

**Niagara Region Wind Farm
Noise Assessment Report**

File No. 160950269



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July 25, 2013

Version Control

Noise Assessment Report – Niagara Region Wind Farm (230 MW), Ontario

VERSION	DATE	DESCRIPTION	PREPARED BY
1	November 2012	Noise Assessment report of NRWC 230 MW Wind energy project with substation transformers – prepared for Municipal submission	Stantec
2	December 2012	Updated Noise Assessment report of NRWC 230 MW Wind energy project with substation transformers – prepared for Public Release including comments from municipality	Stantec
3	April 2013	Prepared for Final submission to the MOE	Stantec
4	July 2013	Prepared for Final submission to the MOE – Appendix F with additional information added	Stantec

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Executive Summary

Stantec Consulting Ltd. has been retained by Niagara Region Wind Corporation to prepare a Noise Assessment Report for a proposed 230 MW wind energy generation facility known as the Niagara Region Wind Farm (the Project). The Project will be located within the Townships of West Lincoln and Wainfleet and the Town of Lincoln within the Niagara Region and within Haldimand County in Southern Ontario, in response to the Government of Ontario's initiative to promote the development of renewable energy in the province. This Noise Assessment report has been prepared in support of an application for a Renewable Energy Approval (REA) in accordance with Ontario Regulation 359/09.

This Noise Assessment Report was prepared in accordance with the requirements of the Ontario Ministry of the Environment guideline "*Noise Guidelines for Wind Farms*" (PIBs 4709e, October 2008).

The Project layout, the main noise sources and sound power levels were determined based on the information provided by planners and equipment manufacturers. The source sound power levels were used as inputs to a prediction model based on the ISO 9613 standard. The noise assessment considers operation under predictable worst-case operating conditions to quantify the noise emissions from the Project. The resulting noise levels at the sensitive points of reception were assessed for compliance against assessment criteria that were established following the guidelines provided in MOE publications *NPC-232* and PIBs 4709e.

The assessment considers the effects of two substation transformers, and 80 potential wind turbine generators (WTG) of which only 77 turbines would ultimately be constructed. Furthermore, this assessment considers two WTG hub height scenarios; the first scenario considers 9 WTGs with 135 metre hub height and the rest with 124 metre hub height while the second scenario includes all WTGs with 135 metre hub height. The assessment indicated that the noise contribution from the proposed project during the predictable worst case operation would meet the MOE noise criteria with the requirement for additional noise control for the substation transformers.

1.0 Introduction

Stantec Consulting Ltd. (Stantec) was retained by the Niagara Region Wind Corporation (NRWC) to conduct a noise assessment for its proposed Niagara Region Wind Farm (the Project) with a rated generation capacity of 230 Megawatts (MW). NRWC is proposing to develop, construct, and operate the Project within the Townships of West Lincoln and Wainfleet and the Town of Lincoln within the Niagara Region and Haldimand County in Southern Ontario, in response to the Government of Ontario's initiative to promote the development of renewable energy in the province. This noise assessment considers the effects of the two proposed transformer substations and 80 potential wind turbine generators (WTG) of which only 77 turbines would ultimately be constructed. This report has been prepared as a supporting document for NRWC's application under the Renewable Energy Approval (REA) process.

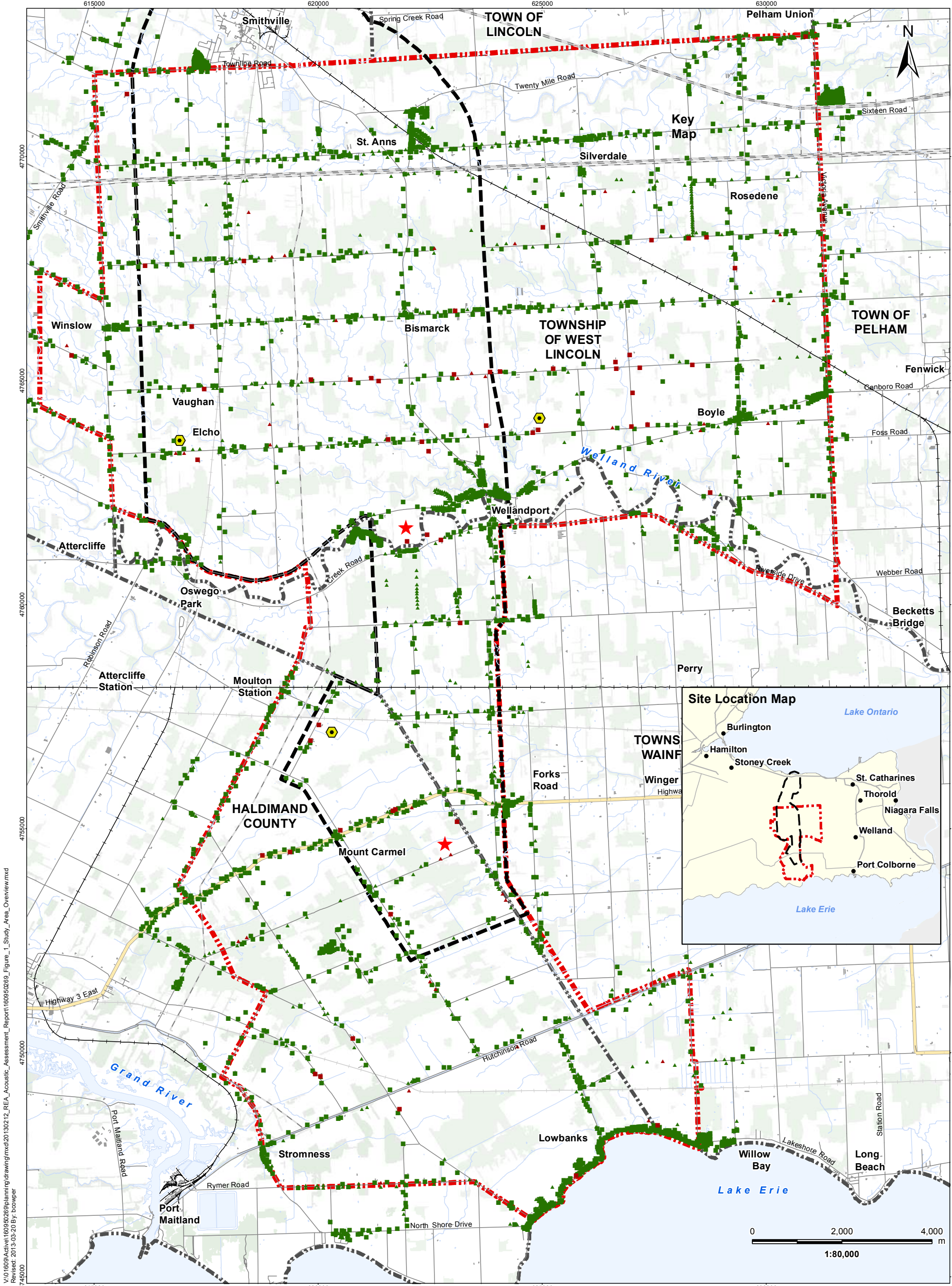
The Project study area covers approximately 27,727 ha. An area map showing the study area and sensitive Points of Reception (PORs) is provided in Figure 1.1. A zoning map of the area surrounding the Project is provided in **Appendix A**. The area's acoustical environment is best described as Class 3 (Rural) in accordance with the MOE publications NPC-232 and "*Noise Guidelines for Wind Farms*" (PIBs 4709e, October 2008).

This noise assessment considers the sound levels at 2667 receptors located within approximately 1.5 km of the Project wind turbines. The receptors include all non-participating existing and vacant lot receptors as well as participating receptors as discussed further in Section 4.0.

1.1 BACKGROUND

The Ontario Regulation 359/09 (O.Reg. 359/09) made under *Environmental Protection Act*, Renewable Energy Approvals (REA) under Part V.0.1 of the Act, provides current approval requirements for renewable energy projects. The noise assessment of wind farms was previously assessed using O.Reg. 116/01 and are now assessed under O.Reg. 359/09.

According to the project classification guidelines provided under Section 2(6) of O.Reg. 359/09, the Project is classified as a Class 4 wind facility, where: no part of a wind turbine will be located in direct contact with surface water other than in a wetland; the facility has a name plate capacity greater than 50 kW; and, the greatest sound power level is greater than or equal to 102 dBA. Section 54 of O.Reg. 359/09 requires that noise studies be conducted for Class 4 wind facilities in accordance with PIBs 4709e and subsequent amendments. This assessment has been completed in accordance with the above noted requirements.



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Legend

- Project Study Area
- Interconnector Study Area
- Transformer Substation
- Tap-in Location
- Existing Met Tower
- Road
- Expressway / Highway
- Active Railway
- Abandoned Railway
- Existing Structures
- Existing Transmission Line
- Watercourse
- Waterbody
- Wooded Area
- Municipality Lower Tier

Participating Noise Receptors

- Occupied
- Vacant

Non-participating Noise Receptors

- Occupied
- Vacant

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Figure No.
1.1

Title

Study Area Overview

Notes

- Coordinate System: NAD 1983 UTM Zone 17N
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2.0 Project Description

2.1 PROJECT LOCATION

NRWC is proposing to develop, construct, and operate the 230 MW Niagara Region Wind Farm (the Project) within the Townships of West Lincoln and Wainfleet and the Town of Lincoln within the Niagara Region and Haldimand County in Southern Ontario. The Project Study Area is centred in the Townships of West Lincoln and Wainfleet as shown in Figure 1.1.

The predominant land-use in the Project Study Area is generally agricultural. The proposed wind turbine locations and PORs considered as part of the study are provided in **Appendix B** and Figure 2.1

2.2 PROJECT DETAILS

The basic components of the Project include 77 wind turbine generators (80 potential locations identified) each with a rated generation capacity ranging from approximately 2.3 MW to 3.0 MW, for a maximum installed nameplate capacity of 230 MW. An overhead and/or underground collection system connects each turbine to one of two transformer substations via a series of 34.5 kilovolt (kV) collection lines. Turbines are grouped into nine (9) collector circuits that bring power (and data via fibre optic lines) to one of the transformer substations. Voltage is stepped up from 34.5kV to 115kV at each transformer substation by means of a 100 MVA base-rated transformer with two stages of cooling ((i.e. 100/133/166 ONAN/ONAF/ONAF MVA via fans). A 115kV transmission line transports power from each of the two transformer substations north to the grid tap-in location, where the Project is connected to the Hydro One Networks Inc. (HONI) owned transmission line, south of the Queen Elizabeth Way (QEW) in the Town of Lincoln. Power generated from this Project will be conveyed along the existing HONI transmission line to the Beach Transformer Station in Hamilton.

2.3 PROJECT WIND TURBINE GENERATORS

The Project will include 77 ENERCON wind turbine generators (80 potential locations identified) each with a rated capacity ranging from approximately 2.3 MW to 3.0 MW with a maximum installed nameplate capacity of 230 MW.

The selected wind turbine models for the Project are the ENERCON E101 and ENERCON E82 to achieve the contract capacity of 230 MW (maximum capacity not to exceed 230 MW). Specifications of the E101 and E82 turbines are summarized below in Table 2.1.

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Table 2.1 Basic Wind Turbine Specifications

Manufacturer	ENERCON	ENERCON
Model	E-101	E-82
Name plate capacity (MW)	3.0 MW	2.3 MW
Hub height above grade	124 m or 135 m	135 m
Blade length	48.6m	38.8m
Rotor diameter	101 m	82 m
Blade sweep area	8,012 m ²	5,281 m ²
Rotational Speed	Variable, 4 – 14.5 rpm	6 – 18 rpm
Noise Emission Power Level ¹	104.8 dBA (referenced to 10 ⁻¹² Watts)	103.3 dBA (referenced to 10 ⁻¹² Watts)
Output Electrical Frequency	50 Hz or 60 Hz	50 Hz or 60 Hz

¹ test data from an independent consultant for the Enercon E82 and E101 models are provided in Appendix D for operating windspeed.

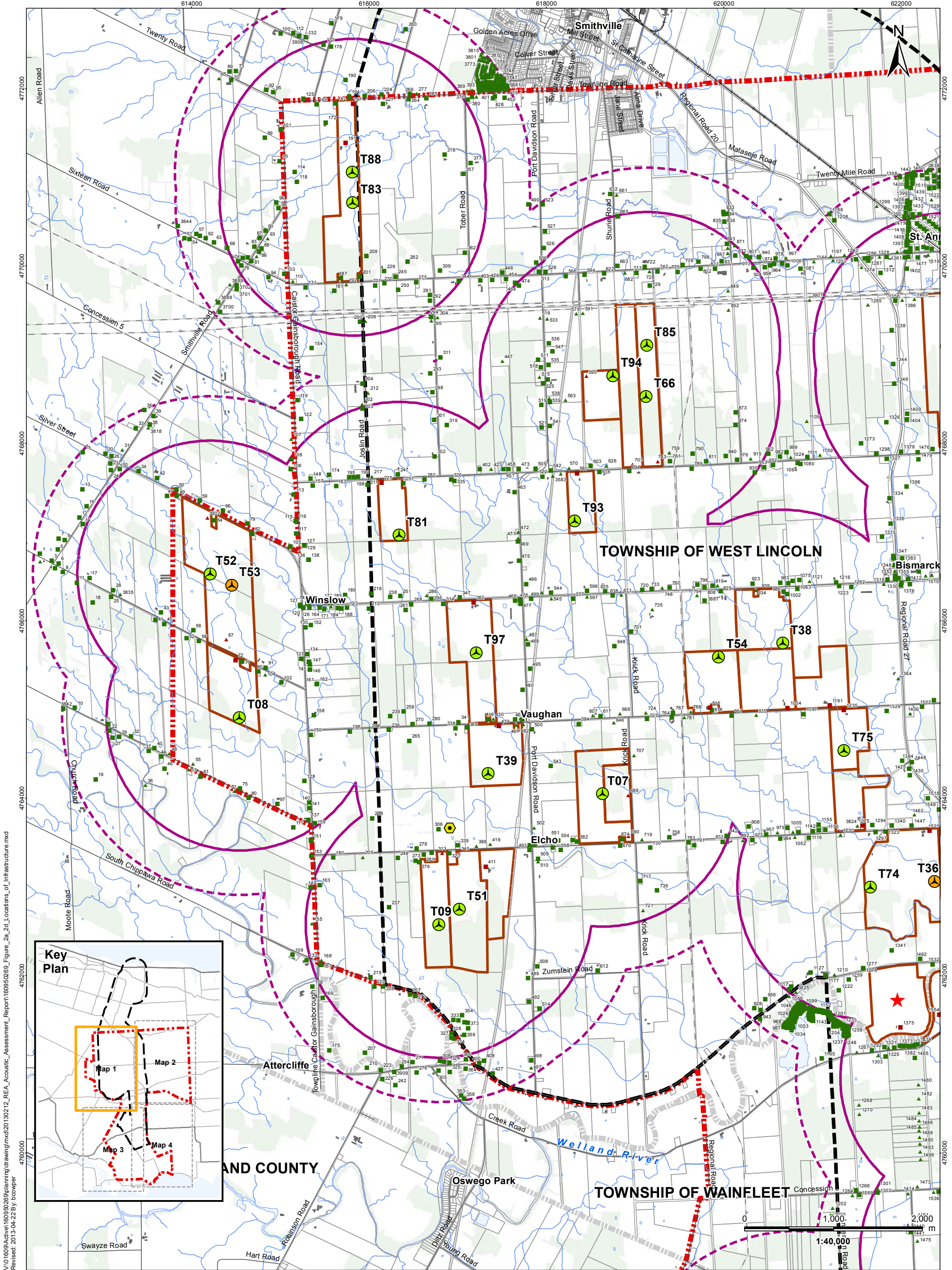
2.4 OPERATION SCENARIO

The wind farm will operate throughout the year during the daytime and night-time hours when favorable wind conditions exist. The facility is expected to operate 7 days a week throughout the year. A project layout diagram is included in **Appendix B**. The noise emissions for the layout shown in Figure 2.1 were assessed for both potential hub heights of 124 m and 135 m as follows:

1. **Scenario 1:** Among the 80 WTGs, nine turbines will have a hub height of 135m and the rest will have a hub height of 124 m. In addition among the nine 135 m hub height WTGs, three will be ENERCON E82 turbine models. All other WTGs will be ENERCON E101 model.
2. **Scenario 2:** Among the 80 WTGs all turbines will have a hub height of 135m, three WTGs will be ENERCON E82 turbine models and all other will be ENERCON E101 models.

Both the above noted operation scenarios have been assessed to provide operational flexibility. Final selection of the scenario (one of the above two) will be determined during detailed design.

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Legend

- Project Study Area
- Interconnector Study Area
- Proposed Turbine Location (E101)
- Proposed Turbine Location (E82)
- Transformer Substation
- Tap-in Location
- Existing Met Tower
- 1.5 km Radius from Proposed Turbine Centre Point
- 2km Radius from Proposed Turbine Centre Point
- Road
- Expressway / Highway
- Active Railway
- Abandoned Railway
- Existing Transmission Line
- Existing Structures
- Watercourse
- Waterbody
- Wooded Area
- Municipal Boundary
- Occupied
- Vacant
- Occupied
- Vacant

Participating Noise Receptors

- Occupied
- Vacant

Non-participating Noise Receptors

- Occupied
- Vacant

Notes

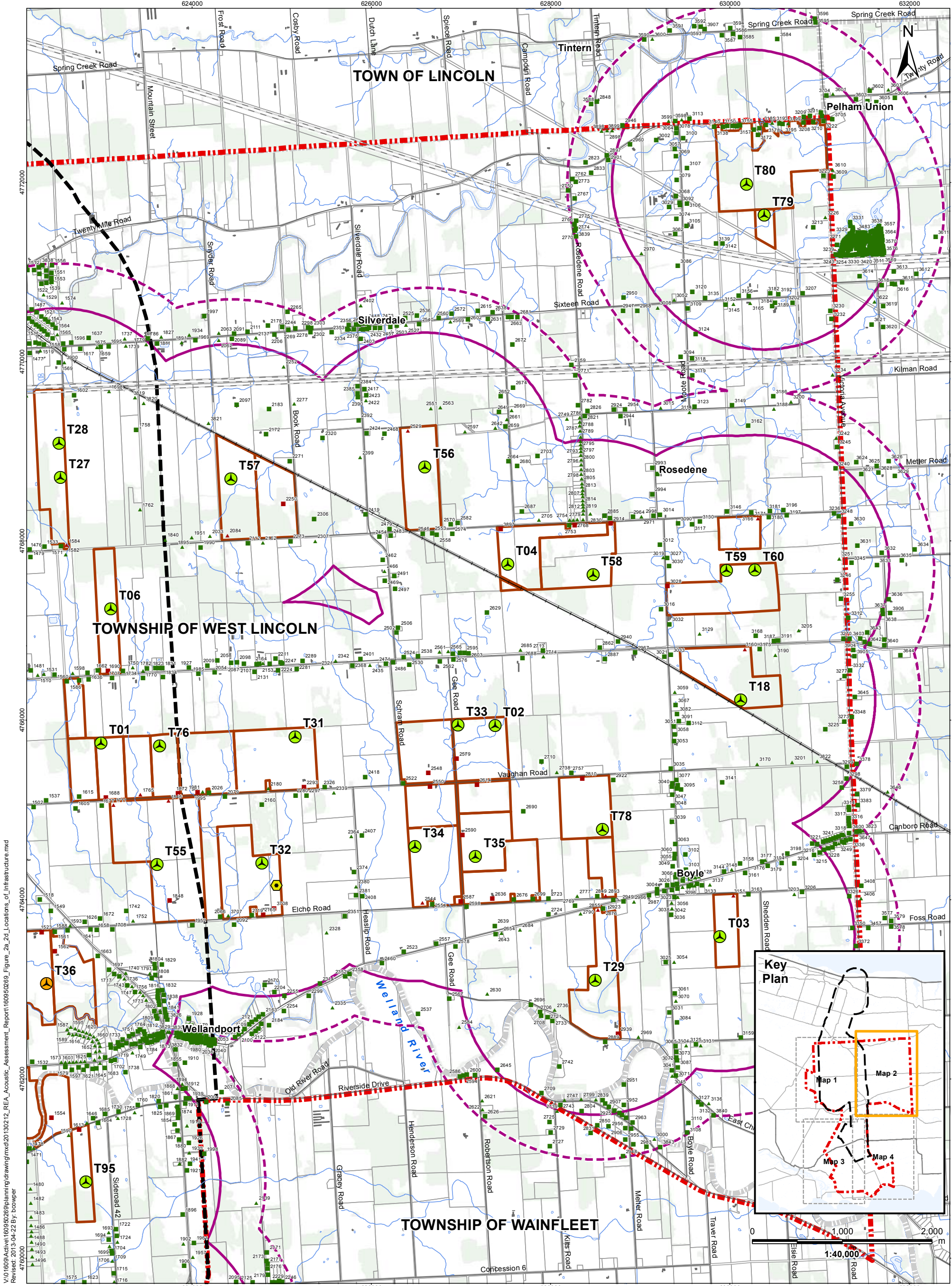
- Coordinate System: NAD 1983 UTM Zone 17N
- Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2012.
- Scenario 1 – T36, T46, T53 are E82 model at hub height 135 metre; T18, T45, T47, T55, T60 and T74 are E101 model at hub height 135 metre and the rest are E101 model at hub height 124 metre.
Scenario 2 - T36, T46, T53 are E82 model at hub height 135 metre; and the rest are E101 model at hub height 135 metre.

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Figure No.
2.1a

Title
Locations of Project Infrastructure within Study Area: Map 1 of 4

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Revised: 2013-04-22 By: bawpwr



Legend

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- Waterbody
- Wooded Area
- Municipal Boundary

Participating Noise Receptors

- Occupied
- Vacant

Non-participating Noise Receptors

- Occupied
- Vacant

Notes

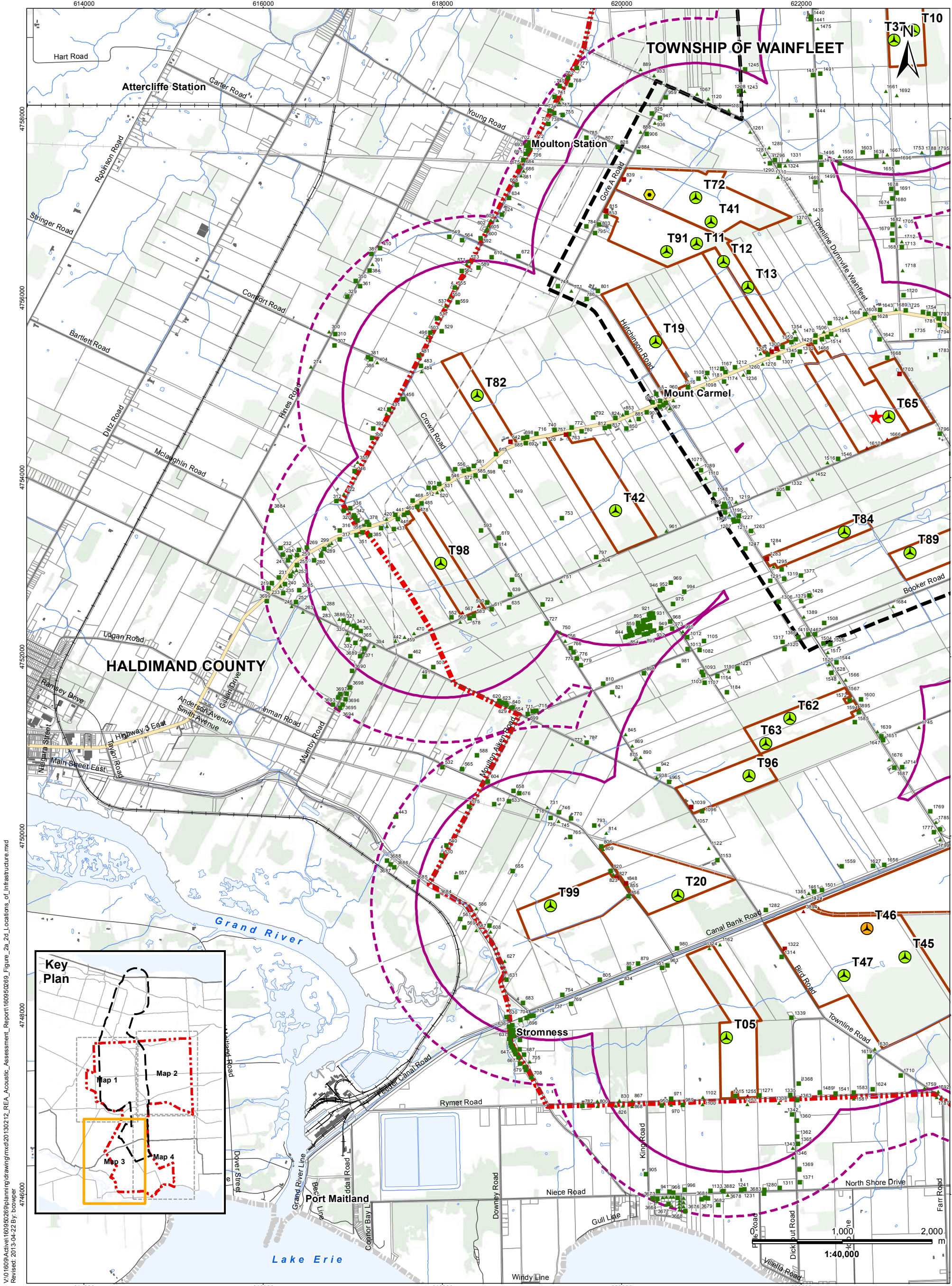
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Scenario 2 - T36, T46, T53 are E82 model at hub height 135 metre; and the rest are E101 model at hub height 135 metre.

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Figure No.
2.1b

Title
Locations of Project Infrastructure within Study Area: Map 2 of 4

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Legend

-  Project Study Area
-  Interconnector Study Area
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-  Proposed Turbine Location (E82)
-  Transformer Substation
-  Tap-in Location
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-  1.5 km Radius from Proposed Turbine Centre Point
-  2km Radius from Proposed Turbine Centre Point
-  Road
-  Expressway / Highway
-  Active Railway
-  Abandoned Railway
-  Existing Transmission Line
-  Existing Structures
-  Watercourse
-  Waterbody
-  Wooded Area
-  Municipal Boundary

Participating Noise Receptors

-  Occupied
-  Vacant

Non-participating Noise Receptors

-  Occupied
-  Vacant

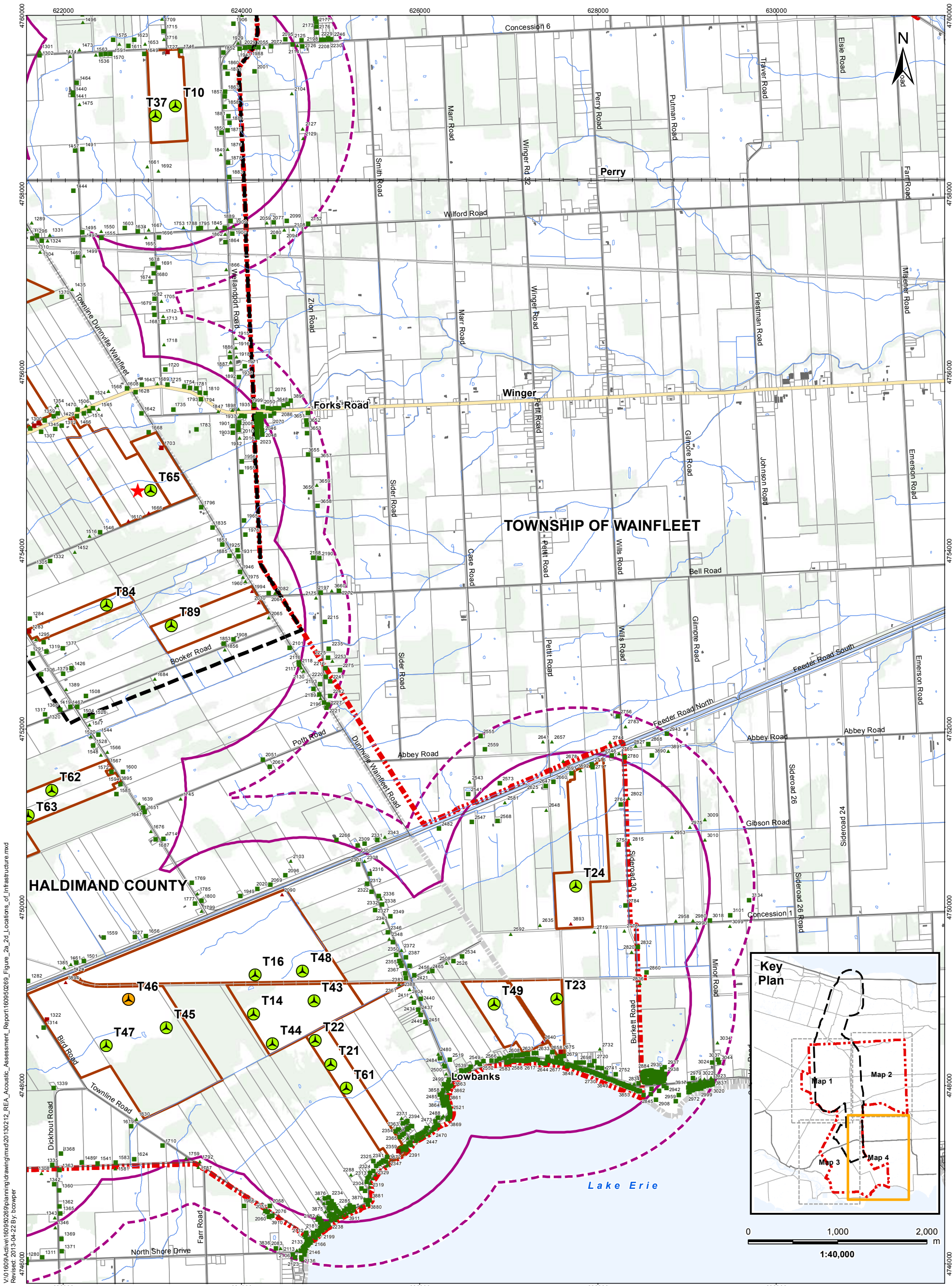
Notes

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- Scenario 2 - T36, T46, T53 are E82 model at hub height 135 metre; and the rest are E101 model at hub height 135 metre.

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Figure No.
2.1c

Title
Locations of Project Infrastructure within Study Area: Map 3 of 4



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Legend

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Non-participating Noise Receptors

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Notes

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- Scenario 1 – T36, T46, T53 are E82 model at hub height 135 metre; T18, T45, T47, T55, T60 and T74 are E101 model at hub height 135 metre and the rest are E101 model at hub height 124 metre.
Scenario 2 - T36, T46, T53 are E82 model at hub height 135 metre; and the rest are E101 model at hub height 135 metre.

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Figure No.
2.1d

Title

Locations of Project Infrastructure within Study Area: Map 4 of 4

3.0 Noise Source Summary

3.1 NOISE SOURCES

For the purpose of this Acoustic Assessment Report, the noise sources associated with the wind facility will consist of 80 WTGs (77 ENERCON E101 model rated at 3 MW and 3 ENERCON E82 model rated at 2.3 MW), and two 100 MVA (100/133/166 ONAN/ONAF/ONAF MVA transformers); each of the transformers will be located at different transformer substation locations. WTGs will operate throughout the year when wind conditions at hub height are within cut-in (2.5 m/s) and cut-out wind speeds (28 - 34 m/s). The noise sources associated with the WTGs were assessed for two hub heights scenarios described in Section 2.4, and additional WTG specifications are provided in Table 2.1 The noise sources associated with both substation transformers were assessed at a height of 3.7 m at the identified locations.. It was conservatively assumed that all equipment will operate at full rated capacity during the predictable worst case hour.

As discussed previously, three (3) of the turbines will be ENERCON E82 model and the remainder are ENERCON E101 model to meet the contractual requirements of the Project (maximum capacity not to exceed 230 MW).

Power is transferred from each turbine through an overhead and/or underground collection system to one of two transformer substations. Where two or more collector lines connect and continue as one collector line, a junction box or pad-mounted disconnect switch will be installed. These units are enclosed metal boxes approximately 2 m high, 3 m long and 2 m wide. There are no noise emission sources associated with the junction boxes.

The typical substation components include an isolation switch, circuit breakers, control and operation equipment. Transformers at both substations will be within confined boundaries. Noise emissions from these two 100 MVA transformers are assumed to have a distinct tonal character and were therefore assessed with a 5 dB penalty in the study.

At the transformer substations, voltage is stepped up from 34.5 kV to 115 kV. These transformers will each be rated 100 MVA (100/133/166 ONAN/ONAF/ONAF MVA transformers) as a base rating, with two stages of cooling (via fan). From the transformer substations, the power will be transferred via an overhead transmission line to interconnect with Hydro One Networks Inc's (HONI) transmission system at the tap-in location in the north end of the Interconnector Study Area. There are no noise sources associated with the collector and transmission lines.

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Noise Source Summary

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Table 3.1 provides detailed sound emission data for the ENERCON 101 and E82 model WTGs and the corresponding test data from an independent consultant (KÖTTER Consulting Engineers) engaged by the manufacturer (Enercon) is provided in Appendix D.

Table 3.2 provides the representative sound emission data from test data used in the analysis. Table 3.3 provides detailed sound emission data for the transformer substations. The noise sources for this Project are summarized in the Table 3.4 and illustrated in Figure 2.1. The UTM coordinates of each WTG and transformer substation are provided in Table 3.5 and Table 3.6. All sources are assumed to have continuous emissions when operating.

THE sound power levels resulting from the operation of the transformers were estimated using the procedures outlined in the NEMA standard (NEMA PTR 1-1993 (R2000)). The approximate size of the transformers (100/133/166 ONAN/ONAF/ONAF MVA) was provided by the Study Team and used to estimate the sound power level. This calculation can be found in **Appendix D**. The transformer sound emission data is provided in Table 3.3.

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Noise Source Summary

July 25, 2013

Table 3.1 Wind Turbine Sound Emission Summary

Make: ENERCON Model: E101 Electrical Rating: 3MW Hub Height: 124 m or 135 m Data Source: Enercon (Appendix D)						
		Octave Band Sound Power Level (dB ref. 10^{-12} Watts)				
10m Height Wind Speed (m/s)		6 ¹	7 ¹	8 ¹	9 ¹	10 ²
Frequency (Hz)	63	111.3	112	112.4	112.3	--
	125	106.5	107.2	107.6	107.5	--
	250	106	106.7	107.1	107	--
	500	102.8	103.5	103.9	103.8	--
	1000	97.1	97.8	98.2	98.1	--
	2000	90.4	91.1	91.5	91.4	--
	4000	83.7	84.4	84.8	84.7	--
	8000	73.2	73.9	74.3	74.2	--
Overall (dBA ref. 10^{-12} Watts)		103.6	104.3	104.7	104.6	--
Make: ENERCON Model: E82 Electrical Rating: 2.3MW Hub Height: 135 m Data Source: Enercon (Appendix D)						
		Octave Band Sound Power Level (dB ref. 10^{-12} Watts)				
10m Height Wind Speed (m/s)		6	7	8	9	10
Frequency (Hz)	63	111.1	111.7	111.8	112.8	113.2
	125	106.7	108.9	109.3	110.7	110.7
	250	100.6	102.8	103.2	102.9	102.3
	500	98.9	100.8	101.4	100.5	99.7
	1000	95.9	97.7	98.5	98.7	98.3
	2000	87.8	90.2	91.0	92.6	92.8
	4000	74.8	77.5	78.4	80.5	81.5
	8000	76.5	75.5	74.5	74.5	76.3
Overall (dBA ref. 10^{-12} Watts)		100.6	102.6	103.2	103.3	102.9

¹ As per the data, overall sound power data is available from 6 m/s (corresponding to 1414 kW or approximately 38% of the rated power) to 9 m/s (corresponding to 2987 kW or approximately 99.6% of the rated power of 3MW). As per the test, the maximum sound power level occurs at 8.3 m/s wind speed and corresponding spectral data is given in the data sheet. The spectral data for other wind speed were obtained by scaling based on the overall data.

² No data was given for the 10 m/s wind speed since the turbine reaches 95% of rated power output at 8.3 m/s wind speed. For this model the attached test report indicates that the maximum sound power level occurs at 8.3 m/s wind speed. The maximum sound power level as provided from manufacturer was used. A wind shear adjusted sound data is provided in Appendix F.

Table 3.2 Highest Wind Turbine Sound Emission Corresponding to 95% or above Rated Electrical Output Power

Description	Octave Band Sound Power Level (dB ref. 10-12 Watts)								
	63	125	250	500	1k	2k	4k	8k	dB/dBA
ENERCON model E101 model at 8.3 m/s	112.5	107.7	107.2	104.0	98.3	91.6	85	74.4	113.9/ 104.8
ENERCON model E82 model at 9 m/s	112.8	110.8	103	100.5	98.7	92.6	80.5	74.5	115.5/ 103.3

Table 3.3 Substation Transformer Sound Emission Data

Description	Octave band center frequency [Hz]								
	63	125	250	500	1k	2k	4k	8k	dB/dBA
100/133/166 ONAN/ONAF/ONAF MVA Transformers Sound power Levels [dB ref 10 ⁻¹² watt]*	94	100	102	97	97	91	86	81	104.1/98.2

*A 5 dBA penalty was applied to transformer component of sound pressure level at each POR as discussed below.

Table 3.4 Noise Source Summary Table

Source ID	Source Type ¹	Source Description	Sound Power Level [dBA]	Source Location (I/O) ²	Sound Characteristics ^{3, 5}	Noise Control Measures ⁴
T36, T46, & T53	P	ENERCON model E82 WTG	103.3	O	S	U
T1 to T80 except T36, T46, & T53	P	ENERCON model E101 WTG	104.8	O	S	U
TR1 & TR2	P	100 MVA Transformer	98(T)	O	T	B

1. P = Point Source V = Vertical Source VA = Vertical Area Source

2. Source Location: O = outside of building; I = inside of building

3. Sound Character, per NPC-104:

T = Tonal

S = Steady

B = Buzzing

C = Cyclical

Q = Quasi-Steady Impulsive

I = Impulsive

4. Noise Control Measures:

S = Silencer/Muffler

A = Acoustic Lining, plenum

U = Uncontrolled

E = Acoustic Enclosure

L = Lagging

O = Other

B = Barrier

5. Includes 5 dB penalty for tonality, for source marked with T

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Table 3.5 Wind Turbine Locations

Turbine Identifier	Make and Model	Hub Height [m] Scenario 1 / Scenario 2	Location Coordinates (UTM 17 NAD 83)	
			X – Easting [m]	Y-Northing [m]
T01	ENERCON E101	124/135	622986	4765745
T02	ENERCON E101	124/135	627380	4765942
T03	ENERCON E101	124/135	629891	4763588
T04	ENERCON E101	124/135	627524	4767740
T05	ENERCON E101	124/135	621171	4747754
T06	ENERCON E101	124/135	623096	4767244
T07	ENERCON E101	124/135	618636	4764053
T08	ENERCON E101	124/135	614545	4764911
T09	ENERCON E101	124/135	616790	4762576
T10	ENERCON E101	124/135	623259	4758990
T11	ENERCON E101	124/135	620836	4756609
T12	ENERCON E101	124/135	621135	4756407
T13	ENERCON E101	124/135	621410	4756122
T14	ENERCON E101	124/135	624137	4748807
T16	ENERCON E101	124/135	624153	4749243
T18	ENERCON E101	135/135	630123	4766229
T19	ENERCON E101	124/135	620380	4755516
T20	ENERCON E101	124/135	620627	4749341
T21	ENERCON E101	124/135	625004	4748242
T22	ENERCON E101	124/135	624829	4748510
T23	ENERCON E101	124/135	627540	4748974
T24	ENERCON E101	124/135	627752	4750239
T27	ENERCON E101	124/135	622535	4768708
T28	ENERCON E101	124/135	622517	4769096
T29	ENERCON E101	124/135	628498	4763100
T31	ENERCON E101	124/135	625150	4765821
T32	ENERCON E101	124/135	624781	4764410
T33	ENERCON E101	124/135	626969	4765950
T34	ENERCON E101	124/135	626486	4764591
T35	ENERCON E101	124/135	627164	4764483
T36	ENERCON E82	135/135	622379	4763063
T37	ENERCON E101	124/135	623038	4758881
T38	ENERCON E101	124/135	620669	4765752
T39	ENERCON E101	124/135	617349	4764279
T41	ENERCON E101	124/135	620998	4756851
T42	ENERCON E101	124/135	619935	4753628
T43	ENERCON E101	124/135	624815	4748952
T44	ENERCON E101	124/135	624350	4748471

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Table 3.5 Wind Turbine Locations

Turbine Identifier	Make and Model	Hub Height [m] Scenario 1 / Scenario 2	Location Coordinates (UTM 17 NAD 83)	
			X – Easting [m]	Y-Northing [m]
T45	ENERCON E101	135/135	623160	4748650
T46	ENERCON E82	135/135	622737	4748968
T47	ENERCON E101	135/135	622483	4748447
T48	ENERCON E101	124/135	624687	4749283
T49	ENERCON E101	124/135	626836	4748915
T51	ENERCON E101	124/135	617020	4762752
T52	ENERCON E101	124/135	614215	4766531
T53	ENERCON E82	135/135	614456	4766402
T54	ENERCON E101	124/135	619944	4765594
T55	ENERCON E101	135/135	623610	4764393
T56	ENERCON E101	124/135	626599	4768825
T57	ENERCON E101	124/135	624435	4768696
T58	ENERCON E101	124/135	628473	4767629
T59	ENERCON E101	124/135	629964	4767676
T60	ENERCON E101	135/135	630277	4767682
T61	ENERCON E101	124/135	625177	4747970
T62	ENERCON E101	124/135	621877	4751311
T63	ENERCON E101	124/135	621609	4751032
T65	ENERCON E101	124/135	622984	4754679
T66	ENERCON E101	124/135	619127	4768529
T72	ENERCON E101	124/135	620828	4757122
T74	ENERCON E101	135/135	621656	4763002
T75	ENERCON E101	124/135	621357	4764543
T76	ENERCON E101	124/135	623640	4765719
T78	ENERCON E101	124/135	628581	4764783
T79	ENERCON E101	124/135	630384	4771637
T80	ENERCON E101	124/135	630186	4771984
T81	ENERCON E101	124/135	616343	4766967
T82	ENERCON E101	124/135	618390	4754915
T83	ENERCON E101	124/135	615821	4770715
T84	ENERCON E101	124/135	622487	4753393
T85	ENERCON E101	124/135	619136	4769108
T88	ENERCON E101	124/135	615816	4771059
T89	ENERCON E101	124/135	623216	4753160
T91	ENERCON E101	124/135	620504	4756521
T93	ENERCON E101	124/135	618324	4767127
T94	ENERCON E101	124/135	618752	4768764

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Table 3.5 Wind Turbine Locations

Turbine Identifier	Make and Model	Hub Height [m] Scenario 1 / Scenario 2	Location Coordinates (UTM 17 NAD 83)	
			X – Easting [m]	Y-Northing [m]
T95	ENERCON E101	124/135	622817	4760851
T96	ENERCON E101	124/135	621423	4750668
T97	ENERCON E101	124/135	617215	4765642
T98	ENERCON E101	124/135	617982	4753043
T99	ENERCON E101	124/135	619208	4749224

Table 3.6 Substation Transformer Locations

Transformer Identifier	Transformer Type	Height [m]	Location Coordinates (UTM 17 NAD 83)	
			X – Easting [m]	Y-Northing [m]
ST1	100/133/166 ONAN/ONAF/ONAF MVA MVA Transformer	3.7	621960	4761728
ST2	100/133/166 ONAN/ONAF/ONAF MVA MVA Transformer	3.7	622837	4754679

3.2 SOUND CHARACTER ADJUSTMENTS

The MOE guideline NPC-104 outlines that the sources with distinct sound characteristics are to be penalized in the assessment. In accordance with this guideline, the resulting noise emissions associated with transformers were penalized by 5 dB to account for potential hum from transformer coils.

3.3 CUMULATIVE EFFECTS

As per the guideline requirements, cumulative effects due to other existing or crystallized wind farms have been included in this assessment. Four other existing or proposed wind farms were identified and included as having components within 5.0 km of the project WTGs. Existing turbines within this setback include the Mohawk wind farm located to the south of the project and the Rosa Flora wind turbine to the west of the project. Wind energy projects currently in development (either proposed or approved) within the 5 km setback distance include the HAF Wind Energy project to the west of the Project, the Wainfleet wind energy project to the southeast and the Grand Renewable Energy Project to the southwest. Details of these projects are included in Table 3.7 and Table 3.8. Additional wind farms considered but not included in this assessment as they were outside of the required 5 km setback include the Byng Wind Project and the Summerhaven Wind Energy Centre.

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Table 3.7 Adjacent Wind Farms within 5 km of the Project

Wind farm identifier	Existing/ Approved	Turbine Model	Number of Turbines	Number of Turbines within 5 km of the Project
Mohawk Wind Farm	Existing	V82-1.65 MW-Vestas	6	6
HAF Wind Energy	Proposed	V100 1.8 MW	5	5
Wainfleet Wind Energy	Proposed	V100 1.8 MW	5	5
Rosa Flora Turbine	Existing	PWE 650	1	1
Grand Renewable Energy Project	Proposed	SWT-2.221-101 Siemens	67	6

The following table provides the location and coordinates of the adjacent wind turbines that were considered in the noise assessment. The location (UTM coordinates), and the sound data were taken from reports and developers submittals (refer Appendix F for details).

Table 3.8 Assessed Noise Sources Associated with Adjacent or Proposed Wind Farms within 5 km

Source ID	Source Description	Sound Power Level [dBA]	UTM Coordinates		
			X [m]	Y [m]	Z [m]
HAF01	HAF01(HAF Wind Energy Project)	105	604702	4775503	95
HAF02	HAF02(HAF Wind Energy Project)	105	604889	4775137	95
HAF03	HAF03(HAF Wind Energy Project)	105	606276	4774896	95
HAF04	HAF04(HAF Wind Energy Project)	105	604359	4774307	95
HAF05	HAF05(HAF Wind Energy Project)	105	606208	4773395	95
MH01	Mohawk01(V82-1.65 MW-Vestas)	102	623355	4745400	80
MH02	Mohawk02(V82-1.65 MW-Vestas)	102	622640	4746450	80
MH03	Mohawk03(V82-1.65 MW-Vestas)	102	623974	4745737	80
MH04	Mohawk04(V82-1.65 MW-Vestas)	102	623297	4746604	80
MH05	Mohawk05(V82-1.65 MW-Vestas)	102	623077	4746794	80
MH06	Mohawk06(V82-1.65 MW-Vestas)	102	622661	4745529	80
WF01	WF01(Wainfleet Wind Energy Project)	105	631359	4751252	95
WF02	WF02(Wainfleet Wind Energy Project)	105	631758	4750750	95
WF03	WF03(Wainfleet Wind Energy Project)	105	631921	4750541	95
WF04	WF04(Wainfleet Wind Energy Project)	105	632750	4748389	95
WF05	WF05(Wainfleet Wind Energy Project)	105	632706	4748817	95

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Table 3.8 Assessed Noise Sources Associated with Adjacent or Proposed Wind Farms within 5 km

Source ID	Source Description	Sound Power Level [dBA]	UTM Coordinates		
			X [m]	Y [m]	Z [m]
RF	Rosa Flora Turbine	104	615270	4756417	75
GREPT57	SWT-2.221-101 - Grand Renewable	105	614355	4748118	100
GREPT58	SWT-2.221-101 - Grand Renewable	105	614974	4747470	100
GREPT59	SWT-2.221-101 - Grand Renewable	105	614326	4747732	100
GREPT60	SWT-2.221-101 - Grand Renewable	105	614680	4748176	100
GREPT61	SWT-2.221-101 - Grand Renewable	105	614750	4747811	100
GREPT62	SWT-2.221-101 - Grand Renewable	105	614705	4747338	100

- Grand Renewable Locations and data are based on Noise Assessment report by Zephyr North dated July 11, 2011;
- Mohawk location is based on construction drawing (Appendix F) and manufacturer's data (Appendix F);
- HAF Wind Energy project Locations and data are based REA report package dated November 26, 2010;
- WainFleet Wind Energy Project is based on REA package dated November, 2010; and
- Rosa Flora: This is a single small turbine. The location is based on as built location and the sound data was taken as 103.5 dBA (slightly higher than a 2.3 MW E82 model turbine). This turbine is located approximately 3,500 metres away from NRWC's nearest turbine. In addition, this is a 650 kW turbine that does not feed into the Ontario grid (i.e. electricity is delivered directly into the Rosa Flora system). Therefore, the assumption is considered very conservative.

4.0 Points of Reception

4.1 DEFINITION OF A POINT OF RECEPTION

Points of Reception (PORs) were categorized into four groups for the assessment:

1. Non-participating occupied receptors – an existing building or structure that contains one or more dwellings, an existing building or structure used for an institutional purpose (i.e., education facility, nursery, health care facility, place of worship), a campsite or campground;
2. Non-participating vacant lot receptors – a lot with no existing building or structure containing a dwelling or institutional facility but is zoned to permit a building which could be a dwelling or institutional facility;
3. Participating occupied receptors – an existing building or structure that contains one or more dwellings and is on the same legal property as proposed Project components; and,
4. Participating vacant lot receptors - a lot with no existing building or structure containing a dwelling or institution facility but is zoned to permit a building which could be a dwelling or institutional facility and is on the same legal property as proposed Project components.

Receptors were defined based on field verifications, review of parcel data, information from planners of respective Townships or Counties, and recent aerial imagery. Stantec undertook extensive field verification to validate existing occupied PORs. All non-participating and participating receptors within 2 km of the Project WTGs as of the date August 15, 2012, are identified as receptors in this report as per O.Reg 359/09 Section 54 (1.4). On August 15, 2012, the layout of the Project turbines and all receptors were crystallized through the publication of the WTG coordinates and receptors in a Draft Site Plan Report in local newspapers and online.

The PORs were provided with a unique numbering system in the form of X_### (e.g. P_2587). In this identification system the character X represents the following:

- 'O' represents **non-participating occupied** receptors;
- 'V' represents **non-participating vacant lot** receptors; and,
- 'P' represents **participating occupied/vacant lot** receptors;

Whereas the numbers ### – represents a unique identification number for each receptor.

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The noise guideline (PIBs 4709) requires that PORs be identified on vacant lots that have been zoned by the local municipality to permit residential or similar noise-sensitive uses. The legal lot/parcel data were used to determine the lot boundaries and thereby identify all vacant lots within 2 km of the Project. All vacant lots were assigned a unique POR identification number. The points of assessment for vacant lots were chosen to match the local development patterns.

4.2 EXISTING POINTS OF RECEPTION

All non-participating PORs meet or exceed the minimum requirement of 550 metre setback requirement from the centre point of the WTGs. All receptors were modeled using a height of 4.5 meters. The type and coordinates of the receptors are summarized in **Appendix C**.

Figure 1.1 **Error! Reference source not found.** and Figure 2.1 show the locations of all PORs within 2 km of the WTGs as required by Section 6.1 of 4709e. As required by Section 6.4.1 of 4709e; the noise assessment considers the sound levels at the 2668 PORs within 1.5 km of the Project WTG locations as described below:

1. 2032 non-participating occupied receptors;
2. 540 non-participating vacant lot receptors; and
3. 96 participating occupied/vacant lot receptors.

For the purposes of this report the ten (10) representative non-participating receptors, which through modeling were predicted to have the highest sound levels as a result of the Project noise sources, are shown in the tables. The locations of these ten (10) receptors are summarized in Table 4.1, and the results for the remaining modeled PORs are provided in **Appendix C**.

Table 4.1 Nearby Points of Reception

POR ID	Description	UTM Coordinates		POR Height (m)	Approximate Distance to Nearest Facility Turbine (m)	Nearest Facility Turbine ID
		X	Y			
O_1097	Existing occupied dwelling	620899	4764949	4.5	612	T75
O_1153	Existing occupied dwelling	621067	4749725		584	T20
O_1344	Existing occupied dwelling	621910	4768894		640	T28
O_1707	Existing occupied dwelling	623108	4766469		734	T01
O_2160	Existing occupied dwelling	624777	4765059		649	T32
O_2522	Existing occupied dwelling	626354	4765297		718	T34
O_2598	Existing occupied dwelling	627060	4763919		573	T35
O_2690	Existing occupied dwelling	627693	4764983		728	T35
O_2710	Existing occupied dwelling	627899	4765540		657	T02
O_3030	Existing occupied dwelling	629320	4767722		646	T59

5.0 Noise Assessment Criteria

5.1 MOE GUIDELINE LIMITS

As discussed, the Project and its surroundings are considered to be located in a Class 3 (Rural) acoustical environment. The sounds of the ambient environment are expected to be dominated by natural sounds with little road traffic and minimal industrial activities. There is an industrial facility located in Haldimand County (near Mohawk Wind Farm), which dominates its surroundings. However, noises from this industrial facility are not considered in this assessment.

Table 5.1 shows the performance limits for wind turbines in Class 3 areas as outlined in PIBs 4709e.

Table 5.1 Wind Turbine Sound Pressure Limits for Class 3 Area

Wind Speed at 10 m height [m/s]	4	5	6	7	8	9	10
Wind Turbine sound pressure limits [dBA]	40.0	40.0	40.0	43.0	45.0	49.0	51.0

The analysis also includes other requirements from this guideline such as a 5 dB penalty on transformer noise to account for tonality, and use of a ground absorption co-efficient of 0.7 as discussed further in Section 6.1. In addition, the guideline requires that all adjacent wind farm WTGs within 5 km of any Project WTG must be considered for cumulative effects in evaluating sound pressure levels. To assess noise levels for this Project, wind turbine noise emissions were assessed against the most restrictive sound pressure level limit of 40.0 dBA.

6.0 Impact Assessment

6.1 METHODOLOGY

A predictive analysis was performed using the commercially available software package CADNA/A, which implements a computerized version of the algorithms described in the ISO 9613 standard. The ISO 9613 model includes geometrical divergence (distance attenuation), barrier effects due to intervening structures, ground effects, atmospheric absorption, and topography. No shielding/barriers such as existing buildings other than the barriers recommended for the transformer substation were considered in the assessment.

All sound sources (turbines and transformers) that emit noise into the environment were modeled as point sources. Topography was included in the model; however, the study area is relatively flat and topography is not expected to have a significant influence on the results. No shielding or obstacles were included in the model other than the barriers recommended for the transformer substations.

The Facility and surrounding ground surfaces were modeled as a combination of reflective and absorptive as specified in the MOE guideline. The analysis utilizes a global ground sound absorption factor of 0.7. Considering the study area is generally agricultural in nature, the actual absorption factor is expected to be closer to 1.0.

Meteorological values as required by PIBs 4709e were used to initialize several parameters in the model. These included a temperature of 10 degrees Centigrade and a relative humidity of 70%. The calculations consider spectral values of the sound data in 1/1 octave bands between 63 Hz and 8000 Hz as discussed in Section 3. As per the requirements of PIBs 4709e, the atmospheric absorption coefficients shown in Table 6.1 were used.

Table 6.1 Atmospheric Absorption Coefficient (based on 10 degree Celsius and 70% Relative Humidity)

Octave band center frequency [Hz]	63	125	250	500	1000	2000	4000	8000
Recommended atmospheric absorption coefficient [dB/km]	0.1	0.4	1.0	1.9	3.7	9.7	32.8	117

As described in Section (Operation Scenario), this assessment considers all WTGs running at full rated capacity for one full hour irrespective of wind conditions. An example of the detailed model calculations is included in **Appendix E**.

6.2 RESULTS AND RECOMMENDATIONS

The modeled results (Project effects and cumulative effects) at the identified PORs during predictable worst case operation are provided in Table 6.2 (Scenario 1) and Table 6.4 (Scenario 2) for the selected PORs. For the remaining PORs, a similar table is included in **Appendix C**. The corresponding equivalent sound level contours are provided in Figure 6.1a for Scenario 1 and Figure 6.1b for Scenario 2.

Compliance at nearby PORs was established using noise barriers for both of the two 100 MVA transformer substations. The detailed requirements for noise barriers are as follows:

1. Substation ST1 (100/133/166 ONAN/ONAF/ONAF MVA Transformer noise source modeled at a height of 3.7m with UTM Coordinates 621960, 4761728) will require a four sided barrier of 5 metres in height above grade. Barrier corner coordinates are provided in Appendix F
2. Substation ST2 (100/133/166 ONAN/ONAF/ONAF MVA Transformer noise source modeled at a height of 3.7m with UTM Coordinates 622837, 4754679) will require a two sided barrier of 5 metres in height above grade. This barrier should be placed on south and west side of the transformer and extended at least 2 meters beyond the transformer such that noise flanking is negligible. Barrier corner coordinates are provided in Appendix F.

The barrier could be constructed with a variety of different materials including masonry or composite materials provided that they meet electrical and fire safety requirements. The barriers should be constructed within a 2 metre setback from the transformers. The selected material should achieve a minimum surface density of 20 kilograms per square meter (kg/m^2). The barrier should be built considering environmental factors specific to the location such as wind load and snow load so that the barrier is durable and can be maintained with minimal effort. The barrier should be constructed without any gaps within or below its extent.

6.2.1 Project and Cumulative Effects for Scenario 1

The project and cumulative effects were assessed for Scenario 1 and the results are shown in the following table. As discussed previously, cumulative effects due to other existing or crystallized wind farms have been included in this assessment. Four other existing or proposed wind farms were identified and included as having components within 5.0 km of the project receptors. Among the four only Mohawk Point Turbines have mutual PORs within 1.5 km from WTGs. A Noise Assessment Report for Mohawk Point Turbines is not available. Based on published locations, model and manufacturers data related to hub height and sound emissions, contributions with and without the Mohawk Point Turbines on mutual PORs were assessed and provided in Table 6.3.

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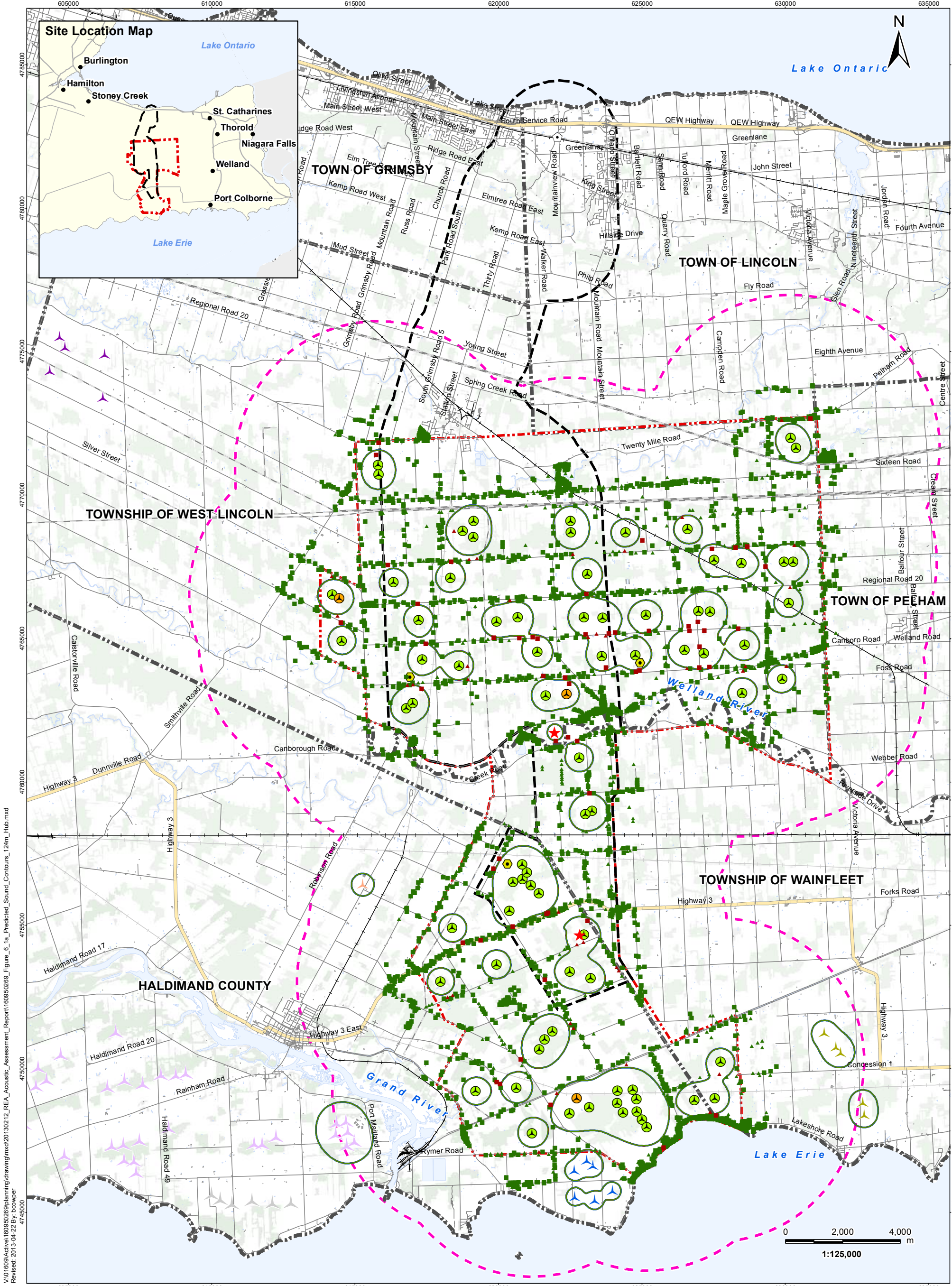
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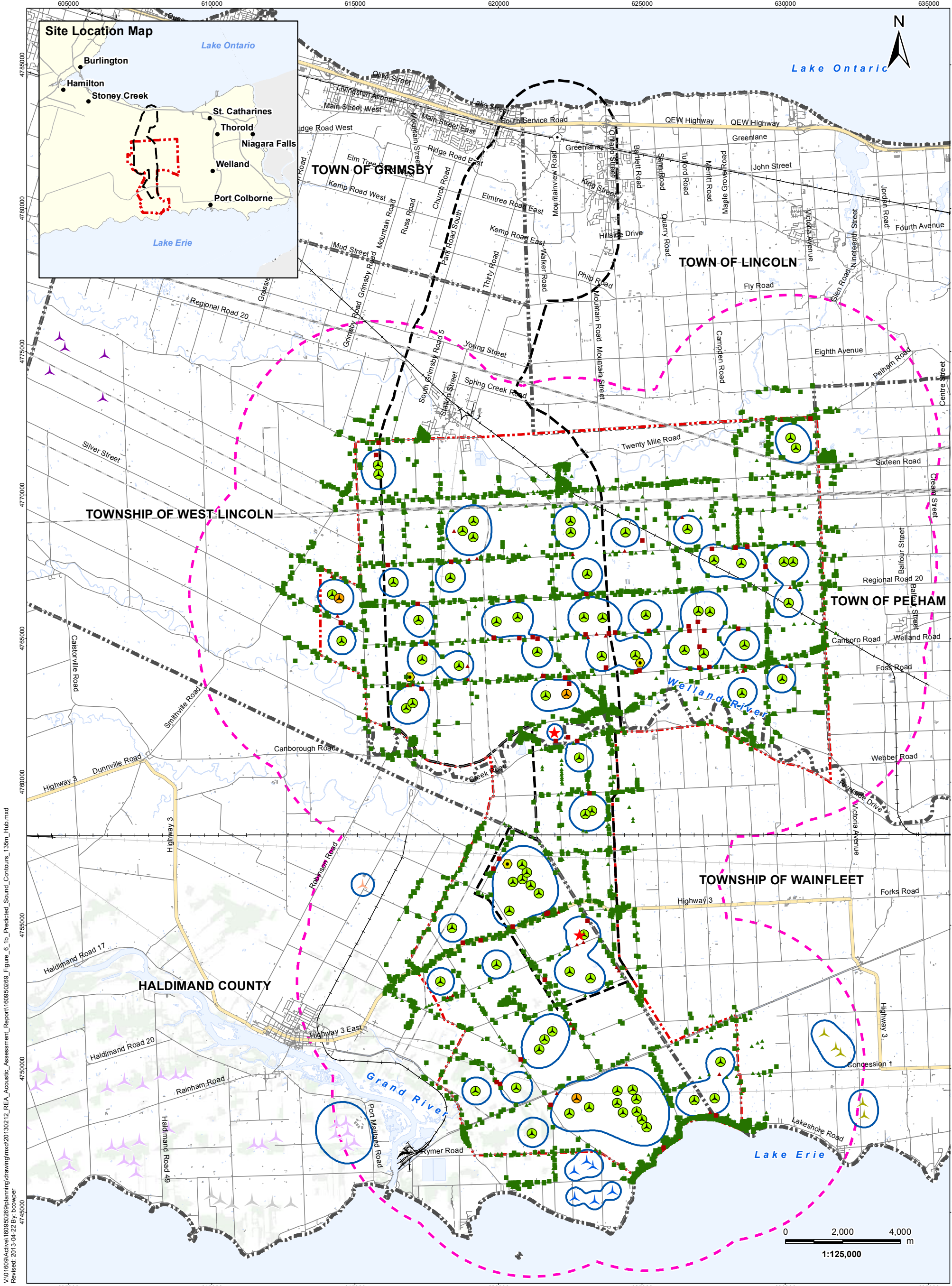
Table 6.2 Noise Impact Assessment Summary Table (Scenario 1)*

POR ID	POR Description	Project Effects - Sound Level at POR (Leq, 4.5m)	Cumulative Effects - Sound Level at POR (Leq, 4.5m)	Performance Limit (Leq, dBA)	Compliance with Performance Limit? (Project/Cumulative)
O_1097	Existing occupied dwelling	40.0	40.0	40.0	Y/Y
O_1153	Existing occupied dwelling	40.0	40.0		Y/Y
O_1344	Existing occupied dwelling	40.0	40.0		Y/Y
O_1707	Existing occupied dwelling	40.0	40.0		Y/Y
O_2160	Existing occupied dwelling	40.0	40.0		Y/Y
O_2522	Existing occupied dwelling	40.0	40.0		Y/Y
O_2598	Existing occupied dwelling	40.0	40.0		Y/Y
O_2690	Existing occupied dwelling	40.0	40.0		Y/Y
O_2710	Existing occupied dwelling	40.0	40.0		Y/Y
O_3030	Existing occupied dwelling	40.0	40.0		Y/Y

* Results for all receptors are provided in **Appendix C**.



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Revised: 2013-04-22 By: bowyer

Table 6.3 Concordance Table for all adjacent wind farms - Scenario 1

POR UTM Coordinantes		POR ID					Distance to nearest source (m)					Nearest Source ID					Level of Farm (dBA)					Level (dBA)
Easting (m)	Northing (m)	NRWC	MH	WF	RF	GREP	NRWC	MH	WF	RF	GREP	NRWC	MH	WF	RF	GREP	NRWC	MH	WF	RF	GREP	Total
621267.9	4747098.77	O_1215	not_avi	n/a	n/a	n/a	662.35637	1517.7486	>2000	>2000	>2000	T05	MH02	n/a	n/a	n/a	37.5	23.5	n/a	n/a	n/a	37.7
621536.63	4747106.47	O_1271	not_avi	n/a	n/a	n/a	743.62652	1283.8918	>2000	>2000	>2000	T05	MH02	n/a	n/a	n/a	36.9	25.5	n/a	n/a	n/a	37.2
621879.3	4747111.49	O_1335	not_avi	n/a	n/a	n/a	956.29911	1008.0841	>2000	>2000	>2000	T05	MH02	n/a	n/a	n/a	35.8	28.4	n/a	n/a	n/a	36.5
621901.22	4746889.27	O_1342	not_avi	n/a	n/a	n/a	1131.8035	859.50801	>2000	>2000	>2000	T05	MH02	n/a	n/a	n/a	34.5	29.9	n/a	n/a	n/a	35.8
621954.32	4746822.04	O_1360	not_avi	n/a	n/a	n/a	1217.4316	780.10949	>2000	>2000	>2000	T05	MH02	n/a	n/a	n/a	34.1	30.8	n/a	n/a	n/a	35.8
621958.35	4746643.27	O_1362	not_avi	n/a	n/a	n/a	1361.4849	708.51959	>2000	>2000	>2000	T05	MH02	n/a	n/a	n/a	33.2	31.7	n/a	n/a	n/a	35.5
621959.6	4747047.77	O_1363	not_avi	n/a	n/a	n/a	1058.6079	905.68931	>2000	>2000	>2000	T05	MH02	n/a	n/a	n/a	35.2	29.6	n/a	n/a	n/a	36.3
621966.59	4746565.46	O_1365	not_avi	n/a	n/a	n/a	1430.2415	683.23644	>2000	>2000	>2000	T05	MH02	n/a	n/a	n/a	32.8	32.1	n/a	n/a	n/a	35.5
621975.85	4747235.78	O_1368	not_avi	n/a	n/a	n/a	957.25414	1028.8564	>2000	>2000	>2000	T05	MH02	n/a	n/a	n/a	36.2	28.5	n/a	n/a	n/a	36.9
622209.61	4747132.76	O_1489	not_avi	n/a	n/a	n/a	1210.2272	807.09155	>2000	>2000	>2000	T05	MH02	n/a	n/a	n/a	35.3	31.3	n/a	n/a	n/a	36.8
622385.54	4747127.77	O_1541	not_avi	n/a	n/a	n/a	1322.7457	723.96275	>2000	>2000	>2000	T47	MH02	n/a	n/a	n/a	35.3	33	n/a	n/a	n/a	37.3
622589.1	4747137.77	O_1583	not_avi	n/a	n/a	n/a	1313.4629	596.84523	>2000	>2000	>2000	T47	MH05	n/a	n/a	n/a	35.3	34.8	n/a	n/a	n/a	38.1
622764.91	4747539.51	O_1619	not_avi	n/a	n/a	n/a	950.24082	808.19882	>2000	>2000	>2000	T47	MH05	n/a	n/a	n/a	37.6	30.9	n/a	n/a	n/a	38.4
622797.92	4747175.09	O_1624	not_avi	n/a	n/a	n/a	1310.2799	472.35075	>2000	>2000	>2000	T47	MH05	n/a	n/a	n/a	35.6	36.4	n/a	n/a	n/a	39.1
623112.64	4747327.61	O_1710	not_avi	n/a	n/a	n/a	1284.3238	534.79888	>2000	>2000	>2000	T47	MH05	n/a	n/a	n/a	36.5	35	n/a	n/a	n/a	38.8
624879.11	4746506.43	O_2191	not_avi	n/a	n/a	n/a	1493.5781	1187.959	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	34	26.2	n/a	n/a	n/a	34.7
624935.11	4746735.56	O_2212	not_avi	n/a	n/a	n/a	1257.9161	1385.949	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	35.3	24.9	n/a	n/a	n/a	35.7
624970.04	4746685.29	O_2226	not_avi	n/a	n/a	n/a	1301.2733	1375.2635	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	35	24.8	n/a	n/a	n/a	35.4
624978.66	4746621.52	O_2231	not_avi	n/a	n/a	n/a	1362.9883	1338.5505	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	34.6	25	n/a	n/a	n/a	35.1
624981.68	4746745.08	O_2234	not_avi	n/a	n/a	n/a	1240.3947	1425.3576	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	35.4	24.6	n/a	n/a	n/a	35.7
624982.63	4746537.85	O_2236	not_avi	n/a	n/a	n/a	1445.2797	1287.9034	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	34.1	25.3	n/a	n/a	n/a	34.6
624991.37	4746660.17	O_2239	not_avi	n/a	n/a	n/a	1322.9184	1373.7848	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	34.8	24.8	n/a	n/a	n/a	35.2
624998.61	4746642.42	O_2243	not_avi	n/a	n/a	n/a	1339.5117	1367.3372	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	34.7	24.8	n/a	n/a	n/a	35.1
625004.79	4746493.86	O_2245	not_avi	n/a	n/a	n/a	1486.1513	1278.8139	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	33.9	25.2	n/a	n/a	n/a	34.4
625010.25	4746623.9	O_2248	not_avi	n/a	n/a	n/a	1356.3889	1363.9669	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	34.6	24.8	n/a	n/a	n/a	35.0
625012.37	4746698.52	O_2249	not_avi	n/a	n/a	n/a	1282.0938	1415.1795	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	35.1	24.5	n/a	n/a	n/a	35.5
625018.35	4746545.79	O_2251	not_avi	n/a	n/a	n/a	1433.0192	1320.9119	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	34.2	25	n/a	n/a	n/a	34.7
625030.25	4746551.74	O_2256	not_avi	n/a	n/a	n/a	1425.832	1333.966	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	34.2	24.9	n/a	n/a	n/a	34.7
625036.71	4746664.12	O_2257	not_avi	n/a	n/a	n/a	1313.394	1410.2851	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	34.8	24.4	n/a	n/a	n/a	35.2
625041.17	4746506.1	O_2258	not_avi	n/a	n/a	n/a	1470.1881	1315.434	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	33.9	24.9	n/a	n/a	n/a	34.4
625046.24	4746644.01	O_2260	not_avi	n/a	n/a	n/a	1332.4217	1404.4094	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	34.7	24.4	n/a	n/a	n/a	35.1
625052.08	4746515.69	O_2261	not_avi	n/a	n/a	n/a	1459.6652	1329.8927	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	34	24.8	n/a	n/a	n/a	34.5
625061.05	4746623.37	O_2263	not_avi	n/a	n/a	n/a	1351.6127	1402.6152	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	34.6	24.4	n/a	n/a	n/a	35.0
625071.92	4746522.96	O_2267	not_avi	n/a	n/a	n/a	1450.8503	1350.245	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	34	24.6	n/a	n/a	n/a	34.5
625072.17	4746596.92	O_2268	not_avi	n/a	n/a	n/a	1377.0759	1394.7902	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	34.4	24.4	n/a	n/a	n/a	34.8
625088.04	4746586.33	O_2270	not_avi	n/a	n/a	n/a	1386.5268	1400.8735	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	34.4	24.3	n/a	n/a	n/a	34.8
625104.45	4746558.82	O_2274	not_avi	n/a	n/a	n/a	1413.0437	1397.607	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	34.2	24.3	n/a	n/a	n/a	34.6
625180.65	4746617.55	O_2282	not_avi	n/a	n/a	n/a	1352.4549	1493.7779	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	34.5	23.5	n/a	n/a	n/a	34.8
625202.87	4746612.79	O_2283	not_avi	n/a	n/a	n/a	1357.4565	1509.0161	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	34.4	23.4	n/a	n/a	n/a	34.7
625154.88	4746600.34	O_3873	not_avi	n/a	n/a	n/a	1369.8386	1462.817	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	34.4	23.8	n/a	n/a	n/a	34.8

625125.91	4746568.59	O_3874	not_avi	n/a	n/a	n/a	1402.341	1420.7176	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	34.2	24.1	n/a	n/a	n/a	34.6
621405.29	4747100.96	P_1255	not_avi	n/a	n/a	n/a	693.79611	1395.8	>2000	>2000	>2000	T05	MH02	n/a	n/a	n/a	37.2	24.5	n/a	n/a	n/a	37.4
621399.48	4747002.98	V_1251	not_avi	n/a	n/a	n/a	785.00583	1358.1888	>2000	>2000	>2000	T05	MH02	n/a	n/a	n/a	36.3	24.8	n/a	n/a	n/a	36.6
621755.08	4747018.86	V_1308	not_avi	n/a	n/a	n/a	938.92506	1051.991	>2000	>2000	>2000	T05	MH02	n/a	n/a	n/a	35.5	27.8	n/a	n/a	n/a	36.2
621908.2	4746515.67	V_1343	not_avi	n/a	n/a	n/a	1441.1541	734.74063	>2000	>2000	>2000	T05	MH02	n/a	n/a	n/a	32.6	31.4	n/a	n/a	n/a	35.1
622588	4747070	V_1581	not_avi	n/a	n/a	n/a	1380.9376	561.51313	>2000	>2000	>2000	T47	MH05	n/a	n/a	n/a	35	35.5	n/a	n/a	n/a	38.3
622822.95	4747628.02	V_1630	not_avi	n/a	n/a	n/a	886.71754	871.85478	>2000	>2000	>2000	T47	MH05	n/a	n/a	n/a	38.2	30	n/a	n/a	n/a	38.8
623377.81	4747182.44	V_1759	not_avi	n/a	n/a	n/a	1484.0734	491.29654	>2000	>2000	>2000	T45	MH05	n/a	n/a	n/a	36	36.4	n/a	n/a	n/a	39.2
624852.98	4746529.58	V_2182	not_avi	n/a	n/a	n/a	1476.4141	1183.5493	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	34.1	26.3	n/a	n/a	n/a	34.8
624925.08	4746685.35	V_2207	not_avi	n/a	n/a	n/a	1309.1178	1343.1012	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	35	25.2	n/a	n/a	n/a	35.4
624981.3	4746600.02	V_2232	not_avi	n/a	n/a	n/a	1383.8872	1326.4452	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	34.5	25.1	n/a	n/a	n/a	35.0
624993.21	4746580.51	V_2240	not_avi	n/a	n/a	n/a	1401.5924	1322.9883	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	34.4	25	n/a	n/a	n/a	34.9
625043.81	4746580.84	V_2259	not_avi	n/a	n/a	n/a	1395.5304	1362.5562	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	34.4	24.7	n/a	n/a	n/a	34.8
625057.37	4746559.35	V_2262	not_avi	n/a	n/a	n/a	1415.7135	1360.1287	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	34.2	24.6	n/a	n/a	n/a	34.7
625062.99	4746485.26	V_2264	not_avi	n/a	n/a	n/a	1489.1109	1321.2843	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	33.8	24.8	n/a	n/a	n/a	34.3
625118.89	4746521.64	V_2276	not_avi	n/a	n/a	n/a	1449.5253	1387.96	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	34	24.3	n/a	n/a	n/a	34.4
625153.28	4746546.78	V_2279	not_avi	n/a	n/a	n/a	1423.4177	1430.5401	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	34.1	23.9	n/a	n/a	n/a	34.5
625202.89	4746576.21	V_2284	not_avi	n/a	n/a	n/a	1394.0304	1488.1008	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	34.2	23.5	n/a	n/a	n/a	34.6
625224.06	4746586.13	V_2287	not_avi	n/a	n/a	n/a	1384.6699	1511.1822	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	34.3	23.3	n/a	n/a	n/a	34.6
624943.74	4746584.86	V_3875	not_avi	n/a	n/a	n/a	1404.6434	1288.1235	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	34.4	25.4	n/a	n/a	n/a	34.9
624860.8	4746737.66	V_3876	not_avi	n/a	n/a	n/a	1272.2595	1337.062	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	35.3	25.5	n/a	n/a	n/a	35.7

not_avi not avaiable
n/a no common receptors avaiable for these farms
NRWC Niagara Region Wind Corporation
MH Mohawk Wind Farm
WF Wainfleet Wind Energy
RF Rosa Flora Turbine
GREP Grand Renewable Energy Project

**NIAGARA REGION WIND FARM
NOISE ASSESSMENT REPORT**

Impact Assessment

July 25, 2013

6.2.2 Project and Cumulative Effects for Scenario 2

The project and cumulative effects were also assessed for Scenario 2 and the results are shown in the following tables.

Table 6.4 Noise Impact Assessment Summary Table (Scenario 2)*

POR ID	POR Description	Project Effects - Sound Level at POR (Leq, 4.5m)	Cumulative Effects - Sound Level at POR (Leq, 4.5m)	Performance Limit (Leq, dBA)	Compliance with Performance Limit? (Y/N)
O_1097	Existing occupied dwelling	40.0	40.0	40.0	Y / Y
O_1153	Existing occupied dwelling	40.0	40.0		Y / Y
O_1344	Existing occupied dwelling	40.0	40.0		Y / Y
O_1707	Existing occupied dwelling	40.0	40.0		Y / Y
O_2160	Existing occupied dwelling	40.0	40.0		Y / Y
O_2522	Existing occupied dwelling	40.0	40.0		Y / Y
O_2598	Existing occupied dwelling	40.0	40.0		Y / Y
O_2690	Existing occupied dwelling	40.0	40.0		Y / Y
O_2710	Existing occupied dwelling	40.0	40.0		Y / Y
O_3030	Existing occupied dwelling	39.9	39.9		Y / Y

* Results for all receptors are provided in **Appendix C**.

