

NEW GOLD RAINY RIVER MINE
APPENDIX E
ACOUSTIC MONITORING RESULTS

RAINY RIVER PROJECT

UPDATED ACOUSTIC ASSESSMENT REPORT FOR EARLY OPERATIONS





January 17, 2018

TC111504

Mr. Nigel Fisher, Environmental Superintendent
New Gold Inc.
Rainy River Project
317 Heatwole Road
Barwick, Ontario, Canada, P0W 1E0

Dear Mr. Fisher:

Re: Rainy River Project, Updated Acoustic Assessment Report for Early Operations

Amec Foster Wheeler Environment & Infrastructure, a Division of Amec Foster Wheeler Americas Limited, is pleased to provide the attached Updated Acoustic Assessment Report (AAR) for the Rainy River Project (RRP).

The original AAR was prepared in support of the Environmental Compliance Approval – Air and Noise and it addressed sound impacts from the development and operational phases. The current update addresses the RRP early operation phase which is a transitional phase from the development phase into operation. The current update also incorporates source sound data collected during our recent field measurements.

We greatly appreciate the opportunity to provide support for the Rainy River Project. Should you have any questions regarding the study, please do not hesitate to contact us.

Yours sincerely,
Amec Foster Wheeler Environment & Infrastructure
a Division of Amec Foster Wheeler Americas Limited

A handwritten signature in black ink, appearing to read "Dan Russell, P.Geo."

Dan Russell, P.Geo.
Senior Environmental Geoscientist

EXECUTIVE SUMMARY

The Rainy River Project (RRP) site is within the Township of Chapple, approximately 65 kilometres (km), by road, northwest of Fort Frances within northwestern Ontario. Amec Foster Wheeler Environment & Infrastructure (Amec Foster Wheeler) was retained by New Gold Inc. (New Gold) to update the Acoustic Assessment Report (AAR) to satisfy the conditions in the Environmental Compliance Approval (ECA) for the RRP site. The RRP currently operates under ECA No. 0412-A2LR4V, issued on September 24, 2015.

The original AAR [1] was prepared in support of the ECA application and it addressed sound impacts from the development and operational phases. The RRP is currently in transition from the development phase to the operational phase. During this transitional phase some of the development phase activities will overlap with operation phase activities. The current update only addresses sound impacts from the RRP transition phase (early operations) as this aspect was not assessed in the original AAR. This report provides a complete AAR for the early operation phase. The life of mine operations will be assessed separately prior to start of underground mining operations.

The current update excludes the receptors (Points of Reception 05, 13, 18 and 26) which have been acquired by New Gold since the original AAR was prepared. The current update also incorporates source sound data collected from the field measurements on September 2017.

The main activities associated with the early operation phase include aggregate extraction, material handling, vehicle movement, plant operations, crushing operations and other mining fleet operations. However, the underground portal has yet to be developed and underground mining is expected to start in 2019. Therefore, sound sources associated with the underground operations are excluded from the current assessment, they will only be included with the assessment for life of mine operations.

A blast impact assessment was previously completed for the site by Amec Foster Wheeler under a separate cover [2]. An update of the blast impact assessment is not required as there are no changes to the blast location or charge size.

The RRP site operates 24 hours per day, 7 days per week. Nineteen types of significant sound sources were identified at the RRP site and included in this assessment. The emergency generators (EG1 and EG2) and fire pumps are assessed separately as required by the guidelines for the testing purpose only.

Twenty-two representative Points of Reception were identified and considered for this assessment, including six accessible vacant lot receptors.

The applicable guideline for the RRP site is the Ministry of the Environment and Climate Change (MOECC) Environmental Noise Guideline NPC-300, "Noise Assessment Criteria for Stationary Sources and for Land Use Planning." The RRP site is located in a rural area which is best

described as a Class 3 area in accordance with the area classifications defined within Publication NPC-300.

Receptor sound impacts associated with the RRP early operations were assessed through predictive acoustic modelling. The MOECC exclusionary sound level limits were used for this assessment. Under the predictable worst-case sound emission scenario, the RRP site is predicted to operate in compliance with the applicable MOECC NPC-300 guideline for day-time, evening and night-time during early operation phase.

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1.0 INTRODUCTION

Amec Foster Wheeler Environment & Infrastructure (Amec Foster Wheeler) was retained by New Gold Inc. (New Gold) to update the Acoustic Assessment Report (AAR) to support the Environmental Compliance Approval (ECA) for the Rainy River Project (RRP). The RRP currently operates under ECA No. 0412-A2LR4V, issued on September 24, 2015.

An AAR [1] was prepared by Amec Foster Wheeler in September 2014 in support of the ECA (Air and Noise) application, and it addressed sound impacts from development and operational phases. The RRP is currently in transition from the development phase to the operational phase. During this transitional phase some of the development phase activities will overlap with operational phase activities. The underground mining operations have not yet commenced but are expected to start in 2019. The current update only addresses sound impacts from the RRP transitional phase (early operations) as this aspect was not assessed in the original AAR. The life of mine operations will be assessed separately prior to start of underground mining operations.

The RRP site does not have any large sources of vibration other than blasting activity at the site. As such, this assessment focuses only on potential steady sound impacts from the RRP site. A blast impact assessment was previously completed for the site by Amec Foster Wheeler under a separate cover [2]. An update of the blast impact assessment is not required as there are no changes to the blast location or charge size.

The current update excludes the Points of Reception (PORs) 05, 13, 18 and 26 which have been acquired by New Gold since the original AAR was prepared. The current update also incorporates source sound data collected from the field measurements on September 2017. This report provides a complete AAR for the early operation and is intended to meet the Ministry of the Environment and Climate Change (MOECC) requirements outlined in References [3] and [4].

A completed copy of the Acoustic Assessment Report Checklist, as required by Reference [3], has been included in Appendix A.

An Emissions Summary and Dispersion Modelling Report (ESDM report) for the site was completed by Amec Foster Wheeler in support of the ECA application. Where possible, we have used the same source names and identification numbers in this AAR as those used within the ESDM report.

2.0 PROJECT DESCRIPTION

The RRP site is within the Township of Chapple, approximately 65 kilometres (km), by road, northwest of Fort Frances within northwestern Ontario. The maximum expected ore production during the operation phase is approximately 7,200 kilotonnes (kt) per year of ore and that includes both open pit and underground mining operations. In order to achieve the annual production rate, daily ore production rates may vary but is not expected to exceed 32 kt per day. The North American Industry Classification System (NAICS) code for the RRP site is 212220 described as "Gold and Silver Ore Mining."

The RRP includes an open pit, underground mine, processing plant, and related facilities and infrastructure. Overburden and mine rock removed from the open pit are stored in stockpiles nearby. Ore is processed at the onsite processing plant. The RRP is currently in transition from development phase to operation. The current activities at the site include aggregate extraction, material handling, vehicle movement, plant operations, crushing operations and other mining fleet operations.

The area surrounding the RRP site is a rural area with an acoustical environment dominated by natural sounds having little or no road traffic. However, the receptors along Highway 600 experience high background sound levels during daytime from Highway 600 traffic.

The following figure and appendices provide information about the RRP site and points of reception location and surrounding land uses:

- Figure 1: Site Aerial Map with Points of Reception Location;
- Appendix B: Land-use Zoning Map of the Site and Surrounding Area; and
- Appendix C: Site Layout.

The RRP site operates 24 hours per day and 7 days per week.

3.0 SOUND SOURCE SUMMARY

There are 19 types of sound sources identified as significant (i.e., as emitting sound at a level where their cumulative impacts could be of concern) at the RRP site for the early operational phase. Where possible, the same source names and identification numbers as provided within the ESDM report have been used.

The significant sound sources identified are summarized below:

- 4 blast hole drills (2 Sandvik DR461i and 2 Sandvik DP1500i);
- 2 reverse circulation drills (Sandvik DR580);
- 6 diesel powered excavators (1 Komatsu PC8000, 2 Komatsu PC5500, 1 Komatsu PC3000, 1 Komatsu PC800LC and 1 Komatsu PC360LC);
- 15 track dozers (Komatsu D375, Komatsu D475, CAT D8, CAT D9, CAT D10 and CAT D11);
- 2 wheel loaders (Komatsu WA1200 and WA900);
- 1 wheel dozer (Komatsu KM WD600);
- 2 water trucks per hour on any haul routes (Komatsu CR20000);

- 1 motor grader per hour on any haul routes (CAT16H, 16M and 24M);
- 4 truck routes (Pit-PAG with 17 truck round trips/hour, Pit-NPAG/OB with 27 truck round trips/hour and Pit-stockpile with 6 truck round trips/hour) with Komatsu 830E trucks;
- 4 aggregate pits (LD4, Roen, Outcrop 3 and East Outcrop) each with portable a crusher, screener, loader, excavator and a truck route;
- 1 primary crusher;
- 2 dust collectors (primary and reclaim dust collectors);
- 1 wet scrubber (pebble crusher scrubber);
- 4 air compressors at Water Management Pond;
- 20 water pumps for dewatering operations in the pit and other areas;
- 1 power generator (CAT 660 kilowatts; kW) at Pinewood River pumphouse;
- 2 emergency generators (CAT 2,500 kW each) at the process plant;
- 2 fire pumps at the process plant; and
- 2 substation transformers at the process plant.

Sound emissions for many of the sources associated with the RRP were measured in the field by Amec Foster Wheeler (see Appendix D for measurements details). Where sound measurements were available the sound power levels were calculated from the measured levels. Sound levels for the generators, fire pumps and screeners were taken from manufacturer's datasheets. Komatsu 830E trucks with and without load were measured for the haul routes since the empty trucks were much quieter than the fully loaded trucks. Empty trucks were found to emit sound levels of approximately 11 decibel (dB) lower when compared with fully loaded trucks.

A summary of the significant sound sources is provided in Table 1, including sound power levels, sound characteristics, and any sound control measures. The locations of the sound sources considered in the assessment are shown in Figure 2.

The MOECC NPC-104 guideline prescribes adjustments for sources with special qualities or characters of sound. These are punitive adjustments which apply to sound sources with subjectively annoying characteristics, including tonal sounds, quasi-impulsive sounds, and beating sounds (sounds with cyclically varying amplitudes). Therefore, a tonal penalty of 5 dB was applied to the substation transformers, Komatsu D475 track dozers and Komatsu PC3000 excavator, as they exhibit tonal characteristics based on the mathematical qualification which is

outlined in Reference [5]. The measured equipment sound levels and sound calculations are provided in Appendix D.

All insignificant sound sources at the RRP site are listed in Appendix E.

Details of the RRP site sound sources are provided in the following table, figure and appendices:

- Table 1: Significant Sound Source Summary;
- Figure 2: Significant Sound Source Locations;
- Appendix D: Sound Measurement Details and Calculations; and
- Appendix E: List of Insignificant Sound Sources.

4.0 SOUND MITIGATION MEASURES SUMMARY

New Gold has taken a proactive approach to minimize sound impacts to neighbors and mitigation measures have been incorporated into the project from the onset of design. These measures are inherent to the current design of the RRP site and are reflected in the noise model predictions.

The sound pressure level of the emergency generators EG1 and EG2 is 80 A-weighted decibels (dBA) at 15 metres (m) and 74 dBA at 15 m for the power generator PG1 (660 kW).

As part of the sound mitigation, the following are considered for the RRP early operations:

- Aggregate pit operations are limited to daytime only (07:00 to 19:00), except for East Outcrop. Crushing operations at East Outcrop aggregate pit, and truck hauling/loading operations at all aggregate pits can be done 24 hours/day.
- The operation of the Komatsu D475 track dozers is limited to daytime only at the stockpiles (e.g., PAG, NPAG and ore stockpiles). Other track dozer models (e.g., Komatsu D375, CATD8, D9, or D10) can be used at those locations during evening and night-time periods (19:00 to 07:00).
- Emergency generators and fire pumps are expected to test during daytime only.
- Open pit bottom elevation is currently at 270 m which provides sufficient screening to the fleet equipment in the open pit.

The type of trucks used for the material handling and the number of round trips considered in the assessment are summarized in Appendix D.

5.0 POINT OF RECEPTION SUMMARY

Noise sensitive receptors of interest under NPC-300 guidelines include the following sound sensitive land uses:

- Permanent, seasonal, or rental residences;
- Hotels, motels and campgrounds;
- Schools, universities, libraries and daycare centres;
- Hospitals and clinics, nursing / retirement homes; and
- Churches and places of worship.

Three vacant lot receptors and one existing dwelling near Pinewood river (PORs 05, 13, 18 and 26) were acquired by New Gold since the original AAR was prepared. Therefore, these receptors have been removed from this assessment. A total of 22 representative (most-exposed) points of reception (PORs), including 6 accessible vacant lots, were identified and considered in this acoustic assessment. The existing dwellings identified in the area are two-storey houses.

The receptor location considered for the existing dwellings is given below:

- For the Plane of Window PORs, the receptor location is at 4.5 m above ground for a two-storey house (i.e., highest window level); and
- For the Outdoor PORs, the receptor location is at 1.5 m above ground within 30 m of a facade of a dwelling.

