.6	11.7	9.9	11.7	11.9	4.7	2.3	0.1	-5.5	-11.1	-19.8	-28.0	-36.7	-44.3	-52.9	-63.9	-80.5	-104.1	-138.5	-191.0	-272.4	-399.9	-592.1	-885.8	-1336.4	-2030.9	30.4	-5.1
6-G	43388	13225	29.8	15.2	14.1	19.0	12.1	10.3	12.1	12.3	5.2	2.9	0.8	-4.7	-10.1	-18.6	-26.5	-34.9	-42.3	-50.6	-61.2	-77.2	-100.0	-133.0	-183.6	-261.8	-384.2	-568.7	-850.0	-1281.8	-1947.2	30.6	-4.5
6-H	42794	13044	29.9	15.3	14.2	19.1	12.2	10.4	12.2	12.5	5.3	3.0	1.0	-4.4	-9.7	-18.2	-26.0	-34.4	-41.6	-49.9	-60.3	-76.2	-98.7	-131.3	-181.2	-258.5	-379.3	-561.3	-838.9	-1264.7	-1921.0	30.7	-4.4
6-I	42494	12952	29.9	15.4	14.3	19.2	12.3	10.5	12.3	12.6	5.4	3.1	1.2	-4.3	-9.6	-18.0	-25.8	-34.1	-41.3	-49.5	-59.9	-75.6	-98.0	-130.5	-180.0	-256.8	-376.9	-557.6	-833.2	-1256.1	-1907.7	30.7	-4.3
6-J	42437	12935	29.9	15.4	14.3	19.2	12.3	10.5	12.3	12.6	5.4	3.2	1.2	-4.3	-9.5	-17.9	-25.8	-34.0	-41.3	-49.4	-59.8	-75.5	-97.9	-130.3	-179.8	-256.5	-376.4	-556.9	-832.1	-1254.4	-1905.2	30.8	-4.2
7-B	50844	15497	29.1	13.8	12.7	17.6	10.7	8.8	10.5	10.6	3.2	0.6	-1.8	-7.9	-14.0	-23.4	-32.2	-41.7	-50.1	-59.7	-71.8	-90.0	-116.2	-154.3	-212.7	-303.4	-445.6	-660.7	-990.3	-1496.1	-2275.8	29.8	-6.7
7-C	49342	15040	29.2	14.1	13.0	17.9	11.0	9.1	10.8	10.9	3.6	1.0	-1.3	-7.3	-13.2	-22.4	-31.1	-40.3	-48.5	-57.9	-69.7	-87.5	-112.9	-150.0	-206.8	-295.0	-433.3	-642.2	-962.0	-1452.9	-2209.6	30.0	-6.3
7-E	46890	14292	29.5	14.5	13.4	18.3	11.4	9.6	11.3	11.5	4.2	1.8	-0.5	-6.2	-11.9	-20.9	-29.2	-38.1	-46.0	-54.9	-66.2	-83.3	-107.6	-143.0	-197.2	-281.4	-413.1	-611.9	-915.9	-1382.5	-2101.6	30.2	-5.6
7-F	45956	14007	29.5	14.7	13.6	18.5	11.6	9.8	11.5	11.7	4.5	2.1	-0.1	-5.8	-11.4	-20.3	-28.5	-37.3	-45.0	-53.8	-64.9	-81.6	-105.6	-140.4	-193.6	-276.1	-405.4	-600.4	-898.4	-1355.6	-2060.4	30.3	-5.3
7-G	45230	13786	29.6	14.8	13.7	18.6	11.7	9.9	11.7	11.9	4.7	2.3	0.1	-5.5	-11.0	-19.8	-27.9	-36.6	-44.2	-52.9	-63.8	-80.4	-104.0	-138.3	-190.8	-272.1	-399.4	-591.4	-884.7	-1334.7	-2028.4	30.4	-5.1
7-H	44722	13631	29.7	14.9	13.8	18.7	11.8	10.0	11.8	12.0	4.8	2.4	0.3	-5.3	-10.8	-19.5	-27.5	-36.1	-43.7	-52.2	-63.1	-79.5	-102.9	-136.8	-188.8	-269.2	-395.2	-585.2	-875.1	-1320.1	-2006.0	30.5	-4.9
7-I	44427	13541	29.7	15.0	13.9	18.8	11.9	10.1	11.9	12.1	4.9	2.5	0.4	-5.2	-10.6	-19.3	-27.3	-35.9	-43.4	-51.9	-62.7	-79.0	-102.3	-136.0	-187.6	-267.6	-392.8	-581.5	-869.6	-1311.7	-1993.0	30.5	-4.9
8-A	53850	16414	28.9	13.3	12.2	17.1	10.2	8.2	9.9	9.9	2.5	-0.2	-2.9	-9.2	-15.5	-25.3	-34.5	-44.3	-53.2	-63.3	-76.1	-95.2	-122.6	-162.8	-224.3	-320.1	-470.3	-697.8	-1046.8	-1582.4	-2408.2	29.5	-7.4
8-B	52274	15933	29.0	13.6	12.5	17.4	10.5	8.5	10.2	10.3	2.9	0.2	-2.3	-8.5	-14.7	-24.3	-33.3	-42.9	-51.6	-61.4	-73.8	-92.5	-119.3	-158.3	-218.2	-311.3	-457.4	-678.4	-1017.1	-1537.2	-2338.8	29.7	-7.0

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Leq)
FROM WIND PARK OPERATIONS AT THE CUT-IN WIND CONDITION

8-C	50856	15501	29.1	13.8	12.7	17.6	10.7	8.8	10.5	10.6	3.2	0.6	-1.8	-7.9	-14.0	-23.4	-32.3	-41.7	-50.1	-59.7	-71.8	-90.1	-116.2	-154.3	-212.7	-303.5	-445.7	-660.9	-990.5	-1496.4	-2276.3	29.8	-6.7
8-D	49600	15118	29.2	14.0	12.9	17.8	10.9	9.0	10.7	10.9	3.5	1.0	-1.4	-7.4	-13.4	-22.6	-31.3	-40.6	-48.8	-58.2	-70.1	-87.9	-113.5	-150.8	-207.8	-296.5	-435.4	-645.4	-966.9	-1460.3	-2221.0	30.0	-6.3
8-F	47671	14530	29.4	14.4	13.3	18.2	11.3	9.4	11.1	11.3	4.0	1.5	-0.7	-6.6	-12.3	-21.4	-29.8	-38.8	-46.8	-55.8	-67.3	-84.6	-109.3	-145.3	-200.3	-285.7	-419.5	-621.6	-930.6	-1404.9	-2136.0	30.2	-5.8
8-G	47090	14353	29.4	14.5	13.4	18.3	11.4	9.5	11.3	11.4	4.2	1.7	-0.5	-6.3	-12.0	-21.0	-29.4	-38.3	-46.2	-55.1	-66.5	-83.6	-108.1	-143.6	-198.0	-282.5	-414.7	-614.4	-919.7	-1388.2	-2110.3	30.2	-5.6
8-H	46610	14207	29.5	14.6	13.5	18.4	11.5	9.6	11.4	11.6	4.3	1.9	-0.4	-6.1	-11.8	-20.7	-29.0	-37.9	-45.7	-54.6	-65.8	-82.8	-107.0	-142.2	-196.2	-279.8	-410.8	-608.5	-910.7	-1374.4	-2089.2	30.3	-5.5
9-A	55194	16823	28.7	13.1	12.0	16.9	10.0	8.0	9.6	9.7	2.2	-0.6	-3.3	-9.7	-16.2	-26.1	-35.5	-45.5	-54.6	-64.9	-77.9	-97.5	-125.5	-166.6	-229.5	-327.6	-481.3	-714.3	-1072.0	-1621.0	-2467.4	29.4	-7.8
9-B	53704	16369	28.9	13.3	12.2	17.1	10.2	8.2	9.9	10.0	2.5	-0.2	-2.8	-9.1	-15.5	-25.2	-34.4	-44.2	-53.1	-63.1	-75.8	-94.9	-122.3	-162.4	-223.8	-319.3	-469.1	-696.0	-1044.0	-1578.2	-2401.8	29.5	-7.4
9-C	52366	15961	29.0	13.6	12.5	17.4	10.5	8.5	10.2	10.3	2.9	0.2	-2.4	-8.6	-14.8	-24.3	-33.4	-43.0	-51.7	-61.5	-74.0	-92.6	-119.5	-158.6	-218.6	-311.9	-458.1	-679.5	-1018.9	-1539.8	-2342.9	29.7	-7.1
9-D	51236	15617	29.1	13.7	12.6	17.5	10.6	8.7	10.4	10.5	3.1	0.5	-2.0	-8.1	-14.2	-23.6	-32.5	-42.0	-50.5	-60.1	-72.4	-90.7	-117.0	-155.4	-214.2	-305.6	-448.8	-665.6	-997.6	-1507.3	-2293.0	29.8	-6.8
9-E	50240	15313	29.2	13.9	12.8	17.7	10.8	8.9	10.6	10.7	3.4	0.8	-1.6	-7.7	-13.7	-23.0	-31.8	-41.1	-49.5	-58.9	-71.0	-89.0	-114.9	-152.6	-210.3	-300.0	-440.6	-653.3	-978.9	-1478.7	-2249.2	29.9	-6.5
9-F	49447	15071	29.2	14.1	13.0	17.9	11.0	9.0	10.8	10.9	3.6	1.0	-1.4	-7.3	-13.3	-22.5	-31.2	-40.4	-48.6	-58.0	-69.8	-87.7	-113.2	-150.3	-207.2	-295.6	-434.1	-643.5	-964.0	-1455.9	-2214.2	30.0	-6.3
9-G	48857	14891	29.3	14.2	13.1	18.0	11.1	9.2	10.9	11.0	3.7	1.2	-1.2	-7.1	-13.0	-22.1	-30.7	-39.9	-48.0	-57.3	-69.0	-86.6	-111.9	-148.6	-204.9	-292.3	-429.3	-636.2	-952.9	-1439.0	-2188.2	30.0	-6.1
9-H	48514	14787	29.3	14.2	13.1	18.0	11.1	9.2	11.0	11.1	3.8	1.3	-1.0	-6.9	-12.8	-21.9	-30.5	-39.6	-47.7	-56.9	-68.5	-86.1	-111.1	-147.7	-203.6	-290.4	-426.5	-632.0	-946.5	-1429.1	-2173.1	30.1	-6.0
9-I	48309	14725	29.3	14.3	13.2	18.1	11.2	9.3	11.0	11.2	3.9	1.3	-1.0	-6.8	-12.7	-21.8	-30.3	-39.4	-47.5	-56.6	-68.2	-85.7	-110.7	-147.1	-202.8	-289.3	-424.8	-629.5	-942.6	-1423.2	-2164.1	30.1	-6.0
10-A	56587	17248	28.6	12.9	11.8	16.7	9.8	7.7	9.4	9.4	1.9	-1.0	-3.8	-10.3	-16.9	-27.0	-36.5	-46.7	-56.0	-66.5	-79.9	-99.8	-128.5	-170.5	-234.9	-335.3	-492.8	-731.5	-1098.1	-1661.0	-2528.8	29.3	-8.1
10-B	55209	16828	28.7	13.1	12.0	16.9	10.0	8.0	9.6	9.7	2.2	-0.6	-3.3	-9.7	-16.2	-26.1	-35.5	-45.5	-54.6	-64.9	-78.0	-97.5	-125.6	-166.6	-229.6	-327.7	-481.5	-714.5	-1072.3	-1621.5	-2468.1	29.4	-7.8
10-C	53953	16445	28.8	13.3	12.2	17.1	10.2	8.2	9.9	9.9	2.5	-0.3	-2.9	-9.2	-15.6	-25.3	-34.6	-44.4	-53.3	-63.4	-76.2	-95.3	-122.9	-163.1	-224.7	-320.7	-471.2	-699.1	-1048.7	-1585.4	-2412.8	29.5	-7.5
10-D	52838	16105	28.9	13.5	12.4	17.3	10.4	8.4	10.1	10.2	2.7	0.0	-2.5	-8.7	-15.0	-24.6	-33.7	-43.4	-52.2	-62.1	-74.6	-93.5	-120.5	-159.9	-220.4	-314.5	-462.0	-685.3	-1027.7	-1553.4	-2363.7	29.6	-7.2
10-E	51929	15828	29.0	13.6	12.5	17.4	10.5	8.6	10.3	10.3	3.0	0.3	-2.2	-8.4	-14.6	-24.1	-33.1	-42.6	-51.2	-61.0	-73.3	-91.9	-118.5	-157.4	-216.9	-309.4	-454.5	-674.1	-1010.7	-1527.3	-2323.6	29.7	-6.9
10-F	51185	15601	29.1	13.8	12.7	17.6	10.7	8.7	10.4	10.5	3.1	0.5	-2.0	-8.1	-14.2	-23.6	-32.5	-42.0	-50.5	-60.1	-72.3	-90.6	-116.9	-155.3	-214.0	-305.3	-448.4	-664.9	-996.7	-1505.9	-2290.8	29.8	-6.8
10-G	50661	15442	29.1	13.8	12.7	17.6	10.7	8.8	10.5	10.6	3.3	0.7	-1.8	-7.8	-13.9	-23.3	-32.1	-41.5	-49.9	-59.4	-71.6	-89.7	-115.8	-153.8	-211.9	-302.4	-444.1	-658.5	-986.8	-1490.8	-2267.7	29.8	-6.6
10-H	50376	15355	29.1	13.9	12.8	17.7	10.8	8.9	10.6	10.7	3.3	0.7	-1.7	-7.7	-13.8	-23.1	-31.9	-41.2	-49.6	-59.1	-71.2	-89.2	-115.2	-153.0	-210.8	-300.8	-441.8	-655.0	-981.5	-1482.6	-2255.2	29.9	-6.5
10-I	101381	30901	26.1	7.8	6.7	11.6	4.7	1.7	2.9	2.1	-6.6	-11.3	-16.5	-26.5	-37.4	-52.6	-67.8	-84.0	-99.8	-117.7	-140.7	-173.8	-222.4	-295.1	-406.6	-582.0	-858.3	-1281.3	-1937.4	-2945.4	-4499.9	26.5	-16.1
11-A	58078	17702	28.5	12.7	11.6	16.5	9.6	7.5	9.1	9.1	1.5	-1.4	-4.2	-10.9	-17.6	-27.9	-37.6	-48.0	-57.5	-68.3	-82.0	-102.3	-131.7	-174.7	-240.7	-343.6	-505.0	-749.9	-1126.1	-1703.8	-2594.4	29.2	-8.5
11-B	56727	17291	28.6	12.9	11.8	16.7	9.8	7.7	9.3	9.3	1.8	-1.0	-3.8	-10.3	-17.0	-27.0	-36.6	-46.8	-56.1	-66.7	-80.1	-100.1	-128.8	-170.9	-235.5	-336.1	-493.9	-733.2	-1100.8	-1665.1	-2535.0	29.3	-8.1
11-C	55541	16929	28.7	13.0	11.9	16.8	9.9	7.9	9.6	9.6	2.1	-0.7	-3.4	-9.9	-16.4	-26.3	-35.8	-45.8	-54.9	-65.3	-78.4	-98.0	-126.3	-167.6	-230.9	-329.5	-484.2	-718.6	-1078.5	-1631.0	-2482.7	29.4	-7.9
11-D	54565	16632	28.8	13.2	12.1	17.0	10.1	8.1	9.8	9.8	2.3	-0.4	-3.1	-9.5	-15.9	-25.7	-35.0	-45.0	-53.9	-64.1	-77.1	-96.4	-124.2	-164.8	-227.1	-324.1	-476.2	-706.6	-1060.2	-1603.0	-2439.7	29.5	-7.6
11-E	53670	16359	28.9	13.3	12.2	17.1	10.2	8.2	9.9	10.0	2.5	-0.2	-2.8	-9.1	-15.4	-25.2	-34.4	-44.2	-53.0	-63.0	-75.8	-94.9	-122.3	-162.3	-223.6	-319.1	-468.8	-695.6	-1043.4	-1577.3	-2400.3	29.6	-7.4
11-F	53048	16169	28.9	13.4	12.3	17.2	10.3	8.4	10.0	10.1	2.7	0.0	-2.6	-8.8	-15.1	-24.8	-33.9	-43.6	-52.4	-62.3	-74.9	-93.8	-120.9	-160.5	-221.2	-315.6	-463.7	-687.9	-1031.7	-1559.4	-2372.9	29.6	-7.2
11-G	52559	16020	29.0	13.5	12.4	17.3	10.4	8.5	10.1	10.2	2.8	0.1	-2.4	-8.6	-14.9	-24.5	-33.5	-43.2	-51.9	-61.7	-74.2	-93.0	-119.9	-159.2	-219.3	-312.9	-459.7	-681.9	-1022.5	-1545.4	-2351.4	29.7	-7.1
11-H	52284	15936	29.0	13.6	12.5	17.4	10.5	8.5	10.2	10.3	2.9	0.2	-2.3	-8.5	-14.7	-24.3	-33.3	-42.9	-51.6	-61.4	-73.8	-92.5	-119.3	-158.4	-218.3	-311.4	-457.4	-678.5	-1017.3	-1537.5	-2339.3	29.7	-7.0
11-K	52704	16064	28.9	13.5	12.4	17.3	10.4	8.4	10.1	10.2	2.8	0.1	-2.5	-8.7	-15.0	-24.6	-33.6	-43.3	-52.0	-61.9	-74.4	-93.2	-120.2	-159.6	-219.9	-313.7	-460.9	-683.7	-1025.2	-1549.5	-2357.7	29.6	-7.1
11-L	53168	16206	28.9	13.4	12.3	17.2	10.3	8.3	10.0	10.1	2.7	0.0	-2.6	-8.9	-15.2	-24.8	-34.0	-43.7	-52.5	-62.5	-75.1	-94.0	-121.2	-160.9	-221.7	-316.3	-464.7	-689.4	-1033.9	-1562.8	-2378.2	29.6	-7.3
12-A	59569	18157	28.4	12.4	11.3	16.2	9.3	7.2	8.8	8.8	1.2	-1.8	-4.7	-11.5	-18.4	-28.8	-38.7	-49.3	-59.0	-70.0	-84.0	-104.9	-134.9	-178.9	-246.5	-351.8	-517.2	-768.2	-1154.1	-1746.6	-2660.1	29.0	-8.8
12-B	58290	17767	28.5	12.6	11.5	16.4	9.5	7.4	9.1	9.0	1.5	-1.4	-4.3	-11.0	-17.8	-28.0	-37.8	-48.2	-57.7	-68.5	-82.3	-102.7	-132.1	-175.3	-241.5	-344.7	-506.7	-752.5	-1130.1	-1709.9	-2603.8	29.1	-8.5
12-C	57158	17422	28.6	12.8	11.7	16.6	9.7	7.6	9.3	9.3	1.7	-1.1	-3.9	-10.5	-17.2	-27.3	-37.0	-47.2	-56.6	-67.2	-80.7	-100.8	-129.7	-172.1	-237.1	-338.5	-497.4	-738.5	-1108.9	-1677.4	-2553.9	29.2	-8.2
12-D	56238	17141	28.7	12.9	11.8	16.7	9.8	7.8	9.4	9.4	1.9	-0.9	-3.6	-10.1	-16.7	-26.7	-36.3	-46.4	-55.6	-66.1	-79.4	-99.2	-127.8	-169.5	-233.6	-333.4	-489.9	-727.2	-1091.6	-1651.0	-2513.4	29.3	-8.0
12-E	55412	16890	28.7	13.1	12.0	16.9	10.0	7.9	9.6	9.6	2.1	-0.7	-3.4	-9.8	-16.3	-26.2	-35.7	-45.7	-54.8	-65.1	-78.2	-97.8	-126.0	-167.2	-230.4	-328.8	-483.1	-717.0	-1076.1	-1627.3	-2477.0	29.4	-7.8
12-F	54867	16723	28.8	13.2	12.1	17.0	10.1	8.0	9.7	9.7	2.3	-0.5	-3.2	-9.6	-16.0	-25.9	-35.3	-45.2	-54.2	-64.5	-77.5	-96.9	-124.8	-165.7	-228.3	-325.8	-478.6	-710.3	-1065.9	-1611.6	-2453.0	29.4	-7.7
12-G	54432	16591	28.8	13.2	12.1	17.0	10.1	8.1	9.8	9.8	2.4	-0.4	-3.1	-9.4	-15.8	-25.6	-34.9	-44.8	-53.8	-64.0	-76.9	-96.2	-123.9	-164.5	-226.6	-323.3	-475.1	-705.0	-1057.7	-1599.2	-2433.9	29.5	-7.6
12-H	54204	16521	28.8	13.3	12.2	17.1	10.2	8.2	9.8	9.9	2.4	-0.3	-3.0	-9.3	-15.7	-25.5	-34.8	-44.6	-53.6	-63.7	-76.5	-95.8	-123.4	-163.8	-225.7	-322.1	-473.2	-702.1	-1053.4	-1592.6	-2423.8	29.5	-7.5
12-I	54179	16514	28.8	13.3	12.2	17.1	10.2	8.2	9.8	9.9	2.4	-0.3	-3.0	-9.3	-15.7	-25.5	-34.7	-44.6	-53.5	-63.7	-76.5	-95.7	-123.3	-163.7	-225.6	-321.9	-473.0	-701.8	-1052.9	-1591.9	-2422.7	29.5	-7.5
12-J	54321	16557	28.8	13.2	12.1	17.0	10.1	8.1	9.8	9.8	2.4	-0.4	-3.0	-9.4	-15.8	-25.6	-34.9	-44.7	-53.7	-63.8	-76.7	-96.0	-123.6	-164.1	-226.2	-322.7	-474.2	-703.6	-1055.6	-1596.0	-2429.0	29.5	-7.6
12-K	54672	16664	28.8	13.2	12.1	17.0	10.1	8.1	9.7	9.8	2.3	-0.5	-3.1	-9.5	-15.9	-25.8	-35.1	-45.0	-54.0	-64.2	-77.2	-96.6	-124.4	-165.1	-227.5	-324.7	-477.0	-707.9	-1062.2	-1606.0	-2444.4	29.5	-7.6
12-L	55186	16821	28.7	13.1	12.0	16.9	10.0	8.0	9.6	9.7	2.2	-0.6	-3.3	-9.7	-16.2	-26.1	-35.5	-45.5	-54.6	-64.9	-77.9	-97.4	-125.5	-166.6	-229.5	-327.5	-481.3	-714.2	-1071.8	-1620.8	-2467.1	29.4	-7.8
13-A	61099	18623	28.3	12.2	11.1	16.0	9.1	7.0	8.6	8.5	0.8	-2.2	-5.2	-12.1	-19.1	-29.7	-39.8	-50.6	-60.6	-71.8	-86.2	-107.4	-138.1	-183.2	-252.4	-360.3	-529.7	-787.0	-1182.9	-1790.6	-2727.5	28.9	-9.1
13-B	59864	18246	28.4	12.4	11.3	16.2	9.3	7.2	8.8	8.7	1.1	-1.9	-4.8	-11.6	-18.5	-29.0	-38.9	-49.6	-59.3	-70.4	-84.5	-105.4	-135.5	-179.8	-247.6	-353.5	-519.6	-771.8	-1159.7	-1755.1	-2673.1	29.0	-8.9
13-C	58819	17928	28.5	12.5	11.4	16.3	9.4	7.3	9.0	8.9	1.3	-1.6	-4.5	-11.2	-18.0	-28.3	-38.2	-48.7	-58.3	-69.1	-83.0	-103.6	-133.3	-176.8	-243.6	-347.7	-511.1	-759.0	-1140.1	-1725.1	-2627.1	29.1	-8.6
13-D	57960	17666	28.5	12.7	11.6	16.5	9.6	7.5	9.1	9.1	1.5	-1.4	-4.2	-10.8	-17.6	-27.8	-37.5	-47.9	-57.4	-68.1	-81.8	-102.1	-131.4	-174.4	-240.3	-342.9	-504.0	-748.4	-1123.9	-1700.4	-2589.2	29.2	-8.4
13-F	56683	17277	28.6	12.9	11.8	16.7	9.8	7.7	9.4	9.4	1.8	-1.0	-3.8	-10.3	-17.0	-27.0	-36.6	-46.8	-56.1	-66.6	-80.0	-100.0	-128.7	-170.8	-235.3	-335.8	-493.5	-732.7	-1099.9	-1663.8	-2533.0	29.3	-8.1
13-G	56319	17166	28.7	12.9	11.8	16.7	9.8	7.8	9.4	9.4	1.9	-0.9	-3.7	-10.2	-16.8	-26.8	-36.3	-46.5	-55.7	-66.2	-79.5	-99.4	-127.9	-169.8	-233.9	-333.8	-490.6	-728.2	-1093.1	-1653.3	-2517.0	29.3	-8.0
13-H	56078	17093	28.7	13.0	11.9	16.8	9.9	7.8	9.5	9.5	2.0	-0.9	-3.6	-10.1	-16.7	-26.6	-36.2	-46.3	-55.5	-65.9	-79.2	-99.0	-127.4	-169.1	-233.0	-332.5	-488.6	-725.2	-1088.6	-1646.4	-2506.4	29.3	-8.0
13-I	56130	17108	28.7	13.0	11.9	16.8	9.9	7.8	9.5	9.5	2.0	-0.9	-3.6	-10.1	-16.7	-26.7	-36.2	-46.3	-55.5	-66.0	-79.2	-99.0	-127.5	-169.2	-233.2	-332.8	-489.0	-725.9	-1089.6	-1647.9	-2508.6	29.3	-8.0
13-J	56377	17184	28.7	12.9	11.8	16.7	9.8	7.8	9.4	9.4	1.9	-0.9	-3.7	-10.2	-16.8	-26.8	-36.4	-46.5	-55.8	-66.3	-79.6	-99.5	-128.0	-169.9	-234.1	-334.1	-491.0	-728.9	-1094.2	-1655.0	-2519.5	29.3	-8.1
13-K	56729	17291	28.6	12.9	11.8	16.7	9.8	7.7	9.3	9.3	1.8	-1.0	-3.8	-10.3	-17.0	-27.0	-36.6	-46.8	-56.1	-66.7	-80.1	-100.1	-128.8	-170.9	-235.5	-336.1	-493.9	-733.2	-1100.8	-1665.1	-2535.0	29.3	-8.1
13-L	57298	17465	28.6	12.8	11.7	16.6	9.7	7.6	9.2	9.2	1.7	-1.2	-4.0	-10.6	-17.3	-27.4	-37.1	-47.3	-56.7	-67.4	-80.9	-101.0	-130.0	-172.5	-237.7	-339.2	-498.6	-740.3	-1111.5	-1681.5	-2560.1	29.2	-8.3
14-D	59705	18198	28.4	12.4	11.3	16.2	9.3	7.2	8.8	8.8	1.2	-1.8	-4.8	-11.5	-18.4	-28.9	-38.8	-49.4	-59.2	-70.2	-84.2	-105.1	-135.2	-179.3	-247.0	-352.6	-518.3	-769.9	-1156.7	-1750.5	-2666.1	29.0	-8.8
14-E	59047	17998	28.5	12.5	11.4	16.3	9.4	7.3	8.9	8.9	1.3	-1.6	-4.6	-11.3	-18.1	-28.5	-38.3	-48.9	-58.5	-69.4	-83.3	-104.0	-133.8	-177.5	-244.5	-348.9	-512.9	-761.8	-1144.3	-1731.7	-2637.1	29.1	-8.7
14-F	58533	17841	28.5	12.6	11.5	16.4	9.5	7.4	9.0	9.0	1.4	-1.5	-4.4	-11.1	-17.9	-28.1	-38.0	-48.4	-58.0	-68.8	-82.6	-103.1	-132.7	-176.0	-242.5	-346.1	-508.7	-755.5	-1134.7	-1716.9	-2614.5	29.1	-8.6
14-G	58216	17744	28.5	12.6	11.5	16.4	9.5	7.4	9.1	9.0	1.5	-1.4	-4.3	-10.9	-17.7	-28.0	-37.7	-48.1	-57.7	-68.4	-82.2	-102.6	-132.0	-175.1	-241.2	-344.3	-506.1	-751.6	-1128.7	-1707.8	-2600.5	29.1	-8.5
14-H	58077	17702	28.5	12.7	11.6	16.5	9.6	7.5	9.1	9.1	1.5	-1.4	-4.2	-10.9	-17.6	-27.9	-37.6	-48.0	-57.5	-68.3	-82.0	-102.3	-131.7	-174.7	-240.7	-343.6	-505.0	-749.8	-1126.1	-1703.8	-2594.4	29.2	-8.5
14-J	58323	17777	28.5	12.6	11.5	16.4	9.5	7.4	9.1	9.0	1.5	-1.5	-4.3	-11.0	-17.8	-28.0	-37.8	-48.2	-57.8	-68.6	-82.3	-102.8	-132.2	-175.4	-241.7	-344.9	-507.0	-752.9	-1130.7	-1710.9	-2605.2	29.1	-8.5
14-K	58770	17913	28.5	12.6	11.5	16.4	9.5	7.4	9.0	8.9	1.4	-1.6	-4.5	-11.1	-18.0	-28.3	-38.1	-48.6	-58.2	-69.1	-82.9	-103.5	-133.2	-176.7	-243.4	-347.4	-510.6	-758.4	-1139.1	-1723.7	-2624.9	29.1	-8.6
14-L	59353	18091	28.4	12.5	11.4	16.3	9.4	7.3	8.9	8.8	1.2	-1.7	-4.7	-11.4	-18.3	-28.6	-38.6	-49.1	-58.8	-69.8	-83.7	-104.5	-134.4	-178.3	-245.6	-350.6	-515.4	-765.6	-1150.1	-1740.4	-2650.6	29.0	-8.8
15-F	60398	18409	28.4	12.3	11.2	16.1	9.2	7.1	8.7	8.6	1.0	-2.0	-5.0	-11.8	-18.8	-29.3	-39.3	-50.0	-59.9	-71.0	-85.2	-106.2	-136.6	-181.3	-249.7	-356.4	-524.0	-778.4	-1169.7	-1770.4	-2696.6	29.0	-9.0
15-G	60127	18327	28.4	12.4	11.3	16.2	9.3	7.1	8.7	8.7	1.1	-1.9	-4.9	-11.7	-18.7	-29.1	-39.1	-49.8	-59.6	-70.7	-84.8	-105.8	-136.1	-180.5	-248.6	-354.9	-521.8	-775.1	-1164.6	-1762.7	-2684.7	29.0	-8.9
15-H	60061	18307	28.4	12.4	11.3	16.2	9.3	7.1	8.7	8.7	1.1	-1.9	-4.9	-11.7	-18.6	-29.1	-39.1	-49.7	-59.5	-70.6	-84.7	-105.7	-135.9	-180.3	-248.4	-354.6	-521.2	-774.3	-1163.4	-1760.8	-2681.8	29.0	-8.9
15-I	60139	18330	28.4	12.4	11.3	16.2	9.3	7.1	8.7	8.7	1.1	-1.9	-4.9	-11.7	-18.7	-29.1	-39.1	-49.8	-59.6	-70.7	-84.8	-105.8	-136.1	-180.5	-248.7	-355.0	-521.9	-775.2	-1164.8	-1763.0	-2685.2	29.0	-8.9
15-J	60367	18400	28.4	12.3	11.2	16.1	9.2	7.1	8.7	8.6	1.0	-2.0	-5.0	-11.8	-18.8	-29.3	-39.3	-50.0	-59.8	-71.0	-85.1	-106.2	-136.6	-181.2	-249.6	-356.3	-523.7	-778.0	-1169.1	-1769.6	-2695.3	29.0	-9.0
15-K	60794	18530	28.3	12.3	11.2	16.1	9.2	7.0	8.6	8.5	0.9	-2.1	-5.1	-11.9	-19.0	-29.5	-39.6	-50.4	-60.3	-71.5	-85.7	-106.9	-137.5	-182.4	-251.2	-358.6	-527.2	-783.3	-1177.1	-1781.8	-2714.1	28.9	-9.1
16-J	62378	19013	28.2	12.0	10.9	15.8	8.9	6.8	8.3	8.2	0.6	-2.5	-5.6	-12.6	-19.7	-30.5	-40.8	-51.7	-61.9	-73.3	-87.9	-109.6	-140.8	-186.8	-257.3	-367.4	-540.2	-802.8	-1206.9	-1827.3	-2783.8	28.8	-9.4
16-K	62825	19149	28.2	12.0	10.9	15.8	8.9	6.7	8.3	8.2	0.5	-2.6	-5.7	-12.7	-20.0	-30.7	-41.1	-52.1	-62.3	-73.8	-88.6	-110.3	-141.8	-188.1	-259.0	-369.9	-543.9	-808.3	-1215.2	-1840.1	-2803.5	28.8	-9.5
		Sum:	50.6	35.8	34.7	39.6	32.7	30.9	32.6	32.9	25.7	23.3	21.3	15.9	10.8	2.7	-4.6	-12.2	-18.7	-25.8	-34.8	-48.4	-67.3	-94.0	-134.3	-195.4	-290.1	-430.8	-643.1	-968.1	-1468.4	51.4	16.0

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Leq)
FROM WIND PARK OPERATIONS AT THE CUT-IN WIND CONDITION

																		Hertz													
	1/3 Octave Bands	**16***	**20**	**25**	**31**	**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**	**L**	**A**
Sound Power Data		112.0	105.6	104.5	109.4	102.5	101.6	103.9	104.9	98.9	98.3	98.7	96.5	95.3	91.8	89.3	86.7	85.7	84.5	83.2	80.0	76.5	73.1	68.2	62.7	55.3	49.4	48.4	47.8	47.6	116.3	95.4
Data for the graph																																
Atmos. Absorption per 1 km air temp 59F 70% RH		0.0000	0.0000	0.0000	0.0000	0.0000	0.0670	0.1050	0.1630	0.2510	0.3810	0.5650	0.8150	1.1300	1.5100	1.9200	2.3600	2.8400	3.3800	4.0800	5.0500	6.5100	8.7500	12.2000	17.7000	26.4000	39.9000	61.1000	93.7000	144.0000		

*Spherical wave spreading for up to 2 km, cylindrical wave spreading beyond 2 km.

																		Hertz													
	1/3 Octave Bands	**16***	**20**	**25**	**31**	**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**	**L**	**A**
	Distance (ft)	**Distance (m)**																														
1-D	36242	11046	30.6	16.8	15.7	20.6	13.7	12.0	13.9	14.3	7.3	5.2	3.6	-1.3	-6.0	-13.7	-20.8	-28.2	-34.5	-41.7	-50.7	-64.6	-84.3	-112.4	-155.4	-221.7	-325.2	-480.2	-715.4	-1076.1	-1631.9	31.6	-2.2
1-E	34794	10605	30.8	17.1	16.0	20.9	14.0	12.4	14.3	14.7	7.7	5.8	4.2	-0.6	-5.2	-12.7	-19.6	-26.8	-32.9	-39.8	-48.6	-62.0	-81.0	-108.2	-149.7	-213.5	-313.2	-462.2	-688.1	-1034.4	-1568.1	31.8	-1.6
1-F	33573	10233	30.9	17.4	16.3	21.2	14.3	12.7	14.6	15.1	8.1	6.2	4.7	0.0	-4.4	-11.8	-18.5	-25.6	-31.5	-38.3	-46.7	-59.9	-78.3	-104.6	-144.8	-206.6	-303.0	-447.1	-665.0	-999.2	-1514.1	32.0	-1.1
1-G	32635	9947	31.0	17.7	16.6	21.5	14.6	13.0	14.9	15.3	8.5	6.6	5.1	0.5	-3.9	-11.2	-17.7	-24.7	-30.5	-37.1	-45.3	-58.2	-76.2	-101.9	-141.1	-201.3	-295.2	-435.4	-647.3	-972.2	-1472.7	32.2	-0.8
1-H	31980	9748	31.1	17.8	16.7	21.6	14.7	13.2	15.1	15.6	8.7	6.8	5.4	0.8	-3.5	-10.7	-17.2	-24.1	-29.7	-36.2	-44.3	-57.0	-74.7	-100.0	-138.5	-197.6	-289.8	-427.3	-634.9	-953.3	-1443.8	32.3	-0.5
1-I	31647	9646	31.2	17.9	16.8	21.7	14.8	13.3	15.2	15.7	8.8	7.0	5.6	1.0	-3.3	-10.4	-16.9	-23.7	-29.4	-35.8	-43.8	-56.4	-74.0	-99.0	-137.1	-195.7	-287.0	-423.1	-628.6	-943.7	-1429.1	32.3	-0.4
1-J	31655	9649	31.2	17.9	16.8	21.7	14.8	13.3	15.2	15.7	8.8	7.0	5.6	1.0	-3.3	-10.4	-16.9	-23.7	-29.4	-35.8	-43.8	-56.4	-74.0	-99.0	-137.2	-195.7	-287.1	-423.2	-628.8	-943.9	-1429.5	32.3	-0.4
1-K	31923	9730	31.1	17.9	16.8	21.7	14.8	13.2	15.1	15.6	8.7	6.8	5.5	0.8	-3.4	-10.6	-17.1	-24.0	-29.7	-36.1	-44.2	-56.9	-74.6	-99.8	-138.3	-197.3	-289.3	-426.6	-633.9	-951.7	-1441.3	32.3	-0.5
1-L	32611	9940	31.0	17.7	16.6	21.5	14.6	13.0	14.9	15.4	8.5	6.6	5.2	0.5	-3.9	-11.1	-17.7	-24.7	-30.5	-37.0	-45.3	-58.1	-76.1	-101.8	-141.0	-201.2	-295.0	-435.1	-646.9	-971.5	-1471.7	32.2	-0.8
2-D	37737	11502	30.4	16.4	15.3	20.2	13.3	11.6	13.5	13.8	6.8	4.7	3.0	-2.1	-6.9	-14.8	-22.0	-29.6	-36.2	-43.6	-52.9	-67.3	-87.6	-116.7	-161.3	-230.1	-337.6	-498.7	-743.6	-1119.2	-1697.9	31.4	-2.7
2-E	36366	11084	30.6	16.7	15.6	20.5	13.6	12.0	13.9	14.2	7.2	5.2	3.6	-1.4	-6.1	-13.8	-20.9	-28.3	-34.7	-41.8	-50.9	-64.9	-84.5	-112.8	-155.9	-222.4	-326.2	-481.7	-717.7	-1079.7	-1637.4	31.6	-2.2
2-F	35263	10748	30.7	17.0	15.9	20.8	13.9	12.3	14.2	14.5	7.6	5.6	4.0	-0.9	-5.5	-13.0	-19.9	-27.3	-33.4	-40.4	-49.3	-62.9	-82.1	-109.6	-151.5	-216.1	-317.1	-468.1	-696.9	-1047.9	-1588.7	31.7	-1.8
2-G	34424	10492	30.8	17.2	16.1	21.0	14.1	12.5	14.4	14.8	7.9	5.9	4.4	-0.5	-5.0	-12.4	-19.2	-26.5	-32.5	-39.4	-48.0	-61.4	-80.2	-107.1	-148.2	-211.4	-310.1	-457.6	-681.1	-1023.7	-1551.7	31.9	-1.5
2-H	33865	10322	30.9	17.3	16.2	21.1	14.2	12.7	14.6	15.0	8.1	6.1	4.6	-0.2	-4.6	-12.0	-18.8	-25.9	-31.9	-38.6	-47.2	-60.4	-79.0	-105.5	-146.0	-208.3	-305.5	-450.7	-670.5	-1007.6	-1527.0	32.0	-1.3
2-I	33571	10232	30.9	17.4	16.3	21.2	14.3	12.7	14.6	15.1	8.2	6.2	4.7	0.0	-4.4	-11.8	-18.5	-25.6	-31.5	-38.3	-46.7	-59.9	-78.3	-104.6	-144.8	-206.6	-303.0	-447.1	-665.0	-999.1	-1514.0	32.0	-1.1
2-J	33636	10252	30.9	17.4	16.3	21.2	14.3	12.7	14.6	15.0	8.1	6.2	4.7	-0.1	-4.5	-11.9	-18.6	-25.7	-31.6	-38.4	-46.8	-60.0	-78.4	-104.8	-145.1	-207.0	-303.6	-447.9	-666.2	-1001.0	-1516.9	32.0	-1.2
2-K	34002	10364	30.9	17.3	16.2	21.1	14.2	12.6	14.5	14.9	8.0	6.1	4.6	-0.2	-4.7	-12.1	-18.9	-26.1	-32.0	-38.8	-47.4	-60.6	-79.3	-105.9	-146.5	-209.0	-306.6	-452.4	-673.1	-1011.6	-1533.1	31.9	-1.3
2-L	34620	10552	30.8	17.2	16.1	21.0	14.1	12.4	14.3	14.7	7.8	5.8	4.3	-0.5	-5.1	-12.6	-19.4	-26.7	-32.7	-39.6	-48.3	-61.7	-80.6	-107.7	-149.0	-212.5	-311.7	-460.1	-684.8	-1029.4	-1560.4	31.8	-1.5
3-D	39233	11958	30.2	16.1	15.0	19.9	13.0	11.3	13.1	13.4	6.4	4.2	2.4	-2.8	-7.7	-15.8	-23.2	-31.1	-37.8	-45.5	-55.1	-69.9	-90.9	-121.1	-167.2	-238.5	-349.9	-517.3	-771.8	-1162.2	-1763.9	31.2	-3.2
3-E	37964	11572	30.4	16.4	15.3	20.2	13.3	11.6	13.4	13.8	6.7	4.6	2.9	-2.2	-7.0	-14.9	-22.2	-29.9	-36.4	-43.9	-53.3	-67.7	-88.1	-117.4	-162.2	-231.4	-339.4	-501.6	-747.9	-1125.7	-1708.0	31.3	-2.8
3-F	36951	11263	30.5	16.6	15.5	20.4	13.5	11.8	13.7	14.0	7.1	5.0	3.3	-1.7	-6.4	-14.2	-21.3	-28.9	-35.3	-42.6	-51.8	-65.9	-85.8	-114.5	-158.2	-225.7	-331.1	-489.0	-728.8	-1096.5	-1663.3	31.5	-2.4
3-G	36222	11040	30.6	16.8	15.7	20.6	13.7	12.0	13.9	14.3	7.3	5.3	3.6	-1.3	-6.0	-13.7	-20.7	-28.2	-34.5	-41.7	-50.7	-64.6	-84.2	-112.3	-155.3	-221.6	-325.0	-480.0	-715.0	-1075.5	-1631.1	31.6	-2.1
3-I	35563	10839	30.7	16.9	15.8	20.7	13.8	12.2	14.1	14.5	7.5	5.5	3.9	-1.0	-5.6	-13.2	-20.2	-27.6	-33.8	-40.8	-49.7	-63.4	-82.7	-110.4	-152.7	-217.8	-319.5	-471.8	-702.6	-1056.5	-1602.0	31.7	-1.9
3-J	35633	10861	30.6	16.9	15.8	20.7	13.8	12.2	14.1	14.4	7.5	5.5	3.9	-1.1	-5.7	-13.3	-20.3	-27.6	-33.8	-40.9	-49.8	-63.5	-82.9	-110.6	-153.0	-218.2	-320.1	-472.7	-703.9	-1058.6	-1605.1	31.7	-1.9
3-K	36026	10981	30.6	16.8	15.7	20.6	13.7	12.1	14.0	14.3	7.3	5.3	3.7	-1.2	-5.9	-13.6	-20.6	-28.0	-34.3	-41.4	-50.4	-64.2	-83.8	-111.8	-154.6	-220.5	-323.4	-477.5	-711.3	-1069.9	-1622.4	31.6	-2.1
3-L	36688	11182	30.5	16.6	15.5	20.4	13.5	11.9	13.8	14.1	7.1	5.1	3.4	-1.6	-6.3	-14.0	-21.1	-28.6	-35.0	-42.2	-51.4	-65.4	-85.3	-113.7	-157.2	-224.2	-328.9	-485.7	-723.8	-1089.0	-1651.6	31.5	-2.3
4-D	40767	12426	30.1	15.7	14.6	19.5	12.6	10.9	12.7	13.0	5.9	3.7	1.8	-3.5	-8.6	-16.8	-24.4	-32.5	-39.5	-47.4	-57.4	-72.6	-94.3	-125.5	-173.3	-247.1	-362.6	-536.3	-800.7	-1206.4	-1831.6	31.0	-3.7
4-E	39566	12060	30.2	16.0	14.9	19.8	12.9	11.2	13.0	13.3	6.3	4.1	2.3	-2.9	-7.9	-16.0	-23.5	-31.4	-38.2	-45.9	-55.6	-70.5	-91.6	-122.0	-168.5	-240.4	-352.7	-521.4	-778.1	-1171.8	-1778.6	31.1	-3.3
4-F	38688	11792	30.3	16.2	15.1	20.0	13.1	11.4	13.2	13.6	6.5	4.4	2.6	-2.5	-7.4	-15.4	-22.8	-30.5	-37.2	-44.8	-54.3	-69.0	-89.7	-119.5	-165.1	-235.4	-345.4	-510.5	-761.5	-1146.5	-1739.9	31.2	-3.0
4-G	38010	11586	30.4	16.3	15.2	20.1	13.2	11.6	13.4	13.8	6.7	4.6	2.9	-2.2	-7.1	-15.0	-22.2	-29.9	-36.5	-43.9	-53.3	-67.8	-88.2	-117.5	-162.4	-231.6	-339.8	-502.1	-748.7	-1127.0	-1710.0	31.3	-2.8
4-H	37619	11466	30.4	16.4	15.3	20.2	13.3	11.7	13.5	13.9	6.9	4.8	3.1	-2.0	-6.8	-14.7	-21.9	-29.5	-36.0	-43.4	-52.8	-67.1	-87.3	-116.4	-160.9	-229.4	-336.6	-497.3	-741.4	-1115.8	-1692.7	31.4	-2.6
4-I	37503	11431	30.4	16.5	15.4	20.3	13.4	11.7	13.6	13.9	6.9	4.8	3.1	-2.0	-6.8	-14.6	-21.8	-29.4	-35.9	-43.3	-52.6	-66.9	-87.1	-116.1	-160.4	-228.8	-335.6	-495.8	-739.2	-1112.4	-1687.6	31.4	-2.6
4-J	37660	11479	30.4	16.4	15.3	20.2	13.3	11.7	13.5	13.8	6.8	4.7	3.0	-2.0	-6.9	-14.7	-21.9	-29.6	-36.1	-43.5	-52.8	-67.1	-87.4	-116.5	-161.0	-229.7	-336.9	-497.8	-742.1	-1116.9	-1694.5	31.4	-2.7
4-K	38098	11612	30.4	16.3	15.2	20.1	13.2	11.5	13.4	13.7	6.7	4.6	2.9	-2.2	-7.1	-15.0	-22.3	-30.0	-36.6	-44.0	-53.5	-67.9	-88.4	-117.8	-162.7	-232.1	-340.5	-503.2	-750.4	-1129.5	-1713.8	31.3	-2.8
4-L	38785	11822	30.3	16.2	15.1	20.0	13.1	11.4	13.2	13.5	6.5	4.4	2.6	-2.6	-7.5	-15.5	-22.8	-30.6	-37.3	-44.9	-54.5	-69.1	-89.9	-119.8	-165.5	-236.0	-346.2	-511.7	-763.3	-1149.3	-1744.2	31.2	-3.0
5-D	42342	12906	29.9	15.4	14.3	19.2	12.3	10.5	12.3	12.6	5.5	3.2	1.2	-4.2	-9.5	-17.9	-25.7	-34.0	-41.2	-49.3	-59.7	-75.4	-97.7	-130.0	-179.5	-255.9	-375.6	-555.7	-830.4	-1251.7	-1901.1	30.8	-4.2
5-E	41292	12586	30.0	15.6	14.5	19.4	12.5	10.8	12.6	12.9	5.8	3.5	1.6	-3.7	-8.9	-17.2	-24.8	-33.0	-40.0	-48.0	-58.1	-73.5	-95.4	-127.0	-175.3	-250.0	-366.9	-542.7	-810.6	-1221.5	-1854.7	30.9	-3.9
5-F	40459	12332	30.1	15.8	14.7	19.6	12.7	11.0	12.8	13.1	6.0	3.8	1.9	-3.4	-8.4	-16.6	-24.2	-32.2	-39.1	-47.0	-56.9	-72.1	-93.6	-124.6	-172.1	-245.4	-360.1	-532.5	-794.9	-1197.5	-1818.0	31.0	-3.6
5-G	39884	12157	30.2	15.9	14.8	19.7	12.8	11.1	12.9	13.2	6.2	4.0	2.2	-3.1	-8.1	-16.2	-23.7	-31.7	-38.5	-46.3	-56.1	-71.1	-92.3	-122.9	-169.8	-242.2	-355.3	-525.3	-784.0	-1181.0	-1792.6	31.1	-3.4
5-H	39542	12052	30.2	16.0	14.9	19.8	12.9	11.2	13.0	13.3	6.3	4.1	2.3	-2.9	-7.9	-16.0	-23.4	-31.3	-38.1	-45.8	-55.6	-70.5	-91.6	-122.0	-168.4	-240.2	-352.5	-521.1	-777.6	-1171.1	-1777.5	31.1	-3.3
5-I	39441	12022	30.2	16.0	14.9	19.8	12.9	11.2	13.1	13.4	6.3	4.1	2.3	-2.9	-7.9	-15.9	-23.4	-31.3	-38.0	-45.7	-55.4	-70.3	-91.3	-121.7	-168.0	-239.7	-351.6	-519.8	-775.7	-1168.2	-1773.1	31.1	-3.3
5-J	39682	12095	30.2	16.0	14.9	19.8	12.9	11.2	13.0	13.3	6.2	4.1	2.2	-3.0	-8.0	-16.1	-23.6	-31.5	-38.3	-46.0	-55.8	-70.7	-91.9	-122.4	-169.0	-241.0	-353.6	-522.8	-780.2	-1175.1	-1783.7	31.1	-3.4
6-D	43961	13399	29.7	15.1	14.0	18.9	12.0	10.2	12.0	12.2	5.0	2.7	0.6	-4.9	-10.4	-19.0	-27.0	-35.4	-42.9	-51.3	-62.0	-78.2	-101.3	-134.7	-185.8	-265.0	-389.0	-575.8	-860.8	-1298.2	-1972.4	30.6	-4.7
6-E	43000	13107	29.8	15.3	14.2	19.1	12.2	10.4	12.2	12.4	5.3	3.0	1.0	-4.5	-9.8	-18.3	-26.2	-34.6	-41.9	-50.1	-60.6	-76.5	-99.2	-131.9	-182.0	-259.6	-381.0	-563.9	-842.7	-1270.6	-1930.1	30.7	-4.4
6-G	41681	12704	30.0	15.5	14.4	19.3	12.4	10.7	12.5	12.8	5.7	3.4	1.5	-3.9	-9.1	-17.4	-25.2	-33.3	-40.4	-48.5	-58.7	-74.2	-96.3	-128.1	-176.9	-252.2	-370.2	-547.6	-817.9	-1232.7	-1871.9	30.8	-4.0
6-H	41407	12621	30.0	15.6	14.5	19.4	12.5	10.8	12.6	12.8	5.7	3.5	1.6	-3.8	-9.0	-17.3	-24.9	-33.1	-40.1	-48.2	-58.3	-73.7	-95.7	-127.3	-175.8	-250.7	-367.9	-544.2	-812.7	-1224.8	-1859.8	30.9	-3.9
6-I	41431	12628	30.0	15.6	14.5	19.4	12.5	10.7	12.6	12.8	5.7	3.5	1.6	-3.8	-9.0	-17.3	-25.0	-33.1	-40.2	-48.2	-58.3	-73.8	-95.7	-127.4	-175.9	-250.8	-368.1	-544.5	-813.2	-1225.5	-1860.9	30.9	-3.9
6-J	41712	12714	30.0	15.5	14.4	19.3	12.4	10.7	12.5	12.8	5.6	3.4	1.4	-3.9	-9.1	-17.5	-25.2	-33.4	-40.5	-48.5	-58.7	-74.3	-96.3	-128.2	-177.0	-252.4	-370.4	-548.0	-818.5	-1233.6	-1873.3	30.8	-4.0
7-B	47960	14618	29.4	14.3	13.2	18.1	11.2	9.3	11.1	11.2	4.0	1.5	-0.8	-6.7	-12.5	-21.6	-30.0	-39.1	-47.1	-56.2	-67.7	-85.1	-109.9	-146.1	-201.4	-287.3	-421.9	-625.1	-936.1	-1413.2	-2148.7	30.1	-5.9
7-C	46670	14225	29.5	14.6	13.5	18.4	11.5	9.6	11.4	11.5	4.3	1.8	-0.4	-6.1	-11.8	-20.7	-29.1	-37.9	-45.7	-54.6	-65.9	-82.9	-107.1	-142.4	-196.4	-280.1	-411.3	-609.2	-911.8	-1376.1	-2091.8	30.3	-5.5
7-E	44707	13627	29.7	14.9	13.8	18.7	11.8	10.0	11.8	12.0	4.8	2.4	0.3	-5.3	-10.8	-19.4	-27.5	-36.1	-43.7	-52.2	-63.1	-79.5	-102.9	-136.8	-188.7	-269.2	-395.1	-585.0	-874.9	-1319.7	-2005.3	30.5	-4.9
7-F	44045	13425	29.7	15.1	14.0	18.9	12.0	10.2	12.0	12.2	5.0	2.6	0.6	-5.0	-10.4	-19.0	-27.0	-35.5	-43.0	-51.4	-62.1	-78.3	-101.4	-134.9	-186.1	-265.5	-389.7	-576.8	-862.4	-1300.7	-1976.1	30.6	-4.7
7-G	43610	13292	29.8	15.1	14.0	18.9	12.0	10.3	12.1	12.3	5.1	2.8	0.7	-4.8	-10.2	-18.7	-26.7	-35.1	-42.5	-50.9	-61.5	-77.6	-100.5	-133.7	-184.4	-263.0	-386.1	-571.4	-854.2	-1288.1	-1956.9	30.6	-4.6
7-H	43410	13231	29.8	15.2	14.1	19.0	12.1	10.3	12.1	12.3	5.2	2.8	0.8	-4.7	-10.1	-18.6	-26.5	-34.9	-42.3	-50.6	-61.2	-77.2	-100.1	-133.1	-183.6	-261.9	-384.4	-569.0	-850.5	-1282.4	-1948.1	30.6	-4.5
7-I	43434	13239	29.8	15.2	14.1	19.0	12.1	10.3	12.1	12.3	5.2	2.8	0.8	-4.7	-10.1	-18.6	-26.5	-35.0	-42.3	-50.7	-61.2	-77.3	-100.1	-133.2	-183.7	-262.0	-384.6	-569.2	-850.9	-1283.1	-1949.2	30.6	-4.6
8-A	50875	15507	29.1	13.8	12.7	17.6	10.7	8.8	10.5	10.6	3.2	0.6	-1.9	-7.9	-14.0	-23.4	-32.3	-41.7	-50.1	-59.7	-71.9	-90.1	-116.2	-154.4	-212.8	-303.6	-445.9	-661.1	-990.9	-1497.0	-2277.2	29.8	-6.7
8-B	49491	15085	29.2	14.0	12.9	17.8	10.9	9.0	10.8	10.9	3.6	1.0	-1.4	-7.3	-13.3	-22.5	-31.2	-40.5	-48.7	-58.0	-69.9	-87.7	-113.3	-150.4	-207.4	-295.9	-434.5	-644.0	-964.8	-1457.2	-2216.2	30.0	-6.3

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Leq)
FROM WIND PARK OPERATIONS AT THE CUT-IN WIND CONDITION

8-C	48285	14717	29.3	14.3	13.2	18.1	11.2	9.3	11.0	11.2	3.9	1.4	-1.0	-6.8	-12.7	-21.8	-30.3	-39.4	-47.4	-56.6	-68.2	-85.7	-110.6	-147.0	-202.7	-289.1	-424.6	-629.2	-942.2	-1422.5	-2163.0	30.1	-6.0
8-D	47264	14406	29.4	14.4	13.3	18.2	11.3	9.5	11.2	11.4	4.1	1.7	-0.6	-6.4	-12.1	-21.1	-29.5	-38.5	-46.4	-55.3	-66.7	-83.9	-108.4	-144.1	-198.7	-283.4	-416.2	-616.6	-923.0	-1393.2	-2118.0	30.2	-5.7
8-F	45852	13976	29.6	14.7	13.6	18.5	11.6	9.8	11.5	11.7	4.5	2.1	-0.1	-5.8	-11.4	-20.2	-28.4	-37.2	-44.9	-53.6	-64.7	-81.5	-105.4	-140.1	-193.2	-275.6	-404.5	-599.1	-896.4	-1352.6	-2055.8	30.4	-5.3
8-G	45554	13885	29.6	14.8	13.7	18.6	11.7	9.8	11.6	11.8	4.6	2.2	0.0	-5.6	-11.2	-20.0	-28.2	-36.9	-44.6	-53.3	-64.3	-81.0	-104.7	-139.2	-192.0	-273.9	-402.1	-595.4	-890.8	-1344.1	-2042.7	30.4	-5.2
8-H	45373	13830	29.6	14.8	13.7	18.6	11.7	9.9	11.6	11.8	4.6	2.2	0.1	-5.6	-11.1	-19.9	-28.1	-36.7	-44.4	-53.0	-64.0	-80.6	-104.3	-138.7	-191.3	-272.9	-400.6	-593.2	-887.4	-1338.8	-2034.7	30.4	-5.1
9-A	52315	15946	29.0	13.6	12.5	17.4	10.5	8.5	10.2	10.3	2.9	0.2	-2.3	-8.5	-14.8	-24.3	-33.4	-43.0	-51.6	-61.4	-73.9	-92.6	-119.3	-158.5	-218.4	-311.6	-457.7	-678.9	-1017.9	-1538.3	-2340.6	29.7	-7.0
9-B	51018	15550	29.1	13.8	12.7	17.6	10.7	8.7	10.5	10.5	3.2	0.6	-1.9	-8.0	-14.1	-23.5	-32.4	-41.8	-50.3	-59.9	-72.1	-90.3	-116.5	-154.8	-213.3	-304.4	-447.0	-662.9	-993.5	-1501.1	-2283.5	29.8	-6.7
9-C	49893	15207	29.2	14.0	12.9	17.8	10.9	9.0	10.7	10.8	3.5	0.9	-1.5	-7.5	-13.5	-22.8	-31.5	-40.8	-49.1	-58.5	-70.5	-88.4	-114.1	-151.6	-209.0	-298.1	-437.8	-649.0	-972.4	-1468.7	-2233.9	29.9	-6.4
9-D	48993	14933	29.3	14.1	13.0	17.9	11.0	9.1	10.9	11.0	3.7	1.1	-1.2	-7.1	-13.0	-22.2	-30.8	-40.0	-48.2	-57.4	-69.2	-86.9	-112.2	-149.0	-205.4	-293.1	-430.4	-637.9	-955.5	-1442.9	-2194.2	30.0	-6.2
9-E	48243	14704	29.3	14.3	13.2	18.1	11.2	9.3	11.0	11.2	3.9	1.4	-0.9	-6.8	-12.6	-21.7	-30.3	-39.3	-47.4	-56.5	-68.1	-85.6	-110.6	-146.9	-202.5	-288.9	-424.2	-628.6	-941.4	-1421.3	-2161.2	30.1	-6.0
9-F	47714	14543	29.4	14.4	13.3	18.2	11.3	9.4	11.1	11.3	4.0	1.5	-0.8	-6.6	-12.4	-21.4	-29.9	-38.9	-46.8	-55.9	-67.4	-84.7	-109.4	-145.4	-200.5	-286.0	-419.9	-622.1	-931.4	-1406.1	-2137.9	30.1	-5.8
9-G	47402	14448	29.4	14.4	13.3	18.2	11.3	9.5	11.2	11.4	4.1	1.6	-0.6	-6.5	-12.2	-21.2	-29.6	-38.6	-46.5	-55.5	-66.9	-84.1	-108.7	-144.5	-199.2	-284.2	-417.3	-618.3	-925.6	-1397.2	-2124.1	30.2	-5.7
9-H	47344	14431	29.4	14.4	13.3	18.2	11.3	9.5	11.2	11.4	4.1	1.6	-0.6	-6.4	-12.2	-21.2	-29.6	-38.5	-46.5	-55.4	-66.8	-84.0	-108.6	-144.3	-199.0	-283.9	-416.8	-617.5	-924.5	-1395.5	-2121.6	30.2	-5.7
9-I	47435	14458	29.4	14.4	13.3	18.2	11.3	9.4	11.2	11.4	4.1	1.6	-0.7	-6.5	-12.2	-21.2	-29.6	-38.6	-46.5	-55.6	-67.0	-84.2	-108.8	-144.6	-199.4	-284.4	-417.6	-618.7	-926.2	-1398.1	-2125.6	30.2	-5.7
10-A	53801	16399	28.9	13.3	12.2	17.1	10.2	8.2	9.9	9.9	2.5	-0.2	-2.8	-9.1	-15.5	-25.2	-34.5	-44.3	-53.1	-63.2	-76.0	-95.1	-122.5	-162.7	-224.1	-319.8	-469.9	-697.2	-1045.8	-1581.0	-2406.1	29.5	-7.4
10-B	52618	16038	29.0	13.5	12.4	17.3	10.4	8.4	10.1	10.2	2.8	0.1	-2.4	-8.7	-14.9	-24.5	-33.6	-43.2	-51.9	-61.8	-74.3	-93.1	-120.0	-159.3	-219.5	-313.3	-460.2	-682.6	-1023.6	-1547.0	-2353.9	29.7	-7.1
10-C	51572	15719	29.0	13.7	12.6	17.5	10.6	8.6	10.3	10.4	3.0	0.4	-2.1	-8.2	-14.4	-23.8	-32.8	-42.3	-50.9	-60.5	-72.8	-91.3	-117.7	-156.4	-215.5	-307.4	-451.6	-669.7	-1004.0	-1517.0	-2307.9	29.8	-6.9
10-D	50687	15449	29.1	13.8	12.7	17.6	10.7	8.8	10.5	10.6	3.3	0.7	-1.8	-7.9	-13.9	-23.3	-32.1	-41.5	-49.9	-59.5	-71.6	-89.8	-115.8	-153.8	-212.0	-302.5	-444.3	-658.8	-987.3	-1491.6	-2268.9	29.8	-6.6
10-E	50021	15246	29.2	14.0	12.9	17.8	10.9	8.9	10.7	10.8	3.4	0.8	-1.6	-7.6	-13.6	-22.9	-31.6	-40.9	-49.2	-58.7	-70.7	-88.6	-114.4	-152.0	-209.5	-298.8	-438.9	-650.6	-974.8	-1472.4	-2239.5	29.9	-6.4
10-F	49537	15099	29.2	14.0	12.9	17.8	10.9	9.0	10.8	10.9	3.5	1.0	-1.4	-7.4	-13.3	-22.6	-31.3	-40.5	-48.7	-58.1	-70.0	-87.8	-113.4	-150.6	-207.6	-296.1	-434.9	-644.6	-965.7	-1458.5	-2218.2	30.0	-6.3
10-G	49282	15021	29.2	14.1	13.0	17.9	11.0	9.1	10.8	10.9	3.6	1.1	-1.3	-7.3	-13.2	-22.4	-31.1	-40.3	-48.5	-57.8	-69.6	-87.4	-112.8	-149.9	-206.6	-294.7	-432.8	-641.5	-960.9	-1451.2	-2207.0	30.0	-6.2
10-H	49275	15019	29.2	14.1	13.0	17.9	11.0	9.1	10.8	10.9	3.6	1.1	-1.3	-7.3	-13.2	-22.4	-31.1	-40.3	-48.5	-57.8	-69.6	-87.4	-112.8	-149.8	-206.5	-294.6	-432.7	-641.4	-960.8	-1451.0	-2206.6	30.0	-6.2
10-I	96984	29561	26.3	8.2	7.1	12.0	5.1	2.2	3.4	2.7	-5.9	-10.4	-15.4	-25.0	-35.5	-50.2	-64.9	-80.5	-95.6	-112.8	-134.8	-166.7	-213.3	-283.0	-389.8	-557.9	-822.5	-1227.5	-1855.2	-2819.4	-4306.6	26.7	-15.5
11-A	55382	16880	28.7	13.1	12.0	16.9	10.0	7.9	9.6	9.6	2.1	-0.7	-3.4	-9.8	-16.3	-26.2	-35.6	-45.7	-54.8	-65.1	-78.2	-97.8	-125.9	-167.1	-230.3	-328.6	-482.9	-716.7	-1075.5	-1626.4	-2475.7	29.4	-7.8
11-B	54228	16529	28.8	13.3	12.2	17.1	10.2	8.1	9.8	9.9	2.4	-0.3	-3.0	-9.3	-15.7	-25.5	-34.8	-44.7	-53.6	-63.7	-76.6	-95.8	-123.4	-163.9	-225.8	-322.2	-473.4	-702.4	-1053.8	-1593.3	-2424.9	29.5	-7.5
11-C	53246	16229	28.9	13.4	12.3	17.2	10.3	8.3	10.0	10.1	2.6	-0.1	-2.7	-8.9	-15.2	-24.9	-34.0	-43.8	-52.6	-62.5	-75.2	-94.1	-121.3	-161.1	-222.0	-316.7	-465.3	-690.3	-1035.4	-1565.1	-2381.6	29.6	-7.3
11-D	52500	16002	29.0	13.5	12.4	17.3	10.4	8.5	10.2	10.2	2.8	0.1	-2.4	-8.6	-14.8	-24.4	-33.5	-43.1	-51.8	-61.7	-74.2	-92.9	-119.7	-159.0	-219.1	-312.6	-459.2	-681.1	-1021.4	-1543.7	-2348.7	29.7	-7.1
11-E	51842	15801	29.0	13.6	12.5	17.4	10.5	8.6	10.3	10.4	3.0	0.3	-2.2	-8.3	-14.5	-24.0	-33.0	-42.5	-51.1	-60.9	-73.2	-91.8	-118.3	-157.1	-216.5	-308.9	-453.8	-673.0	-1009.0	-1524.7	-2319.7	29.7	-6.9
11-F	51470	15688	29.1	13.7	12.6	17.5	10.6	8.7	10.4	10.4	3.1	0.4	-2.1	-8.2	-14.3	-23.8	-32.7	-42.2	-50.7	-60.4	-72.7	-91.1	-117.5	-156.1	-215.1	-306.9	-450.8	-668.4	-1002.0	-1514.1	-2303.4	29.8	-6.8
11-G	51242	15619	29.1	13.7	12.6	17.5	10.6	8.7	10.4	10.5	3.1	0.5	-2.0	-8.1	-14.2	-23.6	-32.5	-42.0	-50.5	-60.1	-72.4	-90.7	-117.0	-155.4	-214.2	-305.6	-448.9	-665.6	-997.8	-1507.5	-2293.3	29.8	-6.8
11-H	51236	15617	29.1	13.7	12.6	17.5	10.6	8.7	10.4	10.5	3.1	0.5	-2.0	-8.1	-14.2	-23.6	-32.5	-42.0	-50.5	-60.1	-72.4	-90.7	-117.0	-155.4	-214.2	-305.6	-448.8	-665.6	-997.6	-1507.3	-2293.1	29.8	-6.8
11-K	52481	15996	29.0	13.5	12.4	17.3	10.4	8.5	10.2	10.2	2.8	0.1	-2.4	-8.6	-14.8	-24.4	-33.5	-43.1	-51.8	-61.6	-74.1	-92.8	-119.7	-158.9	-219.0	-312.5	-459.1	-680.9	-1021.0	-1543.1	-2347.9	29.7	-7.1
11-L	53214	16220	28.9	13.4	12.3	17.2	10.3	8.3	10.0	10.1	2.6	-0.1	-2.6	-8.9	-15.2	-24.9	-34.0	-43.8	-52.5	-62.5	-75.2	-94.1	-121.3	-161.0	-221.9	-316.6	-465.1	-689.9	-1034.8	-1564.2	-2380.2	29.6	-7.3
12-A	56959	17361	28.6	12.8	11.7	16.6	9.7	7.7	9.3	9.3	1.8	-1.1	-3.9	-10.4	-17.1	-27.2	-36.8	-47.0	-56.4	-67.0	-80.4	-100.4	-129.3	-171.6	-236.4	-337.4	-495.8	-736.1	-1105.1	-1671.7	-2545.2	29.3	-8.2
12-B	55875	17031	28.7	13.0	11.9	16.8	9.9	7.9	9.5	9.5	2.0	-0.8	-3.5	-10.0	-16.6	-26.5	-36.0	-46.1	-55.3	-65.7	-78.9	-98.6	-127.0	-168.5	-232.2	-331.4	-486.9	-722.7	-1084.8	-1640.6	-2497.4	29.3	-7.9
12-C	54951	16749	28.8	13.1	12.0	16.9	10.0	8.0	9.7	9.7	2.2	-0.5	-3.2	-9.6	-16.1	-26.0	-35.3	-45.3	-54.3	-64.6	-77.6	-97.0	-125.0	-165.9	-228.6	-326.2	-479.3	-711.3	-1067.4	-1614.0	-2456.7	29.4	-7.7
12-D	54256	16537	28.8	13.2	12.1	17.0	10.1	8.1	9.8	9.9	2.4	-0.4	-3.0	-9.3	-15.7	-25.5	-34.8	-44.7	-53.6	-63.7	-76.6	-95.9	-123.5	-164.0	-225.9	-322.4	-473.6	-702.8	-1054.4	-1594.1	-2426.1	29.5	-7.5
12-E	53659	16355	28.9	13.3	12.2	17.1	10.2	8.2	9.9	10.0	2.5	-0.2	-2.8	-9.1	-15.4	-25.2	-34.4	-44.2	-53.0	-63.0	-75.8	-94.8	-122.2	-162.3	-223.6	-319.0	-468.7	-695.4	-1043.2	-1577.0	-2399.8	29.6	-7.4
12-F	53359	16264	28.9	13.4	12.3	17.2	10.3	8.3	10.0	10.0	2.6	-0.1	-2.7	-9.0	-15.3	-25.0	-34.1	-43.9	-52.7	-62.7	-75.4	-94.3	-121.6	-161.4	-222.4	-317.4	-466.3	-691.7	-1037.5	-1568.3	-2386.6	29.6	-7.3
12-G	53181	16210	28.9	13.4	12.3	17.2	10.3	8.3	10.0	10.1	2.7	-0.1	-2.6	-8.9	-15.2	-24.9	-34.0	-43.7	-52.5	-62.5	-75.1	-94.0	-121.2	-160.9	-221.7	-316.4	-464.8	-689.5	-1034.2	-1563.2	-2378.8	29.6	-7.3
12-H	53208	16218	28.9	13.4	12.3	17.2	10.3	8.3	10.0	10.1	2.6	-0.1	-2.6	-8.9	-15.2	-24.9	-34.0	-43.8	-52.5	-62.5	-75.2	-94.1	-121.3	-161.0	-221.8	-316.5	-465.0	-689.9	-1034.7	-1564.0	-2380.0	29.6	-7.3
12-I	53455	16293	28.9	13.4	12.3	17.2	10.3	8.3	10.0	10.0	2.6	-0.1	-2.7	-9.0	-15.3	-25.0	-34.2	-44.0	-52.8	-62.8	-75.5	-94.5	-121.8	-161.7	-222.8	-317.9	-467.1	-692.9	-1039.3	-1571.1	-2390.8	29.6	-7.3
12-J	53861	16417	28.9	13.3	12.2	17.1	10.2	8.2	9.9	9.9	2.5	-0.2	-2.9	-9.2	-15.5	-25.3	-34.5	-44.3	-53.2	-63.3	-76.1	-95.2	-122.7	-162.8	-224.4	-320.2	-470.4	-697.9	-1047.0	-1582.8	-2408.7	29.5	-7.4
12-K	54474	16604	28.8	13.2	12.1	17.0	10.1	8.1	9.8	9.8	2.3	-0.4	-3.1	-9.4	-15.8	-25.7	-35.0	-44.9	-53.8	-64.0	-76.9	-96.2	-124.0	-164.6	-226.8	-323.6	-475.4	-705.5	-1058.5	-1600.4	-2435.7	29.5	-7.6
12-L	55245	16839	28.7	13.1	12.0	16.9	10.0	8.0	9.6	9.6	2.2	-0.6	-3.3	-9.7	-16.2	-26.1	-35.5	-45.5	-54.6	-64.9	-78.0	-97.5	-125.6	-166.7	-229.7	-327.8	-481.7	-715.0	-1072.9	-1622.5	-2469.7	29.4	-7.8
13-A	58571	17852	28.5	12.6	11.5	16.4	9.5	7.4	9.0	9.0	1.4	-1.5	-4.4	-11.1	-17.9	-28.2	-38.0	-48.4	-58.0	-68.9	-82.7	-103.2	-132.7	-176.1	-242.6	-346.3	-509.0	-755.9	-1135.4	-1718.0	-2616.2	29.1	-8.6
13-B	57531	17535	28.6	12.7	11.6	16.5	9.6	7.6	9.2	9.2	1.6	-1.2	-4.1	-10.7	-17.4	-27.5	-37.2	-47.5	-57.0	-67.6	-81.2	-101.4	-130.5	-173.2	-238.6	-340.5	-500.5	-743.1	-1115.9	-1688.1	-2570.4	29.2	-8.3
13-C	56691	17279	28.6	12.9	11.8	16.7	9.8	7.7	9.4	9.4	1.8	-1.0	-3.8	-10.3	-17.0	-27.0	-36.6	-46.8	-56.1	-66.6	-80.0	-100.0	-128.7	-170.8	-235.3	-335.9	-493.6	-732.8	-1100.1	-1664.0	-2533.4	29.3	-8.1
13-D	56054	17085	28.7	13.0	11.9	16.8	9.9	7.8	9.5	9.5	2.0	-0.8	-3.6	-10.1	-16.6	-26.6	-36.1	-46.3	-55.5	-65.9	-79.1	-98.9	-127.4	-169.0	-232.9	-332.3	-488.4	-724.9	-1088.1	-1645.7	-2505.3	29.3	-8.0
13-F	55244	16838	28.7	13.1	12.0	16.9	10.0	8.0	9.6	9.6	2.2	-0.6	-3.3	-9.7	-16.2	-26.1	-35.5	-45.5	-54.6	-64.9	-78.0	-97.5	-125.6	-166.7	-229.7	-327.8	-481.7	-715.0	-1072.9	-1622.5	-2469.6	29.4	-7.8
13-G	55127	16803	28.8	13.1	12.0	16.9	10.0	8.0	9.6	9.7	2.2	-0.6	-3.3	-9.7	-16.2	-26.1	-35.5	-45.4	-54.5	-64.8	-77.8	-97.3	-125.4	-166.4	-229.3	-327.2	-480.8	-713.5	-1070.7	-1619.1	-2464.5	29.4	-7.8
13-H	55134	16805	28.8	13.1	12.0	16.9	10.0	8.0	9.6	9.7	2.2	-0.6	-3.3	-9.7	-16.2	-26.1	-35.5	-45.4	-54.5	-64.8	-77.9	-97.4	-125.4	-166.4	-229.3	-327.2	-480.8	-713.6	-1070.9	-1619.3	-2464.8	29.4	-7.8
13-I	55447	16900	28.7	13.1	12.0	16.9	10.0	7.9	9.6	9.6	2.1	-0.7	-3.4	-9.8	-16.3	-26.3	-35.7	-45.7	-54.8	-65.2	-78.3	-97.9	-126.1	-167.3	-230.5	-329.0	-483.4	-717.5	-1076.7	-1628.3	-2478.6	29.4	-7.8
13-J	55948	17053	28.7	13.0	11.9	16.8	9.9	7.8	9.5	9.5	2.0	-0.8	-3.6	-10.0	-16.6	-26.6	-36.1	-46.2	-55.3	-65.8	-79.0	-98.7	-127.1	-168.7	-232.5	-331.8	-487.5	-723.6	-1086.2	-1642.7	-2500.6	29.3	-8.0
13-K	56551	17237	28.6	12.9	11.8	16.7	9.8	7.7	9.4	9.4	1.9	-1.0	-3.7	-10.3	-16.9	-26.9	-36.5	-46.7	-56.0	-66.5	-79.8	-99.8	-128.4	-170.4	-234.8	-335.1	-492.5	-731.1	-1097.5	-1660.0	-2527.2	29.3	-8.1
13-L	57373	17487	28.6	12.8	11.7	16.6	9.7	7.6	9.2	9.2	1.7	-1.2	-4.0	-10.6	-17.3	-27.4	-37.1	-47.4	-56.8	-67.4	-81.0	-101.1	-130.2	-172.7	-238.0	-339.7	-499.2	-741.2	-1112.9	-1683.6	-2563.4	29.2	-8.3
14-D	57870	17639	28.5	12.7	11.6	16.5	9.6	7.5	9.1	9.1	1.6	-1.3	-4.2	-10.8	-17.5	-27.7	-37.5	-47.8	-57.3	-68.0	-81.7	-102.0	-131.2	-174.2	-239.9	-342.4	-503.3	-747.3	-1122.2	-1697.9	-2585.3	29.2	-8.4
14-E	57433	17506	28.6	12.8	11.7	16.6	9.7	7.6	9.2	9.2	1.7	-1.2	-4.0	-10.6	-17.3	-27.5	-37.2	-47.5	-56.9	-67.5	-81.1	-101.2	-130.3	-172.9	-238.2	-340.0	-499.7	-741.9	-1114.0	-1685.3	-2566.1	29.2	-8.3
14-F	57156	17421	28.6	12.8	11.7	16.6	9.7	7.6	9.3	9.3	1.7	-1.1	-3.9	-10.5	-17.2	-27.3	-37.0	-47.2	-56.6	-67.2	-80.7	-100.8	-129.7	-172.1	-237.1	-338.5	-497.4	-738.5	-1108.8	-1677.4	-2553.9	29.2	-8.2
14-G	57077	17397	28.6	12.8	11.7	16.6	9.7	7.6	9.3	9.3	1.7	-1.1	-3.9	-10.5	-17.2	-27.3	-36.9	-47.1	-56.5	-67.1	-80.6	-100.6	-129.5	-171.9	-236.8	-338.0	-496.8	-737.5	-1107.4	-1675.1	-2550.4	29.2	-8.2
14-H	57182	17429	28.6	12.8	11.7	16.6	9.7	7.6	9.3	9.3	1.7	-1.1	-4.0	-10.5	-17.2	-27.3	-37.0	-47.2	-56.6	-67.2	-80.7	-100.8	-129.8	-172.2	-237.2	-338.6	-497.6	-738.8	-1109.3	-1678.1	-2555.0	29.2	-8.2
14-J	57923	17655	28.5	12.7	11.6	16.5	9.6	7.5	9.1	9.1	1.5	-1.3	-4.2	-10.8	-17.6	-27.8	-37.5	-47.9	-57.4	-68.1	-81.8	-102.1	-131.4	-174.3	-240.1	-342.7	-503.7	-748.0	-1123.2	-1699.4	-2587.6	29.2	-8.4
14-K	58617	17867	28.5	12.6	11.5	16.4	9.5	7.4	9.0	9.0	1.4	-1.5	-4.4	-11.1	-17.9	-28.2	-38.0	-48.5	-58.1	-68.9	-82.7	-103.2	-132.8	-176.3	-242.8	-346.6	-509.4	-756.5	-1136.3	-1719.3	-2618.2	29.1	-8.6
14-L	59442	18118	28.4	12.5	11.4	16.3	9.4	7.2	8.9	8.8	1.2	-1.7	-4.7	-11.4	-18.3	-28.7	-38.6	-49.2	-58.9	-69.9	-83.9	-104.6	-134.6	-178.6	-246.0	-351.1	-516.2	-766.7	-1151.8	-1743.0	-2654.5	29.0	-8.8
15-F	59077	18007	28.5	12.5	11.4	16.3	9.4	7.3	8.9	8.9	1.3	-1.7	-4.6	-11.3	-18.1	-28.5	-38.4	-48.9	-58.5	-69.5	-83.4	-104.0	-133.8	-177.5	-244.6	-349.1	-513.2	-762.2	-1144.9	-1732.5	-2638.5	29.1	-8.7
15-G	59044	17997	28.5	12.5	11.4	16.3	9.4	7.3	8.9	8.9	1.3	-1.6	-4.6	-11.3	-18.1	-28.5	-38.3	-48.9	-58.5	-69.4	-83.3	-104.0	-133.7	-177.5	-244.4	-348.9	-512.9	-761.7	-1144.3	-1731.6	-2637.0	29.1	-8.7
15-H	59210	18047	28.4	12.5	11.4	16.3	9.4	7.3	8.9	8.8	1.3	-1.7	-4.6	-11.3	-18.2	-28.6	-38.5	-49.0	-58.7	-69.6	-83.5	-104.2	-134.1	-177.9	-245.1	-349.8	-514.3	-763.8	-1147.4	-1736.3	-2644.3	29.1	-8.7
15-I	59529	18144	28.4	12.4	11.3	16.2	9.3	7.2	8.8	8.8	1.2	-1.8	-4.7	-11.4	-18.4	-28.8	-38.7	-49.3	-59.0	-70.0	-84.0	-104.8	-134.8	-178.8	-246.3	-351.6	-516.9	-767.7	-1153.4	-1745.5	-2658.4	29.0	-8.8
15-J	59995	18287	28.4	12.4	11.3	16.2	9.3	7.2	8.8	8.7	1.1	-1.9	-4.9	-11.6	-18.6	-29.0	-39.0	-49.7	-59.5	-70.5	-84.6	-105.6	-135.8	-180.1	-248.1	-354.2	-520.7	-773.5	-1162.1	-1758.9	-2678.9	29.0	-8.9
15-K	60660	18489	28.3	12.3	11.2	16.1	9.2	7.0	8.6	8.6	0.9	-2.1	-5.1	-11.9	-18.9	-29.4	-39.5	-50.3	-60.1	-71.3	-85.6	-106.7	-137.2	-182.0	-250.7	-357.9	-526.1	-781.6	-1174.6	-1778.0	-2708.2	28.9	-9.0
16-J	62032	18907	28.2	12.1	11.0	15.9	9.0	6.8	8.4	8.3	0.6	-2.4	-5.5	-12.4	-19.6	-30.3	-40.5	-51.4	-61.5	-72.9	-87.5	-109.0	-140.1	-185.9	-256.0	-365.5	-537.4	-798.5	-1200.4	-1817.3	-2768.6	28.8	-9.4
16-K	62709	19114	28.2	12.0	10.9	15.8	8.9	6.7	8.3	8.2	0.5	-2.6	-5.7	-12.7	-19.9	-30.7	-41.0	-52.0	-62.2	-73.7	-88.4	-110.1	-141.5	-187.8	-258.6	-369.2	-542.9	-806.8	-1213.1	-1836.8	-2798.4	28.8	-9.5
		Sum:	50.7	36.1	35.0	39.9	33.0	31.2	33.0	33.3	26.1	23.9	21.9	16.7	11.7	3.8	-3.4	-10.8	-17.1	-24.0	-32.7	-46.0	-64.5	-90.5	-129.7	-189.3	-281.6	-418.4	-624.6	-940.2	-1426.1	51.6	16.5

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Leq)
FROM WIND PARK OPERATIONS AT THE CUT-IN WIND CONDITION

																		Hertz													
	1/3 Octave Bands	**16***	**20**	**25**	**31**	**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**	**L**	**A**
Sound Power Data		112.0	105.6	104.5	109.4	102.5	101.6	103.9	104.9	98.9	98.3	98.7	96.5	95.3	91.8	89.3	86.7	85.7	84.5	83.2	80.0	76.5	73.1	68.2	62.7	55.3	49.4	48.4	47.8	47.6	116.3	95.4
Data for the graph																																
Atmos. Absorption per 1 km air temp 59F 70% RH		0.0000	0.0000	0.0000	0.0000	0.0000	0.0670	0.1050	0.1630	0.2510	0.3810	0.5650	0.8150	1.1300	1.5100	1.9200	2.3600	2.8400	3.3800	4.0800	5.0500	6.5100	8.7500	12.2000	17.7000	26.4000	39.9000	61.1000	93.7000	144.0000		

*Spherical wave spreading for up to 2 km, cylindrical wave spreading beyond 2 km.

																		Hertz													
	1/3 Octave Bands	**16***	**20**	**25**	**31**	**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**	**L**	**A**
	Distance (ft)	**Distance (m)**																														
1-D	29105	8871	31.5	18.7	17.6	22.5	15.6	14.1	16.0	16.5	9.7	8.0	6.7	2.3	-1.7	-8.5	-14.7	-21.2	-26.4	-32.4	-39.9	-51.7	-68.2	-91.5	-127.0	-181.3	-265.8	-391.5	-580.6	-870.4	-1316.8	32.8	0.7
1-E	29062	8858	31.5	18.7	17.6	22.5	15.6	14.1	16.0	16.5	9.7	8.0	6.8	2.4	-1.6	-8.5	-14.6	-21.1	-26.4	-32.4	-39.9	-51.7	-68.1	-91.3	-126.8	-181.0	-265.5	-391.0	-579.8	-869.1	-1314.9	32.8	0.7
1-F	29352	8946	31.5	18.6	17.5	22.4	15.5	14.0	15.9	16.4	9.6	7.9	6.6	2.2	-1.8	-8.7	-14.9	-21.4	-26.7	-32.8	-40.3	-52.2	-68.8	-92.2	-128.0	-182.7	-267.9	-394.6	-585.2	-877.5	-1327.7	32.7	0.6
1-G	30014	9148	31.4	18.4	17.3	22.2	15.3	13.8	15.7	16.2	9.4	7.6	6.3	1.8	-2.2	-9.2	-15.5	-22.1	-27.5	-33.6	-41.3	-53.4	-70.3	-94.2	-130.6	-186.4	-273.4	-402.8	-597.8	-896.6	-1357.0	32.6	0.3
1-H	30995	9447	31.3	18.1	17.0	21.9	15.0	13.5	15.4	15.9	9.0	7.2	5.9	1.3	-2.9	-10.0	-16.3	-23.1	-28.6	-34.9	-42.8	-55.2	-72.5	-97.1	-134.5	-192.0	-281.6	-415.0	-616.3	-924.9	-1400.3	32.4	-0.1
1-I	32248	9829	31.1	17.8	16.7	21.6	14.7	13.1	15.0	15.5	8.6	6.7	5.3	0.7	-3.6	-10.9	-17.4	-24.3	-30.0	-36.6	-44.7	-57.5	-75.3	-100.7	-139.5	-199.1	-292.0	-430.6	-640.0	-961.0	-1455.6	32.2	-0.6
1-J	33774	10294	30.9	17.4	16.3	21.2	14.3	12.7	14.6	15.0	8.1	6.1	4.6	-0.1	-4.6	-12.0	-18.7	-25.8	-31.8	-38.5	-47.0	-60.2	-78.8	-105.2	-145.6	-207.7	-304.7	-449.6	-668.8	-1005.0	-1523.0	32.0	-1.2
1-K	35493	10818	30.7	16.9	15.8	20.7	13.8	12.2	14.1	14.5	7.5	5.5	3.9	-1.0	-5.6	-13.2	-20.1	-27.5	-33.7	-40.7	-49.6	-63.3	-82.6	-110.2	-152.4	-217.4	-319.0	-470.9	-701.3	-1054.5	-1598.9	31.7	-1.9
1-L	37522	11437	30.4	16.5	15.4	20.3	13.4	11.7	13.6	13.9	6.9	4.8	3.1	-2.0	-6.8	-14.6	-21.8	-29.4	-35.9	-43.3	-52.6	-66.9	-87.1	-116.1	-160.5	-228.9	-335.8	-496.1	-739.5	-1113.0	-1688.4	31.4	-2.6
2-D	31068	9470	31.2	18.1	17.0	21.9	15.0	13.5	15.4	15.8	9.0	7.2	5.8	1.3	-2.9	-10.0	-16.4	-23.2	-28.7	-35.0	-42.9	-55.3	-72.7	-97.3	-134.8	-192.4	-282.2	-415.9	-617.7	-927.0	-1403.5	32.4	-0.1
2-E	31077	9472	31.2	18.1	17.0	21.9	15.0	13.5	15.4	15.8	9.0	7.2	5.8	1.3	-2.9	-10.0	-16.4	-23.2	-28.7	-35.0	-43.0	-55.3	-72.7	-97.3	-134.9	-192.5	-282.3	-416.1	-617.9	-927.3	-1403.9	32.4	-0.1
2-F	31444	9584	31.2	18.0	16.9	21.8	14.9	13.3	15.3	15.7	8.9	7.0	5.7	1.1	-3.1	-10.3	-16.7	-23.5	-29.1	-35.5	-43.5	-56.0	-73.5	-98.4	-136.3	-194.6	-285.3	-420.6	-624.8	-937.8	-1420.1	32.4	-0.3
2-G	32095	9783	31.1	17.8	16.7	21.6	14.7	13.2	15.1	15.5	8.7	6.8	5.4	0.7	-3.5	-10.8	-17.3	-24.2	-29.9	-36.4	-44.5	-57.2	-75.0	-100.3	-138.9	-198.2	-290.8	-428.7	-637.1	-956.6	-1448.9	32.2	-0.6
2-H	33051	10074	31.0	17.6	16.5	21.4	14.5	12.9	14.8	15.2	8.3	6.4	5.0	0.2	-4.1	-11.5	-18.1	-25.1	-31.0	-37.6	-45.9	-58.9	-77.1	-103.1	-142.7	-203.7	-298.7	-440.6	-655.2	-984.2	-1491.1	32.1	-0.9
2-I	34278	10448	30.8	17.2	16.1	21.0	14.1	12.5	14.4	14.8	7.9	6.0	4.4	-0.4	-4.9	-12.3	-19.1	-26.3	-32.3	-39.2	-47.8	-61.1	-79.9	-106.7	-147.6	-210.6	-308.9	-455.8	-678.3	-1019.5	-1545.3	31.9	-1.4
2-J	35815	10916	30.6	16.9	15.8	20.7	13.8	12.1	14.0	14.4	7.4	5.4	3.8	-1.1	-5.8	-13.4	-20.4	-27.8	-34.0	-41.1	-50.1	-63.9	-83.3	-111.2	-153.7	-219.3	-321.6	-474.9	-707.3	-1063.8	-1613.1	31.7	-2.0
2-K	37497	11429	30.4	16.5	15.4	20.3	13.4	11.7	13.6	13.9	6.9	4.8	3.1	-2.0	-6.8	-14.6	-21.8	-29.4	-35.9	-43.3	-52.6	-66.9	-87.0	-116.0	-160.4	-228.7	-335.6	-495.8	-739.1	-1112.2	-1687.3	31.4	-2.6
2-L	39383	12004	30.2	16.0	14.9	19.8	12.9	11.2	13.1	13.4	6.3	4.2	2.3	-2.9	-7.8	-15.9	-23.3	-31.2	-38.0	-45.6	-55.3	-70.2	-91.2	-121.5	-167.8	-239.3	-351.2	-519.1	-774.6	-1166.5	-1770.5	31.1	-3.3
3-D	33012	10062	31.0	17.6	16.5	21.4	14.5	12.9	14.8	15.2	8.3	6.4	5.0	0.3	-4.1	-11.4	-18.1	-25.1	-30.9	-37.5	-45.9	-58.8	-77.0	-103.0	-142.6	-203.4	-298.4	-440.1	-654.4	-983.1	-1489.4	32.1	-0.9
3-E	33085	10084	31.0	17.5	16.4	21.3	14.4	12.9	14.8	15.2	8.3	6.4	4.9	0.2	-4.2	-11.5	-18.1	-25.2	-31.0	-37.6	-46.0	-59.0	-77.2	-103.2	-142.9	-203.8	-299.0	-441.0	-655.8	-985.2	-1492.6	32.1	-1.0
3-F	33471	10202	30.9	17.4	16.3	21.2	14.3	12.8	14.7	15.1	8.2	6.3	4.8	0.0	-4.4	-11.8	-18.4	-25.5	-31.4	-38.1	-46.6	-59.7	-78.1	-104.3	-144.4	-206.0	-302.2	-445.8	-663.1	-996.3	-1509.6	32.0	-1.1
3-G	34173	10416	30.8	17.3	16.2	21.1	14.2	12.6	14.5	14.9	7.9	6.0	4.5	-0.3	-4.8	-12.3	-19.0	-26.2	-32.2	-39.0	-47.6	-60.9	-79.6	-106.4	-147.2	-210.0	-308.0	-454.5	-676.3	-1016.5	-1540.6	31.9	-1.4
3-I	36350	11079	30.6	16.7	15.6	20.5	13.6	12.0	13.9	14.2	7.2	5.2	3.6	-1.4	-6.1	-13.8	-20.8	-28.3	-34.6	-41.8	-50.9	-64.8	-84.5	-112.7	-155.8	-222.3	-326.1	-481.5	-717.4	-1079.2	-1636.7	31.6	-2.2
3-J	37792	11519	30.4	16.4	15.3	20.2	13.3	11.6	13.5	13.8	6.8	4.7	3.0	-2.1	-6.9	-14.8	-22.0	-29.7	-36.2	-43.6	-53.0	-67.4	-87.7	-116.9	-161.5	-230.4	-338.0	-499.4	-744.6	-1120.7	-1700.4	31.4	-2.7
3-K	39488	12036	30.2	16.0	14.9	19.8	12.9	11.2	13.0	13.3	6.3	4.1	2.3	-2.9	-7.9	-16.0	-23.4	-31.3	-38.1	-45.8	-55.5	-70.4	-91.4	-121.8	-168.2	-239.9	-352.0	-520.4	-776.6	-1169.6	-1775.2	31.1	-3.3
3-L	41312	12592	30.0	15.6	14.5	19.4	12.5	10.8	12.6	12.9	5.8	3.5	1.6	-3.7	-8.9	-17.2	-24.9	-33.0	-40.0	-48.0	-58.2	-73.6	-95.5	-127.1	-175.4	-250.2	-367.1	-543.0	-810.9	-1222.0	-1855.6	30.9	-3.9
4-D	34974	10660	30.7	17.1	16.0	20.9	14.0	12.3	14.2	14.6	7.7	5.7	4.1	-0.7	-5.3	-12.8	-19.7	-27.0	-33.1	-40.1	-48.8	-62.4	-81.4	-108.7	-150.4	-214.5	-314.7	-464.5	-691.5	-1039.6	-1576.0	31.8	-1.7
4-E	35068	10689	30.7	17.0	15.9	20.8	13.9	12.3	14.2	14.6	7.7	5.7	4.1	-0.8	-5.3	-12.9	-19.8	-27.1	-33.2	-40.2	-49.0	-62.5	-81.6	-109.0	-150.8	-215.1	-315.4	-465.6	-693.2	-1042.3	-1580.1	31.8	-1.7
4-F	35529	10829	30.7	16.9	15.8	20.7	13.8	12.2	14.1	14.5	7.5	5.5	3.9	-1.0	-5.6	-13.2	-20.2	-27.5	-33.7	-40.8	-49.7	-63.4	-82.7	-110.3	-152.6	-217.7	-319.3	-471.4	-701.9	-1055.6	-1600.5	31.7	-1.9
4-G	36222	11041	30.6	16.8	15.7	20.6	13.7	12.0	13.9	14.3	7.3	5.3	3.6	-1.3	-6.0	-13.7	-20.7	-28.2	-34.5	-41.7	-50.7	-64.6	-84.2	-112.3	-155.3	-221.6	-325.0	-480.0	-715.0	-1075.5	-1631.1	31.6	-2.1
4-H	37188	11335	30.5	16.5	15.4	20.3	13.4	11.8	13.6	14.0	7.0	4.9	3.2	-1.8	-6.6	-14.4	-21.5	-29.1	-35.6	-42.9	-52.1	-66.3	-86.4	-115.1	-159.2	-227.0	-333.0	-491.9	-733.2	-1103.3	-1673.7	31.5	-2.5
4-I	38416	11709	30.3	16.2	15.1	20.0	13.1	11.5	13.3	13.6	6.6	4.5	2.7	-2.4	-7.3	-15.2	-22.5	-30.3	-36.9	-44.4	-53.9	-68.5	-89.1	-118.7	-164.0	-233.9	-343.2	-507.1	-756.4	-1138.7	-1727.9	31.3	-2.9
4-J	39850	12146	30.2	15.9	14.8	19.7	12.8	11.1	13.0	13.2	6.2	4.0	2.2	-3.1	-8.1	-16.2	-23.7	-31.6	-38.5	-46.2	-56.0	-71.0	-92.2	-122.9	-169.7	-242.0	-355.0	-524.9	-783.4	-1180.0	-1791.1	31.1	-3.4
4-K	41506	12651	30.0	15.6	14.5	19.4	12.5	10.7	12.5	12.8	5.7	3.5	1.5	-3.8	-9.0	-17.3	-25.0	-33.2	-40.3	-48.3	-58.4	-73.9	-95.9	-127.6	-176.2	-251.2	-368.7	-545.4	-814.6	-1227.6	-1864.2	30.9	-3.9
4-L	43328	13206	29.8	15.2	14.1	19.0	12.1	10.3	12.1	12.3	5.2	2.9	0.8	-4.7	-10.0	-18.5	-26.5	-34.9	-42.2	-50.5	-61.1	-77.1	-99.9	-132.9	-183.3	-261.5	-383.7	-567.9	-848.9	-1280.0	-1944.5	30.6	-4.5
5-D	36951	11263	30.5	16.6	15.5	20.4	13.5	11.8	13.7	14.0	7.1	5.0	3.3	-1.7	-6.4	-14.2	-21.3	-28.9	-35.3	-42.6	-51.8	-65.9	-85.8	-114.5	-158.2	-225.7	-331.0	-489.0	-728.8	-1096.5	-1663.2	31.5	-2.4
5-E	37120	11314	30.5	16.5	15.4	20.3	13.4	11.8	13.7	14.0	7.0	4.9	3.3	-1.8	-6.5	-14.3	-21.5	-29.1	-35.5	-42.8	-52.0	-66.2	-86.2	-115.0	-158.9	-226.6	-332.4	-491.1	-731.9	-1101.4	-1670.7	31.5	-2.5
5-F	37584	11456	30.4	16.4	15.3	20.2	13.3	11.7	13.5	13.9	6.9	4.8	3.1	-2.0	-6.8	-14.7	-21.9	-29.5	-36.0	-43.4	-52.7	-67.0	-87.2	-116.3	-160.7	-229.2	-336.3	-496.8	-740.7	-1114.8	-1691.2	31.4	-2.6
5-G	38291	11671	30.3	16.3	15.2	20.1	13.2	11.5	13.4	13.7	6.6	4.5	2.8	-2.3	-7.2	-15.1	-22.4	-30.2	-36.8	-44.3	-53.7	-68.3	-88.8	-118.3	-163.5	-233.2	-342.1	-505.6	-754.0	-1135.1	-1722.4	31.3	-2.9
5-H	39252	11964	30.2	16.1	15.0	19.9	13.0	11.3	13.1	13.4	6.4	4.2	2.4	-2.8	-7.8	-15.8	-23.2	-31.1	-37.8	-45.5	-55.2	-70.0	-90.9	-121.1	-167.3	-238.6	-350.1	-517.5	-772.1	-1162.8	-1764.8	31.2	-3.2
5-I	40417	12319	30.1	15.8	14.7	19.6	12.7	11.0	12.8	13.1	6.0	3.8	1.9	-3.3	-8.4	-16.6	-24.1	-32.2	-39.1	-46.9	-56.9	-72.0	-93.5	-124.5	-171.9	-245.1	-359.7	-531.9	-794.1	-1196.3	-1816.1	31.0	-3.6
5-J	41879	12765	29.9	15.5	14.4	19.3	12.4	10.6	12.5	12.7	5.6	3.3	1.4	-4.0	-9.2	-17.6	-25.3	-33.5	-40.7	-48.7	-59.0	-74.6	-96.7	-128.7	-177.6	-253.3	-371.8	-550.0	-821.6	-1238.4	-1880.6	30.8	-4.1
6-D	38939	11869	30.3	16.1	15.0	19.9	13.0	11.3	13.2	13.5	6.5	4.3	2.5	-2.6	-7.6	-15.6	-23.0	-30.8	-37.5	-45.1	-54.7	-69.4	-90.2	-120.2	-166.1	-236.8	-347.5	-513.6	-766.2	-1153.8	-1751.0	31.2	-3.1
6-E	39155	11935	30.2	16.1	15.0	19.9	13.0	11.3	13.1	13.4	6.4	4.2	2.4	-2.7	-7.7	-15.7	-23.1	-31.0	-37.7	-45.4	-55.0	-69.8	-90.7	-120.8	-166.9	-238.1	-349.3	-516.3	-770.3	-1160.0	-1760.5	31.2	-3.2
6-G	40306	12285	30.1	15.8	14.7	19.6	12.7	11.0	12.8	13.1	6.0	3.8	2.0	-3.3	-8.4	-16.5	-24.1	-32.1	-39.0	-46.8	-56.7	-71.8	-93.2	-124.2	-171.5	-244.5	-358.8	-530.6	-792.0	-1193.1	-1811.3	31.0	-3.6
6-H	41274	12580	30.0	15.6	14.5	19.4	12.5	10.8	12.6	12.9	5.8	3.5	1.6	-3.7	-8.9	-17.2	-24.8	-33.0	-40.0	-48.0	-58.1	-73.5	-95.4	-127.0	-175.3	-249.9	-366.8	-542.5	-810.2	-1221.0	-1853.9	30.9	-3.9
6-I	42480	12948	29.9	15.4	14.3	19.2	12.3	10.5	12.3	12.6	5.4	3.1	1.2	-4.3	-9.6	-18.0	-25.8	-34.1	-41.3	-49.5	-59.9	-75.6	-98.0	-130.4	-180.0	-256.7	-376.7	-557.4	-832.9	-1255.6	-1907.1	30.8	-4.3
6-J	43922	13388	29.7	15.1	14.0	18.9	12.0	10.2	12.0	12.2	5.0	2.7	0.6	-4.9	-10.3	-18.9	-26.9	-35.4	-42.8	-51.3	-61.9	-78.1	-101.2	-134.6	-185.6	-264.8	-388.6	-575.3	-860.1	-1297.1	-1970.7	30.6	-4.7
7-B	41118	12533	30.0	15.7	14.6	19.5	12.6	10.8	12.6	12.9	5.8	3.6	1.7	-3.7	-8.8	-17.1	-24.7	-32.8	-39.8	-47.8	-57.9	-73.2	-95.0	-126.5	-174.6	-249.1	-365.5	-540.6	-807.3	-1216.5	-1847.0	30.9	-3.8
7-C	40867	12456	30.1	15.7	14.6	19.5	12.6	10.9	12.7	13.0	5.9	3.7	1.8	-3.5	-8.7	-16.9	-24.5	-32.6	-39.6	-47.5	-57.5	-72.8	-94.5	-125.8	-173.7	-247.7	-363.4	-537.5	-802.6	-1209.3	-1836.0	31.0	-3.7
7-E	41156	12544	30.0	15.6	14.5	19.4	12.5	10.8	12.6	12.9	5.8	3.6	1.7	-3.7	-8.8	-17.1	-24.7	-32.9	-39.9	-47.9	-57.9	-73.3	-95.1	-126.6	-174.8	-249.3	-365.8	-541.1	-808.0	-1217.5	-1848.7	30.9	-3.8
7-F	41659	12698	30.0	15.5	14.4	19.3	12.4	10.7	12.5	12.8	5.7	3.4	1.5	-3.9	-9.1	-17.4	-25.1	-33.3	-40.4	-48.5	-58.7	-74.2	-96.2	-128.1	-176.8	-252.1	-370.0	-547.3	-817.5	-1232.0	-1870.9	30.9	-4.0
7-G	42400	12923	29.9	15.4	14.3	19.2	12.3	10.5	12.3	12.6	5.4	3.2	1.2	-4.2	-9.5	-17.9	-25.7	-34.0	-41.2	-49.4	-59.7	-75.5	-97.8	-130.2	-179.7	-256.3	-376.1	-556.5	-831.4	-1253.3	-1903.6	30.8	-4.2
7-H	43381	13223	29.8	15.2	14.1	19.0	12.1	10.3	12.1	12.3	5.2	2.9	0.8	-4.7	-10.0	-18.6	-26.5	-34.9	-42.3	-50.6	-61.2	-77.2	-100.0	-133.0	-183.5	-261.7	-384.2	-568.6	-849.9	-1281.6	-1946.9	30.6	-4.5
7-I	44562	13582	29.7	15.0	13.9	18.8	11.9	10.0	11.8	12.0	4.8	2.5	0.4	-5.2	-10.7	-19.4	-27.4	-36.0	-43.5	-52.1	-62.9	-79.2	-102.6	-136.4	-188.1	-268.4	-393.9	-583.2	-872.1	-1315.5	-1998.9	30.5	-4.9
8-A	43443	13241	29.8	15.2	14.1	19.0	12.1	10.3	12.1	12.3	5.2	2.8	0.8	-4.7	-10.1	-18.6	-26.5	-35.0	-42.3	-50.7	-61.2	-77.3	-100.1	-133.2	-183.8	-262.1	-384.7	-569.3	-851.1	-1283.3	-1949.6	30.6	-4.6
8-B	43010	13110	29.8	15.3	14.2	19.1	12.2	10.4	12.2	12.4	5.3	3.0	1.0	-4.5	-9.8	-18.3	-26.2	-34.6	-41.9	-50.1	-60.6	-76.5	-99.2	-131.9	-182.1	-259.7	-381.1	-564.0	-842.9	-1270.9	-1930.5	30.7	-4.4

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Leq)
FROM WIND PARK OPERATIONS AT THE CUT-IN WIND CONDITION

8-C	42820	13051	29.9	15.3	14.2	19.1	12.2	10.4	12.2	12.5	5.3	3.0	1.0	-4.4	-9.7	-18.2	-26.1	-34.4	-41.7	-49.9	-60.3	-76.2	-98.8	-131.4	-181.3	-258.6	-379.6	-561.6	-839.3	-1265.4	-1922.1	30.7	-4.4
8-D	42881	13070	29.8	15.3	14.2	19.1	12.2	10.4	12.2	12.5	5.3	3.0	1.0	-4.5	-9.8	-18.2	-26.1	-34.5	-41.7	-50.0	-60.4	-76.3	-98.9	-131.6	-181.6	-258.9	-380.1	-562.4	-840.5	-1267.2	-1924.8	30.7	-4.4
8-F	43683	13315	29.8	15.1	14.0	18.9	12.0	10.2	12.0	12.3	5.1	2.8	0.7	-4.8	-10.2	-18.8	-26.7	-35.2	-42.6	-51.0	-61.6	-77.7	-100.6	-133.9	-184.7	-263.4	-386.7	-572.3	-855.6	-1290.3	-1960.2	30.6	-4.6
8-G	44513	13568	29.7	15.0	13.9	18.8	11.9	10.1	11.8	12.1	4.9	2.5	0.4	-5.2	-10.7	-19.3	-27.4	-36.0	-43.5	-52.0	-62.8	-79.1	-102.5	-136.2	-188.0	-268.1	-393.5	-582.6	-871.2	-1314.1	-1996.8	30.5	-4.9
8-H	45463	13857	29.6	14.8	13.7	18.6	11.7	9.9	11.6	11.8	4.6	2.2	0.1	-5.6	-11.2	-19.9	-28.1	-36.8	-44.5	-53.2	-64.2	-80.8	-104.5	-139.0	-191.7	-273.4	-401.3	-594.3	-889.1	-1341.4	-2038.6	30.4	-5.2
9-A	45248	13792	29.6	14.8	13.7	18.6	11.7	9.9	11.7	11.9	4.7	2.3	0.1	-5.5	-11.1	-19.8	-28.0	-36.6	-44.2	-52.9	-63.8	-80.4	-104.1	-138.4	-190.8	-272.2	-399.6	-591.7	-885.0	-1335.2	-2029.2	30.4	-5.1
9-B	44882	13680	29.6	14.9	13.8	18.7	11.8	10.0	11.8	12.0	4.8	2.4	0.3	-5.4	-10.9	-19.6	-27.7	-36.3	-43.9	-52.4	-63.3	-79.8	-103.3	-137.3	-189.4	-270.1	-396.6	-587.1	-878.2	-1324.7	-2013.0	30.5	-5.0
9-C	44748	13639	29.7	14.9	13.8	18.7	11.8	10.0	11.8	12.0	4.8	2.4	0.3	-5.3	-10.8	-19.5	-27.6	-36.2	-43.7	-52.3	-63.1	-79.6	-103.0	-136.9	-188.9	-269.4	-395.4	-585.5	-875.6	-1320.9	-2007.1	30.5	-5.0
9-D	44885	13681	29.6	14.9	13.8	18.7	11.8	10.0	11.8	12.0	4.8	2.4	0.3	-5.4	-10.9	-19.6	-27.7	-36.3	-43.9	-52.4	-63.3	-79.8	-103.3	-137.3	-189.4	-270.2	-396.6	-587.2	-878.2	-1324.8	-2013.2	30.5	-5.0
9-E	45191	13774	29.6	14.8	13.7	18.6	11.7	9.9	11.7	11.9	4.7	2.3	0.2	-5.5	-11.0	-19.8	-27.9	-36.6	-44.2	-52.8	-63.8	-80.3	-103.9	-138.2	-190.6	-271.9	-399.1	-591.0	-884.0	-1333.6	-2026.7	30.4	-5.1
9-F	45751	13945	29.6	14.7	13.6	18.5	11.6	9.8	11.6	11.8	4.5	2.1	0.0	-5.7	-11.3	-20.1	-28.3	-37.1	-44.8	-53.5	-64.6	-81.3	-105.2	-139.8	-192.8	-275.0	-403.7	-597.9	-894.5	-1349.7	-2051.3	30.4	-5.2
9-G	46530	14182	29.5	14.6	13.5	18.4	11.5	9.6	11.4	11.6	4.3	1.9	-0.3	-6.1	-11.7	-20.6	-28.9	-37.8	-45.6	-54.5	-65.7	-82.6	-106.8	-142.0	-195.8	-279.3	-410.1	-607.5	-909.2	-1372.1	-2085.7	30.3	-5.5
9-H	47536	14489	29.4	14.4	13.3	18.2	11.3	9.4	11.2	11.3	4.1	1.6	-0.7	-6.5	-12.3	-21.3	-29.7	-38.7	-46.7	-55.7	-67.1	-84.4	-109.0	-144.9	-199.8	-285.0	-418.4	-619.9	-928.1	-1401.0	-2130.0	30.2	-5.8
9-I	48685	14839	29.3	14.2	13.1	18.0	11.1	9.2	10.9	11.1	3.8	1.2	-1.1	-7.0	-12.9	-22.0	-30.6	-39.7	-47.9	-57.1	-68.8	-86.3	-111.5	-148.2	-204.2	-291.4	-427.9	-634.1	-949.7	-1434.0	-2180.6	30.0	-6.1
10-A	47074	14348	29.4	14.5	13.4	18.3	11.4	9.5	11.3	11.4	4.2	1.7	-0.5	-6.3	-12.0	-21.0	-29.4	-38.3	-46.2	-55.1	-66.5	-83.6	-108.0	-143.6	-198.0	-282.4	-414.6	-614.2	-919.4	-1387.7	-2109.7	30.2	-5.6
10-B	46806	14266	29.5	14.5	13.4	18.3	11.4	9.6	11.3	11.5	4.3	1.8	-0.4	-6.2	-11.9	-20.8	-29.2	-38.0	-45.9	-54.8	-66.1	-83.1	-107.4	-142.8	-196.9	-280.9	-412.4	-610.9	-914.3	-1380.0	-2097.8	30.2	-5.6
10-C	46721	14241	29.5	14.5	13.4	18.3	11.4	9.6	11.4	11.5	4.3	1.8	-0.4	-6.2	-11.8	-20.8	-29.1	-38.0	-45.8	-54.7	-66.0	-83.0	-107.3	-142.6	-196.6	-280.4	-411.7	-609.8	-912.7	-1377.6	-2094.1	30.3	-5.5
10-D	46847	14279	29.5	14.5	13.4	18.3	11.4	9.6	11.3	11.5	4.2	1.8	-0.4	-6.2	-11.9	-20.8	-29.2	-38.1	-45.9	-54.8	-66.1	-83.2	-107.5	-142.9	-197.1	-281.1	-412.7	-611.4	-915.1	-1381.2	-2099.6	30.2	-5.6
10-E	47207	14389	29.4	14.5	13.4	18.3	11.4	9.5	11.2	11.4	4.1	1.7	-0.6	-6.4	-12.1	-21.1	-29.5	-38.4	-46.3	-55.3	-66.6	-83.8	-108.3	-143.9	-198.5	-283.1	-415.7	-615.9	-921.9	-1391.6	-2115.5	30.2	-5.7
10-F	47778	14563	29.4	14.4	13.3	18.2	11.3	9.4	11.1	11.3	4.0	1.5	-0.8	-6.6	-12.4	-21.4	-29.9	-38.9	-46.9	-56.0	-67.5	-84.8	-109.5	-145.6	-200.7	-286.3	-420.4	-622.9	-932.6	-1408.0	-2140.7	30.1	-5.8
10-G	48564	14802	29.3	14.2	13.1	18.0	11.1	9.2	11.0	11.1	3.8	1.3	-1.1	-7.0	-12.8	-21.9	-30.5	-39.6	-47.7	-56.9	-68.6	-86.1	-111.3	-147.8	-203.8	-290.7	-426.9	-632.6	-947.4	-1430.6	-2175.3	30.1	-6.0
10-H	49583	15113	29.2	14.0	12.9	17.8	10.9	9.0	10.7	10.9	3.5	1.0	-1.4	-7.4	-13.3	-22.6	-31.3	-40.5	-48.8	-58.1	-70.0	-87.9	-113.5	-150.7	-207.7	-296.4	-435.2	-645.2	-966.6	-1459.8	-2220.2	30.0	-6.3
10-I	81751	24918	27.0	9.7	8.6	13.5	6.6	4.0	5.4	4.9	-3.3	-7.1	-11.3	-19.7	-28.8	-41.7	-54.5	-68.0	-81.0	-95.6	-114.4	-141.7	-181.6	-240.8	-331.7	-474.3	-698.4	-1040.7	-1570.0	-2382.9	-3636.5	27.5	-13.1
11-A	48974	14927	29.3	14.1	13.0	17.9	11.0	9.1	10.9	11.0	3.7	1.2	-1.2	-7.1	-13.0	-22.2	-30.8	-40.0	-48.2	-57.4	-69.2	-86.8	-112.1	-149.0	-205.4	-293.0	-430.2	-637.7	-955.1	-1442.4	-2193.4	30.0	-6.2
11-B	48725	14851	29.3	14.2	13.1	18.0	11.1	9.2	10.9	11.1	3.8	1.2	-1.1	-7.0	-12.9	-22.0	-30.6	-39.8	-47.9	-57.1	-68.8	-86.4	-111.6	-148.3	-204.4	-291.6	-428.2	-634.6	-950.4	-1435.2	-2182.4	30.0	-6.1
11-C	48663	14832	29.3	14.2	13.1	18.0	11.1	9.2	10.9	11.1	3.8	1.2	-1.1	-7.0	-12.9	-22.0	-30.6	-39.7	-47.8	-57.0	-68.7	-86.3	-111.5	-148.1	-204.2	-291.2	-427.7	-633.8	-949.3	-1433.4	-2179.7	30.0	-6.1
11-D	48902	14905	29.3	14.2	13.1	18.0	11.1	9.2	10.9	11.0	3.7	1.2	-1.2	-7.1	-13.0	-22.2	-30.8	-39.9	-48.1	-57.3	-69.1	-86.7	-112.0	-148.8	-205.1	-292.6	-429.7	-636.8	-953.8	-1440.3	-2190.2	30.0	-6.1
11-E	49230	15005	29.2	14.1	13.0	17.9	11.0	9.1	10.8	10.9	3.6	1.1	-1.3	-7.2	-13.2	-22.4	-31.0	-40.2	-48.4	-57.7	-69.5	-87.3	-112.7	-149.7	-206.4	-294.4	-432.4	-640.8	-959.9	-1449.7	-2204.7	30.0	-6.2
11-F	49859	15197	29.2	14.0	12.9	17.8	10.9	9.0	10.7	10.8	3.5	0.9	-1.5	-7.5	-13.5	-22.8	-31.5	-40.8	-49.1	-58.5	-70.4	-88.4	-114.1	-151.5	-208.8	-297.9	-437.5	-648.6	-971.8	-1467.8	-2232.4	29.9	-6.4
11-G	50633	15433	29.1	13.8	12.7	17.6	10.7	8.8	10.5	10.6	3.3	0.7	-1.8	-7.8	-13.9	-23.3	-32.1	-41.5	-49.9	-59.4	-71.5	-89.7	-115.7	-153.7	-211.8	-302.2	-443.9	-658.1	-986.3	-1490.0	-2266.5	29.8	-6.6
11-H	51615	15732	29.0	13.7	12.6	17.5	10.6	8.6	10.3	10.4	3.0	0.4	-2.1	-8.2	-14.4	-23.9	-32.8	-42.3	-50.9	-60.6	-72.9	-91.4	-117.8	-156.5	-215.6	-307.7	-451.9	-670.2	-1004.8	-1518.2	-2309.7	29.7	-6.9
11-K	55661	16966	28.7	13.0	11.9	16.8	9.9	7.9	9.5	9.6	2.1	-0.7	-3.5	-9.9	-16.4	-26.4	-35.8	-45.9	-55.1	-65.4	-78.6	-98.2	-126.5	-167.9	-231.4	-330.2	-485.2	-720.1	-1080.8	-1634.4	-2488.0	29.4	-7.9
11-L	57246	17449	28.6	12.8	11.7	16.6	9.7	7.6	9.3	9.2	1.7	-1.2	-4.0	-10.5	-17.2	-27.4	-37.0	-47.3	-56.7	-67.3	-80.8	-100.9	-129.9	-172.4	-237.5	-339.0	-498.2	-739.6	-1110.5	-1680.0	-2557.8	29.2	-8.3
12-A	50852	15500	29.1	13.8	12.7	17.6	10.7	8.8	10.5	10.6	3.2	0.6	-1.8	-7.9	-14.0	-23.4	-32.2	-41.7	-50.1	-59.7	-71.8	-90.1	-116.2	-154.3	-212.7	-303.4	-445.7	-660.8	-990.4	-1496.3	-2276.1	29.8	-6.7
12-B	50653	15439	29.1	13.8	12.7	17.6	10.7	8.8	10.5	10.6	3.3	0.7	-1.8	-7.8	-13.9	-23.3	-32.1	-41.5	-49.9	-59.4	-71.5	-89.7	-115.8	-153.7	-211.9	-302.3	-444.0	-658.4	-986.7	-1490.6	-2267.4	29.8	-6.6
12-C	50641	15435	29.1	13.8	12.7	17.6	10.7	8.8	10.5	10.6	3.3	0.7	-1.8	-7.8	-13.9	-23.3	-32.1	-41.5	-49.9	-59.4	-71.5	-89.7	-115.7	-153.7	-211.9	-302.3	-443.9	-658.2	-986.4	-1490.2	-2266.8	29.8	-6.6
12-D	50896	15513	29.1	13.8	12.7	17.6	10.7	8.8	10.5	10.6	3.2	0.6	-1.9	-7.9	-14.0	-23.4	-32.3	-41.7	-50.2	-59.7	-71.9	-90.1	-116.3	-154.4	-212.9	-303.7	-446.0	-661.4	-991.2	-1497.6	-2278.1	29.8	-6.7
12-E	51242	15619	29.1	13.7	12.6	17.5	10.6	8.7	10.4	10.5	3.1	0.5	-2.0	-8.1	-14.2	-23.6	-32.5	-42.0	-50.5	-60.1	-72.4	-90.7	-117.0	-155.4	-214.2	-305.6	-448.9	-665.6	-997.8	-1507.5	-2293.3	29.8	-6.8
12-F	51906	15821	29.0	13.6	12.5	17.4	10.5	8.6	10.3	10.4	3.0	0.3	-2.2	-8.4	-14.5	-24.1	-33.0	-42.6	-51.2	-60.9	-73.3	-91.9	-118.5	-157.3	-216.8	-309.3	-454.3	-673.8	-1010.2	-1526.6	-2322.6	29.7	-6.9
12-G	52703	16064	28.9	13.5	12.4	17.3	10.4	8.4	10.1	10.2	2.8	0.1	-2.5	-8.7	-15.0	-24.6	-33.6	-43.3	-52.0	-61.9	-74.4	-93.2	-120.2	-159.6	-219.9	-313.7	-460.9	-683.6	-1025.2	-1549.5	-2357.7	29.6	-7.1
12-H	53663	16357	28.9	13.3	12.2	17.1	10.2	8.2	9.9	10.0	2.5	-0.2	-2.8	-9.1	-15.4	-25.2	-34.4	-44.2	-53.0	-63.0	-75.8	-94.9	-122.2	-162.3	-223.6	-319.1	-468.8	-695.5	-1043.2	-1577.1	-2400.0	29.6	-7.4
12-I	54862	16722	28.8	13.2	12.1	17.0	10.1	8.0	9.7	9.7	2.3	-0.5	-3.2	-9.6	-16.0	-25.9	-35.3	-45.2	-54.2	-64.5	-77.5	-96.9	-124.8	-165.7	-228.3	-325.7	-478.6	-710.3	-1065.8	-1611.5	-2452.8	29.4	-7.7
12-J	56166	17119	28.7	12.9	11.8	16.7	9.8	7.8	9.5	9.5	2.0	-0.9	-3.6	-10.1	-16.7	-26.7	-36.2	-46.4	-55.6	-66.0	-79.3	-99.1	-127.6	-169.3	-233.3	-333.0	-489.3	-726.3	-1090.3	-1648.9	-2510.3	29.3	-8.0
12-K	57637	17568	28.6	12.7	11.6	16.5	9.6	7.5	9.2	9.2	1.6	-1.3	-4.1	-10.7	-17.4	-27.6	-37.3	-47.6	-57.1	-67.8	-81.4	-101.6	-130.7	-173.5	-239.0	-341.1	-501.4	-744.4	-1117.9	-1691.2	-2575.0	29.2	-8.4
12-L	59221	18051	28.4	12.5	11.4	16.3	9.4	7.3	8.9	8.8	1.3	-1.7	-4.6	-11.3	-18.2	-28.6	-38.5	-49.0	-58.7	-69.6	-83.6	-104.3	-134.1	-178.0	-245.1	-349.9	-514.3	-763.9	-1147.6	-1736.7	-2644.8	29.1	-8.7
13-A	52743	16076	28.9	13.5	12.4	17.3	10.4	8.4	10.1	10.2	2.8	0.1	-2.5	-8.7	-15.0	-24.6	-33.7	-43.3	-52.1	-61.9	-74.5	-93.3	-120.3	-159.7	-220.0	-313.9	-461.2	-684.1	-1025.9	-1550.6	-2359.4	29.6	-7.2
13-B	52573	16024	29.0	13.5	12.4	17.3	10.4	8.4	10.1	10.2	2.8	0.1	-2.4	-8.6	-14.9	-24.5	-33.5	-43.2	-51.9	-61.7	-74.3	-93.0	-119.9	-159.2	-219.4	-313.0	-459.8	-682.0	-1022.8	-1545.7	-2352.0	29.7	-7.1
13-C	52615	16037	29.0	13.5	12.4	17.3	10.4	8.4	10.1	10.2	2.8	0.1	-2.4	-8.7	-14.9	-24.5	-33.6	-43.2	-51.9	-61.8	-74.3	-93.1	-120.0	-159.3	-219.5	-313.2	-460.2	-682.6	-1023.6	-1547.0	-2353.8	29.7	-7.1
13-D	52905	16126	28.9	13.5	12.4	17.3	10.4	8.4	10.1	10.1	2.7	0.0	-2.5	-8.8	-15.1	-24.7	-33.8	-43.5	-52.2	-62.1	-74.7	-93.6	-120.6	-160.1	-220.7	-314.9	-462.5	-686.1	-1029.0	-1555.3	-2366.6	29.6	-7.2
13-F	53948	16443	28.8	13.3	12.2	17.1	10.2	8.2	9.9	9.9	2.5	-0.3	-2.9	-9.2	-15.6	-25.3	-34.6	-44.4	-53.3	-63.4	-76.2	-95.3	-122.8	-163.1	-224.7	-320.6	-471.1	-699.0	-1048.6	-1585.2	-2412.5	29.5	-7.5
13-G	54758	16690	28.8	13.2	12.1	17.0	10.1	8.1	9.7	9.7	2.3	-0.5	-3.2	-9.5	-16.0	-25.8	-35.2	-45.1	-54.1	-64.3	-77.3	-96.7	-124.6	-165.4	-227.9	-325.1	-477.8	-709.0	-1063.8	-1608.5	-2448.2	29.4	-7.7
13-H	55669	16968	28.7	13.0	11.9	16.8	9.9	7.9	9.5	9.6	2.1	-0.7	-3.5	-9.9	-16.4	-26.4	-35.9	-45.9	-55.1	-65.4	-78.6	-98.3	-126.5	-167.9	-231.4	-330.2	-485.2	-720.2	-1080.9	-1634.7	-2488.3	29.4	-7.9
13-I	56896	17342	28.6	12.8	11.7	16.6	9.7	7.7	9.3	9.3	1.8	-1.1	-3.9	-10.4	-17.1	-27.2	-36.8	-47.0	-56.3	-66.9	-80.3	-100.3	-129.2	-171.4	-236.1	-337.0	-495.3	-735.3	-1104.0	-1669.9	-2542.4	29.3	-8.2
13-J	58254	17756	28.5	12.6	11.5	16.4	9.5	7.4	9.1	9.0	1.5	-1.4	-4.3	-10.9	-17.7	-28.0	-37.8	-48.2	-57.7	-68.5	-82.2	-102.6	-132.1	-175.2	-241.4	-344.5	-506.4	-752.0	-1129.5	-1708.9	-2602.2	29.1	-8.5
13-K	59682	18191	28.4	12.4	11.3	16.2	9.3	7.2	8.8	8.8	1.2	-1.8	-4.8	-11.5	-18.4	-28.8	-38.8	-49.4	-59.1	-70.2	-84.2	-105.0	-135.1	-179.3	-246.9	-352.5	-518.1	-769.6	-1156.3	-1749.9	-2665.1	29.0	-8.8
13-L	61305	18686	28.3	12.2	11.1	16.0	9.1	6.9	8.5	8.4	0.8	-2.2	-5.3	-12.1	-19.2	-29.8	-40.0	-50.8	-60.8	-72.1	-86.5	-107.8	-138.6	-183.8	-253.2	-361.5	-531.4	-789.6	-1186.7	-1796.5	-2736.6	28.9	-9.2
14-D	54914	16738	28.8	13.1	12.0	16.9	10.0	8.0	9.7	9.7	2.2	-0.5	-3.2	-9.6	-16.1	-25.9	-35.3	-45.3	-54.3	-64.5	-77.5	-97.0	-124.9	-165.8	-228.5	-326.0	-479.0	-710.9	-1066.7	-1613.0	-2455.1	29.4	-7.7
14-E	55357	16873	28.7	13.1	12.0	16.9	10.0	7.9	9.6	9.6	2.1	-0.7	-3.4	-9.8	-16.3	-26.2	-35.6	-45.6	-54.7	-65.1	-78.2	-97.7	-125.9	-167.1	-230.2	-328.5	-482.7	-716.4	-1075.1	-1625.7	-2474.6	29.4	-7.8
14-F	55996	17068	28.7	13.0	11.9	16.8	9.9	7.8	9.5	9.5	2.0	-0.8	-3.6	-10.0	-16.6	-26.6	-36.1	-46.2	-55.4	-65.8	-79.1	-98.8	-127.2	-168.9	-232.7	-332.0	-487.9	-724.2	-1087.1	-1644.1	-2502.8	29.3	-8.0
14-G	56807	17315	28.6	12.8	11.7	16.6	9.7	7.7	9.3	9.3	1.8	-1.0	-3.8	-10.4	-17.0	-27.1	-36.7	-46.9	-56.2	-66.8	-80.2	-100.2	-129.0	-171.2	-235.8	-336.5	-494.6	-734.2	-1102.3	-1667.3	-2538.5	29.3	-8.2
14-H	57792	17615	28.5	12.7	11.6	16.5	9.6	7.5	9.2	9.1	1.6	-1.3	-4.2	-10.8	-17.5	-27.7	-37.4	-47.8	-57.2	-67.9	-81.6	-101.9	-131.1	-173.9	-239.6	-342.0	-502.6	-746.3	-1120.8	-1695.6	-2581.9	29.2	-8.4
14-J	60238	18360	28.4	12.3	11.2	16.1	9.2	7.1	8.7	8.6	1.0	-2.0	-4.9	-11.7	-18.7	-29.2	-39.2	-49.9	-59.7	-70.8	-85.0	-106.0	-136.3	-180.8	-249.1	-355.5	-522.7	-776.4	-1166.7	-1765.8	-2689.6	29.0	-9.0
14-K	61740	18818	28.3	12.1	11.0	15.9	9.0	6.9	8.5	8.4	0.7	-2.3	-5.4	-12.3	-19.4	-30.1	-40.3	-51.2	-61.2	-72.6	-87.1	-108.5	-139.5	-185.0	-254.9	-363.9	-535.0	-794.9	-1194.9	-1809.0	-2755.7	28.8	-9.3
14-L	63336	19305	28.2	11.9	10.8	15.7	8.8	6.6	8.2	8.1	0.4	-2.8	-5.9	-12.9	-20.2	-31.0	-41.5	-52.6	-62.8	-74.4	-89.3	-111.2	-142.9	-189.5	-261.0	-372.7	-548.0	-814.6	-1224.8	-1854.8	-2826.0	28.7	-9.6
15-F	58039	17690	28.5	12.7	11.6	16.5	9.6	7.5	9.1	9.1	1.5	-1.4	-4.2	-10.9	-17.6	-27.8	-37.6	-48.0	-57.5	-68.2	-81.9	-102.3	-131.6	-174.6	-240.6	-343.4	-504.7	-749.4	-1125.4	-1702.7	-2592.7	29.2	-8.5
15-G	58884	17948	28.5	12.5	11.4	16.3	9.4	7.3	9.0	8.9	1.3	-1.6	-4.5	-11.2	-18.0	-28.4	-38.2	-48.7	-58.3	-69.2	-83.1	-103.7	-133.4	-177.0	-243.8	-348.0	-511.6	-759.8	-1141.3	-1727.0	-2629.9	29.1	-8.6
15-H	59882	18252	28.4	12.4	11.3	16.2	9.3	7.2	8.8	8.7	1.1	-1.9	-4.8	-11.6	-18.5	-29.0	-39.0	-49.6	-59.3	-70.4	-84.5	-105.4	-135.5	-179.8	-247.7	-353.6	-519.8	-772.1	-1160.0	-1755.6	-2673.9	29.0	-8.9
15-I	61040	18605	28.3	12.2	11.1	16.0	9.1	7.0	8.6	8.5	0.9	-2.2	-5.2	-12.0	-19.1	-29.7	-39.8	-50.6	-60.5	-71.8	-86.1	-107.3	-138.0	-183.1	-252.2	-360.0	-529.2	-786.3	-1181.7	-1788.9	-2724.9	28.9	-9.1
15-J	62312	18993	28.2	12.0	10.9	15.8	8.9	6.8	8.4	8.3	0.6	-2.5	-5.6	-12.5	-19.7	-30.4	-40.7	-51.7	-61.8	-73.2	-87.8	-109.5	-140.7	-186.6	-257.1	-367.0	-539.7	-802.0	-1205.6	-1825.4	-2780.9	28.8	-9.4
15-K	63759	19434	28.1	11.8	10.7	15.6	8.7	6.5	8.1	8.0	0.3	-2.9	-6.0	-13.1	-20.4	-31.3	-41.8	-52.9	-63.2	-74.9	-89.8	-111.9	-143.8	-190.7	-262.6	-375.0	-551.5	-819.8	-1232.7	-1866.9	-2844.6	28.7	-9.7
16-J	64355	19616	28.1	11.8	10.7	15.6	8.7	6.5	8.0	7.9	0.1	-3.0	-6.2	-13.3	-20.7	-31.7	-42.2	-53.4	-63.8	-75.6	-90.7	-112.9	-145.0	-192.4	-264.9	-378.3	-556.4	-827.1	-1243.9	-1884.0	-2870.9	28.6	-9.9
16-K	65789	20052	28.0	11.6	10.5	15.4	8.5	6.2	7.8	7.6	-0.2	-3.4	-6.7	-13.9	-21.4	-32.5	-43.2	-54.6	-65.3	-77.3	-92.6	-115.3	-148.1	-196.4	-270.5	-386.3	-568.1	-844.7	-1270.8	-1925.1	-2934.0	28.5	-10.2
		Sum:	50.9	36.4	35.3	40.2	33.3	31.6	33.4	33.7	26.6	24.4	22.5	17.4	12.6	4.9	-2.1	-9.3	-15.2	-21.9	-30.1	-42.7	-60.1	-84.3	-120.8	-175.9	-261.1	-387.2	-576.5	-866.3	-1312.6	51.8	17.0

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Leq)
FROM WIND PARK OPERATIONS AT THE CUT-IN WIND CONDITION

																		Hertz													
	1/3 Octave Bands	**16***	**20**	**25**	**31**	**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**	**L**	**A**
Sound Power Data		112.0	105.6	104.5	109.4	102.5	101.6	103.9	104.9	98.9	98.3	98.7	96.5	95.3	91.8	89.3	86.7	85.7	84.5	83.2	80.0	76.5	73.1	68.2	62.7	55.3	49.4	48.4	47.8	47.6	116.3	95.4
Data for the graph																																
Atmos. Absorption per 1 km air temp 59F 70% RH		0.0000	0.0000	0.0000	0.0000	0.0000	0.0670	0.1050	0.1630	0.2510	0.3810	0.5650	0.8150	1.1300	1.5100	1.9200	2.3600	2.8400	3.3800	4.0800	5.0500	6.5100	8.7500	12.2000	17.7000	26.4000	39.9000	61.1000	93.7000	144.0000		

*Spherical wave spreading for up to 2 km, cylindrical wave spreading beyond 2 km.