Table 6.5 Concordance Table for all adjacent wind farms - Scenario 2

POR UTM Coordinates		POR ID					Distance to nearest source (m)					Nearest Source ID					Level of Farm (dBA)					Level (dBA)
Easting (m)	Northing (m)	NRWC	MH	WF	RF	GREP	NRWC	MH	WF	RF	GREP	NRWC	MH	WF	RF	GREP	NRWC	MH	WF	RF	GREP	Overall
621267.9	4747098.77	O_1215	not_avi	n/a	n/a	n/a	662.35637	1517.7486	>2000	>2000	>2000	T05	MH02	n/a	n/a	n/a	37.5	23.5	n/a	n/a	n/a	37.7
621536.63	4747106.47	O_1271	not_avi	n/a	n/a	n/a	743.62652	1283.8918	>2000	>2000	>2000	T05	MH02	n/a	n/a	n/a	36.8	25.5	n/a	n/a	n/a	37.1
621879.3	4747111.49	O_1335	not_avi	n/a	n/a	n/a	956.29911	1008.0841	>2000	>2000	>2000	T05	MH02	n/a	n/a	n/a	35.8	28.4	n/a	n/a	n/a	36.5
621901.22	4746889.27	O_1342	not_avi	n/a	n/a	n/a	1131.8035	859.50801	>2000	>2000	>2000	T05	MH02	n/a	n/a	n/a	34.5	29.9	n/a	n/a	n/a	35.8
621954.32	4746822.04	O_1360	not_avi	n/a	n/a	n/a	1217.4316	780.10949	>2000	>2000	>2000	T05	MH02	n/a	n/a	n/a	34.1	30.8	n/a	n/a	n/a	35.8
621958.35	4746643.27	O_1362	not_avi	n/a	n/a	n/a	1361.4849	708.51959	>2000	>2000	>2000	T05	MH02	n/a	n/a	n/a	33.2	31.7	n/a	n/a	n/a	35.5
621959.6	4747047.77	O_1363	not_avi	n/a	n/a	n/a	1058.6079	905.68931	>2000	>2000	>2000	T05	MH02	n/a	n/a	n/a	35.2	29.6	n/a	n/a	n/a	36.3
621966.59	4746565.46	O_1365	not_avi	n/a	n/a	n/a	1430.2415	683.23644	>2000	>2000	>2000	T05	MH02	n/a	n/a	n/a	32.8	32.1	n/a	n/a	n/a	35.5
621975.85	4747235.78	O_1368	not_avi	n/a	n/a	n/a	957.25414	1028.8564	>2000	>2000	>2000	T05	MH02	n/a	n/a	n/a	36.2	28.5	n/a	n/a	n/a	36.9
622209.61	4747132.76	O_1489	not_avi	n/a	n/a	n/a	1210.2272	807.09155	>2000	>2000	>2000	T05	MH02	n/a	n/a	n/a	35.3	31.3	n/a	n/a	n/a	36.8
622385.54	4747127.77	O_1541	not_avi	n/a	n/a	n/a	1322.7457	723.96275	>2000	>2000	>2000	T47	MH02	n/a	n/a	n/a	35.3	33	n/a	n/a	n/a	37.3
622589.1	4747137.77	O_1583	not_avi	n/a	n/a	n/a	1313.4629	596.84523	>2000	>2000	>2000	T47	MH05	n/a	n/a	n/a	35.3	34.8	n/a	n/a	n/a	38.1
622764.91	4747539.51	O_1619	not_avi	n/a	n/a	n/a	950.24082	808.19882	>2000	>2000	>2000	T47	MH05	n/a	n/a	n/a	37.6	30.9	n/a	n/a	n/a	38.4
622797.92	4747175.09	O_1624	not_avi	n/a	n/a	n/a	1310.2799	472.35075	>2000	>2000	>2000	T47	MH05	n/a	n/a	n/a	35.6	36.4	n/a	n/a	n/a	39.1
623112.64	4747327.61	O_1710	not_avi	n/a	n/a	n/a	1284.3238	534.79888	>2000	>2000	>2000	T47	MH05	n/a	n/a	n/a	36.5	35	n/a	n/a	n/a	38.8
624879.11	4746506.43	O_2191	not_avi	n/a	n/a	n/a	1493.5781	1187.959	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	34	26.2	n/a	n/a	n/a	34.7
624935.11	4746735.56	O_2212	not_avi	n/a	n/a	n/a	1257.9161	1385.949	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	35.3	24.9	n/a	n/a	n/a	35.7
624970.04	4746685.29	O_2226	not_avi	n/a	n/a	n/a	1301.2733	1375.2635	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	35	24.8	n/a	n/a	n/a	35.4
624978.66	4746621.52	O_2231	not_avi	n/a	n/a	n/a	1362.9883	1338.5505	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	34.6	25	n/a	n/a	n/a	35.1
624981.68	4746745.08	O_2234	not_avi	n/a	n/a	n/a	1240.3947	1425.3576	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	35.4	24.6	n/a	n/a	n/a	35.7
624982.63	4746537.85	O_2236	not_avi	n/a	n/a	n/a	1445.2797	1287.9034	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	34.1	25.3	n/a	n/a	n/a	34.6
624991.37	4746660.17	O_2239	not_avi	n/a	n/a	n/a	1322.9184	1373.7848	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	34.8	24.8	n/a	n/a	n/a	35.2
624998.61	4746642.42	O_2243	not_avi	n/a	n/a	n/a	1339.5117	1367.3372	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	34.7	24.8	n/a	n/a	n/a	35.1
625004.79	4746493.86	O_2245	not_avi	n/a	n/a	n/a	1486.1513	1278.8139	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	33.9	25.2	n/a	n/a	n/a	34.4
625010.25	4746623.9	O_2248	not_avi	n/a	n/a	n/a	1356.3889	1363.9669	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	34.6	24.8	n/a	n/a	n/a	35.0
625012.37	4746698.52	O_2249	not_avi	n/a	n/a	n/a	1282.0938	1415.1795	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	35.1	24.5	n/a	n/a	n/a	35.5
625018.35	4746545.79	O_2251	not_avi	n/a	n/a	n/a	1433.0192	1320.9119	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	34.2	25	n/a	n/a	n/a	34.7
625030.25	4746551.74	O_2256	not_avi	n/a	n/a	n/a	1425.832	1333.966	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	34.2	24.9	n/a	n/a	n/a	34.7
625036.71	4746664.12	O_2257	not_avi	n/a	n/a	n/a	1313.394	1410.2851	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	34.8	24.4	n/a	n/a	n/a	35.2
625041.17	4746506.1	O_2258	not_avi	n/a	n/a	n/a	1470.1881	1315.434	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	33.9	24.9	n/a	n/a	n/a	34.4
625046.24	4746644.01	O_2260	not_avi	n/a	n/a	n/a	1332.4217	1404.4094	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	34.7	24.4	n/a	n/a	n/a	35.1
625052.08	4746515.69	O_2261	not_avi	n/a	n/a	n/a	1459.6652	1329.8927	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	34	24.8	n/a	n/a	n/a	34.5
625061.05	4746623.37	O_2263	not_avi	n/a	n/a	n/a	1351.6127	1402.6152	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	34.6	24.4	n/a	n/a	n/a	35.0
625071.92	4746522.96	O_2267	not_avi	n/a	n/a	n/a	1450.8503	1350.245	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	34	24.6	n/a	n/a	n/a	34.5
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625088.04	4746586.33	O_2270	not_avi	n/a	n/a	n/a	1386.5268	1400.8735	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	34.4	24.3	n/a	n/a	n/a	34.8
625104.45	4746558.82	O_2274	not_avi	n/a	n/a	n/a	1413.0437	1397.607	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	34.2	24.3	n/a	n/a	n/a	34.6
625180.65	4746617.55	O_2282	not_avi	n/a	n/a	n/a	1352.4549	1493.7779	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	34.5	23.5	n/a	n/a	n/a	34.8
625202.87	4746612.79	O_2283	not_avi	n/a	n/a	n/a	1357.4565	1509.0161	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	34.4	23.4	n/a	n/a	n/a	34.7
625154.88	4746600.34	O_3873	not_avi	n/a	n/a	n/a	1369.8386	1462.817	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	34.4	23.8	n/a	n/a	n/a	34.8
625125.91	4746568.59	O_3874	not_avi	n/a	n/a	n/a	1402.341	1420.7176	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	34.2	24.1	n/a	n/a	n/a	34.6

621405.29	4747100.96	P_1255	not_avi	n/a	n/a	n/a	693.79611	1395.8	>2000	>2000	>2000	T05	MH02	n/a	n/a	n/a	37.2	24.5	n/a	n/a	n/a	37.4
621399.48	4747002.98	V_1251	not_avi	n/a	n/a	n/a	785.00583	1358.1888	>2000	>2000	>2000	T05	MH02	n/a	n/a	n/a	36.3	24.8	n/a	n/a	n/a	36.6
621755.08	4747018.86	V_1308	not_avi	n/a	n/a	n/a	938.92506	1051.991	>2000	>2000	>2000	T05	MH02	n/a	n/a	n/a	35.5	27.8	n/a	n/a	n/a	36.2
621908.2	4746515.67	V_1343	not_avi	n/a	n/a	n/a	1441.1541	734.74063	>2000	>2000	>2000	T05	MH02	n/a	n/a	n/a	32.6	31.4	n/a	n/a	n/a	35.1
622588	4747070	V_1581	not_avi	n/a	n/a	n/a	1380.9376	561.51313	>2000	>2000	>2000	T47	MH05	n/a	n/a	n/a	35	35.5	n/a	n/a	n/a	38.3
622822.95	4747628.02	V_1630	not_avi	n/a	n/a	n/a	886.71754	871.85478	>2000	>2000	>2000	T47	MH05	n/a	n/a	n/a	38.2	30	n/a	n/a	n/a	38.8
623377.81	4747182.44	V_1759	not_avi	n/a	n/a	n/a	1484.0734	491.29654	>2000	>2000	>2000	T45	MH05	n/a	n/a	n/a	36	36.4	n/a	n/a	n/a	39.2
624852.98	4746529.58	V_2182	not_avi	n/a	n/a	n/a	1476.4141	1183.5493	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	34.1	26.3	n/a	n/a	n/a	34.8
624925.08	4746685.35	V_2207	not_avi	n/a	n/a	n/a	1309.1178	1343.1012	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	35	25.2	n/a	n/a	n/a	35.4
624981.3	4746600.02	V_2232	not_avi	n/a	n/a	n/a	1383.8872	1326.4452	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	34.5	25.1	n/a	n/a	n/a	35.0
624993.21	4746580.51	V_2240	not_avi	n/a	n/a	n/a	1401.5924	1322.9883	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	34.4	25	n/a	n/a	n/a	34.9
625043.81	4746580.84	V_2259	not_avi	n/a	n/a	n/a	1395.5304	1362.5562	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	34.4	24.7	n/a	n/a	n/a	34.8
625057.37	4746559.35	V_2262	not_avi	n/a	n/a	n/a	1415.7135	1360.1287	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	34.2	24.6	n/a	n/a	n/a	34.7
625062.99	4746485.26	V_2264	not_avi	n/a	n/a	n/a	1489.1109	1321.2843	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	33.8	24.8	n/a	n/a	n/a	34.3
625118.89	4746521.64	V_2276	not_avi	n/a	n/a	n/a	1449.5253	1387.96	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	34	24.3	n/a	n/a	n/a	34.4
625153.28	4746546.78	V_2279	not_avi	n/a	n/a	n/a	1423.4177	1430.5401	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	34.1	23.9	n/a	n/a	n/a	34.5
625202.89	4746576.21	V_2284	not_avi	n/a	n/a	n/a	1394.0304	1488.1008	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	34.2	23.5	n/a	n/a	n/a	34.6
625224.06	4746586.13	V_2287	not_avi	n/a	n/a	n/a	1384.6699	1511.1822	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	34.2	23.3	n/a	n/a	n/a	34.5
624943.74	4746584.86	V_3875	not_avi	n/a	n/a	n/a	1404.6434	1288.1235	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	34.4	25.4	n/a	n/a	n/a	34.9
624860.8	4746737.66	V_3876	not_avi	n/a	n/a	n/a	1272.2595	1337.062	>2000	>2000	>2000	T61	MH03	n/a	n/a	n/a	35.3	25.5	n/a	n/a	n/a	35.7

not_avi

n/a

NRWC

MH

WF

RF

GREP

not available

no common receptors available for these farms

Niagara Region Wind Corporation

Mohawk Wind Farm

Wainfleet Wind Energy

Rosa Flora Turbine

Grand Renewable Energy Project

7.0 Conclusions and Closure

This report has been prepared on behalf of Niagara Region Wind Corporation (NRWC). Stantec Consulting Limited (Stantec) was retained by NRWC to prepare a Noise Assessment Report for their proposed Niagara Region Wind Farm. Stantec's conservative assessment predicted that noise emissions during the Project's predictable worst case operation will meet the MOE criteria at all Points of Reception for both Scenarios with the inclusion of noise barriers at both the transformer substations.

The acoustic analysis highlighted in this report is based on information obtained from NRWC. The assessment represents the conditions at the Project at the time of the assessment, and the conclusions are the best judgment of the assessor based on current environmental standards and provided information. Stantec attests that to the best of our knowledge, the information presented in this report is accurate.

Respectfully Submitted,

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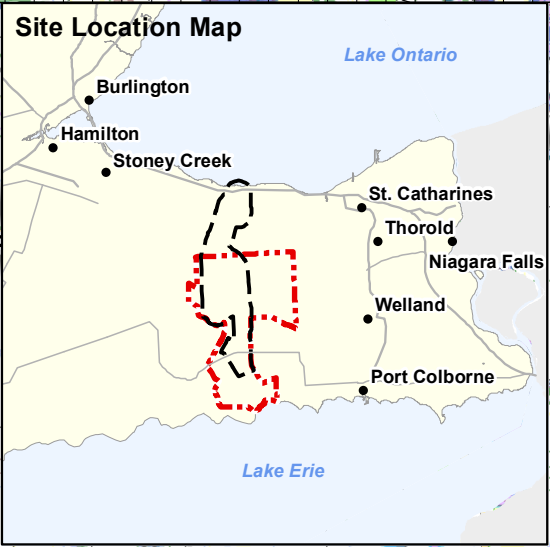
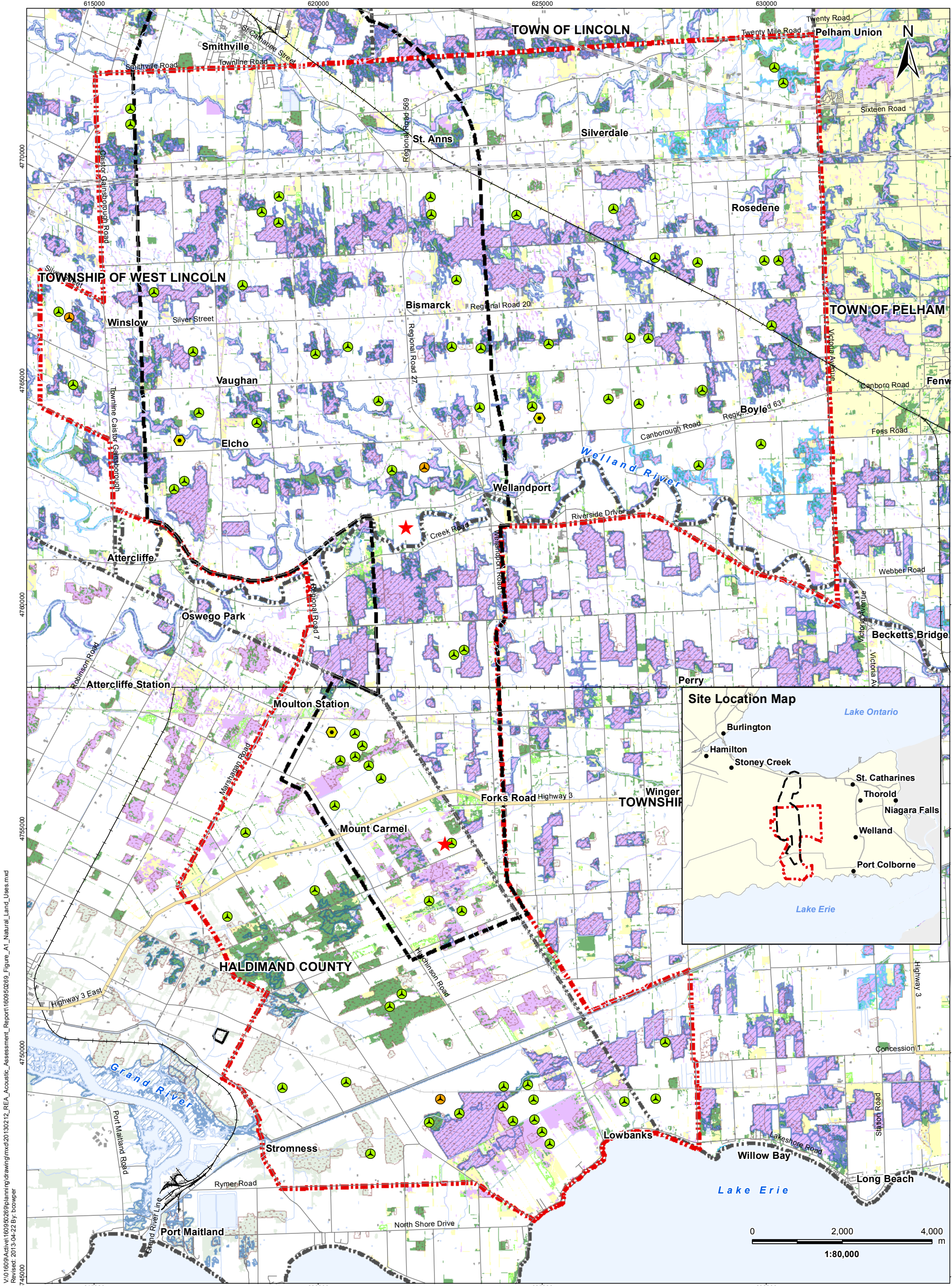
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KG/mcs

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Appendix A Zoning Maps



Legend

- | | | | | | |
|--|----------------------------------|--|----------------------------|--|-----------------------------|
| | Project Study Area | | Road | | Greenbelt |
| | Interconnector Study Area | | Expressway / Highway | | Deer Wintering Yard (MNR) |
| | Proposed Turbine Location (E101) | | Active Railway | | Open Water |
| | Proposed Turbine Location (E82) | | Abandoned Railway | | Open Rock/Shrub Rock Barren |
| | Transformer Substation | | Existing Structures | | Shoreline |
| | Tap-in Location | | Existing Transmission Line | | Bluff |
| | Existing Met Tower | | Watercourse | | Wetlands |
| | | | Waterbody | | Cultural |
| | | | Wooded Area | | Woodland |
| | | | Municipality Lower Tier | | Treed Agriculture |

Notes

- Coordinate System: NAD 1983 UTM Zone 17N
- Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2012.

Client/Project
Niagara Region Wind Corporation
Niagara Region Wind Farm
Acoustic Assessment Report

Figure No.

A1

Title

Natural Land Uses

April 2013
160950269

Appendix B Project Layout Plan

Appendix C Results for all Points of Reception (PORs)

Receptor ID	Scen- ario1	Scen- ario2	UTM Coordinates (NAD 83, Zone 17)		Z	Dist to the nearest Turbine	Nearest Turbine ID		Receptor ID	Scen- ario1	Scen- ario2	UTM Coordinates (NAD 83, Zone 17)		Z	Dist to the nearest Turbine	Nearest Turbine ID		Receptor ID	Scen- ario1	Scen- ario2	UTM Coordinates (NAD 83, Zone 17)		Z	Dist to the nearest Turbine	Nearest Turbine ID						
			Sound Level/ Night	Sound Level/ Night								X	Y								Sound Level/ Night	Sound Level/ Night				X	Y	Sound Level/ Night	Sound Level/ Night	X	Y
O_1002	39.8	39.8	620717	4766300	187	551	T38		O_2697	36.6	36.6	627788	4748190	180	822	T23		O_763	36.9	36.9	619413	4754483	185	1002	T42						
O_1005	36.2	36.2	620722	4763669	185	1080	T75		O_2698	37.2	37.2	627798	4748260	181	759	T23		O_764	37.4	37.3	619414	4764906	185	868	T54						
O_101	35.0	35.0	615006	4771535	195	939	T88		O_2699	38.5	38.5	627802	4764005	185	797	T35		O_765	36.7	36.6	619424	4749986	180	792	T99						
O_1010	38.4	38.4	620728	4766421	188	672	T38		O_27	30.9	30.9	613114	4764680	183	1449	T08		O_767	37.6	37.6	619429	4764966	185	812	T54						
O_1012	35.2	35.2	620733	4752218	185	1460	T62		O_270	36.5	36.5	616496	4764832	185	1017	T39		O_769	34.1	34.1	619435	4748125	180	1122	T99						
O_1013	35.5	35.5	620734	4752084	185	1368	T63		O_2700	36.5	36.5	627802	4748187	181	830	T23		O_77	39.2	39.1	614572	4765536	189	626	T08						
O_1016	39.7	39.7	620737	4755005	183	623	T19		O_2701	36.3	36.3	627831	4748175	181	850	T23		O_770	35.3	35.3	619436	4750194	181	997	T99						
O_1017	33.0	32.9	620737	4761846	180	1477	T74		O_2702	37.0	36.9	627839	4748259	182	776	T23		O_772	36.9	36.9	619444	4754555	185	1049	T42						
O_102	38.5	38.5	615013	4765305	187	612	T08		O_2703	35.1	35.1	627855	4768947	190	1252	T04		O_775	36.0	36.0	619482	4769933	189	895	T85						
O_1029	33.1	33.1	620762	4761877	180	1437	T74		O_2704	36.2	36.2	627859	4748181	182	855	T23		O_778	35.2	35.2	619538	4770010	189	988	T85						
O_103	33.6	33.6	615046	4769911	200	1117	T83		O_2706	36.9	36.9	627881	4762747	180	711	T29		O_78	31.8	31.8	614580	4770090	200	1390	T83						
O_1037	38.1	38.0	620776	4766452	188	708	T38		O_2707	36.0	36.0	627882	4748165	183	878	T23		O_780	37.0	37.0	619552	4754514	185	965	T42						
O_105	37.4	37.3	615115	4766832	190	787	T53		O_2708	36.8	36.7	627896	4762700	180	723	T29		O_783	34.8	34.8	619603	4763499	182	1115	T07						
O_106	33.5	33.5	615120	4767711	193	1432	T81		O_2709	31.5	31.5	627898	4761841	182	1395	T29		O_784	38.0	38.0	619606	4756798	180	940	T91						
O_1063	38.8	38.8	620829	4766361	187	630	T38		O_2710	40.0	40.0	627899	4765540	190	657	T02		O_785	34.9	34.9	619606	4757790	183	1393	T72						
O_1069	36.7	36.6	620841	4763620	185	1023	T74		O_2711	36.4	36.4	627901	4748225	184	832	T23		O_786	38.4	38.4	619608	4755988	180	905	T19						
O_1074	39.9	39.9	620855	4755100	183	632	T19		O_2712	35.9	35.9	627904	4748163	185	890	T23		O_789	36.8	36.8	619638	4767714	192	962	T66						
O_1075	37.8	37.8	620855	4766458	188	730	T38		O_2713	38.5	38.5	627915	4766778	190	993	T02		O_79	38.5	38.5	614630	4767094	190	700	T52						
O_108	33.1	33.1	615127	4767820	193	1485	T81		O_2715	35.7	35.7	627930	4748148	184	914	T23		O_790	37.6	37.6	619653	4767887	193	829	T66						
O_1082	35.9	35.9	620868	4752074	185	1265	T62		O_2716	31.4	31.4	627931	4751602	180	1374	T24		O_791	34.5	34.5	619666	4763471	182	1183	T07						
O_1089	36.3	36.3	620883	4754080	185	1050	T42		O_2717	31.6	31.6	627939	4751567	180	1341	T24		O_792	37.1	37.1	619681	4754666	185	1069	T42						
O_1093	36.9	36.9	620892	4751828	184	1071	T63		O_2718	35.6	35.6	627945	4748147	185	921	T23		O_793	36.0	35.9	619694	4750115	180	1016	T99						
O_1096	39.8	39.7	620899	4750271	180	657	T96		O_272	36.2	36.2	616524	4761770	179	849	T09		O_795	38.9	38.9	619701	4756726	180	828	T91						
O_1097	40.0	40.0	620899	4764949	185	612	T75		O_2720	36.4	36.4	627959	4748275	184	815	T23		O_796	37.4	37.4	619704	4766408	189	849	T54						
O_1098	38.9	38.8	620900	4754976	184	750	T19		O_2721	37.3	37.3	627967	4762691	180	671	T29		O_797	38.8	38.8	619715	4753107	185	565	T42						
O_1103	37.2	37.1	620911	4751796	184	1034	T63		O_2722	35.4	35.4	627972	4748139	185	940	T23		O_798	34.4	34.4	619717	4770049	187	1106	T85						
O_1105	35.8	35.8	620917	4752174	185	1291	T62		O_2723	38.3	38.2	627974	4764010	185	938	T35		O_80	34.6	34.6	614645	4764003	185	913	T08						
O_1107	37.6	37.6	620926	4751706	183	959	T63		O_2724	38.0	38.0	627976	4763835	185	902	T29		O_801	39.3	39.3	619736	4756077	180	854	T19						
O_111	32.8	32.8	615148	4763671	185	1379	T08		O_2726	35.2	35.2	627990	4748126	184	960	T23		O_802	34.8	34.8	619741	4769967	187	1051	T85						
O_1112	39.9	39.8	620954	4755166	183	673	T19		O_2728	35.7	35.7	627995	4748199	185	899	T23		O_803	39.1	39.1	619748	4756818	180	812	T91						
O_1116	37.2	37.2	620961	4763553	185	887	T74		O_273	39.0	39.0	616527	4763296	185	735	T51		O_805	35.8	35.8	619757	4748395	181	994	T99						
O_1127	34.4	34.4	620981	4762035	180	1179	T74		O_2730	35.1	35.1	628003	4748120	184	972	T23		O_806	37.2	37.2	619771	4749883	180	867	T99						
O_113	34.8	34.8	615154	4767422	192	1236	T53		O_2731	35.1	35.1	628016	4748118	184	980	T23		O_807	36.0	35.9	619785	4757734	183	1210	T72						
O_114	38.9	38.9	61																												

O_1228	35.7	35.7	621308	4758305	185	1276	T72		O_2829	32.3	32.3	628440	4747943	180	1369	T23		O_87	33.7	33.7	614772	4770315	200	1123	T83
O_123	36.4	36.4	615239	4765575	188	961	T08		O_2832	36.0	36.0	628445	4749553	180	975	T24		O_870	34.2	34.2	620120	4752244	185	1397	T42
O_124	36.4	36.4	615241	4765572	188	959	T08		O_2834	32.6	32.6	628455	4748023	184	1320	T23		O_872	32.7	32.7	620132	4770116	185	1417	T85
O_1247	35.9	35.9	621379	4753207	185	1124	T84		O_2835	32.2	32.2	628455	4747937	180	1384	T23		O_873	36.3	36.3	620136	4768350	195	1024	T66
O_125	34.2	34.2	615261	4771884	195	994	T88		O_2837	32.2	32.2	628473	4747938	181	1394	T23		O_874	36.0	36.0	620137	4768205	195	1060	T66
O_1250	34.6	34.6	621396	4761324	180	1498	T95		O_2838	32.8	32.8	628501	4748126	185	1282	T23		O_876	35.2	35.2	620153	4767816	193	1249	T66
O_1254	34.8	34.7	621405	4761352	180	1498	T95		O_284	31.2	31.2	616648	4753130	180	1337	T98		O_877	34.3	34.3	620169	4752284	185	1364	T42
O_1258	34.7	34.7	621410	4761334	180	1488	T95		O_2840	32.7	32.7	628502	4748109	185	1294	T23		O_878	34.3	34.2	620173	4752261	185	1387	T42
O_1259	36.3	36.3	621411	4761957	185	1074	T74		O_2841	32.6	32.6	628502	4748077	185	1316	T23		O_879	37.1	37.1	620181	4748575	182	887	T20
O_126	36.9	36.9	615264	4766146	190	848	T53		O_2842	32.8	32.8	628504	4748144	185	1273	T23		O_88	33.4	33.4	614790	4770195	200	1155	T83
O_1260	38.6	38.6	621418	4755178	183	944	T13		O_2843	32.6	32.6	628504	4748091	185	1308	T23		O_880	34.4	34.4	620181	4752372	185	1280	T42
O_1262	36.4	36.3	621440	4766383	188	996	T38		O_2844	32.5	32.5	628510	4748056	185	1336	T23		O_881	34.4	34.4	620184	4752360	185	1292	T42
O_1263	36.2	36.2	621441	4753401	185	1046	T84		O_2845	31.9	31.8	628513	4747894	181	1454	T23		O_882	34.4	34.4	620189	4752345	185	1308	T42
O_1265	32.6	32.6	621491	4770071	190	1416	T28		O_2846	32.8	32.8	628514	4748154	185	1273	T23		O_883	34.3	34.3	620189	4752292	185	1360	T42
O_127	36.7	36.7	615272	4766848	190	930	T53		O_2847	32.4	32.4	628516	4748041	185	1351	T23		O_884	38.7	38.7	620189	4757633	183	818	T72
O_1271	37.2	37.2	621537	4747106	188	744	T05		O_2849	38.7	38.7	628519	4764037	185	748	T78		O_885	37.8	37.8	620191	4754654	185	883	T19
O_1273	35.2	35.2	621549	4768001	193	1213	T27		O_285	32.9	32.9	616650	4771887	194	1175	T88		O_886	34.4	34.4	620195	4752330	185	1324	T42
O_1277	37.4	37.4	621572	4762081	184	925	T74		O_2851	32.5	32.5	628522	4748090	185	1322	T23		O_887	34.3	34.3	620200	4752270	185	1384	T42
O_1278	37.4	37.4	621573	4762080	184	926	T74		O_2852	32.6	32.6	628523	4748104	185	1313	T23		O_89	34.0	34.0	614826	4771447	196	1063	T88
O_1279	32.8	32.8	621591	4770085	190	1355	T28		O_2853	32.6	32.6	628526	4748119	185	1306	T23		O_891	34.4	34.4	620216	4752341	185	1318	T42
O_128	34.6	34.5	615275	4764196	185	1022	T08		O_2854	32.5	32.5	628526	4748075	185	1335	T23		O_893	34.4	34.4	620223	4752324	185	1335	T42
O_1282	38.3	38.3	621608	4749173	182	995	T20		O_2856	32.8	32.8	628527	4748161	185	1280	T23		O_894	34.4	34.4	620230	4752307	185	1353	T42
O_1284	36.9	36.9	621626	4753241	185	875	T84		O_2857	32.3	32.3	628529	4748037	185	1363	T23		O_895	34.5	34.5	620239	4752402	185	1263	T42
O_1286	32.8	32.8	621629	4770089	190	1332	T28		O_2858	32.7	32.7	628531	4748138	185	1296	T23		O_896	34.5	34.5	620242	4752387	185	1279	T42
O_1287	33.0	33.0	621630	4770057	190	1308	T28		O_2859	32.4	32.4	628532	4748064	185	1346	T23		O_897	34.5	34.5	620244	4752368	185	1297	T42
O_1288	39.4	39.3	621630	4755368	181	786	T13		O_2860	35.1	35.1	628545	4749267	181	1047	T23		O_899	34.3	34.3	620249	4752249	185	1415	T42
O_129	36.7	36.7	615276	4766848	190	933	T53		O_2861	32.7	32.7	628545	4748162	185	1293	T23		O_90	34.5	34.5	614834	4770398	199	1037	T83
O_1290	39.2	39.2	621653	4757500	182	908	T72		O_2862	38.0	38.0	628548	4766811	186	821	T58		O_900	34.4	34.4	620250	4752337	185	1329	T42
O_1291	36.5	36.5	621659	4752845	185	993	T84		O_2863	32.6	32.6	628549	4748136	185	1312	T23		O_902	34.4	34.4	620255	4752321	185	1346	T42
O_1292	35.4	35.4	621671	4761158	180	1186	T95		O_2864	32.3	32.3	628552	4748053	185	1369	T23		O_903	34.6	34.5	620259	4752407	185	1263	T42
O_1294	39.3	39.3	621675	4763698	185	695	T74		O_2865	32.2	32.2	628552	4748030	185	1384	T23		O_904	34.4	34.4	620270	4752252	185	1416	T42
O_1296	38.7	38.7	621710	4757536	182	975	T72		O_2866	32.6	32.6	628557	4748163	185	1301	T23		O_906	37.8	37.8	620278	4757830	184	897	T72
O_1297	39.8	39.8	621713	4763617	185	617	T74		O_2867	32.5	32.5	628561	4748131	185	1325	T23		O_907	38.2	38.1	620279	4754728	184	795	T19
O_1298	35.6	35.6	621721	4767883	193	1158	T27		O_2869	32.2	32.2	628567	4748056	185	1378	T23		O_908	34.9	34.9	620283	4763681	185	1377	T75
O_130	36.4	36.4	615286	4765925	189	958	T53		O_2870	32.4	32.4	628572	4748123	185	1338	T23		O_909	34.5	34.5	620286	4752338	185	1337	T42
O_1302	33.8	33.8	621737	4759553	183	1465	T37		O_2871	32.5	32.5	628576	4748152	185	1323	T23		O_91	38.7	38.7	614837	4765471	189	632	T08
O_1305	37.3	37.3	621749	4753817	183	851	T84		O_2872	32.1	32.1	628578	4748034	185	1401	T23		O_910	34.6	34.6	620288	4752415	185	1263	T42
O_1306	36.7	36.7	621752	4752614	185	1071	T84		O_2873	31.6	31.5	628579	4761757	185	1346	T29		O_911	34.4	34.4	620291	4752258	185	1416	T42
O_1307	38.9	38.9	621752	4755337	181	857	T13		O_2874	32.2	32.2	628580	4748056	185	1388	T23		O_912	34.5	34.4	620292	4752320	185	1355	T42
O_131	33.8	33.8	615289	4769760	200	1093	T83		O_2875	32.4	32.4	628581	4748116	185	1350	T23		O_914	34.7	34.7	620302	4752472	185	1213	T42
O_1310	38.7	38.7	621760	4757476	181	985	T41		O_2876	38.5	38.5	628586	4763901	185	806	T29		O_916	34.6	34.6	620312	4752422	185	1263	T42
O_1312	34.2	34.1	621768	4769921	186	1114	T28		O_2877	32.4	32.4	628587	4748140	185	1339	T23		O_917	34.5	34.5	620316	4752330	185	1352	T42
O_1313	37.4	37.3	621783	4752973	185	820	T84		O_2878	32.5	32.5	628589	4748165	185	1325	T23		O_918	34.5	34.5	620316	4752349	185	1334	T42
O_1314	39.5	39.5	621783	4748649	183	728	T47		O_2879	32.1	32.1	628591	4748060	185	1393	T23		O_919	34.5	34.5	620321	4752281	185	1401	T42
O_1315	35.3	35.3	621786	4766948	190	1342	T06		O_288	30.8	30.7	616680	4752540	180	1396	T98		O_92	31.5	31.5	614845	4771984	195	1340	T88
O_1316	39.3	39.3	621795	4755456	180	769	T13		O_2881	32.0	32.0	628592	4748035	185	1411	T98		O_920	34.7	34.7	620322	4752446	185	1244	T42
O_1317	37.9	37.9	621796	4752162	184	855	T62		O_2882	32.3	32.3	628596	4748104	185	1369	T23		O_921	34.7	34.7	620323	4752482	185	1210	T42
O_1319	37.2	37.2	621813	4752867	185	854	T84		O_2883	31.8	31.7	628601	4747963	184	1466	T23		O_922	34.7	34.7	620324	4763531	183	1433	T74
O_1320	38.4	38.4	621815	4752085	184	776	T62		O_2884	32.4	32.4	628603	4748165	185	1336	T23		O_923	38.4	38.4	620325	4766419	188	750	T38
O_1321	36.4	36.3	621815	4761193	180	1058	T95		O_2885	38.5	38.5	628603	4768282	190	666	T58		O_924	32.7	32.7	620336	4769979	186	1483	T85
O_1323	39.7	39.7	621824	4763625	184	645	T74		O_2886	32.3	32.3	628604	4748129	185	1359	T23		O_925	36.5	36.4	620336	4758057	184	1056	T72
O_1325	35.9	35.9	621827	4761087	185	1018	T95		O_2887	37.4	37.4	628604	4766679	185	958	T58		O_926	34.7	34.6	620337	4752435	185	1259	T42
O_1326	37.2	37.2	621834	4768241	195	842	T27		O_2888	3															

O_136	36.9	36.9	615320	4766686	190	910	T53		O_2920	31.7	31.7	628696	4748062	185	1473	T23		O_975	35.0	35.0	620571	4752590	185	1217	T42
O_1360	35.8	35.8	621954	4746822	189	1217	T05		O_2921	31.8	31.8	628698	4748101	185	1450	T23		O_98	36.6	36.6	614983	4770652	195	840	T83
O_1362	35.5	35.5	621958	4746643	189	1361	T05		O_2922	39.6	39.6	628699	4765333	185	563	T78		O_980	39.3	39.3	620617	4748743	182	599	T20
O_1363	36.3	36.3	621960	4747048	189	1059	T05		O_2923	38.5	38.5	628700	4763994	185	797	T78		O_981	35.6	35.6	620635	4751902	185	1306	T63
O_1365	35.5	35.5	621967	4746565	189	1430	T05		O_2925	30.9	30.9	628709	4761647	184	1468	T29		O_983	38.4	38.4	620638	4766431	188	680	T38
O_1366	37.7	37.7	621970	4752213	184	907	T62		O_2926	31.7	31.7	628713	4748074	185	1479	T23		O_984	35.7	35.7	620640	4763545	185	1151	T74
O_1367	36.2	36.2	621974	4766478	190	1249	T01		O_2927	31.9	31.9	628714	4748143	185	1439	T23		O_986	39.5	39.5	620676	4766325	187	573	T38
O_1368	36.9	36.9	621976	4747236	187	957	T05		O_2928	31.8	31.8	628716	4748110	185	1460	T23		O_989	35.0	35.0	620682	4746999	185	899	T05
O_137	33.2	33.2	615321	4763757	185	1391	T08		O_2929	31.6	31.6	628716	4748046	185	1498	T23		O_99	36.6	36.5	614996	4771180	195	829	T88
O_1370	39.7	39.6	621984	4756847	180	924	T13		O_2930	32.0	32.0	628720	4748184	185	1421	T23		O_994	35.2	35.1	620698	4752728	185	1180	T42
O_1372	38.6	38.6	621986	4755401	180	923	T13		O_2931	31.7	31.7	628724	4748091	185	1478	T23		P_1004	39.7	39.6	620721	4765017	185	737	T38
O_1373	37.2	37.2	621986	4761210	180	905	T95		O_2932	31.7	31.7	628730	4748114	185	1468	T23		P_1039	39.1	39.1	620777	4750321	180	733	T96
O_1376	36.3	36.3	621995	4766401	189	1188	T01		O_2935	31.6	31.6	628742	4748102	185	1485	T23		P_1191	40.6	40.6	621195	4765046	185	529	T75
O_1377	38.4	38.4	621998	4752905	185	691	T84		O_2937	31.9	31.9	628749	4748208	185	1431	T23		P_1235	41.3	41.3	621355	4764993	185	451	T75
O_1378	36.7	36.7	622001	4767904	194	965	T27		O_2938	31.7	31.7	628751	4748130	185	1476	T23		P_1255	37.5	37.4	621405	4747101	188	694	T05
O_1379	37.4	37.3	622002	4752621	184	911	T84		O_2940	38.0	38.0	628752	4766880	189	800	T58		P_1275	39.2	39.2	621564	4763692	185	695	T74
O_138	36.9	36.9	615322	4766688	190	912	T53		O_2949	38.3	38.3	628811	4763979	185	836	T78		P_1283	36.7	36.7	621621	4753094	185	916	T84
O_1380	36.3	36.3	622006	4766429	190	1194	T01		O_2951	32.5	32.5	628817	4761935	180	1208	T29		P_1293	39.4	39.4	621674	4755402	181	767	T13
O_1381	37.2	37.2	622006	4761204	181	884	T95		O_2952	31.2	31.1	628817	4761709	183	1428	T29		P_1300	39.4	39.4	621726	4755431	181	760	T13
O_1382	37.2	37.2	622006	4761204	181	884	T95		O_296	38.5	38.4	616705	4766250	189	794	T97		P_1322	39.5	39.5	621819	4748739	183	725	T47
O_1383	36.0	36.0	622012	4766701	190	1212	T06		O_2960	31.2	31.2	628885	4772422	185	1373	T80		P_1375	39.3	39.3	621991	4761415	180	1000	T95
O_1384	38.8	38.8	622012	4764423	185	666	T75		O_2964	37.7	37.7	628917	4768271	188	780	T58		P_1429	38.5	38.5	622096	4755479	180	940	T13
O_1387	37.3	37.3	622026	4761205	181	866	T95		O_2967	37.4	37.3	628942	4766756	189	990	T58		P_1523	39.3	39.3	622322	4763635	180	575	T36
O_1388	37.3	37.3	622027	4761205	181	866	T95		O_297	39.3	39.2	616708	4763383	185	705	T51		P_1554	38.0	38.0	622432	4761563	179	810	T95
O_139	36.1	36.1	615325	4765533	187	998	T08		O_2987	38.0	38.0	629098	4764048	185	898	T78		P_1562	41.5	41.5	622470	4763422	180	370	T36
O_1391	34.0	34.0	622040	4770097	190	1109	T28		O_2993	34.6	34.6	629134	4768816	185	1359	T58		P_1567	39.0	38.9	622501	4751591	182	685	T62
O_1392	37.4	37.4	622051	4761209	181	845	T95		O_2994	36.1	36.1	629134	4768523	185	1112	T58		P_1584	38.9	38.9	622599	4767952	193	759	T27
O_1394	33.6	33.6	622054	4770163	190	1163	T28		O_2998	37.4	37.3	629147	4768284	185	939	T58		P_1610	42.7	42.7	622733	4754331	180	429	T65
O_1396	36.2	36.2	622060	4767512	191	1070	T06		O_3002	33.0	33.0	629179	4772474	180	1120	T80		P_1613	38.7	38.7	622739	4761436	181	590	T95
O_1397	33.2	33.1	622060	4770234	190	1226	T28		O_3004	38.0	38.0	629188	4764115	185	880	T03		P_1666	46.0	45.9	622961	4754427	180	253	T65
O_1398	33.0	33.0	622061	4770262	190	1252	T28		O_3005	38.0	38.0	629188	4764072	185	854	T03		P_1688	40.6	40.5	623038	4765135	185	612	T01
O_140	33.6	33.6	615327	4763951	185	1238	T08		O_3006	34.9	34.9	629189	4768750	185	1325	T59		P_1690	39.9	39.8	623062	4766552	190	694	T06
O_1402	34.9	34.9	622064	4769972	185	987	T28		O_301	33.6	33.6	616739	4768265	194	1357	T81		P_1703	41.7	41.7	623101	4755153	182	488	T65
O_1404	39.0	39.0	622066	4768266	195	644	T27		O_3012	39.0	39.0	629217	4767955	185	798	T59		P_1711	40.3	40.3	623121	4765056	185	702	T01
O_1408	32.9	32.8	622069	4770287	190	1273	T28		O_3014	37.4	37.4	629221	4768293	185	966	T59		P_1727	39.9	39.9	623171	4759596	180	613	T10
O_1409	39.6	39.6	622070	4768334	195	597	T27		O_3016	38.9	38.9	629229	4767241	185	850	T58		P_1765	41.4	41.4	623422	4765171	185	590	T76
O_141	33.5	33.5	615327	4763885	185	1290	T08		O_302	35.3	35.3	616743	4767851	190	971	T81		P_1846	41.0	41.0	623736	4765098	185	629	T76
O_1411	32.6	32.6	622075	4770330	190	1311	T28		O_3021	37.6	37.6	629266	4766710	189	983	T18		P_1848	41.5	41.5	623749	4763990	180	427	T55
O_1412	36.4	36.4	622077	4766472	190	1164	T01		O_3023	38.0	38.0	629268	4764095	185	804	T03		P_1872	41.0	41.0	623844	4765184	185	573	T76
O_1415	32.4	32.4	622080	4770375	190	1352	T28		O_3025	38.9	38.9	629286	4763298	185	671	T03		P_191	43.4	43.3	615738	4771386	191	336	T88
O_1416	32.1	32.1	622080	4770423	190	1397	T28		O_3026	37.9	37.9	629300	4764159	185	823	T03		P_197	36.5	36.5	615823	4771824	190	765	T88
O_1417	31.6	31.6	622081	4770512	190	1482	T28		O_3027	39.7	39.7	629302	4767812	185	676	T59		P_1981	40.2	40.2	624061	4765197	185	671	T76
O_1418	34.1	34.1	622081	4770099	190	1094	T28		O_3029	35.6	35.6	629319	4771724	187	905	T80		P_1994	35.3	35.3	624118	4753544	185	980	T89
O_1419	37.5	37.5	622081	4752247	184	958	T62		O_3030	40.0	40.0	629320	4767722	185	646	T59		P_2030	35.0	35.0	624194	4753418	185	1011	T89
O_142	36.1	36.1	615328	4765537	187	1002	T08		O_3031	36.3	36.3	629324	4762740	182	901	T29		P_2084	38.3	38.3	624395	4768064	190	634	T57
O_1420	32.2	32.2	622083	4770408	190	1383	T28		O_3032	38.5	38.5	629326	4767072	186	878	T59		P_2090	39.2	39.1	624454	4750143	180	892	T48
O_1421	32.3	32.3	622085	4770394	190	1369	T28		O_3033	37.8	37.8	629339	4766729	189	930	T18		P_2165	39.2	39.2	624792	4763832	183	578	T32
O_1422	32.4	32.4	622085	4770362	190	1338	T28		O_3035	36.7	36.7	629342	4765463	188	1021	T78		P_225	38.0	37.9	616142	4767556	190	622	T81
O_1423	31.8	31.8	622085	4770478	190	1448	T28		O_3036	39.2	39.1	629343	4763833	185	601	T03		P_2250	38.0	37.9	625016	4768416	190	644	T57
O_1425	38.2	38.2	622089	4764335	185	760	T75		O_3039	37.4	37.4	629352	4764867	185	775	T78		P_2293	40.2	40.2	625246	4765256	185	573	T31
O_1426	37.8	37.8	622093	4752682	184	813	T84		O_3040	36.8	36.8	629354	4765263	186	910	T78		P_2359	37.3	37.3	625758	4747261	185	917	T61
O_1427	37.6	37.6	622094	4761205	181	805	T95		O_3041	32.4	32.4	629354	4762097	179	1318	T29		P_2529	40.5	40.4	626407	4769228	190	446	T56
O_1428	37.6	37.6	622095	4761206	181	805	T95		O_3043	38.1	38.1														

O_1471	37.9	37.9	622165	4761221	181	749	T95		O_3077	36.6	36.6	629402	4765330	187	987	T78		P_3895	38.4	38.4	622621	4751424	182	753	T62
O_1472	31.9	31.9	622178	4770479	190	1424	T28		O_3078	33.9	33.9	629403	4772607	185	1000	T80		P_3897	42.1	42.0	627442	4768130	190	398	T04
O_1474	33.6	33.6	622184	4770200	190	1153	T28		O_3079	36.5	36.5	629406	4772028	185	781	T80		P_3902	38.5	38.5	614181	4767160	193	630	T52
O_1476	37.5	37.5	622187	4767902	193	877	T27		O_3080	36.7	36.6	629407	4765239	186	943	T78		P_411	40.4	40.4	617317	4763230	185	563	T51
O_1477	34.3	34.3	622188	4770096	190	1053	T28		O_3081	37.9	37.9	629408	4764174	185	760	T03		P_439	40.3	40.3	617463	4764813	185	546	T39
O_1478	38.0	38.0	622189	4761223	181	730	T95		O_3082	37.8	37.8	629409	4766070	189	731	T18		P_461	39.7	39.7	617609	4764824	185	604	T39
O_1479	37.2	37.2	622195	4767822	193	949	T27		O_3083	32.9	32.9	629410	4762205	180	1278	T29		P_567	37.9	37.8	618224	4752489	184	604	T98
O_148	34.2	34.2	615344	4767601	192	1183	T81		O_3084	35.4	35.4	629411	4762630	182	1027	T29		P_580	40.1	40.1	618345	4767663	190	537	T93
O_1481	36.7	36.7	622198	4766556	190	1130	T01		O_3085	38.2	38.1	629415	4764124	185	718	T03		P_590	37.5	37.5	618408	4752569	185	637	T98
O_1489	36.8	36.8	622210	4747133	186	1210	T05		O_3086	34.1	34.1	629416	4771069	190	1123	T79		P_595	44.7	44.6	618453	4768755	195	299	T94
O_1491	36.8	36.8	622215	4758503	182	906	T37		O_3087	32.3	32.4	629417	4762131	175	1336	T29		P_642	38.3	38.3	618759	4754396	185	637	T82
O_1492	38.0	38.0	622215	4762190	180	888	T36		O_3088	36.6	36.6	629418	4765276	187	971	T78		P_67	39.5	39.5	614393	4765788	190	618	T53
O_1494	32.1	32.1	622216	4770446	190	1383	T28		O_309	33.6	33.6	616802	4769948	198	1245	T83		P_689	44.1	43.9	618924	4764034	185	289	T07
O_1495	36.4	36.4	622217	4757569	180	1415	T41		O_3090	38.5	38.5	629423	4768195	185	750	T59		P_690	39.0	38.9	618929	4763574	181	562	T07
O_1497	36.5	36.5	622226	4757487	180	1383	T41		O_3091	37.8	37.8	629431	4765990	188	732	T18		P_703	39.1	39.1	618972	4767763	191	781	T66
O_150	36.1	36.1	615346	4764717	185	825	T08		O_3092	36.9	36.9	629440	4771774	185	775	T80		P_72	39.1	39.1	614498	4765557	190	648	T08
O_1500	38.3	38.3	622232	4755540	180	1007	T13		O_3093	36.9	36.9	629442	4771747	185	781	T80		P_743	38.7	38.7	619257	4767798	192	743	T66
O_1501	39.6	39.6	622234	4749400	182	663	T46		O_3095	36.5	36.5	629455	4765226	186	980	T78		P_757	36.9	36.9	619378	4754477	185	1015	T92
O_1502	37.8	37.7	622234	4765030	185	1004	T75		O_3097	37.9	37.9	629475	4764211	185	750	T03		P_815	39.4	39.4	619830	4756972	180	811	T91
O_1504	37.7	37.7	622251	4752150	183	919	T62		O_3098	37.7	37.6	629476	4764261	185	791	T03		P_816	39.6	39.5	619841	4765022	188	581	T54
O_1505	33.6	33.6	622251	4770213	190	1148	T28		O_3100	35.2	35.2	629479	4772495	180	872	T80		P_827	38.9	38.9	619941	4749526	180	711	T20
O_1507	32.3	32.3	622256	4770417	190	1347	T28		O_3102	37.0	36.9	629502	4764502	185	963	T78		P_839	39.5	39.5	620023	4757321	182	829	T72
O_1508	37.4	37.4	622259	4752371	184	1047	T84		O_3103	37.4	37.3	629507	4764337	185	843	T03		P_848	39.6	39.6	620050	4749472	181	592	T20
O_1509	31.6	31.6	622264	4770549	186	1475	T28		O_3105	37.0	37.0	629516	4771517	185	817	T80		P_939	39.2	39.1	620400	4766345	187	651	T38
O_1511	32.5	32.5	622288	4770391	190	1316	T28		O_3106	37.8	37.8	629518	4771765	185	703	T80		P_960	40.0	40.0	620500	4754958	183	571	T19
O_1513	33.7	33.7	622292	4770204	190	1130	T28		O_3107	37.4	37.4	629518	4772160	183	691	T80		V_104	39.4	39.3	614831	4765389	188	557	T08
O_1514	38.2	38.2	622294	4755568	180	1043	T13		O_3109	32.5	32.5	629528	4770594	190	1349	T79		V_1041	36.4	36.4	620779	4763617	185	1070	T74
O_1518	37.6	37.6	622302	4764000	180	940	T36		O_3111	38.4	38.3	629540	4764147	185	661	T03		V_1052	36.4	36.4	620802	4763561	185	1021	T74
O_152	36.3	36.2	615347	4765950	189	1000	T53		O_3112	38.5	38.5	629540	4765971	189	637	T18		V_1057	39.1	39.1	620810	4750114	180	794	T20
O_1521	31.5	31.5	622316	4770505	185	1423	T28		O_3113	34.2	34.2	629548	4772711	185	967	T80		V_1067	35.9	35.9	620840	4758277	185	1155	T72
O_1524	38.0	38.0	622322	4755719	182	997	T13		O_3115	37.8	37.8	629556	4764234	185	728	T03		V_1071	36.4	36.4	620845	4754148	185	1048	T42
O_1525	32.7	32.7	622322	4770361	190	1280	T28		O_3116	38.4	38.4	629568	4764156	185	654	T03		V_110	33.7	33.7	615144	4769829	200	1115	T83
O_1526	37.6	37.6	622329	4752138	183	942	T62		O_3117	39.4	39.4	629577	4768185	185	639	T59		V_1100	36.0	36.0	620903	4747004	186	796	T05
O_1527	38.1	38.1	622334	4755597	181	1063	T13		O_312	31.7	31.7	616817	4753735	180	1354	T98		V_1102	36.8	36.8	620907	4747084	186	720	T05
O_1528	39.0	39.0	622338	4751818	183	686	T62		O_3120	33.6	33.6	629582	4770783	186	1172	T79		V_1108	39.7	39.6	620934	4755121	183	681	T19
O_1530	33.9	33.9	622345	4770190	190	1108	T28		O_3122	37.8	37.8	629606	4764250	185	721	T03		V_1110	36.2	36.1	620939	4753991	185	1068	T42
O_1532	37.5	37.5	622354	4762128	180	936	T36		O_3125	33.5	33.4	629621	4762383	181	1234	T03		V_1120	36.3	36.3	620968	4758224	185	1111	T72
O_1533	38.2	38.2	622354	4767938	193	791	T27		O_3126	38.4	38.4	629632	4764175	185	643	T03		V_1121	37.6	37.6	620969	4766447	188	757	T38
O_1534	32.9	32.9	622356	4770337	190	1252	T28		O_3128	37.8	37.8	629647	4764257	185	712	T03		V_1122	39.8	39.8	620971	4749867	180	628	T20
O_1535	32.1	32.1	622361	4770472	190	1385	T28		O_3130	39.7	39.6	629667	4768216	185	617	T59		V_1124	38.9	38.9	620978	4748746	182	691	T20
O_1537	38.0	38.0	622371	4765105	185	887	T01		O_3133	38.7	38.7	629688	4764157	185	604	T03		V_1162	38.8	38.8	621095	4748789	182	724	T20
O_1541	37.3	37.3	622386	4747128	185	1323	T47		O_3135	33.7	33.7	629724	4770707	185	1140	T79		V_1189	37.0	37.0	621193	4758095	184	1040	T72
O_1542	33.2	33.2	622389	4770304	190	1215	T28		O_3138	36.7	36.6	629824	4772622	183	733	T80		V_1190	38.4	38.4	621193	4751834	183	861	T62
O_1543	32.3	32.3	622395	4770443	190	1352	T28		O_3139	39.1	39.1	629843	4771318	185	628	T79		V_1195	35.8	35.8	621203	4753582	185	1268	T42
O_1544	38.1	38.1	622396	4751936	183	812	T62		O_314	38.9	38.9	616841	4766189	189	663	T97		V_1210	35.5	35.5	621249	4762014	185	1069	T74
O_1546	39.7	39.6	622414	4754205	180	741	T65		O_3141	36.0	36.0	629915	4765308	188	944	T18		V_1219	35.9	35.8	621277	4753727	185	1255	T84
O_1547	37.0	37.0	622424	4759567	180	921	T37		O_3142	39.8	39.8	629916	4771316	185	567	T79		V_1230	38.9	38.9	621316	4763588	185	677	T74
O_1549	37.8	37.8	622425	4763874	180	812	T36		O_3143	37.2	37.2	629923	4772624	184	692	T80		V_1236	38.6	38.5	621357	4755146	183	978	T13
O_1557	32.5	32.5	622442	4770413	190	1319	T28		O_3144	37.2	37.2	629933	4764309	185	723	T03		V_1243	35.7	35.7	621369	4758305	185	1301	T72
O_1558	33.5	33.5	622444	4770259	190	1166	T28		O_3145	33.9	33.9	629952	4770636	185	1090	T79		V_1251	36.6	36.6	621399	4747003	188	785	T05
O_1559	39.0	39.0	622454	4749660	181	748	T46		O_3146	39.6	39.6	629968	4768328	187	652	T59		V_1261	38.0	38.0	621434	4757850	183	947	T72
O_1560	37.9	37.9	622463	4766510	190	927	T01		O_3147	37.3	37.3	629971	4772629	183	680	T80		V_1267	34.5	34.5	621502	4761141	181	1346	T95
O_1561	38.9	38.9	622470	4763643	180	587	T36		O_3150	37.5	37.5	63													

O_161	35.9	35.9	615415	4765286	186	947	T08		O_3184	34.2	34.2	630469	4770621	185	1019	T79		V_1436	37.9	37.9	622102	4764951	185	850	T75
O_1611	38.2	38.1	622733	4759658	181	835	T37		O_3187	39.1	39.1	630491	4766885	190	753	T18		V_1443	37.7	37.7	622114	4761205	181	787	T95
O_1614	39.2	39.2	622741	4766446	190	742	T01		O_3189	34.4	34.4	630504	4770660	185	984	T79		V_1452	38.9	38.9	622129	4753983	182	691	T84
O_1615	39.6	39.6	622743	4765147	185	645	T01		O_319	33.9	33.9	616880	4768207	193	1351	T81		V_1462	38.4	38.4	622150	4763812	180	783	T36
O_1617	34.3	34.2	622753	4770142	190	1072	T28		O_3191	38.9	38.9	630537	4766889	190	780	T18		V_1463	38.4	38.4	622150	4769623	185	642	T28
O_1619	38.5	38.5	622765	4747540	185	950	T47		O_3192	35.2	35.2	630538	4770754	185	896	T79		V_1473	35.6	35.6	622184	4759623	180	1132	T37
O_162	35.9	35.9	615417	4765289	186	950	T08		O_3193	36.6	36.6	630551	4772660	180	768	T80		V_1475	36.9	36.9	622185	4759011	181	863	T37
O_1621	35.9	35.9	622790	4762100	180	1047	T36		O_3194	34.0	34.0	630576	4764410	188	1071	T03		V_1480	38.1	38.1	622196	4760773	185	625	T95
O_1623	38.0	38.0	622797	4759731	182	873	T10		O_3195	36.5	36.5	630587	4772655	180	781	T80		V_1482	37.7	37.7	622200	4760616	185	659	T95
O_1624	39.1	39.0	622798	4747175	185	1310	T47		O_3196	37.8	37.8	630596	4768345	186	736	T60		V_1483	37.0	37.0	622205	4760457	185	728	T95
O_1626	37.7	37.7	622801	4763750	183	806	T36		O_3197	38.1	38.1	630635	4768286	186	702	T60		V_1484	36.6	36.6	622205	4760364	185	782	T95
O_1627	39.4	39.4	622805	4749665	181	700	T46		O_3198	33.5	33.5	630640	4764516	189	1193	T03		V_1485	36.1	36.1	622205	4760252	184	856	T95
O_1628	36.7	36.7	622815	4755778	185	1112	T65		O_32	32.1	32.1	613320	4764699	185	1243	T08		V_1486	36.3	36.3	622207	4760296	184	824	T95
O_163	32.9	32.9	615444	4763020	185	1417	T09		O_320	32.3	32.3	616900	4753630	180	1231	T98		V_1488	35.9	35.9	622209	4760180	183	905	T95
O_1632	35.9	35.8	622825	4762142	180	1023	T36		O_3202	34.0	34.0	630699	4770660	180	1027	T79		V_1490	35.7	35.7	622211	4760102	183	964	T95
O_1633	39.4	39.4	622835	4766529	190	761	T06		O_3204	33.3	33.3	630720	4764407	189	1165	T03		V_1493	35.6	35.5	622215	4760015	182	1030	T95
O_1634	35.1	35.1	622839	4757583	180	1313	T37		O_3206	33.7	33.6	630804	4764082	188	1038	T03		V_1496	35.5	35.5	622220	4759930	181	1098	T95
O_1636	39.5	39.5	622845	4766455	190	724	T01		O_3207	34.4	34.4	630811	4770764	180	971	T79		V_1498	38.2	38.2	622231	4761225	180	695	T95
O_1637	33.3	33.3	622846	4770265	190	1215	T28		O_3208	35.1	35.1	630819	4772667	181	931	T80		V_1499	36.8	36.8	622232	4757310	180	1317	T41
O_1638	36.0	36.0	622849	4762264	180	927	T36		O_3209	34.5	34.5	630826	4772734	184	986	T80		V_1506	38.2	38.2	622255	4755623	181	982	T13
O_164	36.3	36.3	615444	4766146	189	1021	T53		O_321	31.6	31.6	616900	4752401	180	1257	T98		V_1510	37.1	37.1	622278	4766506	190	1039	T01
O_1641	37.7	37.7	622865	4763665	182	774	T36		O_3211	34.0	34.0	630894	4772746	182	1040	T80		V_1516	39.1	39.1	622296	4754165	180	795	T84
O_1642	37.9	37.9	622878	4755538	181	865	T65		O_3212	32.2	32.2	630918	4764626	190	1460	T03		V_1517	37.9	37.9	622298	4752046	183	847	T62
O_1643	36.3	36.3	622881	4755866	185	1191	T65		O_3213	39.2	39.2	630929	4771501	184	562	T79		V_1519	34.4	34.3	622304	4770121	190	1047	T28
O_1645	35.6	35.6	622889	4762111	180	1080	T36		O_3214	34.4	34.4	630930	4772674	180	1014	T80		V_1520	38.5	38.5	622310	4751917	183	744	T62
O_1646	37.4	37.3	622895	4761561	180	715	T95		O_3215	32.2	32.2	630939	4764497	190	1387	T03		V_1531	37.4	37.4	622348	4766512	190	998	T01
O_1647	36.9	36.9	622898	4751112	181	1040	T62		O_3216	32.0	32.0	630975	4764619	190	1496	T03		V_1536	36.7	36.7	622366	4759563	180	958	T37
O_1649	39.6	39.6	622911	4759571	181	678	T10		O_3217	31.9	31.9	631003	4764528	190	1456	T03		V_1545	38.0	38.0	622398	4755588	181	1082	T65
O_165	36.4	36.4	615446	4766221	190	1006	T53		O_3218	33.1	33.1	631016	4772782	182	1151	T80		V_1548	39.0	39.0	622425	4751713	182	679	T62
O_1651	36.8	36.8	622917	4751069	181	1068	T62		O_3219	33.3	33.3	631029	4772740	181	1132	T80		V_155	32.3	32.3	615358	4762588	185	1432	T09
O_1656	39.4	39.4	622927	4749678	181	736	T46		O_3222	33.6	33.6	631042	4772683	180	1105	T80		V_1550	35.8	35.8	622428	4757584	180	1434	T37
O_1657	35.5	35.5	622931	4762118	180	1095	T36		O_3223	37.2	37.1	631043	4772073	180	790	T79		V_1565	33.2	33.2	622495	4770305	190	1210	T28
O_1658	37.6	37.6	622936	4763662	183	818	T36		O_3225	34.4	34.4	631065	4765902	190	997	T18		V_1566	38.4	38.3	622498	4751743	182	757	T62
O_166	36.4	36.4	615452	4766237	190	1010	T53		O_323	39.9	39.9	616908	4763380	185	639	T51		V_1568	37.4	37.4	622508	4755790	183	1147	T13
O_1662	39.7	39.7	622948	4766556	190	704	T06		O_3230	32.0	32.0	631121	4770571	185	1296	T79		V_1573	36.9	36.9	622543	4762185	180	894	T36
O_1663	38.0	38.0	622949	4763367	181	646	T36		O_3232	31.6	31.6	631133	4770475	185	1382	T79		V_1578	36.7	36.7	622586	4762187	180	901	T36
O_1664	37.7	37.7	622953	4761506	180	669	T95		O_3236	34.2	34.2	631162	4768311	185	1085	T60		V_1581	38.4	38.3	622588	4747070	185	1381	T47
O_1668	39.8	39.8	622961	4755330	180	651	T65		O_3239	34.9	34.9	631179	4771200	181	907	T79		V_1582	38.7	38.7	622589	4767849	193	789	T06
O_167	32.0	32.0	615459	4762118	182	1408	T09		O_3240	32.1	32.1	631179	4768810	185	1444	T60		V_1587	38.7	38.6	622606	4762550	180	561	T36
O_1672	37.7	37.7	622974	4763788	184	878	T55		O_3243	34.8	34.8	631192	4771191	180	923	T79		V_1589	38.2	38.2	622621	4762509	180	605	T36
O_1675	33.8	33.7	622982	4770163	190	1164	T28		O_3244	35.3	35.3	631194	4771305	180	875	T79		V_1590	39.2	39.2	622624	4761373	182	556	T95
O_1677	39.9	39.9	622992	4765045	185	700	T01		O_3246	35.7	35.7	631197	4767565	185	927	T60		V_1591	37.6	37.6	622632	4759683	181	899	T37
O_1683	35.2	35.2	623026	4762121	180	1143	T36		O_3247	34.6	34.6	631209	4771190	180	938	T79		V_1592	36.6	36.6	622632	4762187	180	912	T36
O_1685	36.6	36.6	623030	4761609	180	787	T95		O_3248	34.0	34.0	631213	4768277	185	1109	T60		V_1593	38.1	38.1	622640	4763709	180	696	T36
O_1686	35.3	35.3	623031	4762240	180	1050	T36		O_3252	34.5	34.5	631226	4771189	181	954	T79		V_1595	38.6	38.6	622649	4762580	180	554	T36
O_1687	36.5	36.5	623038	4750759	180	1286	T62		O_3253	34.7	34.7	631231	4771238	180	937	T79		V_1598	38.7	38.7	622666	4766527	190	836	T06
O_1694	37.9	37.9	623069	4760207	183	692	T95		O_3254	34.4	34.4	631237	4771182	182	967	T79		V_1599	37.9	37.9	622667	4762496	180	636	T36
O_1695	33.5	33.5	623070	4770170	190	1209	T28		O_3255	35.2	35.2	631237	4767355	185	1014	T60		V_1601	36.4	36.4	622670	4762187	180	923	T36
O_1696	34.6	34.6	623074	4757512	180	1369	T37		O_3256	34.7	34.7	631246	4771269	180	938	T79		V_1604	38.2	38.2	622695	4762561	180	594	T36
O_1697	37.3	37.3	623074	4763216	181	712	T36		O_3257	34.4	34.4	631246	4771193	182	970	T79		V_1606	36.3	36.3	622708	4762189	180	934	T36
O_17	31.6	31.6	612851	4766482	190	1365	T52		O_3258	31.6	31.6	631247	4765249	190	1491	T18		V_1607	37.7	37.7	622709	4762499	180	654	T36
O_170	30.4	30.4	615491	4772493	195	1471	T88		O_3259	34.6	34.6	631248	4771260	180	943	T79		V_1612	37.8	37.8	622737	4762539	180	635	T36
O_1700	35.3	35.3	623091	4762381	180	986	T36		O_326																

O_174	34.6	34.6	615549	4767647	192	1045	T81		O_3291	34.4	34.4	631290	4771285	180	972	T79		V_1684	39.2	39.1	623027	4752564	184	626	T89
O_1741	34.7	34.7	623263	4762397	180	1107	T36		O_3293	34.6	34.6	631296	4771372	180	950	T79		V_1689	35.8	35.8	623059	4755875	184	1198	T65
O_1742	39.0	39.0	623265	4763874	182	624	T55		O_3294	34.5	34.4	631298	4771332	180	963	T79		V_1692	39.6	39.6	623068	4758264	180	618	T37
O_1743	36.0	36.0	623277	4763043	180	899	T36		O_3295	33.9	33.9	631298	4771191	184	1017	T79		V_1693	38.5	38.5	623069	4760288	183	617	T95
O_1744	34.7	34.7	623299	4762480	180	1089	T36		O_3296	34.4	34.4	631299	4771331	180	964	T79		V_1698	37.0	37.0	623074	4769670	187	800	T28
O_1746	39.7	39.6	623319	4759601	180	614	T10		O_3297	34.2	34.2	631299	4771262	181	989	T79		V_1699	37.6	37.6	623077	4760135	183	761	T95
O_1748	34.5	34.5	623330	4762385	180	1168	T36		O_3298	31.6	31.6	631300	4765347	190	1472	T18		V_1709	37.4	37.4	623109	4759967	182	931	T95
O_1751	34.6	34.6	623339	4762501	180	1113	T36		O_3299	31.9	31.9	631303	4765483	190	1396	T18		V_1716	38.5	38.5	623130	4759737	181	758	T10
O_1754	35.1	35.0	623359	4755842	182	1222	T65		O_3300	34.4	34.4	631307	4771338	180	970	T79		V_1724	37.5	37.5	623166	4760181	183	756	T95
O_1756	35.5	35.5	623361	4762971	180	986	T36		O_3301	34.5	34.5	631307	4771384	180	957	T79		V_1728	36.4	36.4	623172	4761561	180	794	T95
O_1757	34.3	34.3	623372	4762394	180	1198	T36		O_3302	34.4	34.4	631307	4771338	180	970	T79		V_1736	36.3	36.3	623245	4763115	181	868	T36
O_1758	37.5	37.5	623376	4769240	190	872	T28		O_3303	34.2	34.2	631307	4771273	181	992	T79		V_1737	32.7	32.7	623247	4770258	190	1373	T28
O_176	36.2	36.2	615569	4766207	189	1085	T81		O_3304	34.1	34.1	631313	4771279	181	995	T79		V_1739	33.1	33.1	623259	4770177	189	1312	T28
O_1760	34.7	34.7	623394	4761711	180	1036	T95		O_3305	34.0	34.0	631316	4771241	182	1013	T79		V_1740	36.3	36.3	623260	4763182	181	889	T36
O_1761	34.5	34.5	623394	4762532	180	1146	T36		O_3306	33.8	33.8	631317	4771189	184	1035	T79		V_1745	35.3	35.3	623317	4751215	181	1444	T62
O_1764	34.4	34.4	623420	4762550	180	1161	T36		O_3307	34.5	34.5	631318	4771393	180	965	T79		V_1747	35.8	35.8	623329	4763033	180	951	T36
O_1766	34.9	34.9	623423	4755827	181	1229	T65		O_3308	34.1	34.1	631318	4771288	180	997	T79		V_1749	34.4	34.3	623333	4762292	180	1227	T36
O_1767	34.1	34.1	623424	4762357	180	1262	T36		O_3309	34.3	34.3	631318	4771347	180	978	T79		V_1750	39.7	39.7	623337	4766590	190	697	T06
O_1768	34.2	34.2	623424	4762417	180	1229	T36		O_331	31.7	31.7	616942	4752377	180	1235	T98		V_1752	38.4	38.4	623344	4763761	184	686	T55
O_1769	37.3	37.3	623442	4750271	180	1250	T16		O_3310	34.3	34.3	631318	4771345	180	979	T79		V_1753	34.4	34.4	623349	4757624	180	1295	T37
O_1770	39.7	39.7	623450	4766472	190	776	T76		O_3311	34.2	34.2	631320	4771304	180	993	T79		V_1755	35.2	35.2	623360	4761626	180	946	T95
O_1772	34.2	34.2	623451	4762445	180	1238	T36		O_3312	34.3	34.3	631322	4767144	185	1175	T60		V_1759	39.3	39.2	623378	4747182	185	1484	T45
O_1774	34.3	34.3	623464	4762529	180	1210	T36		O_3313	34.3	34.3	631324	4771363	180	979	T79		V_1762	37.9	37.9	623417	4768353	193	952	T27
O_1775	34.2	34.2	623472	4762494	180	1233	T36		O_3315	34.2	34.2	631325	4771316	180	994	T79		V_1763	35.3	35.3	623418	4762970	180	1044	T36
O_1776	34.1	34.1	623477	4762429	180	1268	T36		O_332	31.1	31.1	616948	4752188	180	1341	T98		V_177	36.1	36.1	615576	4766159	189	1114	T81
O_1777	38.3	38.3	623480	4750042	180	1044	T16		O_3320	34.3	34.3	631328	4771361	180	984	T79		V_1771	39.5	39.5	623450	4766553	190	777	T06
O_178	30.7	30.7	615577	4772469	195	1430	T88		O_3321	33.9	33.9	631329	4771247	181	1023	T79		V_1773	35.1	35.1	623454	4762934	180	1083	T36
O_1780	34.1	34.0	623494	4762448	180	1274	T36		O_3323	34.4	34.4	631331	4771404	180	975	T79		V_1778	34.9	34.9	623489	4762879	180	1125	T36
O_1781	34.7	34.7	623496	4755818	181	1249	T65		O_3325	34.3	34.3	631332	4771368	180	986	T79		V_1779	32.6	32.6	623489	4770192	190	1466	T28
O_1782	39.4	39.4	623497	4766581	190	776	T06		O_3327	34.2	34.2	631334	4771367	180	987	T79		V_1785	37.8	37.8	623506	4750154	180	1117	T16
O_1783	37.1	37.0	623498	4755362	182	855	T65		O_3328	34.1	34.1	631334	4771332	180	997	T79		V_1791	35.6	35.5	623527	4763179	181	1155	T36
O_1784	34.0	34.0	623500	4762400	180	1303	T36		O_3329	34.4	34.4	631336	4771422	180	976	T79		V_1799	38.9	38.9	623552	4749960	180	936	T16
O_1788	34.0	34.0	623518	4757617	180	1352	T37		O_333	34.4	34.3	616953	4761501	180	1087	T09		V_1840	37.5	37.5	623700	4768015	191	979	T06
O_1789	34.0	34.0	623524	4762474	180	1288	T36		O_3330	33.6	33.6	631337	4771187	183	1054	T79		V_1845	33.6	33.6	623722	4757626	180	1429	T37
O_1790	33.9	33.9	623525	4762407	180	1321	T36		O_3331	34.6	34.6	631338	4771558	180	958	T79		V_1847	34.1	34.1	623739	4755564	180	1164	T65
O_1793	34.7	34.7	623533	4755770	180	1222	T65		O_3332	33.5	33.5	631342	4766557	190	1263	T18		V_1849	38.0	38.0	623769	4758446	180	745	T10
O_1794	35.0	35.0	623546	4755699	180	1165	T65		O_3333	34.2	34.2	631344	4771379	180	994	T79		V_1856	38.0	37.9	623812	4752888	185	655	T89
O_1795	34.0	34.0	623546	4757619	180	1360	T37		O_3334	34.5	34.5	631344	4771513	180	968	T79		V_1868	32.9	32.9	623837	4761892	180	1458	T95
O_1796	39.4	39.4	623548	4754486	180	596	T65		O_3335	34.1	34.1	631345	4771339	180	1006	T79		V_1876	37.7	37.7	623848	4758506	180	762	T10
O_1797	35.3	35.3	623551	4763122	180	1174	T36		O_3337	33.8	33.8	631346	4771255	180	1035	T79		V_1882	34.0	34.0	623858	4761052	180	1060	T95
O_1798	33.9	33.9	623551	4762474	179	1312	T36		O_3338	34.3	34.3	631348	4771431	180	986	T79		V_1895	37.3	37.2	623893	4767932	190	937	T57
O_18	31.8	31.8	612889	4766208	190	1365	T52		O_3339	34.2	34.1	631348	4771380	180	998	T79		V_1898	33.4	33.4	623897	4755576	180	1281	T65
O_180	33.6	33.6	615598	4763331	185	1411	T09		O_334	32.8	32.8	616962	4761288	180	1300	T09		V_1902	34.4	34.4	623905	4760164	180	1287	T95
O_1800	38.3	38.3	623553	4750071	180	1023	T16		O_3340	33.8	33.8	631349	4771266	180	1034	T79		V_1919	33.0	33.0	623943	4761474	180	1287	T95
O_1801	33.8	33.8	623554	4762412	180	1344	T36		O_3341	34.1	34.1	631354	4771384	180	1002	T79		V_192	35.2	35.2	615747	4769791	199	927	T83
O_1802	34.4	34.4	623578	4762756	180	1238	T36		O_3342	33.9	33.9	631354	4771295	180	1029	T79		V_1929	35.5	35.5	623964	4759698	180	999	T10
O_1803	33.8	33.8	623581	4762428	178	1359	T36		O_3343	33.5	33.5	631354	4771189	182	1068	T79		V_1933	33.3	33.3	623969	4761177	180	1198	T95
O_1804	35.8	35.8	623583	4763281	182	1113	T55		O_3344	33.8	33.8	631356	4771285	180	1034	T79		V_1935	33.0	33.0	623970	4755588	180	1341	T65
O_1805	35.6	35.6	623585	4763231	181	1163	T55		O_3345	34.3	34.3	631356	4767756	185	1082	T60		V_1937	33.3	33.3	623971	4755503	180	1285	T65
O_1806	33.9	33.8	623587	4762487	178	1339	T36		O_3346	34.0	34.0	631358	4771344	180	1017	T79		V_1942	33.9	33.9	623979	4755268	180	1156	T65
O_1807	39.1	39.1	623589	4766583	190	825	T06		O_3347	33.9	33.9	631358	4771307	180	1028	T79		V_1951	37.6	37.6	623996	4768037	190	792	T57
O_1808	35.4	35.4	623591	4763160	180	1216	T36		O_3348	32.8	32.8	631361	4766038	190	1253	T18		V_1957	34.3	34.3	624007	4760011	180	1266	T10
O_1809	34.2	34.2	623598	4762707	1																				

O_1837	34.5	34.5	623685	4762938	180	1313	T36		O_3378	31.5	31.5	631412	4765515	190	1474	T18		V_2277	34.1	34.1	625139	4769530	190	1091	T57
O_1838	34.4	34.4	623686	4762870	180	1322	T36		O_338	39.3	39.3	616977	4764788	185	631	T39		V_2279	34.5	34.5	625153	4746547	180	1423	T61
O_1839	34.1	34.1	623697	4762779	179	1348	T36		O_3380	33.6	33.5	631419	4771377	180	1067	T79		V_2284	34.6	34.6	625203	4746576	180	1394	T61
O_184	36.1	36.1	615651	4766142	189	1076	T81		O_3381	33.5	33.5	631420	4771366	180	1071	T79		V_2287	34.6	34.6	625224	4746586	180	1385	T61
O_1841	34.0	34.0	623701	4762744	178	1360	T36		O_3382	33.7	33.6	631424	4771441	180	1058	T79		V_2288	37.1	37.1	625229	4747002	185	970	T61
O_1842	33.9	33.9	623708	4762692	178	1380	T36		O_3385	33.0	33.0	631427	4771200	180	1130	T79		V_2291	34.6	34.6	625244	4746595	181	1377	T61
O_1843	34.0	33.9	623713	4762714	177	1380	T36		O_3387	33.6	33.6	631427	4771426	180	1064	T79		V_2294	34.6	34.6	625253	4746601	181	1371	T61
O_1844	33.5	33.5	623713	4761702	180	1237	T95		O_3388	33.3	33.3	631432	4771333	180	1092	T79		V_2296	34.6	34.6	625264	4746606	181	1367	T61
O_185	36.3	36.3	615654	4766231	190	1008	T81		O_3389	33.5	33.5	631435	4771414	180	1074	T79		V_2305	34.7	34.7	625346	4746645	181	1335	T61
O_1850	39.6	39.5	623775	4758688	180	598	T10		O_339	39.4	39.4	617003	4763469	185	717	T51		V_2307	35.1	35.1	625372	4767998	190	1169	T57
O_1851	36.6	36.6	623786	4754069	185	1008	T65		O_3390	33.3	33.3	631435	4771320	180	1098	T79		V_2308	35.4	35.4	625381	4750522	180	1420	T48
O_1852	37.1	37.1	623797	4759586	180	803	T10		O_3391	33.5	33.5	631436	4771402	180	1077	T79		V_2317	35.8	35.8	625440	4746864	180	1137	T61
O_1853	38.4	38.4	623801	4752959	185	618	T89		O_3392	33.4	33.4	631439	4771391	180	1084	T79		V_2319	36.1	36.1	625448	4746909	180	1095	T61
O_1854	33.5	33.5	623807	4761492	180	1179	T95		O_3393	33.2	33.2	631439	4771304	180	1107	T79		V_2321	37.2	37.2	625457	4766589	190	827	T31
O_1857	39.8	39.7	623813	4759096	180	564	T10		O_3394	33.4	33.4	631441	4771375	180	1089	T79		V_2323	36.3	36.3	625477	4746957	180	1057	T61
O_1858	39.9	39.9	623815	4758978	180	556	T10		O_3395	32.9	32.9	631441	4771211	180	1140	T79		V_2328	35.8	35.8	625502	4763629	182	1063	T32
O_1859	33.3	33.3	623815	4757620	180	1478	T10		O_3396	33.0	33.0	631445	4771257	180	1127	T79		V_2329	36.5	36.5	625505	4747000	180	1024	T61
O_1860	38.0	38.0	623816	4759425	180	706	T10		O_3397	32.9	32.9	631445	4771227	180	1137	T79		V_2336	36.9	36.9	625564	4750098	180	1198	T48
O_1861	33.1	33.1	623817	4761799	180	1378	T95		O_3398	33.1	33.1	631446	4771291	180	1117	T79		V_2339	39.0	39.0	625581	4765192	190	762	T31
O_1863	39.5	39.5	623819	4759148	180	581	T10		O_3399	33.0	33.0	631446	4771241	180	1134	T79		V_2340	38.1	38.1	625588	4749828	180	1053	T48
O_1867	33.5	33.5	623836	4761422	180	1168	T95		O_34	31.3	31.3	613403	4767688	195	1414	T52		V_2342	36.6	36.6	625601	4766665	190	957	T31
O_1869	33.1	33.1	623839	4761688	180	1321	T95		O_340	34.3	34.3	617008	4761498	180	1100	T09		V_2345	36.8	36.8	625627	4747097	180	982	T61
O_187	35.8	35.7	615687	4769862	199	864	T83		O_3401	33.2	33.2	631449	4771333	180	1108	T79		V_2347	36.8	36.8	625644	4747112	180	977	T61
O_1870	33.3	33.3	623840	4761565	180	1248	T95		O_3402	33.2	33.2	631451	4771347	180	1106	T79		V_2348	38.6	38.6	625657	4749645	180	1036	T48
O_1871	33.2	33.1	623840	4761650	180	1299	T95		O_3403	33.2	33.2	631455	4766912	189	1407	T60		V_2361	39.9	39.9	625768	4749138	180	971	T43
O_1873	38.2	38.2	623845	4759350	180	687	T10		O_3404	33.1	33.1	631455	4771322	180	1117	T79		V_2363	38.9	38.9	625774	4747519	185	749	T61
O_1874	33.2	33.2	623845	4761610	180	1278	T95		O_3405	33.0	33.0	631460	4771305	180	1126	T79		V_2364	39.2	39.1	625776	4764704	185	719	T34
O_1875	38.8	38.8	623846	4758712	180	649	T10		O_3407	32.9	32.9	631464	4771272	180	1140	T79		V_2371	39.4	39.4	625796	4747633	185	705	T61
O_1878	36.8	36.7	623851	4758357	180	866	T10		O_3409	32.8	32.8	631469	4771241	180	1156	T79		V_2372	38.6	38.6	625797	4749519	180	1134	T43
O_188	36.1	36.1	615695	4766140	189	1051	T81		O_341	39.3	39.2	617011	4764858	185	670	T39		V_2380	38.2	38.1	625830	4764146	184	792	T34
O_1880	33.6	33.6	623854	4761324	180	1140	T95		O_3410	32.8	32.8	631471	4771255	180	1152	T79		V_2391	37.0	37.0	625852	4747279	181	966	T61
O_1881	39.2	39.2	623856	4758870	180	609	T10		O_3411	33.2	33.2	631472	4771413	180	1111	T79		V_2395	37.0	37.0	625863	4747290	181	966	T61
O_1883	35.7	35.7	623863	4758191	180	1001	T10		O_3412	33.1	33.1	631472	4771386	180	1117	T79		V_2397	37.7	37.7	625864	4747417	185	882	T61
O_1884	38.9	38.9	623866	4758798	180	636	T10		O_3413	33.2	33.2	631473	4771438	180	1107	T79		V_2399	37.0	37.0	625873	4768936	190	735	T56
O_1885	36.2	36.2	623868	4753941	185	1017	T89		O_3414	33.2	33.2	631473	4771400	180	1114	T79		V_2404	39.6	39.6	625886	4749083	180	965	T49
O_1889	33.3	33.3	623877	4757697	180	1433	T10		O_3415	32.8	32.8	631473	4771232	180	1162	T79		V_2410	37.0	37.0	625901	4747325	180	969	T61
O_189	36.6	36.6	615733	4766292	190	910	T81		O_3416	32.6	32.6	631476	4771201	180	1176	T79		V_2411	39.7	39.7	625905	4748999	180	934	T49
O_1896	34.2	34.2	623893	4760488	180	1136	T95		O_3418	33.1	33.1	631476	4771372	180	1124	T79		V_2414	37.0	37.0	625913	4747339	180	969	T61
O_1897	32.8	32.8	623894	4761891	180	1497	T95		O_3419	32.7	32.7	631477	4771218	180	1171	T79		V_2422	34.4	34.4	625939	4769572	188	997	T56
O_190	33.7	33.7	615737	4772095	190	1039	T88		O_342	33.1	33.0	617013	4753575	180	1106	T98		V_2427	37.2	37.2	625953	4747404	184	960	T61
O_1901	33.9	33.9	623905	4755396	180	1167	T65		O_3420	32.6	32.6	631478	4771189	180	1182	T79		V_2428	37.0	37.0	625954	4747376	180	978	T61
O_1903	34.1	34.1	623905	4755325	180	1125	T65		O_3421	33.0	33.0	631479	4771351	180	1132	T79		V_2429	37.2	37.1	625967	4747415	183	965	T61
O_1906	35.0	35.0	623911	4759913	180	1130	T10		O_3422	33.0	33.0	631481	4771364	180	1130	T79		V_2430	37.0	37.0	625968	4747385	180	984	T61
O_1908	37.3	37.3	623911	4753005	185	712	T89		O_3423	33.0	33.0	631483	4771341	180	1138	T79		V_2433	37.0	37.0	625982	4747394	180	990	T61
O_1911	32.8	32.8	623922	4761722	180	1407	T95		O_3424	32.9	32.9	631483	4771325	180	1142	T79		V_2435	36.7	36.7	625984	4766616	190	1153	T31
O_1914	32.7	32.7	623932	4761784	180	1454	T95		O_3425	33.2	33.2	631484	4771441	180	1117	T79		V_2437	39.8	39.8	625994	4748823	180	847	T49
O_1921	33.6	33.6	623945	4760981	180	1135	T95		O_3426	33.1	33.1	631485	4771417	180	1123	T79		V_2438	37.0	36.9	625997	4747405	180	996	T61
O_1925	35.6	35.6	623956	4754005	185	1123	T89		O_3427	33.1	33.0	631486	4771393	180	1128	T79		V_2442	36.9	36.9	626015	4747412	180	1007	T61
O_1926	33.2	33.1	623963	4761287	180	1227	T95		O_3428	32.9	32.9	631487	4771314	180	1149	T79		V_2444	36.9	36.9	626027	4747420	180	1012	T61
O_1927	38.0	38.0	623963	4766585	190	924	T76		O_3429	33.0	33.0	631487	4771380	180	1133	T79		V_2447	36.8	36.8	626047	4747434	180	1022	T61
O_193	36.2	36.2	615753	4766147	189	1010	T81		O_343	32.0	32.0	617014	4752344	180	1194	T98		V_2451	39.7	39.7	626075	4748689	180	794	T49
O_1930	33.7	33.7	623966	4755354	180	1192	T65		O_3430	33.1	33.1	631488	4771406	180	1128	T79		V_2452	36.8	36.8	626078	4747452	180	1039	T61
O_1931	35.7	35.6	623967	4753937	185	1081	T89		O_3431	33.															