The receptor location for the vacant lots is chosen at 4.5 m height. The receptors presented for the existing dwellings in this report are the worst-impacted receptor location only. The PORs considered in the assessment are shown in Figure 1.

6.0 APPLICABLE SOUND GUIDELINES

The applicable guideline used for the RRP site is the MOECC Environmental Noise Guideline NPC-300. NPC-300 establishes four classes of acoustical environment to classify ambient background sound environment and establish class specific assessment sound level limits. The MOECC classifications, based on ambient background sound, are given below:

- Class 1 Area is used to describe an area with an acoustical environment typical of a major population centre, where the background sound level is dominated by the urban hum.
- Class 2 Area defines an area with an acoustical environment that has qualities representative of both Class 1 and Class 3 Areas. That means, absence of urban hum or a low ambient sound level is expected during early evening (i.e., between 19:00 and 23:00) than that in Class 1 Areas.
- Class 3 Area means a rural area with an acoustical environment dominated by natural sounds having little or no road traffic. Examples are small communities with populations of less than 1,000, agricultural areas, rural recreational areas, such as a cottage or a resort area, and wilderness areas.

- Class 4 Area is a newly classified area that would otherwise be defined as Class 1 (urban) or Class 2 (suburban). It has a relaxed criterion compared to any other Classes, is added for the new sound-sensitive developments in the industrial areas.

The area surrounding the RRP is best described as a Class 3 Area as per the guideline. NPC-300 states that non-impulsive (steady) one hour sound levels ($L_{eq,1hr}$) from stationary sound sources in Class 3 Areas shall not exceed that of the background, where the background (typically caused by natural sound sources) is considered to be:

- The higher of 45 dBA MOECC exclusionary sound level limit or background sound at both outdoor and plane of window receptor locations during day-time hours (07:00 to 19:00); and
- The higher of 40 dBA MOECC exclusionary sound level limit or background sound at both outdoor and plane of window receptor during the early evenings (19:00 to 23:00), and at the plane of window during night-time (23:00 to 07:00).

The guidelines also stipulate that the assessment consider the potential sound impact during a predictable worse case hour of operation, which is defined as a situation when the normally busy activity of the sources coincides with a low hourly background sound level. The MOECC's exclusionary sound limits were used for this assessment.

The non-emergency operation (i.e., testing and maintenance) of the emergency generators and fire pumps is assessed separately as required by the NPC-300 guidelines and a criterion of 50 dBA for Class 3 area is used for the assessment as they are tested during daytime hours only.

7.0 SOUND IMPACT ASSESSMENT

7.1 Methodology

The sound assessment for the RRP early operations was completed using a sound prediction software package (CadnaA), published by Datakustik GmbH and configured to implement the ISO 9613-2 environmental sound propagation algorithms. Off-site sound exposures due to the early operations were modelled. The CadnaA sound modelling software is widely accepted by the consulting industry and by the MOECC. All sound sources were assumed to operate simultaneously to model the predictable worst-case scenario.

In order to provide a better sound prediction at the receptor locations, due to sound emissions from a specific source(s), the modelling took into account the following factors:

- Source sound power level and directivity;
- Distance attenuation;
- Source-receptor geometry, including heights and elevations;
- Barrier effects of the building and surrounding topography;

- Ground and air (atmospheric) attenuation; and
- Foliage attenuation.

Komatsu 830E trucks with load and without are modelled separately for the haul routes since the sound levels measured for the empty trucks are about 11 dB lower than the fully loaded trucks. Water trucks and graders are modeled as line sources as they are moving along the haul routes within the site. For graders and track dozers, sound data for the loudest equipment model was used for this assessment to model the worst-case scenario without restricting operation of any of those equipment model to any particular area.

The predictable worst-case sound impact was modelled and assessed at the receptor locations. The RRP site operates 24 hours per day. However, the aggregate pits are expected to operate during daytime only, except loading and hauling. Therefore, the acoustic modelling has been completed for both daytime and night-time operations. The testing of emergency generators and fire pumps is assessed separately as required by the guidelines.

7.2 Modelling Results

The combined steady sound levels (L_{eq-1hr}) in dBA values for the predictable worst-case for the RRP early operations were calculated at the identified points of reception using sound emissions from the individual significant sources, as summarized in Table 1. The sound contours for the predictable worst-case operation are shown in Figures 3 through 5, and a point of reception impact summary is provided in Table 2 as required by the MOECC. The values provided in Table 2 represent individual contributions at the receptor locations from each of the sources identified in Table 1.

An acoustic assessment summary is provided in Table 3. Under the predictable worst-case sound emission scenario, the RRP early operations are predicted to be in compliance with the applicable MOECC NPC-300 guideline for day-time, evening and night-time operations. The sound levels at the receptors reported as part of this acoustic assessment represent the predictable worst-case operational impact. Key parameters included in the model and sample calculations are provided in Appendix F.

8.0 CONCLUSIONS

The AAR for the RRP early operations has been updated to address the changes during the RRP transition phase. Twenty-two PORs, including six accessible vacant lot receptors, are identified in the vicinity of the site and considered for this assessment. The existing PORs included in the assessment are 2-storey residential dwellings surrounding the site.

Receptor sound impact associated with the RRP early operations was assessed through predictive acoustic modelling. The MOECC exclusionary sound level limits were used as the criteria for the assessment. Under the predictable worst-case operational scenario, the RRP early operations sound levels at the receptor locations are expected to meet the applicable MOECC NPC-300 guideline limits for day-time, evening and night-time.

Therefore, the RRP early operations are expected to be in compliance with the applicable MOECC NPC-300 guideline sound level limits for day-time, evening and night-time.

9.0 REFERENCES

- [1] AMEC Environment & Infrastructure. 2014. Acoustic Assessment Report for Rainy River Project. September 2014.
- [2] AMEC Environment & Infrastructure. 2014. Blasting Vibration and Overpressure Sound Assessment Report for Rainy River Project. April 2013.
- [3] Ontario Ministry of the Environment and Climate Change (MOECC), *Guide for Applying for Approval (Air & Noise) s.9 EPA*, February 2005.
- [4] Ontario Ministry of the Environment and Climate Change (MOECC) Publication NPC-233, *Information to be Submitted for Approval of Stationary Sources of Sound*, October 1995.
- [5] ISO 1996-2:2007(E). *Description, measurement and assessment of environmental noise - Part 2: Determination of environmental noise levels.*
- [6] Ontario Ministry of the Environment and Climate Change (MOECC) Publication NPC-104, *Sound Level Adjustments*, published under the Model Municipal Noise Control Bylaw, 1977.
- [7] ISO-9613-1. *Acoustics – Attenuation of Sound during propagation outdoors. Part 1 – Calculation of the absorption of sound by the atmosphere.*
- [8] ISO-9613-2. *Acoustics – Attenuation of Sound during propagation outdoors. Part 2 – General method of calculation.*
- [9] Ontario Ministry of the Environment and Climate Change (MOECC) Publication NPC-300, *Noise Assessment Criteria for Stationary Sources and for Land Use Planning*, August 2013.

10.0 CLOSING

This updated acoustic assessment report was prepared by Amec Foster Wheeler for the sole benefit of New Gold Inc. for specific application to the Rainy River Project. The quality of information, conclusions and estimates contained herein are consistent with the level of effort involved in Amec Foster Wheeler's services and based on: i) information available at the time of preparation, ii) data supplied by outside sources and iii) the assumptions, conditions and qualifications set forth in this document.

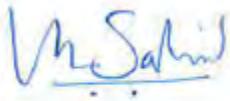
This report is intended to be used by New Gold only, and its nominated representatives, subject to the terms and conditions of its contract with Amec Foster Wheeler. Any other use of, or reliance

on, this report by any third party is at that party's sole risk. This report has been prepared in accordance with generally accepted industry-standard. No other warranty, expressed or implied, is made.

If you require further information regarding the above or the project in general, please contact the undersigned at (905) 568-2929. Thank you for the opportunity to be of service to New Gold Inc.

Yours truly,
Amec Foster Wheeler Environment & Infrastructure
a Division of Amec Foster Wheeler Americas Limited

Prepared by:



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Table 1: Noise Source Summary

Project: RRP
Location: Township of Chapple ON



Source ID	Source Description	Sound Power Level (dBA/dBAI)	Source Location (I or O)	Sound Characteristics [2] (S,Q,I,B,T,C)	Noise Control Measures [3] (S,A,B,L,E,O,U)
AC1	WMP Air Compressor 1	99	O	S	U
AC2	WMP Air Compressor 2	99	O	S	U
AC3	WMP Air Compressor 3	99	O	S	U
AC4	WMP Air Compressor 4	99	O	S	U
BD1	Blast Hole Drill 1- Sandvik DR461i	121	O	S	U
BD2	Blast Hole Drill 2- Sandvik DR461i	121	O	S	U
BD3	Blast Hole Drill 3 - Sandvik DP1500i	117	O	S	U
BD4	Blast Hole Drill 4 - Sandvik DP1500i	117	O	S	U
C	Crusher	111	O	S	U
DC1	Dust Collector 1	105	O	S	U
DC2	Dust Collector 2	105	O	S	U
E1	Komatsu Diesel Excavator PC5500	116	O	S	U
E2	Komatsu Diesel Excavator PC5500	116	O	S	U
E3	Komatsu Diesel Excavator PC8000	121	O	S	U
E4	Komatsu Diesel Excavator PC3000	125	O	S, T	U
E5	Komatsu Diesel Excavator PC800LC	113	O	S	U
E6	Komatsu Diesel Excavator PC360LC	116	O	S	U
EO_E	East Outcrop Aggregate Pit Excavator PC360LC	116	O	S	U
EO_FEL	East Outcrop Graval Pit Mobile Crushing Plant Loader (CAT 966H)	114	O	S	U
EO_PS	East Outcrop Graval Pit Mobile Primary Crusher (PowerScreen)	119	O	S	U
EO_SCNR	East Outcrop Graval Pit Mobile Screener (Atlas Copco HCS3715)	102	O	S	U
LD4_E	LD4 Aggregate Pit Excavator PC360LC	116	O	S	U
LD4_FEL	LD4 Graval Pit Mobile Crushing Plant Loader (CAT 966H)	114	O	S	U
LD4_PS	LD4 Graval Pit Mobile Primary Crusher (PowerScreen)	119	O	S	U
LD4_SCNR	LD4 Graval Pit Mobile Screener (Atlas Copco HCS3715)	102	O	S	U
Outcrop3_E	Outcrop 3 Aggregate Pit Excavator PC360LC	116	O	S	U
Outcrop3_FEL	Outcrop 3 Graval Pit Mobile Crushing Plant Loader (CAT 966H)	114	O	S	U
Outcrop3_PS	Outcrop 3 Graval Pit Mobile Primary Crusher (PowerScreen)	119	O	S	U
Outcrop3_SCNR	Outcrop3 Graval Pit Mobile Screener (Atlas Copco HCS3715)	102	O	S	U
PG1	Pinewood River Pumphouse Generator (CAT 660 kW)	105	O	S	E,S
RD1	RC Drill Sandvik DR580	119	O	S	U
RD2	RC Drill Sandvik DR580	119	O	S	U
Roen_E	Roen Aggregate Pit Excavator PC360LC	116	O	S	U
Roen_FEL	Roen Graval Pit Mobile Crushing Plant Loader (CAT 966H)	114	O	S	U
Roen_PS	Roen Graval Pit Mobile Primary Crusher (PowerScreen)	119	O	S	U
Roen_SCNR	Roen Graval Pit Mobile Screener (Atlas Copco HCS3715)	102	O	S	U
T1	Transformer 1	113	O	S, T	U
T2	Transformer 2	113	O	S, T	U
TD01	Track Dozer 01 (Pit - Komatsu D475)	121	O	S, T	U
TD02	Track Dozer 02 (Pit -CAT D10)	121	O	S, T	U
TD03	Track Dozer 03 (Pit -CAT D10)	121	O	S, T	U
TD04	Track Dozer 04 (Pit -CAT D10)	115	O	S	U
TD05	Track Dozer 05 (PAG - Komatsu D375)	115	O	S	U
TD06	Track Dozer 06 (PAG - Komatsu D375)	115	O	S	U
TD07	Track Dozer 07 (PAG - Komatsu D475)	121	O	S, T	U