																		Hertz													
	1/3 Octave Bands	**16***	**20**	**25**	**31**	**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**	**L**	**A**
	Distance (ft)	**Distance (m)**																														
1-D	29563	9011	31.5	18.5	17.4	22.3	15.4	13.9	15.9	16.4	9.6	7.8	6.5	2.1	-2.0	-8.9	-15.1	-21.6	-27.0	-33.0	-40.6	-52.6	-69.2	-92.8	-128.8	-183.9	-269.7	-397.2	-589.2	-883.6	-1337.0	32.7	0.5
1-E	31622	9638	31.2	17.9	16.8	21.7	14.8	13.3	15.2	15.7	8.8	7.0	5.6	1.0	-3.3	-10.4	-16.9	-23.7	-29.3	-35.7	-43.8	-56.3	-73.9	-98.9	-137.1	-195.6	-286.8	-422.8	-628.2	-943.0	-1428.0	32.3	-0.4
1-F	33848	10317	30.9	17.3	16.2	21.1	14.2	12.7	14.6	15.0	8.1	6.1	4.6	-0.2	-4.6	-12.0	-18.8	-25.9	-31.9	-38.6	-47.1	-60.4	-78.9	-105.4	-145.9	-208.2	-305.3	-450.5	-670.2	-1007.2	-1526.3	32.0	-1.3
1-G	36263	11053	30.6	16.7	15.6	20.5	13.6	12.0	13.9	14.2	7.3	5.2	3.6	-1.4	-6.0	-13.7	-20.8	-28.2	-34.5	-41.7	-50.7	-64.7	-84.3	-112.5	-155.5	-221.8	-325.4	-480.5	-715.8	-1076.7	-1632.9	31.6	-2.2
1-H	38806	11828	30.3	16.2	15.1	20.0	13.1	11.4	13.2	13.5	6.5	4.4	2.6	-2.6	-7.5	-15.5	-22.8	-30.7	-37.3	-44.9	-54.5	-69.2	-89.9	-119.8	-165.5	-236.1	-346.4	-512.0	-763.7	-1149.9	-1745.1	31.2	-3.1
1-I	41399	12619	30.0	15.6	14.5	19.4	12.5	10.8	12.6	12.8	5.7	3.5	1.6	-3.8	-9.0	-17.3	-24.9	-33.1	-40.1	-48.2	-58.3	-73.7	-95.6	-127.3	-175.7	-250.7	-367.8	-544.1	-812.6	-1224.6	-1859.5	30.9	-3.9
1-J	44082	13436	29.7	15.1	14.0	18.9	12.0	10.2	11.9	12.2	5.0	2.6	0.6	-5.0	-10.4	-19.0	-27.0	-35.6	-43.0	-51.5	-62.2	-78.4	-101.5	-135.0	-186.3	-265.7	-390.0	-577.3	-863.1	-1301.7	-1977.8	30.6	-4.8
1-K	46834	14275	29.5	14.5	13.4	18.3	11.4	9.6	11.3	11.5	4.2	1.8	-0.4	-6.2	-11.9	-20.8	-29.2	-38.1	-45.9	-54.8	-66.1	-83.2	-107.5	-142.9	-197.0	-281.0	-412.6	-611.2	-914.9	-1380.8	-2099.1	30.2	-5.6
1-L	49744	15162	29.2	14.0	12.9	17.8	10.9	9.0	10.7	10.8	3.5	0.9	-1.5	-7.5	-13.4	-22.7	-31.4	-40.7	-49.0	-58.3	-70.3	-88.2	-113.8	-151.2	-208.4	-297.3	-436.6	-647.2	-969.6	-1464.5	-2227.3	29.9	-6.4
2-D	31505	9603	31.2	18.0	16.9	21.8	14.9	13.3	15.3	15.7	8.9	7.0	5.6	1.0	-3.2	-10.3	-16.8	-23.6	-29.2	-35.6	-43.6	-56.1	-73.6	-98.6	-136.6	-194.9	-285.8	-421.4	-626.0	-939.6	-1422.8	32.3	-0.3
2-E	33527	10219	30.9	17.4	16.3	21.2	14.3	12.7	14.7	15.1	8.2	6.2	4.8	0.0	-4.4	-11.8	-18.5	-25.6	-31.5	-38.2	-46.7	-59.8	-78.2	-104.5	-144.6	-206.3	-302.7	-446.5	-664.2	-997.9	-1512.1	32.0	-1.1
2-F	35746	10895	30.6	16.9	15.8	20.7	13.8	12.1	14.0	14.4	7.4	5.4	3.8	-1.1	-5.7	-13.4	-20.3	-27.7	-34.0	-41.1	-50.0	-63.7	-83.2	-111.0	-153.4	-218.9	-321.1	-474.1	-706.0	-1061.8	-1610.1	31.7	-2.0
2-G	38043	11595	30.4	16.3	15.2	20.1	13.2	11.6	13.4	13.7	6.7	4.6	2.9	-2.2	-7.1	-15.0	-22.2	-29.9	-36.5	-44.0	-53.4	-67.8	-88.3	-117.6	-162.5	-231.8	-340.1	-502.5	-749.3	-1128.0	-1711.4	31.3	-2.8
2-H	40476	12337	30.1	15.8	14.7	19.6	12.7	11.0	12.8	13.1	6.0	3.8	1.9	-3.4	-8.4	-16.6	-24.2	-32.2	-39.1	-47.0	-56.9	-72.1	-93.6	-124.7	-172.1	-245.5	-360.2	-532.7	-795.2	-1198.0	-1818.8	31.0	-3.6
2-I	43041	13119	29.8	15.3	14.2	19.1	12.2	10.4	12.2	12.4	5.3	3.0	0.9	-4.5	-9.9	-18.3	-26.2	-34.6	-41.9	-50.2	-60.7	-76.6	-99.2	-132.0	-182.2	-259.8	-381.4	-564.4	-843.5	-1271.8	-1931.9	30.7	-4.4
2-J	45746	13943	29.6	14.7	13.6	18.5	11.6	9.8	11.6	11.8	4.5	2.1	0.0	-5.7	-11.3	-20.1	-28.3	-37.1	-44.8	-53.5	-64.6	-81.3	-105.1	-139.8	-192.8	-275.0	-403.7	-597.8	-894.4	-1349.6	-2051.1	30.4	-5.2
2-K	48398	14752	29.3	14.2	13.1	18.0	11.1	9.3	11.0	11.1	3.8	1.3	-1.0	-6.9	-12.7	-21.8	-30.4	-39.5	-47.6	-56.7	-68.3	-85.9	-110.9	-147.3	-203.1	-289.8	-425.5	-630.6	-944.3	-1425.8	-2168.0	30.1	-6.0
2-L	51179	15599	29.1	13.8	12.7	17.6	10.7	8.7	10.4	10.5	3.1	0.5	-2.0	-8.1	-14.2	-23.6	-32.5	-42.0	-50.4	-60.1	-72.3	-90.6	-116.9	-155.2	-214.0	-305.2	-448.4	-664.9	-996.6	-1505.7	-2290.5	29.8	-6.8
3-D	33472	10202	30.9	17.4	16.3	21.2	14.3	12.8	14.7	15.1	8.2	6.3	4.8	0.0	-4.4	-11.8	-18.4	-25.5	-31.4	-38.1	-46.6	-59.7	-78.1	-104.3	-144.4	-206.0	-302.2	-445.8	-663.1	-996.3	-1509.7	32.0	-1.1
3-E	35453	10806	30.7	16.9	15.8	20.7	13.8	12.2	14.1	14.5	7.5	5.5	3.9	-1.0	-5.6	-13.2	-20.1	-27.5	-33.6	-40.7	-49.5	-63.2	-82.5	-110.1	-152.3	-217.2	-318.6	-470.4	-700.5	-1053.4	-1597.1	31.7	-1.9
3-F	37588	11457	30.4	16.4	15.3	20.2	13.3	11.7	13.5	13.9	6.9	4.8	3.1	-2.0	-6.8	-14.7	-21.9	-29.5	-36.0	-43.4	-52.7	-67.0	-87.2	-116.3	-160.7	-229.2	-336.3	-496.9	-740.8	-1114.9	-1691.4	31.4	-2.6
3-G	39870	12152	30.2	15.9	14.8	19.7	12.8	11.1	12.9	13.2	6.2	4.0	2.2	-3.1	-8.1	-16.2	-23.7	-31.7	-38.5	-46.2	-56.1	-71.0	-92.3	-122.9	-169.7	-242.1	-355.2	-525.2	-783.8	-1180.5	-1792.0	31.1	-3.4
3-I	44730	13634	29.7	14.9	13.8	18.7	11.8	10.0	11.8	12.0	4.8	2.4	0.3	-5.3	-10.8	-19.5	-27.6	-36.1	-43.7	-52.3	-63.1	-79.5	-102.9	-136.9	-188.8	-269.3	-395.3	-585.3	-875.3	-1320.4	-2006.3	30.5	-4.9
3-J	47313	14421	29.4	14.4	13.3	18.2	11.3	9.5	11.2	11.4	4.1	1.6	-0.6	-6.4	-12.2	-21.1	-29.6	-38.5	-46.4	-55.4	-66.8	-84.0	-108.5	-144.2	-198.9	-283.7	-416.6	-617.2	-923.9	-1394.6	-2120.2	30.2	-5.7
3-K	50016	15245	29.2	14.0	12.9	17.8	10.9	8.9	10.7	10.8	3.4	0.8	-1.6	-7.6	-13.6	-22.9	-31.6	-40.9	-49.2	-58.7	-70.6	-88.6	-114.4	-151.9	-209.4	-298.8	-438.8	-650.5	-974.7	-1472.3	-2239.3	29.9	-6.4
3-L	52691	16060	29.0	13.5	12.4	17.3	10.4	8.4	10.1	10.2	2.8	0.1	-2.5	-8.7	-14.9	-24.5	-33.6	-43.3	-52.0	-61.9	-74.4	-93.2	-120.1	-159.5	-219.8	-313.7	-460.8	-683.5	-1025.0	-1549.2	-2357.2	29.6	-7.1
4-D	35474	10812	30.7	16.9	15.8	20.7	13.8	12.2	14.1	14.5	7.5	5.5	3.9	-1.0	-5.6	-13.2	-20.1	-27.5	-33.7	-40.7	-49.6	-63.3	-82.5	-110.2	-152.4	-217.3	-318.8	-470.7	-700.9	-1054.0	-1598.1	31.7	-1.9
4-E	37380	11394	30.4	16.5	15.4	20.3	13.4	11.7	13.6	13.9	6.9	4.8	3.1	-1.9	-6.7	-14.5	-21.7	-29.3	-35.8	-43.1	-52.4	-66.7	-86.8	-115.7	-159.9	-228.1	-334.6	-494.3	-736.9	-1108.9	-1682.2	31.4	-2.6
4-F	39491	12037	30.2	16.0	14.9	19.8	12.9	11.2	13.0	13.3	6.3	4.1	2.3	-2.9	-7.9	-16.0	-23.4	-31.3	-38.1	-45.8	-55.5	-70.4	-91.5	-121.8	-168.2	-239.9	-352.1	-520.5	-776.6	-1169.7	-1775.3	31.1	-3.3
4-G	41712	12714	30.0	15.5	14.4	19.3	12.4	10.7	12.5	12.8	5.6	3.4	1.4	-3.9	-9.1	-17.5	-25.2	-33.4	-40.5	-48.5	-58.7	-74.3	-96.3	-128.2	-177.0	-252.4	-370.4	-547.9	-818.5	-1233.5	-1873.2	30.8	-4.0
4-H	44040	13423	29.7	15.1	14.0	18.9	12.0	10.2	12.0	12.2	5.0	2.6	0.6	-5.0	-10.4	-19.0	-27.0	-35.5	-43.0	-51.4	-62.1	-78.3	-101.4	-134.9	-186.1	-265.4	-389.6	-576.7	-862.3	-1300.5	-1975.9	30.6	-4.7
4-I	46505	14175	29.5	14.6	13.5	18.4	11.5	9.6	11.4	11.6	4.3	1.9	-0.3	-6.1	-11.7	-20.6	-28.9	-37.8	-45.6	-54.4	-65.6	-82.6	-106.8	-141.9	-195.7	-279.2	-409.9	-607.2	-908.7	-1371.4	-2084.6	30.3	-5.5
4-J	49028	14944	29.3	14.1	13.0	17.9	11.0	9.1	10.9	11.0	3.7	1.1	-1.2	-7.2	-13.1	-22.2	-30.9	-40.0	-48.2	-57.5	-69.2	-86.9	-112.3	-149.1	-205.6	-293.3	-430.7	-638.3	-956.1	-1443.9	-2195.8	30.0	-6.2
4-K	51660	15746	29.0	13.7	12.6	17.5	10.6	8.6	10.3	10.4	3.0	0.4	-2.1	-8.3	-14.4	-23.9	-32.9	-42.4	-50.9	-60.6	-73.0	-91.4	-117.9	-156.6	-215.8	-307.9	-452.3	-670.8	-1005.6	-1519.5	-2311.7	29.7	-6.9
4-L	54350	16566	28.8	13.2	12.1	17.0	10.1	8.1	9.8	9.8	2.4	-0.4	-3.0	-9.4	-15.8	-25.6	-34.9	-44.8	-53.7	-63.9	-76.8	-96.0	-123.7	-164.2	-226.3	-322.9	-474.4	-703.9	-1056.1	-1596.8	-2430.2	29.5	-7.6
5-D	37497	11429	30.4	16.5	15.4	20.3	13.4	11.7	13.6	13.9	6.9	4.8	3.1	-2.0	-6.8	-14.6	-21.8	-29.4	-35.9	-43.3	-52.6	-66.9	-87.0	-116.0	-160.4	-228.7	-335.6	-495.8	-739.1	-1112.2	-1687.3	31.4	-2.6
5-E	39336	11990	30.2	16.0	14.9	19.8	12.9	11.2	13.1	13.4	6.3	4.2	2.4	-2.8	-7.8	-15.9	-23.3	-31.2	-37.9	-45.6	-55.3	-70.1	-91.1	-121.4	-167.6	-239.1	-350.8	-518.5	-773.7	-1165.2	-1768.5	31.2	-3.2
5-F	41398	12618	30.0	15.6	14.5	19.4	12.5	10.8	12.6	12.8	5.7	3.5	1.6	-3.8	-9.0	-17.3	-24.9	-33.1	-40.1	-48.2	-58.3	-73.7	-95.6	-127.3	-175.7	-250.6	-367.8	-544.1	-812.6	-1224.5	-1859.4	30.9	-3.9
5-G	43537	13270	29.8	15.2	14.1	19.0	12.1	10.3	12.1	12.3	5.1	2.8	0.8	-4.8	-10.1	-18.7	-26.6	-35.1	-42.4	-50.8	-61.4	-77.5	-100.3	-133.5	-184.1	-262.6	-385.5	-570.5	-852.8	-1286.1	-1953.7	30.6	-4.6
5-H	45832	13970	29.6	14.7	13.6	18.5	11.6	9.8	11.5	11.7	4.5	2.1	-0.1	-5.8	-11.4	-20.2	-28.4	-37.2	-44.9	-53.6	-64.7	-81.4	-105.3	-140.0	-193.1	-275.4	-404.4	-598.9	-896.0	-1352.0	-2054.9	30.4	-5.3
5-I	48195	14690	29.3	14.3	13.2	18.1	11.2	9.3	11.0	11.2	3.9	1.4	-0.9	-6.8	-12.6	-21.7	-30.2	-39.3	-47.3	-56.5	-68.1	-85.5	-110.5	-146.8	-202.3	-288.6	-423.8	-628.0	-940.5	-1420.0	-2159.1	30.1	-5.9
5-J	50723	15460	29.1	13.8	12.7	17.6	10.7	8.8	10.5	10.6	3.3	0.6	-1.8	-7.9	-13.9	-23.3	-32.2	-41.6	-50.0	-59.5	-71.6	-89.8	-115.9	-153.9	-212.2	-302.7	-444.6	-659.2	-988.0	-1492.6	-2270.5	29.8	-6.6
6-D	39526	12048	30.2	16.0	14.9	19.8	12.9	11.2	13.0	13.3	6.3	4.1	2.3	-2.9	-7.9	-16.0	-23.4	-31.3	-38.1	-45.8	-55.6	-70.4	-91.5	-121.9	-168.4	-240.1	-352.4	-520.9	-777.3	-1170.7	-1776.9	31.1	-3.3
6-E	41328	12597	30.0	15.6	14.5	19.4	12.5	10.8	12.6	12.9	5.8	3.5	1.6	-3.8	-8.9	-17.2	-24.9	-33.0	-40.1	-48.1	-58.2	-73.6	-95.5	-127.1	-175.5	-250.3	-367.2	-543.2	-811.3	-1222.5	-1856.3	30.9	-3.9
6-G	45392	13836	29.6	14.8	13.7	18.6	11.7	9.9	11.6	11.8	4.6	2.2	0.1	-5.6	-11.1	-19.9	-28.1	-36.8	-44.4	-53.1	-64.1	-80.7	-104.4	-138.8	-191.4	-273.0	-400.8	-593.4	-887.8	-1339.4	-2035.5	30.4	-5.1
6-H	47644	14522	29.4	14.4	13.3	18.2	11.3	9.4	11.2	11.3	4.0	1.5	-0.7	-6.6	-12.3	-21.4	-29.8	-38.8	-46.8	-55.8	-67.3	-84.6	-109.3	-145.2	-200.2	-285.6	-419.3	-621.2	-930.1	-1404.1	-2134.8	30.2	-5.8
6-I	49977	15233	29.2	14.0	12.9	17.8	10.9	8.9	10.7	10.8	3.4	0.9	-1.5	-7.6	-13.6	-22.8	-31.6	-40.9	-49.2	-58.6	-70.6	-88.6	-114.3	-151.8	-209.3	-298.6	-438.5	-650.0	-974.0	-1471.2	-2237.6	29.9	-6.4
6-J	52461	15990	29.0	13.5	12.4	17.3	10.4	8.5	10.2	10.2	2.8	0.1	-2.4	-8.6	-14.8	-24.4	-33.5	-43.1	-51.8	-61.6	-74.1	-92.8	-119.7	-158.9	-218.9	-312.4	-458.9	-680.7	-1020.6	-1542.5	-2347.0	29.7	-7.1
7-B	38474	11727	30.3	16.2	15.1	20.0	13.1	11.4	13.3	13.6	6.6	4.5	2.7	-2.4	-7.3	-15.3	-22.6	-30.3	-37.0	-44.5	-54.0	-68.6	-89.2	-118.9	-164.2	-234.2	-343.7	-507.9	-757.5	-1140.4	-1730.4	31.3	-2.9
7-C	39875	12154	30.2	15.9	14.8	19.7	12.8	11.1	12.9	13.2	6.2	4.0	2.2	-3.1	-8.1	-16.2	-23.7	-31.7	-38.5	-46.3	-56.1	-71.1	-92.3	-122.9	-169.8	-242.1	-355.2	-525.2	-783.9	-1180.7	-1792.2	31.1	-3.4
7-E	43289	13194	29.8	15.2	14.1	19.0	12.1	10.3	12.1	12.4	5.2	2.9	0.9	-4.6	-10.0	-18.5	-26.4	-34.8	-42.2	-50.5	-61.0	-77.0	-99.8	-132.7	-183.2	-261.2	-383.4	-567.4	-848.2	-1278.9	-1942.8	30.7	-4.5
7-F	45215	13782	29.6	14.8	13.7	18.6	11.7	9.9	11.7	11.9	4.7	2.3	0.1	-5.5	-11.0	-19.8	-27.9	-36.6	-44.2	-52.8	-63.8	-80.4	-104.0	-138.3	-190.7	-272.0	-399.3	-591.3	-884.4	-1334.3	-2027.7	30.4	-5.1
7-G	47281	14411	29.4	14.4	13.3	18.2	11.3	9.5	11.2	11.4	4.1	1.7	-0.6	-6.4	-12.1	-21.1	-29.5	-38.5	-46.4	-55.4	-66.8	-83.9	-108.5	-144.2	-198.8	-283.5	-416.3	-616.8	-923.3	-1393.7	-2118.8	30.2	-5.7
7-H	49498	15087	29.2	14.0	12.9	17.8	10.9	9.0	10.8	10.9	3.6	1.0	-1.4	-7.3	-13.3	-22.5	-31.2	-40.5	-48.7	-58.0	-69.9	-87.7	-113.3	-150.5	-207.4	-295.9	-434.5	-644.1	-965.0	-1457.4	-2216.5	30.0	-6.3
7-I	51811	15792	29.0	13.6	12.5	17.4	10.5	8.6	10.3	10.4	3.0	0.3	-2.2	-8.3	-14.5	-24.0	-33.0	-42.5	-51.1	-60.8	-73.2	-91.7	-118.3	-157.0	-216.4	-308.8	-453.6	-672.7	-1008.4	-1523.9	-2318.4	29.7	-6.9
8-A	39377	12002	30.2	16.0	14.9	19.8	12.9	11.2	13.1	13.4	6.3	4.2	2.4	-2.8	-7.8	-15.9	-23.3	-31.2	-38.0	-45.6	-55.3	-70.2	-91.2	-121.5	-167.8	-239.3	-351.1	-519.0	-774.5	-1166.4	-1770.3	31.1	-3.2
8-B	40539	12356	30.1	15.8	14.7	19.6	12.7	11.0	12.8	13.1	6.0	3.8	1.9	-3.4	-8.5	-16.7	-24.2	-32.3	-39.2	-47.1	-57.0	-72.2	-93.8	-124.8	-172.4	-245.8	-360.7	-533.4	-796.4	-1199.8	-1821.5	31.0	-3.6

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Leq)
FROM WIND PARK OPERATIONS AT THE CUT-IN WIND CONDITION

8-C	41921	12778	29.9	15.5	14.4	19.3	12.4	10.6	12.4	12.7	5.6	3.3	1.4	-4.0	-9.2	-17.6	-25.3	-33.6	-40.7	-48.8	-59.0	-74.6	-96.8	-128.8	-177.8	-253.6	-372.1	-550.5	-822.4	-1239.6	-1882.5	30.8	-4.1
8-D	43524	13266	29.8	15.2	14.1	19.0	12.1	10.3	12.1	12.3	5.1	2.8	0.8	-4.7	-10.1	-18.7	-26.6	-35.0	-42.4	-50.8	-61.4	-77.4	-100.3	-133.4	-184.1	-262.5	-385.4	-570.4	-852.6	-1285.7	-1953.1	30.6	-4.6
8-F	47135	14367	29.4	14.5	13.4	18.3	11.4	9.5	11.3	11.4	4.2	1.7	-0.5	-6.3	-12.1	-21.0	-29.4	-38.3	-46.2	-55.2	-66.5	-83.7	-108.2	-143.7	-198.2	-282.7	-415.1	-615.0	-920.5	-1389.5	-2112.4	30.2	-5.6
8-G	49228	15005	29.2	14.1	13.0	17.9	11.0	9.1	10.8	10.9	3.6	1.1	-1.3	-7.2	-13.2	-22.4	-31.0	-40.2	-48.4	-57.7	-69.5	-87.3	-112.7	-149.7	-206.4	-294.4	-432.3	-640.8	-959.9	-1449.6	-2204.6	30.0	-6.2
8-H	51377	15660	29.1	13.7	12.6	17.5	10.6	8.7	10.4	10.5	3.1	0.5	-2.0	-8.1	-14.3	-23.7	-32.6	-42.1	-50.7	-60.3	-72.6	-91.0	-117.3	-155.8	-214.7	-306.4	-450.0	-667.3	-1000.3	-1511.4	-2299.3	29.8	-6.8
9-A	41432	12629	30.0	15.6	14.5	19.4	12.5	10.7	12.6	12.8	5.7	3.5	1.6	-3.8	-9.0	-17.3	-25.0	-33.1	-40.2	-48.2	-58.3	-73.8	-95.7	-127.4	-175.9	-250.8	-368.1	-544.5	-813.2	-1225.5	-1860.9	30.9	-3.9
9-B	42582	12979	29.9	15.4	14.3	19.2	12.3	10.5	12.3	12.5	5.4	3.1	1.1	-4.3	-9.6	-18.0	-25.9	-34.2	-41.4	-49.6	-60.0	-75.8	-98.2	-130.7	-180.4	-257.3	-377.6	-558.7	-834.9	-1258.6	-1911.6	30.7	-4.3
9-C	43948	13395	29.7	15.1	14.0	18.9	12.0	10.2	12.0	12.2	5.0	2.7	0.6	-4.9	-10.4	-18.9	-26.9	-35.4	-42.9	-51.3	-62.0	-78.2	-101.2	-134.6	-185.7	-264.9	-388.9	-575.6	-860.6	-1297.9	-1971.9	30.6	-4.7
9-D	45536	13879	29.6	14.8	13.7	18.6	11.7	9.8	11.6	11.8	4.6	2.2	0.0	-5.6	-11.2	-20.0	-28.2	-36.9	-44.5	-53.2	-64.3	-80.9	-104.7	-139.2	-192.0	-273.8	-401.9	-595.2	-890.5	-1343.5	-2041.8	30.4	-5.2
9-E	47225	14394	29.4	14.5	13.4	18.3	11.4	9.5	11.2	11.4	4.1	1.7	-0.6	-6.4	-12.1	-21.1	-29.5	-38.4	-46.3	-55.3	-66.7	-83.8	-108.4	-144.0	-198.6	-283.2	-415.9	-616.1	-922.2	-1392.1	-2116.3	30.2	-5.7
9-F	49105	14967	29.3	14.1	13.0	17.9	11.0	9.1	10.8	11.0	3.7	1.1	-1.2	-7.2	-13.1	-22.3	-30.9	-40.1	-48.3	-57.6	-69.4	-87.1	-112.4	-149.3	-205.9	-293.7	-431.3	-639.3	-957.6	-1446.1	-2199.2	30.0	-6.2
9-G	51122	15582	29.1	13.8	12.7	17.6	10.7	8.7	10.4	10.5	3.2	0.5	-1.9	-8.0	-14.1	-23.6	-32.5	-41.9	-50.4	-60.0	-72.2	-90.5	-116.8	-155.1	-213.7	-304.9	-447.9	-664.2	-995.5	-1504.1	-2288.1	29.8	-6.7
9-H	53258	16233	28.9	13.4	12.3	17.2	10.3	8.3	10.0	10.1	2.6	-0.1	-2.7	-8.9	-15.2	-24.9	-34.1	-43.8	-52.6	-62.6	-75.2	-94.2	-121.4	-161.1	-222.0	-316.8	-465.4	-690.5	-1035.6	-1565.4	-2382.1	29.6	-7.3
9-I	55478	16910	28.7	13.1	12.0	16.9	10.0	7.9	9.6	9.6	2.1	-0.7	-3.4	-9.8	-16.4	-26.3	-35.7	-45.8	-54.9	-65.2	-78.3	-97.9	-126.1	-167.4	-230.6	-329.1	-483.7	-717.8	-1077.3	-1629.2	-2479.9	29.4	-7.8
10-A	43480	13253	29.8	15.2	14.1	19.0	12.1	10.3	12.1	12.3	5.1	2.8	0.8	-4.7	-10.1	-18.6	-26.6	-35.0	-42.4	-50.7	-61.3	-77.4	-100.2	-133.3	-183.9	-262.3	-385.0	-569.8	-851.8	-1284.4	-1951.2	30.6	-4.6
10-B	44657	13612	29.7	14.9	13.8	18.7	11.8	10.0	11.8	12.0	4.8	2.5	0.3	-5.3	-10.7	-19.4	-27.5	-36.1	-43.6	-52.2	-63.0	-79.4	-102.8	-136.7	-188.5	-268.9	-394.7	-584.4	-873.9	-1318.3	-2003.1	30.5	-4.9
10-C	45999	14020	29.5	14.7	13.6	18.5	11.6	9.7	11.5	11.7	4.5	2.0	-0.1	-5.8	-11.5	-20.3	-28.5	-37.3	-45.0	-53.8	-64.9	-81.7	-105.7	-140.5	-193.8	-276.4	-405.8	-600.9	-899.2	-1356.8	-2062.3	30.3	-5.3
10-D	47529	14487	29.4	14.4	13.3	18.2	11.3	9.4	11.2	11.3	4.1	1.6	-0.7	-6.5	-12.3	-21.3	-29.7	-38.7	-46.6	-55.7	-67.1	-84.4	-109.0	-144.9	-199.7	-284.9	-418.3	-619.8	-927.9	-1400.8	-2129.7	30.2	-5.8
10-E	49218	15002	29.2	14.1	13.0	17.9	11.0	9.1	10.8	11.0	3.6	1.1	-1.3	-7.2	-13.2	-22.4	-31.0	-40.2	-48.4	-57.7	-69.5	-87.3	-112.7	-149.7	-206.3	-294.3	-432.3	-640.7	-959.7	-1449.4	-2204.2	30.0	-6.2
10-F	51067	15565	29.1	13.8	12.7	17.6	10.7	8.7	10.4	10.5	3.2	0.5	-1.9	-8.0	-14.1	-23.5	-32.4	-41.9	-50.3	-59.9	-72.1	-90.4	-116.7	-154.9	-213.5	-304.6	-447.5	-663.5	-994.5	-1502.5	-2285.6	29.8	-6.7
10-G	53040	16167	28.9	13.4	12.3	17.2	10.3	8.4	10.0	10.1	2.7	0.0	-2.6	-8.8	-15.1	-24.8	-33.9	-43.6	-52.4	-62.3	-74.9	-93.8	-120.9	-160.5	-221.2	-315.6	-463.7	-687.8	-1031.5	-1559.2	-2372.5	29.6	-7.2
10-H	55156	16811	28.8	13.1	12.0	16.9	10.0	8.0	9.6	9.7	2.2	-0.6	-3.3	-9.7	-16.2	-26.1	-35.5	-45.5	-54.5	-64.8	-77.9	-97.4	-125.4	-166.5	-229.4	-327.4	-481.0	-713.9	-1071.3	-1619.9	-2465.7	29.4	-7.8
10-I	61480	18739	28.3	12.2	11.1	16.0	9.1	6.9	8.5	8.4	0.8	-2.3	-5.3	-12.2	-19.3	-29.9	-40.1	-51.0	-61.0	-72.3	-86.7	-108.1	-138.9	-184.3	-253.9	-362.4	-532.9	-791.7	-1190.0	-1801.5	-2744.3	28.9	-9.2
11-A	45571	13890	29.6	14.8	13.7	18.6	11.7	9.8	11.6	11.8	4.6	2.2	0.0	-5.7	-11.2	-20.0	-28.2	-36.9	-44.6	-53.3	-64.3	-81.0	-104.8	-139.3	-192.1	-274.0	-402.2	-595.6	-891.1	-1344.5	-2043.4	30.4	-5.2
11-B	46726	14242	29.5	14.5	13.4	18.3	11.4	9.6	11.4	11.5	4.3	1.8	-0.4	-6.2	-11.8	-20.8	-29.1	-38.0	-45.8	-54.7	-66.0	-83.0	-107.3	-142.6	-196.6	-280.4	-411.7	-609.9	-912.8	-1377.7	-2094.3	30.3	-5.5
11-C	48010	14633	29.4	14.3	13.2	18.1	11.2	9.3	11.1	11.2	3.9	1.4	-0.9	-6.7	-12.5	-21.6	-30.1	-39.1	-47.1	-56.2	-67.8	-85.2	-110.1	-146.2	-201.6	-287.6	-422.3	-625.8	-937.0	-1414.6	-2150.9	30.1	-5.9
11-D	49590	15115	29.2	14.0	12.9	17.8	10.9	9.0	10.7	10.9	3.5	1.0	-1.4	-7.4	-13.3	-22.6	-31.3	-40.5	-48.8	-58.2	-70.0	-87.9	-113.5	-150.7	-207.8	-296.4	-435.3	-645.3	-966.7	-1460.0	-2220.5	30.0	-6.3
11-E	51196	15605	29.1	13.8	12.7	17.6	10.7	8.7	10.4	10.5	3.1	0.5	-2.0	-8.1	-14.2	-23.6	-32.5	-42.0	-50.5	-60.1	-72.3	-90.7	-116.9	-155.3	-214.0	-305.3	-448.5	-665.1	-996.9	-1506.2	-2291.3	29.8	-6.8
11-F	53032	16164	28.9	13.4	12.3	17.2	10.3	8.4	10.1	10.1	2.7	0.0	-2.6	-8.8	-15.1	-24.8	-33.9	-43.6	-52.4	-62.3	-74.9	-93.8	-120.9	-160.5	-221.2	-315.6	-463.6	-687.7	-1031.4	-1558.9	-2372.2	29.6	-7.2
11-G	54954	16750	28.8	13.1	12.0	16.9	10.0	8.0	9.7	9.7	2.2	-0.5	-3.2	-9.6	-16.1	-26.0	-35.3	-45.3	-54.3	-64.6	-77.6	-97.0	-125.0	-165.9	-228.6	-326.2	-479.4	-711.4	-1067.5	-1614.1	-2456.9	29.4	-7.7
11-H	57008	17376	28.6	12.8	11.7	16.6	9.7	7.7	9.3	9.3	1.8	-1.1	-3.9	-10.4	-17.1	-27.2	-36.8	-47.1	-56.4	-67.0	-80.5	-100.5	-129.4	-171.7	-236.6	-337.6	-496.2	-736.7	-1106.0	-1673.1	-2547.3	29.2	-8.2
11-K	63835	19457	28.1	11.8	10.7	15.6	8.7	6.5	8.1	8.0	0.3	-2.9	-6.1	-13.1	-20.4	-31.3	-41.8	-53.0	-63.3	-75.0	-89.9	-112.0	-143.9	-190.9	-262.9	-375.5	-552.1	-820.7	-1234.2	-1869.1	-2848.0	28.7	-9.7
11-L	66214	20182	28.0	11.5	10.4	15.3	8.4	6.2	7.7	7.5	-0.2	-3.5	-6.8	-14.0	-21.6	-32.8	-43.5	-55.0	-65.7	-77.8	-93.2	-116.0	-149.0	-197.6	-272.1	-388.6	-571.6	-849.9	-1278.8	-1937.3	-2952.7	28.5	-10.2
12-A	47627	14517	29.4	14.4	13.3	18.2	11.3	9.4	11.2	11.3	4.0	1.5	-0.7	-6.6	-12.3	-21.3	-29.8	-38.8	-46.7	-55.8	-67.2	-84.5	-109.2	-145.1	-200.1	-285.5	-419.2	-621.0	-929.8	-1403.6	-2134.0	30.2	-5.8
12-B	48777	14867	29.3	14.2	13.1	18.0	11.1	9.2	10.9	11.1	3.7	1.2	-1.1	-7.0	-12.9	-22.1	-30.7	-39.8	-47.9	-57.2	-68.9	-86.5	-111.7	-148.4	-204.6	-291.9	-428.6	-635.2	-951.4	-1436.7	-2184.7	30.0	-6.1
12-C	50078	15264	29.2	13.9	12.8	17.7	10.8	8.9	10.6	10.8	3.4	0.8	-1.6	-7.6	-13.6	-22.9	-31.7	-41.0	-49.3	-58.7	-70.7	-88.7	-114.5	-152.1	-209.7	-299.1	-439.3	-651.3	-975.9	-1474.1	-2242.0	29.9	-6.5
12-D	51615	15732	29.0	13.7	12.6	17.5	10.6	8.6	10.3	10.4	3.0	0.4	-2.1	-8.2	-14.4	-23.9	-32.8	-42.3	-50.9	-60.6	-72.9	-91.4	-117.8	-156.5	-215.7	-307.7	-452.0	-670.2	-1004.8	-1518.2	-2309.8	29.7	-6.9
12-E	53176	16208	28.9	13.4	12.3	17.2	10.3	8.3	10.0	10.1	2.7	-0.1	-2.6	-8.9	-15.2	-24.9	-34.0	-43.7	-52.5	-62.5	-75.1	-94.0	-121.2	-160.9	-221.7	-316.4	-464.8	-689.5	-1034.1	-1563.1	-2378.5	29.6	-7.3
12-F	54999	16764	28.8	13.1	12.0	16.9	10.0	8.0	9.7	9.7	2.2	-0.6	-3.2	-9.6	-16.1	-26.0	-35.4	-45.3	-54.4	-64.6	-77.7	-97.1	-125.1	-166.1	-228.8	-326.5	-479.7	-711.9	-1068.3	-1615.4	-2458.8	29.4	-7.7
12-G	56917	17348	28.6	12.8	11.7	16.6	9.7	7.7	9.3	9.3	1.8	-1.1	-3.9	-10.4	-17.1	-27.2	-36.8	-47.0	-56.3	-66.9	-80.3	-100.4	-129.2	-171.5	-236.2	-337.1	-495.5	-735.6	-1104.3	-1670.5	-2543.3	29.3	-8.2
12-H	58898	17952	28.5	12.5	11.4	16.3	9.4	7.3	9.0	8.9	1.3	-1.6	-4.5	-11.2	-18.1	-28.4	-38.2	-48.7	-58.3	-69.2	-83.1	-103.7	-133.4	-177.0	-243.9	-348.1	-511.7	-760.0	-1141.5	-1727.4	-2630.6	29.1	-8.6
12-I	61093	18621	28.3	12.2	11.1	16.0	9.1	7.0	8.6	8.5	0.8	-2.2	-5.2	-12.1	-19.1	-29.7	-39.8	-50.6	-60.6	-71.8	-86.2	-107.4	-138.1	-183.2	-252.4	-360.3	-529.7	-787.0	-1182.7	-1790.4	-2727.2	28.9	-9.1
12-J	63301	19294	28.2	11.9	10.8	15.7	8.8	6.6	8.2	8.1	0.4	-2.7	-5.9	-12.9	-20.2	-31.0	-41.4	-52.5	-62.8	-74.4	-89.2	-111.1	-142.8	-189.4	-260.9	-372.5	-547.8	-814.1	-1224.2	-1853.7	-2824.4	28.7	-9.6
12-K	65604	19996	28.0	11.6	10.5	15.4	8.5	6.3	7.8	7.6	-0.1	-3.3	-6.6	-13.8	-21.3	-32.4	-43.1	-54.5	-65.1	-77.1	-92.4	-115.0	-147.7	-195.9	-269.8	-385.2	-566.6	-842.4	-1267.4	-1919.8	-2925.9	28.5	-10.1
12-L	67957	20713	27.8	11.3	10.2	15.1	8.2	5.9	7.4	7.2	-0.6	-3.9	-7.3	-14.7	-22.4	-33.8	-44.8	-56.5	-67.4	-79.8	-95.6	-118.9	-152.7	-202.4	-278.8	-398.2	-585.8	-871.4	-1311.5	-1987.3	-3029.4	28.4	-10.6
13-A	49676	15141	29.2	14.0	12.9	17.8	10.9	9.0	10.7	10.8	3.5	0.9	-1.4	-7.4	-13.4	-22.6	-31.4	-40.6	-48.9	-58.3	-70.2	-88.0	-113.7	-151.0	-208.1	-296.9	-436.0	-646.3	-968.3	-1462.5	-2224.3	29.9	-6.4
13-B	50812	15488	29.1	13.8	12.7	17.6	10.7	8.8	10.5	10.6	3.2	0.6	-1.8	-7.9	-14.0	-23.4	-32.2	-41.6	-50.1	-59.6	-71.8	-90.0	-116.1	-154.2	-212.5	-303.2	-445.4	-660.3	-989.7	-1495.2	-2274.4	29.8	-6.7
13-C	52107	15882	29.0	13.6	12.5	17.4	10.5	8.5	10.2	10.3	2.9	0.2	-2.3	-8.4	-14.6	-24.2	-33.2	-42.8	-51.4	-61.2	-73.6	-92.2	-118.9	-157.9	-217.6	-310.4	-456.0	-676.3	-1014.0	-1532.4	-2331.5	29.7	-7.0
13-D	53637	16349	28.9	13.3	12.2	17.1	10.2	8.3	9.9	10.0	2.5	-0.2	-2.8	-9.1	-15.4	-25.1	-34.3	-44.1	-53.0	-63.0	-75.8	-94.8	-122.2	-162.2	-223.5	-318.9	-468.6	-695.2	-1042.7	-1576.3	-2398.8	29.6	-7.4
13-F	56982	17368	28.6	12.8	11.7	16.6	9.7	7.7	9.3	9.3	1.8	-1.1	-3.9	-10.4	-17.1	-27.2	-36.8	-47.1	-56.4	-67.0	-80.4	-100.5	-129.3	-171.6	-236.5	-337.5	-496.0	-736.4	-1105.6	-1672.4	-2546.2	29.2	-8.2
13-G	58861	17941	28.5	12.5	11.4	16.3	9.4	7.3	9.0	8.9	1.3	-1.6	-4.5	-11.2	-18.0	-28.3	-38.2	-48.7	-58.3	-69.2	-83.1	-103.7	-133.4	-176.9	-243.7	-347.9	-511.4	-759.5	-1140.8	-1726.3	-2628.9	29.1	-8.6
13-H	60773	18524	28.3	12.3	11.2	16.1	9.2	7.0	8.6	8.5	0.9	-2.1	-5.1	-11.9	-19.0	-29.5	-39.6	-50.4	-60.2	-71.4	-85.7	-106.9	-137.4	-182.3	-251.1	-358.5	-527.1	-783.0	-1176.7	-1781.2	-2713.2	28.9	-9.1
13-I	62962	19191	28.2	12.0	10.9	15.8	8.9	6.7	8.2	8.1	0.4	-2.7	-5.8	-12.8	-20.0	-30.8	-41.2	-52.2	-62.4	-74.0	-88.7	-110.6	-142.1	-188.5	-259.6	-370.6	-545.0	-810.0	-1217.8	-1844.0	-2809.5	28.8	-9.6
13-J	65186	19869	28.0	11.7	10.6	15.5	8.6	6.3	7.9	7.7	0.0	-3.2	-6.5	-13.6	-21.1	-32.1	-42.8	-54.1	-64.7	-76.6	-91.8	-114.3	-146.8	-194.7	-268.1	-382.9	-563.2	-837.3	-1259.5	-1907.9	-2907.5	28.6	-10.0
13-K	67430	20553	27.9	11.4	10.3	15.2	8.3	6.0	7.5	7.3	-0.5	-3.8	-7.2	-14.5	-22.2	-33.5	-44.4	-56.0	-66.9	-79.2	-94.9	-118.0	-151.5	-201.0	-276.8	-395.3	-581.5	-864.9	-1301.6	-1972.2	-3006.2	28.4	-10.5
13-L	69820	21281	27.7	11.1	10.0	14.9	8.0	5.6	7.1	6.9	-1.0	-4.3	-7.9	-15.4	-23.3	-34.9	-46.1	-58.1	-69.3	-82.0	-98.2	-122.0	-156.6	-207.7	-286.0	-408.5	-601.1	-894.3	-1346.4	-2040.8	-3111.4	28.2	-11.0
14-D	55651	16962	28.7	13.0	11.9	16.8	9.9	7.9	9.5	9.6	2.1	-0.7	-3.5	-9.9	-16.4	-26.4	-35.8	-45.9	-55.0	-65.4	-78.6	-98.2	-126.5	-167.9	-231.3	-330.1	-485.1	-720.0	-1080.6	-1634.1	-2487.5	29.4	-7.9
14-E	57213	17438	28.6	12.8	11.7	16.6	9.7	7.6	9.3	9.2	1.7	-1.2	-4.0	-10.5	-17.2	-27.3	-37.0	-47.3	-56.6	-67.3	-80.8	-100.9	-129.8	-172.3	-237.4	-338.8	-497.9	-739.2	-1109.9	-1679.0	-2556.3	29.2	-8.3
14-F	58961	17971	28.5	12.5	11.4	16.3	9.4	7.3	8.9	8.9	1.3	-1.6	-4.5	-11.2	-18.1	-28.4	-38.3	-48.8	-58.4	-69.3	-83.2	-103.8	-133.6	-177.2	-244.1	-348.5	-512.2	-760.7	-1142.7	-1729.2	-2633.4	29.1	-8.7
14-G	60800	18532	28.3	12.3	11.2	16.1	9.2	7.0	8.6	8.5	0.9	-2.1	-5.1	-11.9	-19.0	-29.5	-39.6	-50.4	-60.3	-71.5	-85.8	-106.9	-137.5	-182.4	-251.2	-358.7	-527.3	-783.4	-1177.2	-1782.0	-2714.3	28.9	-9.1
14-H	62763	19130	28.2	12.0	10.9	15.8	8.9	6.7	8.3	8.2	0.5	-2.6	-5.7	-12.7	-19.9	-30.7	-41.0	-52.1	-62.2	-73.8	-88.5	-110.2	-141.7	-187.9	-258.8	-369.5	-543.4	-807.5	-1214.1	-1838.3	-2800.8	28.8	-9.5
14-J	66998	20421	27.9	11.4	10.3	15.2	8.3	6.0	7.6	7.4	-0.4	-3.7	-7.0	-14.3	-22.0	-33.2	-44.1	-55.7	-66.5	-78.7	-94.3	-117.3	-150.6	-199.8	-275.1	-392.9	-578.0	-859.6	-1293.5	-1959.8	-2987.2	28.4	-10.4
14-K	69305	21124	27.8	11.1	10.0	14.9	8.0	5.7	7.2	7.0	-0.9	-4.2	-7.7	-15.2	-23.0	-34.6	-45.7	-57.6	-68.8	-81.4	-97.5	-121.2	-155.5	-206.2	-284.0	-405.7	-596.9	-887.9	-1336.8	-2026.0	-3088.7	28.3	-10.9
14-L	71650	21839	27.6	10.8	9.7	14.6	7.7	5.4	6.8	6.6	-1.3	-4.8	-8.4	-16.1	-24.1	-35.9	-47.4	-59.6	-71.1	-84.1	-100.7	-125.1	-160.4	-212.8	-293.0	-418.6	-616.0	-916.7	-1380.7	-2093.3	-3192.0	28.1	-11.3
15-F	60934	18573	28.3	12.2	11.1	16.0	9.1	7.0	8.6	8.5	0.9	-2.1	-5.2	-12.0	-19.0	-29.6	-39.7	-50.5	-60.4	-71.6	-85.9	-107.2	-137.8	-182.8	-251.7	-359.4	-528.4	-785.0	-1179.7	-1785.8	-2720.2	28.9	-9.1
15-G	62797	19140	28.2	12.0	10.9	15.8	8.9	6.7	8.3	8.2	0.5	-2.6	-5.7	-12.7	-19.9	-30.7	-41.1	-52.1	-62.3	-73.8	-88.5	-110.3	-141.7	-188.0	-258.9	-369.7	-543.6	-807.9	-1214.7	-1839.3	-2802.2	28.8	-9.5
15-H	64721	19727	28.1	11.7	10.6	15.5	8.6	6.4	7.9	7.8	0.1	-3.1	-6.3	-13.5	-20.9	-31.9	-42.5	-53.7	-64.2	-76.1	-91.2	-113.5	-145.8	-193.4	-266.4	-380.4	-559.4	-831.6	-1250.8	-1894.5	-2887.0	28.6	-9.9
15-I	66782	20355	27.9	11.4	10.3	15.2	8.3	6.1	7.6	7.4	-0.4	-3.6	-7.0	-14.2	-21.9	-33.1	-43.9	-55.5	-66.3	-78.5	-94.0	-116.9	-150.2	-199.2	-274.3	-391.7	-576.2	-856.9	-1289.5	-1953.6	-2977.7	28.5	-10.4
15-J	68895	20999	27.8	11.2	10.1	15.0	8.1	5.8	7.3	7.1	-0.8	-4.1	-7.6	-15.0	-22.9	-34.3	-45.4	-57.3	-68.4	-80.9	-96.9	-120.5	-154.6	-205.1	-282.4	-403.4	-593.5	-882.9	-1329.1	-2014.3	-3070.7	28.3	-10.8
15-K	71133	21681	27.6	10.9	9.8	14.7	7.8	5.4	6.9	6.7	-1.2	-4.7	-8.3	-15.9	-23.9	-35.6	-47.0	-59.2	-70.6	-83.5	-100.0	-124.2	-159.3	-211.3	-291.0	-415.8	-611.8	-910.4	-1371.0	-2078.5	-3169.2	28.2	-11.2
16-J	70779	21573	27.7	10.9	9.8	14.7	7.8	5.5	7.0	6.7	-1.2	-4.6	-8.1	-15.7	-23.7	-35.4	-46.8	-58.9	-70.2	-83.1	-99.5	-123.6	-158.6	-210.3	-289.7	-413.8	-608.9	-906.0	-1364.4	-2068.3	-3153.6	28.2	-11.1
16-K	72988	22247	27.5	10.7	9.6	14.5	7.6	5.2	6.6	6.3	-1.6	-5.1	-8.8	-16.6	-24.8	-36.7	-48.3	-60.7	-72.4	-85.6	-102.5	-127.3	-163.3	-216.5	-298.1	-426.0	-626.9	-933.2	-1405.8	-2131.6	-3250.8	28.0	-11.6
		Sum:	50.5	35.6	34.5	39.4	32.5	30.7	32.4	32.6	25.4	23.1	21.0	15.6	10.4	2.3	-5.0	-12.6	-18.9	-26.0	-34.6	-47.6	-65.5	-90.3	-127.3	-183.2	-269.5	-397.2	-589.2	-883.6	-1337.0	51.3	15.8

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Leq)
FROM WIND PARK OPERATIONS AT THE CUT-IN WIND CONDITION

																		Hertz													
	1/3 Octave Bands	**16***	**20**	**25**	**31**	**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**	**L**	**A**
Sound Power Data		112.0	105.6	104.5	109.4	102.5	101.6	103.9	104.9	98.9	98.3	98.7	96.5	95.3	91.8	89.3	86.7	85.7	84.5	83.2	80.0	76.5	73.1	68.2	62.7	55.3	49.4	48.4	47.8	47.6	116.3	95.4
Data for the graph																																
Atmos. Absorption per 1 km air temp 59F 70% RH		0.0000	0.0000	0.0000	0.0000	0.0000	0.0670	0.1050	0.1630	0.2510	0.3810	0.5650	0.8150	1.1300	1.5100	1.9200	2.3600	2.8400	3.3800	4.0800	5.0500	6.5100	8.7500	12.2000	17.7000	26.4000	39.9000	61.1000	93.7000	144.0000		

*Spherical wave spreading for up to 2 km, cylindrical wave spreading beyond 2 km.

																			Hertz													
	1/3 Octave Bands		**16***	**20**	**25**	**31**	**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**	**L**	**A**
	Distance (ft)	**Distance (m)**																															
1-D	33888	10329	30.9	17.3	16.2	21.1	14.2	12.6	14.6	15.0	8.0	6.1	4.6	-0.2	-4.6	-12.1	-18.8	-25.9	-31.9	-38.7	-47.2	-60.4	-79.0	-105.5	-146.1	-208.4	-305.6	-451.0	-671.0	-1008.3	-1528.0	31.9	-1.3
1-E	36963	11266	30.5	16.6	15.5	20.4	13.5	11.8	13.7	14.0	7.1	5.0	3.3	-1.7	-6.4	-14.2	-21.3	-28.9	-35.3	-42.6	-51.8	-65.9	-85.9	-114.5	-158.3	-225.7	-331.1	-489.1	-729.0	-1096.9	-1663.8	31.5	-2.4
1-F	40055	12209	30.1	15.9	14.8	19.7	12.8	11.1	12.9	13.2	6.1	3.9	2.1	-3.2	-8.2	-16.4	-23.9	-31.8	-38.7	-46.5	-56.3	-71.4	-92.7	-123.4	-170.5	-243.1	-356.7	-527.4	-787.3	-1185.9	-1800.2	31.1	-3.5
1-G	43204	13169	29.8	15.2	14.1	19.0	12.1	10.3	12.1	12.4	5.2	2.9	0.9	-4.6	-10.0	-18.5	-26.4	-34.8	-42.1	-50.4	-60.9	-76.9	-99.6	-132.5	-182.8	-260.8	-382.7	-566.4	-846.6	-1276.5	-1939.0	30.7	-4.5
1-H	46382	14137	29.5	14.6	13.5	18.4	11.5	9.7	11.4	11.6	4.4	1.9	-0.3	-6.0	-11.7	-20.5	-28.8	-37.7	-45.4	-54.3	-65.5	-82.4	-106.5	-141.6	-195.3	-278.5	-408.9	-605.7	-906.4	-1367.8	-2079.1	30.3	-5.4
1-I	49515	15092	29.2	14.0	12.9	17.8	10.9	9.0	10.8	10.9	3.6	1.0	-1.4	-7.4	-13.3	-22.5	-31.2	-40.5	-48.7	-58.1	-69.9	-87.8	-113.3	-150.5	-207.5	-296.0	-434.7	-644.3	-965.3	-1457.9	-2217.2	30.0	-6.3
1-J	52659	16050	29.0	13.5	12.4	17.3	10.4	8.4	10.1	10.2	2.8	0.1	-2.5	-8.7	-14.9	-24.5	-33.6	-43.3	-52.0	-61.8	-74.4	-93.1	-120.1	-159.4	-219.7	-313.5	-460.5	-683.1	-1024.4	-1548.2	-2355.7	29.6	-7.1
1-K	55841	17020	28.7	13.0	11.9	16.8	9.9	7.9	9.5	9.5	2.0	-0.8	-3.5	-10.0	-16.5	-26.5	-36.0	-46.1	-55.2	-65.6	-78.8	-98.6	-126.9	-168.4	-232.0	-331.2	-486.6	-722.3	-1084.1	-1639.6	-2495.9	29.4	-7.9
1-L	59110	18017	28.5	12.5	11.4	16.3	9.4	7.3	8.9	8.9	1.3	-1.7	-4.6	-11.3	-18.2	-28.5	-38.4	-48.9	-58.6	-69.5	-83.4	-104.1	-133.9	-177.6	-244.7	-349.3	-513.4	-762.6	-1145.5	-1733.5	-2639.9	29.1	-8.7
2-D	35067	10688	30.7	17.0	15.9	20.8	13.9	12.3	14.2	14.6	7.7	5.7	4.1	-0.8	-5.3	-12.9	-19.8	-27.1	-33.2	-40.2	-49.0	-62.5	-81.6	-109.0	-150.8	-215.0	-315.4	-465.6	-693.2	-1042.3	-1580.1	31.8	-1.7
2-E	38146	11627	30.4	16.3	15.2	20.1	13.2	11.5	13.4	13.7	6.7	4.6	2.8	-2.3	-7.1	-15.0	-22.3	-30.0	-36.6	-44.1	-53.5	-68.0	-88.5	-117.9	-162.9	-232.4	-340.9	-503.8	-751.3	-1130.9	-1715.9	31.3	-2.8
2-F	41256	12575	30.0	15.6	14.5	19.4	12.5	10.8	12.6	12.9	5.8	3.5	1.6	-3.7	-8.9	-17.2	-24.8	-32.9	-40.0	-48.0	-58.1	-73.5	-95.3	-126.9	-175.2	-249.8	-366.6	-542.3	-809.9	-1220.4	-1853.2	30.9	-3.9
2-G	44311	13506	29.7	15.0	13.9	18.8	11.9	10.1	11.9	12.1	4.9	2.6	0.5	-5.1	-10.6	-19.2	-27.2	-35.8	-43.2	-51.7	-62.5	-78.8	-102.0	-135.7	-187.2	-267.0	-391.9	-580.1	-867.4	-1308.3	-1987.9	30.5	-4.8
2-H	47402	14448	29.4	14.4	13.3	18.2	11.3	9.5	11.2	11.4	4.1	1.6	-0.6	-6.5	-12.2	-21.2	-29.6	-38.6	-46.5	-55.5	-66.9	-84.1	-108.7	-144.5	-199.2	-284.2	-417.3	-618.3	-925.6	-1397.2	-2124.1	30.2	-5.7
2-I	50559	15410	29.1	13.9	12.8	17.7	10.8	8.8	10.5	10.7	3.3	0.7	-1.7	-7.8	-13.9	-23.2	-32.0	-41.4	-49.8	-59.3	-71.4	-89.6	-115.6	-153.5	-211.5	-301.8	-443.3	-657.2	-984.9	-1487.9	-2263.2	29.9	-6.6
2-J	53770	16389	28.9	13.3	12.2	17.1	10.2	8.2	9.9	10.0	2.5	-0.2	-2.8	-9.1	-15.5	-25.2	-34.4	-44.3	-53.1	-63.2	-75.9	-95.0	-122.5	-162.6	-224.0	-319.7	-469.6	-696.8	-1045.2	-1580.1	-2404.7	29.5	-7.4
2-K	56844	17326	28.6	12.8	11.7	16.6	9.7	7.7	9.3	9.3	1.8	-1.1	-3.8	-10.4	-17.0	-27.1	-36.7	-46.9	-56.3	-66.8	-80.2	-100.3	-129.0	-171.3	-235.9	-336.7	-494.9	-734.7	-1103.0	-1668.4	-2540.1	29.3	-8.2
2-L	60031	18297	28.4	12.4	11.3	16.2	9.3	7.1	8.7	8.7	1.1	-1.9	-4.9	-11.6	-18.6	-29.1	-39.1	-49.7	-59.5	-70.6	-84.7	-105.6	-135.8	-180.2	-248.3	-354.4	-521.0	-773.9	-1162.8	-1759.9	-2680.4	29.0	-8.9
3-D	36369	11085	30.6	16.7	15.6	20.5	13.6	12.0	13.9	14.2	7.2	5.2	3.6	-1.4	-6.1	-13.8	-20.9	-28.3	-34.7	-41.8	-50.9	-64.9	-84.5	-112.8	-155.9	-222.4	-326.2	-481.8	-717.8	-1079.8	-1637.6	31.6	-2.2
3-E	39416	12014	30.2	16.0	14.9	19.8	12.9	11.2	13.1	13.4	6.3	4.1	2.3	-2.9	-7.9	-15.9	-23.3	-31.2	-38.0	-45.7	-55.4	-70.2	-91.3	-121.6	-167.9	-239.5	-351.4	-519.5	-775.2	-1167.5	-1772.0	31.1	-3.3
3-F	42462	12942	29.9	15.4	14.3	19.2	12.3	10.5	12.3	12.6	5.4	3.1	1.2	-4.3	-9.5	-18.0	-25.8	-34.1	-41.3	-49.5	-59.8	-75.6	-98.0	-130.4	-179.9	-256.6	-376.6	-557.2	-832.6	-1255.1	-1906.3	30.8	-4.3
3-G	45520	13875	29.6	14.8	13.7	18.6	11.7	9.8	11.6	11.8	4.6	2.2	0.0	-5.6	-11.2	-20.0	-28.2	-36.9	-44.5	-53.2	-64.2	-80.9	-104.6	-139.1	-191.9	-273.7	-401.8	-595.0	-890.2	-1343.1	-2041.2	30.4	-5.2
3-I	51654	15744	29.0	13.7	12.6	17.5	10.6	8.6	10.3	10.4	3.0	0.4	-2.1	-8.3	-14.4	-23.9	-32.9	-42.4	-50.9	-60.6	-73.0	-91.4	-117.9	-156.6	-215.8	-307.9	-452.3	-670.7	-1005.5	-1519.3	-2311.5	29.7	-6.9
3-J	54776	16696	28.8	13.2	12.1	17.0	10.1	8.0	9.7	9.7	2.3	-0.5	-3.2	-9.5	-16.0	-25.8	-35.2	-45.1	-54.1	-64.4	-77.4	-96.7	-124.6	-165.4	-227.9	-325.2	-477.9	-709.2	-1064.1	-1609.0	-2449.0	29.4	-7.7
3-K	57951	17664	28.5	12.7	11.6	16.5	9.6	7.5	9.1	9.1	1.5	-1.4	-4.2	-10.8	-17.6	-27.8	-37.5	-47.9	-57.4	-68.1	-81.8	-102.1	-131.4	-174.4	-240.2	-342.9	-503.9	-748.3	-1123.8	-1700.2	-2588.9	29.2	-8.4
3-L	61029	18602	28.3	12.2	11.1	16.0	9.1	7.0	8.6	8.5	0.9	-2.2	-5.2	-12.0	-19.1	-29.7	-39.8	-50.6	-60.5	-71.7	-86.1	-107.3	-138.0	-183.0	-252.1	-359.9	-529.2	-786.2	-1181.5	-1788.5	-2724.4	28.9	-9.1
4-D	37776	11514	30.4	16.4	15.3	20.2	13.3	11.6	13.5	13.8	6.8	4.7	3.0	-2.1	-6.9	-14.8	-22.0	-29.7	-36.2	-43.6	-53.0	-67.4	-87.7	-116.9	-161.5	-230.3	-337.9	-499.2	-744.3	-1120.3	-1699.6	31.4	-2.7
4-E	40760	12424	30.1	15.7	14.6	19.5	12.6	10.9	12.7	13.0	5.9	3.7	1.8	-3.5	-8.6	-16.8	-24.4	-32.5	-39.4	-47.4	-57.4	-72.6	-94.2	-125.5	-173.2	-247.1	-362.6	-536.2	-800.6	-1206.2	-1831.3	31.0	-3.7
4-F	43771	13341	29.8	15.1	14.0	18.9	12.0	10.2	12.0	12.2	5.1	2.7	0.7	-4.9	-10.3	-18.8	-26.8	-35.3	-42.7	-51.1	-61.7	-77.9	-100.8	-134.1	-185.1	-263.9	-387.4	-573.4	-857.2	-1292.8	-1964.1	30.6	-4.7
4-G	46799	14264	29.5	14.5	13.4	18.3	11.4	9.6	11.3	11.5	4.3	1.8	-0.4	-6.2	-11.9	-20.8	-29.2	-38.0	-45.9	-54.8	-66.1	-83.1	-107.4	-142.8	-196.9	-280.8	-412.3	-610.8	-914.2	-1379.8	-2097.5	30.2	-5.6
4-H	49822	15186	29.2	14.0	12.9	17.8	10.9	9.0	10.7	10.8	3.5	0.9	-1.5	-7.5	-13.5	-22.7	-31.5	-40.7	-49.0	-58.4	-70.4	-88.3	-114.0	-151.4	-208.7	-297.7	-437.2	-648.1	-971.1	-1466.7	-2230.8	29.9	-6.4
4-I	52904	16125	28.9	13.5	12.4	17.3	10.4	8.4	10.1	10.1	2.7	0.0	-2.5	-8.8	-15.1	-24.7	-33.8	-43.5	-52.2	-62.1	-74.7	-93.6	-120.6	-160.1	-220.7	-314.8	-462.5	-686.1	-1029.0	-1555.3	-2366.5	29.6	-7.2
4-J	55967	17059	28.7	13.0	11.9	16.8	9.9	7.8	9.5	9.5	2.0	-0.8	-3.6	-10.0	-16.6	-26.6	-36.1	-46.2	-55.4	-65.8	-79.0	-98.8	-127.2	-168.8	-232.5	-331.9	-487.7	-723.9	-1086.5	-1643.2	-2501.5	29.3	-8.0
4-K	59082	18008	28.5	12.5	11.4	16.3	9.4	7.3	8.9	8.9	1.3	-1.7	-4.6	-11.3	-18.1	-28.5	-38.4	-48.9	-58.5	-69.5	-83.4	-104.0	-133.8	-177.6	-244.6	-349.1	-513.2	-762.2	-1145.0	-1732.7	-2638.7	29.1	-8.7
4-L	62207	18961	28.2	12.1	11.0	15.9	9.0	6.8	8.4	8.3	0.6	-2.5	-5.6	-12.5	-19.7	-30.4	-40.6	-51.6	-61.7	-73.1	-87.7	-109.3	-140.5	-186.3	-256.7	-366.4	-538.8	-800.7	-1203.6	-1822.4	-2776.3	28.8	-9.4
5-D	39260	11966	30.2	16.1	15.0	19.9	13.0	11.3	13.1	13.4	6.4	4.2	2.4	-2.8	-7.8	-15.8	-23.2	-31.1	-37.8	-45.5	-55.2	-70.0	-90.9	-121.1	-167.3	-238.6	-350.2	-517.6	-772.3	-1163.0	-1765.1	31.2	-3.2
5-E	42132	12842	29.9	15.4	14.3	19.2	12.3	10.6	12.4	12.7	5.5	3.3	1.3	-4.1	-9.4	-17.7	-25.5	-33.8	-40.9	-49.1	-59.3	-75.0	-97.3	-129.4	-178.6	-254.8	-373.9	-553.1	-826.4	-1245.6	-1891.8	30.8	-4.1
5-F	45121	13753	29.6	14.9	13.8	18.7	11.8	9.9	11.7	11.9	4.7	2.3	0.2	-5.5	-11.0	-19.7	-27.9	-36.5	-44.1	-52.7	-63.7	-80.2	-103.8	-138.0	-190.3	-271.5	-398.5	-590.1	-882.6	-1331.6	-2023.6	30.4	-5.1
5-G	48058	14648	29.4	14.3	13.2	18.1	11.2	9.3	11.1	11.2	3.9	1.4	-0.9	-6.7	-12.5	-21.6	-30.1	-39.2	-47.2	-56.3	-67.9	-85.3	-110.2	-146.4	-201.8	-287.9	-422.7	-626.4	-937.9	-1416.0	-2153.0	30.1	-5.9
5-H	51074	15567	29.1	13.8	12.7	17.6	10.7	8.7	10.4	10.5	3.2	0.5	-1.9	-8.0	-14.1	-23.5	-32.4	-41.9	-50.3	-59.9	-72.1	-90.4	-116.7	-154.9	-213.5	-304.7	-447.5	-663.6	-994.6	-1502.7	-2285.9	29.8	-6.7
5-I	54077	16483	28.8	13.3	12.2	17.1	10.2	8.2	9.8	9.9	2.4	-0.3	-2.9	-9.3	-15.6	-25.4	-34.7	-44.5	-53.4	-63.5	-76.4	-95.6	-123.1	-163.4	-225.2	-321.4	-472.2	-700.6	-1051.0	-1588.9	-2418.2	29.5	-7.5
5-J	57154	17421	28.6	12.8	11.7	16.6	9.7	7.6	9.3	9.3	1.7	-1.1	-3.9	-10.5	-17.2	-27.3	-37.0	-47.2	-56.6	-67.2	-80.7	-100.8	-129.7	-172.1	-237.1	-338.4	-497.4	-738.5	-1108.8	-1677.3	-2553.8	29.2	-8.2
6-D	40797	12435	30.1	15.7	14.6	19.5	12.6	10.9	12.7	13.0	5.9	3.7	1.8	-3.5	-8.6	-16.9	-24.4	-32.5	-39.5	-47.4	-57.4	-72.7	-94.3	-125.6	-173.4	-247.3	-362.9	-536.6	-801.2	-1207.2	-1832.9	31.0	-3.7
6-E	43618	13295	29.8	15.1	14.0	18.9	12.0	10.3	12.0	12.3	5.1	2.8	0.7	-4.8	-10.2	-18.7	-26.7	-35.1	-42.5	-50.9	-61.5	-77.6	-100.5	-133.7	-184.5	-263.1	-386.1	-571.5	-854.4	-1288.4	-1957.3	30.6	-4.6
6-G	49431	15067	29.2	14.1	13.0	17.9	11.0	9.0	10.8	10.9	3.6	1.0	-1.4	-7.3	-13.3	-22.5	-31.2	-40.4	-48.6	-58.0	-69.8	-87.6	-113.1	-150.3	-207.2	-295.5	-434.0	-643.3	-963.7	-1455.5	-2213.5	30.0	-6.3
6-H	52411	15975	29.0	13.5	12.4	17.3	10.4	8.5	10.2	10.2	2.8	0.2	-2.4	-8.6	-14.8	-24.4	-33.4	-43.1	-51.7	-61.5	-74.0	-92.7	-119.5	-158.7	-218.7	-312.1	-458.5	-680.0	-1019.7	-1541.1	-2344.8	29.7	-7.1
6-I	55362	16874	28.7	13.1	12.0	16.9	10.0	7.9	9.6	9.6	2.1	-0.7	-3.4	-9.8	-16.3	-26.2	-35.6	-45.7	-54.7	-65.1	-78.2	-97.7	-125.9	-167.1	-230.2	-328.5	-482.7	-716.4	-1075.2	-1625.9	-2474.8	29.4	-7.8
6-J	58409	17803	28.5	12.6	11.5	16.4	9.5	7.4	9.0	9.0	1.4	-1.5	-4.4	-11.0	-17.8	-28.1	-37.9	-48.3	-57.9	-68.7	-82.4	-102.9	-132.4	-175.7	-242.0	-345.4	-507.7	-753.9	-1132.4	-1713.3	-2609.0	29.1	-8.5
7-B	36911	11251	30.5	16.6	15.5	20.4	13.5	11.8	13.7	14.1	7.1	5.0	3.3	-1.7	-6.4	-14.2	-21.3	-28.9	-35.3	-42.5	-51.7	-65.8	-85.7	-114.3	-158.1	-225.4	-330.7	-488.5	-728.0	-1095.4	-1661.5	31.5	-2.4
7-C	39568	12060	30.2	16.0	14.9	19.8	12.9	11.2	13.0	13.3	6.3	4.1	2.3	-2.9	-7.9	-16.0	-23.5	-31.4	-38.2	-45.9	-55.6	-70.5	-91.6	-122.0	-168.5	-240.4	-352.7	-521.4	-778.1	-1171.9	-1778.7	31.1	-3.3
7-E	45119	13752	29.6	14.9	13.8	18.7	11.8	9.9	11.7	11.9	4.7	2.3	0.2	-5.5	-11.0	-19.7	-27.9	-36.5	-44.1	-52.7	-63.7	-80.2	-103.8	-138.0	-190.3	-271.5	-398.5	-590.1	-882.6	-1331.5	-2023.5	30.4	-5.1
7-F	47944	14613	29.4	14.3	13.2	18.1	11.2	9.3	11.1	11.2	4.0	1.5	-0.8	-6.7	-12.5	-21.5	-30.0	-39.1	-47.1	-56.2	-67.7	-85.1	-109.9	-146.0	-201.4	-287.2	-421.8	-625.0	-935.8	-1412.8	-2148.0	30.1	-5.9
7-G	50815	15488	29.1	13.8	12.7	17.6	10.7	8.8	10.5	10.6	3.2	0.6	-1.8	-7.9	-14.0	-23.4	-32.2	-41.6	-50.1	-59.6	-71.8	-90.0	-116.1	-154.2	-212.5	-303.2	-445.4	-660.4	-989.7	-1495.2	-2274.5	29.8	-6.7
7-H	53759	16386	28.9	13.3	12.2	17.1	10.2	8.2	9.9	10.0	2.5	-0.2	-2.8	-9.1	-15.5	-25.2	-34.4	-44.2	-53.1	-63.2	-75.9	-95.0	-122.4	-162.5	-224.0	-319.6	-469.6	-696.7	-1045.0	-1579.8	-2404.2	29.5	-7.4
7-I	56731	17292	28.6	12.9	11.8	16.7	9.8	7.7	9.3	9.3	1.8	-1.0	-3.8	-10.3	-17.0	-27.0	-36.6	-46.8	-56.1	-66.7	-80.1	-100.1	-128.8	-170.9	-235.5	-336.1	-493.9	-733.3	-1100.9	-1665.2	-2535.1	29.3	-8.1
8-A	36126	11011	30.6	16.8	15.7	20.6	13.7	12.0	13.9	14.3	7.3	5.3	3.7	-1.3	-6.0	-13.6	-20.7	-28.1	-34.4	-41.5	-50.5	-64.4	-84.0	-112.1	-155.0	-221.0	-324.2	-478.8	-713.2	-1072.8	-1626.8	31.6	-2.1
8-B	38619	11771	30.3	16.2	15.1	20.0	13.1	11.4	13.3	13.6	6.5	4.4	2.7	-2.5	-7.4	-15.4	-22.7	-30.5	-37.1	-44.7	-54.2	-68.8	-89.5	-119.3	-164.8	-235.0	-344.9	-509.7	-760.2	-1144.5	-1736.8	31.3	-3.0

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Leq)
FROM WIND PARK OPERATIONS AT THE CUT-IN WIND CONDITION

8-C	41215	12562	30.0	15.6	14.5	19.4	12.5	10.8	12.6	12.9	5.8	3.6	1.6	-3.7	-8.9	-17.1	-24.8	-32.9	-39.9	-47.9	-58.0	-73.4	-95.2	-126.8	-175.0	-249.6	-366.3	-541.8	-809.1	-1219.3	-1851.4	30.9	-3.9
8-D	43932	13390	29.7	15.1	14.0	18.9	12.0	10.2	12.0	12.2	5.0	2.7	0.6	-4.9	-10.3	-18.9	-26.9	-35.4	-42.8	-51.3	-62.0	-78.1	-101.2	-134.6	-185.7	-264.8	-388.7	-575.4	-860.3	-1297.4	-1971.1	30.6	-4.7
8-F	49425	15065	29.2	14.1	13.0	17.9	11.0	9.0	10.8	10.9	3.6	1.0	-1.4	-7.3	-13.3	-22.5	-31.2	-40.4	-48.6	-58.0	-69.8	-87.6	-113.1	-150.3	-207.1	-295.5	-433.9	-643.2	-963.6	-1455.3	-2213.3	30.0	-6.3
8-G	52298	15941	29.0	13.6	12.5	17.4	10.5	8.5	10.2	10.3	2.9	0.2	-2.3	-8.5	-14.7	-24.3	-33.3	-43.0	-51.6	-61.4	-73.9	-92.5	-119.3	-158.4	-218.3	-311.5	-457.6	-678.7	-1017.6	-1537.9	-2339.9	29.7	-7.0
8-H	55189	16822	28.7	13.1	12.0	16.9	10.0	8.0	9.6	9.7	2.2	-0.6	-3.3	-9.7	-16.2	-26.1	-35.5	-45.5	-54.6	-64.9	-77.9	-97.4	-125.5	-166.6	-229.5	-327.5	-481.3	-714.3	-1071.9	-1620.9	-2467.2	29.4	-7.8
9-A	37935	11562	30.4	16.4	15.3	20.2	13.3	11.6	13.4	13.8	6.8	4.7	2.9	-2.2	-7.0	-14.9	-22.1	-29.8	-36.4	-43.8	-53.2	-67.6	-88.0	-117.3	-162.1	-231.2	-339.2	-501.2	-747.3	-1124.8	-1706.6	31.3	-2.8
9-B	40355	12300	30.1	15.8	14.7	19.6	12.7	11.0	12.8	13.1	6.0	3.8	2.0	-3.3	-8.4	-16.6	-24.1	-32.1	-39.0	-46.9	-56.8	-71.9	-93.4	-124.3	-171.6	-244.8	-359.2	-531.2	-792.9	-1194.5	-1813.4	31.0	-3.6
9-C	42897	13075	29.8	15.3	14.2	19.1	12.2	10.4	12.2	12.5	5.3	3.0	1.0	-4.5	-9.8	-18.3	-26.1	-34.5	-41.7	-50.0	-60.5	-76.3	-98.9	-131.6	-181.6	-259.0	-380.2	-562.6	-840.8	-1267.6	-1925.5	30.7	-4.4
9-D	45546	13882	29.6	14.8	13.7	18.6	11.7	9.8	11.6	11.8	4.6	2.2	0.0	-5.6	-11.2	-20.0	-28.2	-36.9	-44.6	-53.3	-64.3	-80.9	-104.7	-139.2	-192.0	-273.9	-402.0	-595.3	-890.7	-1343.8	-2042.3	30.4	-5.2
9-E	48209	14694	29.3	14.3	13.2	18.1	11.2	9.3	11.0	11.2	3.9	1.4	-0.9	-6.8	-12.6	-21.7	-30.2	-39.3	-47.4	-56.5	-68.1	-85.5	-110.5	-146.8	-202.4	-288.7	-423.9	-628.2	-940.7	-1420.4	-2159.7	30.1	-5.9
9-F	50977	15538	29.1	13.8	12.7	17.6	10.7	8.7	10.5	10.6	3.2	0.6	-1.9	-8.0	-14.1	-23.5	-32.3	-41.8	-50.2	-59.8	-72.0	-90.3	-116.5	-154.7	-213.2	-304.1	-446.7	-662.4	-992.8	-1499.9	-2281.6	29.8	-6.7
9-G	53798	16398	28.9	13.3	12.2	17.1	10.2	8.2	9.9	9.9	2.5	-0.2	-2.8	-9.1	-15.5	-25.2	-34.5	-44.3	-53.1	-63.2	-76.0	-95.1	-122.5	-162.7	-224.1	-319.8	-469.9	-697.1	-1045.8	-1580.9	-2405.9	29.5	-7.4
9-H	56643	17265	28.6	12.9	11.8	16.7	9.8	7.7	9.4	9.4	1.8	-1.0	-3.8	-10.3	-16.9	-27.0	-36.6	-46.8	-56.1	-66.6	-80.0	-99.9	-128.6	-170.7	-235.2	-335.6	-493.2	-732.2	-1099.2	-1662.6	-2531.2	29.3	-8.1
9-I	59534	18146	28.4	12.4	11.3	16.2	9.3	7.2	8.8	8.8	1.2	-1.8	-4.7	-11.4	-18.4	-28.8	-38.7	-49.3	-59.0	-70.0	-84.0	-104.8	-134.8	-178.8	-246.3	-351.6	-516.9	-767.8	-1153.5	-1745.6	-2658.6	29.0	-8.8
10-A	39752	12116	30.2	16.0	14.9	19.8	12.9	11.1	13.0	13.3	6.2	4.0	2.2	-3.0	-8.0	-16.1	-23.6	-31.5	-38.4	-46.1	-55.9	-70.8	-92.0	-122.6	-169.3	-241.4	-354.2	-523.7	-781.6	-1177.2	-1786.8	31.1	-3.4
10-B	42140	12844	29.9	15.4	14.3	19.2	12.3	10.6	12.4	12.7	5.5	3.3	1.3	-4.1	-9.4	-17.8	-25.5	-33.8	-40.9	-49.1	-59.4	-75.0	-97.3	-129.4	-178.7	-254.8	-373.9	-553.2	-826.5	-1245.9	-1892.1	30.8	-4.1
10-C	44613	13598	29.7	14.9	13.8	18.7	11.8	10.0	11.8	12.0	4.8	2.5	0.4	-5.2	-10.7	-19.4	-27.5	-36.0	-43.6	-52.1	-62.9	-79.3	-102.7	-136.5	-188.3	-268.6	-394.3	-583.8	-873.1	-1317.0	-2001.2	30.5	-4.9
10-D	47200	14386	29.4	14.5	13.4	18.3	11.4	9.5	11.2	11.4	4.1	1.7	-0.6	-6.4	-12.1	-21.1	-29.5	-38.4	-46.3	-55.3	-66.6	-83.8	-108.3	-143.9	-198.5	-283.1	-415.6	-615.8	-921.8	-1391.4	-2115.2	30.2	-5.7
10-E	49842	15192	29.2	14.0	12.9	17.8	10.9	9.0	10.7	10.8	3.5	0.9	-1.5	-7.5	-13.5	-22.8	-31.5	-40.8	-49.1	-58.5	-70.4	-88.3	-114.0	-151.4	-208.8	-297.8	-437.4	-648.4	-971.4	-1467.3	-2231.6	29.9	-6.4
10-F	52574	16025	29.0	13.5	12.4	17.3	10.4	8.4	10.1	10.2	2.8	0.1	-2.4	-8.6	-14.9	-24.5	-33.5	-43.2	-51.9	-61.7	-74.3	-93.0	-119.9	-159.2	-219.4	-313.0	-459.8	-682.1	-1022.8	-1545.8	-2352.0	29.7	-7.1
10-G	55338	16867	28.7	13.1	12.0	16.9	10.0	7.9	9.6	9.6	2.1	-0.6	-3.4	-9.8	-16.3	-26.2	-35.6	-45.6	-54.7	-65.0	-78.1	-97.7	-125.8	-167.0	-230.1	-328.4	-482.5	-716.1	-1074.7	-1625.2	-2473.8	29.4	-7.8
10-H	58164	17728	28.5	12.6	11.5	16.4	9.5	7.5	9.1	9.1	1.5	-1.4	-4.3	-10.9	-17.7	-27.9	-37.7	-48.1	-57.6	-68.4	-82.1	-102.5	-131.9	-175.0	-241.0	-344.0	-505.7	-750.9	-1127.8	-1706.3	-2598.2	29.1	-8.5
10-I	42469	12945	29.9	15.4	14.3	19.2	12.3	10.5	12.3	12.6	5.4	3.1	1.2	-4.3	-9.6	-18.0	-25.8	-34.1	-41.3	-49.5	-59.8	-75.6	-98.0	-130.4	-179.9	-256.6	-376.7	-557.3	-832.7	-1255.3	-1906.7	30.8	-4.3
11-A	41613	12684	30.0	15.6	14.5	19.4	12.5	10.7	12.5	12.8	5.7	3.4	1.5	-3.9	-9.1	-17.4	-25.1	-33.3	-40.4	-48.4	-58.6	-74.1	-96.1	-127.9	-176.6	-251.8	-369.6	-546.7	-816.6	-1230.7	-1868.9	30.9	-4.0
11-B	43956	13398	29.7	15.1	14.0	18.9	12.0	10.2	12.0	12.2	5.0	2.7	0.6	-4.9	-10.4	-19.0	-26.9	-35.4	-42.9	-51.3	-62.0	-78.2	-101.2	-134.7	-185.8	-265.0	-388.9	-575.7	-860.7	-1298.1	-1972.2	30.6	-4.7
11-C	46322	14119	29.5	14.6	13.5	18.4	11.5	9.7	11.4	11.6	4.4	1.9	-0.3	-6.0	-11.6	-20.5	-28.8	-37.6	-45.4	-54.2	-65.4	-82.3	-106.4	-141.4	-195.0	-278.2	-408.4	-604.9	-905.2	-1366.1	-2076.5	30.3	-5.4
11-D	48915	14909	29.3	14.1	13.0	17.9	11.0	9.2	10.9	11.0	3.7	1.2	-1.2	-7.1	-13.0	-22.2	-30.8	-39.9	-48.1	-57.3	-69.1	-86.7	-112.0	-148.8	-205.1	-292.6	-429.8	-636.9	-954.0	-1440.6	-2190.8	30.0	-6.1
11-E	51465	15686	29.1	13.7	12.6	17.5	10.6	8.7	10.4	10.5	3.1	0.4	-2.1	-8.2	-14.3	-23.8	-32.7	-42.2	-50.7	-60.4	-72.7	-91.1	-117.5	-156.0	-215.1	-306.8	-450.7	-668.4	-1001.9	-1513.9	-2303.1	29.8	-6.8
11-F	54145	16503	28.8	13.3	12.2	17.1	10.2	8.2	9.8	9.9	2.4	-0.3	-3.0	-9.3	-15.7	-25.5	-34.7	-44.6	-53.5	-63.6	-76.5	-95.7	-123.3	-163.6	-225.5	-321.7	-472.7	-701.4	-1052.3	-1590.9	-2421.2	29.5	-7.5
11-G	56858	17330	28.6	12.8	11.7	16.6	9.7	7.7	9.3	9.3	1.8	-1.1	-3.8	-10.4	-17.0	-27.1	-36.7	-47.0	-56.3	-66.8	-80.3	-100.3	-129.1	-171.3	-236.0	-336.8	-495.0	-734.8	-1103.2	-1668.8	-2540.7	29.3	-8.2
11-H	59629	18175	28.4	12.4	11.3	16.2	9.3	7.2	8.8	8.8	1.2	-1.8	-4.7	-11.5	-18.4	-28.8	-38.8	-49.4	-59.1	-70.1	-84.1	-105.0	-135.0	-179.1	-246.7	-352.2	-517.7	-768.9	-1155.3	-1748.4	-2662.7	29.0	-8.8
11-K	68266	20807	27.8	11.3	10.2	15.1	8.2	5.9	7.4	7.2	-0.7	-4.0	-7.4	-14.8	-22.6	-34.0	-45.0	-56.8	-67.7	-80.2	-96.0	-119.4	-153.3	-203.3	-280.0	-399.9	-588.4	-875.2	-1317.3	-1996.2	-3043.0	28.4	-10.7
11-L	71163	21690	27.6	10.9	9.8	14.7	7.8	5.4	6.9	6.7	-1.3	-4.7	-8.3	-15.9	-23.9	-35.7	-47.1	-59.2	-70.6	-83.5	-100.0	-124.2	-159.4	-211.4	-291.1	-415.9	-612.0	-910.8	-1371.6	-2079.3	-3170.5	28.1	-11.2
12-A	43470	13250	29.8	15.2	14.1	19.0	12.1	10.3	12.1	12.3	5.1	2.8	0.8	-4.7	-10.1	-18.6	-26.6	-35.0	-42.4	-50.7	-61.3	-77.3	-100.2	-133.3	-183.9	-262.2	-384.9	-569.7	-851.6	-1284.1	-1950.8	30.6	-4.6
12-B	45764	13949	29.6	14.7	13.6	18.5	11.6	9.8	11.6	11.8	4.5	2.1	-0.1	-5.7	-11.3	-20.1	-28.4	-37.1	-44.8	-53.5	-64.6	-81.3	-105.2	-139.8	-192.8	-275.1	-403.8	-598.0	-894.7	-1350.1	-2051.9	30.4	-5.3
12-C	48128	14670	29.3	14.3	13.2	18.1	11.2	9.3	11.0	11.2	3.9	1.4	-0.9	-6.8	-12.6	-21.7	-30.2	-39.2	-47.3	-56.4	-68.0	-85.4	-110.3	-146.6	-202.1	-288.3	-423.3	-627.2	-939.2	-1418.0	-2156.1	30.1	-5.9
12-D	50650	15438	29.1	13.8	12.7	17.6	10.7	8.8	10.5	10.6	3.3	0.7	-1.8	-7.8	-13.9	-23.3	-32.1	-41.5	-49.9	-59.4	-71.5	-89.7	-115.8	-153.7	-211.9	-302.3	-444.0	-658.3	-986.6	-1490.5	-2267.3	29.8	-6.6
12-E	53124	16192	28.9	13.4	12.3	17.2	10.3	8.3	10.0	10.1	2.7	0.0	-2.6	-8.9	-15.2	-24.8	-34.0	-43.7	-52.5	-62.4	-75.0	-93.9	-121.1	-160.7	-221.5	-316.1	-464.3	-688.8	-1033.1	-1561.6	-2376.2	29.6	-7.3
12-F	55772	16999	28.7	13.0	11.9	16.8	9.9	7.9	9.5	9.5	2.0	-0.8	-3.5	-9.9	-16.5	-26.5	-35.9	-46.0	-55.2	-65.5	-78.7	-98.4	-126.8	-168.2	-231.8	-330.8	-486.1	-721.5	-1082.9	-1637.6	-2492.9	29.4	-7.9
12-G	58477	17824	28.5	12.6	11.5	16.4	9.5	7.4	9.0	9.0	1.4	-1.5	-4.4	-11.0	-17.8	-28.1	-37.9	-48.4	-57.9	-68.7	-82.5	-103.0	-132.5	-175.9	-242.3	-345.8	-508.3	-754.8	-1133.6	-1715.3	-2612.0	29.1	-8.6
12-H	61160	18642	28.3	12.2	11.1	16.0	9.1	7.0	8.6	8.5	0.8	-2.2	-5.2	-12.1	-19.2	-29.7	-39.9	-50.7	-60.6	-71.9	-86.2	-107.5	-138.2	-183.4	-252.6	-360.6	-530.2	-787.8	-1184.0	-1792.3	-2730.2	28.9	-9.2
12-I	64025	19515	28.1	11.8	10.7	15.6	8.7	6.5	8.1	7.9	0.2	-2.9	-6.1	-13.2	-20.5	-31.5	-42.0	-53.1	-63.5	-75.2	-90.2	-112.3	-144.3	-191.4	-263.7	-376.5	-553.7	-823.0	-1237.7	-1874.5	-2856.3	28.7	-9.8
12-J	66838	20372	27.9	11.4	10.3	15.2	8.3	6.1	7.6	7.4	-0.4	-3.6	-7.0	-14.3	-21.9	-33.1	-44.0	-55.5	-66.3	-78.5	-94.1	-117.0	-150.3	-199.3	-274.5	-392.0	-576.7	-857.6	-1290.5	-1955.2	-2980.2	28.5	-10.4
12-K	69693	21243	27.7	11.1	10.0	14.9	8.0	5.7	7.1	6.9	-1.0	-4.3	-7.8	-15.3	-23.2	-34.8	-46.0	-58.0	-69.2	-81.8	-98.0	-121.8	-156.3	-207.3	-285.5	-407.8	-600.0	-892.7	-1344.0	-2037.2	-3105.8	28.3	-10.9
12-L	72556	22115	27.6	10.7	9.6	14.5	7.6	5.2	6.7	6.4	-1.5	-5.0	-8.7	-16.4	-24.6	-36.5	-48.0	-60.4	-72.0	-85.1	-101.9	-126.6	-162.3	-215.3	-296.5	-423.6	-623.4	-927.9	-1397.7	-2119.3	-3231.8	28.1	-11.5
13-A	45330	13817	29.6	14.8	13.7	18.6	11.7	9.9	11.7	11.9	4.6	2.2	0.1	-5.6	-11.1	-19.9	-28.0	-36.7	-44.3	-53.0	-64.0	-80.6	-104.2	-138.6	-191.2	-272.6	-400.2	-592.7	-886.6	-1337.6	-2032.8	30.4	-5.1
13-B	47580	14502	29.4	14.4	13.3	18.2	11.3	9.4	11.2	11.3	4.0	1.6	-0.7	-6.5	-12.3	-21.3	-29.8	-38.7	-46.7	-55.7	-67.2	-84.4	-109.1	-145.0	-199.9	-285.2	-418.8	-620.5	-928.9	-1402.3	-2132.0	30.2	-5.8
13-C	49896	15208	29.2	14.0	12.9	17.8	10.9	9.0	10.7	10.8	3.5	0.9	-1.5	-7.5	-13.5	-22.8	-31.5	-40.8	-49.1	-58.5	-70.5	-88.4	-114.1	-151.6	-209.0	-298.1	-437.8	-649.0	-972.4	-1468.8	-2234.0	29.9	-6.4
13-D	52388	15968	29.0	13.6	12.5	17.4	10.5	8.5	10.2	10.3	2.8	0.2	-2.4	-8.6	-14.8	-24.4	-33.4	-43.0	-51.7	-61.5	-74.0	-92.7	-119.5	-158.7	-218.7	-312.0	-458.3	-679.8	-1019.3	-1540.4	-2343.8	29.7	-7.1
13-F	57450	17511	28.6	12.8	11.7	16.6	9.7	7.6	9.2	9.2	1.7	-1.2	-4.0	-10.6	-17.3	-27.5	-37.2	-47.5	-56.9	-67.5	-81.1	-101.3	-130.3	-173.0	-238.3	-340.1	-499.8	-742.1	-1114.4	-1685.8	-2566.8	29.2	-8.3
13-G	60092	18316	28.4	12.4	11.3	16.2	9.3	7.1	8.7	8.7	1.1	-1.9	-4.9	-11.7	-18.6	-29.1	-39.1	-49.8	-59.6	-70.6	-84.8	-105.7	-136.0	-180.4	-248.5	-354.7	-521.5	-774.6	-1163.9	-1761.6	-2683.1	29.0	-8.9
13-H	62713	19115	28.2	12.0	10.9	15.8	8.9	6.7	8.3	8.2	0.5	-2.6	-5.7	-12.7	-19.9	-30.7	-41.0	-52.0	-62.2	-73.7	-88.4	-110.1	-141.5	-187.8	-258.6	-369.2	-542.9	-806.9	-1213.1	-1836.9	-2798.6	28.8	-9.5
13-I	65559	19982	28.0	11.6	10.5	15.4	8.5	6.3	7.8	7.6	-0.1	-3.3	-6.6	-13.8	-21.3	-32.4	-43.1	-54.5	-65.0	-77.0	-92.3	-114.9	-147.6	-195.7	-269.6	-385.0	-566.2	-841.9	-1266.5	-1918.5	-2923.8	28.6	-10.1
13-J	68368	20839	27.8	11.2	10.1	15.0	8.1	5.8	7.4	7.1	-0.7	-4.0	-7.4	-14.8	-22.6	-34.0	-45.1	-56.8	-67.8	-80.3	-96.2	-119.6	-153.5	-203.6	-280.4	-400.5	-589.2	-876.4	-1319.2	-1999.1	-3047.5	28.3	-10.7
13-K	71167	21692	27.6	10.9	9.8	14.7	7.8	5.4	6.9	6.7	-1.3	-4.7	-8.3	-15.9	-23.9	-35.7	-47.1	-59.2	-70.6	-83.5	-100.0	-124.3	-159.4	-211.4	-291.1	-416.0	-612.1	-910.8	-1371.7	-2079.4	-3170.7	28.1	-11.2
13-L	74075	22578	27.5	10.5	9.4	14.3	7.4	5.0	6.5	6.2	-1.8	-5.4	-9.1	-17.0	-25.3	-37.3	-49.1	-61.6	-73.5	-86.9	-104.0	-129.1	-165.5	-219.5	-302.3	-432.0	-635.8	-946.5	-1426.2	-2162.8	-3298.7	28.0	-11.8
14-D	54134	16500	28.8	13.3	12.2	17.1	10.2	8.2	9.8	9.9	2.4	-0.3	-3.0	-9.3	-15.7	-25.4	-34.7	-44.6	-53.5	-63.6	-76.5	-95.7	-123.2	-163.6	-225.4	-321.7	-472.6	-701.3	-1052.1	-1590.6	-2420.7	29.5	-7.5
14-E	56552	17237	28.6	12.9	11.8	16.7	9.8	7.7	9.4	9.4	1.9	-1.0	-3.8	-10.3	-16.9	-26.9	-36.5	-46.7	-56.0	-66.5	-79.8	-99.8	-128.4	-170.4	-234.8	-335.1	-492.5	-731.1	-1097.5	-1660.0	-2527.3	29.3	-8.1
14-F	59129	18023	28.4	12.5	11.4	16.3	9.4	7.3	8.9	8.9	1.3	-1.7	-4.6	-11.3	-18.2	-28.5	-38.4	-48.9	-58.6	-69.5	-83.4	-104.1	-133.9	-177.7	-244.8	-349.4	-513.6	-762.8	-1145.9	-1734.0	-2640.7	29.1	-8.7
14-G	61716	18811	28.3	12.1	11.0	15.9	9.0	6.9	8.5	8.4	0.7	-2.3	-5.4	-12.3	-19.4	-30.1	-40.3	-51.2	-61.2	-72.6	-87.0	-108.5	-139.4	-185.0	-254.8	-363.7	-534.8	-794.6	-1194.4	-1808.3	-2754.7	28.9	-9.3
14-H	64376	19622	28.1	11.8	10.7	15.6	8.7	6.4	8.0	7.9	0.1	-3.0	-6.2	-13.3	-20.7	-31.7	-42.2	-53.4	-63.9	-75.7	-90.7	-112.9	-145.1	-192.4	-265.0	-378.4	-556.6	-827.3	-1244.3	-1884.6	-2871.8	28.6	-9.9
14-J	69865	21295	27.7	11.1	10.0	14.9	8.0	5.6	7.1	6.9	-1.0	-4.4	-7.9	-15.4	-23.3	-34.9	-46.1	-58.1	-69.3	-82.0	-98.2	-122.1	-156.7	-207.8	-286.1	-408.8	-601.4	-894.8	-1347.3	-2042.1	-3113.4	28.2	-11.0
14-K	72724	22166	27.6	10.7	9.6	14.5	7.6	5.2	6.7	6.4	-1.6	-5.0	-8.7	-16.5	-24.6	-36.6	-48.2	-60.5	-72.1	-85.3	-102.1	-126.8	-162.7	-215.8	-297.1	-424.5	-624.8	-929.9	-1400.9	-2124.1	-3239.3	28.0	-11.5
14-L	75586	23039	27.4	10.4	9.3	14.2	7.3	4.8	6.3	5.9	-2.1	-5.7	-9.5	-17.5	-26.0	-38.2	-50.2	-62.9	-75.0	-88.6	-106.0	-131.6	-168.7	-223.7	-308.1	-440.3	-648.2	-965.1	-1454.5	-2206.2	-3365.2	27.9	-12.0
15-F	60815	18537	28.3	12.3	11.2	16.1	9.2	7.0	8.6	8.5	0.9	-2.1	-5.1	-11.9	-19.0	-29.5	-39.6	-50.4	-60.3	-71.5	-85.8	-107.0	-137.5	-182.4	-251.3	-358.7	-527.4	-783.6	-1177.5	-1782.4	-2715.0	28.9	-9.1
15-G	63430	19334	28.1	11.9	10.8	15.7	8.8	6.6	8.2	8.0	0.3	-2.8	-5.9	-13.0	-20.3	-31.1	-41.5	-52.6	-62.9	-74.6	-89.4	-111.3	-143.1	-189.8	-261.4	-373.2	-548.8	-815.7	-1226.6	-1857.5	-2830.1	28.7	-9.7
15-H	66024	20124	28.0	11.5	10.4	15.3	8.4	6.2	7.7	7.6	-0.2	-3.4	-6.7	-14.0	-21.5	-32.6	-43.4	-54.8	-65.5	-77.6	-93.0	-115.7	-148.6	-197.0	-271.4	-387.6	-570.0	-847.6	-1275.2	-1931.9	-2944.3	28.5	-10.2
15-I	68732	20949	27.8	11.2	10.1	15.0	8.1	5.8	7.3	7.1	-0.8	-4.1	-7.5	-15.0	-22.8	-34.2	-45.3	-57.1	-68.2	-80.7	-96.7	-120.2	-154.3	-204.6	-281.8	-402.5	-592.2	-880.9	-1326.0	-2009.6	-3063.5	28.3	-10.7
15-J	71444	21776	27.6	10.9	9.8	14.7	7.8	5.4	6.9	6.6	-1.3	-4.7	-8.3	-16.0	-24.0	-35.8	-47.3	-59.4	-70.9	-83.8	-100.4	-124.7	-160.0	-212.2	-292.2	-417.5	-614.3	-914.2	-1376.9	-2087.4	-3182.9	28.1	-11.3
15-K	74239	22628	27.5	10.5	9.4	14.3	7.4	5.0	6.4	6.1	-1.9	-5.4	-9.2	-17.0	-25.3	-37.4	-49.2	-61.8	-73.6	-87.1	-104.2	-129.3	-165.9	-220.0	-302.9	-432.9	-637.2	-948.5	-1429.3	-2167.5	-3305.9	27.9	-11.8
16-J	73031	22260	27.5	10.7	9.6	14.5	7.6	5.2	6.6	6.3	-1.6	-5.1	-8.8	-16.6	-24.8	-36.7	-48.4	-60.8	-72.5	-85.7	-102.6	-127.3	-163.3	-216.6	-298.3	-426.2	-627.3	-933.7	-1406.6	-2132.9	-3252.8	28.0	-11.6
16-K	75796	23103	27.4	10.3	9.2	14.1	7.2	4.8	6.2	5.9	-2.2	-5.8	-9.6	-17.6	-26.1	-38.3	-50.3	-63.1	-75.2	-88.8	-106.3	-131.9	-169.2	-224.3	-308.9	-441.5	-649.9	-967.6	-1458.4	-2212.2	-3374.4	27.8	-12.1
		Sum:	50.3	35.1	34.0	38.9	32.0	30.2	31.9	32.0	24.8	22.3	20.1	14.5	9.0	0.6	-7.1	-15.2	-22.0	-29.7	-39.2	-53.5	-73.4	-101.5	-143.5	-207.0	-305.1	-450.8	-670.9	-1008.3	-1528.0	51.0	15.0

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Leq)
FROM WIND PARK OPERATIONS AT THE CUT-IN WIND CONDITION

																		Hertz													
	1/3 Octave Bands	**16***	**20**	**25**	**31**	**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**	**L**	**A**
Sound Power Data		112.0	105.6	104.5	109.4	102.5	101.6	103.9	104.9	98.9	98.3	98.7	96.5	95.3	91.8	89.3	86.7	85.7	84.5	83.2	80.0	76.5	73.1	68.2	62.7	55.3	49.4	48.4	47.8	47.6	116.3	95.4
Data for the graph																																
Atmos. Absorption per 1 km air temp 59F 70% RH		0.0000	0.0000	0.0000	0.0000	0.0000	0.0670	0.1050	0.1630	0.2510	0.3810	0.5650	0.8150	1.1300	1.5100	1.9200	2.3600	2.8400	3.3800	4.0800	5.0500	6.5100	8.7500	12.2000	17.7000	26.4000	39.9000	61.1000	93.7000	144.0000		

*Spherical wave spreading for up to 2 km, cylindrical wave spreading beyond 2 km.

																		Hertz													
	1/3 Octave Bands	**16***	**20**	**25**	**31**	**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**	**L**	**A**
	Distance (ft)	**Distance (m)**																														
1-D	57293	17463	28.6	12.8	11.7	16.6	9.7	7.6	9.2	9.2	1.7	-1.2	-4.0	-10.6	-17.3	-27.4	-37.1	-47.3	-56.7	-67.3	-80.9	-101.0	-130.0	-172.5	-237.7	-339.2	-498.5	-740.2	-1111.4	-1681.3	-2559.9	29.2	-8.3
1-E	60255	18366	28.4	12.3	11.2	16.1	9.2	7.1	8.7	8.6	1.0	-2.0	-4.9	-11.7	-18.7	-29.2	-39.2	-49.9	-59.7	-70.8	-85.0	-106.0	-136.3	-180.9	-249.1	-355.6	-522.8	-776.7	-1167.0	-1766.3	-2690.3	29.0	-9.0
1-F	63250	19279	28.2	11.9	10.8	15.7	8.8	6.6	8.2	8.1	0.4	-2.7	-5.9	-12.9	-20.2	-31.0	-41.4	-52.5	-62.7	-74.3	-89.1	-111.0	-142.7	-189.3	-260.7	-372.2	-547.3	-813.5	-1223.2	-1852.3	-2822.2	28.7	-9.6
1-G	66290	20205	28.0	11.5	10.4	15.3	8.4	6.2	7.7	7.5	-0.3	-3.5	-6.8	-14.1	-21.6	-32.8	-43.6	-55.1	-65.8	-77.9	-93.3	-116.1	-149.1	-197.8	-272.4	-389.0	-572.2	-850.9	-1280.2	-1939.5	-2956.0	28.5	-10.3
1-H	69373	21145	27.8	11.1	10.0	14.9	8.0	5.7	7.2	7.0	-0.9	-4.2	-7.7	-15.2	-23.1	-34.6	-45.8	-57.7	-68.8	-81.5	-97.6	-121.3	-155.6	-206.4	-284.3	-406.0	-597.4	-888.8	-1338.0	-2028.0	-3091.7	28.3	-10.9
1-I	72420	22074	27.6	10.7	9.6	14.5	7.6	5.3	6.7	6.4	-1.5	-5.0	-8.6	-16.3	-24.5	-36.4	-47.9	-60.3	-71.8	-85.0	-101.7	-126.3	-162.1	-214.9	-296.0	-422.9	-622.3	-926.2	-1395.2	-2115.4	-3225.9	28.1	-11.5
1-J	75473	23004	27.4	10.4	9.3	14.2	7.3	4.8	6.3	5.9	-2.1	-5.7	-9.5	-17.5	-25.9	-38.2	-50.1	-62.8	-74.8	-88.5	-105.9	-131.4	-168.5	-223.4	-307.7	-439.7	-647.2	-963.7	-1452.4	-2202.9	-3360.2	27.9	-12.0
1-K	78601	23958	27.2	10.0	8.9	13.8	6.9	4.4	5.8	5.4	-2.7	-6.4	-10.4	-18.6	-27.3	-39.9	-52.3	-65.4	-77.9	-92.0	-110.1	-136.6	-175.0	-232.1	-319.7	-456.9	-672.8	-1002.1	-1511.0	-2292.6	-3497.9	27.7	-12.6
1-L	81781	24927	27.0	9.7	8.6	13.5	6.6	4.0	5.4	4.9	-3.3	-7.1	-11.3	-19.7	-28.8	-41.8	-54.5	-68.0	-81.0	-95.7	-114.4	-141.8	-181.7	-240.9	-331.8	-474.4	-698.7	-1041.1	-1570.6	-2383.8	-3637.8	27.5	-13.1
2-D	57076	17397	28.6	12.8	11.7	16.6	9.7	7.6	9.3	9.3	1.7	-1.1	-3.9	-10.5	-17.1	-27.3	-36.9	-47.1	-56.5	-67.1	-80.6	-100.6	-129.5	-171.9	-236.8	-338.0	-496.8	-737.5	-1107.3	-1675.1	-2550.3	29.2	-8.2
2-E	60138	18330	28.4	12.4	11.3	16.2	9.3	7.1	8.7	8.7	1.1	-1.9	-4.9	-11.7	-18.7	-29.1	-39.1	-49.8	-59.6	-70.7	-84.8	-105.8	-136.1	-180.5	-248.7	-355.0	-521.9	-775.2	-1164.8	-1763.0	-2685.2	29.0	-8.9
2-F	63213	19267	28.2	11.9	10.8	15.7	8.8	6.6	8.2	8.1	0.4	-2.7	-5.9	-12.9	-20.2	-31.0	-41.4	-52.4	-62.7	-74.3	-89.1	-111.0	-142.6	-189.2	-260.5	-372.0	-547.0	-813.0	-1222.5	-1851.2	-2820.6	28.7	-9.6
2-G	66244	20191	28.0	11.5	10.4	15.3	8.4	6.2	7.7	7.5	-0.3	-3.5	-6.8	-14.0	-21.6	-32.8	-43.6	-55.0	-65.7	-77.8	-93.3	-116.1	-149.0	-197.7	-272.2	-388.8	-571.8	-850.3	-1279.4	-1938.2	-2954.0	28.5	-10.2
2-H	69306	21125	27.8	11.1	10.0	14.9	8.0	5.7	7.2	7.0	-0.9	-4.2	-7.7	-15.2	-23.0	-34.6	-45.7	-57.6	-68.8	-81.4	-97.5	-121.2	-155.5	-206.2	-284.0	-405.7	-596.9	-887.9	-1336.8	-2026.1	-3088.8	28.3	-10.9
2-I	72448	22082	27.6	10.7	9.6	14.5	7.6	5.3	6.7	6.4	-1.5	-5.0	-8.6	-16.4	-24.5	-36.4	-48.0	-60.3	-71.9	-85.0	-101.8	-126.4	-162.1	-215.0	-296.1	-423.0	-622.5	-926.5	-1395.7	-2116.2	-3227.1	28.1	-11.5
2-J	75621	23049	27.4	10.4	9.3	14.2	7.3	4.8	6.2	5.9	-2.1	-5.7	-9.6	-17.5	-26.0	-38.2	-50.2	-62.9	-75.0	-88.6	-106.1	-131.6	-168.8	-223.8	-308.2	-440.5	-648.4	-965.5	-1455.1	-2207.1	-3366.7	27.9	-12.1
2-K	78657	23975	27.2	10.0	8.9	13.8	6.9	4.4	5.8	5.4	-2.7	-6.4	-10.4	-18.6	-27.4	-40.0	-52.3	-65.5	-78.0	-92.1	-110.2	-136.6	-175.2	-232.3	-319.9	-457.2	-673.2	-1002.8	-1512.0	-2294.2	-3500.3	27.7	-12.6
2-L	81834	24943	27.0	9.7	8.6	13.5	6.6	4.0	5.4	4.9	-3.3	-7.1	-11.3	-19.7	-28.8	-41.8	-54.5	-68.1	-81.1	-95.7	-114.5	-141.9	-181.8	-241.1	-332.0	-474.7	-699.1	-1041.7	-1571.5	-2385.3	-3640.1	27.5	-13.1
3-D	57000	17374	28.6	12.8	11.7	16.6	9.7	7.7	9.3	9.3	1.8	-1.1	-3.9	-10.4	-17.1	-27.2	-36.8	-47.1	-56.4	-67.0	-80.5	-100.5	-129.4	-171.7	-236.5	-337.6	-496.1	-736.6	-1105.9	-1672.9	-2547.0	29.2	-8.2
3-E	60118	18324	28.4	12.4	11.3	16.2	9.3	7.1	8.7	8.7	1.1	-1.9	-4.9	-11.7	-18.6	-29.1	-39.1	-49.8	-59.6	-70.7	-84.8	-105.8	-136.0	-180.5	-248.6	-354.9	-521.7	-775.0	-1164.4	-1762.4	-2684.3	29.0	-8.9
3-F	63217	19268	28.2	11.9	10.8	15.7	8.8	6.6	8.2	8.1	0.4	-2.7	-5.9	-12.9	-20.2	-31.0	-41.4	-52.5	-62.7	-74.3	-89.1	-111.0	-142.6	-189.2	-260.6	-372.0	-547.1	-813.1	-1222.6	-1851.3	-2820.7	28.7	-9.6
3-G	66306	20210	28.0	11.5	10.4	15.3	8.4	6.2	7.7	7.5	-0.3	-3.5	-6.8	-14.1	-21.6	-32.8	-43.6	-55.1	-65.8	-77.9	-93.3	-116.2	-149.2	-197.8	-272.5	-389.1	-572.3	-851.1	-1280.5	-1940.0	-2956.7	28.5	-10.3
3-I	72496	22097	27.6	10.7	9.6	14.5	7.6	5.3	6.7	6.4	-1.5	-5.0	-8.7	-16.4	-24.5	-36.4	-48.0	-60.3	-71.9	-85.1	-101.8	-126.5	-162.2	-215.1	-296.2	-423.3	-622.9	-927.1	-1396.6	-2117.5	-3229.2	28.1	-11.5
3-J	75654	23059	27.4	10.4	9.3	14.2	7.3	4.8	6.2	5.9	-2.1	-5.7	-9.6	-17.5	-26.0	-38.3	-50.2	-63.0	-75.0	-88.7	-106.1	-131.7	-168.9	-223.9	-308.4	-440.7	-648.7	-965.9	-1455.8	-2208.1	-3368.2	27.9	-12.1
3-K	78847	24033	27.2	10.0	8.9	13.8	6.9	4.4	5.8	5.4	-2.7	-6.5	-10.5	-18.7	-27.5	-40.1	-52.4	-65.6	-78.2	-92.3	-110.5	-137.0	-175.6	-232.8	-320.6	-458.3	-674.8	-1005.1	-1515.6	-2299.7	-3508.7	27.7	-12.6
3-L	81936	24974	27.0	9.7	8.6	13.5	6.6	4.0	5.3	4.9	-3.3	-7.1	-11.3	-19.8	-28.9	-41.8	-54.6	-68.2	-81.2	-95.8	-114.6	-142.1	-182.0	-241.4	-332.4	-475.3	-699.9	-1043.0	-1573.4	-2388.2	-3644.6	27.5	-13.2
4-D	57034	17384	28.6	12.8	11.7	16.6	9.7	7.7	9.3	9.3	1.8	-1.1	-3.9	-10.5	-17.1	-27.2	-36.9	-47.1	-56.5	-67.0	-80.5	-100.6	-129.5	-171.8	-236.7	-337.8	-496.4	-737.0	-1106.5	-1673.9	-2548.5	29.2	-8.2
4-E	60200	18349	28.4	12.3	11.2	16.1	9.2	7.1	8.7	8.7	1.0	-1.9	-4.9	-11.7	-18.7	-29.2	-39.2	-49.9	-59.7	-70.8	-84.9	-105.9	-136.2	-180.7	-248.9	-355.3	-522.4	-776.0	-1166.0	-1764.7	-2687.9	29.0	-8.9
4-F	63316	19299	28.2	11.9	10.8	15.7	8.8	6.6	8.2	8.1	0.4	-2.7	-5.9	-12.9	-20.2	-31.0	-41.4	-52.5	-62.8	-74.4	-89.2	-111.2	-142.8	-189.5	-260.9	-372.6	-547.9	-814.3	-1224.4	-1854.2	-2825.1	28.7	-9.6
4-G	66463	20258	27.9	11.5	10.4	15.3	8.4	6.1	7.7	7.5	-0.3	-3.5	-6.9	-14.1	-21.7	-32.9	-43.7	-55.2	-65.9	-78.1	-93.6	-116.4	-149.5	-198.3	-273.1	-390.0	-573.6	-853.0	-1283.5	-1944.5	-2963.7	28.5	-10.3
4-H	69578	21207	27.7	11.1	10.0	14.9	8.0	5.7	7.2	6.9	-0.9	-4.3	-7.8	-15.3	-23.2	-34.7	-45.9	-57.9	-69.0	-81.7	-97.8	-121.6	-156.1	-207.0	-285.0	-407.2	-599.1	-891.3	-1341.9	-2033.8	-3100.8	28.3	-10.9
4-I	72736	22170	27.6	10.7	9.6	14.5	7.6	5.2	6.7	6.4	-1.6	-5.0	-8.7	-16.5	-24.6	-36.6	-48.2	-60.5	-72.2	-85.3	-102.2	-126.9	-162.7	-215.8	-297.2	-424.6	-624.9	-930.1	-1401.1	-2124.4	-3239.8	28.0	-11.5
4-J	75866	23124	27.4	10.3	9.2	14.1	7.2	4.8	6.2	5.9	-2.2	-5.8	-9.6	-17.6	-26.1	-38.4	-50.4	-63.1	-75.2	-88.9	-106.4	-132.0	-169.3	-224.5	-309.2	-441.9	-650.4	-968.5	-1459.7	-2214.2	-3377.5	27.8	-12.1
4-K	79037	24091	27.2	10.0	8.9	13.8	6.9	4.4	5.8	5.4	-2.8	-6.5	-10.5	-18.8	-27.5	-40.2	-52.6	-65.8	-78.3	-92.5	-110.7	-137.3	-175.9	-233.3	-321.3	-459.3	-676.3	-1007.4	-1519.2	-2305.1	-3517.1	27.6	-12.7
4-L	82220	25061	27.0	9.6	8.5	13.4	6.5	4.0	5.3	4.9	-3.4	-7.2	-11.4	-19.9	-29.0	-42.0	-54.8	-68.4	-81.4	-96.2	-115.0	-142.5	-182.6	-242.1	-333.5	-476.8	-702.3	-1046.5	-1578.8	-2396.3	-3657.1	27.4	-13.2
5-D	57162	17423	28.6	12.8	11.7	16.6	9.7	7.6	9.3	9.3	1.7	-1.1	-3.9	-10.5	-17.2	-27.3	-37.0	-47.2	-56.6	-67.2	-80.7	-100.8	-129.7	-172.2	-237.2	-338.5	-497.5	-738.6	-1108.9	-1677.5	-2554.1	29.2	-8.2
5-E	60273	18371	28.4	12.3	11.2	16.1	9.2	7.1	8.7	8.6	1.0	-2.0	-4.9	-11.7	-18.7	-29.2	-39.2	-49.9	-59.7	-70.9	-85.0	-106.0	-136.4	-180.9	-249.2	-355.7	-523.0	-776.9	-1167.3	-1766.8	-2691.1	29.0	-9.0
5-F	63465	19344	28.1	11.9	10.8	15.7	8.8	6.6	8.2	8.0	0.3	-2.8	-5.9	-13.0	-20.3	-31.1	-41.6	-52.7	-63.0	-74.6	-89.4	-111.4	-143.1	-189.9	-261.5	-373.4	-549.1	-816.1	-1227.2	-1858.5	-2831.7	28.7	-9.7
5-G	66577	20293	27.9	11.5	10.4	15.3	8.4	6.1	7.6	7.5	-0.3	-3.6	-6.9	-14.2	-21.8	-33.0	-43.8	-55.3	-66.1	-78.2	-93.7	-116.6	-149.7	-198.6	-273.5	-390.6	-574.6	-854.4	-1285.6	-1947.7	-2968.7	28.5	-10.3
5-H	69754	21261	27.7	11.1	10.0	14.9	8.0	5.6	7.1	6.9	-1.0	-4.3	-7.8	-15.4	-23.3	-34.8	-46.1	-58.0	-69.2	-81.9	-98.1	-121.9	-156.4	-207.5	-285.7	-408.2	-600.5	-893.5	-1345.2	-2038.9	-3108.5	28.2	-11.0
5-I	72908	22222	27.5	10.7	9.6	14.5	7.6	5.2	6.6	6.4	-1.6	-5.1	-8.8	-16.5	-24.7	-36.7	-48.3	-60.7	-72.3	-85.5	-102.4	-127.1	-163.1	-216.3	-297.8	-425.6	-626.3	-932.2	-1404.3	-2129.4	-3247.3	28.0	-11.6
5-J	76081	23189	27.4	10.3	9.2	14.1	7.2	4.8	6.2	5.8	-2.2	-5.8	-9.7	-17.7	-26.2	-38.5	-50.5	-63.3	-75.4	-89.2	-106.7	-132.4	-169.8	-225.1	-310.0	-443.0	-652.2	-971.1	-1463.8	-2220.3	-3387.0	27.8	-12.1
6-D	57365	17485	28.6	12.8	11.7	16.6	9.7	7.6	9.2	9.2	1.7	-1.2	-4.0	-10.6	-17.3	-27.4	-37.1	-47.4	-56.8	-67.4	-81.0	-101.1	-130.2	-172.7	-237.9	-339.6	-499.1	-741.1	-1112.8	-1683.4	-2563.0	29.2	-8.3
6-E	60502	18441	28.4	12.3	11.2	16.1	9.2	7.1	8.7	8.6	1.0	-2.0	-5.0	-11.8	-18.8	-29.3	-39.4	-50.1	-60.0	-71.1	-85.3	-106.4	-136.8	-181.6	-250.1	-357.0	-524.8	-779.7	-1171.6	-1773.4	-2701.2	28.9	-9.0
6-G	66871	20382	27.9	11.4	10.3	15.2	8.3	6.1	7.6	7.4	-0.4	-3.6	-7.0	-14.3	-21.9	-33.1	-44.0	-55.6	-66.4	-78.6	-94.1	-117.1	-150.4	-199.4	-274.6	-392.2	-577.0	-858.0	-1291.1	-1956.2	-2981.6	28.5	-10.4
6-H	70067	21356	27.7	11.0	9.9	14.8	7.9	5.6	7.1	6.8	-1.0	-4.4	-7.9	-15.5	-23.4	-35.0	-46.3	-58.3	-69.5	-82.3	-98.5	-122.4	-157.1	-208.3	-286.9	-409.9	-603.1	-897.3	-1351.0	-2047.9	-3122.3	28.2	-11.0
6-I	73180	22305	27.5	10.7	9.6	14.5	7.6	5.2	6.6	6.3	-1.6	-5.1	-8.9	-16.6	-24.9	-36.8	-48.5	-60.9	-72.6	-85.8	-102.8	-127.6	-163.7	-217.0	-298.9	-427.1	-628.5	-935.5	-1409.4	-2137.1	-3259.3	28.0	-11.6
6-J	76369	23277	27.3	10.3	9.2	14.1	7.2	4.7	6.1	5.8	-2.3	-5.9	-9.8	-17.8	-26.3	-38.7	-50.7	-63.6	-75.7	-89.5	-107.1	-132.9	-170.4	-225.9	-311.1	-444.6	-654.5	-974.7	-1469.2	-2228.6	-3399.6	27.8	-12.2
7-B	51236	15617	29.1	13.7	12.6	17.5	10.6	8.7	10.4	10.5	3.1	0.5	-2.0	-8.1	-14.2	-23.6	-32.5	-42.0	-50.5	-60.1	-72.4	-90.7	-117.0	-155.4	-214.2	-305.6	-448.8	-665.6	-997.6	-1507.4	-2293.1	29.8	-6.8
7-C	54417	16586	28.8	13.2	12.1	17.0	10.1	8.1	9.8	9.8	2.4	-0.4	-3.0	-9.4	-15.8	-25.6	-34.9	-44.8	-53.8	-63.9	-76.8	-96.1	-123.9	-164.4	-226.5	-323.3	-475.0	-704.8	-1057.4	-1598.7	-2433.2	29.5	-7.6
7-E	60794	18530	28.3	12.3	11.2	16.1	9.2	7.0	8.6	8.5	0.9	-2.1	-5.1	-11.9	-19.0	-29.5	-39.6	-50.4	-60.3	-71.5	-85.7	-106.9	-137.5	-182.4	-251.2	-358.6	-527.2	-783.3	-1177.1	-1781.8	-2714.0	28.9	-9.1
7-F	63956	19494	28.1	11.8	10.7	15.6	8.7	6.5	8.1	7.9	0.2	-2.9	-6.1	-13.2	-20.5	-31.4	-41.9	-53.1	-63.4	-75.2	-90.1	-112.2	-144.2	-191.3	-263.4	-376.1	-553.1	-822.2	-1236.5	-1872.6	-2853.3	28.7	-9.8
7-G	67123	20459	27.9	11.4	10.3	15.2	8.3	6.0	7.6	7.4	-0.4	-3.7	-7.1	-14.4	-22.0	-33.3	-44.2	-55.8	-66.6	-78.9	-94.5	-117.5	-150.9	-200.1	-275.6	-393.6	-579.0	-861.1	-1295.9	-1963.4	-2992.7	28.4	-10.4
7-H	70330	21437	27.7	11.0	9.9	14.8	7.9	5.6	7.0	6.8	-1.1	-4.5	-8.0	-15.6	-23.5	-35.2	-46.5	-58.5	-69.8	-82.6	-98.9	-122.9	-157.7	-209.1	-287.9	-411.3	-605.2	-900.5	-1356.0	-2055.4	-3133.9	28.2	-11.1
7-I	73545	22417	27.5	10.6	9.5	14.4	7.5	5.1	6.6	6.3	-1.7	-5.2	-9.0	-16.8	-25.0	-37.0	-48.7	-61.2	-73.0	-86.3	-103.3	-128.2	-164.4	-218.0	-300.3	-429.1	-631.5	-940.0	-1416.2	-2147.6	-3275.4	28.0	-11.7
8-A	48310	14725	29.3	14.3	13.2	18.1	11.2	9.3	11.0	11.2	3.9	1.3	-1.0	-6.8	-12.7	-21.8	-30.3	-39.4	-47.5	-56.6	-68.2	-85.7	-110.7	-147.1	-202.8	-289.3	-424.8	-629.5	-942.6	-1423.3	-2164.1	30.1	-6.0
8-B	51508	15700	29.0	13.7	12.6	17.5	10.6	8.6	10.4	10.4	3.1	0.4	-2.1	-8.2	-14.3	-23.8	-32.7	-42.3	-50.8	-60.5	-72.8	-91.2	-117.6	-156.2	-215.2	-307.1	-451.1	-668.9	-1002.7	-1515.1	-2305.0	29.8	-6.8