O_2006	33.0	33.0	624162	4755501	185	1437	T65		O_3460	32.5	32.5	631554	4771364	180	1202	T79		V_2654	37.3	37.3	627452	4763625	182	906	T35
O_2007	33.1	33.1	624167	4755445	185	1409	T65		O_3461	32.3	32.3	631555	4771281	180	1224	T79		V_2655	38.9	38.9	627457	4748315	180	664	T23
O_2008	33.0	33.0	624169	4755471	185	1425	T65		O_3462	32.2	32.2	631559	4771264	180	1233	T79		V_2661	34.5	34.5	627512	4769358	190	1057	T56
O_2009	37.4	37.4	624169	4766612	190	1038	T76		O_3463	32.3	32.3	631562	4771291	180	1228	T79		V_2669	33.9	33.9	627564	4769455	190	1152	T56
O_201	36.0	36.0	615902	4769876	198	842	T83		O_3464	32.1	32.1	631565	4771243	180	1245	T79		V_2678	31.4	31.4	627611	4751640	180	1409	T24
O_2010	33.1	33.1	624170	4755419	185	1398	T65		O_3465	32.1	32.1	631565	4771233	180	1249	T79		V_2684	37.5	37.4	627659	4763662	183	959	T35
O_2011	33.1	33.1	624171	4755431	185	1405	T65		O_3466	32.5	32.5	631568	4771443	180	1200	T79		V_2685	38.9	38.9	627663	4766786	190	890	T02
O_2012	33.2	33.2	624172	4755397	184	1388	T65		O_3467	32.2	32.2	631568	4771305	180	1230	T79		V_2705	39.7	39.7	627870	4768233	190	603	T04
O_2013	33.2	33.2	624172	4755382	184	1381	T65		O_3468	32.0	32.0	631568	4771218	180	1256	T79		V_2714	38.5	38.5	627919	4766710	190	938	T02
O_2014	33.3	33.3	624173	4755351	184	1366	T65		O_3469	32.0	32.0	631570	4771206	180	1261	T79		V_2719	40.0	39.9	627958	4749727	180	552	T24
O_2015	33.3	33.2	624174	4755366	184	1374	T65		O_347	38.9	38.9	617025	4766263	189	650	T97		V_2732	37.1	37.1	628019	4748409	183	741	T23
O_2016	33.3	33.3	624175	4755337	183	1361	T65		O_3470	32.2	32.2	631571	4771314	180	1230	T79		V_2736	38.7	38.7	628044	4762768	181	562	T29
O_2017	33.3	33.3	624176	4755324	183	1355	T65		O_3471	32.4	32.4	631573	4771387	180	1215	T79		V_2738	39.2	39.2	628067	4765420	190	819	T78
O_2019	33.4	33.4	624177	4755311	183	1350	T65		O_3472	32.2	32.2	631576	4771327	180	1232	T79		V_2747	31.2	31.2	628154	4761763	172	1381	T29
O_2020	38.5	38.5	624178	4750209	180	966	T16		O_3473	32.3	32.3	631578	4771368	180	1224	T79		V_2754	39.2	39.2	628211	4768233	190	659	T58
O_2021	33.4	33.4	624179	4755296	183	1345	T65		O_3474	32.3	32.2	631579	4771343	180	1230	T79		V_2763	39.2	39.2	628252	4768237	190	647	T58
O_2022	33.4	33.4	624180	4755270	182	1334	T65		O_3475	32.4	32.4	631580	4771450	180	1210	T79		V_277	33.1	33.1	616538	4771946	193	1144	T88
O_2023	33.4	33.4	624180	4755284	182	1341	T65		O_3476	32.3	32.3	631580	4771355	180	1229	T79		V_2777	38.5	38.5	628295	4764039	185	797	T78
O_2024	32.8	32.8	624182	4755527	185	1468	T65		O_3477	32.1	32.1	631582	4771279	180	1250	T79		V_2778	37.5	37.4	628297	4749736	180	741	T24
O_2025	32.9	32.9	624184	4755485	185	1446	T65		O_3478	32.1	32.1	631584	4771269	180	1256	T79		V_2779	39.2	39.1	628297	4768243	190	639	T58
O_2026	39.8	39.8	624186	4765193	185	759	T76		O_3479	32.0	32.0	631587	4771252	180	1263	T79		V_2790	38.5	38.5	628332	4763843	185	761	T29
O_2029	34.4	34.3	624192	4759647	180	1141	T10		O_348	31.4	31.4	617029	4752154	180	1303	T98		V_2792	33.7	33.7	628333	4769115	186	1492	T58
O_203	32.4	32.4	615928	4768391	195	1484	T81		O_3480	32.1	32.1	631591	4771290	180	1256	T79		V_2793	33.9	33.8	628333	4769078	186	1455	T58
O_2031	32.8	32.8	624197	4755529	185	1481	T65		O_3481	31.9	31.9	631591	4771241	180	1271	T79		V_2795	34.0	34.0	628335	4769042	187	1419	T58
O_2032	32.9	32.8	624198	4755486	185	1458	T65		O_3482	31.9	31.9	631591	4771227	180	1275	T79		V_2796	34.4	34.4	628337	4768962	188	1340	T58
O_2034	32.7	32.7	624208	4755530	185	1491	T65		O_3483	32.3	32.3	631592	4771457	180	1221	T79		V_2797	34.2	34.2	628338	4769002	188	1380	T58
O_2035	32.8	32.8	624210	4755486	185	1468	T65		O_3484	31.9	31.9	631593	4771215	180	1280	T79		V_2798	35.1	35.1	628339	4768802	190	1181	T58
O_2038	32.8	32.8	624221	4755452	185	1459	T65		O_3485	32.0	32.0	631594	4771279	180	1262	T79		V_2799	31.5	31.5	628340	4761775	172	1335	T29
O_2041	32.9	32.8	624222	4755439	184	1453	T65		O_3486	31.8	31.8	631597	4771201	180	1288	T79		V_2800	34.6	34.6	628341	4768908	189	1286	T58
O_2042	32.7	32.7	624223	4755485	185	1479	T65		O_3487	32.0	32.0	631598	4771267	180	1269	T79		V_2801	34.9	34.9	628341	4768857	190	1235	T58
O_2043	32.9	32.9	624223	4755421	184	1445	T65		O_3488	32.2	32.2	631602	4771381	180	1244	T79		V_2802	32.7	32.7	628341	4751223	180	1147	T24
O_2044	32.9	32.9	624225	4755394	184	1433	T65		O_3489	31.9	31.9	631602	4771250	180	1278	T79		V_2803	35.4	35.4	628342	4768748	190	1127	T58
O_2045	32.9	32.9	624226	4755406	184	1439	T65		O_349	33.2	33.2	617030	4753552	180	1079	T98		V_2805	35.7	35.7	628345	4768698	190	1077	T58
O_2046	33.0	33.0	624233	4755347	184	1417	T65		O_3490	32.3	32.3	631604	4771463	180	1233	T79		V_2807	36.3	36.3	628349	4768607	190	985	T58
O_2048	33.1	33.1	624237	4755304	183	1401	T65		O_3491	31.8	31.8	631605	4771238	180	1285	T79		V_2808	36.0	36.0	628350	4768645	190	1023	T58
O_2054	37.5	37.5	624254	4766534	190	1020	T76		O_3492	31.8	31.8	631605	4771226	180	1289	T79		V_2809	36.7	36.7	628353	4768532	190	911	T58
O_2058	37.0	37.0	624283	4766667	190	1145	T76		O_3493	31.8	31.8	631605	4771208	180	1295	T79		V_2811	37.0	37.0	628355	4768495	190	874	T58
O_206	35.4	35.4	615953	4771915	190	867	T88		O_3494	32.1	32.1	631608	4771349	180	1257	T79		V_2812	37.3	37.3	628355	4768454	190	834	T58
O_2064	34.2	34.2	624304	4753522	185	1146	T89		O_3495	32.2	32.2	631610	4771424	180	1245	T79		V_2813	36.5	36.5	628356	4768571	190	949	T58
O_2066	38.3	38.3	624315	4763811	180	759	T32		O_3496	31.9	31.9	631615	4771309	180	1274	T79		V_2814	37.6	37.6	628358	4768416	190	795	T58
O_2069	38.3	38.3	624325	4750251	180	1023	T16		O_3497	31.9	31.8	631616	4771275	180	1284	T79		V_2815	35.9	35.9	628358	4750714	180	770	T24
O_2072	33.5	33.5	624333	4759657	180	1264	T10		O_3498	32.2	32.2	631617	4771465	180	1245	T79		V_2816	37.9	37.9	628360	4768382	190	761	T58
O_2079	39.5	39.5	624366	4765150	185	848	T32		O_3499	32.1	32.1	631617	4771388	180	1258	T79		V_2817	39.2	39.1	628361	4768243	190	624	T58
O_2087	36.9	36.9	624435	4766639	190	1087	T31		O_3500	31.8	31.8	631619	4771263	180	1290	T79		V_2818	38.5	38.5	628363	4768305	190	685	T58
O_209	38.4	38.4	615975	4770108	197	626	T83		O_3501	31.8	31.8	631622	4771251	180	1297	T79		V_2819	38.2	38.2	628364	4768346	190	725	T58
O_2092	37.8	37.8	624467	4763720	180	758	T32		O_3502	31.7	31.7	631623	4771238	180	1302	T79		V_2820	36.4	36.4	628376	4749501	180	966	T24
O_2095	32.6	32.6	624491	4759736	180	1439	T10		O_3503	32.1	32.1	631625	4771432	180	1258	T79		V_2825	32.8	32.8	628407	4748020	183	1289	T23
O_2096	37.6	37.6	624491	4750356	180	1091	T48		O_3504	31.9	31.9	631626	4771356	180	1273	T79		V_283	30.3	30.3	616635	4752407	180	1489	T98
O_2097	35.8	35.8	624497	4769516	186	822	T57		O_3505	31.7	31.7	631627	4771224	180	1310	T79		V_2830	38.5	38.5	628442	4768304	190	675	T58
O_2098	36.9	36.8	624500	4766648	190	1052	T31		O_3506	31.8	31.8	631628	4771278	180	1295	T79		V_2836	35.6	35.6	628470	4749149	181	947	T23
O_21	30.9	30.9	613063	4764838	184	1483	T08		O_3507	31.6	31.6	631628	4771210	180	1316	T79		V_2839	31.6	31.6	628502	4761766	180	1335	T29
O_2101	32.9	32.9	624542	4752908	185	1349	T89		O_3508	31.8	31.8	631630	4771314	180	1287	T79		V_286	38.5	38.4	616651	4766283	189	750	T81
O_2105	32.3	32.3	6																						

O_2234	35.7	35.7	624982	4746745	185	1240	T61		O_3536	31.8	31.8	631664	4771417	180	1299	T79		V_3165	34.5	34.4	630225	4770651	185	998	T79
O_2236	34.7	34.7	624983	4746538	185	1445	T61		O_3537	31.6	31.6	631664	4771295	180	1325	T79		V_3170	36.8	36.8	630304	4765510	190	741	T18
O_2237	37.1	37.1	624987	4766643	190	838	T31		O_3538	31.9	31.9	631665	4771515	180	1287	T79		V_3177	34.8	34.8	630393	4764440	188	989	T03
O_2239	35.3	35.2	624991	4746660	185	1323	T61		O_3539	31.4	31.4	631665	4771215	180	1349	T79		V_3185	36.9	36.8	630471	4772665	176	739	T80
O_224	34.8	34.7	616142	4771934	190	934	T88		O_354	34.7	34.7	617052	4761555	180	1054	T09		V_3190	39.2	39.2	630505	4766725	190	627	T18
O_2243	35.2	35.1	624999	4746642	185	1340	T61		O_3540	31.8	31.8	631665	4771462	180	1293	T79		V_3199	36.1	36.1	630648	4772658	180	818	T80
O_2245	34.4	34.4	625005	4746494	185	1486	T61		O_3541	31.7	31.7	631667	4771377	180	1309	T79		V_3201	35.2	35.2	630692	4765529	190	902	T18
O_2247	37.2	37.2	625006	4766637	190	829	T31		O_3542	31.5	31.5	631668	4771281	180	1333	T79		V_3203	34.3	34.3	630720	4764061	187	954	T03
O_2248	35.0	35.0	625010	4746624	185	1356	T61		O_3543	31.4	31.4	631668	4771203	181	1356	T79		V_3205	37.8	37.8	630765	4767001	190	838	T60
O_2249	35.4	35.4	625012	4746699	185	1282	T61		O_3544	31.5	31.5	631671	4771267	180	1339	T79		V_322	32.0	32.0	616904	4753814	180	1325	T98
O_2251	34.7	34.7	625018	4746546	185	1433	T61		O_3545	31.8	31.8	631674	4771470	180	1301	T79		V_3226	37.7	37.7	631065	4771610	182	681	T79
O_2256	34.7	34.7	625030	4746552	185	1426	T61		O_3546	31.4	31.4	631675	4771254	180	1346	T79		V_3251	35.3	35.3	631220	4767803	185	950	T60
O_2257	35.2	35.2	625037	4746664	185	1313	T61		O_3547	31.6	31.6	631675	4771340	180	1325	T79		V_330	31.3	31.3	616939	4752260	180	1304	T98
O_2258	34.4	34.4	625041	4746506	183	1470	T61		O_3548	31.4	31.4	631677	4771239	180	1353	T79		V_337	31.8	31.8	616974	4752356	180	1219	T98
O_2260	35.1	35.1	625046	4746644	185	1332	T61		O_3549	31.7	31.7	631678	4771424	180	1311	T79		V_355	32.3	32.2	617052	4754168	180	1460	T98
O_2261	34.5	34.5	625052	4746516	182	1460	T61		O_3550	31.3	31.3	631679	4771230	180	1357	T79		V_3581	37.5	37.5	617952	4766319	190	890	T93
O_2263	35.0	35.0	625061	4746623	185	1352	T61		O_3551	31.3	31.3	631680	4771215	181	1363	T79		V_3582	39.8	39.8	618166	4767657	192	553	T93
O_2267	34.5	34.5	625072	4746523	182	1451	T61		O_3552	31.7	31.7	631681	4771478	180	1306	T79		V_3583	39.6	39.6	618075	4767629	193	561	T93
O_2268	34.8	34.8	625072	4746597	185	1377	T61		O_3553	31.6	31.6	631681	4771386	180	1321	T79		V_3598	33.7	33.7	629463	4772699	185	1017	T80
O_227	35.7	35.7	616159	4771824	190	839	T88		O_3554	31.5	31.5	631683	4771309	180	1340	T79		V_3599	32.9	32.9	629316	4772682	185	1116	T80
O_2270	34.8	34.8	625088	4746586	185	1387	T61		O_3555	31.4	31.4	631685	4771297	180	1345	T79		V_36	31.3	31.3	613482	4764148	180	1308	T08
O_2271	37.4	37.4	625090	4768892	190	684	T57		O_3556	31.4	31.4	631685	4771283	180	1349	T79		V_3601	31.2	31.2	631149	4772987	182	1391	T80
O_2273	35.7	35.7	625099	4767996	190	964	T57		O_3557	31.7	31.7	631688	4771484	180	1312	T79		V_3610	35.8	35.8	631146	4772144	180	915	T79
O_2274	34.6	34.6	625104	4746559	183	1413	T61		O_3558	31.5	31.5	631689	4771346	180	1337	T79		V_365	31.8	31.8	617092	4752191	180	1231	T98
O_228	35.2	35.2	616162	4761879	185	938	T09		O_3559	31.6	31.6	631691	4771432	180	1323	T79		V_3707	38.5	38.5	624405	4763819	180	700	T32
O_2280	39.9	39.8	625153	4765162	185	659	T31		O_356	33.5	33.4	617054	4753518	180	1042	T98		V_3707	38.5	38.5	624405	4763819	180	701	T32
O_2281	37.7	37.7	625166	4766569	190	749	T31		O_3560	31.3	31.3	631692	4771269	180	1359	T79		V_371	31.3	31.3	617114	4752046	180	1321	T98
O_2282	34.8	34.8	625181	4746618	184	1352	T61		O_3561	31.4	31.4	631693	4771322	180	1347	T79		V_374	34.1	34.1	617130	4753476	180	955	T98
O_2283	34.8	34.8	625203	4746613	183	1357	T61		O_3562	31.3	31.3	631693	4771253	180	1364	T79		V_376	31.6	31.6	617132	4752106	180	1264	T98
O_2285	35.0	35.0	625216	4746654	185	1316	T61		O_3563	31.3	31.3	631694	4771241	180	1369	T79		V_3819	36.0	36.0	623362	4769601	189	985	T28
O_2286	34.8	34.8	625221	4746627	184	1344	T61		O_3564	31.5	31.5	631696	4771400	180	1333	T79		V_3820	35.9	35.9	623461	4769538	190	1043	T28
O_2289	37.0	37.0	625233	4766666	190	849	T31		O_3565	31.2	31.2	631697	4771227	181	1375	T79		V_3821	37.6	37.6	624183	4769314	189	667	T57
O_229	36.0	36.0	616174	4769943	197	849	T83		O_3566	31.4	31.4	631698	4771311	180	1353	T79		V_3822	33.7	33.7	630973	4765544	190	1091	T18
O_2290	34.8	34.8	625236	4746625	183	1346	T61		O_3567	31.2	31.2	631701	4771216	181	1383	T79		V_3824	39.2	39.1	621508	4763690	184	703	T74
O_2292	34.8	34.8	625245	4746632	183	1340	T61		O_3568	31.4	31.4	631701	4771355	180	1347	T79		V_3825	33.1	33.1	620813	4761813	177	1457	T74
O_2295	34.8	34.8	625259	4746638	183	1335	T61		O_3569	31.1	31.1	631703	4771200	181	1389	T79		V_3827	34.2	34.2	623643	4762762	180	1300	T36
O_2297	39.6	39.6	625277	4765161	185	672	T31		O_357	33.5	33.5	617066	4771041	195	1251	T88		V_3828	34.2	34.2	623646	4762744	180	1307	T36
O_230	34.9	34.9	616175	4769802	198	979	T83		O_3570	31.3	31.3	631706	4771294	180	1366	T79		V_3829	33.6	33.6	623728	4762528	175	1451	T36
O_2301	35.7	35.7	625310	4750478	180	1348	T48		O_3571	31.3	31.3	631707	4771280	180	1370	T79		V_3830	33.5	33.5	623747	4762525	175	1470	T36
O_2304	35.9	35.9	625344	4746847	185	1135	T61		O_3572	31.2	31.2	631710	4771253	180	1381	T79		V_3835	34.1	34.1	613197	4766295	190	1045	T52
O_2306	35.6	35.6	625364	4768244	190	1033	T57		O_3573	31.2	31.2	631711	4771268	180	1378	T79		V_3849	34.2	34.2	628133	4748067	183	1084	T23
O_2310	35.6	35.6	625384	4746817	183	1171	T61		O_3574	31.1	31.1	631713	4771240	180	1387	T79		V_3850	36.1	36.1	627942	4748221	185	854	T23
O_2311	36.2	36.2	625407	4746921	183	1074	T61		O_3575	31.1	31.1	631717	4771228	181	1394	T79		V_3861	37.5	37.5	626313	4747934	180	1112	T49
O_2312	36.5	36.5	625412	4750263	180	1220	T48		O_3576	31.1	31.1	631719	4771213	181	1400	T79		V_3862	37.7	37.6	626355	4748001	180	1032	T49
O_2313	36.5	36.5	625413	4746964	182	1033	T61		O_359	33.0	33.0	617076	4761329	180	1280	T09		V_3863	37.7	37.7	626366	4748014	180	1017	T49
O_2315	36.5	36.5	625435	4746977	181	1026	T61		O_360	34.1	34.1	617078	4761475	180	1138	T09		V_3875	34.9	34.9	624944	4746585	185	1405	T61
O_2316	36.0	36.0	625437	4750373	180	1323	T48		O_3609	36.0	36.0	631154	4772066	180	881	T79		V_3876	35.8	35.8	624861	4746738	185	1272	T61
O_2318	36.8	36.8	625445	4747020	181	987	T61		O_3614	32.0	32.0	631445	4770958	182	1260	T79		V_3877	34.8	34.8	625005	4746569	185	1412	T61
O_2320	35.0	35.0	625454	4769146	190	1114	T57		O_362	33.2	33.2	617085	4770150	195	1384	T83		V_388	39.4	39.4	617212	4763461	185	735	T51
O_2322	36.9	36.8	625461	4750173	180	1180	T48		O_363	32.1	32.1	617088	4752282	180	1174	T98		V_3886	31.3	31.3	616850	4752417	180	1293	T98
O_2324	36.9	36.9	625478	4747042	181	975	T61		O_3630	33.4	33.4	631354	4768192	185	1191	T60		V_3892	31.9	31.9	627803	4751535	180	1297	T24
O_2325	37.7	37.7	625479	4747151	183	872	T61		O_3631	33.5	33.5	631420	4767947	185	1173	T60		V_3900	35.6	35.6	622573	4769993	186	899	T28
O_2326	39.5	39.5	625479	4765253	187	656	T31		O_3632	31.9															

O_2378	37.2	37.2	625824	4747298	184	933	T61		O_3854	38.3	38.2	627588	4748288	180	688	T23		V_538	38.3	38.2	618036	4768512	195	759	T94
O_238	38.0	38.0	616240	4766268	189	706	T81		O_3855	38.3	38.2	627506	4748265	180	710	T23		V_545	37.3	37.3	618057	4766254	190	913	T93
O_2381	37.7	37.7	625831	4764047	183	852	T34		O_3856	39.1	39.1	627213	4748301	180	721	T49		V_55	36.0	36.0	614020	4764387	185	742	T08
O_2382	37.2	37.2	625836	4747309	184	933	T61		O_3857	39.1	39.1	627198	4748299	180	715	T49		V_550	33.6	33.6	618082	4756015	180	1143	T82
O_2383	39.3	39.3	625838	4749261	180	1056	T49		O_3858	37.6	37.6	626251	4747899	181	1077	T61		V_551	38.4	38.4	618102	4763559	185	727	T07
O_2384	33.3	33.3	625845	4769726	188	1175	T56		O_3859	37.6	37.6	626321	4747961	180	1084	T49		V_560	36.8	36.8	618197	4752389	184	688	T98
O_2385	33.7	33.7	625845	4769647	188	1116	T56		O_386	32.3	32.3	617203	4755320	180	1254	T82		V_563	40.0	39.9	618217	4768489	195	601	T94
O_2386	38.8	38.8	625845	4747585	185	771	T61		O_3860	37.6	37.6	626343	4747992	180	1047	T49		V_570	39.5	39.5	618259	4767725	192	601	T93
O_2387	38.7	38.7	625846	4749441	180	1121	T49		O_3864	37.5	37.5	626252	4747852	180	1081	T61		V_571	32.8	32.8	618270	4756379	180	1469	T82
O_2388	39.4	39.4	625846	4749209	180	1032	T49		O_3865	36.6	36.6	626343	4747690	180	1199	T61		V_573	32.7	32.7	618291	4756410	180	1498	T82
O_2389	37.2	37.2	625848	4747318	183	935	T61		O_3866	36.5	36.5	626340	4747669	180	1201	T61		V_579	38.2	38.1	618337	4769461	195	811	T94
O_239	35.5	35.5	616242	4764924	185	1209	T97		O_3867	36.4	36.4	626336	4747652	180	1202	T61		V_586	35.2	35.2	618376	4749190	180	833	T99
O_2390	34.0	34.0	625849	4769603	188	1081	T56		O_3868	36.4	36.4	626323	4747633	180	1194	T61		V_587	34.8	34.7	618376	4748946	180	877	T99
O_2392	35.3	35.3	625859	4769346	190	905	T56		O_3869	36.4	36.4	626314	4747623	180	1189	T61		V_591	38.6	38.6	618410	4769465	194	780	T94
O_2393	38.2	38.2	625859	4747503	185	827	T61		O_3870	37.3	37.3	625872	4747344	183	935	T61		V_597	37.0	37.0	618462	4766271	186	867	T93
O_2394	38.8	38.8	625861	4747604	185	775	T61		O_3871	37.2	37.2	625814	4747285	184	936	T61		V_607	37.2	37.2	618524	4764929	185	884	T07
O_2400	38.3	38.2	625873	4747523	185	827	T61		O_3872	37.5	37.4	625632	4747199	182	896	T61		V_608	36.2	36.2	618535	4748930	180	735	T99
O_2401	36.4	36.4	625878	4766685	190	1130	T31		O_3873	34.8	34.8	625155	4746600	184	1370	T61		V_626	39.4	39.4	618675	4767749	190	715	T93
O_2405	38.9	38.9	625888	4749340	180	1039	T49		O_3874	34.6	34.6	625126	4746569	183	1402	T61		V_627	35.6	35.5	618694	4748607	180	803	T99
O_2406	37.3	37.3	625893	4747366	184	937	T61		O_3879	35.0	35.0	625393	4746711	184	1277	T61		V_646	37.4	37.4	618761	4764853	185	810	T07
O_2407	39.9	39.8	625894	4764712	185	605	T34		O_3880	34.7	34.7	625420	4746669	180	1324	T61		V_653	31.6	31.6	618782	4747855	180	1433	T99
O_2408	37.8	37.8	625899	4764035	183	809	T34		O_3881	34.9	34.9	625439	4746710	180	1287	T61		V_657	31.5	31.5	618789	4747811	180	1474	T99
O_2409	38.2	38.2	625900	4747540	185	842	T61		O_3887	38.9	38.9	619787	4766229	188	654	T54		V_669	36.9	36.9	618830	4764950	185	918	T07
O_2415	38.1	38.1	625916	4747540	185	855	T61		O_390	32.9	32.9	617216	4754442	180	1266	T82		V_671	36.6	36.6	618845	4766292	186	984	T93
O_2416	37.4	37.4	625918	4747416	185	926	T61		O_3903	33.9	33.9	631337	4766911	189	1311	T60		V_682	36.7	36.7	618887	4769924	190	853	T85
O_2417	33.7	33.7	625925	4769697	187	1102	T56		O_3904	33.5	33.5	631377	4766781	190	1370	T18		V_707	39.4	39.3	618987	4764486	185	558	T07
O_2418	38.8	38.8	625932	4765367	188	905	T31		O_392	33.0	33.0	617228	4754548	180	1219	T82		V_71	35.2	35.2	614487	4764079	183	834	T08
O_2419	36.5	36.4	625935	4768297	190	848	T56		O_40	33.5	33.5	613583	4764565	185	1022	T08		V_719	37.6	37.6	619078	4763539	181	678	T07
O_2420	39.8	39.7	625936	4748931	180	900	T49		O_402	35.6	35.6	617251	4767706	191	1171	T81		V_721	33.2	33.2	619090	4762737	180	1392	T07
O_2421	39.1	39.1	625937	4749236	180	954	T49		O_41	36.8	36.8	613595	4766009	190	811	T52		V_724	37.0	36.9	619123	4764964	185	1033	T07
O_2423	34.1	34.1	625941	4769625	188	1035	T56		O_412	35.8	35.8	617318	4753434	180	771	T98		V_728	36.6	36.6	619162	4769939	190	832	T85
O_2424	36.6	36.5	625948	4769204	190	753	T56		O_416	40.0	39.9	617342	4764890	185	610	T39		V_731	34.3	34.3	619171	4750322	181	1099	T99
O_2431	37.2	37.2	625972	4747436	184	958	T61		O_42	32.5	32.5	613613	4767611	195	1237	T52		V_735	36.9	36.9	619195	4766128	187	920	T54
O_2434	39.8	39.8	625982	4748851	180	856	T49		O_43	37.8	37.8	613659	4766095	190	706	T52		V_737	33.4	33.4	619223	4748045	180	1178	T99
O_2436	37.2	37.2	625989	4747446	183	966	T61		O_431	34.1	34.1	617404	4754760	180	998	T82		V_745	35.4	35.3	619297	4750161	181	942	T99
O_2439	37.2	37.1	626003	4747453	183	975	T61		O_437	37.3	37.3	617459	4753423	180	646	T98		V_748	36.7	36.7	619308	4766370	188	1003	T54
O_2440	39.6	39.6	626011	4748970	180	827	T49		O_44	33.7	33.7	613659	4764467	185	990	T08		V_750	33.5	33.5	619311	4752272	185	1493	T42
O_2441	39.8	39.8	626012	4748793	180	833	T49		O_441	36.3	36.3	617474	4753582	180	741	T98		V_751	35.4	35.4	619325	4752841	185	996	T42
O_2443	37.1	37.1	626025	4747464	183	988	T61		O_445	36.9	36.9	617504	4753535	180	686	T98		V_759	39.0	39.0	619387	4767898	193	683	T66
O_2446	37.0	37.0	626047	4747475	183	1001	T61		O_45	37.4	37.4	613695	4765962	190	770	T52		V_771	37.4	37.4	619440	4756078	180	1095	T19
O_2449	39.7	39.7	626063	4748714	180	799	T49		O_451	36.2	36.2	617519	4767706	191	991	T93		V_781	37.8	37.7	619558	4764910	185	785	T54
O_245	35.1	35.1	616304	4769881	198	964	T83		O_456	35.5	35.4	617562	4754870	180	829	T82		V_788	38.4	38.4	619630	4764978	185	692	T54
O_2450	37.0	37.0	626063	4747489	183	1008	T61		O_457	37.1	37.1	617574	4753578	180	673	T98		V_794	38.1	38.1	619700	4766284	188	731	T54
O_2453	37.1	37.1	626079	4747520	184	1008	T61		O_458	36.4	36.4	617575	4767712	191	951	T93		V_804	38.0	38.0	619754	4753023	185	631	T42
O_2454	36.2	36.2	626091	4768045	190	931	T56		O_46	33.4	33.3	613699	4764333	185	1024	T08		V_809	37.3	37.3	619790	4749853	180	857	T99
O_2460	34.4	34.4	626118	4763293	180	1349	T34		O_460	37.2	37.1	617608	4753605	180	675	T98		V_814	36.5	36.5	619828	4750030	180	1017	T99
O_2462	35.7	35.7	626127	4767789	190	1138	T56		O_462	32.9	32.9	617642	4752002	182	1095	T98		V_823	38.7	38.7	619906	4749574	180	757	T20
O_2465	38.9	38.9	626141	4749284	180	787	T49		O_463	37.6	37.6	617645	4767451	190	752	T93		V_825	37.9	37.9	619930	4766397	189	803	T54
O_2468	38.4	38.3	626147	4769196	190	585	T56		O_465	39.2	39.2	617649	4764887	185	678	T39		V_826	31.7	31.7	619935	4746988	182	1454	T05
O_2469	35.5	35.5	626150	4767552	190	1350	T56		O_466	38.2	38.1	617650	4766226	190	729	T97		V_830	32.1	32.1	619977	4747046	182	1388	T05
O_247	37.3	37.3	616326	4767649	190	683	T81		O_468	36.4	36.4	617667	4753742	180	767	T98		V_837	32.0	32.0	620011	4746987	183	1391	T05
O_2471	37.0	37.0	626162	4766627	190	1053	T33		O_469	38.3	38.3	617681	4766893	190	684	T93		V_838	37.7	37.7	620011	4754703	184	893	T19
O_2472	36.6	36.6	626163	4747516	180	1086	T61		O_47	34.3	34.3	613724	4767407	195	1004	T52		V_84	32.8	32.7	614732	4770110	200	1245	

[illegible]

O_2624	38.9	38.9	627263	4748288	180	740	T23		O_64	39.0	39.0	614260	4767133	192	604	T52								
O_2627	39.6	39.6	627280	4748361	180	666	T23		O_644	31.5	31.5	618761	4747824	180	1469	T99								
O_2628	39.0	38.9	627281	4748294	180	728	T23		O_648	36.1	36.1	618771	4765711	185	1179	T54								
O_2629	39.8	39.8	627288	4767199	190	590	T04		O_649	36.3	36.3	618773	4753790	185	1089	T98								
O_2632	38.9	38.9	627299	4748292	180	723	T23		O_651	36.3	36.3	618776	4752856	185	816	T98								
O_2633	39.6	39.6	627310	4748364	180	652	T23		O_652	31.7	31.7	618779	4747884	180	1406	T99								
O_2634	38.8	38.8	627323	4748286	180	721	T23		O_655	38.4	38.3	618784	4749608	180	572	T99								
O_2637	38.5	38.4	627350	4748253	180	745	T23		O_656	31.6	31.6	618788	4747833	180	1452	T99								
O_2639	37.8	37.8	627376	4763706	182	805	T35		O_658	32.7	32.7	618790	4750498	182	1341	T99								
O_264	34.0	34.0	616451	4771878	191	1036	T88		O_66	37.6	37.6	614355	4767243	192	726	T52								
O_2643	37.2	37.2	627384	4763616	181	895	T35		O_660	31.4	31.4	618793	4747800	180	1482	T99								
O_2644	38.3	38.3	627392	4748246	180	743	T23		O_663	35.9	35.9	618800	4769997	190	951	T85								
O_2645	31.7	31.7	627404	4762100	184	1482	T29		O_665	32.2	32.2	618805	4770558	188	1487	T85								
O_2646	38.3	38.3	627410	4748249	180	736	T23		O_670	38.2	38.2	618835	4763464	180	622	T07								
O_2647	32.9	32.9	627413	4751359	180	1171	T24		O_674	39.0	39.0	618855	4763539	181	558	T07								
O_2649	34.4	34.4	627423	4769441	190	1029	T56		O_676	32.9	32.9	618859	4750473	182	1298	T99								
O_265	36.4	36.3	616456	4764645	185	965	T39		O_680	32.2	32.2	618871	4747948	180	1319	T99								
O_2650	38.6	38.5	627427	4748278	180	706	T23		O_683	33.2	33.2	618897	4748136	180	1131	T99								
O_2651	39.0	39.0	627435	4748323	180	659	T23		O_685	37.9	37.8	618903	4754436	185	702	T82								
O_2652	33.5	33.5	627442	4769615	190	1155	T56		O_692	37.5	37.5	618932	4754380	185	761	T82								
O_2653	38.5	38.5	627446	4748276	180	704	T23		O_694	38.9	38.8	618934	4767685	190	827	T93								
O_2656	38.4	38.4	627479	4748272	180	705	T23		O_696	32.5	32.5	618938	4747969	180	1283	T99								
O_2658	39.5	39.4	627487	4748373	180	603	T23		O_698	37.7	37.7	618948	4754449	185	727	T82								
O_2659	34.9	34.9	627496	4769279	190	1005	T56		O_701	36.4	36.4	618956	4765877	185	1028	T54								
O_266	33.5	33.5	616460	4771937	192	1089	T88		O_704	32.6	32.6	618973	4747988	180	1258	T99								
O_2660	32.7	32.7	627500	4751408	180	1196	T24		O_710	32.7	32.7	618994	4747997	180	1245	T99								
O_2662	38.2	38.2	627519	4748261	180	713	T23		O_713	36.8	36.8	619016	4769921	190	822	T85								
O_2664	36.4	36.4	627527	4768886	190	930	T56		O_714	32.8	32.8	619017	4747997	180	1241	T99								
O_2665	38.7	38.6	627531	4748309	180	666	T23		O_716	37.4	37.4	619049	4754486	185	786	T82								
O_2666	38.2	38.2	627535	4748264	180	710	T23		O_717	34.6	34.6	619060	4763065	180	1075	T07								
O_2667	38.1	38.0	627547	4748255	180	719	T23		O_718	34.6	34.6	619062	4750221	181	1008	T99								
O_2668	38.0	38.0	627562	4748256	180	719	T23		O_720	36.5	36.5	619084	4766349	187	1088	T93								
O_267	36.1	36.1	616466	4761785	184	855	T09		O_722	36.2	36.2	619111	4769990	190	883	T85								
O_2671	38.7	38.7	627568	4748325	180	650	T23		O_723	34.4	34.4	619117	4752583	185	1225	T98								
O_2673	38.0	37.9	627577	4748254	180	721	T23		O_725	37.0	37.0	619137	4764895	185	980	T07								
O_2674	32.7	32.7	627580	4769711	190	1322	T56		O_726	37.0	36.9	619143	4754376	185	926	T82								
O_2676	39.3	39.2	627588	4764000	185	643	T35		O_727	33.7	33.7	619161	4752370	185	1357	T98								
O_2677	37.8	37.8	627600	4748248	180	728	T23		O_729	38.3	38.3	619168	4769781	190	674	T85								
O_2679	38.7	38.6	627617	4748335	180	644	T23		O_730	36.4	36.3	619171	4763444	181	810	T07								
O_268	38.0	38.0	616479	4766186	189	793	T81		O_733	36.6	36.5	619188	4766356	187	1074	T54								
O_2680	36.3	36.2	627626	4768833	190	1027	T56		O_736	35.0	35.0	619206	4750201	181	978	T99								
O_2682	37.4	37.3	627652	4748215	180	768	T23		O_739	33.7	33.7	619250	4762961	180	1253	T07								
O_2683	37.5	37.5	627656	4748237	180	746	T23		O_74	31.4	31.4	614526	4770053	200	1454	T83								
O_2686	37.4	37.4	627670	4748230	180	755	T23		O_740	37.0	36.9	619251	4754532	185	942	T82								
O_2687	39.3	39.3	627677	4768331	190	611	T04		O_742	36.6	36.5	619254	4769937	190	838	T85								
O_2688	39.1	39.0	627685	4766692	190	810	T02		O_744	36.6	36.6	619288	4756133	180	1254	T19								
O_2689	37.3	37.3	627686	4748225	180	763	T23		O_746	34.8	34.8	619302	4750262	181	1043	T99								
O_2690	40.0	40.0	627693	4764983	189	728	T35		O_75	35.5	35.5	614546	4764110	185	801	T08								
O_2691	32.1	32.1	627701	4751505	180	1267	T24		O_753	38.6	38.6	619334	4753549	185	606	T42								
O_2692	37.2	37.1	627717	4748220	180	775	T23		O_754	34.6	34.6	619339	4748226	180	1006	T99								
O_2693	37.4	37.4	627752	4748260	180	745	T23		O_758	35.8	35.8	619387	4763561	183	898	T07								
O_2694	36.9	36.9	627754	4748204	180	799	T23		O_76	31.5	31.5	614564	4770002	200	1445	T83								
O_2695	36.8	36.8	627769	4748199	180	809	T23		O_760	36.8	36.8	619390	4766373	188	956	T54								
O_2696	36.5	36.5	627782	4762826	178	767	T29		O_761	38.3	38.2	619394	4767799	193	778	T66								

Appendix D Equipment Specification

Summary of Test Report

(Measured hub height of 108 m) /1/

Basic sheet "Geräusche" (Noise), according to the

"Technische Richtlinien für Windenergieanlagen, Teil 1: Bestimmung der Schallemissionswerte"

(Technical Guidelines for Wind Energy Converters, Part 1: Determination of sound emission values)

Rev. 18 of February 1, 2008 (Editor: Fördergesellschaft Windenergie e.V., Stresemannplatz 4, D-24103 Kiel)

Extract of Test Report 209244-04.01 IEC
on noise emission of wind energy converter of type E-82 E2

General Data		Technical Data (manufacturer's specifications)	
Manufacturer of WEC:	Enercon GmbH	Rated power (generator):	2.300 kW
Serial number:	82679	Diameter of rotor:	82 m
Location of WEC (ca.):	26629 Großefehn	Hub height above ground:	108 m
Geographic co-ordinates:	GK longitude: 34.15.287	Type of tower:	conical tube tower
	GK latitude: 59.14.701	Power control:	Pitch
Complementary rotor data (manufacturer's specifications)		Complementary data of gear unit and generator (manufacturer's specifications)	
Manufacturer of rotor blade:	Enercon	Manufacturer of gear unit:	not applicable
Type of rotor blade:	E-82 E2	Type of gear unit:	not applicable
Blade setting angle:	variable	Manufacturer of generator:	Enercon
Number of rotor blades:	3	Type of generator:	E-82 E2
Rotor speed range:	6 to 18 r.p.m. (mode OM I)	Generator speed range:	6 to 18 r.p.m. (mode OM I)

Calculated Performance Chart ENERCON E-82 E2; calculated by ENERCON (Rev. 3.0)

	Reference Point		Noise emission parameters	Observations
	standardized wind speed in 10 m height	true electrical power		
sound power level $L_{WA,P}$	5 ms^{-1}	579 kW	96.4 dB(A)	
	6 ms^{-1}	1,089 kW	100.6 dB(A)	
	7 ms^{-1}	1,612 kW	102.5 dB(A)	
	8 ms^{-1}	2,032 kW	103.2 dB(A)	
	9 ms^{-1}	2,255 kW	103.3 dB(A)	
	10 ms^{-1}	2,300 kW	102.9 dB(A)	
tonal audibility $\Delta L_{a,k}$	5 ms^{-1}	kW	- 2.7 dB	
	6 ms^{-1}	kW	<- 3.0 dB	
	7 ms^{-1}	kW	- 1.8 dB	
	8 ms^{-1}	kW	- 0.7 dB	
	9 ms^{-1}	kW	0.2 dB	
	10 ms^{-1}	kW	- 0.4 dB	
impulse adjustment for small distances K_{IN}	5 ms^{-1}	kW	0 dB	
	6 ms^{-1}	kW	0 dB	
	7 ms^{-1}	kW	0 dB	
	8 ms^{-1}	kW	0 dB	
	9 ms^{-1}	kW	0 dB	
	10 ms^{-1}	kW	0 dB	

Third-octave band sound power level for $v_s = 5 \text{ ms}^{-1}$ in dB(A)

Frequency	50	63	80	100	125	160	200	250	315	400	500	630
$L_{WA,P}$	74.1	76.5*	80.0	85.6	82.2	81.7	81.9	83.7	85.6	85.1	85.5	87.6
Frequency	800	1,000	1,250	1,600	2,000	2,500	3,150	4,000	5,000	6,300	8,000	10,000
$L_{WA,P}$	86.9	86.2	84.8	82.4	78.8	75.3	70.6	65.5	60.3*	60.3*	63.0	70.3

Octave band sound power level for $v_s = 5 \text{ ms}^{-1}$ in dB(A)

Frequency	63	125	250	500	1,000	2,000	4,000	8,000
$L_{WA,P}$	82.3	88.3	88.8	91.0	90.8	84.5	72.1	71.4

Third-octave band sound power level for $v_s = 6 \text{ ms}^{-1}$ in dB(A)

Frequency	50	63	80	100	125	160	200	250	315	400	500	630
$L_{WA,P}$	78.2**	79.1*	82.2	85.2	87.4	84.3	85.0	87.3	88.7	88.5*	89.5*	93.2
Frequency	800	1,000	1,250	1,600	2,000	2,500	3,150	4,000	5,000	6,300	8,000	10,000
$L_{WA,P}$	91.7	91.5	89.9	87.1	83.0	79.4	74.4	69.0	63.5	64.4	67.4	74.3

Octave band sound power level													for $v_s = 6 \text{ ms}^{-1}$ in dB(A)			
Frequency	63		125		250		500		1,000		2,000		4,000		8,000	
$L_{WA,P}$	84.9*		90.6		92.0		95.7		95.9		89.0		75.8		75.4	
Third-octave band sound power level													for $v_s = 7 \text{ ms}^{-1}$ in dB(A)			
Frequency	50	63	80	100	125	160	200	250	315	400	500	630				
$L_{WA,P}$	78.6**	79.8	82.7	84.8	90.8	86.2	86.0	89.7	91.0	92.5	91.7	93.9				
Frequency	800	1,000	1,250	1,600	2,000	2,500	3,150	4,000	5,000	6,300	8,000	10,000				
$L_{WA,P}$	93.4	93.3	91.8	89.2	85.8	81.9	77.0	72.2	66.1	65.3	66.8	72.8				
Octave band sound power level													for $v_s = 7 \text{ ms}^{-1}$ in dB(A)			
Frequency	63		125		250		500		1,000		2,000		4,000		8,000	
$L_{WA,P}$	85.5*		92.8		94.2		97.6		97.7		91.4		78.5		74.4	
Third-octave band sound power level													for $v_s = 8 \text{ ms}^{-1}$ in dB(A)			
Frequency	50	63	80	100	125	160	200	250	315	400	500	630				
$L_{WA,P}$	77.4*	80.4	83.1	84.9	91.2	86.6	86.3	90.4	91.4	92.9	92.1*	94.8				
Frequency	800	1,000	1,250	1,600	2,000	2,500	3,150	4,000	5,000	6,300	8,000	10,000				
$L_{WA,P}$	94.2	94.1	92.6	90.1	86.7	82.7	77.8	73.3	67.7	65.8	66.6	71.4				
Octave band sound power level													for $v_s = 8 \text{ ms}^{-1}$ in dB(A)			
Frequency	63		125		250		500		1,000		2,000		4,000		8,000	
$L_{WA,P}$	85.6		93.2		94.6		98.2		98.5		92.2		79.4		73.4	
Third-octave band sound power level													for $v_s = 9 \text{ ms}^{-1}$ in dB(A)			
Frequency	50	63	80	100	125	160	200	250	315	400	500	630				
$L_{WA,P}$	78.5	81.4	83.9	85.7	92.6	88.2	86.4	90.2	90.7	91.8	91.5*	93.9				
Frequency	800	1,000	1,250	1,600	2,000	2,500	3,150	4,000	5,000	6,300	8,000	10,000				
$L_{WA,P}$	94.0	94.4	93.4	91.5	88.4	84.6	79.9	75.4	69.3	65.5*	66.4	71.5				
Octave band sound power level													for $v_s = 9 \text{ ms}^{-1}$ in dB(A)			
Frequency	63		125		250		500		1,000		2,000		4,000		8,000	
$L_{WA,P}$	86.6		94.6		94.3		97.3*		98.7		93.8		81.5		73.4	
Third-octave band sound power level													for $v_s = 10 \text{ ms}^{-1}$ in dB(A)			
Frequency	50	63	80	100	125	160	200	250	315	400	500	630				
$L_{WA,P}$	78.8	81.7	84.5	86.3	92.4	88.5	86.4	89.8	90.0*	91.2	90.9*	92.7*				
Frequency	800	1,000	1,250	1,600	2,000	2,500	3,150	4,000	5,000	6,300	8,000	10,000				
$L_{WA,P}$	93.3	93.9	93.3	91.5	88.8	85.2	80.7	76.5	71.9	70.4	68.5	71.8				
Octave band sound power level													for $v_s = 10 \text{ ms}^{-1}$ in dB(A)			
Frequency	63		125		250		500		1,000		2,000		4,000		8,000	
$L_{WA,P}$	87.0		94.6		93.7		96.5*		98.3		94.0		82.5		75.2	

This summary of the test report is valid only in combination with the certification of the manufacturer of 03/05/2010.

These specifications do not replace the test report mentioned above (particularly for noise immission predictions).

Observations: * Difference between working and background noise < 6 dB, correction by 1.3 dB
 ** Difference between working and background noise < 3 dB, values shall not be presented

/1/ Wind turbine generator systems – Part 11: Acoustic noise; measurement techniques (IEC 61400-11:2002 and A1:2006);
 German version DIN EN 61400-11:2007

Measured by: KÖTTER Consulting Engineers
 - Rheine -




Date: 08/02/2010

i. V. Dipl.-Ing. O. Bunk

i. A. Dipl.-Ing. J. Weinheimer

Vorläufiger Auszug aus dem Prüfbericht

Stammblatt "Geräusche", entsprechend den "Technischen Richtlinien für Windenergieanlagen,
Teil 1: Bestimmung der Schallemissionswerte"

Rev. 18 vom 01. Februar 2008 (Herausgeber: Fördergesellschaft Windenergie e.V. Stresemannplatz 4, D-24103 Kiel)

Auszug aus dem Prüfbericht 213121-01.01 zur Schallemission einer Windenergieanlage vom Typ E-101												
Allgemeine Angaben			Technische Daten (Herstellerangaben)									
Anlagenhersteller	Enercon GmbH	Nennleistung (Generator):	3.0 (3.25) MW									
Seriennummer:	1010002	Rotordurchmesser:	101 m									
WEA-Standort (ca.):	49733 Haren	Nabenhöhe über Grund:	99 m									
Standortkoordinaten:	RW: 25.76.214	Turmbauart:	Beton									
	HW: 58.59.856	Leistungsregelung:	Pitch									
Ergänzende Daten zum Rotor (Herstellerangaben)			Ergänzende Daten zu Getriebe und Generator (Herstellerangaben)									
Rotorblatthersteller	Enercon	Getriebehersteller	entfällt									
Typenbezeichnung Blatt:	E-101-1	Typenbezeichnung Getriebe:	entfällt									
Blatteinstellwinkel:	variabel	Generatorhersteller	Enercon									
Rotorblattanzahl:	3	Typenbezeichnung Generator:	G-101/30-G2									
Rotordrehzahlbereich:	5 - 14,7 U/min	Generatornennzahl:	14,7 U/min									
Leistungskurve: Leistungskennlinie E101 3 MW OM I (berechnet) der Enercon GmbH zur E-101 vom 05.07.2012												
	Referenzpunkt		Schallemissions- Parameter	Bemerkungen								
	Normierte Windgeschwindig- keit in 10 m Höhe	Elektrische Wirkleistung										
Schallleistungs-Pegel $L_{WA,P}$	6 ms ⁻¹	1.414 kW	103,6 dB(A)									
	7 ms ⁻¹	2.077 kW	104,3 dB(A)									
	8 ms ⁻¹	2.751 kW	104,7 dB(A)									
	9 ms ⁻¹	2.987 kW	104,6 dB(A)									
	10 ms ⁻¹	3.050 kW	-- dB(A)	(2)								
	8,3 ms ⁻¹	2.850 kW	104,8 dB(A)	(1)								
Tonzuschlag für den Nahbereich K_{TN}	6 ms ⁻¹	1.414 kW	0 dB bei 116 Hz									
	7 ms ⁻¹	2.077 kW	0 dB									
	8 ms ⁻¹	2.751 kW	0 dB									
	9 ms ⁻¹	2.987 kW	0 dB									
	10 ms ⁻¹	3.050 kW	-- dB	(2)								
	8,3 ms ⁻¹	2.850 kW	0 dB	(1)								
Impulszuschlag für den Nahbereich K_{IN}	6 ms ⁻¹	1.414 kW	0 dB									
	7 ms ⁻¹	2.077 kW	0 dB									
	8 ms ⁻¹	2.751 kW	0 dB									
	9 ms ⁻¹	2.987 kW	0 dB									
	10 ms ⁻¹	3.050 kW	-- dB	(2)								
	8,3 ms ⁻¹	2.850 kW	0 dB	(1)								
Terz-Schallleistungspegel für $v_s = 8,3 \text{ ms}^{-1}$ in dB(A) entsprechend dem maximalen Schallleistungspegel												
Frequenz	50	63	80	100	125	160	200	250	315	400	500	630
$L_{WA,P,max}$	78,8	82,1	82,7	84,4	88,4	86,7	90,0	94,8	95,0	95,6	96,3	96,2
Frequenz	800	1.000	1.250	1.600	2.000	2.500	3.150	4.000	5.000	6.300	8.000	10.000
$L_{WA,P,max}$	95,0	93,3	91,5	90,4	86,6	85,4	83,7	80,8	75,8	69,7*	67,1**	65,5**
Oktav-Schallleistungspegel für $v_s = 8,3 \text{ ms}^{-1}$ in dB(A) entsprechend dem maximalen Schallleistungspegel												
Frequenz	63	125	250	500	1.000	2.000	4.000	8.000				
$L_{WA,P,max}$	86,3	91,6	98,6	100,8	98,3	92,8	85,9	73,3**				

Dieser Auszug aus dem Prüfbericht gilt nur in Verbindung mit der Herstellerbescheinigung vom 13.03.2013.

Die Angaben ersetzen nicht den o. g. Prüfbericht (insbesondere bei Schallimmissionsprognosen).

- Bemerkungen:
- (1) Die normierte Windgeschwindigkeit von $v_s = 8,3 ms^{-1}$ entspricht 95 % der Nennleistung.
 - (2) Witterungsbedingt keine Daten vorhanden
 - * Abstand zwischen Anlagengeräusch und Fremdgeräusch < 6 dB, Pegelkorrektur um 1,3 dB
 - ** Abstand zwischen Anlagengeräusch und Fremdgeräusch < 3 dB, keine Pegelkorrektur

Gemessen durch: KÖTTER Consulting Engineers GmbH & Co. KG

Datum: 13.01.2013

i. V. Dipl.-Ing. Oliver Bunk

i. A. Matthias Humpohl, B. Sc.

Summary of Test Report (Measured hub height of 99 m) /1/

Master Data Sheet "Geräusche" (Noise), in accordance with
"Technische Richtlinien für Windenergieanlagen, Teil 1: Bestimmung der Schallemissionswerte"
(Technical Guidelines for Wind Turbine Generators, Part 1: Determination of sound emission values)
Rev. 18 of February 1, 2008 (Editor: Fördergesellschaft Windenergie e.V. Stresemannplatz 4, D-24103 Kiel)

Extract of Test Report 213122-02.01 IEC
on noise emission of wind turbine generator of type E-101

General Data		Technical Data (manufacturer's specifications)	
Manufacturer of WTG:	Enercon GmbH	Rated power (generator):	3,050 (3,250) kW
Serial number:	1010002	Diameter of rotor:	101 m
Location of WTG (approx.):	49733 Haren	Hub height above ground:	99 m
Geographic co-ordinates:	GK longitude: 25.76.214 GK latitude: 58.59.856	Type of tower:	conical tubular concrete
		Power control:	Pitch
Complementary rotor data (manufacturer's specifications)		Complementary data of gear unit and generator (manufacturer's specifications)	
Manufacturer of rotor blade:	Enercon	Manufacturer of gear unit:	not applicable
Type of rotor blade:	E-101-1	Type of gear unit:	not applicable
Blade setting angle:	variable	Manufacturer of generator:	Enercon
Number of rotor blades:	3	Type of generator:	G-101/30-G2
Rotor speed range:	5 to 14.7 rpm. (mode OM I)	Rated speed of generator:	5 to 14.7 rpm. (mode OM I)

Calculated Performance Chart: Performance characteristic E101 3 MW OM I ; calculated by ENERCON (Rev. 1.0)

	Reference Point		Noise emission parameters	Observations
	standardized wind speed at a height of 10 m	true electrical power		
sound power level $L_{WA,P}$	6 ms ⁻¹	1,414 kW	103.6 dB(A)	
	7 ms ⁻¹	2,077 kW	104.3 dB(A)	
	8 ms ⁻¹	2,751 kW	104.8 dB(A)	
	9 ms ⁻¹	2,987 kW	104.6 dB(A)	(1)
	10 ms ⁻¹	3,050 kW	—	(2)
tonal audibility $\Delta L_{a,k}$	6 ms ⁻¹	1,414 kW	- 1.5 dB	
	7 ms ⁻¹	2,077 kW	0 dB	
	8 ms ⁻¹	2,751 kW	0 dB	
	9 ms ⁻¹	2,987 kW	0 dB	(1)
	10 ms ⁻¹	3,050 kW	—	(2)
impulse adjustment for immediate vicinity K_{IN}	6 ms ⁻¹	1,414 kW	0 dB	
	7 ms ⁻¹	2,077 kW	0 dB	
	8 ms ⁻¹	2,751 kW	0 dB	
	9 ms ⁻¹	2,987 kW	0 dB	(1)
	10 ms ⁻¹	3,050 kW	—	(2)

Third-octave band sound power level for $v_s = 6 \text{ ms}^{-1}$ in dB(A)

Frequency	50	63	80	100	125	160	200	250	315	400	500	630
$L_{WA,P}$	78.3	81.8*	83.0**	84.2	89.6	85.7*	89.2	92.7	94.1	94.6	95.1	94.9
Frequency	800	1,000	1,250	1,600	2,000	2,500	3,150	4,000	5,000	6,300	8,000	10,000
$L_{WA,P}$	93.5	91.6	90.0	89.0	85.4	84.1	82.3	79.3	74.8	67.8*	64.7**	65.3**

Octave band sound power level for $v_s = 6 \text{ ms}^{-1}$ in dB(A)

Frequency	63	125	250	500	1,000	2,000	4,000	8,000
$L_{WA,P}$	85.6*	91.9	97.2	99.6	96.7	91.5	84.6	70.3*

Third-octave band sound power level for $v_s = 7 \text{ ms}^{-1}$ in dB(A)

Frequency	50	63	80	100	125	160	200	250	315	400	500	630
$L_{WA,P}$	78.9	83.3	84.0	84.9	88.2	86.4*	89.6	94.7	94.9	95.4	95.8	95.5
Frequency	800	1,000	1,250	1,600	2,000	2,500	3,150	4,000	5,000	6,300	8,000	10,000
$L_{WA,P}$	94.0	92.0	90.4	89.3	86.1	84.7	82.9	79.9	74.4*	68.4*	64.6**	62.7**

Octave band sound power level for $v_s = 7 \text{ ms}^{-1}$ in dB(A)

Frequency	63	125	250	500	1,000	2,000	4,000	8,000
$L_{WA,P}$	87.3	91.5	98.4	100.3	97.1	91.9	85.0	71.5**

Third-octave band sound power level for $v_s = 8 \text{ ms}^{-1}$ in dB(A)																
Frequency	50	63	80	100	125	160	200	250	315	400	500	630				
L_{WAP}	82.1	82.8	84.4	88.4	86.8	90.1	94.8	95.0	95.6	96.3	96.2	82.1				
Frequency	800	1,000	1,250	1,600	2,000	2,500	3,150	4,000	5,000	6,300	8,000	10,000				
L_{WAP}	95.0	93.3	91.5	90.4	86.7	85.4	83.7	80.9	75.9	69.7*	67.1**	65.5**				
Octave band sound power level for $v_s = 8 \text{ ms}^{-1}$ in dB(A)																
Frequency	63		125		250		500		1,000		2,000		4,000		8,000	
L_{WAP}	86.3		91.6		98.6		100.8		98.3		92.8		86.0		73.3**	
Third-octave band sound power level for $v_s = 9 \text{ ms}^{-1}$ in dB(A)																
Frequency	50	63	80	100	125	160	200	250	315	400	500	630				
L_{WAP}	78.6	81.9	82.4*	83.9	87.8	85.9*	88.6	93.8	94.2	95.1	96.0	96.3				
Frequency	800	1,000	1,250	1,600	2,000	2,500	3,150	4,000	5,000	6,300	8,000	10,000				
L_{WAP}	95.4	93.8	92.3	91.0	87.4	86.0	84.1	81.1	76.7	71.7	68.4	66.8*				
Octave band sound power level for $v_s = 9 \text{ ms}^{-1}$ in dB(A)																
Frequency	63		125		250		500		1,000		2,000		4,000		8,000	
L_{WAP}	86.0		90.8		97.6		100.6		98.8		93.5		86.4		74.2	

This summary of the test report is valid only in combination with the manufacturer's certificate dated 12/03/2013.

These specifications do not replace the test report mentioned above (particularly for noise immission predictions).

- Observations:
- (1) Maximum value of standardized wind speed during the WTG-operation measurement $v_s = 8,9 \text{ m/s}$
 - (2) Due to weather conditions, no data available during WTG operation
 - * Difference between working and background noise < 6 dB, correction by 1.3 dB
 - ** Difference between working and background noise < 3 dB, values shall not be presented

/1/ Wind turbine generator systems – Part 11: Acoustic noise; measurement techniques (IEC 61400-11:2002 and A1:2006);
German version DIN EN 61400-11:2007

Measured by: KÖTTER Consulting Engineers
- Rheine -

 
Dipl.-Ing. Oliver Bunk Matthias Humpohl, B.Sc.

Date: 23/04/2013



Bonifatiusstraße 400 · 48432 Rheine
Tel. 0 59 71 - 97 10.0 · Fax 0 59 71 - 97 10.43

**NIAGARA REGION WIND FARM
NOISE ASSESSMENT REPORT**

Appendix E Sample Calculations and CADNA/A Inputs/Outputs (In the Attached CD)
July 25, 2013

**Appendix E Sample Calculations and CADNA/A Inputs/Outputs (In
the Attached CD)**

Appendix F Additional Information

MANUFACTURERS SOUND EMISSION AND ADJUSTED SOUND EMISSION

Table 3.1 Wind Turbine Sound Emission Summary

Make: ENERCON

Model: E101

Electrical Rating: 3MW

Hub Height: 124 m or 135 m

Data Source: Enercon (Appendix D) - for all wind shear above 0.2

Octave Band Sound Power Level (dB ref. 10^{-12} Watts)

		Manufacturer's Emission Level					Adjusted Emission Level				
10m Height Wind Speed (m/s)		6	7	8	9	10	6	7	8	9	10
Frequency (Hz)	63	111.3	112	112.4	112.3	--	112.5	112.5	112.5	112.5	112.5
	125	106.5	107.2	107.6	107.5	--	107.7	107.7	107.7	107.7	107.7
	250	106	106.7	107.1	107	--	107.2	107.2	107.2	107.2	107.2
	500	102.8	103.5	103.9	103.8	--	104	104	104	104	104
	1000	97.1	97.8	98.2	98.1	--	98.3	98.3	98.3	98.3	98.3
	2000	90.4	91.1	91.5	91.4	--	91.6	91.6	91.6	91.6	91.6
	4000	83.7	84.4	84.8	84.7	--	84.9	84.9	84.9	84.9	84.9
	8000	73.2	73.9	74.3	74.2	--	74.4	74.4	74.4	74.4	74.4
Overall (dBA ref. 10^{-12} Watts)		103.6	104.3	104.7	104.6	--	104.8	104.8	104.8	104.8	104.8

Make: ENERCON

Model: E82

Electrical Rating: 2.3MW

Hub Height: 135 m

Data Source: Enercon (Appendix D) - for all wind shear above 0.2

Octave Band Sound Power Level (dB ref. 10^{-12} Watts)

		Manufacturer's Emission Level					Adjusted Emission Level				
10m Height Wind Speed (m/s)		6	7	8	9	10	6	7	8	9	10
Frequency (Hz)	63	111.1	111.7	111.8	112.8	113.2	112.8	112.8	112.8	112.8	112.8
	125	106.7	108.9	109.3	110.7	110.7	110.7	110.7	110.7	110.7	110.7
	250	100.6	102.8	103.2	102.9	102.3	102.9	102.9	102.9	102.9	102.9
	500	98.9	100.8	101.4	100.5	99.7	100.5	100.5	100.5	100.5	100.5
	1000	95.9	97.7	98.5	98.7	98.3	98.7	98.7	98.7	98.7	98.7
	2000	87.8	90.2	91	92.6	92.8	92.6	92.6	92.6	92.6	92.6
	4000	74.8	77.5	78.4	80.5	81.5	80.5	80.5	80.5	80.5	80.5
	8000	76.5	75.5	74.5	74.5	76.3	74.5	74.5	74.5	74.5	74.5
Overall (dBA ref. 10^{-12} Watts)		100.6	102.6	103.2	103.3	102.9	103.3	103.3	103.3	103.3	103.3

¹ As per the data, overall sound power data is available from 6 m/s (corresponding to 1414 kW or approximately 38% of the rated power) to 9 m/s (corresponding to 2987 kW or approximately 99.6% of the rated power of 3MW). As per the test, the maximum sound power level occurs at 8.3 m/s wind speed and corresponding spectral data is given in the data sheet. The spectral data for other wind speed were obtained by scaling based on the overall data.

² No data was given for the 10 m/s wind speed since the turbine reaches 95% of rated power output at 8.3 m/s wind speed. For this model the attached test report indicates that the maximum sound power level occurs at 8.3 m/s wind speed. The maximum sound power level as provided from manufacturer was used. A wind shear adjusted sound data is provided in Appendix F.

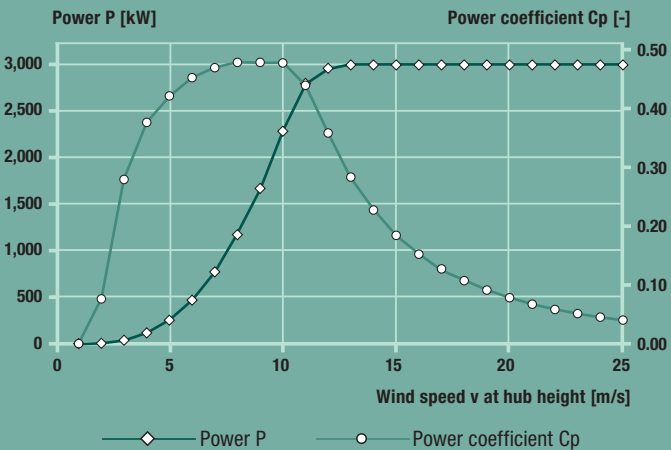
MANUFACTURER'S CATALOG DATA

E101

3,000 kW



Calculated power curve



Wind [m/s]	Power P [kW]	Power coefficient Cp [-]
1	0.0	0.000
2	3.0	0.076
3	37.0	0.279
4	118.0	0.376
5	258.0	0.421
6	479.0	0.452
7	790.0	0.469
8	1,200.0	0.478
9	1,710.0	0.478
10	2,340.0	0.477
11	2,867.0	0.439
12	3,034.0	0.358
13	3,050.0	0.283
14	3,050.0	0.227
15	3,050.0	0.184
16	3,050.0	0.152
17	3,050.0	0.127
18	3,050.0	0.107
19	3,050.0	0.091
20	3,050.0	0.078
21	3,050.0	0.067
22	3,050.0	0.058
23	3,050.0	0.051
24	3,050.0	0.045
25	3,050.0	0.040

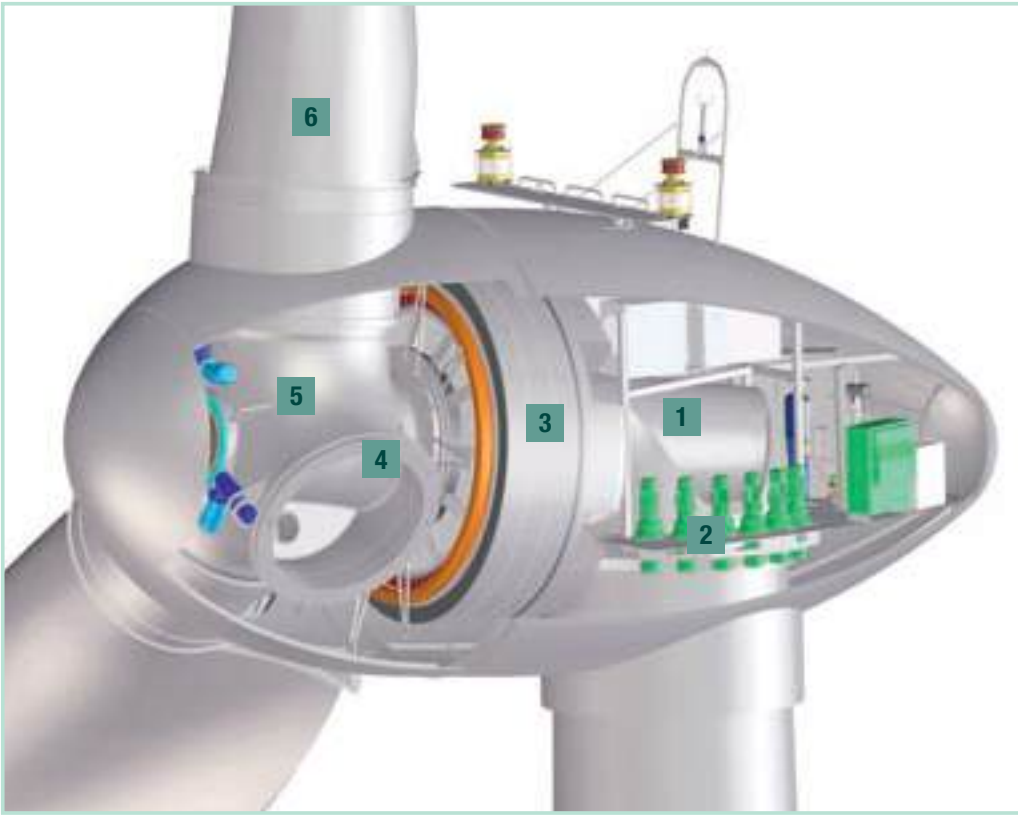
$\rho = 1.225 \text{ kg/m}^3$

For more information on the ENERCON power curve, please see the last page.

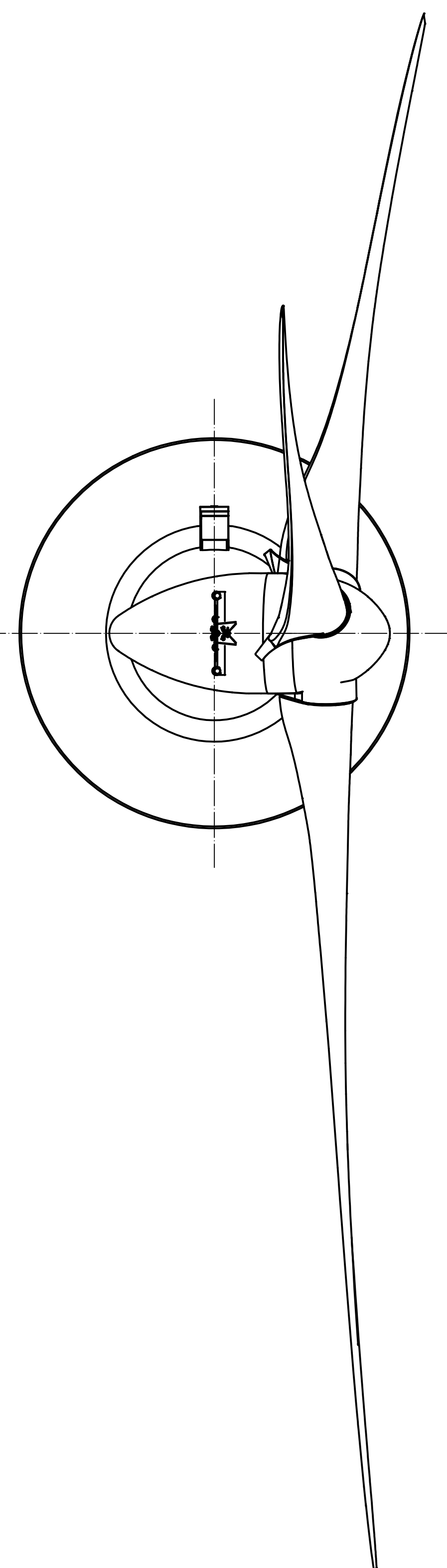
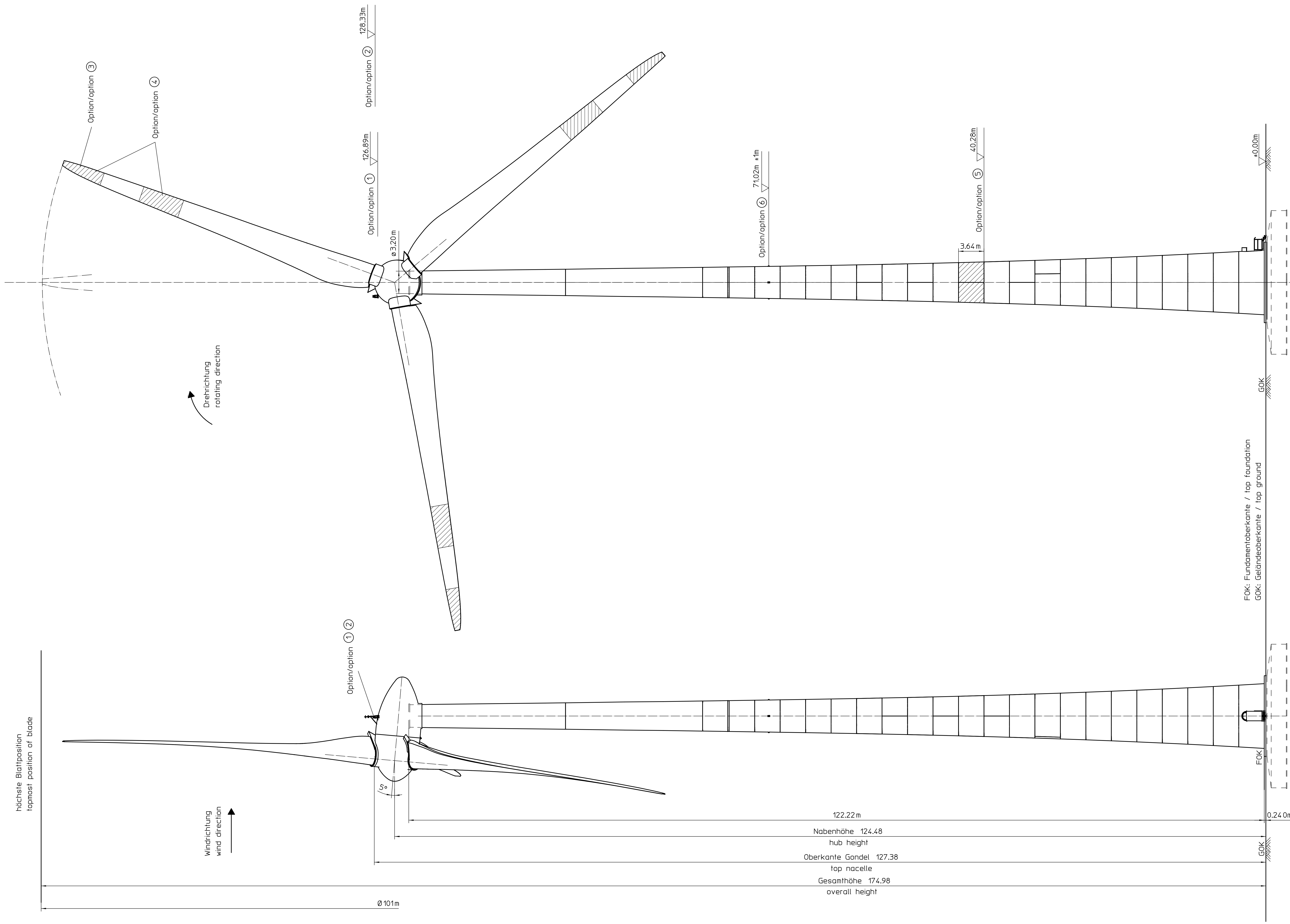
Technical specifications E-101

Rated power:	3,000 kW	Drive train with generator	
Rotor diameter:	101 m	Hub:	Rigid
Hub height:	99 m / 135 m	Main bearing:	Double-row tapered/cylindrical roller bearings
Wind zone (DIBt):	WZ III	Generator:	ENERCON direct-drive annular generator
Wind class (IEC):	IEC/NVN IIA	Grid feed:	ENERCON inverter
WEC concept:	Gearless, variable speed Single blade adjustment	Brake systems:	— 3 independent pitch control systems with emergency power supply — Rotor brake — Rotor lock, latching (15 °)
Rotor		Yaw system:	Active via yaw gear, load-dependent damping
Type:	Upwind rotor with active pitch control	Cut-out wind speed:	28–34 m/s (with ENERCON storm control*)
Rotational direction:	Clockwise	Remote monitoring:	ENERCON SCADA
No. of blades:	3		
Swept area:	8,012 m ²		
Blade material:	GRP (epoxy resin); Built-in lightning protection		
Rotational speed:	Variable, 4–14.5 rpm		
Pitch control:	ENERCON single blade pitch system; one independent pitch system per rotor blade with allocated emergency supply		

* For more information on the ENERCON storm control feature, please see the last page.



- 1 Main carrier
- 2 Yaw drive
- 3 Annular generator
- 4 Blade adapter
- 5 Rotor hub
- 6 Rotor blade



Projektbezogene Angaben / project specific data	
Projekt / project:	
Geländehöhe über NN / ground height above sea level:	
Gesamthöhe über NN / total height above sea level:	
Optionen / options:	
① Nachtkennzeichnung / night marking: W - Rot / W - Red	
② Tageskennzeichnung / daylight marking: weißes Blitzlicht mit Sichtweitenreduzierung white flashlight with visibility reduction	
③ Tageskennzeichnung / daylight marking: 6m rot (RAL 3020) / graues Rotorblatt (RAL 7038) / 6m red (RAL 3020) grey rotor blade (RAL 7038)	
④ Tageskennzeichnung / daylight marking: rot/grau/rot (RAL 3020 / RAL 7038 / RAL 3020) je 6m lang / red/grey/red (RAL 3020 / RAL 7038 / RAL 3020) every 6m lang	
⑤ Tageskennzeichnung / daylight marking: 3.83m Farbfeld RAL 3020 / 3.83m colour field RAL 3020	
⑥ Nachtkennzeichnung / night marking: Hindernisfeuer auf jeder Turmchse 10CD / obstruction fire on every tower axis 10CD	

Statisch und Konstruktiv nicht geprüft	
Dieses Dokument wurde als Vorstudie für die Projektierung erstellt. Es ist nicht für die Ausführung geeignet. Der Empfänger wird auf die Risiken hingewiesen. This document was created as a preliminary study for the project. It is not suitable for execution. The recipient is warned of the risks.	
General tolerances: DIN ISO 1222	
Scale: 1:200	
Date: 08.07.2010	
Name: Stenerl	
WRD-Turm	
101.00.008 - 0	
Ansicht Betonfertigteilturm View Precast Concrete Tower E-101 E1/BF/125/4	
1	

WIND ENERGY CONVERTER CHARACTERISTICS E-101

Rotor	
Type	E-101
Rotor diameter	101 m
Swept area	8012 m ²
Power regulation	Pitch
RPM	4 –14,5 min ⁻¹
Cut in wind	2,5 m/s
Cut out wind	28 – 34 m/s
Survival wind speed	59,5 m/s

Gear Box	
Not applicable	No gearbox

Blades	
Manufacturer	ENERCON
Blade length	48,5 m
Material	GRP (Epoxy)
Lightning protection	included

Generator	
Manufacturer	ENERCON
Nominal Power	3000 kW
Type (model)	Synchronous, direct-drive ringgenerator
Protection classification	IP 23
Insulation class	F

Yaw System	
Type	electrical motors
Yaw control	Active (based on wind vane signal)
Yaw rate	0,5°/sec

Controller	
Manufacturer	ENERCON
Type	microprocessor
Grid connection	Via ENERCON inverter
Remote communication	ENERCON Remote Monitoring System
UPS	included

Braking System	
Aerodynamic brake	- three independent blade pitch systems with emergency supply - rotor brake - rotor lock, locking at 30°

Tower			
Hub heights	99 m	135 m	
Tower	Prefab concrete	Prefab concrete	
Design Wind Class	IIA	IIA	

Sources: Design Assessment

© by ENERCON GmbH. All rights reserved.			
Created/Date:	M. Lüninghöner	Checked:	AH/09/2009
Dpt.:	SL_HB	Approved:	SL_HB_WEC Characteristics_E-101_Rev001_eng-
Revision:	001/31.03.2010	Reference :	eng.doc

Prevention

All mechanical and electrical components of the wind energy converter in which overheating or short circuits could potentially ignite a fire are permanently monitored by sensors – primarily to ensure their proper functioning – while the WEC is running. If the WEC control system detects irregularities, the wind energy converter stops or continues with limited power. This function is the most effective component of the fire safety system.