Table 1: Noise Source Summary

Project: RRP
 Location: Township of Chapple ON



Source ID	Source Description	Sound Power Level	Source Location ^[1]	Sound Characteristics ^[2]	Noise Control Measures ^[3]
		(dBA/dBAI)	(I or O)	(S,Q,I,B,T,C)	(S,A,B,L,E,O,U)
TD08	Track Dozer 08 (PAG - Komatsu D375)	121	O	S, T	U
TD09	Track Dozer 09 (Ore -CAT D9)	115	O	S	U
TD10	Track Dozer 10 (Ore -CAT D8)	115	O	S	U
TD11	Track Dozer 11 (NPAG/OB - Komatsu D475)	121	O	S, T	U
TD12	Track Dozer 12 (NPAG/OB - Komatsu D375)	121	O	S, T	U
TD13	Track Dozer 13 (NPAG/OB -CAT D9)	115	O	S	U
TD14	Track Dozer 14 (NPAG/OB -CAT D9)	115	O	S	U
TD15	Track Dozer 15 (NPAG/OB -CAT D9)	115	O	S	U
TD16	Track Dozer 16 (NPAG/OB -CAT D9)	115	O	S	U
WD	Komatsu Wheel Dozer KM WD600	105	O	S	U
WL1	Komatsu Wheel Loader WA1200	117	O	S	U
WL2	Komatsu Wheel Loader WA900	117	O	S	U
WP01	Water Pump WP01	106	O	S	U
WP02	Water Pump WP02	106	O	S	U
WP03	Water Pump WP03	106	O	S	U
WP04	Water Pump WP04	106	O	S	U
WP05	Water Pump WP05	106	O	S	U
WP06	Water Pump WP06	106	O	S	U
WP07	Water Pump WP07	106	O	S	U
WP08	Water Pump WP08	106	O	S	U
WP09	Water Pump WP09	106	O	S	U
WP10	Water Pump WP10	106	O	S	U
WP11	Water Pump WP11	106	O	S	U
WP12	Water Pump WP12	106	O	S	U
WP13	Water Pump WP13	106	O	S	U
WP14	Water Pump WP14	106	O	S	U
WP15	Water Pump WP15	106	O	S	U
WP16	Water Pump WP16	106	O	S	U
WP17	Water Pump WP17	106	O	S	U
WP18	Water Pump WP18	106	O	S	U
WP19	Water Pump WP19	106	O	S	U
WP20	Pinewood River Water Pump	106	O	S	U
WS	Wet Scrubber	105	O	S	U
MGR_SP	Motor Grader Route Stockpile	111	O	S	U
MGR_NPAG	Motor Grader Route NPAG	111	O	S	U
MGR_OB	Motor Grader Route OB	111	O	S	U
MGR_OPMill	Motor Grader Route Open Pit to Mill	111	O	S	U
MGR_PAG	Motor Grader Route PAG	111	O	S	U
TRE_NPAG	Truck Route-NPAG (Empty Truck)	108	O	S	U
TRE_OB	Truck Route-Overburden (Empty Truck)	108	O	S	U
TRE_OPMill	Truck Route Open Pit to Mill (Empty Truck)	108	O	S	U
TRE_PAG	Truck Route PAG (Empty Truck)	108	O	S	U
TRE_SP	Truck Route Stockpile (Empty Truck)	108	O	S	U
TRL_NPAG	Truck Route-NPAG (Loaded Truck)	119	O	S	U
TRL_OB	Truck Route-Overburden (Loaded Truck)	119	O	S	U
TRL_OPMill	Truck Route Open Pit to Mill (Loaded Truck)	119	O	S	U

Table 1: Noise Source Summary

Project: RRP
 Location: Township of Chapple ON



Source ID	Source Description	Sound Power Level (dBA/dBAI)	Source Location ^[1] (I or O)	Sound Characteristics ^[2] (S,Q,I,B,T,C)	Noise Control Measures ^[3] (S,A,B,L,E,O,U)
TRL_PAG	Truck Route PAG (Loaded Truck)	119	O	S	U
TRL_SP	Truck Route Stockpile (Loaded Truck)	119	O	S	U
WTR_NPAG	Water Truck Route NPAG	114	O	S	U
WTR_OB	Water Truck Route OB	114	O	S	U
WTR_OPMill	Water Truck Route Open Pit to Mill	114	O	S	U
WTR_PAG	Water Truck Route PAG	114	O	S	U
WTR_SP	Water Truck Route Stockpile	114	O	S	U
LD4_TR	LD4 Aggregate Pit Truck Route	107	O	S	U
OC3_TR	OC3 Aggregate Pit Truck Route	107	O	S	U
EO_TR	EO Aggregate Pit Truck Route	107	O	S	U
Roen_TR	Roen Aggregate Pit Truck Route	107	O	S	U
EG1	Emergency Generator 1 (CAT 2.5 MW)	129	O	S	U
EG2	Emergency Generator 2 (CAT 2.5 MW)	129	O	S	U
FP1	Fire Pump 1	137	O	S	U
FP2	Fire Pump 2	137	O	S	U

Notes: 1. Source Location: O = Outside of building, including the roof, I = Inside of building

2. Sound Characteristic, per NPC-104

S = Steady

I = Impulsive

T = Tonal

Q = Quasi-Steady Impulsive

B = Buzzing

C = Cyclic

3. Noise Control Measures To Be Included

S = Silencer/Muffler

L = Lagging

O = other

A = Acoustic lining, plenum

E = acoustic enclosure

U = uncontrolled

B = Barrier

4. Sound power levels include 5 dB tonal penalty for the sources with tonal characteristics.

Table 2: Point of Reception Sound Impact

Project: RRP
Location: Township of Chaple ON



Point of Reception ID POR01			Point of Reception ID POR02			Point of Reception ID POR03			Point of Reception ID POR04			Point of Reception ID POR06		
Point of Reception Description House 01 - North			Point of Reception Description House 02 - East			Point of Reception Description House 03 - East			Point of Reception Description House 04 - East			Point of Reception Description House 06 - Southeast		
Point of reception coordinates X Y Z			Point of reception coordinates X Y Z			Point of reception coordinates X Y Z			Point of reception coordinates X Y Z			Point of reception coordinates X Y Z		
424437	5415498	391.2	431274	5412538	384.5	431587	5411870	389.5	431496	5411644	389.5	431077	5408660	374.5
Source ID	Source Description	Point of Reception 1	Point of Reception 2	Point of Reception 3	Point of Reception 4	Point of Reception 5								
AC1	WMP Air Compressor 1	Distance (m)	Sound Level at PoR	Units	Distance (m)	Sound Level at PoR	Units	Distance (m)	Sound Level at PoR	Units	Distance (m)	Sound Level at PoR	Units	
AC2	WMP Air Compressor 2	5191	-6	dBA	10121	-7	dBA	10284	-7	dBA	10245	-7	dBA	
AC3	WMP Air Compressor 3	5607	-7	dBA	10858	-8	dBA	11130	-8	dBA	11000	-8	dBA	
AC4	WMP Air Compressor 4	5323	-8	dBA	11091	-8	dBA	11409	-8	dBA	11482	-9	dBA	
BD1	Blast Hole Drill 1 - Sandvik DR461i	4668	-6	dBA	9945	-7	dBA	10244	-6	dBA	10291	-8	dBA	
BD2	Blast Hole Drill 2 - Sandvik DR461i	5979	13	dBA	6525	13	dBA	6546	13	dBA	5710	14	dBA	
BD3	Blast Hole Drill 3 - Sandvik DP1500i	5982	13	dBA	6510	13	dBA	6531	13	dBA	5695	14	dBA	
BD4	Blast Hole Drill 4 - Sandvik DP1500i	6046	6	dBA	6573	6	dBA	6587	7	dBA	5717	7	dBA	
C	Crusher	6049	6	dBA	6560	6	dBA	6574	7	dBA	5703	7	dBA	
DC1	Dust Collector 1	5783	14	dBA	5066	14	dBA	5090	14	dBA	4572	9	dBA	
DC2	Dust Collector 2	5474	6	dBA	5042	9	dBA	5072	10	dBA	4582	8	dBA	
E1	Komatsu Diesel Excavator PC5500	5977	15	dBA	5098	5	dBA	5167	6	dBA	4819	5	dBA	
E2	Komatsu Diesel Excavator PC5500	6003	15	dBA	6438	15	dBA	6454	15	dBA	5742	16	dBA	
E3	Komatsu Diesel Excavator PC8000	6019	20	dBA	6487	20	dBA	6503	20	dBA	5610	16	dBA	
E4	Komatsu Diesel Excavator PC3000	6036	24	dBA	6524	24	dBA	6538	24	dBA	5649	20	dBA	
E5	Komatsu Diesel Excavator PC800LC	6056	10	dBA	6416	10	dBA	6425	10	dBA	5674	24	dBA	
E6	Komatsu Diesel Excavator PC360LC	6037	13	dBA	6483	13	dBA	6496	13	dBA	5556	11	dBA	
EO_E	East Outcrop Aggregate Pit Excavator PC360LC	6394	15	dBA	5302	15	dBA	5241	16	dBA	5634	14	dBA	
EO_FEL	East Outcrop Gravel Pit Mobile Crushing Plant Loader (CAT 966H)	6413	19	dBA	5301	19	dBA	5237	19	dBA	4307	16	dBA	
EO_PS	East Outcrop Gravel Pit Mobile Primary Crusher (PowerScreen)	6400	18	dBA	5311	18	dBA	5249	18	dBA	4292	19	dBA	
EO_SCNR	East Outcrop Gravel Pit Mobile Screen (Atlas Copco HCS3715)	6392	6	dBA	5327	6	dBA	5266	7	dBA	4310	19	dBA	
LD4_E	LD4 Aggregate Pit Excavator PC360LC	5322	9	dBA	8533	8	dBA	8696	9	dBA	4329	7	dBA	
LD4_FEL	LD4 Gravel Pit Mobile Crushing Plant Loader (CAT 966H)	5283	14	dBA	8459	14	dBA	8622	14	dBA	8170	14	dBA	
LD4_PS	LD4 Gravel Pit Mobile Primary Crusher (PowerScreen)	5313	11	dBA	8520	11	dBA	8683	11	dBA	8224	10	dBA	
LD4_SCNR	LD4 Gravel Pit Mobile Screen (Atlas Copco HCS3715)	5305	1	dBA	8467	0	dBA	8629	1	dBA	8168	0	dBA	
Outcrop3_E	Outcrop 3 Aggregate Pit Excavator PC360LC	6737	17	dBA	3527	18	dBA	3398	19	dBA	2909	19	dBA	
Outcrop3_FEL	Outcrop 3 Gravel Pit Mobile Crushing Plant Loader (CAT 966H)	6711	21	dBA	3542	22	dBA	3478	22	dBA	2939	22	dBA	
Outcrop3_PS	Outcrop 3 Gravel Pit Mobile Primary Crusher (PowerScreen)	6738	22	dBA	3536	23	dBA	3406	23	dBA	2911	21	dBA	
Outcrop3_SCN	Outcrop 3 Gravel Pit Mobile Screen (Atlas Copco HCS3715)	6735	11	dBA	3573	11	dBA	3443	12	dBA	2927	9	dBA	
PG1	Pinewood River Pumphouse Generator (CAT 660 kW)	12239	0	dBA	16620	0	dBA	16711	0	dBA	15573	0	dBA	
RD1	RC Drill Sandvik DR580	6094	15	dBA	6340	15	dBA	6342	16	dBA	5458	14	dBA	
RD2	RC Drill Sandvik DR580	6119	15	dBA	6363	15	dBA	6363	16	dBA	5464	12	dBA	
Roen_E	Roen Aggregate Pit Excavator PC360LC	4142	15	dBA	5610	15	dBA	5846	15	dBA	6071	12	dBA	
Roen_FEL	Roen Gravel Pit Mobile Crushing Plant Loader (CAT 966H)	4215	19	dBA	5525	18	dBA	5754	18	dBA	5967	16	dBA	
Roen_PS	Roen Gravel Pit Mobile Primary Crusher (PowerScreen)	4125	17	dBA	5638	17	dBA	5875	17	dBA	6101	14	dBA	
Roen_SCNR	Roen Gravel Pit Mobile Screen (Atlas Copco HCS3715)	4168	6	dBA	5698	5	dBA	5929	5	dBA	6116	3	dBA	
T1	Transformer 1	4865	16	dBA	4743	15	dBA	4910	15	dBA	5043	12	dBA	
T2	Transformer 2	4876	16	dBA	4747	15	dBA	4911	15	dBA	5037	13	dBA	
TD01	Track Dozer 01 (Pit - Komatsu D475)	6042	17	dBA	6388	17	dBA	6398	17	dBA	6235	15	dBA	
TD02	Track Dozer 02 (Pit - CAT D10)	5991	16	dBA	6608	16	dBA	6630	16	dBA	6469	18	dBA	
TD03	Track Dozer 03 (Pit - CAT D10)	6026	16	dBA	6501	16	dBA	6515	17	dBA	5657	17	dBA	
TD04	Track Dozer 04 (Pit - CAT D10)	5976	11	dBA	6376	11	dBA	6393	11	dBA	5567	12	dBA	
TD05	Track Dozer 05 (PAG - Komatsu D375)	6698	17	dBA	4053	18	dBA	3930	19	dBA	3177	17	dBA	
TD06	Track Dozer 06 (PAG - Komatsu D375)	7037	16	dBA	4417	17	dBA	4239	18	dBA	3102	18	dBA	
TD07D	Track Dozer 07 (PAG - Komatsu D475)	6556	23	dBA	4238	23	dBA	4140	24	dBA	3407	22	dBA	
TD07N	Track Dozer 07 (PAG - Komatsu D475)	6556	0	dBA	4238	0	dBA	4140	0	dBA	3407	0	dBA	
TD08D	Track Dozer 08 (PAG - Komatsu D375)	6356	24	dBA	3916	24	dBA	3856	25	dBA	3416	22	dBA	
TD08N	Track Dozer 08 (PAG - Komatsu D375)	6356	0	dBA	3916	0	dBA	3856	0	dBA	3416	0	dBA	
TD09	Track Dozer 09 (Ore - CAT D9)	6849	15	dBA	4713	16	dBA	4572	16	dBA	3479	17	dBA	
TD10	Track Dozer 10 (Ore - CAT D8)	6710	14	dBA	5060	14	dBA	4948	15	dBA	3867	19	dBA	
TD11D	Track Dozer 11 (NPAG/OB - Komatsu D475)	5175	12	dBA	8194	12	dBA	8356	12	dBA	7925	12	dBA	
TD11N	Track Dozer 11 (NPAG/OB - Komatsu D475)	5175	0	dBA	8194	0	dBA	8356	0	dBA	7925	0	dBA	
TD12D	Track Dozer 12 (NPAG/OB - Komatsu D375)	4771	16	dBA	6476	16	dBA	6634	16	dBA	6389	15	dBA	
TD12N	Track Dozer 12 (NPAG/OB - Komatsu D375)	4771	0	dBA	6476	0	dBA	6634	0	dBA	6389	0	dBA	
TD13	Track Dozer 13 (NPAG/OB - CAT D9)	5798	7	dBA	7961	7	dBA	8052	7	dBA	7332	8	dBA	
TD14	Track Dozer 14 (NPAG/OB - CAT D9)	5905	8	dBA	7666	8	dBA	7734	8	dBA	6946	9	dBA	
TD15	Track Dozer 15 (NPAG/OB - CAT D9)	5043	10	dBA	6595	10	dBA	6725	10	dBA	6340	9	dBA	
TD16	Track Dozer 16 (NPAG/OB - CAT D9)	5145	8	dBA	7794	7	dBA	7944	8	dBA	7499	7	dBA	
WD	Komatsu Wheel Dozer KM WD600	6042	4	dBA	6444	4	dBA	6455	4	dBA	5592	4	dBA	
WL1	Komatsu Wheel Loader WA1200	6011	15	dBA	6606	15	dBA	6625	15	dBA	5771	16	dBA	
WL2	Komatsu Wheel Loader WA900	6014	15	dBA	6576	15	dBA	6594	15	dBA	5740	16	dBA	
WP01	Water Pump WP01	5932	1	dBA	6428	1	dBA	6452	1	dBA	5645	1	dBA	