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Leq)
FROM WIND PARK OPERATIONS AT THE CUT-IN WIND CONDITION

8-C	54711	16676	28.8	13.2	12.1	17.0	10.1	8.1	9.7	9.8	2.3	-0.5	-3.1	-9.5	-16.0	-25.8	-35.1	-45.1	-54.1	-64.3	-77.3	-96.6	-124.5	-165.2	-227.7	-324.9	-477.4	-708.4	-1062.9	-1607.2	-2446.1	29.5	-7.7
8-D	57955	17665	28.5	12.7	11.6	16.5	9.6	7.5	9.1	9.1	1.5	-1.4	-4.2	-10.8	-17.6	-27.8	-37.5	-47.9	-57.4	-68.1	-81.8	-102.1	-131.4	-174.4	-240.2	-342.9	-504.0	-748.3	-1123.8	-1700.3	-2589.0	29.2	-8.4
8-F	64313	19602	28.1	11.8	10.7	15.6	8.7	6.5	8.0	7.9	0.2	-3.0	-6.2	-13.3	-20.7	-31.6	-42.2	-53.4	-63.8	-75.6	-90.6	-112.8	-144.9	-192.2	-264.8	-378.1	-556.0	-826.6	-1243.1	-1882.8	-2869.0	28.6	-9.8
8-G	67495	20572	27.9	11.4	10.3	15.2	8.3	6.0	7.5	7.3	-0.5	-3.8	-7.2	-14.5	-22.2	-33.5	-44.4	-56.1	-67.0	-79.3	-95.0	-118.1	-151.7	-201.2	-277.0	-395.7	-582.1	-865.7	-1302.8	-1974.1	-3009.1	28.4	-10.5
8-H	70723	21556	27.7	10.9	9.8	14.7	7.8	5.5	7.0	6.7	-1.2	-4.6	-8.1	-15.7	-23.7	-35.4	-46.7	-58.8	-70.2	-83.0	-99.4	-123.5	-158.5	-210.2	-289.4	-413.5	-608.4	-905.4	-1363.4	-2066.7	-3151.2	28.2	-11.1
9-A	48689	14840	29.3	14.2	13.1	18.0	11.1	9.2	10.9	11.1	3.8	1.2	-1.1	-7.0	-12.9	-22.0	-30.6	-39.7	-47.9	-57.1	-68.8	-86.4	-111.5	-148.2	-204.3	-291.4	-427.9	-634.1	-949.8	-1434.1	-2180.8	30.0	-6.1
9-B	51888	15815	29.0	13.6	12.5	17.4	10.5	8.6	10.3	10.4	3.0	0.3	-2.2	-8.4	-14.5	-24.0	-33.0	-42.6	-51.2	-60.9	-73.3	-91.8	-118.4	-157.2	-216.7	-309.2	-454.2	-673.6	-1009.9	-1526.1	-2321.8	29.7	-6.9
9-C	55108	16797	28.8	13.1	12.0	16.9	10.0	8.0	9.6	9.7	2.2	-0.6	-3.3	-9.7	-16.2	-26.0	-35.4	-45.4	-54.5	-64.8	-77.8	-97.3	-125.3	-166.4	-229.2	-327.1	-480.6	-713.3	-1070.4	-1618.5	-2463.6	29.4	-7.7
9-D	58323	17777	28.5	12.6	11.5	16.4	9.5	7.4	9.1	9.0	1.5	-1.5	-4.3	-11.0	-17.8	-28.0	-37.8	-48.2	-57.8	-68.6	-82.3	-102.8	-132.2	-175.4	-241.7	-344.9	-507.0	-752.9	-1130.7	-1710.9	-2605.2	29.1	-8.5
9-E	61515	18750	28.3	12.2	11.1	16.0	9.1	6.9	8.5	8.4	0.8	-2.3	-5.3	-12.2	-19.3	-30.0	-40.1	-51.0	-61.0	-72.3	-86.7	-108.1	-139.0	-184.4	-254.0	-362.6	-533.1	-792.2	-1190.7	-1802.5	-2745.8	28.9	-9.2
9-F	64742	19733	28.1	11.7	10.6	15.5	8.6	6.4	7.9	7.8	0.1	-3.1	-6.3	-13.5	-20.9	-31.9	-42.5	-53.8	-64.2	-76.1	-91.2	-113.5	-145.8	-193.5	-266.4	-380.5	-559.5	-831.8	-1251.2	-1895.1	-2887.9	28.6	-9.9
9-G	67971	20717	27.8	11.3	10.2	15.1	8.2	5.9	7.4	7.2	-0.6	-3.9	-7.3	-14.7	-22.4	-33.8	-44.8	-56.5	-67.4	-79.8	-95.6	-118.9	-152.7	-202.5	-278.9	-398.3	-585.9	-871.5	-1311.7	-1987.7	-3030.0	28.4	-10.6
9-H	71156	21688	27.6	10.9	9.8	14.7	7.8	5.4	6.9	6.7	-1.3	-4.7	-8.3	-15.9	-23.9	-35.7	-47.0	-59.2	-70.6	-83.5	-100.0	-124.2	-159.4	-211.4	-291.1	-415.9	-612.0	-910.7	-1371.5	-2079.1	-3170.2	28.2	-11.2
9-I	74395	22676	27.5	10.5	9.4	14.3	7.4	5.0	6.4	6.1	-1.9	-5.4	-9.2	-17.1	-25.4	-37.5	-49.3	-61.9	-73.8	-87.2	-104.4	-129.6	-166.2	-220.4	-303.5	-433.8	-638.4	-950.4	-1432.2	-2172.0	-3312.8	27.9	-11.8
10-A	49132	14975	29.3	14.1	13.0	17.9	11.0	9.1	10.8	11.0	3.7	1.1	-1.3	-7.2	-13.1	-22.3	-30.9	-40.1	-48.3	-57.6	-69.4	-87.1	-112.5	-149.4	-206.0	-293.9	-431.5	-639.6	-958.1	-1446.9	-2200.4	30.0	-6.2
10-B	52338	15952	29.0	13.6	12.5	17.4	10.5	8.5	10.2	10.3	2.9	0.2	-2.4	-8.5	-14.8	-24.3	-33.4	-43.0	-51.6	-61.5	-73.9	-92.6	-119.4	-158.5	-218.5	-311.7	-457.9	-679.1	-1018.3	-1539.0	-2341.6	29.7	-7.1
10-C	55552	16932	28.7	13.0	11.9	16.8	9.9	7.9	9.6	9.6	2.1	-0.7	-3.4	-9.9	-16.4	-26.3	-35.8	-45.8	-54.9	-65.3	-78.4	-98.1	-126.3	-167.6	-230.9	-329.6	-484.3	-718.8	-1078.7	-1631.3	-2483.2	29.4	-7.9
10-D	58808	17925	28.5	12.5	11.4	16.3	9.4	7.3	9.0	8.9	1.4	-1.6	-4.5	-11.2	-18.0	-28.3	-38.2	-48.7	-58.3	-69.1	-83.0	-103.6	-133.2	-176.8	-243.5	-347.6	-511.0	-758.8	-1139.8	-1724.8	-2626.6	29.1	-8.6
10-E	62024	18905	28.2	12.1	11.0	15.9	9.0	6.8	8.4	8.3	0.6	-2.4	-5.5	-12.4	-19.6	-30.3	-40.5	-51.4	-61.5	-72.9	-87.4	-109.0	-140.1	-185.8	-256.0	-365.4	-537.3	-798.4	-1200.2	-1817.1	-2768.2	28.8	-9.4
10-F	65282	19898	28.0	11.6	10.5	15.4	8.5	6.3	7.9	7.7	-0.1	-3.2	-6.5	-13.7	-21.1	-32.2	-42.9	-54.2	-64.8	-76.7	-91.9	-114.4	-147.0	-195.0	-268.5	-383.4	-564.0	-838.5	-1261.3	-1910.6	-2911.6	28.6	-10.0
10-G	68500	20879	27.8	11.2	10.1	15.0	8.1	5.8	7.3	7.1	-0.7	-4.0	-7.5	-14.9	-22.7	-34.1	-45.2	-56.9	-68.0	-80.4	-96.4	-119.8	-153.8	-204.0	-280.9	-401.2	-590.3	-878.0	-1321.7	-2002.9	-3053.3	28.3	-10.7
10-H	71712	21858	27.6	10.8	9.7	14.6	7.7	5.4	6.8	6.6	-1.4	-4.8	-8.4	-16.1	-24.2	-36.0	-47.4	-59.7	-71.2	-84.2	-100.8	-125.2	-160.6	-212.9	-293.2	-419.0	-616.5	-917.5	-1381.9	-2095.0	-3194.7	28.1	-11.3
10-I	22869	6971	32.6	20.8	19.7	24.6	17.7	16.3	18.3	18.9	12.3	10.8	9.9	6.0	2.6	-3.6	-8.9	-14.6	-18.9	-23.9	-30.1	-40.0	-53.7	-72.7	-101.7	-145.5	-213.6	-313.6	-462.3	-690.2	-1041.0	34.1	3.8
11-A	49629	15127	29.2	14.0	12.9	17.8	10.9	9.0	10.7	10.9	3.5	1.0	-1.4	-7.4	-13.4	-22.6	-31.3	-40.6	-48.8	-58.2	-70.1	-88.0	-113.6	-150.8	-207.9	-296.6	-435.6	-645.7	-967.4	-1461.2	-2222.2	29.9	-6.3
11-B	52887	16120	28.9	13.5	12.4	17.3	10.4	8.4	10.1	10.1	2.7	0.0	-2.5	-8.8	-15.0	-24.7	-33.8	-43.5	-52.2	-62.1	-74.7	-93.5	-120.6	-160.1	-220.6	-314.8	-462.4	-685.9	-1028.7	-1554.8	-2365.8	29.6	-7.2
11-C	56056	17086	28.7	13.0	11.9	16.8	9.9	7.8	9.5	9.5	2.0	-0.8	-3.6	-10.1	-16.6	-26.6	-36.1	-46.3	-55.5	-65.9	-79.1	-98.9	-127.4	-169.0	-232.9	-332.4	-488.4	-725.0	-1088.2	-1645.8	-2505.4	29.3	-8.0
11-D	59326	18083	28.4	12.5	11.4	16.3	9.4	7.3	8.9	8.8	1.2	-1.7	-4.6	-11.4	-18.3	-28.6	-38.5	-49.1	-58.8	-69.7	-83.7	-104.4	-134.3	-178.2	-245.5	-350.5	-515.2	-765.2	-1149.6	-1739.7	-2649.4	29.0	-8.7
11-E	62538	19062	28.2	12.0	10.9	15.8	8.9	6.7	8.3	8.2	0.5	-2.5	-5.7	-12.6	-19.8	-30.6	-40.9	-51.9	-62.0	-73.5	-88.2	-109.8	-141.2	-187.3	-257.9	-368.3	-541.5	-804.7	-1209.8	-1831.9	-2790.9	28.8	-9.5
11-F	65756	20042	28.0	11.6	10.5	15.4	8.5	6.2	7.8	7.6	-0.2	-3.4	-6.6	-13.9	-21.4	-32.5	-43.2	-54.6	-65.2	-77.3	-92.6	-115.2	-148.0	-196.3	-270.3	-386.1	-567.8	-844.3	-1270.2	-1924.2	-2932.5	28.5	-10.1
11-G	68981	21025	27.8	11.2	10.1	15.0	8.1	5.8	7.3	7.0	-0.8	-4.1	-7.6	-15.1	-22.9	-34.4	-45.5	-57.4	-68.4	-81.0	-97.0	-120.6	-154.8	-205.3	-282.7	-403.9	-594.2	-884.0	-1330.7	-2016.7	-3074.5	28.3	-10.8
11-H	72204	22008	27.6	10.8	9.7	14.6	7.7	5.3	6.8	6.5	-1.5	-4.9	-8.6	-16.3	-24.4	-36.3	-47.8	-60.1	-71.6	-84.7	-101.4	-126.0	-161.6	-214.3	-295.1	-421.7	-620.5	-923.5	-1391.1	-2109.2	-3216.4	28.1	-11.4
11-K	81944	24977	27.0	9.7	8.6	13.5	6.6	4.0	5.3	4.9	-3.3	-7.1	-11.3	-19.8	-28.9	-41.8	-54.6	-68.2	-81.2	-95.9	-114.6	-142.1	-182.0	-241.4	-332.4	-475.3	-700.0	-1043.1	-1573.6	-2388.4	-3645.0	27.5	-13.2
11-L	85176	25962	26.9	9.3	8.2	13.1	6.2	3.6	4.9	4.4	-3.9	-7.9	-12.2	-20.9	-30.3	-43.7	-56.8	-70.8	-84.3	-99.5	-119.0	-147.4	-188.8	-250.3	-344.8	-493.1	-726.4	-1082.7	-1634.1	-2481.1	-3787.1	27.3	-13.7
12-A	50212	15305	29.2	13.9	12.8	17.7	10.8	8.9	10.6	10.7	3.4	0.8	-1.6	-7.7	-13.7	-23.0	-31.8	-41.1	-49.4	-58.9	-70.9	-89.0	-114.8	-152.5	-210.2	-299.9	-440.4	-652.9	-978.4	-1477.9	-2247.9	29.9	-6.5
12-B	53474	16299	28.9	13.4	12.3	17.2	10.3	8.3	10.0	10.0	2.6	-0.1	-2.7	-9.0	-15.3	-25.0	-34.2	-44.0	-52.8	-62.8	-75.5	-94.5	-121.8	-161.7	-222.9	-318.0	-467.2	-693.2	-1039.7	-1571.6	-2391.7	29.6	-7.3
12-C	56702	17283	28.6	12.9	11.8	16.7	9.8	7.7	9.4	9.3	1.8	-1.0	-3.8	-10.3	-17.0	-27.0	-36.6	-46.8	-56.1	-66.6	-80.0	-100.0	-128.7	-170.9	-235.4	-335.9	-493.7	-732.9	-1100.3	-1664.3	-2533.8	29.3	-8.1
12-D	59960	18276	28.4	12.4	11.3	16.2	9.3	7.2	8.8	8.7	1.1	-1.9	-4.8	-11.6	-18.6	-29.0	-39.0	-49.6	-59.4	-70.5	-84.6	-105.5	-135.7	-180.0	-248.0	-354.0	-520.4	-773.0	-1161.5	-1757.9	-2677.3	29.0	-8.9
12-E	63135	19244	28.2	11.9	10.8	15.7	8.8	6.6	8.2	8.1	0.4	-2.7	-5.8	-12.9	-20.1	-30.9	-41.3	-52.4	-62.6	-74.2	-89.0	-110.8	-142.4	-188.9	-260.2	-371.6	-546.4	-812.1	-1221.1	-1849.0	-2817.1	28.7	-9.6
12-F	66354	20225	27.9	11.5	10.4	15.3	8.4	6.1	7.7	7.5	-0.3	-3.5	-6.8	-14.1	-21.7	-32.8	-43.6	-55.1	-65.8	-78.0	-93.4	-116.2	-149.3	-198.0	-272.6	-389.4	-572.7	-851.7	-1281.4	-1941.4	-2958.9	28.5	-10.3
12-G	69619	21220	27.7	11.1	10.0	14.9	8.0	5.7	7.2	6.9	-0.9	-4.3	-7.8	-15.3	-23.2	-34.8	-46.0	-57.9	-69.1	-81.7	-97.9	-121.7	-156.2	-207.1	-285.2	-407.4	-599.4	-891.8	-1342.6	-2035.0	-3102.6	28.3	-10.9
12-H	72788	22186	27.5	10.7	9.6	14.5	7.6	5.2	6.7	6.4	-1.6	-5.1	-8.7	-16.5	-24.7	-36.6	-48.2	-60.6	-72.2	-85.4	-102.2	-126.9	-162.8	-215.9	-297.4	-424.9	-625.3	-930.7	-1402.1	-2125.9	-3242.0	28.0	-11.5
12-I	76106	23197	27.4	10.3	9.2	14.1	7.2	4.8	6.2	5.8	-2.2	-5.8	-9.7	-17.7	-26.2	-38.5	-50.5	-63.3	-75.5	-89.2	-106.7	-132.4	-169.8	-225.2	-310.1	-443.2	-652.4	-971.5	-1464.2	-2221.1	-3388.1	27.8	-12.1
12-J	79333	24181	27.2	9.9	8.8	13.7	6.8	4.3	5.7	5.3	-2.8	-6.6	-10.6	-18.9	-27.7	-40.4	-52.8	-66.0	-78.6	-92.9	-111.1	-137.8	-176.6	-234.1	-322.5	-461.0	-678.7	-1011.1	-1524.7	-2313.6	-3530.1	27.6	-12.7
12-K	82559	25164	27.0	9.6	8.5	13.4	6.5	3.9	5.3	4.8	-3.4	-7.3	-11.5	-20.0	-29.1	-42.2	-55.0	-68.7	-81.8	-96.6	-115.5	-143.1	-183.3	-243.1	-334.8	-478.7	-705.0	-1050.6	-1585.1	-2406.1	-3672.0	27.4	-13.3
12-L	85767	26142	26.8	9.3	8.2	13.1	6.2	3.5	4.8	4.3	-4.0	-8.0	-12.4	-21.1	-30.6	-44.0	-57.2	-71.3	-84.9	-100.2	-119.8	-148.3	-190.0	-252.0	-347.1	-496.3	-731.2	-1090.0	-1645.2	-2498.0	-3813.2	27.2	-13.8
13-A	50853	15500	29.1	13.8	12.7	17.6	10.7	8.8	10.5	10.6	3.2	0.6	-1.8	-7.9	-14.0	-23.4	-32.2	-41.7	-50.1	-59.7	-71.8	-90.1	-116.2	-154.3	-212.7	-303.4	-445.7	-660.8	-990.4	-1496.3	-2276.2	29.8	-6.7
13-B	54135	16500	28.8	13.3	12.2	17.1	10.2	8.2	9.8	9.9	2.4	-0.3	-3.0	-9.3	-15.7	-25.4	-34.7	-44.6	-53.5	-63.6	-76.5	-95.7	-123.2	-163.6	-225.4	-321.7	-472.6	-701.3	-1052.1	-1590.6	-2420.8	29.5	-7.5
13-C	57340	17477	28.6	12.8	11.7	16.6	9.7	7.6	9.2	9.2	1.7	-1.2	-4.0	-10.6	-17.3	-27.4	-37.1	-47.4	-56.8	-67.4	-80.9	-101.1	-130.1	-172.7	-237.9	-339.5	-498.9	-740.8	-1112.3	-1682.7	-2562.0	29.2	-8.3
13-D	60618	18476	28.3	12.3	11.2	16.1	9.2	7.0	8.6	8.6	0.9	-2.1	-5.1	-11.9	-18.9	-29.4	-39.5	-50.2	-60.1	-71.3	-85.5	-106.6	-137.1	-181.9	-250.5	-357.6	-525.8	-781.1	-1173.8	-1776.7	-2706.3	28.9	-9.0
13-F	67049	20437	27.9	11.4	10.3	15.2	8.3	6.0	7.6	7.4	-0.4	-3.7	-7.0	-14.3	-22.0	-33.2	-44.1	-55.7	-66.5	-78.8	-94.4	-117.4	-150.7	-199.9	-275.3	-393.2	-578.4	-860.2	-1294.5	-1961.3	-2989.5	28.4	-10.4
13-G	70274	21419	27.7	11.0	9.9	14.8	7.9	5.6	7.1	6.8	-1.1	-4.5	-8.0	-15.6	-23.5	-35.1	-46.4	-58.4	-69.7	-82.5	-98.8	-122.8	-157.5	-208.9	-287.7	-411.0	-604.8	-899.8	-1354.9	-2053.8	-3131.4	28.2	-11.1
13-H	73447	22387	27.5	10.6	9.5	14.4	7.5	5.1	6.6	6.3	-1.7	-5.2	-8.9	-16.7	-25.0	-37.0	-48.7	-61.1	-72.9	-86.1	-103.1	-128.0	-164.2	-217.8	-299.9	-428.5	-630.7	-938.8	-1414.4	-2144.8	-3271.1	28.0	-11.7
13-I	76762	23397	27.3	10.2	9.1	14.0	7.1	4.7	6.1	5.7	-2.3	-6.0	-9.9	-17.9	-26.5	-38.9	-51.0	-63.9	-76.1	-89.9	-107.6	-133.5	-171.2	-227.0	-312.6	-446.8	-657.7	-979.5	-1476.5	-2239.9	-3417.0	27.8	-12.3
13-J	79982	24379	27.1	9.9	8.8	13.7	6.8	4.2	5.6	5.2	-2.9	-6.7	-10.8	-19.1	-28.0	-40.7	-53.2	-66.6	-79.3	-93.6	-112.0	-138.8	-177.9	-235.9	-324.9	-464.5	-684.0	-1019.0	-1536.9	-2332.2	-3558.6	27.6	-12.8
13-K	83190	25356	27.0	9.5	8.4	13.3	6.4	3.8	5.2	4.7	-3.5	-7.4	-11.7	-20.2	-29.4	-42.6	-55.4	-69.2	-82.4	-97.3	-116.3	-144.1	-184.6	-244.8	-337.2	-482.2	-710.2	-1058.4	-1596.9	-2424.1	-3699.8	27.4	-13.4
13-L	86471	26356	26.8	9.2	8.1	13.0	6.1	3.4	4.7	4.2	-4.1	-8.1	-12.6	-21.4	-30.9	-44.4	-57.7	-71.9	-85.6	-101.0	-120.7	-149.5	-191.5	-253.9	-349.7	-500.2	-736.9	-1098.6	-1658.4	-2518.2	-3844.1	27.2	-13.9
14-D	61319	18690	28.3	12.2	11.1	16.0	9.1	6.9	8.5	8.4	0.8	-2.2	-5.3	-12.1	-19.2	-29.8	-40.0	-50.8	-60.8	-72.1	-86.5	-107.8	-138.6	-183.9	-253.2	-361.5	-531.5	-789.7	-1187.0	-1796.9	-2737.2	28.9	-9.2
14-E	64483	19654	28.1	11.7	10.6	15.5	8.6	6.4	8.0	7.8	0.1	-3.0	-6.3	-13.4	-20.8	-31.7	-42.3	-53.5	-64.0	-75.8	-90.8	-113.1	-145.3	-192.7	-265.4	-379.0	-557.4	-828.7	-1246.3	-1887.7	-2876.5	28.6	-9.9
14-F	67761	20654	27.9	11.3	10.2	15.1	8.2	5.9	7.4	7.3	-0.6	-3.9	-7.3	-14.6	-22.3	-33.7	-44.6	-56.3	-67.2	-79.6	-95.3	-118.6	-152.2	-201.9	-278.1	-397.2	-584.2	-869.0	-1307.8	-1981.7	-3020.8	28.4	-10.6
14-G	70964	21630	27.7	10.9	9.8	14.7	7.8	5.5	6.9	6.7	-1.2	-4.6	-8.2	-15.8	-23.8	-35.5	-46.9	-59.0	-70.4	-83.3	-99.7	-123.9	-159.0	-210.8	-290.4	-414.8	-610.4	-908.3	-1367.9	-2073.6	-3161.8	28.2	-11.2
14-H	74186	22612	27.5	10.5	9.4	14.3	7.4	5.0	6.5	6.1	-1.8	-5.4	-9.1	-17.0	-25.3	-37.4	-49.2	-61.7	-73.6	-87.0	-104.1	-129.3	-165.8	-219.8	-302.7	-432.6	-636.7	-947.9	-1428.3	-2166.0	-3303.6	27.9	-11.8
14-J	80669	24588	27.1	9.8	8.7	13.6	6.7	4.2	5.5	5.1	-3.1	-6.9	-11.0	-19.3	-28.3	-41.1	-53.7	-67.1	-79.9	-94.4	-112.9	-140.0	-179.4	-237.8	-327.6	-468.3	-689.6	-1027.5	-1549.7	-2351.9	-3588.8	27.5	-12.9
14-K	83945	25586	26.9	9.5	8.4	13.3	6.4	3.7	5.1	4.6	-3.7	-7.6	-11.9	-20.5	-29.8	-43.0	-56.0	-69.8	-83.1	-98.1	-117.3	-145.4	-186.2	-246.9	-340.1	-486.3	-716.3	-1067.6	-1611.1	-2445.8	-3733.0	27.3	-13.5
14-L	87205	26580	26.8	9.1	8.0	12.9	6.0	3.3	4.6	4.1	-4.2	-8.3	-12.8	-21.6	-31.2	-44.8	-58.2	-72.5	-86.3	-101.8	-121.7	-150.7	-193.0	-255.9	-352.6	-504.2	-742.9	-1107.6	-1672.1	-2539.2	-3876.4	27.2	-14.0
15-F	68509	20882	27.8	11.2	10.1	15.0	8.1	5.8	7.3	7.1	-0.7	-4.0	-7.5	-14.9	-22.7	-34.1	-45.2	-57.0	-68.0	-80.5	-96.4	-119.8	-153.8	-204.0	-280.9	-401.3	-590.3	-878.2	-1321.8	-2003.2	-3053.7	28.3	-10.7
15-G	71781	21879	27.6	10.8	9.7	14.6	7.7	5.4	6.8	6.6	-1.4	-4.8	-8.4	-16.1	-24.2	-36.0	-47.5	-59.7	-71.2	-84.2	-100.8	-125.3	-160.7	-213.1	-293.5	-419.3	-617.1	-918.4	-1383.2	-2097.0	-3197.7	28.1	-11.3
15-H	74940	22842	27.4	10.4	9.3	14.2	7.3	4.9	6.3	6.0	-2.0	-5.6	-9.4	-17.3	-25.7	-37.8	-49.7	-62.4	-74.3	-87.9	-105.2	-130.5	-167.4	-221.9	-305.6	-436.8	-642.9	-957.1	-1442.4	-2187.6	-3336.8	27.9	-11.9
15-I	78195	23834	27.2	10.1	9.0	13.9	7.0	4.5	5.9	5.5	-2.6	-6.3	-10.3	-18.5	-27.2	-39.7	-52.0	-65.1	-77.5	-91.6	-109.6	-135.9	-174.2	-231.0	-318.1	-454.7	-669.4	-997.1	-1503.4	-2281.0	-3480.0	27.7	-12.5
15-J	81414	24815	27.1	9.7	8.6	13.5	6.6	4.1	5.4	5.0	-3.2	-7.0	-11.2	-19.6	-28.6	-41.5	-54.2	-67.7	-80.7	-95.3	-113.9	-141.2	-180.9	-239.9	-330.4	-472.4	-695.7	-1036.6	-1563.7	-2373.2	-3621.6	27.5	-13.1
15-K	84670	25807	26.9	9.4	8.3	13.2	6.3	3.7	5.0	4.5	-3.8	-7.7	-12.1	-20.7	-30.1	-43.4	-56.5	-70.4	-83.8	-98.9	-118.3	-146.5	-187.7	-248.9	-342.9	-490.3	-722.2	-1076.5	-1624.6	-2466.6	-3764.9	27.3	-13.6
16-J	82206	25056	27.0	9.6	8.5	13.4	6.5	4.0	5.3	4.9	-3.3	-7.2	-11.4	-19.9	-29.0	-42.0	-54.8	-68.4	-81.4	-96.2	-115.0	-142.5	-182.6	-242.1	-333.4	-476.8	-702.1	-1046.3	-1578.5	-2395.9	-3656.5	27.5	-13.2
16-K	85457	26047	26.9	9.3	8.2	13.1	6.2	3.6	4.9	4.4	-3.9	-7.9	-12.3	-21.0	-30.4	-43.8	-57.0	-71.1	-84.6	-99.8	-119.4	-147.8	-189.4	-251.1	-345.9	-494.6	-728.6	-1086.2	-1639.4	-2489.1	-3799.5	27.3	-13.7
		Sum:	49.2	33.0	31.9	36.8	29.9	27.8	29.3	29.3	21.7	18.8	16.2	10.3	5.0	-2.4	-8.5	-14.4	-18.9	-23.9	-30.1	-40.0	-53.7	-72.7	-101.7	-145.5	-213.6	-313.6	-462.3	-690.2	-1041.0	49.8	11.9

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Leq)
FROM WIND PARK OPERATIONS AT THE CUT-IN WIND CONDITION

																		Hertz													
	1/3 Octave Bands	**16***	**20**	**25**	**31**	**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**	**L**	**A**
Sound Power Data - Cut-in Speed		112.0	105.6	104.5	109.4	102.5	101.6	103.9	104.9	98.9	98.3	98.7	96.5	95.3	91.8	89.3	86.7	85.7	84.5	83.2	80.0	76.5	73.1	68.2	62.7	55.3	49.4	48.4	47.8	47.6	116.3	95.4
Data for the graph																																
Atmos. Absorption per 1 km air temp 59F 70% RH		0.0000	0.0000	0.0000	0.0000	0.0000	0.0670	0.1050	0.1630	0.2510	0.3810	0.5650	0.8150	1.1300	1.5100	1.9200	2.3600	2.8400	3.3800	4.0800	5.0500	6.5100	8.7500	12.2000	17.7000	26.4000	39.9000	61.1000	93.7000	144.0000		

*Spherical wave spreading for up to 2 km, cylindrical wave spreading beyond 2 km.

																		Hertz													
	1/3 Octave Bands	**16***	**20**	**25**	**31**	**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**	**L**	**A**
	Distance (ft)	**Distance (m)**																														
1-D	64356	19616	28.1	11.8	10.7	15.6	8.7	6.5	8.0	7.9	0.1	-3.0	-6.2	-13.3	-20.7	-31.7	-42.2	-53.4	-63.8	-75.6	-90.7	-112.9	-145.0	-192.4	-264.9	-378.3	-556.4	-827.1	-1244.0	-1884.0	-2870.9	28.6	-9.9
1-E	66515	20274	27.9	11.5	10.4	15.3	8.4	6.1	7.7	7.5	-0.3	-3.5	-6.9	-14.1	-21.7	-32.9	-43.7	-55.3	-66.0	-78.1	-93.6	-116.5	-149.6	-198.4	-273.3	-390.3	-574.0	-853.6	-1284.4	-1946.0	-2965.9	28.5	-10.3
1-F	68770	20961	27.8	11.2	10.1	15.0	8.1	5.8	7.3	7.1	-0.8	-4.1	-7.6	-15.0	-22.8	-34.3	-45.4	-57.2	-68.2	-80.8	-96.7	-120.3	-154.4	-204.7	-281.9	-402.7	-592.5	-881.4	-1326.7	-2010.7	-3065.2	28.3	-10.8
1-G	71109	21674	27.6	10.9	9.8	14.7	7.8	5.4	6.9	6.7	-1.2	-4.7	-8.2	-15.9	-23.9	-35.6	-47.0	-59.2	-70.6	-83.5	-99.9	-124.2	-159.3	-211.2	-290.9	-415.6	-611.6	-910.1	-1370.6	-2077.7	-3168.1	28.2	-11.2
1-H	73543	22416	27.5	10.6	9.5	14.4	7.5	5.1	6.6	6.3	-1.7	-5.2	-9.0	-16.8	-25.0	-37.0	-48.7	-61.2	-73.0	-86.3	-103.2	-128.2	-164.4	-218.0	-300.3	-429.1	-631.5	-940.0	-1416.2	-2147.6	-3275.3	28.0	-11.7
1-I	75999	23165	27.4	10.3	9.2	14.1	7.2	4.8	6.2	5.8	-2.2	-5.8	-9.7	-17.7	-26.2	-38.5	-50.5	-63.2	-75.4	-89.1	-106.6	-132.3	-169.6	-224.9	-309.7	-442.6	-651.5	-970.1	-1462.2	-2218.0	-3383.4	27.8	-12.1
1-J	78497	23926	27.2	10.0	8.9	13.8	6.9	4.4	5.8	5.4	-2.7	-6.4	-10.4	-18.6	-27.3	-39.9	-52.2	-65.3	-77.8	-91.9	-110.0	-136.4	-174.8	-231.8	-319.3	-456.3	-671.9	-1000.8	-1509.0	-2289.6	-3493.3	27.7	-12.6
1-K	81122	24726	27.1	9.8	8.7	13.6	6.7	4.1	5.5	5.0	-3.2	-7.0	-11.1	-19.5	-28.5	-41.4	-54.0	-67.5	-80.4	-94.9	-113.5	-140.7	-180.3	-239.1	-329.3	-470.8	-693.3	-1033.0	-1558.2	-2364.9	-3608.8	27.5	-13.0
1-L	83799	25542	26.9	9.5	8.4	13.3	6.4	3.8	5.1	4.6	-3.6	-7.6	-11.9	-20.4	-29.7	-42.9	-55.9	-69.7	-83.0	-98.0	-117.1	-145.1	-185.9	-246.5	-339.5	-485.5	-715.1	-1065.9	-1608.3	-2441.6	-3726.6	27.4	-13.5
2-D	63257	19281	28.2	11.9	10.8	15.7	8.8	6.6	8.2	8.1	0.4	-2.7	-5.9	-12.9	-20.2	-31.0	-41.4	-52.5	-62.7	-74.4	-89.1	-111.1	-142.7	-189.3	-260.7	-372.3	-547.4	-813.6	-1223.3	-1852.5	-2822.5	28.7	-9.6
2-E	65530	19974	28.0	11.6	10.5	15.4	8.5	6.3	7.8	7.7	-0.1	-3.3	-6.6	-13.8	-21.3	-32.4	-43.0	-54.4	-65.0	-77.0	-92.3	-114.9	-147.5	-195.7	-269.5	-384.8	-566.0	-841.5	-1266.0	-1917.7	-2922.6	28.6	-10.1
2-F	67870	20687	27.9	11.3	10.2	15.1	8.2	5.9	7.4	7.2	-0.6	-3.9	-7.3	-14.7	-22.4	-33.7	-44.7	-56.4	-67.3	-79.7	-95.5	-118.8	-152.5	-202.2	-278.5	-397.8	-585.1	-870.3	-1309.9	-1984.9	-3025.6	28.4	-10.6
2-G	70246	21411	27.7	11.0	9.9	14.8	7.9	5.6	7.1	6.8	-1.1	-4.5	-8.0	-15.5	-23.5	-35.1	-46.4	-58.4	-69.7	-82.5	-98.8	-122.7	-157.5	-208.8	-287.6	-410.9	-604.5	-899.5	-1354.4	-2053.0	-3130.2	28.2	-11.0
2-H	72697	22158	27.6	10.7	9.6	14.5	7.6	5.2	6.7	6.4	-1.6	-5.0	-8.7	-16.5	-24.6	-36.6	-48.1	-60.5	-72.1	-85.3	-102.1	-126.8	-162.6	-215.7	-297.0	-424.4	-624.6	-929.6	-1400.4	-2123.3	-3238.1	28.0	-11.5
2-I	75272	22943	27.4	10.4	9.3	14.2	7.3	4.9	6.3	6.0	-2.1	-5.6	-9.5	-17.4	-25.8	-38.0	-49.9	-62.6	-74.7	-88.2	-105.6	-131.1	-168.1	-222.8	-306.9	-438.6	-645.6	-961.2	-1448.6	-2197.1	-3351.4	27.9	-12.0
2-J	77901	23744	27.3	10.1	9.0	13.9	7.0	4.5	5.9	5.5	-2.6	-6.2	-10.2	-18.3	-27.0	-39.5	-51.8	-64.8	-77.2	-91.2	-109.2	-135.4	-173.6	-230.2	-317.0	-453.1	-667.0	-993.5	-1497.9	-2272.5	-3467.1	27.7	-12.5
2-K	80454	24522	27.1	9.8	8.7	13.6	6.7	4.2	5.6	5.1	-3.0	-6.8	-10.9	-19.3	-28.2	-41.0	-53.6	-66.9	-79.7	-94.2	-112.6	-139.6	-178.9	-237.2	-326.7	-467.1	-687.9	-1024.8	-1545.7	-2345.7	-3579.4	27.6	-12.9
2-L	83182	25354	27.0	9.5	8.4	13.3	6.4	3.8	5.2	4.7	-3.5	-7.4	-11.7	-20.2	-29.4	-42.5	-55.4	-69.2	-82.4	-97.3	-116.3	-144.1	-184.6	-244.8	-337.2	-482.1	-710.1	-1058.3	-1596.8	-2423.9	-3699.4	27.4	-13.4
3-D	62272	18981	28.2	12.1	11.0	15.9	9.0	6.8	8.4	8.3	0.6	-2.5	-5.6	-12.5	-19.7	-30.4	-40.7	-51.6	-61.8	-73.2	-87.8	-109.4	-140.6	-186.5	-256.9	-366.8	-539.3	-801.5	-1204.9	-1824.2	-2779.2	28.8	-9.4
3-E	64624	19697	28.1	11.7	10.6	15.5	8.6	6.4	8.0	7.8	0.1	-3.1	-6.3	-13.4	-20.8	-31.8	-42.4	-53.7	-64.1	-75.9	-91.0	-113.3	-145.6	-193.1	-266.0	-379.8	-558.6	-830.4	-1249.0	-1891.7	-2882.7	28.6	-9.9
3-F	67029	20430	27.9	11.4	10.3	15.2	8.3	6.0	7.6	7.4	-0.4	-3.7	-7.0	-14.3	-22.0	-33.2	-44.1	-55.7	-66.5	-78.7	-94.3	-117.4	-150.7	-199.9	-275.2	-393.1	-578.2	-860.0	-1294.1	-1960.7	-2988.6	28.4	-10.4
3-G	69475	21176	27.7	11.1	10.0	14.9	8.0	5.7	7.2	6.9	-0.9	-4.3	-7.8	-15.3	-23.1	-34.7	-45.9	-57.8	-68.9	-81.6	-97.7	-121.4	-155.9	-206.7	-284.6	-406.6	-598.2	-890.0	-1339.9	-2030.9	-3096.2	28.3	-10.9
3-I	74542	22721	27.4	10.5	9.4	14.3	7.4	5.0	6.4	6.1	-1.9	-5.5	-9.2	-17.1	-25.5	-37.6	-49.4	-62.0	-73.9	-87.4	-104.6	-129.8	-166.5	-220.8	-304.1	-434.6	-639.6	-952.3	-1434.9	-2176.2	-3319.3	27.9	-11.9
3-J	77204	23532	27.3	10.2	9.1	14.0	7.1	4.6	6.0	5.6	-2.4	-6.1	-10.0	-18.1	-26.7	-39.1	-51.3	-64.3	-76.5	-90.5	-108.2	-134.3	-172.1	-228.2	-314.3	-449.2	-661.4	-984.9	-1484.8	-2252.5	-3436.4	27.8	-12.3
3-K	79926	24362	27.1	9.9	8.8	13.7	6.8	4.3	5.6	5.2	-2.9	-6.7	-10.8	-19.1	-27.9	-40.7	-53.2	-66.5	-79.2	-93.6	-111.9	-138.7	-177.8	-235.8	-324.7	-464.2	-683.6	-1018.3	-1535.8	-2330.6	-3556.2	27.6	-12.8
3-L	82589	25173	27.0	9.6	8.5	13.4	6.5	3.9	5.3	4.8	-3.4	-7.3	-11.5	-20.0	-29.1	-42.2	-55.0	-68.7	-81.8	-96.6	-115.5	-143.1	-183.4	-243.2	-334.9	-478.9	-705.3	-1051.0	-1585.7	-2406.9	-3673.3	27.4	-13.3
4-D	61366	18704	28.3	12.2	11.1	16.0	9.1	6.9	8.5	8.4	0.8	-2.2	-5.3	-12.2	-19.3	-29.9	-40.0	-50.9	-60.8	-72.1	-86.5	-107.9	-138.7	-184.0	-253.4	-361.8	-531.9	-790.3	-1187.9	-1798.2	-2739.3	28.9	-9.2
4-E	63813	19450	28.1	11.8	10.7	15.6	8.7	6.5	8.1	8.0	0.3	-2.9	-6.0	-13.1	-20.4	-31.3	-41.8	-53.0	-63.3	-75.0	-89.9	-112.0	-143.9	-190.8	-262.9	-375.3	-551.9	-820.4	-1233.8	-1868.4	-2847.0	28.7	-9.7
4-F	66253	20194	28.0	11.5	10.4	15.3	8.4	6.2	7.7	7.5	-0.3	-3.5	-6.8	-14.0	-21.6	-32.8	-43.6	-55.0	-65.7	-77.8	-93.3	-116.1	-149.0	-197.7	-272.3	-388.8	-571.9	-850.4	-1279.5	-1938.5	-2954.4	28.5	-10.2
4-G	68798	20970	27.8	11.2	10.1	15.0	8.1	5.8	7.3	7.1	-0.8	-4.1	-7.6	-15.0	-22.8	-34.3	-45.4	-57.2	-68.3	-80.8	-96.8	-120.3	-154.4	-204.8	-282.0	-402.9	-592.7	-881.7	-1327.3	-2011.5	-3066.4	28.3	-10.8
4-H	71359	21750	27.6	10.9	9.8	14.7	7.8	5.4	6.9	6.6	-1.3	-4.7	-8.3	-16.0	-24.0	-35.8	-47.2	-59.4	-70.8	-83.7	-100.3	-124.6	-159.8	-211.9	-291.9	-417.0	-613.6	-913.2	-1375.3	-2084.9	-3179.2	28.1	-11.3
4-I	73999	22555	27.5	10.6	9.5	14.4	7.5	5.0	6.5	6.2	-1.8	-5.3	-9.1	-16.9	-25.2	-37.3	-49.1	-61.6	-73.4	-86.8	-103.9	-128.9	-165.4	-219.3	-302.0	-431.6	-635.2	-945.6	-1424.8	-2160.6	-3295.4	28.0	-11.8
4-J	76656	23365	27.3	10.2	9.1	14.0	7.1	4.7	6.1	5.7	-2.3	-6.0	-9.9	-17.9	-26.5	-38.8	-50.9	-63.8	-76.0	-89.8	-107.5	-133.3	-171.0	-226.7	-312.2	-446.2	-656.9	-978.2	-1474.5	-2236.8	-3412.3	27.8	-12.2
4-K	79384	24196	27.2	9.9	8.8	13.7	6.8	4.3	5.7	5.3	-2.8	-6.6	-10.6	-18.9	-27.7	-40.4	-52.8	-66.1	-78.7	-92.9	-111.2	-137.8	-176.7	-234.3	-322.7	-461.2	-679.1	-1011.7	-1525.6	-2315.0	-3532.3	27.6	-12.7
4-L	82160	25042	27.0	9.6	8.5	13.4	6.5	4.0	5.3	4.9	-3.3	-7.2	-11.4	-19.9	-29.0	-42.0	-54.7	-68.4	-81.4	-96.1	-114.9	-142.4	-182.5	-242.0	-333.3	-476.5	-701.8	-1045.7	-1577.7	-2394.6	-3654.5	27.5	-13.2
5-D	60531	18450	28.3	12.3	11.2	16.1	9.2	7.1	8.7	8.6	1.0	-2.0	-5.0	-11.8	-18.8	-29.4	-39.4	-50.1	-60.0	-71.2	-85.4	-106.5	-136.9	-181.6	-250.2	-357.2	-525.1	-780.0	-1172.2	-1774.2	-2702.5	28.9	-9.0
5-E	62965	19192	28.2	12.0	10.9	15.8	8.9	6.7	8.2	8.1	0.4	-2.7	-5.8	-12.8	-20.0	-30.8	-41.2	-52.2	-62.4	-74.0	-88.7	-110.6	-142.1	-188.5	-259.6	-370.6	-545.0	-810.0	-1217.9	-1844.1	-2809.7	28.8	-9.6
5-F	65520	19971	28.0	11.6	10.5	15.4	8.5	6.3	7.8	7.7	-0.1	-3.3	-6.6	-13.8	-21.3	-32.3	-43.0	-54.4	-65.0	-77.0	-92.3	-114.8	-147.5	-195.6	-269.4	-384.8	-565.9	-841.4	-1265.8	-1917.4	-2922.2	28.6	-10.1
5-G	68068	20747	27.8	11.3	10.2	15.1	8.2	5.9	7.4	7.2	-0.6	-3.9	-7.3	-14.7	-22.5	-33.8	-44.9	-56.6	-67.5	-79.9	-95.8	-119.1	-152.9	-202.8	-279.2	-398.8	-586.7	-872.7	-1313.6	-1990.5	-3034.3	28.4	-10.6
5-H	70723	21556	27.7	10.9	9.8	14.7	7.8	5.5	7.0	6.7	-1.2	-4.6	-8.1	-15.7	-23.7	-35.4	-46.7	-58.8	-70.2	-83.0	-99.4	-123.5	-158.5	-210.2	-289.4	-413.5	-608.4	-905.4	-1363.4	-2066.7	-3151.2	28.2	-11.1
5-I	73408	22375	27.5	10.6	9.5	14.4	7.5	5.1	6.6	6.3	-1.7	-5.2	-8.9	-16.7	-25.0	-37.0	-48.6	-61.1	-72.8	-86.1	-103.1	-128.0	-164.1	-217.7	-299.8	-428.3	-630.4	-938.3	-1413.7	-2143.7	-3269.4	28.0	-11.6
5-J	76118	23201	27.4	10.3	9.2	14.1	7.2	4.8	6.2	5.8	-2.2	-5.8	-9.7	-17.7	-26.2	-38.5	-50.5	-63.3	-75.5	-89.2	-106.8	-132.5	-169.8	-225.2	-310.1	-443.2	-652.5	-971.6	-1464.5	-2221.4	-3388.6	27.8	-12.1
6-D	59756	18214	28.4	12.4	11.3	16.2	9.3	7.2	8.8	8.7	1.1	-1.8	-4.8	-11.5	-18.5	-28.9	-38.9	-49.5	-59.2	-70.3	-84.3	-105.2	-135.3	-179.5	-247.2	-352.9	-518.7	-770.5	-1157.6	-1752.0	-2668.4	29.0	-8.8
6-E	62256	18976	28.2	12.1	11.0	15.9	9.0	6.8	8.4	8.3	0.6	-2.5	-5.6	-12.5	-19.7	-30.4	-40.7	-51.6	-61.7	-73.2	-87.8	-109.4	-140.6	-186.5	-256.8	-366.7	-539.2	-801.3	-1204.6	-1823.8	-2778.4	28.8	-9.4
6-G	67527	20582	27.9	11.3	10.2	15.1	8.2	6.0	7.5	7.3	-0.5	-3.8	-7.2	-14.5	-22.2	-33.5	-44.5	-56.1	-67.0	-79.3	-95.0	-118.2	-151.7	-201.2	-277.2	-395.9	-582.3	-866.1	-1303.4	-1975.0	-3010.5	28.4	-10.5
6-H	70234	21407	27.7	11.0	9.9	14.8	7.9	5.6	7.1	6.8	-1.1	-4.4	-8.0	-15.5	-23.5	-35.1	-46.4	-58.4	-69.7	-82.4	-98.7	-122.7	-157.5	-208.8	-287.6	-410.8	-604.4	-899.3	-1354.2	-2052.6	-3129.6	28.2	-11.0
6-I	72890	22217	27.5	10.7	9.6	14.5	7.6	5.2	6.7	6.4	-1.6	-5.1	-8.8	-16.5	-24.7	-36.7	-48.3	-60.6	-72.3	-85.5	-102.4	-127.1	-163.0	-216.2	-297.8	-425.5	-626.1	-932.0	-1404.0	-2128.8	-3246.6	28.0	-11.6
6-J	75647	23057	27.4	10.4	9.3	14.2	7.3	4.8	6.2	5.9	-2.1	-5.7	-9.6	-17.5	-26.0	-38.3	-50.2	-63.0	-75.0	-88.7	-106.1	-131.7	-168.8	-223.9	-308.3	-440.6	-648.6	-965.8	-1455.6	-2207.9	-3367.9	27.9	-12.1
7-B	54078	16483	28.8	13.3	12.2	17.1	10.2	8.2	9.8	9.9	2.4	-0.3	-2.9	-9.3	-15.6	-25.4	-34.7	-44.5	-53.4	-63.5	-76.4	-95.6	-123.1	-163.4	-225.2	-321.4	-472.2	-700.6	-1051.0	-1589.0	-2418.3	29.5	-7.5
7-C	56523	17228	28.6	12.9	11.8	16.7	9.8	7.7	9.4	9.4	1.9	-1.0	-3.7	-10.2	-16.9	-26.9	-36.5	-46.7	-55.9	-66.4	-79.8	-99.7	-128.4	-170.4	-234.7	-334.9	-492.2	-730.7	-1096.9	-1659.2	-2526.0	29.3	-8.1
7-E	61621	18782	28.3	12.1	11.0	15.9	9.0	6.9	8.5	8.4	0.7	-2.3	-5.4	-12.3	-19.4	-30.0	-40.2	-51.1	-61.1	-72.4	-86.9	-108.3	-139.2	-184.7	-254.4	-363.2	-534.0	-793.5	-1192.6	-1805.5	-2750.5	28.9	-9.3
7-F	64242	19581	28.1	11.8	10.7	15.6	8.7	6.5	8.0	7.9	0.2	-3.0	-6.2	-13.3	-20.6	-31.6	-42.1	-53.3	-63.7	-75.5	-90.5	-112.7	-144.8	-192.1	-264.5	-377.7	-555.5	-825.7	-1241.8	-1880.7	-2865.9	28.7	-9.8
7-G	66913	20395	27.9	11.4	10.3	15.2	8.3	6.1	7.6	7.4	-0.4	-3.6	-7.0	-14.3	-21.9	-33.2	-44.0	-55.6	-66.4	-78.6	-94.2	-117.2	-150.4	-199.5	-274.8	-392.5	-577.3	-858.5	-1291.9	-1957.4	-2983.5	28.5	-10.4
7-H	69660	21232	27.7	11.1	10.0	14.9	8.0	5.7	7.1	6.9	-1.0	-4.3	-7.8	-15.3	-23.2	-34.8	-46.0	-57.9	-69.1	-81.8	-97.9	-121.7	-156.2	-207.2	-285.4	-407.6	-599.8	-892.3	-1343.4	-2036.2	-3104.4	28.3	-10.9
7-I	72458	22085	27.6	10.7	9.6	14.5	7.6	5.3	6.7	6.4	-1.5	-5.0	-8.6	-16.4	-24.5	-36.4	-48.0	-60.3	-71.9	-85.0	-101.8	-126.4	-162.1	-215.0	-296.1	-423.1	-622.6	-926.7	-1395.9	-2116.5	-3227.6	28.1	-11.5
8-A	50827	15492	29.1	13.8	12.7	17.6	10.7	8.8	10.5	10.6	3.2	0.6	-1.8	-7.9	-14.0	-23.4	-32.2	-41.6	-50.1	-59.6	-71.8	-90.0	-116.1	-154.2	-212.6	-303.3	-445.5	-660.5	-990.0	-1495.6	-2275.1	29.8	-6.7
8-B	53263	16234	28.9	13.4	12.3	17.2	10.3	8.3	10.0	10.1	2.6	-0.1	-2.7	-8.9	-15.2	-24.9	-34.1	-43.8	-52.6	-62.6	-75.2	-94.2	-121.4	-161.1	-222.1	-316.8	-465.5	-690.5	-1035.7	-1565.6	-2382.4	29.6	-7.3

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Leq)
FROM WIND PARK OPERATIONS AT THE CUT-IN WIND CONDITION

8-C	55780	17002	28.7	13.0	11.9	16.8	9.9	7.9	9.5	9.5	2.0	-0.8	-3.5	-9.9	-16.5	-26.5	-35.9	-46.0	-55.2	-65.6	-78.8	-98.5	-126.8	-168.3	-231.8	-330.8	-486.1	-721.6	-1083.0	-1637.9	-2493.3	29.4	-7.9
8-D	58398	17800	28.5	12.6	11.5	16.4	9.5	7.4	9.0	9.0	1.4	-1.5	-4.3	-11.0	-17.8	-28.1	-37.9	-48.3	-57.8	-68.7	-82.4	-102.9	-132.4	-175.6	-241.9	-345.3	-507.6	-753.8	-1132.1	-1713.0	-2608.5	29.1	-8.5
8-F	63711	19419	28.1	11.9	10.8	15.7	8.8	6.6	8.1	8.0	0.3	-2.8	-6.0	-13.1	-20.4	-31.3	-41.7	-52.9	-63.2	-74.9	-89.8	-111.8	-143.7	-190.6	-262.5	-374.8	-551.1	-819.2	-1231.9	-1865.5	-2842.5	28.7	-9.7
8-G	66405	20240	27.9	11.5	10.4	15.3	8.4	6.1	7.7	7.5	-0.3	-3.5	-6.8	-14.1	-21.7	-32.9	-43.7	-55.2	-65.9	-78.0	-93.5	-116.3	-149.4	-198.1	-272.8	-389.7	-573.1	-852.3	-1282.4	-1942.8	-2961.1	28.5	-10.3
8-H	69224	21100	27.8	11.1	10.0	14.9	8.0	5.7	7.2	7.0	-0.9	-4.2	-7.7	-15.2	-23.0	-34.5	-45.7	-57.6	-68.7	-81.3	-97.4	-121.0	-155.3	-206.0	-283.7	-405.2	-596.2	-886.9	-1335.2	-2023.7	-3085.2	28.3	-10.8
9-A	50056	15257	29.2	13.9	12.8	17.7	10.8	8.9	10.6	10.8	3.4	0.8	-1.6	-7.6	-13.6	-22.9	-31.6	-41.0	-49.3	-58.7	-70.7	-88.7	-114.5	-152.1	-209.6	-299.0	-439.1	-651.0	-975.5	-1473.4	-2241.1	29.9	-6.5
9-B	52556	16019	29.0	13.5	12.4	17.3	10.4	8.5	10.1	10.2	2.8	0.1	-2.4	-8.6	-14.9	-24.5	-33.5	-43.2	-51.9	-61.7	-74.2	-93.0	-119.9	-159.1	-219.3	-312.9	-459.7	-681.8	-1022.4	-1545.3	-2351.2	29.7	-7.1
9-C	55145	16808	28.8	13.1	12.0	16.9	10.0	8.0	9.6	9.7	2.2	-0.6	-3.3	-9.7	-16.2	-26.1	-35.5	-45.5	-54.5	-64.8	-77.9	-97.4	-125.4	-166.5	-229.4	-327.3	-480.9	-713.7	-1071.1	-1619.6	-2465.3	29.4	-7.8
9-D	57776	17610	28.6	12.7	11.6	16.5	9.6	7.5	9.2	9.1	1.6	-1.3	-4.1	-10.7	-17.5	-27.7	-37.4	-47.8	-57.2	-67.9	-81.5	-101.8	-131.0	-173.9	-239.5	-341.9	-502.5	-746.1	-1120.5	-1695.2	-2581.2	29.2	-8.4
9-E	60472	18432	28.4	12.3	11.2	16.1	9.2	7.1	8.7	8.6	1.0	-2.0	-5.0	-11.8	-18.8	-29.3	-39.4	-50.1	-59.9	-71.1	-85.3	-106.4	-136.8	-181.5	-250.0	-356.8	-524.6	-779.3	-1171.1	-1772.6	-2699.9	29.0	-9.0
9-F	63234	19274	28.2	11.9	10.8	15.7	8.8	6.6	8.2	8.1	0.4	-2.7	-5.9	-12.9	-20.2	-31.0	-41.4	-52.5	-62.7	-74.3	-89.1	-111.0	-142.7	-189.2	-260.6	-372.1	-547.2	-813.3	-1222.9	-1851.8	-2821.5	28.7	-9.6
9-G	66041	20129	28.0	11.5	10.4	15.3	8.4	6.2	7.7	7.6	-0.2	-3.4	-6.7	-14.0	-21.5	-32.7	-43.4	-54.9	-65.5	-77.6	-93.0	-115.7	-148.6	-197.1	-271.4	-387.6	-570.2	-847.8	-1275.6	-1932.4	-2945.1	28.5	-10.2
9-H	68833	20980	27.8	11.2	10.1	15.0	8.1	5.8	7.3	7.1	-0.8	-4.1	-7.6	-15.0	-22.8	-34.3	-45.4	-57.2	-68.3	-80.8	-96.8	-120.4	-154.5	-204.9	-282.2	-403.1	-593.0	-882.1	-1327.9	-2012.5	-3068.0	28.3	-10.8
9-I	71732	21864	27.6	10.8	9.7	14.6	7.7	5.4	6.8	6.6	-1.4	-4.8	-8.4	-16.1	-24.2	-36.0	-47.5	-59.7	-71.2	-84.2	-100.8	-125.2	-160.6	-213.0	-293.3	-419.1	-616.7	-917.8	-1382.3	-2095.6	-3195.6	28.1	-11.3
10-A	49345	15040	29.2	14.1	13.0	17.9	11.0	9.1	10.8	10.9	3.6	1.0	-1.3	-7.3	-13.2	-22.4	-31.1	-40.3	-48.5	-57.9	-69.7	-87.5	-112.9	-150.0	-206.8	-295.0	-433.3	-642.2	-962.1	-1453.0	-2209.7	30.0	-6.3
10-B	51895	15818	29.0	13.6	12.5	17.4	10.5	8.6	10.3	10.4	3.0	0.3	-2.2	-8.4	-14.5	-24.0	-33.0	-42.6	-51.2	-60.9	-73.3	-91.8	-118.4	-157.3	-216.7	-309.2	-454.3	-673.7	-1010.0	-1526.3	-2322.1	29.7	-6.9
10-C	54541	16624	28.8	13.2	12.1	17.0	10.1	8.1	9.8	9.8	2.3	-0.4	-3.1	-9.4	-15.9	-25.7	-35.0	-44.9	-53.9	-64.1	-77.0	-96.3	-124.1	-164.8	-227.0	-323.9	-476.0	-706.3	-1059.7	-1602.3	-2438.6	29.5	-7.6
10-D	57287	17461	28.6	12.8	11.7	16.6	9.7	7.6	9.2	9.2	1.7	-1.2	-4.0	-10.6	-17.3	-27.4	-37.0	-47.3	-56.7	-67.3	-80.9	-101.0	-130.0	-172.5	-237.6	-339.2	-498.5	-740.1	-1111.3	-1681.1	-2559.6	29.2	-8.3
10-E	60043	18301	28.4	12.4	11.3	16.2	9.3	7.1	8.7	8.7	1.1	-1.9	-4.9	-11.6	-18.6	-29.1	-39.1	-49.7	-59.5	-70.6	-84.7	-105.7	-135.9	-180.3	-248.3	-354.5	-521.1	-774.0	-1163.0	-1760.3	-2681.0	29.0	-8.9
10-F	62886	19168	28.2	12.0	10.9	15.8	8.9	6.7	8.3	8.1	0.5	-2.6	-5.8	-12.8	-20.0	-30.8	-41.1	-52.2	-62.4	-73.9	-88.6	-110.4	-141.9	-188.3	-259.3	-370.2	-544.4	-809.0	-1216.4	-1841.8	-2806.2	28.8	-9.5
10-G	65726	20033	28.0	11.6	10.5	15.4	8.5	6.2	7.8	7.6	-0.1	-3.3	-6.6	-13.8	-21.4	-32.5	-43.2	-54.6	-65.2	-77.2	-92.6	-115.2	-147.9	-196.2	-270.2	-385.9	-567.6	-843.9	-1269.7	-1923.3	-2931.2	28.5	-10.1
10-H	68580	20903	27.8	11.2	10.1	15.0	8.1	5.8	7.3	7.1	-0.7	-4.1	-7.5	-14.9	-22.7	-34.2	-45.2	-57.0	-68.1	-80.5	-96.5	-119.9	-154.0	-204.2	-281.2	-401.7	-590.9	-879.0	-1323.2	-2005.2	-3056.9	28.3	-10.7
10-I	48994	14933	29.3	14.1	13.0	17.9	11.0	9.1	10.9	11.0	3.7	1.1	-1.2	-7.1	-13.0	-22.2	-30.8	-40.0	-48.2	-57.4	-69.2	-86.9	-112.2	-149.0	-205.5	-293.1	-430.4	-637.9	-955.5	-1442.9	-2194.3	30.0	-6.2
11-A	48658	14831	29.3	14.2	13.1	18.0	11.1	9.2	10.9	11.1	3.8	1.2	-1.1	-7.0	-12.9	-22.0	-30.6	-39.7	-47.8	-57.0	-68.7	-86.3	-111.5	-148.1	-204.1	-291.2	-427.6	-633.8	-949.2	-1433.3	-2179.5	30.0	-6.1
11-B	51337	15647	29.1	13.7	12.6	17.5	10.6	8.7	10.4	10.5	3.1	0.5	-2.0	-8.1	-14.3	-23.7	-32.6	-42.1	-50.6	-60.3	-72.5	-90.9	-117.2	-155.7	-214.6	-306.1	-449.7	-666.8	-999.5	-1510.2	-2297.5	29.8	-6.8
11-C	54017	16464	28.8	13.3	12.2	17.1	10.2	8.2	9.9	9.9	2.5	-0.3	-2.9	-9.2	-15.6	-25.4	-34.6	-44.5	-53.4	-63.5	-76.3	-95.5	-123.0	-163.3	-225.0	-321.0	-471.7	-699.8	-1049.9	-1587.2	-2415.6	29.5	-7.5
11-D	56795	17311	28.6	12.9	11.8	16.7	9.8	7.7	9.3	9.3	1.8	-1.0	-3.8	-10.4	-17.0	-27.1	-36.7	-46.9	-56.2	-66.8	-80.2	-100.2	-128.9	-171.1	-235.7	-336.5	-494.5	-734.1	-1102.1	-1667.0	-2538.0	29.3	-8.2
11-E	59625	18174	28.4	12.4	11.3	16.2	9.3	7.2	8.8	8.8	1.2	-1.8	-4.7	-11.5	-18.4	-28.8	-38.8	-49.4	-59.1	-70.1	-84.1	-104.9	-135.0	-179.1	-246.7	-352.1	-517.7	-768.9	-1155.2	-1748.3	-2662.6	29.0	-8.8
11-F	62457	19037	28.2	12.0	10.9	15.8	8.9	6.8	8.3	8.2	0.5	-2.5	-5.6	-12.6	-19.8	-30.5	-40.8	-51.8	-61.9	-73.4	-88.0	-109.7	-141.0	-187.0	-257.6	-367.8	-540.8	-803.7	-1208.3	-1829.5	-2787.3	28.8	-9.4
11-G	65355	19920	28.0	11.6	10.5	15.4	8.5	6.3	7.8	7.7	-0.1	-3.3	-6.5	-13.7	-21.2	-32.2	-42.9	-54.3	-64.8	-76.8	-92.0	-114.6	-147.1	-195.2	-268.8	-383.9	-564.6	-839.4	-1262.7	-1912.7	-2914.9	28.6	-10.1
11-H	68272	20809	27.8	11.3	10.2	15.1	8.2	5.9	7.4	7.2	-0.7	-4.0	-7.4	-14.8	-22.6	-34.0	-45.0	-56.8	-67.7	-80.2	-96.0	-119.4	-153.3	-203.3	-280.0	-400.0	-588.4	-875.2	-1317.4	-1996.4	-3043.3	28.4	-10.7
11-K	77221	23537	27.3	10.2	9.1	14.0	7.1	4.6	6.0	5.6	-2.4	-6.1	-10.0	-18.1	-26.7	-39.2	-51.3	-64.3	-76.6	-90.5	-108.2	-134.3	-172.1	-228.3	-314.4	-449.3	-661.5	-985.1	-1485.1	-2253.0	-3437.1	27.8	-12.3
11-L	80254	24461	27.1	9.8	8.7	13.6	6.7	4.2	5.6	5.2	-3.0	-6.8	-10.9	-19.2	-28.1	-40.9	-53.4	-66.8	-79.5	-93.9	-112.4	-139.3	-178.5	-236.7	-326.0	-466.0	-686.2	-1022.4	-1541.9	-2340.0	-3570.6	27.6	-12.9
12-A	48076	14654	29.3	14.3	13.2	18.1	11.2	9.3	11.1	11.2	3.9	1.4	-0.9	-6.7	-12.6	-21.6	-30.1	-39.2	-47.2	-56.3	-67.9	-85.3	-110.2	-146.4	-201.9	-288.0	-422.9	-626.6	-938.2	-1416.5	-2153.8	30.1	-5.9
12-B	50827	15492	29.1	13.8	12.7	17.6	10.7	8.8	10.5	10.6	3.2	0.6	-1.8	-7.9	-14.0	-23.4	-32.2	-41.6	-50.1	-59.6	-71.8	-90.0	-116.1	-154.2	-212.6	-303.3	-445.5	-660.5	-990.0	-1495.6	-2275.0	29.8	-6.7
12-C	53616	16342	28.9	13.4	12.3	17.2	10.3	8.3	9.9	10.0	2.6	-0.2	-2.8	-9.1	-15.4	-25.1	-34.3	-44.1	-53.0	-63.0	-75.7	-94.8	-122.1	-162.1	-223.4	-318.8	-468.4	-694.9	-1042.4	-1575.7	-2397.9	29.6	-7.4
12-D	56451	17206	28.7	12.9	11.8	16.7	9.8	7.8	9.4	9.4	1.9	-1.0	-3.7	-10.2	-16.8	-26.9	-36.4	-46.6	-55.9	-66.4	-79.7	-99.6	-128.2	-170.2	-234.4	-334.5	-491.6	-729.8	-1095.6	-1657.1	-2522.8	29.3	-8.1
12-E	59301	18075	28.4	12.5	11.4	16.3	9.4	7.3	8.9	8.8	1.2	-1.7	-4.6	-11.4	-18.2	-28.6	-38.5	-49.1	-58.8	-69.7	-83.7	-104.4	-134.3	-178.2	-245.4	-350.4	-515.0	-764.9	-1149.1	-1739.0	-2648.3	29.0	-8.7
12-F	62173	18950	28.2	12.1	11.0	15.9	9.0	6.8	8.4	8.3	0.6	-2.5	-5.5	-12.5	-19.6	-30.3	-40.6	-51.6	-61.7	-73.1	-87.7	-109.2	-140.4	-186.2	-256.5	-366.3	-538.5	-800.2	-1203.0	-1821.4	-2774.8	28.8	-9.4
12-G	65147	19857	28.0	11.7	10.6	15.5	8.6	6.3	7.9	7.7	0.0	-3.2	-6.5	-13.6	-21.1	-32.1	-42.8	-54.1	-64.6	-76.6	-91.8	-114.2	-146.7	-194.6	-268.0	-382.7	-562.9	-836.8	-1258.8	-1906.7	-2905.7	28.6	-10.0
12-H	68056	20744	27.8	11.3	10.2	15.1	8.2	5.9	7.4	7.2	-0.6	-3.9	-7.3	-14.7	-22.5	-33.8	-44.8	-56.6	-67.5	-79.9	-95.8	-119.1	-152.9	-202.7	-279.2	-398.8	-586.6	-872.6	-1313.3	-1990.2	-3033.8	28.4	-10.6
12-I	71120	21678	27.6	10.9	9.8	14.7	7.8	5.4	6.9	6.7	-1.2	-4.7	-8.2	-15.9	-23.9	-35.6	-47.0	-59.2	-70.6	-83.5	-99.9	-124.2	-159.3	-211.3	-291.0	-415.7	-611.7	-910.2	-1370.8	-2078.1	-3168.7	28.2	-11.2
12-J	74131	22595	27.5	10.5	9.4	14.3	7.4	5.0	6.5	6.2	-1.8	-5.4	-9.1	-17.0	-25.3	-37.4	-49.1	-61.7	-73.5	-86.9	-104.1	-129.2	-165.7	-219.7	-302.5	-432.3	-636.3	-947.2	-1427.2	-2164.4	-3301.2	28.0	-11.8
12-K	77152	23516	27.3	10.2	9.1	14.0	7.1	4.6	6.0	5.7	-2.4	-6.1	-10.0	-18.1	-26.7	-39.1	-51.3	-64.2	-76.5	-90.4	-108.2	-134.2	-172.0	-228.1	-314.1	-448.9	-660.9	-984.3	-1483.8	-2251.0	-3434.1	27.8	-12.3
12-L	80179	24439	27.1	9.9	8.8	13.7	6.8	4.2	5.6	5.2	-3.0	-6.8	-10.9	-19.2	-28.1	-40.8	-53.4	-66.7	-79.4	-93.8	-112.3	-139.2	-178.3	-236.5	-325.7	-465.6	-685.6	-1021.4	-1540.5	-2337.8	-3567.3	27.6	-12.9
13-A	47561	14497	29.4	14.4	13.3	18.2	11.3	9.4	11.2	11.3	4.1	1.6	-0.7	-6.5	-12.3	-21.3	-29.7	-38.7	-46.7	-55.7	-67.2	-84.4	-109.1	-145.0	-199.9	-285.1	-418.6	-620.2	-928.6	-1401.7	-2131.1	30.2	-5.8
13-B	50407	15364	29.1	13.9	12.8	17.7	10.8	8.9	10.6	10.7	3.3	0.7	-1.7	-7.7	-13.8	-23.1	-31.9	-41.3	-49.6	-59.1	-71.2	-89.3	-115.2	-153.0	-211.0	-301.0	-442.0	-655.3	-982.1	-1483.5	-2256.5	29.9	-6.5
13-C	53230	16225	28.9	13.4	12.3	17.2	10.3	8.3	10.0	10.1	2.6	-0.1	-2.7	-8.9	-15.2	-24.9	-34.0	-43.8	-52.6	-62.5	-75.2	-94.1	-121.3	-161.1	-221.9	-316.7	-465.2	-690.1	-1035.1	-1564.6	-2380.9	29.6	-7.3
13-D	56139	17111	28.7	13.0	11.9	16.8	9.9	7.8	9.5	9.5	2.0	-0.9	-3.6	-10.1	-16.7	-26.7	-36.2	-46.3	-55.5	-66.0	-79.3	-99.1	-127.5	-169.3	-233.2	-332.8	-489.1	-726.0	-1089.7	-1648.2	-2509.0	29.3	-8.0
13-F	61997	18897	28.2	12.1	11.0	15.9	9.0	6.8	8.4	8.3	0.6	-2.4	-5.5	-12.4	-19.6	-30.2	-40.5	-51.4	-61.5	-72.9	-87.4	-108.9	-140.0	-185.8	-255.9	-365.3	-537.1	-798.1	-1199.7	-1816.3	-2767.0	28.8	-9.3
13-G	64971	19803	28.0	11.7	10.6	15.5	8.6	6.4	7.9	7.8	0.0	-3.2	-6.4	-13.6	-21.0	-32.0	-42.6	-54.0	-64.5	-76.4	-91.5	-113.9	-146.3	-194.1	-267.3	-381.7	-561.4	-834.7	-1255.5	-1901.7	-2898.0	28.6	-10.0
13-H	67944	20709	27.8	11.3	10.2	15.1	8.2	5.9	7.4	7.2	-0.6	-3.9	-7.3	-14.7	-22.4	-33.8	-44.8	-56.5	-67.4	-79.8	-95.6	-118.9	-152.6	-202.4	-278.8	-398.2	-585.7	-871.2	-1311.2	-1987.0	-3028.8	28.4	-10.6
13-I	71027	21649	27.7	10.9	9.8	14.7	7.8	5.5	6.9	6.7	-1.2	-4.6	-8.2	-15.8	-23.9	-35.6	-47.0	-59.1	-70.5	-83.4	-99.8	-124.0	-159.1	-211.0	-290.6	-415.2	-610.9	-909.1	-1369.0	-2075.4	-3164.5	28.2	-11.2
13-J	74037	22567	27.5	10.5	9.4	14.3	7.4	5.0	6.5	6.2	-1.8	-5.3	-9.1	-16.9	-25.3	-37.3	-49.1	-61.6	-73.4	-86.8	-103.9	-129.0	-165.5	-219.4	-302.2	-431.8	-635.5	-946.1	-1425.5	-2161.7	-3297.0	28.0	-11.8
13-K	77079	23494	27.3	10.2	9.1	14.0	7.1	4.6	6.0	5.7	-2.4	-6.1	-10.0	-18.0	-26.6	-39.1	-51.2	-64.1	-76.4	-90.3	-108.1	-134.0	-171.8	-227.9	-313.8	-448.5	-660.3	-983.4	-1482.5	-2248.9	-3430.9	27.8	-12.3
13-L	80194	24443	27.1	9.9	8.8	13.7	6.8	4.2	5.6	5.2	-3.0	-6.8	-10.9	-19.2	-28.1	-40.9	-53.4	-66.7	-79.5	-93.9	-112.3	-139.2	-178.4	-236.5	-325.8	-465.7	-685.7	-1021.6	-1540.8	-2338.3	-3568.0	27.6	-12.9
14-D	55884	17033	28.7	13.0	11.9	16.8	9.9	7.9	9.5	9.5	2.0	-0.8	-3.5	-10.0	-16.6	-26.5	-36.0	-46.1	-55.3	-65.7	-78.9	-98.6	-127.0	-168.6	-232.2	-331.4	-487.0	-722.8	-1085.0	-1640.8	-2497.8	29.3	-7.9
14-E	58799	17922	28.5	12.6	11.5	16.4	9.5	7.3	9.0	8.9	1.4	-1.6	-4.5	-11.2	-18.0	-28.3	-38.2	-48.6	-58.2	-69.1	-83.0	-103.6	-133.2	-176.8	-243.5	-347.6	-510.9	-758.7	-1139.7	-1724.5	-2626.2	29.1	-8.6
14-F	61848	18851	28.3	12.1	11.0	15.9	9.0	6.8	8.4	8.3	0.7	-2.4	-5.4	-12.4	-19.5	-30.2	-40.4	-51.3	-61.3	-72.7	-87.2	-108.7	-139.7	-185.3	-255.3	-364.5	-535.9	-796.3	-1196.9	-1812.0	-2760.5	28.8	-9.3
14-G	64844	19764	28.0	11.7	10.6	15.5	8.6	6.4	7.9	7.8	0.0	-3.1	-6.4	-13.5	-20.9	-31.9	-42.5	-53.8	-64.3	-76.2	-91.3	-113.7	-146.1	-193.7	-266.8	-381.0	-560.4	-833.1	-1253.1	-1898.0	-2892.4	28.6	-10.0
14-H	67876	20689	27.9	11.3	10.2	15.1	8.2	5.9	7.4	7.2	-0.6	-3.9	-7.3	-14.7	-22.4	-33.7	-44.7	-56.4	-67.4	-79.7	-95.5	-118.8	-152.5	-202.2	-278.5	-397.8	-585.2	-870.4	-1310.0	-1985.0	-3025.8	28.4	-10.6
14-J	74031	22565	27.5	10.5	9.4	14.3	7.4	5.0	6.5	6.2	-1.8	-5.3	-9.1	-16.9	-25.2	-37.3	-49.1	-61.6	-73.4	-86.8	-103.9	-129.0	-165.4	-219.4	-302.1	-431.7	-635.5	-946.0	-1425.4	-2161.6	-3296.8	28.0	-11.8
14-K	77145	23514	27.3	10.2	9.1	14.0	7.1	4.6	6.0	5.7	-2.4	-6.1	-10.0	-18.1	-26.7	-39.1	-51.3	-64.2	-76.5	-90.4	-108.1	-134.2	-172.0	-228.1	-314.1	-448.9	-660.9	-984.2	-1483.7	-2250.9	-3433.8	27.8	-12.3
14-L	80270	24466	27.1	9.8	8.7	13.6	6.7	4.2	5.6	5.2	-3.0	-6.8	-10.9	-19.2	-28.1	-40.9	-53.4	-66.8	-79.5	-93.9	-112.4	-139.3	-178.5	-236.7	-326.0	-466.1	-686.4	-1022.6	-1542.2	-2340.4	-3571.3	27.6	-12.9
15-F	61749	18821	28.3	12.1	11.0	15.9	9.0	6.9	8.4	8.4	0.7	-2.3	-5.4	-12.3	-19.4	-30.1	-40.3	-51.2	-61.2	-72.6	-87.1	-108.5	-139.5	-185.1	-254.9	-363.9	-535.1	-795.0	-1195.1	-1809.2	-2756.1	28.8	-9.3
15-G	64849	19766	28.0	11.7	10.6	15.5	8.6	6.4	7.9	7.8	0.0	-3.1	-6.4	-13.5	-20.9	-31.9	-42.6	-53.8	-64.3	-76.2	-91.3	-113.7	-146.1	-193.8	-266.8	-381.1	-560.4	-833.2	-1253.2	-1898.2	-2892.6	28.6	-10.0
15-H	67847	20680	27.9	11.3	10.2	15.1	8.2	5.9	7.4	7.2	-0.6	-3.9	-7.3	-14.6	-22.4	-33.7	-44.7	-56.4	-67.3	-79.7	-95.5	-118.7	-152.4	-202.1	-278.4	-397.6	-584.9	-870.0	-1309.4	-1984.2	-3024.6	28.4	-10.6
15-I	70962	21629	27.7	10.9	9.8	14.7	7.8	5.5	6.9	6.7	-1.2	-4.6	-8.2	-15.8	-23.8	-35.5	-46.9	-59.0	-70.4	-83.3	-99.7	-123.9	-159.0	-210.8	-290.4	-414.8	-610.4	-908.3	-1367.8	-2073.5	-3161.7	28.2	-11.2
15-J	74061	22574	27.5	10.5	9.4	14.3	7.4	5.0	6.5	6.2	-1.8	-5.4	-9.1	-17.0	-25.3	-37.3	-49.1	-61.6	-73.5	-86.9	-104.0	-129.1	-165.5	-219.5	-302.3	-431.9	-635.7	-946.3	-1425.9	-2162.4	-3298.1	28.0	-11.8
15-K	77198	23530	27.3	10.2	9.1	14.0	7.1	4.6	6.0	5.7	-2.4	-6.1	-10.0	-18.1	-26.7	-39.1	-51.3	-64.2	-76.5	-90.4	-108.2	-134.2	-172.1	-228.2	-314.3	-449.2	-661.3	-984.9	-1484.7	-2252.4	-3436.1	27.8	-12.3
16-J	74163	22605	27.5	10.5	9.4	14.3	7.4	5.0	6.5	6.1	-1.8	-5.4	-9.1	-17.0	-25.3	-37.4	-49.2	-61.7	-73.6	-87.0	-104.1	-129.2	-165.7	-219.8	-302.6	-432.5	-636.5	-947.6	-1427.8	-2165.3	-3302.5	27.9	-11.8
16-K	77323	23568	27.3	10.2	9.1	14.0	7.1	4.6	6.0	5.6	-2.4	-6.1	-10.0	-18.1	-26.8	-39.2	-51.4	-64.3	-76.7	-90.6	-108.4	-134.4	-172.4	-228.5	-314.8	-449.9	-662.3	-986.4	-1487.0	-2256.0	-3441.6	27.7	-12.4
		Sum:	49.2	32.9	31.8	36.7	29.8	27.6	29.2	29.1	21.4	18.3	15.3	8.6	1.8	-8.3	-17.7	-27.6	-36.3	-46.1	-58.3	-76.4	-102.1	-139.1	-195.3	-281.8	-416.5	-619.1	-928.1	-1401.6	-2131.1	49.7	11.4

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Leq)
FROM WIND PARK OPERATIONS AT THE CUT-IN WIND CONDITION

																		Hertz													
	1/3 Octave Bands	**16***	**20**	**25**	**31**	**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**	**L**	**A**
Sound Power Data - Cut-in Speed		112.0	105.6	104.5	109.4	102.5	101.6	103.9	104.9	98.9	98.3	98.7	96.5	95.3	91.8	89.3	86.7	85.7	84.5	83.2	80.0	76.5	73.1	68.2	62.7	55.3	49.4	48.4	47.8	47.6	116.3	95.4
Data for the graph																																
Atmos. Absorption per 1 km air temp 59F 70% RH		0.0000	0.0000	0.0000	0.0000	0.0000	0.0670	0.1050	0.1630	0.2510	0.3810	0.5650	0.8150	1.1300	1.5100	1.9200	2.3600	2.8400	3.3800	4.0800	5.0500	6.5100	8.7500	12.2000	17.7000	26.4000	39.9000	61.1000	93.7000	144.0000		

*Spherical wave spreading for up to 2 km, cylindrical wave spreading beyond 2 km.

																		Hertz													
	1/3 Octave Bands	**16***	**20**	**25**	**31**	**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**	**L**	**A**
	Distance (ft)	**Distance (m)**																														
1-D	46357	14130	29.5	14.6	13.5	18.4	11.5	9.7	11.4	11.6	4.4	1.9	-0.3	-6.0	-11.7	-20.5	-28.8	-37.6	-45.4	-54.2	-65.4	-82.3	-106.5	-141.5	-195.2	-278.4	-408.7	-605.4	-905.9	-1367.1	-2078.1	30.3	-5.4
1-E	48203	14692	29.3	14.3	13.2	18.1	11.2	9.3	11.0	11.2	3.9	1.4	-0.9	-6.8	-12.6	-21.7	-30.2	-39.3	-47.4	-56.5	-68.1	-85.5	-110.5	-146.8	-202.4	-288.7	-423.9	-628.2	-940.6	-1420.2	-2159.4	30.1	-5.9
1-F	50202	15302	29.2	13.9	12.8	17.7	10.8	8.9	10.6	10.7	3.4	0.8	-1.6	-7.6	-13.7	-23.0	-31.8	-41.1	-49.4	-58.9	-70.9	-88.9	-114.8	-152.5	-210.2	-299.8	-440.3	-652.8	-978.2	-1477.6	-2247.5	29.9	-6.5
1-G	52328	15950	29.0	13.6	12.5	17.4	10.5	8.5	10.2	10.3	2.9	0.2	-2.3	-8.5	-14.8	-24.3	-33.4	-43.0	-51.6	-61.4	-73.9	-92.6	-119.4	-158.5	-218.4	-311.6	-457.8	-679.0	-1018.2	-1538.7	-2341.2	29.7	-7.1
1-H	54591	16639	28.8	13.2	12.1	17.0	10.1	8.1	9.7	9.8	2.3	-0.4	-3.1	-9.5	-15.9	-25.7	-35.1	-45.0	-54.0	-64.1	-77.1	-96.4	-124.2	-164.9	-227.2	-324.2	-476.4	-706.9	-1060.7	-1603.7	-2440.9	29.5	-7.6
1-I	56913	17347	28.6	12.8	11.7	16.6	9.7	7.7	9.3	9.3	1.8	-1.1	-3.9	-10.4	-17.1	-27.2	-36.8	-47.0	-56.3	-66.9	-80.3	-100.4	-129.2	-171.5	-236.2	-337.1	-495.4	-735.5	-1104.3	-1670.4	-2543.2	29.3	-8.2
1-J	59305	18076	28.4	12.5	11.4	16.3	9.4	7.3	8.9	8.8	1.2	-1.7	-4.6	-11.4	-18.2	-28.6	-38.5	-49.1	-58.8	-69.7	-83.7	-104.4	-134.3	-178.2	-245.5	-350.4	-515.0	-765.0	-1149.2	-1739.0	-2648.5	29.0	-8.7
1-K	61849	18852	28.3	12.1	11.0	15.9	9.0	6.8	8.4	8.3	0.7	-2.4	-5.4	-12.4	-19.5	-30.2	-40.4	-51.3	-61.3	-72.7	-87.2	-108.7	-139.7	-185.3	-255.3	-364.5	-535.9	-796.3	-1196.9	-1812.1	-2760.5	28.8	-9.3
1-L	64461	19648	28.1	11.8	10.7	15.6	8.7	6.4	8.0	7.8	0.1	-3.0	-6.2	-13.4	-20.7	-31.7	-42.3	-53.5	-63.9	-75.8	-90.8	-113.1	-145.3	-192.7	-265.4	-378.9	-557.2	-828.4	-1245.9	-1887.0	-2875.5	28.6	-9.9
2-D	45036	13727	29.6	14.9	13.8	18.7	11.8	9.9	11.7	11.9	4.7	2.3	0.2	-5.4	-10.9	-19.7	-27.8	-36.4	-44.0	-52.6	-63.5	-80.1	-103.6	-137.7	-190.0	-271.0	-397.8	-589.0	-881.1	-1329.2	-2019.8	30.4	-5.0
2-E	47020	14332	29.4	14.5	13.4	18.3	11.4	9.5	11.3	11.5	4.2	1.7	-0.5	-6.3	-12.0	-20.9	-29.3	-38.2	-46.1	-55.0	-66.4	-83.5	-107.9	-143.4	-197.8	-282.1	-414.2	-613.5	-918.4	-1386.2	-2107.3	30.2	-5.6
2-F	49125	14973	29.3	14.1	13.0	17.9	11.0	9.1	10.8	11.0	3.7	1.1	-1.2	-7.2	-13.1	-22.3	-30.9	-40.1	-48.3	-57.6	-69.4	-87.1	-112.5	-149.4	-206.0	-293.8	-431.5	-639.5	-958.0	-1446.7	-2200.1	30.0	-6.2
2-G	51319	15642	29.1	13.7	12.6	17.5	10.6	8.7	10.4	10.5	3.1	0.5	-2.0	-8.1	-14.2	-23.7	-32.6	-42.1	-50.6	-60.2	-72.5	-90.9	-117.2	-155.6	-214.5	-306.0	-449.5	-666.6	-999.2	-1509.7	-2296.7	29.8	-6.8
2-H	53625	16345	28.9	13.4	12.3	17.2	10.3	8.3	9.9	10.0	2.5	-0.2	-2.8	-9.1	-15.4	-25.1	-34.3	-44.1	-53.0	-63.0	-75.7	-94.8	-122.2	-162.2	-223.5	-318.9	-468.5	-695.0	-1042.5	-1576.0	-2398.3	29.6	-7.4
2-I	56086	17095	28.7	13.0	11.9	16.8	9.9	7.8	9.5	9.5	2.0	-0.9	-3.6	-10.1	-16.7	-26.7	-36.2	-46.3	-55.5	-65.9	-79.2	-99.0	-127.4	-169.1	-233.0	-332.5	-488.6	-725.3	-1088.7	-1646.6	-2506.7	29.3	-8.0
2-J	58626	17869	28.5	12.6	11.5	16.4	9.5	7.4	9.0	9.0	1.4	-1.5	-4.4	-11.1	-17.9	-28.2	-38.0	-48.5	-58.1	-68.9	-82.7	-103.3	-132.9	-176.3	-242.8	-346.6	-509.5	-756.6	-1136.4	-1719.6	-2618.6	29.1	-8.6
2-K	61115	18628	28.3	12.2	11.1	16.0	9.1	7.0	8.6	8.5	0.8	-2.2	-5.2	-12.1	-19.1	-29.7	-39.9	-50.6	-60.6	-71.8	-86.2	-107.5	-138.2	-183.3	-252.4	-360.4	-529.9	-787.2	-1183.1	-1791.0	-2728.2	28.9	-9.2
2-L	63797	19445	28.1	11.8	10.7	15.6	8.7	6.5	8.1	8.0	0.3	-2.9	-6.0	-13.1	-20.4	-31.3	-41.8	-52.9	-63.3	-75.0	-89.9	-112.0	-143.8	-190.8	-262.8	-375.2	-551.8	-820.2	-1233.5	-1868.0	-2846.3	28.7	-9.7
3-D	43836	13361	29.7	15.1	14.0	18.9	12.0	10.2	12.0	12.2	5.0	2.7	0.7	-4.9	-10.3	-18.9	-26.9	-35.3	-42.7	-51.2	-61.8	-78.0	-101.0	-134.3	-185.3	-264.3	-387.9	-574.2	-858.5	-1294.7	-1966.9	30.6	-4.7
3-E	45927	13999	29.5	14.7	13.6	18.5	11.6	9.8	11.5	11.7	4.5	2.1	-0.1	-5.8	-11.4	-20.2	-28.5	-37.2	-45.0	-53.7	-64.8	-81.6	-105.5	-140.3	-193.5	-276.0	-405.2	-600.0	-897.8	-1354.8	-2059.1	30.3	-5.3
3-F	48128	14669	29.3	14.3	13.2	18.1	11.2	9.3	11.0	11.2	3.9	1.4	-0.9	-6.8	-12.6	-21.7	-30.2	-39.2	-47.3	-56.4	-68.0	-85.4	-110.3	-146.6	-202.1	-288.3	-423.3	-627.2	-939.2	-1418.0	-2156.1	30.1	-5.9
3-G	50415	15366	29.1	13.9	12.8	17.7	10.8	8.9	10.6	10.7	3.3	0.7	-1.7	-7.7	-13.8	-23.1	-31.9	-41.3	-49.7	-59.2	-71.2	-89.3	-115.2	-153.1	-211.0	-301.0	-442.1	-655.4	-982.2	-1483.7	-2256.9	29.9	-6.5
3-I	55269	16846	28.7	13.1	12.0	16.9	10.0	8.0	9.6	9.6	2.2	-0.6	-3.3	-9.7	-16.2	-26.1	-35.6	-45.6	-54.7	-65.0	-78.0	-97.6	-125.7	-166.8	-229.8	-328.0	-481.9	-715.3	-1073.4	-1623.2	-2470.7	29.4	-7.8
3-J	57863	17637	28.5	12.7	11.6	16.5	9.6	7.5	9.1	9.1	1.6	-1.3	-4.2	-10.8	-17.5	-27.7	-37.5	-47.8	-57.3	-68.0	-81.7	-102.0	-131.2	-174.1	-239.9	-342.4	-503.2	-747.2	-1122.1	-1697.7	-2585.0	29.2	-8.4
3-K	60537	18452	28.3	12.3	11.2	16.1	9.2	7.1	8.7	8.6	1.0	-2.0	-5.0	-11.8	-18.9	-29.4	-39.4	-50.1	-60.0	-71.2	-85.4	-106.5	-136.9	-181.7	-250.2	-357.2	-525.1	-780.1	-1172.3	-1774.4	-2702.7	28.9	-9.0
3-L	63169	19254	28.2	11.9	10.8	15.7	8.8	6.6	8.2	8.1	0.4	-2.7	-5.9	-12.9	-20.1	-30.9	-41.3	-52.4	-62.7	-74.2	-89.0	-110.9	-142.5	-189.0	-260.4	-371.8	-546.7	-812.5	-1221.7	-1850.0	-2818.6	28.7	-9.6
4-D	42724	13022	29.9	15.3	14.2	19.1	12.2	10.5	12.3	12.5	5.4	3.1	1.1	-4.4	-9.7	-18.1	-26.0	-34.3	-41.6	-49.8	-60.2	-76.0	-98.5	-131.1	-180.9	-258.1	-378.8	-560.5	-837.5	-1262.7	-1917.9	30.7	-4.3
4-E	44945	13699	29.6	14.9	13.8	18.7	11.8	10.0	11.7	12.0	4.7	2.4	0.2	-5.4	-10.9	-19.6	-27.7	-36.3	-43.9	-52.5	-63.4	-79.9	-103.4	-137.5	-189.6	-270.5	-397.1	-587.9	-879.3	-1326.5	-2015.8	30.5	-5.0
4-F	47208	14389	29.4	14.5	13.4	18.3	11.4	9.5	11.2	11.4	4.1	1.7	-0.6	-6.4	-12.1	-21.1	-29.5	-38.4	-46.3	-55.3	-66.7	-83.8	-108.3	-143.9	-198.5	-283.1	-415.7	-615.9	-921.9	-1391.6	-2115.6	30.2	-5.7
4-G	49622	15125	29.2	14.0	12.9	17.8	10.9	9.0	10.7	10.9	3.5	1.0	-1.4	-7.4	-13.4	-22.6	-31.3	-40.6	-48.8	-58.2	-70.1	-88.0	-113.5	-150.8	-207.9	-296.6	-435.6	-645.7	-967.3	-1461.0	-2221.9	29.9	-6.3
4-H	52086	15876	29.0	13.6	12.5	17.4	10.5	8.5	10.2	10.3	2.9	0.3	-2.3	-8.4	-14.6	-24.2	-33.2	-42.8	-51.4	-61.2	-73.6	-92.2	-118.8	-157.8	-217.5	-310.3	-455.8	-676.0	-1013.6	-1531.7	-2330.5	29.7	-7.0
4-I	54654	16659	28.8	13.2	12.1	17.0	10.1	8.1	9.7	9.8	2.3	-0.5	-3.1	-9.5	-15.9	-25.8	-35.1	-45.0	-54.0	-64.2	-77.2	-96.5	-124.4	-165.1	-227.4	-324.6	-476.9	-707.7	-1061.9	-1605.5	-2443.7	29.5	-7.6
4-J	57263	17454	28.6	12.8	11.7	16.6	9.7	7.6	9.2	9.2	1.7	-1.2	-4.0	-10.5	-17.2	-27.4	-37.0	-47.3	-56.7	-67.3	-80.8	-101.0	-129.9	-172.4	-237.6	-339.1	-498.3	-739.8	-1110.8	-1680.4	-2558.6	29.2	-8.3
4-K	59959	18276	28.4	12.4	11.3	16.2	9.3	7.2	8.8	8.7	1.1	-1.9	-4.8	-11.6	-18.6	-29.0	-39.0	-49.6	-59.4	-70.5	-84.6	-105.5	-135.7	-180.0	-248.0	-354.0	-520.4	-773.0	-1161.5	-1757.8	-2677.3	29.0	-8.9
4-L	62718	19117	28.2	12.0	10.9	15.8	8.9	6.7	8.3	8.2	0.5	-2.6	-5.7	-12.7	-19.9	-30.7	-41.0	-52.0	-62.2	-73.7	-88.4	-110.1	-141.6	-187.8	-258.6	-369.3	-543.0	-807.0	-1213.2	-1837.0	-2798.8	28.8	-9.5
5-D	41697	12709	30.0	15.5	14.4	19.3	12.4	10.7	12.5	12.8	5.6	3.4	1.5	-3.9	-9.1	-17.5	-25.2	-33.4	-40.5	-48.5	-58.7	-74.2	-96.3	-128.2	-176.9	-252.3	-370.3	-547.8	-818.2	-1233.1	-1872.6	30.8	-4.0
5-E	43942	13393	29.7	15.1	14.0	18.9	12.0	10.2	12.0	12.2	5.0	2.7	0.6	-4.9	-10.4	-18.9	-26.9	-35.4	-42.9	-51.3	-62.0	-78.2	-101.2	-134.6	-185.7	-264.9	-388.8	-575.5	-860.5	-1297.7	-1971.6	30.6	-4.7
5-F	46351	14128	29.5	14.6	13.5	18.4	11.5	9.7	11.4	11.6	4.4	1.9	-0.3	-6.0	-11.6	-20.5	-28.8	-37.6	-45.4	-54.2	-65.4	-82.3	-106.5	-141.5	-195.1	-278.3	-408.7	-605.3	-905.8	-1367.0	-2077.8	30.3	-5.4
5-G	48796	14873	29.3	14.2	13.1	18.0	11.1	9.2	10.9	11.0	3.7	1.2	-1.1	-7.1	-12.9	-22.1	-30.7	-39.8	-48.0	-57.2	-68.9	-86.5	-111.8	-148.5	-204.7	-292.0	-428.8	-635.5	-951.8	-1437.2	-2185.5	30.0	-6.1
5-H	51376	15659	29.1	13.7	12.6	17.5	10.6	8.7	10.4	10.5	3.1	0.5	-2.0	-8.1	-14.3	-23.7	-32.6	-42.1	-50.7	-60.3	-72.6	-91.0	-117.3	-155.8	-214.7	-306.3	-450.0	-667.3	-1000.3	-1511.4	-2299.2	29.8	-6.8
5-I	54012	16463	28.8	13.3	12.2	17.1	10.2	8.2	9.9	9.9	2.5	-0.3	-2.9	-9.2	-15.6	-25.4	-34.6	-44.5	-53.4	-63.5	-76.3	-95.4	-123.0	-163.3	-225.0	-321.0	-471.6	-699.8	-1049.8	-1587.1	-2415.4	29.5	-7.5
5-J	56689	17279	28.6	12.9	11.8	16.7	9.8	7.7	9.4	9.4	1.8	-1.0	-3.8	-10.3	-17.0	-27.0	-36.6	-46.8	-56.1	-66.6	-80.0	-100.0	-128.7	-170.8	-235.3	-335.9	-493.6	-732.8	-1100.1	-1664.0	-2533.3	29.3	-8.1
6-D	40751	12421	30.1	15.7	14.6	19.5	12.6	10.9	12.7	13.0	5.9	3.7	1.8	-3.5	-8.6	-16.8	-24.4	-32.5	-39.4	-47.3	-57.3	-72.6	-94.2	-125.4	-173.2	-247.0	-362.5	-536.1	-800.4	-1205.9	-1830.9	31.0	-3.7
6-E	43096	13136	29.8	15.2	14.1	19.0	12.1	10.4	12.2	12.4	5.3	2.9	0.9	-4.6	-9.9	-18.4	-26.3	-34.7	-42.0	-50.2	-60.7	-76.7	-99.4	-132.2	-182.4	-260.2	-381.8	-565.1	-844.5	-1273.4	-1934.3	30.7	-4.4
6-G	48177	14684	29.3	14.3	13.2	18.1	11.2	9.3	11.0	11.2	3.9	1.4	-0.9	-6.8	-12.6	-21.7	-30.2	-39.3	-47.3	-56.5	-68.0	-85.5	-110.4	-146.7	-202.3	-288.5	-423.7	-627.8	-940.1	-1419.5	-2158.3	30.1	-5.9
6-H	50832	15494	29.1	13.8	12.7	17.6	10.7	8.8	10.5	10.6	3.2	0.6	-1.8	-7.9	-14.0	-23.4	-32.2	-41.7	-50.1	-59.7	-71.8	-90.0	-116.1	-154.3	-212.6	-303.3	-445.5	-660.6	-990.1	-1495.7	-2275.3	29.8	-6.7
6-I	53459	16294	28.9	13.4	12.3	17.2	10.3	8.3	10.0	10.0	2.6	-0.1	-2.7	-9.0	-15.3	-25.0	-34.2	-44.0	-52.8	-62.8	-75.5	-94.5	-121.8	-161.7	-222.8	-317.9	-467.1	-693.0	-1039.4	-1571.2	-2391.0	29.6	-7.3
6-J	56201	17130	28.7	12.9	11.8	16.7	9.8	7.8	9.4	9.5	1.9	-0.9	-3.6	-10.1	-16.7	-26.7	-36.2	-46.4	-55.6	-66.1	-79.3	-99.2	-127.7	-169.4	-233.4	-333.2	-489.6	-726.7	-1090.9	-1649.9	-2511.8	29.3	-8.0
7-B	35342	10772	30.7	17.0	15.9	20.8	13.9	12.3	14.1	14.5	7.6	5.6	4.0	-0.9	-5.5	-13.1	-20.0	-27.4	-33.5	-40.5	-49.4	-63.0	-82.3	-109.8	-151.9	-216.6	-317.7	-469.0	-698.4	-1050.2	-1592.2	31.7	-1.8
7-C	37548	11445	30.4	16.4	15.3	20.2	13.3	11.7	13.5	13.9	6.9	4.8	3.1	-2.0	-6.8	-14.6	-21.8	-29.5	-36.0	-43.3	-52.6	-66.9	-87.2	-116.2	-160.6	-229.0	-336.0	-496.4	-740.0	-1113.7	-1689.6	31.4	-2.6
7-E	42350	12908	29.9	15.4	14.3	19.2	12.3	10.5	12.3	12.6	5.5	3.2	1.2	-4.2	-9.5	-17.9	-25.7	-34.0	-41.2	-49.3	-59.7	-75.4	-97.7	-130.0	-179.5	-256.0	-375.7	-555.8	-830.5	-1251.9	-1901.4	30.8	-4.2
7-F	44888	13682	29.6	14.9	13.8	18.7	11.8	10.0	11.8	12.0	4.8	2.4	0.3	-5.4	-10.9	-19.6	-27.7	-36.3	-43.9	-52.4	-63.3	-79.8	-103.3	-137.3	-189.4	-270.2	-396.6	-587.2	-878.3	-1324.9	-2013.3	30.5	-5.0
7-G	47507	14480	29.4	14.4	13.3	18.2	11.3	9.4	11.2	11.3	4.1	1.6	-0.7	-6.5	-12.3	-21.3	-29.7	-38.7	-46.6	-55.6	-67.1	-84.3	-109.0	-144.8	-199.7	-284.8	-418.2	-619.6	-927.5	-1400.2	-2128.7	30.2	-5.8
7-H	50224	15308	29.2	13.9	12.8	17.7	10.8	8.9	10.6	10.7	3.4	0.8	-1.6	-7.7	-13.7	-23.0	-31.8	-41.1	-49.5	-58.9	-70.9	-89.0	-114.8	-152.5	-210.2	-299.9	-440.5	-653.1	-978.6	-1478.3	-2248.5	29.9	-6.5
7-I	53011	16158	28.9	13.5	12.4	17.3	10.4	8.4	10.1	10.1	2.7	0.0	-2.6	-8.8	-15.1	-24.7	-33.9	-43.6	-52.3	-62.3	-74.9	-93.7	-120.8	-160.4	-221.1	-315.4	-463.4	-687.4	-1031.0	-1558.3	-2371.3	29.6	-7.2
8-A	32155	9801	31.1	17.8	16.7	21.6	14.7	13.1	15.1	15.5	8.6	6.8	5.4	0.7	-3.6	-10.8	-17.3	-24.2	-29.9	-36.4	-44.6	-57.3	-75.1	-100.5	-139.2	-198.6	-291.2	-429.5	-638.2	-958.3	-1451.5	32.2	-0.6
8-B	34320	10461	30.8	17.2	16.1	21.0	14.1	12.5	14.4	14.8	7.9	5.9	4.4	-0.4	-4.9	-12.4	-19.2	-26.4	-32.4	-39.2	-47.9	-61.2	-80.0	-106.8	-147.8	-210.8	-309.2	-456.4	-679.1	-1020.7	-1547.1	31.9	-1.4

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Leq)
FROM WIND PARK OPERATIONS AT THE CUT-IN WIND CONDITION

8-C	36645	11169	30.5	16.7	15.6	20.5	13.6	11.9	13.8	14.1	7.2	5.1	3.4	-1.5	-6.3	-14.0	-21.1	-28.6	-35.0	-42.2	-51.3	-65.3	-85.2	-113.6	-157.0	-223.9	-328.5	-485.2	-723.0	-1087.7	-1649.7	31.5	-2.3
8-D	39127	11926	30.2	16.1	15.0	19.9	13.0	11.3	13.1	13.4	6.4	4.2	2.5	-2.7	-7.7	-15.7	-23.1	-31.0	-37.7	-45.3	-55.0	-69.7	-90.6	-120.8	-166.8	-237.9	-349.1	-516.0	-769.8	-1159.2	-1759.2	31.2	-3.2
8-F	44300	13503	29.7	15.0	13.9	18.8	11.9	10.1	11.9	12.1	4.9	2.6	0.5	-5.1	-10.5	-19.2	-27.2	-35.8	-43.2	-51.7	-62.5	-78.8	-102.0	-135.6	-187.1	-266.9	-391.8	-579.9	-867.2	-1308.0	-1987.4	30.5	-4.8
8-G	46965	14315	29.5	14.5	13.4	18.3	11.4	9.5	11.3	11.5	4.2	1.7	-0.5	-6.3	-12.0	-20.9	-29.3	-38.2	-46.1	-55.0	-66.3	-83.4	-107.8	-143.3	-197.5	-281.8	-413.7	-612.9	-917.3	-1384.6	-2104.8	30.2	-5.6
8-H	49776	15172	29.2	14.0	12.9	17.8	10.9	9.0	10.7	10.8	3.5	0.9	-1.5	-7.5	-13.4	-22.7	-31.4	-40.7	-49.0	-58.4	-70.3	-88.2	-113.9	-151.3	-208.5	-297.4	-436.8	-647.6	-970.2	-1465.4	-2228.7	29.9	-6.4
9-A	31152	9495	31.2	18.1	17.0	21.9	15.0	13.4	15.4	15.8	9.0	7.2	5.8	1.2	-3.0	-10.1	-16.5	-23.2	-28.8	-35.1	-43.1	-55.5	-72.8	-97.5	-135.2	-192.9	-282.9	-417.0	-619.3	-929.4	-1407.2	32.4	-0.2
9-B	33436	10191	30.9	17.5	16.4	21.3	14.4	12.8	14.7	15.1	8.2	6.3	4.8	0.0	-4.4	-11.7	-18.4	-25.5	-31.4	-38.1	-46.5	-59.6	-78.0	-104.2	-144.3	-205.8	-301.9	-445.4	-662.4	-995.3	-1508.1	32.0	-1.1
9-C	35878	10936	30.6	16.8	15.7	20.6	13.7	12.1	14.0	14.4	7.4	5.4	3.8	-1.2	-5.8	-13.5	-20.5	-27.9	-34.1	-41.2	-50.2	-64.0	-83.4	-111.3	-154.0	-219.6	-322.2	-475.7	-708.5	-1065.6	-1615.9	31.6	-2.0
9-D	38414	11708	30.3	16.2	15.1	20.0	13.1	11.5	13.3	13.6	6.6	4.5	2.7	-2.4	-7.3	-15.2	-22.5	-30.3	-36.9	-44.4	-53.9	-68.5	-89.1	-118.7	-164.0	-233.9	-343.2	-507.1	-756.3	-1138.6	-1727.8	31.3	-2.9
9-E	41056	12514	30.0	15.7	14.6	19.5	12.6	10.8	12.7	12.9	5.8	3.6	1.7	-3.6	-8.8	-17.0	-24.7	-32.8	-39.8	-47.7	-57.8	-73.1	-94.9	-126.3	-174.4	-248.7	-365.0	-539.8	-806.1	-1214.7	-1844.3	30.9	-3.8
9-F	43792	13348	29.8	15.1	14.0	18.9	12.0	10.2	12.0	12.2	5.1	2.7	0.7	-4.9	-10.3	-18.8	-26.8	-35.3	-42.7	-51.1	-61.7	-77.9	-100.9	-134.2	-185.1	-264.0	-387.6	-573.7	-857.6	-1293.4	-1965.0	30.6	-4.7
9-G	46593	14202	29.5	14.6	13.5	18.4	11.5	9.6	11.4	11.6	4.3	1.9	-0.4	-6.1	-11.8	-20.7	-29.0	-37.8	-45.7	-54.5	-65.8	-82.7	-107.0	-142.2	-196.1	-279.7	-410.7	-608.3	-910.3	-1373.9	-2088.5	30.3	-5.5
9-H	49397	15056	29.2	14.1	13.0	17.9	11.0	9.1	10.8	10.9	3.6	1.0	-1.3	-7.3	-13.2	-22.5	-31.1	-40.4	-48.6	-57.9	-69.8	-87.6	-113.1	-150.2	-207.0	-295.3	-433.7	-642.9	-963.1	-1454.5	-2212.0	30.0	-6.3
9-I	52318	15946	29.0	13.6	12.5	17.4	10.5	8.5	10.2	10.3	2.9	0.2	-2.3	-8.5	-14.8	-24.3	-33.4	-43.0	-51.6	-61.4	-73.9	-92.6	-119.3	-158.5	-218.4	-311.6	-457.7	-678.9	-1018.0	-1538.4	-2340.7	29.7	-7.0
10-A	30243	9218	31.4	18.3	17.2	22.1	15.2	13.7	15.7	16.1	9.3	7.5	6.2	1.7	-2.4	-9.4	-15.7	-22.3	-27.8	-33.9	-41.7	-53.8	-70.8	-94.8	-131.5	-187.7	-275.3	-405.7	-602.1	-903.2	-1367.1	32.6	0.2
10-B	32629	9945	31.0	17.7	16.6	21.5	14.6	13.0	14.9	15.3	8.5	6.6	5.1	0.5	-3.9	-11.2	-17.7	-24.7	-30.5	-37.0	-45.3	-58.2	-76.2	-101.9	-141.1	-201.3	-295.2	-435.4	-647.2	-972.0	-1472.5	32.2	-0.8
10-C	35175	10721	30.7	17.0	15.9	20.8	13.9	12.3	14.2	14.6	7.6	5.6	4.1	-0.8	-5.4	-13.0	-19.9	-27.2	-33.3	-40.3	-49.1	-62.7	-81.9	-109.3	-151.2	-215.7	-316.3	-467.0	-695.3	-1045.4	-1584.9	31.7	-1.8
10-D	37865	11541	30.4	16.4	15.3	20.2	13.3	11.6	13.5	13.8	6.8	4.7	3.0	-2.1	-7.0	-14.9	-22.1	-29.8	-36.3	-43.7	-53.1	-67.5	-87.9	-117.1	-161.8	-230.8	-338.6	-500.3	-746.0	-1122.8	-1703.6	31.4	-2.7
10-E	40598	12374	30.1	15.8	14.7	19.6	12.7	10.9	12.8	13.1	6.0	3.8	1.9	-3.4	-8.5	-16.7	-24.3	-32.3	-39.3	-47.2	-57.1	-72.3	-93.9	-125.0	-172.6	-246.2	-361.2	-534.2	-797.5	-1201.5	-1824.1	31.0	-3.7
10-F	43440	13241	29.8	15.2	14.1	19.0	12.1	10.3	12.1	12.3	5.2	2.8	0.8	-4.7	-10.1	-18.6	-26.5	-35.0	-42.3	-50.7	-61.2	-77.3	-100.1	-133.2	-183.8	-262.1	-384.7	-569.3	-851.0	-1283.3	-1949.5	30.6	-4.6
10-G	46297	14111	29.5	14.6	13.5	18.4	11.5	9.7	11.4	11.6	4.4	2.0	-0.2	-6.0	-11.6	-20.5	-28.8	-37.6	-45.3	-54.2	-65.3	-82.2	-106.3	-141.3	-194.9	-278.0	-408.2	-604.6	-904.8	-1365.4	-2075.4	30.3	-5.4
10-H	49179	14990	29.2	14.1	13.0	17.9	11.0	9.1	10.8	11.0	3.6	1.1	-1.3	-7.2	-13.1	-22.3	-31.0	-40.2	-48.4	-57.7	-69.5	-87.2	-112.6	-149.6	-206.2	-294.1	-431.9	-640.2	-959.0	-1448.2	-2202.4	30.0	-6.2
10-I	54331	16560	28.8	13.2	12.1	17.0	10.1	8.1	9.8	9.8	2.4	-0.4	-3.0	-9.4	-15.8	-25.6	-34.9	-44.7	-53.7	-63.8	-76.7	-96.0	-123.7	-164.2	-226.2	-322.8	-474.3	-703.7	-1055.8	-1596.3	-2429.4	29.5	-7.6
11-A	29395	8960	31.5	18.6	17.5	22.4	15.5	14.0	15.9	16.4	9.6	7.9	6.6	2.2	-1.9	-8.8	-14.9	-21.5	-26.8	-32.8	-40.4	-52.3	-68.9	-92.3	-128.1	-182.9	-268.3	-395.1	-586.1	-878.7	-1329.6	32.7	0.6
11-B	31965	9743	31.1	17.8	16.7	21.6	14.7	13.2	15.1	15.6	8.7	6.8	5.4	0.8	-3.5	-10.7	-17.2	-24.0	-29.7	-36.2	-44.3	-57.0	-74.7	-99.9	-138.4	-197.5	-289.7	-427.1	-634.6	-952.9	-1443.1	32.3	-0.5
11-C	34591	10543	30.8	17.2	16.1	21.0	14.1	12.5	14.4	14.7	7.8	5.8	4.3	-0.5	-5.1	-12.6	-19.4	-26.6	-32.7	-39.6	-48.3	-61.7	-80.6	-107.6	-148.9	-212.4	-311.5	-459.7	-684.2	-1028.5	-1559.1	31.8	-1.5
11-D	37348	11384	30.4	16.5	15.4	20.3	13.4	11.7	13.6	13.9	6.9	4.9	3.2	-1.9	-6.7	-14.5	-21.7	-29.3	-35.7	-43.1	-52.4	-66.6	-86.7	-115.6	-159.8	-227.9	-334.3	-493.9	-736.2	-1108.0	-1680.8	31.4	-2.5
11-E	40183	12248	30.1	15.9	14.8	19.7	12.8	11.0	12.9	13.2	6.1	3.9	2.0	-3.2	-8.3	-16.4	-24.0	-31.9	-38.8	-46.6	-56.5	-71.6	-93.0	-123.8	-171.0	-243.8	-357.8	-529.0	-789.7	-1189.6	-1805.8	31.0	-3.5
11-F	43038	13118	29.8	15.3	14.2	19.1	12.2	10.4	12.2	12.4	5.3	3.0	0.9	-4.5	-9.9	-18.3	-26.2	-34.6	-41.9	-50.2	-60.7	-76.6	-99.2	-132.0	-182.2	-259.8	-381.4	-564.3	-843.4	-1271.7	-1931.7	30.7	-4.4
11-G	45970	14012	29.5	14.7	13.6	18.5	11.6	9.7	11.5	11.7	4.5	2.1	-0.1	-5.8	-11.4	-20.3	-28.5	-37.3	-45.0	-53.8	-64.9	-81.7	-105.6	-140.4	-193.7	-276.2	-405.5	-600.6	-898.6	-1356.0	-2061.0	30.3	-5.3
11-H	48929	14914	29.3	14.1	13.0	17.9	11.0	9.1	10.9	11.0	3.7	1.2	-1.2	-7.1	-13.0	-22.2	-30.8	-39.9	-48.1	-57.4	-69.1	-86.8	-112.0	-148.8	-205.2	-292.7	-429.9	-637.1	-954.3	-1441.1	-2191.4	30.0	-6.1
11-K	58031	17688	28.5	12.7	11.6	16.5	9.6	7.5	9.1	9.1	1.5	-1.4	-4.2	-10.9	-17.6	-27.8	-37.6	-48.0	-57.5	-68.2	-81.9	-102.3	-131.6	-174.6	-240.5	-343.3	-504.6	-749.3	-1125.3	-1702.5	-2592.4	29.2	-8.4
11-L	61114	18628	28.3	12.2	11.1	16.0	9.1	7.0	8.6	8.5	0.8	-2.2	-5.2	-12.1	-19.1	-29.7	-39.9	-50.6	-60.6	-71.8	-86.2	-107.5	-138.2	-183.3	-252.4	-360.4	-529.9	-787.2	-1183.1	-1791.0	-2728.2	28.9	-9.2
12-A	28700	8748	31.6	18.8	17.7	22.6	15.7	14.2	16.2	16.7	9.9	8.1	6.9	2.6	-1.4	-8.2	-14.3	-20.8	-26.0	-31.9	-39.3	-51.0	-67.3	-90.3	-125.3	-179.0	-262.5	-386.5	-572.9	-858.7	-1298.9	32.9	0.9
12-B	31394	9569	31.2	18.0	16.9	21.8	14.9	13.4	15.3	15.7	8.9	7.1	5.7	1.1	-3.1	-10.2	-16.7	-23.5	-29.1	-35.4	-43.4	-55.9	-73.4	-98.2	-136.1	-194.3	-284.9	-420.0	-623.9	-936.4	-1417.9	32.4	-0.3
12-C	34168	10414	30.8	17.3	16.2	21.1	14.2	12.6	14.5	14.9	8.0	6.0	4.5	-0.3	-4.8	-12.3	-19.0	-26.2	-32.2	-39.0	-47.6	-60.9	-79.6	-106.4	-147.2	-210.0	-308.0	-454.5	-676.3	-1016.4	-1540.4	31.9	-1.4
12-D	37016	11283	30.5	16.6	15.5	20.4	13.5	11.8	13.7	14.0	7.0	5.0	3.3	-1.7	-6.5	-14.3	-21.4	-29.0	-35.4	-42.7	-51.9	-66.0	-86.0	-114.7	-158.5	-226.0	-331.6	-489.8	-730.0	-1098.4	-1666.1	31.5	-2.4
12-E	39895	12160	30.2	15.9	14.8	19.7	12.8	11.1	12.9	13.2	6.2	4.0	2.1	-3.1	-8.1	-16.2	-23.7	-31.7	-38.5	-46.3	-56.1	-71.1	-92.3	-123.0	-169.8	-242.2	-355.4	-525.5	-784.3	-1181.3	-1793.1	31.1	-3.4
12-F	42811	13049	29.9	15.3	14.2	19.1	12.2	10.4	12.2	12.5	5.3	3.0	1.0	-4.4	-9.7	-18.2	-26.0	-34.4	-41.7	-49.9	-60.3	-76.2	-98.7	-131.4	-181.3	-258.6	-379.5	-561.5	-839.2	-1265.2	-1921.7	30.7	-4.4
12-G	45834	13970	29.6	14.7	13.6	18.5	11.6	9.8	11.5	11.7	4.5	2.1	-0.1	-5.8	-11.4	-20.2	-28.4	-37.2	-44.9	-53.6	-64.7	-81.4	-105.3	-140.0	-193.1	-275.5	-404.4	-598.9	-896.1	-1352.1	-2055.0	30.4	-5.3
12-H	48797	14873	29.3	14.2	13.1	18.0	11.1	9.2	10.9	11.0	3.7	1.2	-1.1	-7.1	-12.9	-22.1	-30.7	-39.8	-48.0	-57.2	-68.9	-86.5	-111.8	-148.5	-204.7	-292.0	-428.8	-635.5	-951.8	-1437.3	-2185.6	30.0	-6.1
12-I	51920	15825	29.0	13.6	12.5	17.4	10.5	8.6	10.3	10.4	3.0	0.3	-2.2	-8.4	-14.6	-24.1	-33.1	-42.6	-51.2	-61.0	-73.3	-91.9	-118.5	-157.3	-216.8	-309.4	-454.5	-674.0	-1010.5	-1527.0	-2323.2	29.7	-6.9
12-J	54987	16760	28.8	13.1	12.0	16.9	10.0	8.0	9.7	9.7	2.2	-0.6	-3.2	-9.6	-16.1	-26.0	-35.3	-45.3	-54.4	-64.6	-77.6	-97.1	-125.1	-166.0	-228.7	-326.4	-479.6	-711.8	-1068.1	-1615.1	-2458.3	29.4	-7.7
12-K	58065	17698	28.5	12.7	11.6	16.5	9.6	7.5	9.1	9.1	1.5	-1.4	-4.2	-10.9	-17.6	-27.9	-37.6	-48.0	-57.5	-68.3	-81.9	-102.3	-131.7	-174.7	-240.7	-343.5	-504.9	-749.7	-1125.9	-1703.5	-2593.9	29.2	-8.5
12-L	61148	18638	28.3	12.2	11.1	16.0	9.1	7.0	8.6	8.5	0.8	-2.2	-5.2	-12.1	-19.2	-29.7	-39.9	-50.7	-60.6	-71.9	-86.2	-107.5	-138.2	-183.4	-252.6	-360.6	-530.1	-787.6	-1183.8	-1792.0	-2729.6	28.9	-9.2
13-A	28123	8572	31.7	19.0	17.9	22.8	15.9	14.4	16.4	16.9	10.1	8.4	7.2	2.9	-1.0	-7.8	-13.8	-20.2	-25.3	-31.1	-38.4	-49.9	-65.9	-88.5	-123.0	-175.7	-257.6	-379.3	-562.0	-842.0	-1273.4	33.0	1.2
13-B	30961	9437	31.3	18.1	17.0	21.9	15.0	13.5	15.4	15.9	9.1	7.2	5.9	1.3	-2.8	-9.9	-16.3	-23.0	-28.6	-34.9	-42.8	-55.1	-72.4	-97.0	-134.4	-191.8	-281.3	-414.6	-615.7	-923.9	-1398.8	32.4	-0.1
13-C	33805	10304	30.9	17.4	16.3	21.2	14.3	12.7	14.6	15.0	8.1	6.1	4.6	-0.1	-4.6	-12.0	-18.7	-25.9	-31.8	-38.6	-47.1	-60.3	-78.8	-105.3	-145.7	-207.9	-305.0	-450.0	-669.4	-1005.9	-1524.4	32.0	-1.2
13-D	36755	11203	30.5	16.6	15.5	20.4	13.5	11.9	13.8	14.1	7.1	5.1	3.4	-1.6	-6.3	-14.1	-21.2	-28.7	-35.1	-42.3	-51.5	-65.5	-85.4	-113.9	-157.4	-224.6	-329.4	-486.6	-725.1	-1090.9	-1654.6	31.5	-2.3
13-F	42723	13022	29.9	15.3	14.2	19.1	12.2	10.5	12.3	12.5	5.4	3.1	1.1	-4.4	-9.7	-18.1	-26.0	-34.3	-41.6	-49.8	-60.2	-76.0	-98.5	-131.1	-180.9	-258.1	-378.8	-560.5	-837.5	-1262.6	-1917.8	30.7	-4.3
13-G	45759	13947	29.6	14.7	13.6	18.5	11.6	9.8	11.6	11.8	4.5	2.1	-0.1	-5.7	-11.3	-20.1	-28.4	-37.1	-44.8	-53.5	-64.6	-81.3	-105.2	-139.8	-192.8	-275.0	-403.8	-598.0	-894.6	-1349.9	-2051.7	30.4	-5.2
13-H	48790	14871	29.3	14.2	13.1	18.0	11.1	9.2	10.9	11.0	3.7	1.2	-1.1	-7.0	-12.9	-22.1	-30.7	-39.8	-48.0	-57.2	-68.9	-86.5	-111.7	-148.5	-204.7	-291.9	-428.7	-635.4	-951.7	-1437.1	-2185.3	30.0	-6.1
13-I	51941	15832	29.0	13.6	12.5	17.4	10.5	8.6	10.3	10.3	3.0	0.3	-2.2	-8.4	-14.6	-24.1	-33.1	-42.6	-51.2	-61.0	-73.4	-91.9	-118.5	-157.4	-216.9	-309.5	-454.6	-674.3	-1010.9	-1527.6	-2324.1	29.7	-7.0
13-J	55017	16769	28.8	13.1	12.0	16.9	10.0	8.0	9.7	9.7	2.2	-0.6	-3.2	-9.6	-16.1	-26.0	-35.4	-45.3	-54.4	-64.7	-77.7	-97.2	-125.1	-166.1	-228.9	-326.6	-479.9	-712.2	-1068.7	-1615.9	-2459.6	29.4	-7.7
13-K	58117	17714	28.5	12.7	11.6	16.5	9.6	7.5	9.1	9.1	1.5	-1.4	-4.3	-10.9	-17.7	-27.9	-37.7	-48.1	-57.6	-68.3	-82.0	-102.4	-131.8	-174.8	-240.9	-343.8	-505.3	-750.3	-1126.9	-1705.0	-2596.2	29.2	-8.5
13-L	61293	18682	28.3	12.2	11.1	16.0	9.1	6.9	8.5	8.4	0.8	-2.2	-5.3	-12.1	-19.2	-29.8	-40.0	-50.8	-60.8	-72.1	-86.4	-107.8	-138.5	-183.8	-253.1	-361.4	-531.3	-789.4	-1186.5	-1796.1	-2736.0	28.9	-9.2
14-D	36591	11153	30.5	16.7	15.6	20.5	13.6	11.9	13.8	14.2	7.2	5.1	3.5	-1.5	-6.2	-14.0	-21.0	-28.6	-34.9	-42.1	-51.2	-65.3	-85.0	-113.4	-156.8	-223.6	-328.1	-484.5	-722.0	-1086.2	-1647.4	31.5	-2.3
14-E	39573	12062	30.2	16.0	14.9	19.8	12.9	11.2	13.0	13.3	6.3	4.1	2.3	-2.9	-7.9	-16.0	-23.5	-31.4	-38.2	-45.9	-55.6	-70.5	-91.6	-122.1	-168.6	-240.4	-352.7	-521.5	-778.2	-1172.0	-1778.9	31.1	-3.3
14-F	42692	13013	29.9	15.3	14.2	19.1	12.2	10.5	12.3	12.5	5.4	3.1	1.1	-4.4	-9.7	-18.1	-26.0	-34.3	-41.5	-49.8	-60.2	-76.0	-98.5	-131.0	-180.8	-257.9	-378.5	-560.1	-836.9	-1261.7	-1916.5	30.7	-4.3
14-G	45758	13947	29.6	14.7	13.6	18.5	11.6	9.8	11.6	11.8	4.5	2.1	-0.1	-5.7	-11.3	-20.1	-28.3	-37.1	-44.8	-53.5	-64.6	-81.3	-105.2	-139.8	-192.8	-275.0	-403.8	-598.0	-894.6	-1349.9	-2051.6	30.4	-5.2
14-H	48859	14892	29.3	14.2	13.1	18.0	11.1	9.2	10.9	11.0	3.7	1.2	-1.2	-7.1	-13.0	-22.1	-30.7	-39.9	-48.0	-57.3	-69.0	-86.6	-111.9	-148.6	-204.9	-292.3	-429.3	-636.2	-953.0	-1439.1	-2188.3	30.0	-6.1
14-J	55147	16809	28.8	13.1	12.0	16.9	10.0	8.0	9.6	9.7	2.2	-0.6	-3.3	-9.7	-16.2	-26.1	-35.5	-45.5	-54.5	-64.8	-77.9	-97.4	-125.4	-166.5	-229.4	-327.3	-480.9	-713.8	-1071.1	-1619.7	-2465.3	29.4	-7.8
14-K	58327	17778	28.5	12.6	11.5	16.4	9.5	7.4	9.1	9.0	1.5	-1.5	-4.3	-11.0	-17.8	-28.0	-37.8	-48.2	-57.8	-68.6	-82.3	-102.8	-132.2	-175.4	-241.7	-345.0	-507.0	-752.9	-1130.8	-1711.0	-2605.4	29.1	-8.5
14-L	61512	18749	28.3	12.2	11.1	16.0	9.1	6.9	8.5	8.4	0.8	-2.3	-5.3	-12.2	-19.3	-30.0	-40.1	-51.0	-61.0	-72.3	-86.7	-108.1	-139.0	-184.4	-254.0	-362.6	-533.1	-792.1	-1190.6	-1802.4	-2745.7	28.9	-9.2
15-F	42743	13028	29.9	15.3	14.2	19.1	12.2	10.4	12.3	12.5	5.4	3.1	1.1	-4.4	-9.7	-18.2	-26.0	-34.3	-41.6	-49.8	-60.2	-76.1	-98.6	-131.2	-181.0	-258.2	-378.9	-560.7	-837.9	-1263.2	-1918.7	30.7	-4.3
15-G	45920	13996	29.5	14.7	13.6	18.5	11.6	9.8	11.5	11.7	4.5	2.1	-0.1	-5.8	-11.4	-20.2	-28.5	-37.2	-45.0	-53.7	-64.8	-81.6	-105.5	-140.3	-193.5	-275.9	-405.1	-600.0	-897.7	-1354.6	-2058.8	30.3	-5.3
15-H	48991	14933	29.3	14.1	13.0	17.9	11.0	9.1	10.9	11.0	3.7	1.1	-1.2	-7.1	-13.0	-22.2	-30.8	-40.0	-48.2	-57.4	-69.2	-86.9	-112.2	-149.0	-205.4	-293.1	-430.4	-637.9	-955.4	-1442.8	-2194.2	30.0	-6.2
15-I	52175	15903	29.0	13.6	12.5	17.4	10.5	8.5	10.2	10.3	2.9	0.2	-2.3	-8.5	-14.7	-24.2	-33.2	-42.8	-51.5	-61.3	-73.7	-92.3	-119.0	-158.1	-217.8	-310.8	-456.6	-677.1	-1015.3	-1534.3	-2334.4	29.7	-7.0
15-J	55338	16867	28.7	13.1	12.0	16.9	10.0	7.9	9.6	9.6	2.1	-0.6	-3.4	-9.8	-16.3	-26.2	-35.6	-45.6	-54.7	-65.0	-78.1	-97.7	-125.8	-167.0	-230.1	-328.4	-482.5	-716.1	-1074.7	-1625.2	-2473.8	29.4	-7.8
15-K	58538	17842	28.5	12.6	11.5	16.4	9.5	7.4	9.0	9.0	1.4	-1.5	-4.4	-11.1	-17.9	-28.2	-38.0	-48.4	-58.0	-68.8	-82.6	-103.1	-132.7	-176.0	-242.5	-346.1	-508.8	-755.5	-1134.8	-1717.0	-2614.7	29.1	-8.6
16-J	55617	16952	28.7	13.0	11.9	16.8	9.9	7.9	9.6	9.6	2.1	-0.7	-3.4	-9.9	-16.4	-26.4	-35.8	-45.9	-55.0	-65.4	-78.5	-98.2	-126.4	-167.8	-231.2	-329.9	-484.8	-719.6	-1079.9	-1633.2	-2486.1	29.4	-7.9
16-K	58838	17934	28.5	12.5	11.4	16.3	9.4	7.3	9.0	8.9	1.3	-1.6	-4.5	-11.2	-18.0	-28.3	-38.2	-48.7	-58.3	-69.2	-83.0	-103.6	-133.3	-176.9	-243.6	-347.8	-511.2	-759.2	-1140.4	-1725.7	-2627.9	29.1	-8.6
		Sum:	50.7	36.1	35.0	39.9	33.0	31.2	33.0	33.3	26.1	23.9	22.0	16.8	11.9	4.1	-2.8	-10.0	-15.9	-22.5	-30.6	-43.0	-60.0	-83.7	-119.4	-173.1	-256.0	-378.4	-561.6	-841.9	-1273.4	51.6	16.6

PREDICTED ABOVE WATER MAXIMUM CONTINUOUS SOUND LEVELS (Leq)
FROM WIND PARK OPERATION AT THE DESIGN WIND CONDITION

1/3 Octave Bands	16	20	25	31	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	L	A
Buoy R20	57.7	55.2	53.1	53.5	50.8	51.6	56.6	48.1	47.4	47.6	48.2	45.3	44.2	43.1	39.8	37.7	35.1	31.4	29.6	27.7	24.7	22.6	18.3	11.9	1.7	-13.4	-36.4	-70.8	-119.3	63.8	44.7
Buoy G5	56.3	52.3	50.3	50.7	47.9	48.7	53.6	45.0	44.2	44.2	44.5	41.3	39.7	38.0	34.3	31.5	28.3	23.9	21.3	18.2	13.5	8.9	0.9	-11.3	-30.4	-59.2	-103.7	-171.5	-271.6	61.2	39.7
Bass River Beach, Yarmouth	51.1	41.0	39.0	39.4	36.6	36.5	40.8	31.4	29.4	27.7	25.4	18.8	13.1	6.4	-2.6	-10.8	-20.0	-30.8	-41.8	-56.3	-78.0	-108.4	-155.9	-230.7	-348.4	-529.8	-813.8	-1249.8	-1918.1	52.6	19.8
Point Gammon, Yarmouth	52.8	44.5	42.5	42.9	40.1	40.4	45.0	35.9	34.4	33.5	32.4	27.4	23.6	19.3	12.7	7.1	0.8	-7.0	-14.0	-23.1	-36.6	-54.7	-83.2	-127.6	-197.5	-304.7	-471.9	-728.1	-1119.0	55.0	25.9
Lewis Bay, Yarmouth	51.6	42.0	39.9	40.3	37.6	37.5	41.9	32.7	30.8	29.3	27.4	21.3	16.1	10.2	1.9	-5.6	-14.0	-24.1	-34.1	-47.2	-66.8	-94.2	-137.0	-204.2	-310.0	-472.9	-727.6	-1118.2	-1716.4	53.2	21.4
Hyannisport, Barnstable	52.3	43.4	41.4	41.8	39.0	39.2	43.7	34.6	32.9	31.8	30.3	24.9	20.5	15.5	8.2	1.7	-5.7	-14.5	-23.1	-34.2	-51.0	-74.0	-110.4	-167.5	-257.5	-396.3	-613.3	-946.0	-1454.5	54.3	23.9
Hyannis Point, Barnstable	52.4	43.8	41.7	42.1	39.4	39.5	44.1	35.0	33.4	32.3	30.9	25.6	21.4	16.5	9.4	3.1	-4.1	-12.7	-21.0	-31.8	-48.1	-70.5	-105.8	-161.4	-249.0	-383.9	-594.9	-918.1	-1412.2	54.5	24.5
Wianno Beach, Barnstable	52.6	44.1	42.0	42.4	39.7	39.9	44.4	35.4	33.8	32.8	31.5	26.3	22.3	17.6	10.7	4.6	-2.2	-10.6	-18.4	-28.5	-43.7	-64.3	-96.9	-148.0	-228.6	-352.7	-546.7	-844.2	-1298.7	54.7	25.1
Oregon Beach, Barnstable	52.2	43.3	41.2	41.6	38.9	39.0	43.5	34.3	32.7	31.5	30.0	24.5	20.1	15.1	7.7	1.3	-5.9	-14.7	-22.9	-33.4	-49.1	-70.3	-103.4	-155.3	-236.9	-362.7	-559.5	-861.5	-1323.1	54.1	23.7
New Seabury, Mashpee	52.0	42.8	40.7	41.1	38.4	38.5	42.9	33.7	32.0	30.8	29.1	23.4	18.7	13.3	5.6	-1.3	-9.0	-18.4	-27.5	-39.3	-57.1	-81.5	-119.6	-179.1	-272.5	-416.3	-641.2	-986.2	-1514.1	53.8	22.9
Oak Bluffs, MV	50.9	40.7	38.6	39.0	36.3	36.1	40.4	31.0	28.9	27.3	25.2	19.2	14.7	10.3	4.3	-0.5	-5.9	-12.6	-18.4	-25.8	-37.4	-52.7	-77.8	-117.6	-181.0	-279.1	-432.6	-668.1	-1027.1	52.3	19.7
Edgartown, MV	50.9	40.5	38.5	38.9	36.1	35.9	40.2	30.8	28.6	26.8	24.3	17.5	11.5	4.4	-5.0	-13.7	-23.3	-34.8	-46.6	-62.2	-85.8	-119.1	-171.4	-253.9	-384.0	-584.6	-898.3	-1379.5	-2117.2	52.3	19.0
Cape Poge, MV	52.4	43.8	41.7	42.1	39.4	39.5	44.1	35.0	33.4	32.3	31.0	25.7	21.6	16.9	9.9	3.9	-2.9	-11.2	-18.9	-28.8	-43.7	-63.7	-95.5	-145.2	-223.5	-343.9	-531.9	-819.8	-1259.5	54.5	24.6

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Leq)
FROM WIND PARK OPERATIONS AT THE DESIGN WIND CONDITION

																		Hertz												
	1/3 Octave Bands	**16***	**20**	**25**	**31**	**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**	**L**	**A**
Sound Power Data - Design Speed		113.7	113.3	111.2	111.6	108.9	109.9	115.0	106.6	106.2	106.8	107.7	105.5	105.0	104.6	102.1	100.6	98.7	95.8	94.9	94.2	92.9	93.1	92.1	90.7	87.9	83.9	78.2	69.9	61.5	121.9	107.4

Data for the graph																														
Atmos. Absorption per 1 km air temp 59F 70% RH	0.0000	0.0000	0.0000	0.0000	0.0000	0.0670	0.1050	0.1630	0.2510	0.3810	0.5650	0.8150	1.1300	1.5100	1.9200	2.3600	2.8400	3.3800	4.0800	5.0500	6.5100	8.7500	12.2000	17.7000	26.4000	39.9000	61.1000	93.7000	144.0000		

*Spherical wave spreading for up to 2 km, cylindrical wave spreading beyond 2 km.