Components

Special fire safety components of the E-70 E4 include:

- One Hekatron ORS 142 smoke detector (see appendix for data sheet) on the rotor head side of the stator support ring
- One Hekatron ORS 142 smoke detector on the machine house side of the stator support ring
- One Hekatron ORS 142 smoke detector on the bottom side of the main carrier (i.e., at the tower top)
- One hand-held CO₂ fire extinguisher in the nacelle
- If required by national regulations, one hand-held CO₂ fire extinguisher in the tower base (ENERCON personnel carry an additional fire extinguisher in their Service vehicles)
- Fire retardant or hardly inflammable or incombustible materials for specific components.



No smoke detectors are installed inside the tower and in the tower base. Since the WEC cooling system transports air from the tower base to the area above the tower top at high speed, the smoke detectors in the nacelle are able to detect a fire in the tower or the tower base.

Safe stopping of the wind energy converter in hazardous situations

The emergency pitch unit of each rotor blade consists of blade relay box, capacitor box, and pitch motor. If a safety-relevant sensor reports a fault or a safety switch is triggered, the wind energy converter stops immediately. The pitch control boxes disconnect the pitch motors from the control system and switch the contactors in the blade relay boxes to power supply by the capacitor boxes. The rotor blades automatically move into feathered position independently of each other until switched off by limit switches on the blade bearings. In case of an emergency stop of the rotor (in the event of a fire) an additional electromechanical brake is used. Decelerating the rotor from its rated speed to a standstill takes 10 to 15 seconds.

Fire during WEC operation

There are no persons present in the wind energy converter while it is running. If a fire is detected the rotor of the WEC stops as quickly as possible (emergency stop). The smoke detectors and/or temperature sensors generate signals that are immediately forwarded by the SCADA remote monitoring system to ENERCON Service, who in turn will immediately alert the local fire service and the utility operating the grid. They decide on site which measures are required. The ENERCON Service Center is staffed 24/7 and can thus be contacted at any time

Fire while persons are present

In this scenario, follow the instructions and rules of conduct below.

- Stop the wind energy converter and turn off the main switch, if still possible. Otherwise, push the EMERGENCY STOP button.
- Call the fire service.
- Rescue any injured persons from the danger zone and ensure first aid is provided.
- Use carbon dioxide fire extinguishers to fight the fire; follow the operating instructions of the fire extinguishers. Only try to fight the fire if you can do so without putting your own safety at risk and if the escape route is clear.
- If the fire cannot be extinguished immediately, do not continue fire fighting efforts. Evacuate the wind energy converter and any ancillary buildings, and leave the WEC. Cordon off a wide area around the WEC.
- If it is no longer possible to descend safely in the tower, climb up into the nacelle and use rescue equipment (abseiling device) to leave the nacelle through the winch hatch.
- Notify the technical manager of the relevant utility company.
- Clear access roads for emergency services.
- Notify ENERCON Service.



If the *Maintenance* status has been activated during service work on the wind energy converter, any signals generated by smoke detectors and other sensors are **not** transmitted to ENERCON Service.

Maintenance

In the event of a SCADA system fault a corresponding message is sent to the ENERCON Service Center that will then initiate troubleshooting measures at once. The smoke detectors and the SCADA system are inspected in the setting of the annual electrical maintenance. Inspection and maintenance of fire extinguishers is performed in accordance with national regulations.

Optischer Rauchschalter ORS 142

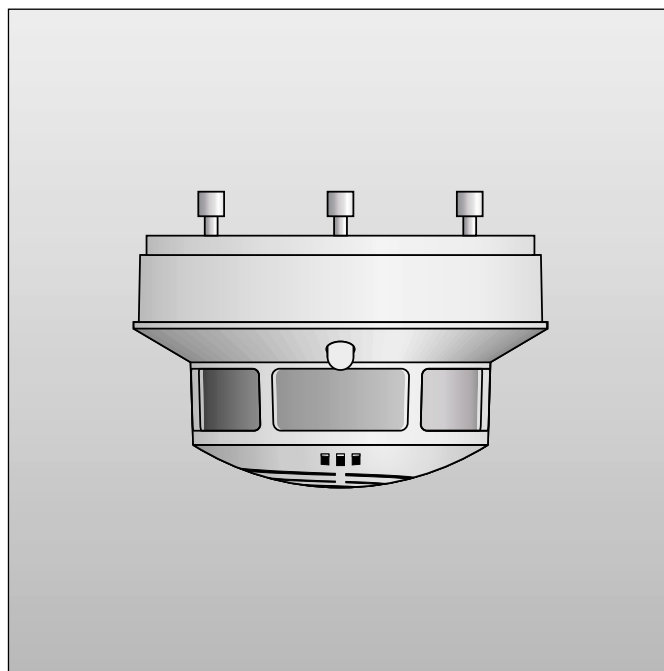
Détecteur de fumée optique ORS 142

ORS 142 optical smoke switch

- optische Raucherkennung
- Verschmutzungsanzeige
- Alarmschwellennachführung
- kommunikationsfähig
- Meßkammerüberwachung
- potentialfreier Öffner

- détection de fumée optique
- indicateur de colmatage
- correction du seuil d'alarme
- communication
- surveillance par chambre de mesure
- contact d'ouverture exempt de potentiel

- Optical smoke detection
- Contamination warning
- Auto contamination compensation
- Communications capability
- Sensing chamber monitoring
- NC volt-free contact



Der optische Rauchschalter ORS 142 erkennt frühzeitig sowohl Schwelbrände als auch offene Brände mit Rauchentwicklung. Ein zusätzlicher Temperaturfühler spricht bei einer Umgebungstemperatur von 70 °C an. Er wird vorzugsweise in Feststellanlagen und maschinellen Rauchabzugsanlagen eingesetzt. Der ORS 142 löst den bisherigen Rauchschalter ORS 132 ab.

Le détecteur de fumée optique ORS 142 décèle rapidement aussi bien les feux couvants que les feux déclarés avec émission de fumée.

Un capteur thermique supplémentaire se déclenche automatiquement à partir d'une température ambiante de 70°C.

Ce dispositif s'utilise de préférence pour les contrôles automatiques des portes et systèmes de désenfumage mécaniques

The ORS 142 optical smoke switch reacts promptly to smouldering fires as well as to flaming fires that develop smoke. An additional temperature sensor is triggered at an ambient temperature of 70 °C. Its principal application is for door holder/closer systems and powered smoke ventilation systems.

Der ORS 142 arbeitet nach dem Streulichtprinzip. Lichtsender und -empfänger sind in der Meßkammer so angeordnet, daß das Licht des Senders den Empfänger nicht direkt trifft. Erst das an Schwebeteilchen gestreute Licht gelangt zum Empfänger.

Die Auswerteelektronik des ORS 142 überwacht den Rauchmeßteil des Melders zusätzlich auf leichte Verschmutzung, starke Verschmutzung und Störung (Meßkammerausfall). Die jeweiligen Betriebszustände zeigt der ORS 142 optisch an.

Eine Langzeit-Alarmschwellennachführung sorgt für einen gleichbleibenden Abstand zwischen Grundsignal und Alarmschwelle, bis der Grenzwert für starke Verschmutzung erreicht ist.

Ein Relaiskontakt öffnet bei Alarm sowie bei Spannungsausfall.

Kommunikation

Der ORS 142 meldet seinen Funktionszustand über Stift 3 an eine RZA 142 (Rauchschalter-Zustandsanzeige). Hier werden ebenfalls die Zustände mit farbigen LEDs optisch angezeigt.

Wird der ORS 142 an ein RSI (Rauchschalter-Interface) angeschlossen, können die Melderzustände mit einem PC abgefragt werden. Mit einem Modem können RSI und PC über eine Postleitung kommunizieren.

L'ORS 142 fonctionne sur le principe de la lumière diffuse. L'émetteur et le récepteur de lumière sont positionnés dans la chambre de mesure de manière que la lumière provenant de l'émetteur ne parvienne pas directement au récepteur, mais seulement sous forme de lumière diffusée sur les particules en suspension.

L'unité d'évaluation électronique de l'ORS 142 surveille le dispositif de mesure de fumée du détecteur afin de déceler l'encrassement, faible ou important, ainsi que les pannes (défaillances de la chambre de mesure). Les états de fonctionnement de l'ORS 142 sont signalés de manière optique. Le dispositif de correction du seuil d'alarme assure un écart constant entre le signal de base et le seuil d'alarme, et ceci jusqu'à ce que la valeur limite d'encrassement important soit atteinte.

Un contact de relais s'ouvre en cas d'alarme ou d'absence de courant.

Communication

L'ORS 142 signale son état de fonctionnement au niveau de l'ergot 3 de l'indicateur de fonctionnement RZA 142. Des DEL de couleur signalent également les états de fonctionnement de manière optique. Lorsque l'ORS 142 est branché sur une interface de détecteur de fumée, il est possible de vérifier l'état de fonctionnement du détecteur à partir d'un PC. À l'aide d'un modem, l'interface et le PC peuvent communiquer par une ligne téléphonique.

The ORS 142 operates on the light scatter principle. Inside the sensing chamber a light source and a light sensor are arranged so that the light normally does not fall on the sensor. It is only when airborne particles enter the chamber that light is scattered onto the sensor.

The ORS 142 electronic circuitry also monitors the smoke detection system for slight contamination (dust and dirt build-up), heavy contamination and faults (sensing chamber failure). LEDs provide an optical indication of the operating status of the ORS 142. A long-term compensation function automatically maintains a constant difference between the quiescent signal and the alarm threshold, until a set limit indicating heavy contamination is reached.

A relay contact opens in the alarm condition or on power failure.

Communications

The ORS 142 signals its functional status via pin 3 to an RZA 142 smoke switch status indicator, whose coloured LEDs give an additional remote optical indication of the instrument's condition.

If the ORS 142 is linked to an RSI smoke switch interface, detector status can be scanned from a PC. The RSI and the PC can also communicate over a telecommunications line.

DIBt-Zulassungen für:

Feststellanlagen	Z-6.5-1571 Z-6.5-1725
maschinelle Rauchabzugsanlagen	Z-78.5-15

Homologations DIBt pour :

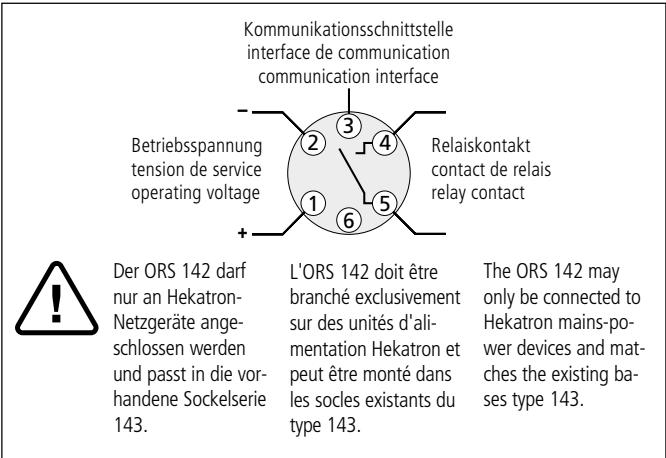
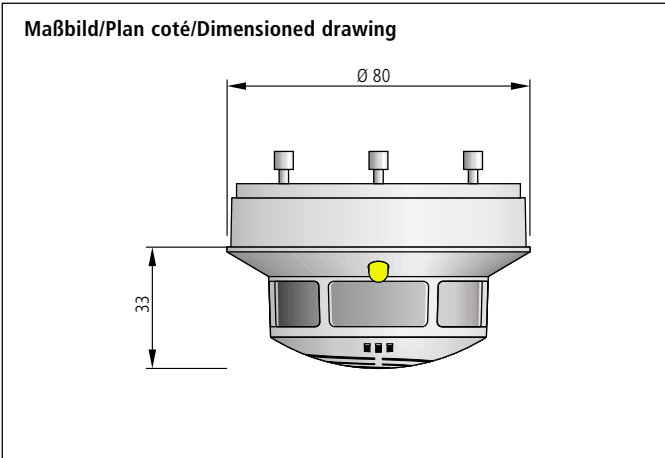
Équipements coupe-feu	Z-6.5-1571 Z-6.5-1725
Systèmes de désenfumage mécaniques	Z-78.5-15

DIBt approvals for:

Hold-open systems	Z-6.5-1571 Z-6.5-1725
Powered smoke ventilation systems	Z-78.5-15

Technische Daten/Caractéristiques techniques/Technical data

nach/selon/to EN 54, Teil 7	Rauch	Fumée	Smoke
70 °C	Temperatur	Température	Temperature
18 bis/à/to 28 VDC	Betriebsspannung	Tension de service	Operating voltage
	Stromaufnahme bei 28 V__	Consommation pour 28 V__	Current draw at 28 V DC
max. 21 mA	in Ruhe	au repos	quiescent
max. 10 mA	bei Alarm	en cas d'alarme	in alarm
max. 25 mA	bei Störung	en cas de défaillance	in fault
Öffner/contact d'ouverture/NC	Relaiskontakte	Contacts de relais	Relay contact
max. 30 VDC	Schaltspannung	Tension d'enclenchement	switched voltage
max. 1 A	Schaltstrom	Courant d'enclenchement	switched current
max. 30 W	Schaltleistung	Puissance de rupture	switched power
IP 42	Schutzart	Indice de protection	Ingress protection
-20 bis/à/to +80 °C	Betriebsumgebungstemperatur	Température ambiante d'exploitation	Ambient operating temperature
120 g	Gewicht	Poids	Weight



Relais/Relais/Relay		Einzelanzeige/Affichage individuel/LED
Betrieb en service in operation		grün/vert/green
leicht verschmutzt légèrement encrassé slight contamination		grün/vert/green
stark verschmutzt encrassé heavy contamination		gelb/jaune/yellow
Störung défaillance fault		gelb/jaune/yellow
Alarm alarme alarm		rot/rouge/red
spannungslos hors tension power off		dunkel/sombre/dark

Bestelldaten/Références/Ordering data

5 000 552	ORS 142	Rauchschalter, weiß nach RAL 9010	Détecteur de fumée, blanc RAL 9010	Smoke switch, white (DIN shade RAL 9010)
		andere Farben auf Anfrage	autres couleurs sur demande	other colours on request

Technische Änderungen sowie Liefermöglichkeiten vorbehalten.	Sous réserve de modifications techniques ainsi que de possibilités de livraison.	Specifications subject to change without notice. Delivery subject to availability.
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WIND ENERGY CONVERTER CHARACTERISTICS E-101

Rotor	
Type	E-101
Rotor diameter	101 m
Swept area	8012 m ²
Power regulation	Pitch
RPM	4 – 14,5 min ⁻¹
Cut in wind	2,5 m/s
Cut out wind	28 – 34 m/s
Survival wind speed	59,5 m/s

Gear Box	
Not applicable	No gearbox

Blades	
Manufacturer	ENERCON
Blade length	48,5 m
Material	GRP (Epoxy)
Lightning protection	included

Generator	
Manufacturer	ENERCON
Nominal Power	3000 kW
Type (model)	Synchronous, direct-drive ringgenerator
Protection classification	IP 23
Insulation class	F

Yaw System	
Type	electrical motors
Yaw control	Active (based on wind vane signal)
Yaw rate	0,5°/sec

Controller	
Manufacturer	ENERCON
Type	microprocessor
Grid connection	Via ENERCON inverter
Remote communication	ENERCON Remote Monitoring System
UPS	included

Braking System	
Aerodynamic brake	- three independent blade pitch systems with emergency supply - rotor brake - rotor lock, locking at 30°

Tower			
Hub heights	99 m	135 m	
Tower	Prefab concrete	Prefab concrete	
Design Wind Class	IIA	IIA	

Sources: Design Assessment

FUNDAMENT-DATENBLATT FOUNDATION DATA SHEET

E-101/BF/133/27/01

WZ III (DIBt- Richtlinie Fassung 2004, Anhang B)
 WZ 4; GK I (DIN 1055-4: 2005-03)
 WTC II A (IEC 61400-1, 3rd edition, 2005-08)
 WEA-Klasse II A (DIN EN 61400-1, 2006-07)

Bauteil: **Fundament– Flachgründung ohne Auftriebswirkung**
 Component: **Foundation – Flat Foundation without Buoyancy**

8107894074-7 E I
Reviewed
 Essen, 20. April 2011

 S. Möller Expert of
 TÜV NORD SysTec GmbH & Co. KG

TÜV NORD
 20. APR. 2011

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Author/ date:	MFE / 2011-02-09	Translator / date:	-
Department:	WRD-K	Revisor / date:	-
Approved / date:	TE / 2011-02-09	Reference:	WRD-K-04-FDB-FEB-E-101_BF_133_27_01-Rev_1-EN
Revision / date:	MFE 1 / 2011-03-14		

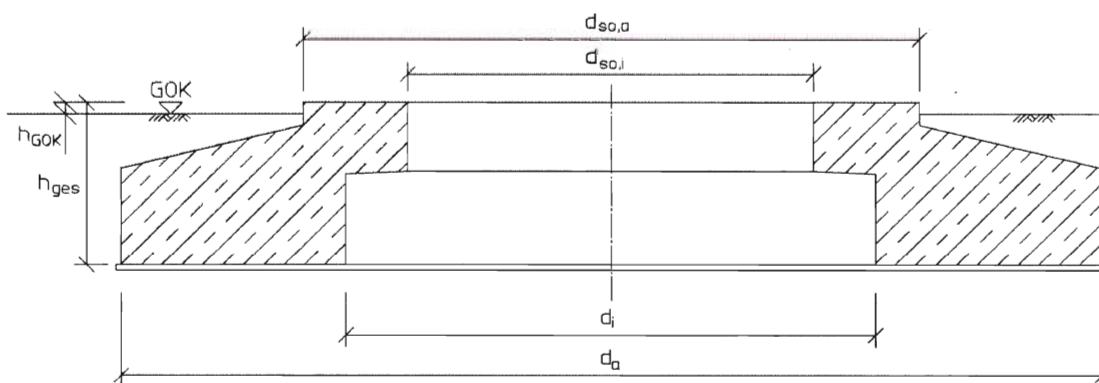
1.0 General information

Design-specific structural analysis:

Structural calculation by ENERCON GmbH,
E-101/BF/133/27/01
Flat foundation without buoyancy – Ø 20.90 m
Revision 1 – 14.03.2011

2.0 Foundation dimensions

Outer diameter	d_a	20.90 m
Inner diameter	d_i	11.20 m
Base diameter – outside	$d_{so,a}$	13.50 m
Base diameter – inside	$d_{so,i}$	8.50 m
Foundation height	h_{ges}	3.10 m
Base height	h_{so}	0.40 m
Spur incline height	h_n	0.60 m
Spur height	h_{sp}	2.10 m
Difference between foundation top edge and ground level	h_{gok}	0.20 m
Concrete quality and volume	C 30/37	677 m ³
Reinforcement steel and weight	B 500B	68.6 t



20. APR. 2011

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Reference:

WRD-K-04-FDB-FEB-E-101_BF_133_27_01-Rev_1-EN

3.0 Minimum rocking spring stiffness

Observe the following minimum values with regard to elastic clamping between foundation and subsoil:

Total system (tower and foundation)	$k_{\phi,stat}$ 15000 [MNm/rad]
	$k_{\phi,dyn}$ 150000 [MNm/rad]

The resulting required dynamic stiffness moduli ($E_{oed,dyn}$) depend on the foundation dimensions and Poisson's ratio.

Equivalent radius of a circle with the same stiffness:

$$r = 10.23 \text{ m}$$

The following applies to circular foundations:

$$k_{\phi} = \frac{8 \cdot G \cdot r^3}{3 \cdot (1 - \nu)}$$

This means that

$$E_{oed,dyn} = k_{\phi} \cdot \frac{3}{4} \cdot \frac{1}{r^3} \cdot \frac{(1 + \nu) \cdot (1 - \nu)^2}{1 - \nu - 2 \cdot \nu^2} \quad \text{where}$$

G = shear modulus

r = radius

ν = Poisson's ratio

4.0 Allowed inclination

Maximum allowed inclination due to subsoil settlement within 20 years, related to the outer diameter.

$$\Delta s \leq 40 \text{ mm}$$

5.0 Soil bearing pressure

The in-situ subsoil must be able to bear a minimum pressure of $\sigma_{k,vorh} = 401 \text{ kN/m}^2$.


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Approved / date:	TE / 2011-02-09	Reference:	WRD-K-04-FDB-FEB-E-101_BF_133_27_01-Rev_1-EN
Revision / date:	MFE 1 / 2011-03-14		

6.0 Loads at the bottom edge of the foundation

The F_z loads indicated include the dead weight of the foundation $\gamma = 25 \text{ kN/m}^3$ and soil weight $\gamma = 18 \text{ kN/m}^3$ when dry.

6.1 Characteristic load cases

Load case	($\gamma_{aero}/\gamma_{mass}$)	F_{xy} [kN]	F_z [kN]	M_{xy} [kNm]	M_z [kNm]
DLC 1.0	(1.00/1.00)	1100	-36707	103954	-
DLC 3.2	(1.00/1.00)	1470	-36790	153801	-8420
DLC 6.2	(1.00/1.00)	1700	-36590	189565	-8590

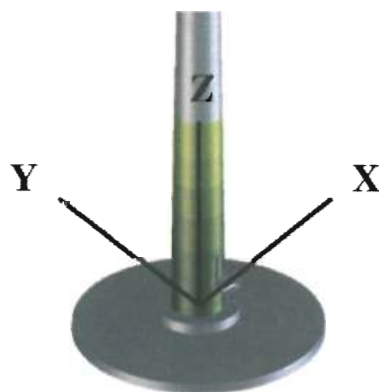
Loads do not include partial safety factor ($\gamma_F = 1.0$)

6.2 Load case design values

Load case	($\gamma_{aero}/\gamma_{mass}$)	F_{xy} [kN]	F_z [kN]	M_{xy} [kNm]	M_z [kNm]
DLC 3.2	(1.35/1.35)	2110	-49067	217115	-11600
DLC 3.2	(1.35/1.00)	2110	-36808	217115	-11600

All loads include partial safety factors

7.0 Coordinate system


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Revisor / date:

Reference:

WRD-K-04-FDB-FEB-E-101_BF_133_27_01-Rev_1-EN

In der folgenden Tabelle sind die Gewichte der Transport- und Aufbaueinheiten der E-101 angegeben. Es ist zu beachten, dass es sich dabei um ca.-Angaben handelt. Bei den Einzelgewichten sind jeweils die notwendigen Transport- und Aufbauvorrichtungen berücksichtigt, das angegebene Gondelgesamtgewicht entspricht der Turmkopfmasse nach Fertigstellung der Anlage.

In the following table the weights of the transport and installation component-assemblies of the E-101 are given. It is to be noted that the values are approximated. The weights include the necessary transport and installation devices, the given value for overall nacelle weight corresponds to the tower head mass after completion of the turbine.

Transport	Transport		
Rotorblatt mit HKS	Rotor blade with fin	ca. 21,0	t
3x HKS	3x Fin	ca. 2,4	t
Rotornabe	Rotor hub	ca. 50,0	t
Generator	Generator	ca. 83,0	t
Gondel (Maschinenträger etc.)	Nacelle (main carrier etc.)	ca. 59,0	t
Aufbau	Installation		
Rotornabe (incl. Rotorblätter)	Rotor hub (incl. rotor blades)	ca. 115,0	t
Generator	Generator	ca. 84,0	t
Generator-Stator	Generator stator	ca. 52,0	t
Generator-Rotor	Generator rotor	ca. 35,0	t
Gondel (Maschinenträger etc.)	Nacelle (main carrier etc.)	ca. 59,0	t
Gondelgesamtgewicht	Overall nacelle weight	ca. 255,0	t

Sound Power Level of the ENERCON E-101 3.0 MW

Publisher:

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Author/date:	H.Shahriar /15.06.12	Translator/date:	N.Nnnn / DD.MM.YY
Department:	Sales	Revisor/date:	H.Shahriar / 28.05.13
Approved/date:	E. DeGroot/29.05.13	Reference:	Annex 12 Sound Power Level E-101d
Released/date:	H.Shahriar /29.05.13		

The following represents the maximum sound power level of the E-101 3.0 MW for the entire operational range of wind speeds in accordance with the measurement technique IEC 61 400 – 11:2002 and A1:2006.

Sound Power Level for the E-101 with 3.0 MW rated power

Hub Height	124m	135m
95% rated power	104.8 dB(A)	104.8 dB(A)

1. A tonal audibility of $\Delta L_{a,k} \leq 2 \text{ dB}$ can be expected over the whole operational range and is valid in the near vicinity of the turbine according to IEC 61 400 -11 ed. 2.
2. Sound power level values provided in the table are valid for the **Operational Mode I**. The respective power curve is the calculated power curve E-101 dated October 2009 (Rev 2.0).
3. Due to typical measurement uncertainties, if the sound power level is measured according to the accepted method, the measured values can differ from the values shown in this document in the range of +/- 1dB.

Accepted measurement method:

IEC 61400-11 ed.2 ("Wind turbine generator systems – Part 11: Acoustic noise measurement techniques; Second edition, 2002 – 12").

If the difference between tonal noise and background noise during a measurement is less than 6 dB, a higher uncertainty must be considered.

4. The sound power level of a wind turbine depends on several factors such as, but not limited to, regular maintenance and day-to-day operation in compliance with the manufacturer's operating instructions. Therefore, this data sheet cannot, and is not intended to, constitute an express or implied warranty towards the customer that the E-101 WEC will meet the exact sound power level as shown in this document at any project specific site.

Author/date:	H.Shahriar /15.06.12	Translator/date:	N.Nnnn / DD.MM.YY
Department:	Sales	Revisor/date:	H.Shahriar / 28.05.13
Approved/date:	E. DeGroot/29.05.13	Reference:	Annex 12 Sound Power Level E-101d
Released/date:	H.Shahriar /29.05.13		

Summary of Test Report

(Measured hub height of 99 m) /1/

Master Data Sheet "Geräusche" (Noise), in accordance with

"Technische Richtlinien für Windenergieanlagen, Teil 1: Bestimmung der Schallemissionswerte"

(Technical Guidelines for Wind Turbine Generators, Part 1: Determination of sound emission values)

Rev. 18 of February 1, 2008 (Editor: Fördergesellschaft Windenergie e.V. Stresemannplatz 4, D-24103 Kiel)

Extract of Test Report 213122-02.01 IEC
on noise emission of wind turbine generator of type E-101

General Data		Technical Data (manufacturer's specifications)	
Manufacturer of WTG:	Enercon GmbH	Rated power (generator):	3,050 (3,250) kW
Serial number:	1010002	Diameter of rotor:	101 m
Location of WTG (approx.):	49733 Haren	Hub height above ground:	99 m
Geographic co-ordinates:	GK longitude: 25.76.214	Type of tower:	conical tubular concrete
	GK latitude: 58.59.856	Power control:	Pitch
Complementary rotor data (manufacturer's specifications)		Complementary data of gear unit and generator (manufacturer's specifications)	
Manufacturer of rotor blade:	Enercon	Manufacturer of gear unit:	not applicable
Type of rotor blade:	E-101-1	Type of gear unit:	not applicable
Blade setting angle:	variable	Manufacturer of generator:	Enercon
Number of rotor blades:	3	Type of generator:	G-101/30-G2
Rotor speed range:	5 to 14.7 rpm. (mode OM I)	Rated speed of generator:	5 to 14.7 rpm. (mode OM I)

Calculated Performance Chart: Performance characteristic E101 3 MW OM I ; calculated by ENERCON (Rev. 1.0)

	Reference Point		Noise emission parameters	Observations
	standardized wind speed at a height of 10 m	true electrical power		
sound power level $L_{WA,P}$	6 ms^{-1}	1,414 kW	103.6 dB(A)	
	7 ms^{-1}	2,077 kW	104.3 dB(A)	
	8 ms^{-1}	2,751 kW	104.8 dB(A)	
	9 ms^{-1}	2,987 kW	104.6 dB(A)	(1)
	10 ms^{-1}	3,050 kW	--	(2)
tonal audibility $\Delta L_{a,k}$	6 ms^{-1}	1,414 kW	- 1.5 dB	
	7 ms^{-1}	2,077 kW	0 dB	
	8 ms^{-1}	2,751 kW	0 dB	
	9 ms^{-1}	2,987 kW	0 dB	(1)
	10 ms^{-1}	3,050 kW	--	(2)
impulse adjustment for immediate vicinity K_{IN}	6 ms^{-1}	1,414 kW	0 dB	
	7 ms^{-1}	2,077 kW	0 dB	
	8 ms^{-1}	2,751 kW	0 dB	
	9 ms^{-1}	2,987 kW	0 dB	(1)
	10 ms^{-1}	3,050 kW	--	(2)

Third-octave band sound power level for $v_s = 6 \text{ ms}^{-1}$ in dB(A)

Frequency	50	63	80	100	125	160	200	250	315	400	500	630
$L_{WA,P}$	78.3	81.8*	83.0**	84.2	89.6	85.7*	89.2	92.7	94.1	94.6	95.1	94.9
Frequency	800	1,000	1,250	1,600	2,000	2,500	3,150	4,000	5,000	6,300	8,000	10,000
$L_{WA,P}$	93.5	91.6	90.0	89.0	85.4	84.1	82.3	79.3	74.8	67.8*	64.7**	65.3**

Octave band sound power level for $v_s = 6 \text{ ms}^{-1}$ in dB(A)

Frequency	63	125	250	500	1,000	2,000	4,000	8,000
$L_{WA,P}$	85.6*	91.9	97.2	99.6	96.7	91.5	84.6	70.3*

Third-octave band sound power level for $v_s = 7 \text{ ms}^{-1}$ in dB(A)

Frequency	50	63	80	100	125	160	200	250	315	400	500	630
$L_{WA,P}$	78.9	83.3	84.0	84.9	88.2	86.4*	89.6	94.7	94.9	95.4	95.8	95.5
Frequency	800	1,000	1,250	1,600	2,000	2,500	3,150	4,000	5,000	6,300	8,000	10,000
$L_{WA,P}$	94.0	92.0	90.4	89.3	86.1	84.7	82.9	79.9	74.4*	68.4*	64.6**	62.7**

Octave band sound power level for $v_s = 7 \text{ ms}^{-1}$ in dB(A)

Frequency	63	125	250	500	1,000	2,000	4,000	8,000
$L_{WA,P}$	87.3	91.5	98.4	100.3	97.1	91.9	85.0	71.5**

Third-octave band sound power level for $v_s = 8 \text{ ms}^{-1}$ in dB(A)												
Frequency	50	63	80	100	125	160	200	250	315	400	500	630
$L_{WA,P}$	82.1	82.8	84.4	88.4	86.8	90.1	94.8	95.0	95.6	96.3	96.2	82.1
Frequency	800	1,000	1,250	1,600	2,000	2,500	3,150	4,000	5,000	6,300	8,000	10,000
$L_{WA,P}$	95.0	93.3	91.5	90.4	86.7	85.4	83.7	80.9	75.9	69.7*	67.1**	65.5**
Octave band sound power level for $v_s = 8 \text{ ms}^{-1}$ in dB(A)												
Frequency	63	125	250	500	1,000	2,000	4,000	8,000				
$L_{WA,P}$	86.3	91.6	98.6	100.8	98.3	92.8	86.0	73.3**				
Third-octave band sound power level for $v_s = 9 \text{ ms}^{-1}$ in dB(A)												
Frequency	50	63	80	100	125	160	200	250	315	400	500	630
$L_{WA,P}$	78.6	81.9	82.4*	83.9	87.8	85.9*	88.6	93.8	94.2	95.1	96.0	96.3
Frequency	800	1,000	1,250	1,600	2,000	2,500	3,150	4,000	5,000	6,300	8,000	10,000
$L_{WA,P}$	95.4	93.8	92.3	91.0	87.4	86.0	84.1	81.1	76.7	71.7	68.4	66.8*
Octave band sound power level for $v_s = 9 \text{ ms}^{-1}$ in dB(A)												
Frequency	63	125	250	500	1,000	2,000	4,000	8,000				
$L_{WA,P}$	86.0	90.8	97.6	100.6	98.8	93.5	86.4	74.2				

This summary of the test report is valid only in combination with the manufacturer's certificate dated 12/03/2013.

These specifications do not replace the test report mentioned above (particularly for noise immission predictions).

- Observations:
- (1) Maximum value of standardized wind speed during the WTG-operation measurement $v_s = 8,9 \text{ m/s}$
 - (2) Due to weather conditions, no data available during WTG operation
 - * Difference between working and background noise < 6 dB, correction by 1.3 dB
 - ** Difference between working and background noise < 3 dB, values shall not be presented

/1/ Wind turbine generator systems – Part 11: Acoustic noise; measurement techniques (IEC 61400-11:2002 and A1:2006);
German version DIN EN 61400-11:2007

Measured by: KÖTTER Consulting Engineers
- Rheine -


Dipl.-Ing. Oliver Bunk


Matthias Humpohl, B.Sc.

Date: 23/04/2013



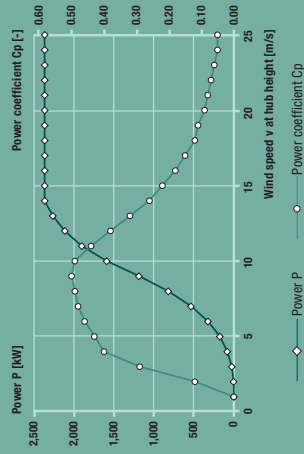
Bonifatiusstraße 400 · 48432 Rheine
Tel. 0 59 71 - 97 10.0 · Fax 0 59 71 - 97 10.43

E82

2,300 kW



Calculated power curve



Wind [m/s]	Power P [kW]	Power coefficient Cp [-]
1	0.0	0.00
2	3.0	0.12
3	25.0	0.29
4	82.0	0.40
5	174.0	0.43
6	321.0	0.46
7	532.0	0.48
8	815.0	0.49
9	1,180.0	0.50
10	1,580.0	0.49
11	1,890.0	0.44
12	2,100.0	0.38
13	2,250.0	0.32
14	2,350.0	0.26
15	2,350.0	0.22
16	2,350.0	0.18
17	2,350.0	0.15
18	2,350.0	0.12
19	2,350.0	0.11
20	2,350.0	0.09
21	2,350.0	0.08
22	2,350.0	0.07
23	2,350.0	0.06
24	2,350.0	0.05
25	2,350.0	0.05

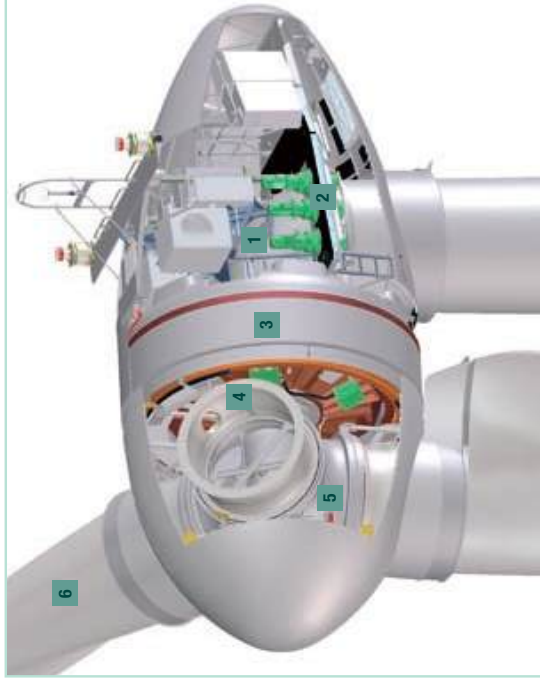
$\rho = 1.225 \text{ kg/m}^3$

For more information on the ENERCON power curve, please see the last page.

Technical specifications E-82 E2

Rated power:	2,300 kW	Drive train with generator
Rotor diameter:	82 m	Hub:
Hub height:	78 m / 85 m / 98 m / 108 m / 138 m	Main bearing:
Wind zone (DIB):	WZ III	Generator:
Wind class (IEC):	IEC/NW IIA	ENERCON direct-drive annular generator
WEC concept:	Gearless, variable speed Single blade adjustment	Grid feed:
Rotor		ENERCON inverter
Type:	Upwind rotor with active pitch control	– 3 independent pitch control systems
Rotational direction:	Clockwise	with emergency power supply
No. of blades:	3	– Rotor brake
Swept area:	5,281 m ²	Active via yaw gear,
Blade material:	GRP (epoxy resin); Built-in lightning protection	load-dependent damping
Rotational speed:	Variable, 6–18 rpm	28–34 m/s
Pitch control:	ENERCON single blade pitch system; one independent pitch system per rotor blade with allocated emergency supply	(with ENERCON storm control*)
		ENERCON SCADA
		Remote monitoring:

*For more information on the ENERCON storm control feature, please see the last page.



- 1 Main carrier
- 2 Yaw drive
- 3 Annular generator
- 4 Blade adapter
- 5 Rotor hub
- 6 Rotor blade

WIND ENERGY CONVERTER CHARACTERISTICS

E-82 E2 2.3MW

Rotor	
Type	E82 E2
Rotor diameter	82 m
Swept area	5281 m ²
Power regulation	Pitch
RPM	6 – 18 min ⁻¹
Cut in wind	2,5 m/s
Cut out wind	28 – 34 m/s
Survival wind speed	59,5 m/s

Gear Box	
Not applicable	No gearbox

Blades	
Manufacturer	ENERCON
Blade length	38,8 m
Material	GRP (Epoxy)
Lightning protection	included

Generator	
Manufacturer	ENERCON
Nominal Power	2300 kW
Type (model)	Synchronous, direct-drive ringgenerator
Protection classification	IP 23
Insulation class	F

Yaw System	
Type	6 electrical motors
Yaw control	Active (based on wind vane signal)
Yaw rate	0,5°/sec

Controller	
Manufacturer	ENERCON
Type	microprocessor
Grid connection	Via ENERCON inverter
Remote communication	ENERCON Remote Monitoring System
UPS	included

Braking System	
Aerodynamic brake	- three independent blade pitch systems with emergency supply - rotor brake - rotor lock, locking at 30°

Tower					
Hub heights	78 m	85 m	98 m	108 m	138 m
Tower	Steel (4 + FS)	Steel + Prefab concrete (2 + 15)	Steel + Prefab concrete (2 + 18)	Steel + Prefab concrete (2 + 21)	Steel + Prefab concrete (2 + 21)
Design Wind Class	II	II	II	II	II

Weights	
Nacelle, excl. Rotor and hub	Approx. 18 to
Rotor incl. Hub/Main pin	Approx. 55 to
Generator	Approx. 62 to
Total Weight	Approx. 135 to

Sources: Design Assessment, Manufacturers Certificate

Summary of Test Report

(Measured hub height of 108 m) /1/

Basic sheet "Geräusche" (Noise), according to the

"Technische Richtlinien für Windenergieanlagen, Teil 1: Bestimmung der Schallemissionswerte"

(Technical Guidelines for Wind Energy Converters, Part 1: Determination of sound emission values)

Rev. 18 of February 1, 2008 (Editor: Fördergesellschaft Windenergie e.V., Stresemannplatz 4, D-24103 Kiel)

Extract of Test Report 209244-04.01 IEC
on noise emission of wind energy converter of type E-82 E2

General Data		Technical Data (manufacturer's specifications)	
Manufacturer of WEC:	Enercon GmbH	Rated power (generator):	2.300 kW
Serial number:	82679	Diameter of rotor:	82 m
Location of WEC (ca.):	26629 Großefehn	Hub height above ground:	108 m
Geographic co-ordinates:	GK longitude: 34.15.287	Type of tower:	conical tube tower
	GK latitude: 59.14.701	Power control:	Pitch
Complementary rotor data (manufacturer's specifications)		Complementary data of gear unit and generator (manufacturer's specifications)	
Manufacturer of rotor blade:	Enercon	Manufacturer of gear unit:	not applicable
Type of rotor blade:	E-82 E2	Type of gear unit:	not applicable
Blade setting angle:	variable	Manufacturer of generator:	Enercon
Number of rotor blades:	3	Type of generator:	E-82 E2
Rotor speed range:	6 to 18 r.p.m. (mode OM I)	Generator speed range:	6 to 18 r.p.m. (mode OM I)

Calculated Performance Chart ENERCON E-82 E2; calculated by ENERCON (Rev. 3.0)

	Reference Point		Noise emission parameters	Observations
	standardized wind speed in 10 m height	true electrical power		
sound power level $L_{WA,P}$	5 ms^{-1}	579 kW	96.4 dB(A)	
	6 ms^{-1}	1,089 kW	100.6 dB(A)	
	7 ms^{-1}	1,612 kW	102.5 dB(A)	
	8 ms^{-1}	2,032 kW	103.2 dB(A)	
	9 ms^{-1}	2,255 kW	103.3 dB(A)	
	10 ms^{-1}	2,300 kW	102.9 dB(A)	
tonal audibility $\Delta L_{a,k}$	5 ms^{-1}	kW	- 2.7 dB	
	6 ms^{-1}	kW	<- 3.0 dB	
	7 ms^{-1}	kW	- 1.8 dB	
	8 ms^{-1}	kW	- 0.7 dB	
	9 ms^{-1}	kW	0.2 dB	
	10 ms^{-1}	kW	- 0.4 dB	
impulse adjustment for small distances K_{IN}	5 ms^{-1}	kW	0 dB	
	6 ms^{-1}	kW	0 dB	
	7 ms^{-1}	kW	0 dB	
	8 ms^{-1}	kW	0 dB	
	9 ms^{-1}	kW	0 dB	
	10 ms^{-1}	kW	0 dB	

Third-octave band sound power level for $v_s = 5 \text{ ms}^{-1}$ in dB(A)

Frequency	50	63	80	100	125	160	200	250	315	400	500	630
$L_{WA,P}$	74.1	76.5*	80.0	85.6	82.2	81.7	81.9	83.7	85.6	85.1	85.5	87.6
Frequency	800	1,000	1,250	1,600	2,000	2,500	3,150	4,000	5,000	6,300	8,000	10,000
$L_{WA,P}$	86.9	86.2	84.8	82.4	78.8	75.3	70.6	65.5	60.3*	60.3*	63.0	70.3

Octave band sound power level for $v_s = 5 \text{ ms}^{-1}$ in dB(A)

Frequency	63	125	250	500	1,000	2,000	4,000	8,000
$L_{WA,P}$	82.3	88.3	88.8	91.0	90.8	84.5	72.1	71.4

Third-octave band sound power level for $v_s = 6 \text{ ms}^{-1}$ in dB(A)

Frequency	50	63	80	100	125	160	200	250	315	400	500	630
$L_{WA,P}$	78.2**	79.1*	82.2	85.2	87.4	84.3	85.0	87.3	88.7	88.5*	89.5*	93.2
Frequency	800	1,000	1,250	1,600	2,000	2,500	3,150	4,000	5,000	6,300	8,000	10,000
$L_{WA,P}$	91.7	91.5	89.9	87.1	83.0	79.4	74.4	69.0	63.5	64.4	67.4	74.3

Octave band sound power level												
for $v_s = 6 \text{ ms}^{-1}$ in dB(A)												
Frequency	63	125	250	500	1,000	2,000	4,000	8,000				
$L_{WA,P}$	84.9*	90.6	92.0	95.7	95.9	89.0	75.8	75.4				
Third-octave band sound power level												
for $v_s = 7 \text{ ms}^{-1}$ in dB(A)												
Frequency	50	63	80	100	125	160	200	250	315	400	500	630
$L_{WA,P}$	78.6**	79.8	82.7	84.8	90.8	86.2	86.0	89.7	91.0	92.5	91.7	93.9
Frequency	800	1,000	1,250	1,600	2,000	2,500	3,150	4,000	5,000	6,300	8,000	10,000
$L_{WA,P}$	93.4	93.3	91.8	89.2	85.8	81.9	77.0	72.2	66.1	65.3	66.8	72.8
Octave band sound power level												
for $v_s = 7 \text{ ms}^{-1}$ in dB(A)												
Frequency	63	125	250	500	1,000	2,000	4,000	8,000				
$L_{WA,P}$	85.5*	92.8	94.2	97.6	97.7	91.4	78.5	74.4				
Third-octave band sound power level												
for $v_s = 8 \text{ ms}^{-1}$ in dB(A)												
Frequency	50	63	80	100	125	160	200	250	315	400	500	630
$L_{WA,P}$	77.4*	80.4	83.1	84.9	91.2	86.6	86.3	90.4	91.4	92.9	92.1*	94.8
Frequency	800	1,000	1,250	1,600	2,000	2,500	3,150	4,000	5,000	6,300	8,000	10,000
$L_{WA,P}$	94.2	94.1	92.6	90.1	86.7	82.7	77.8	73.3	67.7	65.8	66.6	71.4
Octave band sound power level												
for $v_s = 8 \text{ ms}^{-1}$ in dB(A)												
Frequency	63	125	250	500	1,000	2,000	4,000	8,000				
$L_{WA,P}$	85.6	93.2	94.6	98.2	98.5	92.2	79.4	73.4				
Third-octave band sound power level												
for $v_s = 9 \text{ ms}^{-1}$ in dB(A)												
Frequency	50	63	80	100	125	160	200	250	315	400	500	630
$L_{WA,P}$	78.5	81.4	83.9	85.7	92.6	88.2	86.4	90.2	90.7	91.8	91.5*	93.9
Frequency	800	1,000	1,250	1,600	2,000	2,500	3,150	4,000	5,000	6,300	8,000	10,000
$L_{WA,P}$	94.0	94.4	93.4	91.5	88.4	84.6	79.9	75.4	69.3	65.5*	66.4	71.5
Octave band sound power level												
for $v_s = 9 \text{ ms}^{-1}$ in dB(A)												
Frequency	63	125	250	500	1,000	2,000	4,000	8,000				
$L_{WA,P}$	86.6	94.6	94.3	97.3*	98.7	93.8	81.5	73.4				
Third-octave band sound power level												
for $v_s = 10 \text{ ms}^{-1}$ in dB(A)												
Frequency	50	63	80	100	125	160	200	250	315	400	500	630
$L_{WA,P}$	78.8	81.7	84.5	86.3	92.4	88.5	86.4	89.8	90.0*	91.2	90.9*	92.7*
Frequency	800	1,000	1,250	1,600	2,000	2,500	3,150	4,000	5,000	6,300	8,000	10,000
$L_{WA,P}$	93.3	93.9	93.3	91.5	88.8	85.2	80.7	76.5	71.9	70.4	68.5	71.8
Octave band sound power level												
for $v_s = 10 \text{ ms}^{-1}$ in dB(A)												
Frequency	63	125	250	500	1,000	2,000	4,000	8,000				
$L_{WA,P}$	87.0	94.6	93.7	96.5*	98.3	94.0	82.5	75.2				

This summary of the test report is valid only in combination with the certification of the manufacturer of 03/05/2010.

These specifications do not replace the test report mentioned above (particularly for noise immission predictions).

Observations: * Difference between working and background noise < 6 dB, correction by 1.3 dB
 ** Difference between working and background noise < 3 dB, values shall not be presented

/1/ Wind turbine generator systems – Part 11: Acoustic noise; measurement techniques (IEC 61400-11:2002 and A1:2006);
German version DIN EN 61400-11:2007

Measured by: KÖTTER Consulting Engineers
 - Rheine -




Date: 08/02/2010

i. V. Dipl.-Ing. O. Bunk

i. A. Dipl.-Ing. J. Weinheimer

ADJACENT WIND FARM

Siemens states in an email (Youmans, 2011), “The enclosed noise test report [Windtest, 2005] for the SWT 2.3-93 has been used on other applications to demonstrate the lack of any tonal characteristics. A similar report will be issued for the SWT 2.3-101 in the near future, but in the meantime this report has been accepted for proof of tonality since both units share common gearbox, generator, and converter systems.”

Uncertainty in the tonal analysis is mentioned in section 3.6.3 (“Tonality”) of the Windtest (2005) report.

No tonal penalty has been applied to this turbine.

The 10 m broadband and octave band source sound power levels for the Siemens SWT-2.221-101 turbine under its power-reduced operation protocol for a hub height of 99.5 m are shown in Table 1. Note that the ‘Manufacturer’s emission levels’ were only provided for 6 and 8 ms^{-1} . For 7- ms^{-1} , octave band SPoLs have been interpolated; the 9 and 10- ms^{-1} SPoLs have been set equal to the 8- ms^{-1} SPoLs.

Table 1 Siemens SWT-2.221-101 — Wind turbine acoustic emissions summary.

Make and Model: Siemens SWT-2.221-101										
Rating: 2,221 kW										
Hub height (m): 99.5										
Wind profile adjustment: summer night-time power-law wind shear coefficient = 0.45										
	Octave band sound power level (dB)									
	Manufacturer’s emission levels (10 m a.g.l.)					Adjusted emission levels (10 m a.g.l.)				
Wind speed (ms^{-1})	6.0	7.0	8.0	9.0	10.0	6.0	7.0	8.0	9.0	10.0
Frequency (Hz)										
63	108.3	n/a	108.6	n/a	n/a	108.6	108.6	108.6	108.6	108.6
125	109.4	n/a	109.1	n/a	n/a	109.1	109.1	109.1	109.1	109.1
250	105.1	n/a	104.6	n/a	n/a	104.6	104.6	104.6	104.6	104.6
500	102.2	n/a	103.0	n/a	n/a	103.0	103.0	103.0	103.0	103.0
1000	99.1	n/a	100.1	n/a	n/a	100.1	100.1	100.1	100.1	100.1
2000	95.4	n/a	95.3	n/a	n/a	95.3	95.3	95.3	95.3	95.3
4000	87.8	n/a	88.6	n/a	n/a	88.6	88.6	88.6	88.6	88.6
8000	85.5	n/a	86.8	n/a	n/a	86.8	86.8	86.8	86.8	86.8
A-weighted	104.5	105.0	105.0	105.0	105.0	105.0	105.0	105.0	105.0	105.0

5.1.2 Siemens SWT-2.126-101

Siemens SWT-2.126-101 turbine broadband source sound power level data for 10-m a.g.l. wind speeds of 4 to 12 ms^{-1} and octave band source sound power level data for 10-m a.g.l. wind speeds of 6 and 8 ms^{-1} are listed in Siemens A/S documents

Table 2 Siemens SWT-2.126-101 — Wind turbine acoustic emissions summary.

Make and Model: Siemens SWT-2.126-101										
Rating: 2,126 kW										
Hub height (m): 99.5										
Wind profile adjustment: summer night-time power-law wind shear coefficient = 0.45										
	Octave band sound power level (dB)									
	Manufacturer's emission levels (10 m a.g.o.)					Adjusted emission levels (10 m a.g.l.)				
Wind speed (ms ⁻¹)	6.0	7.0	8.0	9.0	10.0	6.0	7.0	8.0	9.0	10.0
Frequency (Hz)										
63	108.8	n/a	108.4	n/a	n/a	108.4	108.4	108.4	108.4	108.4
125	109.7	n/a	108.6	n/a	n/a	108.6	108.6	108.6	108.6	108.6
250	104.7	n/a	103.4	n/a	n/a	103.4	103.4	103.4	103.4	103.4
500	100.5	n/a	101.7	n/a	n/a	101.7	101.7	101.7	101.7	101.7
1000	97.4	n/a	99.1	n/a	n/a	99.1	99.1	99.1	99.1	99.1
2000	94.8	n/a	94.3	n/a	n/a	94.3	94.3	94.3	94.3	94.3
4000	86.9	n/a	88.0	n/a	n/a	88.0	88.0	88.0	88.0	88.0
8000	84.6	n/a	86.2	n/a	n/a	86.2	86.2	86.2	86.2	86.2
A-weighted	103.5	104.0	104.0	104.0	104.0	104.0	104.0	104.0	104.0	104.0

5.2 SWEC Wind Turbines

5.2.1 Siemens SWT-2.221-101

The 10 m broadband and octave source sound power levels for the Siemens SWT-2.221-101 turbine with a hub height of 80 m are shown in Table 3. These values have been taken directly from the Summerhaven project (draft) Noise Study Report (Golder, 2010). It should be noted that Zephyr North has modified the 'Adjusted' octave band source sound power level values for 6 and 7 ms⁻¹ to match the remaining values at 8, 9 and 10 ms⁻¹. It is believed that this will more accurately represent the turbine noise characteristics at the relatively higher hub-height wind speeds corresponding to the 10-m wind speeds which would be driven by the high (0.45) summer night-time wind shear.

Golder (2010) makes no mention of tonality with regard to this turbine. Since this turbine is the same power-derated version of the SWT2.3-101 described for the GREP project, it has been assumed for the purposes of this noise assessment report that there is no tonal noise associated with the Summerhaven turbines. No tonal penalty has been applied.

Golder (2010) reports that a summer night-time vertical wind shear of 0.42 was used for hub-height wind speed adjustments.

V82-1.65 MW

Creating more from less



Vestas



Optimised for low and medium winds

With its large rotor and powerful generator, the V82 outperforms any turbine in its megawatt class for sites with low and medium wind conditions. Our hydraulic Active-Stall® technology ensures that the rotor gathers the maximum power from the prevailing wind, while minimising loads and controlling output. Active-Stall® provides failsafe protection in all conditions and, at and above its rated wind speed, maintains a steady output of 1.65 MW. With the V82, we have designed a wind turbine that offers unparalleled performance at a cost-effective price.

Low sound level

Vestas has made a concerted effort to reduce the sound level of the V82 dramatically – with audible results. The operating sound levels are among the lowest on the market,

regardless of wind speed. The V82 also comes with a two-speed generator, which makes it possible to cut sound even further to meet specific requirements, e.g. for night time or low-wind operations.

Excellent grid compatibility

As wind turbines capture more of the electricity market each year, they have an increasingly significant role to play in grid management. Fortunately, the V82 meets even the most stringent grid demands, and with the installation of our advanced grid compliance system, the V82 will actually help stabilise a weak grid. Vestas grid support features full load and dynamic phase compensation to enhance reactive power regulation and thus keep the power factor in range. It has an uninterrupted backup power supply, too, so that auxiliary systems run at full capacity during grid disturbances. Moreover, our grid support provides continuous active and reactive power regulation to maintain voltage balance in the grid, as well as fault ride-through in the event of disturbances.

High reliability

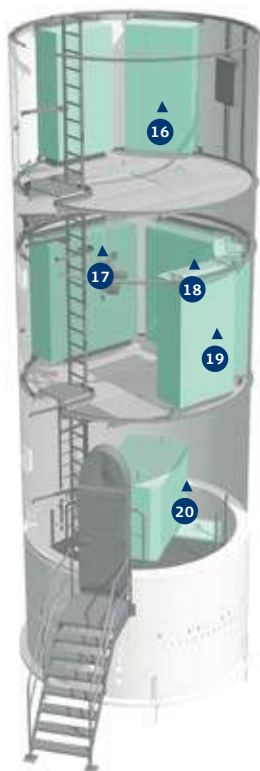
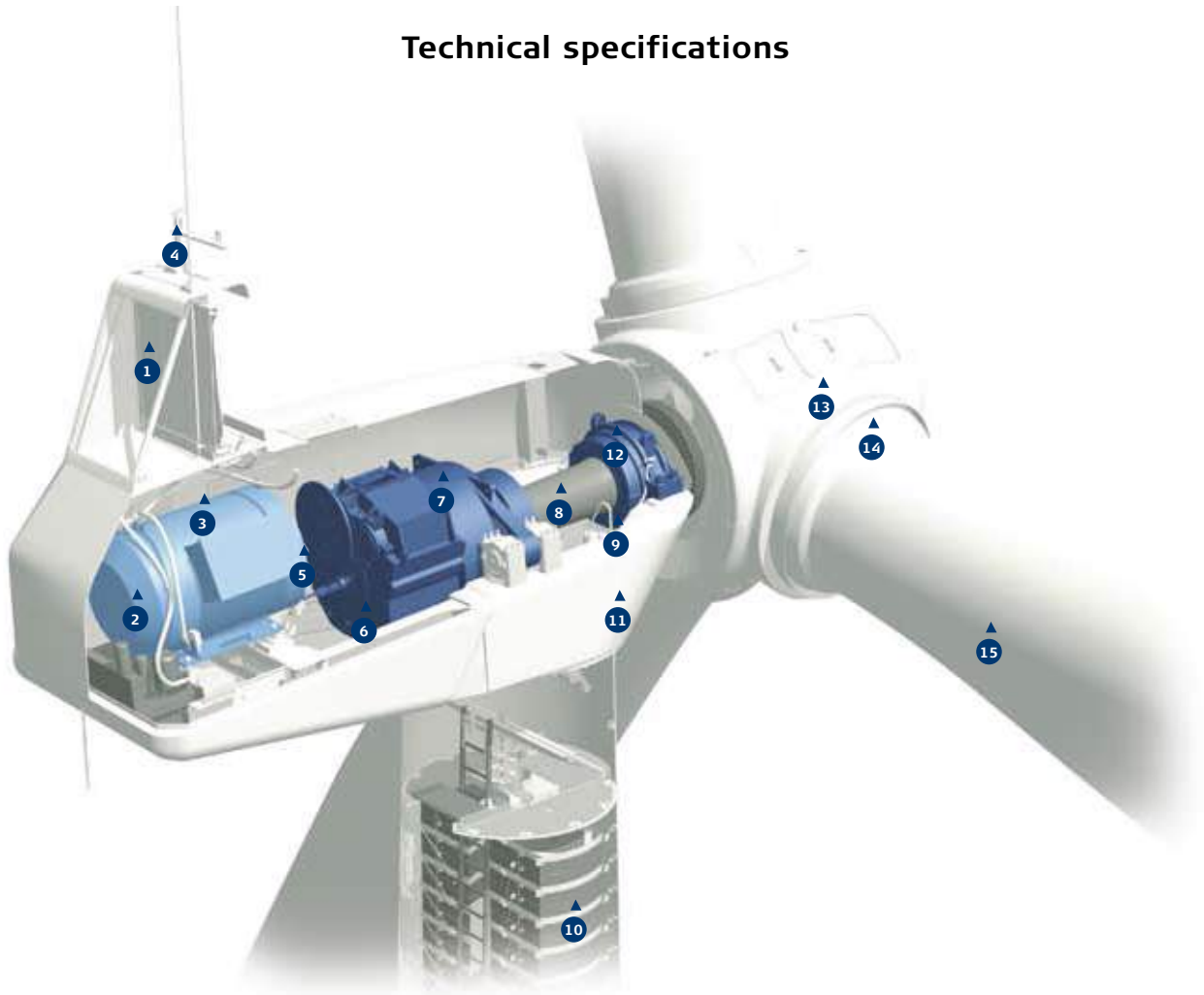
Det Norske Veritas (DNV) has certified the V82 as meeting the strictest standards in the wind industry. It has the capacity to tune up its own generator, which helps to give it a particularly high degree of operational availability. In addition, the nacelle is based on the thoroughly tested design of previous models. To date, more than 700 wind turbines featuring this platform design have been installed on sites with conditions ranging from arctic to tropical.

Proven performance

Wind power plants require substantial investments, and the process can be very complex. To assist in the evaluation and purchasing process, Vestas has identified four factors that are critical to wind turbine quality: energy production, operational availability, power quality and sound level.

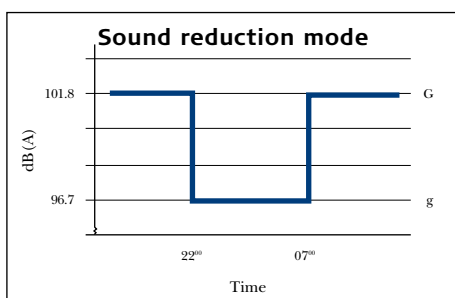
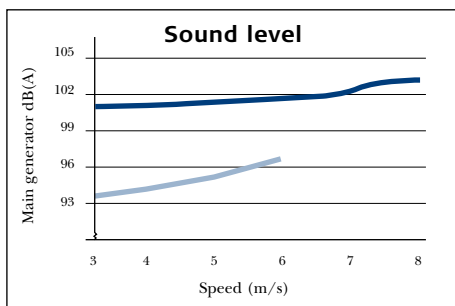
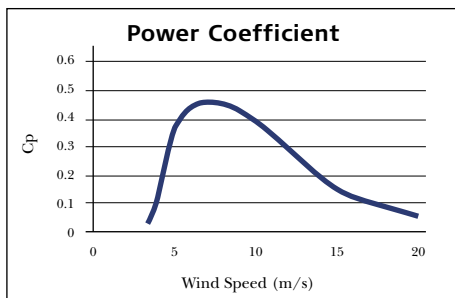
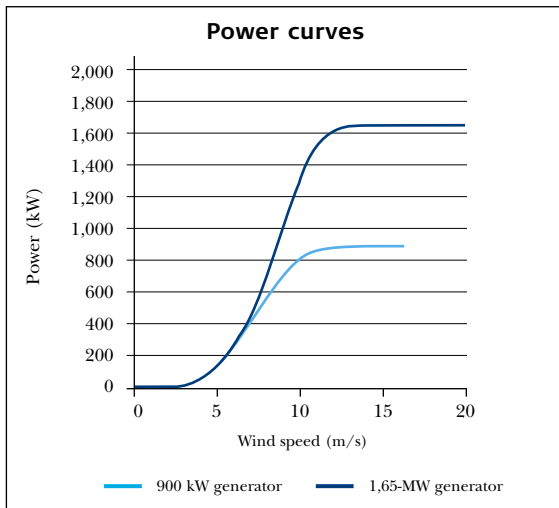
We spend months testing and documenting these performance areas for all Vestas turbines. When we are finally satisfied, we ask an independent testing organisation to verify the results – a practice we call Proven Performance. At Vestas we do not just talk about quality. We prove it.

Technical specifications



- | | |
|------------------------|--|
| 1 Cooler | 11 Machine foundation |
| 2 Generator | 12 Main bearing |
| 3 Nacelle computer | 13 Hub computer |
| 4 Anemometer windvanes | 14 Pitch system |
| 5 Coupling | 15 Blade |
| 6 Mechanical brake | 16 Dynamic converter (option) |
| 7 Gearbox | 17 Main panel |
| 8 Main shaft | 18 Phase compensation (full load option) |
| 9 Yaw gears | 19 CPU |
| 10 Tower damper | 20 Transformer and switchgear |

Example of tower internal configuration.



Rotor

Diameter:	82 m
Area swept:	5,281 m ²
Nominal revolutions:	14.4 rpm, 14.4/10.8 rpm
Number of blades:	3
Power regulation:	Active-Stall®
Air brake:	Full blade pitch by three separate hydraulic pitch cylinders

Tower

Hub height (approx.): 59 m, 68.5 m, 70 m, 78 m

Operational data

	IEC IIB:	IEC IIB:
	1,650 kW	900 kW/1,650 kW
Cut-in wind speed:	3.5 m/s	2.5 m/s
Nominal wind speed:	13 m/s	13 m/s
Cut-out wind speed (10 minutes):	20 m/s	20 m/s
Cut-out wind speed (1 minute):	24 m/s	24 m/s
Cut-out wind speed (1 second):	32 m/s	32 m/s

Generator

Type:	Asynchronous one or two speed generator water cooled
Nominal output:	1,650 kW
Operational data:	50/60 Hz 690 V

Gearbox

Type:	Planetary/helical stages
-------	--------------------------

Control

Type:	Computer-based control of all turbine functions with the option of remote monitoring. Output regulation and optimisation via Active-Stall®.
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Weight

Nacelle	52 t
Rotor	43 t
Towers:	
Hub height:	IEC IIB
59 m	75 t
68.5 m	105 t
70 m	110 t
78 m	130 t

t = metric tonnes

All specifications subject to change without notice.

Creating more from less



Ideally, it makes sense to generate electricity close to where it will be consumed so as to keep transmission, infrastructure and service costs low. However, since populous areas tend to have low winds and stringent requirements on sound levels, the wind industry often concentrates on coastal areas, deserted interiors and the open sea, where the wind is plentiful and sound restrictions are few.

With the V82 wind turbine, Vestas has made it easier to produce electricity close to where people live. Not only is the V82 extremely efficient in areas with low and medium winds, but it also provides the means to adjust sound levels

to suit local requirements. This means that a large number of previously marginal sites can now be exploited profitably – and quietly.

The V82 is an extremely competitive turbine in its class in areas with low and medium winds. A stall-regulated wind turbine, it has been optimised for sites with an average wind speed of just 6.5 m/s at hub height, while a breeze of as little as 2.5 m/s is all that is needed to start production. The V82 is available with either a one or a two-speed generator.

Vestas Wind Systems A/S

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To see a complete list of our
sales and service units, visit
www.vestas.com

Kossowski, Julia

From: Hickey, Maurice <Maurice.Hickey@gdfsuezna.com>
Sent: Wednesday, December 14, 2011 10:43 AM
To: Kossowski, Julia; Gafur, Ansar
Cc: Bultena, Carolyn
Subject: RE: Mohawk Point Coordinates
Attachments: A1-156508-MO-121-0100-Rev6-AsBuilt.pdf

Hi Julia

Please accept my apologies for not getting this to you sooner. It has been hectic as of late.

Please see the attached map with coordinates. The turbines at Mohawk are Vestas V 82-1.65Mw Mark IV 60 Hz units. They have a hub height of 80 meters.

If you need more info please feel free to let me know.

Maurice
647-271-9753

-----Original Message-----

From: Kossowski, Julia [<mailto:Julia.Kossowski@stantec.com>]
Sent: December-12-11 9:44 AM
To: Gafur, Ansar
Cc: Hickey, Maurice; Bultena, Carolyn
Subject: RE: Mohawk Point Coordinates

Thank you for the follow-up, Ansar.

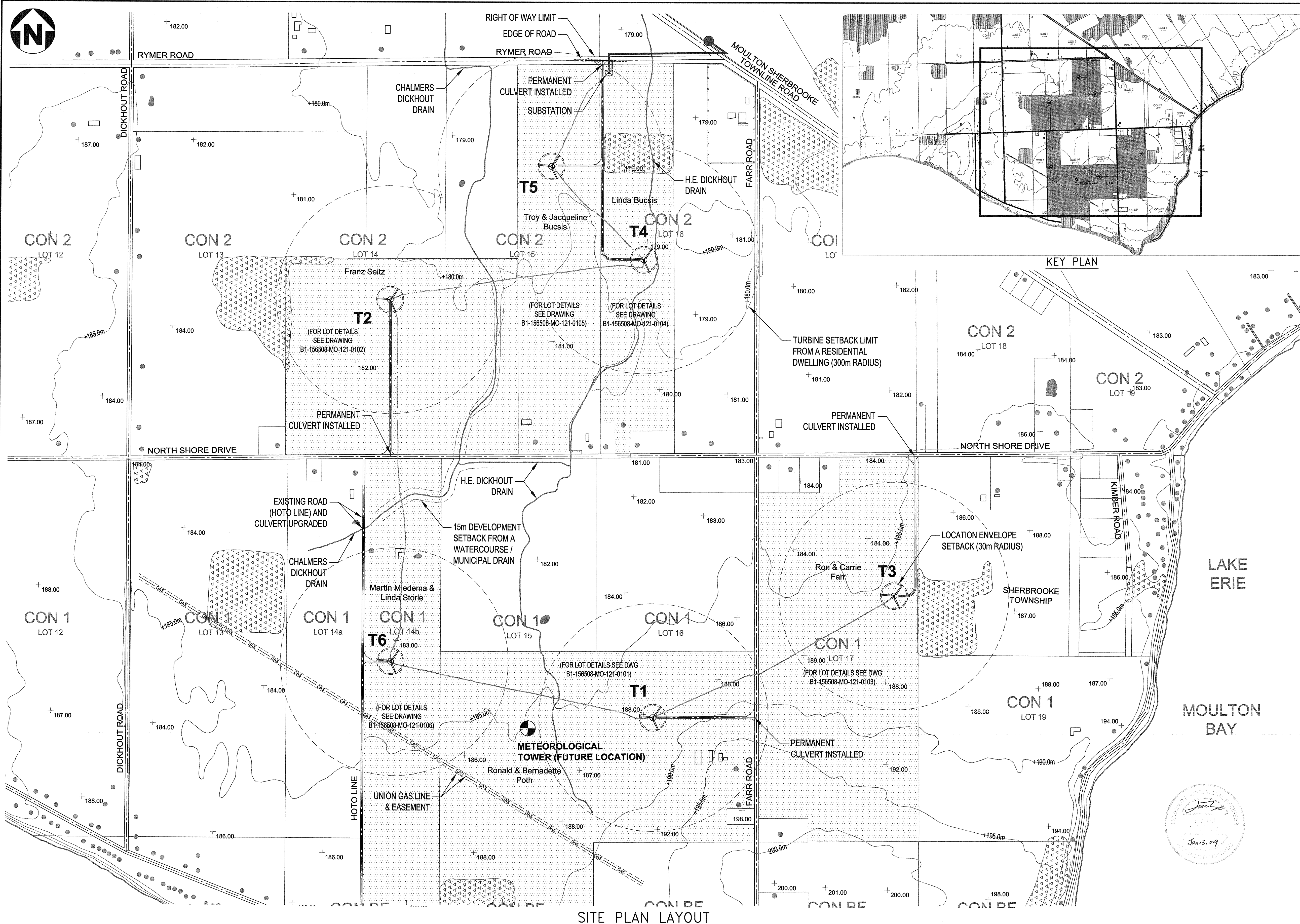
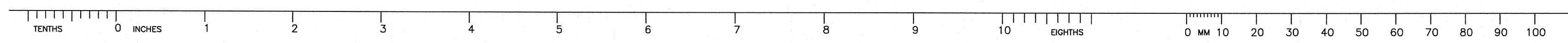
Maurice, Carolyn; I would be so thankful if you could provide the coordinates and make/model to me today.

Thanks in advance,
Julia

Julia Kossowski
Project Manager
Stantec
49 Frederick Street
Kitchener ON N2H 6M7
Ph: (519) 569-4338
Fx: (519) 579-6733
Cell: (226) 989-5259
julia.kossowski@stantec.com
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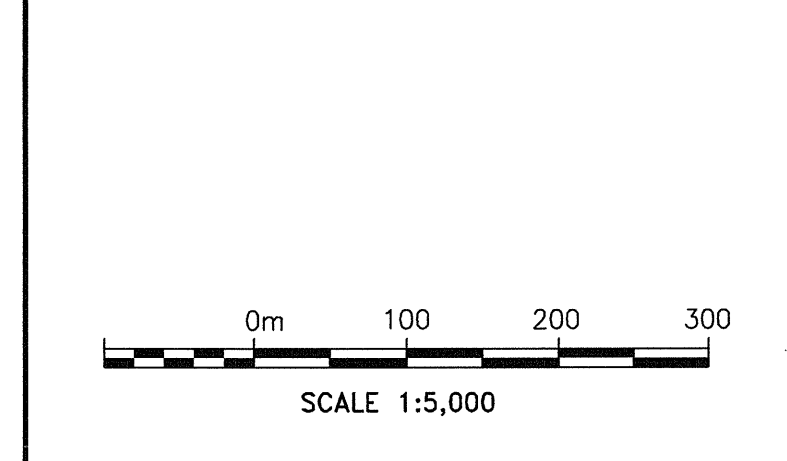
Please consider the environment before printing this email.



- NOTES:
- GRID COORDINATES SHOWN ON THIS DRAWING ARE BASED ON NAD 83, ZONE 17.
 - TOPOGRAPHIC INFORMATION AND PROPERTY BOUNDARIES WAS DERIVED FROM MACVIRO DRAWINGS #4877-G13A/B/C REV. F APRIL 29, 2005.
 - HOUSE LOCATIONS BASED ON LAYOUT FROM ZEPHYR NORTH RECEIVED ON JANUARY 25th, 2005, (LLKE02-21).
 - TURBINE LOCATIONS ARE BASED ON COORDINATES IN EMAIL FROM AIM POWER GEN. DATED JUNE 21st, 2007.

- LEGEND
- TURBINE ACCESS ROAD
 - MAJOR ROADS
 - TURBINE
 - FARM BUILDING
 - EXIST. RESIDENTIAL DWELLING
 - EXISTING WOODED AREA
 - MUNICIPAL DRAIN
 - 27.6kV OVERHEAD COLLECTOR LINE TO EXISTING 27.6kV HONI OVERHEAD LINE
 - 27.6kV OVERHEAD COLLECTOR LINE & FIBRE OPTIC CABLE
 - 27.6kV UNDERGROUND & FIBRE OPTIC CABLE
 - 300m TURBINE SETBACK FROM AN OFF-SITE RESIDENTIAL DWELLING
 - SPOT HEIGHT ELEVATION

MOHAWK TURBINE COORDINATES	
TURBINE #	COORDINATES (E, N)
T1	E 623355, N 4745400
T2	E 622632, N 4746480
T3	E 623974, N 4745737
T4	E 623297, N 4746604
T5	E 623047, N 4746843
T6	E 622661, N 4745529



AMEC - BLACK & McDONALD
JOINT VENTURE

REV	DDMMYY	REVISION	DR	CHK	APP	APP	APP	ISS	DDMMYY	APP	ISSUED FOR	REFERENCES	TITLE
6	13/01/09	ACCESS ROAD TO TURBINE T3 REVISED							6	13/01/09	AS BUILT		
5	19/06/08	ISSUED FOR AS BUILT							5	19/06/08	GG	AS BUILT	
4	14/05/08	ISSUED FOR AS BUILT							4	14/05/08	GG	AS BUILT	
3	12/11/07	ISSUED FOR CONSTRUCTION							3	12/11/07	GG	CONSTRUCTION	
2	02/11/07	ISSUED FOR MUNICIPAL SITE PLAN APPROVAL							2	02/11/07	GG	MUNICIPAL SITE PLAN APPROVAL	
1	15/10/07	ISSUED FOR CONSTRUCTION							1	15/10/07	GG	CONSTRUCTION	
0	23/08/07	ISSUED FOR MUNICIPAL SITE PLAN APPROVAL							0	23/08/07	GG	MUNICIPAL SITE PLAN APPROVAL	

CLIENT PROJECT MGR. ENGINEERING MGR. PROJECT MGR.			AREA MO		LAKE ERIE S.O.C. PROJECTS MOHAWK POINT WIND FARM		
PROJECT PHASE		PROJECT NO. 156508		ACTIVITY NO.		PACKAGE CODE	
SCALE 1:5000		BY DSN. G.GRAHN DRN. M.HALL		D/M/Y JUNE'07 JUNE'07		SUBJECT SITE PLAN LAYOUT	
STAMP/SEAL PROPRIETARY INFORMATION: THIS DRAWING IS THE PROPERTY OF AMEC AMERICAS, INC. AND IS NOT TO BE LOANED OR REPRODUCED IN ANY WAY WITHOUT THE PERMISSION OF AMEC AMERICAS, INC.				CLIENT DWG NO. DRAWING NO. A1-156508-MO-121-0100 REV. 6			

1.0 Wind Turbine Specifications Report

The HAF Wind Energy Project ("the Project") is proposed to consist of five (5) Vestas V100-1.8MW turbines. The turbine model was selected based upon its technical performance, design characteristics, acoustic properties, power output, and site specific considerations.

The purpose of this report is to provide the technical information on the turbines to be used for the proposed Project. The Vineland Power Inc. is proposing a single Class 4 Wind Energy Facility consisting of five 1.8 MW wind turbines for a total nameplate capacity of 9.0 MW in the Township of West Lincoln in Niagara Region of the Province of Ontario.

1.1 Technical Specifications

The Vestas V100-1.8 MW wind turbine is a pitch regulated upwind turbine with active yaw and a three-blade rotor. The Vestas V100-1.8 MW turbine has a rotor diameter of 100 m with a generator rated at 1.8 MW. The turbine utilizes a microprocessor pitch control system called OptiTip®. With these features the wind turbine is able to optimize power output at different wind speeds.

A summary of the technical specifications is presented in **Table 1.1** with additional information provided by the manufacturer is included in **Appendix 1**.

Table 1.1a: Summary of Technical Specifications of the Vestas V100-1.8MW	
Specification	Vestas V100-1.8MW
Nameplate Capacity	1.8 Megawatt
Hub Height (above grade)	95 m
Rotator Diameter	100 m
Blade Length	49 m
Swept Area	7850 m ²
Minimum Wind Speed (cut-in speed)	4.0 m/s
Maximum Wind Speed (cut-out speed)	20.0 m/s
Dynamic Rotational Speed Range	9.3 rpm to 16.6 rpm
Actual Rotational Speed	14.9 rpm

Each Vestas V100 turbine has a nameplate capacity of 1.8 MW and will be built to a hub height of 95 meters. The rotor diameter is 100 meters with swept area of 7850 m².

The minimum operational wind speed (cut-in speed) is 4.0 m/s with a maximum operational speed (cut-out speed) of 20.0 m/s.

The V-100 Turbine is erected on a tubular steel tower which holds the nacelle at 95 meters above the ground. The nacelle houses the hub and electrical components. Each blade is constructed of light weight airfoil shells bonded to supporting beams

and connect to the hub forming a 100 meter rotor. The generator is asynchronous with wound rotor, slip rings and VCUS. The turbine's operational envelope is -20° to +40° C.

Table 1.1b summarizes the Wind Turbine General Specifications.

Table 1.1b: Wind Turbine General Specifications	
	Operational Envelope: -20° to +40° C
Rotor	Rotor Diameter: 100m
	Swept Area: 7850m²
	Speed, Dynamic Operation Range: 9.3 - 16.6 rpm
	Rotational Direction: Clockwise (front view)
Tower	Type: tubular steel tower
	Hub: 95m
Electrical	Frequency: 60 Hz
	Rated Power: 1.8 MW
	Generator: Asynchronous with wound rotor, slip rings and VCUS
Blade	Type: airfoil shells bonded to supporting beam
	Length: 49m
	Max Chord: 3.9m
Nacelle	Height for Transport: 4.0 m
	Height Installed: 5.4 m
	Width: 3.4 m
	Length: 10.4 m
Hub	Material: cast ball shell hub
	Height: 95m
	Diameter: 3.3 m

1.2 Acoustic Emissions Data

The V100 1.8 MW turbine model has a maximum sound power rating of **105.00 dBA**. Additional information on the acoustic data can be found in **Tables 1.2a, 1.2b, 1.2c, and 1.3**. These tables summarize the wind turbine specifications provided in the Manufacture Technical Details provided in **Appendix 1**.

Table 1-2a provides the Sound Power Level Ratings (dBA) for **Mode 0** at a Hub Height of **95 meters**. The table shows the conditions for sound power levels at speeds of **3 m/s to 13 m/s** at **10 meters** with the corresponding wind speed at hub height (HH). The sound power rating does not exceed 105.00 dBA.

Table 1-2a: Sound Power Level Ratings for Mode 0		
Conditions for Sound Power Level	Hub Height 95 meters	Wind speed at hh [m/sec]
LwA @ 3 m/s (10 m above ground) [dBA]	93.8	4.3
LwA @ 4 m/s (10 m above ground) [dBA]	96.4	5.7
LwA @ 5 m/s (10 m above ground) [dBA]	100.7	7.2
LwA @ 6 m/s (10 m above ground) [dBA]	104.4	8.6
LwA @ 7 m/s (10 m above ground) [dBA]	105.0	10.0
LwA @ 8 m/s (10 m above ground) [dBA]	105.0	11.5
LwA @ 9 m/s (10 m above ground) [dBA]	105.0	12.9
LwA @ 10 m/s (10 m above ground) [dBA]	105.0	14.3
LwA @ 11 m/s (10 m above ground) [dBA]	105.0	15.8
LwA @ 12 m/s (10 m above ground) [dBA]	105.0	17.2
LwA @ 13 m/s (10 m above ground) [dBA]	105.0	18.6

Table 1-2b (below) provides the Sound Power Level Ratings (dBA) for **Mode 1** at a Hub Height of **95 meters**. The table shows the conditions for sound power levels at speeds of **3 m/s to 13 m/s** at **10 meters** with the corresponding wind speed at hub height (HH). The sound power rating does not exceed 105.00 dBA.

Table 1-2b: Sound Power Level Ratings for Mode 1		
Conditions for Sound Power Level	Hub Height 95 meters	Wind speed at hh [m/sec]
LwA @ 3 m/s (10 m above ground) [dBA]	93.7	4.3
LwA @ 4 m/s (10 m above ground) [dBA]	95.7	5.7
LwA @ 5 m/s (10 m above ground) [dBA]	99.7	7.2
LwA @ 6 m/s (10 m above ground) [dBA]	103.4	8.6
LwA @ 7 m/s (10 m above ground) [dBA]	105.0	10.0
LwA @ 8 m/s (10 m above ground) [dBA]	105.0	11.5
LwA @ 9 m/s (10 m above ground) [dBA]	105.0	12.9
LwA @ 10 m/s (10 m above ground) [dBA]	105.0	14.3
LwA @ 11 m/s (10 m above ground) [dBA]	105.0	15.8
LwA @ 12 m/s (10 m above ground) [dBA]	105.0	17.2
LwA @ 13 m/s (10 m above ground) [dBA]	105.0	18.6

Table 1-2c provides the Sound Power Level Ratings (dBA) for **Mode 2** at a Hub Height of **95 meters**. The table shows the conditions for sound power levels at speeds of **3 m/s** to **13 m/s** at **10 meters** with the corresponding wind speed at hub height (HH). The sound power rating does not exceed 105.00 dBA.

Table 1-2c: Sound Power Level Ratings for Mode 2		
Conditions for Sound Power Level	Hub Height 95 meters	Wind speed at hh [m/sec]
LwA @ 3 m/s (10 m above ground) [dBA]	93.8	4.3
LwA @ 4 m/s (10 m above ground) [dBA]	96.4	5.7
LwA @ 5 m/s (10 m above ground) [dBA]	100.7	7.2
LwA @ 6 m/s (10 m above ground) [dBA]	103.0	8.6
LwA @ 7 m/s (10 m above ground) [dBA]	103.0	10.0
LwA @ 8 m/s (10 m above ground) [dBA]	103.0	11.5
LwA @ 9 m/s (10 m above ground) [dBA]	103.0	12.9
LwA @ 10 m/s (10 m above ground) [dBA]	103.0	14.3
LwA @ 11 m/s (10 m above ground) [dBA]	103.0	15.8
LwA @ 12 m/s (10 m above ground) [dBA]	103.0	17.2
LwA @ 13 m/s (10 m above ground) [dBA]	103.0	18.6

Table 1-3 provides the Octave Band Spectra showing Octave in Hz from **16 Hz** to **8000 Hz** with the corresponding Sound Power Level in dB(A). Sound Power Level does not exceed **99.7 dB**.