Table 2: Point of Reception Sound Impact

Project: RRP
Location: Township of Chapple ON



Point of Reception ID POR01			Point of Reception ID POR02			Point of Reception ID POR03			Point of Reception ID POR04			Point of Reception ID POR06				
Point of Reception Description House 01 - North			Point of Reception Description House 02 - East			Point of Reception Description House 03 - East			Point of Reception Description House 04 - East			Point of Reception Description House 06 - Southeast				
Point of reception coordinates X Y Z			Point of reception coordinates X Y Z			Point of reception coordinates X Y Z			Point of reception coordinates X Y Z			Point of reception coordinates X Y Z				
WP02	Water Pump WP02	5980	1	dBA	6304	-1	dBA	6319	0	dBA	6157	-8	dBA	5494	-1	dBA
WP03	Water Pump WP03	6042	1	dBA	6290	1	dBA	6298	-1	dBA	6134	-4	dBA	5442	0	dBA
WP04	Water Pump WP04	6118	1	dBA	6323	-2	dBA	6322	-3	dBA	6156	-13	dBA	5426	-11	dBA
WP05	Water Pump WP05	6118	1	dBA	6433	1	dBA	6434	1	dBA	6269	-4	dBA	5533	-2	dBA
WP06	Water Pump WP06	6084	1	dBA	6534	1	dBA	6543	1	dBA	6379	1	dBA	5655	1	dBA
WP07	Water Pump WP07	6060	0	dBA	6641	0	dBA	6656	1	dBA	6494	2	dBA	5777	1	dBA
WP08	Water Pump WP08	5983	0	dBA	6650	0	dBA	6674	1	dBA	6514	2	dBA	5833	1	dBA
WP09	Water Pump WP09	6379	0	dBA	6734	0	dBA	6714	1	dBA	6543	3	dBA	5675	2	dBA
WP10	Water Pump WP10	6522	1	dBA	6369	1	dBA	6320	1	dBA	6142	3	dBA	5211	3	dBA
WP11	Water Pump WP11	6541	2	dBA	5958	2	dBA	5893	2	dBA	5713	4	dBA	4795	3	dBA
WP12	Water Pump WP12	6427	-2	dBA	7994	-2	dBA	8022	-2	dBA	7860	0	dBA	7024	-1	dBA
WP13	Water Pump WP13	6190	-1	dBA	7541	-1	dBA	7574	-1	dBA	7414	0	dBA	6649	0	dBA
WP14	Water Pump WP14	5365	-3	dBA	8505	-3	dBA	8662	-3	dBA	8535	-2	dBA	8179	-3	dBA
WP15	Water Pump WP15	5354	-3	dBA	8467	-3	dBA	8623	-3	dBA	8496	-2	dBA	8141	-3	dBA
WP16	Water Pump WP16	5385	1	dBA	6353	1	dBA	6439	1	dBA	6296	2	dBA	5910	1	dBA
WP17	Water Pump WP17	4530	-1	dBA	7336	-1	dBA	7534	-1	dBA	7421	-1	dBA	7348	-2	dBA
WP18	Water Pump WP18	6548	-5	dBA	9848	-5	dBA	9963	-5	dBA	9822	-4	dBA	9190	-4	dBA
WP19	Water Pump WP19	5462	2	dBA	5276	-15	dBA	5346	-16	dBA	5201	-16	dBA	4961	-18	dBA
WP20	Pinewood River Water Pump	12235	0	dBA	16615	0	dBA	16705	0	dBA	16554	0	dBA	15567	0	dBA
WS	Wet Scrubber	5023	-14	dBA	4948	-11	dBA	5084	-12	dBA	4959	-15	dBA	5046	-11	dBA
MGR_SP	Motor Grader Route Stockpile	N/A	4	dBA	N/A	4	dBA	N/A	5	dBA	N/A	4	dBA	N/A	3	dBA
MGR_NPAG	Motor Grader Route NPAG	N/A	2	dBA	N/A	2	dBA	N/A	2	dBA	N/A	3	dBA	N/A	2	dBA
MGR_OB	Motor Grader Route OB	N/A	-1	dBA	N/A	-2	dBA	N/A	-2	dBA	N/A	-1	dBA	N/A	-2	dBA
MGR_OPMill	Motor Grader Route Open Pit to Mill	N/A	3	dBA	N/A	3	dBA	N/A	3	dBA	N/A	4	dBA	N/A	3	dBA
MGR_PAG	Motor Grader Route PAG	N/A	2	dBA	N/A	3	dBA	N/A	4	dBA	N/A	5	dBA	N/A	2	dBA
TRE_NPAG	Truck Route-NPAG (Empty Truck)	N/A	7	dBA	N/A	7	dBA	N/A	7	dBA	N/A	8	dBA	N/A	7	dBA
TRE_OB	Truck Route-Overburden (Empty Truck)	N/A	7	dBA	N/A	7	dBA	N/A	7	dBA	N/A	8	dBA	N/A	7	dBA
TRE_OPMill	Truck Route Open Pit to Mill (Empty Truck)	N/A	3	dBA	N/A	3	dBA	N/A	4	dBA	N/A	4	dBA	N/A	3	dBA
TRE_PAG	Truck Route PAG (Empty Truck)	N/A	11	dBA	N/A	11	dBA	N/A	12	dBA	N/A	12	dBA	N/A	10	dBA
TRE_SP	Truck Route Stockpile (Empty Truck)	N/A	6	dBA	N/A	6	dBA	N/A	6	dBA	N/A	6	dBA	N/A	5	dBA
TRL_NPAG	Truck Route-NPAG (Loaded Truck)	N/A	22	dBA	N/A	22	dBA	N/A	22	dBA	N/A	23	dBA	N/A	22	dBA
TRL_OB	Truck Route-Overburden (Loaded Truck)	N/A	22	dBA	N/A	22	dBA	N/A	22	dBA	N/A	23	dBA	N/A	22	dBA
TRL_OPMill	Truck Route Open Pit to Mill (Loaded Truck)	N/A	18	dBA	N/A	18	dBA	N/A	18	dBA	N/A	19	dBA	N/A	18	dBA
TRL_PAG	Truck Route PAG (Loaded Truck)	N/A	25	dBA	N/A	25	dBA	N/A	25	dBA	N/A	26	dBA	N/A	25	dBA
TRL_SP	Truck Route Stockpile (Loaded Truck)	N/A	20	dBA	N/A	20	dBA	N/A	20	dBA	N/A	20	dBA	N/A	19	dBA
WTR_NPAG	Water Truck Route NPAG	N/A	-1	dBA	N/A	-1	dBA	N/A	-1	dBA	N/A	0	dBA	N/A	-1	dBA
WTR_OB	Water Truck Route OB	N/A	-4	dBA	N/A	-5	dBA	N/A	-4	dBA	N/A	-4	dBA	N/A	-5	dBA
WTR_OPMill	Water Truck Route Open Pit to Mill	N/A	0	dBA	N/A	0	dBA	N/A	0	dBA	N/A	1	dBA	N/A	0	dBA
WTR_PAG	Water Truck Route PAG	N/A	0	dBA	N/A	1	dBA	N/A	2	dBA	N/A	3	dBA	N/A	-1	dBA
WTR_SP	Water Truck Route Stockpile	N/A	2	dBA	N/A	2	dBA	N/A	2	dBA	N/A	2	dBA	N/A	0	dBA
LD4_TR	LD4 Aggregate Pit Truck Route	N/A	7	dBA	N/A	6	dBA	N/A	6	dBA	N/A	6	dBA	N/A	5	dBA
OC3_TR	OC3 Aggregate Pit Truck Route	N/A	2	dBA	N/A	3	dBA	N/A	3	dBA	N/A	4	dBA	N/A	0	dBA
EO_TR	EO Aggregate Pit Truck Route	N/A	9	dBA	N/A	9	dBA	N/A	10	dBA	N/A	11	dBA	N/A	10	dBA
Roen_TR	Roen Aggregate Pit Truck Route	N/A	7	dBA	N/A	7	dBA	N/A	7	dBA	N/A	7	dBA	N/A	6	dBA
EG1	Emergency Generator 1 (CAT 2.5 MW)	4845	35	dBA	4803	34	dBA	4971	34	dBA	4854	34	dBA	5090	32	dBA
EG2	Emergency Generator 2 (CAT 2.5 MW)	3322	33	dBA	5711	32	dBA	6042	32	dBA	5975	31	dBA	6645	29	dBA
FP1	Fire Pump 1	4871	42	dBA	4907	44	dBA	5066	44	dBA	4948	40	dBA	5130	37	dBA
FP2	Fire Pump 2	4903	31	dBA	4917	37	dBA	5072	37	dBA	4951	35	dBA	5113	35	dBA