																			Hertz												
	1/3 Octave Bands		**16***	**20**	**25**	**31**	**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**	**L**	**A**
	Distance (ft)	**Distance (m)**																														
1-D	36461	11113	32.2	24.4	22.3	22.7	20.0	20.3	24.9	15.9	14.5	13.6	12.5	7.5	3.5	-1.1	-8.2	-14.5	-21.8	-30.7	-39.3	-50.8	-68.4	-93.0	-132.4	-195.0	-294.4	-448.4	-689.8	-1060.3	-1627.7	34.7	5.9
1-E	34712	10580	32.5	24.8	22.7	23.1	20.4	20.7	25.4	16.4	15.0	14.2	13.3	8.4	4.6	0.1	-6.7	-12.8	-19.8	-28.4	-36.7	-47.7	-64.5	-87.9	-125.5	-185.1	-279.9	-426.7	-656.8	-1009.9	-1550.5	35.0	6.6
1-F	33198	10119	32.7	25.2	23.1	23.5	20.8	21.1	25.8	16.9	15.5	14.8	13.9	9.1	5.5	1.2	-5.5	-11.4	-18.1	-26.5	-34.5	-45.0	-61.1	-83.5	-119.4	-176.5	-267.4	-407.9	-628.2	-966.3	-1483.7	35.3	7.2
1-G	31901	9723	32.8	25.5	23.5	23.9	21.1	21.5	26.2	17.3	16.0	15.3	14.5	9.8	6.3	2.1	-4.4	-10.1	-16.7	-24.8	-32.5	-42.6	-58.2	-79.7	-114.3	-169.2	-256.6	-391.8	-603.7	-928.9	-1426.4	35.6	7.8
1-H	30902	9419	33.0	25.8	23.7	24.1	21.4	21.8	26.5	17.6	16.3	15.7	14.9	10.3	6.9	2.9	-3.5	-9.1	-15.5	-23.5	-31.0	-40.8	-55.9	-76.8	-110.3	-163.5	-248.3	-379.4	-584.8	-900.1	-1382.3	35.8	8.3
1-I	30238	9217	33.1	26.0	23.9	24.3	21.6	22.0	26.7	17.8	16.6	16.0	15.2	10.7	7.3	3.4	-2.9	-8.4	-14.7	-22.6	-30.0	-39.6	-54.4	-74.8	-107.6	-159.8	-242.7	-371.1	-572.3	-881.0	-1353.0	35.9	8.6
1-J	29887	9110	33.1	26.1	24.0	24.4	21.7	22.1	26.8	17.9	16.7	16.1	15.4	10.9	7.5	3.6	-2.6	-8.1	-14.3	-22.2	-29.4	-39.0	-53.6	-73.8	-106.2	-157.8	-239.8	-366.7	-565.6	-870.8	-1337.5	36.0	8.8
1-K	29951	9129	33.1	26.1	24.0	24.4	21.7	22.1	26.8	17.9	16.7	16.1	15.4	10.8	7.5	3.6	-2.7	-8.1	-14.4	-22.2	-29.5	-39.1	-53.8	-74.0	-106.5	-158.1	-240.3	-367.5	-566.8	-872.7	-1340.3	36.0	8.7
1-L	30294	9234	33.1	26.0	23.9	24.3	21.6	22.0	26.7	17.8	16.5	15.9	15.2	10.6	7.3	3.3	-3.0	-8.5	-14.8	-22.7	-30.1	-39.7	-54.5	-75.0	-107.8	-160.1	-243.2	-371.8	-573.3	-882.6	-1355.4	35.9	8.6
2-D	34504	10517	32.5	24.8	22.8	23.2	20.4	20.8	25.4	16.5	15.1	14.3	13.3	8.5	4.7	0.3	-6.6	-12.6	-19.6	-28.2	-36.4	-47.3	-64.0	-87.3	-124.6	-183.9	-278.2	-424.1	-652.8	-1003.9	-1541.3	35.0	6.7
2-E	32687	9963	32.7	25.3	23.3	23.7	20.9	21.3	26.0	17.0	15.7	15.0	14.1	9.4	5.8	1.6	-5.0	-10.9	-17.5	-25.8	-33.7	-44.1	-60.0	-82.0	-117.4	-173.6	-263.1	-401.6	-618.5	-951.6	-1461.1	35.4	7.5
2-F	31092	9477	32.9	25.7	23.7	24.1	21.3	21.7	26.4	17.5	16.3	15.6	14.8	10.2	6.8	2.7	-3.7	-9.3	-15.7	-23.7	-31.3	-41.2	-56.4	-77.3	-111.0	-164.6	-249.9	-381.7	-588.4	-905.6	-1390.7	35.7	8.2
2-G	29821	9089	33.1	26.1	24.0	24.4	21.7	22.1	26.8	18.0	16.7	16.1	15.4	10.9	7.6	3.7	-2.6	-8.0	-14.3	-22.1	-29.3	-38.9	-53.5	-73.6	-105.9	-157.4	-239.3	-365.9	-564.4	-868.9	-1334.5	36.0	8.8
2-H	28840	8790	33.3	26.4	24.3	24.7	22.0	22.4	27.2	18.3	17.1	16.5	15.9	11.4	8.2	4.4	-1.7	-7.0	-13.1	-20.8	-27.8	-37.1	-51.2	-70.7	-102.0	-151.8	-231.1	-353.7	-545.8	-840.6	-1291.2	36.2	9.3
2-I	28214	8600	33.4	26.6	24.5	24.9	22.2	22.7	27.4	18.5	17.3	16.8	16.2	11.8	8.6	4.9	-1.1	-6.4	-12.4	-19.9	-26.9	-35.9	-49.8	-68.8	-99.5	-148.2	-225.9	-345.9	-534.0	-822.6	-1263.5	36.4	9.6
2-J	27917	8509	33.4	26.7	24.6	25.0	22.3	22.8	27.5	18.6	17.4	16.9	16.3	11.9	8.8	5.1	-0.9	-6.1	-12.0	-19.5	-26.4	-35.3	-49.1	-67.9	-98.3	-146.5	-223.4	-342.2	-528.3	-814.0	-1250.4	36.5	9.7
2-K	27991	8532	33.4	26.6	24.6	25.0	22.2	22.7	27.5	18.6	17.4	16.9	16.3	11.9	8.8	5.1	-0.9	-6.1	-12.1	-19.6	-26.5	-35.5	-49.3	-68.2	-98.6	-147.0	-224.0	-343.1	-529.7	-816.1	-1253.7	36.4	9.7
2-L	28502	8687	33.3	26.5	24.4	24.8	22.1	22.6	27.3	18.4	17.2	16.7	16.0	11.6	8.4	4.7	-1.4	-6.7	-12.7	-20.3	-27.3	-36.4	-50.5	-69.7	-100.6	-149.9	-228.3	-349.5	-539.4	-830.9	-1276.2	36.3	9.4
3-D	32551	9921	32.7	25.3	23.3	23.7	20.9	21.3	26.0	17.1	15.7	15.1	14.2	9.5	5.9	1.7	-4.9	-10.7	-17.4	-25.6	-33.5	-43.8	-59.7	-81.6	-116.9	-172.9	-262.0	-399.9	-616.0	-947.7	-1455.1	35.4	7.5
3-E	30674	9349	33.0	25.9	23.8	24.2	21.5	21.9	26.6	17.7	16.4	15.8	15.0	10.4	7.0	3.0	-3.3	-8.9	-15.2	-23.2	-30.6	-40.4	-55.4	-76.1	-109.4	-162.2	-246.4	-376.5	-580.5	-893.5	-1372.2	35.8	8.4
3-F	29068	8860	33.2	26.3	24.3	24.7	21.9	22.4	27.1	18.2	17.0	16.4	15.8	11.3	8.1	4.2	-1.9	-7.2	-13.4	-21.1	-28.2	-37.5	-51.8	-71.4	-102.9	-153.1	-233.0	-356.5	-550.1	-847.2	-1301.2	36.2	9.2
3-G	27741	8455	33.4	26.7	24.7	25.1	22.3	22.8	27.5	18.7	17.5	17.0	16.4	12.0	8.9	5.3	-0.7	-5.9	-11.8	-19.3	-26.1	-35.0	-48.7	-67.4	-97.6	-145.5	-221.9	-340.0	-525.0	-808.9	-1242.6	36.5	9.8
3-I	26144	7969	33.7	27.2	25.2	25.6	22.8	23.4	28.1	19.3	18.1	17.7	17.2	12.9	10.0	6.5	0.7	-4.2	-9.9	-17.1	-23.6	-32.1	-45.0	-62.6	-91.1	-136.4	-208.5	-320.1	-494.8	-762.8	-1172.0	36.9	10.7
3-J	25944	7908	33.7	27.3	25.3	25.7	22.9	23.4	28.2	19.4	18.2	17.8	17.3	13.1	10.1	6.7	0.9	-4.0	-9.7	-16.9	-23.3	-31.7	-44.6	-62.0	-90.3	-135.3	-206.9	-317.6	-490.9	-757.0	-1163.1	37.0	10.8
3-K	26129	7964	33.7	27.2	25.2	25.6	22.8	23.4	28.1	19.3	18.1	17.7	17.2	13.0	10.0	6.5	0.8	-4.2	-9.9	-17.1	-23.6	-32.0	-45.0	-62.6	-91.1	-136.3	-208.4	-319.9	-494.5	-762.4	-1171.4	36.9	10.7
3-L	26687	8134	33.6	27.1	25.0	25.4	22.7	23.2	27.9	19.1	17.9	17.5	16.9	12.6	9.6	6.1	0.2	-4.8	-10.6	-17.9	-24.5	-33.1	-46.3	-64.3	-93.3	-139.5	-213.1	-326.8	-505.0	-778.5	-1196.0	36.8	10.4
4-D	30586	9323	33.0	25.9	23.8	24.2	21.5	21.9	26.6	17.7	16.4	15.8	15.1	10.5	7.1	3.1	-3.2	-8.8	-15.1	-23.1	-30.5	-40.3	-55.2	-75.8	-109.0	-161.7	-245.6	-375.5	-578.8	-891.0	-1368.3	35.8	8.4
4-E	28686	8743	33.3	26.4	24.4	24.8	22.0	22.5	27.2	18.4	17.1	16.6	15.9	11.5	8.3	4.5	-1.6	-6.8	-12.9	-20.6	-27.6	-36.8	-50.9	-70.2	-101.4	-150.9	-229.8	-351.8	-542.9	-836.2	-1284.4	36.3	9.3
4-F	27010	8233	33.6	27.0	24.9	25.3	22.6	23.1	27.8	19.0	17.8	17.3	16.8	12.4	9.4	5.8	0.0	-5.1	-11.0	-18.3	-25.0	-33.7	-47.0	-65.2	-94.6	-141.4	-215.8	-330.9	-511.2	-787.8	-1210.3	36.7	10.2
4-G	25686	7829	33.8	27.4	25.3	25.7	23.0	23.5	28.3	19.5	18.3	17.9	17.4	13.2	10.3	6.9	1.2	-3.7	-9.4	-16.5	-22.9	-31.2	-44.0	-61.3	-89.3	-133.8	-204.7	-314.3	-486.1	-749.5	-1151.8	37.0	10.9
4-H	24715	7533	33.9	27.7	25.7	26.1	23.3	23.9	28.6	19.9	18.7	18.4	17.9	13.8	11.0	7.7	2.1	-2.7	-8.2	-15.2	-21.4	-29.4	-41.7	-58.3	-85.3	-128.2	-196.5	-302.2	-467.7	-721.5	-1108.8	37.3	11.5
4-I	24127	7354	34.0	27.9	25.9	26.3	23.5	24.1	28.9	20.1	19.0	18.6	18.2	14.1	11.4	8.1	2.6	-2.1	-7.5	-14.4	-20.4	-28.2	-40.3	-56.6	-82.9	-124.8	-191.6	-294.8	-456.5	-704.5	-1082.8	37.5	11.8
4-J	23969	7306	34.1	28.0	25.9	26.3	23.6	24.2	28.9	20.2	19.1	18.7	18.3	14.2	11.5	8.3	2.8	-1.9	-7.3	-14.1	-20.2	-27.9	-40.0	-56.1	-82.3	-123.9	-190.3	-292.9	-453.5	-699.9	-1075.8	37.5	11.9
4-K	24241	7389	34.0	27.9	25.8	26.2	23.5	24.1	28.8	20.0	18.9	18.6	18.2	14.1	11.3	8.0	2.5	-2.2	-7.6	-14.5	-20.6	-28.5	-40.6	-56.9	-83.4	-125.5	-192.6	-296.3	-458.6	-707.8	-1087.8	37.4	11.8
4-L	24954	7606	33.9	27.6	25.6	26.0	23.2	23.8	28.5	19.8	18.6	18.2	17.8	13.6	10.8	7.5	1.8	-3.0	-8.5	-15.5	-21.7	-29.8	-42.3	-59.1	-86.3	-129.6	-198.5	-305.2	-472.2	-728.4	-1119.3	37.2	11.3
5-D	28625	8725	33.3	26.5	24.4	24.8	22.1	22.5	27.2	18.4	17.2	16.6	16.0	11.5	8.3	4.6	-1.5	-6.8	-12.9	-20.5	-27.5	-36.7	-50.7	-70.0	-101.1	-150.6	-229.3	-351.0	-541.7	-834.4	-1281.7	36.3	9.4
5-E	26686	8134	33.6	27.1	25.0	25.4	22.7	23.2	27.9	19.1	17.9	17.5	16.9	12.6	9.6	6.1	0.2	-4.8	-10.6	-17.9	-24.5	-33.1	-46.3	-64.3	-93.3	-139.5	-213.1	-326.8	-505.0	-778.4	-1196.0	36.8	10.4
5-F	24967	7610	33.9	27.6	25.6	26.0	23.2	23.8	28.5	19.8	18.6	18.2	17.8	13.6	10.8	7.4	1.8	-3.0	-8.5	-15.5	-21.8	-29.8	-42.3	-59.1	-86.4	-129.7	-198.7	-305.3	-472.4	-728.8	-1119.9	37.2	11.3
5-G	23625	7201	34.1	28.1	26.1	26.5	23.7	24.3	29.1	20.3	19.2	18.9	18.5	14.5	11.7	8.5	3.1	-1.5	-6.9	-13.7	-19.6	-27.3	-39.2	-55.0	-80.9	-121.9	-187.4	-288.5	-446.9	-689.9	-1060.5	37.6	12.1
5-H	22653	6905	34.3	28.5	26.4	26.8	24.1	24.7	29.5	20.7	19.7	19.4	19.0	15.1	12.4	9.4	4.0	-0.5	-5.7	-12.3	-18.0	-25.4	-36.9	-52.1	-76.9	-116.3	-179.2	-276.4	-428.5	-661.8	-1017.5	37.9	12.7
5-I	22145	6750	34.4	28.7	26.6	27.0	24.3	24.9	29.7	20.9	19.9	19.6	19.3	15.4	12.8	9.8	4.5	0.1	-5.0	-11.6	-17.2	-24.5	-35.7	-50.5	-74.8	-113.4	-174.9	-270.0	-418.8	-647.1	-995.0	38.1	13.0
5-J	22020	6712	34.4	28.7	26.7	27.1	24.3	24.9	29.7	21.0	19.9	19.7	19.4	15.5	12.9	9.9	4.6	0.2	-4.9	-11.4	-17.0	-24.2	-35.4	-50.1	-74.3	-112.7	-173.9	-268.4	-416.4	-643.5	-989.5	38.1	13.1
6-D	26684	8133	33.6	27.1	25.0	25.4	22.7	23.2	27.9	19.1	17.9	17.5	16.9	12.6	9.6	6.1	0.2	-4.8	-10.6	-17.9	-24.5	-33.1	-46.3	-64.3	-93.3	-139.5	-213.1	-326.8	-505.0	-778.4	-1195.9	36.8	10.4
6-E	24680	7523	33.9	27.7	25.7	26.1	23.3	23.9	28.7	19.9	18.8	18.4	17.9	13.8	11.0	7.7	2.1	-2.7	-8.2	-15.1	-21.3	-29.3	-41.6	-58.2	-85.2	-128.0	-196.3	-301.8	-467.0	-720.5	-1107.3	37.3	11.5
6-G	21604	6585	34.5	28.9	26.8	27.2	24.5	25.1	29.9	21.2	20.1	19.9	19.6	15.7	13.2	10.3	5.1	0.7	-4.4	-10.8	-16.3	-23.4	-34.4	-48.9	-72.6	-110.3	-170.3	-263.2	-408.5	-631.5	-971.1	38.3	13.4
6-H	20643	6292	34.7	29.3	27.2	27.6	24.9	25.5	30.3	21.6	20.6	20.4	20.2	16.4	13.9	11.1	6.0	1.8	-3.1	-9.4	-14.7	-21.5	-32.1	-45.9	-68.6	-104.7	-162.2	-251.1	-390.3	-603.6	-928.5	38.6	14.0
6-I	20123	6134	34.8	29.5	27.5	27.9	25.1	25.8	30.6	21.9	20.9	20.7	20.5	16.7	14.3	11.6	6.5	2.4	-2.5	-8.7	-13.9	-20.5	-30.8	-44.3	-66.5	-101.7	-157.8	-244.6	-380.4	-588.6	-905.5	38.8	14.4
6-J	20093	6124	34.8	29.5	27.5	27.9	25.1	25.8	30.6	21.9	20.9	20.7	20.5	16.7	14.4	11.6	6.6	2.4	-2.4	-8.6	-13.8	-20.5	-30.7	-44.2	-66.3	-101.5	-157.6	-244.2	-379.8	-587.7	-904.1	38.8	14.4
7-B	29674	9045	33.1	26.1	24.1	24.5	21.7	22.2	26.9	18.0	16.8	16.2	15.5	11.0	7.7	3.8	-2.4	-7.9	-14.1	-21.9	-29.1	-38.6	-53.1	-73.1	-105.4	-156.5	-238.0	-364.1	-561.6	-864.7	-1328.0	36.0	8.9
7-C	27173	8282	33.5	26.9	24.9	25.3	22.5	23.0	27.7	18.9	17.7	17.2	16.7	12.4	9.3	5.7	-0.2	-5.3	-11.2	-18.5	-25.2	-34.0	-47.4	-65.7	-95.3	-142.3	-217.2	-332.9	-514.3	-792.5	-1217.5	36.6	10.1
7-E	22729	6928	34.3	28.5	26.4	26.8	24.1	24.6	29.4	20.7	19.6	19.3	19.0	15.0	12.4	9.3	4.0	-0.5	-5.8	-12.4	-18.2	-25.6	-37.0	-52.3	-77.2	-116.8	-179.8	-277.3	-429.9	-664.0	-1020.9	37.9	12.7
7-F	20941	6383	34.7	29.2	27.1	27.5	24.8	25.4	30.2	21.5	20.5	20.2	20.0	16.2	13.7	10.8	5.7	1.5	-3.5	-9.9	-15.2	-22.1	-32.8	-46.8	-69.9	-106.4	-164.7	-254.9	-395.9	-612.3	-941.7	38.5	13.8
7-G	19519	5949	35.0	29.8	27.7	28.1	25.4	26.0	30.9	22.2	21.2	21.0	20.9	17.1	14.8	12.1	7.2	3.1	-1.7	-7.8	-12.8	-19.3	-29.4	-42.4	-64.0	-98.1	-152.7	-237.0	-368.8	-571.0	-878.7	39.0	14.8
7-H	18536	5650	35.2	30.2	28.2	28.6	25.8	26.5	31.3	22.7	21.7	21.6	21.5	17.8	15.6	13.0	8.2	4.2	-0.4	-6.3	-11.2	-17.4	-27.0	-39.4	-59.9	-92.4	-144.3	-224.6	-350.1	-542.5	-835.1	39.4	15.5
7-I	18108	5519	35.3	30.4	28.4	28.8	26.0	26.7	31.6	22.9	21.9	21.8	21.8	18.1	15.9	13.4	8.6	4.8	0.2	-5.7	-10.4	-16.5	-25.9	-38.0	-58.1	-89.9	-140.7	-219.1	-341.9	-530.1	-816.1	39.6	15.9
8-A	30697	9357	33.0	25.8	23.8	24.2	21.4	21.9	26.6	17.7	16.4	15.8	15.0	10.4	7.0	3.0	-3.3	-8.9	-15.3	-23.2	-30.7	-40.5	-55.5	-76.2	-109.5	-162.4	-246.6	-376.8	-580.9	-894.2	-1373.3	35.8	8.4
8-B	27988	8531	33.4	26.6	24.6	25.0	22.2	22.7	27.5	18.6	17.4	16.9	16.3	11.9	8.8	5.1	-0.9	-6.1	-12.1	-19.6	-26.5	-35.5	-49.3	-68.1	-98.6	-146.9	-224.0	-343.1	-529.7	-816.0	-1253.5	36.4	9.7

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Leq)
FROM WIND PARK OPERATIONS AT THE DESIGN WIND CONDITION

8-C	25403	7743	33.8	27.5	25.4	25.8	23.1	23.6	28.4	19.6	18.4	18.0	17.6	13.4	10.5	7.1	1.4	-3.4	-9.0	-16.1	-22.5	-30.7	-43.3	-60.4	-88.1	-132.2	-202.3	-310.8	-480.7	-741.4	-1139.2	37.1	11.1
8-D	22958	6997	34.3	28.4	26.3	26.7	24.0	24.6	29.3	20.6	19.5	19.2	18.9	14.9	12.2	9.1	3.7	-0.8	-6.1	-12.7	-18.5	-26.0	-37.6	-53.0	-78.1	-118.1	-181.8	-280.2	-434.3	-670.6	-1031.0	37.8	12.5
8-F	18950	5776	35.1	30.0	28.0	28.4	25.6	26.3	31.1	22.4	21.5	21.3	21.2	17.5	15.3	12.6	7.7	3.8	-0.9	-6.9	-11.9	-18.2	-28.0	-40.7	-61.6	-94.8	-147.8	-229.8	-358.0	-554.5	-853.5	39.2	15.2
8-G	17410	5306	35.5	30.8	28.7	29.1	26.4	27.1	31.9	23.3	22.3	22.3	22.2	18.6	16.5	14.1	9.4	5.6	1.2	-4.6	-9.2	-15.1	-24.2	-35.8	-55.1	-85.8	-134.7	-210.3	-328.6	-509.8	-785.1	39.8	16.4
8-H	16466	5019	35.7	31.3	29.2	29.6	26.9	27.6	32.4	23.8	22.9	22.8	22.9	19.4	17.3	15.0	10.4	6.8	2.5	-3.2	-7.6	-13.1	-21.8	-32.8	-51.1	-80.2	-126.6	-198.3	-310.5	-482.3	-743.2	40.3	17.2
9-A	29127	8878	33.2	26.3	24.3	24.7	21.9	22.4	27.1	18.2	17.0	16.4	15.7	11.3	8.0	4.2	-1.9	-7.3	-13.5	-21.2	-28.3	-37.6	-51.9	-71.5	-103.2	-153.4	-233.5	-357.3	-551.2	-848.9	-1303.9	36.2	9.1
9-B	26357	8034	33.7	27.2	25.1	25.5	22.8	23.3	28.0	19.2	18.1	17.6	17.1	12.8	9.8	6.3	0.5	-4.4	-10.2	-17.4	-24.0	-32.4	-45.5	-63.3	-92.0	-137.6	-210.3	-322.7	-498.8	-768.9	-1181.4	36.9	10.6
9-C	23686	7219	34.1	28.1	26.0	26.4	23.7	24.3	29.0	20.3	19.2	18.8	18.5	14.4	11.7	8.5	3.0	-1.6	-7.0	-13.8	-19.7	-27.4	-39.3	-55.2	-81.1	-122.3	-187.9	-289.3	-448.1	-691.7	-1063.3	37.6	12.1
9-D	21153	6448	34.6	29.1	27.0	27.4	24.7	25.3	30.1	21.4	20.4	20.1	19.9	16.0	13.5	10.6	5.5	1.2	-3.8	-10.2	-15.6	-22.5	-33.3	-47.5	-70.7	-107.6	-166.5	-257.5	-400.0	-618.4	-951.1	38.4	13.7
9-E	18905	5762	35.1	30.1	28.0	28.4	25.7	26.3	31.2	22.5	21.5	21.4	21.3	17.6	15.3	12.7	7.8	3.8	-0.9	-6.9	-11.8	-18.1	-27.9	-40.5	-61.4	-94.5	-147.5	-229.2	-357.1	-553.2	-851.4	39.2	15.3
9-F	16930	5160	35.6	31.0	29.0	29.4	26.6	27.3	32.2	23.5	22.6	22.5	22.5	19.0	16.9	14.5	9.9	6.2	1.8	-3.9	-8.4	-14.1	-23.0	-34.3	-53.1	-82.9	-130.6	-204.2	-319.4	-495.8	-763.8	40.1	16.8
9-G	15391	4691	36.0	31.8	29.8	30.2	27.4	28.2	33.1	24.4	23.6	23.6	23.6	20.2	18.3	16.1	11.6	8.1	4.0	-1.5	-5.6	-10.9	-19.1	-29.4	-46.5	-73.8	-117.4	-184.7	-289.9	-451.1	-695.4	40.8	18.1
9-H	14404	4390	36.3	32.4	30.4	30.8	28.0	28.8	33.7	25.1	24.2	24.2	24.4	21.0	19.2	17.1	12.8	9.4	5.4	0.1	-3.8	-8.8	-16.6	-26.1	-42.3	-67.9	-108.9	-172.1	-270.9	-422.3	-651.5	41.3	19.0
9-I	14164	4317	36.4	32.6	30.5	30.9	28.2	28.9	33.8	25.2	24.4	24.4	24.6	21.2	19.4	17.3	13.1	9.7	5.8	0.5	-3.4	-8.3	-15.9	-25.4	-41.3	-66.5	-106.8	-169.0	-266.3	-415.3	-640.9	41.4	19.2
10-A	27638	8424	33.5	26.8	24.7	25.1	22.4	22.8	27.6	18.7	17.5	17.0	16.4	12.1	9.0	5.3	-0.6	-5.8	-11.7	-19.2	-26.0	-34.8	-48.5	-67.1	-97.2	-144.9	-221.0	-338.7	-523.1	-805.9	-1238.1	36.5	9.9
10-B	24773	7551	33.9	27.7	25.7	26.1	23.3	23.9	28.6	19.8	18.7	18.3	17.9	13.8	10.9	7.6	2.0	-2.8	-8.3	-15.3	-21.4	-29.5	-41.8	-58.5	-85.6	-128.5	-197.0	-302.9	-468.7	-723.1	-1111.4	37.3	11.4
10-C	22024	6713	34.4	28.7	26.7	27.1	24.3	24.9	29.7	21.0	19.9	19.7	19.4	15.5	12.9	9.9	4.6	0.2	-4.9	-11.4	-17.0	-24.2	-35.4	-50.2	-74.3	-112.7	-173.9	-268.5	-416.5	-643.6	-989.7	38.1	13.1
10-D	19401	5913	35.0	29.8	27.8	28.2	25.4	26.1	30.9	22.2	21.2	21.1	20.9	17.2	14.9	12.2	7.3	3.2	-1.5	-7.6	-12.6	-19.1	-29.1	-42.1	-63.5	-97.4	-151.7	-235.5	-366.6	-567.6	-873.4	39.0	14.9
10-E	17018	5187	35.6	31.0	28.9	29.3	26.6	27.3	32.1	23.5	22.6	22.5	22.5	18.9	16.9	14.4	9.8	6.1	1.7	-4.0	-8.5	-14.3	-23.2	-34.6	-53.5	-83.4	-131.4	-205.3	-321.1	-498.4	-767.7	40.0	16.7
10-F	14944	4555	36.1	32.1	30.0	30.4	27.7	28.4	33.3	24.7	23.9	23.9	24.0	20.6	18.7	16.5	12.2	8.7	4.6	-0.7	-4.8	-10.0	-18.0	-27.9	-44.6	-71.1	-113.5	-179.0	-281.3	-438.0	-675.5	41.0	18.5
10-G	13356	4071	36.6	33.1	31.0	31.4	28.7	29.5	34.3	25.8	25.0	25.0	25.2	22.0	20.2	18.2	14.1	10.8	7.0	1.9	-1.9	-6.5	-13.8	-22.7	-37.7	-61.6	-99.8	-158.7	-250.8	-391.7	-604.9	41.9	20.0
10-H	12385	3775	36.9	33.7	31.7	32.1	29.3	30.1	35.0	26.5	25.7	25.8	26.0	22.9	21.2	19.3	15.3	12.2	8.5	3.5	0.0	-4.4	-11.2	-19.5	-33.5	-55.7	-91.3	-146.2	-232.0	-363.3	-561.6	42.4	21.0
10-I	94223	28719	28.1	16.1	14.1	14.5	11.7	10.8	14.8	4.8	1.8	-1.3	-5.7	-15.1	-24.6	-36.0	-50.2	-64.3	-80.0	-98.4	-119.4	-148.0	-191.3	-255.3	-355.4	-514.8	-767.5	-1159.1	-1773.7	-2718.2	-4171.2	29.1	-7.9
11-A	26226	7994	33.7	27.2	25.2	25.6	22.8	23.3	28.1	19.3	18.1	17.7	17.1	12.9	9.9	6.4	0.7	-4.3	-10.0	-17.3	-23.8	-32.2	-45.2	-62.9	-91.5	-136.9	-209.2	-321.1	-496.3	-765.1	-1175.6	36.9	10.6
11-B	23256	7089	34.2	28.3	26.2	26.6	23.9	24.4	29.2	20.5	19.4	19.1	18.7	14.7	12.0	8.9	3.4	-1.1	-6.4	-13.2	-19.0	-26.6	-38.3	-53.9	-79.4	-119.8	-184.3	-283.9	-440.0	-679.3	-1044.2	37.7	12.3
11-C	20470	6239	34.8	29.4	27.3	27.7	25.0	25.6	30.4	21.7	20.7	20.5	20.3	16.5	14.1	11.2	6.2	2.0	-2.9	-9.2	-14.4	-21.2	-31.7	-45.4	-67.9	-103.7	-160.7	-248.9	-387.0	-598.6	-920.8	38.7	14.1
11-D	17678	5388	35.4	30.6	28.6	29.0	26.2	26.9	31.8	23.1	22.2	22.1	22.0	18.4	16.3	13.8	9.1	5.3	0.8	-5.0	-9.7	-15.6	-24.8	-36.7	-56.2	-87.3	-137.0	-213.7	-333.7	-517.6	-797.0	39.7	16.2
11-E	15209	4636	36.0	31.9	29.9	30.3	27.5	28.3	33.2	24.5	23.7	23.7	23.8	20.4	18.5	16.2	11.8	8.4	4.2	-1.2	-5.3	-10.5	-18.6	-28.8	-45.8	-72.7	-115.8	-182.4	-286.4	-445.8	-687.3	40.9	18.2
11-F	12987	3958	36.7	33.3	31.3	31.7	28.9	29.7	34.6	26.0	25.2	25.3	25.5	22.3	20.6	18.6	14.5	11.3	7.5	2.5	-1.2	-5.7	-12.9	-21.5	-36.1	-59.3	-96.6	-154.0	-243.6	-380.9	-588.4	42.1	20.4
11-G	11307	3446	37.3	34.5	32.5	32.9	30.1	30.9	35.9	27.3	26.6	26.7	27.0	23.9	22.4	20.6	16.7	13.7	10.2	5.4	2.1	-1.9	-8.3	-15.8	-28.7	-49.1	-81.9	-132.3	-211.2	-331.8	-513.5	43.2	22.2
11-H	10368	3160	37.7	35.3	33.2	33.6	30.9	31.7	36.6	28.1	27.4	27.6	27.9	24.9	23.5	21.8	18.0	15.2	11.7	7.1	4.0	0.3	-5.7	-12.5	-24.4	-43.3	-73.6	-120.2	-192.9	-304.2	-471.5	43.8	23.3
11-K	13096	3992	36.7	33.2	31.2	31.6	28.8	29.6	34.5	25.9	25.1	25.2	25.4	22.2	20.5	18.5	14.4	11.2	7.4	2.3	-1.4	-6.0	-13.1	-21.8	-36.6	-60.0	-97.5	-155.4	-245.7	-384.1	-593.3	42.0	20.2
11-L	15365	4683	36.0	31.9	29.8	30.2	27.5	28.2	33.1	24.4	23.6	23.6	23.7	20.2	18.3	16.1	11.7	8.2	4.0	-1.4	-5.6	-10.8	-19.0	-29.3	-46.4	-73.6	-117.2	-184.4	-289.4	-450.3	-694.3	40.8	18.1
12-A	24918	7595	33.9	27.7	25.6	26.0	23.3	23.8	28.6	19.8	18.7	18.3	17.8	13.7	10.8	7.5	1.9	-2.9	-8.5	-15.5	-21.7	-29.7	-42.2	-58.9	-86.2	-129.4	-198.3	-304.7	-471.5	-727.3	-1117.8	37.3	11.4
12-B	21867	6665	34.5	28.8	26.7	27.1	24.4	25.0	29.8	21.1	20.0	19.8	19.5	15.6	13.0	10.0	4.8	0.4	-4.7	-11.2	-16.8	-23.9	-35.0	-49.7	-73.7	-111.8	-172.6	-266.5	-413.6	-639.1	-982.7	38.2	13.2
12-C	18929	5770	35.1	30.0	28.0	28.4	25.6	26.3	31.1	22.5	21.5	21.3	21.2	17.5	15.3	12.6	7.8	3.8	-0.9	-6.9	-11.8	-18.1	-27.9	-40.6	-61.5	-94.7	-147.7	-229.5	-357.6	-553.9	-852.5	39.2	15.2
12-D	16045	4890	35.8	31.5	29.4	29.8	27.1	27.8	32.7	24.0	23.2	23.1	23.2	19.7	17.7	15.4	10.9	7.3	3.0	-2.5	-6.8	-12.3	-20.8	-31.5	-49.3	-77.7	-123.0	-193.0	-302.4	-470.1	-724.5	40.5	17.5
12-E	13463	4103	36.6	33.0	31.0	31.4	28.6	29.4	34.3	25.7	24.9	24.9	25.1	21.9	20.1	18.1	13.9	10.7	6.8	1.7	-2.1	-6.8	-14.1	-23.0	-38.2	-62.2	-100.7	-160.1	-252.8	-394.8	-609.6	41.8	19.9
12-F	11073	3375	37.4	34.7	32.7	33.1	30.3	31.1	36.0	27.5	26.8	26.9	27.2	24.2	22.6	20.9	17.0	14.1	10.6	5.8	2.6	-1.4	-7.7	-15.0	-27.6	-47.6	-79.8	-129.3	-206.6	-324.9	-503.1	43.3	22.4
12-G	9247	2819	38.2	36.3	34.2	34.6	31.9	32.7	37.7	29.2	28.5	28.7	29.1	26.2	24.8	23.3	19.7	17.0	13.7	9.3	6.4	3.0	-2.5	-8.5	-19.3	-36.2	-63.5	-105.5	-171.0	-271.2	-421.4	44.7	24.7
12-H	8351	2546	38.7	37.2	35.1	35.5	32.8	33.6	38.6	30.1	29.4	29.7	30.2	27.3	26.0	24.6	21.1	18.5	15.4	11.1	8.4	5.2	0.2	-5.3	-15.1	-30.5	-55.4	-93.8	-153.5	-244.7	-381.2	45.6	26.0
12-I	8632	2631	38.5	36.9	34.8	35.2	32.5	33.3	38.3	29.8	29.1	29.4	29.8	26.9	25.6	24.2	20.6	18.0	14.8	10.5	7.8	4.5	-0.7	-6.3	-16.4	-32.3	-58.0	-97.5	-159.0	-253.0	-393.7	45.3	25.6
12-J	10036	3059	37.9	35.6	33.5	33.9	31.2	32.0	36.9	28.4	27.7	27.9	28.3	25.3	23.9	22.2	18.5	15.7	12.3	7.8	4.7	1.1	-4.8	-11.4	-22.9	-41.2	-70.6	-115.8	-186.4	-294.4	-456.7	44.1	23.7
12-K	12142	3701	37.0	33.9	31.9	32.3	29.5	30.3	35.2	26.6	25.9	26.0	26.3	23.1	21.5	19.6	15.6	12.5	8.8	3.9	0.5	-3.8	-10.6	-18.6	-32.4	-54.2	-89.2	-143.1	-227.3	-356.2	-550.8	42.6	21.2
12-L	14659	4468	36.2	32.3	30.2	30.6	27.9	28.6	33.5	24.9	24.0	24.1	24.2	20.8	19.0	16.8	12.5	9.1	5.0	-0.3	-4.3	-9.3	-17.2	-27.0	-43.4	-69.4	-111.1	-175.4	-275.8	-429.7	-662.9	41.1	18.7
13-A	23735	7235	34.1	28.1	26.0	26.4	23.7	24.2	29.0	20.3	19.2	18.8	18.4	14.4	11.7	8.5	3.0	-1.6	-7.0	-13.8	-19.8	-27.5	-39.4	-55.4	-81.3	-122.6	-188.3	-289.9	-449.1	-693.1	-1065.4	37.6	12.1
13-B	20595	6277	34.7	29.3	27.3	27.7	24.9	25.5	30.4	21.6	20.6	20.4	20.2	16.4	14.0	11.1	6.1	1.8	-3.1	-9.4	-14.6	-21.4	-32.0	-45.8	-68.4	-104.4	-161.8	-250.5	-389.3	-602.2	-926.4	38.6	14.1
13-C	17573	5356	35.4	30.7	28.6	29.0	26.3	27.0	31.8	23.2	22.2	22.2	22.1	18.5	16.4	13.9	9.2	5.4	0.9	-4.9	-9.5	-15.4	-24.6	-36.3	-55.8	-86.7	-136.1	-212.4	-331.7	-514.6	-792.4	39.8	16.3
13-D	14548	4434	36.2	32.3	30.3	30.7	27.9	28.7	33.6	25.0	24.1	24.1	24.3	20.9	19.1	16.9	12.6	9.2	5.2	-0.1	-4.1	-9.1	-16.9	-26.6	-42.9	-68.8	-110.1	-173.9	-273.7	-426.5	-658.0	41.2	18.8
13-F	9203	2805	38.2	36.3	34.3	34.7	31.9	32.8	37.7	29.2	28.5	28.7	29.2	26.2	24.9	23.4	19.7	17.0	13.8	9.4	6.5	3.1	-2.4	-8.4	-19.1	-35.9	-63.1	-105.0	-170.2	-269.9	-419.4	44.8	24.8
13-G	7216	2200	39.3	38.4	36.4	36.8	34.0	34.9	39.9	31.4	30.8	31.1	31.6	28.8	27.7	26.4	23.0	20.6	17.6	13.5	11.1	8.3	3.7	-1.0	-9.6	-23.1	-45.0	-78.7	-131.1	-211.0	-330.1	46.8	27.8
13-H	6409	1953	39.9	39.5	37.4	37.8	35.1	36.0	40.9	32.5	31.9	32.2	32.8	30.1	29.0	27.8	24.5	22.2	19.4	15.4	13.1	10.5	6.3	2.2	-5.5	-17.7	-37.5	-67.8	-115.0	-186.9	-293.6	47.8	29.2
13-I	7048	2148	39.4	38.6	36.6	37.0	34.2	35.1	40.1	31.6	31.0	31.3	31.9	29.1	27.9	26.7	23.3	20.9	18.0	13.9	11.5	8.7	4.2	-0.3	-8.7	-22.0	-43.5	-76.4	-127.7	-206.0	-322.5	47.0	28.1
13-J	8885	2708	38.4	36.6	34.6	35.0	32.2	33.1	38.0	29.5	28.8	29.1	29.5	26.6	25.3	23.8	20.2	17.6	14.4	10.0	7.2	3.9	-1.4	-7.2	-17.6	-33.9	-60.3	-100.8	-163.9	-260.5	-405.1	45.1	25.2
13-K	11388	3471	37.3	34.5	32.4	32.8	30.1	30.9	35.8	27.2	26.5	26.6	26.9	23.8	22.3	20.5	16.6	13.6	10.1	5.3	1.9	-2.1	-8.5	-16.1	-29.0	-49.6	-82.6	-133.4	-212.7	-334.1	-517.1	43.1	22.1
13-L	14232	4338	36.3	32.5	30.5	30.9	28.1	28.9	33.8	25.2	24.3	24.4	24.5	21.2	19.4	17.3	13.0	9.6	5.7	0.4	-3.5	-8.4	-16.1	-25.6	-41.6	-66.9	-107.4	-169.9	-267.6	-417.3	-643.9	41.4	19.1
14-D	13222	4030	36.7	33.2	31.1	31.5	28.8	29.5	34.4	25.9	25.1	25.1	25.3	22.1	20.4	18.4	14.2	11.0	7.2	2.1	-1.6	-6.2	-13.5	-22.2	-37.2	-60.8	-98.6	-157.0	-248.2	-387.8	-598.9	41.9	20.1
14-E	10286	3135	37.7	35.3	33.3	33.7	30.9	31.8	36.7	28.2	27.5	27.6	28.0	25.0	23.5	21.9	18.1	15.3	11.9	7.3	4.2	0.5	-5.5	-12.2	-24.1	-42.8	-72.8	-119.1	-191.3	-301.8	-467.9	43.9	23.4
14-F	7454	2272	39.1	38.1	36.1	36.5	33.7	34.6	39.6	31.1	30.5	30.8	31.3	28.5	27.3	26.0	22.6	20.1	17.1	13.0	10.5	7.6	2.9	-1.9	-10.7	-24.7	-47.2	-81.9	-135.8	-218.1	-340.8	46.5	27.4
14-G	5217	1590	41.7	41.2	39.2	39.6	36.8	37.8	42.8	34.3	33.7	34.1	34.8	32.1	31.2	30.1	27.0	24.8	22.2	18.4	16.4	14.2	10.5	7.2	0.7	-9.5	-26.1	-51.6	-91.0	-151.1	-239.5	49.6	31.6
14-H	4408	1344	43.2	42.7	40.7	41.1	38.3	39.3	44.3	35.8	35.3	35.7	36.4	33.8	32.9	32.0	28.9	26.9	24.3	20.7	18.9	16.9	13.6	10.8	5.2	-3.7	-18.2	-40.3	-74.5	-126.5	-202.5	51.1	33.5
14-J	8182	2494	38.7	37.3	35.3	35.7	32.9	33.8	38.8	30.3	29.6	29.9	30.4	27.5	26.3	24.9	21.3	18.8	15.7	11.5	8.8	5.7	0.7	-4.6	-14.2	-29.4	-53.9	-91.5	-150.1	-239.7	-373.5	45.7	26.2
14-K	11068	3374	37.4	34.7	32.7	33.1	30.3	31.1	36.1	27.5	26.8	26.9	27.3	24.2	22.6	20.9	17.0	14.1	10.6	5.9	2.6	-1.4	-7.7	-15.0	-27.6	-47.6	-79.8	-129.2	-206.5	-324.7	-502.8	43.3	22.4
14-L	14124	4305	36.4	32.6	30.5	30.9	28.2	29.0	33.8	25.2	24.4	24.4	24.6	21.3	19.5	17.4	13.1	9.8	5.8	0.6	-3.3	-8.2	-15.8	-25.2	-41.1	-66.2	-106.5	-168.5	-265.5	-414.1	-639.1	41.4	19.2
15-F	5926	1806	40.6	40.1	38.1	38.5	35.7	36.7	41.6	33.2	32.6	32.9	33.6	30.9	29.8	28.7	25.5	23.2	20.5	16.6	14.4	12.0	8.0	4.2	-3.1	-14.4	-32.9	-61.3	-105.3	-172.5	-271.7	48.5	30.1
15-G	3225	983	45.9	45.4	43.4	43.8	41.0	42.0	47.0	38.6	38.1	38.5	39.3	36.8	36.1	35.2	32.3	30.4	28.1	24.6	23.1	21.4	18.6	16.7	12.3	5.4	-5.9	-23.2	-49.7	-90.0	-147.9	53.9	36.9
15-H	2616	797	47.7	47.2	45.2	45.6	42.8	43.8	48.9	40.5	39.9	40.4	41.2	38.8	38.1	37.3	34.5	32.7	30.4	27.1	25.6	24.2	21.6	20.1	16.4	10.5	0.8	-13.9	-36.6	-70.8	-119.3	55.7	39.1
15-I	4928	1502	42.2	41.7	39.7	40.1	37.3	38.3	43.3	34.8	34.3	34.7	35.3	32.7	31.8	30.8	27.7	25.5	22.9	19.2	17.3	15.1	11.6	8.4	2.3	-7.5	-23.3	-47.5	-85.1	-142.4	-226.3	50.1	32.2
15-J	7911	2411	38.9	37.6	35.6	36.0	33.2	34.1	39.1	30.6	29.9	30.2	30.7	27.9	26.6	25.3	21.8	19.3	16.2	12.0	9.4	6.4	1.5	-3.6	-12.9	-27.7	-51.4	-87.9	-144.8	-231.7	-361.4	46.0	26.7
15-K	11063	3372	37.4	34.7	32.7	33.1	30.3	31.1	36.1	27.5	26.8	26.9	27.3	24.2	22.7	20.9	17.0	14.1	10.6	5.9	2.6	-1.4	-7.6	-14.9	-27.6	-47.6	-79.7	-129.2	-206.4	-324.6	-502.6	43.3	22.4
16-J	8190	2496	38.7	37.3	35.3	35.7	32.9	33.8	38.8	30.3	29.6	29.9	30.4	27.5	26.3	24.9	21.3	18.8	15.7	11.4	8.8	5.7	0.7	-4.7	-14.3	-29.5	-54.0	-91.6	-150.3	-239.9	-373.9	45.7	26.2
16-K	11449	3490	37.3	34.4	32.4	32.8	30.0	30.8	35.7	27.2	26.4	26.6	26.9	23.8	22.2	20.4	16.5	13.5	10.0	5.2	1.8	-2.3	-8.7	-16.3	-29.3	-50.0	-83.1	-134.2	-213.9	-335.9	-519.9	43.1	22.0
		Sum:	57.7	55.2	53.1	53.5	50.8	51.6	56.6	48.1	47.4	47.6	48.2	45.3	44.2	43.1	39.8	37.7	35.1	31.4	29.6	27.7	24.7	22.6	18.3	11.9	1.7	-13.4	-36.4	-70.8	-119.3	63.8	44.7

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Leq)
FROM WIND PARK OPERATIONS AT THE DESIGN WIND CONDITION

																		Hertz													
	1/3 Octave Bands	**16***	**20**	**25**	**31**	**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**	**L**	**A**
Sound Power Data - Design Speed		113.7	113.3	111.2	111.6	108.9	109.9	115.0	106.6	106.2	106.8	107.7	105.5	105.0	104.6	102.1	100.6	98.7	95.8	94.9	94.2	92.9	93.1	92.1	90.7	87.9	83.9	78.2	69.9	61.5	121.9	107.4

Data for the graph Atmos. Absorption per 1 km air temp 59F 70% RH	0.0000	0.0000	0.0000	0.0000	0.0000	0.0670	0.1050	0.1630	0.2510	0.3810	0.5650	0.8150	1.1300	1.5100	1.9200	2.3600	2.8400	3.3800	4.0800	5.0500	6.5100	8.7500	12.2000	17.7000	26.4000	39.9000	61.1000	93.7000	144.0000		

*Spherical wave spreading for up to 2 km, cylindrical wave spreading beyond 2 km.

																			Hertz												
	1/3 Octave Bands		**16***	**20**	**25**	**31**	**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**	**L**	**A**
	Distance (ft)	**Distance (m)**																														
1-D	9747	2971	38.0	35.8	33.8	34.2	31.4	32.3	37.2	28.7	28.0	28.2	28.6	25.6	24.2	22.6	18.9	16.1	12.8	8.3	5.3	1.8	-3.9	-10.3	-21.6	-39.4	-68.0	-112.1	-180.8	-285.9	-443.7	44.3	24.1
1-E	7419	2261	39.2	38.2	36.1	36.5	33.8	34.7	39.6	31.2	30.5	30.8	31.4	28.5	27.4	26.1	22.6	20.2	17.2	13.1	10.6	7.7	3.1	-1.8	-10.6	-24.4	-46.9	-81.4	-135.1	-217.1	-339.2	46.5	27.4
1-F	5950	1813	40.5	40.1	38.0	38.4	35.7	36.6	41.6	33.2	32.5	32.9	33.5	30.8	29.8	28.7	25.4	23.2	20.4	16.5	14.3	11.9	7.9	4.1	-3.2	-14.6	-33.2	-61.6	-105.8	-173.2	-272.8	48.4	30.1
1-G	6059	1847	40.4	39.9	37.9	38.3	35.5	36.5	41.4	33.0	32.4	32.7	33.3	30.6	29.6	28.5	25.2	22.9	20.1	16.2	14.1	11.6	7.5	3.6	-3.7	-15.3	-34.2	-63.1	-108.0	-176.4	-277.7	48.3	29.8
1-H	7684	2342	39.0	37.9	35.8	36.2	33.5	34.4	39.3	30.8	30.2	30.5	31.0	28.2	27.0	25.6	22.2	19.7	16.7	12.5	10.0	7.0	2.2	-2.8	-11.8	-26.2	-49.4	-84.9	-140.3	-224.9	-351.2	46.2	27.0
1-I	10084	3074	37.8	35.5	33.5	33.9	31.1	32.0	36.9	28.4	27.6	27.8	28.2	25.2	23.8	22.2	18.4	15.6	12.2	7.7	4.6	0.9	-4.9	-11.5	-23.1	-41.5	-71.0	-116.5	-187.4	-295.8	-458.8	44.1	23.6
1-J	12848	3916	36.8	33.4	31.4	31.8	29.0	29.8	34.7	26.1	25.3	25.4	25.6	22.4	20.7	18.8	14.7	11.5	7.7	2.7	-0.9	-5.4	-12.5	-21.0	-35.5	-58.5	-95.4	-152.2	-241.0	-376.9	-582.2	42.2	20.5
1-K	15795	4814	35.9	31.6	29.6	30.0	27.2	27.9	32.8	24.2	23.3	23.3	23.3	19.9	17.9	15.6	11.2	7.6	3.4	-2.1	-6.4	-11.7	-20.1	-30.7	-48.3	-76.2	-120.9	-189.8	-297.6	-462.8	-713.4	40.6	17.7
1-L	18931	5770	35.1	30.0	28.0	28.4	25.6	26.3	31.1	22.5	21.5	21.3	21.2	17.5	15.3	12.6	7.8	3.8	-0.9	-6.9	-11.8	-18.1	-27.9	-40.6	-61.5	-94.7	-147.7	-229.5	-357.6	-554.0	-852.6	39.2	15.2
2-D	10654	3247	37.6	35.0	33.0	33.4	30.6	31.5	36.4	27.9	27.1	27.3	27.7	24.6	23.1	21.4	17.6	14.7	11.3	6.6	3.4	-0.4	-6.5	-13.5	-25.7	-45.0	-76.1	-123.9	-198.5	-312.6	-484.3	43.6	22.9
2-E	8750	2667	38.4	36.7	34.7	35.1	32.3	33.2	38.2	29.7	29.0	29.2	29.7	26.8	25.5	24.0	20.4	17.8	14.6	10.3	7.5	4.2	-1.0	-6.7	-16.9	-33.1	-59.1	-99.0	-161.3	-256.5	-399.0	45.2	25.4
2-F	7822	2384	38.9	37.7	35.7	36.1	33.3	34.2	39.2	30.7	30.0	30.3	30.8	28.0	26.8	25.4	21.9	19.4	16.4	12.2	9.6	6.6	1.8	-3.3	-12.5	-27.1	-50.6	-86.8	-143.0	-229.0	-357.3	46.1	26.8
2-G	8142	2482	38.8	37.4	35.3	35.7	33.0	33.9	38.8	30.3	29.7	29.9	30.4	27.6	26.3	24.9	21.4	18.9	15.8	11.5	8.9	5.8	0.8	-4.5	-14.1	-29.2	-53.5	-91.0	-149.4	-238.5	-371.8	45.8	26.3
2-H	9591	2923	38.0	36.0	33.9	34.3	31.6	32.4	37.3	28.8	28.1	28.3	28.7	25.8	24.4	22.8	19.1	16.4	13.1	8.6	5.7	2.1	-3.5	-9.8	-20.9	-38.4	-66.6	-110.0	-177.8	-281.3	-436.7	44.5	24.3
2-I	11782	3591	37.2	34.2	32.1	32.5	29.8	30.6	35.5	26.9	26.2	26.3	26.6	23.4	21.9	20.0	16.1	13.0	9.4	4.6	1.2	-3.0	-9.6	-17.4	-30.8	-52.0	-86.0	-138.5	-220.3	-345.7	-534.7	42.8	21.6
2-J	14437	4400	36.3	32.4	30.3	30.7	28.0	28.8	33.6	25.0	24.2	24.2	24.4	21.0	19.2	17.1	12.7	9.4	5.4	0.1	-3.9	-8.9	-16.6	-26.3	-42.4	-68.1	-109.2	-172.5	-271.6	-423.3	-653.0	41.3	18.9
2-K	17181	5237	35.5	30.9	28.8	29.2	26.5	27.2	32.0	23.4	22.5	22.4	22.4	18.8	16.7	14.3	9.6	5.9	1.5	-4.3	-8.8	-14.6	-23.6	-35.1	-54.2	-84.4	-132.8	-207.4	-324.2	-503.2	-775.0	39.9	16.6
2-L	20131	6136	34.8	29.5	27.5	27.9	25.1	25.7	30.6	21.9	20.9	20.7	20.5	16.7	14.3	11.5	6.5	2.4	-2.5	-8.7	-13.9	-20.5	-30.8	-44.3	-66.5	-101.7	-157.9	-244.7	-380.5	-588.8	-905.8	38.8	14.4
3-D	11801	3597	37.1	34.1	32.1	32.5	29.7	30.6	35.5	26.9	26.1	26.3	26.6	23.4	21.8	20.0	16.0	13.0	9.4	4.5	1.1	-3.1	-9.7	-17.5	-30.9	-52.1	-86.2	-138.7	-220.7	-346.2	-535.5	42.8	21.6
3-E	10309	3142	37.7	35.3	33.3	33.7	30.9	31.8	36.7	28.2	27.4	27.6	28.0	25.0	23.5	21.9	18.1	15.3	11.8	7.3	4.2	0.4	-5.5	-12.3	-24.2	-42.9	-73.0	-119.4	-191.8	-302.5	-468.9	43.9	23.4
3-F	9735	2967	38.0	35.8	33.8	34.2	31.4	32.3	37.2	28.7	28.0	28.2	28.6	25.6	24.2	22.6	18.9	16.2	12.8	8.3	5.4	1.8	-3.9	-10.3	-21.5	-39.3	-67.9	-111.9	-180.6	-285.6	-443.2	44.3	24.1
3-G	10224	3116	37.8	35.4	33.3	33.7	31.0	31.8	36.8	28.2	27.5	27.7	28.1	25.1	23.6	22.0	18.2	15.4	12.0	7.4	4.3	0.6	-5.3	-12.0	-23.8	-42.4	-72.3	-118.3	-190.1	-299.9	-465.1	43.9	23.5
3-I	13598	4145	36.5	32.9	30.9	31.3	28.5	29.3	34.2	25.6	24.8	24.8	25.0	21.7	20.0	18.0	13.8	10.5	6.6	1.5	-2.3	-7.1	-14.5	-23.5	-38.8	-63.0	-101.9	-161.8	-255.4	-398.8	-615.7	41.7	19.7
3-J	16011	4880	35.8	31.5	29.4	29.8	27.1	27.8	32.7	24.1	23.2	23.1	23.2	19.7	17.7	15.4	10.9	7.3	3.1	-2.4	-6.8	-12.2	-20.7	-31.4	-49.2	-77.5	-122.7	-192.6	-301.8	-469.1	-723.0	40.5	17.5
3-K	18720	5706	35.1	30.1	28.1	28.5	25.7	26.4	31.2	22.6	21.6	21.5	21.4	17.7	15.4	12.8	8.0	4.0	-0.6	-6.6	-11.5	-17.7	-27.4	-39.9	-60.6	-93.5	-145.9	-226.9	-353.6	-547.9	-843.3	39.3	15.4
3-L	21491	6550	34.5	28.9	26.9	27.3	24.5	25.2	30.0	21.2	20.2	19.9	19.7	15.8	13.3	10.4	5.2	0.8	-4.2	-10.6	-16.1	-23.2	-34.1	-48.5	-72.1	-109.6	-169.4	-261.8	-406.4	-628.2	-966.1	38.3	13.5
4-D	13160	4011	36.7	33.2	31.2	31.6	28.8	29.6	34.5	25.9	25.1	25.2	25.4	22.1	20.4	18.4	14.3	11.1	7.3	2.2	-1.5	-6.1	-13.3	-22.0	-36.9	-60.4	-98.1	-156.2	-247.0	-386.0	-596.1	42.0	20.2
4-E	11986	3653	37.1	34.0	32.0	32.4	29.6	30.4	35.3	26.8	26.0	26.1	26.4	23.2	21.6	19.8	15.8	12.7	9.1	4.2	0.8	-3.5	-10.2	-18.1	-31.7	-53.2	-87.8	-141.1	-224.3	-351.7	-543.8	42.7	21.4
4-F	11719	3572	37.2	34.2	32.2	32.6	29.8	30.6	35.5	27.0	26.2	26.3	26.6	23.5	21.9	20.1	16.2	13.1	9.5	4.7	1.3	-2.9	-9.4	-17.2	-30.5	-51.6	-85.5	-137.7	-219.1	-343.8	-531.9	42.9	21.7
4-G	12278	3742	37.0	33.8	31.8	32.2	29.4	30.2	35.1	26.5	25.8	25.9	26.1	23.0	21.3	19.5	15.4	12.3	8.6	3.7	0.2	-4.1	-11.0	-19.1	-33.0	-55.0	-90.4	-144.9	-230.0	-360.2	-556.8	42.5	21.1
4-H	13603	4146	36.5	32.9	30.9	31.3	28.5	29.3	34.2	25.6	24.8	24.8	25.0	21.7	20.0	18.0	13.8	10.5	6.6	1.5	-2.4	-7.1	-14.5	-23.5	-38.8	-63.1	-101.9	-161.9	-255.5	-398.9	-615.9	41.7	19.7
4-I	15515	4729	36.0	31.8	29.7	30.1	27.4	28.1	33.0	24.4	23.5	23.5	23.6	20.1	18.2	15.9	11.5	8.0	3.8	-1.7	-5.9	-11.2	-19.4	-29.8	-47.1	-74.5	-118.5	-186.3	-292.3	-454.7	-701.0	40.7	18.0
4-J	17787	5421	35.4	30.6	28.5	28.9	26.2	26.9	31.7	23.1	22.1	22.0	22.0	18.4	16.2	13.7	9.0	5.1	0.6	-5.2	-9.9	-15.8	-25.1	-37.0	-56.7	-88.0	-137.9	-215.1	-335.8	-520.7	-801.8	39.7	16.1
4-K	20345	6201	34.8	29.4	27.4	27.8	25.0	25.7	30.5	21.8	20.8	20.6	20.4	16.6	14.2	11.4	6.3	2.1	-2.7	-9.0	-14.2	-20.9	-31.4	-45.0	-67.4	-102.9	-159.7	-247.4	-384.6	-595.0	-915.3	38.7	14.2
4-L	23068	7031	34.2	28.3	26.3	26.7	23.9	24.5	29.3	20.5	19.5	19.1	18.8	14.8	12.1	9.0	3.6	-0.9	-6.2	-12.9	-18.7	-26.2	-37.8	-53.3	-78.6	-118.7	-182.7	-281.6	-436.4	-673.8	-1035.9	37.8	12.5
5-D	14684	4476	36.2	32.3	30.2	30.6	27.9	28.6	33.5	24.9	24.0	24.0	24.2	20.8	18.9	16.8	12.5	9.0	5.0	-0.3	-4.4	-9.4	-17.3	-27.1	-43.5	-69.6	-111.3	-175.7	-276.3	-430.5	-664.0	41.1	18.7
5-E	13841	4219	36.5	32.8	30.7	31.1	28.4	29.1	34.0	25.4	24.6	24.7	24.8	21.5	19.7	17.7	13.5	10.2	6.2	1.1	-2.8	-7.6	-15.1	-24.3	-39.9	-64.5	-104.0	-164.9	-260.1	-405.9	-626.5	41.6	19.5
5-F	13729	4184	36.5	32.8	30.8	31.2	28.4	29.2	34.1	25.5	24.7	24.7	24.9	21.6	19.9	17.8	13.6	10.3	6.4	1.2	-2.6	-7.3	-14.8	-23.9	-39.4	-63.8	-103.0	-163.5	-257.9	-402.6	-621.5	41.6	19.6
5-G	14347	4373	36.3	32.5	30.4	30.8	28.1	28.8	33.7	25.1	24.3	24.3	24.4	21.1	19.3	17.1	12.9	9.5	5.5	0.2	-3.7	-8.7	-16.4	-26.0	-42.0	-67.5	-108.4	-171.4	-269.8	-420.6	-649.0	41.3	19.0
5-H	15621	4761	35.9	31.7	29.7	30.1	27.3	28.0	32.9	24.3	23.4	23.4	23.5	20.0	18.1	15.8	11.4	7.8	3.6	-1.8	-6.1	-11.4	-19.7	-30.1	-47.5	-75.2	-119.4	-187.6	-294.3	-457.8	-705.7	40.7	17.9
5-I	17376	5296	35.5	30.8	28.7	29.1	26.4	27.1	31.9	23.3	22.4	22.3	22.2	18.7	16.6	14.1	9.4	5.6	1.2	-4.6	-9.2	-15.0	-24.1	-35.7	-55.0	-85.6	-134.4	-209.9	-327.9	-508.8	-783.6	39.9	16.4
5-J	19581	5968	34.9	29.8	27.7	28.1	25.4	26.0	30.8	22.1	21.2	21.0	20.8	17.1	14.8	12.0	7.1	3.0	-1.7	-7.9	-12.9	-19.4	-29.5	-42.6	-64.2	-98.5	-153.2	-237.7	-370.0	-572.8	-881.4	39.0	14.8
6-D	16334	4979	35.7	31.3	29.3	29.7	26.9	27.6	32.5	23.9	23.0	22.9	23.0	19.5	17.5	15.1	10.6	6.9	2.6	-3.0	-7.3	-12.9	-21.5	-32.4	-50.6	-79.4	-125.5	-196.7	-308.0	-478.5	-737.3	40.3	17.3
6-E	15719	4791	35.9	31.7	29.6	30.0	27.3	28.0	32.9	24.2	23.4	23.3	23.4	20.0	18.0	15.7	11.3	7.7	3.5	-2.0	-6.2	-11.6	-19.9	-30.4	-47.9	-75.7	-120.2	-188.9	-296.2	-460.6	-710.0	40.6	17.8
6-G	16367	4989	35.7	31.3	29.3	29.7	26.9	27.6	32.5	23.8	23.0	22.9	22.9	19.4	17.4	15.1	10.5	6.9	2.6	-3.0	-7.4	-12.9	-21.6	-32.5	-50.7	-79.6	-125.8	-197.1	-308.6	-479.5	-738.8	40.3	17.2
6-H	17620	5371	35.4	30.7	28.6	29.0	26.3	27.0	31.8	23.1	22.2	22.1	22.1	18.5	16.3	13.9	9.2	5.3	0.9	-4.9	-9.6	-15.5	-24.7	-36.5	-56.0	-87.0	-136.5	-213.0	-332.6	-515.9	-794.5	39.8	16.2
6-I	19334	5893	35.0	29.9	27.8	28.2	25.5	26.1	30.9	22.3	21.3	21.1	21.0	17.3	15.0	12.3	7.3	3.3	-1.4	-7.5	-12.5	-18.9	-28.9	-41.9	-63.2	-97.0	-151.1	-234.6	-365.3	-565.7	-870.5	39.1	14.9
6-J	21438	6534	34.6	29.0	26.9	27.3	24.6	25.2	30.0	21.2	20.2	20.0	19.7	15.8	13.3	10.4	5.2	0.9	-4.1	-10.6	-16.0	-23.1	-34.0	-48.4	-71.9	-109.3	-168.9	-261.1	-405.4	-626.6	-963.7	38.3	13.5
7-B	20476	6241	34.8	29.4	27.3	27.7	25.0	25.6	30.4	21.7	20.7	20.5	20.3	16.5	14.1	11.2	6.2	2.0	-2.9	-9.2	-14.5	-21.2	-31.7	-45.4	-67.9	-103.7	-160.8	-249.0	-387.1	-598.8	-921.1	38.7	14.1
7-C	19015	5796	35.1	30.0	28.0	28.4	25.6	26.3	31.1	22.4	21.5	21.3	21.2	17.5	15.2	12.6	7.7	3.7	-1.0	-7.0	-12.0	-18.3	-28.1	-40.9	-61.9	-95.2	-148.4	-230.6	-359.2	-556.4	-856.3	39.2	15.2
7-E	17606	5366	35.4	30.7	28.6	29.0	26.3	27.0	31.8	23.1	22.2	22.1	22.1	18.5	16.4	13.9	9.2	5.4	0.9	-4.9	-9.6	-15.5	-24.7	-36.4	-55.9	-86.9	-136.4	-212.8	-332.3	-515.5	-793.8	39.8	16.2
7-F	17751	5410	35.4	30.6	28.6	29.0	26.2	26.9	31.7	23.1	22.1	22.0	22.0	18.4	16.2	13.7	9.0	5.2	0.7	-5.1	-9.8	-15.8	-25.0	-36.9	-56.6	-87.8	-137.6	-214.6	-335.1	-519.7	-800.3	39.7	16.1
7-G	18460	5627	35.2	30.3	28.2	28.6	25.9	26.5	31.4	22.7	21.8	21.6	21.5	17.9	15.7	13.1	8.3	4.3	-0.3	-6.2	-11.0	-17.2	-26.8	-39.1	-59.5	-91.9	-143.7	-223.6	-348.6	-540.3	-831.7	39.4	15.6
7-H	19693	6002	34.9	29.7	27.7	28.1	25.3	25.9	30.8	22.1	21.1	20.9	20.8	17.0	14.7	11.9	7.0	2.9	-1.9	-8.0	-13.1	-19.7	-29.8	-43.0	-64.7	-99.1	-154.2	-239.1	-372.1	-576.1	-886.4	38.9	14.7
7-I	21338	6504	34.6	29.0	27.0	27.4	24.6	25.2	30.0	21.3	20.3	20.0	19.8	15.9	13.4	10.5	5.3	1.0	-4.0	-10.4	-15.9	-22.9	-33.7	-48.1	-71.5	-108.7	-168.1	-259.8	-403.5	-623.7	-959.3	38.4	13.6
8-A	23535	7174	34.2	28.2	26.1	26.5	23.8	24.3	29.1	20.3	19.3	18.9	18.6	14.5	11.8	8.6	3.2	-1.4	-6.8	-13.5	-19.5	-27.1	-38.9	-54.8	-80.5	-121.4	-186.6	-287.4	-445.3	-687.4	-1056.6	37.7	12.2
8-B	21894	6673	34.5	28.8	26.7	27.1	24.4	25.0	29.8	21.0	20.0	19.7	19.5	15.5	13.0	10.0	4.8	0.4	-4.7	-11.2	-16.8	-24.0	-35.1	-49.8	-73.8	-111.9	-172.8	-266.8	-414.1	-639.9	-983.9	38.2	13.2

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Leq)
FROM WIND PARK OPERATIONS AT THE DESIGN WIND CONDITION

8-C	20636	6290	34.7	29.3	27.2	27.6	24.9	25.5	30.3	21.6	20.6	20.4	20.2	16.4	13.9	11.1	6.0	1.8	-3.1	-9.4	-14.7	-21.5	-32.1	-45.9	-68.6	-104.6	-162.2	-251.0	-390.1	-603.4	-928.2	38.6	14.0
8-D	19830	6044	34.9	29.6	27.6	28.0	25.2	25.9	30.7	22.0	21.0	20.8	20.7	16.9	14.6	11.8	6.8	2.7	-2.1	-8.2	-13.4	-19.9	-30.1	-43.4	-65.2	-99.9	-155.3	-240.9	-374.8	-580.1	-892.5	38.9	14.6
8-F	19759	6023	34.9	29.7	27.6	28.0	25.3	25.9	30.7	22.0	21.1	20.9	20.7	17.0	14.6	11.9	6.9	2.8	-2.0	-8.1	-13.2	-19.8	-29.9	-43.2	-65.0	-99.5	-154.7	-240.0	-373.4	-578.0	-889.3	38.9	14.6
8-G	20576	6272	34.7	29.3	27.3	27.7	24.9	25.6	30.4	21.6	20.6	20.4	20.2	16.4	14.0	11.2	6.1	1.9	-3.0	-9.3	-14.6	-21.4	-31.9	-45.7	-68.3	-104.3	-161.6	-250.3	-389.0	-601.7	-925.5	38.6	14.1
8-H	21755	6631	34.5	28.8	26.8	27.2	24.4	25.0	29.8	21.1	20.1	19.8	19.5	15.6	13.1	10.1	4.9	0.5	-4.5	-11.0	-16.6	-23.7	-34.7	-49.3	-73.2	-111.1	-171.6	-265.1	-411.4	-635.8	-977.8	38.2	13.3
9-A	24819	7565	33.9	27.7	25.6	26.0	23.3	23.8	28.6	19.8	18.7	18.3	17.9	13.7	10.9	7.6	2.0	-2.8	-8.3	-15.3	-21.5	-29.6	-42.0	-58.7	-85.7	-128.8	-197.4	-303.5	-469.6	-724.5	-1113.4	37.3	11.4
9-B	23369	7123	34.2	28.2	26.2	26.6	23.8	24.4	29.2	20.4	19.3	19.0	18.6	14.6	11.9	8.8	3.3	-1.2	-6.6	-13.3	-19.2	-26.8	-38.6	-54.3	-79.8	-120.5	-185.2	-285.3	-442.1	-682.5	-1049.2	37.7	12.3
9-C	22291	6794	34.4	28.6	26.6	27.0	24.2	24.8	29.6	20.9	19.8	19.5	19.2	15.3	12.7	9.7	4.4	-0.1	-5.2	-11.8	-17.4	-24.7	-36.0	-51.0	-75.4	-114.2	-176.1	-271.8	-421.6	-651.4	-1001.5	38.0	12.9
9-D	21688	6610	34.5	28.9	26.8	27.2	24.5	25.1	29.9	21.1	20.1	19.8	19.6	15.7	13.1	10.2	5.0	0.6	-4.5	-10.9	-16.5	-23.6	-34.6	-49.1	-72.9	-110.7	-171.1	-264.2	-410.1	-633.9	-974.8	38.2	13.3
9-E	21499	6553	34.5	28.9	26.9	27.3	24.5	25.2	30.0	21.2	20.2	19.9	19.7	15.8	13.3	10.3	5.2	0.8	-4.2	-10.7	-16.1	-23.2	-34.1	-48.5	-72.2	-109.6	-169.5	-261.9	-406.5	-628.4	-966.4	38.3	13.5
9-F	21815	6649	34.5	28.8	26.8	27.2	24.4	25.0	29.8	21.1	20.0	19.8	19.5	15.6	13.0	10.1	4.8	0.5	-4.6	-11.1	-16.7	-23.8	-34.9	-49.5	-73.5	-111.5	-172.1	-265.8	-412.5	-637.6	-980.4	38.2	13.2
9-G	22596	6887	34.3	28.5	26.5	26.9	24.1	24.7	29.5	20.7	19.7	19.4	19.1	15.1	12.5	9.4	4.1	-0.4	-5.6	-12.2	-17.9	-25.3	-36.7	-51.9	-76.7	-116.0	-178.7	-275.6	-427.4	-660.2	-1015.0	37.9	12.8
9-H	23811	7258	34.1	28.1	26.0	26.4	23.7	24.2	29.0	20.2	19.1	18.8	18.4	14.3	11.6	8.4	2.9	-1.7	-7.1	-13.9	-19.9	-27.6	-39.6	-55.6	-81.6	-123.0	-188.9	-290.9	-450.5	-695.3	-1068.8	37.6	12.0
9-I	25338	7723	33.8	27.5	25.5	25.9	23.1	23.6	28.4	19.6	18.5	18.1	17.6	13.4	10.5	7.2	1.5	-3.4	-9.0	-16.0	-22.3	-30.5	-43.2	-60.2	-87.9	-131.8	-201.8	-310.0	-479.5	-739.5	-1136.3	37.1	11.1
10-A	26208	7988	33.7	27.2	25.2	25.6	22.8	23.3	28.1	19.3	18.1	17.7	17.2	12.9	9.9	6.5	0.7	-4.3	-10.0	-17.2	-23.7	-32.2	-45.2	-62.8	-91.4	-136.8	-209.1	-320.9	-496.0	-764.6	-1174.8	36.9	10.6
10-B	24961	7608	33.9	27.6	25.6	26.0	23.2	23.8	28.5	19.8	18.6	18.2	17.8	13.6	10.8	7.5	1.8	-3.0	-8.5	-15.5	-21.7	-29.8	-42.3	-59.1	-86.3	-129.6	-198.6	-305.3	-472.3	-728.6	-1119.7	37.2	11.3
10-C	24047	7329	34.1	28.0	25.9	26.3	23.6	24.1	28.9	20.1	19.0	18.7	18.3	14.2	11.4	8.2	2.7	-2.0	-7.4	-14.3	-20.3	-28.1	-40.1	-56.3	-82.6	-124.4	-190.9	-293.8	-455.0	-702.2	-1079.2	37.5	11.9
10-D	23524	7170	34.2	28.2	26.1	26.5	23.8	24.3	29.1	20.3	19.3	18.9	18.6	14.5	11.8	8.6	3.2	-1.4	-6.8	-13.5	-19.4	-27.1	-38.9	-54.7	-80.5	-121.4	-186.5	-287.3	-445.0	-687.0	-1056.1	37.7	12.2
10-E	23461	7151	34.2	28.2	26.1	26.5	23.8	24.4	29.1	20.4	19.3	19.0	18.6	14.6	11.9	8.7	3.3	-1.3	-6.7	-13.4	-19.3	-27.0	-38.8	-54.5	-80.2	-121.0	-186.0	-286.5	-443.8	-685.2	-1053.3	37.7	12.2
10-F	23831	7264	34.1	28.0	26.0	26.4	23.6	24.2	29.0	20.2	19.1	18.8	18.4	14.3	11.6	8.4	2.9	-1.7	-7.1	-14.0	-19.9	-27.7	-39.6	-55.7	-81.7	-123.1	-189.1	-291.1	-450.9	-695.9	-1069.7	37.6	12.0
10-G	24634	7509	34.0	27.8	25.7	26.1	23.4	23.9	28.7	19.9	18.8	18.4	18.0	13.8	11.0	7.7	2.1	-2.6	-8.1	-15.1	-21.2	-29.2	-41.5	-58.1	-85.0	-127.7	-195.9	-301.2	-466.1	-719.1	-1105.2	37.3	11.5
10-H	25850	7879	33.7	27.3	25.3	25.7	22.9	23.5	28.2	19.4	18.3	17.8	17.3	13.1	10.2	6.7	1.0	-3.9	-9.6	-16.7	-23.2	-31.5	-44.4	-61.8	-89.9	-134.7	-206.1	-316.4	-489.2	-754.3	-1159.0	37.0	10.8
10-I	79817	24328	28.8	17.5	15.5	15.9	13.1	12.6	16.7	6.9	4.3	1.8	-1.7	-10.1	-18.2	-27.9	-40.4	-52.5	-66.1	-82.1	-100.1	-124.4	-161.2	-215.5	-300.4	-435.7	-650.1	-982.5	-1504.0	-2305.3	-3537.5	30.0	-5.5
11-A	27738	8454	33.4	26.7	24.7	25.1	22.3	22.8	27.5	18.7	17.5	17.0	16.4	12.0	8.9	5.3	-0.7	-5.9	-11.8	-19.3	-26.1	-35.0	-48.7	-67.4	-97.6	-145.5	-221.9	-340.0	-524.9	-808.8	-1242.5	36.5	9.8
11-B	26599	8107	33.6	27.1	25.0	25.4	22.7	23.2	27.9	19.1	18.0	17.5	17.0	12.7	9.7	6.1	0.3	-4.7	-10.5	-17.8	-24.3	-32.9	-46.1	-64.0	-93.0	-139.0	-212.3	-325.7	-503.4	-775.9	-1192.1	36.8	10.4
11-C	25814	7868	33.7	27.4	25.3	25.7	23.0	23.5	28.2	19.4	18.3	17.9	17.4	13.1	10.2	6.8	1.0	-3.9	-9.5	-16.7	-23.1	-31.4	-44.3	-61.6	-89.8	-134.5	-205.8	-315.9	-488.5	-753.2	-1157.4	37.0	10.9
11-D	25483	7767	33.8	27.5	25.4	25.8	23.1	23.6	28.3	19.5	18.4	18.0	17.5	13.3	10.4	7.0	1.4	-3.5	-9.1	-16.2	-22.6	-30.8	-43.5	-60.6	-88.4	-132.6	-203.0	-311.8	-482.2	-743.7	-1142.8	37.1	11.0
11-E	25447	7756	33.8	27.5	25.4	25.8	23.1	23.6	28.4	19.6	18.4	18.0	17.5	13.4	10.5	7.1	1.4	-3.5	-9.1	-16.2	-22.5	-30.7	-43.4	-60.5	-88.3	-132.4	-202.7	-311.3	-481.5	-742.6	-1141.2	37.1	11.1
11-F	25909	7897	33.7	27.3	25.3	25.7	22.9	23.4	28.2	19.4	18.2	17.8	17.3	13.1	10.1	6.7	1.0	-4.0	-9.7	-16.8	-23.3	-31.6	-44.5	-61.9	-90.2	-135.1	-206.6	-317.1	-490.3	-756.0	-1161.6	37.0	10.8
11-G	26702	8139	33.6	27.1	25.0	25.4	22.7	23.2	27.9	19.1	17.9	17.5	16.9	12.6	9.6	6.1	0.2	-4.8	-10.6	-17.9	-24.5	-33.1	-46.3	-64.3	-93.4	-139.6	-213.2	-327.0	-505.3	-778.9	-1196.7	36.8	10.4
11-H	27866	8493	33.4	26.7	24.6	25.0	22.3	22.8	27.5	18.7	17.5	17.0	16.3	12.0	8.8	5.2	-0.8	-6.0	-12.0	-19.5	-26.3	-35.3	-49.0	-67.8	-98.1	-146.2	-222.9	-341.6	-527.4	-812.5	-1248.1	36.5	9.8
11-K	33122	10095	32.7	25.2	23.1	23.5	20.8	21.2	25.8	16.9	15.6	14.8	13.9	9.2	5.5	1.2	-5.4	-11.3	-18.0	-26.4	-34.4	-44.8	-60.9	-83.3	-119.1	-176.1	-266.7	-407.0	-626.7	-964.1	-1480.3	35.3	7.3
11-L	35237	10740	32.4	24.6	22.6	23.0	20.2	20.6	25.2	16.2	14.9	14.1	13.0	8.1	4.3	-0.3	-7.2	-13.3	-20.4	-29.1	-37.5	-48.6	-65.7	-89.5	-127.5	-188.1	-284.3	-433.2	-666.7	-1025.1	-1573.7	34.9	6.4
12-A	29301	8931	33.2	26.3	24.2	24.6	21.9	22.3	27.0	18.1	16.9	16.3	15.7	11.2	7.9	4.1	-2.1	-7.5	-13.7	-21.4	-28.5	-37.9	-52.3	-72.0	-103.9	-154.4	-234.9	-359.4	-554.5	-853.9	-1311.5	36.1	9.0
12-B	28300	8626	33.3	26.6	24.5	24.9	22.2	22.6	27.3	18.5	17.3	16.8	16.1	11.7	8.6	4.8	-1.2	-6.5	-12.5	-20.1	-27.0	-36.1	-50.0	-69.1	-99.8	-148.7	-226.6	-347.0	-535.6	-825.0	-1267.3	36.4	9.5
12-C	27633	8422	33.5	26.8	24.7	25.1	22.4	22.8	27.6	18.7	17.5	17.1	16.5	12.1	9.0	5.3	-0.6	-5.8	-11.7	-19.2	-26.0	-34.8	-48.5	-67.1	-97.1	-144.9	-221.0	-338.6	-523.0	-805.8	-1237.8	36.5	9.9
12-D	27392	8349	33.5	26.8	24.8	25.2	22.4	22.9	27.7	18.8	17.6	17.2	16.6	12.2	9.2	5.5	-0.4	-5.5	-11.4	-18.8	-25.6	-34.4	-47.9	-66.4	-96.2	-143.5	-219.0	-335.6	-518.4	-798.8	-1227.2	36.6	10.0
12-E	27427	8360	33.5	26.8	24.8	25.2	22.4	22.9	27.6	18.8	17.6	17.1	16.6	12.2	9.1	5.5	-0.4	-5.6	-11.5	-18.9	-25.6	-34.4	-48.0	-66.5	-96.3	-143.7	-219.3	-336.1	-519.1	-799.8	-1228.7	36.6	10.0
12-F	27951	8520	33.4	26.7	24.6	25.0	22.3	22.7	27.5	18.6	17.4	16.9	16.3	11.9	8.8	5.1	-0.9	-6.1	-12.1	-19.6	-26.4	-35.4	-49.2	-68.0	-98.4	-146.7	-223.7	-342.6	-529.0	-815.0	-1251.9	36.5	9.7
12-G	28775	8770	33.3	26.4	24.4	24.8	22.0	22.5	27.2	18.3	17.1	16.6	15.9	11.5	8.2	4.5	-1.6	-6.9	-13.1	-20.7	-27.7	-36.9	-51.1	-70.5	-101.7	-151.4	-230.5	-352.9	-544.6	-838.7	-1288.3	36.3	9.3
12-H	29903	9114	33.1	26.1	24.0	24.4	21.7	22.1	26.8	17.9	16.7	16.1	15.4	10.8	7.5	3.6	-2.6	-8.1	-14.4	-22.2	-29.5	-39.0	-53.7	-73.8	-106.3	-157.8	-239.9	-366.9	-565.9	-871.3	-1338.1	36.0	8.7
12-I	31399	9570	32.9	25.6	23.6	24.0	21.2	21.7	26.3	17.4	16.1	15.5	14.7	10.0	6.6	2.5	-3.9	-9.6	-16.1	-24.1	-31.7	-41.7	-57.1	-78.2	-112.3	-166.3	-252.4	-385.6	-594.2	-914.4	-1404.2	35.7	8.0
12-J	33085	10084	32.7	25.2	23.1	23.5	20.8	21.2	25.8	16.9	15.6	14.9	13.9	9.2	5.5	1.3	-5.4	-11.3	-18.0	-26.3	-34.3	-44.8	-60.9	-83.2	-119.0	-175.9	-266.4	-406.5	-626.1	-963.1	-1478.7	35.3	7.3
12-K	35002	10669	32.4	24.7	22.7	23.1	20.3	20.6	25.3	16.3	14.9	14.1	13.1	8.2	4.4	-0.1	-7.0	-13.1	-20.1	-28.8	-37.2	-48.2	-65.1	-88.8	-126.6	-186.7	-282.3	-430.3	-662.3	-1018.3	-1563.3	34.9	6.5
12-L	37075	11300	32.2	24.2	22.2	22.6	19.8	20.1	24.7	15.7	14.3	13.4	12.3	7.2	3.2	-1.6	-8.7	-15.1	-22.4	-31.4	-40.2	-51.9	-69.8	-94.8	-134.8	-198.4	-299.5	-456.0	-701.3	-1078.0	-1654.8	34.6	5.6
13-A	30926	9426	33.0	25.8	23.7	24.1	21.4	21.8	26.5	17.6	16.3	15.7	14.9	10.3	6.9	2.8	-3.5	-9.1	-15.5	-23.5	-31.0	-40.9	-56.0	-76.8	-110.4	-163.7	-248.5	-379.7	-585.3	-900.8	-1383.3	35.8	8.3
13-B	30026	9152	33.1	26.0	24.0	24.4	21.6	22.1	26.8	17.9	16.6	16.1	15.3	10.8	7.4	3.5	-2.7	-8.2	-14.5	-22.3	-29.7	-39.2	-53.9	-74.2	-106.8	-158.6	-241.0	-368.5	-568.3	-874.9	-1343.6	36.0	8.7
13-C	29487	8988	33.2	26.2	24.1	24.5	21.8	22.2	27.0	18.1	16.8	16.3	15.6	11.1	7.8	3.9	-2.3	-7.7	-13.9	-21.6	-28.8	-38.2	-52.7	-72.6	-104.6	-155.5	-236.5	-361.8	-558.0	-859.3	-1319.8	36.1	8.9
13-D	29335	8941	33.2	26.2	24.2	24.6	21.8	22.3	27.0	18.1	16.9	16.3	15.6	11.2	7.9	4.0	-2.1	-7.5	-13.7	-21.4	-28.6	-38.0	-52.4	-72.1	-104.0	-154.6	-235.2	-359.9	-555.2	-854.9	-1313.1	36.1	9.0
13-F	29989	9141	33.1	26.0	24.0	24.4	21.6	22.1	26.8	17.9	16.7	16.1	15.3	10.8	7.5	3.5	-2.7	-8.2	-14.5	-22.3	-29.6	-39.2	-53.9	-74.1	-106.6	-158.3	-240.7	-368.0	-567.6	-873.8	-1342.0	36.0	8.7
13-G	30831	9397	33.0	25.8	23.8	24.2	21.4	21.8	26.5	17.6	16.3	15.7	14.9	10.3	6.9	2.9	-3.4	-9.0	-15.4	-23.4	-30.9	-40.7	-55.8	-76.6	-110.0	-163.1	-247.7	-378.5	-583.5	-898.1	-1379.2	35.8	8.3
13-H	31901	9723	32.8	25.5	23.5	23.9	21.1	21.5	26.2	17.3	16.0	15.3	14.5	9.8	6.3	2.1	-4.4	-10.1	-16.7	-24.8	-32.5	-42.6	-58.2	-79.7	-114.3	-169.2	-256.6	-391.8	-603.7	-928.9	-1426.4	35.6	7.8
13-I	33404	10181	32.6	25.1	23.1	23.5	20.7	21.1	25.7	16.8	15.5	14.7	13.8	9.0	5.4	1.0	-5.6	-11.6	-18.4	-26.8	-34.8	-45.4	-61.6	-84.1	-120.3	-177.7	-269.1	-410.5	-632.1	-972.2	-1492.8	35.3	7.1
13-J	35110	10702	32.4	24.7	22.6	23.0	20.3	20.6	25.3	16.3	14.9	14.1	13.1	8.2	4.3	-0.2	-7.1	-13.2	-20.3	-28.9	-37.3	-48.4	-65.4	-89.1	-127.0	-187.3	-283.2	-431.7	-664.3	-1021.4	-1568.1	34.9	6.4
13-K	36952	11263	32.2	24.2	22.2	22.6	19.8	20.1	24.8	15.7	14.3	13.4	12.3	7.3	3.3	-1.5	-8.6	-15.0	-22.3	-31.3	-40.1	-51.7	-69.5	-94.5	-134.3	-197.7	-298.5	-454.5	-699.0	-1074.4	-1649.4	34.6	5.7
13-L	39038	11899	32.0	23.8	21.7	22.1	19.4	19.6	24.2	15.2	13.7	12.7	11.5	6.3	2.1	-2.9	-10.3	-17.0	-24.6	-33.9	-43.1	-55.4	-74.1	-100.5	-142.6	-209.5	-315.8	-480.4	-738.4	-1134.5	-1741.4	34.2	4.9
14-D	31291	9538	32.9	25.7	23.6	24.0	21.3	21.7	26.4	17.5	16.2	15.5	14.7	10.1	6.7	2.6	-3.8	-9.5	-16.0	-24.0	-31.6	-41.5	-56.8	-77.9	-111.8	-165.7	-251.5	-384.2	-592.2	-911.3	-1399.5	35.7	8.1
14-E	31497	9600	32.9	25.6	23.6	24.0	21.2	21.6	26.3	17.4	16.1	15.5	14.6	10.0	6.5	2.4	-4.0	-9.7	-16.2	-24.3	-31.9	-41.9	-57.3	-78.5	-112.7	-166.9	-253.2	-386.8	-596.1	-917.3	-1408.6	35.6	8.0
14-F	32036	9764	32.8	25.5	23.4	23.8	21.1	21.5	26.2	17.2	15.9	15.3	14.4	9.7	6.2	2.0	-4.5	-10.2	-16.8	-25.0	-32.7	-42.9	-58.5	-80.1	-114.8	-170.0	-257.7	-393.5	-606.2	-932.8	-1432.4	35.5	7.7
14-G	32881	10022	32.7	25.2	23.2	23.6	20.8	21.2	25.9	17.0	15.6	14.9	14.0	9.3	5.7	1.4	-5.2	-11.1	-17.8	-26.1	-34.0	-44.4	-60.4	-82.6	-118.2	-174.7	-264.7	-404.0	-622.2	-957.2	-1469.7	35.4	7.4
14-H	34017	10368	32.6	25.0	22.9	23.3	20.6	20.9	25.6	16.6	15.3	14.5	13.5	8.7	5.0	0.6	-6.2	-12.2	-19.0	-27.5	-35.7	-46.5	-62.9	-85.9	-122.7	-181.2	-274.2	-418.1	-643.7	-989.9	-1519.9	35.1	6.9
14-J	37045	11291	32.2	24.2	22.2	22.6	19.8	20.1	24.7	15.7	14.3	13.4	12.3	7.2	3.2	-1.5	-8.7	-15.1	-22.4	-31.4	-40.2	-51.9	-69.7	-94.7	-134.7	-198.2	-299.3	-455.7	-700.8	-1077.1	-1653.5	34.6	5.6
14-K	38937	11868	32.0	23.8	21.7	22.1	19.4	19.6	24.2	15.2	13.7	12.8	11.5	6.3	2.1	-2.8	-10.2	-16.9	-24.5	-33.8	-43.0	-55.2	-73.9	-100.2	-142.2	-208.9	-314.9	-479.1	-736.5	-1131.6	-1737.0	34.3	4.9
14-L	40966	12486	31.7	23.3	21.3	21.7	18.9	19.2	23.7	14.7	13.1	12.1	10.7	5.4	1.0	-4.2	-11.8	-18.8	-26.7	-36.3	-46.0	-58.8	-78.3	-106.1	-150.1	-220.3	-331.7	-504.2	-774.7	-1190.0	-1826.4	33.9	4.2
15-F	34077	10387	32.5	24.9	22.9	23.3	20.5	20.9	25.5	16.6	15.2	14.5	13.5	8.7	5.0	0.6	-6.2	-12.2	-19.1	-27.6	-35.8	-46.6	-63.1	-86.1	-122.9	-181.5	-274.7	-418.8	-644.8	-991.6	-1522.5	35.1	6.9
15-G	34960	10656	32.4	24.7	22.7	23.1	20.3	20.7	25.3	16.3	14.9	14.2	13.1	8.2	4.4	-0.1	-6.9	-13.1	-20.1	-28.8	-37.1	-48.1	-65.1	-88.7	-126.4	-186.5	-282.0	-429.8	-661.5	-1017.1	-1561.5	35.0	6.5
15-H	36100	11003	32.3	24.4	22.4	22.8	20.0	20.4	25.0	16.0	14.6	13.7	12.7	7.7	3.8	-0.9	-7.9	-14.2	-21.4	-30.2	-38.8	-50.2	-67.6	-92.0	-131.0	-192.9	-291.4	-443.9	-683.0	-1049.9	-1611.8	34.7	6.0
15-I	37493	11428	32.1	24.1	22.1	22.5	19.7	20.0	24.6	15.6	14.1	13.3	12.1	7.0	2.9	-1.8	-9.0	-15.5	-22.9	-32.0	-40.9	-52.7	-70.7	-96.0	-136.5	-200.8	-303.0	-461.2	-709.2	-1090.0	-1673.2	34.5	5.5
15-J	39071	11909	31.9	23.8	21.7	22.1	19.4	19.6	24.2	15.2	13.7	12.7	11.5	6.2	2.0	-2.9	-10.3	-17.0	-24.6	-34.0	-43.2	-55.4	-74.2	-100.6	-142.7	-209.6	-316.0	-480.8	-739.0	-1135.5	-1742.9	34.2	4.9
15-K	40883	12461	31.8	23.4	21.3	21.7	19.0	19.2	23.7	14.7	13.1	12.1	10.8	5.4	1.0	-4.2	-11.8	-18.7	-26.6	-36.2	-45.8	-58.6	-78.2	-105.8	-149.8	-219.8	-331.0	-503.2	-773.1	-1187.6	-1822.8	33.9	4.2
16-J	41074	12519	31.7	23.3	21.3	21.7	18.9	19.1	23.7	14.6	13.1	12.0	10.7	5.3	0.9	-4.3	-11.9	-18.9	-26.8	-36.4	-46.1	-59.0	-78.6	-106.4	-150.6	-220.9	-332.6	-505.6	-776.7	-1193.1	-1831.2	33.9	4.1
16-K	42850	13061	31.5	22.9	20.9	21.3	18.5	18.7	23.3	14.2	12.6	11.5	10.0	4.5	-0.1	-5.5	-13.3	-20.5	-28.7	-38.6	-48.7	-62.1	-82.5	-111.5	-157.5	-230.8	-347.3	-527.5	-810.2	-1244.2	-1909.6	33.6	3.5
		Sum:	56.3	52.3	50.3	50.7	47.9	48.7	53.6	45.0	44.2	44.2	44.5	41.3	39.7	38.0	34.3	31.5	28.3	23.9	21.3	18.2	13.5	8.9	0.9	-11.3	-30.4	-59.2	-103.7	-171.5	-271.6	61.2	39.7

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Leq)
FROM WIND PARK OPERATIONS AT THE DESIGN WIND CONDITION

																		Hertz												
1/3 Octave Bands	**16***	**20**	**25**	**31**	**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**	**L**	**A**
Sound Power Data - Design Speed	113.7	113.3	111.2	111.6	108.9	109.9	115.0	106.6	106.2	106.8	107.7	105.5	105.0	104.6	102.1	100.6	98.7	95.8	94.9	94.2	92.9	93.1	92.1	90.7	87.9	83.9	78.2	69.9	61.5	121.9	107.4

Data for the graph																	
Atmos. Absorption per 1 km air temp 59F 70% RH	0.0000	0.0000	0.0000	0.0000	0.0000	0.0670	0.1050	0.1630	0.2510	0.3810	0.5650	0.8150	1.1300	1.5100	1.9200	2.3600	2.8400	3.3800	4.0800	5.0500	6.5100	8.7500	12.2000	17.7000	26.4000	39.9000	61.1000	93.7000	144.0000

*Spherical wave spreading for up to 2 km, cylindrical wave spreading beyond 2 km.

																		Hertz												
	1/3 Octave Bands		**16***	**20**	**25**	**31**	**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**	**L**	**A**
	Distance (ft)	**Distance (m)**																													
1-D	61568	18766	30.0	19.8	17.8	18.2	15.4	15.2	19.5	10.1	8.0	6.2	3.6	-3.3	-9.7	-17.2	-27.4	-37.1	-48.0	-61.1	-75.1	-94.0	-122.8	-164.6	-230.3	-335.0	-501.0	-758.3	-1161.9	-1781.9	-2734.2	31.4	-1.7
1-E	58983	17978	30.2	20.2	18.1	18.5	15.8	15.6	20.0	10.6	8.6	6.8	4.5	-2.3	-8.4	-15.7	-25.5	-34.9	-45.4	-58.0	-71.5	-89.7	-117.3	-157.3	-220.3	-320.6	-479.8	-726.5	-1113.4	-1707.7	-2620.4	31.7	-1.1
1-F	56449	17206	30.4	20.6	18.5	18.9	16.2	16.1	20.4	11.1	9.1	7.5	5.3	-1.3	-7.1	-14.1	-23.7	-32.7	-42.9	-55.1	-68.0	-85.4	-111.9	-150.1	-210.5	-306.6	-459.1	-695.3	-1065.8	-1635.0	-2508.8	32.0	-0.5
1-G	53974	16451	30.5	20.9	18.9	19.3	16.5	16.5	20.9	11.6	9.7	8.2	6.1	-0.3	-5.9	-12.6	-21.8	-30.5	-40.3	-52.1	-64.5	-81.2	-106.6	-143.2	-200.9	-292.8	-438.8	-664.8	-1019.3	-1563.9	-2399.8	32.2	0.2
1-H	51558	15715	30.7	21.3	19.3	19.7	16.9	16.9	21.4	12.1	10.3	8.9	6.9	0.7	-4.7	-11.1	-20.0	-28.4	-37.8	-49.2	-61.1	-77.1	-101.4	-136.3	-191.5	-279.4	-418.9	-635.0	-973.9	-1494.5	-2293.3	32.5	0.8
1-I	49274	15019	30.9	21.7	19.7	20.1	17.3	17.4	21.9	12.6	10.9	9.5	7.7	1.7	-3.5	-9.6	-18.3	-26.4	-35.5	-46.5	-57.9	-73.2	-96.4	-129.8	-182.6	-266.7	-400.2	-606.9	-931.0	-1428.9	-2192.7	32.8	1.5
1-J	47113	14360	31.1	22.1	20.1	20.5	17.7	17.8	22.3	13.1	11.4	10.2	8.5	2.6	-2.4	-8.3	-16.6	-24.4	-33.2	-43.9	-54.8	-69.4	-91.8	-123.7	-174.2	-254.7	-382.4	-580.2	-890.4	-1366.8	-2097.5	33.1	2.2
1-K	44994	13714	31.3	22.5	20.5	20.9	18.1	18.3	22.8	13.6	12.0	10.8	9.2	3.5	-1.2	-6.9	-15.0	-22.5	-31.0	-41.3	-51.8	-65.8	-87.2	-117.6	-165.9	-242.8	-364.9	-554.0	-850.5	-1305.8	-2004.1	33.3	2.8
1-L	43045	13120	31.5	22.9	20.9	21.3	18.5	18.7	23.2	14.1	12.5	11.4	9.9	4.4	-0.2	-5.6	-13.5	-20.7	-28.9	-38.9	-49.0	-62.4	-82.9	-112.0	-158.3	-231.9	-348.9	-529.9	-813.8	-1249.8	-1918.1	33.6	3.5
2-D	62288	18985	29.9	19.7	17.6	18.0	15.3	15.1	19.4	10.0	7.8	6.0	3.4	-3.6	-10.0	-17.7	-28.0	-37.8	-48.8	-61.9	-76.1	-95.2	-124.3	-166.6	-233.1	-338.9	-506.9	-767.2	-1175.4	-1802.6	-2765.9	31.4	-1.9
2-E	59712	18200	30.1	20.1	18.0	18.4	15.7	15.5	19.9	10.5	8.4	6.6	4.2	-2.6	-8.7	-16.1	-26.1	-35.5	-46.2	-58.9	-72.5	-90.9	-118.8	-159.3	-223.1	-324.7	-485.8	-735.5	-1127.1	-1728.6	-2652.5	31.6	-1.3
2-F	57219	17441	30.3	20.4	18.4	18.8	16.0	15.9	20.3	10.9	9.0	7.3	5.0	-1.6	-7.5	-14.6	-24.2	-33.4	-43.6	-56.0	-69.1	-86.7	-113.5	-152.3	-213.5	-310.9	-465.4	-704.8	-1080.3	-1657.1	-2542.7	31.9	-0.7
2-G	54843	16716	30.5	20.8	18.8	19.2	16.4	16.3	20.8	11.4	9.5	7.9	5.8	-0.6	-6.3	-13.1	-22.5	-31.3	-41.2	-53.1	-65.7	-82.7	-108.4	-145.6	-204.3	-297.7	-445.9	-675.5	-1035.7	-1588.8	-2438.1	32.1	-0.1
2-H	52541	16014	30.7	21.2	19.1	19.5	16.8	16.8	21.2	11.9	10.1	8.6	6.6	0.3	-5.2	-11.7	-20.8	-29.3	-38.9	-50.4	-62.5	-78.7	-103.5	-139.1	-195.3	-284.9	-427.0	-647.1	-992.4	-1522.7	-2336.6	32.4	0.6
2-I	50274	15324	30.9	21.6	19.5	19.9	17.2	17.2	21.7	12.4	10.6	9.2	7.4	1.3	-4.0	-10.3	-19.1	-27.3	-36.5	-47.7	-59.3	-74.9	-98.6	-132.7	-186.5	-272.3	-408.4	-619.2	-949.8	-1457.6	-2236.8	32.7	1.2
2-J	48134	14671	31.0	21.9	19.9	20.3	17.5	17.6	22.1	12.9	11.2	9.8	8.1	2.2	-2.9	-8.9	-17.4	-25.3	-34.3	-45.1	-56.3	-71.2	-94.0	-126.6	-178.2	-260.3	-390.8	-592.8	-909.6	-1396.1	-2142.5	32.9	1.8
2-K	46221	14088	31.2	22.3	20.2	20.6	17.9	18.0	22.5	13.3	11.7	10.4	8.8	3.0	-1.9	-7.7	-16.0	-23.6	-32.3	-42.8	-53.5	-67.9	-89.8	-121.1	-170.7	-249.7	-375.0	-569.2	-873.6	-1341.1	-2058.2	33.2	2.4
2-L	44332	13512	31.4	22.7	20.6	21.0	18.3	18.4	22.9	13.8	12.2	11.0	9.5	3.8	-0.9	-6.5	-14.5	-21.9	-30.3	-40.5	-50.8	-64.6	-85.7	-115.7	-163.3	-239.1	-359.5	-545.8	-838.1	-1286.8	-1974.9	33.4	3.0
3-D	63002	19203	29.9	19.6	17.6	18.0	15.2	15.0	19.3	9.8	7.7	5.8	3.2	-3.8	-10.3	-18.1	-28.5	-38.4	-49.5	-62.8	-77.1	-96.4	-125.8	-168.6	-235.8	-342.9	-512.8	-775.9	-1188.8	-1823.1	-2797.4	31.3	-2.1
3-E	60477	18433	30.1	20.0	17.9	18.3	15.6	15.4	19.7	10.3	8.2	6.4	4.0	-2.9	-9.1	-16.6	-26.6	-36.2	-46.9	-59.8	-73.6	-92.2	-120.4	-161.5	-226.1	-328.9	-492.1	-744.9	-1141.4	-1750.6	-2686.2	31.6	-1.5
3-F	58053	17694	30.2	20.3	18.3	18.7	15.9	15.8	20.2	10.8	8.8	7.1	4.8	-1.9	-7.9	-15.1	-24.9	-34.1	-44.5	-56.9	-70.2	-88.1	-115.3	-154.7	-216.7	-315.5	-472.2	-715.0	-1095.9	-1681.0	-2579.4	31.8	-0.9
3-G	55738	16989	30.4	20.7	18.6	19.0	16.3	16.2	20.6	11.2	9.3	7.7	5.5	-1.0	-6.8	-13.7	-23.2	-32.1	-42.1	-54.2	-67.0	-84.2	-110.3	-148.1	-207.8	-302.6	-453.2	-686.5	-1052.5	-1614.6	-2477.5	32.0	-0.3
3-I	51394	15665	30.8	21.4	19.3	19.7	17.0	17.0	21.4	12.2	10.3	8.9	7.0	0.8	-4.6	-11.0	-19.9	-28.2	-37.7	-49.0	-60.9	-76.8	-101.0	-135.8	-190.9	-278.5	-417.6	-633.0	-970.8	-1489.8	-2286.1	32.5	0.9
3-J	49339	15039	30.9	21.7	19.7	20.1	17.3	17.4	21.8	12.6	10.8	9.5	7.7	1.7	-3.5	-9.7	-18.3	-26.4	-35.5	-46.6	-58.0	-73.3	-96.6	-130.0	-182.9	-267.1	-400.7	-607.7	-932.2	-1430.7	-2195.6	32.8	1.5
3-K	47417	14453	31.1	22.1	20.0	20.4	17.7	17.8	22.3	13.1	11.3	10.1	8.4	2.5	-2.5	-8.5	-16.9	-24.7	-33.5	-44.2	-55.2	-70.0	-92.4	-124.5	-175.4	-256.3	-384.9	-583.9	-896.1	-1375.5	-2110.9	33.0	2.1
3-L	45715	13934	31.3	22.4	20.3	20.7	18.0	18.1	22.6	13.5	11.8	10.6	9.0	3.2	-1.6	-7.4	-15.6	-23.1	-31.7	-42.2	-52.8	-67.0	-88.7	-119.7	-168.8	-246.8	-370.9	-562.9	-864.1	-1326.6	-2035.8	33.2	2.6
4-D	63749	19431	29.8	19.5	17.4	17.8	15.1	14.8	19.2	9.7	7.5	5.6	3.0	-4.1	-10.7	-18.5	-29.0	-39.0	-50.2	-63.6	-78.1	-97.7	-127.4	-170.7	-238.7	-347.0	-518.9	-785.1	-1202.8	-1844.5	-2830.3	31.2	-2.2
4-E	61262	18673	30.0	19.8	17.8	18.2	15.4	15.2	19.6	10.2	8.1	6.2	3.7	-3.2	-9.5	-17.1	-27.2	-36.9	-47.7	-60.7	-74.7	-93.5	-122.1	-163.7	-229.1	-333.3	-498.5	-754.5	-1156.2	-1773.1	-2720.8	31.5	-1.7
4-F	58936	17964	30.2	20.2	18.1	18.5	15.8	15.6	20.0	10.6	8.6	6.8	4.5	-2.3	-8.4	-15.6	-25.5	-34.9	-45.4	-58.0	-71.5	-89.6	-117.2	-157.2	-220.1	-320.4	-479.5	-725.9	-1112.5	-1706.4	-2618.3	31.7	-1.1
4-G	56654	17268	30.3	20.5	18.5	18.9	16.1	16.0	20.4	11.1	9.1	7.4	5.2	-1.4	-7.2	-14.3	-23.8	-32.9	-43.1	-55.3	-68.3	-85.7	-112.3	-150.7	-211.3	-307.7	-460.8	-697.8	-1069.7	-1640.9	-2517.9	31.9	-0.5
4-H	54508	16614	30.5	20.9	18.8	19.2	16.5	16.4	20.8	11.5	9.6	8.0	5.9	-0.5	-6.2	-12.9	-22.2	-31.0	-40.9	-52.7	-65.3	-82.1	-107.7	-144.7	-203.0	-295.8	-443.1	-671.4	-1029.4	-1579.2	-2423.3	32.2	0.0
4-I	52449	15987	30.7	21.2	19.1	19.5	16.8	16.8	21.2	11.9	10.1	8.6	6.6	0.4	-5.1	-11.6	-20.7	-29.2	-38.8	-50.3	-62.4	-78.6	-103.3	-138.8	-195.0	-284.4	-426.3	-646.0	-990.7	-1520.1	-2332.6	32.4	0.6
4-J	50534	15403	30.8	21.5	19.5	19.9	17.1	17.1	21.6	12.4	10.6	9.1	7.3	1.2	-4.1	-10.4	-19.3	-27.5	-36.8	-48.0	-59.7	-75.3	-99.2	-133.4	-187.5	-273.7	-410.5	-622.4	-954.7	-1465.1	-2248.2	32.6	1.1
4-K	48738	14855	31.0	21.8	19.8	20.2	17.4	17.5	22.0	12.8	11.0	9.7	7.9	1.9	-3.2	-9.3	-17.9	-25.9	-34.9	-45.8	-57.1	-72.2	-95.3	-128.3	-180.6	-263.7	-395.7	-600.2	-920.9	-1413.5	-2169.1	32.8	1.7
4-L	47080	14350	31.1	22.1	20.1	20.5	17.7	17.8	22.3	13.1	11.4	10.2	8.5	2.6	-2.3	-8.2	-16.6	-24.4	-33.2	-43.8	-54.8	-69.4	-91.7	-123.6	-174.1	-254.5	-382.1	-579.8	-889.7	-1365.8	-2096.0	33.1	2.2
5-D	64542	19672	29.8	19.4	17.3	17.7	15.0	14.7	19.0	9.5	7.4	5.4	2.7	-4.4	-11.1	-19.0	-29.6	-39.7	-51.0	-64.6	-79.2	-99.0	-129.1	-172.9	-241.8	-351.4	-525.4	-794.9	-1217.7	-1867.3	-2865.2	31.2	-2.4
5-E	62199	18958	29.9	19.7	17.7	18.1	15.3	15.1	19.4	10.0	7.9	6.0	3.5	-3.5	-10.0	-17.6	-27.9	-37.7	-48.7	-61.8	-76.0	-95.1	-124.1	-166.3	-232.7	-338.4	-506.2	-766.1	-1173.7	-1800.0	-2762.0	31.4	-1.9
5-F	59890	18254	30.1	20.0	18.0	18.4	15.6	15.5	19.8	10.4	8.4	6.6	4.2	-2.6	-8.8	-16.2	-26.2	-35.7	-46.4	-59.1	-72.8	-91.2	-119.2	-159.8	-223.8	-325.7	-487.3	-737.7	-1130.4	-1733.7	-2660.3	31.6	-1.3
5-G	57730	17596	30.3	20.4	18.3	18.7	16.0	15.8	20.2	10.8	8.8	7.2	4.9	-1.8	-7.8	-14.9	-24.6	-33.8	-44.2	-56.6	-69.8	-87.5	-114.6	-153.8	-215.5	-313.7	-469.6	-711.1	-1089.9	-1671.7	-2565.2	31.8	-0.8
5-H	55622	16954	30.4	20.7	18.6	19.0	16.3	16.2	20.6	11.3	9.3	7.7	5.6	-0.9	-6.7	-13.6	-23.1	-32.0	-42.0	-54.1	-66.8	-84.0	-110.1	-147.8	-207.3	-302.0	-452.3	-685.1	-1050.3	-1611.2	-2472.4	32.0	-0.3
5-I	53631	16347	30.6	21.0	18.9	19.3	16.6	16.6	21.0	11.7	9.8	8.3	6.2	-0.1	-5.7	-12.4	-21.6	-30.2	-40.0	-51.7	-64.0	-80.6	-105.8	-142.2	-199.6	-290.9	-436.0	-660.6	-1012.9	-1554.0	-2384.7	32.3	0.3
5-J	51811	15792	30.7	21.3	19.2	19.6	16.9	16.9	21.3	12.1	10.2	8.8	6.8	0.6	-4.8	-11.2	-20.2	-28.6	-38.1	-49.5	-61.5	-77.5	-101.9	-137.0	-192.5	-280.8	-421.0	-638.2	-978.7	-1501.8	-2304.5	32.5	0.8
6-D	65392	19931	29.7	19.3	17.2	17.6	14.9	14.6	18.9	9.4	7.2	5.2	2.5	-4.8	-11.5	-19.5	-30.2	-40.4	-51.9	-65.5	-80.4	-100.4	-130.9	-175.3	-245.0	-356.1	-532.3	-805.3	-1233.6	-1891.7	-2902.6	31.1	-2.6
6-E	63115	19237	29.9	19.6	17.5	17.9	15.2	14.9	19.3	9.8	7.7	5.8	3.2	-3.9	-10.4	-18.2	-28.6	-38.5	-49.6	-62.9	-77.3	-96.6	-126.1	-168.9	-236.3	-343.5	-513.7	-777.3	-1190.9	-1826.3	-2802.4	31.3	-2.1
6-G	58728	17900	30.2	20.2	18.2	18.6	15.8	15.7	20.0	10.6	8.6	6.9	4.5	-2.2	-8.3	-15.5	-25.4	-34.7	-45.2	-57.7	-71.2	-89.2	-116.7	-156.6	-219.3	-319.2	-477.8	-723.4	-1108.6	-1700.4	-2609.2	31.7	-1.0
6-H	56696	17281	30.3	20.5	18.5	18.9	16.1	16.0	20.4	11.1	9.1	7.4	5.2	-1.4	-7.3	-14.3	-23.9	-32.9	-43.1	-55.3	-68.3	-85.8	-112.4	-150.8	-211.5	-308.0	-461.1	-698.3	-1070.4	-1642.1	-2519.7	31.9	-0.5
6-I	54867	16723	30.5	20.8	18.8	19.2	16.4	16.3	20.7	11.4	9.5	7.9	5.8	-0.6	-6.3	-13.2	-22.5	-31.3	-41.2	-53.2	-65.8	-82.7	-108.5	-145.7	-204.4	-297.8	-446.1	-675.8	-1036.1	-1589.5	-2439.1	32.1	-0.1
6-J	53130	16194	30.6	21.1	19.0	19.4	16.7	16.6	21.1	11.8	9.9	8.4	6.4	0.1	-5.5	-12.1	-21.2	-29.8	-39.5	-51.1	-63.3	-79.7	-104.7	-140.8	-197.6	-288.2	-431.8	-654.4	-1003.5	-1539.7	-2362.6	32.3	0.4
7-B	70994	21639	29.4	18.6	16.5	16.9	14.2	13.8	18.0	8.4	6.0	3.8	0.8	-6.9	-14.1	-22.8	-34.2	-45.2	-57.4	-72.0	-88.1	-109.8	-142.7	-190.9	-266.6	-387.0	-578.1	-874.2	-1338.7	-2052.4	-3149.2	30.6	-3.8
7-C	68605	20911	29.5	18.9	16.8	17.2	14.5	14.1	18.4	8.8	6.5	4.4	1.5	-6.0	-13.0	-21.4	-32.5	-43.1	-55.1	-69.3	-84.8	-105.8	-137.7	-184.3	-257.4	-373.9	-558.6	-844.8	-1293.9	-1983.8	-3044.0	30.8	-3.3
7-E	64067	19528	29.8	19.5	17.4	17.8	15.1	14.8	19.1	9.6	7.5	5.5	2.9	-4.3	-10.9	-18.7	-29.2	-39.3	-50.6	-64.0	-78.6	-98.2	-128.1	-171.6	-239.9	-348.8	-521.5	-789.0	-1208.8	-1853.6	-2844.3	31.2	-2.3
7-F	61942	18880	29.9	19.7	17.7	18.1	15.3	15.1	19.5	10.0	7.9	6.1	3.5	-3.4	-9.8	-17.5	-27.7	-37.5	-48.4	-61.5	-75.6	-94.6	-123.6	-165.6	-231.7	-337.0	-504.1	-762.9	-1168.9	-1792.7	-2750.7	31.4	-1.8
7-G	59913	18262	30.1	20.0	18.0	18.4	15.6	15.5	19.8	10.4	8.4	6.6	4.2	-2.6	-8.8	-16.2	-26.2	-35.7	-46.4	-59.1	-72.8	-91.2	-119.2	-159.9	-223.9	-325.8	-487.5	-737.9	-1130.8	-1734.4	-2661.4	31.6	-1.3
7-H	57972	17670	30.2	20.3	18.3	18.7	15.9	15.8	20.2	10.8	8.8	7.1	4.8	-1.9	-7.9	-15.1	-24.8	-34.0	-44.4	-56.9	-70.1	-88.0	-115.1	-154.4	-216.4	-315.0	-471.6	-714.1	-1094.4	-1678.7	-2575.9	31.8	-0.9
7-I	56135	17110	30.4	20.6	18.6	19.0	16.2	16.1	20.5	11.2	9.2	7.6	5.4	-1.1	-7.0	-13.9	-23.4	-32.4	-42.5	-54.7	-67.6	-84.9	-111.2	-149.3	-209.3	-304.8	-456.5	-691.4	-1059.9	-1625.9	-2495.0	32.0	-0.4
8-A	74249	22631	29.2	18.2	16.1	16.5	13.8	13.3	17.5	7.8	5.4	3.1	-0.2	-8.1	-15.6	-24.7	-36.5	-47.9	-60.6	-75.8	-92.5	-115.2	-149.6	-200.0	-279.1	-405.0	-604.7	-914.2	-1399.7	-2145.7	-3292.4	30.4	-4.4
8-B	71850	21900	29.3	18.5	16.4	16.8	14.1	13.6	17.9	8.2	5.9	3.6	0.5	-7.2	-14.5	-23.3	-34.8	-45.9	-58.3	-73.0	-89.2	-111.2	-144.5	-193.3	-269.9	-391.8	-585.1	-884.7	-1354.7	-2076.9	-3186.9	30.6	-4.0

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Leq)
FROM WIND PARK OPERATIONS AT THE DESIGN WIND CONDITION

8-C	69521	21190	29.4	18.7	16.7	17.1	14.3	14.0	18.2	8.6	6.3	4.2	1.2	-6.3	-13.4	-22.0	-33.1	-43.9	-56.0	-70.3	-86.1	-107.3	-139.6	-186.8	-260.9	-378.9	-566.1	-856.1	-1311.1	-2010.1	-3084.3	30.7	-3.5
8-D	67244	20496	29.6	19.0	17.0	17.4	14.6	14.3	18.6	9.0	6.8	4.7	1.9	-5.5	-12.4	-20.6	-31.5	-42.0	-53.7	-67.7	-82.9	-103.5	-134.8	-180.5	-252.2	-366.3	-547.5	-828.1	-1268.4	-1944.8	-2984.1	30.9	-3.0
8-F	63023	19209	29.9	19.6	17.5	17.9	15.2	15.0	19.3	9.8	7.7	5.8	3.2	-3.9	-10.4	-18.1	-28.5	-38.4	-49.5	-62.8	-77.1	-96.5	-125.9	-168.6	-235.9	-343.0	-512.9	-776.2	-1189.2	-1823.7	-2798.3	31.3	-2.1
8-G	61119	18629	30.0	19.9	17.8	18.2	15.5	15.3	19.6	10.2	8.1	6.3	3.8	-3.1	-9.4	-17.0	-27.1	-36.7	-47.6	-60.6	-74.5	-93.3	-121.8	-163.3	-228.6	-332.5	-497.3	-752.8	-1153.5	-1769.0	-2714.5	31.5	-1.6
8-H	59220	18050	30.1	20.1	18.1	18.5	15.7	15.6	19.9	10.5	8.5	6.8	4.4	-2.4	-8.5	-15.8	-25.7	-35.1	-45.7	-58.3	-71.9	-90.1	-117.8	-158.0	-221.2	-322.0	-481.8	-729.4	-1117.8	-1714.5	-2630.8	31.7	-1.2
9-A	75045	22874	29.1	18.1	16.0	16.4	13.7	13.2	17.4	7.7	5.2	2.9	-0.4	-8.4	-16.0	-25.2	-37.0	-48.6	-61.4	-76.7	-93.6	-116.5	-151.2	-202.2	-282.1	-409.4	-611.2	-923.9	-1414.6	-2168.5	-3327.5	30.3	-4.6
9-B	72715	22164	29.3	18.4	16.3	16.7	14.0	13.5	17.7	8.1	5.7	3.4	0.3	-7.5	-14.9	-23.8	-35.4	-46.6	-59.1	-74.0	-90.4	-112.6	-146.3	-195.7	-273.2	-396.5	-592.2	-895.3	-1370.9	-2101.7	-3224.9	30.5	-4.1
9-C	70444	21471	29.4	18.6	16.6	17.0	14.2	13.8	18.1	8.5	6.1	4.0	0.9	-6.7	-13.9	-22.5	-33.8	-44.7	-56.9	-71.4	-87.3	-108.8	-141.5	-189.4	-264.5	-384.0	-573.6	-867.4	-1328.4	-2036.6	-3125.0	30.7	-3.7
9-D	68283	20813	29.5	18.9	16.9	17.3	14.5	14.2	18.4	8.9	6.6	4.5	1.6	-5.9	-12.9	-21.2	-32.3	-42.9	-54.8	-68.9	-84.4	-105.3	-137.0	-183.4	-256.2	-372.1	-556.0	-840.9	-1287.8	-1974.6	-3029.9	30.8	-3.2
9-E	66183	20173	29.7	19.2	17.1	17.5	14.8	14.5	18.8	9.2	7.0	5.0	2.2	-5.1	-11.9	-20.0	-30.8	-41.1	-52.7	-66.5	-81.5	-101.7	-132.6	-177.5	-248.1	-360.5	-538.8	-815.1	-1248.5	-1914.4	-2937.4	31.0	-2.8
9-F	64172	19560	29.8	19.4	17.4	17.8	15.0	14.8	19.1	9.6	7.4	5.5	2.8	-4.3	-10.9	-18.8	-29.3	-39.4	-50.7	-64.1	-78.7	-98.4	-128.3	-171.9	-240.3	-349.4	-522.3	-790.3	-1210.8	-1856.6	-2848.9	31.2	-2.3
9-G	62265	18978	29.9	19.7	17.7	18.1	15.3	15.1	19.4	10.0	7.8	6.0	3.4	-3.6	-10.0	-17.7	-27.9	-37.7	-48.7	-61.9	-76.1	-95.2	-124.2	-166.5	-233.0	-338.8	-506.7	-766.9	-1175.0	-1801.9	-2764.9	31.4	-1.9
9-H	60522	18447	30.0	19.9	17.9	18.3	15.5	15.4	19.7	10.3	8.2	6.4	4.0	-2.9	-9.1	-16.6	-26.7	-36.2	-47.0	-59.9	-73.7	-92.3	-120.5	-161.6	-226.3	-329.2	-492.5	-745.4	-1142.3	-1751.9	-2688.2	31.5	-1.5
9-I	58818	17928	30.2	20.2	18.1	18.5	15.8	15.6	20.0	10.6	8.6	6.9	4.5	-2.2	-8.3	-15.6	-25.4	-34.8	-45.3	-57.8	-71.3	-89.4	-116.9	-156.8	-219.7	-319.7	-478.5	-724.5	-1110.3	-1703.0	-2613.1	31.7	-1.1
10-A	75900	23134	29.1	18.0	15.9	16.3	13.6	13.1	17.3	7.6	5.1	2.7	-0.6	-8.7	-16.4	-25.6	-37.6	-49.3	-62.3	-77.7	-94.8	-117.9	-153.0	-204.6	-285.4	-414.1	-618.2	-934.4	-1430.6	-2193.0	-3365.1	30.3	-4.8
10-B	73656	22450	29.2	18.2	16.2	16.6	13.8	13.4	17.6	7.9	5.5	3.2	0.0	-7.9	-15.4	-24.4	-36.1	-47.4	-60.1	-75.1	-91.7	-114.2	-148.3	-198.3	-276.8	-401.7	-599.8	-906.9	-1388.6	-2128.7	-3266.3	30.4	-4.3
10-C	71456	21780	29.3	18.5	16.5	16.9	14.1	13.7	17.9	8.3	5.9	3.7	0.7	-7.0	-14.4	-23.1	-34.5	-45.5	-57.9	-72.6	-88.7	-110.5	-143.7	-192.2	-268.4	-389.6	-581.9	-879.9	-1347.3	-2065.6	-3169.5	30.6	-3.9
10-D	69300	21123	29.5	18.8	16.7	17.1	14.4	14.0	18.3	8.7	6.4	4.2	1.3	-6.2	-13.3	-21.8	-33.0	-43.7	-55.8	-70.1	-85.8	-106.9	-139.1	-186.2	-260.1	-377.7	-564.3	-853.4	-1306.9	-2003.8	-3074.6	30.8	-3.4
10-E	67270	20504	29.6	19.0	17.0	17.4	14.6	14.3	18.6	9.0	6.8	4.7	1.9	-5.5	-12.4	-20.6	-31.5	-42.0	-53.7	-67.7	-83.0	-103.6	-134.8	-180.5	-252.3	-366.5	-547.7	-828.4	-1268.8	-1945.5	-2985.3	30.9	-3.0
10-F	65300	19903	29.7	19.3	17.2	17.6	14.9	14.6	18.9	9.4	7.2	5.2	2.5	-4.7	-11.5	-19.5	-30.1	-40.3	-51.8	-65.4	-80.3	-100.3	-130.7	-175.0	-244.7	-355.6	-531.6	-804.2	-1231.9	-1889.0	-2898.6	31.1	-2.6
10-G	63472	19346	29.8	19.5	17.5	17.9	15.1	14.9	19.2	9.7	7.6	5.7	3.1	-4.0	-10.6	-18.4	-28.8	-38.8	-50.0	-63.3	-77.7	-97.2	-126.8	-169.9	-237.6	-345.5	-516.6	-781.7	-1197.6	-1836.5	-2818.1	31.3	-2.2
10-H	61791	18834	30.0	19.8	17.7	18.1	15.4	15.2	19.5	10.0	7.9	6.1	3.6	-3.4	-9.8	-17.4	-27.6	-37.3	-48.3	-61.3	-75.4	-94.4	-123.2	-165.2	-231.2	-336.2	-502.8	-761.1	-1166.1	-1788.3	-2744.1	31.4	-1.8
10-I	128672	39219	26.8	13.4	11.3	11.7	9.0	7.4	11.0	0.4	-3.5	-8.0	-14.3	-26.4	-39.2	-54.5	-73.1	-91.8	-112.5	-136.6	-165.0	-203.7	-262.3	-349.9	-486.2	-703.4	-1047.4	-1580.8	-2418.0	-3704.8	-5685.9	27.4	-12.3
11-A	76856	23426	29.0	17.9	15.8	16.2	13.5	13.0	17.1	7.4	4.9	2.4	-0.9	-9.0	-16.8	-26.2	-38.3	-50.1	-63.2	-78.8	-96.1	-119.5	-155.0	-207.3	-289.1	-419.4	-626.0	-946.2	-1448.5	-2220.5	-3407.2	30.2	-4.9
11-B	74617	22743	29.1	18.1	16.1	16.5	13.7	13.3	17.4	7.8	5.3	3.0	-0.3	-8.2	-15.8	-24.9	-36.7	-48.2	-61.0	-76.2	-93.0	-115.8	-150.3	-201.0	-280.5	-407.0	-607.7	-918.7	-1406.6	-2156.3	-3308.6	30.3	-4.5
11-C	72493	22096	29.3	18.4	16.3	16.7	14.0	13.6	17.8	8.1	5.7	3.5	0.3	-7.4	-14.8	-23.7	-35.2	-46.4	-58.9	-73.8	-90.1	-112.3	-145.9	-195.1	-272.3	-395.3	-590.3	-892.6	-1366.8	-2095.4	-3215.2	30.5	-4.1
11-D	70451	21473	29.4	18.6	16.6	17.0	14.2	13.8	18.1	8.5	6.1	3.9	0.9	-6.7	-13.9	-22.5	-33.8	-44.7	-56.9	-71.4	-87.3	-108.9	-141.6	-189.4	-264.5	-384.0	-573.7	-867.5	-1328.5	-2036.8	-3125.3	30.7	-3.7
11-E	68445	20862	29.5	18.9	16.8	17.2	14.5	14.1	18.4	8.8	6.5	4.4	1.5	-5.9	-12.9	-21.3	-32.4	-43.0	-54.9	-69.1	-84.6	-105.5	-137.3	-183.8	-256.8	-373.0	-557.3	-842.9	-1290.9	-1979.2	-3037.0	30.8	-3.3
11-F	66608	20302	29.6	19.1	17.1	17.5	14.7	14.4	18.7	9.2	6.9	4.9	2.1	-5.2	-12.1	-20.2	-31.1	-41.4	-53.1	-67.0	-82.1	-102.5	-133.4	-178.7	-249.7	-362.8	-542.3	-820.3	-1256.4	-1926.5	-2956.1	31.0	-2.9
11-G	64829	19760	29.8	19.4	17.3	17.7	15.0	14.7	19.0	9.5	7.3	5.3	2.6	-4.6	-11.2	-19.2	-29.8	-39.9	-51.3	-64.9	-79.6	-99.5	-129.7	-173.7	-242.9	-353.0	-527.7	-798.4	-1223.1	-1875.5	-2877.8	31.1	-2.5
11-H	63181	19258	29.9	19.6	17.5	17.9	15.2	14.9	19.3	9.8	7.6	5.7	3.1	-3.9	-10.4	-18.2	-28.6	-38.5	-49.7	-63.0	-77.3	-96.7	-126.2	-169.1	-236.5	-343.9	-514.2	-778.2	-1192.2	-1828.2	-2805.3	31.3	-2.1
11-K	59042	17996	30.2	20.2	18.1	18.5	15.8	15.6	20.0	10.6	8.5	6.8	4.4	-2.3	-8.4	-15.7	-25.6	-35.0	-45.5	-58.1	-71.6	-89.8	-117.4	-157.4	-220.5	-321.0	-480.3	-727.2	-1114.5	-1709.4	-2623.0	31.7	-1.1
11-L	57899	17648	30.2	20.3	18.3	18.7	15.9	15.8	20.2	10.8	8.8	7.1	4.8	-1.8	-7.9	-15.0	-24.7	-34.0	-44.3	-56.8	-70.0	-87.8	-115.0	-154.2	-216.1	-314.6	-471.0	-713.2	-1093.0	-1676.6	-2572.7	31.8	-0.8
12-A	77826	23721	29.0	17.8	15.7	16.1	13.4	12.8	17.0	7.2	4.7	2.2	-1.2	-9.4	-17.3	-26.8	-39.0	-50.9	-64.2	-79.9	-97.4	-121.1	-157.1	-209.9	-292.8	-424.7	-633.9	-958.1	-1466.7	-2248.3	-3449.9	30.1	-5.1
12-B	75644	23056	29.1	18.0	16.0	16.4	13.6	13.1	17.3	7.6	5.1	2.7	-0.6	-8.6	-16.3	-25.5	-37.5	-49.1	-62.0	-77.4	-94.4	-117.5	-152.5	-203.9	-284.4	-412.7	-616.1	-931.3	-1425.8	-2185.7	-3353.8	30.3	-4.7
12-C	73546	22417	29.2	18.3	16.2	16.6	13.9	13.4	17.6	8.0	5.5	3.2	0.0	-7.8	-15.3	-24.3	-36.0	-47.3	-60.0	-75.0	-91.6	-114.0	-148.1	-198.0	-276.4	-401.1	-598.9	-905.5	-1386.5	-2125.5	-3261.5	30.4	-4.3
12-D	71561	21812	29.3	18.5	16.4	16.8	14.1	13.7	17.9	8.3	5.9	3.7	0.6	-7.1	-14.4	-23.1	-34.6	-45.6	-58.0	-72.7	-88.8	-110.7	-143.9	-192.5	-268.8	-390.2	-582.7	-881.1	-1349.3	-2068.6	-3174.2	30.6	-3.9
12-E	69636	21225	29.4	18.7	16.7	17.1	14.3	14.0	18.2	8.6	6.3	4.1	1.2	-6.4	-13.5	-22.0	-33.2	-44.0	-56.1	-70.5	-86.2	-107.5	-139.8	-187.1	-261.4	-379.6	-567.0	-857.5	-1313.2	-2013.4	-3089.4	30.7	-3.5
12-F	67879	20690	29.6	19.0	16.9	17.3	14.6	14.2	18.5	8.9	6.7	4.6	1.7	-5.7	-12.7	-21.0	-32.0	-42.5	-54.4	-68.4	-83.8	-104.6	-136.1	-182.2	-254.6	-369.9	-552.7	-835.9	-1280.3	-1963.0	-3012.1	30.9	-3.1
12-G	66149	20162	29.7	19.2	17.1	17.5	14.8	14.5	18.8	9.2	7.0	5.0	2.2	-5.1	-11.9	-20.0	-30.7	-41.1	-52.6	-66.4	-81.4	-101.7	-132.5	-177.4	-248.0	-360.3	-538.5	-814.6	-1247.8	-1913.4	-2935.9	31.0	-2.8
12-H	64590	19687	29.8	19.4	17.3	17.7	15.0	14.7	19.0	9.5	7.3	5.4	2.7	-4.5	-11.1	-19.0	-29.6	-39.7	-51.1	-64.6	-79.3	-99.1	-129.2	-173.0	-241.9	-351.7	-525.8	-795.5	-1218.6	-1868.7	-2867.3	31.2	-2.4
12-I	63102	19234	29.9	19.6	17.5	17.9	15.2	14.9	19.3	9.8	7.7	5.8	3.2	-3.9	-10.4	-18.2	-28.5	-38.5	-49.6	-62.9	-77.2	-96.6	-126.0	-168.9	-236.2	-343.4	-513.6	-777.2	-1190.7	-1826.0	-2801.8	31.3	-2.1
12-J	61766	18826	30.0	19.8	17.7	18.1	15.4	15.2	19.5	10.1	7.9	6.1	3.6	-3.4	-9.8	-17.4	-27.6	-37.3	-48.2	-61.3	-75.4	-94.3	-123.2	-165.1	-231.1	-336.1	-502.6	-760.7	-1165.6	-1787.6	-2743.0	31.4	-1.8
12-K	60590	18468	30.0	19.9	17.9	18.3	15.5	15.4	19.7	10.3	8.2	6.4	4.0	-2.9	-9.2	-16.6	-26.7	-36.3	-47.1	-59.9	-73.8	-92.4	-120.7	-161.8	-226.5	-329.5	-493.0	-746.3	-1143.6	-1753.9	-2691.2	31.5	-1.5
12-L	59551	18151	30.1	20.1	18.0	18.4	15.7	15.5	19.9	10.5	8.4	6.7	4.3	-2.5	-8.7	-16.0	-26.0	-35.4	-46.0	-58.7	-72.3	-90.6	-118.5	-158.9	-222.5	-323.8	-484.5	-733.5	-1124.1	-1724.0	-2645.4	31.6	-1.2
13-A	78850	24033	28.9	17.7	15.6	16.0	13.3	12.7	16.8	7.1	4.5	2.0	-1.5	-9.7	-17.8	-27.3	-39.7	-51.7	-65.2	-81.0	-98.8	-122.8	-159.2	-212.8	-296.7	-430.3	-642.2	-970.6	-1485.9	-2277.6	-3494.9	30.0	-5.3
13-B	76697	23377	29.0	17.9	15.8	16.2	13.5	13.0	17.1	7.4	4.9	2.5	-0.9	-9.0	-16.8	-26.1	-38.2	-49.9	-63.0	-78.6	-95.8	-119.2	-154.7	-206.8	-288.5	-418.5	-624.7	-944.2	-1445.6	-2215.9	-3400.2	30.2	-4.9
13-C	74682	22763	29.1	18.1	16.1	16.5	13.7	13.2	17.4	7.8	5.3	3.0	-0.3	-8.2	-15.8	-24.9	-36.8	-48.2	-61.1	-76.3	-93.1	-115.9	-150.5	-201.2	-280.7	-407.4	-608.2	-919.5	-1407.8	-2158.1	-3311.5	30.3	-4.5
13-D	72747	22173	29.2	18.4	16.3	16.7	14.0	13.5	17.7	8.1	5.7	3.4	0.3	-7.5	-15.0	-23.8	-35.4	-46.6	-59.2	-74.0	-90.5	-112.7	-146.4	-195.8	-273.3	-396.7	-592.4	-895.7	-1371.5	-2102.6	-3226.4	30.5	-4.1
13-F	69155	21079	29.5	18.8	16.7	17.1	14.4	14.0	18.3	8.7	6.4	4.3	1.3	-6.2	-13.3	-21.7	-32.9	-43.6	-55.6	-69.9	-85.6	-106.7	-138.8	-185.8	-259.5	-376.9	-563.1	-851.6	-1304.2	-1999.6	-3068.3	30.8	-3.4
13-G	67522	20581	29.6	19.0	16.9	17.3	14.6	14.3	18.5	9.0	6.7	4.7	1.8	-5.6	-12.5	-20.8	-31.7	-42.2	-54.0	-68.0	-83.3	-104.0	-135.4	-181.2	-253.2	-367.9	-549.7	-831.5	-1273.6	-1952.8	-2996.4	30.9	-3.1
13-H	65974	20109	29.7	19.2	17.2	17.6	14.8	14.5	18.8	9.3	7.1	5.0	2.3	-5.0	-11.8	-19.9	-30.6	-40.9	-52.5	-66.2	-81.2	-101.4	-132.1	-176.9	-247.3	-359.3	-537.1	-812.5	-1244.6	-1908.4	-2928.2	31.0	-2.7
13-I	64587	19686	29.8	19.4	17.3	17.7	15.0	14.7	19.0	9.5	7.3	5.4	2.7	-4.5	-11.1	-19.0	-29.6	-39.7	-51.1	-64.6	-79.3	-99.1	-129.2	-173.0	-241.9	-351.7	-525.7	-795.4	-1218.5	-1868.6	-2867.2	31.2	-2.4
13-J	63387	19320	29.8	19.5	17.5	17.9	15.1	14.9	19.2	9.7	7.6	5.7	3.1	-4.0	-10.5	-18.3	-28.7	-38.7	-49.9	-63.2	-77.6	-97.1	-126.6	-169.7	-237.3	-345.0	-515.9	-780.7	-1196.0	-1834.1	-2814.3	31.3	-2.2
13-K	62261	18977	29.9	19.7	17.7	18.1	15.3	15.1	19.4	10.0	7.8	6.0	3.4	-3.6	-10.0	-17.7	-27.9	-37.7	-48.7	-61.9	-76.1	-95.2	-124.2	-166.5	-233.0	-338.8	-506.7	-766.8	-1174.9	-1801.8	-2764.7	31.4	-1.9
13-L	61288	18680	30.0	19.8	17.8	18.2	15.4	15.2	19.6	10.1	8.1	6.2	3.7	-3.2	-9.5	-17.1	-27.2	-36.9	-47.8	-60.7	-74.7	-93.5	-122.2	-163.8	-229.2	-333.4	-498.7	-754.9	-1156.6	-1773.9	-2721.9	31.5	-1.7
14-D	73981	22549	29.2	18.2	16.2	16.6	13.8	13.3	17.5	7.9	5.4	3.1	-0.1	-8.0	-15.5	-24.5	-36.3	-47.7	-60.4	-75.5	-92.1	-114.7	-149.0	-199.3	-278.0	-403.5	-602.5	-910.9	-1394.7	-2138.0	-3280.7	30.4	-4.4
14-E	72223	22014	29.3	18.4	16.4	16.8	14.0	13.6	17.8	8.2	5.8	3.5	0.4	-7.3	-14.7	-23.5	-35.1	-46.2	-58.7	-73.4	-89.8	-111.8	-145.3	-194.4	-271.3	-393.8	-588.1	-889.3	-1361.7	-2087.6	-3203.3	30.5	-4.0
14-F	70500	21489	29.4	18.6	16.6	17.0	14.2	13.8	18.1	8.5	6.1	3.9	0.9	-6.7	-13.9	-22.5	-33.8	-44.7	-57.0	-71.5	-87.4	-108.9	-141.7	-189.6	-264.7	-384.3	-574.1	-868.1	-1329.4	-2038.2	-3127.5	30.7	-3.7
14-G	68937	21012	29.5	18.8	16.8	17.2	14.4	14.1	18.3	8.7	6.4	4.3	1.4	-6.1	-13.2	-21.6	-32.7	-43.4	-55.4	-69.7	-85.3	-106.3	-138.4	-185.2	-258.7	-375.7	-561.3	-848.9	-1300.1	-1993.3	-3058.6	30.8	-3.4
14-H	67483	20569	29.6	19.0	17.0	17.4	14.6	14.3	18.5	9.0	6.7	4.7	1.8	-5.6	-12.5	-20.8	-31.7	-42.2	-54.0	-68.0	-83.3	-103.9	-135.3	-181.1	-253.1	-367.7	-549.4	-831.0	-1272.8	-1951.6	-2994.6	30.9	-3.1
14-J	64931	19791	29.7	19.3	17.3	17.7	14.9	14.7	19.0	9.5	7.3	5.3	2.6	-4.6	-11.3	-19.2	-29.9	-40.0	-51.4	-65.0	-79.8	-99.7	-129.9	-174.0	-243.3	-353.6	-528.5	-799.7	-1225.0	-1878.4	-2882.3	31.1	-2.5
14-K	63904	19478	29.8	19.5	17.4	17.8	15.1	14.8	19.1	9.7	7.5	5.6	2.9	-4.2	-10.8	-18.6	-29.1	-39.1	-50.4	-63.8	-78.3	-97.9	-127.7	-171.1	-239.3	-347.9	-520.1	-787.0	-1205.7	-1848.9	-2837.1	31.2	-2.3
14-L	62995	19201	29.9	19.6	17.6	18.0	15.2	15.0	19.3	9.8	7.7	5.8	3.2	-3.8	-10.3	-18.1	-28.5	-38.4	-49.5	-62.7	-77.1	-96.4	-125.8	-168.6	-235.8	-342.9	-512.7	-775.9	-1188.7	-1822.9	-2797.1	31.3	-2.1
15-F	71887	21911	29.3	18.5	16.4	16.8	14.1	13.6	17.9	8.2	5.9	3.6	0.5	-7.2	-14.6	-23.3	-34.8	-45.9	-58.3	-73.1	-89.3	-111.2	-144.6	-193.4	-270.0	-392.0	-585.4	-885.1	-1355.4	-2078.0	-3188.5	30.6	-4.0
15-G	70356	21444	29.4	18.6	16.6	17.0	14.2	13.9	18.1	8.5	6.2	4.0	1.0	-6.6	-13.8	-22.4	-33.7	-44.6	-56.8	-71.3	-87.2	-108.7	-141.4	-189.1	-264.1	-383.5	-572.9	-866.3	-1326.7	-2034.0	-3121.1	30.7	-3.7
15-H	69018	21037	29.5	18.8	16.8	17.2	14.4	14.0	18.3	8.7	6.4	4.3	1.4	-6.1	-13.2	-21.7	-32.8	-43.5	-55.5	-69.7	-85.4	-106.5	-138.5	-185.4	-259.0	-376.1	-562.0	-849.9	-1301.6	-1995.7	-3062.2	30.8	-3.4
15-I	67739	20647	29.6	19.0	16.9	17.3	14.6	14.2	18.5	9.0	6.7	4.6	1.8	-5.7	-12.6	-20.9	-31.9	-42.4	-54.2	-68.3	-83.6	-104.3	-135.8	-181.8	-254.1	-369.1	-551.5	-834.2	-1277.7	-1959.0	-3005.9	30.9	-3.1
15-J	66587	20296	29.6	19.1	17.1	17.5	14.7	14.4	18.7	9.2	6.9	4.9	2.1	-5.2	-12.1	-20.2	-31.0	-41.4	-53.1	-66.9	-82.0	-102.4	-133.4	-178.6	-249.6	-362.7	-542.1	-820.0	-1256.1	-1925.9	-2955.2	31.0	-2.9
15-K	65585	19990	29.7	19.3	17.2	17.6	14.9	14.6	18.9	9.3	7.1	5.1	2.4	-4.8	-11.6	-19.6	-30.3	-40.6	-52.1	-65.8	-80.7	-100.7	-131.3	-175.8	-245.8	-357.2	-533.9	-807.7	-1237.3	-1897.2	-2911.1	31.1	-2.6
16-J	68230	20797	29.5	18.9	16.9	17.3	14.5	14.2	18.4	8.9	6.6	4.5	1.6	-5.8	-12.8	-21.2	-32.2	-42.8	-54.7	-68.8	-84.3	-105.2	-136.9	-183.2	-256.0	-371.8	-555.5	-840.2	-1286.9	-1973.1	-3027.5	30.9	-3.2
16-K	67284	20508	29.6	19.0	17.0	17.4	14.6	14.3	18.6	9.0	6.8	4.7	1.9	-5.5	-12.4	-20.6	-31.5	-42.0	-53.8	-67.7	-83.0	-103.6	-134.9	-180.6	-252.3	-366.6	-547.8	-828.6	-1269.1	-1945.9	-2985.9	30.9	-3.0
		Sum:	51.1	41.0	39.0	39.4	36.6	36.5	40.8	31.4	29.4	27.7	25.4	18.8	13.1	6.4	-2.6	-10.8	-20.0	-30.8	-41.8	-56.3	-78.0	-108.4	-155.9	-230.7	-348.4	-529.8	-813.8	-1249.8	-1918.1	52.6	19.8

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Leq)
FROM WIND PARK OPERATIONS AT THE DESIGN WIND CONDITION

																		Hertz													
	1/3 Octave Bands		**16***	**20**	**25**	**31**	**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**	**L**	**A**
Sound Power Data - Design Speed			113.7	113.3	111.2	111.6	108.9	109.9	115.0	106.6	106.2	106.8	107.7	105.5	105.0	104.6	102.1	100.6	98.7	95.8	94.9	94.2	92.9	93.1	92.1	90.7	87.9	83.9	78.2	69.9	61.5	121.9	107.4

Data for the graph																																
Atmos. Absorption per 1 km air temp 59F 70% RH			0.0000	0.0000	0.0000	0.0000	0.0000	0.0670	0.1050	0.1630	0.2510	0.3810	0.5650	0.8150	1.1300	1.5100	1.9200	2.3600	2.8400	3.3800	4.0800	5.0500	6.5100	8.7500	12.2000	17.7000	26.4000	39.9000	61.1000	93.7000	144.0000		

*Spherical wave spreading for up to 2 km, cylindrical wave spreading beyond 2 km.