Table 1-3: Octave Band Spectra												
Wind Speed@10m [m/s]	3	4	5	6	7	8	9	10	11	12	13	14
16Hz [dB(A)]	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
31.5Hz [dB(A)]	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
63Hz [dB(A)]	NaN	NaN	NaN	85.2	87.4	87.1	86.7	86.6	NaN	NaN	NaN	NaN
125Hz [dB(A)]	NaN	NaN	NaN	89.6	92	91.7	91.3	91.4	NaN	NaN	NaN	NaN
250Hz [dB(A)]	NaN	NaN	NaN	93	94.7	94.2	93.6	93.5	NaN	NaN	NaN	NaN
500Hz [dB(A)]	NaN	NaN	NaN	95.4	97.1	96.7	96.1	96.1	NaN	NaN	NaN	NaN
1000Hz [dB(A)]	NaN	NaN	NaN	98.2	99.7	99.5	99	99.1	NaN	NaN	NaN	NaN
2000Hz [dB(A)]	NaN	NaN	NaN	96.6	98.2	98.4	98.2	98.2	NaN	NaN	NaN	NaN
4000Hz [dB(A)]	NaN	NaN	NaN	94.6	96.6	97.2	98.7	98.6	NaN	NaN	NaN	NaN
8000Hz [dB(A)]	NaN	NaN	NaN	85.4	89.8	90.3	91.4	92.3	NaN	NaN	NaN	NaN

Table 1-3 Notes:

1. "NaN" indicates data not available due to insufficient data collection at this wind speed.
2. Disclaimers from Vestas: The values are valid for the A-weighted sound power levels
Octave band values must be regarded as informative
Site specific values are not warranted
3. Measurement standard ICE 6140011:2002, using amendments procedure above 95% RP

1.3 Qualifications and Limitations

This summary report was produced, in part, to fulfill the requirements for the Turbine Specifications Report for the Renewable Energy Approval (REA). The contents of this document have been produced using the requirements outlined in O.Reg 359/09 as well as other applicable Acts and Regulations governing these projects.

Morrison Hershfield Limited's assessment was made in accordance with guidelines, regulations and procedures believed to be current at this time. Changes in guidelines, regulations and policies can occur at the discretion of the government and such changes could affect this report.

Morrison Hershfield Limited and the consulting team retained for this Project have prepared this report in accordance with information provided by its Client and their representatives. While we may have referred to and made use of this information and reporting, we assume no liability for the accuracy of this information.


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[Wind Energy](#)[Wind Farms](#)[Municipalities](#)[Media Centre](#)[Conference & Events](#)[About Us](#)**WIND FARMS MENU**[Overview](#)[Planning a Wind Farm](#)[List of Wind Farms in Canada](#)[Wind Projection](#)[Spread the Word](#)[Case Studies](#)**Wind Farms**[home > wind farms](#)**Dunnville Wind Turbine****Date Installed:** 2006/10**Turbines:** 1x Pfleiderer 650 kW**Total Installed Capacity (MW):** 0.6500**Company:** Rosa Flora Limited**Address:** , Dunneville, ON, , Canada

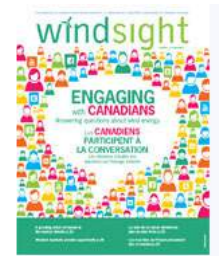
Description: "At Rosa Flora we are constantly working towards reducing our fossil fuel requirements. We have achieved significant energy savings by implementing the latest green technologies. By switching from natural gas boilers to biomass-fueled boilers, we have minimized the net carbon dioxide produced, as the biomass is a carbon dioxide neutral fuel. We also have a co-generation system and wind turbine, which provide us with alternative sources of electricity, reducing our reliance on fossil fuels."

In early 2006, we investigated the possibility of installing a wind turbine for our operations. Our interest in green energy technologies coupled with rising electricity prices prompted us to pursue a wind turbine that was the right size and fit. In February 2006, we purchased a brand new German engineered wind turbine - PWE650. By September 2006, we had the turbine commissioned and were producing 615 kW of electricity per kWh. The electricity is delivered directly into the Rosa Flora system and offsets electricity required from the Ontario grid."

Map

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Did you know?
Migratory routes of birds are taken into account when siting wind farms.



WindSight Spring 2013
Answering questions about wind energy

Table F1 Wind Turbine Sound Emission Summary

Make and Farm: German engineered wind turbine - PWE650 - Rosa Flora (See Attachment)

Model: PWE650

Electrical Rating: 650 kW

Hub Height: 75 m

Data Source: CanWEA; taken higher sound level than three time the power capacity turbine E82 (2.3 MW) Model

Octave Band Sound Power Level (dB ref. 10^{-12} Watts)

		Manufacturer's Emission Level					Adjusted Emission Level				
10m Height Wind Speed (m/s)		6	7	8	9	10	6	7	8	9	10
Frequency (Hz)	63	n/a	n/a	n/a	n/a	n/a	113.8	113.8	113.8	113.8	113.8
	125	n/a	n/a	n/a	n/a	n/a	111.3	111.3	111.3	111.3	111.3
	250	n/a	n/a	n/a	n/a	n/a	102.9	102.9	102.9	102.9	102.9
	500	n/a	n/a	n/a	n/a	n/a	100.3	100.3	100.3	100.3	100.3
	1000	n/a	n/a	n/a	n/a	n/a	98.9	98.9	98.9	98.9	98.9
	2000	n/a	n/a	n/a	n/a	n/a	93.4	93.4	93.4	93.4	93.4
	4000	n/a	n/a	n/a	n/a	n/a	82.1	82.1	82.1	82.1	82.1
	8000	n/a	n/a	n/a	n/a	n/a	76.9	76.9	76.9	76.9	76.9
Overall (dBA ref. 10^{-12} Watts)		--	--	--	--	--	103.5	103.5	103.5	103.5	103.5

WIND TURBINE SPECIFICATION REPORT

1.0 Wind Turbine Specifications Report

The Wainfleet Wind Energy Project ("the Project") is proposed to consist of five (5) Vestas V100-1.8MW turbines. The turbine model was selected based upon its technical performance, design characteristics, acoustic properties, power output, and site specific considerations.

The purpose of this report is to provide the technical information on the turbines to be used for the proposed Project. The Wainfleet Wind Energy Inc. is proposing a single Class 4 Wind Energy Facility consisting of five 1.8 MW wind turbines for a total nameplate capacity of 9.0 MW in the Township of Wainfleet in Niagara Region of the Province of Ontario.

1.1 Technical Specifications

The Vestas V100-1.8 MW wind turbine is a pitch regulated upwind turbine with active yaw and a three-blade rotor. The Vestas V100-1.8 MW turbine has a rotor diameter of 100 m with a generator rated at 1.8 MW. The turbine utilizes a microprocessor pitch control system called OptiTip®. With these features the wind turbine is able to optimize power output at different wind speeds.

A summary of the technical specifications is presented in **Table 1.1** with additional information provided by the manufacturer is included in **Appendix 1**.

Table 1.1a: Summary of Technical Specifications of the Vestas V100-1.8MW	
Specification	Vestas V100-1.8MW
Nameplate Capacity	1.8 Megawatt
Hub Height (above grade)	95 m
Rotator Diameter	100 m
Blade Length	49 m
Swept Area	7850 m ²
Minimum Wind Speed (cut-in speed)	4.0 m/s
Maximum Wind Speed (cut-out speed)	20.0 m/s
Dynamic Rotational Speed Range	9.3 rpm to 16.6 rpm
Actual Rotational Speed	14.9 rpm

Each Vestas V100 turbine has a nameplate capacity of 1.8 MW and will be built to a hub height of 95 meters. The rotor diameter is 100 meters with swept area of 7850 m².

The minimum operational wind speed (cut-in speed) is 4.0 m/s with a maximum operational speed (cut-out speed) of 20.0 m/s.

The V-100 Turbine is erected on a tubular steel tower which holds the nacelle at 95 meters above the ground. The nacelle houses the hub and electrical components. Each blade is constructed of light weight airfoil shells bonded to supporting beams

WIND TURBINE SPECIFICATION REPORT

and connect to the hub forming a 100 meter rotor. The generator is asynchronous with wound rotor, slip rings and VCUS. The turbine's operational envelope is -20° to +40° C.

Table 1.1b summarizes the Wind Turbine General Specifications.

Table 1.1b: Wind Turbine General Specifications	
	Operational Envelope: -20° to +40° C
Rotor	Rotor Diameter: 100m
	Swept Area: 7850m²
	Speed, Dynamic Operation Range: 9.3 – 16.6 rpm
	Rotational Direction: Clockwise (front view)
Tower	Type: tubular steel tower
	Hub: 95m
Electrical	Frequency: 60 Hz
	Rated Power: 1.8 MW
	Generator: Asynchronous with wound rotor, slip rings and VCUS
Blade	Type: airfoil shells bonded to supporting beam
	Length: 49m
	Max Chord: 3.9m
Nacelle	Height for Transport: 4.0 m
	Height Installed: 5.4 m
	Width: 3.4 m
	Length: 10.4 m
Hub	Material: cast ball shell hub
	Height: 95m
	Diameter: 3.3 m

1.2 Acoustic Emissions Data

The V100 1.8 MW turbine model has a maximum sound power rating of **105.00 dBA**. Additional information on the acoustic data can be found in **Tables 1.2a, 1.2b, 1.2c, and 1.3**. These tables summarize the wind turbine specifications provided in the Manufacture Technical Details provided in **Appendix 1**.

Table 1-2a provides the Sound Power Level Ratings (dBA) for **Mode 0** at a Hub Height of **95 meters**. The table shows the conditions for sound power levels at speeds of **3 m/s to 13 m/s at 10 meters** with the corresponding wind speed at hub height (HH). The sound power rating does not exceed 105.00 dBA.

Table 1-2a: Sound Power Level Ratings for Mode 0		
Conditions for Sound Power Level	Hub Height 95 meters	Wind speed at hh [m/sec]
LwA @ 3 m/s (10 m above ground) [dBA]	93.8	4.3
LwA @ 4 m/s (10 m above ground) [dBA]	96.4	5.7
LwA @ 5 m/s (10 m above ground) [dBA]	100.7	7.2
LwA @ 6 m/s (10 m above ground) [dBA]	104.4	8.6
LwA @ 7 m/s (10 m above ground) [dBA]	105.0	10.0
LwA @ 8 m/s (10 m above ground) [dBA]	105.0	11.5
LwA @ 9 m/s (10 m above ground) [dBA]	105.0	12.9
LwA @ 10 m/s (10 m above ground) [dBA]	105.0	14.3
LwA @ 11 m/s (10 m above ground) [dBA]	105.0	15.8
LwA @ 12 m/s (10 m above ground) [dBA]	105.0	17.2
LwA @ 13 m/s (10 m above ground) [dBA]	105.0	18.6

Table 1-2b (below) provides the Sound Power Level Ratings (dBA) for **Mode 1** at a Hub Height of **95 meters**. The table shows the conditions for sound power levels at speeds of **3 m/s to 13 m/s at 10 meters** with the corresponding wind speed at hub height (HH). The sound power rating does not exceed 105.00 dBA.

Table 1-2b: Sound Power Level Ratings for Mode 1		
Conditions for Sound Power Level	Hub Height 95 meters	Wind speed at hh [m/sec]
LwA @ 3 m/s (10 m above ground) [dBA]	93.7	4.3
LwA @ 4 m/s (10 m above ground) [dBA]	95.7	5.7
LwA @ 5 m/s (10 m above ground) [dBA]	99.7	7.2
LwA @ 6 m/s (10 m above ground) [dBA]	103.4	8.6
LwA @ 7 m/s (10 m above ground) [dBA]	105.0	10.0
LwA @ 8 m/s (10 m above ground) [dBA]	105.0	11.5
LwA @ 9 m/s (10 m above ground) [dBA]	105.0	12.9
LwA @ 10 m/s (10 m above ground) [dBA]	105.0	14.3
LwA @ 11 m/s (10 m above ground) [dBA]	105.0	15.8
LwA @ 12 m/s (10 m above ground) [dBA]	105.0	17.2
LwA @ 13 m/s (10 m above ground) [dBA]	105.0	18.6

Table 1-2c provides the Sound Power Level Ratings (dBA) for **Mode 2** at a Hub Height of **95 meters**. The table shows the conditions for sound power levels at speeds of **3 m/s** to **13 m/s** at **10 meters** with the corresponding wind speed at hub height (HH). The sound power rating does not exceed 105.00 dBA.

Table 1-2c: Sound Power Level Ratings for Mode 2		
Conditions for Sound Power Level	Hub Height 95 meters	Wind speed at hh [m/sec]
LwA @ 3 m/s (10 m above ground) [dBA]	93.8	4.3
LwA @ 4 m/s (10 m above ground) [dBA]	96.4	5.7
LwA @ 5 m/s (10 m above ground) [dBA]	100.7	7.2
LwA @ 6 m/s (10 m above ground) [dBA]	103.0	8.6
LwA @ 7 m/s (10 m above ground) [dBA]	103.0	10.0
LwA @ 8 m/s (10 m above ground) [dBA]	103.0	11.5
LwA @ 9 m/s (10 m above ground) [dBA]	103.0	12.9
LwA @ 10 m/s (10 m above ground) [dBA]	103.0	14.3
LwA @ 11 m/s (10 m above ground) [dBA]	103.0	15.8
LwA @ 12 m/s (10 m above ground) [dBA]	103.0	17.2
LwA @ 13 m/s (10 m above ground) [dBA]	103.0	18.6

WIND TURBINE SPECIFICATION REPORT

Table 1-3 provides the Octave Band Spectra showing Octave in Hz from **16 Hz** to **8000 Hz** with the corresponding Sound Power Level in dB(A). Sound Power Level does not exceed **99.7 dB**.

Table 1-3: Octave Band Spectra												
Wind Speed@10m [m/s]	3	4	5	6	7	8	9	10	11	12	13	14
16Hz [dB(A)]	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
31.5Hz [dB(A)]	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
63Hz [dB(A)]	NaN	NaN	NaN	85.2	87.4	87.1	86.7	86.6	NaN	NaN	NaN	NaN
125Hz [dB(A)]	NaN	NaN	NaN	89.6	92	91.7	91.3	91.4	NaN	NaN	NaN	NaN
250Hz [dB(A)]	NaN	NaN	NaN	93	94.7	94.2	93.6	93.5	NaN	NaN	NaN	NaN
500Hz [dB(A)]	NaN	NaN	NaN	95.4	97.1	96.7	96.1	96.1	NaN	NaN	NaN	NaN
1000Hz [dB(A)]	NaN	NaN	NaN	98.2	99.7	99.5	99	99.1	NaN	NaN	NaN	NaN
2000Hz [dB(A)]	NaN	NaN	NaN	96.6	98.2	98.4	98.2	98.2	NaN	NaN	NaN	NaN
4000Hz [dB(A)]	NaN	NaN	NaN	94.6	96.6	97.2	98.7	98.6	NaN	NaN	NaN	NaN
8000Hz [dB(A)]	NaN	NaN	NaN	85.4	89.8	90.3	91.4	92.3	NaN	NaN	NaN	NaN

Table 1-3 Notes:

1. "NaN" indicates data not available due to insufficient data collection at this wind speed.
2. Disclaimers from Vestas: The values are valid for the A-weighted sound power levels
Octave band values must be regarded as informative
Site specific values are not warranted
3. Measurement standard ICE 6140011:2002, using amendments procedure above 95% RP

1.3 Qualifications and Limitations

This summary report was produced, in part, to fulfill the requirements for the Turbine Specifications Report for the Renewable Energy Approval (REA). The contents of this document have been produced using the requirements outlined in O.Reg 359/09 as well as other applicable Acts and Regulations governing these projects.

Morrison Hershfield Limited's assessment was made in accordance with guidelines, regulations and procedures believed to be current at this time. Changes in guidelines, regulations and policies can occur at the discretion of the government and such changes could affect this report.

Morrison Hershfield Limited and the consulting team retained for this Project have prepared this report in accordance with information provided by its Client and their representatives. While we may have referred to and made use of this information and reporting, we assume no liability for the accuracy of this information.

**SAMPLE CALCULATION
IN OCTAVE BAND (V_1541, V1759, O_1624)**

Start: 24.07.13 13:35:50

Berechnungsparameter:

General	
Country	(user defined)
Max. Error (dB)	0
Max. Search Radius (m)	20000
Min. Dist Src to Rcvr	0
Partition	
Raster Factor	0.5
Max. Length of Section (m)	50000
Min. Length of Section (m)	1
Min. Length of Section (%)	0
Proj. Line Sources	On
Proj. Area Sources	On
Ref. Time	
Reference Time Day (min)	60
Reference Time Night (min)	60
Daytime Penalty (dB)	0
Recr. Time Penalty (dB)	6
Night-time Penalty (dB)	10
DTM	
Standard Height (m)	160
Model of Terrain	Triangulation
Reflection	
max. Order of Reflection	0
Search Radius Src	100
Search Radius Rcvr	100
Max. Distance Source - Rcvr	3000.00 3000.00
Min. Distance Rcvr - Reflector	1.00 1.00
Min. Distance Source - Reflector	0.1
Industrial (ISO 9613)	
Lateral Diffraction	some Obj
Obst. within Area Src do not shield	On
Screening	Excl. Ground Att. over Barrier Dz with limit (20/25)
Barrier Coefficients C1,2,3	3.0 20.0 0.0
Temperature (–C)	10
rel. Humidity (%)	70
Ground Absorption G	0.7
Wind Speed for Dir. (m/s)	3
Roads (TNM)	
Railways (Schall 03)	
Strictly acc. to Schall 03 / Schall-Transrapid	
Aircraft (???)	
Strictly acc. to AzB	

Source Spectral data - Liener Weighted

Name	ID	Type	Spectrum (dB)										Source
			63	125	250	500	1000	2000	4000	8000	A	lin	
V82		Lw	83.7	88.5	91.3	93.6	96.8	96	95	90.3	102.1	102.5	
TransformerNEMA		Lw	94	99	98	98	92	87	82	75	98.2	104.1	Estimated
Summerhaven (Semmens SWT-101)		Lw	108.8	109.9	105.5	102.7	99.6	95.9	88.3	86	105	113.8	Max from - Golder Report 2010-10-04 Noise Study Rpt (Draft)
Byng Wind Project (G.E 1.5 SLE)		Lw	109.6	108.3	106.4	102.6	97.7	92.2	85.6	85.9	104.1	113.6	Max from Manufacturers
GGrand Renewable Energy Park (SWT2.221.101)		Lw	108.6	109.1	104.6	103	100.1	95.3	88.6	86.3	105	113.4	Max from Report Grand Renewable Energy Park July 11, 2011
Manufacturer - data in German		Lw	112.5	107.8	107.3	104	98.3	91.6	84.9	74.4	104.8	115.1	Data in German by Enercon
Manufacturer - data for (E-82)		Lw	112.8	110.8	103	100.5	98.7	92.6	80.5	74.5	103.3	115.5	Data by Enercon

			-26.2	-16.1	-8.6	-3.2	0	1.2	1	-1.1		
Source Spectral data -A Weighted			Oktave Spectrum (dB)									
Name	ID	Type	Spectrum (dB)									
			63	125	250	500	1000	2000	4000	8000	A	lin
V82			57.5	72.4	82.7	90.4	96.8	97.2	96	89.2	102.1	102.5
TransformerNEMA			67.8	82.9	89.4	94.8	92	88.2	83	73.9	98.2	104.1
Summerhaven (Semmens SWT-101)			82.6	93.8	96.9	99.5	99.6	97.1	89.3	84.9	105	113.8
Byng Wind Project (G.E 1.5 SLE)			83.4	92.2	97.8	99.4	97.7	93.4	86.6	84.8	104.1	113.6
GGrand Renewable Energy Park (SWT2.221.101)			82.4	93	96	99.8	100.1	96.5	89.6	85.2	105	113.4
Manufacturer - data in German			86.3	91.7	98.7	100.8	98.3	92.8	85.9	73.3	104.8	115.1
Manufacturer - datafor de-rated machine (E-82)			86.6	94.7	94.4	97.3	98.7	93.8	81.5	73.4	103.3	115.5

LxT	Source Sound Power Level Day [dBA]
LxN	Source Sound Power Level Night [dBA]
Dist.	Distance to the receiver [m]
Adiv	Attenuation due to geometrical divergence [dB]
K0b	not applicable
Agr	Attenuation due to ground absorption [dB]
Abar	Attenuation due to screening/shielding such as barrier [dB]
z	not applicable
Aatm	Attenuation due to atmospheric absorption [dB]
Afol	Attenuation due to foliage [dB]
Ahous	Attenuation due to buildings [dB]
Cmet	metrological corrections [dB]
CmetN	not applicable
Dc	Directivity correction [dB]
RL	Reflection Loss [dB]
LtotT	Receiver Sound Pressure Level Day [dBA]
LtotN	Receiver Sound Pressure Level Night [dBA]

Receiver: H1SYMER3739
ID: O_1624
X: 622797.92
Y: 4747175.09
Z: 184.5

Ground:		180				A Weigthed				distance from source																
		Source Coordinates			Gruound Height		source Levels																			
Frequeny	ID	X	Y	Z	Ground	ReflOrd	LxT	LxN	Dist.	hm	Freq	Adiv	K0b	Agr	Abar	z	Aatm	Afol	Ahous	Cmet	CmetN	Dc	RL	LtotT	LtotN	
63	MH05	623076.72	4746794.36	260	180		0	57.5	57.5	477.9	41.7	63.0	64.6	0.0	-3.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	-4.1	-4.1
125	MH05	623076.72	4746794.36	260	180		0	72.4	72.4	477.9	41.7	125.0	64.6	0.0	1.4	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	6.2	6.2
250	MH05	623076.72	4746794.36	260	180		0	82.7	82.7	477.9	41.7	250.0	64.6	0.0	0.1	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	17.5	17.5
500	MH05	623076.72	4746794.36	260	180		0	90.4	90.4	477.9	41.7	500.0	64.6	0.0	-0.9	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	25.8	25.8
1k	MH05	623076.72	4746794.36	260	180		0	96.8	96.8	477.9	41.7	1000.0	64.6	0.0	-0.9	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	31.4	31.4
2k	MH05	623076.72	4746794.36	260	180		0	97.2	97.2	477.9	41.7	2000.0	64.6	0.0	-0.9	0.0	0.0	4.6	0.0	0.0	0.0	0.0	0.0	0.0	28.9	28.9
4k	MH05	623076.72	4746794.36	260	180		0	96.0	96.0	477.9	41.7	4000.0	64.6	0.0	-0.9	0.0	0.0	15.7	0.0	0.0	0.0	0.0	0.0	0.0	16.7	16.7
8k	MH05	623076.72	4746794.36	260	180		0	89.2	89.2	477.9	41.7	8000.0	64.6	0.0	-0.9	0.0	0.0	55.9	0.0	0.0	0.0	0.0	0.0	0.0	-30.3	-30.3
63	MH02	622640.11	4746450.28	260.47	180.47		0	57.5	57.5	745.7	42.2	63.0	68.5	0.0	-3.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	-8.0	-8.0
125	MH02	622640.11	4746450.28	260.47	180.47		0	72.4	72.4	745.7	42.2	125.0	68.5	0.0	1.6	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0
250	MH02	622640.11	4746450.28	260.47	180.47		0	82.7	82.7	745.7	42.2	250.0	68.5	0.0	0.1	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	13.4	13.4
500	MH02	622640.11	4746450.28	260.47	180.47		0	90.4	90.4	745.7	42.2	500.0	68.5	0.0	-0.9	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	21.4	21.4
1k	MH02	622640.11	4746450.28	260.47	180.47		0	96.8	96.8	745.7	42.2	1000.0	68.5	0.0	-0.9	0.0	0.0	2.7	0.0	0.0	0.0	0.0	0.0	0.0	26.5	26.5
2k	MH02	622640.11	4746450.28	260.47	180.47		0	97.2	97.2	745.7	42.2	2000.0	68.5	0.0	-0.9	0.0	0.0	7.2	0.0	0.0	0.0	0.0	0.0	0.0	22.4	22.4
4k	MH02	622640.11	4746450.28	260.47	180.47		0	96.0	96.0	745.7	42.2	4000.0	68.5	0.0	-0.9	0.0	0.0	24.4	0.0	0.0	0.0	0.0	0.0	0.0	4.0	4.0
8k	MH02	622640.11	4746450.28	260.47	180.47		0	89.2	89.2	745.7	42.2	8000.0	68.5	0.0	-0.9	0.0	0.0	87.2	0.0	0.0	0.0	0.0	0.0	0.0	-65.5	-65.5
63	MH04	623297	4746604	260	180		0	57.5	57.5	762.2	42.0	63.0	68.6	0.0	-3.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	-8.2	-8.2
125	MH04	623297	4746604	260	180		0	72.4	72.4	762.2	42.0	125.0	68.6	0.0	1.7	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.8
250	MH04	623297	4746604	260	180		0	82.7	82.7	762.2	42.0	250.0	68.6	0.0	0.1	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	13.2	13.2
500	MH04	623297	4746604	260	180		0	90.4	90.4	762.2	42.0	500.0	68.6	0.0	-0.9	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	21.2	21.2
1k	MH04	623297	4746604	260	180		0	96.8	96.8	762.2	42.0	1000.0	68.6	0.0	-0.9	0.0	0.0	2.8	0.0	0.0	0.0	0.0	0.0	0.0	26.3	26.3
2k	MH04	623297	4746604	260	180		0	97.2	97.2	762.2	42.0	2000.0	68.6	0.0	-0.9	0.0	0.0	7.4	0.0	0.0	0.0	0.0	0.0	0.0	22.1	22.1
4k	MH04	623297	4746604	260	180		0	96.0	96.0	762.2	42.0	4000.0	68.6	0.0	-0.9	0.0	0.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	3.3
8k	MH04	623297	4746604	260	180		0	89.2	89.2	762.2	42.0	8000.0	68.6	0.0	-0.9	0.0	0.0	89.1	0.0	0.0	0.0	0.0	0.0	0.0	-67.6	-67.6
63	T47	622482.87	4748446.93	314.34	179.34		0	86.3	86.3	1316.7	69.2	63.0	73.4	0.0	-3.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	15.8	15.8
125	T47	622482.87	4748446.93	314.34	179.34		0	91.7	91.7	1316.7	69.2	125.0	73.4	0.0	1.8	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	16.0	16.0
250	T47	622482.87	4748446.93	314.34	179.34		0	98.7	98.7	1316.7	69.2	250.0	73.4	0.0	0.1	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	23.9	23.9
500	T47	622482.87	4748446.93	314.34	179.34		0	100.8	100.8	1316.7	69.2	500.0	73.4	0.0	-0.9	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	25.8	25.8
1k	T47	622482.87	4748446.93	314.34	179.34		0	98.3	98.3	1316.7	69.2	1000.0	73.4	0.0	-0.9	0.0	0.0	4.8	0.0	0.0	0.0	0.0	0.0	0.0	21.0	21.0
2k	T47	622482.87	4748446.93	314.34	179.34		0	92.8	92.8	1316.7	69.2	2000.0	73.4	0.0	-0.9	0.0	0.0	12.7	0.0	0.0	0.0	0.0	0.0	0.0	7.6	7.6
4k	T47	622482.87	4748446.93	314.34	179.34		0	85.9	85.9	1316.7	69.2	4000.0	73.4	0.0	-0.9	0.0	0.0	43.2	0.0	0.0	0.0	0.0	0.0	0.0	-29.7	-29.7
8k	T47	622482.87	4748446.93	314.34	179.34		0	73.3	73.3	1316.7	69.2	8000.0	73.4	0.0	-0.9	0.0	0.0	153.9	0.0	0.0	0.0	0.0	0.0	0.0	-153.1	-153.1
63	T45	623159.98	4748650.44	313.11	178.11		0	86.3	86.3	1524.6	69.1	63.0	74.7	0.0	-3.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	14.5	14.5
125	T45	623159.98	4748650.44	313.11	178.11		0	91.7	91.7	1524.6	69.1	125.0	74.7	0.0	1.8	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	14.6	14.6
250	T45	623159.98	4748650.44	313.11	178.11		0	98.7	98.7	1524.6	69.1	250.0	74.7	0.0	0.1											

250	T14	624137	4748807	301.05	177.05	0	98.7	98.7	2114.2	63.8	250.0	77.5	0.0	0.1	0.0	0.0	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.9	18.9
500	T14	624137	4748807	301.05	177.05	0	100.8	100.8	2114.2	63.8	500.0	77.5	0.0	-0.9	0.0	0.0	4.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.1	20.1
1k	T14	624137	4748807	301.05	177.05	0	98.3	98.3	2114.2	63.8	1000.0	77.5	0.0	-0.9	0.0	0.0	7.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.0	14.0
2k	T14	624137	4748807	301.05	177.05	0	92.8	92.8	2114.2	63.8	2000.0	77.5	0.0	-0.9	0.0	0.0	20.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-4.2	-4.2
4k	T14	624137	4748807	301.05	177.05	0	85.9	85.9	2114.2	63.8	4000.0	77.5	0.0	-0.9	0.0	0.0	69.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-60.0	-60.0
8k	T14	624137	4748807	301.05	177.05	0	73.3	73.3	2114.2	63.8	8000.0	77.5	0.0	-0.9	0.0	0.0	247.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-250.4	-250.4
63	T46	622737	4748967.6	313	178	0	86.6	86.6	1798.1	69.2	63.0	76.1	0.0	-3.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.3	13.3
125	T46	622737	4748967.6	313	178	0	94.7	94.7	1798.1	69.2	125.0	76.1	0.0	1.8	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.1	16.1
250	T46	622737	4748967.6	313	178	0	94.4	94.4	1798.1	69.2	250.0	76.1	0.0	0.1	0.0	0.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.4	16.4
500	T46	622737	4748967.6	313	178	0	97.3	97.3	1798.1	69.2	500.0	76.1	0.0	-0.9	0.0	0.0	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.6	18.6
1k	T46	622737	4748967.6	313	178	0	98.7	98.7	1798.1	69.2	1000.0	76.1	0.0	-0.9	0.0	0.0	6.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.9	16.9
2k	T46	622737	4748967.6	313	178	0	93.8	93.8	1798.1	69.2	2000.0	76.1	0.0	-0.9	0.0	0.0	17.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	1.2
4k	T46	622737	4748967.6	313	178	0	81.5	81.5	1798.1	69.2	4000.0	76.1	0.0	-0.9	0.0	0.0	58.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-52.6	-52.6
8k	T46	622737	4748967.6	313	178	0	73.4	73.4	1798.1	69.2	8000.0	76.1	0.0	-0.9	0.0	0.0	210.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-212.0	-212.0
63	MH06	622661	4745529	263.87	183.87	0	57.5	57.5	1653.7	43.2	63.0	75.4	0.0	-3.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-15.1	-15.1
125	MH06	622661	4745529	263.87	183.87	0	72.4	72.4	1653.7	43.2	125.0	75.4	0.0	1.8	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-5.4	-5.4
250	MH06	622661	4745529	263.87	183.87	0	82.7	82.7	1653.7	43.2	250.0	75.4	0.0	0.1	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5	5.5
500	MH06	622661	4745529	263.87	183.87	0	90.4	90.4	1653.7	43.2	500.0	75.4	0.0	-0.9	0.0	0.0	3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.7	12.7
1k	MH06	622661	4745529	263.87	183.87	0	96.8	96.8	1653.7	43.2	1000.0	75.4	0.0	-0.9	0.0	0.0	6.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.3	16.3
2k	MH06	622661	4745529	263.87	183.87	0	97.2	97.2	1653.7	43.2	2000.0	75.4	0.0	-0.9	0.0	0.0	16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.8	6.8
4k	MH06	622661	4745529	263.87	183.87	0	96.0	96.0	1653.7	43.2	4000.0	75.4	0.0	-0.9	0.0	0.0	54.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-32.7	-32.7
8k	MH06	622661	4745529	263.87	183.87	0	89.2	89.2	1653.7	43.2	8000.0	75.4	0.0	-0.9	0.0	0.0	193.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-178.6	-178.6
63	T22	624829.2	4748510	302.04	178.04	0	86.3	86.3	2433.5	64.1	63.0	78.7	0.0	-3.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.3	10.3
125	T22	624829.2	4748510	302.04	178.04	0	91.7	91.7	2433.5	64.1	125.0	78.7	0.0	1.8	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.2	10.2
250	T22	624829.2	4748510	302.04	178.04	0	98.7	98.7	2433.5	64.1	250.0	78.7	0.0	0.1	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.4	17.4
500	T22	624829.2	4748510	302.04	178.04	0	100.8	100.8	2433.5	64.1	500.0	78.7	0.0	-0.9	0.0	0.0	4.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.3	18.3
1k	T22	624829.2	4748510	302.04	178.04	0	98.3	98.3	2433.5	64.1	1000.0	78.7	0.0	-0.9	0.0	0.0	8.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.6	11.6
2k	T22	624829.2	4748510	302.04	178.04	0	92.8	92.8	2433.5	64.1	2000.0	78.7	0.0	-0.9	0.0	0.0	23.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-8.5	-8.5
4k	T22	624829.2	4748510	302.04	178.04	0	85.9	85.9	2433.5	64.1	4000.0	78.7	0.0	-0.9	0.0	0.0	79.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-71.7	-71.7
8k	T22	624829.2	4748510	302.04	178.04	0	73.3	73.3	2433.5	64.1	8000.0	78.7	0.0	-0.9	0.0	0.0	284.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-289.0	-289.0
63	T21	625004	4748242	302.63	178.63	0	86.3	86.3	2453.4	64.2	63.0	78.8	0.0	-3.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.2	10.2
125	T21	625004	4748242	302.63	178.63	0	91.7	91.7	2453.4	64.2	125.0	78.8	0.0	1.8	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.1	10.1
250	T21	625004	4748242	302.63	178.63	0	98.7	98.7	2453.4	64.2	250.0	78.8	0.0	0.1	0.0	0.0	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.3	17.3
500	T21	625004	4748242	302.63	178.63	0	100.8	100.8	2453.4	64.2	500.0	78.8	0.0	-0.9	0.0	0.0	4.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.2	18.2
1k	T21	625004	4748242	302.63	178.63	0	98.3	98.3	2453.4	64.2	1000.0	78.8	0.0	-0.9	0.0	0.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.4	11.4
2k	T21	625004	4748242	302.63	178.63	0	92.8	92.8	2453.4	64.2	2000.0	78.8	0.0	-0.9	0.0	0.0	23.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-8.8	-8.8
4k	T21	625004	4748242	302.63	178.63	0	85.9	85.9	2453.4	64.2	4000.0	78.8	0.0	-0.9	0.0	0.0	80.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-72.4	-72.4
8k	T21	625004	4748242	302.63	178.63	0	73.3	73.3	2453.4	64.2	8000.0	78.8	0.0	-0.9	0.0	0.0	286.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-291.4	-291.4
63	T16	624153	4749242.91	300.29	176.29	0	86.3	86.3	2475.0	63.8	63.0	78.9	0.0	-3.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.1	10.1
125	T16	624153	4749242.91	300.29	176.29	0	91.7	91.7	2475.0	63.8	125.0	78.9	0.0	1.8	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	10.0
250	T16	624153	4749242.91	300.29	176.29	0	98.7	98.7	2475.0	63.8	250.0	78.9	0.0	0.1	0.0	0.0	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.2	17.2
500	T16	624153	4749242.91	300.29	176.29	0	100.8	100.8	2475.0	63.8	500.0	78.9	0.0	-0.9	0.0	0.0	4.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.1	18.1
1k	T16	624153	4749242.91	300.29	176.29	0	98.3	98.3	2475.0	63.8	1000.0	78.9	0.0	-0.9	0.0	0.0	9.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.3	11.3
2k	T16	624153	4749242.91	300.29	176.29	0	92.8	92.8	2475.0	63.8	2000.0	78.9	0.0	-0.9	0.0	0.0	23.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-9.1	-9.1
4k	T16	624153	4749242.91	300.29	176.29	0	85.9	85.9	2475.0	63.8	4000.0	78.9	0.0	-0.9	0.0	0.0	81.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-73.2	-73.2
8k	T16	624153	4749242.91	300.29	176.29	0	73.3	73.3	2475.0	63.8	8000.0	78.9	0.0	-0.9	0.0	0.0	289.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-294.0	-294.0
63	T61	625177	4747970	302.9	178.9	0	86.3	86.3	2511.2	64.1	63.0	79.0	0.0	-3.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	10.0
125	T61	625177	4747970	302.9	178.9	0	91.7	91.7	2511.2	64.1	125.0	79.0	0.0	1.8	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.9	9.9
250	T61	625177	4747970	302.9	178.9	0	98.7	98.7	2511.2	64.1	250.0	79.0	0.0	0.1	0.0	0.0	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.0	17.0
500	T61	625177	4747970	302.9	178.9	0	100.8	100.8	2511.2	64.1	500.0	79.0	0.0	-0.9	0.0	0.0	4.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.9	17.9
1k	T61	625177	4747970	302.9	178.9	0	98.3	98.3	2511.2	64.1	1000.0	79.0	0.0	-0.9	0.0	0.0	9.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.0	11.0
2k	T61	625177	4747970	302.																						

63	T43	624815.25	4748952.03	301.14	177.14	0	86.3	86.3	2690.9	64.1	63.0	79.6	0.0	-3.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	9.4	9.4
125	T43	624815.25	4748952.03	301.14	177.14	0	91.7	91.7	2690.9	64.1	125.0	79.6	0.0	1.8	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	9.2	9.2
250	T43	624815.25	4748952.03	301.14	177.14	0	98.7	98.7	2690.9	64.1	250.0	79.6	0.0	0.1	0.0	0.0	2.8	0.0	0.0	0.0	0.0	0.0	0.0	16.2	16.2
500	T43	624815.25	4748952.03	301.14	177.14	0	100.8	100.8	2690.9	64.1	500.0	79.6	0.0	-0.9	0.0	0.0	5.2	0.0	0.0	0.0	0.0	0.0	0.0	16.9	16.9
1k	T43	624815.25	4748952.03	301.14	177.14	0	98.3	98.3	2690.9	64.1	1000.0	79.6	0.0	-0.9	0.0	0.0	9.8	0.0	0.0	0.0	0.0	0.0	0.0	9.8	9.8
2k	T43	624815.25	4748952.03	301.14	177.14	0	92.8	92.8	2690.9	64.1	2000.0	79.6	0.0	-0.9	0.0	0.0	26.0	0.0	0.0	0.0	0.0	0.0	0.0	-11.9	-11.9
4k	T43	624815.25	4748952.03	301.14	177.14	0	85.9	85.9	2690.9	64.1	4000.0	79.6	0.0	-0.9	0.0	0.0	88.2	0.0	0.0	0.0	0.0	0.0	0.0	-81.0	-81.0
8k	T43	624815.25	4748952.03	301.14	177.14	0	73.3	73.3	2690.9	64.1	8000.0	79.6	0.0	-0.9	0.0	0.0	314.5	0.0	0.0	0.0	0.0	0.0	0.0	-319.9	-319.9
63	T48	624687	4749282.73	300.42	176.42	0	86.3	86.3	2832.7	64.0	63.0	80.0	0.0	-3.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	8.9	8.9
125	T48	624687	4749282.73	300.42	176.42	0	91.7	91.7	2832.7	64.0	125.0	80.0	0.0	1.8	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	8.7	8.7
250	T48	624687	4749282.73	300.42	176.42	0	98.7	98.7	2832.7	64.0	250.0	80.0	0.0	0.1	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	15.6	15.6
500	T48	624687	4749282.73	300.42	176.42	0	100.8	100.8	2832.7	64.0	500.0	80.0	0.0	-0.9	0.0	0.0	5.5	0.0	0.0	0.0	0.0	0.0	0.0	16.2	16.2
1k	T48	624687	4749282.73	300.42	176.42	0	98.3	98.3	2832.7	64.0	1000.0	80.0	0.0	-0.9	0.0	0.0	10.4	0.0	0.0	0.0	0.0	0.0	0.0	8.8	8.8
2k	T48	624687	4749282.73	300.42	176.42	0	92.8	92.8	2832.7	64.0	2000.0	80.0	0.0	-0.9	0.0	0.0	27.4	0.0	0.0	0.0	0.0	0.0	0.0	-13.7	-13.7
4k	T48	624687	4749282.73	300.42	176.42	0	85.9	85.9	2832.7	64.0	4000.0	80.0	0.0	-0.9	0.0	0.0	92.8	0.0	0.0	0.0	0.0	0.0	0.0	-86.1	-86.1
8k	T48	624687	4749282.73	300.42	176.42	0	73.3	73.3	2832.7	64.0	8000.0	80.0	0.0	-0.9	0.0	0.0	331.1	0.0	0.0	0.0	0.0	0.0	0.0	-336.9	-336.9
63	T20	620627.25	4749341.35	300.55	176.55	0	86.3	86.3	3068.9	63.6	63.0	80.7	0.0	-3.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	8.2	8.2
125	T20	620627.25	4749341.35	300.55	176.55	0	91.7	91.7	3068.9	63.6	125.0	80.7	0.0	1.8	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	7.9	7.9
250	T20	620627.25	4749341.35	300.55	176.55	0	98.7	98.7	3068.9	63.6	250.0	80.7	0.0	0.1	0.0	0.0	3.2	0.0	0.0	0.0	0.0	0.0	0.0	14.7	14.7
500	T20	620627.25	4749341.35	300.55	176.55	0	100.8	100.8	3068.9	63.6	500.0	80.7	0.0	-0.9	0.0	0.0	5.9	0.0	0.0	0.0	0.0	0.0	0.0	15.0	15.0
1k	T20	620627.25	4749341.35	300.55	176.55	0	98.3	98.3	3068.9	63.6	1000.0	80.7	0.0	-0.9	0.0	0.0	11.2	0.0	0.0	0.0	0.0	0.0	0.0	7.2	7.2
2k	T20	620627.25	4749341.35	300.55	176.55	0	92.8	92.8	3068.9	63.6	2000.0	80.7	0.0	-0.9	0.0	0.0	29.7	0.0	0.0	0.0	0.0	0.0	0.0	-16.7	-16.7
4k	T20	620627.25	4749341.35	300.55	176.55	0	85.9	85.9	3068.9	63.6	4000.0	80.7	0.0	-0.9	0.0	0.0	100.6	0.0	0.0	0.0	0.0	0.0	0.0	-94.5	-94.5
8k	T20	620627.25	4749341.35	300.55	176.55	0	73.3	73.3	3068.9	63.6	8000.0	80.7	0.0	-0.9	0.0	0.0	358.7	0.0	0.0	0.0	0.0	0.0	0.0	-365.2	-365.2
63	T96	621422.71	4750668.26	299.47	175.47	0	86.3	86.3	3755.9	64.0	63.0	82.5	0.0	-3.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	6.4	6.4
125	T96	621422.71	4750668.26	299.47	175.47	0	91.7	91.7	3755.9	64.0	125.0	82.5	0.0	1.8	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	5.9	5.9
250	T96	621422.71	4750668.26	299.47	175.47	0	98.7	98.7	3755.9	64.0	250.0	82.5	0.0	0.1	0.0	0.0	3.9	0.0	0.0	0.0	0.0	0.0	0.0	12.2	12.2
500	T96	621422.71	4750668.26	299.47	175.47	0	100.8	100.8	3755.9	64.0	500.0	82.5	0.0	-0.9	0.0	0.0	7.2	0.0	0.0	0.0	0.0	0.0	0.0	12.0	12.0
1k	T96	621422.71	4750668.26	299.47	175.47	0	98.3	98.3	3755.9	64.0	1000.0	82.5	0.0	-0.9	0.0	0.0	13.7	0.0	0.0	0.0	0.0	0.0	0.0	3.0	3.0
2k	T96	621422.71	4750668.26	299.47	175.47	0	92.8	92.8	3755.9	64.0	2000.0	82.5	0.0	-0.9	0.0	0.0	36.3	0.0	0.0	0.0	0.0	0.0	0.0	-25.1	-25.1
4k	T96	621422.71	4750668.26	299.47	175.47	0	85.9	85.9	3755.9	64.0	4000.0	82.5	0.0	-0.9	0.0	0.0	123.1	0.0	0.0	0.0	0.0	0.0	0.0	-118.8	-118.8
8k	T96	621422.71	4750668.26	299.47	175.47	0	73.3	73.3	3755.9	64.0	8000.0	82.5	0.0	-0.9	0.0	0.0	439.0	0.0	0.0	0.0	0.0	0.0	0.0	-447.3	-447.3
63	T63	621609.3	4751032.27	300.37	176.37	0	86.3	86.3	4037.8	64.6	63.0	83.1	0.0	-3.1	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	5.8	5.8
125	T63	621609.3	4751032.27	300.37	176.37	0	91.7	91.7	4037.8	64.6	125.0	83.1	0.0	1.7	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	5.2	5.2
250	T63	621609.3	4751032.27	300.37	176.37	0	98.7	98.7	4037.8	64.6	250.0	83.1	0.0	0.0	0.0	0.0	4.2	0.0	0.0	0.0	0.0	0.0	0.0	11.3	11.3
500	T63	621609.3	4751032.27	300.37	176.37	0	100.8	100.8	4037.8	64.6	500.0	83.1	0.0	-0.9	0.0	0.0	7.8	0.0	0.0	0.0	0.0	0.0	0.0	10.8	10.8
1k	T63	621609.3	4751032.27	300.37	176.37	0	98.3	98.3	4037.8	64.6	1000.0	83.1	0.0	-0.9	0.0	0.0	14.8	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4
2k	T63	621609.3	4751032.27	300.37	176.37	0	92.8	92.8	4037.8	64.6	2000.0	83.1	0.0	-0.9	0.0	0.0	39.0	0.0	0.0	0.0	0.0	0.0	0.0	-28.4	-28.4
4k	T63	621609.3	4751032.27	300.37	176.37	0	85.9	85.9	4037.8	64.6	4000.0	83.1	0.0	-0.9	0.0	0.0	132.3	0.0	0.0	0.0	0.0	0.0	0.0	-128.6	-128.6
8k	T63	621609.3	4751032.27	300.37	176.37	0	73.3	73.3	4037.8	64.6	8000.0	83.1	0.0	-0.9	0.0	0.0	472.0	0.0	0.0	0.0	0.0	0.0	0.0	-480.8	-480.8
63	T99	619207.83	4749223.58	299	175	0	86.3	86.3	4135.0	63.4	63.0	83.3	0.0	-3.2	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	5.7	5.7
125	T99	619207.83	4749223.58	299	175	0	91.7	91.7	4135.0	63.4	125.0	83.3	0.0	1.7	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	5.0	5.0
250	T99	619207.83	4749223.58	299	175	0	98.7	98.7	4135.0	63.4	250.0	83.3	0.0	0.0	0.0	0.0	4.3	0.0	0.0	0.0	0.0	0.0	0.0	11.0	11.0
500	T99	619207.83	4749223.58	299	175	0	100.8	100.8	4135.0	63.4	500.0	83.3	0.0	-1.0	0.0	0.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	10.5	10.5
1k	T99	619207.83	4749223.58	299	175	0	98.3	98.3	4135.0	63.4	1000.0	83.3	0.0	-1.0	0.0	0.0	15.1	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.8
2k	T99	619207.83	4749223.58	299	175	0	92.8	92.8	4135.0	63.4	2000.0	83.3	0.0	-1.0	0.0	0.0	40.0	0.0	0.0	0.0	0.0	0.0	0.0	-29.5	-29.5
4k	T99	619207.83	4749223.58	299	175	0	85.9	85.9	4135.0	63.4	4000.0	83.3	0.0	-1.0	0.0	0.0	135.5	0.0	0.0	0.0	0.0	0.0	0.0	-132.0	-132.0
8k	T99	619207.83	4749223.58	299	175	0	73.3	73.3	4135.0	63.4	8000.0	83.3	0.0	-1.0	0.0	0.0	483.3	0.0	0.0	0.0	0.0	0.0	0.0	-492.4	-492.4
63	T62	621876.73	4751310.91	301.01	177.01	0	86.3	86.3	4238.8	65.1	63.0	83.5	0.0	-3.3	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	5.5	5.5
125	T62	621876.73	4751310.91	301.01	177.01	0	91.7	91.7	4238.8	65.1	125.0	83.5	0.0	1.7	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	4.7	4.7
250	T62	621876.73	4751310.91	301.01	177.01	0	98.7	98.7	4238.8	65.1	250.0	83.5	0.0	0.0	0.0	0.0	4.4	0.0	0.0	0.0	0.0	0.0	0.0	10.7	10.7
500	T62	621876.73	4751310.91	301.01	177.01	0	100.8	100.8	4238.8	65.1	500.0	83.5	0.0	-1.0	0.0	0.0	8.2	0.0	0.0	0.0	0.0	0.0	0.0	10.1	10.1

4k	T23	627539.7	4748974.27	299	175	0	85.9	85.9	5072.9	64.1	4000.0	85.1	0.0	-1.1	0.0	0.0	166.2	0.0	0.0	0.0	0.0	0.0	0.0	-164.3	-164.3
8k	T23	627539.7	4748974.27	299	175	0	73.3	73.3	5072.9	64.1	8000.0	85.1	0.0	-1.1	0.0	0.0	592.9	0.0	0.0	0.0	0.0	0.0	0.0	-603.6	-603.6
63	T24	627752.21	4750238.85	299	175	0	86.3	86.3	5826.2	64.6	63.0	86.3	0.0	-4.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	3.3	3.3
125	T24	627752.21	4750238.85	299	175	0	91.7	91.7	5826.2	64.6	125.0	86.3	0.0	1.5	0.0	0.0	2.4	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5
250	T24	627752.21	4750238.85	299	175	0	98.7	98.7	5826.2	64.6	250.0	86.3	0.0	-0.2	0.0	0.0	6.1	0.0	0.0	0.0	0.0	0.0	0.0	6.5	6.5
500	T24	627752.21	4750238.85	299	175	0	100.8	100.8	5826.2	64.6	500.0	86.3	0.0	-1.2	0.0	0.0	11.2	0.0	0.0	0.0	0.0	0.0	0.0	4.5	4.5
1k	T24	627752.21	4750238.85	299	175	0	98.3	98.3	5826.2	64.6	1000.0	86.3	0.0	-1.2	0.0	0.0	21.3	0.0	0.0	0.0	0.0	0.0	0.0	-8.1	-8.1
2k	T24	627752.21	4750238.85	299	175	0	92.8	92.8	5826.2	64.6	2000.0	86.3	0.0	-1.2	0.0	0.0	56.3	0.0	0.0	0.0	0.0	0.0	0.0	-48.6	-48.6
4k	T24	627752.21	4750238.85	299	175	0	85.9	85.9	5826.2	64.6	4000.0	86.3	0.0	-1.2	0.0	0.0	190.9	0.0	0.0	0.0	0.0	0.0	0.0	-190.1	-190.1
8k	T24	627752.21	4750238.85	299	175	0	73.3	73.3	5826.2	64.6	8000.0	86.3	0.0	-1.2	0.0	0.0	681.0	0.0	0.0	0.0	0.0	0.0	0.0	-692.8	-692.8
63	T89	623216.37	4753159.84	304	180	0	86.3	86.3	6000.6	66.3	63.0	86.6	0.0	-4.1	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	3.1	3.1
125	T89	623216.37	4753159.84	304	180	0	91.7	91.7	6000.6	66.3	125.0	86.6	0.0	1.5	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	1.2	1.2
250	T89	623216.37	4753159.84	304	180	0	98.7	98.7	6000.6	66.3	250.0	86.6	0.0	-0.3	0.0	0.0	6.3	0.0	0.0	0.0	0.0	0.0	0.0	6.1	6.1
500	T89	623216.37	4753159.84	304	180	0	100.8	100.8	6000.6	66.3	500.0	86.6	0.0	-1.2	0.0	0.0	11.6	0.0	0.0	0.0	0.0	0.0	0.0	3.9	3.9
1k	T89	623216.37	4753159.84	304	180	0	98.3	98.3	6000.6	66.3	1000.0	86.6	0.0	-1.2	0.0	0.0	22.0	0.0	0.0	0.0	0.0	0.0	0.0	-9.0	-9.0
2k	T89	623216.37	4753159.84	304	180	0	92.8	92.8	6000.6	66.3	2000.0	86.6	0.0	-1.2	0.0	0.0	58.0	0.0	0.0	0.0	0.0	0.0	0.0	-50.5	-50.5
4k	T89	623216.37	4753159.84	304	180	0	85.9	85.9	6000.6	66.3	4000.0	86.6	0.0	-1.2	0.0	0.0	196.6	0.0	0.0	0.0	0.0	0.0	0.0	-196.1	-196.1
8k	T89	623216.37	4753159.84	304	180	0	73.3	73.3	6000.6	66.3	8000.0	86.6	0.0	-1.2	0.0	0.0	701.4	0.0	0.0	0.0	0.0	0.0	0.0	-713.4	-713.4
63	T84	622487.06	4753392.69	304	180	0	86.3	86.3	6226.5	66.2	63.0	86.9	0.0	-4.1	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	2.8	2.8
125	T84	622487.06	4753392.69	304	180	0	91.7	91.7	6226.5	66.2	125.0	86.9	0.0	1.4	0.0	0.0	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.8
250	T84	622487.06	4753392.69	304	180	0	98.7	98.7	6226.5	66.2	250.0	86.9	0.0	-0.3	0.0	0.0	6.5	0.0	0.0	0.0	0.0	0.0	0.0	5.6	5.6
500	T84	622487.06	4753392.69	304	180	0	100.8	100.8	6226.5	66.2	500.0	86.9	0.0	-1.2	0.0	0.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2	3.2
1k	T84	622487.06	4753392.69	304	180	0	98.3	98.3	6226.5	66.2	1000.0	86.9	0.0	-1.2	0.0	0.0	22.8	0.0	0.0	0.0	0.0	0.0	0.0	-10.1	-10.1
2k	T84	622487.06	4753392.69	304	180	0	92.8	92.8	6226.5	66.2	2000.0	86.9	0.0	-1.2	0.0	0.0	60.2	0.0	0.0	0.0	0.0	0.0	0.0	-53.0	-53.0
4k	T84	622487.06	4753392.69	304	180	0	85.9	85.9	6226.5	66.2	4000.0	86.9	0.0	-1.2	0.0	0.0	204.0	0.0	0.0	0.0	0.0	0.0	0.0	-203.8	-203.8
8k	T84	622487.06	4753392.69	304	180	0	73.3	73.3	6226.5	66.2	8000.0	86.9	0.0	-1.2	0.0	0.0	727.8	0.0	0.0	0.0	0.0	0.0	0.0	-740.1	-740.1
63	T42	619935	4753628	304	180	0	86.3	86.3	7060.5	65.8	63.0	88.0	0.0	-4.4	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.8
125	T42	619935	4753628	304	180	0	91.7	91.7	7060.5	65.8	125.0	88.0	0.0	1.4	0.0	0.0	2.9	0.0	0.0	0.0	0.0	0.0	0.0	-0.6	-0.6
250	T42	619935	4753628	304	180	0	98.7	98.7	7060.5	65.8	250.0	88.0	0.0	-0.3	0.0	0.0	7.4	0.0	0.0	0.0	0.0	0.0	0.0	3.7	3.7
500	T42	619935	4753628	304	180	0	100.8	100.8	7060.5	65.8	500.0	88.0	0.0	-1.3	0.0	0.0	13.6	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.5
1k	T42	619935	4753628	304	180	0	98.3	98.3	7060.5	65.8	1000.0	88.0	0.0	-1.3	0.0	0.0	25.8	0.0	0.0	0.0	0.0	0.0	0.0	-14.2	-14.2
2k	T42	619935	4753628	304	180	0	92.8	92.8	7060.5	65.8	2000.0	88.0	0.0	-1.3	0.0	0.0	68.2	0.0	0.0	0.0	0.0	0.0	0.0	-62.1	-62.1
4k	T42	619935	4753628	304	180	0	85.9	85.9	7060.5	65.8	4000.0	88.0	0.0	-1.3	0.0	0.0	231.4	0.0	0.0	0.0	0.0	0.0	0.0	-232.1	-232.1
8k	T42	619935	4753628	304	180	0	73.3	73.3	7060.5	65.8	8000.0	88.0	0.0	-1.3	0.0	0.0	825.3	0.0	0.0	0.0	0.0	0.0	0.0	-838.6	-838.6
63	T65	622983.82	4754678.89	299	175	0	86.3	86.3	7507.0	63.8	63.0	88.5	0.0	-4.5	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3
125	T65	622983.82	4754678.89	299	175	0	91.7	91.7	7507.0	63.8	125.0	88.5	0.0	1.4	0.0	0.0	3.1	0.0	0.0	0.0	0.0	0.0	0.0	-1.2	-1.2
250	T65	622983.82	4754678.89	299	175	0	98.7	98.7	7507.0	63.8	250.0	88.5	0.0	-0.4	0.0	0.0	7.8	0.0	0.0	0.0	0.0	0.0	0.0	2.7	2.7
500	T65	622983.82	4754678.89	299	175	0	100.8	100.8	7507.0	63.8	500.0	88.5	0.0	-1.3	0.0	0.0	14.5	0.0	0.0	0.0	0.0	0.0	0.0	-0.8	-0.8
1k	T65	622983.82	4754678.89	299	175	0	98.3	98.3	7507.0	63.8	1000.0	88.5	0.0	-1.3	0.0	0.0	27.5	0.0	0.0	0.0	0.0	0.0	0.0	-16.3	-16.3
2k	T65	622983.82	4754678.89	299	175	0	92.8	92.8	7507.0	63.8	2000.0	88.5	0.0	-1.3	0.0	0.0	72.6	0.0	0.0	0.0	0.0	0.0	0.0	-66.9	-66.9
4k	T65	622983.82	4754678.89	299	175	0	85.9	85.9	7507.0	63.8	4000.0	88.5	0.0	-1.3	0.0	0.0	246.0	0.0	0.0	0.0	0.0	0.0	0.0	-247.3	-247.3
8k	T65	622983.82	4754678.89	299	175	0	73.3	73.3	7507.0	63.8	8000.0	88.5	0.0	-1.3	0.0	0.0	877.4	0.0	0.0	0.0	0.0	0.0	0.0	-891.3	-891.3
63	T98	617981.67	4753042.54	302.44	178.44	0	86.3	86.3	7591.9	64.9	63.0	88.6	0.0	-4.5	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3
125	T98	617981.67	4753042.54	302.44	178.44	0	91.7	91.7	7591.9	64.9	125.0	88.6	0.0	1.3	0.0	0.0	3.1	0.0	0.0	0.0	0.0	0.0	0.0	-1.4	-1.4
250	T98	617981.67	4753042.54	302.44	178.44	0	98.7	98.7	7591.9	64.9	250.0	88.6	0.0	-0.4	0.0	0.0	7.9	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5
500	T98	617981.67	4753042.54	302.44	178.44	0	100.8	100.8	7591.9	64.9	500.0	88.6	0.0	-1.3	0.0	0.0	14.6	0.0	0.0	0.0	0.0	0.0	0.0	-1.1	-1.1
1k	T98	617981.67	4753042.54	302.44	178.44	0	98.3	98.3	7591.9	64.9	1000.0	88.6	0.0	-1.3	0.0	0.0	27.8	0.0	0.0	0.0	0.0	0.0	0.0	-16.7	-16.7
2k	T98	617981.67	4753042.54	302.44	178.44	0	92.8	92.8	7591.9	64.9	2000.0	88.6	0.0	-1.3	0.0	0.0	73.4	0.0	0.0	0.0	0.0	0.0	0.0	-67.8	-67.8
4k	T98	617981.67	4753042.54	302.44	178.44	0	85.9	85.9	7591.9	64.9	4000.0	88.6	0.0	-1.3	0.0	0.0	248.8	0.0	0.0	0.0	0.0	0.0	0.0	-250.2	-250.2
8k	T98	617981.67	4753042.54	302.44	178.44	0	73.3	73.3	7591.9	64.9	8000.0	88.6	0.0	-1.3	0.0	0.0	887.4	0.0	0.0	0.0	0.0	0.0	0.0	-901.3	-901.3
63	GREPT58	614974	4747470	283.19	183.69	0	82.4	82.4	7830.1	55.5	63.0	88.9	0.0	-4.8	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	-2.6	-2.6
125	GREPT58	614974	4747470	283.19	183.69	0	93.0	93.0	7830.1	55.5	125.0	88.9	0.0	1.2	0.0	0.0	3.2	0.0	0.0	0.0	0.0	0.0	0.0	-0.3	-0.3
250	GREPT58	614974	4747470	283.19	183.69	0	96.0	96.0	7830.1	55.5	250.0	88.9	0.0	-0.5	0.0	0.0	8.2	0.0	0.0	0.0	0.0	0.0	0.0	-0.6	

1k	GREPT62	614705	4747338	281.29	181.79	0	100.1	100.1	8095.1	54.6	1000.0	89.2	0.0	-1.5	0.0	0.0	29.6	0.0	0.0	0.0	0.0	0.0	0.0	-17.2	-17.2
2k	GREPT62	614705	4747338	281.29	181.79	0	96.5	96.5	8095.1	54.6	2000.0	89.2	0.0	-1.5	0.0	0.0	78.2	0.0	0.0	0.0	0.0	0.0	0.0	-69.4	-69.4
4k	GREPT62	614705	4747338	281.29	181.79	0	89.6	89.6	8095.1	54.6	4000.0	89.2	0.0	-1.5	0.0	0.0	265.3	0.0	0.0	0.0	0.0	0.0	0.0	-263.4	-263.4
8k	GREPT62	614705	4747338	281.29	181.79	0	85.2	85.2	8095.1	54.6	8000.0	89.2	0.0	-1.5	0.0	0.0	946.2	0.0	0.0	0.0	0.0	0.0	0.0	-948.7	-948.7
63	GREPT60	614680	4748176	282.59	183.09	0	82.4	82.4	8180.0	54.9	63.0	89.3	0.0	-4.9	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	-3.0	-3.0
125	GREPT60	614680	4748176	282.59	183.09	0	93.0	93.0	8180.0	54.9	125.0	89.3	0.0	1.2	0.0	0.0	3.4	0.0	0.0	0.0	0.0	0.0	0.0	-0.8	-0.8
250	GREPT60	614680	4748176	282.59	183.09	0	96.0	96.0	8180.0	54.9	250.0	89.3	0.0	-0.5	0.0	0.0	8.5	0.0	0.0	0.0	0.0	0.0	0.0	-1.3	-1.3
500	GREPT60	614680	4748176	282.59	183.09	0	99.8	99.8	8180.0	54.9	500.0	89.3	0.0	-1.5	0.0	0.0	15.8	0.0	0.0	0.0	0.0	0.0	0.0	-3.8	-3.8
1k	GREPT60	614680	4748176	282.59	183.09	0	100.1	100.1	8180.0	54.9	1000.0	89.3	0.0	-1.5	0.0	0.0	29.9	0.0	0.0	0.0	0.0	0.0	0.0	-17.6	-17.6
2k	GREPT60	614680	4748176	282.59	183.09	0	96.5	96.5	8180.0	54.9	2000.0	89.3	0.0	-1.5	0.0	0.0	79.1	0.0	0.0	0.0	0.0	0.0	0.0	-70.4	-70.4
4k	GREPT60	614680	4748176	282.59	183.09	0	89.6	89.6	8180.0	54.9	4000.0	89.3	0.0	-1.5	0.0	0.0	268.1	0.0	0.0	0.0	0.0	0.0	0.0	-266.3	-266.3
8k	GREPT60	614680	4748176	282.59	183.09	0	85.2	85.2	8180.0	54.9	8000.0	89.3	0.0	-1.5	0.0	0.0	956.1	0.0	0.0	0.0	0.0	0.0	0.0	-958.7	-958.7
63	GREPT59	614326	4747732	284.49	184.99	0	82.4	82.4	8490.8	55.5	63.0	89.6	0.0	-4.9	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	-3.3	-3.3
125	GREPT59	614326	4747732	284.49	184.99	0	93.0	93.0	8490.8	55.5	125.0	89.6	0.0	1.2	0.0	0.0	3.5	0.0	0.0	0.0	0.0	0.0	0.0	-1.3	-1.3
250	GREPT59	614326	4747732	284.49	184.99	0	96.0	96.0	8490.8	55.5	250.0	89.6	0.0	-0.5	0.0	0.0	8.9	0.0	0.0	0.0	0.0	0.0	0.0	-1.9	-1.9
500	GREPT59	614326	4747732	284.49	184.99	0	99.8	99.8	8490.8	55.5	500.0	89.6	0.0	-1.5	0.0	0.0	16.4	0.0	0.0	0.0	0.0	0.0	0.0	-4.7	-4.7
1k	GREPT59	614326	4747732	284.49	184.99	0	100.1	100.1	8490.8	55.5	1000.0	89.6	0.0	-1.5	0.0	0.0	31.1	0.0	0.0	0.0	0.0	0.0	0.0	-19.1	-19.1
2k	GREPT59	614326	4747732	284.49	184.99	0	96.5	96.5	8490.8	55.5	2000.0	89.6	0.0	-1.5	0.0	0.0	82.1	0.0	0.0	0.0	0.0	0.0	0.0	-73.7	-73.7
4k	GREPT59	614326	4747732	284.49	184.99	0	89.6	89.6	8490.8	55.5	4000.0	89.6	0.0	-1.5	0.0	0.0	278.2	0.0	0.0	0.0	0.0	0.0	0.0	-276.8	-276.8
8k	GREPT59	614326	4747732	284.49	184.99	0	85.2	85.2	8490.8	55.5	8000.0	89.6	0.0	-1.5	0.0	0.0	992.4	0.0	0.0	0.0	0.0	0.0	0.0	-995.3	-995.3
63	GREPT57	614355	4748118	284.5	185	0	82.4	82.4	8496.0	55.5	63.0	89.6	0.0	-4.9	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	-3.3	-3.3
125	GREPT57	614355	4748118	284.5	185	0	93.0	93.0	8496.0	55.5	125.0	89.6	0.0	1.2	0.0	0.0	3.5	0.0	0.0	0.0	0.0	0.0	0.0	-1.3	-1.3
250	GREPT57	614355	4748118	284.5	185	0	96.0	96.0	8496.0	55.5	250.0	89.6	0.0	-0.5	0.0	0.0	8.9	0.0	0.0	0.0	0.0	0.0	0.0	-2.0	-2.0
500	GREPT57	614355	4748118	284.5	185	0	99.8	99.8	8496.0	55.5	500.0	89.6	0.0	-1.5	0.0	0.0	16.4	0.0	0.0	0.0	0.0	0.0	0.0	-4.7	-4.7
1k	GREPT57	614355	4748118	284.5	185	0	100.1	100.1	8496.0	55.5	1000.0	89.6	0.0	-1.5	0.0	0.0	31.1	0.0	0.0	0.0	0.0	0.0	0.0	-19.1	-19.1
2k	GREPT57	614355	4748118	284.5	185	0	96.5	96.5	8496.0	55.5	2000.0	89.6	0.0	-1.5	0.0	0.0	82.1	0.0	0.0	0.0	0.0	0.0	0.0	-73.7	-73.7
4k	GREPT57	614355	4748118	284.5	185	0	89.6	89.6	8496.0	55.5	4000.0	89.6	0.0	-1.5	0.0	0.0	278.4	0.0	0.0	0.0	0.0	0.0	0.0	-276.9	-276.9
8k	GREPT57	614355	4748118	284.5	185	0	85.2	85.2	8496.0	55.5	8000.0	89.6	0.0	-1.5	0.0	0.0	993.0	0.0	0.0	0.0	0.0	0.0	0.0	-995.9	-995.9
63	T19	620379.61	4755516.08	299	175	0	86.3	86.3	8685.2	63.3	63.0	89.8	0.0	-4.7	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
125	T19	620379.61	4755516.08	299	175	0	91.7	91.7	8685.2	63.3	125.0	89.8	0.0	1.3	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0	-2.9	-2.9
250	T19	620379.61	4755516.08	299	175	0	98.7	98.7	8685.2	63.3	250.0	89.8	0.0	-0.4	0.0	0.0	9.1	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3
500	T19	620379.61	4755516.08	299	175	0	100.8	100.8	8685.2	63.3	500.0	89.8	0.0	-1.4	0.0	0.0	16.7	0.0	0.0	0.0	0.0	0.0	0.0	-4.3	-4.3
1k	T19	620379.61	4755516.08	299	175	0	98.3	98.3	8685.2	63.3	1000.0	89.8	0.0	-1.4	0.0	0.0	31.8	0.0	0.0	0.0	0.0	0.0	0.0	-21.8	-21.8
2k	T19	620379.61	4755516.08	299	175	0	92.8	92.8	8685.2	63.3	2000.0	89.8	0.0	-1.4	0.0	0.0	83.9	0.0	0.0	0.0	0.0	0.0	0.0	-79.5	-79.5
4k	T19	620379.61	4755516.08	299	175	0	85.9	85.9	8685.2	63.3	4000.0	89.8	0.0	-1.4	0.0	0.0	284.6	0.0	0.0	0.0	0.0	0.0	0.0	-287.1	-287.1
8k	T19	620379.61	4755516.08	299	175	0	73.3	73.3	8685.2	63.3	8000.0	89.8	0.0	-1.4	0.0	0.0	1015.2	0.0	0.0	0.0	0.0	0.0	0.0	-1030.2	-1030.2
63	T82	618390	4754915	299	175	0	86.3	86.3	8907.8	63.1	63.0	90.0	0.0	-4.7	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1
125	T82	618390	4754915	299	175	0	91.7	91.7	8907.8	63.1	125.0	90.0	0.0	1.3	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	-3.2	-3.2
250	T82	618390	4754915	299	175	0	98.7	98.7	8907.8	63.1	250.0	90.0	0.0	-0.4	0.0	0.0	9.3	0.0	0.0	0.0	0.0	0.0	0.0	-0.2	-0.2
500	T82	618390	4754915	299	175	0	100.8	100.8	8907.8	63.1	500.0	90.0	0.0	-1.4	0.0	0.0	17.2	0.0	0.0	0.0	0.0	0.0	0.0	-5.0	-5.0
1k	T82	618390	4754915	299	175	0	98.3	98.3	8907.8	63.1	1000.0	90.0	0.0	-1.4	0.0	0.0	32.6	0.0	0.0	0.0	0.0	0.0	0.0	-22.9	-22.9
2k	T82	618390	4754915	299	175	0	92.8	92.8	8907.8	63.1	2000.0	90.0	0.0	-1.4	0.0	0.0	86.1	0.0	0.0	0.0	0.0	0.0	0.0	-81.9	-81.9
4k	T82	618390	4754915	299	175	0	85.9	85.9	8907.8	63.1	4000.0	90.0	0.0	-1.4	0.0	0.0	291.9	0.0	0.0	0.0	0.0	0.0	0.0	-294.6	-294.6
8k	T82	618390	4754915	299	175	0	73.3	73.3	8907.8	63.1	8000.0	90.0	0.0	-1.4	0.0	0.0	1041.2	0.0	0.0	0.0	0.0	0.0	0.0	-1056.5	-1056.5
63	T13	621410	4756122	299	175	0	86.3	86.3	9054.7	63.9	63.0	90.1	0.0	-4.7	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	-0.2	-0.2
125	T13	621410	4756122	299	175	0	91.7	91.7	9054.7	63.9	125.0	90.1	0.0	1.3	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	-3.4	-3.4
250	T13	621410	4756122	299	175	0	98.7	98.7	9054.7	63.9	250.0	90.1	0.0	-0.4	0.0	0.0	9.5	0.0	0.0	0.0	0.0	0.0	0.0	-0.4	-0.4
500	T13	621410	4756122	299	175	0	100.8	100.8	9054.7	63.9	500.0	90.1	0.0	-1.4	0.0	0.0	17.5	0.0	0.0	0.0	0.0	0.0	0.0	-5.4	-5.4
1k	T13	621410	4756122	299	175	0	98.3	98.3	9054.7	63.9	1000.0	90.1	0.0	-1.4	0.0	0.0	33.1	0.0	0.0	0.0	0.0	0.0	0.0	-23.5	-23.5
2k	T13	621410	4756122	299	175	0	92.8	92.8	9054.7	63.9	2000.0	90.1	0.0	-1.4	0.0	0.0	87.5	0.0	0.0	0.0	0.0	0.0	0.0	-83.4	-83.4
4k	T13	621410	4756122	299	175	0	85.9	85.9	9054.7	63.9	4000.0	90.1	0.0	-1.4	0.0	0.0	296.7	0.0	0.0	0.0	0.0	0.0	0.0	-299.5	-299.5
8k	T13	621410	4756122	299	175	0	73.3	73.3	9054.7	63.9	8000.0	90.1	0.0	-1.4	0.0	0.0	1058.3	0.0	0.0	0.0	0.0	0.0	0.0	-1073.8	-1073.8
63	ST2	622836.55	4754678.58	178.7	175	0	72.8	72.8	7503.6	4.4	63.0	88.5	0.0	-5.9	4.8	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	-15.5	-15.5
125	ST2	622836.55	4754678.58																						

250	T12	621135.3	4756407	299.2	175.2	0	98.7	98.7	9381.1	63.9	250.0	90.5	0.0	-0.5	0.0	0.0	9.8	0.0	0.0	0.0	0.0	0.0	-1.1	-1.1
500	T12	621135.3	4756407	299.2	175.2	0	100.8	100.8	9381.1	63.9	500.0	90.5	0.0	-1.4	0.0	0.0	18.1	0.0	0.0	0.0	0.0	0.0	-6.3	-6.3
1k	T12	621135.3	4756407	299.2	175.2	0	98.3	98.3	9381.1	63.9	1000.0	90.5	0.0	-1.4	0.0	0.0	34.3	0.0	0.0	0.0	0.0	0.0	-25.0	-25.0
2k	T12	621135.3	4756407	299.2	175.2	0	92.8	92.8	9381.1	63.9	2000.0	90.5	0.0	-1.4	0.0	0.0	90.7	0.0	0.0	0.0	0.0	0.0	-86.9	-86.9
4k	T12	621135.3	4756407	299.2	175.2	0	85.9	85.9	9381.1	63.9	4000.0	90.5	0.0	-1.4	0.0	0.0	307.4	0.0	0.0	0.0	0.0	0.0	-310.5	-310.5
8k	T12	621135.3	4756407	299.2	175.2	0	73.3	73.3	9381.1	63.9	8000.0	90.5	0.0	-1.4	0.0	0.0	1096.5	0.0	0.0	0.0	0.0	0.0	-1112.2	-1112.2
63	WF02	631758	4750750	270.92	175.92	0	86.0	86.0	9647.3	51.1	63.0	90.7	0.0	-5.1	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	-0.8	-0.8
125	WF02	631758	4750750	270.92	175.92	0	91.0	91.0	9647.3	51.1	125.0	90.7	0.0	1.2	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	-4.8	-4.8
250	WF02	631758	4750750	270.92	175.92	0	98.5	98.5	9647.3	51.1	250.0	90.7	0.0	-0.6	0.0	0.0	10.1	0.0	0.0	0.0	0.0	0.0	-1.7	-1.7
500	WF02	631758	4750750	270.92	175.92	0	95.4	95.4	9647.3	51.1	500.0	90.7	0.0	-1.5	0.0	0.0	18.6	0.0	0.0	0.0	0.0	0.0	-12.4	-12.4
1k	WF02	631758	4750750	270.92	175.92	0	98.5	98.5	9647.3	51.1	1000.0	90.7	0.0	-1.5	0.0	0.0	35.3	0.0	0.0	0.0	0.0	0.0	-26.0	-26.0
2k	WF02	631758	4750750	270.92	175.92	0	97.7	97.7	9647.3	51.1	2000.0	90.7	0.0	-1.5	0.0	0.0	93.2	0.0	0.0	0.0	0.0	0.0	-84.7	-84.7
4k	WF02	631758	4750750	270.92	175.92	0	96.7	96.7	9647.3	51.1	4000.0	90.7	0.0	-1.5	0.0	0.0	316.1	0.0	0.0	0.0	0.0	0.0	-308.6	-308.6
8k	WF02	631758	4750750	270.92	175.92	0	92.1	92.1	9647.3	51.1	8000.0	90.7	0.0	-1.5	0.0	0.0	1127.6	0.0	0.0	0.0	0.0	0.0	-1124.7	-1124.7
63	WF03	631921	4750541	271.25	176.25	0	86.0	86.0	9724.6	51.2	63.0	90.8	0.0	-5.1	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	-0.9	-0.9
125	WF03	631921	4750541	271.25	176.25	0	91.0	91.0	9724.6	51.2	125.0	90.8	0.0	1.2	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	-4.9	-4.9
250	WF03	631921	4750541	271.25	176.25	0	98.5	98.5	9724.6	51.2	250.0	90.8	0.0	-0.6	0.0	0.0	10.2	0.0	0.0	0.0	0.0	0.0	-1.9	-1.9
500	WF03	631921	4750541	271.25	176.25	0	95.4	95.4	9724.6	51.2	500.0	90.8	0.0	-1.5	0.0	0.0	18.8	0.0	0.0	0.0	0.0	0.0	-12.6	-12.6
1k	WF03	631921	4750541	271.25	176.25	0	98.5	98.5	9724.6	51.2	1000.0	90.8	0.0	-1.5	0.0	0.0	35.6	0.0	0.0	0.0	0.0	0.0	-26.3	-26.3
2k	WF03	631921	4750541	271.25	176.25	0	97.7	97.7	9724.6	51.2	2000.0	90.8	0.0	-1.5	0.0	0.0	94.0	0.0	0.0	0.0	0.0	0.0	-85.5	-85.5
4k	WF03	631921	4750541	271.25	176.25	0	96.7	96.7	9724.6	51.2	4000.0	90.8	0.0	-1.5	0.0	0.0	318.7	0.0	0.0	0.0	0.0	0.0	-311.2	-311.2
8k	WF03	631921	4750541	271.25	176.25	0	92.1	92.1	9724.6	51.2	8000.0	90.8	0.0	-1.5	0.0	0.0	1136.6	0.0	0.0	0.0	0.0	0.0	-1133.8	-1133.8
63	T91	620503.94	4756520.82	299.05	175.05	0	86.3	86.3	9623.8	63.7	63.0	90.7	0.0	-4.8	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	-0.7	-0.7
125	T91	620503.94	4756520.82	299.05	175.05	0	91.7	91.7	9623.8	63.7	125.0	90.7	0.0	1.2	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	-4.2	-4.2
250	T91	620503.94	4756520.82	299.05	175.05	0	98.7	98.7	9623.8	63.7	250.0	90.7	0.0	-0.5	0.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	-1.5	-1.5
500	T91	620503.94	4756520.82	299.05	175.05	0	100.8	100.8	9623.8	63.7	500.0	90.7	0.0	-1.4	0.0	0.0	18.6	0.0	0.0	0.0	0.0	0.0	-7.0	-7.0
1k	T91	620503.94	4756520.82	299.05	175.05	0	98.3	98.3	9623.8	63.7	1000.0	90.7	0.0	-1.4	0.0	0.0	35.2	0.0	0.0	0.0	0.0	0.0	-26.1	-26.1
2k	T91	620503.94	4756520.82	299.05	175.05	0	92.8	92.8	9623.8	63.7	2000.0	90.7	0.0	-1.4	0.0	0.0	93.0	0.0	0.0	0.0	0.0	0.0	-89.4	-89.4
4k	T91	620503.94	4756520.82	299.05	175.05	0	85.9	85.9	9623.8	63.7	4000.0	90.7	0.0	-1.4	0.0	0.0	315.4	0.0	0.0	0.0	0.0	0.0	-318.7	-318.7
8k	T91	620503.94	4756520.82	299.05	175.05	0	73.3	73.3	9623.8	63.7	8000.0	90.7	0.0	-1.4	0.0	0.0	1124.9	0.0	0.0	0.0	0.0	0.0	-1140.8	-1140.8
31.5	T11	620836	4756609.3	299.87	175.87	0	-39.4	-39.4	9636.7	64.1	32.0	90.7	0.0	-4.8	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	-125.6	-125.6
63	T11	620836	4756609.3	299.87	175.87	0	86.3	86.3	9636.7	64.1	63.0	90.7	0.0	-4.8	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	-0.8	-0.8
125	T11	620836	4756609.3	299.87	175.87	0	91.7	91.7	9636.7	64.1	125.0	90.7	0.0	1.2	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	-4.2	-4.2
250	T11	620836	4756609.3	299.87	175.87	0	98.7	98.7	9636.7	64.1	250.0	90.7	0.0	-0.5	0.0	0.0	10.1	0.0	0.0	0.0	0.0	0.0	-1.6	-1.6
500	T11	620836	4756609.3	299.87	175.87	0	100.8	100.8	9636.7	64.1	500.0	90.7	0.0	-1.4	0.0	0.0	18.6	0.0	0.0	0.0	0.0	0.0	-7.0	-7.0
1k	T11	620836	4756609.3	299.87	175.87	0	98.3	98.3	9636.7	64.1	1000.0	90.7	0.0	-1.4	0.0	0.0	35.3	0.0	0.0	0.0	0.0	0.0	-26.2	-26.2
2k	T11	620836	4756609.3	299.87	175.87	0	92.8	92.8	9636.7	64.1	2000.0	90.7	0.0	-1.4	0.0	0.0	93.1	0.0	0.0	0.0	0.0	0.0	-89.6	-89.6
4k	T11	620836	4756609.3	299.87	175.87	0	85.9	85.9	9636.7	64.1	4000.0	90.7	0.0	-1.4	0.0	0.0	315.8	0.0	0.0	0.0	0.0	0.0	-319.1	-319.1
8k	T11	620836	4756609.3	299.87	175.87	0	73.3	73.3	9636.7	64.1	8000.0	90.7	0.0	-1.4	0.0	0.0	1126.4	0.0	0.0	0.0	0.0	0.0	-1142.3	-1142.3
31.5	T41	620998	4756850.97	300.43	176.43	0	-39.4	-39.4	9842.6	64.5	32.0	90.9	0.0	-4.8	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	-125.8	-125.8
63	T41	620998	4756850.97	300.43	176.43	0	86.3	86.3	9842.6	64.5	63.0	90.9	0.0	-4.8	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	-0.9	-0.9
125	T41	620998	4756850.97	300.43	176.43	0	91.7	91.7	9842.6	64.5	125.0	90.9	0.0	1.2	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	-4.4	-4.4
250	T41	620998	4756850.97	300.43	176.43	0	98.7	98.7	9842.6	64.5	250.0	90.9	0.0	-0.5	0.0	0.0	10.3	0.0	0.0	0.0	0.0	0.0	-2.0	-2.0
500	T41	620998	4756850.97	300.43	176.43	0	100.8	100.8	9842.6	64.5	500.0	90.9	0.0	-1.5	0.0	0.0	19.0	0.0	0.0	0.0	0.0	0.0	-7.6	-7.6
1k	T41	620998	4756850.97	300.43	176.43	0	98.3	98.3	9842.6	64.5	1000.0	90.9	0.0	-1.5	0.0	0.0	36.0	0.0	0.0	0.0	0.0	0.0	-27.1	-27.1
2k	T41	620998	4756850.97	300.43	176.43	0	92.8	92.8	9842.6	64.5	2000.0	90.9	0.0	-1.5	0.0	0.0	95.1	0.0	0.0	0.0	0.0	0.0	-91.7	-91.7
4k	T41	620998	4756850.97	300.43	176.43	0	85.9	85.9	9842.6	64.5	4000.0	90.9	0.0	-1.5	0.0	0.0	322.5	0.0	0.0	0.0	0.0	0.0	-326.1	-326.1
8k	T41	620998	4756850.97	300.43	176.43	0	73.3	73.3	9842.6	64.5	8000.0	90.9	0.0	-1.5	0.0	0.0	1150.4	0.0	0.0	0.0	0.0	0.0	-1166.5	-1166.5
63	WF04	632750	4748389	273.81	178.81	0	86.0	86.0	10026.2	52.6	63.0	91.0	0.0	-5.1	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	-1.1	-1.1
125	WF04	632750	4748389	273.81	178.81	0	91.0	91.0	10026.2	52.6	125.0	91.0	0.0	1.2	0.0	0.0	4.1	0.0	0.0	0.0	0.0	0.0	-5.3	-5.3
250	WF04	632750	4748389	273.81	178.81	0	98.5	98.5	10026.2	52.6	250.0	91.0	0.0	-0.6	0.0	0.0	10.5	0.0	0.0	0.0	0.0	0.0	-2.4	-2.4
500	WF04	632750	4748389	273.81	178.81	0	95.4	95.4	10026.2	52.6	500.0	91.0	0.0	-1.5	0.0	0.0	19.3	0.0	0.0	0.0	0.0	0.0	-13.4	-13.4
1k	WF04	632750	4748389	273.81	178.81	0	98.5	98.5	10026.2	52.6	1000.0	91.0	0.0	-1.5	0.0	0.0	36.7	0.0	0.0	0.0	0.0	0.0	-27.7	-27.7
2k	WF04	632750	4748389	273.81	178.81	0	97.7	97.7	10026.2	52.6	2000.0	91.0	0.0	-1.5	0.0	0.0	96.9	0.0	0.0	0.0	0.0	0.0	-88.7	-88.7
4k	WF04	632750	4748389																					