Table 2: Point of Reception Sound Impact

Project: RRP
Location: Township of Chapple ON



Point of Reception ID	Point of Reception ID	Point of Reception ID	Point of Reception ID	Point of Reception ID							
POR07	POR08	POR09	POR10	POR11							
Point of Reception Description	Point of Reception Description	Point of Reception Description	Point of Reception Description	Point of Reception Description							
House 07 - South	House 08 - South	House 9 - South	House 10 - South	House 11 - South							
Point of reception coordinates			Point of reception coordinates			Point of reception coordinates			Point of reception coordinates		
X	Y	Z	X	Y	Z	X	Y	Z	X	Y	Z
431034	5406873	378.5	430117	5406700	367.8	429796	5406515	367.9	429116	5406626	361.5
Source ID	Source Description	Point of Reception 6	Point of Reception 7	Point of Reception 8	Point of Reception 9	Point of Reception 10					
AC1	WMP Air Compressor 1	Distance (m)	Sound Level at PoR	Units	Distance (m)	Sound Level at PoR	Units	Distance (m)	Sound Level at PoR	Units	Distance (m)
AC2	WMP Air Compressor 2	10826	-6	dBA	10082	-6	dBA	9890	-5	dBA	8805
AC3	WMP Air Compressor 3	11559	-7	dBA	10803	-7	dBA	10604	-6	dBA	9504
AC4	WMP Air Compressor 4	12128	-8	dBA	11399	-8	dBA	11215	-7	dBA	10141
BD1	Blast Hole Drill 1 - Sandvik DR461i	10964	-7	dBA	10251	-6	dBA	10078	-5	dBA	9026
BD2	Blast Hole Drill 2 - Sandvik DR461i	6221	15	dBA	5502	16	dBA	5338	17	dBA	4337
BD3	Blast Hole Drill 3 - Sandvik DP1500i	6207	15	dBA	5488	16	dBA	5324	17	dBA	4325
BD4	Blast Hole Drill 4 - Sandvik DP1500i	6206	9	dBA	5480	8	dBA	5311	8	dBA	4301
C	Crusher	6193	8	dBA	5468	8	dBA	5299	8	dBA	4290
DC1	Dust Collector 1	5410	10	dBA	4846	10	dBA	4773	12	dBA	4022
DC2	Dust Collector 2	5432	6	dBA	4873	6	dBA	4802	8	dBA	4057
E1	Komatsu Diesel Excavator PC5500	5703	5	dBA	5151	6	dBA	5081	7	dBA	4332
E2	Komatsu Diesel Excavator PC5500	6249	17	dBA	5528	17	dBA	5362	19	dBA	4358
E3	Komatsu Diesel Excavator PC8000	6128	17	dBA	5413	17	dBA	5252	19	dBA	4259
E4	Komatsu Diesel Excavator PC3000	6157	22	dBA	5437	22	dBA	5273	23	dBA	4274
E5	Komatsu Diesel Excavator PC800LC	6173	25	dBA	5450	26	dBA	5284	25	dBA	4280
E6	Komatsu Diesel Excavator PC360LC	6065	12	dBA	5349	12	dBA	5187	11	dBA	4194
EO_E	East Outcrop Aggregate Pit Excavator PC360LC	6138	15	dBA	5418	15	dBA	5253	15	dBA	4253
EO_FEL	East Outcrop Gravel Pit Mobile Crushing Plant Loader (CAT 966H)	4969	18	dBA	4343	18	dBA	4241	20	dBA	3427
EO_PS	East Outcrop Gravel Pit Mobile Primary Crusher (PowerScreen)	4950	19	dBA	4324	20	dBA	4221	20	dBA	3407
EO_SCNR	East Outcrop Gravel Pit Mobile Screeners (Atlas Copco HCS3715)	4968	20	dBA	4341	21	dBA	4238	22	dBA	3422
LD4_E	LD4 Aggregate Pit Excavator PC360LC	4986	8	dBA	4357	9	dBA	4253	10	dBA	3433
LD4_FEL	LD4 Gravel Pit Mobile Crushing Plant Loader (CAT 966H)	8741	10	dBA	7987	10	dBA	7794	11	dBA	6712
LD4_PS	LD4 Gravel Pit Mobile Primary Crusher (PowerScreen)	8685	15	dBA	7935	15	dBA	7743	16	dBA	6665
LD4_SCNR	LD4 Gravel Pit Mobile Screeners (Atlas Copco HCS3715)	8733	12	dBA	7980	12	dBA	7786	14	dBA	6705
Outcrop3_E	Outcrop 3 Aggregate Pit Excavator PC360LC	8679	1	dBA	7927	2	dBA	7734	3	dBA	6655
Outcrop3_FEL	Outcrop 3 Gravel Pit Mobile Crushing Plant Loader (CAT 966H)	4124	20	dBA	3822	20	dBA	3884	21	dBA	3596
Outcrop3_PS	Outcrop 3 Gravel Pit Mobile Primary Crusher (PowerScreen)	4149	22	dBA	3843	22	dBA	3903	23	dBA	3606
Outcrop3_SC	Outcrop 3 Gravel Pit Mobile Screeners (Atlas Copco HCS3715)	4122	22	dBA	3818	22	dBA	3880	23	dBA	3589
PG1	Pinewood River Pumphouse Generator (CAT 660 kW)	4124	10	dBA	3812	10	dBA	3870	11	dBA	3569
RD1	RC Drill Sandvik DR580	15447	-5	dBA	14533	-5	dBA	14218	-4	dBA	13009
RD2	RC Drill Sandvik DR580	5971	13	dBA	5257	13	dBA	5098	12	dBA	4112
Roen_E	Roen Aggregate Pit Excavator PC360LC	5968	11	dBA	5252	10	dBA	5091	9	dBA	4101
Roen_FEL	Roen Gravel Pit Mobile Crushing Plant Loader (CAT 966H)	7071	13	dBA	6542	13	dBA	6476	14	dBA	5707
Roen_PS	Roen Gravel Pit Mobile Primary Crusher (PowerScreen)	6970	17	dBA	6446	17	dBA	6382	18	dBA	5621
Roen_SCNR	Roen Gravel Pit Mobile Screeners (Atlas Copco HCS3715)	7098	15	dBA	6568	15	dBA	6501	16	dBA	5729
T1	Transformer 1	7095	4	dBA	6556	4	dBA	6485	5	dBA	5701
T2	Transformer 2	6110	14	dBA	5639	14	dBA	5606	14	dBA	4949
TD01	Track Dozer 01 (Pit - Komatsu D475)	6102	14	dBA	5630	14	dBA	5596	14	dBA	4937
TD02	Track Dozer 02 (Pit - CAT D10)	6055	18	dBA	5341	19	dBA	5181	18	dBA	4192
TD03	Track Dozer 03 (Pit - CAT D10)	6283	18	dBA	5557	19	dBA	5389	20	dBA	4378
TD04	Track Dozer 04 (Pit - CAT D10)	6161	18	dBA	5441	19	dBA	5276	19	dBA	4275
TD05	Track Dozer 05 (PAG - Komatsu D375)	6100	13	dBA	5391	13	dBA	5233	15	dBA	4250
TD06	Track Dozer 06 (PAG - Komatsu D375)	4195	19	dBA	3777	18	dBA	3789	20	dBA	3341
TD07D	Track Dozer 07 (PAG - Komatsu D375)	3936	20	dBA	3443	20	dBA	3424	22	dBA	2904
TD07N	Track Dozer 07 (PAG - Komatsu D475)	4373	24	dBA	3918	24	dBA	3909	25	dBA	3391
TD08D	Track Dozer 08 (PAG - Komatsu D375)	4373	0	dBA	3918	0	dBA	3909	0	dBA	3391
TD08N	Track Dozer 08 (PAG - Komatsu D375)	4518	23	dBA	4126	23	dBA	4145	24	dBA	3700
TD09	Track Dozer 09 (Ore - CAT D9)	4518	0	dBA	4126	0	dBA	4145	0	dBA	3700
TD10	Track Dozer 10 (Ore - CAT D8)	4232	19	dBA	3682	19	dBA	3629	21	dBA	2990
TD11D	Track Dozer 11 (NPAG/OB - Komatsu D475)	4533	18	dBA	3928	18	dBA	3842	20	dBA	3091
TD11N	Track Dozer 11 (NPAG/OB - Komatsu D475)	8467	13	dBA	7728	14	dBA	7543	15	dBA	6480
TD12D	Track Dozer 12 (NPAG/OB - Komatsu D375)	7143	16	dBA	6501	17	dBA	6376	18	dBA	5455
TD12N	Track Dozer 12 (NPAG/OB - Komatsu D375)	7143	0	dBA	6501	0	dBA	6376	0	dBA	5455
TD13	Track Dozer 13 (NPAG/OB - CAT D9)	7757	9	dBA	6986	10	dBA	6785	12	dBA	5693
TD14	Track Dozer 14 (NPAG/OB - CAT D9)	7363	10	dBA	6594	11	dBA	6395	13	dBA	5309
TD15	Track Dozer 15 (NPAG/OB - CAT D9)	7029	11	dBA	6361	11	dBA	6223	13	dBA	5272
TD16	Track Dozer 16 (NPAG/OB - CAT D9)	8063	9	dBA	7335	9	dBA	7158	11	dBA	6113
WD	Komatsu Wheel Dozer KM WD600	6101	5	dBA	5383	6	dBA	5221	6	dBA	4225
WL1	Komatsu Wheel Loader WA1200	6264	17	dBA	5537	17	dBA	5368	18	dBA	4356
WL2	Komatsu Wheel Loader WA900	6236	17	dBA	5511	17	dBA	5343	18	dBA	4335
WP01	Water Pump WP01	6180	3	dBA	5470	3	dBA	5311	5	dBA	4324

Table 2: Point of Reception Sound Impact

Project: RRP
Location: Township of Chapple ON



Point of Reception ID	Point of Reception ID	Point of Reception ID	Point of Reception ID	Point of Reception ID
Point of Reception Description	Point of Reception Description	Point of Reception Description	Point of Reception Description	Point of Reception Description
Point of reception coordinates X Y Z	Point of reception coordinates X Y Z	Point of reception coordinates X Y Z	Point of reception coordinates X Y Z	Point of reception coordinates X Y Z
POR07	POR08	POR09	POR10	POR11
House 07 - South	House 08 - South	House 9 - South	House 10 - South	House 11 - South
431034 5406873 378.5	430117 5406700 367.8	429796 5406515 367.9	429116 5406626 361.5	428590 5406620 369.5
Source ID	Source Description	Point of Reception 6	Point of Reception 7	Point of Reception 8
		Distance (m)	Sound Level at PoR	Units
WP02	Water Pump WP02	6038	3	dBA
WP03	Water Pump WP03	5975	1	dBA
WP04	Water Pump WP04	5936	-10	dBA
WP05	Water Pump WP05	6027	-4	dBA
WP06	Water Pump WP06	6142	-1	dBA
WP07	Water Pump WP07	6254	1	dBA
WP08	Water Pump WP08	6326	2	dBA
WP09	Water Pump WP09	6069	3	dBA
WP10	Water Pump WP10	5623	4	dBA
WP11	Water Pump WP11	5275	5	dBA
WP12	Water Pump WP12	7311	1	dBA
WP13	Water Pump WP13	7011	1	dBA
WP14	Water Pump WP14	8678	-2	dBA
WP15	Water Pump WP15	8643	-2	dBA
WP16	Water Pump WP16	6567	2	dBA
WP17	Water Pump WP17	8055	-1	dBA
WP18	Water Pump WP18	9471	-3	dBA
WP19	Water Pump WP19	5807	-16	dBA
WP20	Pinewood River Water Pump	15441	-10	dBA
WS	Wet Scrubber	6039	-15	dBA
MGR_SP	Motor Grader Route Stockpile	N/A	4	dBA
MGR_NPAG	Motor Grader Route NPAG	N/A	4	dBA
MGR_OB	Motor Grader Route OB	N/A	-1	dBA
MGR_OPMill	Motor Grader Route Open Pit to Mill	N/A	4	dBA
MGR_PAG	Motor Grader Route PAG	N/A	3	dBA
TRE_NPAG	Truck Route-NPAG (Empty Truck)	N/A	9	dBA
TRE_OB	Truck Route-Overburden (Empty Truck)	N/A	8	dBA
TRE_OPMill	Truck Route Open Pit to Mill (Empty Truck)	N/A	5	dBA
TRE_PAG	Truck Route PAG (Empty Truck)	N/A	11	dBA
TRE_SP	Truck Route Stockpile (Empty Truck)	N/A	6	dBA
TRL_NPAG	Truck Route-NPAG (Loaded Truck)	N/A	23	dBA
TRL_OB	Truck Route-Overburden (Loaded Truck)	N/A	23	dBA
TRL_OPMill	Truck Route Open Pit to Mill (Loaded Truck)	N/A	19	dBA
TRL_PAG	Truck Route PAG (Loaded Truck)	N/A	26	dBA
TRL_SP	Truck Route Stockpile (Loaded Truck)	N/A	21	dBA
WTR_NPAG	Water Truck Route NPAG	N/A	1	dBA
WTR_OB	Water Truck Route OB	N/A	-4	dBA
WTR_OPMill	Water Truck Route Open Pit to Mill	N/A	2	dBA
WTR_PAG	Water Truck Route PAG	N/A	1	dBA
WTR_SP	Water Truck Route Stockpile	N/A	2	dBA
LD4_TR	LD4 Aggregate Pit Truck Route	N/A	6	dBA
OC3_TR	OC3 Aggregate Pit Truck Route	N/A	1	dBA
EO_TR	EO Aggregate Pit Truck Route	N/A	11	dBA
Roen_TR	Roen Aggregate Pit Truck Route	N/A	7	dBA
EG1	Emergency Generator 1 (CAT 2.5 MW)	6147	33	dBA
EG2	Emergency Generator 2 (CAT 2.5 MW)	7756	30	dBA
FP1	Fire Pump 1	6158	36	dBA
FP2	Fire Pump 2	6134	36	dBA
		5637	36	dBA
		5592	38	dBA
		5133	39	dBA
		4899	39	dBA