																			Hertz													
	1/3 Octave Bands		**16***	**20**	**25**	**31**	**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**	**L**	**A**
	Distance (ft)	**Distance (m)**																														
1-D	39341	11991	31.9	23.7	21.6	22.0	19.3	19.5	24.1	15.1	13.6	12.6	11.4	6.1	1.9	-3.1	-10.5	-17.3	-24.9	-34.3	-43.6	-55.9	-74.8	-101.4	-143.8	-211.2	-318.3	-484.1	-744.1	-1143.2	-1754.8	34.2	4.8
1-E	36893	11245	32.2	24.2	22.2	22.6	19.8	20.1	24.8	15.8	14.3	13.5	12.3	7.3	3.3	-1.4	-8.5	-14.9	-22.2	-31.2	-40.0	-51.6	-69.4	-94.3	-134.1	-197.4	-298.0	-453.8	-697.9	-1072.8	-1646.8	34.6	5.7
1-F	34555	10532	32.5	24.8	22.8	23.2	20.4	20.8	25.4	16.5	15.1	14.3	13.3	8.4	4.7	0.2	-6.6	-12.7	-19.6	-28.2	-36.5	-47.4	-64.1	-87.5	-124.8	-184.2	-278.6	-424.8	-653.8	-1005.4	-1543.6	35.0	6.7
1-G	32360	9863	32.8	25.4	23.3	23.7	21.0	21.4	26.1	17.1	15.8	15.1	14.3	9.5	6.0	1.8	-4.7	-10.5	-17.2	-25.4	-33.2	-43.5	-59.2	-81.1	-116.1	-171.8	-260.4	-397.5	-612.4	-942.2	-1446.7	35.5	7.6
1-H	30327	9244	33.0	26.0	23.9	24.3	21.6	22.0	26.7	17.8	16.5	15.9	15.2	10.6	7.3	3.3	-3.0	-8.5	-14.9	-22.7	-30.1	-39.8	-54.6	-75.1	-108.0	-160.3	-243.5	-372.2	-573.9	-883.5	-1356.9	35.9	8.5
1-I	28547	8701	33.3	26.5	24.4	24.8	22.1	22.5	27.3	18.4	17.2	16.7	16.0	11.6	8.4	4.6	-1.4	-6.7	-12.8	-20.4	-27.4	-36.5	-50.6	-69.8	-100.8	-150.1	-228.6	-350.1	-540.3	-832.2	-1278.2	36.3	9.4
1-J	27049	8245	33.5	26.9	24.9	25.3	22.5	23.0	27.8	19.0	17.8	17.3	16.7	12.4	9.4	5.8	-0.1	-5.2	-11.0	-18.4	-25.0	-33.7	-47.1	-65.3	-94.8	-141.6	-216.1	-331.4	-511.9	-788.9	-1212.0	36.7	10.2
1-K	25783	7859	33.8	27.4	25.3	25.7	23.0	23.5	28.2	19.4	18.3	17.9	17.4	13.2	10.2	6.8	1.1	-3.8	-9.5	-16.7	-23.1	-31.4	-44.2	-61.6	-89.7	-134.3	-205.5	-315.5	-487.9	-752.3	-1156.0	37.0	10.9
1-L	24946	7604	33.9	27.6	25.6	26.0	23.2	23.8	28.5	19.8	18.6	18.3	17.8	13.7	10.8	7.5	1.8	-2.9	-8.5	-15.5	-21.7	-29.8	-42.3	-59.0	-86.3	-129.5	-198.5	-305.1	-472.0	-728.2	-1119.0	37.2	11.3
2-D	40189	12249	31.8	23.5	21.5	21.9	19.1	19.3	23.9	14.9	13.3	12.3	11.0	5.7	1.4	-3.7	-11.2	-18.1	-25.8	-35.3	-44.8	-57.4	-76.6	-103.8	-147.1	-215.9	-325.3	-494.6	-760.0	-1167.6	-1792.2	34.1	4.5
2-E	37794	11520	32.1	24.0	22.0	22.4	19.6	19.9	24.5	15.5	14.0	13.2	12.0	6.9	2.8	-2.1	-9.3	-15.8	-23.2	-32.3	-41.3	-53.2	-71.4	-96.9	-137.6	-202.5	-305.5	-464.9	-714.9	-1098.7	-1686.5	34.4	5.4
2-F	35553	10837	32.4	24.6	22.5	22.9	20.2	20.5	25.1	16.2	14.8	13.9	12.9	7.9	4.1	-0.5	-7.4	-13.7	-20.8	-29.5	-38.0	-49.2	-66.4	-90.4	-128.8	-189.8	-286.9	-437.2	-672.6	-1034.2	-1587.6	34.8	6.2
2-G	33504	10212	32.6	25.1	23.0	23.4	20.7	21.1	25.7	16.8	15.4	14.7	13.8	9.0	5.3	1.0	-5.7	-11.7	-18.5	-26.9	-34.9	-45.5	-61.8	-84.4	-120.6	-178.3	-269.9	-411.7	-634.0	-975.1	-1497.2	35.2	7.1
2-H	31635	9642	32.9	25.6	23.5	23.9	21.2	21.6	26.3	17.4	16.1	15.4	14.6	9.9	6.4	2.3	-4.1	-9.8	-16.3	-24.5	-32.1	-42.2	-57.6	-78.9	-113.2	-167.7	-254.4	-388.5	-598.7	-921.2	-1414.7	35.6	7.9
2-I	29937	9125	33.1	26.1	24.0	24.4	21.7	22.1	26.8	17.9	16.7	16.1	15.4	10.8	7.5	3.6	-2.7	-8.1	-14.4	-22.2	-29.5	-39.1	-53.7	-73.9	-106.4	-158.0	-240.2	-367.4	-566.6	-872.3	-1339.7	36.0	8.7
2-J	28539	8699	33.3	26.5	24.4	24.8	22.1	22.5	27.3	18.4	17.2	16.7	16.0	11.6	8.4	4.6	-1.4	-6.7	-12.8	-20.4	-27.4	-36.5	-50.6	-69.8	-100.8	-150.1	-228.6	-350.0	-540.1	-831.9	-1277.9	36.3	9.4
2-K	27513	8386	33.5	26.8	24.7	25.1	22.4	22.9	27.6	18.8	17.6	17.1	16.5	12.2	9.1	5.4	-0.5	-5.6	-11.6	-19.0	-25.8	-34.6	-48.2	-66.7	-96.7	-144.2	-220.0	-337.2	-520.7	-802.3	-1232.6	36.6	9.9
2-L	26738	8150	33.6	27.0	25.0	25.4	22.6	23.1	27.9	19.1	17.9	17.4	16.9	12.6	9.6	6.0	0.2	-4.8	-10.7	-18.0	-24.6	-33.2	-46.4	-64.4	-93.5	-139.8	-213.5	-327.5	-506.0	-779.9	-1198.3	36.8	10.4
3-D	41059	12515	31.7	23.3	21.3	21.7	18.9	19.1	23.7	14.6	13.1	12.1	10.7	5.3	0.9	-4.3	-11.9	-18.9	-26.8	-36.4	-46.1	-58.9	-78.6	-106.3	-150.5	-220.8	-332.5	-505.4	-776.4	-1192.7	-1830.5	33.9	4.2
3-E	38759	11814	32.0	23.8	21.8	22.2	19.4	19.7	24.3	15.2	13.8	12.8	11.6	6.4	2.2	-2.7	-10.1	-16.7	-24.3	-33.6	-42.7	-54.9	-73.5	-99.7	-141.5	-207.9	-313.5	-476.9	-733.1	-1126.5	-1729.1	34.3	5.0
3-F	36630	11165	32.2	24.3	22.3	22.7	19.9	20.2	24.8	15.8	14.4	13.6	12.5	7.4	3.4	-1.2	-8.3	-14.7	-21.9	-30.9	-39.6	-51.1	-68.8	-93.5	-133.1	-195.9	-295.8	-450.5	-693.0	-1065.2	-1635.2	34.6	5.8
3-G	34700	10577	32.5	24.8	22.7	23.1	20.4	20.7	25.4	16.4	15.0	14.3	13.3	8.4	4.6	0.1	-6.7	-12.8	-19.8	-28.4	-36.7	-47.7	-64.5	-87.9	-125.4	-185.0	-279.8	-426.6	-656.6	-1009.6	-1550.0	35.0	6.6
3-I	31459	9589	32.9	25.6	23.6	24.0	21.2	21.6	26.3	17.4	16.1	15.5	14.7	10.0	6.5	2.5	-4.0	-9.6	-16.1	-24.2	-31.8	-41.8	-57.2	-78.4	-112.5	-166.7	-252.9	-386.3	-595.3	-916.2	-1406.9	35.7	8.0
3-J	30175	9197	33.1	26.0	23.9	24.3	21.6	22.0	26.7	17.8	16.6	16.0	15.2	10.7	7.4	3.4	-2.9	-8.4	-14.7	-22.5	-29.9	-39.5	-54.3	-74.6	-107.4	-159.4	-242.2	-370.3	-571.1	-879.1	-1350.2	35.9	8.6
3-K	29211	8903	33.2	26.3	24.2	24.6	21.9	22.3	27.0	18.2	16.9	16.4	15.7	11.2	8.0	4.1	-2.0	-7.4	-13.6	-21.3	-28.4	-37.7	-52.1	-71.8	-103.5	-153.9	-234.2	-358.3	-552.8	-851.3	-1307.6	36.2	9.1
3-L	28615	8722	33.3	26.5	24.4	24.8	22.1	22.5	27.2	18.4	17.2	16.6	16.0	11.5	8.4	4.6	-1.5	-6.8	-12.9	-20.5	-27.5	-36.6	-50.7	-70.0	-101.1	-150.5	-229.2	-350.9	-541.6	-834.1	-1281.2	36.3	9.4
4-D	41990	12798	31.6	23.1	21.1	21.5	18.7	18.9	23.5	14.4	12.8	11.7	10.3	4.9	0.4	-4.9	-12.6	-19.7	-27.8	-37.6	-47.4	-60.6	-80.6	-109.0	-154.2	-226.0	-340.2	-516.9	-794.0	-1219.4	-1871.6	33.8	3.8
4-E	39768	12121	31.9	23.6	21.5	21.9	19.2	19.4	24.0	15.0	13.5	12.5	11.2	5.9	1.7	-3.4	-10.9	-17.7	-25.4	-34.8	-44.2	-56.7	-75.7	-102.6	-145.4	-213.5	-321.8	-489.4	-752.1	-1155.5	-1773.6	34.1	4.6
4-F	37786	11517	32.1	24.0	22.0	22.4	19.6	19.9	24.5	15.5	14.1	13.2	12.0	6.9	2.8	-2.0	-9.3	-15.8	-23.2	-32.3	-41.3	-53.2	-71.3	-96.9	-137.6	-202.4	-305.4	-464.8	-714.7	-1098.5	-1686.2	34.4	5.4
4-G	35936	10953	32.3	24.5	22.4	22.8	20.1	20.4	25.0	16.0	14.6	13.8	12.7	7.8	3.9	-0.8	-7.8	-14.0	-21.2	-30.0	-38.6	-49.9	-67.2	-91.5	-130.3	-192.0	-290.1	-441.9	-679.9	-1045.2	-1604.5	34.8	6.1
4-H	34325	10462	32.5	24.9	22.8	23.2	20.5	20.8	25.5	16.5	15.1	14.4	13.4	8.5	4.8	0.4	-6.4	-12.5	-19.4	-27.9	-36.2	-47.0	-63.6	-86.8	-123.9	-182.9	-276.7	-421.9	-649.5	-998.8	-1533.5	35.1	6.8
4-I	32938	10040	32.7	25.2	23.2	23.6	20.8	21.2	25.9	16.9	15.6	14.9	14.0	9.3	5.6	1.4	-5.2	-11.1	-17.8	-26.1	-34.1	-44.5	-60.5	-82.8	-118.4	-175.1	-265.2	-404.7	-623.3	-958.8	-1472.2	35.3	7.3
4-J	31830	9702	32.8	25.5	23.5	23.9	21.1	21.5	26.2	17.3	16.0	15.3	14.5	9.8	6.3	2.2	-4.3	-10.0	-16.6	-24.7	-32.4	-42.5	-58.0	-79.5	-114.0	-168.8	-256.0	-390.9	-602.3	-926.9	-1423.3	35.6	7.8
4-K	31011	9452	33.0	25.8	23.7	24.1	21.4	21.8	26.5	17.6	16.3	15.7	14.9	10.3	6.8	2.8	-3.6	-9.2	-15.6	-23.6	-31.2	-41.0	-56.2	-77.1	-110.7	-164.1	-249.2	-380.7	-586.9	-903.3	-1387.1	35.7	8.2
4-L	30498	9296	33.0	25.9	23.9	24.3	21.5	21.9	26.6	17.7	16.5	15.9	15.1	10.5	7.1	3.2	-3.1	-8.7	-15.0	-23.0	-30.4	-40.1	-55.0	-75.6	-108.7	-161.2	-244.9	-374.4	-577.2	-888.5	-1364.5	35.9	8.5
5-D	42990	13103	31.5	22.9	20.9	21.3	18.5	18.7	23.2	14.1	12.5	11.4	10.0	4.4	-0.1	-5.6	-13.4	-20.7	-28.8	-38.8	-48.9	-62.3	-82.8	-111.9	-158.1	-231.6	-348.4	-529.3	-812.8	-1248.2	-1915.7	33.6	3.5
5-E	40948	12481	31.7	23.3	21.3	21.7	18.9	19.2	23.7	14.7	13.1	12.1	10.7	5.4	1.0	-4.2	-11.8	-18.8	-26.7	-36.3	-45.9	-58.7	-78.3	-106.0	-150.1	-220.2	-331.6	-504.0	-774.3	-1189.5	-1825.6	33.9	4.2
5-F	39026	11895	32.0	23.8	21.7	22.1	19.4	19.6	24.2	15.2	13.7	12.7	11.5	6.3	2.1	-2.9	-10.3	-17.0	-24.6	-33.9	-43.1	-55.4	-74.1	-100.5	-142.5	-209.4	-315.7	-480.2	-738.1	-1134.2	-1740.9	34.2	4.9
5-G	37333	11379	32.1	24.1	22.1	22.5	19.7	20.0	24.7	15.6	14.2	13.3	12.2	7.1	3.0	-1.7	-8.9	-15.4	-22.7	-31.8	-40.6	-52.4	-70.3	-95.6	-135.8	-199.9	-301.7	-459.2	-706.2	-1085.4	-1666.2	34.5	5.5
5-H	35808	10914	32.3	24.5	22.5	22.9	20.1	20.4	25.1	16.1	14.7	13.9	12.8	7.8	3.9	-0.7	-7.6	-13.9	-21.0	-29.8	-38.4	-49.7	-66.9	-91.1	-129.8	-191.3	-289.0	-440.3	-677.4	-1041.5	-1598.9	34.8	6.1
5-I	34512	10519	32.5	24.8	22.8	23.2	20.4	20.8	25.4	16.5	15.1	14.3	13.3	8.5	4.7	0.2	-6.6	-12.6	-19.6	-28.2	-36.4	-47.3	-64.1	-87.4	-124.7	-184.0	-278.3	-424.2	-653.0	-1004.2	-1541.7	35.0	6.7
5-J	33543	10224	32.6	25.1	23.0	23.4	20.7	21.0	25.7	16.8	15.4	14.7	13.7	8.9	5.3	0.9	-5.8	-11.7	-18.5	-26.9	-35.0	-45.6	-61.9	-84.5	-120.8	-178.5	-270.2	-412.2	-634.7	-976.3	-1498.9	35.2	7.1
6-D	44068	13432	31.4	22.7	20.7	21.1	18.3	18.5	23.0	13.9	12.2	11.1	9.6	4.0	-0.7	-6.3	-14.3	-21.6	-30.0	-40.1	-50.4	-64.2	-85.1	-115.0	-162.3	-237.6	-357.3	-542.6	-833.1	-1279.2	-1963.2	33.5	3.1
6-E	42129	12841	31.6	23.1	21.0	21.4	18.7	18.9	23.4	14.4	12.8	11.7	10.3	4.8	0.3	-5.0	-12.8	-19.9	-27.9	-37.8	-47.6	-60.8	-80.9	-109.4	-154.7	-226.8	-341.3	-518.6	-796.6	-1223.4	-1877.7	33.8	3.8
6-G	38669	11786	32.0	23.8	21.8	22.2	19.4	19.7	24.3	15.3	13.8	12.9	11.6	6.4	2.3	-2.7	-10.0	-16.6	-24.2	-33.4	-42.6	-54.7	-73.3	-99.4	-141.1	-207.4	-312.7	-475.8	-731.4	-1123.9	-1725.1	34.3	5.0
6-H	37257	11356	32.2	24.2	22.1	22.5	19.8	20.1	24.7	15.7	14.2	13.3	12.2	7.1	3.1	-1.7	-8.8	-15.3	-22.6	-31.7	-40.5	-52.2	-70.2	-95.4	-135.5	-199.4	-301.0	-458.3	-704.8	-1083.2	-1662.8	34.5	5.6
6-I	36154	11020	32.3	24.4	22.4	22.8	20.0	20.3	25.0	16.0	14.6	13.7	12.6	7.6	3.7	-0.9	-7.9	-14.2	-21.4	-30.3	-38.9	-50.3	-67.7	-92.1	-131.2	-193.2	-291.9	-444.6	-684.0	-1051.5	-1614.2	34.7	6.0
6-J	35291	10757	32.4	24.6	22.6	23.0	20.2	20.6	25.2	16.2	14.8	14.0	13.0	8.1	4.2	-0.3	-7.2	-13.4	-20.5	-29.2	-37.6	-48.7	-65.8	-89.6	-127.7	-188.4	-284.7	-433.9	-667.7	-1026.6	-1576.1	34.9	6.3
7-B	49346	15041	30.9	21.7	19.7	20.1	17.3	17.4	21.8	12.6	10.8	9.5	7.7	1.7	-3.5	-9.7	-18.4	-26.4	-35.5	-46.6	-58.0	-73.3	-96.6	-130.0	-182.9	-267.1	-400.7	-607.7	-932.4	-1430.9	-2195.9	32.8	1.5
7-C	47205	14388	31.1	22.1	20.1	20.5	17.7	17.8	22.3	13.1	11.4	10.1	8.4	2.6	-2.4	-8.3	-16.7	-24.5	-33.3	-44.0	-54.9	-69.6	-92.0	-123.9	-174.6	-255.2	-383.1	-581.3	-892.1	-1369.4	-2101.5	33.0	2.1
7-E	43354	13214	31.5	22.8	20.8	21.2	18.4	18.6	23.2	14.0	12.4	11.3	9.8	4.3	-0.3	-5.8	-13.7	-21.0	-29.2	-39.3	-49.4	-62.9	-83.6	-112.9	-159.5	-233.6	-351.4	-533.7	-819.6	-1258.7	-1931.7	33.6	3.4
7-F	41680	12704	31.7	23.2	21.1	21.5	18.8	19.0	23.6	14.5	12.9	11.8	10.5	5.0	0.6	-4.7	-12.4	-19.4	-27.4	-37.2	-47.0	-60.0	-79.9	-108.1	-153.0	-224.3	-337.6	-513.1	-788.1	-1210.5	-1858.0	33.8	3.9
7-G	40193	12251	31.8	23.5	21.5	21.9	19.1	19.3	23.9	14.9	13.3	12.3	11.0	5.7	1.4	-3.7	-11.2	-18.1	-25.8	-35.4	-44.8	-57.4	-76.6	-103.8	-147.1	-215.9	-325.3	-494.7	-760.1	-1167.8	-1792.4	34.1	4.5
7-H	38904	11858	32.0	23.8	21.7	22.1	19.4	19.6	24.2	15.2	13.7	12.8	11.5	6.3	2.1	-2.8	-10.2	-16.8	-24.4	-33.7	-42.9	-55.1	-73.8	-100.1	-142.0	-208.7	-314.7	-478.7	-735.8	-1130.7	-1735.5	34.3	4.9
7-I	37832	11531	32.1	24.0	22.0	22.4	19.6	19.9	24.5	15.5	14.0	13.1	12.0	6.8	2.8	-2.1	-9.3	-15.8	-23.3	-32.4	-41.4	-53.3	-71.4	-97.0	-137.8	-202.7	-305.8	-465.4	-715.6	-1099.8	-1688.2	34.4	5.3
8-A	52563	16021	30.7	21.2	19.1	19.5	16.8	16.8	21.2	11.9	10.1	8.6	6.6	0.3	-5.2	-11.7	-20.8	-29.3	-38.9	-50.4	-62.5	-78.8	-103.5	-139.2	-195.4	-285.0	-427.2	-647.4	-992.8	-1523.4	-2337.6	32.4	0.6
8-B	50391	15359	30.8	21.5	19.5	19.9	17.1	17.2	21.6	12.4	10.6	9.2	7.3	1.2	-4.1	-10.4	-19.1	-27.4	-36.6	-47.8	-59.5	-75.1	-98.8	-133.0	-187.0	-272.9	-409.3	-620.6	-952.0	-1461.0	-2241.9	32.6	1.2

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Leq)
FROM WIND PARK OPERATIONS AT THE DESIGN WIND CONDITION

8-C	48340	14734	31.0	21.9	19.9	20.3	17.5	17.6	22.1	12.9	11.1	9.8	8.0	2.1	-3.0	-9.0	-17.6	-25.5	-34.5	-45.3	-56.6	-71.6	-94.4	-127.2	-179.0	-261.5	-392.5	-595.3	-913.4	-1402.0	-2151.6	32.9	1.8
8-D	46407	14145	31.2	22.3	20.2	20.6	17.9	18.0	22.5	13.3	11.6	10.4	8.7	2.9	-2.0	-7.8	-16.1	-23.8	-32.5	-43.0	-53.8	-68.2	-90.2	-121.7	-171.5	-250.7	-376.6	-571.5	-877.1	-1346.5	-2066.4	33.1	2.4
8-F	43072	13128	31.5	22.9	20.9	21.3	18.5	18.7	23.2	14.1	12.5	11.4	9.9	4.4	-0.2	-5.6	-13.5	-20.7	-28.9	-38.9	-49.0	-62.4	-83.0	-112.1	-158.4	-232.1	-349.1	-530.3	-814.3	-1250.6	-1919.3	33.6	3.5
8-G	41750	12725	31.7	23.2	21.1	21.5	18.8	19.0	23.5	14.5	12.9	11.8	10.4	5.0	0.5	-4.7	-12.5	-19.5	-27.5	-37.3	-47.1	-60.1	-80.1	-108.3	-153.2	-224.7	-338.2	-513.9	-789.4	-1212.5	-1861.0	33.8	3.9
8-H	40527	12352	31.8	23.4	21.4	21.8	19.0	19.3	23.8	14.8	13.2	12.2	10.9	5.6	1.2	-3.9	-11.5	-18.4	-26.2	-35.8	-45.3	-58.0	-77.4	-104.8	-148.4	-217.8	-328.1	-498.8	-766.4	-1177.3	-1807.1	34.0	4.3
9-A	53534	16317	30.6	21.0	19.0	19.4	16.6	16.6	21.0	11.7	9.8	8.3	6.2	-0.1	-5.7	-12.3	-21.5	-30.1	-39.9	-51.6	-63.9	-80.4	-105.6	-141.9	-199.2	-290.4	-435.2	-659.4	-1011.1	-1551.3	-2380.4	32.3	0.3
9-B	51457	15684	30.8	21.4	19.3	19.7	17.0	17.0	21.4	12.2	10.3	8.9	6.9	0.8	-4.6	-11.0	-20.0	-28.3	-37.7	-49.1	-61.0	-76.9	-101.1	-136.0	-191.1	-278.9	-418.1	-633.8	-972.0	-1491.6	-2288.9	32.5	0.9
9-C	49494	15086	30.9	21.7	19.6	20.0	17.3	17.3	21.8	12.6	10.8	9.4	7.6	1.6	-3.6	-9.8	-18.5	-26.6	-35.7	-46.7	-58.2	-73.5	-96.9	-130.5	-183.5	-267.9	-402.0	-609.6	-935.1	-1435.2	-2202.4	32.8	1.4
9-D	47704	14540	31.1	22.0	20.0	20.4	17.6	17.7	22.2	13.0	11.3	10.0	8.3	2.4	-2.7	-8.6	-17.1	-24.9	-33.8	-44.6	-55.7	-70.5	-93.0	-125.4	-176.5	-257.9	-387.2	-587.5	-901.5	-1383.8	-2123.5	33.0	2.0
9-E	46036	14032	31.2	22.3	20.3	20.7	17.9	18.0	22.6	13.4	11.7	10.5	8.8	3.1	-1.8	-7.6	-15.8	-23.4	-32.1	-42.6	-53.3	-67.6	-89.4	-120.6	-170.0	-248.6	-373.5	-566.9	-870.1	-1335.8	-2050.0	33.2	2.5
9-F	44542	13576	31.4	22.6	20.6	21.0	18.2	18.4	22.9	13.7	12.1	10.9	9.4	3.7	-1.0	-6.6	-14.7	-22.1	-30.5	-40.7	-51.1	-65.0	-86.2	-116.3	-164.2	-240.3	-361.2	-548.4	-842.0	-1292.9	-1984.2	33.4	3.0
9-G	43240	13180	31.5	22.9	20.8	21.2	18.5	18.6	23.2	14.1	12.5	11.3	9.9	4.3	-0.3	-5.7	-13.6	-20.9	-29.1	-39.1	-49.3	-62.7	-83.3	-112.6	-159.1	-233.0	-350.5	-532.3	-817.5	-1255.4	-1926.8	33.6	3.4
9-H	42193	12860	31.6	23.1	21.0	21.4	18.7	18.9	23.4	14.3	12.8	11.7	10.3	4.8	0.3	-5.0	-12.8	-19.9	-28.0	-37.8	-47.7	-60.9	-81.0	-109.6	-155.0	-227.1	-341.8	-519.4	-797.8	-1225.3	-1880.6	33.7	3.8
9-I	41288	12585	31.7	23.3	21.2	21.6	18.9	19.1	23.6	14.6	13.0	12.0	10.6	5.2	0.8	-4.4	-12.1	-19.1	-27.0	-36.7	-46.4	-59.3	-79.1	-107.0	-151.4	-222.1	-334.4	-508.2	-780.8	-1199.3	-1840.7	33.9	4.1
10-A	54577	16635	30.5	20.8	18.8	19.2	16.4	16.4	20.8	11.5	9.6	8.0	5.9	-0.5	-6.2	-13.0	-22.3	-31.1	-40.9	-52.8	-65.4	-82.2	-107.8	-144.9	-203.2	-296.2	-443.7	-672.2	-1030.6	-1581.2	-2426.3	32.2	0.0
10-B	52614	16037	30.7	21.2	19.1	19.5	16.8	16.7	21.2	11.9	10.0	8.6	6.6	0.3	-5.2	-11.7	-20.8	-29.3	-38.9	-50.5	-62.6	-78.9	-103.6	-139.3	-195.6	-285.3	-427.6	-648.0	-993.8	-1524.8	-2339.9	32.4	0.5
10-C	50746	15467	30.8	21.5	19.4	19.8	17.1	17.1	21.6	12.3	10.5	9.1	7.2	1.1	-4.2	-10.6	-19.4	-27.7	-37.0	-48.3	-60.0	-75.7	-99.6	-134.0	-188.4	-274.9	-412.3	-625.0	-958.7	-1471.2	-2257.6	32.6	1.1
10-D	48987	14931	31.0	21.8	19.7	20.1	17.4	17.4	21.9	12.7	10.9	9.6	7.8	1.8	-3.3	-9.5	-18.1	-26.1	-35.2	-46.1	-57.5	-72.7	-95.8	-129.0	-181.5	-265.1	-397.8	-603.3	-925.6	-1420.6	-2180.1	32.8	1.6
10-E	47419	14453	31.1	22.1	20.0	20.4	17.7	17.8	22.3	13.1	11.3	10.1	8.4	2.5	-2.5	-8.5	-16.9	-24.7	-33.5	-44.2	-55.3	-70.0	-92.4	-124.5	-175.4	-256.4	-384.9	-584.0	-896.1	-1375.6	-2111.0	33.0	2.1
10-F	45995	14019	31.2	22.3	20.3	20.7	17.9	18.0	22.6	13.4	11.7	10.5	8.9	3.1	-1.8	-7.5	-15.8	-23.4	-32.0	-42.5	-53.2	-67.5	-89.3	-120.5	-169.9	-248.4	-373.2	-566.4	-869.3	-1334.6	-2048.2	33.2	2.5
10-G	44791	13652	31.4	22.6	20.5	20.9	18.2	18.3	22.8	13.7	12.0	10.9	9.3	3.6	-1.1	-6.8	-14.8	-22.3	-30.8	-41.0	-51.5	-65.4	-86.7	-117.0	-165.1	-241.7	-363.3	-551.5	-846.7	-1300.0	-1995.1	33.4	2.9
10-H	43829	13359	31.5	22.8	20.7	21.1	18.4	18.5	23.0	13.9	12.3	11.2	9.7	4.1	-0.6	-6.1	-14.1	-21.4	-29.7	-39.9	-50.1	-63.8	-84.6	-114.3	-161.4	-236.3	-355.3	-539.6	-828.6	-1272.3	-1952.7	33.5	3.2
10-I	106638	32503	27.6	15.0	13.0	13.4	10.6	9.5	13.3	3.1	-0.2	-3.9	-8.9	-19.3	-29.9	-42.8	-58.6	-74.3	-91.8	-112.3	-135.9	-168.2	-217.0	-289.5	-402.7	-582.9	-868.5	-1311.2	-2006.0	-3073.9	-4717.2	28.4	-9.6
11-A	55732	16987	30.4	20.7	18.6	19.0	16.3	16.2	20.6	11.2	9.3	7.7	5.5	-1.0	-6.8	-13.7	-23.1	-32.1	-42.1	-54.2	-67.0	-84.2	-110.3	-148.1	-207.7	-302.6	-453.2	-686.5	-1052.4	-1614.4	-2477.3	32.0	-0.3
11-B	53800	16398	30.6	21.0	18.9	19.3	16.6	16.5	21.0	11.6	9.8	8.2	6.2	-0.2	-5.8	-12.5	-21.7	-30.4	-40.1	-51.9	-64.3	-80.9	-106.2	-142.7	-200.2	-291.9	-437.3	-662.7	-1016.1	-1558.9	-2392.1	32.2	0.2
11-C	52026	15857	30.7	21.3	19.2	19.6	16.9	16.9	21.3	12.0	10.2	8.7	6.8	0.5	-4.9	-11.4	-20.4	-28.8	-38.3	-49.8	-61.8	-77.9	-102.4	-137.6	-193.3	-282.0	-422.8	-640.8	-982.7	-1507.9	-2314.0	32.4	0.7
11-D	50413	15366	30.8	21.5	19.5	19.9	17.1	17.2	21.6	12.4	10.6	9.2	7.3	1.2	-4.1	-10.4	-19.2	-27.4	-36.7	-47.8	-59.5	-75.1	-98.9	-133.1	-187.1	-273.0	-409.5	-620.9	-952.4	-1461.6	-2242.9	32.6	1.2
11-E	48886	14901	31.0	21.8	19.8	20.2	17.4	17.5	21.9	12.7	11.0	9.6	7.8	1.9	-3.3	-9.4	-18.0	-26.0	-35.1	-46.0	-57.3	-72.5	-95.6	-128.7	-181.1	-264.5	-397.0	-602.1	-923.7	-1417.7	-2175.6	32.8	1.6
11-F	47613	14512	31.1	22.0	20.0	20.4	17.6	17.7	22.2	13.0	11.3	10.0	8.3	2.4	-2.6	-8.6	-17.0	-24.9	-33.7	-44.5	-55.5	-70.3	-92.8	-125.1	-176.2	-257.4	-386.5	-586.4	-899.8	-1381.1	-2119.5	33.0	2.0
11-G	46473	14165	31.2	22.2	20.2	20.6	17.8	17.9	22.5	13.3	11.6	10.3	8.7	2.9	-2.0	-7.8	-16.2	-23.8	-32.5	-43.1	-53.9	-68.3	-90.4	-121.8	-171.7	-251.1	-377.1	-572.3	-878.3	-1348.4	-2069.3	33.1	2.4
11-H	45552	13884	31.3	22.4	20.4	20.8	18.0	18.1	22.7	13.5	11.8	10.6	9.0	3.3	-1.5	-7.2	-15.4	-23.0	-31.6	-42.0	-52.6	-66.7	-88.4	-119.2	-168.1	-245.9	-369.5	-560.9	-861.0	-1321.9	-2028.7	33.3	2.6
11-K	44151	13457	31.4	22.7	20.6	21.0	18.3	18.4	23.0	13.8	12.2	11.1	9.5	3.9	-0.8	-6.3	-14.3	-21.7	-30.1	-40.2	-50.6	-64.3	-85.3	-115.2	-162.6	-238.1	-358.0	-543.6	-834.7	-1281.6	-1966.9	33.5	3.1
11-L	44084	13437	31.4	22.7	20.7	21.1	18.3	18.5	23.0	13.9	12.2	11.1	9.6	4.0	-0.7	-6.3	-14.3	-21.7	-30.0	-40.2	-50.5	-64.2	-85.2	-115.0	-162.4	-237.7	-357.4	-542.8	-833.4	-1279.7	-1963.9	33.5	3.1
12-A	56909	17346	30.3	20.5	18.4	18.8	16.1	16.0	20.4	11.0	9.0	7.4	5.1	-1.5	-7.4	-14.4	-24.0	-33.1	-43.3	-55.6	-68.6	-86.2	-112.8	-151.4	-212.3	-309.1	-462.8	-701.0	-1074.5	-1648.2	-2529.1	31.9	-0.6
12-B	55057	16781	30.5	20.8	18.7	19.1	16.4	16.3	20.7	11.4	9.5	7.9	5.7	-0.7	-6.4	-13.3	-22.6	-31.5	-41.4	-53.4	-66.0	-83.0	-108.9	-146.2	-205.1	-298.9	-447.7	-678.1	-1039.7	-1595.0	-2447.5	32.1	-0.1
12-C	53338	16257	30.6	21.0	19.0	19.4	16.6	16.6	21.0	11.7	9.9	8.4	6.3	0.0	-5.6	-12.2	-21.4	-30.0	-39.7	-51.4	-63.6	-80.1	-105.2	-141.4	-198.4	-289.3	-433.5	-657.0	-1007.4	-1545.6	-2371.8	32.3	0.3
12-D	51802	15789	30.7	21.3	19.3	19.7	16.9	16.9	21.3	12.1	10.2	8.8	6.8	0.6	-4.8	-11.2	-20.2	-28.6	-38.1	-49.5	-61.5	-77.5	-101.9	-137.0	-192.5	-280.8	-420.9	-638.0	-978.5	-1501.5	-2304.1	32.5	0.8
12-E	50370	15353	30.8	21.5	19.5	19.9	17.1	17.2	21.6	12.4	10.6	9.2	7.3	1.2	-4.1	-10.3	-19.1	-27.3	-36.6	-47.8	-59.4	-75.0	-98.8	-132.9	-186.9	-272.8	-409.2	-620.4	-951.6	-1460.4	-2241.0	32.6	1.2
12-F	49197	14995	30.9	21.7	19.7	20.1	17.3	17.4	21.9	12.7	10.9	9.5	7.7	1.7	-3.4	-9.6	-18.2	-26.3	-35.4	-46.4	-57.8	-73.0	-96.3	-129.6	-182.3	-266.3	-399.5	-605.9	-929.6	-1426.7	-2189.3	32.8	1.5
12-G	48130	14670	31.0	21.9	19.9	20.3	17.5	17.6	22.1	12.9	11.2	9.9	8.1	2.2	-2.9	-8.9	-17.4	-25.3	-34.3	-45.1	-56.3	-71.2	-94.0	-126.6	-178.2	-260.3	-390.7	-592.7	-909.5	-1396.0	-2142.3	32.9	1.8
12-H	47295	14416	31.1	22.1	20.0	20.4	17.7	17.8	22.3	13.1	11.4	10.1	8.4	2.5	-2.4	-8.4	-16.8	-24.6	-33.4	-44.1	-55.1	-69.8	-92.2	-124.2	-174.9	-255.7	-383.9	-582.4	-893.8	-1372.0	-2105.5	33.0	2.1
12-I	46652	14220	31.2	22.2	20.2	20.6	17.8	17.9	22.4	13.2	11.5	10.3	8.6	2.8	-2.1	-8.0	-16.3	-24.0	-32.7	-43.3	-54.2	-68.6	-90.8	-122.4	-172.4	-252.1	-378.6	-574.5	-881.7	-1353.5	-2077.2	33.1	2.3
12-J	46219	14088	31.2	22.3	20.2	20.6	17.9	18.0	22.5	13.3	11.7	10.4	8.8	3.0	-1.9	-7.7	-16.0	-23.6	-32.3	-42.8	-53.5	-67.9	-89.8	-121.1	-170.7	-249.7	-375.0	-569.1	-873.6	-1341.1	-2058.1	33.2	2.4
12-K	46027	14029	31.2	22.3	20.3	20.7	17.9	18.0	22.6	13.4	11.7	10.5	8.9	3.1	-1.8	-7.6	-15.8	-23.4	-32.1	-42.5	-53.3	-67.6	-89.4	-120.6	-170.0	-248.6	-373.4	-566.8	-870.0	-1335.5	-2049.6	33.2	2.5
12-L	46040	14033	31.2	22.3	20.3	20.7	17.9	18.0	22.6	13.4	11.7	10.5	8.8	3.1	-1.8	-7.6	-15.8	-23.4	-32.1	-42.6	-53.3	-67.6	-89.4	-120.6	-170.0	-248.7	-373.5	-566.9	-870.2	-1335.9	-2050.2	33.2	2.5
13-A	58144	17722	30.2	20.3	18.2	18.6	15.9	15.8	20.1	10.8	8.7	7.0	4.7	-1.9	-8.0	-15.2	-24.9	-34.2	-44.6	-57.1	-70.4	-88.2	-115.5	-154.9	-217.1	-316.0	-473.0	-716.2	-1097.6	-1683.6	-2583.4	31.8	-0.9
13-B	56343	17173	30.4	20.6	18.5	18.9	16.2	16.1	20.5	11.1	9.2	7.5	5.3	-1.2	-7.1	-14.1	-23.6	-32.6	-42.8	-54.9	-67.8	-85.2	-111.6	-149.8	-210.1	-306.0	-458.2	-694.0	-1063.8	-1631.9	-2504.1	32.0	-0.4
13-C	54727	16681	30.5	20.8	18.8	19.2	16.4	16.4	20.8	11.5	9.5	8.0	5.8	-0.6	-6.3	-13.1	-22.4	-31.2	-41.1	-53.0	-65.6	-82.5	-108.2	-145.3	-203.8	-297.0	-444.9	-674.1	-1033.5	-1585.5	-2432.9	32.1	0.0
13-D	53264	16235	30.6	21.1	19.0	19.4	16.7	16.6	21.1	11.8	9.9	8.4	6.3	0.0	-5.5	-12.2	-21.3	-29.9	-39.6	-51.3	-63.5	-80.0	-105.0	-141.1	-198.2	-288.9	-432.9	-656.1	-1006.0	-1543.5	-2368.5	32.3	0.4
13-F	50789	15480	30.8	21.5	19.4	19.8	17.1	17.1	21.5	12.3	10.5	9.1	7.2	1.1	-4.3	-10.6	-19.4	-27.7	-37.0	-48.3	-60.0	-75.8	-99.7	-134.1	-188.5	-275.1	-412.6	-625.5	-959.5	-1472.4	-2259.5	32.6	1.1
13-G	49825	15187	30.9	21.6	19.6	20.0	17.2	17.3	21.7	12.5	10.7	9.4	7.5	1.5	-3.8	-10.0	-18.7	-26.9	-36.0	-47.1	-58.7	-74.1	-97.6	-131.4	-184.8	-269.8	-404.7	-613.7	-941.4	-1444.7	-2217.0	32.7	1.3
13-H	49004	14936	31.0	21.8	19.7	20.1	17.4	17.4	21.9	12.7	10.9	9.6	7.8	1.8	-3.3	-9.5	-18.1	-26.1	-35.2	-46.2	-57.5	-72.7	-95.9	-129.1	-181.6	-265.2	-397.9	-603.5	-925.9	-1421.1	-2180.8	32.8	1.6
13-I	48466	14772	31.0	21.9	19.8	20.2	17.5	17.5	22.0	12.8	11.1	9.8	8.0	2.0	-3.1	-9.1	-17.7	-25.6	-34.6	-45.5	-56.7	-71.8	-94.7	-127.5	-179.5	-262.2	-393.5	-596.9	-915.8	-1405.6	-2157.1	32.9	1.7
13-J	48167	14681	31.0	21.9	19.9	20.3	17.5	17.6	22.1	12.9	11.1	9.8	8.1	2.2	-2.9	-8.9	-17.5	-25.4	-34.3	-45.1	-56.3	-71.3	-94.0	-126.7	-178.3	-260.5	-391.1	-593.2	-910.2	-1397.0	-2143.9	32.9	1.8
13-K	48005	14632	31.1	22.0	19.9	20.3	17.6	17.6	22.1	12.9	11.2	9.9	8.1	2.2	-2.8	-8.8	-17.3	-25.2	-34.1	-44.9	-56.1	-71.0	-93.7	-126.2	-177.7	-259.6	-389.7	-591.2	-907.2	-1392.4	-2136.8	32.9	1.9
13-L	48088	14657	31.0	21.9	19.9	20.3	17.5	17.6	22.1	12.9	11.2	9.9	8.1	2.2	-2.9	-8.9	-17.4	-25.3	-34.2	-45.0	-56.2	-71.1	-93.9	-126.5	-178.0	-260.1	-390.4	-592.2	-908.7	-1394.8	-2140.5	32.9	1.9
14-D	54771	16694	30.5	20.8	18.8	19.2	16.4	16.3	20.8	11.4	9.5	8.0	5.8	-0.6	-6.3	-13.1	-22.4	-31.2	-41.1	-53.1	-65.6	-82.5	-108.3	-145.4	-204.0	-297.3	-445.3	-674.6	-1034.3	-1586.8	-2434.9	32.1	0.0
14-E	53544	16320	30.6	21.0	19.0	19.4	16.6	16.6	21.0	11.7	9.8	8.3	6.2	-0.1	-5.7	-12.3	-21.5	-30.2	-39.9	-51.6	-63.9	-80.5	-105.6	-141.9	-199.2	-290.5	-435.2	-659.5	-1011.2	-1551.5	-2380.8	32.3	0.3
14-F	52438	15983	30.7	21.2	19.1	19.5	16.8	16.8	21.2	11.9	10.1	8.6	6.6	0.4	-5.1	-11.6	-20.7	-29.2	-38.7	-50.3	-62.4	-78.6	-103.3	-138.8	-195.0	-284.3	-426.2	-645.9	-990.5	-1519.8	-2332.1	32.4	0.6
14-G	51548	15712	30.7	21.3	19.3	19.7	16.9	16.9	21.4	12.1	10.3	8.9	6.9	0.7	-4.7	-11.1	-20.0	-28.4	-37.8	-49.2	-61.1	-77.1	-101.3	-136.3	-191.5	-279.4	-418.9	-634.9	-973.8	-1494.2	-2292.9	32.5	0.8
14-H	50843	15497	30.8	21.5	19.4	19.8	17.1	17.1	21.5	12.3	10.5	9.1	7.2	1.0	-4.3	-10.6	-19.5	-27.8	-37.1	-48.4	-60.1	-75.8	-99.8	-134.3	-188.8	-275.4	-413.1	-626.2	-960.5	-1474.0	-2261.9	32.6	1.0
14-J	50014	15244	30.9	21.6	19.6	20.0	17.2	17.2	21.7	12.5	10.7	9.3	7.4	1.4	-3.9	-10.1	-18.9	-27.0	-36.2	-47.4	-58.9	-74.4	-98.0	-131.9	-185.5	-270.8	-406.2	-616.0	-944.9	-1450.1	-2225.3	32.7	1.3
14-K	49962	15229	30.9	21.6	19.6	20.0	17.2	17.2	21.7	12.5	10.7	9.3	7.5	1.4	-3.8	-10.1	-18.8	-27.0	-36.2	-47.3	-58.9	-74.3	-97.9	-131.8	-185.3	-270.5	-405.8	-615.4	-943.9	-1448.7	-2223.0	32.7	1.3
14-L	50085	15266	30.9	21.6	19.5	19.9	17.2	17.2	21.7	12.5	10.7	9.3	7.4	1.4	-3.9	-10.2	-18.9	-27.1	-36.3	-47.5	-59.0	-74.5	-98.2	-132.1	-185.8	-271.2	-406.8	-616.9	-946.3	-1452.2	-2228.5	32.7	1.3
15-F	54119	16496	30.5	20.9	18.9	19.3	16.5	16.5	20.9	11.6	9.7	8.1	6.1	-0.3	-6.0	-12.7	-22.0	-30.7	-40.5	-52.3	-64.7	-81.4	-106.9	-143.6	-201.5	-293.7	-440.0	-666.6	-1022.1	-1568.1	-2406.2	32.2	0.1
15-G	53286	16241	30.6	21.1	19.0	19.4	16.7	16.6	21.1	11.8	9.9	8.4	6.3	0.0	-5.5	-12.2	-21.3	-29.9	-39.6	-51.3	-63.6	-80.0	-105.1	-141.2	-198.2	-289.0	-433.1	-656.3	-1006.4	-1544.1	-2369.5	32.3	0.4
15-H	52688	16059	30.7	21.2	19.1	19.5	16.8	16.7	21.2	11.9	10.0	8.5	6.5	0.3	-5.2	-11.8	-20.9	-29.4	-39.0	-50.6	-62.7	-79.0	-103.8	-139.5	-195.9	-285.7	-428.2	-649.0	-995.2	-1527.0	-2343.1	32.4	0.5
15-I	52238	15922	30.7	21.2	19.2	19.6	16.8	16.8	21.3	12.0	10.1	8.7	6.7	0.5	-5.0	-11.5	-20.5	-29.0	-38.5	-50.0	-62.1	-78.2	-102.8	-138.2	-194.2	-283.2	-424.5	-643.4	-986.7	-1514.0	-2323.3	32.4	0.7
15-J	51967	15840	30.7	21.3	19.2	19.6	16.9	16.9	21.3	12.0	10.2	8.7	6.8	0.6	-4.9	-11.3	-20.3	-28.8	-38.3	-49.7	-61.7	-77.8	-102.2	-137.5	-193.1	-281.7	-422.3	-640.1	-981.6	-1506.3	-2311.4	32.5	0.7
15-K	51920	15825	30.7	21.3	19.2	19.6	16.9	16.9	21.3	12.1	10.2	8.8	6.8	0.6	-4.9	-11.3	-20.3	-28.7	-38.2	-49.7	-61.6	-77.7	-102.1	-137.3	-192.9	-281.4	-421.9	-639.5	-980.7	-1504.9	-2309.3	32.5	0.7
16-J	53894	16427	30.6	21.0	18.9	19.3	16.6	16.5	20.9	11.6	9.7	8.2	6.1	-0.2	-5.9	-12.5	-21.8	-30.5	-40.2	-52.0	-64.4	-81.0	-106.4	-142.9	-200.6	-292.4	-438.1	-663.8	-1017.8	-1561.6	-2396.3	32.2	0.2
16-K	53887	16425	30.6	21.0	18.9	19.3	16.6	16.5	20.9	11.6	9.7	8.2	6.1	-0.2	-5.9	-12.5	-21.8	-30.5	-40.2	-52.0	-64.4	-81.0	-106.4	-142.9	-200.6	-292.4	-438.1	-663.7	-1017.7	-1561.4	-2396.0	32.2	0.2
		Sum:	52.8	44.5	42.5	42.9	40.1	40.4	45.0	35.9	34.4	33.5	32.4	27.4	23.6	19.3	12.7	7.1	0.8	-7.0	-14.0	-23.1	-36.6	-54.7	-83.2	-127.6	-197.5	-304.7	-471.9	-728.1	-1119.0	55.0	25.9

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Leq)
FROM WIND PARK OPERATIONS AT THE DESIGN WIND CONDITION

																		Hertz												
	1/3 Octave Bands	**16***	**20**	**25**	**31**	**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**	**L**	**A**
Sound Power Data - Design Speed		113.7	113.3	111.2	111.6	108.9	109.9	115.0	106.6	106.2	106.8	107.7	105.5	105.0	104.6	102.1	100.6	98.7	95.8	94.9	94.2	92.9	93.1	92.1	90.7	87.9	83.9	78.2	69.9	61.5	121.9	107.4

Data for the graph																														
Atmos. Absorption per 1 km	0.0000	0.0000	0.0000	0.0000	0.0000	0.0670	0.1050	0.1630	0.2510	0.3810	0.5650	0.8150	1.1300	1.5100	1.9200	2.3600	2.8400	3.3800	4.0800	5.0500	6.5100	8.7500	12.2000	17.7000	26.4000	39.9000	61.1000	93.7000	144.0000		
air temp 59F 70% RH																														

*Spherical wave spreading for up to 2 km, cylindrical wave spreading beyond 2 km.

																		Hertz												
	1/3 Octave Bands		**16***	**20**	**25**	**31**	**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**	**L**	**A**
	Distance (ft)	**Distance (m)**																														
1-D	50940	15527	30.8	21.4	19.4	19.8	17.0	17.1	21.5	12.3	10.4	9.0	7.1	1.0	-4.3	-10.7	-19.6	-27.8	-37.2	-48.5	-60.3	-76.0	-100.0	-134.6	-189.1	-276.0	-413.9	-627.4	-962.3	-1476.8	-2266.1	32.6	1.0
1-E	48839	14886	31.0	21.8	19.8	20.2	17.4	17.5	21.9	12.7	11.0	9.6	7.9	1.9	-3.3	-9.4	-18.0	-26.0	-35.0	-46.0	-57.3	-72.4	-95.5	-128.6	-180.9	-264.3	-396.6	-601.5	-922.8	-1416.4	-2173.5	32.8	1.6
1-F	46846	14279	31.2	22.2	20.1	20.5	17.8	17.9	22.4	13.2	11.5	10.2	8.6	2.7	-2.2	-8.1	-16.4	-24.2	-32.9	-43.5	-54.4	-69.0	-91.2	-122.9	-173.2	-253.2	-380.2	-576.9	-885.4	-1359.1	-2085.7	33.1	2.2
1-G	44993	13714	31.3	22.5	20.5	20.9	18.1	18.3	22.8	13.6	12.0	10.8	9.2	3.5	-1.2	-6.9	-15.0	-22.5	-31.0	-41.3	-51.8	-65.8	-87.2	-117.6	-165.9	-242.8	-364.9	-554.0	-850.5	-1305.8	-2004.0	33.3	2.8
1-H	43279	13191	31.5	22.9	20.8	21.2	18.5	18.6	23.2	14.1	12.5	11.3	9.9	4.3	-0.3	-5.8	-13.7	-20.9	-29.2	-39.2	-49.3	-62.8	-83.4	-112.7	-159.2	-233.2	-350.8	-532.8	-818.2	-1256.5	-1928.4	33.6	3.4
1-I	41769	12731	31.7	23.2	21.1	21.5	18.8	19.0	23.5	14.4	12.9	11.8	10.4	5.0	0.5	-4.8	-12.5	-19.5	-27.5	-37.3	-47.1	-60.2	-80.1	-108.4	-153.3	-224.8	-338.3	-514.2	-789.8	-1213.1	-1861.9	33.8	3.9
1-J	40476	12337	31.8	23.4	21.4	21.8	19.0	19.3	23.8	14.8	13.2	12.2	10.9	5.6	1.3	-3.9	-11.4	-18.3	-26.1	-35.7	-45.2	-57.9	-77.3	-104.7	-148.2	-217.5	-327.7	-498.2	-765.4	-1175.9	-1804.8	34.0	4.4
1-K	39320	11985	31.9	23.7	21.6	22.0	19.3	19.5	24.1	15.1	13.6	12.6	11.4	6.1	1.9	-3.1	-10.5	-17.2	-24.9	-34.3	-43.6	-55.9	-74.7	-101.3	-143.7	-211.0	-318.1	-483.8	-743.7	-1142.6	-1753.9	34.2	4.8
1-L	38471	11726	32.0	23.9	21.8	22.2	19.5	19.7	24.4	15.3	13.8	12.9	11.7	6.5	2.4	-2.5	-9.8	-16.4	-24.0	-33.2	-42.3	-54.4	-72.9	-98.9	-140.3	-206.3	-311.1	-473.3	-727.7	-1118.2	-1716.4	34.3	5.1
2-D	52062	15868	30.7	21.3	19.2	19.6	16.9	16.8	21.3	12.0	10.2	8.7	6.7	0.5	-4.9	-11.4	-20.4	-28.8	-38.4	-49.8	-61.8	-77.9	-102.4	-137.7	-193.5	-282.2	-423.1	-641.2	-983.4	-1509.0	-2315.5	32.4	0.7
2-E	49998	15239	30.9	21.6	19.6	20.0	17.2	17.2	21.7	12.5	10.7	9.3	7.4	1.4	-3.9	-10.1	-18.9	-27.0	-36.2	-47.4	-58.9	-74.4	-98.0	-131.9	-185.5	-270.7	-406.1	-615.8	-944.6	-1449.7	-2224.6	32.7	1.3
2-F	48084	14656	31.0	21.9	19.9	20.3	17.5	17.6	22.1	12.9	11.2	9.9	8.1	2.2	-2.9	-8.9	-17.4	-25.3	-34.2	-45.0	-56.2	-71.1	-93.9	-126.4	-178.0	-260.1	-390.4	-592.2	-908.6	-1394.7	-2140.3	32.9	1.9
2-G	46336	14123	31.2	22.3	20.2	20.6	17.9	18.0	22.5	13.3	11.6	10.4	8.7	3.0	-1.9	-7.8	-16.0	-23.7	-32.4	-42.9	-53.7	-68.1	-90.1	-121.5	-171.2	-250.3	-376.0	-570.6	-875.8	-1344.4	-2063.2	33.2	2.4
2-H	44740	13637	31.4	22.6	20.5	20.9	18.2	18.3	22.8	13.7	12.1	10.9	9.3	3.7	-1.1	-6.7	-14.8	-22.3	-30.7	-41.0	-51.4	-65.3	-86.6	-116.9	-164.9	-241.4	-362.8	-550.9	-845.7	-1298.5	-1992.9	33.4	2.9
2-I	43270	13189	31.5	22.9	20.8	21.2	18.5	18.6	23.2	14.1	12.5	11.3	9.9	4.3	-0.3	-5.8	-13.7	-20.9	-29.1	-39.2	-49.3	-62.8	-83.4	-112.7	-159.2	-233.2	-350.7	-532.7	-818.1	-1256.3	-1928.0	33.6	3.4
2-J	42030	12811	31.6	23.1	21.1	21.5	18.7	18.9	23.5	14.4	12.8	11.7	10.3	4.9	0.4	-4.9	-12.7	-19.8	-27.8	-37.6	-47.5	-60.6	-80.7	-109.1	-154.3	-226.2	-340.5	-517.4	-794.7	-1220.6	-1873.4	33.8	3.8
2-K	41063	12516	31.7	23.3	21.3	21.7	18.9	19.1	23.7	14.6	13.1	12.1	10.7	5.3	0.9	-4.3	-11.9	-18.9	-26.8	-36.4	-46.1	-58.9	-78.6	-106.3	-150.5	-220.8	-332.5	-505.4	-776.5	-1192.8	-1830.7	33.9	4.1
2-L	40233	12263	31.8	23.5	21.4	21.8	19.1	19.3	23.9	14.8	13.3	12.3	11.0	5.7	1.4	-3.7	-11.2	-18.1	-25.9	-35.4	-44.9	-57.5	-76.7	-104.0	-147.3	-216.2	-325.6	-495.1	-760.9	-1168.9	-1794.1	34.0	4.4
3-D	53178	16209	30.6	21.1	19.0	19.4	16.7	16.6	21.1	11.8	9.9	8.4	6.4	0.1	-5.5	-12.1	-21.2	-29.8	-39.5	-51.2	-63.4	-79.8	-104.8	-140.9	-197.8	-288.4	-432.2	-655.0	-1004.4	-1541.0	-2364.7	32.3	0.4
3-E	51190	15603	30.8	21.4	19.4	19.8	17.0	17.0	21.5	12.2	10.4	9.0	7.0	0.9	-4.5	-10.9	-19.8	-28.1	-37.5	-48.8	-60.6	-76.4	-100.6	-135.3	-190.1	-277.4	-415.9	-630.5	-967.0	-1483.9	-2277.1	32.5	0.9
3-F	49357	15044	30.9	21.7	19.7	20.1	17.3	17.4	21.8	12.6	10.8	9.5	7.7	1.7	-3.5	-9.7	-18.4	-26.4	-35.6	-46.6	-58.0	-73.3	-96.6	-130.1	-183.0	-267.2	-400.8	-607.9	-932.6	-1431.3	-2196.4	32.8	1.5
3-G	47700	14539	31.1	22.0	20.0	20.4	17.6	17.7	22.2	13.0	11.3	10.0	8.3	2.4	-2.7	-8.6	-17.1	-24.9	-33.8	-44.6	-55.7	-70.5	-93.0	-125.3	-176.5	-257.9	-387.2	-587.4	-901.4	-1383.6	-2123.3	33.0	2.0
3-I	44873	13677	31.3	22.5	20.5	20.9	18.1	18.3	22.8	13.7	12.0	10.8	9.3	3.6	-1.2	-6.8	-14.9	-22.4	-30.8	-41.1	-51.6	-65.6	-86.9	-117.3	-165.5	-242.1	-363.9	-552.5	-848.2	-1302.4	-1998.7	33.4	2.9
3-J	43700	13320	31.5	22.8	20.7	21.1	18.4	18.5	23.1	14.0	12.3	11.2	9.7	4.1	-0.5	-6.0	-14.0	-21.3	-29.6	-39.7	-49.9	-63.5	-84.3	-113.9	-160.9	-235.6	-354.3	-538.0	-826.2	-1268.6	-1947.0	33.5	3.2
3-K	42755	13032	31.6	23.0	20.9	21.3	18.6	18.7	23.3	14.2	12.6	11.5	10.1	4.5	0.0	-5.4	-13.3	-20.4	-28.6	-38.5	-48.6	-61.9	-82.3	-111.2	-157.2	-230.3	-346.5	-526.3	-808.4	-1241.5	-1905.3	33.7	3.6
3-L	42073	12824	31.6	23.1	21.1	21.5	18.7	18.9	23.5	14.4	12.8	11.7	10.3	4.9	0.4	-5.0	-12.7	-19.8	-27.9	-37.7	-47.6	-60.7	-80.8	-109.2	-154.5	-226.5	-340.8	-517.9	-795.5	-1221.8	-1875.3	33.8	3.8
4-D	54331	16560	30.5	20.9	18.8	19.2	16.5	16.4	20.8	11.5	9.6	8.1	6.0	-0.4	-6.1	-12.8	-22.1	-30.8	-40.7	-52.5	-65.0	-81.8	-107.3	-144.2	-202.3	-294.8	-441.7	-669.2	-1026.0	-1574.2	-2415.5	32.2	0.1
4-E	52396	15970	30.7	21.2	19.2	19.6	16.8	16.8	21.2	11.9	10.1	8.6	6.6	0.4	-5.1	-11.6	-20.7	-29.1	-38.7	-50.2	-62.3	-78.5	-103.2	-138.7	-194.8	-284.1	-425.8	-645.4	-989.7	-1518.6	-2330.2	32.4	0.6
4-F	50683	15448	30.8	21.5	19.4	19.8	17.1	17.1	21.6	12.3	10.5	9.1	7.2	1.1	-4.2	-10.5	-19.4	-27.6	-36.9	-48.2	-59.9	-75.6	-99.5	-133.8	-188.1	-274.5	-411.7	-624.2	-957.5	-1469.4	-2254.8	32.6	1.1
4-G	49073	14957	31.0	21.8	19.7	20.1	17.4	17.4	21.9	12.7	10.9	9.6	7.8	1.8	-3.4	-9.5	-18.1	-26.2	-35.3	-46.2	-57.6	-72.8	-96.0	-129.3	-181.9	-265.6	-398.5	-604.4	-927.2	-1423.1	-2183.8	32.8	1.6
4-H	47659	14526	31.1	22.0	20.0	20.4	17.6	17.7	22.2	13.0	11.3	10.0	8.3	2.4	-2.6	-8.6	-17.1	-24.9	-33.8	-44.5	-55.6	-70.4	-92.9	-125.2	-176.3	-257.7	-386.9	-586.9	-900.6	-1382.4	-2121.5	33.0	2.0
4-I	46414	14147	31.2	22.3	20.2	20.6	17.9	18.0	22.5	13.3	11.6	10.4	8.7	2.9	-2.0	-7.8	-16.1	-23.8	-32.5	-43.0	-53.8	-68.2	-90.2	-121.7	-171.5	-250.7	-376.6	-571.6	-877.2	-1346.7	-2066.7	33.1	2.4
4-J	45375	13830	31.3	22.5	20.4	20.8	18.1	18.2	22.7	13.5	11.9	10.7	9.1	3.4	-1.4	-7.1	-15.3	-22.8	-31.4	-41.7	-52.3	-66.4	-88.0	-118.7	-167.4	-244.9	-368.1	-558.7	-857.7	-1316.8	-2020.9	33.3	2.7
4-K	44538	13575	31.4	22.6	20.6	21.0	18.2	18.4	22.9	13.8	12.1	10.9	9.4	3.7	-1.0	-6.6	-14.7	-22.1	-30.5	-40.7	-51.1	-65.0	-86.2	-116.3	-164.2	-240.3	-361.2	-548.4	-841.9	-1292.7	-1984.0	33.4	3.0
4-L	43907	13383	31.4	22.7	20.7	21.1	18.3	18.5	23.0	13.9	12.3	11.1	9.6	4.0	-0.6	-6.2	-14.2	-21.5	-29.8	-39.9	-50.2	-63.9	-84.8	-114.5	-161.7	-236.7	-356.0	-540.6	-830.1	-1274.6	-1956.1	33.5	3.2
5-D	55529	16925	30.4	20.7	18.6	19.0	16.3	16.2	20.6	11.3	9.3	7.7	5.6	-0.9	-6.7	-13.6	-23.0	-31.9	-41.9	-54.0	-66.7	-83.8	-109.9	-147.5	-206.9	-301.5	-451.5	-684.0	-1048.5	-1608.6	-2468.3	32.1	-0.2
5-E	53744	16381	30.6	21.0	18.9	19.3	16.6	16.5	21.0	11.7	9.8	8.2	6.2	-0.2	-5.8	-12.5	-21.7	-30.3	-40.1	-51.8	-64.2	-80.8	-106.1	-142.5	-200.0	-291.6	-436.9	-662.0	-1015.0	-1557.3	-2389.7	32.3	0.2
5-F	52065	15870	30.7	21.3	19.2	19.6	16.9	16.8	21.3	12.0	10.2	8.7	6.7	0.5	-4.9	-11.4	-20.4	-28.8	-38.4	-49.8	-61.8	-77.9	-102.5	-137.8	-193.5	-282.2	-423.1	-641.3	-983.5	-1509.1	-2315.7	32.4	0.7
5-G	50577	15416	30.8	21.5	19.5	19.9	17.1	17.1	21.6	12.3	10.5	9.1	7.2	1.1	-4.2	-10.5	-19.3	-27.5	-36.8	-48.0	-59.7	-75.4	-99.2	-133.5	-187.7	-273.9	-410.9	-622.9	-955.5	-1466.3	-2250.1	32.6	1.1
5-H	49215	15001	30.9	21.7	19.7	20.1	17.3	17.4	21.9	12.7	10.9	9.5	7.7	1.7	-3.5	-9.6	-18.3	-26.3	-35.4	-46.4	-57.8	-73.1	-96.3	-129.7	-182.4	-266.4	-399.7	-606.1	-929.9	-1427.2	-2190.1	32.8	1.5
5-I	48025	14638	31.1	22.0	19.9	20.3	17.6	17.6	22.1	12.9	11.2	9.9	8.1	2.2	-2.8	-8.8	-17.3	-25.2	-34.2	-45.0	-56.1	-71.0	-93.7	-126.3	-177.8	-259.7	-389.9	-591.4	-907.5	-1393.0	-2137.7	32.9	1.9
5-J	47092	14354	31.1	22.1	20.1	20.5	17.7	17.8	22.3	13.1	11.4	10.2	8.5	2.6	-2.3	-8.2	-16.6	-24.4	-33.2	-43.8	-54.8	-69.4	-91.7	-123.6	-174.1	-254.5	-382.2	-579.9	-890.0	-1366.2	-2096.6	33.1	2.2
6-D	56779	17306	30.3	20.5	18.5	18.9	16.1	16.0	20.4	11.0	9.1	7.4	5.2	-1.4	-7.3	-14.3	-23.9	-33.0	-43.2	-55.4	-68.5	-85.9	-112.6	-151.1	-211.8	-308.4	-461.8	-699.4	-1072.0	-1644.4	-2523.3	31.9	-0.6
6-E	55074	16786	30.5	20.8	18.7	19.1	16.4	16.3	20.7	11.4	9.5	7.9	5.7	-0.7	-6.4	-13.3	-22.7	-31.5	-41.5	-53.4	-66.1	-83.1	-108.9	-146.3	-205.2	-299.0	-447.8	-678.4	-1040.0	-1595.5	-2448.2	32.1	-0.1
6-G	52001	15850	30.7	21.3	19.2	19.6	16.9	16.9	21.3	12.0	10.2	8.7	6.8	0.6	-4.9	-11.4	-20.4	-28.8	-38.3	-49.8	-61.7	-77.8	-102.3	-137.6	-193.2	-281.9	-422.6	-640.5	-982.3	-1507.2	-2312.9	32.5	0.7
6-H	50721	15460	30.8	21.5	19.4	19.8	17.1	17.1	21.6	12.3	10.5	9.1	7.2	1.1	-4.2	-10.6	-19.4	-27.7	-37.0	-48.2	-59.9	-75.6	-99.6	-133.9	-188.3	-274.8	-412.1	-624.7	-958.2	-1470.4	-2256.5	32.6	1.1
6-I	49691	15146	30.9	21.7	19.6	20.0	17.3	17.3	21.8	12.5	10.8	9.4	7.6	1.5	-3.7	-9.9	-18.6	-26.7	-35.9	-47.0	-58.5	-73.9	-97.3	-131.0	-184.3	-269.0	-403.6	-612.0	-938.8	-1440.8	-2211.1	32.7	1.4
6-J	48834	14885	31.0	21.8	19.8	20.2	17.4	17.5	22.0	12.7	11.0	9.6	7.9	1.9	-3.3	-9.4	-18.0	-26.0	-35.0	-45.9	-57.3	-72.4	-95.5	-128.6	-180.9	-264.2	-396.5	-601.4	-922.7	-1416.2	-2173.3	32.8	1.6
7-B	61723	18813	30.0	19.8	17.7	18.1	15.4	15.2	19.5	10.1	8.0	6.1	3.6	-3.4	-9.7	-17.3	-27.5	-37.3	-48.2	-61.3	-75.3	-94.3	-123.1	-165.0	-230.9	-335.8	-502.3	-760.2	-1164.8	-1786.4	-2741.1	31.4	-1.8
7-C	59827	18235	30.1	20.0	18.0	18.4	15.6	15.5	19.8	10.4	8.4	6.6	4.2	-2.6	-8.8	-16.2	-26.2	-35.6	-46.3	-59.0	-72.7	-91.1	-119.1	-159.7	-223.6	-325.3	-486.8	-736.9	-1129.2	-1732.0	-2657.6	31.6	-1.3
7-E	56422	17197	30.4	20.6	18.5	18.9	16.2	16.1	20.5	11.1	9.1	7.5	5.3	-1.3	-7.1	-14.1	-23.7	-32.7	-42.8	-55.0	-68.0	-85.3	-111.8	-150.1	-210.4	-306.4	-458.9	-695.0	-1065.3	-1634.2	-2507.6	32.0	-0.5
7-F	54932	16743	30.5	20.8	18.7	19.1	16.4	16.3	20.7	11.4	9.5	7.9	5.8	-0.7	-6.4	-13.2	-22.6	-31.4	-41.3	-53.3	-65.9	-82.8	-108.6	-145.9	-204.6	-298.2	-446.6	-676.6	-1037.3	-1591.4	-2442.0	32.1	-0.1
7-G	53593	16335	30.6	21.0	19.0	19.4	16.6	16.6	21.0	11.7	9.8	8.3	6.2	-0.1	-5.7	-12.4	-21.6	-30.2	-39.9	-51.7	-64.0	-80.5	-105.7	-142.1	-199.4	-290.7	-435.6	-660.1	-1012.2	-1552.9	-2383.0	32.3	0.3
7-H	52407	15974	30.7	21.2	19.2	19.6	16.8	16.8	21.2	11.9	10.1	8.6	6.6	0.4	-5.1	-11.6	-20.7	-29.1	-38.7	-50.2	-62.3	-78.5	-103.2	-138.7	-194.8	-284.1	-425.9	-645.5	-989.9	-1518.9	-2330.7	32.4	0.6
7-I	51380	15661	30.8	21.4	19.3	19.7	17.0	17.0	21.4	12.2	10.3	8.9	7.0	0.8	-4.6	-11.0	-19.9	-28.2	-37.7	-49.0	-60.9	-76.8	-101.0	-135.8	-190.8	-278.4	-417.5	-632.8	-970.6	-1489.4	-2285.5	32.5	0.9
8-A	64870	19772	29.7	19.3	17.3	17.7	14.9	14.7	19.0	9.5	7.3	5.3	2.6	-4.6	-11.2	-19.2	-29.8	-40.0	-51.4	-64.9	-79.7	-99.6	-129.8	-173.8	-243.0	-353.2	-528.0	-798.9	-1223.8	-1876.7	-2879.6	31.1	-2.5
8-B	62935	19183	29.9	19.6	17.6	18.0	15.2	15.0	19.3	9.8	7.7	5.8	3.2	-3.8	-10.3	-18.1	-28.4	-38.3	-49.4	-62.7	-77.0	-96.3	-125.7	-168.4	-235.6	-342.5	-512.2	-775.1	-1187.5	-1821.1	-2794.4	31.3	-2.0

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Leq)
FROM WIND PARK OPERATIONS AT THE DESIGN WIND CONDITION

8-C	61110	18626	30.0	19.9	17.8	18.2	15.5	15.3	19.6	10.2	8.1	6.3	3.8	-3.1	-9.4	-17.0	-27.1	-36.7	-47.6	-60.5	-74.5	-93.2	-121.8	-163.3	-228.5	-332.4	-497.3	-752.7	-1153.3	-1768.8	-2714.1	31.5	-1.6
8-D	59392	18103	30.1	20.1	18.1	18.5	15.7	15.6	19.9	10.5	8.5	6.7	4.3	-2.4	-8.6	-15.9	-25.8	-35.3	-45.8	-58.5	-72.1	-90.4	-118.1	-158.4	-221.9	-322.9	-483.2	-731.5	-1121.1	-1719.5	-2638.4	31.7	-1.2
8-F	56402	17191	30.4	20.6	18.5	18.9	16.2	16.1	20.5	11.1	9.1	7.5	5.3	-1.2	-7.1	-14.1	-23.6	-32.7	-42.8	-55.0	-67.9	-85.3	-111.8	-150.0	-210.3	-306.3	-458.7	-694.7	-1064.9	-1633.6	-2506.8	32.0	-0.5
8-G	55203	16826	30.4	20.7	18.7	19.1	16.3	16.3	20.7	11.4	9.4	7.8	5.7	-0.8	-6.5	-13.4	-22.8	-31.6	-41.6	-53.6	-66.3	-83.3	-109.2	-146.6	-205.7	-299.7	-448.9	-680.0	-1042.4	-1599.2	-2453.9	32.1	-0.1
8-H	54055	16476	30.5	20.9	18.9	19.3	16.5	16.5	20.9	11.6	9.7	8.2	6.1	-0.3	-5.9	-12.6	-21.9	-30.6	-40.4	-52.2	-64.6	-81.3	-106.7	-143.4	-201.2	-293.3	-439.4	-665.8	-1020.9	-1566.2	-2403.4	32.2	0.2
9-A	66006	20119	29.7	19.2	17.1	17.5	14.8	14.5	18.8	9.3	7.0	5.0	2.3	-5.0	-11.8	-19.9	-30.6	-40.9	-52.5	-66.3	-81.2	-101.5	-132.2	-177.0	-247.4	-359.5	-537.3	-812.9	-1245.2	-1909.3	-2929.6	31.0	-2.7
9-B	64148	19552	29.8	19.4	17.4	17.8	15.0	14.8	19.1	9.6	7.4	5.5	2.8	-4.3	-10.9	-18.8	-29.3	-39.3	-50.6	-64.1	-78.7	-98.3	-128.2	-171.8	-240.2	-349.2	-522.1	-790.0	-1210.3	-1856.0	-2847.9	31.2	-2.3
9-C	62394	19018	29.9	19.7	17.6	18.0	15.3	15.1	19.4	9.9	7.8	5.9	3.4	-3.6	-10.1	-17.7	-28.0	-37.8	-48.9	-62.0	-76.3	-95.4	-124.5	-166.9	-233.5	-339.5	-507.8	-768.5	-1177.4	-1805.6	-2770.6	31.4	-1.9
9-D	60797	18531	30.0	19.9	17.9	18.3	15.5	15.3	19.7	10.2	8.2	6.3	3.9	-3.0	-9.3	-16.8	-26.9	-36.5	-47.3	-60.2	-74.0	-92.7	-121.1	-162.4	-227.3	-330.7	-494.7	-748.8	-1147.4	-1759.8	-2700.3	31.5	-1.5
9-E	59294	18073	30.1	20.1	18.1	18.5	15.7	15.6	19.9	10.5	8.5	6.7	4.4	-2.4	-8.5	-15.9	-25.8	-35.2	-45.7	-58.4	-72.0	-90.2	-117.9	-158.2	-221.5	-322.4	-482.4	-730.3	-1119.2	-1716.7	-2634.1	31.7	-1.2
9-F	57937	17659	30.2	20.3	18.3	18.7	15.9	15.8	20.2	10.8	8.8	7.1	4.8	-1.9	-7.9	-15.0	-24.8	-34.0	-44.4	-56.8	-70.1	-87.9	-115.0	-154.3	-216.3	-314.8	-471.3	-713.6	-1093.7	-1677.7	-2574.3	31.8	-0.9
9-G	56733	17292	30.3	20.5	18.5	18.9	16.1	16.0	20.4	11.0	9.1	7.4	5.2	-1.4	-7.3	-14.3	-23.9	-32.9	-43.1	-55.4	-68.4	-85.9	-112.5	-150.9	-211.6	-308.2	-461.4	-698.8	-1071.1	-1643.1	-2521.3	31.9	-0.5
9-H	55736	16988	30.4	20.7	18.6	19.0	16.3	16.2	20.6	11.2	9.3	7.7	5.5	-1.0	-6.8	-13.7	-23.2	-32.1	-42.1	-54.2	-67.0	-84.2	-110.3	-148.1	-207.7	-302.6	-453.2	-686.5	-1052.4	-1614.5	-2477.4	32.0	-0.3
9-I	54829	16712	30.5	20.8	18.8	19.2	16.4	16.3	20.8	11.4	9.5	7.9	5.8	-0.6	-6.3	-13.1	-22.5	-31.3	-41.2	-53.1	-65.7	-82.6	-108.4	-145.6	-204.2	-297.6	-445.8	-675.3	-1035.4	-1588.5	-2437.5	32.1	-0.1
10-A	67195	20481	29.6	19.0	17.0	17.4	14.6	14.3	18.6	9.1	6.8	4.7	1.9	-5.5	-12.4	-20.6	-31.5	-41.9	-53.7	-67.6	-82.9	-103.4	-134.7	-180.3	-252.0	-366.1	-547.1	-827.5	-1267.4	-1943.4	-2982.0	30.9	-3.0
10-B	65437	19945	29.7	19.3	17.2	17.6	14.9	14.6	18.9	9.4	7.2	5.2	2.5	-4.8	-11.5	-19.5	-30.2	-40.4	-51.9	-65.6	-80.5	-100.5	-131.0	-175.4	-245.2	-356.4	-532.7	-805.9	-1234.5	-1892.9	-2904.6	31.1	-2.6
10-C	63760	19434	29.8	19.5	17.4	17.8	15.1	14.8	19.2	9.7	7.5	5.6	3.0	-4.1	-10.7	-18.5	-29.0	-39.0	-50.2	-63.6	-78.1	-97.7	-127.4	-170.7	-238.7	-347.1	-519.0	-785.3	-1203.0	-1844.8	-2830.7	31.2	-2.2
10-D	62173	18950	29.9	19.7	17.7	18.1	15.3	15.1	19.4	10.0	7.9	6.0	3.5	-3.5	-9.9	-17.6	-27.9	-37.7	-48.7	-61.8	-76.0	-95.0	-124.1	-166.2	-232.6	-338.3	-506.0	-765.8	-1173.3	-1799.3	-2760.9	31.4	-1.9
10-E	60751	18517	30.0	19.9	17.9	18.3	15.5	15.3	19.7	10.2	8.2	6.4	3.9	-3.0	-9.3	-16.7	-26.8	-36.4	-47.2	-60.1	-74.0	-92.6	-121.0	-162.3	-227.1	-330.4	-494.3	-748.3	-1146.6	-1758.5	-2698.2	31.5	-1.5
10-F	59441	18118	30.1	20.1	18.1	18.5	15.7	15.5	19.9	10.5	8.5	6.7	4.3	-2.5	-8.6	-16.0	-25.9	-35.3	-45.9	-58.6	-72.2	-90.4	-118.2	-158.6	-222.1	-323.2	-483.6	-732.1	-1122.0	-1720.9	-2640.6	31.7	-1.2
10-G	58311	17773	30.2	20.3	18.2	18.6	15.9	15.7	20.1	10.7	8.7	7.0	4.7	-2.0	-8.1	-15.3	-25.1	-34.3	-44.8	-57.3	-70.6	-88.5	-115.8	-155.4	-217.7	-316.9	-474.3	-718.2	-1100.8	-1688.4	-2590.8	31.8	-0.9
10-H	57378	17489	30.3	20.4	18.4	18.8	16.0	15.9	20.3	10.9	8.9	7.2	5.0	-1.6	-7.6	-14.7	-24.4	-33.5	-43.8	-56.1	-69.3	-87.0	-113.8	-152.8	-214.1	-311.7	-466.7	-706.7	-1083.3	-1661.6	-2549.7	31.9	-0.7
10-I	114656	34947	27.3	14.4	12.3	12.7	10.0	8.7	12.4	2.1	-1.5	-5.4	-10.9	-21.9	-33.3	-47.1	-63.9	-80.7	-99.4	-121.2	-146.5	-181.1	-233.5	-311.5	-433.1	-626.8	-933.6	-1409.3	-2156.0	-3303.5	-5069.7	28.0	-10.7
11-A	68482	20873	29.5	18.9	16.8	17.2	14.5	14.1	18.4	8.8	6.5	4.4	1.5	-5.9	-13.0	-21.3	-32.4	-43.0	-55.0	-69.1	-84.6	-105.6	-137.4	-183.9	-256.9	-373.2	-557.6	-843.3	-1291.6	-1980.3	-3038.7	30.8	-3.3
11-B	66741	20343	29.6	19.1	17.1	17.5	14.7	14.4	18.7	9.1	6.9	4.8	2.1	-5.3	-12.1	-20.3	-31.2	-41.6	-53.2	-67.1	-82.2	-102.7	-133.7	-179.0	-250.2	-363.6	-543.3	-821.9	-1258.9	-1930.4	-2962.0	31.0	-2.9
11-C	65135	19853	29.7	19.3	17.3	17.7	14.9	14.6	18.9	9.4	7.2	5.2	2.5	-4.7	-11.4	-19.4	-30.0	-40.2	-51.6	-65.2	-80.0	-100.0	-130.3	-174.6	-244.0	-354.7	-530.2	-802.2	-1228.8	-1884.3	-2891.3	31.1	-2.5
11-D	63679	19409	29.8	19.5	17.5	17.9	15.1	14.9	19.2	9.7	7.5	5.6	3.0	-4.1	-10.7	-18.5	-29.0	-38.9	-50.2	-63.5	-78.0	-97.6	-127.2	-170.5	-238.4	-346.6	-518.3	-784.3	-1201.5	-1842.5	-2827.2	31.3	-2.2
11-E	62275	18982	29.9	19.7	17.7	18.1	15.3	15.1	19.4	10.0	7.8	6.0	3.4	-3.6	-10.0	-17.7	-27.9	-37.7	-48.8	-61.9	-76.1	-95.2	-124.3	-166.5	-233.0	-338.9	-506.8	-767.0	-1175.2	-1802.2	-2765.4	31.4	-1.9
11-F	61095	18622	30.0	19.9	17.8	18.2	15.5	15.3	19.6	10.2	8.1	6.3	3.8	-3.1	-9.4	-17.0	-27.1	-36.7	-47.6	-60.5	-74.5	-93.2	-121.8	-163.2	-228.5	-332.3	-497.1	-752.5	-1153.0	-1768.3	-2713.4	31.5	-1.6
11-G	60010	18291	30.1	20.0	18.0	18.4	15.6	15.4	19.8	10.4	8.3	6.6	4.1	-2.7	-8.9	-16.3	-26.3	-35.8	-46.5	-59.3	-73.0	-91.4	-119.5	-160.2	-224.3	-326.3	-488.3	-739.1	-1132.7	-1737.2	-2665.6	31.6	-1.4
11-H	59100	18014	30.2	20.2	18.1	18.5	15.8	15.6	20.0	10.6	8.5	6.8	4.4	-2.3	-8.4	-15.7	-25.6	-35.0	-45.6	-58.2	-71.7	-89.9	-117.5	-157.6	-220.8	-321.3	-480.8	-727.9	-1115.6	-1711.1	-2625.5	31.7	-1.1
11-K	57417	17501	30.3	20.4	18.4	18.8	16.0	15.9	20.3	10.9	8.9	7.2	5.0	-1.7	-7.6	-14.7	-24.4	-33.5	-43.8	-56.2	-69.3	-87.0	-113.9	-152.9	-214.3	-312.0	-467.0	-707.2	-1084.0	-1662.8	-2551.4	31.9	-0.7
11-L	57145	17418	30.3	20.4	18.4	18.8	16.0	15.9	20.3	11.0	9.0	7.3	5.1	-1.5	-7.5	-14.6	-24.2	-33.3	-43.6	-55.9	-69.0	-86.6	-113.3	-152.1	-213.2	-310.4	-464.8	-703.9	-1078.9	-1654.9	-2539.4	31.9	-0.7
12-A	69776	21268	29.4	18.7	16.7	17.1	14.3	13.9	18.2	8.6	6.3	4.1	1.1	-6.4	-13.6	-22.1	-33.3	-44.1	-56.2	-70.6	-86.4	-107.7	-140.1	-187.5	-261.9	-380.3	-568.2	-859.2	-1315.8	-2017.4	-3095.6	30.7	-3.5
12-B	68098	20756	29.5	18.9	16.9	17.3	14.5	14.2	18.4	8.9	6.6	4.5	1.6	-5.8	-12.8	-21.1	-32.1	-42.7	-54.6	-68.7	-84.1	-104.9	-136.6	-182.8	-255.5	-371.1	-554.4	-838.6	-1284.4	-1969.3	-3021.7	30.9	-3.2
12-C	66534	20280	29.6	19.1	17.1	17.5	14.7	14.4	18.7	9.2	6.9	4.9	2.1	-5.2	-12.0	-20.2	-31.0	-41.4	-53.0	-66.9	-82.0	-102.3	-133.3	-178.5	-249.4	-362.4	-541.7	-819.4	-1255.1	-1924.4	-2952.9	31.0	-2.9
12-D	65134	19853	29.7	19.3	17.3	17.7	14.9	14.6	18.9	9.4	7.2	5.2	2.5	-4.7	-11.4	-19.4	-30.0	-40.2	-51.6	-65.2	-80.0	-100.0	-130.3	-174.6	-244.0	-354.7	-530.2	-802.2	-1228.8	-1884.3	-2891.3	31.1	-2.5
12-E	63806	19448	29.8	19.5	17.4	17.8	15.1	14.8	19.1	9.7	7.5	5.6	3.0	-4.2	-10.7	-18.6	-29.0	-39.1	-50.3	-63.7	-78.2	-97.8	-127.5	-170.8	-238.9	-347.3	-519.3	-785.8	-1203.9	-1846.2	-2832.8	31.2	-2.2
12-F	62708	19113	29.9	19.6	17.6	18.0	15.2	15.0	19.3	9.9	7.7	5.9	3.3	-3.7	-10.2	-17.9	-28.3	-38.1	-49.2	-62.4	-76.7	-95.9	-125.2	-167.7	-234.7	-341.3	-510.3	-772.3	-1183.3	-1814.6	-2784.4	31.3	-2.0
12-G	61677	18799	30.0	19.8	17.7	18.1	15.4	15.2	19.5	10.1	8.0	6.1	3.6	-3.3	-9.7	-17.3	-27.5	-37.2	-48.2	-61.2	-75.3	-94.2	-123.0	-164.9	-230.7	-335.6	-501.9	-759.6	-1163.9	-1785.0	-2739.0	31.4	-1.8
12-H	60835	18543	30.0	19.9	17.9	18.3	15.5	15.3	19.7	10.2	8.2	6.3	3.9	-3.0	-9.3	-16.8	-26.9	-36.5	-47.3	-60.2	-74.1	-92.8	-121.2	-162.5	-227.5	-330.9	-495.0	-749.3	-1148.1	-1760.9	-2702.0	31.5	-1.6
12-I	60136	18330	30.1	20.0	18.0	18.4	15.6	15.4	19.8	10.4	8.3	6.5	4.1	-2.7	-9.0	-16.4	-26.4	-35.9	-46.6	-59.4	-73.1	-91.6	-119.7	-160.5	-224.8	-327.0	-489.3	-740.7	-1135.0	-1740.8	-2671.2	31.6	-1.4
12-J	59598	18166	30.1	20.1	18.0	18.4	15.7	15.5	19.9	10.5	8.4	6.7	4.3	-2.5	-8.7	-16.0	-26.0	-35.4	-46.1	-58.8	-72.4	-90.7	-118.6	-159.0	-222.7	-324.0	-484.9	-734.1	-1124.9	-1725.4	-2647.5	31.6	-1.3
12-K	59250	18059	30.1	20.1	18.1	18.5	15.7	15.6	19.9	10.5	8.5	6.8	4.4	-2.4	-8.5	-15.8	-25.7	-35.1	-45.7	-58.4	-71.9	-90.1	-117.8	-158.0	-221.3	-322.1	-482.0	-729.8	-1118.4	-1715.4	-2632.2	31.7	-1.2
12-L	59056	18000	30.2	20.2	18.1	18.5	15.8	15.6	20.0	10.6	8.5	6.8	4.4	-2.3	-8.4	-15.7	-25.6	-35.0	-45.5	-58.1	-71.6	-89.8	-117.4	-157.5	-220.6	-321.0	-480.4	-727.4	-1114.8	-1709.8	-2623.6	31.7	-1.1
13-A	71112	21675	29.3	18.5	16.5	16.9	14.1	13.7	18.0	8.4	6.0	3.8	0.8	-6.9	-14.2	-22.9	-34.3	-45.3	-57.6	-72.2	-88.2	-110.0	-143.0	-191.3	-267.0	-387.7	-579.1	-875.6	-1340.9	-2055.8	-3154.4	30.6	-3.8
13-B	69472	21175	29.4	18.8	16.7	17.1	14.4	14.0	18.2	8.7	6.3	4.2	1.2	-6.3	-13.4	-21.9	-33.1	-43.9	-55.9	-70.3	-86.0	-107.2	-139.5	-186.7	-260.7	-378.6	-565.7	-855.5	-1310.1	-2008.7	-3082.2	30.8	-3.5
13-C	67994	20725	29.5	18.9	16.9	17.3	14.5	14.2	18.5	8.9	6.6	4.5	1.7	-5.8	-12.7	-21.1	-32.1	-42.6	-54.5	-68.6	-84.0	-104.8	-136.4	-182.6	-255.1	-370.5	-553.6	-837.3	-1282.4	-1966.3	-3017.2	30.9	-3.2
13-D	66651	20315	29.6	19.1	17.1	17.5	14.7	14.4	18.7	9.2	6.9	4.9	2.1	-5.2	-12.1	-20.3	-31.1	-41.5	-53.1	-67.0	-82.1	-102.5	-133.5	-178.8	-249.9	-363.1	-542.6	-820.8	-1257.3	-1927.8	-2958.0	31.0	-2.9
13-F	64319	19604	29.8	19.4	17.4	17.8	15.0	14.8	19.1	9.6	7.4	5.5	2.8	-4.4	-11.0	-18.9	-29.4	-39.5	-50.8	-64.3	-78.9	-98.6	-128.6	-172.3	-240.9	-350.2	-523.5	-792.1	-1213.5	-1860.9	-2855.4	31.2	-2.4
13-G	63374	19316	29.8	19.5	17.5	17.9	15.1	14.9	19.2	9.8	7.6	5.7	3.1	-4.0	-10.5	-18.3	-28.7	-38.7	-49.9	-63.2	-77.6	-97.0	-126.6	-169.6	-237.3	-344.9	-515.8	-780.5	-1195.8	-1833.7	-2813.8	31.3	-2.1
13-H	62532	19060	29.9	19.7	17.6	18.0	15.3	15.0	19.4	9.9	7.8	5.9	3.3	-3.7	-10.1	-17.8	-28.1	-38.0	-49.0	-62.2	-76.4	-95.6	-124.8	-167.3	-234.0	-340.3	-508.9	-770.2	-1180.0	-1809.6	-2776.7	31.4	-2.0
13-I	61924	18875	29.9	19.8	17.7	18.1	15.4	15.1	19.5	10.0	7.9	6.1	3.5	-3.4	-9.8	-17.4	-27.7	-37.4	-48.4	-61.5	-75.6	-94.6	-123.5	-165.6	-231.7	-336.9	-503.9	-762.7	-1168.6	-1792.1	-2749.9	31.4	-1.8
13-J	61510	18748	30.0	19.8	17.8	18.2	15.4	15.2	19.5	10.1	8.0	6.2	3.7	-3.3	-9.6	-17.2	-27.4	-37.1	-48.0	-61.0	-75.0	-93.9	-122.6	-164.4	-230.1	-334.6	-500.5	-757.6	-1160.8	-1780.3	-2731.7	31.5	-1.7
13-K	61187	18650	30.0	19.9	17.8	18.2	15.5	15.3	19.6	10.2	8.1	6.2	3.8	-3.1	-9.5	-17.0	-27.2	-36.8	-47.7	-60.6	-74.6	-93.4	-122.0	-163.5	-228.8	-332.8	-497.9	-753.6	-1154.8	-1771.0	-2717.5	31.5	-1.6
13-L	61057	18610	30.0	19.9	17.8	18.2	15.5	15.3	19.6	10.2	8.1	6.3	3.8	-3.1	-9.4	-16.9	-27.1	-36.7	-47.5	-60.5	-74.4	-93.2	-121.7	-163.1	-228.3	-332.1	-496.8	-752.0	-1152.3	-1767.2	-2711.7	31.5	-1.6
14-D	68201	20788	29.5	18.9	16.9	17.3	14.5	14.2	18.4	8.9	6.6	4.5	1.6	-5.8	-12.8	-21.2	-32.2	-42.8	-54.7	-68.8	-84.3	-105.1	-136.8	-183.1	-255.8	-371.6	-555.3	-839.9	-1286.3	-1972.3	-3026.3	30.9	-3.2
14-E	67045	20435	29.6	19.1	17.0	17.4	14.7	14.3	18.6	9.1	6.8	4.8	2.0	-5.4	-12.3	-20.5	-31.4	-41.8	-53.5	-67.5	-82.7	-103.2	-134.4	-179.9	-251.4	-365.2	-545.8	-825.7	-1264.6	-1939.1	-2975.4	31.0	-3.0
14-F	65981	20111	29.7	19.2	17.1	17.5	14.8	14.5	18.8	9.3	7.1	5.0	2.3	-5.0	-11.8	-19.9	-30.6	-40.9	-52.5	-66.2	-81.2	-101.4	-132.1	-176.9	-247.3	-359.4	-537.1	-812.6	-1244.7	-1908.5	-2928.5	31.0	-2.7
14-G	65095	19841	29.7	19.3	17.3	17.7	14.9	14.6	18.9	9.4	7.2	5.3	2.6	-4.7	-11.4	-19.3	-30.0	-40.2	-51.6	-65.2	-80.0	-99.9	-130.2	-174.4	-243.9	-354.5	-529.9	-801.7	-1228.1	-1883.1	-2889.5	31.1	-2.5
14-H	64354	19615	29.8	19.4	17.4	17.8	15.0	14.8	19.1	9.6	7.4	5.4	2.8	-4.4	-11.0	-18.9	-29.4	-39.5	-50.8	-64.3	-79.0	-98.7	-128.7	-172.4	-241.0	-350.4	-523.8	-792.6	-1214.2	-1861.9	-2856.9	31.2	-2.4
14-J	63322	19301	29.9	19.6	17.5	17.9	15.2	14.9	19.2	9.8	7.6	5.7	3.1	-4.0	-10.5	-18.3	-28.7	-38.6	-49.8	-63.1	-77.5	-97.0	-126.5	-169.5	-237.1	-344.7	-515.4	-779.9	-1194.8	-1832.3	-2811.5	31.3	-2.1
14-K	63100	19233	29.9	19.6	17.5	17.9	15.2	14.9	19.3	9.8	7.7	5.8	3.2	-3.9	-10.4	-18.2	-28.5	-38.5	-49.6	-62.9	-77.2	-96.6	-126.0	-168.9	-236.2	-343.4	-513.6	-777.2	-1190.6	-1825.9	-2801.7	31.3	-2.1
14-L	63008	19205	29.9	19.6	17.5	17.9	15.2	15.0	19.3	9.8	7.7	5.8	3.2	-3.9	-10.4	-18.1	-28.5	-38.4	-49.5	-62.8	-77.1	-96.4	-125.8	-168.6	-235.8	-342.9	-512.8	-776.0	-1188.9	-1823.2	-2797.7	31.3	-2.1
15-F	67668	20625	29.6	19.0	16.9	17.3	14.6	14.2	18.5	9.0	6.7	4.6	1.8	-5.6	-12.6	-20.9	-31.8	-42.3	-54.1	-68.2	-83.5	-104.2	-135.7	-181.6	-253.8	-368.7	-550.9	-833.3	-1276.3	-1956.9	-3002.8	30.9	-3.1
15-G	66824	20368	29.6	19.1	17.0	17.4	14.7	14.4	18.7	9.1	6.9	4.8	2.0	-5.3	-12.2	-20.4	-31.2	-41.6	-53.3	-67.2	-82.4	-102.8	-133.9	-179.3	-250.5	-364.0	-544.0	-822.9	-1260.5	-1932.7	-2965.6	31.0	-2.9
15-H	66179	20171	29.7	19.2	17.1	17.5	14.8	14.5	18.8	9.2	7.0	5.0	2.2	-5.1	-11.9	-20.0	-30.8	-41.1	-52.7	-66.5	-81.5	-101.7	-132.5	-177.5	-248.1	-360.5	-538.7	-815.0	-1248.4	-1914.2	-2937.2	31.0	-2.8
15-I	65639	20007	29.7	19.2	17.2	17.6	14.8	14.6	18.8	9.3	7.1	5.1	2.4	-4.9	-11.6	-19.7	-30.4	-40.6	-52.1	-65.8	-80.7	-100.8	-131.4	-176.0	-246.0	-357.5	-534.3	-808.4	-1238.3	-1898.7	-2913.5	31.1	-2.7
15-J	65239	19885	29.7	19.3	17.2	17.6	14.9	14.6	18.9	9.4	7.2	5.2	2.5	-4.7	-11.4	-19.4	-30.1	-40.3	-51.7	-65.4	-80.2	-100.2	-130.6	-174.8	-244.4	-355.3	-531.1	-803.5	-1230.8	-1887.3	-2895.9	31.1	-2.6
15-K	65018	19818	29.7	19.3	17.3	17.7	14.9	14.6	18.9	9.4	7.3	5.3	2.6	-4.6	-11.3	-19.3	-29.9	-40.1	-51.5	-65.1	-79.9	-99.8	-130.1	-174.2	-243.6	-354.0	-529.3	-800.7	-1226.6	-1880.9	-2886.2	31.1	-2.5
16-J	67129	20461	29.6	19.0	17.0	17.4	14.6	14.3	18.6	9.1	6.8	4.8	1.9	-5.4	-12.3	-20.5	-31.4	-41.9	-53.6	-67.6	-82.8	-103.3	-134.6	-180.1	-251.7	-365.7	-546.5	-826.7	-1266.2	-1941.5	-2979.1	30.9	-3.0
16-K	66946	20405	29.6	19.1	17.0	17.4	14.7	14.4	18.6	9.1	6.9	4.8	2.0	-5.4	-12.2	-20.4	-31.3	-41.7	-53.4	-67.3	-82.5	-103.0	-134.2	-179.6	-251.0	-364.7	-545.0	-824.4	-1262.8	-1936.2	-2971.0	31.0	-2.9
		Sum:	51.6	42.0	39.9	40.3	37.6	37.5	41.9	32.7	30.8	29.3	27.4	21.3	16.1	10.2	1.9	-5.6	-14.0	-24.1	-34.1	-47.2	-66.8	-94.2	-137.0	-204.2	-310.0	-472.9	-727.6	-1118.2	-1716.4	53.2	21.4

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Leq)
FROM WIND PARK OPERATIONS AT THE DESIGN WIND CONDITION

1/3 Octave Bands (Hertz)	16*	20	25	31	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	L	A
Sound Power Data - Design Speed	113.7	113.3	111.2	111.6	108.9	109.9	115.0	106.6	106.2	106.8	107.7	105.5	105.0	104.6	102.1	100.6	98.7	95.8	94.9	94.2	92.9	93.1	92.1	90.7	87.9	83.9	78.2	69.9	61.5	121.9	107.4

Data for the graph Atmos. Absorption per 1 km air temp 59F 70% RH	16*	20	25	31	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
Atmos. Absorption per 1 km	0.0000	0.0000	0.0000	0.0000	0.0000	0.0670	0.1050	0.1630	0.2510	0.3810	0.5650	0.8150	1.1300	1.5100	1.9200	2.3600	2.8400	3.3800	4.0800	5.0500	6.5100	8.7500	12.2000	17.7000	26.4000	39.9000	61.1000	93.7000	144.0000

*Spherical wave spreading for up to 2 km, cylindrical wave spreading beyond 2 km.

	1/3 Octave Bands (Hertz) Distance (ft)	**Distance (m)**	16*	20	25	31	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	L	A
1-D	39392	12007	31.9	23.7	21.6	22.0	19.3	19.5	24.1	15.1	13.6	12.6	11.3	6.1	1.9	-3.2	-10.6	-17.3	-25.0	-34.4	-43.7	-56.0	-74.9	-101.5	-144.0	-211.4	-318.7	-484.7	-745.0	-1144.7	-1757.0	34.2	4.8
1-E	37695	11490	32.1	24.1	22.0	22.4	19.7	19.9	24.6	15.5	14.1	13.2	12.0	6.9	2.8	-2.0	-9.2	-15.7	-23.1	-32.2	-41.2	-53.0	-71.1	-96.6	-137.3	-201.9	-304.7	-463.7	-713.0	-1095.9	-1682.2	34.5	5.4
1-F	36186	11030	32.3	24.4	22.4	22.8	20.0	20.3	25.0	16.0	14.5	13.7	12.6	7.6	3.7	-0.9	-8.0	-14.3	-21.5	-30.3	-38.9	-50.3	-67.8	-92.2	-131.3	-193.4	-292.2	-445.0	-684.6	-1052.4	-1615.6	34.7	6.0
1-G	34915	10642	32.4	24.7	22.7	23.1	20.3	20.7	25.3	16.3	15.0	14.2	13.2	8.3	4.5	0.0	-6.9	-13.0	-20.0	-28.7	-37.0	-48.1	-65.0	-88.5	-126.3	-186.2	-281.6	-429.2	-660.6	-1015.8	-1559.5	35.0	6.5
1-H	33886	10328	32.6	25.0	22.9	23.3	20.6	20.9	25.6	16.7	15.3	14.6	13.6	8.8	5.1	0.7	-6.0	-12.0	-18.9	-27.4	-35.5	-46.2	-62.7	-85.5	-122.2	-180.4	-273.1	-416.5	-641.2	-986.1	-1514.1	35.2	6.9
1-I	33152	10105	32.7	25.2	23.1	23.5	20.8	21.2	25.8	16.9	15.5	14.8	13.9	9.1	5.5	1.2	-5.4	-11.3	-18.1	-26.4	-34.4	-44.9	-61.0	-83.4	-119.2	-176.3	-267.0	-407.3	-627.3	-965.0	-1481.6	35.3	7.3
1-J	32735	9978	32.7	25.3	23.2	23.6	20.9	21.3	25.9	17.0	15.7	15.0	14.1	9.4	5.8	1.5	-5.1	-10.9	-17.6	-25.9	-33.8	-44.2	-60.1	-82.2	-117.6	-173.9	-263.5	-402.2	-619.5	-953.0	-1463.3	35.4	7.4
1-K	32560	9924	32.7	25.3	23.3	23.7	20.9	21.3	26.0	17.1	15.7	15.1	14.2	9.4	5.9	1.6	-4.9	-10.7	-17.4	-25.7	-33.5	-43.8	-59.7	-81.7	-116.9	-172.9	-262.1	-400.0	-616.1	-947.9	-1455.5	35.4	7.5
1-L	32797	9997	32.7	25.3	23.2	23.6	20.9	21.3	25.9	17.0	15.7	15.0	14.1	9.3	5.7	1.5	-5.1	-11.0	-17.7	-26.0	-33.9	-44.3	-60.2	-82.3	-117.8	-174.3	-264.0	-402.9	-620.6	-954.8	-1466.0	35.4	7.4
2-D	40761	12424	31.8	23.4	21.3	21.7	19.0	19.2	23.8	14.7	13.2	12.1	10.8	5.5	1.1	-4.1	-11.7	-18.6	-26.5	-36.1	-45.7	-58.4	-77.9	-105.5	-149.3	-219.1	-330.0	-501.7	-770.8	-1184.1	-1817.4	34.0	4.3
2-E	39132	11927	31.9	23.7	21.7	22.1	19.3	19.6	24.2	15.1	13.6	12.7	11.4	6.2	2.0	-3.0	-10.4	-17.1	-24.7	-34.0	-43.3	-55.5	-74.3	-100.8	-142.9	-210.0	-316.5	-481.5	-740.1	-1137.2	-1745.6	34.2	4.8
2-F	37734	11501	32.1	24.1	22.0	22.4	19.7	19.9	24.5	15.5	14.1	13.2	12.0	6.9	2.8	-2.0	-9.2	-15.7	-23.2	-32.3	-41.2	-53.1	-71.2	-96.7	-137.4	-202.1	-305.0	-464.2	-713.8	-1097.0	-1683.9	34.5	5.4
2-G	36572	11147	32.2	24.3	22.3	22.7	19.9	20.2	24.9	15.9	14.4	13.6	12.5	7.4	3.5	-1.2	-8.3	-14.6	-21.9	-30.8	-39.5	-51.0	-68.6	-93.4	-132.8	-195.6	-295.4	-449.8	-691.9	-1063.5	-1632.6	34.7	5.8
2-H	35656	10868	32.3	24.5	22.5	22.9	20.1	20.5	25.1	16.1	14.7	13.9	12.9	7.9	4.0	-0.6	-7.5	-13.8	-20.9	-29.6	-38.1	-49.4	-66.6	-90.7	-129.2	-190.4	-287.8	-438.4	-674.6	-1037.1	-1592.2	34.8	6.2
2-I	34970	10659	32.4	24.7	22.7	23.1	20.3	20.6	25.3	16.3	14.9	14.2	13.1	8.2	4.4	-0.1	-7.0	-13.1	-20.1	-28.8	-37.1	-48.2	-65.1	-88.7	-126.5	-186.5	-282.1	-429.9	-661.6	-1017.4	-1561.9	35.0	6.5
2-J	34620	10552	32.5	24.8	22.8	23.2	20.4	20.7	25.4	16.4	15.1	14.3	13.3	8.4	4.6	0.2	-6.7	-12.8	-19.7	-28.3	-36.6	-47.5	-64.3	-87.7	-125.1	-184.6	-279.2	-425.6	-655.0	-1007.3	-1546.4	35.0	6.6
2-K	34580	10540	32.5	24.8	22.8	23.2	20.4	20.8	25.4	16.4	15.1	14.3	13.3	8.4	4.7	0.2	-6.6	-12.7	-19.7	-28.3	-36.5	-47.5	-64.2	-87.6	-124.9	-184.3	-278.8	-425.1	-654.3	-1006.1	-1544.7	35.0	6.6
2-L	34778	10600	32.5	24.8	22.7	23.1	20.4	20.7	25.3	16.4	15.0	14.2	13.2	8.3	4.5	0.1	-6.8	-12.9	-19.9	-28.5	-36.8	-47.8	-64.6	-88.1	-125.7	-185.5	-280.5	-427.5	-658.0	-1011.9	-1553.5	35.0	6.6
3-D	42131	12841	31.6	23.1	21.0	21.4	18.7	18.9	23.4	14.4	12.8	11.7	10.3	4.8	0.3	-5.0	-12.8	-19.9	-27.9	-37.8	-47.6	-60.8	-80.9	-109.4	-154.7	-226.8	-341.3	-518.6	-796.6	-1223.5	-1877.8	33.8	3.8
3-E	40601	12375	31.8	23.4	21.4	21.8	19.0	19.2	23.8	14.8	13.2	12.2	10.9	5.5	1.2	-4.0	-11.5	-18.4	-26.3	-35.9	-45.4	-58.1	-77.5	-105.0	-148.7	-218.2	-328.7	-499.7	-767.8	-1179.5	-1810.4	34.0	4.3
3-F	39296	11978	31.9	23.7	21.7	22.1	19.3	19.5	24.1	15.1	13.6	12.6	11.4	6.1	1.9	-3.1	-10.5	-17.2	-24.9	-34.2	-43.5	-55.8	-74.7	-101.3	-143.6	-210.9	-317.9	-483.6	-743.2	-1141.9	-1752.8	34.2	4.8
3-G	38245	11657	32.0	23.9	21.9	22.3	19.5	19.8	24.4	15.4	13.9	13.0	11.8	6.6	2.5	-2.4	-9.6	-16.2	-23.7	-32.9	-42.0	-54.0	-72.4	-98.2	-139.4	-205.0	-309.2	-470.5	-723.4	-1111.7	-1706.5	34.4	5.2
3-I	36870	11238	32.2	24.3	22.2	22.6	19.9	20.2	24.8	15.8	14.3	13.5	12.4	7.3	3.3	-1.4	-8.5	-14.9	-22.2	-31.2	-39.9	-51.5	-69.3	-94.2	-134.0	-197.3	-297.8	-453.5	-697.5	-1072.1	-1645.7	34.6	5.7
3-J	36551	11141	32.2	24.3	22.3	22.7	19.9	20.2	24.9	15.9	14.4	13.6	12.5	7.5	3.5	-1.2	-8.3	-14.6	-21.9	-30.8	-39.5	-51.0	-68.6	-93.3	-132.7	-195.5	-295.2	-449.5	-691.5	-1062.9	-1631.7	34.7	5.8
3-K	36544	11139	32.2	24.3	22.3	22.7	19.9	20.2	24.9	15.9	14.4	13.6	12.5	7.5	3.5	-1.2	-8.3	-14.6	-21.9	-30.8	-39.5	-51.0	-68.6	-93.3	-132.7	-195.4	-295.1	-449.4	-691.3	-1062.7	-1631.4	34.7	5.8
3-L	36822	11223	32.2	24.3	22.2	22.6	19.9	20.2	24.8	15.8	14.3	13.5	12.4	7.3	3.3	-1.4	-8.5	-14.9	-22.2	-31.1	-39.9	-51.5	-69.2	-94.1	-133.8	-197.0	-297.4	-452.9	-696.6	-1070.7	-1643.6	34.6	5.7
4-D	43541	13271	31.5	22.8	20.8	21.2	18.4	18.6	23.1	14.0	12.4	11.3	9.8	4.2	-0.4	-5.9	-13.9	-21.2	-29.4	-39.5	-49.7	-63.3	-84.0	-113.5	-160.3	-234.7	-353.0	-536.1	-823.2	-1264.1	-1940.0	33.5	3.3
4-E	42079	12826	31.6	23.1	21.1	21.5	18.7	18.9	23.5	14.4	12.8	11.7	10.3	4.9	0.4	-5.0	-12.7	-19.8	-27.9	-37.7	-47.6	-60.7	-80.8	-109.3	-154.5	-226.5	-340.9	-518.0	-795.6	-1222.0	-1875.5	33.8	3.8
4-F	40911	12470	31.7	23.4	21.3	21.7	19.0	19.2	23.7	14.7	13.1	12.1	10.8	5.4	1.0	-4.2	-11.8	-18.7	-26.6	-36.2	-45.9	-58.7	-78.2	-105.9	-149.9	-220.0	-331.3	-503.5	-773.7	-1188.4	-1824.0	33.9	4.2
4-G	39917	12167	31.9	23.6	21.5	21.9	19.2	19.4	24.0	14.9	13.4	12.4	11.1	5.8	1.6	-3.5	-11.0	-17.8	-25.5	-35.0	-44.4	-56.9	-76.0	-103.0	-146.0	-214.4	-323.0	-491.2	-754.9	-1159.8	-1780.2	34.1	4.6
4-H	39189	11945	31.9	23.7	21.7	22.1	19.3	19.6	24.2	15.1	13.6	12.7	11.4	6.2	2.0	-3.0	-10.4	-17.1	-24.7	-34.1	-43.4	-55.6	-74.4	-100.9	-143.2	-210.3	-317.0	-482.2	-741.2	-1138.9	-1748.1	34.2	4.8
4-I	38714	11800	32.0	23.8	21.8	22.2	19.4	19.7	24.3	15.3	13.8	12.8	11.6	6.4	2.2	-2.7	-10.0	-16.7	-24.2	-33.5	-42.7	-54.8	-73.4	-99.6	-141.3	-207.6	-313.1	-476.3	-732.2	-1125.2	-1727.1	34.3	5.0
4-J	38504	11736	32.0	23.9	21.8	22.2	19.5	19.7	24.3	15.3	13.8	12.9	11.7	6.5	2.4	-2.5	-9.9	-16.5	-24.0	-33.2	-42.4	-54.4	-72.9	-99.0	-140.5	-206.4	-311.4	-473.7	-728.3	-1119.1	-1717.8	34.3	5.1
4-K	38566	11755	32.0	23.9	21.8	22.2	19.5	19.7	24.3	15.3	13.8	12.9	11.7	6.5	2.3	-2.6	-9.9	-16.5	-24.1	-33.3	-42.4	-54.5	-73.1	-99.1	-140.7	-206.8	-311.9	-474.5	-729.5	-1120.9	-1720.6	34.3	5.1
4-L	38882	11851	32.0	23.8	21.7	22.1	19.4	19.6	24.2	15.2	13.7	12.8	11.5	6.3	2.2	-2.8	-10.2	-16.8	-24.4	-33.7	-42.9	-55.1	-73.8	-100.1	-141.9	-208.6	-314.5	-478.4	-735.4	-1130.0	-1734.5	34.3	4.9
5-D	44998	13715	31.3	22.5	20.5	20.9	18.1	18.3	22.8	13.6	12.0	10.8	9.2	3.5	-1.2	-6.9	-15.0	-22.5	-31.0	-41.3	-51.8	-65.8	-87.2	-117.6	-166.0	-242.8	-365.0	-554.1	-850.6	-1306.0	-2004.2	33.3	2.8
5-E	43691	13317	31.5	22.8	20.7	21.1	18.4	18.5	23.1	14.0	12.3	11.2	9.7	4.1	-0.5	-6.0	-14.0	-21.3	-29.6	-39.7	-49.9	-63.5	-84.3	-113.9	-160.8	-235.5	-354.2	-537.9	-826.0	-1268.4	-1946.6	33.5	3.2
5-F	42570	12975	31.6	23.0	21.0	21.4	18.6	18.8	23.3	14.2	12.6	11.6	10.1	4.6	0.1	-5.3	-13.1	-20.3	-28.4	-38.3	-48.3	-61.6	-81.9	-110.7	-156.4	-229.3	-344.9	-524.1	-804.9	-1236.1	-1897.2	33.7	3.6
5-G	41691	12707	31.7	23.2	21.1	21.5	18.8	19.0	23.6	14.5	12.9	11.8	10.5	5.0	0.6	-4.7	-12.4	-19.5	-27.5	-37.2	-47.0	-60.0	-79.9	-108.2	-153.0	-224.3	-337.7	-513.2	-788.3	-1210.9	-1858.4	33.8	3.9
5-H	41019	12503	31.7	23.3	21.3	21.7	18.9	19.1	23.7	14.6	13.1	12.1	10.7	5.3	1.0	-4.3	-11.9	-18.8	-26.7	-36.4	-46.0	-58.9	-78.5	-106.2	-150.4	-220.6	-332.1	-504.9	-775.7	-1191.5	-1828.8	33.9	4.2
5-I	40577	12368	31.8	23.4	21.4	21.8	19.0	19.2	23.8	14.8	13.2	12.2	10.9	5.5	1.2	-4.0	-11.5	-18.4	-26.3	-35.8	-45.4	-58.1	-77.5	-104.9	-148.6	-218.1	-328.5	-499.4	-767.4	-1178.8	-1809.3	34.0	4.3
5-J	40464	12334	31.8	23.4	21.4	21.8	19.0	19.3	23.9	14.8	13.3	12.2	10.9	5.6	1.3	-3.9	-11.4	-18.3	-26.1	-35.7	-45.2	-57.9	-77.2	-104.6	-148.2	-217.5	-327.6	-498.0	-765.2	-1175.6	-1804.3	34.0	4.4
6-D	46503	14174	31.2	22.2	20.2	20.6	17.8	17.9	22.4	13.3	11.6	10.3	8.7	2.9	-2.0	-7.9	-16.2	-23.9	-32.6	-43.1	-53.9	-68.4	-90.4	-121.9	-171.8	-251.2	-377.4	-572.7	-878.9	-1349.2	-2070.6	33.1	2.3
6-E	45288	13804	31.3	22.5	20.4	20.8	18.1	18.2	22.7	13.6	11.9	10.7	9.1	3.4	-1.4	-7.1	-15.2	-22.8	-31.3	-41.6	-52.2	-66.3	-87.8	-118.5	-167.1	-244.5	-367.3	-557.6	-856.0	-1314.3	-2017.0	33.3	2.7
6-G	43388	13225	31.5	22.8	20.8	21.2	18.4	18.6	23.2	14.0	12.4	11.3	9.8	4.3	-0.4	-5.8	-13.8	-21.0	-29.3	-39.3	-49.5	-63.0	-83.7	-113.0	-159.7	-233.8	-351.7	-534.2	-820.3	-1259.7	-1933.3	33.6	3.3
6-H	42794	13044	31.6	23.0	20.9	21.3	18.6	18.7	23.3	14.2	12.6	11.5	10.0	4.5	0.0	-5.4	-13.3	-20.5	-28.6	-38.6	-48.6	-62.0	-82.4	-111.3	-157.3	-230.5	-346.8	-526.8	-809.1	-1242.6	-1907.1	33.7	3.5
6-I	42494	12952	31.6	23.0	21.0	21.4	18.6	18.8	23.4	14.3	12.7	11.6	10.2	4.7	0.1	-5.2	-13.0	-20.2	-28.3	-38.2	-48.2	-61.4	-81.7	-110.5	-156.1	-228.8	-344.3	-523.1	-803.5	-1234.0	-1893.8	33.7	3.7
6-J	42437	12935	31.6	23.0	21.0	21.4	18.6	18.8	23.4	14.3	12.7	11.6	10.2	4.7	0.2	-5.2	-13.0	-20.1	-28.3	-38.1	-48.1	-61.3	-81.6	-110.3	-155.9	-228.5	-343.8	-522.4	-802.4	-1232.3	-1891.3	33.7	3.7
7-B	50844	15497	30.8	21.5	19.4	19.8	17.1	17.1	21.5	12.3	10.5	9.1	7.2	1.0	-4.3	-10.6	-19.5	-27.8	-37.1	-48.4	-60.1	-75.8	-99.8	-134.3	-188.8	-275.4	-413.1	-626.2	-960.5	-1474.0	-2261.9	32.6	1.0
7-C	49342	15040	30.9	21.7	19.7	20.1	17.3	17.4	21.8	12.6	10.8	9.5	7.7	1.7	-3.5	-9.7	-18.4	-26.4	-35.5	-46.6	-58.0	-73.3	-96.6	-130.0	-182.9	-267.1	-400.7	-607.7	-932.3	-1430.8	-2195.7	32.8	1.5
7-E	46890	14292	31.2	22.2	20.1	20.5	17.8	17.9	22.4	13.2	11.5	10.2	8.5	2.7	-2.2	-8.1	-16.5	-24.2	-33.0	-43.6	-54.5	-69.1	-91.3	-123.0	-173.3	-253.4	-380.5	-577.4	-886.2	-1360.4	-2087.7	33.1	2.2
7-F	45956	14007	31.2	22.3	20.3	20.7	17.9	18.1	22.6	13.4	11.7	10.5	8.9	3.1	-1.7	-7.5	-15.8	-23.4	-32.0	-42.5	-53.2	-67.4	-89.2	-120.4	-169.7	-248.2	-372.9	-565.9	-868.6	-1333.5	-2046.5	33.2	2.5
7-G	45230	13786	31.3	22.5	20.4	20.8	18.1	18.2	22.7	13.6	11.9	10.7	9.1	3.4	-1.3	-7.0	-15.2	-22.7	-31.2	-41.6	-52.1	-66.2	-87.7	-118.3	-166.9	-244.1	-366.9	-556.9	-855.0	-1312.6	-2014.5	33.3	2.7
7-H	44722	13631	31.4	22.6	20.5	20.9	18.2	18.3	22.8	13.7	12.1	10.9	9.3	3.7	-1.1	-6.7	-14.8	-22.2	-30.7	-40.9	-51.4	-65.3	-86.6	-116.8	-164.9	-241.3	-362.7	-550.7	-845.4	-1298.0	-1992.1	33.4	2.9
7-I	44427	13541	31.4	22.6	20.6	21.0	18.2	18.4	22.9	13.8	12.1	11.0	9.4	3.8	-0.9	-6.5	-14.6	-22.0	-30.4	-40.6	-51.0	-64.8	-85.9	-116.0	-163.7	-239.6	-360.3	-547.0	-839.8	-1289.6	-1979.1	33.4	3.0
8-A	53850	16414	30.6	21.0	18.9	19.3	16.6	16.5	20.9	11.6	9.7	8.2	6.1	-0.2	-5.8	-12.5	-21.7	-30.4	-40.2	-52.0	-64.4	-81.0	-106.3	-142.8	-200.4	-292.2	-437.8	-663.3	-1017.0	-1560.3	-2394.3	32.2	0.2
8-B	52274	15933	30.7	21.2	19.2	19.6	16.8	16.8	21.2	12.0	10.1	8.7	6.7	0.4	-5.0	-11.5	-20.6	-29.0	-38.6	-50.1	-62.1	-78.3	-102.9	-138.3	-194.3	-283.4	-424.8	-643.9	-987.4	-1515.1	-2324.9	32.4	0.6