4k	T72	620828	4757122	301.26	177.26	0	85.9	85.9	10140.8	64.9	4000.0	91.1	0.0	-1.5	0.0	0.0	332.3	0.0	0.0	0.0	0.0	0.0	0.0	-336.1	-336.1
8k	T72	620828	4757122	301.26	177.26	0	73.3	73.3	10140.8	64.9	8000.0	91.1	0.0	-1.5	0.0	0.0	1185.3	0.0	0.0	0.0	0.0	0.0	0.0	-1201.6	-1201.6
63	T37	623038.4	4758881	299	175	0	86.3	86.3	11708.9	64.5	63.0	92.4	0.0	-5.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	-2.5	-2.5
125	T37	623038.4	4758881	299	175	0	91.7	91.7	11708.9	64.5	125.0	92.4	0.0	1.2	0.0	0.0	4.8	0.0	0.0	0.0	0.0	0.0	0.0	-6.7	-6.7
250	T37	623038.4	4758881	299	175	0	98.7	98.7	11708.9	64.5	250.0	92.4	0.0	-0.5	0.0	0.0	12.2	0.0	0.0	0.0	0.0	0.0	0.0	-5.4	-5.4
500	T37	623038.4	4758881	299	175	0	100.8	100.8	11708.9	64.5	500.0	92.4	0.0	-1.5	0.0	0.0	22.6	0.0	0.0	0.0	0.0	0.0	0.0	-12.6	-12.6
1k	T37	623038.4	4758881	299	175	0	98.3	98.3	11708.9	64.5	1000.0	92.4	0.0	-1.5	0.0	0.0	42.8	0.0	0.0	0.0	0.0	0.0	0.0	-35.4	-35.4
2k	T37	623038.4	4758881	299	175	0	92.8	92.8	11708.9	64.5	2000.0	92.4	0.0	-1.5	0.0	0.0	113.2	0.0	0.0	0.0	0.0	0.0	0.0	-111.2	-111.2
4k	T37	623038.4	4758881	299	175	0	85.9	85.9	11708.9	64.5	4000.0	92.4	0.0	-1.5	0.0	0.0	383.7	0.0	0.0	0.0	0.0	0.0	0.0	-388.7	-388.7
8k	T37	623038.4	4758881	299	175	0	73.3	73.3	11708.9	64.5	8000.0	92.4	0.0	-1.5	0.0	0.0	1368.6	0.0	0.0	0.0	0.0	0.0	0.0	-1386.1	-1386.1
63	T10	623259.47	4758989.94	299	175	0	86.3	86.3	11824.4	64.5	63.0	92.5	0.0	-5.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	-2.6	-2.6
125	T10	623259.47	4758989.94	299	175	0	91.7	91.7	11824.4	64.5	125.0	92.5	0.0	1.2	0.0	0.0	4.9	0.0	0.0	0.0	0.0	0.0	0.0	-6.8	-6.8
250	T10	623259.47	4758989.94	299	175	0	98.7	98.7	11824.4	64.5	250.0	92.5	0.0	-0.5	0.0	0.0	12.3	0.0	0.0	0.0	0.0	0.0	0.0	-5.6	-5.6
500	T10	623259.47	4758989.94	299	175	0	100.8	100.8	11824.4	64.5	500.0	92.5	0.0	-1.5	0.0	0.0	22.8	0.0	0.0	0.0	0.0	0.0	0.0	-13.0	-13.0
1k	T10	623259.47	4758989.94	299	175	0	98.3	98.3	11824.4	64.5	1000.0	92.5	0.0	-1.5	0.0	0.0	43.3	0.0	0.0	0.0	0.0	0.0	0.0	-35.9	-35.9
2k	T10	623259.47	4758989.94	299	175	0	92.8	92.8	11824.4	64.5	2000.0	92.5	0.0	-1.5	0.0	0.0	114.3	0.0	0.0	0.0	0.0	0.0	0.0	-112.4	-112.4
4k	T10	623259.47	4758989.94	299	175	0	85.9	85.9	11824.4	64.5	4000.0	92.5	0.0	-1.5	0.0	0.0	387.5	0.0	0.0	0.0	0.0	0.0	0.0	-392.5	-392.5
8k	T10	623259.47	4758989.94	299	175	0	73.3	73.3	11824.4	64.5	8000.0	92.5	0.0	-1.5	0.0	0.0	1382.1	0.0	0.0	0.0	0.0	0.0	0.0	-1399.7	-1399.7
63	T95	622816.64	4760851	304	180	0	86.3	86.3	13676.4	67.0	63.0	93.7	0.0	-5.2	0.0	-0.7	1.7	0.0	0.0	0.0	0.0	0.0	0.0	-3.9	-3.9
125	T95	622816.64	4760851	304	180	0	91.7	91.7	13676.4	67.0	125.0	93.7	0.0	1.1	0.0	-0.7	5.6	0.0	0.0	0.0	0.0	0.0	0.0	-8.8	-8.8
250	T95	622816.64	4760851	304	180	0	98.7	98.7	13676.4	67.0	250.0	93.7	0.0	-0.6	0.0	-0.7	14.3	0.0	0.0	0.0	0.0	0.0	0.0	-8.7	-8.7
500	T95	622816.64	4760851	304	180	0	100.8	100.8	13676.4	67.0	500.0	93.7	0.0	-1.6	0.0	-0.7	26.4	0.0	0.0	0.0	0.0	0.0	0.0	-17.7	-17.7
1k	T95	622816.64	4760851	304	180	0	98.3	98.3	13676.4	67.0	1000.0	93.7	0.0	-1.6	0.0	-0.7	50.0	0.0	0.0	0.0	0.0	0.0	0.0	-43.9	-43.9
2k	T95	622816.64	4760851	304	180	0	92.8	92.8	13676.4	67.0	2000.0	93.7	0.0	-1.6	0.0	-0.7	132.2	0.0	0.0	0.0	0.0	0.0	0.0	-131.5	-131.5
4k	T95	622816.64	4760851	304	180	0	85.9	85.9	13676.4	67.0	4000.0	93.7	0.0	-1.6	0.0	-0.7	448.2	0.0	0.0	0.0	0.0	0.0	0.0	-454.5	-454.5
8k	T95	622816.64	4760851	304	180	0	73.3	73.3	13676.4	67.0	8000.0	93.7	0.0	-1.6	0.0	-0.7	1598.5	0.0	0.0	0.0	0.0	0.0	0.0	-1617.4	-1617.4
63	RFT	615270	4756417	250	175	0	87.6	87.6	11920.0	39.8	63.0	92.5	0.0	-5.4	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	-1.0	-1.0
125	RFT	615270	4756417	250	175	0	95.2	95.2	11920.0	39.8	125.0	92.5	0.0	1.1	0.0	0.0	4.9	0.0	0.0	0.0	0.0	0.0	0.0	-3.3	-3.3
250	RFT	615270	4756417	250	175	0	94.3	94.3	11920.0	39.8	250.0	92.5	0.0	-0.7	0.0	0.0	12.4	0.0	0.0	0.0	0.0	0.0	0.0	-10.0	-10.0
500	RFT	615270	4756417	250	175	0	97.1	97.1	11920.0	39.8	500.0	92.5	0.0	-1.6	0.0	0.0	23.0	0.0	0.0	0.0	0.0	0.0	0.0	-16.8	-16.8
1k	RFT	615270	4756417	250	175	0	98.9	98.9	11920.0	39.8	1000.0	92.5	0.0	-1.6	0.0	0.0	43.6	0.0	0.0	0.0	0.0	0.0	0.0	-35.6	-35.6
2k	RFT	615270	4756417	250	175	0	94.6	94.6	11920.0	39.8	2000.0	92.5	0.0	-1.6	0.0	0.0	115.2	0.0	0.0	0.0	0.0	0.0	0.0	-111.5	-111.5
4k	RFT	615270	4756417	250	175	0	83.1	83.1	11920.0	39.8	4000.0	92.5	0.0	-1.6	0.0	0.0	390.6	0.0	0.0	0.0	0.0	0.0	0.0	-398.4	-398.4
8k	RFT	615270	4756417	250	175	0	75.8	75.8	11920.0	39.8	8000.0	92.5	0.0	-1.6	0.0	0.0	1393.2	0.0	0.0	0.0	0.0	0.0	0.0	-1408.3	-1408.3
63	T74	621655.82	4763002.28	314.65	179.65	0	86.3	86.3	15868.9	72.2	63.0	95.0	0.0	-5.2	0.0	0.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0	-5.4	-5.4
125	T74	621655.82	4763002.28	314.65	179.65	0	91.7	91.7	15868.9	72.2	125.0	95.0	0.0	1.1	0.0	0.0	6.5	0.0	0.0	0.0	0.0	0.0	0.0	-11.0	-11.0
250	T74	621655.82	4763002.28	314.65	179.65	0	98.7	98.7	15868.9	72.2	250.0	95.0	0.0	-0.6	0.0	0.0	16.6	0.0	0.0	0.0	0.0	0.0	0.0	-12.3	-12.3
500	T74	621655.82	4763002.28	314.65	179.65	0	100.8	100.8	15868.9	72.2	500.0	95.0	0.0	-1.6	0.0	0.0	30.6	0.0	0.0	0.0	0.0	0.0	0.0	-23.2	-23.2
1k	T74	621655.82	4763002.28	314.65	179.65	0	98.3	98.3	15868.9	72.2	1000.0	95.0	0.0	-1.6	0.0	0.0	58.0	0.0	0.0	0.0	0.0	0.0	0.0	-53.2	-53.2
2k	T74	621655.82	4763002.28	314.65	179.65	0	92.8	92.8	15868.9	72.2	2000.0	95.0	0.0	-1.6	0.0	0.0	153.4	0.0	0.0	0.0	0.0	0.0	0.0	-154.0	-154.0
4k	T74	621655.82	4763002.28	314.65	179.65	0	85.9	85.9	15868.9	72.2	4000.0	95.0	0.0	-1.6	0.0	0.0	520.0	0.0	0.0	0.0	0.0	0.0	0.0	-527.6	-527.6
8k	T74	621655.82	4763002.28	314.65	179.65	0	73.3	73.3	15868.9	72.2	8000.0	95.0	0.0	-1.6	0.0	0.0	1854.8	0.0	0.0	0.0	0.0	0.0	0.0	-1874.9	-1874.9
63	T09	616789.8	4762576.13	304	180	0	86.3	86.3	16531.9	67.4	63.0	95.4	0.0	-5.3	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	-5.8	-5.8
125	T09	616789.8	4762576.13	304	180	0	91.7	91.7	16531.9	67.4	125.0	95.4	0.0	1.1	0.0	0.0	6.8	0.0	0.0	0.0	0.0	0.0	0.0	-11.6	-11.6
250	T09	616789.8	4762576.13	304	180	0	98.7	98.7	16531.9	67.4	250.0	95.4	0.0	-0.6	0.0	0.0	17.3	0.0	0.0	0.0	0.0	0.0	0.0	-13.3	-13.3
500	T09	616789.8	4762576.13	304	180	0	100.8	100.8	16531.9	67.4	500.0	95.4	0.0	-1.6	0.0	0.0	31.9	0.0	0.0	0.0	0.0	0.0	0.0	-24.9	-24.9
1k	T09	616789.8	4762576.13	304	180	0	98.3	98.3	16531.9	67.4	1000.0	95.4	0.0	-1.6	0.0	0.0	60.5	0.0	0.0	0.0	0.0	0.0	0.0	-55.9	-55.9
2k	T09	616789.8	4762576.13	304	180	0	92.8	92.8	16531.9	67.4	2000.0	95.4	0.0	-1.6	0.0	0.0	159.8	0.0	0.0	0.0	0.0	0.0	0.0	-160.7	-160.7
4k	T09	616789.8	4762576.13	304	180	0	85.9	85.9	16531.9	67.4	4000.0	95.4	0.0	-1.6	0.0	0.0	541.8	0.0	0.0	0.0	0.0	0.0	0.0	-549.6	-549.6
8k	T09	616789.8	4762576.13	304	180	0	73.3	73.3	16531.9	67.4	8000.0	95.4	0.0	-1.6	0.0	0.0	1932.3	0.0	0.0	0.0	0.0	0.0	0.0	-1952.8	-1952.8
63	T51	617020.3	4762751.78	304	180	0	86.3	86.3	16614.1	67.3	63.0	95.4	0.0	-5.3	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	-5.8	-5.8
125	T51	617020.3	4762751.78	304	180	0	91.7	91.7	16614.1	67.3	125.0	95.4	0.0	1.1	0.0	0.0	6.8	0.0	0.0	0.0	0.0	0.0	0.0	-11.6	-11.6
250	T51	617020.3	4762751.78	304	180	0	98.7	98.7	16614.1	67.3	250.0	95.4	0.0	-0.6	0.0	0.0	17.3	0.0	0						

1k	T55	623610.33	4764393.4	315	180	0	98.3	98.3	17238.0	72.9	1000.0	95.7	0.0	-1.6	0.0	0.0	63.1	0.0	0.0	0.0	0.0	0.0	0.0	-58.9	-58.9
2k	T55	623610.33	4764393.4	315	180	0	92.8	92.8	17238.0	72.9	2000.0	95.7	0.0	-1.6	0.0	0.0	166.6	0.0	0.0	0.0	0.0	0.0	0.0	-167.9	-167.9
4k	T55	623610.33	4764393.4	315	180	0	85.9	85.9	17238.0	72.9	4000.0	95.7	0.0	-1.6	0.0	0.0	564.9	0.0	0.0	0.0	0.0	0.0	0.0	-573.1	-573.1
8k	T55	623610.33	4764393.4	315	180	0	73.3	73.3	17238.0	72.9	8000.0	95.7	0.0	-1.6	0.0	0.0	2014.8	0.0	0.0	0.0	0.0	0.0	0.0	-2035.7	-2035.7
63	T32	624780.53	4764409.82	304	180	0	86.3	86.3	17348.8	67.8	63.0	95.8	0.0	-5.3	0.0	0.0	2.1	0.0	0.0	0.0	0.0	0.0	0.0	-6.3	-6.3
125	T32	624780.53	4764409.82	304	180	0	91.7	91.7	17348.8	67.8	125.0	95.8	0.0	1.1	0.0	0.0	7.1	0.0	0.0	0.0	0.0	0.0	0.0	-12.3	-12.3
250	T32	624780.53	4764409.82	304	180	0	98.7	98.7	17348.8	67.8	250.0	95.8	0.0	-0.6	0.0	0.0	18.1	0.0	0.0	0.0	0.0	0.0	0.0	-14.6	-14.6
500	T32	624780.53	4764409.82	304	180	0	100.8	100.8	17348.8	67.8	500.0	95.8	0.0	-1.6	0.0	0.0	33.5	0.0	0.0	0.0	0.0	0.0	0.0	-26.8	-26.8
1k	T32	624780.53	4764409.82	304	180	0	98.3	98.3	17348.8	67.8	1000.0	95.8	0.0	-1.6	0.0	0.0	63.5	0.0	0.0	0.0	0.0	0.0	0.0	-59.3	-59.3
2k	T32	624780.53	4764409.82	304	180	0	92.8	92.8	17348.8	67.8	2000.0	95.8	0.0	-1.6	0.0	0.0	167.7	0.0	0.0	0.0	0.0	0.0	0.0	-169.0	-169.0
4k	T32	624780.53	4764409.82	304	180	0	85.9	85.9	17348.8	67.8	4000.0	95.8	0.0	-1.6	0.0	0.0	568.5	0.0	0.0	0.0	0.0	0.0	0.0	-576.8	-576.8
8k	T32	624780.53	4764409.82	304	180	0	73.3	73.3	17348.8	67.8	8000.0	95.8	0.0	-1.6	0.0	0.0	2027.8	0.0	0.0	0.0	0.0	0.0	0.0	-2048.7	-2048.7
31.5	T07	618635.59	4764052.89	304	180	0	-39.4	-39.4	17383.9	67.1	32.0	95.8	0.0	-5.3	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	-130.4	-130.4
63	T07	618635.59	4764052.89	304	180	0	86.3	86.3	17383.9	67.1	63.0	95.8	0.0	-5.3	0.0	0.0	2.1	0.0	0.0	0.0	0.0	0.0	0.0	-6.3	-6.3
125	T07	618635.59	4764052.89	304	180	0	91.7	91.7	17383.9	67.1	125.0	95.8	0.0	1.1	0.0	0.0	7.1	0.0	0.0	0.0	0.0	0.0	0.0	-12.3	-12.3
250	T07	618635.59	4764052.89	304	180	0	98.7	98.7	17383.9	67.1	250.0	95.8	0.0	-0.6	0.0	0.0	18.1	0.0	0.0	0.0	0.0	0.0	0.0	-14.6	-14.6
500	T07	618635.59	4764052.89	304	180	0	100.8	100.8	17383.9	67.1	500.0	95.8	0.0	-1.6	0.0	0.0	33.5	0.0	0.0	0.0	0.0	0.0	0.0	-26.9	-26.9
1k	T07	618635.59	4764052.89	304	180	0	98.3	98.3	17383.9	67.1	1000.0	95.8	0.0	-1.6	0.0	0.0	63.6	0.0	0.0	0.0	0.0	0.0	0.0	-59.5	-59.5
2k	T07	618635.59	4764052.89	304	180	0	92.8	92.8	17383.9	67.1	2000.0	95.8	0.0	-1.6	0.0	0.0	168.0	0.0	0.0	0.0	0.0	0.0	0.0	-169.4	-169.4
4k	T07	618635.59	4764052.89	304	180	0	85.9	85.9	17383.9	67.1	4000.0	95.8	0.0	-1.6	0.0	0.0	569.7	0.0	0.0	0.0	0.0	0.0	0.0	-578.0	-578.0
8k	T07	618635.59	4764052.89	304	180	0	73.3	73.3	17383.9	67.1	8000.0	95.8	0.0	-1.6	0.0	0.0	2031.9	0.0	0.0	0.0	0.0	0.0	0.0	-2052.8	-2052.8
63	T75	621356.89	4764542.57	304	180	0	86.3	86.3	17427.6	66.7	63.0	95.8	0.0	-5.3	0.0	0.0	2.1	0.0	0.0	0.0	0.0	0.0	0.0	-6.3	-6.3
125	T75	621356.89	4764542.57	304	180	0	91.7	91.7	17427.6	66.7	125.0	95.8	0.0	1.1	0.0	0.0	7.2	0.0	0.0	0.0	0.0	0.0	0.0	-12.4	-12.4
250	T75	621356.89	4764542.57	304	180	0	98.7	98.7	17427.6	66.7	250.0	95.8	0.0	-0.6	0.0	0.0	18.2	0.0	0.0	0.0	0.0	0.0	0.0	-14.7	-14.7
500	T75	621356.89	4764542.57	304	180	0	100.8	100.8	17427.6	66.7	500.0	95.8	0.0	-1.6	0.0	0.0	33.6	0.0	0.0	0.0	0.0	0.0	0.0	-27.0	-27.0
1k	T75	621356.89	4764542.57	304	180	0	98.3	98.3	17427.6	66.7	1000.0	95.8	0.0	-1.6	0.0	0.0	63.7	0.0	0.0	0.0	0.0	0.0	0.0	-59.7	-59.7
2k	T75	621356.89	4764542.57	304	180	0	92.8	92.8	17427.6	66.7	2000.0	95.8	0.0	-1.6	0.0	0.0	168.4	0.0	0.0	0.0	0.0	0.0	0.0	-169.8	-169.8
4k	T75	621356.89	4764542.57	304	180	0	85.9	85.9	17427.6	66.7	4000.0	95.8	0.0	-1.6	0.0	0.0	571.1	0.0	0.0	0.0	0.0	0.0	0.0	-579.4	-579.4
8k	T75	621356.89	4764542.57	304	180	0	73.3	73.3	17427.6	66.7	8000.0	95.8	0.0	-1.6	0.0	0.0	2037.0	0.0	0.0	0.0	0.0	0.0	0.0	-2057.9	-2057.9
63	ST1	621959.7	4761728	182.29	178.59	0	72.8	72.8	14577.0	6.4	63.0	94.3	0.0	-6.0	4.8	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	-22.1	-22.1
125	ST1	621959.7	4761728	182.29	178.59	0	87.9	87.9	14577.0	6.4	125.0	94.3	0.0	3.8	1.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	-17.1	-17.1
250	ST1	621959.7	4761728	182.29	178.59	0	94.4	94.4	14577.0	6.4	250.0	94.3	0.0	0.9	3.8	0.0	15.2	0.0	0.0	0.0	0.0	0.0	0.0	-19.9	-19.9
500	ST1	621959.7	4761728	182.29	178.59	0	99.8	99.8	14577.0	6.4	500.0	94.3	0.0	-1.8	4.8	0.0	28.1	0.0	0.0	0.0	0.0	0.0	0.0	-25.6	-25.6
1k	ST1	621959.7	4761728	182.29	178.59	0	97.0	97.0	14577.0	6.4	1000.0	94.3	0.0	-1.8	4.8	0.0	53.3	0.0	0.0	0.0	0.0	0.0	0.0	-53.6	-53.6
2k	ST1	621959.7	4761728	182.29	178.59	0	93.2	93.2	14577.0	6.4	2000.0	94.3	0.0	-1.8	4.8	0.0	140.9	0.0	0.0	0.0	0.0	0.0	0.0	-144.9	-144.9
4k	ST1	621959.7	4761728	182.29	178.59	0	88.0	88.0	14577.0	6.4	4000.0	94.3	0.0	-1.8	4.8	0.0	477.7	0.0	0.0	0.0	0.0	0.0	0.0	-487.0	-487.0
8k	ST1	621959.7	4761728	182.29	178.59	0	78.9	78.9	14577.0	6.4	8000.0	94.3	0.0	-1.8	4.8	0.0	1703.8	0.0	0.0	0.0	0.0	0.0	0.0	-1722.2	-1722.2
63	T34	626486	4764591.38	304	180	0	86.3	86.3	17802.9	66.3	63.0	96.0	0.0	-5.4	0.0	0.0	2.2	0.0	0.0	0.0	0.0	0.0	0.0	-6.5	-6.5
125	T34	626486	4764591.38	304	180	0	91.7	91.7	17802.9	66.3	125.0	96.0	0.0	1.1	0.0	0.0	7.3	0.0	0.0	0.0	0.0	0.0	0.0	-12.7	-12.7
250	T34	626486	4764591.38	304	180	0	98.7	98.7	17802.9	66.3	250.0	96.0	0.0	-0.6	0.0	0.0	18.6	0.0	0.0	0.0	0.0	0.0	0.0	-15.3	-15.3
500	T34	626486	4764591.38	304	180	0	100.8	100.8	17802.9	66.3	500.0	96.0	0.0	-1.6	0.0	0.0	34.3	0.0	0.0	0.0	0.0	0.0	0.0	-27.9	-27.9
1k	T34	626486	4764591.38	304	180	0	98.3	98.3	17802.9	66.3	1000.0	96.0	0.0	-1.6	0.0	0.0	65.1	0.0	0.0	0.0	0.0	0.0	0.0	-61.2	-61.2
2k	T34	626486	4764591.38	304	180	0	92.8	92.8	17802.9	66.3	2000.0	96.0	0.0	-1.6	0.0	0.0	172.1	0.0	0.0	0.0	0.0	0.0	0.0	-173.7	-173.7
4k	T34	626486	4764591.38	304	180	0	85.9	85.9	17802.9	66.3	4000.0	96.0	0.0	-1.6	0.0	0.0	583.4	0.0	0.0	0.0	0.0	0.0	0.0	-591.9	-591.9
8k	T34	626486	4764591.38	304	180	0	73.3	73.3	17802.9	66.3	8000.0	96.0	0.0	-1.6	0.0	0.0	2080.8	0.0	0.0	0.0	0.0	0.0	0.0	-2101.9	-2101.9
63	T35	627163.52	4764483.09	304	180	0	86.3	86.3	17850.5	66.4	63.0	96.0	0.0	-5.4	0.0	0.0	2.2	0.0	0.0	0.0	0.0	0.0	0.0	-6.6	-6.6
125	T35	627163.52	4764483.09	304	180	0	91.7	91.7	17850.5	66.4	125.0	96.0	0.0	1.1	0.0	0.0	7.3	0.0	0.0	0.0	0.0	0.0	0.0	-12.8	-12.8
250	T35	627163.52	4764483.09	304	180	0	98.7	98.7	17850.5	66.4	250.0	96.0	0.0	-0.6	0.0	0.0	18.6	0.0	0.0	0.0	0.0	0.0	0.0	-15.3	-15.3
500	T35	627163.52	4764483.09	304	180	0	100.8	100.8	17850.5	66.4	500.0	96.0	0.0	-1.6	0.0	0.0	34.4	0.0	0.0	0.0	0.0	0.0	0.0	-28.0	-28.0
1k	T35	627163.52	4764483.09	304	180	0	98.3	98.3	17850.5	66.4	1000.0	96.0	0.0	-1.6	0.0	0.0	65.3	0.0	0.0	0.0	0.0	0.0	0.0	-61.4	-61.4
2k	T35	627163.52	4764483.09	304	180	0	92.8	92.8	17850.5	66.4	2000.0	96.0	0.0	-1.6	0.0	0.0	172.5	0.0	0.0	0.0	0.0	0.0	0.0	-174.1	-174.1
4k	T35	627163.52	4764483.09	304	180	0	85.9	85.9	17850.5	66.4	4000.0	96.0	0.0	-1.6	0.0	0.0	585.0	0.0	0.0	0.0	0.0	0.0	0.0	-593.5	-593.5
8k	T35	627163.52	4764483.09	304	180	0	73.3	73.3	17850.5	66.4															

125	T78	628581	4764783	304	180	0	91.7	91.7	18533.7	66.5	125.0	96.4	0.0	1.1	0.0	0.0	7.6	0.0	0.0	0.0	0.0	0.0	0.0	-13.4	-13.4
250	T78	628581	4764783	304	180	0	98.7	98.7	18533.7	66.5	250.0	96.4	0.0	-0.6	0.0	0.0	19.3	0.0	0.0	0.0	0.0	0.0	0.0	-16.4	-16.4
500	T78	628581	4764783	304	180	0	100.8	100.8	18533.7	66.5	500.0	96.4	0.0	-1.6	0.0	0.0	35.7	0.0	0.0	0.0	0.0	0.0	0.0	-29.7	-29.7
1k	T78	628581	4764783	304	180	0	98.3	98.3	18533.7	66.5	1000.0	96.4	0.0	-1.6	0.0	0.0	67.8	0.0	0.0	0.0	0.0	0.0	0.0	-64.2	-64.2
2k	T78	628581	4764783	304	180	0	92.8	92.8	18533.7	66.5	2000.0	96.4	0.0	-1.6	0.0	0.0	179.1	0.0	0.0	0.0	0.0	0.0	0.0	-181.1	-181.1
4k	T78	628581	4764783	304	180	0	85.9	85.9	18533.7	66.5	4000.0	96.4	0.0	-1.6	0.0	0.0	607.4	0.0	0.0	0.0	0.0	0.0	0.0	-616.2	-616.2
8k	T78	628581	4764783	304	180	0	73.3	73.3	18533.7	66.5	8000.0	96.4	0.0	-1.6	0.0	0.0	2166.3	0.0	0.0	0.0	0.0	0.0	0.0	-2187.7	-2187.7
63	T76	623639.91	4765719.45	304	180	0	86.3	86.3	18563.9	67.1	63.0	96.4	0.0	-5.4	0.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	-7.0	-7.0
125	T76	623639.91	4765719.45	304	180	0	91.7	91.7	18563.9	67.1	125.0	96.4	0.0	1.1	0.0	0.0	7.6	0.0	0.0	0.0	0.0	0.0	0.0	-13.4	-13.4
250	T76	623639.91	4765719.45	304	180	0	98.7	98.7	18563.9	67.1	250.0	96.4	0.0	-0.6	0.0	0.0	19.4	0.0	0.0	0.0	0.0	0.0	0.0	-16.4	-16.4
500	T76	623639.91	4765719.45	304	180	0	100.8	100.8	18563.9	67.1	500.0	96.4	0.0	-1.6	0.0	0.0	35.8	0.0	0.0	0.0	0.0	0.0	0.0	-29.8	-29.8
1k	T76	623639.91	4765719.45	304	180	0	98.3	98.3	18563.9	67.1	1000.0	96.4	0.0	-1.6	0.0	0.0	67.9	0.0	0.0	0.0	0.0	0.0	0.0	-64.4	-64.4
2k	T76	623639.91	4765719.45	304	180	0	92.8	92.8	18563.9	67.1	2000.0	96.4	0.0	-1.6	0.0	0.0	179.4	0.0	0.0	0.0	0.0	0.0	0.0	-181.4	-181.4
4k	T76	623639.91	4765719.45	304	180	0	85.9	85.9	18563.9	67.1	4000.0	96.4	0.0	-1.6	0.0	0.0	608.3	0.0	0.0	0.0	0.0	0.0	0.0	-617.2	-617.2
8k	T76	623639.91	4765719.45	304	180	0	73.3	73.3	18563.9	67.1	8000.0	96.4	0.0	-1.6	0.0	0.0	2169.8	0.0	0.0	0.0	0.0	0.0	0.0	-2191.2	-2191.2
63	T01	622985.76	4765745.26	306.25	182.25	0	86.3	86.3	18571.5	68.0	63.0	96.4	0.0	-5.4	0.0	-0.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0	-7.0	-7.0
125	T01	622985.76	4765745.26	306.25	182.25	0	91.7	91.7	18571.5	68.0	125.0	96.4	0.0	1.1	0.0	-0.3	7.6	0.0	0.0	0.0	0.0	0.0	0.0	-13.4	-13.4
250	T01	622985.76	4765745.26	306.25	182.25	0	98.7	98.7	18571.5	68.0	250.0	96.4	0.0	-0.6	0.0	-0.3	19.4	0.0	0.0	0.0	0.0	0.0	0.0	-16.4	-16.4
500	T01	622985.76	4765745.26	306.25	182.25	0	100.8	100.8	18571.5	68.0	500.0	96.4	0.0	-1.6	0.0	-0.3	35.8	0.0	0.0	0.0	0.0	0.0	0.0	-29.8	-29.8
1k	T01	622985.76	4765745.26	306.25	182.25	0	98.3	98.3	18571.5	68.0	1000.0	96.4	0.0	-1.6	0.0	-0.3	67.9	0.0	0.0	0.0	0.0	0.0	0.0	-64.4	-64.4
2k	T01	622985.76	4765745.26	306.25	182.25	0	92.8	92.8	18571.5	68.0	2000.0	96.4	0.0	-1.6	0.0	-0.3	179.5	0.0	0.0	0.0	0.0	0.0	0.0	-181.4	-181.4
4k	T01	622985.76	4765745.26	306.25	182.25	0	85.9	85.9	18571.5	68.0	4000.0	96.4	0.0	-1.6	0.0	-0.3	608.6	0.0	0.0	0.0	0.0	0.0	0.0	-617.5	-617.5
8k	T01	622985.76	4765745.26	306.25	182.25	0	73.3	73.3	18571.5	68.0	8000.0	96.4	0.0	-1.6	0.0	-0.3	2170.7	0.0	0.0	0.0	0.0	0.0	0.0	-2192.1	-2192.1
63	T54	619944	4765594	304	180	0	86.3	86.3	18639.1	66.1	63.0	96.4	0.0	-5.4	0.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	-7.0	-7.0
125	T54	619944	4765594	304	180	0	91.7	91.7	18639.1	66.1	125.0	96.4	0.0	1.1	0.0	0.0	7.7	0.0	0.0	0.0	0.0	0.0	0.0	-13.4	-13.4
250	T54	619944	4765594	304	180	0	98.7	98.7	18639.1	66.1	250.0	96.4	0.0	-0.6	0.0	0.0	19.5	0.0	0.0	0.0	0.0	0.0	0.0	-16.5	-16.5
500	T54	619944	4765594	304	180	0	100.8	100.8	18639.1	66.1	500.0	96.4	0.0	-1.6	0.0	0.0	35.9	0.0	0.0	0.0	0.0	0.0	0.0	-29.9	-29.9
1k	T54	619944	4765594	304	180	0	98.3	98.3	18639.1	66.1	1000.0	96.4	0.0	-1.6	0.0	0.0	68.2	0.0	0.0	0.0	0.0	0.0	0.0	-64.7	-64.7
2k	T54	619944	4765594	304	180	0	92.8	92.8	18639.1	66.1	2000.0	96.4	0.0	-1.6	0.0	0.0	180.1	0.0	0.0	0.0	0.0	0.0	0.0	-182.1	-182.1
4k	T54	619944	4765594	304	180	0	85.9	85.9	18639.1	66.1	4000.0	96.4	0.0	-1.6	0.0	0.0	610.8	0.0	0.0	0.0	0.0	0.0	0.0	-619.7	-619.7
8k	T54	619944	4765594	304	180	0	73.3	73.3	18639.1	66.1	8000.0	96.4	0.0	-1.6	0.0	0.0	2178.6	0.0	0.0	0.0	0.0	0.0	0.0	-2200.1	-2200.1
63	T38	620669.21	4765751.77	304	180	0	86.3	86.3	18698.6	66.4	63.0	96.4	0.0	-5.4	0.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	-7.0	-7.0
125	T38	620669.21	4765751.77	304	180	0	91.7	91.7	18698.6	66.4	125.0	96.4	0.0	1.1	0.0	0.0	7.7	0.0	0.0	0.0	0.0	0.0	0.0	-13.5	-13.5
250	T38	620669.21	4765751.77	304	180	0	98.7	98.7	18698.6	66.4	250.0	96.4	0.0	-0.6	0.0	0.0	19.5	0.0	0.0	0.0	0.0	0.0	0.0	-16.6	-16.6
500	T38	620669.21	4765751.77	304	180	0	100.8	100.8	18698.6	66.4	500.0	96.4	0.0	-1.6	0.0	0.0	36.1	0.0	0.0	0.0	0.0	0.0	0.0	-30.1	-30.1
1k	T38	620669.21	4765751.77	304	180	0	98.3	98.3	18698.6	66.4	1000.0	96.4	0.0	-1.6	0.0	0.0	68.4	0.0	0.0	0.0	0.0	0.0	0.0	-64.9	-64.9
2k	T38	620669.21	4765751.77	304	180	0	92.8	92.8	18698.6	66.4	2000.0	96.4	0.0	-1.6	0.0	0.0	180.7	0.0	0.0	0.0	0.0	0.0	0.0	-182.7	-182.7
4k	T38	620669.21	4765751.77	304	180	0	85.9	85.9	18698.6	66.4	4000.0	96.4	0.0	-1.6	0.0	0.0	612.8	0.0	0.0	0.0	0.0	0.0	0.0	-621.7	-621.7
8k	T38	620669.21	4765751.77	304	180	0	73.3	73.3	18698.6	66.4	8000.0	96.4	0.0	-1.6	0.0	0.0	2185.5	0.0	0.0	0.0	0.0	0.0	0.0	-2207.1	-2207.1
63	T31	625150	4765821	309	185	0	86.3	86.3	18794.1	69.8	63.0	96.5	0.0	-5.4	0.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	-7.1	-7.1
125	T31	625150	4765821	309	185	0	91.7	91.7	18794.1	69.8	125.0	96.5	0.0	1.1	0.0	0.0	7.7	0.0	0.0	0.0	0.0	0.0	0.0	-13.6	-13.6
250	T31	625150	4765821	309	185	0	98.7	98.7	18794.1	69.8	250.0	96.5	0.0	-0.6	0.0	0.0	19.6	0.0	0.0	0.0	0.0	0.0	0.0	-16.8	-16.8
500	T31	625150	4765821	309	185	0	100.8	100.8	18794.1	69.8	500.0	96.5	0.0	-1.6	0.0	0.0	36.2	0.0	0.0	0.0	0.0	0.0	0.0	-30.3	-30.3
1k	T31	625150	4765821	309	185	0	98.3	98.3	18794.1	69.8	1000.0	96.5	0.0	-1.6	0.0	0.0	68.7	0.0	0.0	0.0	0.0	0.0	0.0	-65.3	-65.3
2k	T31	625150	4765821	309	185	0	92.8	92.8	18794.1	69.8	2000.0	96.5	0.0	-1.6	0.0	0.0	181.6	0.0	0.0	0.0	0.0	0.0	0.0	-183.7	-183.7
4k	T31	625150	4765821	309	185	0	85.9	85.9	18794.1	69.8	4000.0	96.5	0.0	-1.6	0.0	0.0	615.9	0.0	0.0	0.0	0.0	0.0	0.0	-624.9	-624.9
8k	T31	625150	4765821	309	185	0	73.3	73.3	18794.1	69.8	8000.0	96.5	0.0	-1.6	0.0	0.0	2196.7	0.0	0.0	0.0	0.0	0.0	0.0	-2218.3	-2218.3
63	T36	622378.63	4763063.13	310	175	0	86.6	86.6	15894.1	70.4	63.0	95.0	0.0	-5.2	0.0	0.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0	-5.2	-5.2
125	T36	622378.63	4763063.13	310	175	0	94.7	94.7	15894.1	70.4	125.0	95.0	0.0	1.1	0.0	0.0	6.5	0.0	0.0	0.0	0.0	0.0	0.0	-8.0	-8.0
250	T36	622378.63	4763063.13	310	175	0	94.4	94.4	15894.1	70.4	250.0	95.0	0.0	-0.6	0.0	0.0	16.6	0.0	0.0	0.0	0.0	0.0	0.0	-16.6	-16.6
500	T36	622378.63	4763063.13	310	175	0	97.3	97.3	15894.1	70.4	500.0	95.0	0.0	-1.6	0.0	0.0	30.6	0.0	0.0	0.0	0.0	0.0	0.0	-26.8	-26.8
1k	T36	622378.63	4763063.13	310	175	0	98.7	98.7	15894.1	70.4	1000.0	95.0	0.0	-1.6	0.0	0.0	58.1	0.0	0.0	0.0	0.0	0.0	0.0	-52.9	-52.9
2k	T36	622378.63	4763063.13	310	175	0	93.8	93.8	15894.1	70.4	2000.0	95.0	0.0	-1.6	0.0	0.0	153.6	0.0	0.0						

8k	T97	617214.68	4765641.92	306.94	182.94	0	73.3	73.3	19292.8	68.0	8000.0	96.7	0.0	-1.6	0.0	0.0	2255.0	0.0	0.0	0.0	0.0	0.0	0.0	-2276.8	-2276.8
63	T02	627379.82	4765942.17	309	185	0	86.3	86.3	19318.7	68.4	63.0	96.7	0.0	-5.4	0.0	0.0	2.4	0.0	0.0	0.0	0.0	0.0	0.0	-7.4	-7.4
125	T02	627379.82	4765942.17	309	185	0	91.7	91.7	19318.7	68.4	125.0	96.7	0.0	1.1	0.0	0.0	7.9	0.0	0.0	0.0	0.0	0.0	0.0	-14.0	-14.0
250	T02	627379.82	4765942.17	309	185	0	98.7	98.7	19318.7	68.4	250.0	96.7	0.0	-0.7	0.0	0.0	20.2	0.0	0.0	0.0	0.0	0.0	0.0	-17.5	-17.5
500	T02	627379.82	4765942.17	309	185	0	100.8	100.8	19318.7	68.4	500.0	96.7	0.0	-1.6	0.0	0.0	37.2	0.0	0.0	0.0	0.0	0.0	0.0	-31.5	-31.5
1k	T02	627379.82	4765942.17	309	185	0	98.3	98.3	19318.7	68.4	1000.0	96.7	0.0	-1.6	0.0	0.0	70.7	0.0	0.0	0.0	0.0	0.0	0.0	-67.5	-67.5
2k	T02	627379.82	4765942.17	309	185	0	92.8	92.8	19318.7	68.4	2000.0	96.7	0.0	-1.6	0.0	0.0	186.7	0.0	0.0	0.0	0.0	0.0	0.0	-189.0	-189.0
4k	T02	627379.82	4765942.17	309	185	0	85.9	85.9	19318.7	68.4	4000.0	96.7	0.0	-1.6	0.0	0.0	633.1	0.0	0.0	0.0	0.0	0.0	0.0	-642.3	-642.3
8k	T02	627379.82	4765942.17	309	185	0	73.3	73.3	19318.7	68.4	8000.0	96.7	0.0	-1.6	0.0	0.0	2258.0	0.0	0.0	0.0	0.0	0.0	0.0	-2279.8	-2279.8
63	T08	614544.5	4764911.35	304.73	180.73	0	86.3	86.3	19562.9	67.0	63.0	96.8	0.0	-5.4	0.0	0.0	2.4	0.0	0.0	0.0	0.0	0.0	0.0	-7.5	-7.5
125	T08	614544.5	4764911.35	304.73	180.73	0	91.7	91.7	19562.9	67.0	125.0	96.8	0.0	1.1	0.0	0.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	-14.2	-14.2
250	T08	614544.5	4764911.35	304.73	180.73	0	98.7	98.7	19562.9	67.0	250.0	96.8	0.0	-0.7	0.0	0.0	20.4	0.0	0.0	0.0	0.0	0.0	0.0	-17.9	-17.9
500	T08	614544.5	4764911.35	304.73	180.73	0	100.8	100.8	19562.9	67.0	500.0	96.8	0.0	-1.6	0.0	0.0	37.7	0.0	0.0	0.0	0.0	0.0	0.0	-32.1	-32.1
1k	T08	614544.5	4764911.35	304.73	180.73	0	98.3	98.3	19562.9	67.0	1000.0	96.8	0.0	-1.6	0.0	0.0	71.6	0.0	0.0	0.0	0.0	0.0	0.0	-68.5	-68.5
2k	T08	614544.5	4764911.35	304.73	180.73	0	92.8	92.8	19562.9	67.0	2000.0	96.8	0.0	-1.6	0.0	0.0	189.1	0.0	0.0	0.0	0.0	0.0	0.0	-191.5	-191.5
4k	T08	614544.5	4764911.35	304.73	180.73	0	85.9	85.9	19562.9	67.0	4000.0	96.8	0.0	-1.6	0.0	0.0	641.1	0.0	0.0	0.0	0.0	0.0	0.0	-650.4	-650.4
8k	T08	614544.5	4764911.35	304.73	180.73	0	73.3	73.3	19562.9	67.0	8000.0	96.8	0.0	-1.6	0.0	0.0	2286.6	0.0	0.0	0.0	0.0	0.0	0.0	-2308.5	-2308.5
Limit. Value D/N:		40				40																			
Level D/N:		39.054				39.0538																			

Receiver: VNPOR0118
ID: V_1581
X: 622588
Y: 4747070
Z: 184.5
Ground: 180

ISO	ID	X	Y	Z	Ground	ReflOrd	LxT	LxN	Dist.	hm	Freq	Adiv	K0b	Agr	Abar	z	Aatm	Afol	Ahous	Cmet	CmetN	Dc	RL	LtotT	LtotN
63	MH05	623076.72	4746794.36	260	180		0	57.5	57.5	566.15	41.87	63	66.06	0	-3	0	0	0.07	0	0	0	0	0	-5.63	-5.63
125	MH05	623076.72	4746794.36	260	180		0	72.4	72.4	566.15	41.87	125	66.06	0	1.52	0	0	0.23	0	0	0	0	0	4.59	4.59
250	MH05	623076.72	4746794.36	260	180		0	82.7	82.7	566.15	41.87	250	66.06	0	0.07	0	0	0.59	0	0	0	0	0	15.98	15.98
500	MH05	623076.72	4746794.36	260	180		0	90.4	90.4	566.15	41.87	500	66.06	0	-0.9	0	0	1.09	0	0	0	0	0	24.15	24.15
1000	MH05	623076.72	4746794.36	260	180		0	96.8	96.8	566.15	41.87	1000	66.06	0	-0.9	0	0	2.07	0	0	0	0	0	29.57	29.57
2000	MH05	623076.72	4746794.36	260	180		0	97.2	97.2	566.15	41.87	2000	66.06	0	-0.9	0	0	5.47	0	0	0	0	0	26.57	26.57
4000	MH05	623076.72	4746794.36	260	180		0	96	96	566.15	41.87	4000	66.06	0	-0.9	0	0	18.55	0	0	0	0	0	12.29	12.29
8000	MH05	623076.72	4746794.36	260	180		0	89.2	89.2	566.15	41.87	8000	66.06	0	-0.9	0	0	66.17	0	0	0	0	0	-42.13	-42.13
63	MH02	622640.11	4746450.28	260.47	180.47		0	57.5	57.5	626.53	42.1	63	66.94	0	-3	0	0	0.08	0	0	0	0	0	-6.52	-6.52
125	MH02	622640.11	4746450.28	260.47	180.47		0	72.4	72.4	626.53	42.1	125	66.94	0	1.56	0	0	0.26	0	0	0	0	0	3.64	3.64
250	MH02	622640.11	4746450.28	260.47	180.47		0	82.7	82.7	626.53	42.1	250	66.94	0	0.07	0	0	0.65	0	0	0	0	0	15.03	15.03
500	MH02	622640.11	4746450.28	260.47	180.47		0	90.4	90.4	626.53	42.1	500	66.94	0	-0.9	0	0	1.21	0	0	0	0	0	23.15	23.15
1000	MH02	622640.11	4746450.28	260.47	180.47		0	96.8	96.8	626.53	42.1	1000	66.94	0	-0.9	0	0	2.29	0	0	0	0	0	28.47	28.47
2000	MH02	622640.11	4746450.28	260.47	180.47		0	97.2	97.2	626.53	42.1	2000	66.94	0	-0.9	0	0	6.05	0	0	0	0	0	25.11	25.11
4000	MH02	622640.11	4746450.28	260.47	180.47		0	96	96	626.53	42.1	4000	66.94	0	-0.9	0	0	20.53	0	0	0	0	0	9.43	9.43
8000	MH02	622640.11	4746450.28	260.47	180.47		0	89.2	89.2	626.53	42.1	8000	66.94	0	-0.9	0	0	73.23	0	0	0	0	0	-50.07	-50.07
63	MH04	623297	4746604	260	180		0	57.5	57.5	851.78	42.08	63	69.61	0	-3	0	0	0.1	0	0	0	0	0	-9.21	-9.21
125	MH04	623297	4746604	260	180		0	72.4	72.4	851.78	42.08	125	69.61	0	1.7	0	0	0.35	0	0	0	0	0	0.75	0.75
250	MH04	623297	4746604	260	180		0	82.7	82.7	851.78	42.08	250	69.61	0	0.07	0	0	0.89	0	0	0	0	0	12.13	12.13
500	MH04	623297	4746604	260	180		0	90.4	90.4	851.78	42.08	500	69.61	0	-0.9	0	0	1.64	0	0	0	0	0	20.05	20.05
1000	MH04	623297	4746604	260	180		0	96.8	96.8	851.78	42.08	1000	69.61	0	-0.9	0	0	3.12	0	0	0	0	0	24.98	24.98
2000	MH04	623297	4746604	260	180		0	97.2	97.2	851.78	42.08	2000	69.61	0	-0.9	0	0	8.23	0	0	0	0	0	20.26	20.26
4000	MH04	623297	4746604	260	180		0	96	96	851.78	42.08	4000	69.61	0	-0.9	0	0	27.91	0	0	0	0	0	-0.62	-0.62
8000	MH04	623297	4746604	260	180		0	89.2	89.2	851.78	42.08	8000	69.61	0	-0.9	0	0	99.56	0	0	0	0	0	-79.06	-79.06
63	T47	622482.87	4748446.93	314.34	179.34		0	86.3	86.3	1387.03	69.2	63	73.84	0	-3	0	0	0.17	0	0	0	0	0	15.29	15.29
125	T47	622482.87	4748446.93	314.34	179.34		0	91.7	91.7	1387.03	69.2	125	73.84	0	1.78	0	0	0.57	0	0	0	0	0	15.51	15.51
250	T47	622482.87	4748446.93	314.34	179.34		0	98.7	98.7	1387.03	69.2	250	73.84	0	0.07	0	0	1.45	0	0	0	0	0	23.34	23.34
500	T47	622482.87	4748446.93	314.34	179.34		0	100.8	100.8	1387.03	69.2	500	73.84	0	-0.9	0	0	2.67	0	0	0	0	0	25.18	25.18
1000	T47	622482.87	4748446.93	314.34	179.34		0	98.3	98.3	1387.03	69.2	1000	73.84	0	-0.9	0	0	5.07	0	0	0	0	0	20.28	20.28
2000	T47	622482.87	4748446.93	314.34	179.34		0	92.8	92.8	1387.03	69.2	2000	73.84	0	-0.9	0	0	13.4	0	0	0	0	0	6.45	6.45
4000	T47	622482.87	4748446.93	314.34	179.34		0	85.9	85.9	1387.03	69.2	4000	73.84	0	-0.9	0	0	45.45	0	0	0	0	0	-32.49	-32.49
8000	T47	622482.87	4748446.93	314.34	179.34		0	73.3	73.3	1387.03	69.2	8000	73.84	0	-0.9	0	0	162.12	0	0	0	0	0	-161.76	-161.76
63	T05	621171	4747754	303.78	179.78		0	86.3	86.3	1577.96	63.59	63	74.96	0	-3	0	0	0.19	0	0	0	0	0	14.15	14.15
125	T05	621171	4747754	303.78	179.78		0	91.7	91.7	1577.96	63.59	125	74.96	0	1.78	0	0	0.65	0	0	0	0	0	14.31	14.31
250	T05	621171	4747754	303.78	179.78		0	98.7	98.7	1577.96	63.59	250	74.96	0	0.07	0	0	1.65	0	0	0	0	0	22.02	22.02
500	T05	621171	4747754	303.78	179.78		0	100.8	100.8	1577.96	63.59	500	74.96	0	-0.9	0	0	3.04	0	0	0	0	0	23.7	23.7
1000	T05	621171	4747754	303.78	179.78		0	98.3	98.3	1577.96	63.59	1000	74.96	0	-0.9	0	0	5.77	0	0	0	0	0	18.47	18.47
2000	T05	621171	4747754	303.78	179.78		0	92.8	92.8	1577.96	63.59	2000	74.96	0	-0.9	0	0	15.25	0	0	0	0	0	3.49	3.49
4000	T05	621171	4747754	303.78	179.78		0	85.9	85.9	1577.96	63.59	4000	74.96	0	-0.9	0	0	51.71	0	0	0	0	0	-39.87	-39.87
8000	T05	621171	4747754	303.78	179.78		0	73.3	73.3	1577.96	63.59	8000	74.96	0	-0.9	0	0	184.44	0	0	0	0	0	-185.2	-185.2
63	T45	623159.98	4748650.44	313.11	178.11		0	86.3	86.3	1685.67	69.07	63	75.54	0	-3	0	0	0.21	0	0	0	0	0	13.56	13.56
125	T45	623159.98	4748650.44	313.11	178.11		0	91.7	91.7	1685.67	69.07	125	75.54	0	1.78	0	0	0.69	0	0	0	0	0	13.69	13.69
250	T45	623159.98	4748650.44	313.11	178.11		0	98.7	98.7	1685.67	69.07	250	75.54	0	0.07	0	0	1.76	0	0	0	0	0	21.33	21.33
500	T45	623159.98	4748650.44	313.11	178.11		0	100.8	100.8	1685.67	69.07	500	75.54	0	-0.9	0	0	3.25	0	0	0	0	0	22.91	22.91
1000	T45	623159.98	4748650.44	313.11	178.11		0	98.3	98.3	1685.67	69.07	1000	75.54	0	-0.9	0	0	6.17	0	0	0	0	0	17.5	17.5
2000	T45	623159.98	4748650.44	313.11	178.11		0	92.8	92.8	1685.67	69.07	2000	75.54	0	-0.9	0	0	16.29	0	0	0	0	0	1.87	1.87
4000	T45	623159.98	4748650.44	313.11	178.11		0	85.9	85.9	1685.67	69.07	4000	75.54	0	-0.9	0	0	55.24	0	0	0	0	0	-43.98	-43.98
8000	T45	623159.98	4748650.44	313.11	178.11		0	73.3	73.3	1685.67	69.07	8000	75.54	0	-0.9	0	0	197.02	0	0	0	0	0	-198.36	-198.36
63	MH06	622661	4745529	263.87	183.87		0	57.5	57.5	1544.77	42.95	63	74.78	0	-3	0	0	0.19	0	0	0	0	0	-14.47	-14.47
125	MH06	622661	4745529	263.87	183.87		0	72.4	72.4	1544.77	42.95	125	74.78	0	1.78	0	0	0.63	0	0	0	0	0	-4.79	-4.79
250	MH06	622661	4745529	263.87	183.87		0	82.7	82.7	1544.77	42.95	250	74.78	0	0.07	0	0	1.61	0	0	0	0	0	6.24	6.24
500	MH06	622661	4745529	263.87	183.87		0	90.4	90.4	1544.77	42.95	500	74.78	0	-0.9	0	0	2.98	0	0	0	0	0	13.54	13.54
1000	MH06	622661	4745529	263.87	183.87		0	96.8	96.8	1544.77	42.95	1000	74.78	0	-0.9	0	0	5.65	0	0	0	0	0	17.27	17.27
2000	MH06	622661	4745529	263.87	183.87		0	97.2	97.2	1544.77	42.95	2000	74.78	0	-0.9	0	0	14.93	0	0	0	0	0	8.39	8.39
4000	MH06	622661	4745529	263.87	183.87		0	96	96	1544.77	42.95	4000	74.78	0	-0.9	0	0	50.62	0	0	0	0	0	-28.5	-28.5
8000	MH06	622661	4745529	263.87	183.87																				

1000	T44	624350	4748471	301.84	177.84	0	98.3	98.3	2254.15	63.87	1000	78.06	0	-0.9	0	0	8.24	0	0	0	0	0	12.9	12.9
2000	T44	624350	4748471	301.84	177.84	0	92.8	92.8	2254.15	63.87	2000	78.06	0	-0.9	0	0	21.78	0	0	0	0	0	-6.14	-6.14
4000	T44	624350	4748471	301.84	177.84	0	85.9	85.9	2254.15	63.87	4000	78.06	0	-0.9	0	0	73.87	0	0	0	0	0	-65.13	-65.13
8000	T44	624350	4748471	301.84	177.84	0	73.3	73.3	2254.15	63.87	8000	78.06	0	-0.9	0	0	263.47	0	0	0	0	0	-267.33	-267.33
63	T46	622737	4748967.6	313	178	0	86.6	86.6	1907.77	69.11	63	76.61	0	-3	0	0	0.23	0	0	0	0	0	12.76	12.76
125	T46	622737	4748967.6	313	178	0	94.7	94.7	1907.77	69.11	125	76.61	0	1.78	0	0	0.78	0	0	0	0	0	15.52	15.52
250	T46	622737	4748967.6	313	178	0	94.4	94.4	1907.77	69.11	250	76.61	0	0.07	0	0	1.99	0	0	0	0	0	15.73	15.73
500	T46	622737	4748967.6	313	178	0	97.3	97.3	1907.77	69.11	500	76.61	0	-0.9	0	0	3.68	0	0	0	0	0	17.91	17.91
1000	T46	622737	4748967.6	313	178	0	98.7	98.7	1907.77	69.11	1000	76.61	0	-0.9	0	0	6.98	0	0	0	0	0	16.01	16.01
2000	T46	622737	4748967.6	313	178	0	93.8	93.8	1907.77	69.11	2000	76.61	0	-0.9	0	0	18.44	0	0	0	0	0	-0.35	-0.35
4000	T46	622737	4748967.6	313	178	0	81.5	81.5	1907.77	69.11	4000	76.61	0	-0.9	0	0	62.52	0	0	0	0	0	-56.73	-56.73
8000	T46	622737	4748967.6	313	178	0	73.4	73.4	1907.77	69.11	8000	76.61	0	-0.9	0	0	222.98	0	0	0	0	0	-225.29	-225.29
63	T14	624137	4748807	301.05	177.05	0	86.3	86.3	2330.27	63.72	63	78.35	0	-3	0	0	0.28	0	0	0	0	0	10.67	10.67
125	T14	624137	4748807	301.05	177.05	0	91.7	91.7	2330.27	63.72	125	78.35	0	1.78	0	0	0.96	0	0	0	0	0	10.61	10.61
250	T14	624137	4748807	301.05	177.05	0	98.7	98.7	2330.27	63.72	250	78.35	0	0.07	0	0	2.43	0	0	0	0	0	17.85	17.85
500	T14	624137	4748807	301.05	177.05	0	100.8	100.8	2330.27	63.72	500	78.35	0	-0.9	0	0	4.49	0	0	0	0	0	18.86	18.86
1000	T14	624137	4748807	301.05	177.05	0	98.3	98.3	2330.27	63.72	1000	78.35	0	-0.9	0	0	8.52	0	0	0	0	0	12.33	12.33
2000	T14	624137	4748807	301.05	177.05	0	92.8	92.8	2330.27	63.72	2000	78.35	0	-0.9	0	0	22.52	0	0	0	0	0	-7.17	-7.17
4000	T14	624137	4748807	301.05	177.05	0	85.9	85.9	2330.27	63.72	4000	78.35	0	-0.9	0	0	76.36	0	0	0	0	0	-67.91	-67.91
8000	T14	624137	4748807	301.05	177.05	0	73.3	73.3	2330.27	63.72	8000	78.35	0	-0.9	0	0	272.37	0	0	0	0	0	-276.51	-276.51
63	MH01	623355	4745400	268.15	188.15	0	57.5	57.5	1839.62	44.61	63	76.29	0	-3	0	0	0.22	0	0	0	0	0	-16.02	-16.02
125	MH01	623355	4745400	268.15	188.15	0	72.4	72.4	1839.62	44.61	125	76.29	0	1.78	0	0	0.76	0	0	0	0	0	-6.43	-6.43
250	MH01	623355	4745400	268.15	188.15	0	82.7	82.7	1839.62	44.61	250	76.29	0	0.07	0	0	1.92	0	0	0	0	0	4.41	4.41
500	MH01	623355	4745400	268.15	188.15	0	90.4	90.4	1839.62	44.61	500	76.29	0	-0.9	0	0	3.55	0	0	0	0	0	11.46	11.46
1000	MH01	623355	4745400	268.15	188.15	0	96.8	96.8	1839.62	44.61	1000	76.29	0	-0.9	0	0	6.73	0	0	0	0	0	14.68	14.68
2000	MH01	623355	4745400	268.15	188.15	0	97.2	97.2	1839.62	44.61	2000	76.29	0	-0.9	0	0	17.78	0	0	0	0	0	4.03	4.03
4000	MH01	623355	4745400	268.15	188.15	0	96	96	1839.62	44.61	4000	76.29	0	-0.9	0	0	60.28	0	0	0	0	0	-39.68	-39.68
8000	MH01	623355	4745400	268.15	188.15	0	89.2	89.2	1839.62	44.61	8000	76.29	0	-0.9	0	0	215.02	0	0	0	0	0	-201.21	-201.21
63	MH03	623974	4745737	265.45	185.45	0	57.5	57.5	1924.69	43.41	63	76.69	0	-3	0	0	0.23	0	0	0	0	0	-16.42	-16.42
125	MH03	623974	4745737	265.45	185.45	0	72.4	72.4	1924.69	43.41	125	76.69	0	1.78	0	0	0.79	0	0	0	0	0	-6.86	-6.86
250	MH03	623974	4745737	265.45	185.45	0	82.7	82.7	1924.69	43.41	250	76.69	0	0.07	0	0	2.01	0	0	0	0	0	3.93	3.93
500	MH03	623974	4745737	265.45	185.45	0	90.4	90.4	1924.69	43.41	500	76.69	0	-0.9	0	0	3.71	0	0	0	0	0	10.9	10.9
1000	MH03	623974	4745737	265.45	185.45	0	96.8	96.8	1924.69	43.41	1000	76.69	0	-0.9	0	0	7.04	0	0	0	0	0	13.97	13.97
2000	MH03	623974	4745737	265.45	185.45	0	97.2	97.2	1924.69	43.41	2000	76.69	0	-0.9	0	0	18.6	0	0	0	0	0	2.81	2.81
4000	MH03	623974	4745737	265.45	185.45	0	96	96	1924.69	43.41	4000	76.69	0	-0.9	0	0	63.07	0	0	0	0	0	-42.86	-42.86
8000	MH03	623974	4745737	265.45	185.45	0	89.2	89.2	1924.69	43.41	8000	76.69	0	-0.9	0	0	224.96	0	0	0	0	0	-211.55	-211.55
63	T22	624829.2	4748510	302.04	178.04	0	86.3	86.3	2666.53	64.05	63	79.52	0	-3	0	0	0.32	0	0	0	0	0	9.46	9.46
125	T22	624829.2	4748510	302.04	178.04	0	91.7	91.7	2666.53	64.05	125	79.52	0	1.78	0	0	1.1	0	0	0	0	0	9.3	9.3
250	T22	624829.2	4748510	302.04	178.04	0	98.7	98.7	2666.53	64.05	250	79.52	0	0.07	0	0	2.78	0	0	0	0	0	16.33	16.33
500	T22	624829.2	4748510	302.04	178.04	0	100.8	100.8	2666.53	64.05	500	79.52	0	-0.9	0	0	5.14	0	0	0	0	0	17.04	17.04
1000	T22	624829.2	4748510	302.04	178.04	0	98.3	98.3	2666.53	64.05	1000	79.52	0	-0.9	0	0	9.75	0	0	0	0	0	9.93	9.93
2000	T22	624829.2	4748510	302.04	178.04	0	92.8	92.8	2666.53	64.05	2000	79.52	0	-0.9	0	0	25.77	0	0	0	0	0	-11.59	-11.59
4000	T22	624829.2	4748510	302.04	178.04	0	85.9	85.9	2666.53	64.05	4000	79.52	0	-0.9	0	0	87.38	0	0	0	0	0	-80.1	-80.1
8000	T22	624829.2	4748510	302.04	178.04	0	73.3	73.3	2666.53	64.05	8000	79.52	0	-0.9	0	0	311.67	0	0	0	0	0	-316.99	-316.99
63	T16	624153	4749242.91	300.29	176.29	0	86.3	86.3	2680.33	63.74	63	79.56	0	-3	0	0	0.33	0	0	0	0	0	9.41	9.41
125	T16	624153	4749242.91	300.29	176.29	0	91.7	91.7	2680.33	63.74	125	79.56	0	1.78	0	0	1.1	0	0	0	0	0	9.25	9.25
250	T16	624153	4749242.91	300.29	176.29	0	98.7	98.7	2680.33	63.74	250	79.56	0	0.07	0	0	2.8	0	0	0	0	0	16.27	16.27
500	T16	624153	4749242.91	300.29	176.29	0	100.8	100.8	2680.33	63.74	500	79.56	0	-0.9	0	0	5.17	0	0	0	0	0	16.97	16.97
1000	T16	624153	4749242.91	300.29	176.29	0	98.3	98.3	2680.33	63.74	1000	79.56	0	-0.9	0	0	9.8	0	0	0	0	0	9.83	9.83
2000	T16	624153	4749242.91	300.29	176.29	0	92.8	92.8	2680.33	63.74	2000	79.56	0	-0.9	0	0	25.9	0	0	0	0	0	-11.77	-11.77
4000	T16	624153	4749242.91	300.29	176.29	0	85.9	85.9	2680.33	63.74	4000	79.56	0	-0.9	0	0	87.83	0	0	0	0	0	-80.6	-80.6
8000	T16	624153	4749242.91	300.29	176.29	0	73.3	73.3	2680.33	63.74	8000	79.56	0	-0.9	0	0	313.28	0	0	0	0	0	-318.65	-318.65
63	T21	625004	4748242	302.63	178.63	0	86.3	86.3	2687.86	64.11	63	79.59	0	-3	0	0	0.33	0	0	0	0	0	9.38	9.38
125	T21	625004	4748242	302.63	178.63	0	91.7	91.7	2687.86	64.11	125	79.59	0	1.78	0	0	1.1	0	0	0	0	0	9.22	9.22
250	T21	625004	4748242	302.63	178.63	0	98.7	98.7	2687.86	64.11	250	79.59	0	0.07	0	0	2.8	0	0	0	0	0	16.23	16.23
500	T21	625004	4748242	302.63	178.63	0	100.8	100.8	2687.86	64.11	500	79.59	0	-0.9	0	0	5.18	0	0	0	0	0	16.93	16.93
1000	T21	625004	4748242	302.63	178.63	0	98.3	98.3	2687.86	64.11	1000	79.59	0	-0.9	0	0	9.83	0	0	0	0	0	9.78	9.78
2000	T21	625004	4748242	302.63	178.63	0	92.8	92.8	2687.86	64.11	2000	79.59	0	-0.9	0	0	25.98							

250	T43	624815.25	4748952.03	301.14	177.14	0	98.7	98.7	2918.27	63.98	250	80.3	0	0.07	0	0	3.04	0	0	0	0	0	0	15.28	15.28
500	T43	624815.25	4748952.03	301.14	177.14	0	100.8	100.8	2918.27	63.98	500	80.3	0	-0.9	0	0	5.63	0	0	0	0	0	0	15.77	15.77
1000	T43	624815.25	4748952.03	301.14	177.14	0	98.3	98.3	2918.27	63.98	1000	80.3	0	-0.9	0	0	10.67	0	0	0	0	0	0	8.22	8.22
2000	T43	624815.25	4748952.03	301.14	177.14	0	92.8	92.8	2918.27	63.98	2000	80.3	0	-0.9	0	0	28.2	0	0	0	0	0	0	-14.8	-14.8
4000	T43	624815.25	4748952.03	301.14	177.14	0	85.9	85.9	2918.27	63.98	4000	80.3	0	-0.9	0	0	95.63	0	0	0	0	0	0	-89.13	-89.13
8000	T43	624815.25	4748952.03	301.14	177.14	0	73.3	73.3	2918.27	63.98	8000	80.3	0	-0.9	0	0	341.09	0	0	0	0	0	0	-347.2	-347.2
63	T20	620627.25	4749341.35	300.55	176.55	0	86.3	86.3	3002.84	63.56	63	80.55	0	-3	0	0	0.37	0	0	0	0	0	0	8.38	8.38
125	T20	620627.25	4749341.35	300.55	176.55	0	91.7	91.7	3002.84	63.56	125	80.55	0	1.78	0	0	1.23	0	0	0	0	0	0	8.13	8.13
250	T20	620627.25	4749341.35	300.55	176.55	0	98.7	98.7	3002.84	63.56	250	80.55	0	0.07	0	0	3.13	0	0	0	0	0	0	14.94	14.94
500	T20	620627.25	4749341.35	300.55	176.55	0	100.8	100.8	3002.84	63.56	500	80.55	0	-0.9	0	0	5.79	0	0	0	0	0	0	15.36	15.36
1000	T20	620627.25	4749341.35	300.55	176.55	0	98.3	98.3	3002.84	63.56	1000	80.55	0	-0.9	0	0	10.98	0	0	0	0	0	0	7.67	7.67
2000	T20	620627.25	4749341.35	300.55	176.55	0	92.8	92.8	3002.84	63.56	2000	80.55	0	-0.9	0	0	29.02	0	0	0	0	0	0	-15.87	-15.87
4000	T20	620627.25	4749341.35	300.55	176.55	0	85.9	85.9	3002.84	63.56	4000	80.55	0	-0.9	0	0	98.4	0	0	0	0	0	0	-92.15	-92.15
8000	T20	620627.25	4749341.35	300.55	176.55	0	73.3	73.3	3002.84	63.56	8000	80.55	0	-0.9	0	0	350.98	0	0	0	0	0	0	-357.33	-357.33
63	T48	624687	4749282.73	300.42	176.42	0	86.3	86.3	3052.12	63.92	63	80.69	0	-3	0	0	0.37	0	0	0	0	0	0	8.24	8.24
125	T48	624687	4749282.73	300.42	176.42	0	91.7	91.7	3052.12	63.92	125	80.69	0	1.78	0	0	1.25	0	0	0	0	0	0	7.97	7.97
250	T48	624687	4749282.73	300.42	176.42	0	98.7	98.7	3052.12	63.92	250	80.69	0	0.07	0	0	3.18	0	0	0	0	0	0	14.75	14.75
500	T48	624687	4749282.73	300.42	176.42	0	100.8	100.8	3052.12	63.92	500	80.69	0	-0.9	0	0	5.88	0	0	0	0	0	0	15.12	15.12
1000	T48	624687	4749282.73	300.42	176.42	0	98.3	98.3	3052.12	63.92	1000	80.69	0	-0.9	0	0	11.16	0	0	0	0	0	0	7.34	7.34
2000	T48	624687	4749282.73	300.42	176.42	0	92.8	92.8	3052.12	63.92	2000	80.69	0	-0.9	0	0	29.5	0	0	0	0	0	0	-16.49	-16.49
4000	T48	624687	4749282.73	300.42	176.42	0	85.9	85.9	3052.12	63.92	4000	80.69	0	-0.9	0	0	100.02	0	0	0	0	0	0	-93.91	-93.91
8000	T48	624687	4749282.73	300.42	176.42	0	73.3	73.3	3052.12	63.92	8000	80.69	0	-0.9	0	0	356.74	0	0	0	0	0	0	-363.23	-363.23
63	T96	621422.71	4750668.26	299.47	175.47	0	86.3	86.3	3783.99	63.96	63	82.56	0	-3	0	0	0.46	0	0	0	0	0	0	6.28	6.28
125	T96	621422.71	4750668.26	299.47	175.47	0	91.7	91.7	3783.99	63.96	125	82.56	0	1.78	0	0	1.55	0	0	0	0	0	0	5.8	5.8
250	T96	621422.71	4750668.26	299.47	175.47	0	98.7	98.7	3783.99	63.96	250	82.56	0	0.07	0	0	3.95	0	0	0	0	0	0	12.12	12.12
500	T96	621422.71	4750668.26	299.47	175.47	0	100.8	100.8	3783.99	63.96	500	82.56	0	-0.9	0	0	7.3	0	0	0	0	0	0	11.85	11.85
1000	T96	621422.71	4750668.26	299.47	175.47	0	98.3	98.3	3783.99	63.96	1000	82.56	0	-0.9	0	0	13.84	0	0	0	0	0	0	2.8	2.8
2000	T96	621422.71	4750668.26	299.47	175.47	0	92.8	92.8	3783.99	63.96	2000	82.56	0	-0.9	0	0	36.57	0	0	0	0	0	0	-25.43	-25.43
4000	T96	621422.71	4750668.26	299.47	175.47	0	85.9	85.9	3783.99	63.96	4000	82.56	0	-0.9	0	0	124	0	0	0	0	0	0	-119.76	-119.76
8000	T96	621422.71	4750668.26	299.47	175.47	0	73.3	73.3	3783.99	63.96	8000	82.56	0	-0.9	0	0	442.28	0	0	0	0	0	0	-450.64	-450.64
63	T99	619207.83	4749223.58	299	175	0	86.3	86.3	4009.56	63.39	63	83.06	0	-3.11	0	0	0.49	0	0	0	0	0	0	5.86	5.86
125	T99	619207.83	4749223.58	299	175	0	91.7	91.7	4009.56	63.39	125	83.06	0	1.75	0	0	1.65	0	0	0	0	0	0	5.24	5.24
250	T99	619207.83	4749223.58	299	175	0	98.7	98.7	4009.56	63.39	250	83.06	0	0.04	0	0	4.18	0	0	0	0	0	0	11.42	11.42
500	T99	619207.83	4749223.58	299	175	0	100.8	100.8	4009.56	63.39	500	83.06	0	-0.93	0	0	7.73	0	0	0	0	0	0	10.94	10.94
1000	T99	619207.83	4749223.58	299	175	0	98.3	98.3	4009.56	63.39	1000	83.06	0	-0.93	0	0	14.67	0	0	0	0	0	0	1.51	1.51
2000	T99	619207.83	4749223.58	299	175	0	92.8	92.8	4009.56	63.39	2000	83.06	0	-0.93	0	0	38.75	0	0	0	0	0	0	-28.08	-28.08
4000	T99	619207.83	4749223.58	299	175	0	85.9	85.9	4009.56	63.39	4000	83.06	0	-0.93	0	0	131.39	0	0	0	0	0	0	-127.62	-127.62
8000	T99	619207.83	4749223.58	299	175	0	73.3	73.3	4009.56	63.39	8000	83.06	0	-0.93	0	0	468.65	0	0	0	0	0	0	-477.47	-477.47
63	T63	621609.3	4751032.27	300.37	176.37	0	86.3	86.3	4083	64.56	63	83.22	0	-3.17	0	0	0.5	0	0	0	0	0	0	5.75	5.75
125	T63	621609.3	4751032.27	300.37	176.37	0	91.7	91.7	4083	64.56	125	83.22	0	1.73	0	0	1.68	0	0	0	0	0	0	5.07	5.07
250	T63	621609.3	4751032.27	300.37	176.37	0	98.7	98.7	4083	64.56	250	83.22	0	0.02	0	0	4.26	0	0	0	0	0	0	11.2	11.2
500	T63	621609.3	4751032.27	300.37	176.37	0	100.8	100.8	4083	64.56	500	83.22	0	-0.95	0	0	7.87	0	0	0	0	0	0	10.66	10.66
1000	T63	621609.3	4751032.27	300.37	176.37	0	98.3	98.3	4083	64.56	1000	83.22	0	-0.95	0	0	14.93	0	0	0	0	0	0	1.1	1.1
2000	T63	621609.3	4751032.27	300.37	176.37	0	92.8	92.8	4083	64.56	2000	83.22	0	-0.95	0	0	39.46	0	0	0	0	0	0	-28.93	-28.93
4000	T63	621609.3	4751032.27	300.37	176.37	0	85.9	85.9	4083	64.56	4000	83.22	0	-0.95	0	0	133.8	0	0	0	0	0	0	-130.17	-130.17
8000	T63	621609.3	4751032.27	300.37	176.37	0	73.3	73.3	4083	64.56	8000	83.22	0	-0.95	0	0	477.23	0	0	0	0	0	0	-486.2	-486.2
63	T62	621876.73	4751310.91	301.01	177.01	0	86.3	86.3	4301.72	64.97	63	83.67	0	-3.31	0	0	0.52	0	0	0	0	0	0	5.41	5.41
125	T62	621876.73	4751310.91	301.01	177.01	0	91.7	91.7	4301.72	64.97	125	83.67	0	1.69	0	0	1.77	0	0	0	0	0	0	4.57	4.57
250	T62	621876.73	4751310.91	301.01	177.01	0	98.7	98.7	4301.72	64.97	250	83.67	0	-0.02	0	0	4.49	0	0	0	0	0	0	10.56	10.56
500	T62	621876.73	4751310.91	301.01	177.01	0	100.8	100.8	4301.72	64.97	500	83.67	0	-0.99	0	0	8.29	0	0	0	0	0	0	9.83	9.83
1000	T62	621876.73	4751310.91	301.01	177.01	0	98.3	98.3	4301.72	64.97	1000	83.67	0	-0.99	0	0	15.73	0	0	0	0	0	0	-0.11	-0.11
2000	T62	621876.73	4751310.91	301.01	177.01	0	92.8	92.8	4301.72	64.97	2000	83.67	0	-0.99	0	0	41.57	0	0	0	0	0	0	-31.45	-31.45
4000	T62	621876.73	4751310.91	301.01	177.01	0	85.9	85.9	4301.72	64.97	4000	83.67	0	-0.99	0	0	140.97	0	0	0	0	0	0	-137.75	-137.75
8000	T62	621876.73	4751310.91	301.01	177.01	0	73.3	73.3	4301.72	64.97	8000	83.67	0	-0.99	0	0	502.79	0	0	0	0	0	0	-512.17	-512.17
63	T49	626835.93	4748915.06	299	175	0	86.3	86.3	4632.74	63.64	63	84.32	0	-3.5	0	0	0.56	0	0	0	0	0	0	4.92	4.92
125	T49	62																							