Table 2: Point of Reception Sound Impact

Project: RRP
Location: Township of Chapple ON



Point of Reception ID POR12			Point of Reception ID POR14			Point of Reception ID POR15			Point of Reception ID POR16			Point of Reception ID POR17		
Point of Reception Description House 12 - South			Point of Reception Description House 14 - South			Point of Reception Description House 15 - West			Point of Reception Description House 16 - West			Point of Reception Description House 17 - Northwest		
Point of reception coordinates X Y Z			Point of reception coordinates X Y Z			Point of reception coordinates X Y Z			Point of reception coordinates X Y Z			Point of reception coordinates X Y Z		
Source ID	Source Description		Distance (m)	Sound Level at PoR	Units	Distance (m)	Sound Level at PoR	Units	Distance (m)	Sound Level at PoR	Units	Distance (m)	Sound Level at PoR	Units
AC1	WMP Air Compressor 1		8279	-2	dBA	7677	15	dBA	2024	14	dBA	1925	11	dBA
AC2	WMP Air Compressor 2		8980	-4	dBA	8363	15	dBA	1604	14	dBA	1477	13	dBA
AC3	WMP Air Compressor 3		9614	-5	dBA	9018	11	dBA	2191	10	dBA	2054	11	dBA
AC4	WMP Air Compressor 4		8498	-3	dBA	7924	12	dBA	2508	11	dBA	2395	12	dBA
BD1	Blast Hole Drill 1 - Sandvik DR461i		3811	22	dBA	3327	7	dBA	5852	15	dBA	5845	12	dBA
BD2	Blast Hole Drill 2 - Sandvik DR461i		3799	22	dBA	3317	8	dBA	5668	15	dBA	5861	12	dBA
BD3	Blast Hole Drill 3 - Sandvik DP1500i		3774	11	dBA	3281	-1	dBA	5842	8	dBA	5837	5	dBA
BD4	Blast Hole Drill 4 - Sandvik DP1500i		3764	11	dBA	3272	0	dBA	5856	8	dBA	5851	5	dBA
C	Crusher		3550	16	dBA	3326	9	dBA	7152	9	dBA	7131	8	dBA
DC1	Dust Collector 1		3586	12	dBA	3366	4	dBA	7158	4	dBA	7136	3	dBA
DC2	Dust Collector 2		3858	11	dBA	3620	1	dBA	6995	1	dBA	6969	4	dBA
E1	Komatsu Diesel Excavator PC5500		3832	23	dBA	3344	9	dBA	5819	16	dBA	5813	14	dBA
E2	Komatsu Diesel Excavator PC5500		3734	23	dBA	3261	15	dBA	5953	16	dBA	5946	14	dBA
E3	Komatsu Diesel Excavator PC8000		3749	27	dBA	3268	18	dBA	5912	21	dBA	5905	19	dBA
E4	Komatsu Diesel Excavator PC3000		3754	29	dBA	3268	21	dBA	5885	25	dBA	5879	23	dBA
E5	Komatsu Diesel Excavator PC800LC		3669	13	dBA	3197	10	dBA	6005	11	dBA	5999	9	dBA
E6	Komatsu Diesel Excavator PC360LC		3728	19	dBA	3247	11	dBA	5926	14	dBA	5920	12	dBA
EO_E	East Outcrop Aggregate Pit Excavator PC360LC		2942	24	dBA	2696	11	dBA	7272	11	dBA	7262	12	dBA
EO_FEL	East Outcrop Gravel Pit Mobile Crushing Plant Loader (CAT 966H)		2923	23	dBA	2678	16	dBA	7285	16	dBA	7275	18	dBA
EO_PS	East Outcrop Gravel Pit Mobile Primary Crusher (PowerScreen)		2937	26	dBA	2688	13	dBA	7268	13	dBA	7258	15	dBA
EO_SCNR	East Outcrop Gravel Pit Mobile Screener (Atlas Copco HCS3715)		2947	13	dBA	2694	3	dBA	7248	3	dBA	7238	2	dBA
LD4_E	LD4 Aggregate Pit Excavator PC360LC		6185	15	dBA	5593	21	dBA	3404	21	dBA	3377	18	dBA
LD4_FEL	LD4 Gravel Pit Mobile Crushing Plant Loader (CAT 966H)		6138	19	dBA	5550	23	dBA	3476	24	dBA	3448	21	dBA
LD4_PS	LD4 Gravel Pit Mobile Primary Crusher (PowerScreen)		6179	18	dBA	5587	24	dBA	3416	24	dBA	3389	20	dBA
LD4_SCNR	LD4 Gravel Pit Mobile Screener (Atlas Copco HCS3715)		6128	6	dBA	5538	11	dBA	3472	11	dBA	3445	8	dBA
Outcrop3_E	Outcrop 3 Aggregate Pit Excavator PC360LC		3298	22	dBA	3466	8	dBA	8996	8	dBA	8974	7	dBA
Outcrop3_FEL	Outcrop 3 Gravel Pit Mobile Crushing Plant Loader (CAT 966H)		3305	23	dBA	3467	13	dBA	8967	13	dBA	8946	13	dBA
Outcrop3_PS	Outcrop 3 Gravel Pit Mobile Primary Crusher (PowerScreen)		3291	24	dBA	3458	10	dBA	8990	10	dBA	8968	9	dBA
Outcrop3_SC	Outcrop3 Gravel Pit Mobile Screener (Atlas Copco HCS3715)		3267	11	dBA	3429	0	dBA	8959	0	dBA	8938	-1	dBA
PG1	Pinewood River Pumphouse Generator (CAT 660 kW)		12587	-2	dBA	11862	10	dBA	5109	11	dBA	5211	4	dBA
RD1	RC Drill Sandvik DR580		3568	15	dBA	3127	16	dBA	6102	16	dBA	6096	14	dBA
RD2	RC Drill Sandvik DR580		3576	13	dBA	3111	16	dBA	6094	16	dBA	6089	14	dBA
Roen_E	Roen Aggregate Pit Excavator PC360LC		5220	16	dBA	4921	13	dBA	6281	16	dBA	6231	16	dBA
Roen_FEL	Roen Gravel Pit Mobile Crushing Plant Loader (CAT 966H)		5137	20	dBA	4847	17	dBA	6364	21	dBA	6315	21	dBA
Roen_PS	Roen Gravel Pit Mobile Primary Crusher (PowerScreen)		5241	19	dBA	4939	16	dBA	6254	19	dBA	6204	19	dBA
Roen_SCNR	Roen Gravel Pit Mobile Screener (Atlas Copco HCS3715)		5211	7	dBA	4859	5	dBA	6191	6	dBA	6142	6	dBA
T1	Transformer 1		4497	17	dBA	4313	10	dBA	7173	10	dBA	7133	13	dBA
T2	Transformer 2		4485	17	dBA	4301	10	dBA	7171	10	dBA	7132	13	dBA
TD01	Track Dozer 01 (Pit - Komatsu D475)		3668	22	dBA	3200	17	dBA	6024	18	dBA	6018	15	dBA
TD02	Track Dozer 02 (Pit - CAT D10)		3852	24	dBA	3356	4	dBA	5774	16	dBA	5768	15	dBA
TD03	Track Dozer 03 (Pit - CAT D10)		3749	23	dBA	3266	13	dBA	5903	18	dBA	5897	15	dBA
TD04	Track Dozer 04 (Pit - CAT D10)		3726	20	dBA	3263	11	dBA	5999	12	dBA	5992	9	dBA
TD05	Track Dozer 05 (PAG - Komatsu D375)		2988	25	dBA	3068	6	dBA	8547	6	dBA	8530	7	dBA
TD06	Track Dozer 06 (PAG - Komatsu D375)		2535	28	dBA	2607	6	dBA	8492	6	dBA	8482	7	dBA
TD07D	Track Dozer 07 (PAG - Komatsu D475)		3008	28	dBA	3029	12	dBA	8302	12	dBA	8285	14	dBA
TD07N	Track Dozer 07 (PAG - Komatsu D475)		3008	0	dBA	3029	0	dBA	8302	0	dBA	8285	0	dBA
TD08D	Track Dozer 08 (PAG - Komatsu D375)		3338	26	dBA	3389	12	dBA	8449	12	dBA	8427	14	dBA
TD08N	Track Dozer 08 (PAG - Komatsu D375)		3338	0	dBA	3389	0	dBA	8449	0	dBA	8427	0	dBA
TD09	Track Dozer 09 (Ore - CAT D9)		2571	28	dBA	2532	7	dBA	8102	7	dBA	8093	8	dBA
TD10	Track Dozer 10 (Ore - CAT D8)		2630	28	dBA	2476	8	dBA	7700	8	dBA	7693	9	dBA
TD11D	Track Dozer 11 (NPAG/OB - Komatsu D475)		5952	19	dBA	5379	25	dBA	3740	29	dBA	3711	21	dBA
TD11N	Track Dozer 11 (NPAG/OB - Komatsu D475)		5952	0	dBA	5379	0	dBA	3740	0	dBA	3711	0	dBA
TD12D	Track Dozer 12 (NPAG/OB - Komatsu D375)		4938	22	dBA	4509	19	dBA	5454	19	dBA	5419	22	dBA
TD12N	Track Dozer 12 (NPAG/OB - Komatsu D375)		4938	0	dBA	4509	0	dBA	5454	0	dBA	5419	0	dBA
TD13	Track Dozer 13 (NPAG/OB - CAT D9)		5167	16	dBA	4570	17	dBA	4224	18	dBA	4219	13	dBA
TD14	Track Dozer 14 (NPAG/OB - CAT D9)		4783	17	dBA	4196	15	dBA	4608	16	dBA	4605	12	dBA
TD15	Track Dozer 15 (NPAG/OB - CAT D9)		4751	17	dBA	4298	14	dBA	5392	13	dBA	5364	15	dBA
TD16	Track Dozer 16 (NPAG/OB - CAT D9)		5585	14	dBA	5031	18	dBA	4164	17	dBA	4137	15	dBA
WD	Komatsu Wheel Dozer KM WD600		3700	8	dBA	3225	4	dBA	5968	5	dBA	5962	3	dBA
WL1	Komatsu Wheel Loader WA1200		3830	21	dBA	3334	7	dBA	5788	16	dBA	5783	15	dBA
WL2	Komatsu Wheel Loader WA900		3808	21	dBA	3316	9	dBA	5820	16	dBA	5814	14	dBA
WP01	Water Pump WP01		3800	9	dBA	3331	-2	dBA	5923	-3	dBA	5915	0	dBA
Point of Reception ID POR17	Point of Reception Description House 17 - Northwest		419827	5413577	372.5	Point of Reception ID POR17	Point of Reception Description House 17 - Northwest		419827	5413577	372.5	Point of Reception ID POR17	Point of Reception Description House 17 - Northwest	