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Leq)
FROM WIND PARK OPERATIONS AT THE DESIGN WIND CONDITION

8-C	50856	15501	30.8	21.5	19.4	19.8	17.1	17.1	21.5	12.3	10.5	9.1	7.2	1.0	-4.3	-10.6	-19.5	-27.8	-37.1	-48.4	-60.1	-75.9	-99.8	-134.3	-188.8	-275.5	-413.2	-626.4	-960.7	-1474.3	-2262.4	32.6	1.0
8-D	49600	15118	30.9	21.7	19.6	20.0	17.3	17.3	21.8	12.6	10.8	9.4	7.6	1.6	-3.7	-9.9	-18.5	-26.7	-35.8	-46.9	-58.4	-73.7	-97.1	-130.8	-183.9	-268.5	-402.8	-610.9	-937.1	-1438.2	-2207.1	32.7	1.4
8-F	47671	14530	31.1	22.0	20.0	20.4	17.6	17.7	22.2	13.0	11.3	10.0	8.3	2.4	-2.6	-8.6	-17.1	-24.9	-33.8	-44.5	-55.6	-70.4	-93.0	-125.3	-176.4	-257.8	-387.0	-587.1	-900.9	-1382.8	-2122.1	33.0	2.0
8-G	47090	14353	31.1	22.1	20.1	20.5	17.7	17.8	22.3	13.1	11.4	10.2	8.5	2.6	-2.3	-8.2	-16.6	-24.4	-33.2	-43.8	-54.8	-69.4	-91.7	-123.6	-174.1	-254.5	-382.2	-579.9	-889.9	-1366.1	-2096.4	33.1	2.2
8-H	46610	14207	31.2	22.2	20.2	20.6	17.8	17.9	22.4	13.3	11.6	10.3	8.6	2.8	-2.1	-7.9	-16.3	-24.0	-32.7	-43.3	-54.1	-68.6	-90.7	-122.2	-172.3	-251.8	-378.2	-574.0	-880.9	-1352.3	-2075.3	33.1	2.3
9-A	55194	16823	30.4	20.8	18.7	19.1	16.4	16.3	20.7	11.4	9.4	7.8	5.7	-0.8	-6.5	-13.4	-22.8	-31.6	-41.6	-53.6	-66.2	-83.3	-109.2	-146.6	-205.6	-299.6	-448.8	-679.8	-1042.2	-1598.9	-2453.5	32.1	-0.1
9-B	53704	16369	30.6	21.0	18.9	19.3	16.6	16.5	21.0	11.7	9.8	8.3	6.2	-0.2	-5.8	-12.4	-21.6	-30.3	-40.1	-51.8	-64.1	-80.7	-106.0	-142.4	-199.9	-291.3	-436.6	-661.5	-1014.3	-1556.1	-2387.9	32.3	0.2
9-C	52366	15961	30.7	21.2	19.2	19.6	16.8	16.8	21.2	12.0	10.1	8.6	6.6	0.4	-5.1	-11.6	-20.6	-29.1	-38.7	-50.2	-62.3	-78.4	-103.1	-138.6	-194.7	-283.9	-425.6	-645.0	-989.1	-1517.7	-2329.0	32.4	0.6
9-D	51236	15617	30.8	21.4	19.3	19.7	17.0	17.0	21.5	12.2	10.4	8.9	7.0	0.9	-4.5	-10.9	-19.8	-28.1	-37.5	-48.8	-60.7	-76.5	-100.7	-135.4	-190.3	-277.6	-416.3	-631.1	-967.9	-1485.2	-2279.1	32.5	0.9
9-E	50240	15313	30.9	21.6	19.5	19.9	17.2	17.2	21.7	12.4	10.6	9.2	7.4	1.3	-4.0	-10.3	-19.0	-27.2	-36.5	-47.6	-59.3	-74.8	-98.5	-132.6	-186.4	-272.1	-408.1	-618.8	-949.2	-1456.6	-2235.3	32.7	1.2
9-F	49447	15071	30.9	21.7	19.7	20.1	17.3	17.3	21.8	12.6	10.8	9.5	7.6	1.6	-3.6	-9.8	-18.4	-26.5	-35.6	-46.7	-58.1	-73.5	-96.8	-130.3	-183.3	-267.7	-401.6	-609.0	-934.3	-1433.8	-2200.3	32.8	1.4
9-G	48857	14891	31.0	21.8	19.8	20.2	17.4	17.5	21.9	12.7	11.0	9.6	7.8	1.9	-3.3	-9.4	-18.0	-26.0	-35.0	-46.0	-57.3	-72.4	-95.5	-128.6	-181.0	-264.4	-396.7	-601.7	-923.2	-1416.9	-2174.3	32.8	1.6
9-H	48514	14787	31.0	21.9	19.8	20.2	17.5	17.5	22.0	12.8	11.1	9.7	8.0	2.0	-3.1	-9.2	-17.7	-25.7	-34.7	-45.6	-56.8	-71.9	-94.8	-127.7	-179.7	-262.5	-393.9	-597.5	-916.7	-1407.0	-2159.2	32.9	1.7
9-I	48309	14725	31.0	21.9	19.9	20.3	17.5	17.6	22.1	12.9	11.1	9.8	8.0	2.1	-3.0	-9.0	-17.6	-25.5	-34.5	-45.3	-56.5	-71.5	-94.4	-127.1	-178.9	-261.3	-392.2	-595.0	-912.9	-1401.1	-2150.2	32.9	1.8
10-A	56587	17248	30.3	20.5	18.5	18.9	16.1	16.0	20.4	11.1	9.1	7.5	5.2	-1.3	-7.2	-14.2	-23.8	-32.8	-43.0	-55.2	-68.2	-85.6	-112.1	-150.5	-211.0	-307.3	-460.2	-697.0	-1068.4	-1638.9	-2514.9	31.9	-0.5
10-B	55209	16828	30.4	20.7	18.7	19.1	16.3	16.3	20.7	11.4	9.4	7.8	5.7	-0.8	-6.5	-13.4	-22.8	-31.6	-41.6	-53.6	-66.3	-83.3	-109.2	-146.6	-205.7	-299.7	-448.9	-680.0	-1042.5	-1599.4	-2454.2	32.1	-0.2
10-C	53953	16445	30.5	20.9	18.9	19.3	16.5	16.5	20.9	11.6	9.7	8.2	6.1	-0.3	-5.9	-12.6	-21.8	-30.5	-40.3	-52.1	-64.5	-81.1	-106.5	-143.1	-200.8	-292.7	-438.6	-664.6	-1018.9	-1563.3	-2398.9	32.2	0.2
10-D	52838	16105	30.6	21.1	19.1	19.5	16.7	16.7	21.1	11.9	10.0	8.5	6.5	0.2	-5.3	-11.9	-21.0	-29.5	-39.2	-50.8	-62.9	-79.3	-104.1	-139.9	-196.5	-286.5	-429.4	-650.8	-998.0	-1531.3	-2349.8	32.4	0.5
10-E	51929	15828	30.7	21.3	19.2	19.6	16.9	16.9	21.3	12.0	10.2	8.7	6.8	0.6	-4.9	-11.3	-20.3	-28.7	-38.2	-49.7	-61.6	-77.7	-102.2	-137.4	-193.0	-281.5	-422.0	-639.6	-980.9	-1505.2	-2309.7	32.5	0.7
10-F	51185	15601	30.8	21.4	19.4	19.8	17.0	17.0	21.5	12.2	10.4	9.0	7.0	0.9	-4.5	-10.9	-19.7	-28.1	-37.5	-48.8	-60.6	-76.4	-100.6	-135.3	-190.1	-277.3	-415.9	-630.4	-966.9	-1483.8	-2276.9	32.5	0.9
10-G	50661	15442	30.8	21.5	19.4	19.8	17.1	17.1	21.6	12.3	10.5	9.1	7.2	1.1	-4.2	-10.5	-19.4	-27.6	-36.9	-48.1	-59.9	-75.5	-99.4	-133.8	-188.0	-274.4	-411.6	-624.0	-957.1	-1468.7	-2253.8	32.6	1.1
10-H	50376	15355	30.8	21.5	19.5	19.9	17.1	17.2	21.6	12.4	10.6	9.2	7.3	1.2	-4.1	-10.3	-19.1	-27.3	-36.6	-47.8	-59.5	-75.0	-98.8	-133.0	-186.9	-272.8	-409.2	-620.5	-951.7	-1460.5	-2241.3	32.6	1.2
10-I	101381	30901	27.8	15.5	13.4	13.8	11.1	10.0	13.9	3.8	0.6	-2.8	-7.5	-17.5	-27.7	-39.9	-55.1	-70.1	-86.8	-106.4	-129.0	-159.6	-206.1	-275.1	-382.7	-554.1	-825.7	-1246.8	-1907.7	-2923.3	-4486.0	28.7	-8.9
11-A	58078	17702	30.2	20.3	18.3	18.7	15.9	15.8	20.1	10.8	8.8	7.1	4.8	-1.9	-7.9	-15.1	-24.9	-34.1	-44.5	-57.0	-70.3	-88.1	-115.3	-154.7	-216.8	-315.6	-472.4	-715.4	-1096.4	-1681.7	-2580.5	31.8	-0.9
11-B	56727	17291	30.3	20.5	18.5	18.9	16.1	16.0	20.4	11.0	9.1	7.4	5.2	-1.4	-7.3	-14.3	-23.9	-32.9	-43.1	-55.4	-68.4	-85.9	-112.4	-150.9	-211.6	-308.1	-461.4	-698.7	-1071.0	-1643.0	-2521.1	31.9	-0.5
11-C	55541	16929	30.4	20.7	18.6	19.0	16.3	16.2	20.6	11.3	9.3	7.7	5.6	-0.9	-6.7	-13.6	-23.0	-31.9	-41.9	-54.0	-66.7	-83.8	-109.9	-147.6	-207.0	-301.5	-451.6	-684.1	-1048.8	-1608.9	-2468.8	32.1	-0.2
11-D	54565	16632	30.5	20.8	18.8	19.2	16.4	16.4	20.8	11.5	9.6	8.0	5.9	-0.5	-6.2	-13.0	-22.3	-31.1	-40.9	-52.8	-65.4	-82.2	-107.8	-144.8	-203.2	-296.1	-443.6	-672.1	-1030.4	-1580.9	-2425.8	32.2	0.0
11-E	53670	16359	30.6	21.0	18.9	19.3	16.6	16.5	21.0	11.7	9.8	8.3	6.2	-0.1	-5.7	-12.4	-21.6	-30.3	-40.0	-51.7	-64.1	-80.7	-105.9	-142.3	-199.7	-291.2	-436.3	-661.1	-1013.6	-1555.2	-2386.4	32.3	0.3
11-F	53048	16169	30.6	21.1	19.0	19.4	16.7	16.7	21.1	11.8	9.9	8.4	6.4	0.1	-5.4	-12.0	-21.1	-29.7	-39.4	-51.0	-63.2	-79.6	-104.6	-140.5	-197.3	-287.7	-431.2	-653.4	-1001.9	-1537.3	-2359.0	32.3	0.4
11-G	52559	16020	30.7	21.2	19.1	19.5	16.8	16.8	21.2	11.9	10.1	8.6	6.6	0.3	-5.2	-11.7	-20.8	-29.3	-38.9	-50.4	-62.5	-78.8	-103.5	-139.2	-195.4	-285.0	-427.2	-647.4	-992.7	-1523.3	-2337.5	32.4	0.6
11-H	52284	15936	30.7	21.2	19.2	19.6	16.8	16.8	21.2	12.0	10.1	8.6	6.7	0.4	-5.0	-11.5	-20.6	-29.0	-38.6	-50.1	-62.1	-78.3	-102.9	-138.4	-194.4	-283.5	-424.9	-644.0	-987.6	-1515.4	-2325.4	32.4	0.6
11-K	52704	16064	30.6	21.2	19.1	19.5	16.8	16.7	21.2	11.9	10.0	8.5	6.5	0.3	-5.3	-11.8	-20.9	-29.4	-39.0	-50.6	-62.7	-79.0	-103.8	-139.6	-196.0	-285.8	-428.3	-649.2	-995.5	-1527.4	-2343.8	32.4	0.5
11-L	53168	16206	30.6	21.1	19.0	19.4	16.7	16.6	21.1	11.8	9.9	8.4	6.4	0.1	-5.5	-12.1	-21.2	-29.8	-39.5	-51.2	-63.4	-79.8	-104.8	-140.9	-197.8	-288.4	-432.2	-654.9	-1004.2	-1540.7	-2364.3	32.3	0.4
12-A	59569	18157	30.1	20.1	18.0	18.4	15.7	15.5	19.9	10.5	8.4	6.7	4.3	-2.5	-8.7	-16.0	-26.0	-35.4	-46.0	-58.7	-72.3	-90.7	-118.5	-158.9	-222.6	-323.9	-484.6	-733.7	-1124.4	-1724.5	-2646.2	31.6	-1.3
12-B	58290	17767	30.2	20.3	18.2	18.6	15.9	15.7	20.1	10.7	8.7	7.0	4.7	-2.0	-8.1	-15.3	-25.0	-34.3	-44.7	-57.2	-70.6	-88.5	-115.8	-155.3	-217.6	-316.8	-474.2	-718.0	-1100.4	-1687.8	-2589.9	31.8	-0.9
12-C	57158	17422	30.3	20.4	18.4	18.8	16.0	15.9	20.3	11.0	9.0	7.3	5.1	-1.6	-7.5	-14.6	-24.2	-33.3	-43.6	-55.9	-69.0	-86.6	-113.4	-152.1	-213.2	-310.5	-464.9	-704.0	-1079.1	-1655.3	-2540.0	31.9	-0.7
12-D	56238	17141	30.4	20.6	18.5	18.9	16.2	16.1	20.5	11.1	9.2	7.6	5.4	-1.2	-7.0	-14.0	-23.5	-32.5	-42.6	-54.8	-67.7	-85.0	-111.4	-149.5	-209.7	-305.4	-457.3	-692.7	-1061.9	-1628.9	-2499.5	32.0	-0.4
12-E	55412	16890	30.4	20.7	18.7	19.1	16.3	16.2	20.6	11.3	9.4	7.8	5.6	-0.8	-6.6	-13.5	-22.9	-31.8	-41.8	-53.8	-66.5	-83.6	-109.6	-147.2	-206.5	-300.8	-450.6	-682.5	-1046.3	-1605.2	-2463.1	32.1	-0.2
12-F	54867	16723	30.5	20.8	18.8	19.2	16.4	16.3	20.7	11.4	9.5	7.9	5.8	-0.6	-6.3	-13.2	-22.5	-31.3	-41.2	-53.2	-65.8	-82.7	-108.5	-145.7	-204.4	-297.8	-446.1	-675.8	-1036.1	-1589.5	-2439.1	32.1	-0.1
12-G	54432	16591	30.5	20.9	18.8	19.2	16.5	16.4	20.8	11.5	9.6	8.0	5.9	-0.5	-6.1	-12.9	-22.2	-30.9	-40.8	-52.7	-65.2	-82.0	-107.5	-144.5	-202.7	-295.4	-442.5	-670.5	-1027.9	-1577.1	-2420.0	32.2	0.1
12-H	54204	16521	30.5	20.9	18.9	19.3	16.5	16.5	20.9	11.6	9.7	8.1	6.0	-0.4	-6.0	-12.7	-22.0	-30.7	-40.6	-52.4	-64.8	-81.6	-107.0	-143.8	-201.8	-294.1	-440.7	-667.6	-1023.6	-1570.5	-2409.9	32.2	0.1
12-I	54179	16514	30.5	20.9	18.9	19.3	16.5	16.5	20.9	11.6	9.7	8.1	6.0	-0.3	-6.0	-12.7	-22.0	-30.7	-40.5	-52.4	-64.8	-81.5	-107.0	-143.7	-201.7	-294.0	-440.5	-667.3	-1023.2	-1569.8	-2408.8	32.2	0.1
12-J	54321	16557	30.5	20.9	18.8	19.2	16.5	16.4	20.9	11.5	9.6	8.1	6.0	-0.4	-6.1	-12.8	-22.1	-30.8	-40.7	-52.5	-65.0	-81.8	-107.3	-144.1	-202.3	-294.8	-441.6	-669.1	-1025.8	-1573.9	-2415.1	32.2	0.1
12-K	54672	16664	30.5	20.8	18.8	19.2	16.4	16.4	20.8	11.5	9.5	8.0	5.9	-0.5	-6.2	-13.0	-22.4	-31.1	-41.0	-52.9	-65.5	-82.4	-108.0	-145.1	-203.6	-296.7	-444.5	-673.4	-1032.4	-1583.9	-2430.5	32.1	0.0
12-L	55186	16821	30.4	20.8	18.7	19.1	16.4	16.3	20.7	11.4	9.4	7.8	5.7	-0.8	-6.5	-13.3	-22.7	-31.6	-41.6	-53.6	-66.2	-83.2	-109.2	-146.6	-205.6	-299.6	-448.7	-679.7	-1042.1	-1598.7	-2453.2	32.1	-0.1
13-A	61099	18623	30.0	19.9	17.8	18.2	15.5	15.3	19.6	10.2	8.1	6.3	3.8	-3.1	-9.4	-17.0	-27.1	-36.7	-47.6	-60.5	-74.5	-93.2	-121.8	-163.2	-228.5	-332.4	-497.2	-752.5	-1153.1	-1768.5	-2713.6	31.5	-1.6
13-B	59864	18246	30.1	20.0	18.0	18.4	15.6	15.5	19.8	10.4	8.4	6.6	4.2	-2.6	-8.8	-16.2	-26.2	-35.7	-46.3	-59.1	-72.8	-91.2	-119.1	-159.8	-223.7	-325.5	-487.1	-737.3	-1129.9	-1733.0	-2659.2	31.6	-1.3
13-C	58819	17928	30.2	20.2	18.1	18.5	15.8	15.6	20.0	10.6	8.6	6.9	4.5	-2.2	-8.3	-15.6	-25.4	-34.8	-45.3	-57.8	-71.3	-89.4	-116.9	-156.8	-219.7	-319.7	-478.5	-724.5	-1110.3	-1703.0	-2613.2	31.7	-1.1
13-D	57960	17666	30.2	20.3	18.3	18.7	15.9	15.8	20.2	10.8	8.8	7.1	4.8	-1.9	-7.9	-15.1	-24.8	-34.0	-44.4	-56.8	-70.1	-87.9	-115.1	-154.4	-216.4	-315.0	-471.5	-713.9	-1094.2	-1678.3	-2575.3	31.8	-0.9
13-F	56683	17277	30.3	20.5	18.5	18.9	16.1	16.0	20.4	11.1	9.1	7.4	5.2	-1.4	-7.3	-14.3	-23.9	-32.9	-43.1	-55.3	-68.3	-85.8	-112.4	-150.8	-211.4	-307.9	-461.0	-698.2	-1070.2	-1641.7	-2519.1	31.9	-0.5
13-G	56319	17166	30.4	20.6	18.5	18.9	16.2	16.1	20.5	11.1	9.2	7.5	5.3	-1.2	-7.1	-14.0	-23.6	-32.6	-42.7	-54.9	-67.8	-85.2	-111.6	-149.8	-210.0	-305.9	-458.0	-693.7	-1063.4	-1631.2	-2503.1	32.0	-0.4
13-H	56078	17093	30.4	20.6	18.6	19.0	16.2	16.1	20.5	11.2	9.2	7.6	5.4	-1.1	-7.0	-13.9	-23.4	-32.4	-42.5	-54.6	-67.5	-84.8	-111.1	-149.1	-209.1	-304.5	-456.0	-690.7	-1058.8	-1624.3	-2492.5	32.0	-0.4
13-I	56130	17108	30.4	20.6	18.6	19.0	16.2	16.1	20.5	11.2	9.2	7.6	5.4	-1.1	-7.0	-13.9	-23.4	-32.4	-42.5	-54.7	-67.5	-84.8	-111.2	-149.2	-209.3	-304.8	-456.5	-691.4	-1059.8	-1625.8	-2494.7	32.0	-0.4
13-J	56377	17184	30.4	20.6	18.5	18.9	16.2	16.1	20.5	11.1	9.2	7.5	5.3	-1.2	-7.1	-14.1	-23.6	-32.6	-42.8	-55.0	-67.9	-85.3	-111.7	-149.9	-210.2	-306.2	-458.5	-694.4	-1064.5	-1632.9	-2505.6	32.0	-0.5
13-K	56729	17291	30.3	20.5	18.5	18.9	16.1	16.0	20.4	11.0	9.1	7.4	5.2	-1.4	-7.3	-14.3	-23.9	-32.9	-43.1	-55.4	-68.4	-85.9	-112.5	-150.9	-211.6	-308.1	-461.4	-698.7	-1071.1	-1643.0	-2521.1	31.9	-0.5
13-L	57298	17465	30.3	20.4	18.4	18.8	16.0	15.9	20.3	10.9	8.9	7.3	5.0	-1.6	-7.6	-14.6	-24.3	-33.4	-43.7	-56.1	-69.2	-86.8	-113.7	-152.5	-213.8	-311.3	-466.0	-705.8	-1081.8	-1659.4	-2546.2	31.9	-0.7
14-D	59705	18198	30.1	20.1	18.0	18.4	15.7	15.5	19.9	10.5	8.4	6.6	4.2	-2.6	-8.7	-16.1	-26.1	-35.5	-46.2	-58.9	-72.5	-90.9	-118.8	-159.3	-223.1	-324.6	-485.8	-735.4	-1126.9	-1728.4	-2652.2	31.6	-1.3
14-E	59047	17998	30.2	20.2	18.1	18.5	15.8	15.6	20.0	10.6	8.5	6.8	4.4	-2.3	-8.4	-15.7	-25.6	-35.0	-45.5	-58.1	-71.6	-89.8	-117.4	-157.5	-220.6	-321.0	-480.4	-727.3	-1114.6	-1709.6	-2623.2	31.7	-1.1
14-F	58533	17841	30.2	20.2	18.2	18.6	15.8	15.7	20.1	10.7	8.7	6.9	4.6	-2.1	-8.2	-15.4	-25.2	-34.5	-45.0	-57.5	-70.9	-88.9	-116.3	-156.0	-218.6	-318.1	-476.2	-721.0	-1104.9	-1694.8	-2600.6	31.7	-1.0
14-G	58216	17744	30.2	20.3	18.2	18.6	15.9	15.7	20.1	10.7	8.7	7.0	4.7	-2.0	-8.0	-15.2	-25.0	-34.2	-44.7	-57.1	-70.5	-88.4	-115.6	-155.1	-217.3	-316.4	-473.6	-717.1	-1099.0	-1685.7	-2586.6	31.8	-0.9
14-H	58077	17702	30.2	20.3	18.3	18.7	15.9	15.8	20.1	10.8	8.8	7.1	4.8	-1.9	-7.9	-15.1	-24.9	-34.1	-44.5	-57.0	-70.3	-88.1	-115.3	-154.7	-216.8	-315.6	-472.4	-715.3	-1096.4	-1681.7	-2580.5	31.8	-0.9
14-J	58323	17777	30.2	20.3	18.2	18.6	15.9	15.7	20.1	10.7	8.7	7.0	4.7	-2.0	-8.1	-15.3	-25.1	-34.3	-44.8	-57.3	-70.6	-88.6	-115.9	-155.4	-217.8	-317.0	-474.4	-718.4	-1101.0	-1688.8	-2591.3	31.8	-0.9
14-K	58770	17913	30.2	20.2	18.2	18.6	15.8	15.7	20.0	10.6	8.6	6.9	4.5	-2.2	-8.3	-15.5	-25.4	-34.7	-45.2	-57.8	-71.2	-89.3	-116.8	-156.7	-219.5	-319.5	-478.1	-723.9	-1109.4	-1701.6	-2611.0	31.7	-1.1
14-L	59353	18091	30.1	20.1	18.1	18.5	15.7	15.6	19.9	10.5	8.5	6.7	4.3	-2.4	-8.6	-15.9	-25.8	-35.2	-45.8	-58.5	-72.0	-90.3	-118.1	-158.3	-221.7	-322.7	-482.9	-731.1	-1120.3	-1718.3	-2636.7	31.7	-1.2
15-F	60398	18409	30.1	20.0	17.9	18.3	15.6	15.4	19.7	10.3	8.2	6.5	4.0	-2.8	-9.1	-16.5	-26.6	-36.1	-46.9	-59.7	-73.5	-92.0	-120.3	-161.3	-225.8	-328.5	-491.4	-743.9	-1139.9	-1748.3	-2682.7	31.6	-1.5
15-G	60127	18327	30.1	20.0	18.0	18.4	15.6	15.4	19.8	10.4	8.3	6.5	4.1	-2.7	-9.0	-16.4	-26.4	-35.9	-46.6	-59.4	-73.1	-91.6	-119.7	-160.5	-224.7	-327.0	-489.2	-740.6	-1134.9	-1740.6	-2670.8	31.6	-1.4
15-H	60061	18307	30.1	20.0	18.0	18.4	15.6	15.4	19.8	10.4	8.3	6.5	4.1	-2.7	-8.9	-16.3	-26.3	-35.8	-46.5	-59.3	-73.0	-91.5	-119.6	-160.3	-224.5	-326.6	-488.7	-739.8	-1133.6	-1738.7	-2667.9	31.6	-1.4
15-I	60139	18330	30.1	20.0	18.0	18.4	15.6	15.4	19.8	10.4	8.3	6.5	4.1	-2.7	-9.0	-16.4	-26.4	-35.9	-46.6	-59.4	-73.1	-91.6	-119.7	-160.5	-224.8	-327.0	-489.3	-740.7	-1135.1	-1740.9	-2671.3	31.6	-1.4
15-J	60367	18400	30.1	20.0	17.9	18.3	15.6	15.4	19.7	10.3	8.3	6.5	4.0	-2.8	-9.1	-16.5	-26.6	-36.1	-46.8	-59.7	-73.4	-92.0	-120.2	-161.2	-225.7	-328.3	-491.2	-743.5	-1139.4	-1747.5	-2681.4	31.6	-1.4
15-K	60794	18530	30.0	19.9	17.9	18.3	15.5	15.3	19.7	10.2	8.2	6.4	3.9	-3.0	-9.3	-16.8	-26.9	-36.5	-47.3	-60.2	-74.0	-92.7	-121.1	-162.4	-227.3	-330.7	-494.7	-748.8	-1147.4	-1759.7	-2700.2	31.5	-1.5
16-J	62378	19013	29.9	19.7	17.6	18.0	15.3	15.1	19.4	9.9	7.8	5.9	3.4	-3.6	-10.0	-17.7	-28.0	-37.8	-48.9	-62.0	-76.2	-95.4	-124.5	-166.8	-233.4	-339.4	-507.7	-768.3	-1177.1	-1805.2	-2769.9	31.4	-1.9
16-K	62825	19149	29.9	19.6	17.6	18.0	15.2	15.0	19.3	9.9	7.7	5.8	3.3	-3.8	-10.3	-18.0	-28.3	-38.2	-49.3	-62.5	-76.9	-96.1	-125.4	-168.1	-235.1	-341.9	-511.3	-773.8	-1185.5	-1818.0	-2789.6	31.3	-2.0
		Sum:	52.3	43.4	41.4	41.8	39.0	39.2	43.7	34.6	32.9	31.8	30.3	24.9	20.5	15.5	8.2	1.7	-5.7	-14.5	-23.1	-34.2	-51.0	-74.0	-110.4	-167.5	-257.5	-396.3	-613.3	-946.0	-1454.5	54.3	23.9

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Leq)
FROM WIND PARK OPERATIONS AT THE DESIGN WIND CONDITION

																		Hertz												
	1/3 Octave Bands	**16***	**20**	**25**	**31**	**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**	**L**	**A**
Sound Power Data - Design Speed		113.7	113.3	111.2	111.6	108.9	109.9	115.0	106.6	106.2	106.8	107.7	105.5	105.0	104.6	102.1	100.6	98.7	95.8	94.9	94.2	92.9	93.1	92.1	90.7	87.9	83.9	78.2	69.9	61.5	121.9	107.4

Data for the graph																			
Atmos. Absorption per 1 km air temp 59F 70% RH	0.0000	0.0000	0.0000	0.0000	0.0000	0.0670	0.1050	0.1630	0.2510	0.3810	0.5650	0.8150	1.1300	1.5100	1.9200	2.3600	2.8400	3.3800	4.0800	5.0500	6.5100	8.7500	12.2000	17.7000	26.4000	39.9000	61.1000	93.7000	144.0000

*Spherical wave spreading for up to 2 km, cylindrical wave spreading beyond 2 km.

																			Hertz												
	1/3 Octave Bands		**16***	**20**	**25**	**31**	**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**	**L**	**A**
	Distance (ft)	**Distance (m)**																															
1-D	36242	11046	32.3	24.4	22.4	22.8	20.0	20.3	24.9	16.0	14.5	13.7	12.6	7.6	3.7	-1.0	-8.0	-14.3	-21.5	-30.4	-39.0	-50.4	-67.9	-92.4	-131.5	-193.7	-292.6	-445.7	-685.6	-1054.0	-1618.0	34.7	6.0
1-E	34794	10605	32.5	24.8	22.7	23.1	20.4	20.7	25.3	16.4	15.0	14.2	13.2	8.3	4.5	0.0	-6.8	-12.9	-19.9	-28.5	-36.9	-47.8	-64.7	-88.2	-125.8	-185.6	-280.6	-427.7	-658.3	-1012.3	-1554.2	35.0	6.6
1-F	33573	10233	32.6	25.1	23.0	23.4	20.7	21.0	25.7	16.8	15.4	14.7	13.7	8.9	5.3	0.9	-5.8	-11.7	-18.5	-27.0	-35.0	-45.7	-61.9	-84.6	-120.9	-178.7	-270.5	-412.6	-635.3	-977.1	-1500.2	35.2	7.1
1-G	32635	9947	32.7	25.3	23.3	23.7	20.9	21.3	26.0	17.0	15.7	15.0	14.1	9.4	5.8	1.6	-5.0	-10.8	-17.5	-25.8	-33.6	-44.0	-59.8	-81.9	-117.2	-173.4	-262.7	-400.9	-617.6	-950.1	-1458.8	35.4	7.5
1-H	31980	9748	32.8	25.5	23.4	23.8	21.1	21.5	26.2	17.3	15.9	15.3	14.4	9.7	6.2	2.1	-4.4	-10.2	-16.7	-24.9	-32.6	-42.8	-58.4	-80.0	-114.6	-169.6	-257.2	-392.8	-605.2	-931.2	-1429.9	35.5	7.8
1-I	31647	9646	32.9	25.6	23.5	23.9	21.2	21.6	26.3	17.4	16.1	15.4	14.6	9.9	6.4	2.3	-4.1	-9.8	-16.4	-24.5	-32.1	-42.2	-57.6	-79.0	-113.2	-167.8	-254.5	-388.6	-598.9	-921.6	-1415.2	35.6	7.9
1-J	31655	9649	32.9	25.6	23.5	23.9	21.2	21.6	26.3	17.4	16.1	15.4	14.6	9.9	6.4	2.3	-4.1	-9.8	-16.4	-24.5	-32.1	-42.2	-57.6	-79.0	-113.3	-167.8	-254.5	-388.7	-599.0	-921.8	-1415.6	35.6	7.9
1-K	31923	9730	32.8	25.5	23.5	23.9	21.1	21.5	26.2	17.3	16.0	15.3	14.5	9.8	6.3	2.1	-4.4	-10.1	-16.7	-24.8	-32.5	-42.7	-58.2	-79.8	-114.4	-169.3	-256.8	-392.1	-604.1	-929.6	-1427.4	35.6	7.8
1-L	32611	9940	32.7	25.3	23.3	23.7	20.9	21.3	26.0	17.1	15.7	15.0	14.2	9.4	5.8	1.6	-5.0	-10.8	-17.5	-25.7	-33.6	-43.9	-59.8	-81.8	-117.1	-173.2	-262.5	-400.6	-617.1	-949.4	-1457.8	35.4	7.5
2-D	37737	11502	32.1	24.1	22.0	22.4	19.7	19.9	24.5	15.5	14.1	13.2	12.0	6.9	2.8	-2.0	-9.2	-15.7	-23.2	-32.3	-41.2	-53.1	-71.2	-96.7	-137.4	-202.1	-305.0	-464.2	-713.8	-1097.1	-1684.0	34.5	5.4
2-E	36366	11084	32.3	24.4	22.3	22.7	20.0	20.3	24.9	15.9	14.5	13.7	12.6	7.5	3.6	-1.1	-8.1	-14.4	-21.7	-30.5	-39.2	-50.7	-68.2	-92.8	-132.0	-194.4	-293.7	-447.2	-688.0	-1057.6	-1623.5	34.7	5.9
2-F	35263	10748	32.4	24.6	22.6	23.0	20.2	20.6	25.2	16.2	14.8	14.0	13.0	8.1	4.2	-0.3	-7.2	-13.4	-20.4	-29.1	-37.6	-48.7	-65.7	-89.6	-127.6	-188.2	-284.5	-433.6	-667.2	-1025.8	-1574.8	34.9	6.4
2-G	34424	10492	32.5	24.9	22.8	23.2	20.5	20.8	25.4	16.5	15.1	14.4	13.4	8.5	4.7	0.3	-6.5	-12.6	-19.5	-28.1	-36.3	-47.2	-63.9	-87.1	-124.3	-183.5	-277.5	-423.1	-651.3	-1001.6	-1537.8	35.1	6.7
2-H	33865	10322	32.6	25.0	22.9	23.3	20.6	21.0	25.6	16.7	15.3	14.6	13.6	8.8	5.1	0.7	-6.0	-12.0	-18.9	-27.3	-35.5	-46.2	-62.6	-85.5	-122.1	-180.3	-272.9	-416.2	-640.8	-985.5	-1513.1	35.2	6.9
2-I	33571	10232	32.6	25.1	23.0	23.4	20.7	21.0	25.7	16.8	15.4	14.7	13.7	8.9	5.3	0.9	-5.8	-11.7	-18.5	-27.0	-35.0	-45.7	-61.9	-84.6	-120.9	-178.6	-270.5	-412.6	-635.2	-977.0	-1500.1	35.2	7.1
2-J	33636	10252	32.6	25.1	23.0	23.4	20.7	21.0	25.7	16.7	15.4	14.6	13.7	8.9	5.2	0.9	-5.8	-11.8	-18.6	-27.1	-35.1	-45.8	-62.1	-84.8	-121.2	-179.0	-271.0	-413.4	-636.5	-978.9	-1503.0	35.2	7.0
2-K	34002	10364	32.6	25.0	22.9	23.3	20.6	20.9	25.6	16.6	15.3	14.5	13.6	8.7	5.0	0.6	-6.1	-12.2	-19.0	-27.5	-35.7	-46.4	-62.9	-85.9	-122.6	-181.1	-274.0	-417.9	-643.4	-989.5	-1519.2	35.1	6.9
2-L	34620	10552	32.5	24.8	22.8	23.2	20.4	20.7	25.4	16.4	15.1	14.3	13.3	8.4	4.6	0.2	-6.7	-12.8	-19.7	-28.3	-36.6	-47.5	-64.3	-87.7	-125.1	-184.6	-279.2	-425.6	-655.0	-1007.3	-1546.5	35.0	6.6
3-D	39233	11958	31.9	23.7	21.7	22.1	19.3	19.6	24.2	15.1	13.6	12.7	11.4	6.2	2.0	-3.0	-10.4	-17.2	-24.8	-34.2	-43.4	-55.7	-74.5	-101.1	-143.3	-210.5	-317.4	-482.8	-742.0	-1140.1	-1750.0	34.2	4.8
3-E	37964	11572	32.1	24.0	22.0	22.4	19.6	19.9	24.5	15.5	14.0	13.1	11.9	6.8	2.7	-2.2	-9.4	-16.0	-23.4	-32.6	-41.6	-53.5	-71.7	-97.4	-138.3	-203.4	-306.9	-467.1	-718.1	-1103.6	-1694.1	34.4	5.3
3-F	36951	11263	32.2	24.2	22.2	22.6	19.8	20.1	24.8	15.7	14.3	13.4	12.3	7.3	3.3	-1.5	-8.6	-15.0	-22.3	-31.3	-40.1	-51.7	-69.5	-94.5	-134.3	-197.7	-298.5	-454.5	-699.0	-1074.4	-1649.4	34.6	5.7
3-G	36222	11040	32.3	24.4	22.4	22.8	20.0	20.3	24.9	16.0	14.5	13.7	12.6	7.6	3.7	-1.0	-8.0	-14.3	-21.5	-30.4	-39.0	-50.4	-67.9	-92.3	-131.4	-193.6	-292.5	-445.5	-685.3	-1053.4	-1617.2	34.7	6.0
3-I	35563	10839	32.4	24.6	22.5	22.9	20.2	20.5	25.1	16.2	14.7	13.9	12.9	7.9	4.1	-0.5	-7.4	-13.7	-20.8	-29.5	-38.0	-49.2	-66.4	-90.4	-128.8	-189.9	-287.0	-437.3	-672.8	-1034.4	-1588.1	34.8	6.2
3-J	35633	10861	32.3	24.6	22.5	22.9	20.2	20.5	25.1	16.1	14.7	13.9	12.9	7.9	4.0	-0.5	-7.5	-13.7	-20.8	-29.6	-38.1	-49.3	-66.6	-90.6	-129.1	-190.3	-287.6	-438.2	-674.2	-1036.5	-1591.2	34.8	6.2
3-K	36026	10981	32.3	24.5	22.4	22.8	20.1	20.4	25.0	16.0	14.6	13.8	12.7	7.7	3.8	-0.8	-7.8	-14.1	-21.3	-30.1	-38.7	-50.0	-67.4	-91.8	-130.7	-192.5	-290.8	-443.0	-681.6	-1047.8	-1608.5	34.8	6.0
3-L	36688	11182	32.2	24.3	22.2	22.6	19.9	20.2	24.8	15.8	14.4	13.5	12.4	7.4	3.4	-1.3	-8.4	-14.7	-22.0	-30.9	-39.7	-51.2	-68.9	-93.7	-133.3	-196.2	-296.3	-451.2	-694.1	-1066.9	-1637.7	34.6	5.8
4-D	40767	12426	31.8	23.4	21.3	21.7	19.0	19.2	23.8	14.7	13.2	12.1	10.8	5.5	1.1	-4.1	-11.7	-18.6	-26.5	-36.1	-45.7	-58.4	-77.9	-105.5	-149.4	-219.2	-330.1	-501.8	-770.9	-1184.3	-1817.7	34.0	4.3
4-E	39566	12060	31.9	23.6	21.6	22.0	19.2	19.5	24.1	15.0	13.5	12.5	11.3	6.0	1.8	-3.3	-10.7	-17.5	-25.2	-34.6	-43.9	-56.3	-75.3	-102.0	-144.6	-212.4	-320.1	-486.9	-748.3	-1149.7	-1764.7	34.2	4.7
4-F	38688	11792	32.0	23.8	21.8	22.2	19.4	19.7	24.3	15.3	13.8	12.8	11.6	6.4	2.3	-2.7	-10.0	-16.6	-24.2	-33.5	-42.6	-54.8	-73.3	-99.5	-141.2	-207.5	-312.9	-476.0	-731.8	-1124.4	-1726.0	34.3	5.0
4-G	38010	11586	32.1	24.0	21.9	22.3	19.6	19.9	24.5	15.5	14.0	13.1	11.9	6.7	2.6	-2.2	-9.5	-16.0	-23.5	-32.6	-41.6	-53.6	-71.8	-97.5	-138.5	-203.7	-307.3	-467.6	-719.0	-1104.9	-1696.1	34.4	5.3
4-H	37619	11466	32.1	24.1	22.0	22.4	19.7	20.0	24.6	15.6	14.1	13.2	12.1	6.9	2.9	-1.9	-9.1	-15.6	-23.0	-32.1	-41.1	-52.9	-71.0	-96.4	-137.0	-201.5	-304.0	-462.8	-711.6	-1093.7	-1678.8	34.5	5.4
4-I	37503	11431	32.1	24.1	22.1	22.5	19.7	20.0	24.6	15.6	14.1	13.3	12.1	7.0	2.9	-1.9	-9.0	-15.5	-22.9	-32.0	-40.9	-52.7	-70.7	-96.1	-136.5	-200.8	-303.1	-461.3	-709.4	-1090.3	-1673.7	34.5	5.5
4-J	37660	11479	32.1	24.1	22.0	22.4	19.7	20.0	24.6	15.5	14.1	13.2	12.0	6.9	2.8	-2.0	-9.2	-15.7	-23.1	-32.2	-41.1	-52.9	-71.1	-96.5	-137.1	-201.7	-304.4	-463.3	-712.4	-1094.8	-1680.6	34.5	5.4
4-K	38098	11612	32.1	24.0	21.9	22.3	19.6	19.8	24.5	15.4	14.0	13.0	11.9	6.7	2.6	-2.3	-9.5	-16.1	-23.6	-32.7	-41.8	-53.7	-72.0	-97.8	-138.8	-204.2	-308.0	-468.7	-720.6	-1107.4	-1699.9	34.4	5.2
4-L	38785	11822	32.0	23.8	21.8	22.2	19.4	19.7	24.3	15.2	13.7	12.8	11.6	6.4	2.2	-2.7	-10.1	-16.7	-24.3	-33.6	-42.8	-54.9	-73.5	-99.8	-141.6	-208.0	-313.7	-477.2	-733.6	-1127.2	-1730.3	34.3	5.0
5-D	42342	12906	31.6	23.1	21.0	21.4	18.7	18.8	23.4	14.3	12.7	11.6	10.2	4.7	0.2	-5.1	-12.9	-20.1	-28.2	-38.0	-48.0	-61.2	-81.4	-110.0	-155.6	-228.0	-343.1	-521.2	-800.6	-1229.6	-1887.2	33.7	3.7
5-E	41292	12586	31.7	23.3	21.2	21.6	18.9	19.1	23.6	14.6	13.0	12.0	10.6	5.2	0.8	-4.4	-12.1	-19.1	-27.0	-36.7	-46.4	-59.3	-79.1	-107.0	-151.4	-222.1	-334.4	-508.2	-780.8	-1199.4	-1840.8	33.9	4.1
5-F	40459	12332	31.8	23.4	21.4	21.8	19.0	19.3	23.9	14.8	13.3	12.2	10.9	5.6	1.3	-3.9	-11.4	-18.3	-26.1	-35.7	-45.2	-57.9	-77.2	-104.6	-148.2	-217.4	-327.5	-498.0	-765.1	-1175.4	-1804.1	34.0	4.4
5-G	39884	12157	31.9	23.6	21.5	21.9	19.2	19.4	24.0	14.9	13.4	12.4	11.2	5.9	1.6	-3.5	-11.0	-17.8	-25.5	-35.0	-44.4	-56.9	-76.0	-102.9	-145.9	-214.2	-322.8	-490.8	-754.3	-1158.9	-1778.7	34.1	4.6
5-H	39542	12052	31.9	23.6	21.6	22.0	19.2	19.5	24.1	15.0	13.5	12.6	11.3	6.0	1.8	-3.3	-10.7	-17.4	-25.1	-34.5	-43.9	-56.3	-75.2	-102.0	-144.5	-212.3	-319.9	-486.6	-747.8	-1149.0	-1763.6	34.2	4.7
5-I	39441	12022	31.9	23.7	21.6	22.0	19.3	19.5	24.1	15.1	13.6	12.6	11.3	6.1	1.8	-3.2	-10.6	-17.4	-25.0	-34.4	-43.7	-56.1	-75.0	-101.7	-144.1	-211.7	-319.1	-485.3	-745.9	-1146.1	-1759.2	34.2	4.7
5-J	39682	12095	31.9	23.6	21.6	22.0	19.2	19.5	24.0	15.0	13.5	12.5	11.2	6.0	1.7	-3.3	-10.8	-17.6	-25.3	-34.7	-44.1	-56.5	-75.5	-102.4	-145.1	-213.1	-321.1	-488.3	-750.5	-1153.0	-1769.8	34.1	4.6
6-D	43961	13399	31.4	22.7	20.7	21.1	18.3	18.5	23.0	13.9	12.3	11.1	9.6	4.0	-0.7	-6.2	-14.2	-21.5	-29.9	-40.0	-50.3	-64.0	-84.9	-114.7	-161.9	-237.0	-356.4	-541.3	-831.1	-1276.1	-1958.5	33.5	3.2
6-E	43000	13107	31.5	22.9	20.9	21.3	18.5	18.7	23.2	14.1	12.5	11.4	10.0	4.4	-0.1	-5.6	-13.4	-20.7	-28.9	-38.8	-48.9	-62.3	-82.8	-111.9	-158.1	-231.7	-348.5	-529.4	-813.0	-1248.5	-1916.2	33.6	3.5
6-G	41681	12704	31.7	23.2	21.1	21.5	18.8	19.0	23.6	14.5	12.9	11.8	10.5	5.0	0.6	-4.7	-12.4	-19.4	-27.4	-37.2	-47.0	-60.0	-79.9	-108.1	-153.0	-224.3	-337.6	-513.1	-788.1	-1210.6	-1858.0	33.8	3.9
6-H	41407	12621	31.7	23.2	21.2	21.6	18.8	19.1	23.6	14.5	13.0	11.9	10.6	5.2	0.7	-4.5	-12.2	-19.2	-27.1	-36.9	-46.6	-59.5	-79.3	-107.3	-151.9	-222.7	-335.3	-509.7	-783.0	-1202.7	-1845.9	33.9	4.0
6-I	41431	12628	31.7	23.2	21.2	21.6	18.8	19.0	23.6	14.5	13.0	11.9	10.6	5.1	0.7	-4.5	-12.2	-19.2	-27.2	-36.9	-46.6	-59.6	-79.4	-107.4	-152.0	-222.9	-335.5	-510.0	-783.4	-1203.4	-1847.0	33.9	4.0
6-J	41712	12714	31.7	23.2	21.1	21.5	18.8	19.0	23.5	14.5	12.9	11.8	10.4	5.0	0.6	-4.7	-12.4	-19.5	-27.5	-37.2	-47.0	-60.1	-80.0	-108.2	-153.1	-224.5	-337.9	-513.5	-788.7	-1211.5	-1859.4	33.8	3.9
7-B	47960	14618	31.1	22.0	19.9	20.3	17.6	17.6	22.1	12.9	11.2	9.9	8.2	2.3	-2.8	-8.8	-17.3	-25.2	-34.1	-44.9	-56.0	-70.9	-93.6	-126.1	-177.5	-259.4	-389.4	-590.6	-906.3	-1391.1	-2134.8	32.9	1.9
7-C	46670	14225	31.2	22.2	20.2	20.6	17.8	17.9	22.4	13.2	11.5	10.3	8.6	2.8	-2.1	-8.0	-16.3	-24.0	-32.7	-43.3	-54.2	-68.7	-90.8	-122.4	-172.5	-252.2	-378.7	-574.7	-882.0	-1354.0	-2077.9	33.1	2.3
7-E	44707	13627	31.4	22.6	20.5	20.9	18.2	18.3	22.8	13.7	12.1	10.9	9.3	3.7	-1.1	-6.7	-14.8	-22.2	-30.7	-40.9	-51.4	-65.3	-86.5	-116.8	-164.8	-241.2	-362.6	-550.5	-845.1	-1297.6	-1991.4	33.4	2.9
7-F	44045	13425	31.4	22.7	20.7	21.1	18.3	18.5	23.0	13.9	12.2	11.1	9.6	4.0	-0.7	-6.3	-14.3	-21.6	-30.0	-40.1	-50.4	-64.1	-85.1	-114.9	-162.2	-237.5	-357.1	-542.3	-832.7	-1278.6	-1962.2	33.5	3.1
7-G	43610	13292	31.5	22.8	20.7	21.1	18.4	18.6	23.1	14.0	12.4	11.2	9.7	4.2	-0.5	-6.0	-13.9	-21.2	-29.5	-39.6	-49.8	-63.4	-84.1	-113.7	-160.5	-235.1	-353.5	-536.9	-824.5	-1266.0	-1943.0	33.5	3.3
7-H	43410	13231	31.5	22.8	20.8	21.2	18.4	18.6	23.1	14.0	12.4	11.3	9.8	4.3	-0.4	-5.8	-13.8	-21.0	-29.3	-39.3	-49.5	-63.0	-83.7	-113.1	-159.7	-234.0	-351.9	-534.5	-820.7	-1260.3	-1934.2	33.6	3.3
7-I	43434	13239	31.5	22.8	20.8	21.2	18.4	18.6	23.1	14.0	12.4	11.3	9.8	4.2	-0.4	-5.9	-13.8	-21.1	-29.3	-39.4	-49.5	-63.1	-83.8	-113.2	-159.8	-234.1	-352.1	-534.7	-821.2	-1261.0	-1935.3	33.6	3.3
8-A	50875	15507	30.8	21.5	19.4	19.8	17.1	17.1	21.5	12.3	10.5	9.0	7.1	1.0	-4.3	-10.7	-19.5	-27.8	-37.1	-48.4	-60.2	-75.9	-99.9	-134.4	-188.9	-275.6	-413.3	-626.6	-961.1	-1474.9	-2263.3	32.6	1.0
8-B	49491	15085	30.9	21.7	19.6	20.0	17.3	17.3	21.8	12.6	10.8	9.5	7.6	1.6	-3.6	-9.8	-18.5	-26.6	-35.7	-46.7	-58.2	-73.5	-96.9	-130.4	-183.5	-267.9	-401.9	-609.5	-935.1	-1435.1	-2202.3	32.8	1.4

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Leq)
FROM WIND PARK OPERATIONS AT THE DESIGN WIND CONDITION

8-C	48285	14717	31.0	21.9	19.9	20.3	17.5	17.6	22.1	12.9	11.1	9.8	8.0	2.1	-3.0	-9.0	-17.5	-25.5	-34.4	-45.3	-56.5	-71.5	-94.3	-127.0	-178.8	-261.2	-392.0	-594.7	-912.4	-1400.4	-2149.1	32.9	1.8
8-D	47264	14406	31.1	22.1	20.0	20.4	17.7	17.8	22.3	13.1	11.4	10.1	8.4	2.6	-2.4	-8.4	-16.8	-24.6	-33.4	-44.0	-55.0	-69.7	-92.1	-124.1	-174.8	-255.5	-383.6	-582.1	-893.2	-1371.1	-2104.1	33.0	2.1
8-F	45852	13976	31.3	22.4	20.3	20.7	18.0	18.1	22.6	13.4	11.8	10.5	8.9	3.2	-1.7	-7.4	-15.7	-23.3	-31.9	-42.3	-53.0	-67.3	-89.0	-120.1	-169.3	-247.6	-372.0	-564.6	-866.6	-1330.5	-2041.9	33.2	2.5
8-G	45554	13885	31.3	22.4	20.4	20.8	18.0	18.1	22.7	13.5	11.8	10.6	9.0	3.3	-1.5	-7.2	-15.4	-23.0	-31.6	-42.0	-52.6	-66.8	-88.4	-119.2	-168.1	-245.9	-369.5	-560.9	-861.1	-1322.0	-2028.8	33.3	2.6
8-H	45373	13830	31.3	22.5	20.4	20.8	18.1	18.2	22.7	13.5	11.9	10.7	9.1	3.4	-1.4	-7.1	-15.3	-22.8	-31.4	-41.7	-52.3	-66.4	-88.0	-118.7	-167.4	-244.9	-368.1	-558.7	-857.6	-1316.7	-2020.8	33.3	2.7
9-A	52315	15946	30.7	21.2	19.2	19.6	16.8	16.8	21.2	12.0	10.1	8.6	6.7	0.4	-5.1	-11.6	-20.6	-29.1	-38.6	-50.1	-62.2	-78.4	-103.0	-138.5	-194.5	-283.6	-425.2	-644.4	-988.2	-1516.2	-2326.7	32.4	0.6
9-B	51018	15550	30.8	21.4	19.4	19.8	17.0	17.0	21.5	12.2	10.4	9.0	7.1	1.0	-4.4	-10.7	-19.6	-27.9	-37.3	-48.6	-60.4	-76.1	-100.2	-134.8	-189.4	-276.4	-414.5	-628.4	-963.8	-1479.0	-2269.6	32.6	1.0
9-C	49893	15207	30.9	21.6	19.6	20.0	17.2	17.3	21.7	12.5	10.7	9.3	7.5	1.4	-3.8	-10.0	-18.8	-26.9	-36.1	-47.2	-58.8	-74.2	-97.8	-131.6	-185.1	-270.1	-405.2	-614.5	-942.6	-1446.6	-2220.0	32.7	1.3
9-D	48993	14933	31.0	21.8	19.7	20.1	17.4	17.4	21.9	12.7	10.9	9.6	7.8	1.8	-3.3	-9.5	-18.1	-26.1	-35.2	-46.1	-57.5	-72.7	-95.8	-129.0	-181.5	-265.1	-397.9	-603.4	-925.7	-1420.8	-2180.3	32.8	1.6
9-E	48243	14704	31.0	21.9	19.9	20.3	17.5	17.6	22.1	12.9	11.1	9.8	8.1	2.1	-2.9	-9.0	-17.5	-25.4	-34.4	-45.2	-56.4	-71.4	-94.2	-126.9	-178.6	-260.9	-391.7	-594.1	-911.6	-1399.2	-2147.3	32.9	1.8
9-F	47714	14543	31.1	22.0	20.0	20.4	17.6	17.7	22.2	13.0	11.3	10.0	8.2	2.4	-2.7	-8.6	-17.1	-25.0	-33.8	-44.6	-55.7	-70.5	-93.1	-125.4	-176.6	-258.0	-387.3	-587.6	-901.7	-1384.0	-2124.0	33.0	2.0
9-G	47402	14448	31.1	22.1	20.0	20.4	17.7	17.8	22.3	13.1	11.3	10.1	8.4	2.5	-2.5	-8.4	-16.9	-24.7	-33.5	-44.2	-55.2	-69.9	-92.4	-124.5	-175.3	-256.3	-384.8	-583.8	-895.8	-1375.1	-2110.2	33.0	2.1
9-H	47344	14431	31.1	22.1	20.0	20.4	17.7	17.8	22.3	13.1	11.4	10.1	8.4	2.5	-2.5	-8.4	-16.8	-24.6	-33.5	-44.1	-55.1	-69.8	-92.3	-124.3	-175.1	-255.9	-384.3	-583.0	-894.7	-1373.4	-2107.7	33.0	2.1
9-I	47435	14458	31.1	22.1	20.0	20.4	17.7	17.7	22.2	13.1	11.3	10.1	8.3	2.5	-2.5	-8.5	-16.9	-24.7	-33.5	-44.3	-55.3	-70.0	-92.5	-124.6	-175.5	-256.4	-385.0	-584.2	-896.4	-1376.0	-2111.7	33.0	2.1
10-A	53801	16399	30.6	21.0	18.9	19.3	16.6	16.5	21.0	11.6	9.8	8.2	6.2	-0.2	-5.8	-12.5	-21.7	-30.4	-40.1	-51.9	-64.3	-80.9	-106.2	-142.7	-200.2	-291.9	-437.3	-662.7	-1016.1	-1558.9	-2392.2	32.2	0.2
10-B	52618	16038	30.7	21.2	19.1	19.5	16.8	16.7	21.2	11.9	10.0	8.6	6.6	0.3	-5.2	-11.8	-20.8	-29.3	-38.9	-50.5	-62.6	-78.9	-103.6	-139.3	-195.6	-285.3	-427.6	-648.1	-993.9	-1524.9	-2340.0	32.4	0.5
10-C	51572	15719	30.7	21.3	19.3	19.7	16.9	16.9	21.4	12.1	10.3	8.9	6.9	0.7	-4.7	-11.1	-20.0	-28.4	-37.9	-49.2	-61.1	-77.1	-101.4	-136.4	-191.6	-279.5	-419.0	-635.2	-974.2	-1494.9	-2294.0	32.5	0.8
10-D	50687	15449	30.8	21.5	19.4	19.8	17.1	17.1	21.6	12.3	10.5	9.1	7.2	1.1	-4.2	-10.5	-19.4	-27.6	-36.9	-48.2	-59.9	-75.6	-99.5	-133.8	-188.1	-274.6	-411.8	-624.3	-957.6	-1469.5	-2255.0	32.6	1.1
10-E	50021	15246	30.9	21.6	19.6	20.0	17.2	17.2	21.7	12.5	10.7	9.3	7.4	1.4	-3.9	-10.1	-18.9	-27.0	-36.2	-47.4	-59.0	-74.4	-98.0	-132.0	-185.6	-270.9	-406.3	-616.1	-945.1	-1450.3	-2225.6	32.7	1.3
10-F	49537	15099	30.9	21.7	19.6	20.0	17.3	17.3	21.8	12.6	10.8	9.4	7.6	1.6	-3.6	-9.8	-18.5	-26.6	-35.7	-46.8	-58.3	-73.6	-97.0	-130.6	-183.7	-268.2	-402.3	-610.1	-936.0	-1436.4	-2204.3	32.7	1.4
10-G	49282	15021	30.9	21.7	19.7	20.1	17.3	17.4	21.9	12.6	10.9	9.5	7.7	1.7	-3.5	-9.6	-18.3	-26.4	-35.5	-46.5	-57.9	-73.2	-96.5	-129.9	-182.7	-266.7	-400.2	-607.0	-931.2	-1429.1	-2193.1	32.8	1.5
10-H	49275	15019	30.9	21.7	19.7	20.1	17.3	17.4	21.9	12.6	10.9	9.5	7.7	1.7	-3.5	-9.6	-18.3	-26.4	-35.5	-46.5	-57.9	-73.2	-96.4	-129.8	-182.6	-266.7	-400.2	-606.9	-931.0	-1428.9	-2192.7	32.8	1.5
10-I	96984	29561	28.0	15.9	13.8	14.2	11.5	10.5	14.4	4.4	1.3	-1.9	-6.4	-16.0	-25.8	-37.5	-52.1	-66.6	-82.6	-101.5	-123.1	-152.5	-197.0	-263.0	-365.9	-530.0	-790.0	-1193.0	-1825.4	-2797.3	-4292.7	28.9	-8.3
11-A	55382	16880	30.4	20.7	18.7	19.1	16.3	16.2	20.6	11.3	9.4	7.8	5.6	-0.8	-6.6	-13.5	-22.9	-31.8	-41.8	-53.8	-66.5	-83.6	-109.6	-147.1	-206.4	-300.7	-450.3	-682.2	-1045.8	-1604.3	-2461.8	32.1	-0.2
11-B	54228	16529	30.5	20.9	18.9	19.3	16.5	16.4	20.9	11.6	9.7	8.1	6.0	-0.4	-6.0	-12.8	-22.0	-30.8	-40.6	-52.4	-64.9	-81.6	-107.1	-143.9	-201.9	-294.3	-440.9	-667.9	-1024.1	-1571.2	-2411.0	32.2	0.1
11-C	53246	16229	30.6	21.1	19.0	19.4	16.7	16.6	21.1	11.8	9.9	8.4	6.3	0.0	-5.5	-12.1	-21.3	-29.9	-39.6	-51.2	-63.5	-79.9	-105.0	-141.1	-198.1	-288.8	-432.8	-655.8	-1005.7	-1543.0	-2367.7	32.3	0.4
11-D	52500	16002	30.7	21.2	19.1	19.5	16.8	16.8	21.2	11.9	10.1	8.6	6.6	0.3	-5.1	-11.7	-20.7	-29.2	-38.8	-50.4	-62.5	-78.7	-103.4	-139.0	-195.2	-284.7	-426.7	-646.6	-991.6	-1521.6	-2334.8	32.4	0.6
11-E	51842	15801	30.7	21.3	19.2	19.6	16.9	16.9	21.3	12.1	10.2	8.8	6.8	0.6	-4.8	-11.3	-20.2	-28.6	-38.1	-49.6	-61.5	-77.6	-102.0	-137.1	-192.6	-281.0	-421.3	-638.5	-979.3	-1502.6	-2305.8	32.5	0.8
11-F	51470	15688	30.8	21.4	19.3	19.7	17.0	17.0	21.4	12.1	10.3	8.9	6.9	0.8	-4.6	-11.0	-20.0	-28.3	-37.7	-49.1	-61.0	-76.9	-101.2	-136.1	-191.2	-278.9	-418.2	-633.9	-972.3	-1492.0	-2289.5	32.5	0.9
11-G	51242	15619	30.8	21.4	19.3	19.7	17.0	17.0	21.5	12.2	10.4	8.9	7.0	0.9	-4.5	-10.9	-19.8	-28.1	-37.5	-48.8	-60.7	-76.5	-100.7	-135.4	-190.3	-277.7	-416.3	-631.1	-968.0	-1485.4	-2279.4	32.5	0.9
11-H	51236	15617	30.8	21.4	19.3	19.7	17.0	17.0	21.5	12.2	10.4	8.9	7.0	0.9	-4.5	-10.9	-19.8	-28.1	-37.5	-48.8	-60.7	-76.5	-100.7	-135.4	-190.3	-277.6	-416.3	-631.1	-967.9	-1485.2	-2279.2	32.5	0.9
11-K	52481	15996	30.7	21.2	19.1	19.5	16.8	16.8	21.2	11.9	10.1	8.6	6.6	0.4	-5.1	-11.7	-20.7	-29.2	-38.8	-50.3	-62.4	-78.6	-103.3	-138.9	-195.1	-284.5	-426.5	-646.4	-991.3	-1521.0	-2334.0	32.4	0.6
11-L	53214	16220	30.6	21.1	19.0	19.4	16.7	16.6	21.1	11.8	9.9	8.4	6.4	0.0	-5.5	-12.1	-21.3	-29.9	-39.5	-51.2	-63.5	-79.9	-104.9	-141.0	-198.0	-288.6	-432.5	-655.4	-1005.0	-1542.1	-2366.3	32.3	0.4
12-A	56959	17361	30.3	20.5	18.4	18.8	16.1	16.0	20.4	11.0	9.0	7.4	5.1	-1.5	-7.4	-14.4	-24.1	-33.1	-43.4	-55.7	-68.7	-86.2	-112.9	-151.6	-212.5	-309.4	-463.3	-701.6	-1075.4	-1649.6	-2531.3	31.9	-0.6
12-B	55875	17031	30.4	20.6	18.6	19.0	16.2	16.2	20.6	11.2	9.3	7.7	5.5	-1.0	-6.9	-13.8	-23.3	-32.2	-42.3	-54.4	-67.2	-84.4	-110.6	-148.5	-208.3	-303.4	-454.4	-688.2	-1055.0	-1618.5	-2483.5	32.0	-0.3
12-C	54951	16749	30.5	20.8	18.7	19.1	16.4	16.3	20.7	11.4	9.5	7.9	5.8	-0.7	-6.4	-13.2	-22.6	-31.4	-41.3	-53.3	-65.9	-82.8	-108.6	-145.9	-204.7	-298.3	-446.8	-676.8	-1037.7	-1591.9	-2442.8	32.1	-0.1
12-D	54256	16537	30.5	20.9	18.8	19.2	16.5	16.4	20.9	11.6	9.6	8.1	6.0	-0.4	-6.0	-12.8	-22.1	-30.8	-40.6	-52.4	-64.9	-81.7	-107.2	-144.0	-202.0	-294.4	-441.1	-668.3	-1024.6	-1572.0	-2412.2	32.2	0.1
12-E	53659	16355	30.6	21.0	18.9	19.3	16.6	16.5	21.0	11.7	9.8	8.3	6.2	-0.1	-5.7	-12.4	-21.6	-30.3	-40.0	-51.7	-64.1	-80.6	-105.9	-142.3	-199.7	-291.1	-436.2	-660.9	-1013.4	-1554.9	-2385.9	32.3	0.3
12-F	53359	16264	30.6	21.0	19.0	19.4	16.6	16.6	21.0	11.7	9.9	8.3	6.3	0.0	-5.6	-12.2	-21.4	-30.0	-39.7	-51.4	-63.7	-80.1	-105.2	-141.4	-198.5	-289.4	-433.7	-657.2	-1007.8	-1546.2	-2372.7	32.3	0.3
12-G	53181	16210	30.6	21.1	19.0	19.4	16.7	16.6	21.1	11.8	9.9	8.4	6.4	0.1	-5.5	-12.1	-21.2	-29.8	-39.5	-51.2	-63.4	-79.8	-104.9	-140.9	-197.8	-288.4	-432.3	-655.0	-1004.4	-1541.1	-2364.9	32.3	0.4
12-H	53208	16218	30.6	21.1	19.0	19.4	16.7	16.6	21.1	11.8	9.9	8.4	6.4	0.1	-5.5	-12.1	-21.3	-29.9	-39.5	-51.2	-63.5	-79.9	-104.9	-141.0	-197.9	-288.6	-432.5	-655.4	-1004.9	-1541.9	-2366.1	32.3	0.4
12-I	53455	16293	30.6	21.0	19.0	19.4	16.6	16.6	21.0	11.7	9.8	8.3	6.3	-0.1	-5.6	-12.3	-21.5	-30.1	-39.8	-51.5	-63.8	-80.3	-105.4	-141.7	-198.9	-290.0	-434.5	-658.4	-1009.6	-1549.0	-2376.9	32.3	0.3
12-J	53861	16417	30.6	21.0	18.9	19.3	16.6	16.5	20.9	11.6	9.7	8.2	6.1	-0.2	-5.8	-12.5	-21.8	-30.4	-40.2	-52.0	-64.4	-81.0	-106.3	-142.8	-200.5	-292.2	-437.8	-663.4	-1017.2	-1560.7	-2394.8	32.2	0.2
12-K	54474	16604	30.5	20.9	18.8	19.2	16.5	16.4	20.8	11.5	9.6	8.0	5.9	-0.5	-6.1	-12.9	-22.2	-31.0	-40.8	-52.7	-65.2	-82.0	-107.6	-144.6	-202.9	-295.6	-442.9	-671.0	-1028.7	-1578.3	-2421.8	32.2	0.0
12-L	55245	16839	30.4	20.7	18.7	19.1	16.3	16.3	20.7	11.3	9.4	7.8	5.7	-0.8	-6.5	-13.4	-22.8	-31.6	-41.6	-53.6	-66.3	-83.3	-109.3	-146.7	-205.8	-299.9	-449.2	-680.5	-1043.2	-1600.4	-2455.8	32.1	-0.2
13-A	58571	17852	30.2	20.2	18.2	18.6	15.8	15.7	20.1	10.7	8.7	6.9	4.6	-2.1	-8.2	-15.4	-25.2	-34.5	-45.0	-57.6	-71.0	-89.0	-116.4	-156.1	-218.7	-318.4	-476.5	-721.4	-1105.7	-1695.9	-2602.3	31.7	-1.0
13-B	57531	17535	30.3	20.4	18.3	18.7	16.0	15.9	20.2	10.9	8.9	7.2	4.9	-1.7	-7.7	-14.8	-24.5	-33.6	-44.0	-56.3	-69.5	-87.2	-114.2	-153.2	-214.7	-312.6	-467.9	-708.6	-1086.1	-1666.0	-2556.5	31.8	-0.7
13-C	56691	17279	30.3	20.5	18.5	18.9	16.1	16.0	20.4	11.1	9.1	7.4	5.2	-1.4	-7.3	-14.3	-23.9	-32.9	-43.1	-55.3	-68.3	-85.8	-112.4	-150.8	-211.4	-307.9	-461.1	-698.3	-1070.4	-1641.9	-2519.5	31.9	-0.5
13-D	56054	17085	30.4	20.6	18.6	19.0	16.2	16.1	20.5	11.2	9.2	7.6	5.4	-1.1	-6.9	-13.9	-23.4	-32.4	-42.5	-54.6	-67.4	-84.7	-111.0	-149.0	-209.0	-304.4	-455.8	-690.4	-1058.4	-1623.6	-2491.4	32.0	-0.4
13-F	55244	16838	30.4	20.7	18.7	19.1	16.3	16.3	20.7	11.3	9.4	7.8	5.7	-0.8	-6.5	-13.4	-22.8	-31.6	-41.6	-53.6	-66.3	-83.3	-109.3	-146.7	-205.8	-299.9	-449.2	-680.5	-1043.2	-1600.4	-2455.7	32.1	-0.2
13-G	55127	16803	30.5	20.8	18.7	19.1	16.4	16.3	20.7	11.4	9.4	7.9	5.7	-0.7	-6.5	-13.3	-22.7	-31.5	-41.5	-53.5	-66.1	-83.1	-109.0	-146.4	-205.4	-299.2	-448.2	-679.0	-1041.0	-1597.0	-2450.6	32.1	-0.1
13-H	55134	16805	30.5	20.8	18.7	19.1	16.4	16.3	20.7	11.4	9.4	7.9	5.7	-0.7	-6.5	-13.3	-22.7	-31.5	-41.5	-53.5	-66.2	-83.2	-109.0	-146.4	-205.4	-299.3	-448.3	-679.1	-1041.1	-1597.2	-2450.9	32.1	-0.1
13-I	55447	16900	30.4	20.7	18.7	19.1	16.3	16.2	20.6	11.3	9.4	7.8	5.6	-0.9	-6.6	-13.5	-22.9	-31.8	-41.8	-53.9	-66.6	-83.7	-109.7	-147.3	-206.6	-301.0	-450.9	-683.0	-1047.0	-1606.2	-2464.7	32.1	-0.2
13-J	55948	17053	30.4	20.6	18.6	19.0	16.2	16.1	20.5	11.2	9.3	7.6	5.4	-1.1	-6.9	-13.8	-23.3	-32.3	-42.3	-54.5	-67.3	-84.5	-110.8	-148.7	-208.6	-303.8	-455.0	-689.1	-1056.4	-1620.6	-2486.7	32.0	-0.3
13-K	56551	17237	30.3	20.5	18.5	18.9	16.1	16.0	20.4	11.1	9.1	7.5	5.3	-1.3	-7.2	-14.2	-23.8	-32.8	-43.0	-55.2	-68.1	-85.6	-112.1	-150.4	-210.9	-307.2	-459.9	-696.6	-1067.7	-1637.9	-2513.3	31.9	-0.5
13-L	57373	17487	30.3	20.4	18.4	18.8	16.0	15.9	20.3	10.9	8.9	7.3	5.0	-1.6	-7.6	-14.7	-24.4	-33.5	-43.8	-56.1	-69.3	-86.9	-113.8	-152.7	-214.1	-311.7	-466.7	-706.7	-1083.2	-1661.5	-2549.5	31.9	-0.7
14-D	57870	17639	30.2	20.3	18.3	18.7	15.9	15.8	20.2	10.8	8.8	7.1	4.8	-1.8	-7.8	-15.0	-24.7	-33.9	-44.3	-56.7	-70.0	-87.8	-114.9	-154.2	-216.0	-314.5	-470.7	-712.8	-1092.5	-1675.8	-2571.4	31.8	-0.8
14-E	57433	17506	30.3	20.4	18.4	18.8	16.0	15.9	20.3	10.9	8.9	7.2	5.0	-1.7	-7.6	-14.7	-24.4	-33.6	-43.9	-56.2	-69.4	-87.0	-114.0	-152.9	-214.3	-312.0	-467.1	-707.4	-1084.3	-1663.2	-2552.2	31.9	-0.7
14-F	57156	17421	30.3	20.4	18.4	18.8	16.0	15.9	20.3	11.0	9.0	7.3	5.1	-1.6	-7.5	-14.6	-24.2	-33.3	-43.6	-55.9	-69.0	-86.6	-113.4	-152.1	-213.2	-310.5	-464.9	-704.0	-1079.1	-1655.3	-2540.0	31.9	-0.7
14-G	57077	17397	30.3	20.5	18.4	18.8	16.1	15.9	20.3	11.0	9.0	7.3	5.1	-1.5	-7.5	-14.5	-24.1	-33.2	-43.5	-55.8	-68.9	-86.4	-113.2	-151.9	-212.9	-310.1	-464.2	-703.0	-1077.6	-1653.0	-2536.5	31.9	-0.6
14-H	57182	17429	30.3	20.4	18.4	18.8	16.0	15.9	20.3	11.0	9.0	7.3	5.0	-1.6	-7.5	-14.6	-24.2	-33.3	-43.6	-55.9	-69.0	-86.6	-113.4	-152.2	-213.3	-310.7	-465.1	-704.3	-1079.6	-1656.0	-2541.1	31.9	-0.7
14-J	57923	17655	30.2	20.3	18.3	18.7	15.9	15.8	20.2	10.8	8.8	7.1	4.8	-1.9	-7.9	-15.0	-24.8	-34.0	-44.4	-56.8	-70.1	-87.9	-115.0	-154.3	-216.2	-314.8	-471.2	-713.5	-1093.5	-1677.3	-2573.7	31.8	-0.8
14-K	58617	17867	30.2	20.2	18.2	18.6	15.8	15.7	20.1	10.7	8.6	6.9	4.6	-2.1	-8.2	-15.5	-25.3	-34.6	-45.1	-57.6	-71.0	-89.0	-116.5	-156.3	-218.9	-318.6	-476.9	-722.0	-1106.5	-1697.2	-2604.3	31.7	-1.0
14-L	59442	18118	30.1	20.1	18.1	18.5	15.7	15.5	19.9	10.5	8.5	6.7	4.3	-2.5	-8.6	-16.0	-25.9	-35.3	-45.9	-58.6	-72.2	-90.4	-118.2	-158.6	-222.1	-323.2	-483.6	-732.2	-1122.0	-1720.9	-2640.6	31.7	-1.2
15-F	59077	18007	30.2	20.2	18.1	18.5	15.8	15.6	20.0	10.6	8.5	6.8	4.4	-2.3	-8.4	-15.7	-25.6	-35.0	-45.5	-58.2	-71.7	-89.8	-117.5	-157.5	-220.7	-321.2	-480.6	-727.7	-1115.2	-1710.4	-2624.6	31.7	-1.1
15-G	59044	17997	30.2	20.2	18.1	18.5	15.8	15.6	20.0	10.6	8.5	6.8	4.4	-2.3	-8.4	-15.7	-25.6	-35.0	-45.5	-58.1	-71.6	-89.8	-117.4	-157.5	-220.5	-321.0	-480.3	-727.2	-1114.5	-1709.5	-2623.1	31.7	-1.1
15-H	59210	18047	30.1	20.1	18.1	18.5	15.7	15.6	19.9	10.5	8.5	6.8	4.4	-2.4	-8.5	-15.8	-25.7	-35.1	-45.7	-58.3	-71.8	-90.0	-117.7	-157.9	-221.2	-321.9	-481.7	-729.3	-1117.6	-1714.2	-2630.4	31.7	-1.2
15-I	59529	18144	30.1	20.1	18.0	18.4	15.7	15.5	19.9	10.5	8.4	6.7	4.3	-2.5	-8.7	-16.0	-25.9	-35.4	-46.0	-58.7	-72.3	-90.6	-118.4	-158.8	-222.4	-323.7	-484.3	-733.2	-1123.6	-1723.4	-2644.5	31.6	-1.2
15-J	59995	18287	30.1	20.0	18.0	18.4	15.6	15.5	19.8	10.4	8.3	6.6	4.1	-2.7	-8.9	-16.3	-26.3	-35.8	-46.5	-59.2	-72.9	-91.4	-119.4	-160.1	-224.2	-326.2	-488.1	-739.0	-1132.4	-1736.8	-2665.0	31.6	-1.4
15-K	60660	18489	30.0	19.9	17.9	18.3	15.5	15.3	19.7	10.3	8.2	6.4	3.9	-2.9	-9.2	-16.7	-26.8	-36.4	-47.1	-60.0	-73.9	-92.5	-120.8	-162.0	-226.8	-329.9	-493.6	-747.1	-1144.9	-1755.9	-2694.3	31.5	-1.5
16-J	62032	18907	29.9	19.7	17.7	18.1	15.3	15.1	19.5	10.0	7.9	6.0	3.5	-3.5	-9.9	-17.5	-27.8	-37.5	-48.5	-61.6	-75.8	-94.8	-123.8	-165.9	-232.1	-337.5	-504.8	-764.0	-1170.6	-1795.2	-2754.7	31.4	-1.8
16-K	62709	19114	29.9	19.6	17.6	18.0	15.2	15.0	19.3	9.9	7.7	5.9	3.3	-3.7	-10.2	-17.9	-28.3	-38.1	-49.2	-62.4	-76.7	-95.9	-125.2	-167.8	-234.7	-341.3	-510.4	-772.3	-1183.3	-1814.7	-2784.5	31.3	-2.0
		Sum:	52.4	43.8	41.7	42.1	39.4	39.5	44.1	35.0	33.4	32.3	30.9	25.6	21.4	16.5	9.4	3.1	-4.1	-12.7	-21.0	-31.8	-48.1	-70.5	-105.8	-161.4	-249.0	-383.9	-594.9	-918.1	-1412.2	54.5	24.5

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Leq)
FROM WIND PARK OPERATIONS AT THE DESIGN WIND CONDITION

1/3 Octave Bands (Hertz)	16*	20	25	31	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	L	A
Sound Power Data - Design Speed	113.7	113.3	111.2	111.6	108.9	109.9	115.0	106.6	106.2	106.8	107.7	105.5	105.0	104.6	102.1	100.6	98.7	95.8	94.9	94.2	92.9	93.1	92.1	90.7	87.9	83.9	78.2	69.9	61.5	121.9	107.4
Data for the graph Atmos. Absorption per 1 km air temp 59F 70% RH	0.0000	0.0000	0.0000	0.0000	0.0000	0.0670	0.1050	0.1630	0.2510	0.3810	0.5650	0.8150	1.1300	1.5100	1.9200	2.3600	2.8400	3.3800	4.0800	5.0500	6.5100	8.7500	12.2000	17.7000	26.4000	39.9000	61.1000	93.7000	144.0000		

*Spherical wave spreading for up to 2 km, cylindrical wave spreading beyond 2 km.

	1/3 Octave Bands (Hertz) Distance (ft)	Distance (m)	16*	20	25	31	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	L	A
1-D	29105	8871	33.2	26.3	24.3	24.7	21.9	22.4	27.1	18.2	17.0	16.4	15.7	11.3	8.0	4.2	-1.9	-7.3	-13.4	-21.1	-28.2	-37.5	-51.8	-71.5	-103.1	-153.3	-233.3	-357.0	-550.8	-848.3	-1302.9	36.2	9.1
1-E	29062	8858	33.2	26.3	24.3	24.7	21.9	22.4	27.1	18.2	17.0	16.4	15.8	11.3	8.1	4.2	-1.9	-7.2	-13.4	-21.1	-28.2	-37.5	-51.7	-71.3	-102.9	-153.1	-232.9	-356.5	-550.0	-847.0	-1301.0	36.2	9.2
1-F	29352	8946	33.2	26.2	24.2	24.6	21.8	22.3	27.0	18.1	16.9	16.3	15.6	11.1	7.9	4.0	-2.1	-7.5	-13.7	-21.5	-28.6	-38.0	-52.4	-72.2	-104.1	-154.7	-235.3	-360.1	-555.5	-855.4	-1313.8	36.1	9.0
1-G	30014	9148	33.1	26.0	24.0	24.4	21.6	22.1	26.8	17.9	16.6	16.1	15.3	10.8	7.5	3.5	-2.7	-8.2	-14.5	-22.3	-29.6	-39.2	-53.9	-74.2	-106.7	-158.5	-240.9	-368.3	-568.0	-874.5	-1343.1	36.0	8.7
1-H	30995	9447	33.0	25.8	23.7	24.1	21.4	21.8	26.5	17.6	16.3	15.7	14.9	10.3	6.8	2.8	-3.6	-9.2	-15.6	-23.6	-31.1	-41.0	-56.1	-77.1	-110.6	-164.1	-249.0	-380.5	-586.6	-902.8	-1386.4	35.8	8.2
1-I	32248	9829	32.8	25.4	23.4	23.8	21.0	21.4	26.1	17.2	15.9	15.2	14.3	9.6	6.1	1.9	-4.7	-10.4	-17.0	-25.3	-33.0	-43.3	-59.0	-80.7	-115.6	-171.2	-259.5	-396.1	-610.2	-938.9	-1441.7	35.5	7.7
1-J	33774	10294	32.6	25.0	23.0	23.4	20.6	21.0	25.6	16.7	15.3	14.6	13.6	8.8	5.1	0.8	-5.9	-11.9	-18.8	-27.2	-35.3	-46.0	-62.4	-85.2	-121.7	-179.8	-272.2	-415.1	-639.1	-982.9	-1509.1	35.2	7.0
1-K	35493	10818	32.4	24.6	22.5	22.9	20.2	20.5	25.1	16.2	14.8	14.0	12.9	8.0	4.1	-0.5	-7.4	-13.6	-20.7	-29.4	-37.9	-49.1	-66.2	-90.2	-128.5	-189.5	-286.4	-436.4	-671.5	-1032.4	-1585.0	34.9	6.3
1-L	37522	11437	32.1	24.1	22.1	22.5	19.7	20.0	24.6	15.6	14.1	13.2	12.1	7.0	2.9	-1.9	-9.1	-15.5	-22.9	-32.0	-40.9	-52.7	-70.8	-96.1	-136.6	-200.9	-303.2	-461.6	-709.8	-1090.9	-1674.5	34.5	5.5
2-D	31068	9470	32.9	25.7	23.7	24.1	21.3	21.8	26.4	17.5	16.3	15.6	14.8	10.2	6.8	2.7	-3.6	-9.3	-15.7	-23.7	-31.2	-41.1	-56.3	-77.3	-110.9	-164.5	-249.7	-381.4	-588.0	-904.9	-1389.6	35.7	8.2
2-E	31077	9472	32.9	25.7	23.7	24.1	21.3	21.8	26.4	17.5	16.3	15.6	14.8	10.2	6.8	2.7	-3.6	-9.3	-15.7	-23.7	-31.3	-41.1	-56.3	-77.3	-111.0	-164.5	-249.7	-381.6	-588.1	-905.2	-1390.0	35.7	8.2
2-F	31444	9584	32.9	25.6	23.6	24.0	21.2	21.6	26.3	17.4	16.1	15.5	14.7	10.0	6.6	2.5	-4.0	-9.6	-16.1	-24.2	-31.8	-41.8	-57.2	-78.4	-112.4	-166.6	-252.8	-386.1	-595.1	-915.7	-1406.2	35.7	8.0
2-G	32095	9783	32.8	25.5	23.4	23.8	21.1	21.5	26.1	17.2	15.9	15.2	14.4	9.7	6.2	2.0	-4.5	-10.3	-16.9	-25.1	-32.8	-43.0	-58.6	-80.3	-115.0	-170.3	-258.2	-394.2	-607.4	-934.5	-1435.0	35.5	7.7
2-H	33051	10074	32.7	25.2	23.2	23.6	20.8	21.2	25.8	16.9	15.6	14.9	14.0	9.2	5.6	1.3	-5.3	-11.2	-18.0	-26.3	-34.2	-44.7	-60.8	-83.1	-118.8	-175.7	-266.1	-406.1	-625.4	-962.1	-1477.2	35.3	7.3
2-I	34278	10448	32.5	24.9	22.8	23.2	20.5	20.8	25.5	16.5	15.2	14.4	13.4	8.6	4.8	0.4	-6.4	-12.4	-19.3	-27.9	-36.1	-46.9	-63.5	-86.7	-123.7	-182.6	-276.3	-421.3	-648.6	-997.4	-1531.4	35.1	6.8
2-J	35815	10916	32.3	24.5	22.5	22.9	20.1	20.4	25.1	16.1	14.7	13.8	12.8	7.8	3.9	-0.7	-7.7	-13.9	-21.0	-29.8	-38.4	-49.7	-67.0	-91.2	-129.8	-191.3	-289.1	-440.4	-677.6	-1041.7	-1599.2	34.8	6.1
2-K	37497	11429	32.1	24.1	22.1	22.5	19.7	20.0	24.6	15.6	14.1	13.3	12.1	7.0	2.9	-1.8	-9.0	-15.5	-22.9	-32.0	-40.9	-52.7	-70.7	-96.0	-136.5	-200.8	-303.0	-461.3	-709.3	-1090.1	-1673.4	34.5	5.5
2-L	39383	12004	31.9	23.7	21.6	22.0	19.3	19.5	24.1	15.1	13.6	12.6	11.3	6.1	1.9	-3.1	-10.6	-17.3	-25.0	-34.3	-43.6	-56.0	-74.9	-101.5	-143.9	-211.4	-318.6	-484.6	-744.9	-1144.4	-1756.6	34.2	4.8
3-D	33012	10062	32.7	25.2	23.2	23.6	20.8	21.2	25.9	16.9	15.6	14.9	14.0	9.2	5.6	1.3	-5.3	-11.2	-17.9	-26.2	-34.2	-44.6	-60.7	-83.0	-118.7	-175.5	-265.8	-405.6	-624.7	-961.0	-1475.5	35.3	7.3
3-E	33085	10084	32.7	25.2	23.1	23.5	20.8	21.2	25.8	16.9	15.6	14.9	13.9	9.2	5.5	1.3	-5.4	-11.3	-18.0	-26.3	-34.3	-44.8	-60.9	-83.2	-119.0	-175.9	-266.4	-406.5	-626.1	-963.1	-1478.7	35.3	7.3
3-F	33471	10202	32.6	25.1	23.0	23.4	20.7	21.1	25.7	16.8	15.4	14.7	13.8	9.0	5.3	1.0	-5.7	-11.6	-18.4	-26.8	-34.9	-45.5	-61.7	-84.3	-120.5	-178.1	-269.6	-411.3	-633.3	-974.2	-1495.7	35.2	7.1
3-G	34173	10416	32.5	24.9	22.9	23.3	20.5	20.9	25.5	16.6	15.2	14.4	13.5	8.6	4.9	0.5	-6.3	-12.3	-19.2	-27.7	-35.9	-46.7	-63.3	-86.4	-123.3	-182.0	-275.5	-420.0	-646.6	-994.4	-1526.7	35.1	6.8
3-I	36350	11079	32.3	24.4	22.3	22.7	20.0	20.3	24.9	15.9	14.5	13.7	12.6	7.5	3.6	-1.1	-8.1	-14.4	-21.6	-30.5	-39.2	-50.6	-68.1	-92.7	-131.9	-194.3	-293.5	-447.0	-687.7	-1057.1	-1622.8	34.7	5.9
3-J	37792	11519	32.1	24.0	22.0	22.4	19.6	19.9	24.5	15.5	14.0	13.2	12.0	6.9	2.8	-2.1	-9.3	-15.8	-23.2	-32.3	-41.3	-53.2	-71.3	-96.9	-137.6	-202.4	-305.5	-464.9	-714.9	-1098.6	-1686.5	34.4	5.4
3-K	39488	12036	31.9	23.7	21.6	22.0	19.3	19.5	24.1	15.0	13.5	12.6	11.3	6.0	1.8	-3.2	-10.7	-17.4	-25.1	-34.5	-43.8	-56.2	-75.1	-101.8	-144.3	-212.0	-319.5	-485.9	-746.8	-1147.5	-1761.3	34.2	4.7
3-L	41312	12592	31.7	23.3	21.2	21.6	18.9	19.1	23.6	14.6	13.0	12.0	10.6	5.2	0.8	-4.4	-12.1	-19.1	-27.0	-36.7	-46.5	-59.4	-79.1	-107.1	-151.5	-222.2	-334.6	-508.5	-781.2	-1199.9	-1841.7	33.9	4.1
4-D	34974	10660	32.4	24.7	22.7	23.1	20.3	20.6	25.3	16.3	14.9	14.2	13.1	8.2	4.4	-0.1	-7.0	-13.1	-20.1	-28.8	-37.1	-48.2	-65.1	-88.7	-126.5	-186.6	-282.1	-430.0	-661.7	-1017.5	-1562.1	35.0	6.5
4-E	35068	10689	32.4	24.7	22.6	23.0	20.3	20.6	25.3	16.3	14.9	14.1	13.1	8.2	4.4	-0.2	-7.0	-13.2	-20.2	-28.9	-37.3	-48.3	-65.3	-89.0	-126.9	-187.1	-282.9	-431.1	-663.5	-1020.2	-1566.2	34.9	6.4
4-F	35529	10829	32.4	24.6	22.5	22.9	20.2	20.5	25.1	16.2	14.8	14.0	12.9	8.0	4.1	-0.5	-7.4	-13.6	-20.7	-29.5	-38.0	-49.2	-66.3	-90.3	-128.7	-189.7	-286.7	-436.9	-672.2	-1033.5	-1586.6	34.8	6.3
4-G	36222	11041	32.3	24.4	22.4	22.8	20.0	20.3	24.9	16.0	14.5	13.7	12.6	7.6	3.7	-1.0	-8.0	-14.3	-21.5	-30.4	-39.0	-50.4	-67.9	-92.3	-131.4	-193.6	-292.5	-445.5	-685.3	-1053.4	-1617.2	34.7	6.0
4-H	37188	11335	32.2	24.2	22.1	22.5	19.8	20.1	24.7	15.7	14.2	13.4	12.2	7.1	3.1	-1.6	-8.8	-15.2	-22.6	-31.6	-40.4	-52.1	-70.0	-95.1	-135.3	-199.0	-300.5	-457.4	-703.5	-1081.2	-1659.8	34.6	5.6
4-I	38416	11709	32.0	23.9	21.8	22.2	19.5	19.8	24.4	15.3	13.9	12.9	11.7	6.6	2.4	-2.5	-9.8	-16.4	-23.9	-33.1	-42.2	-54.3	-72.7	-98.7	-140.1	-206.0	-310.6	-472.6	-726.6	-1116.6	-1714.0	34.3	5.1
4-J	39850	12146	31.9	23.6	21.5	21.9	19.2	19.4	24.0	14.9	13.4	12.5	11.2	5.9	1.6	-3.5	-10.9	-17.7	-25.5	-34.9	-44.3	-56.8	-75.9	-102.9	-145.8	-214.0	-322.5	-490.4	-753.7	-1157.9	-1777.2	34.1	4.6
4-K	41506	12651	31.7	23.2	21.2	21.6	18.8	19.0	23.6	14.5	13.0	11.9	10.5	5.1	0.7	-4.6	-12.3	-19.3	-27.3	-37.0	-46.7	-59.7	-79.5	-107.6	-152.3	-223.3	-336.2	-510.9	-784.9	-1205.5	-1850.3	33.8	4.0
4-L	43328	13206	31.5	22.9	20.8	21.2	18.5	18.6	23.2	14.0	12.4	11.3	9.8	4.3	-0.3	-5.8	-13.7	-21.0	-29.2	-39.2	-49.4	-62.9	-83.5	-112.9	-159.4	-233.5	-351.2	-533.4	-819.2	-1257.9	-1930.6	33.6	3.4
5-D	36951	11263	32.2	24.2	22.2	22.6	19.8	20.1	24.8	15.7	14.3	13.4	12.3	7.3	3.3	-1.5	-8.6	-15.0	-22.3	-31.3	-40.1	-51.7	-69.5	-94.5	-134.3	-197.7	-298.5	-454.5	-699.0	-1074.4	-1649.3	34.6	5.7
5-E	37120	11314	32.2	24.2	22.1	22.5	19.8	20.1	24.7	15.7	14.3	13.4	12.3	7.2	3.2	-1.6	-8.7	-15.2	-22.5	-31.5	-40.3	-52.0	-69.9	-95.0	-135.0	-198.7	-299.9	-456.6	-702.2	-1079.3	-1656.8	34.6	5.6
5-F	37584	11456	32.1	24.1	22.0	22.4	19.7	20.0	24.6	15.6	14.1	13.2	12.1	7.0	2.9	-1.9	-9.1	-15.6	-23.0	-32.1	-41.0	-52.8	-70.9	-96.3	-136.8	-201.3	-303.7	-462.3	-711.0	-1092.7	-1677.3	34.5	5.4
5-G	38291	11671	32.0	23.9	21.9	22.3	19.5	19.8	24.4	15.4	13.9	13.0	11.8	6.6	2.5	-2.4	-9.7	-16.3	-23.8	-33.0	-42.0	-54.1	-72.5	-98.3	-139.6	-205.3	-309.6	-471.1	-724.3	-1113.0	-1708.5	34.4	5.2
5-H	39252	11964	31.9	23.7	21.7	22.1	19.3	19.6	24.2	15.1	13.6	12.7	11.4	6.2	1.9	-3.1	-10.5	-17.2	-24.8	-34.2	-43.5	-55.8	-74.6	-101.1	-143.4	-210.7	-317.5	-483.0	-742.4	-1140.7	-1750.9	34.2	4.8
5-I	40417	12319	31.8	23.5	21.4	21.8	19.1	19.3	23.9	14.8	13.3	12.3	10.9	5.6	1.3	-3.8	-11.4	-18.3	-26.1	-35.6	-45.2	-57.8	-77.1	-104.5	-148.0	-217.2	-327.2	-497.4	-764.3	-1174.2	-1802.2	34.0	4.4
5-J	41879	12765	31.6	23.1	21.1	21.5	18.7	18.9	23.5	14.4	12.8	11.8	10.4	4.9	0.5	-4.8	-12.6	-19.6	-27.7	-37.4	-47.3	-60.4	-80.4	-108.7	-153.7	-225.4	-339.2	-515.5	-791.9	-1216.3	-1866.7	33.8	3.9
6-D	38939	11869	32.0	23.8	21.7	22.1	19.4	19.6	24.2	15.2	13.7	12.8	11.5	6.3	2.1	-2.8	-10.2	-16.9	-24.5	-33.8	-43.0	-55.2	-73.9	-100.2	-142.2	-208.9	-315.0	-479.1	-736.5	-1131.7	-1737.1	34.3	4.9
6-E	39155	11935	31.9	23.7	21.7	22.1	19.3	19.6	24.2	15.1	13.6	12.7	11.4	6.2	2.0	-3.0	-10.4	-17.1	-24.7	-34.1	-43.3	-55.6	-74.4	-100.8	-143.0	-210.1	-316.7	-481.8	-740.6	-1137.9	-1746.6	34.2	4.8
6-G	40306	12285	31.8	23.5	21.4	21.8	19.1	19.3	23.9	14.8	13.3	12.3	11.0	5.7	1.3	-3.8	-11.3	-18.2	-26.0	-35.5	-45.0	-57.6	-76.9	-104.2	-147.6	-216.6	-326.3	-496.1	-762.3	-1171.0	-1797.4	34.0	4.4
6-H	41274	12580	31.7	23.3	21.2	21.6	18.9	19.1	23.7	14.6	13.0	12.0	10.6	5.2	0.8	-4.4	-12.1	-19.1	-27.0	-36.7	-46.4	-59.3	-79.0	-107.0	-151.4	-222.0	-334.2	-508.0	-780.5	-1198.9	-1840.0	33.9	4.1
6-I	42480	12948	31.6	23.0	21.0	21.4	18.6	18.8	23.4	14.3	12.7	11.6	10.2	4.7	0.1	-5.2	-13.0	-20.2	-28.3	-38.2	-48.2	-61.4	-81.7	-110.4	-156.1	-228.8	-344.2	-522.9	-803.2	-1233.5	-1893.2	33.7	3.7
6-J	43922	13388	31.4	22.7	20.7	21.1	18.3	18.5	23.0	13.9	12.3	11.1	9.6	4.0	-0.6	-6.2	-14.2	-21.5	-29.8	-40.0	-50.2	-63.9	-84.8	-114.6	-161.7	-236.8	-356.1	-540.8	-830.3	-1275.0	-1956.8	33.5	3.2
7-B	41118	12533	31.7	23.3	21.3	21.7	18.9	19.1	23.7	14.6	13.1	12.0	10.7	5.3	0.9	-4.3	-12.0	-18.9	-26.8	-36.5	-46.2	-59.0	-78.7	-106.5	-150.7	-221.1	-333.0	-506.1	-777.5	-1194.4	-1833.1	33.9	4.1
7-C	40867	12456	31.8	23.4	21.3	21.7	19.0	19.2	23.8	14.7	13.1	12.1	10.8	5.4	1.0	-4.1	-11.8	-18.7	-26.6	-36.2	-45.8	-58.6	-78.1	-105.8	-149.8	-219.7	-330.9	-503.0	-772.8	-1187.2	-1822.1	33.9	4.2
7-E	41156	12544	31.7	23.3	21.2	21.6	18.9	19.1	23.7	14.6	13.1	12.0	10.7	5.3	0.9	-4.3	-12.0	-19.0	-26.9	-36.6	-46.2	-59.1	-78.8	-106.6	-150.9	-221.3	-333.3	-506.6	-778.3	-1195.4	-1834.8	33.9	4.1
7-F	41659	12698	31.7	23.2	21.1	21.5	18.8	19.0	23.6	14.5	12.9	11.9	10.5	5.0	0.6	-4.7	-12.4	-19.4	-27.4	-37.2	-47.0	-60.0	-79.9	-108.1	-152.9	-224.2	-337.4	-512.8	-787.7	-1209.9	-1857.0	33.8	3.9
7-G	42400	12923	31.6	23.0	21.0	21.4	18.6	18.8	23.4	14.3	12.7	11.6	10.2	4.7	0.2	-5.2	-13.0	-20.1	-28.2	-38.1	-48.0	-61.3	-81.5	-110.2	-155.8	-228.3	-343.5	-522.0	-801.7	-1231.2	-1889.7	33.7	3.7
7-H	43381	13223	31.5	22.8	20.8	21.2	18.4	18.6	23.2	14.0	12.4	11.3	9.8	4.3	-0.3	-5.8	-13.7	-21.0	-29.3	-39.3	-49.5	-63.0	-83.6	-113.0	-159.6	-233.8	-351.6	-534.1	-820.2	-1259.5	-1933.0	33.6	3.4
7-I	44562	13582	31.4	22.6	20.6	21.0	18.2	18.3	22.9	13.7	12.1	10.9	9.4	3.7	-1.0	-6.6	-14.7	-22.1	-30.5	-40.8	-51.2	-65.0	-86.2	-116.4	-164.2	-240.4	-361.4	-548.7	-842.4	-1293.4	-1985.0	33.4	3.0
8-A	43443	13241	31.5	22.8	20.8	21.2	18.4	18.6	23.1	14.0	12.4	11.3	9.8	4.2	-0.4	-5.9	-13.8	-21.1	-29.3	-39.4	-49.5	-63.1	-83.8	-113.2	-159.9	-234.1	-352.1	-534.8	-821.3	-1261.2	-1935.7	33.6	3.3
8-B	43010	13110	31.5	22.9	20.9	21.3	18.5	18.7	23.2	14.1	12.5	11.4	10.0	4.4	-0.1	-5.6	-13.5	-20.7	-28.9	-38.8	-48.9	-62.3	-82.8	-111.9	-158.2	-231.7	-348.6	-529.5	-813.2	-1248.8	-1916.6	33.6	3.5

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Leq)
FROM WIND PARK OPERATIONS AT THE DESIGN WIND CONDITION

8-C	42820	13051	31.6	23.0	20.9	21.3	18.6	18.7	23.3	14.2	12.6	11.5	10.0	4.5	0.0	-5.5	-13.3	-20.5	-28.7	-38.6	-48.6	-62.0	-82.4	-111.4	-157.4	-230.7	-347.0	-527.1	-809.6	-1243.3	-1908.2	33.6	3.5
8-D	42881	13070	31.5	22.9	20.9	21.3	18.5	18.7	23.3	14.2	12.6	11.5	10.0	4.5	-0.1	-5.5	-13.4	-20.6	-28.7	-38.7	-48.7	-62.1	-82.5	-111.6	-157.7	-231.0	-347.5	-527.9	-810.7	-1245.1	-1910.9	33.6	3.5
8-F	43683	13315	31.5	22.8	20.7	21.1	18.4	18.5	23.1	14.0	12.3	11.2	9.7	4.1	-0.5	-6.0	-14.0	-21.3	-29.6	-39.7	-49.9	-63.5	-84.3	-113.9	-160.8	-235.5	-354.1	-537.8	-825.8	-1268.2	-1946.3	33.5	3.2
8-G	44513	13568	31.4	22.6	20.6	21.0	18.2	18.4	22.9	13.8	12.1	10.9	9.4	3.8	-1.0	-6.6	-14.6	-22.1	-30.5	-40.7	-51.1	-64.9	-86.1	-116.2	-164.1	-240.1	-361.0	-548.1	-841.5	-1292.0	-1982.9	33.4	3.0
8-H	45463	13857	31.3	22.4	20.4	20.8	18.0	18.2	22.7	13.5	11.9	10.7	9.1	3.3	-1.5	-7.2	-15.4	-22.9	-31.5	-41.9	-52.5	-66.6	-88.2	-119.0	-167.8	-245.4	-368.8	-559.8	-859.3	-1319.3	-2024.7	33.3	2.7
9-A	45248	13792	31.3	22.5	20.4	20.8	18.1	18.2	22.7	13.6	11.9	10.7	9.1	3.4	-1.4	-7.0	-15.2	-22.7	-31.2	-41.6	-52.1	-66.2	-87.7	-118.4	-166.9	-244.2	-367.0	-557.2	-855.3	-1313.1	-2015.3	33.3	2.7
9-B	44882	13680	31.3	22.5	20.5	20.9	18.1	18.3	22.8	13.7	12.0	10.8	9.3	3.6	-1.2	-6.8	-14.9	-22.4	-30.9	-41.1	-51.6	-65.6	-86.9	-117.3	-165.5	-242.2	-364.0	-552.6	-848.4	-1302.6	-1999.1	33.4	2.9
9-C	44748	13639	31.4	22.6	20.5	20.9	18.2	18.3	22.8	13.7	12.0	10.9	9.3	3.7	-1.1	-6.7	-14.8	-22.3	-30.7	-41.0	-51.4	-65.4	-86.6	-116.9	-165.0	-241.4	-362.9	-551.0	-845.9	-1298.8	-1993.2	33.4	2.9
9-D	44885	13681	31.3	22.5	20.5	20.9	18.1	18.3	22.8	13.7	12.0	10.8	9.3	3.6	-1.2	-6.8	-14.9	-22.4	-30.9	-41.1	-51.6	-65.6	-86.9	-117.3	-165.5	-242.2	-364.0	-552.7	-848.5	-1302.7	-1999.3	33.4	2.9
9-E	45191	13774	31.3	22.5	20.4	20.8	18.1	18.2	22.7	13.6	11.9	10.7	9.2	3.5	-1.3	-7.0	-15.2	-22.7	-31.2	-41.5	-52.1	-66.1	-87.6	-118.2	-166.7	-243.9	-366.6	-556.5	-854.2	-1311.5	-2012.8	33.3	2.8
9-F	45751	13945	31.3	22.4	20.3	20.7	18.0	18.1	22.6	13.5	11.8	10.6	9.0	3.2	-1.6	-7.4	-15.6	-23.2	-31.8	-42.2	-52.9	-67.1	-88.8	-119.8	-168.9	-247.0	-371.2	-563.4	-864.7	-1327.6	-2037.4	33.2	2.6
9-G	46530	14182	31.2	22.2	20.2	20.6	17.8	17.9	22.4	13.3	11.6	10.3	8.7	2.9	-2.0	-7.9	-16.2	-23.9	-32.6	-43.2	-54.0	-68.4	-90.5	-122.0	-171.9	-251.4	-377.6	-573.0	-879.4	-1350.0	-2071.8	33.1	2.3
9-H	47536	14489	31.1	22.0	20.0	20.4	17.6	17.7	22.2	13.0	11.3	10.0	8.3	2.4	-2.6	-8.5	-17.0	-24.8	-33.7	-44.4	-55.4	-70.2	-92.7	-124.9	-175.9	-257.0	-385.9	-585.4	-898.3	-1378.9	-2116.1	33.0	2.0
9-I	48685	14839	31.0	21.8	19.8	20.2	17.4	17.5	22.0	12.8	11.0	9.7	7.9	1.9	-3.2	-9.3	-17.9	-25.8	-34.9	-45.8	-57.1	-72.1	-95.2	-128.2	-180.3	-263.4	-395.3	-599.6	-919.9	-1411.9	-2166.7	32.9	1.7
10-A	47074	14348	31.1	22.1	20.1	20.5	17.7	17.8	22.3	13.1	11.4	10.2	8.5	2.6	-2.3	-8.2	-16.6	-24.4	-33.2	-43.8	-54.8	-69.4	-91.7	-123.6	-174.1	-254.4	-382.1	-579.7	-889.6	-1365.6	-2095.8	33.1	2.2
10-B	46806	14266	31.2	22.2	20.1	20.5	17.8	17.9	22.4	13.2	11.5	10.2	8.6	2.8	-2.2	-8.1	-16.4	-24.1	-32.9	-43.5	-54.4	-68.9	-91.1	-122.8	-173.0	-252.9	-379.9	-576.4	-884.6	-1357.9	-2083.9	33.1	2.2
10-C	46721	14241	31.2	22.2	20.1	20.5	17.8	17.9	22.4	13.2	11.5	10.3	8.6	2.8	-2.1	-8.0	-16.3	-24.1	-32.8	-43.4	-54.3	-68.8	-90.9	-122.6	-172.7	-252.5	-379.2	-575.3	-883.0	-1355.5	-2080.2	33.1	2.3
10-D	46847	14279	31.2	22.2	20.1	20.5	17.8	17.9	22.4	13.2	11.5	10.2	8.6	2.7	-2.2	-8.1	-16.4	-24.2	-32.9	-43.5	-54.4	-69.0	-91.2	-122.9	-173.2	-253.2	-380.2	-576.9	-885.4	-1359.1	-2085.7	33.1	2.2
10-E	47207	14389	31.1	22.1	20.1	20.5	17.7	17.8	22.3	13.1	11.4	10.1	8.4	2.6	-2.4	-8.3	-16.7	-24.5	-33.3	-44.0	-54.9	-69.6	-92.0	-123.9	-174.6	-255.2	-383.2	-581.4	-892.1	-1369.5	-2101.6	33.0	2.1
10-F	47778	14563	31.1	22.0	20.0	20.4	17.6	17.7	22.2	13.0	11.2	10.0	8.2	2.3	-2.7	-8.7	-17.2	-25.0	-33.9	-44.7	-55.8	-70.6	-93.2	-125.6	-176.8	-258.4	-387.8	-588.4	-902.9	-1385.9	-2126.8	33.0	1.9
10-G	48564	14802	31.0	21.9	19.8	20.2	17.5	17.5	22.0	12.8	11.0	9.7	7.9	2.0	-3.1	-9.2	-17.8	-25.7	-34.7	-45.6	-56.9	-71.9	-94.9	-127.8	-179.9	-262.7	-394.3	-598.1	-917.7	-1408.5	-2161.4	32.9	1.7
10-H	49583	15113	30.9	21.7	19.6	20.0	17.3	17.3	21.8	12.6	10.8	9.4	7.6	1.6	-3.6	-9.8	-18.5	-26.6	-35.8	-46.8	-58.3	-73.7	-97.1	-130.7	-183.8	-268.4	-402.7	-610.7	-936.8	-1437.7	-2206.3	32.7	1.4
10-I	81751	24918	28.7	17.3	15.3	15.7	12.9	12.3	16.4	6.6	4.0	1.3	-2.3	-10.8	-19.1	-29.0	-41.7	-54.1	-68.0	-84.3	-102.7	-127.5	-165.3	-220.8	-307.8	-446.3	-665.9	-1006.2	-1540.2	-2360.8	-3622.6	29.8	-5.8
11-A	48974	14927	31.0	21.8	19.7	20.1	17.4	17.4	21.9	12.7	10.9	9.6	7.8	1.8	-3.3	-9.5	-18.1	-26.1	-35.2	-46.1	-57.5	-72.6	-95.8	-129.0	-181.5	-265.0	-397.7	-603.2	-925.4	-1420.3	-2179.5	32.8	1.6
11-B	48725	14851	31.0	21.8	19.8	20.2	17.4	17.5	22.0	12.8	11.0	9.7	7.9	1.9	-3.2	-9.3	-17.9	-25.9	-34.9	-45.8	-57.1	-72.2	-95.2	-128.3	-180.5	-263.6	-395.6	-600.1	-920.7	-1413.1	-2168.5	32.8	1.7
11-C	48663	14832	31.0	21.8	19.8	20.2	17.4	17.5	22.0	12.8	11.0	9.7	7.9	2.0	-3.2	-9.3	-17.8	-25.8	-34.8	-45.7	-57.0	-72.1	-95.1	-128.1	-180.3	-263.3	-395.1	-599.3	-919.5	-1411.3	-2165.8	32.9	1.7
11-D	48902	14905	31.0	21.8	19.8	20.2	17.4	17.5	21.9	12.7	11.0	9.6	7.8	1.9	-3.3	-9.4	-18.0	-26.0	-35.1	-46.0	-57.4	-72.5	-95.6	-128.8	-181.2	-264.6	-397.1	-602.3	-924.0	-1418.2	-2176.3	32.8	1.6
11-E	49230	15005	30.9	21.7	19.7	20.1	17.3	17.4	21.9	12.6	10.9	9.5	7.7	1.7	-3.5	-9.6	-18.3	-26.3	-35.4	-46.4	-57.8	-73.1	-96.3	-129.7	-182.5	-266.5	-399.8	-606.3	-930.2	-1427.6	-2190.8	32.8	1.5
11-F	49859	15197	30.9	21.6	19.6	20.0	17.2	17.3	21.7	12.5	10.7	9.3	7.5	1.4	-3.8	-10.0	-18.7	-26.9	-36.1	-47.2	-58.7	-74.2	-97.7	-131.5	-184.9	-270.0	-405.0	-614.1	-942.0	-1445.7	-2218.5	32.7	1.3
11-G	50633	15433	30.8	21.5	19.4	19.8	17.1	17.1	21.6	12.3	10.5	9.1	7.2	1.1	-4.2	-10.5	-19.3	-27.6	-36.9	-48.1	-59.8	-75.5	-99.4	-133.7	-187.9	-274.3	-411.3	-623.6	-956.6	-1467.9	-2252.6	32.6	1.1
11-H	51615	15732	30.7	21.3	19.3	19.7	16.9	16.9	21.4	12.1	10.3	8.8	6.9	0.7	-4.7	-11.1	-20.1	-28.4	-37.9	-49.3	-61.2	-77.2	-101.5	-136.5	-191.7	-279.7	-419.4	-635.7	-975.0	-1496.1	-2295.8	32.5	0.8
11-K	55661	16966	30.4	20.7	18.6	19.0	16.3	16.2	20.6	11.3	9.3	7.7	5.5	-1.0	-6.7	-13.6	-23.1	-32.0	-42.1	-54.1	-66.9	-84.0	-110.2	-147.9	-207.5	-302.2	-452.6	-685.6	-1051.0	-1612.3	-2474.1	32.0	-0.3
11-L	57246	17449	30.3	20.4	18.4	18.8	16.0	15.9	20.3	10.9	9.0	7.3	5.0	-1.6	-7.5	-14.6	-24.3	-33.4	-43.7	-56.0	-69.1	-86.7	-113.6	-152.4	-213.6	-311.0	-465.6	-705.1	-1080.8	-1657.9	-2543.9	31.9	-0.7
12-A	50852	15500	30.8	21.5	19.4	19.8	17.1	17.1	21.5	12.3	10.5	9.1	7.2	1.0	-4.3	-10.6	-19.5	-27.8	-37.1	-48.4	-60.1	-75.9	-99.8	-134.3	-188.8	-275.5	-413.1	-626.3	-960.7	-1474.2	-2262.2	32.6	1.0
12-B	50653	15439	30.8	21.5	19.4	19.8	17.1	17.1	21.6	12.3	10.5	9.1	7.2	1.1	-4.2	-10.5	-19.3	-27.6	-36.9	-48.1	-59.8	-75.5	-99.4	-133.7	-188.0	-274.4	-411.5	-623.9	-956.9	-1468.5	-2253.5	32.6	1.1
12-C	50641	15435	30.8	21.5	19.4	19.8	17.1	17.1	21.6	12.3	10.5	9.1	7.2	1.1	-4.2	-10.5	-19.3	-27.6	-36.9	-48.1	-59.8	-75.5	-99.4	-133.7	-188.0	-274.3	-411.4	-623.7	-956.7	-1468.1	-2252.9	32.6	1.1
12-D	50896	15513	30.8	21.5	19.4	19.8	17.1	17.1	21.5	12.3	10.5	9.0	7.1	1.0	-4.3	-10.7	-19.5	-27.8	-37.2	-48.4	-60.2	-75.9	-99.9	-134.4	-189.0	-275.7	-413.5	-626.9	-961.5	-1475.5	-2264.2	32.6	1.0
12-E	51242	15619	30.8	21.4	19.3	19.7	17.0	17.0	21.5	12.2	10.4	8.9	7.0	0.9	-4.5	-10.9	-19.8	-28.1	-37.5	-48.8	-60.7	-76.5	-100.7	-135.4	-190.3	-277.7	-416.3	-631.1	-968.0	-1485.4	-2279.4	32.5	0.9
12-F	51906	15821	30.7	21.3	19.2	19.6	16.9	16.9	21.3	12.1	10.2	8.8	6.8	0.6	-4.8	-11.3	-20.3	-28.7	-38.2	-49.6	-61.6	-77.7	-102.1	-137.3	-192.9	-281.3	-421.8	-639.3	-980.5	-1504.5	-2308.7	32.5	0.7
12-G	52703	16064	30.6	21.2	19.1	19.5	16.8	16.7	21.2	11.9	10.0	8.5	6.5	0.3	-5.3	-11.8	-20.9	-29.4	-39.0	-50.6	-62.7	-79.0	-103.8	-139.6	-196.0	-285.8	-428.3	-649.1	-995.4	-1527.4	-2343.8	32.4	0.5
12-H	53663	16357	30.6	21.0	18.9	19.3	16.6	16.5	21.0	11.7	9.8	8.3	6.2	-0.1	-5.7	-12.4	-21.6	-30.3	-40.0	-51.7	-64.1	-80.7	-105.9	-142.3	-199.7	-291.1	-436.2	-661.0	-1013.5	-1555.0	-2386.1	32.3	0.3
12-I	54862	16722	30.5	20.8	18.8	19.2	16.4	16.3	20.7	11.4	9.5	7.9	5.8	-0.6	-6.3	-13.1	-22.5	-31.3	-41.2	-53.2	-65.8	-82.7	-108.5	-145.7	-204.4	-297.8	-446.1	-675.8	-1036.0	-1589.4	-2438.9	32.1	-0.1
12-J	56166	17119	30.4	20.6	18.5	18.9	16.2	16.1	20.5	11.2	9.2	7.6	5.4	-1.2	-7.0	-14.0	-23.5	-32.5	-42.6	-54.7	-67.6	-84.9	-111.2	-149.3	-209.4	-305.0	-456.8	-691.8	-1060.5	-1626.8	-2496.4	32.0	-0.4
12-K	57637	17568	30.3	20.4	18.3	18.7	16.0	15.8	20.2	10.9	8.9	7.2	4.9	-1.7	-7.7	-14.9	-24.6	-33.7	-44.1	-56.5	-69.7	-87.4	-114.4	-153.5	-215.1	-313.2	-468.8	-709.9	-1088.1	-1669.1	-2561.1	31.8	-0.8
12-L	59221	18051	30.1	20.1	18.1	18.5	15.7	15.6	19.9	10.5	8.5	6.8	4.4	-2.4	-8.5	-15.8	-25.7	-35.1	-45.7	-58.3	-71.9	-90.1	-117.8	-158.0	-221.2	-322.0	-481.8	-729.4	-1117.9	-1714.6	-2630.9	31.7	-1.2
13-A	52743	16076	30.6	21.1	19.1	19.5	16.7	16.7	21.2	11.9	10.0	8.5	6.5	0.2	-5.3	-11.8	-20.9	-29.4	-39.1	-50.6	-62.8	-79.1	-103.9	-139.7	-196.1	-286.0	-428.7	-649.6	-996.2	-1528.5	-2345.5	32.4	0.5
13-B	52573	16024	30.7	21.2	19.1	19.5	16.8	16.7	21.2	11.9	10.1	8.6	6.6	0.3	-5.2	-11.7	-20.8	-29.3	-38.9	-50.4	-62.6	-78.8	-103.5	-139.2	-195.5	-285.1	-427.3	-647.5	-993.0	-1523.6	-2338.1	32.4	0.6
13-C	52615	16037	30.7	21.2	19.1	19.5	16.8	16.7	21.2	11.9	10.0	8.6	6.6	0.3	-5.2	-11.8	-20.8	-29.3	-38.9	-50.5	-62.6	-78.9	-103.6	-139.3	-195.6	-285.3	-427.6	-648.1	-993.8	-1524.9	-2339.9	32.4	0.5
13-D	52905	16126	30.6	21.1	19.1	19.5	16.7	16.7	21.1	11.8	10.0	8.5	6.5	0.2	-5.4	-11.9	-21.0	-29.6	-39.2	-50.8	-63.0	-79.4	-104.3	-140.1	-196.8	-286.9	-430.0	-651.6	-999.3	-1533.2	-2352.7	32.3	0.5
13-F	53948	16443	30.5	20.9	18.9	19.3	16.5	16.5	20.9	11.6	9.7	8.2	6.1	-0.3	-5.9	-12.6	-21.8	-30.5	-40.3	-52.1	-64.5	-81.1	-106.5	-143.1	-200.8	-292.7	-438.6	-664.5	-1018.8	-1563.1	-2398.6	32.2	0.2
13-G	54758	16690	30.5	20.8	18.8	19.2	16.4	16.4	20.8	11.4	9.5	8.0	5.8	-0.6	-6.3	-13.1	-22.4	-31.2	-41.1	-53.0	-65.6	-82.5	-108.2	-145.4	-204.0	-297.2	-445.2	-674.5	-1034.1	-1586.4	-2434.3	32.1	0.0
13-H	55669	16968	30.4	20.7	18.6	19.0	16.3	16.2	20.6	11.3	9.3	7.7	5.5	-1.0	-6.7	-13.6	-23.1	-32.0	-42.1	-54.1	-66.9	-84.1	-110.2	-147.9	-207.5	-302.3	-452.7	-685.7	-1051.2	-1612.6	-2474.4	32.0	-0.3
13-I	56896	17342	30.3	20.5	18.4	18.8	16.1	16.0	20.4	11.0	9.0	7.4	5.1	-1.4	-7.4	-14.4	-24.0	-33.1	-43.3	-55.6	-68.6	-86.1	-112.8	-151.4	-212.2	-309.1	-462.7	-700.8	-1074.2	-1647.8	-2528.5	31.9	-0.6
13-J	58254	17756	30.2	20.3	18.2	18.6	15.9	15.7	20.1	10.7	8.7	7.0	4.7	-2.0	-8.0	-15.2	-25.0	-34.3	-44.7	-57.2	-70.5	-88.4	-115.7	-155.2	-217.5	-316.6	-473.9	-717.5	-1099.7	-1686.8	-2588.3	31.8	-0.9
13-K	59682	18191	30.1	20.1	18.0	18.4	15.7	15.5	19.9	10.5	8.4	6.6	4.2	-2.6	-8.7	-16.1	-26.1	-35.5	-46.1	-58.9	-72.5	-90.8	-118.8	-159.3	-223.0	-324.5	-485.6	-735.1	-1126.5	-1727.8	-2651.2	31.6	-1.3
13-L	61305	18686	30.0	19.8	17.8	18.2	15.4	15.2	19.6	10.1	8.0	6.2	3.7	-3.2	-9.5	-17.1	-27.2	-36.9	-47.8	-60.8	-74.8	-93.6	-122.2	-163.8	-229.3	-333.5	-498.9	-755.1	-1157.0	-1774.4	-2722.7	31.5	-1.7
14-D	54914	16738	30.5	20.8	18.7	19.1	16.4	16.3	20.7	11.4	9.5	7.9	5.8	-0.6	-6.4	-13.2	-22.5	-31.4	-41.3	-53.2	-65.8	-82.8	-108.6	-145.8	-204.6	-298.1	-446.5	-676.4	-1037.0	-1590.9	-2441.2	32.1	-0.1
14-E	55357	16873	30.4	20.7	18.7	19.1	16.3	16.2	20.7	11.3	9.4	7.8	5.6	-0.8	-6.6	-13.5	-22.9	-31.7	-41.7	-53.8	-66.5	-83.5	-109.5	-147.1	-206.3	-300.5	-450.1	-681.9	-1045.3	-1603.6	-2460.7	32.1	-0.2
14-F	55996	17068	30.4	20.6	18.6	19.0	16.2	16.1	20.5	11.2	9.2	7.6	5.4	-1.1	-6.9	-13.8	-23.3	-32.3	-42.4	-54.5	-67.4	-84.6	-110.9	-148.9	-208.8	-304.1	-455.4	-689.7	-1057.3	-1622.0	-2488.9	32.0	-0.4
14-G	56807	17315	30.3	20.5	18.4	18.8	16.1	16.0	20.4	11.0	9.1	7.4	5.2	-1.4	-7.3	-14.3	-23.9	-33.0	-43.2	-55.5	-68.5	-86.0	-112.6	-151.2	-211.9	-308.6	-462.0	-699.7	-1072.5	-1645.2	-2524.6	31.9	-0.6
14-H	57792	17615	30.2	20.4	18.3	18.7	16.0	15.8	20.2	10.8	8.8	7.1	4.8	-1.8	-7.8	-14.9	-24.7	-33.9	-44.2	-56.6	-69.9	-87.7	-114.7	-153.9	-215.7	-314.0	-470.1	-711.8	-1091.0	-1673.5	-2568.0	31.8	-0.8
14-J	60238	18360	30.1	20.0	17.9	18.3	15.6	15.4	19.8	10.3	8.3	6.5	4.1	-2.8	-9.0	-16.4	-26.5	-36.0	-46.7	-59.5	-73.3	-91.8	-119.9	-160.8	-225.2	-327.6	-490.1	-741.9	-1136.9	-1743.7	-2675.7	31.6	-1.4
14-K	61740	18818	30.0	19.8	17.7	18.1	15.4	15.2	19.5	10.1	8.0	6.1	3.6	-3.4	-9.7	-17.3	-27.6	-37.3	-48.2	-61.3	-75.4	-94.3	-123.1	-165.0	-231.0	-335.9	-502.4	-760.4	-1165.1	-1786.9	-2741.8	31.4	-1.8
14-L	63336	19305	29.9	19.6	17.5	17.9	15.2	14.9	19.2	9.8	7.6	5.7	3.1	-4.0	-10.5	-18.3	-28.7	-38.7	-49.8	-63.1	-77.6	-97.0	-126.5	-169.5	-237.1	-344.7	-515.5	-780.1	-1195.1	-1832.7	-2812.1	31.3	-2.1
15-F	58039	17690	30.2	20.3	18.3	18.7	15.9	15.8	20.2	10.8	8.8	7.1	4.8	-1.9	-7.9	-15.1	-24.9	-34.1	-44.5	-56.9	-70.2	-88.1	-115.2	-154.6	-216.7	-315.4	-472.1	-714.9	-1095.7	-1680.6	-2578.8	31.8	-0.9
15-G	58884	17948	30.2	20.2	18.1	18.5	15.8	15.6	20.0	10.6	8.6	6.8	4.5	-2.2	-8.3	-15.6	-25.5	-34.8	-45.3	-57.9	-71.4	-89.5	-117.1	-157.0	-219.9	-320.1	-479.0	-725.3	-1111.5	-1704.9	-2616.0	31.7	-1.1
15-H	59882	18252	30.1	20.0	18.0	18.4	15.6	15.5	19.8	10.4	8.4	6.6	4.2	-2.6	-8.8	-16.2	-26.2	-35.7	-46.3	-59.1	-72.8	-91.2	-119.2	-159.8	-223.8	-325.6	-487.2	-737.6	-1130.3	-1733.5	-2660.0	31.6	-1.3
15-I	61040	18605	30.0	19.9	17.8	18.2	15.5	15.3	19.6	10.2	8.1	6.3	3.8	-3.1	-9.4	-16.9	-27.0	-36.7	-47.5	-60.5	-74.4	-93.1	-121.6	-163.1	-228.3	-332.0	-496.7	-751.8	-1152.0	-1766.8	-2711.0	31.5	-1.6
15-J	62312	18993	29.9	19.7	17.6	18.0	15.3	15.1	19.4	10.0	7.8	6.0	3.4	-3.6	-10.0	-17.7	-28.0	-37.8	-48.8	-61.9	-76.1	-95.3	-124.3	-166.6	-233.2	-339.1	-507.1	-767.5	-1175.9	-1803.3	-2767.0	31.4	-1.9
15-K	63759	19434	29.8	19.5	17.4	17.8	15.1	14.8	19.2	9.7	7.5	5.6	3.0	-4.1	-10.7	-18.5	-29.0	-39.0	-50.2	-63.6	-78.1	-97.7	-127.4	-170.7	-238.7	-347.1	-519.0	-785.3	-1203.0	-1844.8	-2830.7	31.2	-2.2
16-J	64355	19616	29.8	19.4	17.4	17.8	15.0	14.8	19.1	9.6	7.4	5.4	2.8	-4.4	-11.0	-18.9	-29.4	-39.5	-50.8	-64.3	-79.0	-98.7	-128.7	-172.4	-241.0	-350.4	-523.8	-792.6	-1214.2	-1861.9	-2857.0	31.2	-2.4
16-K	65789	20052	29.7	19.2	17.2	17.6	14.8	14.5	18.8	9.3	7.1	5.1	2.3	-4.9	-11.7	-19.8	-30.5	-40.7	-52.3	-66.0	-80.9	-101.1	-131.7	-176.4	-246.6	-358.3	-535.6	-810.2	-1241.1	-1903.0	-2920.1	31.1	-2.7
		Sum:	52.6	44.1	42.0	42.4	39.7	39.9	44.4	35.4	33.8	32.8	31.5	26.3	22.3	17.6	10.7	4.6	-2.2	-10.6	-18.4	-28.5	-43.7	-64.3	-96.9	-148.0	-228.6	-352.7	-546.7	-844.2	-1298.7	54.7	25.1

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Leq)
FROM WIND PARK OPERATIONS AT THE DESIGN WIND CONDITION

																		Hertz													
	1/3 Octave Bands	**16***	**20**	**25**	**31**	**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**	**L**	**A**
Sound Power Data - Design Speed		113.7	113.3	111.2	111.6	108.9	109.9	115.0	106.6	106.2	106.8	107.7	105.5	105.0	104.6	102.1	100.6	98.7	95.8	94.9	94.2	92.9	93.1	92.1	90.7	87.9	83.9	78.2	69.9	61.5	121.9	107.4

Data for the graph

Atmos. Absorption per 1 km air temp 59F 70% RH	0.0000	0.0000	0.0000	0.0000	0.0000	0.0670	0.1050	0.1630	0.2510	0.3810	0.5650	0.8150	1.1300	1.5100	1.9200	2.3600	2.8400	3.3800	4.0800	5.0500	6.5100	8.7500	12.2000	17.7000	26.4000	39.9000	61.1000	93.7000	144.0000		

*Spherical wave spreading for up to 2 km, cylindrical wave spreading beyond 2 km.