63	T24	627752.21	4750238.85	299	175	0	86.3	86.3	6060.02	64.54	63	86.65	0	-4.09	0	0	0.74	0	0	0	0	0	3	3
125	T24	627752.21	4750238.85	299	175	0	91.7	91.7	6060.02	64.54	125	86.65	0	1.46	0	0	2.49	0	0	0	0	0	1.1	1.1
250	T24	627752.21	4750238.85	299	175	0	98.7	98.7	6060.02	64.54	250	86.65	0	-0.25	0	0	6.32	0	0	0	0	0	5.98	5.98
500	T24	627752.21	4750238.85	299	175	0	100.8	100.8	6060.02	64.54	500	86.65	0	-1.23	0	0	11.68	0	0	0	0	0	3.69	3.69
1000	T24	627752.21	4750238.85	299	175	0	98.3	98.3	6060.02	64.54	1000	86.65	0	-1.23	0	0	22.17	0	0	0	0	0	-9.29	-9.29
2000	T24	627752.21	4750238.85	299	175	0	92.8	92.8	6060.02	64.54	2000	86.65	0	-1.23	0	0	58.56	0	0	0	0	0	-51.19	-51.19
4000	T24	627752.21	4750238.85	299	175	0	85.9	85.9	6060.02	64.54	4000	86.65	0	-1.23	0	0	198.59	0	0	0	0	0	-198.11	-198.11
8000	T24	627752.21	4750238.85	299	175	0	73.3	73.3	6060.02	64.54	8000	86.65	0	-1.23	0	0	708.31	0	0	0	0	0	-720.43	-720.43
63	T89	623216.37	4753159.84	304	180	0	86.3	86.3	6123.34	66.25	63	86.74	0	-4.11	0	0	0.75	0	0	0	0	0	2.93	2.93
125	T89	623216.37	4753159.84	304	180	0	91.7	91.7	6123.34	66.25	125	86.74	0	1.45	0	0	2.52	0	0	0	0	0	0.99	0.99
250	T89	623216.37	4753159.84	304	180	0	98.7	98.7	6123.34	66.25	250	86.74	0	-0.26	0	0	6.39	0	0	0	0	0	5.83	5.83
500	T89	623216.37	4753159.84	304	180	0	100.8	100.8	6123.34	66.25	500	86.74	0	-1.23	0	0	11.81	0	0	0	0	0	3.49	3.49
1000	T89	623216.37	4753159.84	304	180	0	98.3	98.3	6123.34	66.25	1000	86.74	0	-1.23	0	0	22.4	0	0	0	0	0	-9.6	-9.6
2000	T89	623216.37	4753159.84	304	180	0	92.8	92.8	6123.34	66.25	2000	86.74	0	-1.23	0	0	59.18	0	0	0	0	0	-51.88	-51.88
4000	T89	623216.37	4753159.84	304	180	0	85.9	85.9	6123.34	66.25	4000	86.74	0	-1.23	0	0	200.66	0	0	0	0	0	-200.27	-200.27
8000	T89	623216.37	4753159.84	304	180	0	73.3	73.3	6123.34	66.25	8000	86.74	0	-1.23	0	0	715.71	0	0	0	0	0	-727.91	-727.91
63	T84	622487.06	4753392.69	304	180	0	86.3	86.3	6324.62	66.12	63	87.02	0	-4.17	0	0	0.77	0	0	0	0	0	2.68	2.68
125	T84	622487.06	4753392.69	304	180	0	91.7	91.7	6324.62	66.12	125	87.02	0	1.43	0	0	2.6	0	0	0	0	0	0.65	0.65
250	T84	622487.06	4753392.69	304	180	0	98.7	98.7	6324.62	66.12	250	87.02	0	-0.28	0	0	6.6	0	0	0	0	0	5.36	5.36
500	T84	622487.06	4753392.69	304	180	0	100.8	100.8	6324.62	66.12	500	87.02	0	-1.25	0	0	12.19	0	0	0	0	0	2.84	2.84
1000	T84	622487.06	4753392.69	304	180	0	98.3	98.3	6324.62	66.12	1000	87.02	0	-1.25	0	0	23.13	0	0	0	0	0	-10.6	-10.6
2000	T84	622487.06	4753392.69	304	180	0	92.8	92.8	6324.62	66.12	2000	87.02	0	-1.25	0	0	61.12	0	0	0	0	0	-54.09	-54.09
4000	T84	622487.06	4753392.69	304	180	0	85.9	85.9	6324.62	66.12	4000	87.02	0	-1.25	0	0	207.26	0	0	0	0	0	-207.13	-207.13
8000	T84	622487.06	4753392.69	304	180	0	73.3	73.3	6324.62	66.12	8000	87.02	0	-1.25	0	0	739.23	0	0	0	0	0	-751.7	-751.7
63	T42	619935	4753628	304	180	0	86.3	86.3	7075.31	65.78	63	87.99	0	-4.37	0	0	0.86	0	0	0	0	0	1.81	1.81
125	T42	619935	4753628	304	180	0	91.7	91.7	7075.31	65.78	125	87.99	0	1.37	0	0	2.91	0	0	0	0	0	-0.58	-0.58
250	T42	619935	4753628	304	180	0	98.7	98.7	7075.31	65.78	250	87.99	0	-0.34	0	0	7.38	0	0	0	0	0	3.66	3.66
500	T42	619935	4753628	304	180	0	100.8	100.8	7075.31	65.78	500	87.99	0	-1.31	0	0	13.64	0	0	0	0	0	0.47	0.47
1000	T42	619935	4753628	304	180	0	98.3	98.3	7075.31	65.78	1000	87.99	0	-1.31	0	0	25.88	0	0	0	0	0	-14.26	-14.26
2000	T42	619935	4753628	304	180	0	92.8	92.8	7075.31	65.78	2000	87.99	0	-1.31	0	0	68.38	0	0	0	0	0	-62.26	-62.26
4000	T42	619935	4753628	304	180	0	85.9	85.9	7075.31	65.78	4000	87.99	0	-1.31	0	0	231.86	0	0	0	0	0	-232.64	-232.64
8000	T42	619935	4753628	304	180	0	73.3	73.3	7075.31	65.78	8000	87.99	0	-1.31	0	0	826.98	0	0	0	0	0	-840.36	-840.36
63	GREPT58	614974	4747470	283.19	183.69	0	82.4	82.4	7625.14	55.46	63	88.64	0	-4.77	0	0	0.93	0	0	0	0	0	-2.4	-2.4
125	GREPT58	614974	4747470	283.19	183.69	0	93	93	7625.14	55.46	125	88.64	0	1.25	0	0	3.13	0	0	0	0	0	-0.03	-0.03
250	GREPT58	614974	4747470	283.19	183.69	0	96	96	7625.14	55.46	250	88.64	0	-0.46	0	0	7.96	0	0	0	0	0	-0.14	-0.14
500	GREPT58	614974	4747470	283.19	183.69	0	99.8	99.8	7625.14	55.46	500	88.64	0	-1.43	0	0	14.7	0	0	0	0	0	-2.11	-2.11
1000	GREPT58	614974	4747470	283.19	183.69	0	100.1	100.1	7625.14	55.46	1000	88.64	0	-1.43	0	0	27.89	0	0	0	0	0	-15	-15
2000	GREPT58	614974	4747470	283.19	183.69	0	96.5	96.5	7625.14	55.46	2000	88.64	0	-1.43	0	0	73.69	0	0	0	0	0	-64.4	-64.4
4000	GREPT58	614974	4747470	283.19	183.69	0	89.6	89.6	7625.14	55.46	4000	88.64	0	-1.43	0	0	249.88	0	0	0	0	0	-247.49	-247.49
8000	GREPT58	614974	4747470	283.19	183.69	0	85.2	85.2	7625.14	55.46	8000	88.64	0	-1.43	0	0	891.24	0	0	0	0	0	-893.25	-893.25
63	T98	617981.67	4753042.54	302.44	178.44	0	86.3	86.3	7543.44	64.94	63	88.55	0	-4.47	0	0	0.92	0	0	0	0	0	1.3	1.3
125	T98	617981.67	4753042.54	302.44	178.44	0	91.7	91.7	7543.44	64.94	125	88.55	0	1.34	0	0	3.1	0	0	0	0	0	-1.29	-1.29
250	T98	617981.67	4753042.54	302.44	178.44	0	98.7	98.7	7543.44	64.94	250	88.55	0	-0.37	0	0	7.87	0	0	0	0	0	2.65	2.65
500	T98	617981.67	4753042.54	302.44	178.44	0	100.8	100.8	7543.44	64.94	500	88.55	0	-1.34	0	0	14.54	0	0	0	0	0	-0.96	-0.96
1000	T98	617981.67	4753042.54	302.44	178.44	0	98.3	98.3	7543.44	64.94	1000	88.55	0	-1.34	0	0	27.59	0	0	0	0	0	-16.5	-16.5
2000	T98	617981.67	4753042.54	302.44	178.44	0	92.8	92.8	7543.44	64.94	2000	88.55	0	-1.34	0	0	72.9	0	0	0	0	0	-67.31	-67.31
4000	T98	617981.67	4753042.54	302.44	178.44	0	85.9	85.9	7543.44	64.94	4000	88.55	0	-1.34	0	0	247.2	0	0	0	0	0	-248.51	-248.51
8000	T98	617981.67	4753042.54	302.44	178.44	0	73.3	73.3	7543.44	64.94	8000	88.55	0	-1.34	0	0	881.69	0	0	0	0	0	-895.6	-895.6
63	T65	622983.82	4754678.89	299	175	0	86.3	86.3	7620.04	63.74	63	88.64	0	-4.48	0	0	0.93	0	0	0	0	0	1.22	1.22
125	T65	622983.82	4754678.89	299	175	0	91.7	91.7	7620.04	63.74	125	88.64	0	1.34	0	0	3.13	0	0	0	0	0	-1.41	-1.41
250	T65	622983.82	4754678.89	299	175	0	98.7	98.7	7620.04	63.74	250	88.64	0	-0.37	0	0	7.95	0	0	0	0	0	2.48	2.48
500	T65	622983.82	4754678.89	299	175	0	100.8	100.8	7620.04	63.74	500	88.64	0	-1.34	0	0	14.69	0	0	0	0	0	-1.19	-1.19
1000	T65	622983.82	4754678.89	299	175	0	98.3	98.3	7620.04	63.74	1000	88.64	0	-1.34	0	0	27.87	0	0	0	0	0	-16.87	-16.87
2000	T65	622983.82	4754678.89	299	175	0	92.8	92.8	7620.04	63.74	2000	88.64	0	-1.34	0	0	73.64	0	0	0	0	0	-68.13	-68.13
4000	T65	622983.82	4754678.89	299	175	0	85.9	85.9	7620.04	63.74	4000	88.64	0	-1.34	0	0	249.71	0	0	0	0	0	-251.1	-251.1
8000	T65	622983.82	4754678.89	299	175	0	73.3	73.3	7620.04	63.74	8000	88.64	0	-1.34	0	0	890.65	0	0	0	0	0	-904.64	-904.64
63	GREPT61	614750	4747811	284.5	185	0	82.4	82.4	7873.58	55.64	63	88.92	0	-4.81	0	0	0.96	0	0	0	0	0	-2.67	-2.67
125	GREPT61	614750	4747811	284.5	185	0	93	93	7873.58	55.64	125	88.92	0</											

4000	GREPT62	614705	4747338	281.29	181.79	0	89.6	89.6	7888.15	54.54	4000	88.94	0	-1.44	0	0	258.5	0	0	0	0	0	0	-256.39	-256.39
8000	GREPT62	614705	4747338	281.29	181.79	0	85.2	85.2	7888.15	54.54	8000	88.94	0	-1.44	0	0	921.98	0	0	0	0	0	0	-924.28	-924.28
63	GREPT60	614680	4748176	282.59	183.09	0	82.4	82.4	7985.57	54.76	63	89.05	0	-4.83	0	0	0.97	0	0	0	0	0	0	-2.79	-2.79
125	GREPT60	614680	4748176	282.59	183.09	0	93	93	7985.57	54.76	125	89.05	0	1.23	0	0	3.28	0	0	0	0	0	0	-0.56	-0.56
250	GREPT60	614680	4748176	282.59	183.09	0	96	96	7985.57	54.76	250	89.05	0	-0.48	0	0	8.33	0	0	0	0	0	0	-0.9	-0.9
500	GREPT60	614680	4748176	282.59	183.09	0	99.8	99.8	7985.57	54.76	500	89.05	0	-1.45	0	0	15.4	0	0	0	0	0	0	-3.19	-3.19
1000	GREPT60	614680	4748176	282.59	183.09	0	100.1	100.1	7985.57	54.76	1000	89.05	0	-1.45	0	0	29.21	0	0	0	0	0	0	-16.71	-16.71
2000	GREPT60	614680	4748176	282.59	183.09	0	96.5	96.5	7985.57	54.76	2000	89.05	0	-1.45	0	0	77.17	0	0	0	0	0	0	-68.27	-68.27
4000	GREPT60	614680	4748176	282.59	183.09	0	89.6	89.6	7985.57	54.76	4000	89.05	0	-1.45	0	0	261.69	0	0	0	0	0	0	-259.69	-259.69
8000	GREPT60	614680	4748176	282.59	183.09	0	85.2	85.2	7985.57	54.76	8000	89.05	0	-1.45	0	0	933.37	0	0	0	0	0	0	-935.77	-935.77
63	GREPT59	614326	4747732	284.49	184.99	0	82.4	82.4	8289.08	55.43	63	89.37	0	-4.87	0	0	1.01	0	0	0	0	0	0	-3.11	-3.11
125	GREPT59	614326	4747732	284.49	184.99	0	93	93	8289.08	55.43	125	89.37	0	1.22	0	0	3.41	0	0	0	0	0	0	-1	-1
250	GREPT59	614326	4747732	284.49	184.99	0	96	96	8289.08	55.43	250	89.37	0	-0.49	0	0	8.65	0	0	0	0	0	0	-1.53	-1.53
500	GREPT59	614326	4747732	284.49	184.99	0	99.8	99.8	8289.08	55.43	500	89.37	0	-1.46	0	0	15.98	0	0	0	0	0	0	-4.09	-4.09
1000	GREPT59	614326	4747732	284.49	184.99	0	100.1	100.1	8289.08	55.43	1000	89.37	0	-1.46	0	0	30.32	0	0	0	0	0	0	-18.13	-18.13
2000	GREPT59	614326	4747732	284.49	184.99	0	96.5	96.5	8289.08	55.43	2000	89.37	0	-1.46	0	0	80.11	0	0	0	0	0	0	-71.51	-71.51
4000	GREPT59	614326	4747732	284.49	184.99	0	89.6	89.6	8289.08	55.43	4000	89.37	0	-1.46	0	0	271.63	0	0	0	0	0	0	-269.94	-269.94
8000	GREPT59	614326	4747732	284.49	184.99	0	85.2	85.2	8289.08	55.43	8000	89.37	0	-1.46	0	0	968.84	0	0	0	0	0	0	-971.55	-971.55
63	GREPT57	614355	4748118	284.5	185	0	82.4	82.4	8300.04	55.38	63	89.38	0	-4.87	0	0	1.01	0	0	0	0	0	0	-3.12	-3.12
125	GREPT57	614355	4748118	284.5	185	0	93	93	8300.04	55.38	125	89.38	0	1.22	0	0	3.41	0	0	0	0	0	0	-1.01	-1.01
250	GREPT57	614355	4748118	284.5	185	0	96	96	8300.04	55.38	250	89.38	0	-0.49	0	0	8.66	0	0	0	0	0	0	-1.55	-1.55
500	GREPT57	614355	4748118	284.5	185	0	99.8	99.8	8300.04	55.38	500	89.38	0	-1.46	0	0	16	0	0	0	0	0	0	-4.12	-4.12
1000	GREPT57	614355	4748118	284.5	185	0	100.1	100.1	8300.04	55.38	1000	89.38	0	-1.46	0	0	30.36	0	0	0	0	0	0	-18.18	-18.18
2000	GREPT57	614355	4748118	284.5	185	0	96.5	96.5	8300.04	55.38	2000	89.38	0	-1.46	0	0	80.21	0	0	0	0	0	0	-71.63	-71.63
4000	GREPT57	614355	4748118	284.5	185	0	89.6	89.6	8300.04	55.38	4000	89.38	0	-1.46	0	0	271.99	0	0	0	0	0	0	-270.31	-270.31
8000	GREPT57	614355	4748118	284.5	185	0	85.2	85.2	8300.04	55.38	8000	89.38	0	-1.46	0	0	970.12	0	0	0	0	0	0	-972.84	-972.84
63	T19	620379.61	4755516.08	299	175	0	86.3	86.3	8730.77	63.3	63	89.82	0	-4.68	0	0	1.06	0	0	0	0	0	0	0.09	0.09
125	T19	620379.61	4755516.08	299	175	0	91.7	91.7	8730.77	63.3	125	89.82	0	1.28	0	0	3.59	0	0	0	0	0	0	-2.99	-2.99
250	T19	620379.61	4755516.08	299	175	0	98.7	98.7	8730.77	63.3	250	89.82	0	-0.43	0	0	9.11	0	0	0	0	0	0	0.2	0.2
500	T19	620379.61	4755516.08	299	175	0	100.8	100.8	8730.77	63.3	500	89.82	0	-1.4	0	0	16.83	0	0	0	0	0	0	-4.45	-4.45
1000	T19	620379.61	4755516.08	299	175	0	98.3	98.3	8730.77	63.3	1000	89.82	0	-1.4	0	0	31.93	0	0	0	0	0	0	-22.05	-22.05
2000	T19	620379.61	4755516.08	299	175	0	92.8	92.8	8730.77	63.3	2000	89.82	0	-1.4	0	0	84.37	0	0	0	0	0	0	-79.99	-79.99
4000	T19	620379.61	4755516.08	299	175	0	85.9	85.9	8730.77	63.3	4000	89.82	0	-1.4	0	0	286.11	0	0	0	0	0	0	-288.63	-288.63
8000	T19	620379.61	4755516.08	299	175	0	73.3	73.3	8730.77	63.3	8000	89.82	0	-1.4	0	0	1020.5	0	0	0	0	0	0	-1035.59	-1035.59
63	T82	618390	4754915	299	175	0	86.3	86.3	8898.33	63.02	63	89.99	0	-4.7	0	0	1.08	0	0	0	0	0	0	-0.07	-0.07
125	T82	618390	4754915	299	175	0	91.7	91.7	8898.33	63.02	125	89.99	0	1.27	0	0	3.66	0	0	0	0	0	0	-3.22	-3.22
250	T82	618390	4754915	299	175	0	98.7	98.7	8898.33	63.02	250	89.99	0	-0.44	0	0	9.28	0	0	0	0	0	0	-0.13	-0.13
500	T82	618390	4754915	299	175	0	100.8	100.8	8898.33	63.02	500	89.99	0	-1.41	0	0	17.15	0	0	0	0	0	0	-4.93	-4.93
1000	T82	618390	4754915	299	175	0	98.3	98.3	8898.33	63.02	1000	89.99	0	-1.41	0	0	32.55	0	0	0	0	0	0	-22.82	-22.82
2000	T82	618390	4754915	299	175	0	92.8	92.8	8898.33	63.02	2000	89.99	0	-1.41	0	0	85.99	0	0	0	0	0	0	-81.77	-81.77
4000	T82	618390	4754915	299	175	0	85.9	85.9	8898.33	63.02	4000	89.99	0	-1.41	0	0	291.6	0	0	0	0	0	0	-294.28	-294.28
8000	T82	618390	4754915	299	175	0	73.3	73.3	8898.33	63.02	8000	89.99	0	-1.41	0	0	1040.1	0	0	0	0	0	0	-1055.33	-1055.33
63	T13	621410	4756122	299	175	0	86.3	86.3	9129.05	63.77	63	90.21	0	-4.73	0	0	1.11	0	0	0	0	0	0	-0.29	-0.29
125	T13	621410	4756122	299	175	0	91.7	91.7	9129.05	63.77	125	90.21	0	1.26	0	0	3.75	0	0	0	0	0	0	-3.52	-3.52
250	T13	621410	4756122	299	175	0	98.7	98.7	9129.05	63.77	250	90.21	0	-0.45	0	0	9.53	0	0	0	0	0	0	-0.59	-0.59
500	T13	621410	4756122	299	175	0	100.8	100.8	9129.05	63.77	500	90.21	0	-1.42	0	0	17.6	0	0	0	0	0	0	-5.59	-5.59
1000	T13	621410	4756122	299	175	0	98.3	98.3	9129.05	63.77	1000	90.21	0	-1.42	0	0	33.39	0	0	0	0	0	0	-23.88	-23.88
2000	T13	621410	4756122	299	175	0	92.8	92.8	9129.05	63.77	2000	90.21	0	-1.42	0	0	88.22	0	0	0	0	0	0	-84.21	-84.21
4000	T13	621410	4756122	299	175	0	85.9	85.9	9129.05	63.77	4000	90.21	0	-1.42	0	0	299.16	0	0	0	0	0	0	-302.05	-302.05
8000	T13	621410	4756122	299	175	0	73.3	73.3	9129.05	63.77	8000	90.21	0	-1.42	0	0	1067	0	0	0	0	0	0	-1082.51	-1082.51
63	ST2	622836.55	4754678.58	178.7	175	0	72.8	72.8	7612.64	4.29	63	88.63	0	-5.9	4.77	0.02	0.93	0	0	0	0	0	0	-15.63	-15.63
125	ST2	622836.55	4754678.58	178.7	175	0	87.9	87.9	7612.64	4.29	125	88.63	0	3.79	0.98	0.02	3.13	0	0	0	0	0	0	-8.63	-8.63
250	ST2	622836.55	4754678.58	178.7	175	0	94.4	94.4	7612.64	4.29	250	88.63	0	0.96	3.81	0.02	7.94	0	0	0	0	0	0	-6.94	-6.94
500	ST2	622836.55	4754678.58	178.7	175	0	99.8	99.8	7612.64	4.29	500	88.63	0	-1.75	4.77	0.02	14.68	0	0	0	0	0	0	-6.53	-6.53
1000	ST2	622836.55	4754678.58	178.7	175	0	97	97	7612.64	4.29	1000	88.63	0	-1.77	4.77	0.02	27.84	0	0	0	0	0	0	-22.48	-22.48
2000	ST2	622836.55	4754678.58	178.7	175	0	93.2	93.2	7612.64	4.29	2000	88.63	0	-1.77	4.77	0.02	73.57	0	0	0	0	0	0	-72	-72
4000	ST2	622836.55	4754678.58	178.7																					

1000	WF01	631359	4751252	270.12	175.12	0	98.5	98.5	9717.35	50.86	1000	90.75	0	-1.52	0	0	35.54	0	0	0	0	0	0	-26.27	-26.27
2000	WF01	631359	4751252	270.12	175.12	0	97.7	97.7	9717.35	50.86	2000	90.75	0	-1.52	0	0	93.91	0	0	0	0	0	0	-85.44	-85.44
4000	WF01	631359	4751252	270.12	175.12	0	96.7	96.7	9717.35	50.86	4000	90.75	0	-1.52	0	0	318.44	0	0	0	0	0	0	-310.97	-310.97
8000	WF01	631359	4751252	270.12	175.12	0	92.1	92.1	9717.35	50.86	8000	90.75	0	-1.52	0	0	1135.8	0	0	0	0	0	0	-1132.91	-1132.91
63	T91	620503.94	4756520.82	299.05	175.05	0	86.3	86.3	9678.56	63.65	63	90.72	0	-4.81	0	0	1.18	0	0	0	0	0	0	-0.79	-0.79
125	T91	620503.94	4756520.82	299.05	175.05	0	91.7	91.7	9678.56	63.65	125	90.72	0	1.24	0	0	3.98	0	0	0	0	0	0	-4.23	-4.23
250	T91	620503.94	4756520.82	299.05	175.05	0	98.7	98.7	9678.56	63.65	250	90.72	0	-0.47	0	0	10.1	0	0	0	0	0	0	-1.65	-1.65
500	T91	620503.94	4756520.82	299.05	175.05	0	100.8	100.8	9678.56	63.65	500	90.72	0	-1.44	0	0	18.66	0	0	0	0	0	0	-7.13	-7.13
1000	T91	620503.94	4756520.82	299.05	175.05	0	98.3	98.3	9678.56	63.65	1000	90.72	0	-1.44	0	0	35.4	0	0	0	0	0	0	-26.38	-26.38
2000	T91	620503.94	4756520.82	299.05	175.05	0	92.8	92.8	9678.56	63.65	2000	90.72	0	-1.44	0	0	93.53	0	0	0	0	0	0	-90.01	-90.01
4000	T91	620503.94	4756520.82	299.05	175.05	0	85.9	85.9	9678.56	63.65	4000	90.72	0	-1.44	0	0	317.17	0	0	0	0	0	0	-320.54	-320.54
8000	T91	620503.94	4756520.82	299.05	175.05	0	73.3	73.3	9678.56	63.65	8000	90.72	0	-1.44	0	0	1131.3	0	0	0	0	0	0	-1147.22	-1147.22
63	T11	620836	4756609.3	299.87	175.87	0	86.3	86.3	9699.54	64.05	63	90.74	0	-4.81	0	0	1.18	0	0	0	0	0	0	-0.81	-0.81
125	T11	620836	4756609.3	299.87	175.87	0	91.7	91.7	9699.54	64.05	125	90.74	0	1.24	0	0	3.99	0	0	0	0	0	0	-4.26	-4.26
250	T11	620836	4756609.3	299.87	175.87	0	98.7	98.7	9699.54	64.05	250	90.74	0	-0.47	0	0	10.12	0	0	0	0	0	0	-1.69	-1.69
500	T11	620836	4756609.3	299.87	175.87	0	100.8	100.8	9699.54	64.05	500	90.74	0	-1.44	0	0	18.7	0	0	0	0	0	0	-7.19	-7.19
1000	T11	620836	4756609.3	299.87	175.87	0	98.3	98.3	9699.54	64.05	1000	90.74	0	-1.44	0	0	35.48	0	0	0	0	0	0	-26.47	-26.47
2000	T11	620836	4756609.3	299.87	175.87	0	92.8	92.8	9699.54	64.05	2000	90.74	0	-1.44	0	0	93.74	0	0	0	0	0	0	-90.23	-90.23
4000	T11	620836	4756609.3	299.87	175.87	0	85.9	85.9	9699.54	64.05	4000	90.74	0	-1.44	0	0	317.85	0	0	0	0	0	0	-321.25	-321.25
8000	T11	620836	4756609.3	299.87	175.87	0	73.3	73.3	9699.54	64.05	8000	90.74	0	-1.44	0	0	1133.7	0	0	0	0	0	0	-1149.69	-1149.69
63	WF02	631758	4750750	270.92	175.92	0	86	86	9881.23	51.02	63	90.9	0	-5.09	0	0	1.2	0	0	0	0	0	0	-1.01	-1.01
125	WF02	631758	4750750	270.92	175.92	0	91	91	9881.23	51.02	125	90.9	0	1.15	0	0	4.06	0	0	0	0	0	0	-5.11	-5.11
250	WF02	631758	4750750	270.92	175.92	0	98.5	98.5	9881.23	51.02	250	90.9	0	-0.56	0	0	10.31	0	0	0	0	0	0	-2.15	-2.15
500	WF02	631758	4750750	270.92	175.92	0	95.4	95.4	9881.23	51.02	500	90.9	0	-1.53	0	0	19.05	0	0	0	0	0	0	-13.02	-13.02
1000	WF02	631758	4750750	270.92	175.92	0	98.5	98.5	9881.23	51.02	1000	90.9	0	-1.53	0	0	36.14	0	0	0	0	0	0	-27.01	-27.01
2000	WF02	631758	4750750	270.92	175.92	0	97.7	97.7	9881.23	51.02	2000	90.9	0	-1.53	0	0	95.49	0	0	0	0	0	0	-87.16	-87.16
4000	WF02	631758	4750750	270.92	175.92	0	96.7	96.7	9881.23	51.02	4000	90.9	0	-1.53	0	0	323.81	0	0	0	0	0	0	-316.48	-316.48
8000	WF02	631758	4750750	270.92	175.92	0	92.1	92.1	9881.23	51.02	8000	90.9	0	-1.53	0	0	1154.9	0	0	0	0	0	0	-1152.21	-1152.21
63	WF03	631921	4750541	271.25	176.25	0	86	86	9957.92	51.07	63	90.96	0	-5.1	0	0	1.21	0	0	0	0	0	0	-1.07	-1.07
125	WF03	631921	4750541	271.25	176.25	0	91	91	9957.92	51.07	125	90.96	0	1.15	0	0	4.09	0	0	0	0	0	0	-5.21	-5.21
250	WF03	631921	4750541	271.25	176.25	0	98.5	98.5	9957.92	51.07	250	90.96	0	-0.56	0	0	10.39	0	0	0	0	0	0	-2.3	-2.3
500	WF03	631921	4750541	271.25	176.25	0	95.4	95.4	9957.92	51.07	500	90.96	0	-1.53	0	0	19.2	0	0	0	0	0	0	-13.23	-13.23
1000	WF03	631921	4750541	271.25	176.25	0	98.5	98.5	9957.92	51.07	1000	90.96	0	-1.53	0	0	36.42	0	0	0	0	0	0	-27.36	-27.36
2000	WF03	631921	4750541	271.25	176.25	0	97.7	97.7	9957.92	51.07	2000	90.96	0	-1.53	0	0	96.23	0	0	0	0	0	0	-87.97	-87.97
4000	WF03	631921	4750541	271.25	176.25	0	96.7	96.7	9957.92	51.07	4000	90.96	0	-1.53	0	0	326.32	0	0	0	0	0	0	-319.06	-319.06
8000	WF03	631921	4750541	271.25	176.25	0	92.1	92.1	9957.92	51.07	8000	90.96	0	-1.53	0	0	1163.9	0	0	0	0	0	0	-1161.24	-1161.24
63	T41	620998	4756850.97	300.43	176.43	0	86.3	86.3	9910.04	64.47	63	90.92	0	-4.83	0	0	1.21	0	0	0	0	0	0	-0.99	-0.99
125	T41	620998	4756850.97	300.43	176.43	0	91.7	91.7	9910.04	64.47	125	90.92	0	1.23	0	0	4.07	0	0	0	0	0	0	-4.53	-4.53
250	T41	620998	4756850.97	300.43	176.43	0	98.7	98.7	9910.04	64.47	250	90.92	0	-0.48	0	0	10.34	0	0	0	0	0	0	-2.08	-2.08
500	T41	620998	4756850.97	300.43	176.43	0	100.8	100.8	9910.04	64.47	500	90.92	0	-1.45	0	0	19.11	0	0	0	0	0	0	-7.78	-7.78
1000	T41	620998	4756850.97	300.43	176.43	0	98.3	98.3	9910.04	64.47	1000	90.92	0	-1.45	0	0	36.25	0	0	0	0	0	0	-27.42	-27.42
2000	T41	620998	4756850.97	300.43	176.43	0	92.8	92.8	9910.04	64.47	2000	90.92	0	-1.45	0	0	95.77	0	0	0	0	0	0	-92.44	-92.44
4000	T41	620998	4756850.97	300.43	176.43	0	85.9	85.9	9910.04	64.47	4000	90.92	0	-1.45	0	0	324.75	0	0	0	0	0	0	-328.32	-328.32
8000	T41	620998	4756850.97	300.43	176.43	0	73.3	73.3	9910.04	64.47	8000	90.92	0	-1.45	0	0	1158.3	0	0	0	0	0	0	-1174.48	-1174.48
63	WF04	632750	4748389	273.81	178.81	0	86	86	10247.63	52.72	63	91.21	0	-5.13	0	0	1.25	0	0	0	0	0	0	-1.33	-1.33
125	WF04	632750	4748389	273.81	178.81	0	91	91	10247.63	52.72	125	91.21	0	1.14	0	0	4.21	0	0	0	0	0	0	-5.57	-5.57
250	WF04	632750	4748389	273.81	178.81	0	98.5	98.5	10247.63	52.72	250	91.21	0	-0.56	0	0	10.69	0	0	0	0	0	0	-2.84	-2.84
500	WF04	632750	4748389	273.81	178.81	0	95.4	95.4	10247.63	52.72	500	91.21	0	-1.54	0	0	19.76	0	0	0	0	0	0	-14.03	-14.03
1000	WF04	632750	4748389	273.81	178.81	0	98.5	98.5	10247.63	52.72	1000	91.21	0	-1.54	0	0	37.48	0	0	0	0	0	0	-28.66	-28.66
2000	WF04	632750	4748389	273.81	178.81	0	97.7	97.7	10247.63	52.72	2000	91.21	0	-1.54	0	0	99.03	0	0	0	0	0	0	-91.01	-91.01
4000	WF04	632750	4748389	273.81	178.81	0	96.7	96.7	10247.63	52.72	4000	91.21	0	-1.54	0	0	335.82	0	0	0	0	0	0	-328.79	-328.79
8000	WF04	632750	4748389	273.81	178.81	0	92.1	92.1	10247.63	52.72	8000	91.21	0	-1.54	0	0	1197.8	0	0	0	0	0	0	-1195.34	-1195.34
63	WF05	632706	4748817	272.08	177.08	0	86	86	10268.09	51.09	63	91.23	0	-5.13	0	0	1.25	0	0	0	0	0	0	-1.35	-1.35
125	WF05	632706	4748817	272.08	177.08	0	91	91	10268.09	51.09	125	91.23	0	1.14	0	0	4.22	0	0	0	0	0	0	-5.59	-5.59
250	WF05	632706	4748817	272.08	177.08	0	98.5	98.5	10268.09	51.09	250	91.23	0	-0.57	0	0	10.71	0	0	0	0	0	0	-2.88	-2.88
500	WF05	632706	4748817	272.08	177.08	0	95.4																		

250	T37	623038.4	4758881	299	175	0	98.7	98.7	11820.14	64.46	250	92.45	0	-0.53	0	-1.12	12.33	0	0	0	0	0	0	-5.55	-5.55
500	T37	623038.4	4758881	299	175	0	100.8	100.8	11820.14	64.46	500	92.45	0	-1.51	0	-1.12	22.79	0	0	0	0	0	0	-12.93	-12.93
1000	T37	623038.4	4758881	299	175	0	98.3	98.3	11820.14	64.46	1000	92.45	0	-1.51	0	-1.12	43.23	0	0	0	0	0	0	-35.88	-35.88
2000	T37	623038.4	4758881	299	175	0	92.8	92.8	11820.14	64.46	2000	92.45	0	-1.51	0	-1.12	114.23	0	0	0	0	0	0	-112.37	-112.37
4000	T37	623038.4	4758881	299	175	0	85.9	85.9	11820.14	64.46	4000	92.45	0	-1.51	0	-1.12	387.35	0	0	0	0	0	0	-392.39	-392.39
8000	T37	623038.4	4758881	299	175	0	73.3	73.3	11820.14	64.46	8000	92.45	0	-1.51	0	-1.12	1381.6	0	0	0	0	0	0	-1399.21	-1399.21
63	T10	623259.47	4758989.94	299	175	0	86.3	86.3	11939.39	64.43	63	92.54	0	-5.03	0	0	1.45	0	0	0	0	0	0	-2.66	-2.66
125	T10	623259.47	4758989.94	299	175	0	91.7	91.7	11939.39	64.43	125	92.54	0	1.17	0	0	4.91	0	0	0	0	0	0	-6.92	-6.92
250	T10	623259.47	4758989.94	299	175	0	98.7	98.7	11939.39	64.43	250	92.54	0	-0.54	0	0	12.46	0	0	0	0	0	0	-5.76	-5.76
500	T10	623259.47	4758989.94	299	175	0	100.8	100.8	11939.39	64.43	500	92.54	0	-1.51	0	0	23.02	0	0	0	0	0	0	-13.25	-13.25
1000	T10	623259.47	4758989.94	299	175	0	98.3	98.3	11939.39	64.43	1000	92.54	0	-1.51	0	0	43.67	0	0	0	0	0	0	-36.4	-36.4
2000	T10	623259.47	4758989.94	299	175	0	92.8	92.8	11939.39	64.43	2000	92.54	0	-1.51	0	0	115.38	0	0	0	0	0	0	-113.61	-113.61
4000	T10	623259.47	4758989.94	299	175	0	85.9	85.9	11939.39	64.43	4000	92.54	0	-1.51	0	0	391.25	0	0	0	0	0	0	-396.39	-396.39
8000	T10	623259.47	4758989.94	299	175	0	73.3	73.3	11939.39	64.43	8000	92.54	0	-1.51	0	0	1395.5	0	0	0	0	0	0	-1413.23	-1413.23
63	RFT	615270	4756417	250	175	0	87.6	87.6	11871.13	39.84	63	92.49	0	-5.4	0	0	1.44	0	0	0	0	0	0	-0.94	-0.94
125	RFT	615270	4756417	250	175	0	95.2	95.2	11871.13	39.84	125	92.49	0	1.06	0	0	4.88	0	0	0	0	0	0	-3.23	-3.23
250	RFT	615270	4756417	250	175	0	94.3	94.3	11871.13	39.84	250	92.49	0	-0.65	0	0	12.39	0	0	0	0	0	0	-9.93	-9.93
500	RFT	615270	4756417	250	175	0	97.1	97.1	11871.13	39.84	500	92.49	0	-1.62	0	0	22.89	0	0	0	0	0	0	-16.66	-16.66
1000	RFT	615270	4756417	250	175	0	98.9	98.9	11871.13	39.84	1000	92.49	0	-1.62	0	0	43.42	0	0	0	0	0	0	-35.39	-35.39
2000	RFT	615270	4756417	250	175	0	94.6	94.6	11871.13	39.84	2000	92.49	0	-1.62	0	0	114.72	0	0	0	0	0	0	-110.99	-110.99
4000	RFT	615270	4756417	250	175	0	83.1	83.1	11871.13	39.84	4000	92.49	0	-1.62	0	0	389.02	0	0	0	0	0	0	-396.79	-396.79
8000	RFT	615270	4756417	250	175	0	75.8	75.8	11871.13	39.84	8000	92.49	0	-1.62	0	0	1387.5	0	0	0	0	0	0	-1402.59	-1402.59
63	T95	622816.64	4760851	304	180	0	86.3	86.3	13783.41	66.99	63	93.79	0	-5.16	0	0	1.68	0	0	0	0	0	0	-4	-4
125	T95	622816.64	4760851	304	180	0	91.7	91.7	13783.41	66.99	125	93.79	0	1.13	0	0	5.66	0	0	0	0	0	0	-8.89	-8.89
250	T95	622816.64	4760851	304	180	0	98.7	98.7	13783.41	66.99	250	93.79	0	-0.58	0	0	14.38	0	0	0	0	0	0	-8.89	-8.89
500	T95	622816.64	4760851	304	180	0	100.8	100.8	13783.41	66.99	500	93.79	0	-1.55	0	0	26.57	0	0	0	0	0	0	-18.01	-18.01
1000	T95	622816.64	4760851	304	180	0	98.3	98.3	13783.41	66.99	1000	93.79	0	-1.55	0	0	50.42	0	0	0	0	0	0	-44.35	-44.35
2000	T95	622816.64	4760851	304	180	0	92.8	92.8	13783.41	66.99	2000	93.79	0	-1.55	0	0	133.2	0	0	0	0	0	0	-132.64	-132.64
4000	T95	622816.64	4760851	304	180	0	85.9	85.9	13783.41	66.99	4000	93.79	0	-1.55	0	0	451.68	0	0	0	0	0	0	-458.02	-458.02
8000	T95	622816.64	4760851	304	180	0	73.3	73.3	13783.41	66.99	8000	93.79	0	-1.55	0	0	1611	0	0	0	0	0	0	-1629.97	-1629.97
63	T74	621655.82	4763002.28	314.65	179.65	0	86.3	86.3	15960.06	72.15	63	95.06	0	-5.21	0	0	1.94	0	0	0	0	0	0	-5.49	-5.49
125	T74	621655.82	4763002.28	314.65	179.65	0	91.7	91.7	15960.06	72.15	125	95.06	0	1.12	0	0	6.56	0	0	0	0	0	0	-11.04	-11.04
250	T74	621655.82	4763002.28	314.65	179.65	0	98.7	98.7	15960.06	72.15	250	95.06	0	-0.59	0	0	16.65	0	0	0	0	0	0	-12.42	-12.42
500	T74	621655.82	4763002.28	314.65	179.65	0	100.8	100.8	15960.06	72.15	500	95.06	0	-1.56	0	0	30.77	0	0	0	0	0	0	-23.47	-23.47
1000	T74	621655.82	4763002.28	314.65	179.65	0	98.3	98.3	15960.06	72.15	1000	95.06	0	-1.56	0	0	58.38	0	0	0	0	0	0	-53.57	-53.57
2000	T74	621655.82	4763002.28	314.65	179.65	0	92.8	92.8	15960.06	72.15	2000	95.06	0	-1.56	0	0	154.24	0	0	0	0	0	0	-154.93	-154.93
4000	T74	621655.82	4763002.28	314.65	179.65	0	85.9	85.9	15960.06	72.15	4000	95.06	0	-1.56	0	0	523.01	0	0	0	0	0	0	-530.61	-530.61
8000	T74	621655.82	4763002.28	314.65	179.65	0	73.3	73.3	15960.06	72.15	8000	95.06	0	-1.56	0	0	1865.4	0	0	0	0	0	0	-1885.64	-1885.64
63	T09	616789.8	4762576.13	304	180	0	86.3	86.3	16555.16	67.28	63	95.38	0	-5.3	0	0	2.01	0	0	0	0	0	0	-5.79	-5.79
125	T09	616789.8	4762576.13	304	180	0	91.7	91.7	16555.16	67.28	125	95.38	0	1.09	0	0	6.8	0	0	0	0	0	0	-11.57	-11.57
250	T09	616789.8	4762576.13	304	180	0	98.7	98.7	16555.16	67.28	250	95.38	0	-0.62	0	0	17.27	0	0	0	0	0	0	-13.33	-13.33
500	T09	616789.8	4762576.13	304	180	0	100.8	100.8	16555.16	67.28	500	95.38	0	-1.59	0	0	31.92	0	0	0	0	0	0	-24.91	-24.91
1000	T09	616789.8	4762576.13	304	180	0	98.3	98.3	16555.16	67.28	1000	95.38	0	-1.59	0	0	60.55	0	0	0	0	0	0	-56.04	-56.04
2000	T09	616789.8	4762576.13	304	180	0	92.8	92.8	16555.16	67.28	2000	95.38	0	-1.59	0	0	159.99	0	0	0	0	0	0	-160.98	-160.98
4000	T09	616789.8	4762576.13	304	180	0	85.9	85.9	16555.16	67.28	4000	95.38	0	-1.59	0	0	542.51	0	0	0	0	0	0	-550.4	-550.4
8000	T09	616789.8	4762576.13	304	180	0	73.3	73.3	16555.16	67.28	8000	95.38	0	-1.59	0	0	1935	0	0	0	0	0	0	-1955.49	-1955.49
63	T51	617020.3	4762751.78	304	180	0	86.3	86.3	16641.27	67.34	63	95.42	0	-5.31	0	0	2.03	0	0	0	0	0	0	-5.84	-5.84
125	T51	617020.3	4762751.78	304	180	0	91.7	91.7	16641.27	67.34	125	95.42	0	1.09	0	0	6.84	0	0	0	0	0	0	-11.65	-11.65
250	T51	617020.3	4762751.78	304	180	0	98.7	98.7	16641.27	67.34	250	95.42	0	-0.62	0	0	17.36	0	0	0	0	0	0	-13.47	-13.47
500	T51	617020.3	4762751.78	304	180	0	100.8	100.8	16641.27	67.34	500	95.42	0	-1.59	0	0	32.08	0	0	0	0	0	0	-25.12	-25.12
1000	T51	617020.3	4762751.78	304	180	0	98.3	98.3	16641.27	67.34	1000	95.42	0	-1.59	0	0	60.87	0	0	0	0	0	0	-56.4	-56.4
2000	T51	617020.3	4762751.78	304	180	0	92.8	92.8	16641.27	67.34	2000	95.42	0	-1.59	0	0	160.82	0	0	0	0	0	0	-161.85	-161.85
4000	T51	617020.3	4762751.78	304	180	0	85.9	85.9	16641.27	67.34	4000	95.42	0	-1.59	0	0	545.34	0	0	0	0	0	0	-553.27	-553.27
8000	T51	617020.3	4762751.78	304	180	0	73.3	73.3	16641.27	67.34	8000	95.42	0	-1.59	0	0	1945.1	0	0	0	0	0	0	-1965.6	-1965.6
63	T29	628498	4763100.45	303.09	179.09	0	86.3	86.3	17085.59	66.45	63	95.65	0	-5.32	0	0	2.08	0	0	0	0	0	0	-6.11	-6.11
125	T29	628498	4763100.45	303.09	179.09	0	91.7	91.7	17085.59	66.45	125	95.65													

63	T07	618635.59	4764052.89	304	180	0	86.3	86.3	17437.16	67.09	63	95.83	0	-5.34	0	0	2.12	0	0	0	0	0	-6.31	-6.31
125	T07	618635.59	4764052.89	304	180	0	91.7	91.7	17437.16	67.09	125	95.83	0	1.08	0	0	7.17	0	0	0	0	0	-12.38	-12.38
250	T07	618635.59	4764052.89	304	180	0	98.7	98.7	17437.16	67.09	250	95.83	0	-0.63	0	0	18.19	0	0	0	0	0	-14.69	-14.69
500	T07	618635.59	4764052.89	304	180	0	100.8	100.8	17437.16	67.09	500	95.83	0	-1.6	0	0	33.62	0	0	0	0	0	-27.05	-27.05
1000	T07	618635.59	4764052.89	304	180	0	98.3	98.3	17437.16	67.09	1000	95.83	0	-1.6	0	0	63.78	0	0	0	0	0	-59.71	-59.71
2000	T07	618635.59	4764052.89	304	180	0	92.8	92.8	17437.16	67.09	2000	95.83	0	-1.6	0	0	168.51	0	0	0	0	0	-169.94	-169.94
4000	T07	618635.59	4764052.89	304	180	0	85.9	85.9	17437.16	67.09	4000	95.83	0	-1.6	0	0	571.42	0	0	0	0	0	-579.75	-579.75
8000	T07	618635.59	4764052.89	304	180	0	73.3	73.3	17437.16	67.09	8000	95.83	0	-1.6	0	0	2038.1	0	0	0	0	0	-2059.02	-2059.02
63	T32	624780.53	4764409.82	304	180	0	86.3	86.3	17478.3	67.69	63	95.85	0	-5.34	0	0	2.13	0	0	0	0	0	-6.34	-6.34
125	T32	624780.53	4764409.82	304	180	0	91.7	91.7	17478.3	67.69	125	95.85	0	1.08	0	0	7.18	0	0	0	0	0	-12.41	-12.41
250	T32	624780.53	4764409.82	304	180	0	98.7	98.7	17478.3	67.69	250	95.85	0	-0.63	0	0	18.24	0	0	0	0	0	-14.76	-14.76
500	T32	624780.53	4764409.82	304	180	0	100.8	100.8	17478.3	67.69	500	95.85	0	-1.6	0	0	33.7	0	0	0	0	0	-27.15	-27.15
1000	T32	624780.53	4764409.82	304	180	0	98.3	98.3	17478.3	67.69	1000	95.85	0	-1.6	0	0	63.93	0	0	0	0	0	-59.88	-59.88
2000	T32	624780.53	4764409.82	304	180	0	92.8	92.8	17478.3	67.69	2000	95.85	0	-1.6	0	0	168.91	0	0	0	0	0	-170.36	-170.36
4000	T32	624780.53	4764409.82	304	180	0	85.9	85.9	17478.3	67.69	4000	95.85	0	-1.6	0	0	572.77	0	0	0	0	0	-581.11	-581.11
8000	T32	624780.53	4764409.82	304	180	0	73.3	73.3	17478.3	67.69	8000	95.85	0	-1.6	0	0	2042.9	0	0	0	0	0	-2063.85	-2063.85
63	T75	621356.89	4764542.57	304	180	0	86.3	86.3	17516.3	66.55	63	95.87	0	-5.34	0	0	2.13	0	0	0	0	0	-6.36	-6.36
125	T75	621356.89	4764542.57	304	180	0	91.7	91.7	17516.3	66.55	125	95.87	0	1.08	0	0	7.2	0	0	0	0	0	-12.45	-12.45
250	T75	621356.89	4764542.57	304	180	0	98.7	98.7	17516.3	66.55	250	95.87	0	-0.63	0	0	18.28	0	0	0	0	0	-14.82	-14.82
500	T75	621356.89	4764542.57	304	180	0	100.8	100.8	17516.3	66.55	500	95.87	0	-1.6	0	0	33.77	0	0	0	0	0	-27.24	-27.24
1000	T75	621356.89	4764542.57	304	180	0	98.3	98.3	17516.3	66.55	1000	95.87	0	-1.6	0	0	64.07	0	0	0	0	0	-60.04	-60.04
2000	T75	621356.89	4764542.57	304	180	0	92.8	92.8	17516.3	66.55	2000	95.87	0	-1.6	0	0	169.28	0	0	0	0	0	-170.74	-170.74
4000	T75	621356.89	4764542.57	304	180	0	85.9	85.9	17516.3	66.55	4000	95.87	0	-1.6	0	0	574.01	0	0	0	0	0	-582.38	-582.38
8000	T75	621356.89	4764542.57	304	180	0	73.3	73.3	17516.3	66.55	8000	95.87	0	-1.6	0	0	2047.3	0	0	0	0	0	-2068.31	-2068.31
63	ST1	621959.7	4761728	182.29	178.59	0	72.8	72.8	14671.46	6.36	63	94.33	0	-5.95	4.77	0	1.79	0	0	0	0	0	-22.14	-22.14
125	ST1	621959.7	4761728	182.29	178.59	0	87.9	87.9	14671.46	6.36	125	94.33	0	3.78	0.99	0	6.03	0	0	0	0	0	-17.23	-17.23
250	ST1	621959.7	4761728	182.29	178.59	0	94.4	94.4	14671.46	6.36	250	94.33	0	0.94	3.83	0	15.31	0	0	0	0	0	-20.01	-20.01
500	ST1	621959.7	4761728	182.29	178.59	0	99.8	99.8	14671.46	6.36	500	94.33	0	-1.77	4.77	0	28.28	0	0	0	0	0	-25.82	-25.82
1000	ST1	621959.7	4761728	182.29	178.59	0	97	97	14671.46	6.36	1000	94.33	0	-1.78	4.77	0	53.66	0	0	0	0	0	-53.98	-53.98
2000	ST1	621959.7	4761728	182.29	178.59	0	93.2	93.2	14671.46	6.36	2000	94.33	0	-1.78	4.77	0	141.78	0	0	0	0	0	-145.9	-145.9
4000	ST1	621959.7	4761728	182.29	178.59	0	88	88	14671.46	6.36	4000	94.33	0	-1.78	4.77	0	480.79	0	0	0	0	0	-490.1	-490.1
8000	ST1	621959.7	4761728	182.29	178.59	0	78.9	78.9	14671.46	6.36	8000	94.33	0	-1.78	4.77	0	1714.8	0	0	0	0	0	-1733.25	-1733.25
63	T34	626486	4764591.38	304	180	0	86.3	86.3	17950.14	66.24	63	96.08	0	-5.36	0	0	2.18	0	0	0	0	0	-6.61	-6.61
125	T34	626486	4764591.38	304	180	0	91.7	91.7	17950.14	66.24	125	96.08	0	1.08	0	0	7.38	0	0	0	0	0	-12.83	-12.83
250	T34	626486	4764591.38	304	180	0	98.7	98.7	17950.14	66.24	250	96.08	0	-0.63	0	0	18.73	0	0	0	0	0	-15.48	-15.48
500	T34	626486	4764591.38	304	180	0	100.8	100.8	17950.14	66.24	500	96.08	0	-1.61	0	0	34.61	0	0	0	0	0	-28.28	-28.28
1000	T34	626486	4764591.38	304	180	0	98.3	98.3	17950.14	66.24	1000	96.08	0	-1.61	0	0	65.66	0	0	0	0	0	-61.83	-61.83
2000	T34	626486	4764591.38	304	180	0	92.8	92.8	17950.14	66.24	2000	96.08	0	-1.61	0	0	173.47	0	0	0	0	0	-175.14	-175.14
4000	T34	626486	4764591.38	304	180	0	85.9	85.9	17950.14	66.24	4000	96.08	0	-1.61	0	0	588.23	0	0	0	0	0	-596.8	-596.8
8000	T34	626486	4764591.38	304	180	0	73.3	73.3	17950.14	66.24	8000	96.08	0	-1.61	0	0	2098.1	0	0	0	0	0	-2119.22	-2119.22
63	T39	617348.6	4764279.28	304	180	0	86.3	86.3	17989.58	66.81	63	96.1	0	-5.36	0	0	2.19	0	0	0	0	0	-6.63	-6.63
125	T39	617348.6	4764279.28	304	180	0	91.7	91.7	17989.58	66.81	125	96.1	0	1.08	0	0	7.39	0	0	0	0	0	-12.87	-12.87
250	T39	617348.6	4764279.28	304	180	0	98.7	98.7	17989.58	66.81	250	96.1	0	-0.63	0	0	18.77	0	0	0	0	0	-15.54	-15.54
500	T39	617348.6	4764279.28	304	180	0	100.8	100.8	17989.58	66.81	500	96.1	0	-1.61	0	0	34.68	0	0	0	0	0	-28.38	-28.38
1000	T39	617348.6	4764279.28	304	180	0	98.3	98.3	17989.58	66.81	1000	96.1	0	-1.61	0	0	65.8	0	0	0	0	0	-61.99	-61.99
2000	T39	617348.6	4764279.28	304	180	0	92.8	92.8	17989.58	66.81	2000	96.1	0	-1.61	0	0	173.85	0	0	0	0	0	-175.54	-175.54
4000	T39	617348.6	4764279.28	304	180	0	85.9	85.9	17989.58	66.81	4000	96.1	0	-1.61	0	0	589.52	0	0	0	0	0	-598.11	-598.11
8000	T39	617348.6	4764279.28	304	180	0	73.3	73.3	17989.58	66.81	8000	96.1	0	-1.61	0	0	2102.7	0	0	0	0	0	-2123.85	-2123.85
63	T35	627163.52	4764483.09	304	180	0	86.3	86.3	18004.59	66.35	63	96.11	0	-5.36	0	0	2.19	0	0	0	0	0	-6.64	-6.64
125	T35	627163.52	4764483.09	304	180	0	91.7	91.7	18004.59	66.35	125	96.11	0	1.08	0	0	7.4	0	0	0	0	0	-12.88	-12.88
250	T35	627163.52	4764483.09	304	180	0	98.7	98.7	18004.59	66.35	250	96.11	0	-0.63	0	0	18.79	0	0	0	0	0	-15.56	-15.56
500	T35	627163.52	4764483.09	304	180	0	100.8	100.8	18004.59	66.35	500	96.11	0	-1.61	0	0	34.71	0	0	0	0	0	-28.41	-28.41
1000	T35	627163.52	4764483.09	304	180	0	98.3	98.3	18004.59	66.35	1000	96.11	0	-1.61	0	0	65.86	0	0	0	0	0	-62.06	-62.06
2000	T35	627163.52	4764483.09	304	180	0	92.8	92.8	18004.59	66.35	2000	96.11	0	-1.61	0	0	174	0	0	0	0	0	-175.7	-175.7
4000	T35	627163.52	4764483.09	304	180	0	85.9	85.9	18004.59	66.35	4000	96.11	0	-1.61	0	0	590.01	0	0	0	0	0	-598.61	-598.61
8000	T35	627163.52	4764483.09	304	180	0	73.3	73.3	18004.59	66.35	8000	96.11	0	-1.61	0	0	2104.4	0	0	0	0	0	-2125.61	-2125.61
63	T03	629891.21	4763587.5	304	180	0	86.3	86.3	18060.43	67.24	63	96.13	0	-5.36	0	0	2.2	0	0	0	0	0	-6.67	-6.67
125																								

4000	T76	623639.91	4765719.45	304	180	0	85.9	85.9	18679.47	67.09	4000	96.43	0	-1.61	0	0	612.13	0	0	0	0	0	0	-621.04	-621.04
8000	T76	623639.91	4765719.45	304	180	0	73.3	73.3	18679.47	67.09	8000	96.43	0	-1.61	0	0	2183.3	0	0	0	0	0	0	-2204.81	-2204.81
63	T01	622985.76	4765745.26	306.25	182.25	0	86.3	86.3	18679.89	68.04	63	96.43	0	-5.38	0	0	2.27	0	0	0	0	0	0	-7.02	-7.02
125	T01	622985.76	4765745.26	306.25	182.25	0	91.7	91.7	18679.89	68.04	125	96.43	0	1.07	0	0	7.68	0	0	0	0	0	0	-13.47	-13.47
250	T01	622985.76	4765745.26	306.25	182.25	0	98.7	98.7	18679.89	68.04	250	96.43	0	-0.64	0	0	19.49	0	0	0	0	0	0	-16.58	-16.58
500	T01	622985.76	4765745.26	306.25	182.25	0	100.8	100.8	18679.89	68.04	500	96.43	0	-1.61	0	0	36.01	0	0	0	0	0	0	-30.03	-30.03
1000	T01	622985.76	4765745.26	306.25	182.25	0	98.3	98.3	18679.89	68.04	1000	96.43	0	-1.61	0	0	68.33	0	0	0	0	0	0	-64.84	-64.84
2000	T01	622985.76	4765745.26	306.25	182.25	0	92.8	92.8	18679.89	68.04	2000	96.43	0	-1.61	0	0	180.52	0	0	0	0	0	0	-182.53	-182.53
4000	T01	622985.76	4765745.26	306.25	182.25	0	85.9	85.9	18679.89	68.04	4000	96.43	0	-1.61	0	0	612.14	0	0	0	0	0	0	-621.06	-621.06
8000	T01	622985.76	4765745.26	306.25	182.25	0	73.3	73.3	18679.89	68.04	8000	96.43	0	-1.61	0	0	2183.3	0	0	0	0	0	0	-2204.86	-2204.86
63	T78	628581	4764783	304	180	0	86.3	86.3	18699.75	66.38	63	96.44	0	-5.38	0	0	2.28	0	0	0	0	0	0	-7.03	-7.03
125	T78	628581	4764783	304	180	0	91.7	91.7	18699.75	66.38	125	96.44	0	1.07	0	0	7.68	0	0	0	0	0	0	-13.49	-13.49
250	T78	628581	4764783	304	180	0	98.7	98.7	18699.75	66.38	250	96.44	0	-0.64	0	0	19.51	0	0	0	0	0	0	-16.61	-16.61
500	T78	628581	4764783	304	180	0	100.8	100.8	18699.75	66.38	500	96.44	0	-1.61	0	0	36.05	0	0	0	0	0	0	-30.07	-30.07
1000	T78	628581	4764783	304	180	0	98.3	98.3	18699.75	66.38	1000	96.44	0	-1.61	0	0	68.4	0	0	0	0	0	0	-64.92	-64.92
2000	T78	628581	4764783	304	180	0	92.8	92.8	18699.75	66.38	2000	96.44	0	-1.61	0	0	180.71	0	0	0	0	0	0	-182.74	-182.74
4000	T78	628581	4764783	304	180	0	85.9	85.9	18699.75	66.38	4000	96.44	0	-1.61	0	0	612.79	0	0	0	0	0	0	-621.72	-621.72
8000	T78	628581	4764783	304	180	0	73.3	73.3	18699.75	66.38	8000	96.44	0	-1.61	0	0	2185.7	0	0	0	0	0	0	-2207.19	-2207.19
63	T54	619944	4765594	304	180	0	86.3	86.3	18712.12	66.05	63	96.44	0	-5.38	0	0	2.28	0	0	0	0	0	0	-7.04	-7.04
125	T54	619944	4765594	304	180	0	91.7	91.7	18712.12	66.05	125	96.44	0	1.07	0	0	7.69	0	0	0	0	0	0	-13.5	-13.5
250	T54	619944	4765594	304	180	0	98.7	98.7	18712.12	66.05	250	96.44	0	-0.64	0	0	19.52	0	0	0	0	0	0	-16.62	-16.62
500	T54	619944	4765594	304	180	0	100.8	100.8	18712.12	66.05	500	96.44	0	-1.61	0	0	36.07	0	0	0	0	0	0	-30.1	-30.1
1000	T54	619944	4765594	304	180	0	98.3	98.3	18712.12	66.05	1000	96.44	0	-1.61	0	0	68.44	0	0	0	0	0	0	-64.97	-64.97
2000	T54	619944	4765594	304	180	0	92.8	92.8	18712.12	66.05	2000	96.44	0	-1.61	0	0	180.83	0	0	0	0	0	0	-182.86	-182.86
4000	T54	619944	4765594	304	180	0	85.9	85.9	18712.12	66.05	4000	96.44	0	-1.61	0	0	613.2	0	0	0	0	0	0	-622.13	-622.13
8000	T54	619944	4765594	304	180	0	73.3	73.3	18712.12	66.05	8000	96.44	0	-1.61	0	0	2187.1	0	0	0	0	0	0	-2208.64	-2208.64
63	T38	620669.21	4765751.77	304	180	0	86.3	86.3	18780.43	66.31	63	96.47	0	-5.38	0	0	2.29	0	0	0	0	0	0	-7.08	-7.08
125	T38	620669.21	4765751.77	304	180	0	91.7	91.7	18780.43	66.31	125	96.47	0	1.07	0	0	7.72	0	0	0	0	0	0	-13.56	-13.56
250	T38	620669.21	4765751.77	304	180	0	98.7	98.7	18780.43	66.31	250	96.47	0	-0.64	0	0	19.6	0	0	0	0	0	0	-16.73	-16.73
500	T38	620669.21	4765751.77	304	180	0	100.8	100.8	18780.43	66.31	500	96.47	0	-1.61	0	0	36.21	0	0	0	0	0	0	-30.27	-30.27
1000	T38	620669.21	4765751.77	304	180	0	98.3	98.3	18780.43	66.31	1000	96.47	0	-1.62	0	0	68.69	0	0	0	0	0	0	-65.25	-65.25
2000	T38	620669.21	4765751.77	304	180	0	92.8	92.8	18780.43	66.31	2000	96.47	0	-1.62	0	0	181.49	0	0	0	0	0	0	-183.55	-183.55
4000	T38	620669.21	4765751.77	304	180	0	85.9	85.9	18780.43	66.31	4000	96.47	0	-1.62	0	0	615.44	0	0	0	0	0	0	-624.4	-624.4
8000	T38	620669.21	4765751.77	304	180	0	73.3	73.3	18780.43	66.31	8000	96.47	0	-1.62	0	0	2195.1	0	0	0	0	0	0	-2216.65	-2216.65
63	T31	625150	4765821	309	185	0	86.3	86.3	18925.63	69.73	63	96.54	0	-5.39	0	0	2.3	0	0	0	0	0	0	-7.16	-7.16
125	T31	625150	4765821	309	185	0	91.7	91.7	18925.63	69.73	125	96.54	0	1.07	0	0	7.78	0	0	0	0	0	0	-13.68	-13.68
250	T31	625150	4765821	309	185	0	98.7	98.7	18925.63	69.73	250	96.54	0	-0.64	0	0	19.75	0	0	0	0	0	0	-16.94	-16.94
500	T31	625150	4765821	309	185	0	100.8	100.8	18925.63	69.73	500	96.54	0	-1.62	0	0	36.49	0	0	0	0	0	0	-30.61	-30.61
1000	T31	625150	4765821	309	185	0	98.3	98.3	18925.63	69.73	1000	96.54	0	-1.62	0	0	69.22	0	0	0	0	0	0	-65.85	-65.85
2000	T31	625150	4765821	309	185	0	92.8	92.8	18925.63	69.73	2000	96.54	0	-1.62	0	0	182.9	0	0	0	0	0	0	-185.02	-185.02
4000	T31	625150	4765821	309	185	0	85.9	85.9	18925.63	69.73	4000	96.54	0	-1.62	0	0	620.19	0	0	0	0	0	0	-629.22	-629.22
8000	T31	625150	4765821	309	185	0	73.3	73.3	18925.63	69.73	8000	96.54	0	-1.62	0	0	2212.1	0	0	0	0	0	0	-2233.69	-2233.69
63	T36	622378.63	4763063.13	310	175	0	86.6	86.6	15994.99	70.37	63	95.08	0	-5.22	0	0	1.95	0	0	0	0	0	0	-5.21	-5.21
125	T36	622378.63	4763063.13	310	175	0	94.7	94.7	15994.99	70.37	125	95.08	0	1.12	0	0	6.57	0	0	0	0	0	0	-8.07	-8.07
250	T36	622378.63	4763063.13	310	175	0	94.4	94.4	15994.99	70.37	250	95.08	0	-0.59	0	0	16.69	0	0	0	0	0	0	-16.78	-16.78
500	T36	622378.63	4763063.13	310	175	0	97.3	97.3	15994.99	70.37	500	95.08	0	-1.56	0	0	30.84	0	0	0	0	0	0	-27.05	-27.05
1000	T36	622378.63	4763063.13	310	175	0	98.7	98.7	15994.99	70.37	1000	95.08	0	-1.56	0	0	58.5	0	0	0	0	0	0	-53.32	-53.32
2000	T36	622378.63	4763063.13	310	175	0	93.8	93.8	15994.99	70.37	2000	95.08	0	-1.56	0	0	154.57	0	0	0	0	0	0	-154.29	-154.29
4000	T36	622378.63	4763063.13	310	175	0	81.5	81.5	15994.99	70.37	4000	95.08	0	-1.56	0	0	524.16	0	0	0	0	0	0	-536.17	-536.17
8000	T36	622378.63	4763063.13	310	175	0	73.4	73.4	15994.99	70.37	8000	95.08	0	-1.56	0	0	1869.5	0	0	0	0	0	0	-1889.64	-1889.64
63	T97	617214.68	4765641.92	306.94	182.94	0	86.3	86.3	19334.01	68.04	63	96.73	0	-5.4	0	0	2.35	0	0	0	0	0	0	-7.38	-7.38
125	T97	617214.68	4765641.92	306.94	182.94	0	91.7	91.7	19334.01	68.04	125	96.73	0	1.06	0	0	7.95	0	0	0	0	0	0	-14.03	-14.03
250	T97	617214.68	4765641.92	306.94	182.94	0	98.7	98.7	19334.01	68.04	250	96.73	0	-0.65	0	0	20.17	0	0	0	0	0	0	-17.55	-17.55
500	T97	617214.68	4765641.92	306.94	182.94	0	100.8	100.8	19334.01	68.04	500	96.73	0	-1.62	0	0	37.27	0	0	0	0	0	0	-31.58	-31.58
1000	T97	617214.68	4765641.92	306.94	182.94	0	98.3	98.3	19334.01	68.04	1000	96.73	0	-1.62	0	0	70.72	0	0	0	0	0	0	-67.52	-67.52
2000	T97	617214.68	4765641.92	306.94	182.94	0	92.8	92.8	19334.01	68.04	2000	96.7													

[illegible]

Receiver: VNPOR0123
ID: V_1759
X: 623377.81
Y: 4747182.44
Z: 184.5
Ground: 180

ISO	ID	X	Y	Z	Ground	ReflOrd	LxT	LxN	Dist.	hm	Freq	Adiv	K0b	Agr	Abar	z	Aatm	Afol	Ahous	Cmet	CmetN	Dc	RL	LtotT	LtotN	
63	MH05	623076.72	4746794.36	260	180		0	57.5	57.5	496.95	41.76	63	64.93	0	-3	0	0	0.06	0	0	0	0	0	0	-4.49	-4.49
125	MH05	623076.72	4746794.36	260	180		0	72.4	72.4	496.95	41.76	125	64.93	0	1.45	0	0	0.2	0	0	0	0	0	0	5.81	5.81
250	MH05	623076.72	4746794.36	260	180		0	82.7	82.7	496.95	41.76	250	64.93	0	0.07	0	0	0.52	0	0	0	0	0	0	17.18	17.18
500	MH05	623076.72	4746794.36	260	180		0	90.4	90.4	496.95	41.76	500	64.93	0	-0.9	0	0	0.96	0	0	0	0	0	0	25.41	25.41
1000	MH05	623076.72	4746794.36	260	180		0	96.8	96.8	496.95	41.76	1000	64.93	0	-0.9	0	0	1.82	0	0	0	0	0	0	30.96	30.96
2000	MH05	623076.72	4746794.36	260	180		0	97.2	97.2	496.95	41.76	2000	64.93	0	-0.9	0	0	4.8	0	0	0	0	0	0	28.37	28.37
4000	MH05	623076.72	4746794.36	260	180		0	96	96	496.95	41.76	4000	64.93	0	-0.9	0	0	16.29	0	0	0	0	0	0	15.69	15.69
8000	MH05	623076.72	4746794.36	260	180		0	89.2	89.2	496.95	41.76	8000	64.93	0	-0.9	0	0	58.08	0	0	0	0	0	0	-32.91	-32.91
63	MH04	623297	4746604	260	180		0	57.5	57.5	588.92	41.9	63	66.4	0	-3	0	0	0.07	0	0	0	0	0	0	-5.97	-5.97
125	MH04	623297	4746604	260	180		0	72.4	72.4	588.92	41.9	125	66.4	0	1.53	0	0	0.24	0	0	0	0	0	0	4.22	4.22
250	MH04	623297	4746604	260	180		0	82.7	82.7	588.92	41.9	250	66.4	0	0.07	0	0	0.61	0	0	0	0	0	0	15.61	15.61
500	MH04	623297	4746604	260	180		0	90.4	90.4	588.92	41.9	500	66.4	0	-0.9	0	0	1.14	0	0	0	0	0	0	23.76	23.76
1000	MH04	623297	4746604	260	180		0	96.8	96.8	588.92	41.9	1000	66.4	0	-0.9	0	0	2.15	0	0	0	0	0	0	29.14	29.14
2000	MH04	623297	4746604	260	180		0	97.2	97.2	588.92	41.9	2000	66.4	0	-0.9	0	0	5.69	0	0	0	0	0	0	26.01	26.01
4000	MH04	623297	4746604	260	180		0	96	96	588.92	41.9	4000	66.4	0	-0.9	0	0	19.3	0	0	0	0	0	0	11.2	11.2
8000	MH04	623297	4746604	260	180		0	89.2	89.2	588.92	41.9	8000	66.4	0	-0.9	0	0	68.83	0	0	0	0	0	0	-45.13	-45.13
63	MH02	622640.11	4746450.28	260.47	180.47		0	57.5	57.5	1042.13	42.36	63	71.36	0	-3	0	0	0.13	0	0	0	0	0	0	-10.99	-10.99
125	MH02	622640.11	4746450.28	260.47	180.47		0	72.4	72.4	1042.13	42.36	125	71.36	0	1.75	0	0	0.43	0	0	0	0	0	0	-1.14	-1.14
250	MH02	622640.11	4746450.28	260.47	180.47		0	82.7	82.7	1042.13	42.36	250	71.36	0	0.07	0	0	1.09	0	0	0	0	0	0	10.18	10.18
500	MH02	622640.11	4746450.28	260.47	180.47		0	90.4	90.4	1042.13	42.36	500	71.36	0	-0.9	0	0	2.01	0	0	0	0	0	0	17.93	17.93
1000	MH02	622640.11	4746450.28	260.47	180.47		0	96.8	96.8	1042.13	42.36	1000	71.36	0	-0.9	0	0	3.81	0	0	0	0	0	0	22.53	22.53
2000	MH02	622640.11	4746450.28	260.47	180.47		0	97.2	97.2	1042.13	42.36	2000	71.36	0	-0.9	0	0	10.07	0	0	0	0	0	0	16.67	16.67
4000	MH02	622640.11	4746450.28	260.47	180.47		0	96	96	1042.13	42.36	4000	71.36	0	-0.9	0	0	34.15	0	0	0	0	0	0	-8.61	-8.61
8000	MH02	622640.11	4746450.28	260.47	180.47		0	89.2	89.2	1042.13	42.36	8000	71.36	0	-0.9	0	0	121.81	0	0	0	0	0	0	-103.06	-103.06
63	T45	623159.98	4748650.44	313.11	178.11		0	86.3	86.3	1489.64	69.2	63	74.46	0	-3	0	0	0.18	0	0	0	0	0	0	14.66	14.66
125	T45	623159.98	4748650.44	313.11	178.11		0	91.7	91.7	1489.64	69.2	125	74.46	0	1.78	0	0	0.61	0	0	0	0	0	0	14.84	14.84
250	T45	623159.98	4748650.44	313.11	178.11		0	98.7	98.7	1489.64	69.2	250	74.46	0	0.07	0	0	1.55	0	0	0	0	0	0	22.61	22.61
500	T45	623159.98	4748650.44	313.11	178.11		0	100.8	100.8	1489.64	69.2	500	74.46	0	-0.9	0	0	2.87	0	0	0	0	0	0	24.37	24.37
1000	T45	623159.98	4748650.44	313.11	178.11		0	98.3	98.3	1489.64	69.2	1000	74.46	0	-0.9	0	0	5.45	0	0	0	0	0	0	19.29	19.29
2000	T45	623159.98	4748650.44	313.11	178.11		0	92.8	92.8	1489.64	69.2	2000	74.46	0	-0.9	0	0	14.4	0	0	0	0	0	0	4.84	4.84
4000	T45	623159.98	4748650.44	313.11	178.11		0	85.9	85.9	1489.64	69.2	4000	74.46	0	-0.9	0	0	48.82	0	0	0	0	0	0	-36.48	-36.48
8000	T45	623159.98	4748650.44	313.11	178.11		0	73.3	73.3	1489.64	69.2	8000	74.46	0	-0.9	0	0	174.11	0	0	0	0	0	0	-174.37	-174.37
63	T47	622482.87	4748446.93	314.34	179.34		0	86.3	86.3	1554.58	69.34	63	74.83	0	-3	0	0	0.19	0	0	0	0	0	0	14.28	14.28
125	T47	622482.87	4748446.93	314.34	179.34		0	91.7	91.7	1554.58	69.34	125	74.83	0	1.78	0	0	0.64	0	0	0	0	0	0	14.45	14.45
250	T47	622482.87	4748446.93	314.34	179.34		0	98.7	98.7	1554.58	69.34	250	74.83	0	0.07	0	0	1.62	0	0	0	0	0	0	22.17	22.17
500	T47	622482.87	4748446.93	314.34	179.34		0	100.8	100.8	1554.58	69.34	500	74.83	0	-0.9	0	0	3	0	0	0	0	0	0	23.87	23.87
1000	T47	622482.87	4748446.93	314.34	179.34		0	98.3	98.3	1554.58	69.34	1000	74.83	0	-0.9	0	0	5.69	0	0	0	0	0	0	18.68	18.68
2000	T47	622482.87	4748446.93	314.34	179.34		0	92.8	92.8	1554.58	69.34	2000	74.83	0	-0.9	0	0	15.02	0	0	0	0	0	0	3.84	3.84
4000	T47	622482.87	4748446.93	314.34	179.34		0	85.9	85.9	1554.58	69.34	4000	74.83	0	-0.9	0	0	50.94	0	0	0	0	0	0	-38.98	-38.98
8000	T47	622482.87	4748446.93	314.34	179.34		0	73.3	73.3	1554.58	69.34	8000	74.83	0	-0.9	0	0	181.7	0	0	0	0	0	0	-182.33	-182.33
63	T44	624350	4748471	301.84	177.84		0	86.3	86.3	1618.43	64.01	63	75.18	0	-3	0	0	0.2	0	0	0	0	0	0	13.92	13.92
125	T44	624350	4748471	301.84	177.84		0	91.7	91.7	1618.43	64.01	125	75.18	0	1.78	0	0	0.67	0	0	0	0	0	0	14.07	14.07
250	T44	624350	4748471	301.84	177.84		0	98.7	98.7	1618.43	64.01	250	75.18	0	0.07	0	0	1.69	0	0	0	0	0	0	21.76	21.76
500	T44	624350	4748471	301.84	177.84		0	100.8	100.8	1618.43	64.01	500	75.18	0	-0.9	0	0	3.12	0	0	0	0	0	0	23.4	23.4
1000	T44	624350	4748471	301.84	177.84		0	98.3	98.3	1618.43	64.01	1000	75.18	0	-0.9	0	0	5.92	0	0	0	0	0	0	18.1	18.1
2000	T44	624350	4748471	301.84	177.84		0	92.8	92.8	1618.43	64.01	2000	75.18	0	-0.9	0	0	15.64	0	0	0	0	0	0	2.88	2.88
4000	T44	624350	4748471	301.84	177.84		0	85.9	85.9	1618.43	64.01	4000	75.18	0	-0.9	0	0	53.04	0	0	0	0	0	0	-41.42	-41.42
8000	T44	624350	4748471	301.84	177.84		0	73.3	73.3	1618.43	64.01	8000	75.18	0	-0.9	0	0	189.17	0	0	0	0	0	0	-190.15	-190.15
63	T14	624137	4748807	301.05	177.05		0	86.3	86.3	1796.98	63.93	63	76.09	0	-3	0	0	0.22	0	0	0	0	0	0	12.99	12.99
125	T14	624137	4748807	301.05	177.05		0	91.7	91.7	1796.98	63.93	125	76.09	0	1.78	0	0	0.74	0	0	0	0	0	0	13.09	13.09
250	T14	624137	4748807	301.05	177.05		0	98.7	98.7	1796.98	63.93	250	76.09	0	0.07	0	0	1.87	0	0	0	0	0	0	20.66	20.66
500	T14	624137	4748807	301.05	177.05		0	100.8	100.8	1796.98	63.93	500	76.09	0	-0.9	0	0	3.46	0	0	0	0	0	0	22.14	22.14
1000	T14	624137	4748807	301.05	177.05		0	98.3	98.3	1796.98	63.93	1000	76.09	0	-0.9	0	0	6.57	0	0	0	0	0	0	16.54	16.54
2000	T14	624137	4748807	301.05	177.05		0	92.8	92.8	1796.98	63.93	2000	76.09	0	-0.9	0	0	17.37								

1000	T21	625004	4748242	302.63	178.63	0	98.3	98.3	1944.51	64.16	1000	76.78	0	-0.9	0	0	7.11	0	0	0	0	0	0	15.31	15.31
2000	T21	625004	4748242	302.63	178.63	0	92.8	92.8	1944.51	64.16	2000	76.78	0	-0.9	0	0	18.79	0	0	0	0	0	0	-1.87	-1.87
4000	T21	625004	4748242	302.63	178.63	0	85.9	85.9	1944.51	64.16	4000	76.78	0	-0.9	0	0	63.72	0	0	0	0	0	0	-53.7	-53.7
8000	T21	625004	4748242	302.63	178.63	0	73.3	73.3	1944.51	64.16	8000	76.78	0	-0.9	0	0	227.28	0	0	0	0	0	0	-229.85	-229.85
63	T61	625177	4747970	302.9	178.9	0	86.3	86.3	1967.58	64.02	63	76.88	0	-3	0	0	0.24	0	0	0	0	0	0	12.18	12.18
125	T61	625177	4747970	302.9	178.9	0	91.7	91.7	1967.58	64.02	125	76.88	0	1.78	0	0	0.81	0	0	0	0	0	0	12.23	12.23
250	T61	625177	4747970	302.9	178.9	0	98.7	98.7	1967.58	64.02	250	76.88	0	0.07	0	0	2.05	0	0	0	0	0	0	19.7	19.7
500	T61	625177	4747970	302.9	178.9	0	100.8	100.8	1967.58	64.02	500	76.88	0	-0.9	0	0	3.79	0	0	0	0	0	0	21.03	21.03
1000	T61	625177	4747970	302.9	178.9	0	98.3	98.3	1967.58	64.02	1000	76.88	0	-0.9	0	0	7.2	0	0	0	0	0	0	15.12	15.12
2000	T61	625177	4747970	302.9	178.9	0	92.8	92.8	1967.58	64.02	2000	76.88	0	-0.9	0	0	19.01	0	0	0	0	0	0	-2.19	-2.19
4000	T61	625177	4747970	302.9	178.9	0	85.9	85.9	1967.58	64.02	4000	76.88	0	-0.9	0	0	64.48	0	0	0	0	0	0	-54.56	-54.56
8000	T61	625177	4747970	302.9	178.9	0	73.3	73.3	1967.58	64.02	8000	76.88	0	-0.9	0	0	229.97	0	0	0	0	0	0	-232.65	-232.65
63	T22	624829.2	4748510	302.04	178.04	0	86.3	86.3	1970.47	64.14	63	76.89	0	-3	0	0	0.24	0	0	0	0	0	0	12.17	12.17
125	T22	624829.2	4748510	302.04	178.04	0	91.7	91.7	1970.47	64.14	125	76.89	0	1.78	0	0	0.81	0	0	0	0	0	0	12.22	12.22
250	T22	624829.2	4748510	302.04	178.04	0	98.7	98.7	1970.47	64.14	250	76.89	0	0.07	0	0	2.06	0	0	0	0	0	0	19.68	19.68
500	T22	624829.2	4748510	302.04	178.04	0	100.8	100.8	1970.47	64.14	500	76.89	0	-0.9	0	0	3.8	0	0	0	0	0	0	21.01	21.01
1000	T22	624829.2	4748510	302.04	178.04	0	98.3	98.3	1970.47	64.14	1000	76.89	0	-0.9	0	0	7.21	0	0	0	0	0	0	15.1	15.1
2000	T22	624829.2	4748510	302.04	178.04	0	92.8	92.8	1970.47	64.14	2000	76.89	0	-0.9	0	0	19.04	0	0	0	0	0	0	-2.23	-2.23
4000	T22	624829.2	4748510	302.04	178.04	0	85.9	85.9	1970.47	64.14	4000	76.89	0	-0.9	0	0	64.57	0	0	0	0	0	0	-54.66	-54.66
8000	T22	624829.2	4748510	302.04	178.04	0	73.3	73.3	1970.47	64.14	8000	76.89	0	-0.9	0	0	230.31	0	0	0	0	0	0	-233	-233
63	MH03	623974	4745737	265.45	185.45	0	57.5	57.5	1565.66	43.06	63	74.89	0	-3	0	0	0.19	0	0	0	0	0	0	-14.58	-14.58
125	MH03	623974	4745737	265.45	185.45	0	72.4	72.4	1565.66	43.06	125	74.89	0	1.78	0	0	0.64	0	0	0	0	0	0	-4.92	-4.92
250	MH03	623974	4745737	265.45	185.45	0	82.7	82.7	1565.66	43.06	250	74.89	0	0.07	0	0	1.63	0	0	0	0	0	0	6.1	6.1
500	MH03	623974	4745737	265.45	185.45	0	90.4	90.4	1565.66	43.06	500	74.89	0	-0.9	0	0	3.02	0	0	0	0	0	0	13.39	13.39
1000	MH03	623974	4745737	265.45	185.45	0	96.8	96.8	1565.66	43.06	1000	74.89	0	-0.9	0	0	5.73	0	0	0	0	0	0	17.08	17.08
2000	MH03	623974	4745737	265.45	185.45	0	97.2	97.2	1565.66	43.06	2000	74.89	0	-0.9	0	0	15.13	0	0	0	0	0	0	8.08	8.08
4000	MH03	623974	4745737	265.45	185.45	0	96	96	1565.66	43.06	4000	74.89	0	-0.9	0	0	51.31	0	0	0	0	0	0	-29.3	-29.3
8000	MH03	623974	4745737	265.45	185.45	0	89.2	89.2	1565.66	43.06	8000	74.89	0	-0.9	0	0	183	0	0	0	0	0	0	-167.79	-167.79
63	T16	624153	4749242.91	300.29	176.29	0	86.3	86.3	2204.51	64.01	63	77.87	0	-3	0	0	0.27	0	0	0	0	0	0	11.17	11.17
125	T16	624153	4749242.91	300.29	176.29	0	91.7	91.7	2204.51	64.01	125	77.87	0	1.78	0	0	0.91	0	0	0	0	0	0	11.15	11.15
250	T16	624153	4749242.91	300.29	176.29	0	98.7	98.7	2204.51	64.01	250	77.87	0	0.07	0	0	2.3	0	0	0	0	0	0	18.46	18.46
500	T16	624153	4749242.91	300.29	176.29	0	100.8	100.8	2204.51	64.01	500	77.87	0	-0.9	0	0	4.25	0	0	0	0	0	0	19.58	19.58
1000	T16	624153	4749242.91	300.29	176.29	0	98.3	98.3	2204.51	64.01	1000	77.87	0	-0.9	0	0	8.06	0	0	0	0	0	0	13.27	13.27
2000	T16	624153	4749242.91	300.29	176.29	0	92.8	92.8	2204.51	64.01	2000	77.87	0	-0.9	0	0	21.3	0	0	0	0	0	0	-5.47	-5.47
4000	T16	624153	4749242.91	300.29	176.29	0	85.9	85.9	2204.51	64.01	4000	77.87	0	-0.9	0	0	72.24	0	0	0	0	0	0	-63.31	-63.31
8000	T16	624153	4749242.91	300.29	176.29	0	73.3	73.3	2204.51	64.01	8000	77.87	0	-0.9	0	0	257.67	0	0	0	0	0	0	-261.33	-261.33
63	T46	622737	4748967.6	313	178	0	86.6	86.6	1901.04	69.32	63	76.58	0	-3	0	0	0.23	0	0	0	0	0	0	12.79	12.79
125	T46	622737	4748967.6	313	178	0	94.7	94.7	1901.04	69.32	125	76.58	0	1.78	0	0	0.78	0	0	0	0	0	0	15.56	15.56
250	T46	622737	4748967.6	313	178	0	94.4	94.4	1901.04	69.32	250	76.58	0	0.07	0	0	1.98	0	0	0	0	0	0	15.76	15.76
500	T46	622737	4748967.6	313	178	0	97.3	97.3	1901.04	69.32	500	76.58	0	-0.9	0	0	3.66	0	0	0	0	0	0	17.95	17.95
1000	T46	622737	4748967.6	313	178	0	98.7	98.7	1901.04	69.32	1000	76.58	0	-0.9	0	0	6.95	0	0	0	0	0	0	16.07	16.07
2000	T46	622737	4748967.6	313	178	0	93.8	93.8	1901.04	69.32	2000	76.58	0	-0.9	0	0	18.37	0	0	0	0	0	0	-0.25	-0.25
4000	T46	622737	4748967.6	313	178	0	81.5	81.5	1901.04	69.32	4000	76.58	0	-0.9	0	0	62.3	0	0	0	0	0	0	-56.48	-56.48
8000	T46	622737	4748967.6	313	178	0	73.4	73.4	1901.04	69.32	8000	76.58	0	-0.9	0	0	222.2	0	0	0	0	0	0	-224.48	-224.48
63	T05	621171	4747754	303.78	179.78	0	86.3	86.3	2282.74	64.06	63	78.17	0	-3	0	0	0.28	0	0	0	0	0	0	10.85	10.85
125	T05	621171	4747754	303.78	179.78	0	91.7	91.7	2282.74	64.06	125	78.17	0	1.78	0	0	0.94	0	0	0	0	0	0	10.81	10.81
250	T05	621171	4747754	303.78	179.78	0	98.7	98.7	2282.74	64.06	250	78.17	0	0.07	0	0	2.38	0	0	0	0	0	0	18.08	18.08
500	T05	621171	4747754	303.78	179.78	0	100.8	100.8	2282.74	64.06	500	78.17	0	-0.9	0	0	4.4	0	0	0	0	0	0	19.13	19.13
1000	T05	621171	4747754	303.78	179.78	0	98.3	98.3	2282.74	64.06	1000	78.17	0	-0.9	0	0	8.35	0	0	0	0	0	0	12.68	12.68
2000	T05	621171	4747754	303.78	179.78	0	92.8	92.8	2282.74	64.06	2000	78.17	0	-0.9	0	0	22.06	0	0	0	0	0	0	-6.53	-6.53
4000	T05	621171	4747754	303.78	179.78	0	85.9	85.9	2282.74	64.06	4000	78.17	0	-0.9	0	0	74.81	0	0	0	0	0	0	-66.17	-66.17
8000	T05	621171	4747754	303.78	179.78	0	73.3	73.3	2282.74	64.06	8000	78.17	0	-0.9	0	0	266.81	0	0	0	0	0	0	-270.78	-270.78
63	T43	624815.25	4748952.03	301.14	177.14	0	86.3	86.3	2282.82	64.13	63	78.17	0	-3	0	0	0.28	0	0	0	0	0	0	10.85	10.85
125	T43	624815.25	4748952.03	301.14	177.14	0	91.7	91.7	2282.82	64.13	125	78.17	0	1.78	0	0	0.94	0	0	0	0	0	0	10.81	10.81
250	T43	624815.25	4748952.03	301.14	177.14	0	98.7	98.7	2282.82	64.13	250	78.17	0	0.07	0	0	2.38	0	0	0	0	0	0	18.08	18.08
500	T43	624815.25	4748952.03	301.14	177.14	0	100.8	100.8	2282.82	64.13	500	78.17	0	-0.9	0	0	4.4	0	0	0	0	0	0	19.13	19.13
1000	T43	62481																							