Table 2: Point of Reception Sound Impact

Project: RRP
Location: Township of Chapple ON



Point of Reception ID POR12			Point of Reception ID POR14			Point of Reception ID POR15			Point of Reception ID POR16			Point of Reception ID POR17		
Point of Reception Description House 12 - South			Point of Reception Description House 14 - South			Point of Reception Description House 15 - West			Point of Reception Description House 16 - West			Point of Reception Description House 17 - Northwest		
Point of reception coordinates X Y Z			Point of reception coordinates X Y Z			Point of reception coordinates X Y Z			Point of reception coordinates X Y Z			Point of reception coordinates X Y Z		
Source ID	Source Description													
WP02	Water Pump WP02		3683	9	dBA	3230	2	dBA	6074	1	dBA	6065	0	dBA
WP03	Water Pump WP03		3614	5	dBA	3161	2	dBA	6122	2	dBA	6114	-1	dBA
WP04	Water Pump WP04		3555	-6	dBA	3095	1	dBA	6133	2	dBA	6128	-1	dBA
WP05	Water Pump WP05		3617	-4	dBA	3141	1	dBA	6025	2	dBA	6020	0	dBA
WP06	Water Pump WP06		3713	-4	dBA	3223	-2	dBA	5903	2	dBA	5898	0	dBA
WP07	Water Pump WP07		3805	-3	dBA	3302	-12	dBA	5780	-13	dBA	5776	0	dBA
WP08	Water Pump WP08		3887	8	dBA	3387	-13	dBA	5727	-3	dBA	5721	0	dBA
WP09	Water Pump WP09		3550	11	dBA	3021	2	dBA	5887	2	dBA	5890	-1	dBA
WP10	Water Pump WP10		3168	12	dBA	2688	1	dBA	6350	1	dBA	6352	-1	dBA
WP11	Water Pump WP11		2946	15	dBA	2547	0	dBA	6760	0	dBA	6758	-2	dBA
WP12	Water Pump WP12		4631	7	dBA	3999	5	dBA	4575	5	dBA	4589	1	dBA
WP13	Water Pump WP13		4402	8	dBA	3808	4	dBA	4914	4	dBA	4918	1	dBA
WP14	Water Pump WP14		6117	3	dBA	5523	7	dBA	3446	7	dBA	3421	5	dBA
WP15	Water Pump WP15		6085	3	dBA	5493	1	dBA	3485	2	dBA	3460	5	dBA
WP16	Water Pump WP16		4291	7	dBA	3852	2	dBA	5747	2	dBA	5726	1	dBA
WP17	Water Pump WP17		5729	3	dBA	5236	6	dBA	4553	5	dBA	4510	4	dBA
WP18	Water Pump WP18		6737	2	dBA	6068	12	dBA	2410	12	dBA	2434	4	dBA
WP19	Water Pump WP19		3889	-12	dBA	3621	-20	dBA	6830	-19	dBA	6804	-1	dBA
WP20	Pinewood River Water Pump		12581	-7	dBA	11856	5	dBA	5105	5	dBA	5206	-2	dBA
WS	Wet Scrubber		4314	8	dBA	4097	1	dBA	7005	1	dBA	6970	1	dBA
MGR_SP	Motor Grader Route Stockpile		N/A	12	dBA	N/A	-1	dBA	N/A	0	dBA	N/A	-1	dBA
MGR_NPAG	Motor Grader Route NPAG		N/A	10	dBA	N/A	6	dBA	N/A	6	dBA	N/A	5	dBA
MGR_OB	Motor Grader Route OB		N/A	7	dBA	N/A	3	dBA	N/A	3	dBA	N/A	3	dBA
MGR_OPMill	Motor Grader Route Open Pit to Mill		N/A	11	dBA	N/A	2	dBA	N/A	3	dBA	N/A	1	dBA
MGR_PAG	Motor Grader Route PAG		N/A	8	dBA	N/A	-5	dBA	N/A	-5	dBA	N/A	-5	dBA
TRE_NPAG	Truck Route-NPAG (Empty Truck)		N/A	14	dBA	N/A	10	dBA	N/A	10	dBA	N/A	9	dBA
TRE_OB	Truck Route-Overburden (Empty Truck)		N/A	14	dBA	N/A	9	dBA	N/A	10	dBA	N/A	9	dBA
TRE_OPMill	Truck Route Open Pit to Mill (Empty Truck)		N/A	11	dBA	N/A	2	dBA	N/A	4	dBA	N/A	2	dBA
TRE_PAG	Truck Route PAG (Empty Truck)		N/A	17	dBA	N/A	7	dBA	N/A	8	dBA	N/A	8	dBA
TRE_SP	Truck Route Stockpile (Empty Truck)		N/A	12	dBA	N/A	3	dBA	N/A	4	dBA	N/A	3	dBA
TRL_NPAG	Truck Route-NPAG (Loaded Truck)		N/A	28	dBA	N/A	25	dBA	N/A	25	dBA	N/A	23	dBA
TRL_OB	Truck Route-Overburden (Loaded Truck)		N/A	28	dBA	N/A	24	dBA	N/A	24	dBA	N/A	23	dBA
TRL_OPMill	Truck Route Open Pit to Mill (Loaded Truck)		N/A	24	dBA	N/A	16	dBA	N/A	17	dBA	N/A	17	dBA
TRL_PAG	Truck Route PAG (Loaded Truck)		N/A	31	dBA	N/A	22	dBA	N/A	22	dBA	N/A	22	dBA
TRL_SP	Truck Route Stockpile (Loaded Truck)		N/A	26	dBA	N/A	17	dBA	N/A	18	dBA	N/A	17	dBA
WTR_NPAG	Water Truck Route NPAG		N/A	8	dBA	N/A	4	dBA	N/A	4	dBA	N/A	2	dBA
WTR_OB	Water Truck Route OB		N/A	5	dBA	N/A	1	dBA	N/A	1	dBA	N/A	1	dBA
WTR_OPMill	Water Truck Route Open Pit to Mill		N/A	10	dBA	N/A	-1	dBA	N/A	0	dBA	N/A	-2	dBA
WTR_PAG	Water Truck Route PAG		N/A	6	dBA	N/A	-8	dBA	N/A	-8	dBA	N/A	-8	dBA
WTR_SP	Water Truck Route Stockpile		N/A	11	dBA	N/A	-4	dBA	N/A	-3	dBA	N/A	-4	dBA
LD4_TR	LD4 Aggregate Pit Truck Route		N/A	10	dBA	N/A	17	dBA	N/A	17	dBA	N/A	19	dBA
OC3_TR	OC3 Aggregate Pit Truck Route		N/A	7	dBA	N/A	-7	dBA	N/A	-7	dBA	N/A	-5	dBA
EO_TR	EO Aggregate Pit Truck Route		N/A	17	dBA	N/A	13	dBA	N/A	13	dBA	N/A	15	dBA
Roen_TR	Roen Aggregate Pit Truck Route		N/A	12	dBA	N/A	14	dBA	N/A	13	dBA	N/A	12	dBA
EG1	Emergency Generator 1 (CAT 2.5 MW)		4508	36	dBA	4314	30	dBA	7112	30	dBA	7072	31	dBA
EG2	Emergency Generator 2 (CAT 2.5 MW)		6021	33	dBA	5739	31	dBA	6335	33	dBA	6269	33	dBA
FP1	Fire Pump 1		4470	45	dBA	4260	41	dBA	7017	41	dBA	6978	44	dBA
FP2	Fire Pump 2		4437	45	dBA	4225	41	dBA	7012	41	dBA	6974	44	dBA
Juster wheeler												7194	40	dBA