																			Hertz												
	1/3 Octave Bands		**16***	**20**	**25**	**31**	**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**	**L**	**A**
	Distance (ft)	**Distance (m)**																															
1-D	29563	9011	33.2	26.2	24.1	24.5	21.8	22.2	26.9	18.1	16.8	16.2	15.5	11.0	7.7	3.9	-2.3	-7.7	-14.0	-21.7	-28.9	-38.4	-52.9	-72.8	-104.9	-155.9	-237.1	-362.7	-559.5	-861.5	-1323.1	36.1	8.9
1-E	31622	9638	32.9	25.6	23.5	23.9	21.2	21.6	26.3	17.4	16.1	15.4	14.6	9.9	6.4	2.3	-4.1	-9.8	-16.3	-24.4	-32.1	-42.1	-57.6	-78.9	-113.2	-167.6	-254.3	-388.3	-598.4	-920.9	-1414.1	35.6	7.9
1-F	33848	10317	32.6	25.0	22.9	23.3	20.6	21.0	25.6	16.7	15.3	14.6	13.6	8.8	5.1	0.7	-6.0	-12.0	-18.9	-27.3	-35.4	-46.2	-62.6	-85.4	-122.0	-180.2	-272.8	-416.0	-640.5	-985.1	-1512.4	35.2	7.0
1-G	36263	11053	32.3	24.4	22.3	22.7	20.0	20.3	24.9	15.9	14.5	13.7	12.6	7.6	3.7	-1.0	-8.0	-14.3	-21.5	-30.4	-39.0	-50.5	-68.0	-92.5	-131.6	-193.8	-292.8	-446.0	-686.0	-1054.6	-1619.0	34.7	6.0
1-H	38806	11828	32.0	23.8	21.8	22.2	19.4	19.7	24.3	15.2	13.7	12.8	11.6	6.4	2.2	-2.8	-10.1	-16.8	-24.3	-33.6	-42.8	-55.0	-73.6	-99.8	-141.6	-208.1	-313.8	-477.5	-734.0	-1127.8	-1731.2	34.3	5.0
1-I	41399	12619	31.7	23.2	21.2	21.6	18.8	19.1	23.6	14.5	13.0	11.9	10.6	5.2	0.7	-4.5	-12.2	-19.2	-27.1	-36.9	-46.6	-59.5	-79.3	-107.3	-151.8	-222.7	-335.3	-509.6	-782.8	-1202.5	-1845.6	33.9	4.0
1-J	44082	13436	31.4	22.7	20.7	21.1	18.3	18.5	23.0	13.9	12.2	11.1	9.6	4.0	-0.7	-6.3	-14.3	-21.7	-30.0	-40.2	-50.5	-64.2	-85.2	-115.0	-162.4	-237.7	-357.4	-542.8	-833.4	-1279.6	-1963.9	33.5	3.1
1-K	46834	14275	31.2	22.2	20.1	20.5	17.8	17.9	22.4	13.2	11.5	10.2	8.6	2.7	-2.2	-8.1	-16.4	-24.2	-32.9	-43.5	-54.4	-69.0	-91.2	-122.9	-173.1	-253.1	-380.1	-576.7	-885.1	-1358.7	-2085.2	33.1	2.2
1-L	49744	15162	30.9	21.7	19.6	20.0	17.3	17.3	21.8	12.5	10.7	9.4	7.5	1.5	-3.7	-9.9	-18.7	-26.8	-36.0	-47.0	-58.6	-74.0	-97.5	-131.2	-184.5	-269.3	-404.0	-612.7	-939.9	-1442.4	-2213.4	32.7	1.4
2-D	31505	9603	32.9	25.6	23.6	24.0	21.2	21.6	26.3	17.4	16.1	15.5	14.6	10.0	6.5	2.4	-4.0	-9.7	-16.2	-24.3	-31.9	-41.9	-57.3	-78.6	-112.7	-166.9	-253.3	-386.9	-596.2	-917.5	-1408.9	35.6	8.0
2-E	33527	10219	32.6	25.1	23.0	23.4	20.7	21.0	25.7	16.8	15.4	14.7	13.8	9.0	5.3	0.9	-5.7	-11.7	-18.5	-26.9	-35.0	-45.6	-61.8	-84.5	-120.7	-178.4	-270.1	-412.0	-634.4	-975.8	-1498.2	35.2	7.1
2-F	35746	10895	32.3	24.5	22.5	22.9	20.1	20.4	25.1	16.1	14.7	13.9	12.8	7.8	4.0	-0.6	-7.6	-13.8	-21.0	-29.8	-38.3	-49.5	-66.8	-91.0	-129.5	-190.9	-288.5	-439.6	-676.3	-1039.7	-1596.2	34.8	6.2
2-G	38043	11595	32.1	24.0	21.9	22.3	19.6	19.9	24.5	15.4	14.0	13.1	11.9	6.7	2.6	-2.2	-9.5	-16.0	-23.5	-32.7	-41.7	-53.6	-71.9	-97.6	-138.6	-203.9	-307.5	-468.0	-719.6	-1105.9	-1697.5	34.4	5.3
2-H	40476	12337	31.8	23.4	21.4	21.8	19.0	19.3	23.8	14.8	13.2	12.2	10.9	5.6	1.3	-3.9	-11.4	-18.3	-26.1	-35.7	-45.2	-57.9	-77.3	-104.7	-148.2	-217.5	-327.7	-498.2	-765.5	-1175.9	-1804.9	34.0	4.4
2-I	43041	13119	31.5	22.9	20.9	21.3	18.5	18.7	23.2	14.1	12.5	11.4	9.9	4.4	-0.2	-5.6	-13.5	-20.7	-28.9	-38.9	-49.0	-62.4	-82.9	-112.0	-158.3	-231.9	-348.8	-529.9	-813.8	-1249.7	-1918.0	33.6	3.5
2-J	45746	13943	31.3	22.4	20.3	20.7	18.0	18.1	22.6	13.5	11.8	10.6	9.0	3.2	-1.6	-7.4	-15.6	-23.2	-31.8	-42.2	-52.9	-67.1	-88.8	-119.8	-168.9	-247.0	-371.1	-563.3	-864.7	-1327.5	-2037.2	33.2	2.6
2-K	48398	14752	31.0	21.9	19.8	20.2	17.5	17.6	22.0	12.8	11.1	9.8	8.0	2.1	-3.0	-9.1	-17.6	-25.6	-34.6	-45.4	-56.6	-71.7	-94.5	-127.3	-179.2	-261.8	-393.0	-596.1	-914.5	-1403.7	-2154.1	32.9	1.8
2-L	51179	15599	30.8	21.4	19.4	19.8	17.0	17.0	21.5	12.2	10.4	9.0	7.0	0.9	-4.5	-10.8	-19.7	-28.1	-37.4	-48.8	-60.6	-76.4	-100.5	-135.2	-190.1	-277.3	-415.8	-630.4	-966.8	-1483.6	-2276.6	32.5	0.9
3-D	33472	10202	32.6	25.1	23.0	23.4	20.7	21.1	25.7	16.8	15.4	14.7	13.8	9.0	5.3	1.0	-5.7	-11.6	-18.4	-26.8	-34.9	-45.5	-61.7	-84.3	-120.5	-178.1	-269.6	-411.3	-633.4	-974.2	-1495.8	35.2	7.1
3-E	35453	10806	32.4	24.6	22.5	22.9	20.2	20.5	25.2	16.2	14.8	14.0	12.9	8.0	4.1	-0.4	-7.4	-13.6	-20.6	-29.4	-37.8	-49.0	-66.2	-90.1	-128.4	-189.3	-286.1	-435.9	-670.8	-1031.3	-1583.2	34.9	6.3
3-F	37588	11457	32.1	24.1	22.0	22.4	19.7	20.0	24.6	15.6	14.1	13.2	12.1	6.9	2.9	-1.9	-9.1	-15.6	-23.0	-32.1	-41.0	-52.8	-70.9	-96.3	-136.8	-201.3	-303.8	-462.4	-711.0	-1092.8	-1677.5	34.5	5.4
3-G	39870	12152	31.9	23.6	21.5	21.9	19.2	19.4	24.0	14.9	13.4	12.4	11.2	5.9	1.6	-3.5	-11.0	-17.8	-25.5	-34.9	-44.4	-56.8	-75.9	-102.9	-145.8	-214.1	-322.6	-490.7	-754.0	-1158.4	-1778.1	34.1	4.6
3-I	44730	13634	31.4	22.6	20.5	20.9	18.2	18.3	22.8	13.7	12.1	10.9	9.3	3.7	-1.1	-6.7	-14.8	-22.2	-30.7	-41.0	-51.4	-65.3	-86.6	-116.9	-164.9	-241.3	-362.8	-550.8	-845.5	-1298.3	-1992.4	33.4	2.9
3-J	47313	14421	31.1	22.1	20.0	20.4	17.7	17.8	22.3	13.1	11.4	10.1	8.4	2.5	-2.5	-8.4	-16.8	-24.6	-33.4	-44.1	-55.1	-69.8	-92.2	-124.2	-175.0	-255.8	-384.0	-582.7	-894.1	-1372.5	-2106.3	33.0	2.1
3-K	50016	15245	30.9	21.6	19.6	20.0	17.2	17.2	21.7	12.5	10.7	9.3	7.4	1.4	-3.9	-10.1	-18.9	-27.0	-36.2	-47.4	-58.9	-74.4	-98.0	-131.9	-185.5	-270.8	-406.3	-616.0	-945.0	-1450.2	-2225.4	32.7	1.3
3-L	52691	16060	30.7	21.2	19.1	19.5	16.8	16.7	21.2	11.9	10.0	8.5	6.5	0.3	-5.2	-11.8	-20.9	-29.4	-39.0	-50.6	-62.7	-79.0	-103.8	-139.5	-195.9	-285.7	-428.2	-649.0	-995.2	-1527.1	-2343.3	32.4	0.5
4-D	35474	10812	32.4	24.6	22.5	22.9	20.2	20.5	25.2	16.2	14.8	14.0	12.9	8.0	4.1	-0.4	-7.4	-13.6	-20.7	-29.4	-37.9	-49.1	-66.2	-90.2	-128.5	-189.4	-286.3	-436.2	-671.2	-1031.9	-1584.2	34.9	6.3
4-E	37380	11394	32.1	24.1	22.1	22.5	19.7	20.0	24.6	15.6	14.2	13.3	12.1	7.0	3.0	-1.8	-8.9	-15.4	-22.8	-31.8	-40.7	-52.5	-70.4	-95.7	-136.0	-200.1	-302.1	-459.8	-707.1	-1086.8	-1668.3	34.5	5.5
4-F	39491	12037	31.9	23.7	21.6	22.0	19.3	19.5	24.1	15.0	13.5	12.6	11.3	6.0	1.8	-3.2	-10.7	-17.4	-25.1	-34.5	-43.8	-56.2	-75.1	-101.8	-144.3	-212.0	-319.5	-486.0	-746.9	-1147.6	-1761.4	34.2	4.7
4-G	41712	12714	31.7	23.2	21.1	21.5	18.8	19.0	23.5	14.5	12.9	11.8	10.4	5.0	0.6	-4.7	-12.4	-19.5	-27.5	-37.2	-47.0	-60.1	-80.0	-108.2	-153.1	-224.5	-337.9	-513.4	-788.7	-1211.4	-1859.3	33.8	3.9
4-H	44040	13423	31.4	22.7	20.7	21.1	18.3	18.5	23.0	13.9	12.2	11.1	9.6	4.0	-0.7	-6.3	-14.3	-21.6	-30.0	-40.1	-50.4	-64.1	-85.1	-114.9	-162.2	-237.5	-357.1	-542.2	-832.6	-1278.4	-1962.0	33.5	3.1
4-I	46505	14175	31.2	22.2	20.2	20.6	17.8	17.9	22.4	13.3	11.6	10.3	8.7	2.9	-2.0	-7.9	-16.2	-23.9	-32.6	-43.1	-53.9	-68.4	-90.4	-121.9	-171.8	-251.3	-377.4	-572.7	-878.9	-1349.3	-2070.7	33.1	2.3
4-J	49028	14944	31.0	21.8	19.7	20.1	17.4	17.4	21.9	12.7	10.9	9.6	7.8	1.8	-3.4	-9.5	-18.1	-26.1	-35.2	-46.2	-57.5	-72.7	-95.9	-129.1	-181.7	-265.3	-398.1	-603.8	-926.4	-1421.8	-2181.9	32.8	1.6
4-K	51660	15746	30.7	21.3	19.3	19.7	16.9	16.9	21.4	12.1	10.3	8.8	6.9	0.7	-4.7	-11.2	-20.1	-28.5	-37.9	-49.3	-61.3	-77.2	-101.6	-136.6	-191.9	-280.0	-419.8	-636.3	-975.9	-1497.4	-2297.8	32.5	0.8
4-L	54350	16566	30.5	20.9	18.8	19.2	16.5	16.4	20.8	11.5	9.6	8.1	6.0	-0.4	-6.1	-12.8	-22.1	-30.9	-40.7	-52.6	-65.1	-81.8	-107.4	-144.2	-202.4	-294.9	-441.9	-669.4	-1026.4	-1574.7	-2416.3	32.2	0.1
5-D	37497	11429	32.1	24.1	22.1	22.5	19.7	20.0	24.6	15.6	14.1	13.3	12.1	7.0	2.9	-1.8	-9.0	-15.5	-22.9	-32.0	-40.9	-52.7	-70.7	-96.0	-136.5	-200.8	-303.0	-461.3	-709.3	-1090.1	-1673.4	34.5	5.5
5-E	39336	11990	31.9	23.7	21.6	22.0	19.3	19.5	24.1	15.1	13.6	12.6	11.4	6.1	1.9	-3.1	-10.5	-17.3	-24.9	-34.3	-43.6	-55.9	-74.8	-101.4	-143.7	-211.1	-318.2	-484.0	-744.0	-1143.1	-1754.6	34.2	4.8
5-F	41398	12618	31.7	23.2	21.2	21.6	18.8	19.1	23.6	14.5	13.0	11.9	10.6	5.2	0.7	-4.5	-12.2	-19.2	-27.1	-36.9	-46.6	-59.5	-79.3	-107.3	-151.8	-222.7	-335.3	-509.6	-782.8	-1202.4	-1845.5	33.9	4.0
5-G	43537	13270	31.5	22.8	20.8	21.2	18.4	18.6	23.1	14.0	12.4	11.3	9.8	4.2	-0.4	-5.9	-13.9	-21.2	-29.4	-39.5	-49.7	-63.3	-84.0	-113.5	-160.2	-234.7	-352.9	-536.0	-823.1	-1264.0	-1939.8	33.5	3.3
5-H	45832	13970	31.3	22.4	20.3	20.7	18.0	18.1	22.6	13.4	11.8	10.5	8.9	3.2	-1.7	-7.4	-15.7	-23.3	-31.9	-42.3	-53.0	-67.2	-89.0	-120.0	-169.2	-247.5	-371.8	-564.4	-866.3	-1329.9	-2041.0	33.2	2.6
5-I	48195	14690	31.0	21.9	19.9	20.3	17.5	17.6	22.1	12.9	11.1	9.8	8.1	2.2	-2.9	-9.0	-17.5	-25.4	-34.3	-45.2	-56.4	-71.3	-94.1	-126.8	-178.4	-260.7	-391.3	-593.5	-910.7	-1397.9	-2145.2	32.9	1.8
5-J	50723	15460	30.8	21.5	19.4	19.8	17.1	17.1	21.6	12.3	10.5	9.1	7.2	1.1	-4.2	-10.6	-19.4	-27.7	-37.0	-48.2	-59.9	-75.6	-99.6	-133.9	-188.3	-274.8	-412.1	-624.7	-958.2	-1470.5	-2256.6	32.6	1.1
6-D	39526	12048	31.9	23.7	21.6	22.0	19.3	19.5	24.1	15.0	13.5	12.6	11.3	6.0	1.8	-3.2	-10.7	-17.4	-25.1	-34.5	-43.9	-56.2	-75.2	-101.9	-144.5	-212.2	-319.8	-486.4	-747.6	-1148.6	-1763.0	34.2	4.7
6-E	41328	12597	31.7	23.3	21.2	21.6	18.9	19.1	23.6	14.6	13.0	12.0	10.6	5.2	0.8	-4.5	-12.1	-19.1	-27.1	-36.8	-46.5	-59.4	-79.1	-107.1	-151.6	-222.3	-334.7	-508.7	-781.5	-1200.4	-1842.4	33.9	4.1
6-G	45392	13836	31.3	22.4	20.4	20.8	18.0	18.2	22.7	13.5	11.9	10.7	9.1	3.4	-1.4	-7.1	-15.3	-22.9	-31.4	-41.8	-52.4	-66.5	-88.0	-118.8	-167.5	-245.0	-368.2	-558.9	-858.0	-1317.3	-2021.6	33.3	2.7
6-H	47644	14522	31.1	22.0	20.0	20.4	17.6	17.7	22.2	13.0	11.3	10.0	8.3	2.4	-2.6	-8.6	-17.1	-24.9	-33.8	-44.5	-55.6	-70.4	-92.9	-125.2	-176.3	-257.6	-386.8	-586.7	-900.4	-1382.0	-2120.9	33.0	2.0
6-I	49977	15233	30.9	21.6	19.6	20.0	17.2	17.2	21.7	12.5	10.7	9.3	7.5	1.4	-3.9	-10.1	-18.8	-27.0	-36.2	-47.3	-58.9	-74.4	-98.0	-131.8	-185.4	-270.6	-405.9	-615.5	-944.2	-1449.1	-2223.7	32.7	1.3
6-J	52461	15990	30.7	21.2	19.1	19.5	16.8	16.8	21.2	11.9	10.1	8.6	6.6	0.4	-5.1	-11.7	-20.7	-29.2	-38.8	-50.3	-62.4	-78.6	-103.3	-138.9	-195.0	-284.4	-426.3	-646.2	-990.9	-1520.4	-2333.1	32.4	0.6
7-B	38474	11727	32.0	23.9	21.8	22.2	19.5	19.7	24.4	15.3	13.8	12.9	11.7	6.5	2.4	-2.5	-9.8	-16.4	-24.0	-33.2	-42.3	-54.4	-72.9	-98.9	-140.3	-206.3	-311.1	-473.4	-727.7	-1118.3	-1716.5	34.3	5.1
7-C	39875	12154	31.9	23.6	21.5	21.9	19.2	19.4	24.0	14.9	13.4	12.4	11.2	5.9	1.6	-3.5	-11.0	-17.8	-25.5	-35.0	-44.4	-56.9	-75.9	-102.9	-145.9	-214.2	-322.7	-490.7	-754.1	-1158.6	-1778.3	34.1	4.6
7-E	43289	13194	31.5	22.9	20.8	21.2	18.5	18.6	23.2	14.1	12.4	11.3	9.9	4.3	-0.3	-5.8	-13.7	-20.9	-29.2	-39.2	-49.3	-62.8	-83.4	-112.7	-159.3	-233.3	-350.9	-532.9	-818.4	-1256.8	-1928.9	33.6	3.4
7-F	45215	13782	31.3	22.5	20.4	20.8	18.1	18.2	22.7	13.6	11.9	10.7	9.1	3.5	-1.3	-7.0	-15.2	-22.7	-31.2	-41.5	-52.1	-66.2	-87.6	-118.3	-166.8	-244.1	-366.8	-556.8	-854.7	-1312.2	-2013.8	33.3	2.7
7-G	47281	14411	31.1	22.1	20.0	20.4	17.7	17.8	22.3	13.1	11.4	10.1	8.4	2.5	-2.4	-8.4	-16.8	-24.6	-33.4	-44.1	-55.1	-69.7	-92.1	-124.2	-174.9	-255.6	-383.8	-582.3	-893.5	-1371.6	-2104.9	33.0	2.1
7-H	49498	15087	30.9	21.7	19.6	20.0	17.3	17.3	21.8	12.6	10.8	9.4	7.6	1.6	-3.6	-9.8	-18.5	-26.6	-35.7	-46.7	-58.2	-73.5	-96.9	-130.5	-183.5	-267.9	-402.0	-609.6	-935.2	-1435.3	-2202.6	32.8	1.4
7-I	51811	15792	30.7	21.3	19.2	19.6	16.9	16.9	21.3	12.1	10.2	8.8	6.8	0.6	-4.8	-11.2	-20.2	-28.6	-38.1	-49.5	-61.5	-77.5	-101.9	-137.0	-192.5	-280.8	-421.0	-638.2	-978.7	-1501.8	-2304.5	32.5	0.8
8-A	39377	12002	31.9	23.7	21.6	22.0	19.3	19.5	24.1	15.1	13.6	12.6	11.4	6.1	1.9	-3.1	-10.6	-17.3	-25.0	-34.3	-43.6	-56.0	-74.9	-101.5	-143.9	-211.4	-318.6	-484.5	-744.7	-1144.3	-1756.4	34.2	4.8
8-B	40539	12356	31.8	23.4	21.4	21.8	19.0	19.3	23.8	14.8	13.2	12.2	10.9	5.6	1.2	-3.9	-11.5	-18.4	-26.2	-35.8	-45.3	-58.0	-77.4	-104.8	-148.5	-217.9	-328.2	-498.9	-766.6	-1177.7	-1807.6	34.0	4.3

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Leq)
FROM WIND PARK OPERATIONS AT THE DESIGN WIND CONDITION

8-C	41921	12778	31.6	23.1	21.1	21.5	18.7	18.9	23.5	14.4	12.8	11.8	10.4	4.9	0.5	-4.9	-12.6	-19.7	-27.7	-37.5	-47.3	-60.4	-80.4	-108.8	-153.9	-225.6	-339.6	-516.0	-792.7	-1217.5	-1868.6	33.8	3.8
8-D	43524	13266	31.5	22.8	20.8	21.2	18.4	18.6	23.1	14.0	12.4	11.3	9.8	4.2	-0.4	-5.9	-13.9	-21.1	-29.4	-39.5	-49.7	-63.2	-83.9	-113.4	-160.2	-234.6	-352.8	-535.9	-822.8	-1263.6	-1939.2	33.5	3.3
8-F	47135	14367	31.1	22.1	20.1	20.5	17.7	17.8	22.3	13.1	11.4	10.1	8.5	2.6	-2.4	-8.3	-16.7	-24.4	-33.2	-43.9	-54.8	-69.5	-91.8	-123.7	-174.3	-254.8	-382.6	-580.5	-890.8	-1367.4	-2098.5	33.1	2.1
8-G	49228	15005	30.9	21.7	19.7	20.1	17.3	17.4	21.9	12.6	10.9	9.5	7.7	1.7	-3.5	-9.6	-18.3	-26.3	-35.4	-46.4	-57.8	-73.1	-96.3	-129.7	-182.5	-266.4	-399.8	-606.3	-930.1	-1427.5	-2190.7	32.8	1.5
8-H	51377	15660	30.8	21.4	19.3	19.7	17.0	17.0	21.4	12.2	10.3	8.9	7.0	0.8	-4.6	-11.0	-19.9	-28.2	-37.7	-49.0	-60.9	-76.8	-101.0	-135.8	-190.8	-278.4	-417.4	-632.8	-970.5	-1489.3	-2285.4	32.5	0.9
9-A	41432	12629	31.7	23.2	21.2	21.6	18.8	19.0	23.6	14.5	13.0	11.9	10.6	5.1	0.7	-4.5	-12.2	-19.2	-27.2	-36.9	-46.6	-59.6	-79.4	-107.4	-152.0	-222.9	-335.6	-510.0	-783.5	-1203.4	-1847.0	33.9	4.0
9-B	42582	12979	31.6	23.0	21.0	21.4	18.6	18.8	23.3	14.2	12.6	11.6	10.1	4.6	0.1	-5.3	-13.1	-20.3	-28.4	-38.3	-48.3	-61.6	-81.9	-110.7	-156.5	-229.3	-345.0	-524.2	-805.1	-1236.5	-1897.7	33.7	3.6
9-C	43948	13395	31.4	22.7	20.7	21.1	18.3	18.5	23.0	13.9	12.3	11.1	9.6	4.0	-0.7	-6.2	-14.2	-21.5	-29.9	-40.0	-50.3	-64.0	-84.9	-114.6	-161.8	-237.0	-356.3	-541.1	-830.8	-1275.8	-1958.0	33.5	3.2
9-D	45536	13879	31.3	22.4	20.4	20.8	18.0	18.1	22.7	13.5	11.8	10.6	9.0	3.3	-1.5	-7.2	-15.4	-23.0	-31.5	-41.9	-52.6	-66.7	-88.3	-119.2	-168.1	-245.8	-369.4	-560.7	-860.7	-1321.4	-2027.9	33.3	2.6
9-E	47225	14394	31.1	22.1	20.1	20.5	17.7	17.8	22.3	13.1	11.4	10.1	8.4	2.6	-2.4	-8.3	-16.7	-24.5	-33.3	-44.0	-55.0	-69.6	-92.0	-124.0	-174.7	-255.3	-383.3	-581.6	-892.5	-1370.0	-2102.4	33.0	2.1
9-F	49105	14967	31.0	21.8	19.7	20.1	17.4	17.4	21.9	12.7	10.9	9.6	7.8	1.8	-3.4	-9.5	-18.2	-26.2	-35.3	-46.3	-57.7	-72.9	-96.1	-129.3	-182.0	-265.8	-398.8	-604.8	-927.8	-1424.0	-2185.3	32.8	1.5
9-G	51122	15582	30.8	21.4	19.4	19.8	17.0	17.0	21.5	12.2	10.4	9.0	7.1	0.9	-4.4	-10.8	-19.7	-28.0	-37.4	-48.7	-60.5	-76.3	-100.4	-135.1	-189.8	-277.0	-415.4	-629.7	-965.8	-1482.0	-2274.2	32.6	1.0
9-H	53258	16233	30.6	21.1	19.0	19.4	16.7	16.6	21.1	11.8	9.9	8.4	6.3	0.0	-5.5	-12.2	-21.3	-29.9	-39.6	-51.3	-63.5	-80.0	-105.0	-141.1	-198.1	-288.9	-432.9	-656.0	-1005.9	-1543.3	-2368.2	32.3	0.4
9-I	55478	16910	30.4	20.7	18.7	19.1	16.3	16.2	20.6	11.3	9.4	7.8	5.6	-0.9	-6.7	-13.5	-23.0	-31.9	-41.9	-53.9	-66.6	-83.7	-109.8	-147.4	-206.7	-301.2	-451.1	-683.3	-1047.6	-1607.1	-2466.0	32.1	-0.2
10-A	43480	13253	31.5	22.8	20.8	21.2	18.4	18.6	23.1	14.0	12.4	11.3	9.8	4.2	-0.4	-5.9	-13.8	-21.1	-29.4	-39.4	-49.6	-63.2	-83.9	-113.3	-160.0	-234.4	-352.4	-535.3	-822.0	-1262.3	-1937.3	33.6	3.3
10-B	44657	13612	31.4	22.6	20.5	20.9	18.2	18.3	22.9	13.7	12.1	10.9	9.3	3.7	-1.0	-6.7	-14.7	-22.2	-30.6	-40.9	-51.3	-65.2	-86.4	-116.7	-164.6	-240.9	-362.2	-549.9	-844.2	-1296.2	-1989.2	33.4	2.9
10-C	45999	14020	31.2	22.3	20.3	20.7	17.9	18.0	22.6	13.4	11.7	10.5	8.9	3.1	-1.8	-7.5	-15.8	-23.4	-32.0	-42.5	-53.2	-67.5	-89.3	-120.5	-169.9	-248.4	-373.2	-566.4	-869.4	-1334.7	-2048.4	33.2	2.5
10-D	47529	14487	31.1	22.0	20.0	20.4	17.6	17.7	22.2	13.0	11.3	10.0	8.3	2.4	-2.6	-8.5	-17.0	-24.8	-33.6	-44.4	-55.4	-70.2	-92.7	-124.9	-175.8	-257.0	-385.8	-585.3	-898.2	-1378.7	-2115.8	33.0	2.0
10-E	49218	15002	30.9	21.7	19.7	20.1	17.3	17.4	21.9	12.7	10.9	9.5	7.7	1.7	-3.5	-9.6	-18.3	-26.3	-35.4	-46.4	-57.8	-73.1	-96.3	-129.7	-182.4	-266.4	-399.7	-606.2	-930.0	-1427.3	-2190.3	32.8	1.5
10-F	51067	15565	30.8	21.4	19.4	19.8	17.0	17.0	21.5	12.2	10.4	9.0	7.1	0.9	-4.4	-10.8	-19.7	-28.0	-37.3	-48.6	-60.4	-76.2	-100.3	-134.9	-189.6	-276.7	-414.9	-629.0	-964.7	-1480.4	-2271.7	32.6	1.0
10-G	53040	16167	30.6	21.1	19.0	19.4	16.7	16.7	21.1	11.8	9.9	8.4	6.4	0.1	-5.4	-12.0	-21.1	-29.7	-39.4	-51.0	-63.2	-79.6	-104.5	-140.5	-197.3	-287.7	-431.1	-653.3	-1001.8	-1537.1	-2358.6	32.3	0.4
10-H	55156	16811	30.5	20.8	18.7	19.1	16.4	16.3	20.7	11.4	9.4	7.9	5.7	-0.7	-6.5	-13.3	-22.7	-31.6	-41.5	-53.5	-66.2	-83.2	-109.1	-146.5	-205.5	-299.4	-448.5	-679.4	-1041.5	-1597.8	-2451.8	32.1	-0.1
10-I	61480	18739	30.0	19.8	17.8	18.2	15.4	15.2	19.5	10.1	8.0	6.2	3.7	-3.3	-9.6	-17.2	-27.4	-37.1	-48.0	-61.0	-75.0	-93.9	-122.6	-164.3	-230.0	-334.5	-500.3	-757.2	-1160.3	-1779.4	-2730.4	31.5	-1.7
11-A	45571	13890	31.3	22.4	20.4	20.8	18.0	18.1	22.7	13.5	11.8	10.6	9.0	3.3	-1.5	-7.3	-15.5	-23.0	-31.6	-42.0	-52.6	-66.8	-88.4	-119.3	-168.2	-246.0	-369.7	-561.1	-861.4	-1322.4	-2029.5	33.3	2.6
11-B	46726	14242	31.2	22.2	20.1	20.5	17.8	17.9	22.4	13.2	11.5	10.3	8.6	2.8	-2.1	-8.0	-16.3	-24.1	-32.8	-43.4	-54.3	-68.8	-90.9	-122.6	-172.7	-252.5	-379.2	-575.4	-883.1	-1355.6	-2080.4	33.1	2.3
11-C	48010	14633	31.1	22.0	19.9	20.3	17.6	17.6	22.1	12.9	11.2	9.9	8.1	2.2	-2.8	-8.8	-17.3	-25.2	-34.1	-44.9	-56.1	-71.0	-93.7	-126.2	-177.7	-259.6	-389.8	-591.3	-907.2	-1392.5	-2137.0	32.9	1.9
11-D	49590	15115	30.9	21.7	19.6	20.0	17.3	17.3	21.8	12.6	10.8	9.4	7.6	1.6	-3.6	-9.8	-18.5	-26.6	-35.8	-46.9	-58.3	-73.7	-97.1	-130.7	-183.9	-268.5	-402.8	-610.8	-936.9	-1437.9	-2206.6	32.7	1.4
11-E	51196	15605	30.8	21.4	19.4	19.8	17.0	17.0	21.5	12.2	10.4	9.0	7.0	0.9	-4.5	-10.9	-19.8	-28.1	-37.5	-48.8	-60.6	-76.5	-100.6	-135.3	-190.1	-277.4	-416.0	-630.6	-967.1	-1484.1	-2277.4	32.5	0.9
11-F	53032	16164	30.6	21.1	19.0	19.4	16.7	16.7	21.1	11.8	9.9	8.4	6.4	0.1	-5.4	-12.0	-21.1	-29.7	-39.4	-51.0	-63.2	-79.6	-104.5	-140.5	-197.3	-287.6	-431.0	-653.2	-1001.6	-1536.8	-2358.3	32.3	0.4
11-G	54954	16750	30.5	20.8	18.7	19.1	16.4	16.3	20.7	11.4	9.5	7.9	5.8	-0.7	-6.4	-13.2	-22.6	-31.4	-41.3	-53.3	-65.9	-82.8	-108.7	-145.9	-204.7	-298.3	-446.8	-676.9	-1037.7	-1592.0	-2443.0	32.1	-0.1
11-H	57008	17376	30.3	20.5	18.4	18.8	16.1	16.0	20.3	11.0	9.0	7.3	5.1	-1.5	-7.4	-14.5	-24.1	-33.2	-43.4	-55.7	-68.8	-86.3	-113.0	-151.7	-212.7	-309.7	-463.7	-702.2	-1076.3	-1651.0	-2533.4	31.9	-0.6
11-K	63835	19457	29.8	19.5	17.4	17.8	15.1	14.8	19.1	9.7	7.5	5.6	2.9	-4.2	-10.7	-18.6	-29.1	-39.1	-50.3	-63.7	-78.2	-97.8	-127.6	-170.9	-239.0	-347.5	-519.6	-786.2	-1204.4	-1847.0	-2834.1	31.2	-2.3
11-L	66214	20182	29.7	19.2	17.1	17.5	14.8	14.5	18.7	9.2	7.0	5.0	2.2	-5.1	-11.9	-20.0	-30.8	-41.1	-52.7	-66.5	-81.5	-101.8	-132.6	-177.6	-248.2	-360.7	-539.0	-815.4	-1249.1	-1915.2	-2938.8	31.0	-2.8
12-A	47627	14517	31.1	22.0	20.0	20.4	17.6	17.7	22.2	13.0	11.3	10.0	8.3	2.4	-2.6	-8.6	-17.0	-24.9	-33.7	-44.5	-55.5	-70.3	-92.9	-125.1	-176.2	-257.5	-386.6	-586.5	-900.0	-1381.5	-2120.1	33.0	2.0
12-B	48777	14867	31.0	21.8	19.8	20.2	17.4	17.5	22.0	12.8	11.0	9.7	7.9	1.9	-3.2	-9.3	-17.9	-25.9	-34.9	-45.9	-57.2	-72.3	-95.4	-128.4	-180.7	-263.9	-396.1	-600.7	-921.7	-1414.6	-2170.8	32.8	1.6
12-C	50078	15264	30.9	21.6	19.5	19.9	17.2	17.2	21.7	12.5	10.7	9.3	7.4	1.4	-3.9	-10.2	-18.9	-27.1	-36.3	-47.4	-59.0	-74.5	-98.2	-132.1	-185.8	-271.2	-406.8	-616.8	-946.1	-1452.0	-2228.1	32.7	1.3
12-D	51615	15732	30.7	21.3	19.3	19.7	16.9	16.9	21.4	12.1	10.3	8.8	6.9	0.7	-4.7	-11.1	-20.1	-28.4	-37.9	-49.3	-61.2	-77.2	-101.5	-136.5	-191.8	-279.7	-419.4	-635.7	-975.0	-1496.1	-2295.9	32.5	0.8
12-E	53176	16208	30.6	21.1	19.0	19.4	16.7	16.6	21.1	11.8	9.9	8.4	6.4	0.1	-5.5	-12.1	-21.2	-29.8	-39.5	-51.2	-63.4	-79.8	-104.8	-140.9	-197.8	-288.4	-432.2	-655.0	-1004.3	-1541.0	-2364.6	32.3	0.4
12-F	54999	16764	30.5	20.8	18.7	19.1	16.4	16.3	20.7	11.4	9.5	7.9	5.8	-0.7	-6.4	-13.2	-22.6	-31.4	-41.4	-53.3	-66.0	-82.9	-108.8	-146.1	-204.9	-298.5	-447.2	-677.4	-1038.6	-1593.3	-2444.9	32.1	-0.1
12-G	56917	17348	30.3	20.5	18.4	18.8	16.1	16.0	20.4	11.0	9.0	7.4	5.1	-1.5	-7.4	-14.4	-24.0	-33.1	-43.3	-55.6	-68.6	-86.2	-112.9	-151.5	-212.3	-309.2	-462.9	-701.1	-1074.6	-1648.4	-2529.4	31.9	-0.6
12-H	58898	17952	30.2	20.2	18.1	18.5	15.8	15.6	20.0	10.6	8.6	6.8	4.5	-2.2	-8.4	-15.6	-25.5	-34.8	-45.3	-57.9	-71.4	-89.5	-117.1	-157.0	-220.0	-320.2	-479.2	-725.5	-1111.8	-1705.3	-2616.7	31.7	-1.1
12-I	61093	18621	30.0	19.9	17.8	18.2	15.5	15.3	19.6	10.2	8.1	6.3	3.8	-3.1	-9.4	-16.9	-27.1	-36.7	-47.6	-60.5	-74.5	-93.2	-121.8	-163.2	-228.5	-332.3	-497.1	-752.5	-1153.0	-1768.3	-2713.3	31.5	-1.6
12-J	63301	19294	29.9	19.6	17.5	17.9	15.2	14.9	19.2	9.8	7.6	5.7	3.1	-4.0	-10.5	-18.3	-28.7	-38.6	-49.8	-63.1	-77.5	-96.9	-126.4	-169.4	-237.0	-344.5	-515.2	-779.6	-1194.4	-1831.6	-2810.5	31.3	-2.1
12-K	65604	19996	29.7	19.2	17.2	17.6	14.8	14.6	18.8	9.3	7.1	5.1	2.4	-4.8	-11.6	-19.6	-30.3	-40.6	-52.1	-65.8	-80.7	-100.8	-131.3	-175.9	-245.9	-357.3	-534.1	-807.9	-1237.6	-1897.7	-2912.0	31.1	-2.6
12-L	67957	20713	29.5	18.9	16.9	17.3	14.5	14.2	18.5	8.9	6.6	4.6	1.7	-5.7	-12.7	-21.0	-32.0	-42.6	-54.4	-68.5	-83.9	-104.7	-136.3	-182.4	-254.9	-370.3	-553.3	-836.9	-1281.7	-1965.2	-3015.5	30.9	-3.2
13-A	49676	15141	30.9	21.7	19.6	20.0	17.3	17.3	21.8	12.5	10.8	9.4	7.6	1.5	-3.7	-9.9	-18.6	-26.7	-35.9	-47.0	-58.5	-73.8	-97.3	-131.0	-184.2	-268.9	-403.5	-611.8	-938.6	-1440.4	-2210.4	32.7	1.4
13-B	50812	15488	30.8	21.5	19.4	19.8	17.1	17.1	21.5	12.3	10.5	9.1	7.2	1.0	-4.3	-10.6	-19.5	-27.7	-37.1	-48.3	-60.1	-75.8	-99.8	-134.2	-188.6	-275.3	-412.8	-625.8	-959.9	-1473.1	-2260.5	32.6	1.1
13-C	52107	15882	30.7	21.2	19.2	19.6	16.8	16.8	21.3	12.0	10.2	8.7	6.7	0.5	-4.9	-11.4	-20.4	-28.9	-38.4	-49.9	-61.9	-78.0	-102.5	-137.9	-193.7	-282.5	-423.4	-641.8	-984.3	-1510.3	-2317.6	32.4	0.7
13-D	53637	16349	30.6	21.0	18.9	19.3	16.6	16.6	21.0	11.7	9.8	8.3	6.2	-0.1	-5.7	-12.4	-21.6	-30.2	-40.0	-51.7	-64.1	-80.6	-105.8	-142.2	-199.6	-291.0	-436.0	-660.7	-1013.0	-1554.2	-2384.9	32.3	0.3
13-F	56982	17368	30.3	20.5	18.4	18.8	16.1	16.0	20.3	11.0	9.0	7.4	5.1	-1.5	-7.4	-14.5	-24.1	-33.2	-43.4	-55.7	-68.7	-86.3	-113.0	-151.6	-212.6	-309.5	-463.4	-701.9	-1075.8	-1650.3	-2532.3	31.9	-0.6
13-G	58861	17941	30.2	20.2	18.1	18.5	15.8	15.6	20.0	10.6	8.6	6.9	4.5	-2.2	-8.3	-15.6	-25.5	-34.8	-45.3	-57.9	-71.4	-89.5	-117.0	-156.9	-219.8	-320.0	-478.8	-725.0	-1111.1	-1704.2	-2615.0	31.7	-1.1
13-H	60773	18524	30.0	19.9	17.9	18.3	15.5	15.3	19.7	10.2	8.2	6.4	3.9	-3.0	-9.3	-16.8	-26.9	-36.5	-47.2	-60.1	-74.0	-92.7	-121.1	-162.3	-227.2	-330.6	-494.5	-748.5	-1147.0	-1759.1	-2699.3	31.5	-1.5
13-I	62962	19191	29.9	19.6	17.6	18.0	15.2	15.0	19.3	9.8	7.7	5.8	3.2	-3.8	-10.3	-18.1	-28.4	-38.3	-49.4	-62.7	-77.0	-96.4	-125.7	-168.5	-235.7	-342.7	-512.4	-775.5	-1188.1	-1821.9	-2795.6	31.3	-2.1
13-J	65186	19869	29.7	19.3	17.3	17.7	14.9	14.6	18.9	9.4	7.2	5.2	2.5	-4.7	-11.4	-19.4	-30.0	-40.2	-51.7	-65.3	-80.1	-100.1	-130.4	-174.7	-244.2	-355.0	-530.6	-802.8	-1229.8	-1885.8	-2893.6	31.1	-2.6
13-K	67430	20553	29.6	19.0	17.0	17.4	14.6	14.3	18.6	9.0	6.8	4.7	1.8	-5.5	-12.5	-20.7	-31.7	-42.1	-53.9	-67.9	-83.2	-103.8	-135.2	-181.0	-252.9	-367.4	-549.0	-830.4	-1271.9	-1950.1	-2992.3	30.9	-3.0
13-L	69820	21281	29.4	18.7	16.7	17.1	14.3	13.9	18.2	8.6	6.3	4.1	1.1	-6.4	-13.6	-22.1	-33.4	-44.2	-56.3	-70.7	-86.5	-107.8	-140.2	-187.7	-262.1	-380.6	-568.5	-859.8	-1316.7	-2018.7	-3097.5	30.7	-3.5
14-D	55651	16962	30.4	20.7	18.6	19.0	16.3	16.2	20.6	11.3	9.3	7.7	5.5	-0.9	-6.7	-13.6	-23.1	-32.0	-42.0	-54.1	-66.9	-84.0	-110.1	-147.9	-207.4	-302.2	-452.5	-685.5	-1050.8	-1612.0	-2473.6	32.0	-0.3
14-E	57213	17438	30.3	20.4	18.4	18.8	16.0	15.9	20.3	10.9	9.0	7.3	5.0	-1.6	-7.5	-14.6	-24.2	-33.4	-43.6	-56.0	-69.1	-86.7	-113.5	-152.3	-213.5	-310.8	-465.3	-704.7	-1080.1	-1656.9	-2542.4	31.9	-0.7
14-F	58961	17971	30.2	20.2	18.1	18.5	15.8	15.6	20.0	10.6	8.6	6.8	4.5	-2.3	-8.4	-15.7	-25.5	-34.9	-45.4	-58.0	-71.5	-89.6	-117.2	-157.2	-220.2	-320.5	-479.7	-726.2	-1113.0	-1707.1	-2619.5	31.7	-1.1
14-G	60800	18532	30.0	19.9	17.9	18.3	15.5	15.3	19.7	10.2	8.2	6.3	3.9	-3.0	-9.3	-16.8	-26.9	-36.5	-47.3	-60.2	-74.1	-92.7	-121.1	-162.4	-227.3	-330.7	-494.7	-748.9	-1147.5	-1759.9	-2700.4	31.5	-1.5
14-H	62763	19130	29.9	19.6	17.6	18.0	15.2	15.0	19.3	9.9	7.7	5.8	3.3	-3.8	-10.2	-18.0	-28.3	-38.2	-49.2	-62.5	-76.8	-96.0	-125.3	-167.9	-234.9	-341.6	-510.8	-773.0	-1184.3	-1816.2	-2786.9	31.3	-2.0
14-J	66998	20421	29.6	19.1	17.0	17.4	14.7	14.3	18.6	9.1	6.8	4.8	2.0	-5.4	-12.3	-20.5	-31.3	-41.8	-53.5	-67.4	-82.6	-103.1	-134.3	-179.8	-251.2	-365.0	-545.4	-825.1	-1263.7	-1937.7	-2973.3	31.0	-3.0
14-K	69305	21124	29.5	18.8	16.7	17.1	14.4	14.0	18.3	8.7	6.4	4.2	1.3	-6.2	-13.3	-21.8	-33.0	-43.7	-55.8	-70.1	-85.8	-107.0	-139.1	-186.2	-260.1	-377.7	-564.3	-853.4	-1307.0	-2003.9	-3074.8	30.8	-3.4
14-L	71650	21839	29.3	18.5	16.4	16.8	14.1	13.7	17.9	8.3	5.9	3.7	0.6	-7.1	-14.4	-23.2	-34.6	-45.7	-58.1	-72.8	-89.0	-110.9	-144.1	-192.8	-269.1	-390.7	-583.5	-882.2	-1351.0	-2071.2	-3178.1	30.6	-3.9
15-F	60934	18573	30.0	19.9	17.8	18.2	15.5	15.3	19.6	10.2	8.1	6.3	3.8	-3.0	-9.3	-16.9	-27.0	-36.6	-47.4	-60.3	-74.2	-93.0	-121.4	-162.8	-227.8	-331.4	-495.8	-750.5	-1150.0	-1763.7	-2706.3	31.5	-1.6
15-G	62797	19140	29.9	19.6	17.6	18.0	15.2	15.0	19.3	9.9	7.7	5.8	3.3	-3.8	-10.2	-18.0	-28.3	-38.2	-49.3	-62.5	-76.8	-96.1	-125.4	-168.0	-235.0	-341.8	-511.1	-773.4	-1185.0	-1817.2	-2788.3	31.3	-2.0
15-H	64721	19727	29.8	19.4	17.3	17.7	15.0	14.7	19.0	9.5	7.3	5.4	2.7	-4.5	-11.2	-19.1	-29.7	-39.8	-51.2	-64.8	-79.5	-99.3	-129.5	-173.4	-242.5	-352.4	-526.8	-797.1	-1221.1	-1872.4	-2873.1	31.2	-2.5
15-I	66782	20355	29.6	19.1	17.0	17.4	14.7	14.4	18.7	9.1	6.9	4.8	2.0	-5.3	-12.2	-20.3	-31.2	-41.6	-53.3	-67.2	-82.3	-102.7	-133.8	-179.2	-250.4	-363.8	-543.7	-822.4	-1259.7	-1931.5	-2963.8	31.0	-2.9
15-J	68895	20999	29.5	18.8	16.8	17.2	14.4	14.1	18.3	8.8	6.5	4.3	1.4	-6.1	-13.2	-21.6	-32.7	-43.4	-55.4	-69.6	-85.2	-106.3	-138.3	-185.1	-258.5	-375.5	-561.0	-848.4	-1299.3	-1992.2	-3056.8	30.8	-3.4
15-K	71133	21681	29.3	18.5	16.5	16.9	14.1	13.7	18.0	8.4	6.0	3.8	0.7	-6.9	-14.2	-22.9	-34.3	-45.3	-57.6	-72.2	-88.3	-110.0	-143.0	-191.3	-267.1	-387.8	-579.2	-875.9	-1341.3	-2056.4	-3155.3	30.6	-3.8
16-J	70779	21573	29.4	18.6	16.5	16.9	14.2	13.8	18.0	8.4	6.1	3.9	0.9	-6.8	-14.0	-22.7	-34.0	-45.0	-57.2	-71.8	-87.8	-109.4	-142.3	-190.3	-265.8	-385.9	-576.3	-871.5	-1334.6	-2046.2	-3139.7	30.6	-3.7
16-K	72988	22247	29.2	18.3	16.3	16.7	13.9	13.5	17.7	8.0	5.6	3.3	0.2	-7.6	-15.1	-24.0	-35.6	-46.8	-59.4	-74.3	-90.8	-113.1	-146.9	-196.5	-274.2	-398.0	-594.4	-898.7	-1376.0	-2109.5	-3236.9	30.5	-4.2
		Sum:	52.2	43.3	41.2	41.6	38.9	39.0	43.5	34.3	32.7	31.5	30.0	24.5	20.1	15.1	7.7	1.3	-5.9	-14.7	-22.9	-33.4	-49.1	-70.3	-103.4	-155.3	-236.9	-362.7	-559.5	-861.5	-1323.1	54.1	23.7

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Leq)
FROM WIND PARK OPERATIONS AT THE DESIGN WIND CONDITION

																	Hertz													
	1/3 Octave Bands	**16***	**20**	**25**	**31**	**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**	**L**	**A**
Sound Power Data - Design Speed		113.7	113.3	111.2	111.6	108.9	109.9	115.0	106.6	106.2	106.8	107.7	105.5	105.0	104.6	102.1	100.6	98.7	95.8	94.9	94.2	92.9	93.1	92.1	90.7	87.9	83.9	78.2	69.9	61.5	121.9	107.4

Data for the graph Atmos. Absorption per 1 km air temp 59F 70% RH	0.0000	0.0000	0.0000	0.0000	0.0000	0.0670	0.1050	0.1630	0.2510	0.3810	0.5650	0.8150	1.1300	1.5100	1.9200	2.3600	2.8400	3.3800	4.0800	5.0500	6.5100	8.7500	12.2000	17.7000	26.4000	39.9000	61.1000	93.7000	144.0000		

*Spherical wave spreading for up to 2 km, cylindrical wave spreading beyond 2 km.

																		Hertz													
	1/3 Octave Bands		**16***	**20**	**25**	**31**	**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**	**L**	**A**
	Distance (ft)	**Distance (m)**																														
1-D	33888	10329	32.6	25.0	22.9	23.3	20.6	20.9	25.6	16.7	15.3	14.6	13.6	8.8	5.1	0.7	-6.0	-12.0	-18.9	-27.4	-35.5	-46.2	-62.7	-85.5	-122.2	-180.4	-273.1	-416.5	-641.2	-986.2	-1514.1	35.2	6.9
1-E	36963	11266	32.2	24.2	22.2	22.6	19.8	20.1	24.7	15.7	14.3	13.4	12.3	7.3	3.3	-1.5	-8.6	-15.0	-22.3	-31.3	-40.1	-51.7	-69.5	-94.5	-134.4	-197.8	-298.6	-454.6	-699.2	-1074.8	-1649.9	34.6	5.7
1-F	40055	12209	31.8	23.5	21.5	21.9	19.1	19.4	24.0	14.9	13.4	12.4	11.1	5.8	1.5	-3.6	-11.1	-17.9	-25.7	-35.2	-44.6	-57.2	-76.3	-103.4	-146.6	-215.2	-324.2	-492.9	-757.5	-1163.8	-1786.3	34.1	4.5
1-G	43204	13169	31.5	22.9	20.8	21.2	18.5	18.6	23.2	14.1	12.5	11.4	9.9	4.3	-0.3	-5.7	-13.6	-20.9	-29.1	-39.1	-49.2	-62.7	-83.2	-112.5	-158.9	-232.8	-350.2	-531.9	-816.8	-1254.4	-1925.1	33.6	3.4
1-H	46382	14137	31.2	22.3	20.2	20.6	17.9	18.0	22.5	13.3	11.6	10.4	8.7	2.9	-2.0	-7.8	-16.1	-23.8	-32.4	-43.0	-53.8	-68.2	-90.2	-121.6	-171.4	-250.6	-376.4	-571.2	-876.6	-1345.7	-2065.2	33.2	2.4
1-I	49515	15092	30.9	21.7	19.6	20.0	17.3	17.3	21.8	12.6	10.8	9.4	7.6	1.6	-3.6	-9.8	-18.5	-26.6	-35.7	-46.8	-58.2	-73.6	-97.0	-130.5	-183.6	-268.0	-402.1	-609.8	-935.5	-1435.8	-2203.3	32.7	1.4
1-J	52659	16050	30.7	21.2	19.1	19.5	16.8	16.7	21.2	11.9	10.0	8.5	6.5	0.3	-5.2	-11.8	-20.9	-29.4	-39.0	-50.5	-62.7	-78.9	-103.7	-139.4	-195.8	-285.5	-428.0	-648.6	-994.6	-1526.1	-2341.8	32.4	0.5
1-K	55841	17020	30.4	20.6	18.6	19.0	16.2	16.2	20.6	11.2	9.3	7.7	5.5	-1.0	-6.8	-13.8	-23.2	-32.2	-42.2	-54.3	-67.1	-84.4	-110.6	-148.4	-208.1	-303.2	-454.1	-687.8	-1054.4	-1617.5	-2482.0	32.0	-0.3
1-L	59110	18017	30.2	20.2	18.1	18.5	15.8	15.6	20.0	10.6	8.5	6.8	4.4	-2.3	-8.5	-15.8	-25.6	-35.0	-45.6	-58.2	-71.7	-89.9	-117.5	-157.6	-220.8	-321.3	-480.9	-728.1	-1115.8	-1711.4	-2626.0	31.7	-1.1
2-D	35067	10688	32.4	24.7	22.6	23.0	20.3	20.6	25.3	16.3	14.9	14.1	13.1	8.2	4.4	-0.1	-7.0	-13.2	-20.2	-28.9	-37.3	-48.3	-65.3	-89.0	-126.9	-187.1	-282.9	-431.1	-663.5	-1020.2	-1566.2	34.9	6.4
2-E	38146	11627	32.1	24.0	21.9	22.3	19.6	19.8	24.4	15.4	13.9	13.0	11.8	6.7	2.6	-2.3	-9.6	-16.1	-23.6	-32.8	-41.8	-53.8	-72.1	-97.9	-139.0	-204.4	-308.4	-469.3	-721.5	-1108.8	-1702.0	34.4	5.2
2-F	41256	12575	31.7	23.3	21.2	21.6	18.9	19.1	23.7	14.6	13.0	12.0	10.6	5.2	0.8	-4.4	-12.1	-19.0	-27.0	-36.7	-46.4	-59.3	-79.0	-106.9	-151.3	-221.9	-334.1	-507.8	-780.1	-1198.3	-1839.3	33.9	4.1
2-G	44311	13506	31.4	22.7	20.6	21.0	18.3	18.4	22.9	13.8	12.2	11.0	9.5	3.9	-0.9	-6.4	-14.5	-21.9	-30.2	-40.4	-50.8	-64.6	-85.7	-115.7	-163.3	-239.0	-359.3	-545.6	-837.7	-1286.2	-1974.0	33.4	3.0
2-H	47402	14448	31.1	22.1	20.0	20.4	17.7	17.8	22.3	13.1	11.3	10.1	8.4	2.5	-2.5	-8.4	-16.9	-24.7	-33.5	-44.2	-55.2	-69.9	-92.4	-124.5	-175.3	-256.3	-384.8	-583.8	-895.8	-1375.1	-2110.2	33.0	2.1
2-I	50559	15410	30.8	21.5	19.5	19.9	17.1	17.1	21.6	12.4	10.5	9.1	7.3	1.2	-4.2	-10.5	-19.3	-27.5	-36.8	-48.0	-59.7	-75.4	-99.2	-133.5	-187.6	-273.8	-410.7	-622.7	-955.2	-1465.8	-2249.3	32.6	1.1
2-J	53770	16389	30.6	21.0	18.9	19.3	16.6	16.5	21.0	11.7	9.8	8.2	6.2	-0.2	-5.8	-12.5	-21.7	-30.4	-40.1	-51.9	-64.2	-80.8	-106.1	-142.6	-200.1	-291.7	-437.1	-662.3	-1015.5	-1558.0	-2390.8	32.2	0.2
2-K	56844	17326	30.3	20.5	18.4	18.8	16.1	16.0	20.4	11.0	9.0	7.4	5.2	-1.4	-7.3	-14.4	-24.0	-33.0	-43.3	-55.5	-68.5	-86.1	-112.7	-151.3	-212.0	-308.8	-462.3	-700.2	-1073.2	-1646.3	-2526.2	31.9	-0.6
2-L	60031	18297	30.1	20.0	18.0	18.4	15.6	15.4	19.8	10.4	8.3	6.5	4.1	-2.7	-8.9	-16.3	-26.3	-35.8	-46.5	-59.3	-73.0	-91.4	-119.5	-160.2	-224.4	-326.4	-488.4	-739.4	-1133.0	-1737.8	-2666.5	31.6	-1.4
3-D	36369	11085	32.3	24.4	22.3	22.7	20.0	20.3	24.9	15.9	14.5	13.6	12.6	7.5	3.6	-1.1	-8.1	-14.4	-21.7	-30.5	-39.2	-50.7	-68.2	-92.8	-132.0	-194.4	-293.7	-447.3	-688.0	-1057.7	-1623.7	34.7	5.9
3-E	39416	12014	31.9	23.7	21.6	22.0	19.3	19.5	24.1	15.1	13.6	12.6	11.3	6.1	1.8	-3.2	-10.6	-17.3	-25.0	-34.4	-43.7	-56.0	-74.9	-101.6	-144.0	-211.6	-318.9	-485.0	-745.5	-1145.4	-1758.1	34.2	4.7
3-F	42462	12942	31.6	23.0	21.0	21.4	18.6	18.8	23.4	14.3	12.7	11.6	10.2	4.7	0.2	-5.2	-13.0	-20.2	-28.3	-38.2	-48.1	-61.4	-81.6	-110.4	-156.0	-228.7	-344.0	-522.7	-802.8	-1233.0	-1892.4	33.7	3.7
3-G	45520	13875	31.3	22.4	20.4	20.8	18.0	18.1	22.7	13.5	11.8	10.6	9.0	3.3	-1.5	-7.2	-15.4	-23.0	-31.5	-41.9	-52.5	-66.7	-88.3	-119.1	-168.0	-245.8	-369.3	-560.5	-860.4	-1321.0	-2027.3	33.3	2.7
3-I	51654	15744	30.7	21.3	19.3	19.7	16.9	16.9	21.4	12.1	10.3	8.8	6.9	0.7	-4.7	-11.1	-20.1	-28.5	-37.9	-49.3	-61.3	-77.2	-101.6	-136.6	-191.9	-279.9	-419.7	-636.2	-975.7	-1497.2	-2297.6	32.5	0.8
3-J	54776	16696	30.5	20.8	18.8	19.2	16.4	16.3	20.8	11.4	9.5	8.0	5.8	-0.6	-6.3	-13.1	-22.4	-31.2	-41.1	-53.1	-65.7	-82.5	-108.3	-145.4	-204.0	-297.3	-445.3	-674.7	-1034.4	-1586.9	-2435.1	32.1	0.0
3-K	57951	17664	30.2	20.3	18.3	18.7	15.9	15.8	20.2	10.8	8.8	7.1	4.8	-1.9	-7.9	-15.0	-24.8	-34.0	-44.4	-56.8	-70.1	-87.9	-115.1	-154.4	-216.3	-314.9	-471.4	-713.8	-1094.0	-1678.1	-2575.0	31.8	-0.9
3-L	61029	18602	30.0	19.9	17.8	18.2	15.5	15.3	19.6	10.2	8.1	6.3	3.8	-3.1	-9.4	-16.9	-27.0	-36.7	-47.5	-60.4	-74.4	-93.1	-121.6	-163.0	-228.2	-332.0	-496.6	-751.7	-1151.8	-1766.4	-2710.5	31.5	-1.6
4-D	37776	11514	32.1	24.0	22.0	22.4	19.6	19.9	24.5	15.5	14.1	13.2	12.0	6.9	2.8	-2.0	-9.3	-15.8	-23.2	-32.3	-41.3	-53.2	-71.3	-96.9	-137.6	-202.4	-305.3	-464.7	-714.6	-1098.2	-1685.7	34.4	5.4
4-E	40760	12424	31.8	23.4	21.3	21.7	19.0	19.2	23.8	14.7	13.2	12.1	10.8	5.5	1.1	-4.1	-11.7	-18.6	-26.4	-36.1	-45.7	-58.4	-77.9	-105.5	-149.3	-219.1	-330.0	-501.7	-770.8	-1184.1	-1817.4	34.0	4.3
4-F	43771	13341	31.5	22.8	20.7	21.1	18.4	18.5	23.1	13.9	12.3	11.2	9.7	4.1	-0.6	-6.1	-14.1	-21.4	-29.7	-39.8	-50.0	-63.7	-84.5	-114.1	-161.2	-236.0	-354.9	-538.9	-827.5	-1270.7	-1950.2	33.5	3.2
4-G	46799	14264	31.2	22.2	20.1	20.5	17.8	17.9	22.4	13.2	11.5	10.2	8.6	2.8	-2.2	-8.1	-16.4	-24.1	-32.9	-43.5	-54.4	-68.9	-91.1	-122.8	-173.0	-252.9	-379.8	-576.3	-884.5	-1357.7	-2083.6	33.1	2.2
4-H	49822	15186	30.9	21.6	19.6	20.0	17.2	17.3	21.7	12.5	10.7	9.4	7.5	1.5	-3.8	-10.0	-18.7	-26.8	-36.0	-47.1	-58.7	-74.1	-97.6	-131.4	-184.8	-269.8	-404.7	-613.6	-941.3	-1444.6	-2216.9	32.7	1.3
4-I	52904	16125	30.6	21.1	19.1	19.5	16.7	16.7	21.1	11.8	10.0	8.5	6.5	0.2	-5.4	-11.9	-21.0	-29.6	-39.2	-50.8	-63.0	-79.4	-104.3	-140.1	-196.8	-286.9	-430.0	-651.6	-999.2	-1533.2	-2352.6	32.3	0.5
4-J	55967	17059	30.4	20.6	18.6	19.0	16.2	16.1	20.5	11.2	9.2	7.6	5.4	-1.1	-6.9	-13.8	-23.3	-32.3	-42.4	-54.5	-67.3	-84.6	-110.8	-148.8	-208.6	-303.9	-455.1	-689.4	-1056.8	-1621.1	-2487.6	32.0	-0.3
4-K	59082	18008	30.2	20.2	18.1	18.5	15.8	15.6	20.0	10.6	8.5	6.8	4.4	-2.3	-8.4	-15.7	-25.6	-35.0	-45.5	-58.2	-71.7	-89.8	-117.5	-157.6	-220.7	-321.2	-480.7	-727.7	-1115.2	-1710.6	-2624.8	31.7	-1.1
4-L	62207	18961	29.9	19.7	17.7	18.1	15.3	15.1	19.4	10.0	7.9	6.0	3.4	-3.5	-10.0	-17.6	-27.9	-37.7	-48.7	-61.8	-76.0	-95.1	-124.1	-166.3	-232.8	-338.5	-506.3	-766.2	-1173.9	-1800.3	-2762.4	31.4	-1.9
5-D	39260	11966	31.9	23.7	21.7	22.1	19.3	19.6	24.2	15.1	13.6	12.6	11.4	6.2	1.9	-3.1	-10.5	-17.2	-24.8	-34.2	-43.5	-55.8	-74.6	-101.1	-143.4	-210.7	-317.6	-483.1	-742.5	-1140.9	-1751.2	34.2	4.8
5-E	42132	12842	31.6	23.1	21.0	21.4	18.7	18.9	23.4	14.4	12.8	11.7	10.3	4.8	0.3	-5.0	-12.8	-19.9	-27.9	-37.8	-47.6	-60.8	-80.9	-109.4	-154.7	-226.8	-341.3	-518.6	-796.6	-1223.5	-1877.9	33.8	3.8
5-F	45121	13753	31.3	22.5	20.5	20.9	18.1	18.2	22.8	13.6	11.9	10.8	9.2	3.5	-1.3	-7.0	-15.1	-22.6	-31.1	-41.4	-52.0	-66.0	-87.4	-118.0	-166.4	-243.5	-366.0	-555.6	-852.9	-1309.5	-2009.7	33.3	2.8
5-G	48058	14648	31.1	22.0	19.9	20.3	17.6	17.6	22.1	12.9	11.2	9.9	8.1	2.2	-2.8	-8.9	-17.4	-25.3	-34.2	-45.0	-56.2	-71.1	-93.8	-126.4	-177.9	-259.9	-390.2	-591.9	-908.1	-1393.9	-2139.1	32.9	1.9
5-H	51074	15567	30.8	21.4	19.4	19.8	17.0	17.0	21.5	12.2	10.4	9.0	7.1	0.9	-4.4	-10.8	-19.7	-28.0	-37.3	-48.6	-60.4	-76.2	-100.3	-134.9	-189.6	-276.7	-415.0	-629.1	-964.8	-1480.6	-2272.0	32.6	1.0
5-I	54077	16483	30.5	20.9	18.9	19.3	16.5	16.5	20.9	11.6	9.7	8.1	6.1	-0.3	-5.9	-12.7	-21.9	-30.6	-40.4	-52.2	-64.7	-81.4	-106.8	-143.4	-201.3	-293.4	-439.6	-666.1	-1021.3	-1566.8	-2404.3	32.2	0.1
5-J	57154	17421	30.3	20.4	18.4	18.8	16.0	15.9	20.3	11.0	9.0	7.3	5.1	-1.6	-7.5	-14.6	-24.2	-33.3	-43.6	-55.9	-69.0	-86.6	-113.4	-152.1	-213.2	-310.5	-464.9	-704.0	-1079.1	-1655.2	-2539.9	31.9	-0.7
6-D	40797	12435	31.8	23.4	21.3	21.7	19.0	19.2	23.8	14.7	13.2	12.1	10.8	5.4	1.1	-4.1	-11.7	-18.6	-26.5	-36.1	-45.7	-58.5	-78.0	-105.6	-149.5	-219.3	-330.3	-502.1	-771.5	-1185.1	-1819.0	34.0	4.2
6-E	43618	13295	31.5	22.8	20.7	21.1	18.4	18.6	23.1	14.0	12.4	11.2	9.7	4.2	-0.5	-6.0	-13.9	-21.2	-29.5	-39.6	-49.8	-63.4	-84.2	-113.7	-160.6	-235.1	-353.6	-537.0	-824.6	-1266.3	-1943.4	33.5	3.3
6-G	49431	15067	30.9	21.7	19.7	20.1	17.3	17.3	21.8	12.6	10.8	9.5	7.6	1.6	-3.6	-9.7	-18.4	-26.5	-35.6	-46.7	-58.1	-73.4	-96.8	-130.3	-183.3	-267.6	-401.5	-608.8	-934.0	-1433.4	-2199.6	32.8	1.5
6-H	52411	15975	30.7	21.2	19.1	19.5	16.8	16.8	21.2	11.9	10.1	8.6	6.6	0.4	-5.1	-11.6	-20.7	-29.2	-38.7	-50.2	-62.3	-78.5	-103.2	-138.7	-194.8	-284.2	-425.9	-645.5	-990.0	-1519.0	-2330.9	32.4	0.6
6-I	55362	16874	30.4	20.7	18.7	19.1	16.3	16.2	20.7	11.3	9.4	7.8	5.6	-0.8	-6.6	-13.5	-22.9	-31.8	-41.7	-53.8	-66.5	-83.5	-109.5	-147.1	-206.3	-300.6	-450.2	-681.9	-1045.4	-1603.8	-2460.9	32.1	-0.2
6-J	58409	17803	30.2	20.3	18.2	18.6	15.9	15.7	20.1	10.7	8.7	7.0	4.6	-2.1	-8.1	-15.3	-25.1	-34.4	-44.9	-57.4	-70.7	-88.7	-116.0	-155.7	-218.1	-317.5	-475.1	-719.4	-1102.6	-1691.2	-2595.1	31.8	-1.0
7-B	36911	11251	32.2	24.2	22.2	22.6	19.8	20.1	24.8	15.8	14.3	13.5	12.3	7.3	3.3	-1.4	-8.6	-15.0	-22.3	-31.2	-40.0	-51.6	-69.4	-94.3	-134.2	-197.5	-298.2	-454.0	-698.3	-1073.3	-1647.6	34.6	5.7
7-C	39568	12060	31.9	23.6	21.6	22.0	19.2	19.5	24.1	15.0	13.5	12.5	11.3	6.0	1.8	-3.3	-10.7	-17.5	-25.2	-34.6	-43.9	-56.3	-75.3	-102.0	-144.6	-212.4	-320.2	-486.9	-748.3	-1149.8	-1764.8	34.2	4.7
7-E	45119	13752	31.3	22.5	20.5	20.9	18.1	18.2	22.8	13.6	11.9	10.8	9.2	3.5	-1.3	-7.0	-15.1	-22.6	-31.1	-41.4	-52.0	-66.0	-87.4	-118.0	-166.4	-243.5	-366.0	-555.6	-852.9	-1309.4	-2009.6	33.3	2.8
7-F	47944	14613	31.1	22.0	19.9	20.3	17.6	17.6	22.1	12.9	11.2	9.9	8.2	2.3	-2.8	-8.8	-17.3	-25.2	-34.1	-44.9	-56.0	-70.9	-93.6	-126.0	-177.5	-259.3	-389.2	-590.5	-906.0	-1390.7	-2134.1	32.9	1.9
7-G	50815	15488	30.8	21.5	19.4	19.8	17.1	17.1	21.5	12.3	10.5	9.1	7.2	1.0	-4.3	-10.6	-19.5	-27.7	-37.1	-48.3	-60.1	-75.8	-99.8	-134.2	-188.6	-275.3	-412.8	-625.9	-960.0	-1473.1	-2260.6	32.6	1.1
7-H	53759	16386	30.6	21.0	18.9	19.3	16.6	16.5	21.0	11.7	9.8	8.2	6.2	-0.2	-5.8	-12.5	-21.7	-30.3	-40.1	-51.9	-64.2	-80.8	-106.1	-142.5	-200.1	-291.6	-437.0	-662.2	-1015.3	-1557.7	-2390.3	32.3	0.2
7-I	56731	17292	30.3	20.5	18.5	18.9	16.1	16.0	20.4	11.0	9.1	7.4	5.2	-1.4	-7.3	-14.3	-23.9	-32.9	-43.1	-55.4	-68.4	-85.9	-112.5	-150.9	-211.6	-308.1	-461.4	-698.8	-1071.1	-1643.1	-2521.2	31.9	-0.5
8-A	36126	11011	32.3	24.4	22.4	22.8	20.0	20.3	25.0	16.0	14.6	13.7	12.7	7.7	3.7	-0.9	-7.9	-14.2	-21.4	-30.2	-38.8	-50.2	-67.7	-92.1	-131.1	-193.1	-291.7	-444.3	-683.5	-1050.7	-1612.9	34.7	6.0
8-B	38619	11771	32.0	23.9	21.8	22.2	19.5	19.7	24.3	15.3	13.8	12.9	11.7	6.5	2.3	-2.6	-9.9	-16.6	-24.1	-33.4	-42.5	-54.6	-73.2	-99.3	-140.9	-207.1	-312.3	-475.2	-730.5	-1122.4	-1722.9	34.3	5.0

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Leq)
FROM WIND PARK OPERATIONS AT THE DESIGN WIND CONDITION

8-C	41215	12562	31.7	23.3	21.2	21.6	18.9	19.1	23.7	14.6	13.0	12.0	10.6	5.2	0.8	-4.4	-12.0	-19.0	-26.9	-36.6	-46.3	-59.2	-78.9	-106.8	-151.1	-221.7	-333.8	-507.3	-779.4	-1197.2	-1837.5	33.9	4.1
8-D	43932	13390	31.4	22.7	20.7	21.1	18.3	18.5	23.0	13.9	12.3	11.1	9.6	4.0	-0.6	-6.2	-14.2	-21.5	-29.8	-40.0	-50.3	-63.9	-84.8	-114.6	-161.8	-236.9	-356.2	-540.9	-830.5	-1275.3	-1957.2	33.5	3.2
8-F	49425	15065	30.9	21.7	19.7	20.1	17.3	17.3	21.8	12.6	10.8	9.5	7.6	1.6	-3.6	-9.7	-18.4	-26.5	-35.6	-46.7	-58.1	-73.4	-96.8	-130.3	-183.2	-267.5	-401.4	-608.7	-933.8	-1433.2	-2199.4	32.8	1.5
8-G	52298	15941	30.7	21.2	19.2	19.6	16.8	16.8	21.2	12.0	10.1	8.6	6.7	0.4	-5.0	-11.6	-20.6	-29.1	-38.6	-50.1	-62.2	-78.3	-103.0	-138.4	-194.4	-283.5	-425.0	-644.2	-987.8	-1515.8	-2326.0	32.4	0.6
8-H	55189	16822	30.4	20.8	18.7	19.1	16.4	16.3	20.7	11.4	9.4	7.8	5.7	-0.8	-6.5	-13.4	-22.7	-31.6	-41.6	-53.6	-66.2	-83.2	-109.2	-146.6	-205.6	-299.6	-448.7	-679.8	-1042.2	-1598.8	-2453.3	32.1	-0.1
9-A	37935	11562	32.1	24.0	22.0	22.4	19.6	19.9	24.5	15.5	14.0	13.1	11.9	6.8	2.7	-2.2	-9.4	-15.9	-23.4	-32.5	-41.5	-53.4	-71.7	-97.3	-138.2	-203.2	-306.6	-466.7	-717.6	-1102.7	-1692.7	34.4	5.3
9-B	40355	12300	31.8	23.5	21.4	21.8	19.1	19.3	23.9	14.8	13.3	12.3	11.0	5.6	1.3	-3.8	-11.3	-18.2	-26.0	-35.6	-45.1	-57.7	-77.0	-104.3	-147.7	-216.8	-326.7	-496.7	-763.2	-1172.4	-1799.5	34.0	4.4
9-C	42897	13075	31.5	22.9	20.9	21.3	18.5	18.7	23.3	14.2	12.6	11.5	10.0	4.5	-0.1	-5.5	-13.4	-20.6	-28.7	-38.7	-48.8	-62.1	-82.6	-111.6	-157.7	-231.1	-347.6	-528.1	-811.0	-1245.5	-1911.6	33.6	3.5
9-D	45546	13882	31.3	22.4	20.4	20.8	18.0	18.1	22.7	13.5	11.8	10.6	9.0	3.3	-1.5	-7.2	-15.4	-23.0	-31.6	-42.0	-52.6	-66.7	-88.4	-119.2	-168.1	-245.9	-369.5	-560.8	-860.9	-1321.7	-2028.4	33.3	2.6
9-E	48209	14694	31.0	21.9	19.9	20.3	17.5	17.6	22.1	12.9	11.1	9.8	8.1	2.1	-2.9	-9.0	-17.5	-25.4	-34.4	-45.2	-56.4	-71.3	-94.1	-126.8	-178.5	-260.8	-391.4	-593.7	-911.0	-1398.3	-2145.8	32.9	1.8
9-F	50977	15538	30.8	21.4	19.4	19.8	17.0	17.0	21.5	12.3	10.4	9.0	7.1	1.0	-4.4	-10.7	-19.6	-27.9	-37.2	-48.5	-60.3	-76.1	-100.1	-134.7	-189.3	-276.2	-414.2	-627.9	-963.0	-1477.8	-2267.7	32.6	1.0
9-G	53798	16398	30.6	21.0	18.9	19.3	16.6	16.5	21.0	11.6	9.8	8.2	6.2	-0.2	-5.8	-12.5	-21.7	-30.4	-40.1	-51.9	-64.3	-80.9	-106.2	-142.7	-200.2	-291.9	-437.3	-662.6	-1016.0	-1558.8	-2392.0	32.2	0.2
9-H	56643	17265	30.3	20.5	18.5	18.9	16.1	16.0	20.4	11.1	9.1	7.4	5.2	-1.3	-7.2	-14.2	-23.8	-32.9	-43.1	-55.3	-68.3	-85.7	-112.3	-150.7	-211.3	-307.7	-460.7	-697.7	-1069.4	-1640.5	-2517.3	31.9	-0.5
9-I	59534	18146	30.1	20.1	18.0	18.4	15.7	15.5	19.9	10.5	8.4	6.7	4.3	-2.5	-8.7	-16.0	-25.9	-35.4	-46.0	-58.7	-72.3	-90.6	-118.4	-158.8	-222.4	-323.7	-484.4	-733.3	-1123.7	-1723.5	-2644.7	31.6	-1.2
10-A	39752	12116	31.9	23.6	21.6	22.0	19.2	19.4	24.0	15.0	13.5	12.5	11.2	5.9	1.7	-3.4	-10.9	-17.6	-25.4	-34.8	-44.2	-56.6	-75.7	-102.6	-145.4	-213.5	-321.7	-489.2	-751.8	-1155.1	-1772.9	34.1	4.6
10-B	42140	12844	31.6	23.1	21.0	21.4	18.7	18.9	23.4	14.4	12.8	11.7	10.3	4.8	0.3	-5.0	-12.8	-19.9	-27.9	-37.8	-47.7	-60.8	-80.9	-109.4	-154.8	-226.9	-341.4	-518.7	-796.8	-1223.8	-1878.2	33.8	3.8
10-C	44613	13598	31.4	22.6	20.5	20.9	18.2	18.3	22.9	13.7	12.1	10.9	9.4	3.7	-1.0	-6.6	-14.7	-22.1	-30.6	-40.8	-51.2	-65.1	-86.3	-116.5	-164.4	-240.7	-361.8	-549.3	-843.3	-1294.9	-1987.3	33.4	2.9
10-D	47200	14386	31.1	22.1	20.1	20.5	17.7	17.8	22.3	13.1	11.4	10.1	8.4	2.6	-2.4	-8.3	-16.7	-24.5	-33.3	-44.0	-54.9	-69.6	-91.9	-123.9	-174.6	-255.1	-383.1	-581.3	-892.0	-1369.3	-2101.3	33.0	2.1
10-E	49842	15192	30.9	21.6	19.6	20.0	17.2	17.3	21.7	12.5	10.7	9.3	7.5	1.5	-3.8	-10.0	-18.7	-26.9	-36.1	-47.2	-58.7	-74.1	-97.7	-131.4	-184.9	-269.9	-404.8	-613.9	-941.7	-1445.2	-2217.7	32.7	1.3
10-F	52574	16025	30.7	21.2	19.1	19.5	16.8	16.7	21.2	11.9	10.1	8.6	6.6	0.3	-5.2	-11.7	-20.8	-29.3	-38.9	-50.4	-62.6	-78.8	-103.5	-139.2	-195.5	-285.1	-427.3	-647.6	-993.0	-1523.7	-2338.1	32.4	0.6
10-G	55338	16867	30.4	20.7	18.7	19.1	16.3	16.2	20.7	11.3	9.4	7.8	5.6	-0.8	-6.6	-13.4	-22.9	-31.7	-41.7	-53.7	-66.4	-83.5	-109.5	-147.0	-206.2	-300.4	-450.0	-681.6	-1045.0	-1603.1	-2459.9	32.1	-0.2
10-H	58164	17728	30.2	20.3	18.2	18.6	15.9	15.8	20.1	10.8	8.7	7.0	4.7	-2.0	-8.0	-15.2	-24.9	-34.2	-44.6	-57.1	-70.4	-88.3	-115.5	-155.0	-217.1	-316.1	-473.1	-716.4	-1098.0	-1684.2	-2584.3	31.8	-0.9
10-I	42469	12945	31.6	23.0	21.0	21.4	18.6	18.8	23.4	14.3	12.7	11.6	10.2	4.7	0.1	-5.2	-13.0	-20.2	-28.3	-38.2	-48.1	-61.4	-81.6	-110.4	-156.0	-228.7	-344.1	-522.8	-803.0	-1233.2	-1892.8	33.7	3.7
11-A	41613	12684	31.7	23.2	21.2	21.6	18.8	19.0	23.6	14.5	12.9	11.9	10.5	5.1	0.6	-4.6	-12.3	-19.4	-27.4	-37.1	-46.9	-59.9	-79.8	-107.9	-152.7	-223.9	-337.0	-512.2	-786.9	-1208.6	-1855.0	33.8	4.0
11-B	43956	13398	31.4	22.7	20.7	21.1	18.3	18.5	23.0	13.9	12.3	11.1	9.6	4.0	-0.7	-6.2	-14.2	-21.5	-29.9	-40.0	-50.3	-64.0	-84.9	-114.7	-161.9	-237.0	-356.4	-541.2	-831.0	-1276.0	-1958.3	33.5	3.2
11-C	46322	14119	31.2	22.3	20.2	20.6	17.9	18.0	22.5	13.3	11.6	10.4	8.7	3.0	-1.9	-7.7	-16.0	-23.7	-32.4	-42.9	-53.7	-68.1	-90.0	-121.4	-171.1	-250.2	-375.9	-570.4	-875.5	-1344.0	-2062.6	33.2	2.4
11-D	48915	14909	31.0	21.8	19.7	20.1	17.4	17.5	21.9	12.7	11.0	9.6	7.8	1.8	-3.3	-9.4	-18.0	-26.0	-35.1	-46.0	-57.4	-72.5	-95.7	-128.8	-181.2	-264.7	-397.2	-602.4	-924.3	-1418.5	-2176.9	32.8	1.6
11-E	51465	15686	30.8	21.4	19.3	19.7	17.0	17.0	21.4	12.2	10.3	8.9	6.9	0.8	-4.6	-11.0	-20.0	-28.3	-37.7	-49.1	-61.0	-76.9	-101.2	-136.0	-191.2	-278.9	-418.2	-633.9	-972.2	-1491.8	-2289.2	32.5	0.9
11-F	54145	16503	30.5	20.9	18.9	19.3	16.5	16.5	20.9	11.6	9.7	8.1	6.0	-0.3	-6.0	-12.7	-22.0	-30.7	-40.5	-52.3	-64.8	-81.5	-106.9	-143.6	-201.6	-293.8	-440.2	-666.9	-1022.5	-1568.8	-2407.3	32.2	0.1
11-G	56858	17330	30.3	20.5	18.4	18.8	16.1	16.0	20.4	11.0	9.0	7.4	5.2	-1.4	-7.3	-14.4	-24.0	-33.1	-43.3	-55.5	-68.6	-86.1	-112.7	-151.3	-212.1	-308.9	-462.4	-700.3	-1073.5	-1646.7	-2526.8	31.9	-0.6
11-H	59629	18175	30.1	20.1	18.0	18.4	15.7	15.5	19.9	10.5	8.4	6.7	4.3	-2.5	-8.7	-16.1	-26.0	-35.5	-46.1	-58.8	-72.4	-90.8	-118.6	-159.1	-222.8	-324.2	-485.1	-734.4	-1125.5	-1726.3	-2648.8	31.6	-1.3
11-K	68266	20807	29.5	18.9	16.9	17.3	14.5	14.2	18.4	8.9	6.6	4.5	1.6	-5.9	-12.9	-21.2	-32.2	-42.9	-54.7	-68.9	-84.3	-105.2	-137.0	-183.3	-256.1	-372.0	-555.8	-840.7	-1287.5	-1974.1	-3029.1	30.9	-3.2
11-L	71163	21690	29.3	18.5	16.5	16.9	14.1	13.7	18.0	8.4	6.0	3.8	0.7	-6.9	-14.2	-22.9	-34.3	-45.3	-57.6	-72.2	-88.3	-110.0	-143.1	-191.4	-267.2	-388.0	-579.5	-876.3	-1341.8	-2057.2	-3156.6	30.6	-3.8
12-A	43470	13250	31.5	22.8	20.8	21.2	18.4	18.6	23.1	14.0	12.4	11.3	9.8	4.2	-0.4	-5.9	-13.8	-21.1	-29.4	-39.4	-49.6	-63.1	-83.8	-113.3	-160.0	-234.3	-352.4	-535.2	-821.8	-1262.0	-1936.9	33.6	3.3
12-B	45764	13949	31.3	22.4	20.3	20.7	18.0	18.1	22.6	13.5	11.8	10.6	8.9	3.2	-1.6	-7.4	-15.6	-23.2	-31.8	-42.2	-52.9	-67.1	-88.8	-119.8	-168.9	-247.1	-371.3	-563.5	-865.0	-1328.0	-2038.0	33.2	2.6
12-C	48128	14670	31.0	21.9	19.9	20.3	17.5	17.6	22.1	12.9	11.2	9.9	8.1	2.2	-2.9	-8.9	-17.4	-25.3	-34.3	-45.1	-56.3	-71.2	-94.0	-126.6	-178.2	-260.3	-390.7	-592.7	-909.5	-1395.9	-2142.2	32.9	1.8
12-D	50650	15438	30.8	21.5	19.4	19.8	17.1	17.1	21.6	12.3	10.5	9.1	7.2	1.1	-4.2	-10.5	-19.3	-27.6	-36.9	-48.1	-59.8	-75.5	-99.4	-133.7	-188.0	-274.4	-411.5	-623.8	-956.9	-1468.4	-2253.4	32.6	1.1
12-E	53124	16192	30.6	21.1	19.0	19.4	16.7	16.6	21.1	11.8	9.9	8.4	6.4	0.1	-5.5	-12.1	-21.2	-29.8	-39.5	-51.1	-63.3	-79.7	-104.7	-140.7	-197.6	-288.1	-431.8	-654.3	-1003.4	-1539.5	-2362.3	32.3	0.4
12-F	55772	16999	30.4	20.7	18.6	19.0	16.3	16.2	20.6	11.2	9.3	7.7	5.5	-1.0	-6.8	-13.7	-23.2	-32.1	-42.2	-54.2	-67.0	-84.2	-110.4	-148.2	-207.9	-302.8	-453.5	-687.0	-1053.1	-1615.5	-2479.0	32.0	-0.3
12-G	58477	17824	30.2	20.2	18.2	18.6	15.8	15.7	20.1	10.7	8.7	7.0	4.6	-2.1	-8.1	-15.4	-25.2	-34.5	-44.9	-57.4	-70.8	-88.8	-116.2	-155.9	-218.4	-317.8	-475.7	-720.3	-1103.9	-1693.2	-2598.1	31.7	-1.0
12-H	61160	18642	30.0	19.9	17.8	18.2	15.5	15.3	19.6	10.2	8.1	6.3	3.8	-3.1	-9.5	-17.0	-27.1	-36.8	-47.6	-60.6	-74.5	-93.3	-121.9	-163.4	-228.7	-332.7	-497.7	-753.3	-1154.2	-1770.2	-2716.3	31.5	-1.6
12-I	64025	19515	29.8	19.5	17.4	17.8	15.1	14.8	19.1	9.6	7.5	5.5	2.9	-4.2	-10.8	-18.7	-29.2	-39.2	-50.5	-63.9	-78.5	-98.1	-128.0	-171.4	-239.8	-348.6	-521.1	-788.5	-1208.0	-1852.4	-2842.4	31.2	-2.3
12-J	66838	20372	29.6	19.1	17.0	17.4	14.7	14.4	18.6	9.1	6.9	4.8	2.0	-5.3	-12.2	-20.4	-31.2	-41.6	-53.3	-67.2	-82.4	-102.8	-133.9	-179.3	-250.6	-364.1	-544.1	-823.1	-1260.8	-1933.1	-2966.3	31.0	-2.9
12-K	69693	21243	29.4	18.7	16.7	17.1	14.3	14.0	18.2	8.6	6.3	4.1	1.2	-6.4	-13.5	-22.1	-33.3	-44.1	-56.2	-70.5	-86.3	-107.6	-140.0	-187.3	-261.6	-379.9	-567.5	-858.2	-1314.3	-2015.1	-3091.9	30.7	-3.5
12-L	72556	22115	29.3	18.4	16.3	16.7	14.0	13.5	17.8	8.1	5.7	3.4	0.3	-7.4	-14.9	-23.7	-35.3	-46.5	-59.0	-73.8	-90.2	-112.4	-146.0	-195.3	-272.6	-395.7	-590.9	-893.4	-1368.0	-2097.2	-3217.9	30.5	-4.1
13-A	45330	13817	31.3	22.5	20.4	20.8	18.1	18.2	22.7	13.6	11.9	10.7	9.1	3.4	-1.4	-7.1	-15.3	-22.8	-31.3	-41.7	-52.3	-66.4	-87.9	-118.6	-167.3	-244.7	-367.7	-558.2	-856.8	-1315.5	-2018.9	33.3	2.7
13-B	47580	14502	31.1	22.0	20.0	20.4	17.6	17.7	22.2	13.0	11.3	10.0	8.3	2.4	-2.6	-8.6	-17.0	-24.8	-33.7	-44.4	-55.5	-70.2	-92.8	-125.0	-176.0	-257.3	-386.2	-586.0	-899.2	-1380.2	-2118.1	33.0	2.0
13-C	49896	15208	30.9	21.6	19.6	20.0	17.2	17.3	21.7	12.5	10.7	9.3	7.5	1.4	-3.8	-10.0	-18.8	-26.9	-36.1	-47.2	-58.8	-74.2	-97.8	-131.6	-185.1	-270.2	-405.3	-614.5	-942.7	-1446.7	-2220.1	32.7	1.3
13-D	52388	15968	30.7	21.2	19.2	19.6	16.8	16.8	21.2	12.0	10.1	8.6	6.6	0.4	-5.1	-11.6	-20.7	-29.1	-38.7	-50.2	-62.3	-78.5	-103.1	-138.7	-194.8	-284.0	-425.8	-645.3	-989.5	-1518.3	-2329.9	32.4	0.6
13-F	57450	17511	30.3	20.4	18.4	18.8	16.0	15.9	20.3	10.9	8.9	7.2	5.0	-1.7	-7.6	-14.7	-24.4	-33.6	-43.9	-56.2	-69.4	-87.1	-114.0	-153.0	-214.4	-312.1	-467.3	-707.6	-1084.6	-1663.7	-2552.9	31.9	-0.7
13-G	60092	18316	30.1	20.0	18.0	18.4	15.6	15.4	19.8	10.4	8.3	6.5	4.1	-2.7	-8.9	-16.3	-26.4	-35.9	-46.6	-59.3	-73.1	-91.5	-119.6	-160.4	-224.6	-326.8	-488.9	-740.1	-1134.2	-1739.5	-2669.2	31.6	-1.4
13-H	62713	19115	29.9	19.6	17.6	18.0	15.2	15.0	19.3	9.9	7.7	5.9	3.3	-3.7	-10.2	-17.9	-28.3	-38.1	-49.2	-62.4	-76.7	-95.9	-125.2	-167.8	-234.7	-341.3	-510.4	-772.4	-1183.4	-1814.8	-2784.7	31.3	-2.0
13-I	65559	19982	29.7	19.3	17.2	17.6	14.9	14.6	18.9	9.3	7.1	5.1	2.4	-4.8	-11.6	-19.6	-30.3	-40.6	-52.0	-65.7	-80.6	-100.7	-131.2	-175.7	-245.7	-357.0	-533.7	-807.4	-1236.8	-1896.4	-2909.9	31.1	-2.6
13-J	68368	20839	29.5	18.9	16.8	17.2	14.5	14.1	18.4	8.8	6.6	4.5	1.6	-5.9	-12.9	-21.3	-32.3	-42.9	-54.8	-69.0	-84.5	-105.4	-137.2	-183.6	-256.5	-372.6	-556.7	-841.9	-1289.5	-1977.0	-3033.6	30.8	-3.2
13-K	71167	21692	29.3	18.5	16.5	16.9	14.1	13.7	18.0	8.4	6.0	3.8	0.7	-6.9	-14.2	-22.9	-34.3	-45.3	-57.6	-72.2	-88.3	-110.1	-143.1	-191.4	-267.2	-388.0	-579.5	-876.3	-1341.9	-2057.3	-3156.8	30.6	-3.8
13-L	74075	22578	29.2	18.2	16.1	16.5	13.8	13.3	17.5	7.9	5.4	3.1	-0.1	-8.0	-15.6	-24.6	-36.4	-47.7	-60.5	-75.6	-92.3	-114.9	-149.2	-199.5	-278.4	-404.0	-603.3	-912.0	-1396.4	-2140.7	-3284.8	30.4	-4.4
14-D	54134	16500	30.5	20.9	18.9	19.3	16.5	16.5	20.9	11.6	9.7	8.1	6.0	-0.3	-6.0	-12.7	-22.0	-30.7	-40.5	-52.3	-64.8	-81.5	-106.9	-143.6	-201.5	-293.7	-440.1	-666.8	-1022.3	-1568.5	-2406.8	32.2	0.1
14-E	56552	17237	30.3	20.5	18.5	18.9	16.1	16.0	20.4	11.1	9.1	7.5	5.2	-1.3	-7.2	-14.2	-23.8	-32.8	-43.0	-55.2	-68.1	-85.6	-112.1	-150.4	-210.9	-307.2	-459.9	-696.6	-1067.8	-1637.9	-2513.4	31.9	-0.5
14-F	59129	18023	30.1	20.2	18.1	18.5	15.8	15.6	20.0	10.6	8.5	6.8	4.4	-2.3	-8.5	-15.8	-25.7	-35.0	-45.6	-58.2	-71.7	-89.9	-117.6	-157.7	-220.9	-321.4	-481.0	-728.3	-1116.1	-1711.9	-2626.8	31.7	-1.1
14-G	61716	18811	30.0	19.8	17.7	18.1	15.4	15.2	19.5	10.1	8.0	6.1	3.6	-3.4	-9.7	-17.3	-27.5	-37.3	-48.2	-61.3	-75.3	-94.3	-123.1	-165.0	-230.9	-335.8	-502.2	-760.1	-1164.7	-1786.2	-2740.8	31.4	-1.8
14-H	64376	19622	29.8	19.4	17.4	17.8	15.0	14.7	19.1	9.6	7.4	5.4	2.8	-4.4	-11.0	-18.9	-29.5	-39.5	-50.9	-64.4	-79.0	-98.7	-128.7	-172.4	-241.1	-350.5	-524.0	-792.8	-1214.6	-1862.5	-2857.9	31.2	-2.4
14-J	69865	21295	29.4	18.7	16.7	17.1	14.3	13.9	18.2	8.6	6.3	4.1	1.1	-6.5	-13.6	-22.2	-33.4	-44.2	-56.3	-70.7	-86.5	-107.9	-140.3	-187.8	-262.2	-380.8	-568.9	-860.3	-1317.5	-2020.0	-3099.5	30.7	-3.6
14-K	72724	22166	29.3	18.4	16.3	16.7	14.0	13.5	17.7	8.1	5.7	3.4	0.3	-7.5	-14.9	-23.8	-35.4	-46.6	-59.1	-74.0	-90.4	-112.6	-146.3	-195.8	-273.2	-396.6	-592.2	-895.4	-1371.1	-2102.0	-3225.4	30.5	-4.1
14-L	75586	23039	29.1	18.0	16.0	16.4	13.6	13.1	17.3	7.6	5.1	2.7	-0.5	-8.6	-16.3	-25.5	-37.4	-49.0	-62.0	-77.3	-94.3	-117.4	-152.4	-203.7	-284.2	-412.4	-615.6	-930.6	-1424.7	-2184.1	-3351.3	30.3	-4.7
15-F	60815	18537	30.0	19.9	17.9	18.3	15.5	15.3	19.7	10.2	8.2	6.3	3.9	-3.0	-9.3	-16.8	-26.9	-36.5	-47.3	-60.2	-74.1	-92.8	-121.2	-162.4	-227.4	-330.8	-494.9	-749.1	-1147.8	-1760.3	-2701.1	31.5	-1.6
15-G	63430	19334	29.8	19.5	17.5	17.9	15.1	14.9	19.2	9.7	7.6	5.7	3.1	-4.0	-10.6	-18.4	-28.8	-38.7	-49.9	-63.3	-77.7	-97.1	-126.7	-169.8	-237.5	-345.3	-516.3	-781.2	-1196.8	-1835.4	-2816.2	31.3	-2.2
15-H	66024	20124	29.7	19.2	17.1	17.5	14.8	14.5	18.8	9.3	7.0	5.0	2.3	-5.0	-11.8	-19.9	-30.6	-40.9	-52.5	-66.3	-81.3	-101.5	-132.2	-177.0	-247.5	-359.6	-537.5	-813.1	-1245.5	-1909.8	-2930.4	31.0	-2.7
15-I	68732	20949	29.5	18.8	16.8	17.2	14.4	14.1	18.3	8.8	6.5	4.4	1.5	-6.0	-13.1	-21.5	-32.6	-43.2	-55.2	-69.4	-85.0	-106.0	-137.9	-184.6	-257.9	-374.6	-559.6	-846.4	-1296.3	-1987.5	-3049.6	30.8	-3.3
15-J	71444	21776	29.3	18.5	16.5	16.9	14.1	13.7	17.9	8.3	5.9	3.7	0.7	-7.0	-14.3	-23.1	-34.5	-45.5	-57.9	-72.5	-88.7	-110.5	-143.7	-192.2	-268.3	-389.5	-581.8	-879.7	-1347.1	-2065.3	-3169.0	30.6	-3.9
15-K	74239	22628	29.2	18.2	16.1	16.5	13.8	13.3	17.5	7.8	5.4	3.1	-0.2	-8.1	-15.6	-24.7	-36.5	-47.9	-60.6	-75.8	-92.5	-115.1	-149.5	-200.0	-279.0	-404.9	-604.6	-914.0	-1399.5	-2145.4	-3292.0	30.4	-4.4
16-J	73031	22260	29.2	18.3	16.3	16.7	13.9	13.5	17.7	8.0	5.6	3.3	0.2	-7.6	-15.1	-24.0	-35.6	-46.9	-59.5	-74.4	-90.9	-113.1	-147.0	-196.6	-274.4	-398.3	-594.7	-899.2	-1376.9	-2110.8	-3238.9	30.5	-4.2
16-K	75796	23103	29.1	18.0	15.9	16.3	13.6	13.1	17.3	7.6	5.1	2.7	-0.6	-8.6	-16.4	-25.6	-37.6	-49.2	-62.2	-77.5	-94.6	-117.7	-152.8	-204.3	-285.0	-413.5	-617.3	-933.1	-1428.7	-2190.1	-3360.5	30.3	-4.7
		Sum:	52.0	42.8	40.7	41.1	38.4	38.5	42.9	33.7	32.0	30.8	29.1	23.4	18.7	13.3	5.6	-1.3	-9.0	-18.4	-27.5	-39.3	-57.1	-81.5	-119.6	-179.1	-272.5	-416.3	-641.2	-986.2	-1514.1	53.8	22.9

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Leq)
FROM WIND PARK OPERATIONS AT THE DESIGN WIND CONDITION

																		Hertz													
	1/3 Octave Bands	**16***	**20**	**25**	**31**	**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**	**L**	**A**
Sound Power Data - Design Speed		113.7	113.3	111.2	111.6	108.9	109.9	115.0	106.6	106.2	106.8	107.7	105.5	105.0	104.6	102.1	100.6	98.7	95.8	94.9	94.2	92.9	93.1	92.1	90.7	87.9	83.9	78.2	69.9	61.5	121.9	107.4

Data for the graph																															
Atmos. Absorption per 1 km air temp 59F 70% RH	0.0000	0.0000	0.0000	0.0000	0.0000	0.0670	0.1050	0.1630	0.2510	0.3810	0.5650	0.8150	1.1300	1.5100	1.9200	2.3600	2.8400	3.3800	4.0800	5.0500	6.5100	8.7500	12.2000	17.7000	26.4000	39.9000	61.1000	93.7000	144.0000		

*Spherical wave spreading for up to 2 km, cylindrical wave spreading beyond 2 km.

																			Hertz												
	1/3 Octave Bands		**16***	**20**	**25**	**31**	**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**	**L**	**A**
	Distance (ft)	**Distance (m)**																															
1-D	57293	17463	30.3	20.4	18.4	18.8	16.0	15.9	20.3	10.9	8.9	7.3	5.0	-1.6	-7.6	-14.6	-24.3	-33.4	-43.7	-56.0	-69.2	-86.8	-113.7	-152.5	-213.8	-311.3	-466.0	-705.7	-1081.7	-1659.2	-2546.0	31.9	-0.7
1-E	60255	18366	30.1	20.0	17.9	18.3	15.6	15.4	19.8	10.3	8.3	6.5	4.1	-2.8	-9.0	-16.4	-26.5	-36.0	-46.7	-59.5	-73.3	-91.8	-120.0	-160.9	-225.2	-327.7	-490.3	-742.2	-1137.3	-1744.2	-2676.4	31.6	-1.4
1-F	63250	19279	29.9	19.6	17.5	17.9	15.2	14.9	19.2	9.8	7.6	5.7	3.1	-3.9	-10.5	-18.2	-28.6	-38.6	-49.7	-63.0	-77.4	-96.8	-126.3	-169.3	-236.8	-344.3	-514.8	-779.0	-1193.4	-1830.2	-2808.3	31.3	-2.1
1-G	66290	20205	29.7	19.2	17.1	17.5	14.8	14.5	18.7	9.2	7.0	5.0	2.2	-5.1	-11.9	-20.1	-30.8	-41.2	-52.8	-66.6	-81.6	-101.9	-132.8	-177.8	-248.5	-361.1	-539.7	-816.4	-1250.5	-1917.4	-2942.1	31.0	-2.8
1-H	69373	21145	29.5	18.8	16.7	17.1	14.4	14.0	18.2	8.7	6.4	4.2	1.3	-6.3	-13.4	-21.9	-33.0	-43.8	-55.8	-70.2	-85.9	-107.1	-139.3	-186.4	-260.4	-378.1	-564.9	-854.3	-1308.3	-2005.9	-3077.8	30.8	-3.5
1-I	72420	22074	29.3	18.4	16.3	16.7	14.0	13.6	17.8	8.1	5.8	3.5	0.4	-7.4	-14.8	-23.6	-35.2	-46.4	-58.8	-73.7	-90.0	-112.1	-145.7	-194.9	-272.1	-394.9	-589.8	-891.7	-1365.4	-2093.3	-3212.0	30.5	-4.1
1-J	75473	23004	29.1	18.0	16.0	16.4	13.6	13.1	17.3	7.6	5.2	2.8	-0.5	-8.5	-16.2	-25.4	-37.3	-48.9	-61.8	-77.2	-94.2	-117.2	-152.1	-203.4	-283.8	-411.7	-614.7	-929.2	-1422.6	-2180.8	-3346.3	30.3	-4.7
1-K	78601	23958	28.9	17.7	15.6	16.0	13.3	12.7	16.9	7.1	4.6	2.1	-1.4	-9.6	-17.6	-27.2	-39.5	-51.5	-64.9	-80.7	-98.4	-122.4	-158.7	-212.1	-295.8	-429.0	-640.2	-967.6	-1481.2	-2270.5	-3484.0	30.1	-5.3
1-L	81781	24927	28.7	17.3	15.3	15.7	12.9	12.3	16.4	6.6	4.0	1.3	-2.3	-10.8	-19.1	-29.0	-41.7	-54.1	-68.0	-84.4	-102.7	-127.6	-165.3	-220.9	-307.9	-446.5	-666.1	-1006.6	-1540.8	-2361.7	-3623.9	29.8	-5.8
2-D	57076	17397	30.3	20.5	18.4	18.8	16.1	15.9	20.3	11.0	9.0	7.3	5.1	-1.5	-7.4	-14.5	-24.1	-33.2	-43.5	-55.8	-68.9	-86.4	-113.2	-151.9	-212.9	-310.1	-464.2	-703.0	-1077.6	-1653.0	-2536.4	31.9	-0.6
2-E	60138	18330	30.1	20.0	18.0	18.4	15.6	15.4	19.8	10.4	8.3	6.5	4.1	-2.7	-9.0	-16.4	-26.4	-35.9	-46.6	-59.4	-73.1	-91.6	-119.7	-160.5	-224.8	-327.0	-489.3	-740.7	-1135.1	-1740.9	-2671.3	31.6	-1.4
2-F	63213	19267	29.9	19.6	17.5	17.9	15.2	14.9	19.2	9.8	7.6	5.7	3.1	-3.9	-10.5	-18.2	-28.6	-38.5	-49.7	-63.0	-77.4	-96.8	-126.3	-169.2	-236.6	-344.1	-514.5	-778.5	-1192.8	-1829.1	-2806.7	31.3	-2.1
2-G	66244	20191	29.7	19.2	17.1	17.5	14.8	14.5	18.7	9.2	7.0	5.0	2.2	-5.1	-11.9	-20.0	-30.8	-41.1	-52.7	-66.5	-81.6	-101.9	-132.7	-177.7	-248.3	-360.8	-539.3	-815.8	-1249.6	-1916.1	-2940.1	31.0	-2.8
2-H	69306	21125	29.5	18.8	16.7	17.1	14.4	14.0	18.3	8.7	6.4	4.2	1.3	-6.2	-13.3	-21.8	-33.0	-43.7	-55.8	-70.1	-85.8	-107.0	-139.1	-186.2	-260.1	-377.7	-564.3	-853.4	-1307.0	-2004.0	-3074.9	30.8	-3.4
2-I	72448	22082	29.3	18.4	16.3	16.7	14.0	13.6	17.8	8.1	5.7	3.5	0.4	-7.4	-14.8	-23.7	-35.2	-46.4	-58.9	-73.7	-90.1	-112.2	-145.8	-195.0	-272.2	-395.1	-590.0	-892.0	-1365.9	-2094.1	-3213.2	30.5	-4.1
2-J	75621	23049	29.1	18.0	16.0	16.4	13.6	13.1	17.3	7.6	5.1	2.7	-0.6	-8.6	-16.3	-25.5	-37.4	-49.0	-62.0	-77.3	-94.4	-117.4	-152.4	-203.8	-284.3	-412.6	-615.9	-931.0	-1425.4	-2185.0	-3352.8	30.3	-4.7
2-K	78657	23975	28.9	17.7	15.6	16.0	13.3	12.7	16.9	7.1	4.6	2.0	-1.4	-9.7	-17.7	-27.2	-39.6	-51.6	-65.0	-80.8	-98.5	-122.4	-158.8	-212.3	-296.0	-429.3	-640.7	-968.3	-1482.3	-2272.1	-3486.4	30.1	-5.3
2-L	81834	24943	28.7	17.3	15.3	15.7	12.9	12.3	16.4	6.6	4.0	1.3	-2.3	-10.8	-19.1	-29.0	-41.8	-54.2	-68.1	-84.4	-102.8	-127.7	-165.4	-221.1	-308.1	-446.8	-666.6	-1007.2	-1541.8	-2363.2	-3626.2	29.8	-5.8
3-D	57000	17374	30.3	20.5	18.4	18.8	16.1	16.0	20.3	11.0	9.0	7.4	5.1	-1.5	-7.4	-14.5	-24.1	-33.2	-43.4	-55.7	-68.8	-86.3	-113.0	-151.7	-212.6	-309.6	-463.6	-702.1	-1076.2	-1650.8	-2533.1	31.9	-0.6
3-E	60118	18324	30.1	20.0	18.0	18.4	15.6	15.4	19.8	10.4	8.3	6.5	4.1	-2.7	-8.9	-16.4	-26.4	-35.9	-46.6	-59.4	-73.1	-91.6	-119.7	-160.5	-224.7	-326.9	-489.1	-740.5	-1134.7	-1740.3	-2670.4	31.6	-1.4
3-F	63217	19268	29.9	19.6	17.5	17.9	15.2	14.9	19.2	9.8	7.6	5.7	3.1	-3.9	-10.5	-18.2	-28.6	-38.6	-49.7	-63.0	-77.4	-96.8	-126.3	-169.2	-236.7	-344.1	-514.5	-778.6	-1192.8	-1829.2	-2806.8	31.3	-2.1
3-G	66306	20210	29.7	19.2	17.1	17.5	14.8	14.5	18.7	9.2	7.0	5.0	2.2	-5.1	-11.9	-20.1	-30.8	-41.2	-52.8	-66.6	-81.6	-102.0	-132.8	-177.8	-248.6	-361.2	-539.8	-816.6	-1250.8	-1917.9	-2942.8	31.0	-2.8
3-I	72496	22097	29.3	18.4	16.3	16.7	14.0	13.6	17.8	8.1	5.7	3.5	0.3	-7.4	-14.8	-23.7	-35.2	-46.4	-58.9	-73.8	-90.1	-112.3	-145.9	-195.1	-272.3	-395.3	-590.4	-892.6	-1366.8	-2095.4	-3215.3	30.5	-4.1
3-J	75654	23059	29.1	18.0	16.0	16.4	13.6	13.1	17.3	7.6	5.1	2.7	-0.6	-8.6	-16.3	-25.5	-37.5	-49.1	-62.0	-77.4	-94.4	-117.5	-152.5	-203.9	-284.5	-412.7	-616.2	-931.4	-1426.0	-2186.0	-3354.3	30.3	-4.7
3-K	78847	24033	28.9	17.7	15.6	16.0	13.3	12.7	16.8	7.1	4.5	2.0	-1.5	-9.7	-17.8	-27.3	-39.7	-51.7	-65.2	-81.0	-98.8	-122.8	-159.2	-212.8	-296.7	-430.3	-642.2	-970.6	-1485.8	-2277.6	-3494.8	30.0	-5.3
3-L	81936	24974	28.7	17.3	15.3	15.7	12.9	12.3	16.4	6.6	3.9	1.3	-2.3	-10.8	-19.2	-29.1	-41.8	-54.3	-68.2	-84.5	-102.9	-127.9	-165.7	-221.4	-308.5	-447.3	-667.4	-1008.5	-1543.7	-2366.1	-3630.7	29.8	-5.9
4-D	57034	17384	30.3	20.5	18.4	18.8	16.1	16.0	20.3	11.0	9.0	7.3	5.1	-1.5	-7.4	-14.5	-24.1	-33.2	-43.5	-55.7	-68.8	-86.4	-113.1	-151.8	-212.8	-309.8	-463.9	-702.5	-1076.8	-1651.8	-2534.6	31.9	-0.6
4-E	60200	18349	30.1	20.0	17.9	18.3	15.6	15.4	19.8	10.4	8.3	6.5	4.1	-2.8	-9.0	-16.4	-26.4	-36.0	-46.7	-59.5	-73.2	-91.7	-119.9	-160.7	-225.0	-327.4	-489.8	-741.5	-1136.2	-1742.6	-2674.0	31.6	-1.4
4-F	63316	19299	29.9	19.6	17.5	17.9	15.2	14.9	19.2	9.8	7.6	5.7	3.1	-4.0	-10.5	-18.3	-28.7	-38.6	-49.8	-63.1	-77.5	-97.0	-126.5	-169.5	-237.0	-344.6	-515.3	-779.8	-1194.7	-1832.1	-2811.2	31.3	-2.1
4-G	66463	20258	29.6	19.1	17.1	17.5	14.7	14.4	18.7	9.2	7.0	4.9	2.1	-5.2	-12.0	-20.2	-31.0	-41.3	-52.9	-66.8	-81.9	-102.2	-133.1	-178.3	-249.2	-362.0	-541.1	-818.5	-1253.7	-1922.4	-2949.8	31.0	-2.8
4-H	69578	21207	29.4	18.7	16.7	17.1	14.3	14.0	18.2	8.6	6.3	4.2	1.2	-6.3	-13.5	-22.0	-33.2	-44.0	-56.0	-70.4	-86.1	-107.4	-139.7	-187.0	-261.1	-379.2	-566.5	-856.8	-1312.1	-2011.7	-3086.9	30.7	-3.5
4-I	72736	22170	29.3	18.4	16.3	16.7	14.0	13.5	17.7	8.1	5.7	3.4	0.3	-7.5	-14.9	-23.8	-35.4	-46.6	-59.2	-74.0	-90.5	-112.7	-146.4	-195.8	-273.3	-396.7	-592.3	-895.6	-1371.3	-2102.3	-3225.9	30.5	-4.1
4-J	75866	23124	29.1	18.0	15.9	16.3	13.6	13.1	17.3	7.6	5.1	2.7	-0.6	-8.7	-16.4	-25.6	-37.6	-49.2	-62.2	-77.6	-94.7	-117.8	-152.9	-204.5	-285.3	-413.9	-617.9	-934.0	-1430.0	-2192.1	-3363.6	30.3	-4.7
4-K	79037	24091	28.9	17.6	15.6	16.0	13.2	12.7	16.8	7.1	4.5	2.0	-1.5	-9.8	-17.8	-27.4	-39.8	-51.9	-65.3	-81.2	-99.0	-123.1	-159.6	-213.3	-297.4	-431.4	-643.8	-972.9	-1489.4	-2283.0	-3503.2	30.0	-5.3
4-L	82220	25061	28.7	17.3	15.2	15.6	12.9	12.3	16.4	6.6	3.9	1.2	-2.4	-10.9	-19.3	-29.3	-42.0	-54.5	-68.4	-84.9	-103.3	-128.3	-166.3	-222.1	-309.6	-448.9	-669.7	-1012.0	-1549.0	-2374.2	-3643.2	29.8	-5.9
5-D	57162	17423	30.3	20.4	18.4	18.8	16.0	15.9	20.3	11.0	9.0	7.3	5.1	-1.6	-7.5	-14.6	-24.2	-33.3	-43.6	-55.9	-69.0	-86.6	-113.4	-152.2	-213.3	-310.5	-464.9	-704.1	-1079.2	-1655.4	-2540.2	31.9	-0.7
5-E	60273	18371	30.1	20.0	17.9	18.3	15.6	15.4	19.8	10.3	8.3	6.5	4.1	-2.8	-9.0	-16.5	-26.5	-36.0	-46.7	-59.6	-73.3	-91.8	-120.0	-160.9	-225.3	-327.8	-490.4	-742.4	-1137.6	-1744.7	-2677.2	31.6	-1.4
5-F	63465	19344	29.8	19.5	17.5	17.9	15.1	14.9	19.2	9.7	7.6	5.7	3.1	-4.0	-10.6	-18.4	-28.8	-38.8	-50.0	-63.3	-77.7	-97.2	-126.8	-169.9	-237.6	-345.5	-516.5	-781.6	-1197.5	-1836.4	-2817.8	31.3	-2.2
5-G	66577	20293	29.6	19.1	17.1	17.5	14.7	14.4	18.7	9.2	6.9	4.9	2.1	-5.2	-12.1	-20.2	-31.0	-41.4	-53.1	-66.9	-82.0	-102.4	-133.4	-178.6	-249.6	-362.7	-542.0	-819.9	-1255.9	-1925.6	-2954.8	31.0	-2.9
5-H	69754	21261	29.4	18.7	16.7	17.1	14.3	13.9	18.2	8.6	6.3	4.1	1.2	-6.4	-13.6	-22.1	-33.3	-44.1	-56.2	-70.6	-86.4	-107.7	-140.1	-187.5	-261.8	-380.2	-568.0	-859.0	-1315.4	-2016.8	-3094.6	30.7	-3.5
5-I	72908	22222	29.2	18.3	16.3	16.7	13.9	13.5	17.7	8.1	5.7	3.4	0.2	-7.6	-15.0	-23.9	-35.5	-46.8	-59.3	-74.2	-90.7	-112.9	-146.7	-196.3	-273.9	-397.6	-593.7	-897.7	-1374.6	-2107.3	-3233.4	30.5	-4.2
5-J	76081	23189	29.1	18.0	15.9	16.3	13.6	13.1	17.2	7.5	5.0	2.6	-0.7	-8.7	-16.5	-25.8	-37.8	-49.4	-62.4	-77.9	-95.0	-118.2	-153.4	-205.1	-286.1	-415.1	-619.6	-936.6	-1434.0	-2198.2	-3373.1	30.2	-4.8
6-D	57365	17485	30.3	20.4	18.4	18.8	16.0	15.9	20.3	10.9	8.9	7.3	5.0	-1.6	-7.6	-14.7	-24.4	-33.5	-43.8	-56.1	-69.3	-86.9	-113.8	-152.7	-214.0	-311.7	-466.6	-706.6	-1083.0	-1661.3	-2549.1	31.9	-0.7
6-E	60502	18441	30.1	20.0	17.9	18.3	15.6	15.4	19.7	10.3	8.2	6.4	4.0	-2.9	-9.1	-16.6	-26.7	-36.2	-47.0	-59.8	-73.6	-92.2	-120.5	-161.6	-226.2	-329.1	-492.3	-745.2	-1141.9	-1751.3	-2687.3	31.5	-1.5
6-G	66871	20382	29.6	19.1	17.0	17.4	14.7	14.4	18.6	9.1	6.9	4.8	2.0	-5.3	-12.2	-20.4	-31.3	-41.7	-53.4	-67.3	-82.4	-102.9	-134.0	-179.4	-250.7	-364.3	-544.4	-823.5	-1261.4	-1934.1	-2967.7	31.0	-2.9
6-H	70067	21356	29.4	18.7	16.6	17.0	14.3	13.9	18.1	8.5	6.2	4.0	1.1	-6.5	-13.7	-22.3	-33.5	-44.4	-56.5	-71.0	-86.8	-108.2	-140.8	-188.3	-263.0	-381.9	-570.5	-862.8	-1321.3	-2025.8	-3108.4	30.7	-3.6
6-I	73180	22305	29.2	18.3	16.3	16.7	13.9	13.5	17.7	8.0	5.6	3.3	0.1	-7.7	-15.2	-24.1	-35.7	-47.0	-59.6	-74.5	-91.1	-113.4	-147.3	-197.0	-275.0	-399.1	-596.0	-901.0	-1379.6	-2115.0	-3245.4	30.5	-4.2
6-J	76369	23277	29.0	17.9	15.9	16.3	13.5	13.0	17.2	7.5	5.0	2.6	-0.8	-8.8	-16.6	-25.9	-38.0	-49.7	-62.7	-78.2	-95.4	-118.7	-154.0	-205.9	-287.2	-416.7	-622.0	-940.2	-1439.4	-2206.5	-3385.7	30.2	-4.8
7-B	51236	15617	30.8	21.4	19.3	19.7	17.0	17.0	21.5	12.2	10.4	8.9	7.0	0.9	-4.5	-10.9	-19.8	-28.1	-37.5	-48.8	-60.7	-76.5	-100.7	-135.4	-190.3	-277.6	-416.3	-631.1	-967.9	-1485.3	-2279.2	32.5	0.9
7-C	54417	16586	30.5	20.9	18.8	19.2	16.5	16.4	20.8	11.5	9.6	8.1	6.0	-0.4	-6.1	-12.9	-22.2	-30.9	-40.8	-52.6	-65.1	-81.9	-107.5	-144.4	-202.6	-295.3	-442.4	-670.3	-1027.7	-1576.6	-2419.3	32.2	0.1
7-E	60794	18530	30.0	19.9	17.9	18.3	15.5	15.3	19.7	10.2	8.2	6.4	3.9	-3.0	-9.3	-16.8	-26.9	-36.5	-47.3	-60.2	-74.0	-92.7	-121.1	-162.4	-227.3	-330.7	-494.7	-748.8	-1147.4	-1759.7	-2700.1	31.5	-1.5
7-F	63956	19494	29.8	19.5	17.4	17.8	15.1	14.8	19.1	9.6	7.5	5.5	2.9	-4.2	-10.8	-18.7	-29.2	-39.2	-50.4	-63.9	-78.4	-98.0	-127.8	-171.3	-239.5	-348.2	-520.6	-787.7	-1206.7	-1850.5	-2839.4	31.2	-2.3
7-G	67123	20459	29.6	19.1	17.0	17.4	14.7	14.3	18.6	9.1	6.8	4.8	1.9	-5.4	-12.3	-20.5	-31.4	-41.9	-53.6	-67.6	-82.8	-103.3	-134.5	-180.1	-251.7	-365.7	-546.5	-826.6	-1266.1	-1941.3	-2978.8	30.9	-3.0
7-H	70330	21437	29.4	18.6	16.6	17.0	14.2	13.9	18.1	8.5	6.2	4.0	1.0	-6.6	-13.8	-22.4	-33.7	-44.6	-56.8	-71.3	-87.2	-108.7	-141.3	-189.1	-264.0	-383.4	-572.7	-866.0	-1326.2	-2033.3	-3120.0	30.7	-3.7
7-I	73545	22417	29.2	18.3	16.2	16.6	13.9	13.4	17.6	8.0	5.5	3.2	0.0	-7.8	-15.3	-24.3	-36.0	-47.3	-60.0	-75.0	-91.6	-114.0	-148.1	-198.0	-276.4	-401.1	-598.9	-905.5	-1386.5	-2125.5	-3261.5	30.4	-4.3
8-A	48310	14725	31.0	21.9	19.9	20.3	17.5	17.6	22.1	12.9	11.1	9.8	8.0	2.1	-3.0	-9.0	-17.6	-25.5	-34.5	-45.3	-56.5	-71.5	-94.4	-127.1	-178.9	-261.3	-392.2	-595.0	-912.9	-1401.2	-2150.2	32.9	1.8
8-B	51508	15700	30.7	21.4	19.3	19.7	17.0	16.9	21.4	12.1	10.3	8.9	6.9	0.8	-4.6	-11.1	-20.0	-28.4	-37.8	-49.2	-61.1	-77.0	-101.3	-136.2	-191.3	-279.1	-418.5	-634.4	-973.0	-1493.0	-2291.1	32.5	0.9

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Leq)
FROM WIND PARK OPERATIONS AT THE DESIGN WIND CONDITION

8-C	54711	16676	30.5	20.8	18.8	19.2	16.4	16.4	20.8	11.5	9.5	8.0	5.9	-0.6	-6.3	-13.1	-22.4	-31.2	-41.1	-53.0	-65.6	-82.4	-108.1	-145.2	-203.8	-296.9	-444.8	-673.9	-1033.2	-1585.1	-2432.2	32.1	0.0
8-D	57955	17665	30.2	20.3	18.3	18.7	15.9	15.8	20.2	10.8	8.8	7.1	4.8	-1.9	-7.9	-15.0	-24.8	-34.0	-44.4	-56.8	-70.1	-87.9	-115.1	-154.4	-216.3	-314.9	-471.4	-713.8	-1094.1	-1678.2	-2575.1	31.8	-0.9
8-F	64313	19602	29.8	19.4	17.4	17.8	15.0	14.8	19.1	9.6	7.4	5.5	2.8	-4.4	-11.0	-18.9	-29.4	-39.5	-50.8	-64.3	-78.9	-98.6	-128.6	-172.2	-240.9	-350.1	-523.5	-792.1	-1213.4	-1860.7	-2855.1	31.2	-2.4
8-G	67495	20572	29.6	19.0	17.0	17.4	14.6	14.3	18.5	9.0	6.7	4.7	1.8	-5.6	-12.5	-20.8	-31.7	-42.2	-54.0	-68.0	-83.3	-103.9	-135.3	-181.2	-253.1	-367.7	-549.5	-831.2	-1273.1	-1952.0	-2995.2	30.9	-3.1
8-H	70723	21556	29.4	18.6	16.5	16.9	14.2	13.8	18.0	8.4	6.1	3.9	0.9	-6.8	-14.0	-22.7	-34.0	-44.9	-57.2	-71.7	-87.7	-109.3	-142.1	-190.2	-265.5	-385.6	-575.9	-870.9	-1333.6	-2044.6	-3137.3	30.6	-3.7
9-A	48689	14840	31.0	21.8	19.8	20.2	17.4	17.5	22.0	12.8	11.0	9.7	7.9	1.9	-3.2	-9.3	-17.9	-25.8	-34.9	-45.8	-57.1	-72.2	-95.2	-128.2	-180.4	-263.4	-395.3	-599.6	-920.0	-1412.0	-2166.9	32.9	1.7
9-B	51888	15815	30.7	21.3	19.2	19.6	16.9	16.9	21.3	12.1	10.2	8.8	6.8	0.6	-4.8	-11.3	-20.3	-28.7	-38.2	-49.6	-61.6	-77.6	-102.1	-137.2	-192.8	-281.2	-421.6	-639.1	-980.1	-1504.0	-2307.9	32.5	0.7
9-C	55108	16797	30.5	20.8	18.7	19.1	16.4	16.3	20.7	11.4	9.4	7.9	5.7	-0.7	-6.5	-13.3	-22.7	-31.5	-41.5	-53.5	-66.1	-83.1	-109.0	-146.4	-205.3	-299.1	-448.1	-678.8	-1040.6	-1596.4	-2449.7	32.1	-0.1
9-D	58323	17777	30.2	20.3	18.2	18.6	15.9	15.7	20.1	10.7	8.7	7.0	4.7	-2.0	-8.1	-15.3	-25.1	-34.3	-44.8	-57.3	-70.6	-88.6	-115.9	-155.4	-217.8	-317.0	-474.4	-718.4	-1101.0	-1688.8	-2591.3	31.8	-0.9
9-E	61515	18750	30.0	19.8	17.8	18.2	15.4	15.2	19.5	10.1	8.0	6.2	3.7	-3.3	-9.6	-17.2	-27.4	-37.1	-48.0	-61.0	-75.0	-93.9	-122.7	-164.4	-230.1	-334.7	-500.6	-757.7	-1160.9	-1780.4	-2731.9	31.5	-1.7
9-F	64742	19733	29.8	19.4	17.3	17.7	15.0	14.7	19.0	9.5	7.3	5.3	2.7	-4.5	-11.2	-19.1	-29.7	-39.9	-51.2	-64.8	-79.5	-99.3	-129.5	-173.5	-242.5	-352.5	-527.0	-797.3	-1221.4	-1873.0	-2874.0	31.2	-2.5
9-G	67971	20717	29.5	18.9	16.9	17.3	14.5	14.2	18.5	8.9	6.6	4.5	1.7	-5.7	-12.7	-21.0	-32.0	-42.6	-54.4	-68.5	-83.9	-104.7	-136.3	-182.5	-255.0	-370.4	-553.4	-837.0	-1282.0	-1965.6	-3016.1	30.9	-3.2
9-H	71156	21688	29.3	18.5	16.5	16.9	14.1	13.7	18.0	8.4	6.0	3.8	0.7	-6.9	-14.2	-22.9	-34.3	-45.3	-57.6	-72.2	-88.3	-110.0	-143.0	-191.4	-267.2	-387.9	-579.4	-876.2	-1341.7	-2057.0	-3156.3	30.6	-3.8
9-I	74395	22676	29.2	18.2	16.1	16.5	13.8	13.3	17.5	7.8	5.4	3.0	-0.2	-8.1	-15.7	-24.8	-36.6	-48.0	-60.8	-75.9	-92.7	-115.4	-149.9	-200.4	-279.6	-405.8	-605.9	-915.9	-1402.4	-2149.9	-3298.9	30.4	-4.5
10-A	49132	14975	31.0	21.8	19.7	20.1	17.4	17.4	21.9	12.7	10.9	9.6	7.7	1.8	-3.4	-9.6	-18.2	-26.2	-35.3	-46.3	-57.7	-72.9	-96.1	-129.4	-182.1	-265.9	-399.0	-605.1	-928.3	-1424.8	-2186.5	32.8	1.5
10-B	52338	15952	30.7	21.2	19.2	19.6	16.8	16.8	21.2	12.0	10.1	8.6	6.6	0.4	-5.1	-11.6	-20.6	-29.1	-38.6	-50.2	-62.2	-78.4	-103.0	-138.5	-194.6	-283.7	-425.3	-644.6	-988.6	-1516.9	-2327.7	32.4	0.6
10-C	55552	16932	30.4	20.7	18.6	19.0	16.3	16.2	20.6	11.3	9.3	7.7	5.6	-0.9	-6.7	-13.6	-23.0	-31.9	-41.9	-54.0	-66.7	-83.9	-109.9	-147.6	-207.0	-301.6	-451.7	-684.3	-1049.0	-1609.2	-2469.3	32.1	-0.2
10-D	58808	17925	30.2	20.2	18.1	18.5	15.8	15.6	20.0	10.6	8.6	6.9	4.5	-2.2	-8.3	-15.6	-25.4	-34.8	-45.3	-57.8	-71.3	-89.4	-116.9	-156.8	-219.6	-319.7	-478.4	-724.3	-1110.1	-1702.7	-2612.7	31.7	-1.1
10-E	62024	18905	29.9	19.7	17.7	18.1	15.3	15.1	19.5	10.0	7.9	6.0	3.5	-3.5	-9.9	-17.5	-27.8	-37.5	-48.5	-61.6	-75.7	-94.8	-123.7	-165.8	-232.1	-337.5	-504.8	-763.9	-1170.5	-1795.0	-2754.3	31.4	-1.8
10-F	65282	19898	29.7	19.3	17.2	17.6	14.9	14.6	18.9	9.4	7.2	5.2	2.5	-4.7	-11.4	-19.5	-30.1	-40.3	-51.8	-65.4	-80.2	-100.2	-130.6	-175.0	-244.6	-355.5	-531.4	-804.0	-1231.6	-1888.5	-2897.7	31.1	-2.6
10-G	68500	20879	29.5	18.9	16.8	17.2	14.5	14.1	18.4	8.8	6.5	4.4	1.5	-5.9	-13.0	-21.4	-32.4	-43.0	-55.0	-69.1	-84.7	-105.6	-137.4	-184.0	-257.0	-373.3	-557.7	-843.5	-1291.9	-1980.8	-3039.4	30.8	-3.3
10-H	71712	21858	29.3	18.5	16.4	16.8	14.1	13.7	17.9	8.3	5.9	3.6	0.6	-7.1	-14.5	-23.2	-34.7	-45.8	-58.2	-72.9	-89.1	-111.0	-144.2	-192.9	-269.3	-391.0	-584.0	-883.0	-1352.1	-2072.9	-3180.8	30.6	-3.9
10-I	22869	6971	34.3	28.4	26.4	26.8	24.0	24.6	29.4	20.6	19.6	19.2	18.9	14.9	12.3	9.2	3.8	-0.7	-5.9	-12.6	-18.4	-25.8	-37.4	-52.7	-77.8	-117.6	-181.0	-279.1	-432.6	-668.1	-1027.1	37.9	12.6
11-A	49629	15127	30.9	21.7	19.6	20.0	17.3	17.3	21.8	12.6	10.8	9.4	7.6	1.5	-3.7	-9.9	-18.6	-26.7	-35.8	-46.9	-58.4	-73.8	-97.2	-130.8	-184.0	-268.7	-403.1	-611.2	-937.7	-1439.1	-2208.3	32.7	1.4
11-B	52887	16120	30.6	21.1	19.1	19.5	16.7	16.7	21.1	11.8	10.0	8.5	6.5	0.2	-5.3	-11.9	-21.0	-29.6	-39.2	-50.8	-63.0	-79.3	-104.2	-140.1	-196.7	-286.8	-429.8	-651.4	-998.9	-1532.7	-2351.9	32.3	0.5
11-C	56056	17086	30.4	20.6	18.6	19.0	16.2	16.1	20.5	11.2	9.2	7.6	5.4	-1.1	-6.9	-13.9	-23.4	-32.4	-42.5	-54.6	-67.4	-84.7	-111.0	-149.0	-209.0	-304.4	-455.9	-690.5	-1058.4	-1623.7	-2491.5	32.0	-0.4
11-D	59326	18083	30.1	20.1	18.1	18.5	15.7	15.6	19.9	10.5	8.5	6.7	4.4	-2.4	-8.6	-15.9	-25.8	-35.2	-45.8	-58.4	-72.0	-90.2	-118.0	-158.2	-221.6	-322.5	-482.7	-730.7	-1119.8	-1717.6	-2635.5	31.7	-1.2
11-E	62538	19062	29.9	19.7	17.6	18.0	15.3	15.0	19.4	9.9	7.8	5.9	3.3	-3.7	-10.1	-17.8	-28.1	-38.0	-49.0	-62.2	-76.5	-95.6	-124.8	-167.3	-234.0	-340.3	-509.0	-770.2	-1180.1	-1809.8	-2777.0	31.4	-2.0
11-F	65756	20042	29.7	19.2	17.2	17.6	14.8	14.5	18.8	9.3	7.1	5.1	2.4	-4.9	-11.7	-19.7	-30.5	-40.7	-52.2	-66.0	-80.9	-101.0	-131.6	-176.3	-246.4	-358.1	-535.3	-809.8	-1240.5	-1902.1	-2918.6	31.1	-2.7
11-G	68981	21025	29.5	18.8	16.8	17.2	14.4	14.1	18.3	8.7	6.4	4.3	1.4	-6.1	-13.2	-21.6	-32.8	-43.5	-55.4	-69.7	-85.3	-106.4	-138.5	-185.3	-258.8	-375.9	-561.7	-849.5	-1300.9	-1994.6	-3060.6	30.8	-3.4
11-H	72204	22008	29.3	18.4	16.4	16.8	14.0	13.6	17.8	8.2	5.8	3.5	0.4	-7.3	-14.7	-23.5	-35.0	-46.2	-58.6	-73.4	-89.7	-111.8	-145.3	-194.3	-271.2	-393.7	-588.0	-889.0	-1361.4	-2087.1	-3202.5	30.5	-4.0
11-K	81944	24977	28.7	17.3	15.3	15.7	12.9	12.3	16.4	6.6	3.9	1.3	-2.3	-10.8	-19.2	-29.1	-41.8	-54.3	-68.2	-84.6	-102.9	-127.9	-165.7	-221.4	-308.5	-447.4	-667.5	-1008.6	-1543.9	-2366.3	-3631.1	29.8	-5.9
11-L	85176	25962	28.6	17.0	14.9	15.3	12.6	11.9	16.0	6.1	3.4	0.6	-3.2	-12.0	-20.6	-30.9	-44.1	-56.9	-71.3	-88.2	-107.3	-133.2	-172.4	-230.3	-320.9	-465.1	-693.8	-1048.2	-1604.4	-2459.0	-3773.2	29.6	-6.4
12-A	50212	15305	30.9	21.6	19.5	19.9	17.2	17.2	21.7	12.4	10.6	9.2	7.4	1.3	-4.0	-10.2	-19.0	-27.2	-36.4	-47.6	-59.2	-74.8	-98.5	-132.5	-186.3	-271.9	-407.9	-618.4	-948.6	-1455.8	-2234.0	32.7	1.2
12-B	53474	16299	30.6	21.0	19.0	19.4	16.6	16.6	21.0	11.7	9.8	8.3	6.3	-0.1	-5.6	-12.3	-21.5	-30.1	-39.8	-51.5	-63.8	-80.3	-105.5	-141.7	-199.0	-290.1	-434.7	-658.7	-1009.9	-1549.5	-2377.8	32.3	0.3
12-C	56702	17283	30.3	20.5	18.5	18.9	16.1	16.0	20.4	11.0	9.1	7.4	5.2	-1.4	-7.3	-14.3	-23.9	-32.9	-43.1	-55.3	-68.3	-85.8	-112.4	-150.9	-211.5	-308.0	-461.1	-698.4	-1070.6	-1642.2	-2519.9	31.9	-0.5
12-D	59960	18276	30.1	20.0	18.0	18.4	15.6	15.5	19.8	10.4	8.3	6.6	4.2	-2.7	-8.9	-16.3	-26.3	-35.7	-46.4	-59.2	-72.9	-91.3	-119.3	-160.0	-224.1	-326.0	-487.8	-738.5	-1131.7	-1735.8	-2663.4	31.6	-1.3
12-E	63135	19244	29.9	19.6	17.5	17.9	15.2	14.9	19.3	9.8	7.7	5.8	3.2	-3.9	-10.4	-18.2	-28.6	-38.5	-49.6	-62.9	-77.3	-96.6	-126.1	-168.9	-236.3	-343.6	-513.8	-777.6	-1191.3	-1826.9	-2803.2	31.3	-2.1
12-F	66354	20225	29.6	19.2	17.1	17.5	14.8	14.4	18.7	9.2	7.0	4.9	2.2	-5.1	-12.0	-20.1	-30.9	-41.2	-52.8	-66.7	-81.7	-102.0	-132.9	-178.0	-248.7	-361.4	-540.2	-817.2	-1251.7	-1919.3	-2945.0	31.0	-2.8
12-G	69619	21220	29.4	18.7	16.7	17.1	14.3	14.0	18.2	8.6	6.3	4.1	1.2	-6.4	-13.5	-22.0	-33.2	-44.0	-56.1	-70.4	-86.2	-107.5	-139.8	-187.1	-261.3	-379.5	-566.9	-857.3	-1312.9	-2012.9	-3088.7	30.7	-3.5
12-H	72788	22186	29.2	18.3	16.3	16.7	13.9	13.5	17.7	8.1	5.7	3.4	0.3	-7.5	-15.0	-23.9	-35.4	-46.7	-59.2	-74.1	-90.5	-112.7	-146.5	-195.9	-273.5	-396.9	-592.8	-896.2	-1372.3	-2103.8	-3228.1	30.5	-4.1
12-I	76106	23197	29.1	18.0	15.9	16.3	13.6	13.1	17.2	7.5	5.0	2.6	-0.7	-8.7	-16.5	-25.8	-37.8	-49.4	-62.5	-77.9	-95.0	-118.2	-153.5	-205.2	-286.2	-415.2	-619.8	-937.0	-1434.5	-2199.0	-3374.2	30.2	-4.8
12-J	79333	24181	28.9	17.6	15.5	15.9	13.2	12.6	16.8	7.0	4.4	1.9	-1.6	-9.9	-18.0	-27.6	-40.0	-52.1	-65.6	-81.6	-99.4	-123.6	-160.2	-214.1	-298.6	-433.0	-646.2	-976.6	-1495.0	-2291.5	-3516.2	30.0	-5.4
12-K	82559	25164	28.7	17.3	15.2	15.6	12.9	12.2	16.3	6.5	3.8	1.2	-2.5	-11.1	-19.4	-29.4	-42.3	-54.8	-68.8	-85.3	-103.8	-128.9	-167.0	-223.1	-310.9	-450.7	-672.5	-1016.1	-1555.4	-2384.0	-3658.1	29.8	-6.0
12-L	85767	26142	28.5	16.9	14.9	15.3	12.5	11.8	15.9	6.0	3.3	0.5	-3.4	-12.2	-20.9	-31.3	-44.5	-57.4	-71.9	-88.9	-108.1	-134.1	-173.7	-232.0	-323.2	-468.4	-698.6	-1055.5	-1615.4	-2475.9	-3799.3	29.6	-6.5
13-A	50853	15500	30.8	21.5	19.4	19.8	17.1	17.1	21.5	12.3	10.5	9.1	7.2	1.0	-4.3	-10.6	-19.5	-27.8	-37.1	-48.4	-60.1	-75.9	-99.8	-134.3	-188.8	-275.5	-413.1	-626.3	-960.7	-1474.2	-2262.3	32.6	1.0
13-B	54135	16500	30.5	20.9	18.9	19.3	16.5	16.5	20.9	11.6	9.7	8.1	6.0	-0.3	-6.0	-12.7	-22.0	-30.7	-40.5	-52.3	-64.8	-81.5	-106.9	-143.6	-201.5	-293.7	-440.1	-666.8	-1022.3	-1568.5	-2406.9	32.2	0.1
13-C	57340	17477	30.3	20.4	18.4	18.8	16.0	15.9	20.3	10.9	8.9	7.3	5.0	-1.6	-7.6	-14.7	-24.3	-33.5	-43.8	-56.1	-69.2	-86.9	-113.8	-152.7	-214.0	-311.5	-466.4	-706.3	-1082.5	-1660.6	-2548.1	31.9	-0.7
13-D	60618	18476	30.0	19.9	17.9	18.3	15.5	15.3	19.7	10.3	8.2	6.4	3.9	-2.9	-9.2	-16.7	-26.7	-36.3	-47.1	-60.0	-73.8	-92.4	-120.7	-161.9	-226.6	-329.7	-493.2	-746.6	-1144.1	-1754.6	-2692.4	31.5	-1.5
13-F	67049	20437	29.6	19.1	17.0	17.4	14.7	14.3	18.6	9.1	6.8	4.8	2.0	-5.4	-12.3	-20.5	-31.4	-41.8	-53.5	-67.5	-82.7	-103.2	-134.4	-179.9	-251.4	-365.3	-545.9	-825.7	-1264.7	-1939.2	-2975.6	31.0	-3.0
13-G	70274	21419	29.4	18.7	16.6	17.0	14.3	13.9	18.1	8.5	6.2	4.0	1.0	-6.6	-13.8	-22.4	-33.7	-44.5	-56.7	-71.2	-87.1	-108.6	-141.2	-188.9	-263.8	-383.1	-572.2	-865.3	-1325.2	-2031.7	-3117.5	30.7	-3.6
13-H	73447	22387	29.2	18.3	16.2	16.6	13.9	13.4	17.6	8.0	5.5	3.2	0.1	-7.8	-15.3	-24.2	-35.9	-47.2	-59.9	-74.8	-91.4	-113.8	-147.9	-197.8	-276.0	-400.6	-598.1	-904.3	-1384.7	-2122.7	-3257.2	30.4	-4.3
13-I	76762	23397	29.0	17.9	15.8	16.2	13.5	13.0	17.1	7.4	4.9	2.5	-0.9	-9.0	-16.8	-26.1	-38.2	-50.0	-63.1	-78.6	-95.9	-119.3	-154.8	-207.0	-288.7	-418.8	-625.2	-945.0	-1446.8	-2217.8	-3403.1	30.2	-4.9
13-J	79982	24379	28.8	17.5	15.5	15.9	13.1	12.5	16.7	6.9	4.3	1.7	-1.8	-10.1	-18.3	-28.0	-40.5	-52.7	-66.3	-82.3	-100.3	-124.6	-161.6	-215.9	-301.0	-436.6	-651.5	-984.5	-1507.1	-2310.1	-3544.7	30.0	-5.5
13-K	83190	25356	28.7	17.2	15.1	15.5	12.8	12.1	16.2	6.4	3.7	1.0	-2.7	-11.3	-19.7	-29.8	-42.7	-55.3	-69.4	-86.0	-104.6	-129.9	-168.3	-224.8	-313.3	-454.2	-677.6	-1023.9	-1567.2	-2402.0	-3685.9	29.7	-6.1
13-L	86471	26356	28.5	16.9	14.8	15.2	12.5	11.7	15.8	5.9	3.1	0.3	-3.6	-12.4	-21.2	-31.6	-45.0	-58.0	-72.6	-89.7	-109.0	-135.3	-175.1	-233.9	-325.8	-472.3	-704.4	-1064.1	-1628.6	-2496.1	-3830.2	29.5	-6.6
14-D	61319	18690	30.0	19.8	17.8	18.2	15.4	15.2	19.6	10.1	8.0	6.2	3.7	-3.2	-9.5	-17.1	-27.2	-36.9	-47.8	-60.8	-74.8	-93.6	-122.2	-163.9	-229.3	-333.6	-499.0	-755.2	-1157.2	-1774.8	-2723.3	31.5	-1.7
14-E	64483	19654	29.8	19.4	17.3	17.7	15.0	14.7	19.0	9.5	7.4	5.4	2.7	-4.4	-11.1	-19.0	-29.5	-39.6	-51.0	-64.5	-79.1	-98.9	-129.0	-172.7	-241.5	-351.1	-524.9	-794.2	-1216.6	-1865.6	-2862.6	31.2	-2.4
14-F	67761	20654	29.6	19.0	16.9	17.3	14.6	14.2	18.5	9.0	6.7	4.6	1.7	-5.7	-12.6	-20.9	-31.9	-42.4	-54.2	-68.3	-83.6	-104.4	-135.9	-181.9	-254.2	-369.2	-551.7	-834.5	-1278.1	-1959.6	-3006.9	30.9	-3.1
14-G	70964	21630	29.4	18.6	16.5	16.9	14.2	13.8	18.0	8.4	6.0	3.8	0.8	-6.9	-14.1	-22.8	-34.2	-45.1	-57.4	-72.0	-88.0	-109.7	-142.6	-190.8	-266.5	-386.9	-577.9	-873.8	-1338.1	-2051.5	-3147.9	30.6	-3.8
14-H	74186	22612	29.2	18.2	16.1	16.5	13.8	13.3	17.5	7.8	5.4	3.1	-0.1	-8.0	-15.6	-24.7	-36.4	-47.8	-60.6	-75.7	-92.4	-115.1	-149.4	-199.8	-278.8	-404.6	-604.2	-913.4	-1398.5	-2143.9	-3289.7	30.4	-4.4
14-J	80669	24588	28.8	17.5	15.4	15.8	13.1	12.5	16.6	6.8	4.2	1.6	-2.0	-10.4	-18.6	-28.4	-41.0	-53.2	-66.9	-83.1	-101.2	-125.8	-163.0	-217.8	-303.7	-440.4	-657.1	-993.0	-1520.0	-2329.8	-3574.9	29.9	-5.6
14-K	83945	25586	28.6	17.1	15.1	15.5	12.7	12.0	16.1	6.3	3.6	0.9	-2.9	-11.5	-20.1	-30.2	-43.2	-55.9	-70.1	-86.8	-105.6	-131.2	-169.9	-226.9	-316.2	-458.4	-683.8	-1033.1	-1581.3	-2423.7	-3719.1	29.7	-6.2
14-L	87205	26580	28.5	16.8	14.7	15.1	12.4	11.6	15.7	5.8	3.0	0.1	-3.8	-12.7	-21.5	-32.1	-45.5	-58.6	-73.3	-90.5	-110.0	-136.5	-176.7	-235.9	-328.7	-476.3	-710.3	-1073.1	-1642.4	-2517.1	-3862.5	29.5	-6.7
15-F	68509	20882	29.5	18.9	16.8	17.2	14.5	14.1	18.4	8.8	6.5	4.4	1.5	-5.9	-13.0	-21.4	-32.4	-43.1	-55.0	-69.2	-84.7	-105.6	-137.5	-184.0	-257.0	-373.3	-557.8	-843.7	-1292.1	-1981.1	-3039.8	30.8	-3.3
15-G	71781	21879	29.3	18.5	16.4	16.8	14.1	13.7	17.9	8.3	5.9	3.6	0.6	-7.2	-14.5	-23.3	-34.7	-45.8	-58.2	-72.9	-89.1	-111.1	-144.4	-193.1	-269.6	-391.4	-584.5	-883.9	-1353.4	-2074.9	-3183.8	30.6	-3.9
15-H	74940	22842	29.1	18.1	16.0	16.4	13.7	13.2	17.4	7.7	5.3	2.9	-0.4	-8.3	-16.0	-25.1	-37.0	-48.5	-61.3	-76.6	-93.5	-116.3	-151.0	-201.9	-281.7	-408.8	-610.3	-922.6	-1412.6	-2165.5	-3322.9	30.3	-4.6
15-I	78195	23834	28.9	17.7	15.7	16.1	13.3	12.8	16.9	7.2	4.6	2.1	-1.3	-9.5	-17.5	-27.0	-39.2	-51.2	-64.5	-80.3	-97.9	-121.7	-157.8	-211.0	-294.2	-426.7	-636.9	-962.6	-1473.6	-2258.9	-3466.1	30.1	-5.2
15-J	81414	24815	28.8	17.4	15.3	15.7	13.0	12.4	16.5	6.7	4.0	1.4	-2.2	-10.7	-18.9	-28.8	-41.5	-53.8	-67.7	-84.0	-102.2	-127.0	-164.6	-219.9	-306.5	-444.5	-663.1	-1002.1	-1533.9	-2351.1	-3607.7	29.9	-5.8
15-K	84670	25807	28.6	17.0	15.0	15.4	12.6	12.0	16.0	6.2	3.5	0.7	-3.1	-11.8	-20.4	-30.6	-43.7	-56.5	-70.8	-87.6	-106.6	-132.3	-171.4	-228.9	-319.0	-462.4	-689.7	-1042.0	-1594.9	-2444.5	-3751.0	29.6	-6.3
16-J	82206	25056	28.7	17.3	15.2	15.6	12.9	12.3	16.4	6.6	3.9	1.2	-2.4	-10.9	-19.3	-29.2	-42.0	-54.5	-68.4	-84.9	-103.3	-128.3	-166.2	-222.1	-309.5	-448.8	-669.6	-1011.8	-1548.8	-2373.8	-3642.6	29.8	-5.9
16-K	85457	26047	28.6	17.0	14.9	15.3	12.6	11.9	15.9	6.1	3.3	0.5	-3.3	-12.1	-20.7	-31.1	-44.3	-57.2	-71.6	-88.5	-107.7	-133.6	-173.0	-231.1	-322.0	-466.7	-696.1	-1051.7	-1609.6	-2467.0	-3785.6	29.6	-6.5
		Sum:	50.9	40.7	38.6	39.0	36.3	36.1	40.4	31.0	28.9	27.3	25.2	19.2	14.7	10.3	4.3	-0.5	-5.9	-12.6	-18.4	-25.8	-37.4	-52.7	-77.8	-117.6	-181.0	-279.1	-432.6	-668.1	-1027.1	52.3	19.7

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Leq)
FROM WIND PARK OPERATIONS AT THE DESIGN WIND CONDITION

																		Hertz												
	1/3 Octave Bands	**16***	**20**	**25**	**31**	**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**	**L**	**A**
Sound Power Data - Design Speed		113.7	113.3	111.2	111.6	108.9	109.9	115.0	106.6	106.2	106.8	107.7	105.5	105.0	104.6	102.1	100.6	98.7	95.8	94.9	94.2	92.9	93.1	92.1	90.7	87.9	83.9	78.2	69.9	61.5	121.9	107.4

Data for the graph

Atmos. Absorption per 1 km air temp 59F 70% RH	0.0000	0.0000	0.0000	0.0000	0.0000	0.0670	0.1050	0.1630	0.2510	0.3810	0.5650	0.8150	1.1300	1.5100	1.9200	2.3600	2.8400	3.3800	4.0800	5.0500	6.5100	8.7500	12.2000	17.7000	26.4000	39.9000	61.1000	93.7000	144.0000		

*Spherical wave spreading for up to 2 km, cylindrical wave spreading beyond 2 km.