250	MH06	622661	4745529	263.87	183.87	0	82.7	82.7	1803.88	43.36	250	76.12	0	0.07	0	0	1.88	0	0	0	0	0	0	4.62	4.62
500	MH06	622661	4745529	263.87	183.87	0	90.4	90.4	1803.88	43.36	500	76.12	0	-0.9	0	0	3.48	0	0	0	0	0	0	11.7	11.7
1000	MH06	622661	4745529	263.87	183.87	0	96.8	96.8	1803.88	43.36	1000	76.12	0	-0.9	0	0	6.6	0	0	0	0	0	0	14.98	14.98
2000	MH06	622661	4745529	263.87	183.87	0	97.2	97.2	1803.88	43.36	2000	76.12	0	-0.9	0	0	17.43	0	0	0	0	0	0	4.54	4.54
4000	MH06	622661	4745529	263.87	183.87	0	96	96	1803.88	43.36	4000	76.12	0	-0.9	0	0	59.11	0	0	0	0	0	0	-38.34	-38.34
8000	MH06	622661	4745529	263.87	183.87	0	89.2	89.2	1803.88	43.36	8000	76.12	0	-0.9	0	0	210.84	0	0	0	0	0	0	-196.87	-196.87
63	T48	624687	4749282.73	300.42	176.42	0	86.3	86.3	2477.63	64.11	63	78.88	0	-3	0	0	0.3	0	0	0	0	0	0	10.12	10.12
125	T48	624687	4749282.73	300.42	176.42	0	91.7	91.7	2477.63	64.11	125	78.88	0	1.78	0	0	1.02	0	0	0	0	0	0	10.02	10.02
250	T48	624687	4749282.73	300.42	176.42	0	98.7	98.7	2477.63	64.11	250	78.88	0	0.07	0	0	2.59	0	0	0	0	0	0	17.16	17.16
500	T48	624687	4749282.73	300.42	176.42	0	100.8	100.8	2477.63	64.11	500	78.88	0	-0.9	0	0	4.78	0	0	0	0	0	0	18.04	18.04
1000	T48	624687	4749282.73	300.42	176.42	0	98.3	98.3	2477.63	64.11	1000	78.88	0	-0.9	0	0	9.06	0	0	0	0	0	0	11.26	11.26
2000	T48	624687	4749282.73	300.42	176.42	0	92.8	92.8	2477.63	64.11	2000	78.88	0	-0.9	0	0	23.94	0	0	0	0	0	0	-9.12	-9.12
4000	T48	624687	4749282.73	300.42	176.42	0	85.9	85.9	2477.63	64.11	4000	78.88	0	-0.9	0	0	81.19	0	0	0	0	0	0	-73.27	-73.27
8000	T48	624687	4749282.73	300.42	176.42	0	73.3	73.3	2477.63	64.11	8000	78.88	0	-0.9	0	0	289.59	0	0	0	0	0	0	-294.27	-294.27
63	T20	620627.25	4749341.35	300.55	176.55	0	86.3	86.3	3498.56	63.49	63	81.88	0	-3	0	0	0.43	0	0	0	0	0	0	7	7
125	T20	620627.25	4749341.35	300.55	176.55	0	91.7	91.7	3498.56	63.49	125	81.88	0	1.78	0	0	1.44	0	0	0	0	0	0	6.6	6.6
250	T20	620627.25	4749341.35	300.55	176.55	0	98.7	98.7	3498.56	63.49	250	81.88	0	0.07	0	0	3.65	0	0	0	0	0	0	13.1	13.1
500	T20	620627.25	4749341.35	300.55	176.55	0	100.8	100.8	3498.56	63.49	500	81.88	0	-0.9	0	0	6.74	0	0	0	0	0	0	13.08	13.08
1000	T20	620627.25	4749341.35	300.55	176.55	0	98.3	98.3	3498.56	63.49	1000	81.88	0	-0.9	0	0	12.8	0	0	0	0	0	0	4.53	4.53
2000	T20	620627.25	4749341.35	300.55	176.55	0	92.8	92.8	3498.56	63.49	2000	81.88	0	-0.9	0	0	33.81	0	0	0	0	0	0	-21.99	-21.99
4000	T20	620627.25	4749341.35	300.55	176.55	0	85.9	85.9	3498.56	63.49	4000	81.88	0	-0.9	0	0	114.65	0	0	0	0	0	0	-109.73	-109.73
8000	T20	620627.25	4749341.35	300.55	176.55	0	73.3	73.3	3498.56	63.49	8000	81.88	0	-0.9	0	0	408.92	0	0	0	0	0	0	-416.6	-416.6
63	T49	626835.93	4748915.06	299	175	0	86.3	86.3	3869.58	63.9	63	82.75	0	-3.01	0	0	0.47	0	0	0	0	0	0	6.09	6.09
125	T49	626835.93	4748915.06	299	175	0	91.7	91.7	3869.58	63.9	125	82.75	0	1.78	0	0	1.59	0	0	0	0	0	0	5.58	5.58
250	T49	626835.93	4748915.06	299	175	0	98.7	98.7	3869.58	63.9	250	82.75	0	0.07	0	0	4.04	0	0	0	0	0	0	11.84	11.84
500	T49	626835.93	4748915.06	299	175	0	100.8	100.8	3869.58	63.9	500	82.75	0	-0.9	0	0	7.46	0	0	0	0	0	0	11.49	11.49
1000	T49	626835.93	4748915.06	299	175	0	98.3	98.3	3869.58	63.9	1000	82.75	0	-0.9	0	0	14.15	0	0	0	0	0	0	2.3	2.3
2000	T49	626835.93	4748915.06	299	175	0	92.8	92.8	3869.58	63.9	2000	82.75	0	-0.9	0	0	37.4	0	0	0	0	0	0	-26.45	-26.45
4000	T49	626835.93	4748915.06	299	175	0	85.9	85.9	3869.58	63.9	4000	82.75	0	-0.9	0	0	126.81	0	0	0	0	0	0	-122.76	-122.76
8000	T49	626835.93	4748915.06	299	175	0	73.3	73.3	3869.58	63.9	8000	82.75	0	-0.9	0	0	452.28	0	0	0	0	0	0	-460.83	-460.83
63	T96	621422.71	4750668.26	299.47	175.47	0	86.3	86.3	3998.32	64.05	63	83.04	0	-3.11	0	0	0.49	0	0	0	0	0	0	5.88	5.88
125	T96	621422.71	4750668.26	299.47	175.47	0	91.7	91.7	3998.32	64.05	125	83.04	0	1.75	0	0	1.64	0	0	0	0	0	0	5.27	5.27
250	T96	621422.71	4750668.26	299.47	175.47	0	98.7	98.7	3998.32	64.05	250	83.04	0	0.04	0	0	4.17	0	0	0	0	0	0	11.45	11.45
500	T96	621422.71	4750668.26	299.47	175.47	0	100.8	100.8	3998.32	64.05	500	83.04	0	-0.93	0	0	7.71	0	0	0	0	0	0	10.99	10.99
1000	T96	621422.71	4750668.26	299.47	175.47	0	98.3	98.3	3998.32	64.05	1000	83.04	0	-0.93	0	0	14.62	0	0	0	0	0	0	1.57	1.57
2000	T96	621422.71	4750668.26	299.47	175.47	0	92.8	92.8	3998.32	64.05	2000	83.04	0	-0.93	0	0	38.64	0	0	0	0	0	0	-27.95	-27.95
4000	T96	621422.71	4750668.26	299.47	175.47	0	85.9	85.9	3998.32	64.05	4000	83.04	0	-0.93	0	0	131.03	0	0	0	0	0	0	-127.23	-127.23
8000	T96	621422.71	4750668.26	299.47	175.47	0	73.3	73.3	3998.32	64.05	8000	83.04	0	-0.93	0	0	467.33	0	0	0	0	0	0	-476.14	-476.14
63	T63	621609.3	4751032.27	300.37	176.37	0	86.3	86.3	4238.19	64.75	63	83.54	0	-3.27	0	0	0.52	0	0	0	0	0	0	5.51	5.51
125	T63	621609.3	4751032.27	300.37	176.37	0	91.7	91.7	4238.19	64.75	125	83.54	0	1.7	0	0	1.74	0	0	0	0	0	0	4.71	4.71
250	T63	621609.3	4751032.27	300.37	176.37	0	98.7	98.7	4238.19	64.75	250	83.54	0	-0.01	0	0	4.42	0	0	0	0	0	0	10.74	10.74
500	T63	621609.3	4751032.27	300.37	176.37	0	100.8	100.8	4238.19	64.75	500	83.54	0	-0.98	0	0	8.17	0	0	0	0	0	0	10.07	10.07
1000	T63	621609.3	4751032.27	300.37	176.37	0	98.3	98.3	4238.19	64.75	1000	83.54	0	-0.98	0	0	15.5	0	0	0	0	0	0	0.24	0.24
2000	T63	621609.3	4751032.27	300.37	176.37	0	92.8	92.8	4238.19	64.75	2000	83.54	0	-0.98	0	0	40.96	0	0	0	0	0	0	-30.72	-30.72
4000	T63	621609.3	4751032.27	300.37	176.37	0	85.9	85.9	4238.19	64.75	4000	83.54	0	-0.98	0	0	138.89	0	0	0	0	0	0	-135.55	-135.55
8000	T63	621609.3	4751032.27	300.37	176.37	0	73.3	73.3	4238.19	64.75	8000	83.54	0	-0.98	0	0	495.37	0	0	0	0	0	0	-504.63	-504.63
63	T62	621876.73	4751310.91	301.01	177.01	0	86.3	86.3	4394.44	65.18	63	83.86	0	-3.37	0	0	0.53	0	0	0	0	0	0	5.27	5.27
125	T62	621876.73	4751310.91	301.01	177.01	0	91.7	91.7	4394.44	65.18	125	83.86	0	1.67	0	0	1.81	0	0	0	0	0	0	4.36	4.36
250	T62	621876.73	4751310.91	301.01	177.01	0	98.7	98.7	4394.44	65.18	250	83.86	0	-0.04	0	0	4.59	0	0	0	0	0	0	10.29	10.29
500	T62	621876.73	4751310.91	301.01	177.01	0	100.8	100.8	4394.44	65.18	500	83.86	0	-1.01	0	0	8.47	0	0	0	0	0	0	9.48	9.48
1000	T62	621876.73	4751310.91	301.01	177.01	0	98.3	98.3	4394.44	65.18	1000	83.86	0	-1.01	0	0	16.07	0	0	0	0	0	0	-0.62	-0.62
2000	T62	621876.73	4751310.91	301.01	177.01	0	92.8	92.8	4394.44	65.18	2000	83.86	0	-1.01	0	0	42.47	0	0	0	0	0	0	-32.52	-32.52
4000	T62	621876.73	4751310.91	301.01	177.01	0	85.9	85.9	4394.44	65.18	4000	83.86	0	-1.01	0	0	144.01	0	0	0	0	0	0	-140.95	-140.95
8000	T62	621876.73	4751310.91	301.01	177.01	0	73.3	73.3	4394.44	65.18	8000	83.86	0	-1.01	0	0	513.63	0	0	0	0	0	0	-523.18	-523.18
63	T23	627539.7	4748974.27	299	175	0	86.3	86.3	4532.67	64.27	63	84.13	0	-3.45	0	0	0.55	0	0	0	0	0	0	5.07	5.07
125	T23	627539.7																							

63	T24	627752.21	4750238.85	299	175	0	86.3	86.3	5337.61	64.78	63	85.55	0	-3.83	0	0	0.65	0	0	0	0	0	0	3.94	3.94
125	T24	627752.21	4750238.85	299	175	0	91.7	91.7	5337.61	64.78	125	85.55	0	1.53	0	0	2.19	0	0	0	0	0	0	2.43	2.43
250	T24	627752.21	4750238.85	299	175	0	98.7	98.7	5337.61	64.78	250	85.55	0	-0.18	0	0	5.57	0	0	0	0	0	0	7.76	7.76
500	T24	627752.21	4750238.85	299	175	0	100.8	100.8	5337.61	64.78	500	85.55	0	-1.15	0	0	10.29	0	0	0	0	0	0	6.11	6.11
1000	T24	627752.21	4750238.85	299	175	0	98.3	98.3	5337.61	64.78	1000	85.55	0	-1.15	0	0	19.52	0	0	0	0	0	0	-5.62	-5.62
2000	T24	627752.21	4750238.85	299	175	0	92.8	92.8	5337.61	64.78	2000	85.55	0	-1.15	0	0	51.58	0	0	0	0	0	0	-43.18	-43.18
4000	T24	627752.21	4750238.85	299	175	0	85.9	85.9	5337.61	64.78	4000	85.55	0	-1.15	0	0	174.91	0	0	0	0	0	0	-173.41	-173.41
8000	T24	627752.21	4750238.85	299	175	0	73.3	73.3	5337.61	64.78	8000	85.55	0	-1.15	0	0	623.87	0	0	0	0	0	0	-634.97	-634.97
63	T89	623216.37	4753159.84	304	180	0	86.3	86.3	5980.77	66.52	63	86.54	0	-4.07	0	0	0.73	0	0	0	0	0	0	3.1	3.1
125	T89	623216.37	4753159.84	304	180	0	91.7	91.7	5980.77	66.52	125	86.54	0	1.46	0	0	2.46	0	0	0	0	0	0	1.24	1.24
250	T89	623216.37	4753159.84	304	180	0	98.7	98.7	5980.77	66.52	250	86.54	0	-0.25	0	0	6.24	0	0	0	0	0	0	6.17	6.17
500	T89	623216.37	4753159.84	304	180	0	100.8	100.8	5980.77	66.52	500	86.54	0	-1.22	0	0	11.53	0	0	0	0	0	0	3.95	3.95
1000	T89	623216.37	4753159.84	304	180	0	98.3	98.3	5980.77	66.52	1000	86.54	0	-1.22	0	0	21.88	0	0	0	0	0	0	-8.89	-8.89
2000	T89	623216.37	4753159.84	304	180	0	92.8	92.8	5980.77	66.52	2000	86.54	0	-1.22	0	0	57.8	0	0	0	0	0	0	-50.31	-50.31
4000	T89	623216.37	4753159.84	304	180	0	85.9	85.9	5980.77	66.52	4000	86.54	0	-1.22	0	0	195.99	0	0	0	0	0	0	-195.41	-195.41
8000	T89	623216.37	4753159.84	304	180	0	73.3	73.3	5980.77	66.52	8000	86.54	0	-1.22	0	0	699.04	0	0	0	0	0	0	-711.06	-711.06
63	T84	622487.06	4753392.69	304	180	0	86.3	86.3	6274.94	66.37	63	86.95	0	-4.16	0	0	0.76	0	0	0	0	0	0	2.74	2.74
125	T84	622487.06	4753392.69	304	180	0	91.7	91.7	6274.94	66.37	125	86.95	0	1.44	0	0	2.58	0	0	0	0	0	0	0.73	0.73
250	T84	622487.06	4753392.69	304	180	0	98.7	98.7	6274.94	66.37	250	86.95	0	-0.27	0	0	6.55	0	0	0	0	0	0	5.47	5.47
500	T84	622487.06	4753392.69	304	180	0	100.8	100.8	6274.94	66.37	500	86.95	0	-1.25	0	0	12.1	0	0	0	0	0	0	3	3
1000	T84	622487.06	4753392.69	304	180	0	98.3	98.3	6274.94	66.37	1000	86.95	0	-1.25	0	0	22.95	0	0	0	0	0	0	-10.36	-10.36
2000	T84	622487.06	4753392.69	304	180	0	92.8	92.8	6274.94	66.37	2000	86.95	0	-1.25	0	0	60.64	0	0	0	0	0	0	-53.55	-53.55
4000	T84	622487.06	4753392.69	304	180	0	85.9	85.9	6274.94	66.37	4000	86.95	0	-1.25	0	0	205.63	0	0	0	0	0	0	-205.44	-205.44
8000	T84	622487.06	4753392.69	304	180	0	73.3	73.3	6274.94	66.37	8000	86.95	0	-1.25	0	0	733.43	0	0	0	0	0	0	-745.83	-745.83
63	T42	619935	4753628	304	180	0	86.3	86.3	7308.38	65.87	63	88.28	0	-4.42	0	0	0.89	0	0	0	0	0	0	1.55	1.55
125	T42	619935	4753628	304	180	0	91.7	91.7	7308.38	65.87	125	88.28	0	1.36	0	0	3	0	0	0	0	0	0	-0.94	-0.94
250	T42	619935	4753628	304	180	0	98.7	98.7	7308.38	65.87	250	88.28	0	-0.35	0	0	7.63	0	0	0	0	0	0	3.15	3.15
500	T42	619935	4753628	304	180	0	100.8	100.8	7308.38	65.87	500	88.28	0	-1.32	0	0	14.09	0	0	0	0	0	0	-0.24	-0.24
1000	T42	619935	4753628	304	180	0	98.3	98.3	7308.38	65.87	1000	88.28	0	-1.33	0	0	26.73	0	0	0	0	0	0	-15.38	-15.38
2000	T42	619935	4753628	304	180	0	92.8	92.8	7308.38	65.87	2000	88.28	0	-1.33	0	0	70.63	0	0	0	0	0	0	-64.78	-64.78
4000	T42	619935	4753628	304	180	0	85.9	85.9	7308.38	65.87	4000	88.28	0	-1.33	0	0	239.5	0	0	0	0	0	0	-240.55	-240.55
8000	T42	619935	4753628	304	180	0	73.3	73.3	7308.38	65.87	8000	88.28	0	-1.33	0	0	854.22	0	0	0	0	0	0	-867.87	-867.87
63	T65	622983.82	4754678.89	299	175	0	86.3	86.3	7507.67	63.94	63	88.51	0	-4.46	0	0	0.91	0	0	0	0	0	0	1.34	1.34
125	T65	622983.82	4754678.89	299	175	0	91.7	91.7	7507.67	63.94	125	88.51	0	1.34	0	0	3.09	0	0	0	0	0	0	-1.24	-1.24
250	T65	622983.82	4754678.89	299	175	0	98.7	98.7	7507.67	63.94	250	88.51	0	-0.36	0	0	7.83	0	0	0	0	0	0	2.72	2.72
500	T65	622983.82	4754678.89	299	175	0	100.8	100.8	7507.67	63.94	500	88.51	0	-1.34	0	0	14.47	0	0	0	0	0	0	-0.85	-0.85
1000	T65	622983.82	4754678.89	299	175	0	98.3	98.3	7507.67	63.94	1000	88.51	0	-1.34	0	0	27.46	0	0	0	0	0	0	-16.33	-16.33
2000	T65	622983.82	4754678.89	299	175	0	92.8	92.8	7507.67	63.94	2000	88.51	0	-1.34	0	0	72.55	0	0	0	0	0	0	-66.93	-66.93
4000	T65	622983.82	4754678.89	299	175	0	85.9	85.9	7507.67	63.94	4000	88.51	0	-1.34	0	0	246.03	0	0	0	0	0	0	-247.3	-247.3
8000	T65	622983.82	4754678.89	299	175	0	73.3	73.3	7507.67	63.94	8000	88.51	0	-1.34	0	0	877.51	0	0	0	0	0	0	-891.38	-891.38
63	T98	617981.67	4753042.54	302.44	178.44	0	86.3	86.3	7966.99	64.9	63	89.03	0	-4.55	0	0	0.97	0	0	0	0	0	0	0.85	0.85
125	T98	617981.67	4753042.54	302.44	178.44	0	91.7	91.7	7966.99	64.9	125	89.03	0	1.32	0	0	3.27	0	0	0	0	0	0	-1.92	-1.92
250	T98	617981.67	4753042.54	302.44	178.44	0	98.7	98.7	7966.99	64.9	250	89.03	0	-0.39	0	0	8.31	0	0	0	0	0	0	1.75	1.75
500	T98	617981.67	4753042.54	302.44	178.44	0	100.8	100.8	7966.99	64.9	500	89.03	0	-1.36	0	0	15.36	0	0	0	0	0	0	-2.22	-2.22
1000	T98	617981.67	4753042.54	302.44	178.44	0	98.3	98.3	7966.99	64.9	1000	89.03	0	-1.36	0	0	29.14	0	0	0	0	0	0	-18.5	-18.5
2000	T98	617981.67	4753042.54	302.44	178.44	0	92.8	92.8	7966.99	64.9	2000	89.03	0	-1.36	0	0	76.99	0	0	0	0	0	0	-71.85	-71.85
4000	T98	617981.67	4753042.54	302.44	178.44	0	85.9	85.9	7966.99	64.9	4000	89.03	0	-1.36	0	0	261.08	0	0	0	0	0	0	-262.84	-262.84
8000	T98	617981.67	4753042.54	302.44	178.44	0	73.3	73.3	7966.99	64.9	8000	89.03	0	-1.36	0	0	931.2	0	0	0	0	0	0	-945.56	-945.56
63	GREPT58	614974	4747470	283.19	183.69	0	82.4	82.4	8409.31	55.45	63	89.5	0	-4.89	0	0	1.02	0	0	0	0	0	0	-3.23	-3.23
125	GREPT58	614974	4747470	283.19	183.69	0	93	93	8409.31	55.45	125	89.5	0	1.22	0	0	3.46	0	0	0	0	0	0	-1.17	-1.17
250	GREPT58	614974	4747470	283.19	183.69	0	96	96	8409.31	55.45	250	89.5	0	-0.49	0	0	8.77	0	0	0	0	0	0	-1.78	-1.78
500	GREPT58	614974	4747470	283.19	183.69	0	99.8	99.8	8409.31	55.45	500	89.5	0	-1.47	0	0	16.21	0	0	0	0	0	0	-4.44	-4.44
1000	GREPT58	614974	4747470	283.19	183.69	0	100.1	100.1	8409.31	55.45	1000	89.5	0	-1.47	0	0	30.76	0	0	0	0	0	0	-18.69	-18.69
2000	GREPT58	614974	4747470	283.19	183.69	0	96.5	96.5	8409.31	55.45	2000	89.5	0	-1.47	0	0	81.27	0	0	0	0	0	0	-72.8	-72.8
4000	GREPT58	614974	4747470	283.19	183.69	0	89.6	89.6	8409.31	55.45	4000	89.5	0	-1.47	0	0	275.57	0	0	0	0	0	0	-274	-274
8000	GREPT58	614974	4747470	283.19	183.69	0	85.2	85.2	8409.31	55.45	8000	89.5	0	-1.47	0	0	982.9	0	0	0	0	0	0	-985.73	-985.73

4000	GREPT62	614705	4747338	281.29	181.79	0	89.6	89.6	8674.75	54.52	4000	89.77	0	-1.48	0	0	284.27	0	0	0	0	0	0	-282.96	-282.96
8000	GREPT62	614705	4747338	281.29	181.79	0	85.2	85.2	8674.75	54.52	8000	89.77	0	-1.48	0	0	1013.9	0	0	0	0	0	0	-1017.01	-1017.01
63	GREPT60	614680	4748176	282.59	183.09	0	82.4	82.4	8754.92	54.9	63	89.85	0	-4.93	0	0	1.07	0	0	0	0	0	0	-3.58	-3.58
125	GREPT60	614680	4748176	282.59	183.09	0	93	93	8754.92	54.9	125	89.85	0	1.2	0	0	3.6	0	0	0	0	0	0	-1.65	-1.65
250	GREPT60	614680	4748176	282.59	183.09	0	96	96	8754.92	54.9	250	89.85	0	-0.51	0	0	9.13	0	0	0	0	0	0	-2.47	-2.47
500	GREPT60	614680	4748176	282.59	183.09	0	99.8	99.8	8754.92	54.9	500	89.85	0	-1.48	0	0	16.88	0	0	0	0	0	0	-5.45	-5.45
1000	GREPT60	614680	4748176	282.59	183.09	0	100.1	100.1	8754.92	54.9	1000	89.85	0	-1.48	0	0	32.02	0	0	0	0	0	0	-20.29	-20.29
2000	GREPT60	614680	4748176	282.59	183.09	0	96.5	96.5	8754.92	54.9	2000	89.85	0	-1.48	0	0	84.61	0	0	0	0	0	0	-76.47	-76.47
4000	GREPT60	614680	4748176	282.59	183.09	0	89.6	89.6	8754.92	54.9	4000	89.85	0	-1.48	0	0	286.9	0	0	0	0	0	0	-285.67	-285.67
8000	GREPT60	614680	4748176	282.59	183.09	0	85.2	85.2	8754.92	54.9	8000	89.85	0	-1.48	0	0	1023.3	0	0	0	0	0	0	-1026.46	-1026.46
63	WF01	631359	4751252	270.12	175.12	0	86	86	8959.24	51.08	63	90.05	0	-5	0	0	1.09	0	0	0	0	0	0	-0.14	-0.14
125	WF01	631359	4751252	270.12	175.12	0	91	91	8959.24	51.08	125	90.05	0	1.18	0	0	3.68	0	0	0	0	0	0	-3.91	-3.91
250	WF01	631359	4751252	270.12	175.12	0	98.5	98.5	8959.24	51.08	250	90.05	0	-0.53	0	0	9.35	0	0	0	0	0	0	-0.37	-0.37
500	WF01	631359	4751252	270.12	175.12	0	95.4	95.4	8959.24	51.08	500	90.05	0	-1.5	0	0	17.27	0	0	0	0	0	0	-10.42	-10.42
1000	WF01	631359	4751252	270.12	175.12	0	98.5	98.5	8959.24	51.08	1000	90.05	0	-1.5	0	0	32.77	0	0	0	0	0	0	-22.82	-22.82
2000	WF01	631359	4751252	270.12	175.12	0	97.7	97.7	8959.24	51.08	2000	90.05	0	-1.5	0	0	86.58	0	0	0	0	0	0	-77.43	-77.43
4000	WF01	631359	4751252	270.12	175.12	0	96.7	96.7	8959.24	51.08	4000	90.05	0	-1.5	0	0	293.6	0	0	0	0	0	0	-285.44	-285.44
8000	WF01	631359	4751252	270.12	175.12	0	92.1	92.1	8959.24	51.08	8000	90.05	0	-1.5	0	0	1047.2	0	0	0	0	0	0	-1043.62	-1043.62
63	T19	620379.61	4755516.08	299	175	0	86.3	86.3	8857.31	63.43	63	89.95	0	-4.69	0	0	1.08	0	0	0	0	0	0	-0.03	-0.03
125	T19	620379.61	4755516.08	299	175	0	91.7	91.7	8857.31	63.43	125	89.95	0	1.27	0	0	3.64	0	0	0	0	0	0	-3.16	-3.16
250	T19	620379.61	4755516.08	299	175	0	98.7	98.7	8857.31	63.43	250	89.95	0	-0.44	0	0	9.24	0	0	0	0	0	0	-0.05	-0.05
500	T19	620379.61	4755516.08	299	175	0	100.8	100.8	8857.31	63.43	500	89.95	0	-1.41	0	0	17.08	0	0	0	0	0	0	-4.81	-4.81
1000	T19	620379.61	4755516.08	299	175	0	98.3	98.3	8857.31	63.43	1000	89.95	0	-1.41	0	0	32.4	0	0	0	0	0	0	-22.64	-22.64
2000	T19	620379.61	4755516.08	299	175	0	92.8	92.8	8857.31	63.43	2000	89.95	0	-1.41	0	0	85.6	0	0	0	0	0	0	-81.33	-81.33
4000	T19	620379.61	4755516.08	299	175	0	85.9	85.9	8857.31	63.43	4000	89.95	0	-1.41	0	0	290.25	0	0	0	0	0	0	-292.89	-292.89
8000	T19	620379.61	4755516.08	299	175	0	73.3	73.3	8857.31	63.43	8000	89.95	0	-1.41	0	0	1035.3	0	0	0	0	0	0	-1050.5	-1050.5
63	GREPT59	614326	4747732	284.49	184.99	0	82.4	82.4	9069.03	55.41	63	90.15	0	-4.97	0	0	1.1	0	0	0	0	0	0	-3.89	-3.89
125	GREPT59	614326	4747732	284.49	184.99	0	93	93	9069.03	55.41	125	90.15	0	1.19	0	0	3.73	0	0	0	0	0	0	-2.07	-2.07
250	GREPT59	614326	4747732	284.49	184.99	0	96	96	9069.03	55.41	250	90.15	0	-0.52	0	0	9.46	0	0	0	0	0	0	-3.1	-3.1
500	GREPT59	614326	4747732	284.49	184.99	0	99.8	99.8	9069.03	55.41	500	90.15	0	-1.49	0	0	17.48	0	0	0	0	0	0	-6.35	-6.35
1000	GREPT59	614326	4747732	284.49	184.99	0	100.1	100.1	9069.03	55.41	1000	90.15	0	-1.49	0	0	33.17	0	0	0	0	0	0	-21.73	-21.73
2000	GREPT59	614326	4747732	284.49	184.99	0	96.5	96.5	9069.03	55.41	2000	90.15	0	-1.49	0	0	87.64	0	0	0	0	0	0	-79.8	-79.8
4000	GREPT59	614326	4747732	284.49	184.99	0	89.6	89.6	9069.03	55.41	4000	90.15	0	-1.49	0	0	297.19	0	0	0	0	0	0	-296.25	-296.25
8000	GREPT59	614326	4747732	284.49	184.99	0	85.2	85.2	9069.03	55.41	8000	90.15	0	-1.49	0	0	1060	0	0	0	0	0	0	-1063.47	-1063.47
63	GREPT57	614355	4748118	284.5	185	0	82.4	82.4	9071.73	55.52	63	90.15	0	-4.97	0	0	1.1	0	0	0	0	0	0	-3.89	-3.89
125	GREPT57	614355	4748118	284.5	185	0	93	93	9071.73	55.52	125	90.15	0	1.19	0	0	3.73	0	0	0	0	0	0	-2.07	-2.07
250	GREPT57	614355	4748118	284.5	185	0	96	96	9071.73	55.52	250	90.15	0	-0.52	0	0	9.47	0	0	0	0	0	0	-3.1	-3.1
500	GREPT57	614355	4748118	284.5	185	0	99.8	99.8	9071.73	55.52	500	90.15	0	-1.49	0	0	17.49	0	0	0	0	0	0	-6.35	-6.35
1000	GREPT57	614355	4748118	284.5	185	0	100.1	100.1	9071.73	55.52	1000	90.15	0	-1.49	0	0	33.18	0	0	0	0	0	0	-21.74	-21.74
2000	GREPT57	614355	4748118	284.5	185	0	96.5	96.5	9071.73	55.52	2000	90.15	0	-1.49	0	0	87.67	0	0	0	0	0	0	-79.83	-79.83
4000	GREPT57	614355	4748118	284.5	185	0	89.6	89.6	9071.73	55.52	4000	90.15	0	-1.49	0	0	297.28	0	0	0	0	0	0	-296.35	-296.35
8000	GREPT57	614355	4748118	284.5	185	0	85.2	85.2	9071.73	55.52	8000	90.15	0	-1.49	0	0	1060.3	0	0	0	0	0	0	-1063.79	-1063.79
63	WF02	631758	4750750	270.92	175.92	0	86	86	9108.38	51.2	63	90.19	0	-5.02	0	0	1.11	0	0	0	0	0	0	-0.28	-0.28
125	WF02	631758	4750750	270.92	175.92	0	91	91	9108.38	51.2	125	90.19	0	1.18	0	0	3.74	0	0	0	0	0	0	-4.11	-4.11
250	WF02	631758	4750750	270.92	175.92	0	98.5	98.5	9108.38	51.2	250	90.19	0	-0.53	0	0	9.5	0	0	0	0	0	0	-0.66	-0.66
500	WF02	631758	4750750	270.92	175.92	0	95.4	95.4	9108.38	51.2	500	90.19	0	-1.5	0	0	17.56	0	0	0	0	0	0	-10.84	-10.84
1000	WF02	631758	4750750	270.92	175.92	0	98.5	98.5	9108.38	51.2	1000	90.19	0	-1.51	0	0	33.32	0	0	0	0	0	0	-23.5	-23.5
2000	WF02	631758	4750750	270.92	175.92	0	97.7	97.7	9108.38	51.2	2000	90.19	0	-1.51	0	0	88.02	0	0	0	0	0	0	-79.01	-79.01
4000	WF02	631758	4750750	270.92	175.92	0	96.7	96.7	9108.38	51.2	4000	90.19	0	-1.51	0	0	298.48	0	0	0	0	0	0	-290.47	-290.47
8000	WF02	631758	4750750	270.92	175.92	0	92.1	92.1	9108.38	51.2	8000	90.19	0	-1.51	0	0	1064.6	0	0	0	0	0	0	-1061.19	-1061.19
63	WF03	631921	4750541	271.25	176.25	0	86	86	9180.06	51.23	63	90.26	0	-5.02	0	0	1.12	0	0	0	0	0	0	-0.35	-0.35
125	WF03	631921	4750541	271.25	176.25	0	91	91	9180.06	51.23	125	90.26	0	1.18	0	0	3.77	0	0	0	0	0	0	-4.2	-4.2
250	WF03	631921	4750541	271.25	176.25	0	98.5	98.5	9180.06	51.23	250	90.26	0	-0.53	0	0	9.58	0	0	0	0	0	0	-0.8	-0.8
500	WF03	631921	4750541	271.25	176.25	0	95.4	95.4	9180.06	51.23	500	90.26	0	-1.51	0	0	17.7	0	0	0	0	0	0	-11.05	-11.05
1000	WF03	631921	4750541	271.25	176.25	0	98.5	98.5	9180.06	51.23	1000	90.26	0	-1.51	0	0	33.58	0	0	0	0	0	0	-23.83	-23.83
2000	WF03	631921	4750541	271.25	176.25	0	97.7	97.7	9180.06	51.23	2000	90.26	0	-1.51	0	0	88.72	0	0	0	0	0	0	-79.77	-79.77

1000	T13	621410	4756122	299	175	0	98.3	98.3	9154.3	64.08	1000	90.23	0	-1.42	0	0	33.48	0	0	0	0	0	0	-24	-24
2000	T13	621410	4756122	299	175	0	92.8	92.8	9154.3	64.08	2000	90.23	0	-1.42	0	0	88.47	0	0	0	0	0	0	-84.48	-84.48
4000	T13	621410	4756122	299	175	0	85.9	85.9	9154.3	64.08	4000	90.23	0	-1.42	0	0	299.99	0	0	0	0	0	0	-302.9	-302.9
8000	T13	621410	4756122	299	175	0	73.3	73.3	9154.3	64.08	8000	90.23	0	-1.42	0	0	1070	0	0	0	0	0	0	-1085.48	-1085.48
63	T82	618390	4754915	299	175	0	86.3	86.3	9202.38	63.12	63	90.28	0	-4.74	0	0	1.12	0	0	0	0	0	0	-0.35	-0.35
125	T82	618390	4754915	299	175	0	91.7	91.7	9202.38	63.12	125	90.28	0	1.26	0	0	3.78	0	0	0	0	0	0	-3.62	-3.62
250	T82	618390	4754915	299	175	0	98.7	98.7	9202.38	63.12	250	90.28	0	-0.45	0	0	9.6	0	0	0	0	0	0	-0.73	-0.73
500	T82	618390	4754915	299	175	0	100.8	100.8	9202.38	63.12	500	90.28	0	-1.42	0	0	17.74	0	0	0	0	0	0	-5.8	-5.8
1000	T82	618390	4754915	299	175	0	98.3	98.3	9202.38	63.12	1000	90.28	0	-1.42	0	0	33.66	0	0	0	0	0	0	-24.21	-24.21
2000	T82	618390	4754915	299	175	0	92.8	92.8	9202.38	63.12	2000	90.28	0	-1.42	0	0	88.93	0	0	0	0	0	0	-84.99	-84.99
4000	T82	618390	4754915	299	175	0	85.9	85.9	9202.38	63.12	4000	90.28	0	-1.42	0	0	301.56	0	0	0	0	0	0	-304.52	-304.52
8000	T82	618390	4754915	299	175	0	73.3	73.3	9202.38	63.12	8000	90.28	0	-1.42	0	0	1075.6	0	0	0	0	0	0	-1091.15	-1091.15
63	WF04	632750	4748389	273.81	178.81	0	86	86	9449.96	53	63	90.51	0	-5.05	0	0	1.15	0	0	0	0	0	0	-0.61	-0.61
125	WF04	632750	4748389	273.81	178.81	0	91	91	9449.96	53	125	90.51	0	1.17	0	0	3.88	0	0	0	0	0	0	-4.56	-4.56
250	WF04	632750	4748389	273.81	178.81	0	98.5	98.5	9449.96	53	250	90.51	0	-0.54	0	0	9.86	0	0	0	0	0	0	-1.33	-1.33
500	WF04	632750	4748389	273.81	178.81	0	95.4	95.4	9449.96	53	500	90.51	0	-1.51	0	0	18.22	0	0	0	0	0	0	-11.81	-11.81
1000	WF04	632750	4748389	273.81	178.81	0	98.5	98.5	9449.96	53	1000	90.51	0	-1.52	0	0	34.56	0	0	0	0	0	0	-25.06	-25.06
2000	WF04	632750	4748389	273.81	178.81	0	97.7	97.7	9449.96	53	2000	90.51	0	-1.52	0	0	91.32	0	0	0	0	0	0	-82.62	-82.62
4000	WF04	632750	4748389	273.81	178.81	0	96.7	96.7	9449.96	53	4000	90.51	0	-1.52	0	0	309.68	0	0	0	0	0	0	-301.97	-301.97
8000	WF04	632750	4748389	273.81	178.81	0	92.1	92.1	9449.96	53	8000	90.51	0	-1.52	0	0	1104.5	0	0	0	0	0	0	-1101.42	-1101.42
63	WF05	632706	4748817	272.08	177.08	0	86	86	9470.72	51.35	63	90.53	0	-5.05	0	0	1.15	0	0	0	0	0	0	-0.63	-0.63
125	WF05	632706	4748817	272.08	177.08	0	91	91	9470.72	51.35	125	90.53	0	1.17	0	0	3.89	0	0	0	0	0	0	-4.59	-4.59
250	WF05	632706	4748817	272.08	177.08	0	98.5	98.5	9470.72	51.35	250	90.53	0	-0.54	0	0	9.88	0	0	0	0	0	0	-1.37	-1.37
500	WF05	632706	4748817	272.08	177.08	0	95.4	95.4	9470.72	51.35	500	90.53	0	-1.52	0	0	18.26	0	0	0	0	0	0	-11.87	-11.87
1000	WF05	632706	4748817	272.08	177.08	0	98.5	98.5	9470.72	51.35	1000	90.53	0	-1.52	0	0	34.64	0	0	0	0	0	0	-25.15	-25.15
2000	WF05	632706	4748817	272.08	177.08	0	97.7	97.7	9470.72	51.35	2000	90.53	0	-1.52	0	0	91.52	0	0	0	0	0	0	-82.84	-82.84
4000	WF05	632706	4748817	272.08	177.08	0	96.7	96.7	9470.72	51.35	4000	90.53	0	-1.52	0	0	310.36	0	0	0	0	0	0	-302.67	-302.67
8000	WF05	632706	4748817	272.08	177.08	0	92.1	92.1	9470.72	51.35	8000	90.53	0	-1.52	0	0	1107	0	0	0	0	0	0	-1103.87	-1103.87
63	T12	621135.3	4756407	299.2	175.2	0	86.3	86.3	9493.92	64.07	63	90.55	0	-4.78	0	0	1.16	0	0	0	0	0	0	-0.62	-0.62
125	T12	621135.3	4756407	299.2	175.2	0	91.7	91.7	9493.92	64.07	125	90.55	0	1.25	0	0	3.9	0	0	0	0	0	0	-4	-4
250	T12	621135.3	4756407	299.2	175.2	0	98.7	98.7	9493.92	64.07	250	90.55	0	-0.46	0	0	9.91	0	0	0	0	0	0	-1.29	-1.29
500	T12	621135.3	4756407	299.2	175.2	0	100.8	100.8	9493.92	64.07	500	90.55	0	-1.43	0	0	18.3	0	0	0	0	0	0	-6.62	-6.62
1000	T12	621135.3	4756407	299.2	175.2	0	98.3	98.3	9493.92	64.07	1000	90.55	0	-1.43	0	0	34.73	0	0	0	0	0	0	-25.54	-25.54
2000	T12	621135.3	4756407	299.2	175.2	0	92.8	92.8	9493.92	64.07	2000	90.55	0	-1.43	0	0	91.75	0	0	0	0	0	0	-88.06	-88.06
4000	T12	621135.3	4756407	299.2	175.2	0	85.9	85.9	9493.92	64.07	4000	90.55	0	-1.43	0	0	311.12	0	0	0	0	0	0	-314.33	-314.33
8000	T12	621135.3	4756407	299.2	175.2	0	73.3	73.3	9493.92	64.07	8000	90.55	0	-1.43	0	0	1109.7	0	0	0	0	0	0	-1125.48	-1125.48
63	T11	620836	4756609.3	299.87	175.87	0	86.3	86.3	9764.21	64.26	63	90.79	0	-4.82	0	0	1.19	0	0	0	0	0	0	-0.87	-0.87
125	T11	620836	4756609.3	299.87	175.87	0	91.7	91.7	9764.21	64.26	125	90.79	0	1.24	0	0	4.01	0	0	0	0	0	0	-4.34	-4.34
250	T11	620836	4756609.3	299.87	175.87	0	98.7	98.7	9764.21	64.26	250	90.79	0	-0.47	0	0	10.19	0	0	0	0	0	0	-1.81	-1.81
500	T11	620836	4756609.3	299.87	175.87	0	100.8	100.8	9764.21	64.26	500	90.79	0	-1.44	0	0	18.82	0	0	0	0	0	0	-7.37	-7.37
1000	T11	620836	4756609.3	299.87	175.87	0	98.3	98.3	9764.21	64.26	1000	90.79	0	-1.44	0	0	35.71	0	0	0	0	0	0	-26.76	-26.76
2000	T11	620836	4756609.3	299.87	175.87	0	92.8	92.8	9764.21	64.26	2000	90.79	0	-1.44	0	0	94.36	0	0	0	0	0	0	-90.91	-90.91
4000	T11	620836	4756609.3	299.87	175.87	0	85.9	85.9	9764.21	64.26	4000	90.79	0	-1.44	0	0	319.97	0	0	0	0	0	0	-323.42	-323.42
8000	T11	620836	4756609.3	299.87	175.87	0	73.3	73.3	9764.21	64.26	8000	90.79	0	-1.44	0	0	1141.3	0	0	0	0	0	0	-1157.31	-1157.31
63	T91	620503.94	4756520.82	299.05	175.05	0	86.3	86.3	9771.26	63.76	63	90.8	0	-4.82	0	0	1.19	0	0	0	0	0	0	-0.87	-0.87
125	T91	620503.94	4756520.82	299.05	175.05	0	91.7	91.7	9771.26	63.76	125	90.8	0	1.24	0	0	4.02	0	0	0	0	0	0	-4.35	-4.35
250	T91	620503.94	4756520.82	299.05	175.05	0	98.7	98.7	9771.26	63.76	250	90.8	0	-0.47	0	0	10.2	0	0	0	0	0	0	-1.82	-1.82
500	T91	620503.94	4756520.82	299.05	175.05	0	100.8	100.8	9771.26	63.76	500	90.8	0	-1.44	0	0	18.84	0	0	0	0	0	0	-7.39	-7.39
1000	T91	620503.94	4756520.82	299.05	175.05	0	98.3	98.3	9771.26	63.76	1000	90.8	0	-1.44	0	0	35.74	0	0	0	0	0	0	-26.79	-26.79
2000	T91	620503.94	4756520.82	299.05	175.05	0	92.8	92.8	9771.26	63.76	2000	90.8	0	-1.44	0	0	94.43	0	0	0	0	0	0	-90.98	-90.98
4000	T91	620503.94	4756520.82	299.05	175.05	0	85.9	85.9	9771.26	63.76	4000	90.8	0	-1.44	0	0	320.21	0	0	0	0	0	0	-323.66	-323.66
8000	T91	620503.94	4756520.82	299.05	175.05	0	73.3	73.3	9771.26	63.76	8000	90.8	0	-1.44	0	0	1142.1	0	0	0	0	0	0	-1158.14	-1158.14
63	T41	620998	4756850.97	300.43	176.43	0	86.3	86.3	9957.78	64.75	63	90.96	0	-4.84	0	0	1.21	0	0	0	0	0	0	-1.04	-1.04
125	T41	620998	4756850.97	300.43	176.43	0	91.7	91.7	9957.78	64.75	125	90.96	0	1.23	0	0	4.09	0	0	0	0	0	0	-4.59	-4.59
250	T41	620998	4756850.97	300.43	176.43	0	98.7	98.7	9957.78	64.75	250	90.96	0	-0.48	0	0	10.39	0	0	0	0	0	0	-2.17	-2.17
500	T41	620998	4756850.97	300.43	176.43	0	100.8	100.8	9957.78	64.75	500	90.96	0	-1.45	0	0	19.2	0	0	0	0	0	0	-7.91	-7.91

250	T37	623038.4	4758881	299	175	0	98.7	98.7	11704.04	64.46	250	92.37	0	-0.53	0	0	12.21	0	0	0	0	0	0	-5.35	-5.35
500	T37	623038.4	4758881	299	175	0	100.8	100.8	11704.04	64.46	500	92.37	0	-1.5	0	0	22.56	0	0	0	0	0	0	-12.63	-12.63
1000	T37	623038.4	4758881	299	175	0	98.3	98.3	11704.04	64.46	1000	92.37	0	-1.5	0	0	42.81	0	0	0	0	0	0	-35.37	-35.37
2000	T37	623038.4	4758881	299	175	0	92.8	92.8	11704.04	64.46	2000	92.37	0	-1.5	0	0	113.11	0	0	0	0	0	0	-111.17	-111.17
4000	T37	623038.4	4758881	299	175	0	85.9	85.9	11704.04	64.46	4000	92.37	0	-1.5	0	0	383.54	0	0	0	0	0	0	-388.51	-388.51
8000	T37	623038.4	4758881	299	175	0	73.3	73.3	11704.04	64.46	8000	92.37	0	-1.5	0	0	1368	0	0	0	0	0	0	-1385.55	-1385.55
63	T10	623259.47	4758989.94	299	175	0	86.3	86.3	11808.65	64.42	63	92.44	0	-5.02	0	0	1.44	0	0	0	0	0	0	-2.56	-2.56
125	T10	623259.47	4758989.94	299	175	0	91.7	91.7	11808.65	64.42	125	92.44	0	1.18	0	0	4.85	0	0	0	0	0	0	-6.77	-6.77
250	T10	623259.47	4758989.94	299	175	0	98.7	98.7	11808.65	64.42	250	92.44	0	-0.53	0	0	12.32	0	0	0	0	0	0	-5.53	-5.53
500	T10	623259.47	4758989.94	299	175	0	100.8	100.8	11808.65	64.42	500	92.44	0	-1.51	0	0	22.77	0	0	0	0	0	0	-12.9	-12.9
1000	T10	623259.47	4758989.94	299	175	0	98.3	98.3	11808.65	64.42	1000	92.44	0	-1.51	0	0	43.19	0	0	0	0	0	0	-35.83	-35.83
2000	T10	623259.47	4758989.94	299	175	0	92.8	92.8	11808.65	64.42	2000	92.44	0	-1.51	0	0	114.12	0	0	0	0	0	0	-112.26	-112.26
4000	T10	623259.47	4758989.94	299	175	0	85.9	85.9	11808.65	64.42	4000	92.44	0	-1.51	0	0	386.97	0	0	0	0	0	0	-392.01	-392.01
8000	T10	623259.47	4758989.94	299	175	0	73.3	73.3	11808.65	64.42	8000	92.44	0	-1.51	0	0	1380.2	0	0	0	0	0	0	-1397.86	-1397.86
63	T95	622816.64	4760851	304	180	0	86.3	86.3	13680.6	66.96	63	93.72	0	-5.15	0	0	1.66	0	0	0	0	0	0	-3.93	-3.93
125	T95	622816.64	4760851	304	180	0	91.7	91.7	13680.6	66.96	125	93.72	0	1.14	0	0	5.62	0	0	0	0	0	0	-8.78	-8.78
250	T95	622816.64	4760851	304	180	0	98.7	98.7	13680.6	66.96	250	93.72	0	-0.57	0	0	14.27	0	0	0	0	0	0	-8.72	-8.72
500	T95	622816.64	4760851	304	180	0	100.8	100.8	13680.6	66.96	500	93.72	0	-1.55	0	0	26.37	0	0	0	0	0	0	-17.75	-17.75
1000	T95	622816.64	4760851	304	180	0	98.3	98.3	13680.6	66.96	1000	93.72	0	-1.55	0	0	50.04	0	0	0	0	0	0	-43.92	-43.92
2000	T95	622816.64	4760851	304	180	0	92.8	92.8	13680.6	66.96	2000	93.72	0	-1.55	0	0	132.21	0	0	0	0	0	0	-131.58	-131.58
4000	T95	622816.64	4760851	304	180	0	85.9	85.9	13680.6	66.96	4000	93.72	0	-1.55	0	0	448.31	0	0	0	0	0	0	-454.59	-454.59
8000	T95	622816.64	4760851	304	180	0	73.3	73.3	13680.6	66.96	8000	93.72	0	-1.55	0	0	1599	0	0	0	0	0	0	-1617.89	-1617.89
63	RFT	615270	4756417	250	175	0	87.6	87.6	12288.94	39.74	63	92.79	0	-5.42	0	0	1.5	0	0	0	0	0	0	-1.27	-1.27
125	RFT	615270	4756417	250	175	0	95.2	95.2	12288.94	39.74	125	92.79	0	1.06	0	0	5.05	0	0	0	0	0	0	-3.7	-3.7
250	RFT	615270	4756417	250	175	0	94.3	94.3	12288.94	39.74	250	92.79	0	-0.65	0	0	12.82	0	0	0	0	0	0	-10.66	-10.66
500	RFT	615270	4756417	250	175	0	97.1	97.1	12288.94	39.74	500	92.79	0	-1.62	0	0	23.69	0	0	0	0	0	0	-17.76	-17.76
1000	RFT	615270	4756417	250	175	0	98.9	98.9	12288.94	39.74	1000	92.79	0	-1.63	0	0	44.95	0	0	0	0	0	0	-37.21	-37.21
2000	RFT	615270	4756417	250	175	0	94.6	94.6	12288.94	39.74	2000	92.79	0	-1.63	0	0	118.76	0	0	0	0	0	0	-115.32	-115.32
4000	RFT	615270	4756417	250	175	0	83.1	83.1	12288.94	39.74	4000	92.79	0	-1.63	0	0	402.71	0	0	0	0	0	0	-410.77	-410.77
8000	RFT	615270	4756417	250	175	0	75.8	75.8	12288.94	39.74	8000	92.79	0	-1.63	0	0	1436.4	0	0	0	0	0	0	-1451.72	-1451.72
63	T74	621655.82	4763002.28	314.65	179.65	0	86.3	86.3	15913.82	72.34	63	95.04	0	-5.21	0	0	1.94	0	0	0	0	0	0	-5.46	-5.46
125	T74	621655.82	4763002.28	314.65	179.65	0	91.7	91.7	15913.82	72.34	125	95.04	0	1.12	0	0	6.54	0	0	0	0	0	0	-10.99	-10.99
250	T74	621655.82	4763002.28	314.65	179.65	0	98.7	98.7	15913.82	72.34	250	95.04	0	-0.59	0	0	16.6	0	0	0	0	0	0	-12.35	-12.35
500	T74	621655.82	4763002.28	314.65	179.65	0	100.8	100.8	15913.82	72.34	500	95.04	0	-1.56	0	0	30.68	0	0	0	0	0	0	-23.35	-23.35
1000	T74	621655.82	4763002.28	314.65	179.65	0	98.3	98.3	15913.82	72.34	1000	95.04	0	-1.56	0	0	58.21	0	0	0	0	0	0	-53.38	-53.38
2000	T74	621655.82	4763002.28	314.65	179.65	0	92.8	92.8	15913.82	72.34	2000	95.04	0	-1.56	0	0	153.79	0	0	0	0	0	0	-154.46	-154.46
4000	T74	621655.82	4763002.28	314.65	179.65	0	85.9	85.9	15913.82	72.34	4000	95.04	0	-1.56	0	0	521.5	0	0	0	0	0	0	-529.07	-529.07
8000	T74	621655.82	4763002.28	314.65	179.65	0	73.3	73.3	15913.82	72.34	8000	95.04	0	-1.56	0	0	1860	0	0	0	0	0	0	-1880.21	-1880.21
63	T29	628498	4763100.45	303.09	179.09	0	86.3	86.3	16721.65	66.77	63	95.47	0	-5.31	0	0	2.04	0	0	0	0	0	0	-5.89	-5.89
125	T29	628498	4763100.45	303.09	179.09	0	91.7	91.7	16721.65	66.77	125	95.47	0	1.09	0	0	6.87	0	0	0	0	0	0	-11.73	-11.73
250	T29	628498	4763100.45	303.09	179.09	0	98.7	98.7	16721.65	66.77	250	95.47	0	-0.62	0	0	17.45	0	0	0	0	0	0	-13.59	-13.59
500	T29	628498	4763100.45	303.09	179.09	0	100.8	100.8	16721.65	66.77	500	95.47	0	-1.59	0	0	32.24	0	0	0	0	0	0	-25.31	-25.31
1000	T29	628498	4763100.45	303.09	179.09	0	98.3	98.3	16721.65	66.77	1000	95.47	0	-1.59	0	0	61.16	0	0	0	0	0	0	-56.74	-56.74
2000	T29	628498	4763100.45	303.09	179.09	0	92.8	92.8	16721.65	66.77	2000	95.47	0	-1.59	0	0	161.6	0	0	0	0	0	0	-162.67	-162.67
4000	T29	628498	4763100.45	303.09	179.09	0	85.9	85.9	16721.65	66.77	4000	95.47	0	-1.59	0	0	547.97	0	0	0	0	0	0	-555.94	-555.94
8000	T29	628498	4763100.45	303.09	179.09	0	73.3	73.3	16721.65	66.77	8000	95.47	0	-1.59	0	0	1954.5	0	0	0	0	0	0	-1975.03	-1975.03
63	T09	616789.8	4762576.13	304	180	0	86.3	86.3	16744.61	67.49	63	95.48	0	-5.31	0	0	2.04	0	0	0	0	0	0	-5.91	-5.91
125	T09	616789.8	4762576.13	304	180	0	91.7	91.7	16744.61	67.49	125	95.48	0	1.09	0	0	6.88	0	0	0	0	0	0	-11.75	-11.75
250	T09	616789.8	4762576.13	304	180	0	98.7	98.7	16744.61	67.49	250	95.48	0	-0.62	0	0	17.47	0	0	0	0	0	0	-13.63	-13.63
500	T09	616789.8	4762576.13	304	180	0	100.8	100.8	16744.61	67.49	500	95.48	0	-1.59	0	0	32.28	0	0	0	0	0	0	-25.37	-25.37
1000	T09	616789.8	4762576.13	304	180	0	98.3	98.3	16744.61	67.49	1000	95.48	0	-1.59	0	0	61.25	0	0	0	0	0	0	-56.83	-56.83
2000	T09	616789.8	4762576.13	304	180	0	92.8	92.8	16744.61	67.49	2000	95.48	0	-1.59	0	0	161.82	0	0	0	0	0	0	-162.9	-162.9
4000	T09	616789.8	4762576.13	304	180	0	85.9	85.9	16744.61	67.49	4000	95.48	0	-1.59	0	0	548.72	0	0	0	0	0	0	-556.71	-556.71
8000	T09	616789.8	4762576.13	304	180	0	73.3	73.3	16744.61	67.49	8000	95.48	0	-1.59	0	0	1957.1	0	0	0	0	0	0	-1977.73	-1977.73
63	T51	617020.3	4762751.78	304	180	0	86.3	86.3	16817.75	67.29	63	95.52	0	-5.31	0	0	2.05	0	0	0	0	0	0	-5.95	-5.95
125	T51	617020.3	4762751.78	304	180	0	91.7	91.7	16817.75	67.29	125	95.52													

63	T32	624780.53	4764409.82	304	180	0	86.3	86.3	17284.81	67.71	63	95.75	0	-5.33	0	0	2.1	0	0	0	0	0	-6.23	-6.23
125	T32	624780.53	4764409.82	304	180	0	91.7	91.7	17284.81	67.71	125	95.75	0	1.08	0	0	7.1	0	0	0	0	0	-12.24	-12.24
250	T32	624780.53	4764409.82	304	180	0	98.7	98.7	17284.81	67.71	250	95.75	0	-0.63	0	0	18.03	0	0	0	0	0	-14.46	-14.46
500	T32	624780.53	4764409.82	304	180	0	100.8	100.8	17284.81	67.71	500	95.75	0	-1.6	0	0	33.32	0	0	0	0	0	-26.68	-26.68
1000	T32	624780.53	4764409.82	304	180	0	98.3	98.3	17284.81	67.71	1000	95.75	0	-1.6	0	0	63.22	0	0	0	0	0	-59.08	-59.08
2000	T32	624780.53	4764409.82	304	180	0	92.8	92.8	17284.81	67.71	2000	95.75	0	-1.6	0	0	167.04	0	0	0	0	0	-168.39	-168.39
4000	T32	624780.53	4764409.82	304	180	0	85.9	85.9	17284.81	67.71	4000	95.75	0	-1.6	0	0	566.42	0	0	0	0	0	-574.68	-574.68
8000	T32	624780.53	4764409.82	304	180	0	73.3	73.3	17284.81	67.71	8000	95.75	0	-1.6	0	0	2020.3	0	0	0	0	0	-2041.14	-2041.14
63	T75	621356.89	4764542.57	304	180	0	86.3	86.3	17477.77	66.79	63	95.85	0	-5.34	0	0	2.13	0	0	0	0	0	-6.34	-6.34
125	T75	621356.89	4764542.57	304	180	0	91.7	91.7	17477.77	66.79	125	95.85	0	1.08	0	0	7.18	0	0	0	0	0	-12.41	-12.41
250	T75	621356.89	4764542.57	304	180	0	98.7	98.7	17477.77	66.79	250	95.85	0	-0.63	0	0	18.24	0	0	0	0	0	-14.76	-14.76
500	T75	621356.89	4764542.57	304	180	0	100.8	100.8	17477.77	66.79	500	95.85	0	-1.6	0	0	33.69	0	0	0	0	0	-27.14	-27.14
1000	T75	621356.89	4764542.57	304	180	0	98.3	98.3	17477.77	66.79	1000	95.85	0	-1.6	0	0	63.93	0	0	0	0	0	-59.88	-59.88
2000	T75	621356.89	4764542.57	304	180	0	92.8	92.8	17477.77	66.79	2000	95.85	0	-1.6	0	0	168.9	0	0	0	0	0	-170.35	-170.35
4000	T75	621356.89	4764542.57	304	180	0	85.9	85.9	17477.77	66.79	4000	95.85	0	-1.6	0	0	572.75	0	0	0	0	0	-581.1	-581.1
8000	T75	621356.89	4764542.57	304	180	0	73.3	73.3	17477.77	66.79	8000	95.85	0	-1.6	0	0	2042.8	0	0	0	0	0	-2063.78	-2063.78
63	T07	618635.59	4764052.89	304	180	0	86.3	86.3	17524.7	67.15	63	95.87	0	-5.34	0	0	2.13	0	0	0	0	0	-6.37	-6.37
125	T07	618635.59	4764052.89	304	180	0	91.7	91.7	17524.7	67.15	125	95.87	0	1.08	0	0	7.2	0	0	0	0	0	-12.46	-12.46
250	T07	618635.59	4764052.89	304	180	0	98.7	98.7	17524.7	67.15	250	95.87	0	-0.63	0	0	18.28	0	0	0	0	0	-14.83	-14.83
500	T07	618635.59	4764052.89	304	180	0	100.8	100.8	17524.7	67.15	500	95.87	0	-1.6	0	0	33.79	0	0	0	0	0	-27.26	-27.26
1000	T07	618635.59	4764052.89	304	180	0	98.3	98.3	17524.7	67.15	1000	95.87	0	-1.6	0	0	64.1	0	0	0	0	0	-60.07	-60.07
2000	T07	618635.59	4764052.89	304	180	0	92.8	92.8	17524.7	67.15	2000	95.87	0	-1.6	0	0	169.36	0	0	0	0	0	-170.83	-170.83
4000	T07	618635.59	4764052.89	304	180	0	85.9	85.9	17524.7	67.15	4000	95.87	0	-1.6	0	0	574.29	0	0	0	0	0	-582.66	-582.66
8000	T07	618635.59	4764052.89	304	180	0	73.3	73.3	17524.7	67.15	8000	95.87	0	-1.6	0	0	2048.3	0	0	0	0	0	-2069.29	-2069.29
63	T03	629891.21	4763587.5	304	180	0	86.3	86.3	17651.19	67.55	63	95.94	0	-5.34	0	0	2.15	0	0	0	0	0	-6.44	-6.44
125	T03	629891.21	4763587.5	304	180	0	91.7	91.7	17651.19	67.55	125	95.94	0	1.08	0	0	7.25	0	0	0	0	0	-12.57	-12.57
250	T03	629891.21	4763587.5	304	180	0	98.7	98.7	17651.19	67.55	250	95.94	0	-0.63	0	0	18.42	0	0	0	0	0	-15.02	-15.02
500	T03	629891.21	4763587.5	304	180	0	100.8	100.8	17651.19	67.55	500	95.94	0	-1.6	0	0	34.03	0	0	0	0	0	-27.56	-27.56
1000	T03	629891.21	4763587.5	304	180	0	98.3	98.3	17651.19	67.55	1000	95.94	0	-1.6	0	0	64.56	0	0	0	0	0	-60.59	-60.59
2000	T03	629891.21	4763587.5	304	180	0	92.8	92.8	17651.19	67.55	2000	95.94	0	-1.6	0	0	170.58	0	0	0	0	0	-172.11	-172.11
4000	T03	629891.21	4763587.5	304	180	0	85.9	85.9	17651.19	67.55	4000	95.94	0	-1.6	0	0	578.43	0	0	0	0	0	-586.86	-586.86
8000	T03	629891.21	4763587.5	304	180	0	73.3	73.3	17651.19	67.55	8000	95.94	0	-1.6	0	0	2063.1	0	0	0	0	0	-2084.14	-2084.14
63	T34	626486	4764591.38	304	180	0	86.3	86.3	17684.64	66.15	63	95.95	0	-5.35	0	0	2.15	0	0	0	0	0	-6.46	-6.46
125	T34	626486	4764591.38	304	180	0	91.7	91.7	17684.64	66.15	125	95.95	0	1.08	0	0	7.27	0	0	0	0	0	-12.6	-12.6
250	T34	626486	4764591.38	304	180	0	98.7	98.7	17684.64	66.15	250	95.95	0	-0.63	0	0	18.45	0	0	0	0	0	-15.07	-15.07
500	T34	626486	4764591.38	304	180	0	100.8	100.8	17684.64	66.15	500	95.95	0	-1.6	0	0	34.09	0	0	0	0	0	-27.64	-27.64
1000	T34	626486	4764591.38	304	180	0	98.3	98.3	17684.64	66.15	1000	95.95	0	-1.6	0	0	64.68	0	0	0	0	0	-60.73	-60.73
2000	T34	626486	4764591.38	304	180	0	92.8	92.8	17684.64	66.15	2000	95.95	0	-1.6	0	0	170.9	0	0	0	0	0	-172.45	-172.45
4000	T34	626486	4764591.38	304	180	0	85.9	85.9	17684.64	66.15	4000	95.95	0	-1.6	0	0	579.53	0	0	0	0	0	-587.98	-587.98
8000	T34	626486	4764591.38	304	180	0	73.3	73.3	17684.64	66.15	8000	95.95	0	-1.6	0	0	2067	0	0	0	0	0	-2088.06	-2088.06
63	ST1	621959.7	4761728	182.29	178.59	0	72.8	72.8	14614.53	6.54	63	94.3	0	-5.95	4.77	0	1.78	0	0	0	0	0	-22.1	-22.1
125	ST1	621959.7	4761728	182.29	178.59	0	87.9	87.9	14614.53	6.54	125	94.3	0	3.78	0.99	0	6.01	0	0	0	0	0	-17.17	-17.17
250	ST1	621959.7	4761728	182.29	178.59	0	94.4	94.4	14614.53	6.54	250	94.3	0	0.94	3.83	0	15.25	0	0	0	0	0	-19.92	-19.92
500	ST1	621959.7	4761728	182.29	178.59	0	99.8	99.8	14614.53	6.54	500	94.3	0	-1.77	4.77	0	28.17	0	0	0	0	0	-25.68	-25.68
1000	ST1	621959.7	4761728	182.29	178.59	0	97	97	14614.53	6.54	1000	94.3	0	-1.78	4.77	0	53.46	0	0	0	0	0	-53.74	-53.74
2000	ST1	621959.7	4761728	182.29	178.59	0	93.2	93.2	14614.53	6.54	2000	94.3	0	-1.78	4.77	0	141.23	0	0	0	0	0	-145.32	-145.32
4000	ST1	621959.7	4761728	182.29	178.59	0	88	88	14614.53	6.54	4000	94.3	0	-1.78	4.77	0	478.92	0	0	0	0	0	-488.2	-488.2
8000	ST1	621959.7	4761728	182.29	178.59	0	78.9	78.9	14614.53	6.54	8000	94.3	0	-1.78	4.77	0	1708.2	0	0	0	0	0	-1726.56	-1726.56
63	T35	627163.52	4764483.09	304	180	0	86.3	86.3	17710.4	66.52	63	95.96	0	-5.35	0	0	2.16	0	0	0	0	0	-6.47	-6.47
125	T35	627163.52	4764483.09	304	180	0	91.7	91.7	17710.4	66.52	125	95.96	0	1.08	0	0	7.28	0	0	0	0	0	-12.62	-12.62
250	T35	627163.52	4764483.09	304	180	0	98.7	98.7	17710.4	66.52	250	95.96	0	-0.63	0	0	18.48	0	0	0	0	0	-15.11	-15.11
500	T35	627163.52	4764483.09	304	180	0	100.8	100.8	17710.4	66.52	500	95.96	0	-1.6	0	0	34.14	0	0	0	0	0	-27.7	-27.7
1000	T35	627163.52	4764483.09	304	180	0	98.3	98.3	17710.4	66.52	1000	95.96	0	-1.6	0	0	64.78	0	0	0	0	0	-60.84	-60.84
2000	T35	627163.52	4764483.09	304	180	0	92.8	92.8	17710.4	66.52	2000	95.96	0	-1.6	0	0	171.15	0	0	0	0	0	-172.71	-172.71
4000	T35	627163.52	4764483.09	304	180	0	85.9	85.9	17710.4	66.52	4000	95.96	0	-1.6	0	0	580.37	0	0	0	0	0	-588.83	-588.83
8000	T35	627163.52	4764483.09	304	180	0	73.3	73.3	17710.4	66.52	8000	95.96	0	-1.6	0	0	2070	0	0	0	0	0	-2091.09	-2091.09
63	T39	617348.6	4764279.28	304	180	0	86.3	86.3	18129.19	66.8	63	96.17	0	-5.36	0	0	2.21	0	0	0	0	0	-6.71	-6.71
125	T39	617348.6																						

4000	T78	628581	4764783	304	180	0	85.9	85.9	18353.94	66.76	4000	96.27	0	-1.61	0	0	601.46	0	0	0	0	0	0	-610.22	-610.22
8000	T78	628581	4764783	304	180	0	73.3	73.3	18353.94	66.76	8000	96.27	0	-1.61	0	0	2145.3	0	0	0	0	0	0	-2166.61	-2166.61
63	T76	623639.91	4765719.45	304	180	0	86.3	86.3	18539.25	67.35	63	96.36	0	-5.38	0	0	2.26	0	0	0	0	0	0	-6.94	-6.94
125	T76	623639.91	4765719.45	304	180	0	91.7	91.7	18539.25	67.35	125	96.36	0	1.07	0	0	7.62	0	0	0	0	0	0	-13.35	-13.35
250	T76	623639.91	4765719.45	304	180	0	98.7	98.7	18539.25	67.35	250	96.36	0	-0.64	0	0	19.34	0	0	0	0	0	0	-16.37	-16.37
500	T76	623639.91	4765719.45	304	180	0	100.8	100.8	18539.25	67.35	500	96.36	0	-1.61	0	0	35.74	0	0	0	0	0	0	-29.69	-29.69
1000	T76	623639.91	4765719.45	304	180	0	98.3	98.3	18539.25	67.35	1000	96.36	0	-1.61	0	0	67.81	0	0	0	0	0	0	-64.26	-64.26
2000	T76	623639.91	4765719.45	304	180	0	92.8	92.8	18539.25	67.35	2000	96.36	0	-1.61	0	0	179.16	0	0	0	0	0	0	-181.11	-181.11
4000	T76	623639.91	4765719.45	304	180	0	85.9	85.9	18539.25	67.35	4000	96.36	0	-1.61	0	0	607.53	0	0	0	0	0	0	-616.38	-616.38
8000	T76	623639.91	4765719.45	304	180	0	73.3	73.3	18539.25	67.35	8000	96.36	0	-1.61	0	0	2166.9	0	0	0	0	0	0	-2188.35	-2188.35
63	T01	622985.76	4765745.26	306.25	182.25	0	86.3	86.3	18567.36	68.06	63	96.38	0	-5.38	0	0	2.26	0	0	0	0	0	0	-6.96	-6.96
125	T01	622985.76	4765745.26	306.25	182.25	0	91.7	91.7	18567.36	68.06	125	96.38	0	1.07	0	0	7.63	0	0	0	0	0	0	-13.37	-13.37
250	T01	622985.76	4765745.26	306.25	182.25	0	98.7	98.7	18567.36	68.06	250	96.38	0	-0.64	0	0	19.37	0	0	0	0	0	0	-16.41	-16.41
500	T01	622985.76	4765745.26	306.25	182.25	0	100.8	100.8	18567.36	68.06	500	96.38	0	-1.61	0	0	35.8	0	0	0	0	0	0	-29.76	-29.76
1000	T01	622985.76	4765745.26	306.25	182.25	0	98.3	98.3	18567.36	68.06	1000	96.38	0	-1.61	0	0	67.91	0	0	0	0	0	0	-64.38	-64.38
2000	T01	622985.76	4765745.26	306.25	182.25	0	92.8	92.8	18567.36	68.06	2000	96.38	0	-1.61	0	0	179.43	0	0	0	0	0	0	-181.4	-181.4
4000	T01	622985.76	4765745.26	306.25	182.25	0	85.9	85.9	18567.36	68.06	4000	96.38	0	-1.61	0	0	608.45	0	0	0	0	0	0	-617.32	-617.32
8000	T01	622985.76	4765745.26	306.25	182.25	0	73.3	73.3	18567.36	68.06	8000	96.38	0	-1.61	0	0	2170.2	0	0	0	0	0	0	-2191.65	-2191.65
63	T31	625150	4765821	309	185	0	86.3	86.3	18723.04	69.44	63	96.45	0	-5.38	0	0	2.28	0	0	0	0	0	0	-7.04	-7.04
125	T31	625150	4765821	309	185	0	91.7	91.7	18723.04	69.44	125	96.45	0	1.07	0	0	7.69	0	0	0	0	0	0	-13.51	-13.51
250	T31	625150	4765821	309	185	0	98.7	98.7	18723.04	69.44	250	96.45	0	-0.64	0	0	19.54	0	0	0	0	0	0	-16.64	-16.64
500	T31	625150	4765821	309	185	0	100.8	100.8	18723.04	69.44	500	96.45	0	-1.61	0	0	36.1	0	0	0	0	0	0	-30.13	-30.13
1000	T31	625150	4765821	309	185	0	98.3	98.3	18723.04	69.44	1000	96.45	0	-1.61	0	0	68.48	0	0	0	0	0	0	-65.02	-65.02
2000	T31	625150	4765821	309	185	0	92.8	92.8	18723.04	69.44	2000	96.45	0	-1.61	0	0	180.94	0	0	0	0	0	0	-182.97	-182.97
4000	T31	625150	4765821	309	185	0	85.9	85.9	18723.04	69.44	4000	96.45	0	-1.61	0	0	613.56	0	0	0	0	0	0	-622.49	-622.49
8000	T31	625150	4765821	309	185	0	73.3	73.3	18723.04	69.44	8000	96.45	0	-1.61	0	0	2188.4	0	0	0	0	0	0	-2209.92	-2209.92
63	T54	619944	4765594	304	180	0	86.3	86.3	18729.41	66.39	63	96.45	0	-5.38	0	0	2.28	0	0	0	0	0	0	-7.05	-7.05
125	T54	619944	4765594	304	180	0	91.7	91.7	18729.41	66.39	125	96.45	0	1.07	0	0	7.7	0	0	0	0	0	0	-13.52	-13.52
250	T54	619944	4765594	304	180	0	98.7	98.7	18729.41	66.39	250	96.45	0	-0.64	0	0	19.54	0	0	0	0	0	0	-16.65	-16.65
500	T54	619944	4765594	304	180	0	100.8	100.8	18729.41	66.39	500	96.45	0	-1.61	0	0	36.11	0	0	0	0	0	0	-30.14	-30.14
1000	T54	619944	4765594	304	180	0	98.3	98.3	18729.41	66.39	1000	96.45	0	-1.61	0	0	68.51	0	0	0	0	0	0	-65.04	-65.04
2000	T54	619944	4765594	304	180	0	92.8	92.8	18729.41	66.39	2000	96.45	0	-1.61	0	0	181	0	0	0	0	0	0	-183.04	-183.04
4000	T54	619944	4765594	304	180	0	85.9	85.9	18729.41	66.39	4000	96.45	0	-1.61	0	0	613.76	0	0	0	0	0	0	-622.7	-622.7
8000	T54	619944	4765594	304	180	0	73.3	73.3	18729.41	66.39	8000	96.45	0	-1.61	0	0	2189.1	0	0	0	0	0	0	-2210.67	-2210.67
63	T38	620669.21	4765751.77	304	180	0	86.3	86.3	18766.21	66.62	63	96.47	0	-5.38	0	0	2.28	0	0	0	0	0	0	-7.07	-7.07
125	T38	620669.21	4765751.77	304	180	0	91.7	91.7	18766.21	66.62	125	96.47	0	1.07	0	0	7.71	0	0	0	0	0	0	-13.55	-13.55
250	T38	620669.21	4765751.77	304	180	0	98.7	98.7	18766.21	66.62	250	96.47	0	-0.64	0	0	19.58	0	0	0	0	0	0	-16.71	-16.71
500	T38	620669.21	4765751.77	304	180	0	100.8	100.8	18766.21	66.62	500	96.47	0	-1.61	0	0	36.18	0	0	0	0	0	0	-30.23	-30.23
1000	T38	620669.21	4765751.77	304	180	0	98.3	98.3	18766.21	66.62	1000	96.47	0	-1.62	0	0	68.64	0	0	0	0	0	0	-65.19	-65.19
2000	T38	620669.21	4765751.77	304	180	0	92.8	92.8	18766.21	66.62	2000	96.47	0	-1.62	0	0	181.36	0	0	0	0	0	0	-183.41	-183.41
4000	T38	620669.21	4765751.77	304	180	0	85.9	85.9	18766.21	66.62	4000	96.47	0	-1.62	0	0	614.97	0	0	0	0	0	0	-623.92	-623.92
8000	T38	620669.21	4765751.77	304	180	0	73.3	73.3	18766.21	66.62	8000	96.47	0	-1.62	0	0	2193.4	0	0	0	0	0	0	-2214.98	-2214.98
63	T36	622378.63	4763063.13	310	175	0	86.6	86.6	15912.59	70.32	63	95.03	0	-5.21	0	0	1.94	0	0	0	0	0	0	-5.16	-5.16
125	T36	622378.63	4763063.13	310	175	0	94.7	94.7	15912.59	70.32	125	95.03	0	1.12	0	0	6.54	0	0	0	0	0	0	-7.99	-7.99
250	T36	622378.63	4763063.13	310	175	0	94.4	94.4	15912.59	70.32	250	95.03	0	-0.59	0	0	16.6	0	0	0	0	0	0	-16.65	-16.65
500	T36	622378.63	4763063.13	310	175	0	97.3	97.3	15912.59	70.32	500	95.03	0	-1.56	0	0	30.68	0	0	0	0	0	0	-26.85	-26.85
1000	T36	622378.63	4763063.13	310	175	0	98.7	98.7	15912.59	70.32	1000	95.03	0	-1.56	0	0	58.2	0	0	0	0	0	0	-52.97	-52.97
2000	T36	622378.63	4763063.13	310	175	0	93.8	93.8	15912.59	70.32	2000	95.03	0	-1.56	0	0	153.78	0	0	0	0	0	0	-153.45	-153.45
4000	T36	622378.63	4763063.13	310	175	0	81.5	81.5	15912.59	70.32	4000	95.03	0	-1.56	0	0	521.46	0	0	0	0	0	0	-533.43	-533.43
8000	T36	622378.63	4763063.13	310	175	0	73.4	73.4	15912.59	70.32	8000	95.03	0	-1.56	0	0	1859.9	0	0	0	0	0	0	-1879.97	-1879.97
63	T33	626968.74	4765950.41	309	185	0	86.3	86.3	19108.82	68.49	63	96.62	0	-5.39	0	0	2.33	0	0	0	0	0	0	-7.26	-7.26
125	T33	626968.74	4765950.41	309	185	0	91.7	91.7	19108.82	68.49	125	96.62	0	1.06	0	0	7.85	0	0	0	0	0	0	-13.84	-13.84
250	T33	626968.74	4765950.41	309	185	0	98.7	98.7	19108.82	68.49	250	96.62	0	-0.65	0	0	19.94	0	0	0	0	0	0	-17.22	-17.22
500	T33	626968.74	4765950.41	309	185	0	100.8	100.8	19108.82	68.49	500	96.62	0	-1.62	0	0	36.84	0	0	0	0	0	0	-31.05	-31.05
1000	T33	626968.74	4765950.41	309	185	0	98.3	98.3	19108.82	68.49	1000	96.62	0	-1.62	0	0	69.89	0	0	0	0	0	0	-66.6	-66.6
2000	T33	626968.74	4765950.41	309	185	0	92.8	92.8	19108.82	68.49	2000	96.62													

[illegible]

TRANSFORMER BARRIER COORDINATES

**NIAGARA REGION WIND FARM
NOISE ASSESSMENT REPORT**

Appendix F Additional Information

July 25, 2013

1. Substation ST1 (100/133/166 ONAN/ONAF/ONAF MVA Transformer noise source modeled at a height of 3.7m with UTM Coordinates 621960, 4761728) will require a four sided barrier of 5 metres in height above grade. Barrier corner coordinates are:

Four sided barrier's 4 corner points are provided below

4 corners	Easting [m]	Northing [m]
Corner 1	621918	4761768
Corner 2	622000	4761771
Corner 3	622000	4761693
Corner 4	621930	4761692

2. Substation ST2 (100/133/166 ONAN/ONAF/ONAF MVA Transformer noise source modeled at a height of 3.7m with UTM Coordinates 622837, 4754679) will require a two sided barrier of 5 metres in height above grade. This barrier should be placed on south and west side of the transformer and extended at least 2 meters beyond the transformer such that noise flanking is negligible. Barrier corner coordinates are:

Two sided barrier's 3 corner points are provided below

3 corners	Easting [m]	Northing [m]
Corner 1	622789	4754697
Corner 2	622823	4754636
Corner 3	622891	4754667