																			Hertz												
	1/3 Octave Bands		**16***	**20**	**25**	**31**	**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**	**L**	**A**
	Distance (ft)	**Distance (m)**																															
1-D	64356	19616	29.8	19.4	17.4	17.8	15.0	14.8	19.1	9.6	7.4	5.4	2.8	-4.4	-11.0	-18.9	-29.4	-39.5	-50.8	-64.3	-79.0	-98.7	-128.7	-172.4	-241.0	-350.4	-523.8	-792.6	-1214.2	-1861.9	-2857.0	31.2	-2.4
1-E	66515	20274	29.6	19.1	17.1	17.5	14.7	14.4	18.7	9.2	6.9	4.9	2.1	-5.2	-12.0	-20.2	-31.0	-41.4	-53.0	-66.8	-81.9	-102.3	-133.3	-178.4	-249.4	-362.3	-541.5	-819.1	-1254.7	-1923.9	-2952.0	31.0	-2.8
1-F	68770	20961	29.5	18.8	16.8	17.2	14.4	14.1	18.3	8.8	6.5	4.4	1.4	-6.0	-13.1	-21.5	-32.6	-43.3	-55.2	-69.5	-85.0	-106.1	-138.0	-184.7	-258.0	-374.8	-559.9	-846.9	-1297.0	-1988.6	-3051.3	30.8	-3.3
1-G	71109	21674	29.3	18.5	16.5	16.9	14.1	13.7	18.0	8.4	6.0	3.8	0.8	-6.9	-14.2	-22.9	-34.3	-45.3	-57.6	-72.2	-88.2	-110.0	-142.9	-191.2	-267.0	-387.7	-579.0	-875.6	-1340.8	-2055.6	-3154.2	30.6	-3.8
1-H	73543	22416	29.2	18.3	16.2	16.6	13.9	13.4	17.6	8.0	5.5	3.2	0.0	-7.8	-15.3	-24.3	-36.0	-47.3	-60.0	-75.0	-91.5	-114.0	-148.1	-198.0	-276.4	-401.1	-598.9	-905.5	-1386.4	-2125.5	-3261.4	30.4	-4.3
1-I	75999	23165	29.1	18.0	15.9	16.3	13.6	13.1	17.2	7.5	5.1	2.6	-0.7	-8.7	-16.5	-25.7	-37.7	-49.3	-62.4	-77.8	-94.9	-118.1	-153.2	-204.9	-285.8	-414.6	-619.0	-935.6	-1432.5	-2195.9	-3369.5	30.2	-4.8
1-J	78497	23926	28.9	17.7	15.6	16.0	13.3	12.7	16.9	7.1	4.6	2.1	-1.4	-9.6	-17.6	-27.1	-39.4	-51.4	-64.8	-80.6	-98.3	-122.2	-158.5	-211.8	-295.4	-428.4	-639.4	-966.3	-1479.3	-2267.5	-3479.4	30.1	-5.2
1-K	81122	24726	28.8	17.4	15.4	15.8	13.0	12.4	16.5	6.7	4.1	1.5	-2.1	-10.5	-18.8	-28.6	-41.3	-53.6	-67.4	-83.6	-101.8	-126.5	-164.0	-219.1	-305.4	-442.8	-660.8	-998.5	-1528.5	-2342.8	-3594.9	29.9	-5.7
1-L	83799	25542	28.6	17.1	15.1	15.5	12.7	12.1	16.1	6.3	3.6	0.9	-2.9	-11.5	-20.0	-30.1	-43.1	-55.8	-70.0	-86.7	-105.4	-130.9	-169.6	-226.5	-315.6	-457.6	-682.6	-1031.4	-1578.6	-2419.5	-3712.7	29.7	-6.2
2-D	63257	19281	29.9	19.6	17.5	17.9	15.2	14.9	19.2	9.8	7.6	5.7	3.1	-3.9	-10.5	-18.2	-28.7	-38.6	-49.7	-63.1	-77.4	-96.9	-126.4	-169.3	-236.8	-344.3	-514.8	-779.1	-1193.6	-1830.4	-2808.6	31.3	-2.1
2-E	65530	19974	29.7	19.3	17.2	17.6	14.9	14.6	18.9	9.4	7.1	5.1	2.4	-4.8	-11.6	-19.6	-30.3	-40.5	-52.0	-65.7	-80.6	-100.7	-131.2	-175.7	-245.6	-356.9	-533.4	-807.0	-1236.2	-1895.6	-2908.7	31.1	-2.6
2-F	67870	20687	29.6	19.0	16.9	17.3	14.6	14.2	18.5	8.9	6.7	4.6	1.7	-5.7	-12.7	-21.0	-32.0	-42.5	-54.3	-68.4	-83.8	-104.6	-136.1	-182.2	-254.6	-369.8	-552.6	-835.8	-1280.1	-1962.8	-3011.7	30.9	-3.1
2-G	70246	21411	29.4	18.7	16.6	17.0	14.3	13.9	18.1	8.5	6.2	4.0	1.0	-6.6	-13.8	-22.4	-33.7	-44.5	-56.7	-71.2	-87.1	-108.5	-141.1	-188.8	-263.7	-382.9	-572.0	-865.0	-1324.7	-2030.9	-3116.3	30.7	-3.6
2-H	72697	22158	29.3	18.4	16.3	16.7	14.0	13.5	17.7	8.1	5.7	3.4	0.3	-7.5	-14.9	-23.8	-35.4	-46.6	-59.1	-74.0	-90.4	-112.6	-146.3	-195.7	-273.1	-396.4	-592.0	-895.1	-1370.6	-2101.2	-3224.2	30.5	-4.1
2-I	75272	22943	29.1	18.1	16.0	16.4	13.7	13.2	17.3	7.7	5.2	2.8	-0.5	-8.4	-16.1	-25.3	-37.2	-48.7	-61.7	-76.9	-93.9	-116.9	-151.7	-202.8	-283.0	-410.6	-613.0	-926.7	-1418.9	-2175.0	-3337.5	30.3	-4.6
2-J	77901	23744	29.0	17.8	15.7	16.1	13.4	12.8	17.0	7.2	4.7	2.2	-1.2	-9.4	-17.3	-26.8	-39.0	-50.9	-64.2	-79.9	-97.5	-121.2	-157.2	-210.2	-293.1	-425.1	-634.5	-959.0	-1468.1	-2250.4	-3453.2	30.1	-5.1
2-K	80454	24522	28.8	17.5	15.4	15.8	13.1	12.5	16.6	6.8	4.2	1.6	-1.9	-10.3	-18.5	-28.3	-40.8	-53.0	-66.7	-82.9	-100.9	-125.4	-162.6	-217.2	-302.8	-439.2	-655.3	-990.3	-1515.9	-2323.6	-3565.5	29.9	-5.6
2-L	83182	25354	28.7	17.2	15.1	15.5	12.8	12.1	16.2	6.4	3.7	1.0	-2.7	-11.3	-19.7	-29.8	-42.7	-55.3	-69.4	-86.0	-104.6	-129.9	-168.3	-224.8	-313.3	-454.2	-677.6	-1023.8	-1567.0	-2401.8	-3685.5	29.7	-6.1
3-D	62272	18981	29.9	19.7	17.7	18.1	15.3	15.1	19.4	10.0	7.8	6.0	3.4	-3.6	-10.0	-17.7	-27.9	-37.7	-48.8	-61.9	-76.1	-95.2	-124.3	-166.5	-233.0	-338.9	-506.8	-767.0	-1175.1	-1802.1	-2765.3	31.4	-1.9
3-E	64624	19697	29.8	19.4	17.3	17.7	15.0	14.7	19.0	9.5	7.3	5.4	2.7	-4.5	-11.1	-19.1	-29.6	-39.8	-51.1	-64.6	-79.3	-99.1	-129.3	-173.1	-242.1	-351.9	-526.0	-795.9	-1219.2	-1869.6	-2868.8	31.2	-2.4
3-F	67029	20430	29.6	19.1	17.0	17.4	14.7	14.3	18.6	9.1	6.8	4.8	2.0	-5.4	-12.3	-20.5	-31.4	-41.8	-53.5	-67.4	-82.6	-103.2	-134.3	-179.9	-251.3	-365.2	-545.7	-825.5	-1264.3	-1938.6	-2974.7	31.0	-3.0
3-G	69475	21176	29.4	18.8	16.7	17.1	14.4	14.0	18.2	8.6	6.3	4.2	1.2	-6.3	-13.4	-21.9	-33.1	-43.9	-55.9	-70.3	-86.0	-107.2	-139.5	-186.7	-260.7	-378.7	-565.7	-855.5	-1310.2	-2008.8	-3082.3	30.8	-3.5
3-I	74542	22721	29.1	18.1	16.1	16.5	13.7	13.3	17.5	7.8	5.3	3.0	-0.2	-8.2	-15.8	-24.9	-36.7	-48.1	-60.9	-76.1	-92.9	-115.6	-150.2	-200.8	-280.2	-406.6	-607.1	-917.8	-1405.2	-2154.1	-3305.4	30.4	-4.5
3-J	77204	23532	29.0	17.8	15.8	16.2	13.4	12.9	17.1	7.3	4.8	2.4	-1.0	-9.1	-17.0	-26.4	-38.5	-50.4	-63.5	-79.2	-96.5	-120.1	-155.8	-208.2	-290.4	-421.3	-628.8	-950.4	-1455.1	-2230.4	-3422.5	30.2	-5.0
3-K	79926	24362	28.8	17.5	15.5	15.9	13.1	12.6	16.7	6.9	4.3	1.8	-1.8	-10.1	-18.2	-28.0	-40.4	-52.6	-66.2	-82.3	-100.2	-124.5	-161.5	-215.8	-300.8	-436.3	-651.0	-983.8	-1506.1	-2308.5	-3542.3	30.0	-5.5
3-L	82589	25173	28.7	17.2	15.2	15.6	12.8	12.2	16.3	6.5	3.8	1.2	-2.5	-11.1	-19.4	-29.5	-42.3	-54.8	-68.8	-85.3	-103.8	-128.9	-167.0	-223.2	-311.0	-450.9	-672.7	-1016.5	-1555.9	-2384.8	-3659.4	29.8	-6.0
4-D	61366	18704	30.0	19.8	17.8	18.2	15.4	15.2	19.6	10.1	8.0	6.2	3.7	-3.2	-9.6	-17.1	-27.3	-37.0	-47.8	-60.8	-74.8	-93.7	-122.3	-164.0	-229.5	-333.8	-499.4	-755.8	-1158.1	-1776.1	-2725.4	31.5	-1.7
4-E	63813	19450	29.8	19.5	17.4	17.8	15.1	14.8	19.1	9.7	7.5	5.6	3.0	-4.2	-10.7	-18.6	-29.1	-39.1	-50.3	-63.7	-78.2	-97.8	-127.5	-170.8	-239.0	-347.4	-519.4	-785.9	-1204.0	-1846.3	-2833.1	31.2	-2.2
4-F	66253	20194	29.7	19.2	17.1	17.5	14.8	14.5	18.7	9.2	7.0	5.0	2.2	-5.1	-11.9	-20.0	-30.8	-41.1	-52.7	-66.5	-81.6	-101.9	-132.7	-177.7	-248.4	-360.9	-539.4	-815.9	-1249.8	-1916.4	-2940.5	31.0	-2.8
4-G	68798	20970	29.5	18.8	16.8	17.2	14.4	14.1	18.3	8.8	6.5	4.3	1.4	-6.1	-13.1	-21.5	-32.6	-43.3	-55.3	-69.5	-85.1	-106.1	-138.1	-184.8	-258.1	-374.9	-560.2	-847.2	-1297.5	-1989.4	-3052.5	30.8	-3.3
4-H	71359	21750	29.3	18.5	16.5	16.9	14.1	13.7	17.9	8.3	6.0	3.7	0.7	-7.0	-14.3	-23.0	-34.4	-45.5	-57.8	-72.4	-88.6	-110.4	-143.5	-191.9	-268.0	-389.1	-581.1	-878.7	-1345.5	-2062.8	-3165.3	30.6	-3.9
4-I	73999	22555	29.2	18.2	16.2	16.6	13.8	13.3	17.5	7.9	5.4	3.1	-0.1	-8.0	-15.5	-24.6	-36.3	-47.7	-60.4	-75.5	-92.2	-114.7	-149.0	-199.3	-278.1	-403.6	-602.6	-911.1	-1395.0	-2138.5	-3281.5	30.4	-4.4
4-J	76656	23365	29.0	17.9	15.8	16.2	13.5	13.0	17.1	7.4	4.9	2.5	-0.9	-8.9	-16.8	-26.1	-38.2	-49.9	-63.0	-78.5	-95.8	-119.1	-154.6	-206.7	-288.3	-418.3	-624.3	-943.7	-1444.8	-2214.7	-3398.4	30.2	-4.9
4-K	79384	24196	28.9	17.6	15.5	15.9	13.2	12.6	16.8	7.0	4.4	1.9	-1.6	-9.9	-18.0	-27.6	-40.1	-52.2	-65.7	-81.6	-99.5	-123.6	-160.3	-214.3	-298.8	-433.3	-646.6	-977.2	-1495.9	-2292.9	-3518.4	30.0	-5.4
4-L	82160	25042	28.7	17.3	15.2	15.6	12.9	12.3	16.4	6.6	3.9	1.3	-2.4	-10.9	-19.3	-29.2	-42.0	-54.5	-68.4	-84.8	-103.2	-128.2	-166.1	-222.0	-309.4	-448.6	-669.2	-1011.2	-1547.9	-2372.5	-3640.6	29.8	-5.9
5-D	60531	18450	30.0	19.9	17.9	18.3	15.5	15.4	19.7	10.3	8.2	6.4	4.0	-2.9	-9.1	-16.6	-26.7	-36.2	-47.0	-59.9	-73.7	-92.3	-120.6	-161.6	-226.3	-329.2	-492.5	-745.5	-1142.4	-1752.1	-2688.6	31.5	-1.5
5-E	62965	19192	29.9	19.6	17.6	18.0	15.2	15.0	19.3	9.8	7.7	5.8	3.2	-3.8	-10.3	-18.1	-28.4	-38.3	-49.4	-62.7	-77.0	-96.4	-125.7	-168.5	-235.7	-342.7	-512.5	-775.5	-1188.1	-1822.0	-2795.8	31.3	-2.1
5-F	65520	19971	29.7	19.3	17.2	17.6	14.9	14.6	18.9	9.4	7.1	5.2	2.4	-4.8	-11.6	-19.6	-30.3	-40.5	-52.0	-65.7	-80.6	-100.6	-131.1	-175.6	-245.5	-356.8	-533.4	-806.9	-1236.0	-1895.3	-2908.3	31.1	-2.6
5-G	68068	20747	29.5	18.9	16.9	17.3	14.5	14.2	18.5	8.9	6.6	4.5	1.7	-5.8	-12.8	-21.1	-32.1	-42.7	-54.5	-68.6	-84.1	-104.9	-136.5	-182.8	-255.3	-370.9	-554.2	-838.2	-1283.8	-1968.4	-3020.4	30.9	-3.2
5-H	70723	21556	29.4	18.6	16.5	16.9	14.2	13.8	18.0	8.4	6.1	3.9	0.9	-6.8	-14.0	-22.7	-34.0	-44.9	-57.2	-71.7	-87.7	-109.3	-142.1	-190.2	-265.5	-385.6	-575.9	-870.9	-1333.6	-2044.6	-3137.3	30.6	-3.7
5-I	73408	22375	29.2	18.3	16.2	16.6	13.9	13.4	17.6	8.0	5.6	3.2	0.1	-7.8	-15.3	-24.2	-35.9	-47.2	-59.8	-74.8	-91.4	-113.8	-147.8	-197.7	-275.9	-400.4	-597.8	-903.8	-1383.9	-2121.6	-3255.5	30.4	-4.3
5-J	76118	23201	29.1	18.0	15.9	16.3	13.6	13.1	17.2	7.5	5.0	2.6	-0.7	-8.8	-16.5	-25.8	-37.8	-49.4	-62.5	-77.9	-95.1	-118.3	-153.5	-205.2	-286.2	-415.3	-619.9	-937.1	-1434.7	-2199.3	-3374.7	30.2	-4.8
6-D	59756	18214	30.1	20.1	18.0	18.4	15.7	15.5	19.8	10.4	8.4	6.6	4.2	-2.6	-8.8	-16.1	-26.1	-35.6	-46.2	-59.0	-72.6	-91.0	-118.9	-159.5	-223.3	-324.9	-486.2	-736.0	-1127.9	-1729.9	-2654.5	31.6	-1.3
6-E	62256	18976	29.9	19.7	17.7	18.1	15.3	15.1	19.4	10.0	7.8	6.0	3.4	-3.6	-10.0	-17.6	-27.9	-37.7	-48.7	-61.9	-76.1	-95.2	-124.2	-166.5	-232.9	-338.8	-506.7	-766.8	-1174.8	-1801.7	-2764.5	31.4	-1.9
6-G	67527	20582	29.6	19.0	16.9	17.3	14.6	14.3	18.5	9.0	6.7	4.7	1.8	-5.6	-12.5	-20.8	-31.7	-42.2	-54.0	-68.0	-83.3	-104.0	-135.4	-181.2	-253.3	-367.9	-549.8	-831.6	-1273.7	-1952.9	-2996.6	30.9	-3.1
6-H	70234	21407	29.4	18.7	16.6	17.0	14.3	13.9	18.1	8.5	6.2	4.0	1.0	-6.6	-13.8	-22.4	-33.6	-44.5	-56.7	-71.1	-87.0	-108.5	-141.1	-188.8	-263.7	-382.9	-571.9	-864.8	-1324.4	-2030.5	-3115.7	30.7	-3.6
6-I	72890	22217	29.2	18.3	16.3	16.7	13.9	13.5	17.7	8.1	5.7	3.4	0.2	-7.6	-15.0	-23.9	-35.5	-46.7	-59.3	-74.2	-90.7	-112.9	-146.7	-196.2	-273.9	-397.5	-593.6	-897.5	-1374.2	-2106.7	-3232.7	30.5	-4.2
6-J	75647	23057	29.1	18.0	16.0	16.4	13.6	13.1	17.3	7.6	5.1	2.7	-0.6	-8.6	-16.3	-25.5	-37.5	-49.1	-62.0	-77.4	-94.4	-117.5	-152.5	-203.9	-284.4	-412.7	-616.1	-931.3	-1425.9	-2185.8	-3354.0	30.3	-4.7
7-B	54078	16483	30.5	20.9	18.9	19.3	16.5	16.5	20.9	11.6	9.7	8.1	6.1	-0.3	-5.9	-12.7	-21.9	-30.6	-40.4	-52.2	-64.7	-81.4	-106.8	-143.4	-201.3	-293.4	-439.6	-666.1	-1021.3	-1566.9	-2404.4	32.2	0.1
7-C	56523	17228	30.3	20.5	18.5	18.9	16.1	16.0	20.4	11.1	9.1	7.5	5.3	-1.3	-7.2	-14.2	-23.7	-32.8	-42.9	-55.1	-68.1	-85.5	-112.0	-150.4	-210.8	-307.0	-459.7	-696.2	-1067.2	-1637.1	-2512.1	32.0	-0.5
7-E	61621	18782	30.0	19.8	17.7	18.1	15.4	15.2	19.5	10.1	8.0	6.1	3.6	-3.3	-9.7	-17.3	-27.5	-37.2	-48.1	-61.1	-75.2	-94.1	-122.9	-164.7	-230.5	-335.3	-501.5	-759.0	-1162.9	-1783.4	-2736.6	31.4	-1.7
7-F	64242	19581	29.8	19.4	17.4	17.8	15.0	14.8	19.1	9.6	7.4	5.5	2.8	-4.3	-10.9	-18.8	-29.4	-39.4	-50.7	-64.2	-78.8	-98.5	-128.4	-172.1	-240.6	-349.7	-522.9	-791.2	-1212.1	-1858.6	-2852.0	31.2	-2.3
7-G	66913	20395	29.6	19.1	17.0	17.4	14.7	14.4	18.6	9.1	6.9	4.8	2.0	-5.3	-12.2	-20.4	-31.3	-41.7	-53.4	-67.3	-82.5	-103.0	-134.1	-179.5	-250.9	-364.5	-544.8	-824.0	-1262.2	-1935.3	-2969.6	31.0	-2.9
7-H	69660	21232	29.4	18.7	16.7	17.1	14.3	14.0	18.2	8.6	6.3	4.1	1.2	-6.4	-13.5	-22.0	-33.2	-44.0	-56.1	-70.5	-86.2	-107.5	-139.9	-187.2	-261.5	-379.7	-567.2	-857.8	-1313.7	-2014.1	-3090.5	30.7	-3.5
7-I	72458	22085	29.3	18.4	16.3	16.7	14.0	13.6	17.8	8.1	5.7	3.5	0.4	-7.4	-14.8	-23.7	-35.2	-46.4	-58.9	-73.7	-90.1	-112.2	-145.8	-195.0	-272.2	-395.1	-590.1	-892.2	-1366.1	-2094.4	-3213.7	30.5	-4.1
8-A	50827	15492	30.8	21.5	19.4	19.8	17.1	17.1	21.5	12.3	10.5	9.1	7.2	1.0	-4.3	-10.6	-19.5	-27.7	-37.1	-48.3	-60.1	-75.8	-99.8	-134.2	-188.7	-275.3	-412.9	-626.0	-960.2	-1473.5	-2261.2	32.6	1.0
8-B	53263	16234	30.6	21.1	19.0	19.4	16.7	16.6	21.1	11.8	9.9	8.4	6.3	0.0	-5.5	-12.2	-21.3	-29.9	-39.6	-51.3	-63.5	-80.0	-105.0	-141.1	-198.2	-288.9	-432.9	-656.0	-1006.0	-1543.5	-2368.5	32.3	0.4

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Leq)
FROM WIND PARK OPERATIONS AT THE DESIGN WIND CONDITION

8-C	55780	17002	30.4	20.7	18.6	19.0	16.3	16.2	20.6	11.2	9.3	7.7	5.5	-1.0	-6.8	-13.7	-23.2	-32.1	-42.2	-54.3	-67.1	-84.3	-110.4	-148.3	-207.9	-302.9	-453.6	-687.1	-1053.3	-1615.8	-2479.4	32.0	-0.3
8-D	58398	17800	30.2	20.3	18.2	18.6	15.9	15.7	20.1	10.7	8.7	7.0	4.7	-2.0	-8.1	-15.3	-25.1	-34.4	-44.8	-57.4	-70.7	-88.7	-116.0	-155.6	-218.0	-317.4	-475.1	-719.3	-1102.4	-1690.9	-2594.6	31.8	-1.0
8-F	63711	19419	29.8	19.5	17.5	17.9	15.1	14.9	19.2	9.7	7.5	5.6	3.0	-4.1	-10.7	-18.5	-29.0	-39.0	-50.2	-63.6	-78.1	-97.6	-127.3	-170.6	-238.6	-346.8	-518.6	-784.7	-1202.1	-1843.4	-2828.6	31.2	-2.2
8-G	66405	20240	29.6	19.1	17.1	17.5	14.7	14.4	18.7	9.2	7.0	4.9	2.2	-5.2	-12.0	-20.1	-30.9	-41.3	-52.9	-66.7	-81.8	-102.1	-133.0	-178.1	-248.9	-361.7	-540.6	-817.8	-1252.6	-1920.7	-2947.2	31.0	-2.8
8-H	69224	21100	29.5	18.8	16.7	17.1	14.4	14.0	18.3	8.7	6.4	4.2	1.3	-6.2	-13.3	-21.8	-32.9	-43.7	-55.7	-70.0	-85.7	-106.8	-139.0	-186.0	-259.8	-377.3	-563.6	-852.4	-1305.5	-2001.6	-3071.3	30.8	-3.4
9-A	50056	15257	30.9	21.6	19.5	19.9	17.2	17.2	21.7	12.5	10.7	9.3	7.4	1.4	-3.9	-10.1	-18.9	-27.1	-36.3	-47.4	-59.0	-74.5	-98.1	-132.1	-185.7	-271.1	-406.6	-616.5	-945.7	-1451.3	-2227.2	32.7	1.3
9-B	52556	16019	30.7	21.2	19.1	19.5	16.8	16.8	21.2	11.9	10.1	8.6	6.6	0.3	-5.2	-11.7	-20.8	-29.3	-38.9	-50.4	-62.5	-78.8	-103.5	-139.1	-195.4	-285.0	-427.1	-647.3	-992.7	-1523.2	-2337.3	32.4	0.6
9-C	55145	16808	30.5	20.8	18.7	19.1	16.4	16.3	20.7	11.4	9.4	7.9	5.7	-0.7	-6.5	-13.3	-22.7	-31.6	-41.5	-53.5	-66.2	-83.2	-109.1	-146.5	-205.5	-299.3	-448.4	-679.2	-1041.3	-1597.5	-2451.4	32.1	-0.1
9-D	57776	17610	30.3	20.4	18.3	18.7	16.0	15.8	20.2	10.8	8.8	7.1	4.9	-1.8	-7.8	-14.9	-24.7	-33.9	-44.2	-56.6	-69.8	-87.6	-114.7	-153.9	-215.6	-313.9	-470.0	-711.6	-1090.7	-1673.1	-2567.3	31.8	-0.8
9-E	60472	18432	30.1	20.0	17.9	18.3	15.6	15.4	19.7	10.3	8.2	6.4	4.0	-2.9	-9.1	-16.6	-26.6	-36.2	-46.9	-59.8	-73.6	-92.2	-120.4	-161.5	-226.1	-328.9	-492.0	-744.8	-1141.3	-1750.5	-2686.0	31.6	-1.5
9-F	63234	19274	29.9	19.6	17.5	17.9	15.2	14.9	19.2	9.8	7.6	5.7	3.1	-3.9	-10.5	-18.2	-28.6	-38.6	-49.7	-63.0	-77.4	-96.8	-126.3	-169.2	-236.7	-344.2	-514.7	-778.8	-1193.2	-1829.7	-2807.6	31.3	-2.1
9-G	66041	20129	29.7	19.2	17.1	17.5	14.8	14.5	18.8	9.3	7.0	5.0	2.3	-5.0	-11.8	-19.9	-30.7	-41.0	-52.5	-66.3	-81.3	-101.5	-132.2	-177.1	-247.5	-359.7	-537.6	-813.3	-1245.8	-1910.3	-2931.2	31.0	-2.7
9-H	68833	20980	29.5	18.8	16.8	17.2	14.4	14.1	18.3	8.8	6.5	4.3	1.4	-6.1	-13.1	-21.5	-32.7	-43.3	-55.3	-69.5	-85.1	-106.2	-138.2	-184.9	-258.3	-375.1	-560.4	-847.6	-1298.2	-1990.4	-3054.1	30.8	-3.3
9-I	71732	21864	29.3	18.5	16.4	16.8	14.1	13.7	17.9	8.3	5.9	3.6	0.6	-7.1	-14.5	-23.2	-34.7	-45.8	-58.2	-72.9	-89.1	-111.0	-144.3	-193.0	-269.4	-391.1	-584.1	-883.3	-1352.5	-2073.5	-3181.7	30.6	-3.9
10-A	49345	15040	30.9	21.7	19.7	20.1	17.3	17.4	21.8	12.6	10.8	9.5	7.7	1.7	-3.5	-9.7	-18.4	-26.4	-35.5	-46.6	-58.0	-73.3	-96.6	-130.0	-182.9	-267.1	-400.7	-607.7	-932.3	-1430.9	-2195.8	32.8	1.5
10-B	51895	15818	30.7	21.3	19.2	19.6	16.9	16.9	21.3	12.1	10.2	8.8	6.8	0.6	-4.8	-11.3	-20.3	-28.7	-38.2	-49.6	-61.6	-77.6	-102.1	-137.3	-192.8	-281.3	-421.7	-639.2	-980.3	-1504.2	-2308.2	32.5	0.7
10-C	54541	16624	30.5	20.9	18.8	19.2	16.5	16.4	20.8	11.5	9.6	8.0	5.9	-0.5	-6.2	-12.9	-22.3	-31.0	-40.9	-52.8	-65.3	-82.1	-107.8	-144.8	-203.1	-296.0	-443.4	-671.8	-1030.0	-1580.2	-2424.7	32.2	0.0
10-D	57287	17461	30.3	20.4	18.4	18.8	16.0	15.9	20.3	10.9	8.9	7.3	5.0	-1.6	-7.6	-14.6	-24.3	-33.4	-43.7	-56.0	-69.2	-86.8	-113.6	-152.5	-213.7	-311.2	-465.9	-705.6	-1081.5	-1659.0	-2545.7	31.9	-0.7
10-E	60043	18301	30.1	20.0	18.0	18.4	15.6	15.4	19.8	10.4	8.3	6.5	4.1	-2.7	-8.9	-16.3	-26.3	-35.8	-46.5	-59.3	-73.0	-91.5	-119.5	-160.3	-224.4	-326.5	-488.5	-739.5	-1133.3	-1738.2	-2667.1	31.6	-1.4
10-F	62886	19168	29.9	19.6	17.6	18.0	15.2	15.0	19.3	9.8	7.7	5.8	3.2	-3.8	-10.3	-18.0	-28.4	-38.3	-49.4	-62.6	-76.9	-96.2	-125.6	-168.3	-235.4	-342.3	-511.8	-774.5	-1186.6	-1819.7	-2792.3	31.3	-2.0
10-G	65726	20033	29.7	19.2	17.2	17.6	14.8	14.5	18.8	9.3	7.1	5.1	2.4	-4.9	-11.7	-19.7	-30.4	-40.7	-52.2	-65.9	-80.9	-101.0	-131.6	-176.2	-246.3	-358.0	-535.0	-809.4	-1239.9	-1901.2	-2917.3	31.1	-2.7
10-H	68580	20903	29.5	18.9	16.8	17.2	14.5	14.1	18.4	8.8	6.5	4.4	1.5	-6.0	-13.0	-21.4	-32.5	-43.1	-55.1	-69.2	-84.8	-105.7	-137.6	-184.2	-257.3	-373.7	-558.4	-844.5	-1293.4	-1983.1	-3043.0	30.8	-3.3
10-I	48994	14933	31.0	21.8	19.7	20.1	17.4	17.4	21.9	12.7	10.9	9.6	7.8	1.8	-3.3	-9.5	-18.1	-26.1	-35.2	-46.1	-57.5	-72.7	-95.8	-129.0	-181.6	-265.1	-397.9	-603.4	-925.8	-1420.8	-2180.4	32.8	1.6
11-A	48658	14831	31.0	21.8	19.8	20.2	17.4	17.5	22.0	12.8	11.0	9.7	7.9	2.0	-3.2	-9.2	-17.8	-25.8	-34.8	-45.7	-57.0	-72.1	-95.1	-128.1	-180.2	-263.3	-395.1	-599.3	-919.4	-1411.2	-2165.6	32.9	1.7
11-B	51337	15647	30.8	21.4	19.3	19.7	17.0	17.0	21.4	12.2	10.4	8.9	7.0	0.8	-4.6	-10.9	-19.9	-28.2	-37.6	-49.0	-60.8	-76.7	-100.9	-135.7	-190.7	-278.2	-417.1	-632.3	-969.8	-1488.1	-2283.6	32.5	0.9
11-C	54017	16464	30.5	20.9	18.9	19.3	16.5	16.5	20.9	11.6	9.7	8.2	6.1	-0.3	-5.9	-12.6	-21.9	-30.6	-40.4	-52.2	-64.6	-81.3	-106.6	-143.3	-201.1	-293.1	-439.1	-665.3	-1020.1	-1565.1	-2401.7	32.2	0.2
11-D	56795	17311	30.3	20.5	18.5	18.9	16.1	16.0	20.4	11.0	9.1	7.4	5.2	-1.4	-7.3	-14.3	-23.9	-33.0	-43.2	-55.5	-68.5	-86.0	-112.6	-151.1	-211.8	-308.5	-461.9	-699.6	-1072.3	-1644.9	-2524.1	31.9	-0.6
11-E	59625	18174	30.1	20.1	18.0	18.4	15.7	15.5	19.9	10.5	8.4	6.7	4.3	-2.5	-8.7	-16.1	-26.0	-35.5	-46.1	-58.8	-72.4	-90.7	-118.6	-159.1	-222.8	-324.2	-485.1	-734.4	-1125.4	-1726.2	-2648.7	31.6	-1.3
11-F	62457	19037	29.9	19.7	17.6	18.0	15.3	15.1	19.4	9.9	7.8	5.9	3.4	-3.6	-10.1	-17.8	-28.1	-37.9	-48.9	-62.1	-76.3	-95.5	-124.7	-167.0	-233.7	-339.9	-508.3	-769.2	-1178.6	-1807.4	-2773.4	31.4	-1.9
11-G	65355	19920	29.7	19.3	17.2	17.6	14.9	14.6	18.9	9.4	7.2	5.2	2.5	-4.8	-11.5	-19.5	-30.2	-40.4	-51.8	-65.5	-80.3	-100.4	-130.8	-175.2	-244.9	-355.9	-532.0	-804.9	-1232.9	-1890.6	-2901.0	31.1	-2.6
11-H	68272	20809	29.5	18.9	16.9	17.3	14.5	14.2	18.4	8.9	6.6	4.5	1.6	-5.9	-12.9	-21.2	-32.3	-42.9	-54.7	-68.9	-84.3	-105.2	-137.0	-183.3	-256.1	-372.0	-555.9	-840.7	-1287.6	-1974.3	-3029.4	30.9	-3.2
11-K	77221	23537	29.0	17.8	15.8	16.2	13.4	12.9	17.1	7.3	4.8	2.4	-1.0	-9.1	-17.0	-26.4	-38.6	-50.4	-63.6	-79.2	-96.5	-120.1	-155.8	-208.3	-290.5	-421.4	-628.9	-950.6	-1455.4	-2230.9	-3423.2	30.2	-5.0
11-L	80254	24461	28.8	17.5	15.4	15.8	13.1	12.5	16.6	6.9	4.3	1.7	-1.9	-10.2	-18.4	-28.1	-40.7	-52.9	-66.5	-82.6	-100.7	-125.1	-162.1	-216.7	-302.1	-438.1	-653.7	-987.9	-1512.2	-2317.9	-3556.7	29.9	-5.6
12-A	48076	14654	31.0	21.9	19.9	20.3	17.5	17.6	22.1	12.9	11.2	9.9	8.1	2.2	-2.9	-8.9	-17.4	-25.3	-34.2	-45.0	-56.2	-71.1	-93.8	-126.4	-178.0	-260.0	-390.3	-592.1	-908.5	-1394.4	-2139.9	32.9	1.9
12-B	50827	15492	30.8	21.5	19.4	19.8	17.1	17.1	21.5	12.3	10.5	9.1	7.2	1.0	-4.3	-10.6	-19.5	-27.7	-37.1	-48.3	-60.1	-75.8	-99.8	-134.2	-188.7	-275.3	-412.9	-626.0	-960.2	-1473.5	-2261.1	32.6	1.0
12-C	53616	16342	30.6	21.0	19.0	19.4	16.6	16.6	21.0	11.7	9.8	8.3	6.2	-0.1	-5.7	-12.4	-21.6	-30.2	-40.0	-51.7	-64.0	-80.6	-105.8	-142.1	-199.5	-290.9	-435.8	-660.4	-1012.6	-1553.6	-2384.0	32.3	0.3
12-D	56451	17206	30.4	20.6	18.5	18.9	16.2	16.1	20.4	11.1	9.1	7.5	5.3	-1.3	-7.1	-14.1	-23.7	-32.7	-42.9	-55.1	-68.0	-85.4	-111.9	-150.2	-210.5	-306.6	-459.1	-695.3	-1065.9	-1635.0	-2508.9	32.0	-0.5
12-E	59301	18075	30.1	20.1	18.1	18.5	15.7	15.6	19.9	10.5	8.5	6.7	4.4	-2.4	-8.5	-15.9	-25.8	-35.2	-45.8	-58.4	-72.0	-90.2	-117.9	-158.2	-221.5	-322.4	-482.5	-730.4	-1119.4	-1716.9	-2634.4	31.7	-1.2
12-F	62173	18950	29.9	19.7	17.7	18.1	15.3	15.1	19.4	10.0	7.9	6.0	3.5	-3.5	-9.9	-17.6	-27.9	-37.7	-48.7	-61.8	-76.0	-95.0	-124.1	-166.2	-232.6	-338.3	-506.0	-765.7	-1173.2	-1799.3	-2760.9	31.4	-1.9
12-G	65147	19857	29.7	19.3	17.3	17.7	14.9	14.6	18.9	9.4	7.2	5.2	2.5	-4.7	-11.4	-19.4	-30.0	-40.2	-51.6	-65.3	-80.1	-100.0	-130.4	-174.6	-244.1	-354.8	-530.3	-802.3	-1229.0	-1884.6	-2891.8	31.1	-2.5
12-H	68056	20744	29.5	18.9	16.9	17.3	14.5	14.2	18.5	8.9	6.6	4.5	1.7	-5.8	-12.8	-21.1	-32.1	-42.7	-54.5	-68.6	-84.1	-104.9	-136.5	-182.7	-255.3	-370.8	-554.1	-838.1	-1283.6	-1968.1	-3019.9	30.9	-3.2
12-I	71120	21678	29.3	18.5	16.5	16.9	14.1	13.7	18.0	8.4	6.0	3.8	0.8	-6.9	-14.2	-22.9	-34.3	-45.3	-57.6	-72.2	-88.2	-110.0	-143.0	-191.3	-267.1	-387.7	-579.1	-875.7	-1341.0	-2056.0	-3154.8	30.6	-3.8
12-J	74131	22595	29.2	18.2	16.1	16.5	13.8	13.3	17.5	7.9	5.4	3.1	-0.1	-8.0	-15.6	-24.6	-36.4	-47.8	-60.5	-75.6	-92.4	-115.0	-149.3	-199.7	-278.6	-404.3	-603.7	-912.7	-1397.5	-2142.3	-3287.3	30.4	-4.4
12-K	77152	23516	29.0	17.8	15.8	16.2	13.4	12.9	17.1	7.4	4.8	2.4	-1.0	-9.1	-17.0	-26.4	-38.5	-50.3	-63.5	-79.1	-96.5	-120.0	-155.6	-208.1	-290.2	-421.0	-628.4	-949.8	-1454.1	-2228.9	-3420.2	30.2	-5.0
12-L	80179	24439	28.8	17.5	15.5	15.9	13.1	12.5	16.6	6.9	4.3	1.7	-1.9	-10.2	-18.4	-28.1	-40.6	-52.8	-66.4	-82.5	-100.6	-125.0	-162.0	-216.5	-301.8	-437.7	-653.1	-986.9	-1510.8	-2315.7	-3553.4	29.9	-5.5
13-A	47561	14497	31.1	22.0	20.0	20.4	17.6	17.7	22.2	13.0	11.3	10.0	8.3	2.4	-2.6	-8.5	-17.0	-24.8	-33.7	-44.4	-55.5	-70.2	-92.7	-125.0	-176.0	-257.1	-386.1	-585.7	-898.8	-1379.6	-2117.2	33.0	2.0
13-B	50407	15364	30.8	21.5	19.5	19.9	17.1	17.2	21.6	12.4	10.6	9.2	7.3	1.2	-4.1	-10.4	-19.2	-27.4	-36.6	-47.8	-59.5	-75.1	-98.9	-133.0	-187.1	-273.0	-409.5	-620.8	-952.3	-1461.4	-2242.6	32.6	1.2
13-C	53230	16225	30.6	21.1	19.0	19.4	16.7	16.6	21.1	11.8	9.9	8.4	6.3	0.0	-5.5	-12.1	-21.3	-29.9	-39.6	-51.2	-63.5	-79.9	-105.0	-141.1	-198.0	-288.7	-432.7	-655.6	-1005.4	-1542.5	-2367.0	32.3	0.4
13-D	56139	17111	30.4	20.6	18.6	19.0	16.2	16.1	20.5	11.2	9.2	7.6	5.4	-1.1	-7.0	-13.9	-23.5	-32.4	-42.5	-54.7	-67.6	-84.9	-111.2	-149.3	-209.3	-304.9	-456.5	-691.5	-1060.0	-1626.1	-2495.1	32.0	-0.4
13-F	61997	18897	29.9	19.7	17.7	18.1	15.3	15.1	19.5	10.0	7.9	6.0	3.5	-3.5	-9.9	-17.5	-27.7	-37.5	-48.5	-61.6	-75.7	-94.7	-123.7	-165.8	-232.0	-337.3	-504.5	-763.6	-1170.0	-1794.2	-2753.1	31.4	-1.8
13-G	64971	19803	29.7	19.3	17.3	17.7	14.9	14.7	19.0	9.5	7.3	5.3	2.6	-4.6	-11.3	-19.3	-29.9	-40.1	-51.5	-65.1	-79.8	-99.7	-130.0	-174.1	-243.4	-353.8	-528.9	-800.2	-1225.7	-1879.6	-2884.1	31.1	-2.5
13-H	67944	20709	29.5	18.9	16.9	17.3	14.5	14.2	18.5	8.9	6.6	4.6	1.7	-5.7	-12.7	-21.0	-32.0	-42.6	-54.4	-68.5	-83.9	-104.7	-136.3	-182.4	-254.9	-370.2	-553.2	-836.7	-1281.5	-1964.9	-3014.9	30.9	-3.2
13-I	71027	21649	29.4	18.6	16.5	16.9	14.2	13.8	18.0	8.4	6.0	3.8	0.8	-6.9	-14.2	-22.8	-34.2	-45.2	-57.5	-72.1	-88.1	-109.8	-142.8	-191.0	-266.7	-387.2	-578.4	-874.6	-1339.3	-2053.3	-3150.6	30.6	-3.8
13-J	74037	22567	29.2	18.2	16.1	16.5	13.8	13.3	17.5	7.9	5.4	3.1	-0.1	-8.0	-15.6	-24.6	-36.3	-47.7	-60.4	-75.5	-92.2	-114.8	-149.1	-199.4	-278.3	-403.8	-603.0	-911.6	-1395.7	-2139.6	-3283.1	30.4	-4.4
13-K	77079	23494	29.0	17.8	15.8	16.2	13.4	12.9	17.1	7.4	4.9	2.4	-1.0	-9.1	-16.9	-26.3	-38.5	-50.2	-63.4	-79.0	-96.4	-119.8	-155.5	-207.9	-289.9	-420.6	-627.8	-948.9	-1452.7	-2226.8	-3417.0	30.2	-5.0
13-L	80194	24443	28.8	17.5	15.5	15.9	13.1	12.5	16.6	6.9	4.3	1.7	-1.9	-10.2	-18.4	-28.1	-40.6	-52.8	-66.5	-82.6	-100.6	-125.0	-162.0	-216.5	-301.9	-437.7	-653.2	-987.1	-1511.1	-2316.2	-3554.1	29.9	-5.5
14-D	55884	17033	30.4	20.6	18.6	19.0	16.2	16.2	20.6	11.2	9.3	7.7	5.5	-1.0	-6.9	-13.8	-23.3	-32.2	-42.3	-54.4	-67.2	-84.4	-110.6	-148.6	-208.3	-303.4	-454.4	-688.3	-1055.2	-1618.7	-2483.9	32.0	-0.3
14-E	58799	17922	30.2	20.2	18.2	18.6	15.8	15.6	20.0	10.6	8.6	6.9	4.5	-2.2	-8.3	-15.6	-25.4	-34.7	-45.2	-57.8	-71.3	-89.4	-116.9	-156.8	-219.6	-319.6	-478.3	-724.2	-1109.9	-1702.4	-2612.3	31.7	-1.1
14-F	61848	18851	30.0	19.8	17.7	18.1	15.4	15.1	19.5	10.0	7.9	6.1	3.6	-3.4	-9.8	-17.4	-27.6	-37.4	-48.3	-61.4	-75.5	-94.5	-123.4	-165.3	-231.4	-336.5	-503.3	-761.8	-1167.1	-1789.9	-2746.6	31.4	-1.8
14-G	64844	19764	29.7	19.4	17.3	17.7	15.0	14.7	19.0	9.5	7.3	5.3	2.6	-4.6	-11.2	-19.2	-29.8	-39.9	-51.3	-64.9	-79.6	-99.5	-129.7	-173.7	-242.9	-353.1	-527.8	-798.6	-1223.4	-1875.9	-2878.5	31.1	-2.5
14-H	67876	20689	29.6	19.0	16.9	17.3	14.6	14.2	18.5	8.9	6.7	4.6	1.7	-5.7	-12.7	-21.0	-32.0	-42.5	-54.4	-68.4	-83.8	-104.6	-136.1	-182.2	-254.6	-369.8	-552.6	-835.9	-1280.2	-1962.9	-3011.9	30.9	-3.1
14-J	74031	22565	29.2	18.2	16.1	16.5	13.8	13.3	17.5	7.9	5.4	3.1	-0.1	-8.0	-15.5	-24.6	-36.3	-47.7	-60.4	-75.5	-92.2	-114.8	-149.1	-199.4	-278.2	-403.8	-602.9	-911.5	-1395.6	-2139.5	-3282.9	30.4	-4.4
14-K	77145	23514	29.0	17.8	15.8	16.2	13.4	12.9	17.1	7.4	4.8	2.4	-1.0	-9.1	-17.0	-26.4	-38.5	-50.3	-63.5	-79.1	-96.4	-120.0	-155.6	-208.1	-290.2	-421.0	-628.3	-949.7	-1454.0	-2228.8	-3419.9	30.2	-5.0
14-L	80270	24466	28.8	17.5	15.4	15.8	13.1	12.5	16.6	6.9	4.3	1.7	-1.9	-10.2	-18.4	-28.1	-40.7	-52.9	-66.5	-82.6	-100.7	-125.1	-162.2	-216.7	-302.1	-438.2	-653.8	-988.1	-1512.5	-2318.3	-3557.4	29.9	-5.6
15-F	61749	18821	30.0	19.8	17.7	18.1	15.4	15.2	19.5	10.1	8.0	6.1	3.6	-3.4	-9.7	-17.3	-27.6	-37.3	-48.2	-61.3	-75.4	-94.3	-123.2	-165.1	-231.0	-336.0	-502.5	-760.5	-1165.3	-1787.1	-2742.2	31.4	-1.8
15-G	64849	19766	29.7	19.3	17.3	17.7	14.9	14.7	19.0	9.5	7.3	5.3	2.6	-4.6	-11.2	-19.2	-29.8	-39.9	-51.3	-64.9	-79.6	-99.5	-129.7	-173.8	-242.9	-353.1	-527.9	-798.7	-1223.5	-1876.1	-2878.7	31.1	-2.5
15-H	67847	20680	29.6	19.0	16.9	17.3	14.6	14.2	18.5	8.9	6.7	4.6	1.7	-5.7	-12.7	-21.0	-31.9	-42.5	-54.3	-68.4	-83.8	-104.5	-136.1	-182.1	-254.5	-369.7	-552.4	-835.5	-1279.7	-1962.1	-3010.7	30.9	-3.1
15-I	70962	21629	29.4	18.6	16.5	16.9	14.2	13.8	18.0	8.4	6.0	3.8	0.8	-6.9	-14.1	-22.8	-34.2	-45.1	-57.4	-72.0	-88.0	-109.7	-142.6	-190.8	-266.5	-386.9	-577.8	-873.8	-1338.1	-2051.4	-3147.8	30.6	-3.8
15-J	74061	22574	29.2	18.2	16.1	16.5	13.8	13.3	17.5	7.9	5.4	3.1	-0.1	-8.0	-15.6	-24.6	-36.3	-47.7	-60.5	-75.6	-92.3	-114.9	-149.2	-199.5	-278.4	-404.0	-603.1	-911.8	-1396.2	-2140.3	-3284.2	30.4	-4.4
15-K	77198	23530	29.0	17.8	15.8	16.2	13.4	12.9	17.1	7.4	4.8	2.4	-1.0	-9.1	-17.0	-26.4	-38.5	-50.3	-63.5	-79.1	-96.5	-120.0	-155.7	-208.2	-290.4	-421.2	-628.8	-950.4	-1455.0	-2230.3	-3422.2	30.2	-5.0
16-J	74163	22605	29.2	18.2	16.1	16.5	13.8	13.3	17.5	7.8	5.4	3.1	-0.1	-8.0	-15.6	-24.6	-36.4	-47.8	-60.6	-75.7	-92.4	-115.0	-149.4	-199.8	-278.7	-404.5	-604.0	-913.1	-1398.1	-2143.2	-3288.6	30.4	-4.4
16-K	77323	23568	29.0	17.8	15.8	16.2	13.4	12.9	17.0	7.3	4.8	2.3	-1.0	-9.2	-17.1	-26.5	-38.6	-50.4	-63.7	-79.3	-96.7	-120.2	-156.0	-208.5	-290.9	-421.9	-629.8	-951.9	-1457.3	-2233.9	-3427.7	30.1	-5.0
		Sum:	50.9	40.5	38.5	38.9	36.1	35.9	40.2	30.8	28.6	26.8	24.3	17.5	11.5	4.4	-5.0	-13.7	-23.3	-34.8	-46.6	-62.2	-85.8	-119.1	-171.4	-253.9	-384.0	-584.6	-898.3	-1379.5	-2117.2	52.3	19.0

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Leq)
FROM WIND PARK OPERATIONS AT THE DESIGN WIND CONDITION

																		Hertz													
	1/3 Octave Bands		**16***	**20**	**25**	**31**	**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**	**L**	**A**
Sound Power Data - Design Speed			113.7	113.3	111.2	111.6	108.9	109.9	115.0	106.6	106.2	106.8	107.7	105.5	105.0	104.6	102.1	100.6	98.7	95.8	94.9	94.2	92.9	93.1	92.1	90.7	87.9	83.9	78.2	69.9	61.5	121.9	107.4

Data for the graph																																
Atmos. Absorption per 1 km air temp 59F 70% RH			0.0000	0.0000	0.0000	0.0000	0.0000	0.0670	0.1050	0.1630	0.2510	0.3810	0.5650	0.8150	1.1300	1.5100	1.9200	2.3600	2.8400	3.3800	4.0800	5.0500	6.5100	8.7500	12.2000	17.7000	26.4000	39.9000	61.1000	93.7000	144.0000		

*Spherical wave spreading for up to 2 km, cylindrical wave spreading beyond 2 km.

																			Hertz													
	1/3 Octave Bands		**16***	**20**	**25**	**31**	**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**	**L**	**A**
	Distance (ft)	**Distance (m)**																														
1-D	46357	14130	31.2	22.3	20.2	20.6	17.9	18.0	22.5	13.3	11.6	10.4	8.7	2.9	-2.0	-7.8	-16.1	-23.7	-32.4	-42.9	-53.7	-68.1	-90.1	-121.5	-171.3	-250.4	-376.2	-570.9	-876.2	-1345.0	-2064.2	33.2	2.4
1-E	48203	14692	31.0	21.9	19.9	20.3	17.5	17.6	22.1	12.9	11.1	9.8	8.1	2.2	-2.9	-9.0	-17.5	-25.4	-34.4	-45.2	-56.4	-71.3	-94.1	-126.8	-178.5	-260.7	-391.4	-593.7	-910.9	-1398.1	-2145.5	32.9	1.8
1-F	50202	15302	30.9	21.6	19.5	19.9	17.2	17.2	21.7	12.4	10.6	9.2	7.4	1.3	-4.0	-10.2	-19.0	-27.2	-36.4	-47.6	-59.2	-74.7	-98.4	-132.5	-186.3	-271.9	-407.8	-618.3	-948.5	-1455.5	-2233.6	32.7	1.2
1-G	52328	15950	30.7	21.2	19.2	19.6	16.8	16.8	21.2	12.0	10.1	8.6	6.7	0.4	-5.1	-11.6	-20.6	-29.1	-38.6	-50.1	-62.2	-78.4	-103.0	-138.5	-194.5	-283.7	-425.3	-644.5	-988.4	-1516.6	-2327.3	32.4	0.6
1-H	54591	16639	30.5	20.8	18.8	19.2	16.4	16.4	20.8	11.5	9.6	8.0	5.9	-0.5	-6.2	-13.0	-22.3	-31.1	-41.0	-52.8	-65.4	-82.2	-107.9	-144.9	-203.3	-296.3	-443.8	-672.4	-1030.9	-1581.6	-2427.0	32.2	0.0
1-I	56913	17347	30.3	20.5	18.4	18.8	16.1	16.0	20.4	11.0	9.0	7.4	5.1	-1.5	-7.4	-14.4	-24.0	-33.1	-43.3	-55.6	-68.6	-86.2	-112.8	-151.5	-212.3	-309.2	-462.9	-701.0	-1074.5	-1648.3	-2529.3	31.9	-0.6
1-J	59305	18076	30.1	20.1	18.1	18.5	15.7	15.6	19.9	10.5	8.5	6.7	4.4	-2.4	-8.5	-15.9	-25.8	-35.2	-45.8	-58.4	-72.0	-90.2	-117.9	-158.2	-221.6	-322.4	-482.5	-730.5	-1119.4	-1716.9	-2634.6	31.7	-1.2
1-K	61849	18852	30.0	19.8	17.7	18.1	15.4	15.1	19.5	10.0	7.9	6.1	3.6	-3.4	-9.8	-17.4	-27.6	-37.4	-48.3	-61.4	-75.5	-94.5	-123.4	-165.3	-231.4	-336.5	-503.3	-761.8	-1167.2	-1790.0	-2746.6	31.4	-1.8
1-L	64461	19648	29.8	19.4	17.4	17.8	15.0	14.7	19.0	9.5	7.4	5.4	2.8	-4.4	-11.0	-19.0	-29.5	-39.6	-50.9	-64.5	-79.1	-98.9	-128.9	-172.7	-241.5	-351.0	-524.7	-793.9	-1216.2	-1864.9	-2861.6	31.2	-2.4
2-D	45036	13727	31.3	22.5	20.5	20.9	18.1	18.2	22.8	13.6	12.0	10.8	9.2	3.5	-1.2	-6.9	-15.0	-22.5	-31.0	-41.3	-51.8	-65.9	-87.2	-117.7	-166.1	-243.1	-365.3	-554.5	-851.3	-1307.1	-2005.9	33.3	2.8
2-E	47020	14332	31.1	22.1	20.1	20.5	17.7	17.8	22.3	13.2	11.4	10.2	8.5	2.7	-2.3	-8.2	-16.6	-24.3	-33.1	-43.7	-54.7	-69.3	-91.6	-123.4	-173.9	-254.1	-381.6	-579.0	-888.6	-1364.1	-2093.4	33.1	2.2
2-F	49125	14973	31.0	21.8	19.7	20.1	17.4	17.4	21.9	12.7	10.9	9.6	7.8	1.8	-3.4	-9.5	-18.2	-26.2	-35.3	-46.3	-57.7	-72.9	-96.1	-129.4	-182.1	-265.9	-398.9	-605.0	-928.2	-1424.6	-2186.2	32.8	1.5
2-G	51319	15642	30.8	21.4	19.3	19.7	17.0	17.0	21.4	12.2	10.4	8.9	7.0	0.8	-4.5	-10.9	-19.9	-28.2	-37.6	-48.9	-60.8	-76.7	-100.8	-135.6	-190.6	-278.1	-417.0	-632.1	-969.5	-1487.6	-2282.8	32.5	0.9
2-H	53625	16345	30.6	21.0	19.0	19.4	16.6	16.6	21.0	11.7	9.8	8.3	6.2	-0.1	-5.7	-12.4	-21.6	-30.2	-40.0	-51.7	-64.0	-80.6	-105.8	-142.2	-199.6	-290.9	-435.9	-660.5	-1012.8	-1553.9	-2384.4	32.3	0.3
2-I	56086	17095	30.4	20.6	18.6	19.0	16.2	16.1	20.5	11.2	9.2	7.6	5.4	-1.1	-7.0	-13.9	-23.4	-32.4	-42.5	-54.6	-67.5	-84.8	-111.1	-149.1	-209.1	-304.6	-456.1	-690.8	-1059.0	-1624.5	-2492.8	32.0	-0.4
2-J	58626	17869	30.2	20.2	18.2	18.6	15.8	15.7	20.0	10.7	8.6	6.9	4.6	-2.1	-8.2	-15.5	-25.3	-34.6	-45.1	-57.6	-71.0	-89.1	-116.5	-156.3	-218.9	-318.7	-476.9	-722.1	-1106.7	-1697.5	-2604.7	31.7	-1.0
2-K	61115	18628	30.0	19.9	17.8	18.2	15.5	15.3	19.6	10.2	8.1	6.3	3.8	-3.1	-9.4	-17.0	-27.1	-36.7	-47.6	-60.5	-74.5	-93.3	-121.8	-163.3	-228.5	-332.4	-497.3	-752.7	-1153.4	-1768.9	-2714.3	31.5	-1.6
2-L	63797	19445	29.8	19.5	17.4	17.8	15.1	14.8	19.2	9.7	7.5	5.6	3.0	-4.2	-10.7	-18.6	-29.0	-39.0	-50.3	-63.7	-78.2	-97.8	-127.5	-170.8	-238.9	-347.3	-519.3	-785.7	-1203.7	-1845.9	-2832.4	31.2	-2.2
3-D	43836	13361	31.4	22.8	20.7	21.1	18.4	18.5	23.0	13.9	12.3	11.2	9.7	4.1	-0.6	-6.1	-14.1	-21.4	-29.7	-39.9	-50.1	-63.8	-84.6	-114.3	-161.4	-236.3	-355.4	-539.7	-828.7	-1272.6	-1953.0	33.5	3.2
3-E	45927	13999	31.2	22.3	20.3	20.7	17.9	18.1	22.6	13.4	11.7	10.5	8.9	3.1	-1.7	-7.5	-15.7	-23.3	-32.0	-42.4	-53.1	-67.4	-89.2	-120.3	-169.6	-248.0	-372.6	-565.5	-868.1	-1332.7	-2045.2	33.2	2.5
3-F	48128	14669	31.0	21.9	19.9	20.3	17.5	17.6	22.1	12.9	11.2	9.9	8.1	2.2	-2.9	-8.9	-17.4	-25.3	-34.3	-45.1	-56.3	-71.2	-94.0	-126.6	-178.2	-260.3	-390.7	-592.7	-909.5	-1395.9	-2142.2	32.9	1.8
3-G	50415	15366	30.8	21.5	19.5	19.9	17.1	17.2	21.6	12.4	10.6	9.2	7.3	1.2	-4.1	-10.4	-19.2	-27.4	-36.7	-47.9	-59.5	-75.1	-98.9	-133.1	-187.1	-273.0	-409.5	-620.9	-952.5	-1461.6	-2243.0	32.6	1.2
3-I	55269	16846	30.4	20.7	18.7	19.1	16.3	16.3	20.7	11.3	9.4	7.8	5.7	-0.8	-6.5	-13.4	-22.8	-31.7	-41.7	-53.7	-66.3	-83.4	-109.3	-146.8	-205.9	-300.0	-449.4	-680.8	-1043.7	-1601.1	-2456.8	32.1	-0.2
3-J	57863	17637	30.2	20.3	18.3	18.7	15.9	15.8	20.2	10.8	8.8	7.1	4.8	-1.8	-7.8	-15.0	-24.7	-33.9	-44.3	-56.7	-70.0	-87.8	-114.9	-154.1	-216.0	-314.4	-470.7	-712.7	-1092.4	-1675.6	-2571.1	31.8	-0.8
3-K	60537	18452	30.0	19.9	17.9	18.3	15.5	15.4	19.7	10.3	8.2	6.4	4.0	-2.9	-9.2	-16.6	-26.7	-36.2	-47.0	-59.9	-73.7	-92.3	-120.6	-161.7	-226.3	-329.2	-492.6	-745.6	-1142.5	-1752.3	-2688.8	31.5	-1.5
3-L	63169	19254	29.9	19.6	17.5	17.9	15.2	14.9	19.3	9.8	7.6	5.7	3.1	-3.9	-10.4	-18.2	-28.6	-38.5	-49.7	-62.9	-77.3	-96.7	-126.2	-169.0	-236.5	-343.8	-514.1	-778.0	-1191.9	-1827.9	-2804.7	31.3	-2.1
4-D	42724	13022	31.6	23.0	20.9	21.3	18.6	18.8	23.3	14.2	12.6	11.5	10.1	4.6	0.0	-5.4	-13.2	-20.4	-28.6	-38.5	-48.5	-61.8	-82.2	-111.1	-157.0	-230.1	-346.2	-526.0	-807.8	-1240.6	-1904.0	33.7	3.6
4-E	44945	13699	31.3	22.5	20.5	20.9	18.1	18.3	22.8	13.7	12.0	10.8	9.2	3.6	-1.2	-6.9	-15.0	-22.4	-30.9	-41.2	-51.7	-65.7	-87.0	-117.5	-165.7	-242.5	-364.5	-553.4	-849.6	-1304.4	-2001.9	33.3	2.8
4-F	47208	14389	31.1	22.1	20.1	20.5	17.7	17.8	22.3	13.1	11.4	10.1	8.4	2.6	-2.4	-8.3	-16.7	-24.5	-33.3	-44.0	-55.0	-69.6	-92.0	-123.9	-174.6	-255.2	-383.2	-581.4	-892.2	-1369.5	-2101.7	33.0	2.1
4-G	49622	15125	30.9	21.7	19.6	20.0	17.3	17.3	21.8	12.6	10.8	9.4	7.6	1.5	-3.7	-9.9	-18.6	-26.7	-35.8	-46.9	-58.4	-73.8	-97.2	-130.8	-184.0	-268.6	-403.0	-611.2	-937.5	-1438.9	-2208.0	32.7	1.4
4-H	52086	15876	30.7	21.3	19.2	19.6	16.9	16.8	21.3	12.0	10.2	8.7	6.7	0.5	-4.9	-11.4	-20.4	-28.9	-38.4	-49.9	-61.9	-78.0	-102.5	-137.8	-193.6	-282.3	-423.3	-641.5	-983.9	-1509.6	-2316.6	32.4	0.7
4-I	54654	16659	30.5	20.8	18.8	19.2	16.4	16.4	20.8	11.5	9.6	8.0	5.9	-0.5	-6.2	-13.0	-22.3	-31.1	-41.0	-52.9	-65.5	-82.3	-108.0	-145.1	-203.5	-296.6	-444.4	-673.2	-1032.1	-1583.4	-2429.8	32.2	0.0
4-J	57263	17454	30.3	20.4	18.4	18.8	16.0	15.9	20.3	10.9	8.9	7.3	5.0	-1.6	-7.5	-14.6	-24.3	-33.4	-43.7	-56.0	-69.1	-86.8	-113.6	-152.4	-213.7	-311.1	-465.7	-705.3	-1081.1	-1658.3	-2544.7	31.9	-0.7
4-K	59959	18276	30.1	20.0	18.0	18.4	15.6	15.5	19.8	10.4	8.3	6.6	4.2	-2.7	-8.9	-16.3	-26.3	-35.7	-46.4	-59.2	-72.9	-91.3	-119.3	-160.0	-224.1	-326.0	-487.8	-738.5	-1131.7	-1735.7	-2663.4	31.6	-1.3
4-L	62718	19117	29.9	19.6	17.6	18.0	15.2	15.0	19.3	9.9	7.7	5.9	3.3	-3.7	-10.2	-17.9	-28.3	-38.1	-49.2	-62.4	-76.7	-95.9	-125.2	-167.8	-234.7	-341.3	-510.4	-772.5	-1183.5	-1814.9	-2784.9	31.3	-2.0
5-D	41697	12709	31.7	23.2	21.1	21.5	18.8	19.0	23.6	14.5	12.9	11.8	10.5	5.0	0.6	-4.7	-12.4	-19.5	-27.5	-37.2	-47.0	-60.0	-80.0	-108.2	-153.0	-224.4	-337.7	-513.3	-788.4	-1211.0	-1858.7	33.8	3.9
5-E	43942	13393	31.4	22.7	20.7	21.1	18.3	18.5	23.0	13.9	12.3	11.1	9.6	4.0	-0.7	-6.2	-14.2	-21.5	-29.9	-40.0	-50.3	-64.0	-84.9	-114.6	-161.8	-236.9	-356.3	-541.0	-830.7	-1275.6	-1957.7	33.5	3.2
5-F	46351	14128	31.2	22.3	20.2	20.6	17.9	18.0	22.5	13.3	11.6	10.4	8.7	3.0	-1.9	-7.8	-16.1	-23.7	-32.4	-42.9	-53.7	-68.1	-90.1	-121.5	-171.2	-250.4	-376.1	-570.8	-876.0	-1344.9	-2063.9	33.2	2.4
5-G	48796	14873	31.0	21.8	19.8	20.2	17.4	17.5	22.0	12.7	11.0	9.7	7.9	1.9	-3.2	-9.3	-17.9	-25.9	-35.0	-45.9	-57.2	-72.3	-95.4	-128.5	-180.8	-264.0	-396.2	-601.0	-922.0	-1415.1	-2171.6	32.8	1.6
5-H	51376	15659	30.8	21.4	19.3	19.7	17.0	17.0	21.4	12.2	10.3	8.9	7.0	0.8	-4.6	-11.0	-19.9	-28.2	-37.7	-49.0	-60.9	-76.8	-101.0	-135.8	-190.8	-278.4	-417.4	-632.8	-970.5	-1489.3	-2285.3	32.5	0.9
5-I	54012	16463	30.5	20.9	18.9	19.3	16.5	16.5	20.9	11.6	9.7	8.2	6.1	-0.3	-5.9	-12.6	-21.9	-30.6	-40.4	-52.2	-64.6	-81.2	-106.6	-143.3	-201.1	-293.1	-439.1	-665.3	-1020.0	-1565.0	-2401.5	32.2	0.2
5-J	56689	17279	30.3	20.5	18.5	18.9	16.1	16.0	20.4	11.1	9.1	7.4	5.2	-1.4	-7.3	-14.3	-23.9	-32.9	-43.1	-55.3	-68.3	-85.8	-112.4	-150.8	-211.4	-307.9	-461.0	-698.3	-1070.3	-1641.9	-2519.4	31.9	-0.5
6-D	40751	12421	31.8	23.4	21.3	21.7	19.0	19.2	23.8	14.7	13.2	12.2	10.8	5.5	1.1	-4.1	-11.7	-18.6	-26.4	-36.0	-45.6	-58.4	-77.9	-105.4	-149.3	-219.1	-329.9	-501.6	-770.6	-1183.8	-1817.0	34.0	4.3
6-E	43096	13136	31.5	22.9	20.8	21.2	18.5	18.7	23.2	14.1	12.5	11.4	9.9	4.4	-0.2	-5.6	-13.5	-20.8	-29.0	-38.9	-49.0	-62.5	-83.0	-112.2	-158.5	-232.2	-349.3	-530.6	-814.8	-1251.3	-1920.4	33.6	3.4
6-G	48177	14684	31.0	21.9	19.9	20.3	17.5	17.6	22.1	12.9	11.1	9.8	8.1	2.2	-2.9	-8.9	-17.5	-25.4	-34.3	-45.2	-56.3	-71.3	-94.1	-126.7	-178.4	-260.6	-391.1	-593.3	-910.4	-1397.4	-2144.4	32.9	1.8
6-H	50832	15494	30.8	21.5	19.4	19.8	17.1	17.1	21.5	12.3	10.5	9.1	7.2	1.0	-4.3	-10.6	-19.5	-27.8	-37.1	-48.4	-60.1	-75.8	-99.8	-134.3	-188.7	-275.4	-413.0	-626.1	-960.3	-1473.6	-2261.4	32.6	1.0
6-I	53459	16294	30.6	21.0	19.0	19.4	16.6	16.6	21.0	11.7	9.8	8.3	6.3	-0.1	-5.6	-12.3	-21.5	-30.1	-39.8	-51.5	-63.8	-80.3	-105.4	-141.7	-198.9	-290.0	-434.5	-658.5	-1009.6	-1549.1	-2377.1	32.3	0.3
6-J	56201	17130	30.4	20.6	18.5	18.9	16.2	16.1	20.5	11.2	9.2	7.6	5.4	-1.2	-7.0	-14.0	-23.5	-32.5	-42.6	-54.8	-67.6	-85.0	-111.3	-149.4	-209.5	-305.2	-457.0	-692.2	-1061.2	-1627.8	-2497.9	32.0	-0.4
7-B	35342	10772	32.4	24.6	22.6	23.0	20.2	20.6	25.2	16.2	14.8	14.0	13.0	8.0	4.2	-0.3	-7.3	-13.5	-20.5	-29.2	-37.7	-48.8	-65.9	-89.8	-128.0	-188.6	-285.2	-434.5	-668.7	-1028.1	-1578.3	34.9	6.3
7-C	37548	11445	32.1	24.1	22.0	22.4	19.7	20.0	24.6	15.6	14.1	13.2	12.1	7.0	2.9	-1.9	-9.1	-15.6	-23.0	-32.0	-40.9	-52.7	-70.8	-96.2	-136.7	-201.1	-303.4	-461.9	-710.3	-1091.6	-1675.7	34.5	5.4
7-E	42350	12908	31.6	23.1	21.0	21.4	18.7	18.8	23.4	14.3	12.7	11.6	10.2	4.7	0.2	-5.1	-12.9	-20.1	-28.2	-38.0	-48.0	-61.2	-81.4	-110.0	-155.6	-228.0	-343.1	-521.3	-800.7	-1229.8	-1887.5	33.7	3.7
7-F	44888	13682	31.3	22.5	20.5	20.9	18.1	18.3	22.8	13.7	12.0	10.8	9.3	3.6	-1.2	-6.8	-14.9	-22.4	-30.9	-41.1	-51.6	-65.6	-86.9	-117.3	-165.5	-242.2	-364.1	-552.7	-848.5	-1302.8	-1999.4	33.4	2.9
7-G	47507	14480	31.1	22.1	20.0	20.4	17.7	17.7	22.2	13.0	11.3	10.0	8.3	2.5	-2.6	-8.5	-16.9	-24.8	-33.6	-44.3	-55.4	-70.1	-92.6	-124.8	-175.8	-256.8	-385.6	-585.1	-897.8	-1378.1	-2114.8	33.0	2.0
7-H	50224	15308	30.9	21.6	19.5	19.9	17.2	17.2	21.7	12.4	10.6	9.2	7.4	1.3	-4.0	-10.2	-19.0	-27.2	-36.5	-47.6	-59.2	-74.8	-98.5	-132.5	-186.3	-272.0	-408.0	-618.6	-948.9	-1456.2	-2234.6	32.7	1.2
7-I	53011	16158	30.6	21.1	19.1	19.5	16.7	16.7	21.1	11.8	9.9	8.4	6.4	0.1	-5.4	-12.0	-21.1	-29.7	-39.3	-51.0	-63.2	-79.5	-104.5	-140.4	-197.2	-287.5	-430.9	-652.9	-1001.2	-1536.2	-2357.4	32.3	0.4
8-A	32155	9801	32.8	25.4	23.4	23.8	21.0	21.4	26.1	17.2	15.9	15.2	14.4	9.7	6.1	1.9	-4.6	-10.3	-16.9	-25.1	-32.9	-43.1	-58.8	-80.5	-115.3	-170.6	-258.7	-395.0	-608.5	-936.2	-1437.6	35.5	7.7
8-B	34320	10461	32.5	24.9	22.8	23.2	20.5	20.8	25.5	16.5	15.2	14.4	13.4	8.6	4.8	0.4	-6.4	-12.5	-19.4	-27.9	-36.2	-47.0	-63.6	-86.8	-123.9	-182.9	-276.7	-421.9	-649.4	-998.6	-1533.2	35.1	6.8

CALCULATIONS FOR ONE MODELING LOCATION OF SOUND LEVELS (Leq)
FROM WIND PARK OPERATIONS AT THE DESIGN WIND CONDITION

8-C	36645	11169	32.2	24.3	22.3	22.7	19.9	20.2	24.8	15.8	14.4	13.6	12.4	7.4	3.4	-1.3	-8.3	-14.7	-22.0	-30.9	-39.6	-51.1	-68.8	-93.6	-133.1	-196.0	-296.0	-450.7	-693.2	-1065.6	-1635.8	34.6	5.8
8-D	39127	11926	31.9	23.7	21.7	22.1	19.3	19.6	24.2	15.1	13.6	12.7	11.5	6.2	2.0	-3.0	-10.4	-17.1	-24.7	-34.0	-43.3	-55.5	-74.3	-100.8	-142.9	-209.9	-316.5	-481.5	-740.0	-1137.1	-1745.3	34.2	4.9
8-F	44300	13503	31.4	22.7	20.6	21.0	18.3	18.4	22.9	13.8	12.2	11.0	9.5	3.9	-0.8	-6.4	-14.5	-21.9	-30.2	-40.4	-50.8	-64.6	-85.6	-115.6	-163.2	-238.9	-359.2	-545.4	-837.5	-1285.9	-1973.5	33.4	3.0
8-G	46965	14315	31.2	22.2	20.1	20.5	17.8	17.8	22.3	13.2	11.5	10.2	8.5	2.7	-2.3	-8.2	-16.5	-24.3	-33.1	-43.7	-54.6	-69.2	-91.4	-123.3	-173.6	-253.8	-381.2	-578.4	-887.6	-1362.5	-2090.9	33.1	2.2
8-H	49776	15172	30.9	21.6	19.6	20.0	17.2	17.3	21.8	12.5	10.7	9.4	7.5	1.5	-3.7	-10.0	-18.7	-26.8	-36.0	-47.1	-58.6	-74.0	-97.5	-131.3	-184.6	-269.5	-404.3	-613.1	-940.5	-1443.3	-2214.8	32.7	1.4
9-A	31152	9495	32.9	25.7	23.7	24.1	21.3	21.7	26.4	17.5	16.2	15.6	14.8	10.2	6.7	2.7	-3.7	-9.3	-15.8	-23.8	-31.4	-41.3	-56.5	-77.5	-111.3	-164.9	-250.4	-382.5	-589.5	-907.3	-1393.3	35.7	8.2
9-B	33436	10191	32.6	25.1	23.1	23.5	20.7	21.1	25.7	16.8	15.4	14.7	13.8	9.0	5.3	1.0	-5.7	-11.6	-18.4	-26.8	-34.8	-45.4	-61.6	-84.2	-120.4	-177.9	-269.3	-410.9	-632.7	-973.2	-1494.2	35.2	7.1
9-C	35878	10936	32.3	24.5	22.4	22.8	20.1	20.4	25.0	16.1	14.6	13.8	12.8	7.8	3.9	-0.7	-7.7	-14.0	-21.1	-29.9	-38.5	-49.8	-67.1	-91.3	-130.1	-191.7	-289.6	-441.2	-678.8	-1043.5	-1602.0	34.8	6.1
9-D	38414	11708	32.0	23.9	21.8	22.2	19.5	19.8	24.4	15.3	13.9	12.9	11.7	6.6	2.4	-2.5	-9.8	-16.4	-23.9	-33.1	-42.2	-54.3	-72.7	-98.7	-140.1	-205.9	-310.6	-472.6	-726.6	-1116.5	-1713.9	34.3	5.1
9-E	41056	12514	31.7	23.3	21.3	21.7	18.9	19.1	23.7	14.6	13.1	12.1	10.7	5.3	0.9	-4.3	-11.9	-18.9	-26.8	-36.4	-46.1	-58.9	-78.5	-106.3	-150.5	-220.8	-332.4	-505.3	-776.4	-1192.6	-1830.4	33.9	4.2
9-F	43792	13348	31.5	22.8	20.7	21.1	18.4	18.5	23.1	13.9	12.3	11.2	9.7	4.1	-0.6	-6.1	-14.1	-21.4	-29.7	-39.8	-50.0	-63.7	-84.5	-114.2	-161.2	-236.1	-355.0	-539.2	-827.9	-1271.3	-1951.1	33.5	3.2
9-G	46593	14202	31.2	22.2	20.2	20.6	17.8	17.9	22.4	13.3	11.6	10.3	8.6	2.8	-2.1	-7.9	-16.2	-23.9	-32.7	-43.2	-54.1	-68.5	-90.6	-122.2	-172.2	-251.7	-378.1	-573.8	-880.6	-1351.8	-2074.6	33.1	2.3
9-H	49397	15056	30.9	21.7	19.7	20.1	17.3	17.4	21.8	12.6	10.8	9.5	7.7	1.6	-3.5	-9.7	-18.4	-26.5	-35.6	-46.6	-58.1	-73.4	-96.7	-130.2	-183.1	-267.4	-401.2	-608.4	-933.3	-1432.4	-2198.1	32.8	1.5
9-I	52318	15946	30.7	21.2	19.2	19.6	16.8	16.8	21.2	12.0	10.1	8.6	6.7	0.4	-5.1	-11.6	-20.6	-29.1	-38.6	-50.1	-62.2	-78.4	-103.0	-138.5	-194.5	-283.6	-425.2	-644.4	-988.2	-1516.3	-2326.8	32.4	0.6
10-A	30243	9218	33.1	26.0	23.9	24.3	21.6	22.0	26.7	17.8	16.6	16.0	15.2	10.7	7.3	3.4	-2.9	-8.4	-14.8	-22.6	-30.0	-39.6	-54.4	-74.8	-107.6	-159.8	-242.8	-371.2	-572.3	-881.1	-1353.2	35.9	8.6
10-B	32629	9945	32.7	25.3	23.3	23.7	20.9	21.3	26.0	17.0	15.7	15.0	14.1	9.4	5.8	1.6	-5.0	-10.8	-17.5	-25.7	-33.6	-44.0	-59.8	-81.9	-117.2	-173.3	-262.6	-400.9	-617.5	-949.9	-1458.6	35.4	7.5
10-C	35175	10721	32.4	24.7	22.6	23.0	20.3	20.6	25.2	16.3	14.9	14.1	13.1	8.1	4.3	-0.2	-7.1	-13.3	-20.3	-29.0	-37.4	-48.5	-65.5	-89.3	-127.3	-187.7	-283.8	-432.5	-665.5	-1023.3	-1571.0	34.9	6.4
10-D	37865	11541	32.1	24.0	22.0	22.4	19.6	19.9	24.5	15.5	14.0	13.1	12.0	6.8	2.7	-2.1	-9.3	-15.9	-23.3	-32.4	-41.4	-53.3	-71.5	-97.1	-137.9	-202.9	-306.1	-465.8	-716.2	-1100.7	-1689.7	34.4	5.3
10-E	40598	12374	31.8	23.4	21.4	21.8	19.0	19.2	23.8	14.8	13.2	12.2	10.9	5.5	1.2	-4.0	-11.5	-18.4	-26.3	-35.9	-45.4	-58.1	-77.5	-105.0	-148.7	-218.2	-328.7	-499.7	-767.8	-1179.4	-1810.2	34.0	4.3
10-F	43440	13241	31.5	22.8	20.8	21.2	18.4	18.6	23.1	14.0	12.4	11.3	9.8	4.2	-0.4	-5.9	-13.8	-21.1	-29.3	-39.4	-49.5	-63.1	-83.8	-113.2	-159.9	-234.1	-352.1	-534.8	-821.3	-1261.2	-1935.6	33.6	3.3
10-G	46297	14111	31.2	22.3	20.2	20.6	17.9	18.0	22.5	13.3	11.6	10.4	8.8	3.0	-1.9	-7.7	-16.0	-23.7	-32.3	-42.9	-53.6	-68.0	-90.0	-121.3	-171.0	-250.1	-375.7	-570.1	-875.0	-1343.3	-2061.5	33.2	2.4
10-H	49179	14990	30.9	21.8	19.7	20.1	17.4	17.4	21.9	12.7	10.9	9.5	7.7	1.7	-3.4	-9.6	-18.2	-26.3	-35.4	-46.4	-57.8	-73.0	-96.2	-129.6	-182.3	-266.2	-399.4	-605.7	-929.2	-1426.1	-2188.5	32.8	1.5
10-I	54331	16560	30.5	20.9	18.8	19.2	16.5	16.4	20.8	11.5	9.6	8.1	6.0	-0.4	-6.1	-12.8	-22.1	-30.8	-40.7	-52.5	-65.0	-81.8	-107.3	-144.2	-202.3	-294.8	-441.7	-669.2	-1026.0	-1574.2	-2415.5	32.2	0.1
11-A	29395	8960	33.2	26.2	24.2	24.6	21.8	22.3	27.0	18.1	16.9	16.3	15.6	11.1	7.8	4.0	-2.2	-7.6	-13.8	-21.5	-28.7	-38.1	-52.5	-72.3	-104.2	-155.0	-235.7	-360.6	-556.3	-856.6	-1315.7	36.1	9.0
11-B	31965	9743	32.8	25.5	23.4	23.8	21.1	21.5	26.2	17.3	15.9	15.3	14.4	9.8	6.2	2.1	-4.4	-10.1	-16.7	-24.9	-32.6	-42.8	-58.3	-79.9	-114.5	-169.6	-257.1	-392.6	-604.9	-930.8	-1429.2	35.5	7.8
11-C	34591	10543	32.5	24.8	22.8	23.2	20.4	20.8	25.4	16.4	15.1	14.3	13.3	8.4	4.6	0.2	-6.6	-12.7	-19.7	-28.3	-36.6	-47.5	-64.2	-87.6	-125.0	-184.4	-278.9	-425.2	-654.5	-1006.4	-1545.2	35.0	6.6
11-D	37348	11384	32.1	24.1	22.1	22.5	19.7	20.0	24.6	15.6	14.2	13.3	12.2	7.1	3.0	-1.7	-8.9	-15.4	-22.7	-31.8	-40.7	-52.4	-70.4	-95.6	-135.9	-199.9	-301.8	-459.4	-706.5	-1085.9	-1666.9	34.5	5.5
11-E	40183	12248	31.8	23.5	21.5	21.9	19.1	19.3	23.9	14.9	13.3	12.3	11.0	5.7	1.4	-3.7	-11.2	-18.0	-25.8	-35.3	-44.8	-57.4	-76.6	-103.8	-147.1	-215.9	-325.2	-494.5	-759.9	-1167.5	-1791.9	34.1	4.5
11-F	43038	13118	31.5	22.9	20.9	21.3	18.5	18.7	23.2	14.1	12.5	11.4	9.9	4.4	-0.2	-5.6	-13.5	-20.7	-28.9	-38.9	-49.0	-62.4	-82.9	-112.0	-158.3	-231.9	-348.8	-529.8	-813.7	-1249.6	-1917.8	33.6	3.5
11-G	45970	14012	31.2	22.3	20.3	20.7	17.9	18.0	22.6	13.4	11.7	10.5	8.9	3.1	-1.7	-7.5	-15.8	-23.4	-32.0	-42.5	-53.2	-67.5	-89.3	-120.4	-169.8	-248.3	-373.0	-566.1	-868.9	-1333.9	-2047.1	33.2	2.5
11-H	48929	14914	31.0	21.8	19.7	20.1	17.4	17.4	21.9	12.7	11.0	9.6	7.8	1.8	-3.3	-9.4	-18.0	-26.0	-35.1	-46.1	-57.4	-72.6	-95.7	-128.8	-181.3	-264.8	-397.3	-602.6	-924.5	-1419.0	-2177.5	32.8	1.6
11-K	58031	17688	30.2	20.3	18.3	18.7	15.9	15.8	20.2	10.8	8.8	7.1	4.8	-1.9	-7.9	-15.1	-24.8	-34.1	-44.5	-56.9	-70.2	-88.1	-115.2	-154.6	-216.6	-315.4	-472.0	-714.8	-1095.5	-1680.4	-2578.5	31.8	-0.9
11-L	61114	18628	30.0	19.9	17.8	18.2	15.5	15.3	19.6	10.2	8.1	6.3	3.8	-3.1	-9.4	-17.0	-27.1	-36.7	-47.6	-60.5	-74.5	-93.3	-121.8	-163.3	-228.5	-332.4	-497.3	-752.7	-1153.4	-1768.9	-2714.3	31.5	-1.6
12-A	28700	8748	33.3	26.4	24.4	24.8	22.0	22.5	27.2	18.4	17.1	16.6	15.9	11.5	8.3	4.5	-1.6	-6.9	-13.0	-20.6	-27.6	-36.8	-50.9	-70.3	-101.4	-151.0	-229.9	-352.0	-543.2	-836.6	-1285.0	36.3	9.3
12-B	31394	9569	32.9	25.7	23.6	24.0	21.3	21.7	26.3	17.4	16.1	15.5	14.7	10.1	6.6	2.5	-3.9	-9.6	-16.1	-24.1	-31.7	-41.7	-57.0	-78.2	-112.2	-166.3	-252.4	-385.5	-594.1	-914.3	-1404.0	35.7	8.0
12-C	34168	10414	32.5	24.9	22.9	23.3	20.5	20.9	25.5	16.6	15.2	14.4	13.5	8.6	4.9	0.5	-6.3	-12.3	-19.2	-27.7	-35.9	-46.7	-63.3	-86.4	-123.3	-182.0	-275.4	-420.0	-646.5	-994.3	-1526.5	35.1	6.8
12-D	37016	11283	32.2	24.2	22.2	22.6	19.8	20.1	24.7	15.7	14.3	13.4	12.3	7.2	3.2	-1.5	-8.6	-15.1	-22.4	-31.4	-40.2	-51.8	-69.6	-94.7	-134.6	-198.1	-299.0	-455.3	-700.2	-1076.3	-1652.2	34.6	5.7
12-E	39895	12160	31.9	23.6	21.5	21.9	19.2	19.4	24.0	14.9	13.4	12.4	11.1	5.9	1.6	-3.5	-11.0	-17.8	-25.5	-35.0	-44.4	-56.9	-76.0	-103.0	-145.9	-214.3	-322.9	-491.0	-754.5	-1159.2	-1779.2	34.1	4.6
12-F	42811	13049	31.6	23.0	20.9	21.3	18.6	18.7	23.3	14.2	12.6	11.5	10.0	4.5	0.0	-5.4	-13.3	-20.5	-28.7	-38.6	-48.6	-62.0	-82.4	-111.4	-157.4	-230.6	-346.9	-527.0	-809.4	-1243.1	-1907.8	33.7	3.5
12-G	45834	13970	31.3	22.4	20.3	20.7	18.0	18.1	22.6	13.4	11.8	10.5	8.9	3.2	-1.7	-7.4	-15.7	-23.3	-31.9	-42.3	-53.0	-67.2	-89.0	-120.0	-169.2	-247.5	-371.9	-564.4	-866.3	-1330.0	-2041.1	33.2	2.6
12-H	48797	14873	31.0	21.8	19.8	20.2	17.4	17.5	22.0	12.7	11.0	9.7	7.9	1.9	-3.2	-9.3	-17.9	-25.9	-35.0	-45.9	-57.2	-72.3	-95.4	-128.5	-180.8	-264.0	-396.2	-601.0	-922.0	-1415.2	-2171.7	32.8	1.6
12-I	51920	15825	30.7	21.3	19.2	19.6	16.9	16.9	21.3	12.1	10.2	8.8	6.8	0.6	-4.9	-11.3	-20.3	-28.7	-38.2	-49.7	-61.6	-77.7	-102.1	-137.3	-192.9	-281.4	-421.9	-639.5	-980.7	-1504.9	-2309.3	32.5	0.7
12-J	54987	16760	30.5	20.8	18.7	19.1	16.4	16.3	20.7	11.4	9.5	7.9	5.8	-0.7	-6.4	-13.2	-22.6	-31.4	-41.4	-53.3	-65.9	-82.9	-108.7	-146.0	-204.8	-298.5	-447.1	-677.3	-1038.4	-1593.0	-2444.4	32.1	-0.1
12-K	58065	17698	30.2	20.3	18.3	18.7	15.9	15.8	20.2	10.8	8.8	7.1	4.8	-1.9	-7.9	-15.1	-24.9	-34.1	-44.5	-57.0	-70.2	-88.1	-115.3	-154.7	-216.8	-315.5	-472.3	-715.2	-1096.2	-1681.4	-2580.0	31.8	-0.9
12-L	61148	18638	30.0	19.9	17.8	18.2	15.5	15.3	19.6	10.2	8.1	6.3	3.8	-3.1	-9.5	-17.0	-27.1	-36.8	-47.6	-60.6	-74.5	-93.3	-121.9	-163.4	-228.7	-332.6	-497.6	-753.1	-1154.0	-1769.9	-2715.7	31.5	-1.6
13-A	28123	8572	33.4	26.6	24.6	25.0	22.2	22.7	27.4	18.6	17.4	16.8	16.2	11.8	8.7	5.0	-1.1	-6.3	-12.3	-19.8	-26.7	-35.7	-49.6	-68.5	-99.1	-147.7	-225.1	-344.8	-532.2	-819.9	-1259.5	36.4	9.6
13-B	30961	9437	33.0	25.8	23.7	24.1	21.4	21.8	26.5	17.6	16.3	15.7	14.9	10.3	6.9	2.8	-3.5	-9.1	-15.6	-23.6	-31.1	-40.9	-56.1	-77.0	-110.5	-163.9	-248.8	-380.1	-585.9	-901.8	-1384.9	35.8	8.2
13-C	33805	10304	32.6	25.0	23.0	23.4	20.6	21.0	25.6	16.7	15.3	14.6	13.6	8.8	5.1	0.7	-6.0	-12.0	-18.8	-27.3	-35.4	-46.1	-62.5	-85.3	-121.8	-180.0	-272.4	-415.5	-639.6	-983.8	-1510.5	35.2	7.0
13-D	36755	11203	32.2	24.3	22.2	22.6	19.9	20.2	24.8	15.8	14.4	13.5	12.4	7.4	3.4	-1.3	-8.4	-14.8	-22.1	-31.0	-39.8	-51.3	-69.0	-93.9	-133.5	-196.6	-296.9	-452.1	-695.3	-1068.8	-1640.7	34.6	5.8
13-F	42723	13022	31.6	23.0	20.9	21.3	18.6	18.8	23.3	14.2	12.6	11.5	10.1	4.6	0.0	-5.4	-13.2	-20.4	-28.6	-38.5	-48.5	-61.8	-82.2	-111.1	-157.0	-230.1	-346.2	-526.0	-807.8	-1240.5	-1903.9	33.7	3.6
13-G	45759	13947	31.3	22.4	20.3	20.7	18.0	18.1	22.6	13.5	11.8	10.6	8.9	3.2	-1.6	-7.4	-15.6	-23.2	-31.8	-42.2	-52.9	-67.1	-88.8	-119.8	-168.9	-247.1	-371.2	-563.5	-864.9	-1327.8	-2037.8	33.2	2.6
13-H	48790	14871	31.0	21.8	19.8	20.2	17.4	17.5	22.0	12.7	11.0	9.7	7.9	1.9	-3.2	-9.3	-17.9	-25.9	-35.0	-45.9	-57.2	-72.3	-95.4	-128.5	-180.8	-264.0	-396.2	-600.9	-921.9	-1415.0	-2171.4	32.8	1.6
13-I	51941	15832	30.7	21.3	19.2	19.6	16.9	16.9	21.3	12.0	10.2	8.7	6.8	0.6	-4.9	-11.3	-20.3	-28.7	-38.2	-49.7	-61.7	-77.7	-102.2	-137.4	-193.0	-281.5	-422.1	-639.8	-981.1	-1505.5	-2310.2	32.5	0.7
13-J	55017	16769	30.5	20.8	18.7	19.1	16.4	16.3	20.7	11.4	9.5	7.9	5.8	-0.7	-6.4	-13.2	-22.6	-31.4	-41.4	-53.4	-66.0	-83.0	-108.8	-146.1	-205.0	-298.6	-447.3	-677.7	-1038.9	-1593.8	-2445.7	32.1	-0.1
13-K	58117	17714	30.2	20.3	18.3	18.7	15.9	15.8	20.1	10.8	8.8	7.1	4.7	-1.9	-8.0	-15.1	-24.9	-34.2	-44.6	-57.0	-70.3	-88.2	-115.4	-154.8	-217.0	-315.8	-472.8	-715.8	-1097.1	-1682.9	-2582.3	31.8	-0.9
13-L	61293	18682	30.0	19.8	17.8	18.2	15.4	15.2	19.6	10.1	8.1	6.2	3.7	-3.2	-9.5	-17.1	-27.2	-36.9	-47.8	-60.8	-74.7	-93.6	-122.2	-163.8	-229.2	-333.4	-498.8	-754.9	-1156.7	-1774.0	-2722.1	31.5	-1.7
14-D	36591	11153	32.2	24.3	22.3	22.7	19.9	20.2	24.8	15.9	14.4	13.6	12.5	7.4	3.5	-1.2	-8.3	-14.7	-21.9	-30.8	-39.5	-51.1	-68.7	-93.4	-132.9	-195.7	-295.5	-450.0	-692.2	-1064.1	-1633.5	34.7	5.8
14-E	39573	12062	31.9	23.6	21.6	22.0	19.2	19.5	24.1	15.0	13.5	12.5	11.3	6.0	1.8	-3.3	-10.7	-17.5	-25.2	-34.6	-43.9	-56.3	-75.3	-102.1	-144.7	-212.5	-320.2	-487.0	-748.4	-1149.9	-1765.0	34.1	4.7
14-F	42692	13013	31.6	23.0	20.9	21.3	18.6	18.8	23.3	14.2	12.6	11.5	10.1	4.6	0.0	-5.4	-13.2	-20.4	-28.5	-38.5	-48.5	-61.8	-82.1	-111.0	-156.9	-229.9	-346.0	-525.6	-807.2	-1239.6	-1902.6	33.7	3.6
14-G	45758	13947	31.3	22.4	20.3	20.7	18.0	18.1	22.6	13.5	11.8	10.6	8.9	3.2	-1.6	-7.4	-15.6	-23.2	-31.8	-42.2	-52.9	-67.1	-88.8	-119.8	-168.9	-247.1	-371.2	-563.5	-864.9	-1327.8	-2037.7	33.2	2.6
14-H	48859	14892	31.0	21.8	19.8	20.2	17.4	17.5	21.9	12.7	11.0	9.6	7.8	1.9	-3.3	-9.4	-18.0	-26.0	-35.0	-46.0	-57.3	-72.4	-95.5	-128.6	-181.0	-264.4	-396.7	-601.7	-923.2	-1417.0	-2174.4	32.8	1.6
14-J	55147	16809	30.5	20.8	18.7	19.1	16.4	16.3	20.7	11.4	9.4	7.9	5.7	-0.7	-6.5	-13.3	-22.7	-31.6	-41.5	-53.5	-66.2	-83.2	-109.1	-146.5	-205.5	-299.4	-448.4	-679.3	-1041.4	-1597.6	-2451.4	32.1	-0.1
14-K	58327	17778	30.2	20.3	18.2	18.6	15.9	15.7	20.1	10.7	8.7	7.0	4.7	-2.0	-8.1	-15.3	-25.1	-34.3	-44.8	-57.3	-70.6	-88.6	-115.9	-155.4	-217.8	-317.0	-474.5	-718.4	-1101.1	-1688.9	-2591.5	31.8	-0.9
14-L	61512	18749	30.0	19.8	17.8	18.2	15.4	15.2	19.5	10.1	8.0	6.2	3.7	-3.3	-9.6	-17.2	-27.4	-37.1	-48.0	-61.0	-75.0	-93.9	-122.6	-164.4	-230.1	-334.6	-500.6	-757.6	-1160.8	-1780.3	-2731.8	31.5	-1.7
15-F	42743	13028	31.6	23.0	20.9	21.3	18.6	18.7	23.3	14.2	12.6	11.5	10.1	4.6	0.0	-5.4	-13.2	-20.4	-28.6	-38.5	-48.5	-61.9	-82.2	-111.2	-157.1	-230.2	-346.4	-526.2	-808.1	-1241.1	-1904.8	33.7	3.6
15-G	45920	13996	31.2	22.3	20.3	20.7	17.9	18.1	22.6	13.4	11.7	10.5	8.9	3.1	-1.7	-7.5	-15.7	-23.3	-32.0	-42.4	-53.1	-67.4	-89.2	-120.3	-169.6	-248.0	-372.6	-565.5	-867.9	-1332.5	-2044.9	33.2	2.5
15-H	48991	14933	31.0	21.8	19.7	20.1	17.4	17.4	21.9	12.7	10.9	9.6	7.8	1.8	-3.3	-9.5	-18.1	-26.1	-35.2	-46.1	-57.5	-72.7	-95.8	-129.0	-181.5	-265.1	-397.8	-603.4	-925.7	-1420.7	-2180.3	32.8	1.6
15-I	52175	15903	30.7	21.2	19.2	19.6	16.8	16.8	21.3	12.0	10.1	8.7	6.7	0.5	-5.0	-11.5	-20.5	-28.9	-38.5	-50.0	-62.0	-78.1	-102.7	-138.1	-193.9	-282.8	-424.0	-642.6	-985.5	-1512.2	-2320.5	32.4	0.7
15-J	55338	16867	30.4	20.7	18.7	19.1	16.3	16.2	20.7	11.3	9.4	7.8	5.6	-0.8	-6.6	-13.4	-22.9	-31.7	-41.7	-53.7	-66.4	-83.5	-109.5	-147.0	-206.2	-300.4	-450.0	-681.6	-1044.9	-1603.1	-2459.9	32.1	-0.2
15-K	58538	17842	30.2	20.2	18.2	18.6	15.8	15.7	20.1	10.7	8.7	6.9	4.6	-2.1	-8.2	-15.4	-25.2	-34.5	-45.0	-57.5	-70.9	-88.9	-116.3	-156.0	-218.6	-318.2	-476.2	-721.0	-1105.0	-1694.9	-2600.8	31.7	-1.0
16-J	55617	16952	30.4	20.7	18.6	19.0	16.3	16.2	20.6	11.3	9.3	7.7	5.6	-0.9	-6.7	-13.6	-23.1	-32.0	-42.0	-54.1	-66.8	-84.0	-110.1	-147.8	-207.3	-302.0	-452.3	-685.1	-1050.2	-1611.1	-2472.2	32.0	-0.3
16-K	58838	17934	30.2	20.2	18.1	18.5	15.8	15.6	20.0	10.6	8.6	6.9	4.5	-2.2	-8.3	-15.6	-25.4	-34.8	-45.3	-57.9	-71.3	-89.4	-117.0	-156.9	-219.7	-319.8	-478.7	-724.7	-1110.7	-1703.6	-2614.0	31.7	-1.1
		Sum:	52.4	43.8	41.7	42.1	39.4	39.5	44.1	35.0	33.4	32.3	31.0	25.7	21.6	16.9	9.9	3.9	-2.9	-11.2	-18.9	-28.8	-43.7	-63.7	-95.5	-145.2	-223.5	-343.9	-531.9	-819.8	-1259.5	54.5	24.6

PREDICTED UNDERWATER IMPACT SOUND LEVELS (Lmax)
FROM PILE DRIVING AT WTG LOCATIONS (dBL)

																			Hertz											Broad
1/3 Octave Bands		**16**	**20**	**25**	**31**	**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**	**12000**	**Band**
Baseline above water Leq for 5-7 mph wind speed																															
Leq		77.6	72.6	73.7	65.4	64.7	65.0	68.2	68.3	66.9	73.3	66.6	70.6	73.2	74.1	76.1	74.8	74.0	73.5	74.2	74.5	75.4	76.0	75.8	77.2	77.6	77.8	78.3	77.9	77.1	76.8	89.5
Data for graph																															
Impact Pile Driving Data ODS Report 00.877 Figure 4																															
SEL at 320 meters		138.0	137.0	137.0	139.0	139.5	138.0	141.0	147.0	145.0	148.5	161.5	158.5	164.0	167.0	162.5	162.0	161.0	161.5	159.5	158.0	156.0	150.5	147.5	147.0	144.5	143.0	142.0	141.0	140.0	139.0	172.6
Adjust to instantaneous Lmax		147.1	146.1	146.1	148.1	148.6	147.1	150.1	156.1	154.1	157.6	170.6	167.6	173.1	176.1	171.6	171.1	170.1	170.6	168.6	167.1	165.1	159.6	156.6	156.1	153.6	152.1	151.1	150.1	149.1	148.1	181.7
Distance Adjustment		-3.9	-3.9	-3.9	-3.9	-3.9	-3.9	-3.9	-3.9	-3.9	-3.9	-3.9	-3.9	-3.9	-3.9	-3.9	-3.9	-3.9	-3.9	-3.9	-3.9	-3.9	-3.9	-3.9	-3.9	-3.9	-3.9	-3.9	-3.9	-3.9	-3.9	
Absorption		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.2	-0.3	
Adjusted spectrum to 500 m		143.2	142.2	142.2	144.2	144.7	143.2	146.2	152.2	150.2	153.7	166.7	163.7	169.2	172.2	167.7	167.2	166.2	166.7	164.7	163.2	161.2	155.7	152.7	152.2	149.7	148.2	147.1	146.1	145.0	143.9	177.8
Absorption per 1 km		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.2	-0.2	-0.3	-0.4	-0.5	-0.8	-1.2	-1.6	
Data for contour plot - Baseline + Project pile driving sound																															
Distance (m)	Distance (ft)																														
690.0	2263.8	140.4	139.4	139.4	141.4	141.9	140.4	143.4	149.4	147.4	150.9	163.9	160.9	166.4	169.4	164.9	164.4	163.4	163.9	161.9	160.4	158.4	152.9	149.9	149.4	146.8	145.3	144.2	143.1	142.0	140.8	175.0
750.0	2460.6	139.7	138.7	138.7	140.7	141.2	139.7	142.7	148.7	146.7	150.2	163.2	160.2	165.7	168.7	164.2	163.7	162.7	163.2	161.2	159.7	157.7	152.1	149.1	148.6	146.1	144.5	143.5	142.4	141.2	140.0	174.3
1000.0	3280.8	137.2	136.2	136.2	138.2	138.7	137.2	140.2	146.2	144.2	147.7	160.7	157.7	163.2	166.2	161.7	161.2	160.2	160.7	158.7	157.1	155.1	149.6	146.6	146.1	143.5	142.0	140.8	139.7	138.4	137.1	171.8
1220.0	**4002.6**	**135.5**	**134.5**	**134.5**	**136.5**	**137.0**	**135.5**	**138.5**	**144.5**	**142.5**	**146.0**	**159.0**	**156.0**	**161.5**	**164.5**	**160.0**	**159.5**	**158.4**	**158.9**	**156.9**	**155.4**	**153.4**	**147.9**	**144.8**	**144.3**	**141.7**	**140.1**	**139.0**	**137.8**	**136.4**	**135.0**	**170.0**
1250.0	4101.0	135.3	134.3	134.3	136.3	136.8	135.3	138.3	144.3	142.3	145.8	158.8	155.8	161.3	164.3	159.7	159.2	158.2	158.7	156.7	155.2	153.2	147.6	144.6	144.1	141.5	139.9	138.8	137.5	136.2	134.8	169.8
1500.0	4921.2	133.7	132.7	132.7	134.7	135.2	133.7	136.7	142.7	140.7	144.2	157.2	154.2	159.7	162.7	158.2	157.7	156.6	157.1	155.1	153.6	151.6	146.0	143.0	142.4	139.9	138.2	137.1	135.8	134.3	132.8	168.2
1750.0	5741.4	132.3	131.3	131.3	133.3	133.8	132.3	135.3	141.3	139.3	142.8	155.8	152.8	158.3	161.3	156.8	156.3	155.3	155.8	153.7	152.2	150.2	144.7	141.6	141.0	138.5	136.8	135.6	134.2	132.7	131.1	166.9
2000.0	6561.6	131.2	130.2	130.2	132.2	132.7	131.2	134.2	140.2	138.2	141.7	154.7	151.7	157.2	160.2	155.7	155.1	154.1	154.6	152.6	151.0	149.0	143.5	140.4	139.8	137.2	135.6	134.3	132.9	131.3	129.5	165.7
2175.0	**7135.7**	**130.5**	**129.5**	**129.5**	**131.5**	**132.0**	**130.5**	**133.5**	**139.5**	**137.5**	**141.0**	**153.9**	**150.9**	**156.4**	**159.4**	**154.9**	**154.4**	**153.4**	**153.9**	**151.8**	**150.3**	**148.3**	**142.7**	**139.7**	**139.1**	**136.4**	**134.8**	**133.5**	**132.0**	**130.3**	**128.5**	**165.0**
2250.0	7381.8	130.2	129.2	129.2	131.2	131.7	130.2	133.2	139.2	137.2	140.7	153.7	150.7	156.1	159.1	154.6	154.1	153.1	153.6	151.5	150.0	148.0	142.4	139.3	138.8	136.1	134.4	133.1	131.7	129.9	128.1	164.7
2500.0	8202.0	129.2	128.2	128.2	130.2	130.7	129.2	132.2	138.2	136.2	139.7	152.7	149.7	155.2	158.2	153.7	153.2	152.2	152.6	150.6	149.1	147.0	141.5	138.4	137.8	135.1	133.4	132.1	130.5	128.7	126.8	163.8
2750.0	9022.2	128.4	127.4	127.4	129.4	129.9	128.4	131.4	137.4	135.4	138.9	151.9	148.9	154.4	157.4	152.9	152.4	151.3	151.8	149.8	148.2	146.2	140.6	137.5	136.9	134.3	132.5	131.1	129.5	127.6	125.5	162.9
3000.0	9842.4	127.7	126.7	126.7	128.7	129.2	127.7	130.7	136.7	134.7	138.2	151.2	148.1	153.6	156.6	152.1	151.6	150.6	151.0	149.0	147.4	145.4	139.8	136.7	136.1	133.4	131.7	130.3	128.6	126.6	124.4	162.2
3250.0	10662.6	127.0	126.0	126.0	128.0	128.5	127.0	130.0	136.0	134.0	137.5	150.5	147.5	152.9	155.9	151.4	150.9	149.9	150.3	148.3	146.7	144.7	139.1	136.0	135.4	132.7	130.9	129.4	127.7	125.6	123.3	161.5
3500.0	11482.8	126.3	125.3	125.3	127.3	127.8	126.3	129.3	135.3	133.3	136.8	149.8	146.8	152.3	155.3	150.8	150.2	149.2	149.7	147.6	146.1	144.0	138.4	135.3	134.7	132.0	130.1	128.6	126.8	124.7	122.3	160.8
3750.0	12303.0	125.7	124.7	124.7	126.7	127.2	125.7	128.7	134.7	132.7	136.2	149.2	146.2	151.7	154.7	150.2	149.6	148.6	149.1	147.0	145.4	143.4	137.8	134.7	134.0	131.3	129.5	127.9	126.0	123.8	121.3	160.2
3850.0	**12631.1**	**125.5**	**124.5**	**124.5**	**126.5**	**127.0**	**125.5**	**128.5**	**134.5**	**132.5**	**136.0**	**149.0**	**146.0**	**151.5**	**154.5**	**149.9**	**149.4**	**148.4**	**148.8**	**146.8**	**145.2**	**143.1**	**137.5**	**134.4**	**133.8**	**131.0**	**129.2**	**127.6**	**125.7**	**123.4**	**120.9**	**160.0**
4000.0	13123.2	125.2	124.2	124.2	126.2	126.7	125.2	128.2	134.2	132.2	135.7	148.7	145.6	151.1	154.1	149.6	149.1	148.0	148.5	146.4	144.9	142.8	137.2	134.1	133.4	130.7	128.8	127.2	125.3	122.9	120.3	159.6
4250.0	13943.4	124.6	123.6	123.6	125.6	126.1	124.6	127.6	133.6	131.6	135.1	148.1	145.1	150.6	153.6	149.1	148.5	147.5	147.9	145.9	144.3	142.2	136.6	133.5	132.8	130.1	128.2	126.6	124.6	122.1	119.4	159.1
4500.0	14763.6	124.1	123.1	123.1	125.1	125.6	124.1	127.1	133.1	131.1	134.6	147.6	144.6	150.1	153.1	148.6	148.0	147.0	147.4	145.4	143.8	141.7	136.1	133.0	132.3	129.5	127.6	125.9	123.9	121.3	118.5	158.6
4750.0	15583.8	123.7	122.7	122.7	124.7	125.2	123.7	126.7	132.7	130.7	134.2	147.2	144.1	149.6	152.6	148.1	147.6	146.5	146.9	144.9	143.3	141.2	135.6	132.5	131.8	129.0	127.0	125.3	123.2	120.6	117.6	158.1
5000.0	16404.0	123.2	122.2	122.2	124.2	124.7	123.2	126.2	132.2	130.2	133.7	146.7	143.7	149.2	152.2	147.6	147.1	146.1	146.5	144.4	142.8	140.7	135.1	132.0	131.3	128.4	126.5	124.8	122.6	119.8	116.8	157.7
6000.0	19684.8	121.6	120.6	120.6	122.6	123.1	121.6	124.6	130.6	128.6	132.1	145.1	142.1	147.6	150.6	146.0	145.5	144.4	144.9	142.8	141.2	139.0	133.4	130.2	129.5	126.6	124.5	122.7	120.2	117.1	113.6	156.1
6800.0	**22309.4**	**120.6**	**119.6**	**119.6**	**121.6**	**122.1**	**120.6**	**123.5**	**129.5**	**127.5**	**131.0**	**144.0**	**141.0**	**146.5**	**149.5**	**144.9**	**144.4**	**143.3**	**143.7**	**141.6**	**140.0**	**137.9**	**132.2**	**129.0**	**128.2**	**125.3**	**123.2**	**121.1**	**118.5**	**115.1**	**111.2**	**155.0**
7000.0	22965.6	120.3	119.3	119.3	121.3	121.8	120.3	123.3	129.3	127.3	130.8	143.8	140.8	146.3	149.2	144.7	144.1	143.1	143.5	141.4	139.7	137.6	131.9	128.7	127.9	125.0	122.8	120.8	118.1	114.6	110.7	154.7
8000.0	26246.4	119.1	118.1	118.1	120.1	120.6	119.1	122.1	128.1	126.1	129.6	142.6	139.6	145.1	148.1	143.5	143.0	141.9	142.3	140.1	138.5	136.3	130.6	127.4	126.6	123.5	121.3	119.1	116.1	112.3	107.9	153.5
9000.0	29527.2	118.1	117.1	117.1	119.1	119.6	118.1	121.1	127.1	125.1	128.6	141.6	138.6	144.1	147.0	142.5	141.9	140.8	141.2	139.1	137.4	135.2	129.5	126.2	125.3	122.2	119.9	117.6	114.3	110.1	105.3	152.5
10000.0	32808.0	117.2	116.2	116.2	118.2	118.7	117.2	120.2	126.2	124.2	127.7	140.7	137.7	143.1	146.1	141.5	141.0	139.9	140.2	138.1	136.4	134.2	128.4	125.1	124.2	121.1	118.6	116.1	112.6	108.1	102.8	151.5
11900.0	**39041.5**	**115.7**	**114.7**	**114.7**	**116.7**	**117.2**	**115.7**	**118.7**	**124.7**	**122.7**	**126.2**	**139.2**	**136.1**	**141.6**	**144.6**	**140.0**	**139.4**	**138.3**	**138.6**	**136.4**	**134.7**	**132.5**	**126.7**	**123.3**	**122.3**	**119.0**	**116.4**	**113.6**	**109.7**	**104.4**	**98.2**	**150.0**
20000.0	65616.0	111.2	110.2	110.2	112.2	112.7	111.2	114.2	120.2	118.2	121.6	134.6	131.6	137.0	140.0	135.4	134.7	133.5	133.7	131.4	129.5	127.1	121.1	117.5	116.1	112.3	108.9	104.8	98.8	90.6	81.0	145.3
20700.0	**67912.6**	**110.9**	**109.9**	**109.9**	**111.9**	**112.4**	**110.9**	**113.9**	**119.9**	**117.9**	**121.3**	**134.3**	**131.3**	**136.7**	**139.7**	**135.0**	**134.4**	**133.2**	**133.4**	**131.1**	**129.2**	**126.7**	**120.7**	**117.1**	**115.7**	**111.8**	**108.3**	**104.2**	**98.0**	**89.5**	**79.7**	**145.0**
35400.0	**116140.3**	**106.3**	**105.2**	**105.3**	**107.2**	**107.7**	**106.2**	**109.2**	**115.2**	**113.2**	**116.7**	**129.6**	**126.6**	**132.0**	**134.8**	**130.1**	**129.4**	**128.0**	**128.0**	**125.4**	**123.3**	**120.5**	**114.2**	**110.1**	**108.0**	**103.1**	**98.2**	**91.8**	**82.0**	**70.9**	**67.6**	**140.0**

PREDICTED UNDERWATER MAXIMUM CONTINUOUS SOUND LEVELS (Leq)
FROM WIND PARK OPERATION AT THE DESIGN WIND CONDITION (dBL)

																		Hertz												Broad
1/3 Octave Bands		**16**	**20**	**25**	**31**	**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**	**12000**	**Band**
Baseline underwater Leq for 28-30 mph wind speed (design condition)																															
Leq		100.4	97.5	98.2	96.9	95.6	92.4	93.6	92.6	92.8	91.8	91.0	89.8	89.8	90.3	89.7	88.9	88.4	87.8	86.5	85.6	85.5	85.9	86.0	86.2	85.8	85.2	84.6	82.8	82.3	81.9	107.2
Preliminary underwater data from GE Wind Energy for operation of one WTG at Utgrunden																															
Lp at 100 m adj for 3.6 MW		68.8	74.3	83.3	85.8	79.3	83.3	81.8	75.3	69.3	66.3	65.3	73.3	67.8	67.3	64.3	63.8	63.3	62.8	62.3	61.8	61.3	60.8	60.3	59.8	59.3	58.8	58.3	57.8	57.3	56.8	90.7
Absorption per 1 km		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.2	-0.2	-0.3	-0.4	-0.5	-0.8	-1.2	-1.6	
Baseline for design wind speed + Project operational sound																															
Distance (m)	Distance (ft)																														
25	**81**	**100.5**	**97.8**	**100.0**	**100.5**	**97.0**	**97.2**	**96.8**	**93.8**	**93.1**	**92.0**	**91.2**	**91.2**	**90.2**	**90.6**	**89.9**	**89.1**	**88.6**	**88.0**	**86.8**	**85.9**	**85.7**	**86.1**	**86.2**	**86.3**	**85.9**	**85.4**	**84.7**	**83.0**	**82.5**	**82.1**	**108.5**
30	98	100.5	97.7	99.5	99.6	96.6	96.1	96.0	93.4	93.0	91.9	91.1	90.8	90.1	90.5	89.8	89.1	88.6	87.9	86.7	85.8	85.6	86.1	86.1	86.3	85.9	85.3	84.7	82.9	82.4	82.1	108.1
35	115	100.5	97.6	99.2	99.0	96.4	95.4	95.5	93.2	92.9	91.9	91.1	90.6	90.0	90.4	89.8	89.0	88.5	87.9	86.7	85.8	85.6	86.0	86.1	86.3	85.8	85.3	84.6	82.9	82.4	82.0	107.9
40	131	100.5	97.6	99.0	98.6	96.2	94.9	95.1	93.1	92.9	91.9	91.0	90.4	89.9	90.4	89.7	89.0	88.5	87.9	86.6	85.8	85.6	86.0	86.1	86.2	85.8	85.3	84.6	82.9	82.4	82.0	107.7
45	**148**	**100.5**	**97.6**	**98.8**	**98.3**	**96.1**	**94.5**	**94.9**	**93.0**	**92.9**	**91.9**	**91.0**	**90.3**	**89.9**	**90.4**	**89.7**	**89.0**	**88.5**	**87.9**	**86.6**	**85.7**	**85.5**	**86.0**	**86.1**	**86.2**	**85.8**	**85.3**	**84.6**	**82.8**	**82.3**	**82.0**	**107.6**
50	164	100.5	97.5	98.7	98.1	96.0	94.1	94.7	92.9	92.8	91.8	91.0	90.2	89.9	90.3	89.7	89.0	88.5	87.8	86.6	85.7	85.5	86.0	86.1	86.2	85.8	85.3	84.6	82.8	82.3	82.0	107.5
55	180	100.4	97.5	98.6	97.9	95.9	93.9	94.5	92.9	92.8	91.8	91.0	90.1	89.9	90.3	89.7	89.0	88.5	87.8	86.6	85.7	85.5	86.0	86.0	86.2	85.8	85.3	84.6	82.8	82.3	82.0	107.5
60	197	100.4	97.5	98.5	97.8	95.9	93.7	94.4	92.8	92.8	91.8	91.0	90.1	89.9	90.3	89.7	89.0	88.5	87.8	86.6	85.7	85.5	86.0	86.0	86.2	85.8	85.3	84.6	82.8	82.3	82.0	107.4
65	213	100.4	97.5	98.5	97.6	95.8	93.5	94.3	92.8	92.8	91.8	91.0	90.1	89.8	90.3	89.7	89.0	88.5	87.8	86.6	85.7	85.5	86.0	86.0	86.2	85.8	85.3	84.6	82.8	82.3	82.0	107.4
70	230	100.4	97.5	98.4	97.5	95.8	93.4	94.2	92.8	92.8	91.8	91.0	90.0	89.8	90.3	89.7	89.0	88.5	87.8	86.6	85.7	85.5	85.9	86.0	86.2	85.8	85.3	84.6	82.8	82.3	82.0	107.4
75	246	100.4	97.5	98.4	97.5	95.8	93.3	94.1	92.8	92.8	91.8	91.0	90.0	89.8	90.3	89.7	89.0	88.5	87.8	86.6	85.7	85.5	85.9	86.0	86.2	85.8	85.3	84.6	82.8	82.3	82.0	107.3
80	262	100.4	97.5	98.4	97.4	95.8	93.2	94.1	92.7	92.8	91.8	91.0	90.0	89.8	90.3	89.7	89.0	88.5	87.8	86.6	85.7	85.5	85.9	86.0	86.2	85.8	85.3	84.6	82.8	82.3	82.0	107.3
85	279	100.4	97.5	98.4	97.4	95.7	93.1	94.0	92.7	92.8	91.8	91.0	90.0	89.8	90.3	89.7	88.9	88.4	87.8	86.6	85.7	85.5	85.9	86.0	86.2	85.8	85.3	84.6	82.8	82.3	81.9	107.3
90	295	100.4	97.5	98.3	97.3	95.7	93.0	94.0	92.7	92.8	91.8	91.0	89.9	89.8	90.3	89.7	88.9	88.4	87.8	86.6	85.7	85.5	85.9	86.0	86.2	85.8	85.3	84.6	82.8	82.3	81.9	107.3
95	312	100.4	97.5	98.3	97.3	95.7	93.0	93.9	92.7	92.8	91.8	91.0	89.9	89.8	90.3	89.7	88.9	88.4	87.8	86.5	85.7	85.5	85.9	86.0	86.2	85.8	85.3	84.6	82.8	82.3	81.9	107.3
100	328	100.4	97.5	98.3	97.2	95.7	92.9	93.9	92.7	92.8	91.8	91.0	89.9	89.8	90.3	89.7	88.9	88.4	87.8	86.5	85.7	85.5	85.9	86.0	86.2	85.8	85.2	84.6	82.8	82.3	81.9	107.3
110	**361**	**100.4**	**97.5**	**98.3**	**97.2**	**95.7**	**92.8**	**93.9**	**92.7**	**92.8**	**91.8**	**91.0**	**89.9**	**89.8**	**90.3**	**89.7**	**88.9**	**88.4**	**87.8**	**86.5**	**85.7**	**85.5**	**85.9**	**86.0**	**86.2**	**85.8**	**85.2**	**84.6**	**82.8**	**82.3**	**81.9**	**107.3**
120	394	100.4	97.5	98.3	97.1	95.7	92.8	93.8	92.7	92.8	91.8	91.0	89.9	89.8	90.3	89.7	88.9	88.4	87.8	86.5	85.7	85.5	85.9	86.0	86.2	85.8	85.2	84.6	82.8	82.3	81.9	107.2
130	427	100.4	97.5	98.2	97.1	95.7	92.7	93.8	92.7	92.8	91.8	91.0	89.9	89.8	90.3	89.7	88.9	88.4	87.8	86.5	85.7	85.5	85.9	86.0	86.2	85.8	85.2	84.6	82.8	82.3	81.9	107.2
140	459	100.4	97.5	98.2	97.1	95.7	92.7	93.8	92.7	92.8	91.8	91.0	89.9	89.8	90.3	89.7	88.9	88.4	87.8	86.5	85.6	85.5	85.9	86.0	86.2	85.8	85.2	84.6	82.8	82.3	81.9	107.2
150	492	100.4	97.5	98.2	97.1	95.7	92.6	93.8	92.7	92.8	91.8	91.0	89.9	89.8	90.3	89.7	88.9	88.4	87.8	86.5	85.6	85.5	85.9	86.0	86.2	85.8	85.2	84.6	82.8	82.3	81.9	107.2
160	525	100.4	97.5	98.2	97.0	95.6	92.6	93.7	92.7	92.8	91.8	91.0	89.9	89.8	90.3	89.7	88.9	88.4	87.8	86.5	85.6	85.5	85.9	86.0	86.2	85.8	85.2	84.6	82.8	82.3	81.9	107.2
170	558	100.4	97.5	98.2	97.0	95.6	92.6	93.7	92.6	92.8	91.8	91.0	89.9	89.8	90.3	89.7	88.9	88.4	87.8	86.5	85.6	85.5	85.9	86.0	86.2	85.8	85.2	84.6	82.8	82.3	81.9	107.2
180	591	100.4	97.5	98.2	97.0	95.6	92.6	93.7	92.6	92.8	91.8	91.0	89.9	89.8	90.3	89.7	88.9	88.4	87.8	86.5	85.6	85.5	85.9	86.0	86.2	85.8	85.2	84.6	82.8	82.3	81.9	107.2
190	623	100.4	97.5	98.2	97.0	95.6	92.6	93.7	92.6	92.8	91.8	91.0	89.9	89.8	90.3	89.7	88.9	88.4	87.8	86.5	85.6	85.5	85.9	86.0	86.2	85.8	85.2	84.6	82.8	82.3	81.9	107.2
200	656	100.4	97.5	98.2	97.0	95.6	92.5	93.7	92.6	92.8	91.8	91.0	89.9	89.8	90.3	89.7	88.9	88.4	87.8	86.5	85.6	85.5	85.9	86.0	86.2	85.8	85.2	84.6	82.8	82.3	81.9	107.2
210	689	100.4	97.5	98.2	97.0	95.6	92.5	93.7	92.6	92.8	91.8	91.0	89.9	89.8	90.3	89.7	88.9	88.4	87.8	86.5	85.6	85.5	85.9	86.0	86.2	85.8	85.2	84.6	82.8	82.3	81.9	107.2
220	722	100.4	97.5	98.2	97.0	95.6	92.5	93.7	92.6	92.8	91.8	91.0	89.8	89.8	90.3	89.7	88.9	88.4	87.8	86.5	85.6	85.5	85.9	86.0	86.2	85.8	85.2	84.6	82.8	82.3	81.9	107.2
230	**755**	**100.4**	**97.5**	**98.2**	**97.0**	**95.6**	**92.5**	**93.7**	**92.6**	**92.8**	**91.8**	**91.0**	**89.8**	**89.8**	**90.3**	**89.7**	**88.9**	**88.4**	**87.8**	**86.5**	**85.6**	**85.5**	**85.9**	**86.0**	**86.2**	**85.8**	**85.2**	**84.6**	**82.8**	**82.3**	**81.9**	**107.2**