Table 2: Point of Reception Sound Impact

Project: RRP
Location: Township of Chapple ON



Point of Reception ID POR19			Point of Reception ID POR20			Point of Reception ID POR21			Point of Reception ID POR22			Point of Reception ID POR23		
Point of Reception Description Vacant Lot Near Pinewood River			Point of Reception Description Vacant Lot 56041-0138			Point of Reception Description Vacant Lot 56036-0023			Point of Reception Description Vacant Lot 56036-0184			Point of Reception Description Vacant Lot 56041-0037		
Point of reception coordinates X Y Z 416140 5407200 344.5			Point of reception coordinates X Y Z 425325 5406877 373.2			Point of reception coordinates X Y Z 429474 5408438 384.1			Point of reception coordinates X Y Z 428602 5406751 366.5			Point of reception coordinates X Y Z 424360 5407033 369.5		
Source ID	Source Description	Point of Reception 16	Point of Reception 17	Point of Reception 18	Point of Reception 19	Point of Reception 20								
AC1	WMP Air Compressor 1	Distance (m) Sound Level at PoR	Distance (m) Sound Level at PoR	Distance (m) Sound Level at PoR	Distance (m) Sound Level at PoR	Distance (m) Sound Level at PoR	Distance (m) Sound Level at PoR	Distance (m) Sound Level at PoR	Distance (m) Sound Level at PoR	Distance (m) Sound Level at PoR	Distance (m) Sound Level at PoR	Distance (m) Sound Level at PoR	Distance (m) Sound Level at PoR	Distance (m) Sound Level at PoR
AC2	WMP Air Compressor 2	6605 1 dBA	6134 -4 dBA	8786 -4 dBA	8745 3 dBA	5406 1 dBA	5962 -1 dBA	6716 -2 dBA	5813 1 dBA	2795 21 dBA	2801 22 dBA	2722 4 dBA	2728 4 dBA	3990 18 dBA
AC3	WMP Air Compressor 3	6506 -2 dBA	6741 -6 dBA	9533 -5 dBA	9447 2 dBA	5962 -1 dBA	6716 -2 dBA	5813 1 dBA	2795 21 dBA	2801 22 dBA	2722 4 dBA	2728 4 dBA	3990 18 dBA	4027 14 dBA
AC4	WMP Air Compressor 4	7081 0 dBA	6490 -5 dBA	8878 -5 dBA	4245 11 dBA	4245 11 dBA	4242 1 dBA	4242 1 dBA	4242 9 dBA	4112 10 dBA	4112 10 dBA	4279 13 dBA	4279 13 dBA	2778 21 dBA
BD1	Blast Hole Drill 1- Sandvik DR461i	9612 22 dBA	2734 18 dBA	4196 18 dBA	4193 6 dBA	4180 6 dBA	4178 15 dBA	4194 17 dBA	4194 17 dBA	4194 17 dBA	4194 17 dBA	4194 17 dBA	4194 17 dBA	2829 22 dBA
BD2	Blast Hole Drill 2- Sandvik DR461i	9628 21 dBA	2735 17 dBA	4180 16 dBA	3229 13 dBA	3911 17 dBA	3946 13 dBA	3946 13 dBA	3946 13 dBA	3946 13 dBA	3946 13 dBA	3946 13 dBA	3946 13 dBA	3570 24 dBA
BD3	Blast Hole Drill 3 - Sandvik DP1500i	9578 4 dBA	2662 10 dBA	4180 6 dBA	3247 9 dBA	4221 1 dBA	4221 1 dBA	4221 1 dBA	4221 1 dBA	4221 1 dBA	4221 1 dBA	4221 1 dBA	4221 1 dBA	2757 27 dBA
BD4	Blast Hole Drill 4 - Sandvik DP1500i	9591 5 dBA	2663 10 dBA	4097 18 dBA	4097 18 dBA	4113 8 dBA	4113 8 dBA	4113 8 dBA	4113 8 dBA	4113 8 dBA	4113 8 dBA	4113 8 dBA	4113 8 dBA	2809 14 dBA
C	Crusher	11052 18 dBA	3634 16 dBA	4115 13 dBA	3321 21 dBA	3321 21 dBA	3302 23 dBA	3302 23 dBA	3302 23 dBA	3302 23 dBA	3302 23 dBA	3302 23 dBA	3302 23 dBA	3576 24 dBA
DC1	Dust Collector 1	11069 14 dBA	3675 12 dBA	3229 13 dBA	3911 17 dBA	3946 13 dBA	3946 13 dBA	3946 13 dBA	3946 13 dBA	3946 13 dBA	3946 13 dBA	3946 13 dBA	3946 13 dBA	3557 10 dBA
DC2	Dust Collector 2	10972 10 dBA	3821 11 dBA	3513 8 dBA	3477 9 dBA	4222 9 dBA	4222 9 dBA	4222 9 dBA	4222 9 dBA	4222 9 dBA	4222 9 dBA	4222 9 dBA	4222 9 dBA	3593 19 dBA
E1	Komatsu Diesel Excavator PC5500	9579 21 dBA	2729 20 dBA	4226 19 dBA	4194 17 dBA	4194 17 dBA	4194 17 dBA	4194 17 dBA	4194 17 dBA	4194 17 dBA	4194 17 dBA	4194 17 dBA	4194 17 dBA	3588 22 dBA
E2	Komatsu Diesel Excavator PC5500	9708 22 dBA	2733 18 dBA	4178 15 dBA	6603 23 dBA	6603 23 dBA	6644 23 dBA	6644 23 dBA	6644 23 dBA	6644 23 dBA	6644 23 dBA	6644 23 dBA	6644 23 dBA	3594 21 dBA
E3	Komatsu Diesel Excavator PC8000	9660 26 dBA	2707 23 dBA	4132 21 dBA	6674 17 dBA	6674 17 dBA	6674 17 dBA	6674 17 dBA	6674 17 dBA	6674 17 dBA	6674 17 dBA	6674 17 dBA	6674 17 dBA	3567 9 dBA
E4	Komatsu Diesel Excavator PC3000	9626 27 dBA	2683 27 dBA	4154 25 dBA	6676 15 dBA	6676 15 dBA	6676 15 dBA	6676 15 dBA	6676 15 dBA	6676 15 dBA	6676 15 dBA	6676 15 dBA	6676 15 dBA	5317 17 dBA
E5	Komatsu Diesel Excavator PC800LC	9743 14 dBA	2693 10 dBA	4039 9 dBA	6593 11 dBA	6593 11 dBA	6593 11 dBA	6593 11 dBA	6593 11 dBA	6593 11 dBA	6593 11 dBA	6593 11 dBA	6593 11 dBA	5300 20 dBA
E6	Komatsu Diesel Excavator PC360LC	9669 17 dBA	2691 16 dBA	4115 13 dBA	6345 15 dBA	6345 15 dBA	6345 15 dBA	6345 15 dBA	6345 15 dBA	6345 15 dBA	6345 15 dBA	6345 15 dBA	6345 15 dBA	5308 19 dBA
EO_E	East Outcrop Aggregate Pit Excavator PC360LC	10992 23 dBA	3118 19 dBA	2845 22 dBA	3321 21 dBA	3321 21 dBA	3321 21 dBA	3321 21 dBA	3321 21 dBA	3321 21 dBA	3321 21 dBA	3321 21 dBA	3321 21 dBA	3580 23 dBA
EO_FEL	East Outcrop Gravel Pit Mobile Crushing Plant Loader (CAT 966H)	11000 25 dBA	3110 20 dBA	2828 23 dBA	3302 23 dBA	3302 23 dBA	3302 23 dBA	3302 23 dBA	3302 23 dBA	3302 23 dBA	3302 23 dBA	3302 23 dBA	3302 23 dBA	3570 24 dBA
EO_PS	East Outcrop Gravel Pit Mobile Primary Crusher (PowerScreen)	10986 24 dBA	3109 22 dBA	2846 24 dBA	3317 23 dBA	3317 23 dBA	3317 23 dBA	3317 23 dBA	3317 23 dBA	3317 23 dBA	3317 23 dBA	3317 23 dBA	3317 23 dBA	3557 10 dBA
EO_SCNR	East Outcrop Gravel Pit Mobile Screener (Atlas Copco HCS3715)	10966 11 dBA	3100 12 dBA	2865 11 dBA	3328 11 dBA	3328 11 dBA	3328 11 dBA	3328 11 dBA	3328 11 dBA	3328 11 dBA	3328 11 dBA	3328 11 dBA	3328 11 dBA	3593 19 dBA
LD4_E	LD4 Aggregate Pit Excavator PC360LC	7576 19 dBA	4182 12 dBA	6735 13 dBA	6650 21 dBA	6650 21 dBA	6650 21 dBA	6650 21 dBA	6650 21 dBA	6650 21 dBA	6650 21 dBA	6650 21 dBA	6650 21 dBA	3588 22 dBA
LD4_FEL	LD4 Gravel Pit Mobile Crushing Plant Loader (CAT 966H)	7649 22 dBA	4162 17 dBA	6674 17 dBA	6603 23 dBA	6603 23 dBA	6644 23 dBA	6644 23 dBA	6644 23 dBA	6644 23 dBA	6644 23 dBA	6644 23 dBA	6644 23 dBA	3594 21 dBA
LD4_PS	LD4 Gravel Pit Mobile Primary Crusher (PowerScreen)	7589 21 dBA	4181 15 dBA	6726 15 dBA	6644 23 dBA	6644 23 dBA	6644 23 dBA	6644 23 dBA	6644 23 dBA	6644 23 dBA	6644 23 dBA	6644 23 dBA	6644 23 dBA	3567 9 dBA
LD4_SCNR	LD4 Gravel Pit Mobile Screener (Atlas Copco HCS3715)	7637 9 dBA	4144 4 dBA	6670 4 dBA	6593 11 dBA	6593 11 dBA	6593 11 dBA	6593 11 dBA	6593 11 dBA	6593 11 dBA	6593 11 dBA	6593 11 dBA	6593 11 dBA	5271 8 dBA
Outcrop3_E	Outcrop 3 Aggregate Pit Excavator PC360LC	12838 17 dBA	4690 25 dBA	1973 21 dBA	3465 15 dBA	3465 15 dBA	3465 15 dBA	3465 15 dBA	3465 15 dBA	3465 15 dBA	3465 15 dBA	3465 15 dBA	3465 15 dBA	2872 2 dBA
Outcrop3_FEL	Outcrop 3 Gravel Pit Mobile Crushing Plant Loader (CAT 966H)	12812 20 dBA	4678 28 dBA	1995 23 dBA	3476 19 dBA	3476 19 dBA	3476 19 dBA	3476 19 dBA	3476 19 dBA	3476 19 dBA	3476 19 dBA	3476 19 dBA	3476 19 dBA	2836 15 dBA
Outcrop3_PS	Outcrop 3 Gravel Pit Mobile Primary Crusher (PowerScreen)	12830 19 dBA	4682 26 dBA	1970 24 dBA	3459 18 dBA	3459 18 dBA	3459 18 dBA	3459 18 dBA	3459 18 dBA	3459 18 dBA	3459 18 dBA	3459 18 dBA	3459 18 dBA	3508 19 dBA
Outcrop3_SCN	Outcrop3 Gravel Pit Mobile Screener (Atlas Copco HCS3715)	12795 8 dBA	4645 13 dBA	1966 11 dBA	3438 6 dBA	3438 6 dBA	3438 6 dBA	3438 6 dBA	3438 6 dBA	3438 6 dBA	3438 6 dBA	3438 6 dBA	3438 6 dBA	5271 8 dBA
PG1	Pinewood River Pumphouse Generator (CAT 660 kW)	574 2 dBA	9738 -5 dBA	13956 -4 dBA	13017 2 dBA	13017 2 dBA	13017 2 dBA	13017 2 dBA	13017 2 dBA	13017 2 dBA	13017 2 dBA	13017 2 dBA	13017 2 dBA	8772 2 dBA
RD1	RC Drill Sandvi DR580	9832 15 dBA	2686 11 dBA	3941 10 dBA	4030 11 dBA	4030 11 dBA	4030 11 dBA	4030 11 dBA	4030 11 dBA	4030 11 dBA	4030 11 dBA	4030 11 dBA	4030 11 dBA	2807 12 dBA
RD2	RC Drill Sandvi DR580	9815 12 dBA	2657 9 dBA	3944 8 dBA	4019 9 dBA	4019 9 dBA	4019 9 dBA	4019 9 dBA	4019 9 dBA	4019 9 dBA	4019 9 dBA	4019 9 dBA	4019 9 dBA	4743 20 dBA
Roen_E	Roen Aggregate Pit Excavator PC360LC	10554 20 dBA	4711 17 dBA	4867 15 dBA	5600 17 dBA	5600 17 dBA	5514 20 dBA	5514 20 dBA	5514 20 dBA	5514 20 dBA	5514 20 dBA	5514 20 dBA	5514 20 dBA	4730 24 dBA
Roen_FEL	Roen Gravel Pit Mobile Crushing Plant Loader (CAT 966H)	10623 24 dBA	4677 20 dBA	4766 19 dBA	5623 19 dBA	5623 19 dBA	4743 23 dBA	4743 23 dBA	4743 23 dBA	4743 23 dBA	4743 23 dBA	4743 23 dBA	4743 23 dBA	4669 9 dBA
Roen_PS	Roen Gravel Pit Mobile Primary Crusher (PowerScreen)	10531 23 dBA	4717 19 dBA	4895 17 dBA	5596 8 dBA	5596 8 dBA	5596 8 dBA	5596 8 dBA	5596 8 dBA	5596 8 dBA	5596 8 dBA	5596 8 dBA	5596 8 dBA	4669 9 dBA
Roen_SCNR	Roen Gravel Pit Mobile Screener (Atlas Copco HCS3715)	10460 9 dBA	4652 7 dBA	4895 6 dBA	5596 8 dBA	5596 8 dBA	5596 8 dBA	5596 8 dBA	5596 8 dBA	5596 8 dBA	5596 8 dBA	5596 8 dBA	5596 8 dBA	4669 9 dBA
T1	Transformer 1	11314 16 dBA	4547 18 dBA	3901 15 dBA	4833 16 dBA	4833 16 dBA	4782 16 dBA	4782 16 dBA	4782 16 dBA	4782 16 dBA	4782 16 dBA	4782 16 dBA	4782 16 dBA	4793 16 dBA
T2	Transformer 2	11310 16 dBA	4535 18 dBA	3893 15 dBA	4822 16 dBA	4822 16 dBA	4822 16 dBA	4822 16 dBA	4822 16 dBA	4822 16 dBA	4822 16 dBA	4822 16 dBA	4822 16 dBA	4782 16 dBA
TD01	Track Dozer 01 (Pit - Komatsu D475)	9769 22 dBA	2714 16 dBA	4023 16 dBA	4110 15 dBA	4110 15 dBA	4110 15 dBA	4110 15 dBA	4110 15 dBA	4110 15 dBA	4110 15 dBA	4110 15 dBA	4110 15 dBA	2836 21 dBA
TD02	Track Dozer 02 (Pit - CAT D10)	9528 20 dBA	2707 22 dBA	4266 19 dBA	4300 11 dBA	4300 11 dBA	4300 11 dBA	4300 11 dBA	4300 11 dBA	4300 11 dBA	4300 11 dBA	4300 11 dBA	4300 11 dBA	2741 20 dBA
TD03	Track Dozer 03 (Pit - CAT D10)	9648 21 dBA	2697 20 dBA	4139 15 dBA	4195 13 dBA	4195 13 dBA	4195 13 dBA	4195 13 dBA	4195 13 dBA	4195 13 dBA	4195 13 dBA	4195 13 dBA	4195 13 dBA	2777 21 dBA
TD04	Track Dozer 04 (Pit - CAT D10)	9766 21 dBA	2775 13 dBA	4060 14 dBA	4167 12 dBA	4167 12 dBA	4167 12 dBA	4167 12 dBA	4167 12 dBA	4167 12 dBA	4167 12 dBA	4167 12 dBA	4167 12 dBA	2884 21 dBA
TD05	Track Dozer 05 (PAG - Komatsu D375)	12334 17 dBA	4175 27 dBA	1988 21 dBA	3214 25 dBA	2778 19 dBA	4458 18 dBA	4458 18 dBA	4458 18 dBA	4458 18 dBA	4458 18 dBA	4458 18 dBA	4458 18 dBA	4787 17 dBA
TD06	Track Dozer 06 (PAG - Komatsu D375)	12161 18 dBA	3795 28 dBA	1736 23 dBA	3266 21 dBA	4600 23 dBA	4600 23 dBA	4600 23 dBA	4600 23 dBA	4600 23 dBA	4600 23 dBA	4600 23 dBA	4600 23 dBA	4782 16 dBA
TD07D	Track Dozer 07 (PAG - Komatsu D475)	12097 23 dBA	4019 32 dBA	2164 27 dBA	3266 21 dBA	3266 21 dBA	3266 21 dBA	3266 21 dBA	3266 21 dBA	3266 21 dBA	3266 21 dBA	3266 21 dBA	3266 21 dBA	4782 16 dBA
TD07N	Track Dozer 07 (PAG - Komatsu D475)	12097 0 dBA	4019 0 dBA	2164 0 dBA	3266 0 dBA	3266 0 dBA	3266 0 dBA	3266 0 dBA	3266 0 dBA	3266 0 dBA	3266 0 dBA	3266 0 dBA	3266 0 dBA	4782 16 dBA
TD08D	Track Dozer 08 (PAG - Komatsu D375)	12324												

Table 2: Point of Reception Sound Impact

Project: RRP
Location: Township of Chapple ON



Point of Reception ID POR19			Point of Reception ID POR20			Point of Reception ID POR21			Point of Reception ID POR22			Point of Reception ID POR23				
Source ID	Source Description	Point of Reception 16	Point of Reception 17	Point of Reception 18	Point of Reception 19	Point of Reception 20	Point of Reception 21	Point of Reception 22	Point of Reception 23	Point of Reception 24	Point of Reception 25					
		Distance (m)	Sound Level at PoR	Units		Distance (m)	Sound Level at PoR	Units		Distance (m)	Sound Level at PoR	Units		Distance (m)	Sound Level at PoR	Units
WP02	Water Pump WP02	9842	11	dBA	2795	-6	dBA	3991	3	dBA	4121	5	dBA	2928	10	dBA
WP03	Water Pump WP03	9871	6	dBA	2747	-5	dBA	3934	-1	dBA	4053	1	dBA	2899	6	dBA
WP04	Water Pump WP04	9856	-2	dBA	2672	-10	dBA	3908	-10	dBA	3996	-6	dBA	2834	-2	dBA
WP05	Water Pump WP05	9742	-4	dBA	2635	-4	dBA	4009	-7	dBA	4062	-7	dBA	2761	-4	dBA
WP06	Water Pump WP06	9627	-3	dBA	2637	2	dBA	4130	-6	dBA	4160	-6	dBA	2720	-3	dBA
WP07	Water Pump WP07	9509	-6	dBA	2636	4	dBA	4250	-6	dBA	4256	-8	dBA	2675	-6	dBA
WP08	Water Pump WP08	9482	-1	dBA	2707	6	dBA	4312	4	dBA	4337	-6	dBA	2725	-1	dBA
WP09	Water Pump WP09	9500	14	dBA	2322	6	dBA	4117	7	dBA	4007	13	dBA	2412	14	dBA
WP10	Water Pump WP10	9938	16	dBA	2332	8	dBA	3655	8	dBA	3616	12	dBA	2602	16	dBA
WP11	Water Pump WP11	10377	15	dBA	2557	10	dBA	3257	9	dBA	3375	11	dBA	2944	15	dBA
WP12	Water Pump WP12	8145	15	dBA	2540	3	dBA	5447	4	dBA	5101	18	dBA	2070	13	dBA
WP13	Water Pump WP13	8582	15	dBA	2581	4	dBA	5090	4	dBA	4869	14	dBA	2278	15	dBA
WP14	Water Pump WP14	7592	7	dBA	4111	0	dBA	6677	1	dBA	6583	9	dBA	3524	7	dBA
WP15	Water Pump WP15	7629	7	dBA	4091	0	dBA	6640	1	dBA	6550	9	dBA	3512	7	dBA
WP16	Water Pump WP16	9703	9	dBA	3318	5	dBA	4465	5	dBA	4723	9	dBA	3319	9	dBA
WP17	Water Pump WP17	8816	6	dBA	4281	2	dBA	5941	1	dBA	6173	7	dBA	3955	6	dBA
WP18	Water Pump WP18	6205	5	dBA	4268	-2	dBA	7621	-1	dBA	7206	8	dBA	3435	5	dBA
WP19	Water Pump WP19	10799	-12	dBA	3727	-12	dBA	3630	-14	dBA	4265	-13	dBA	3987	-12	dBA
WP20	Pinewood River Water Pump	568	-2	dBA	9732	-9	dBA	13950	-8	dBA	13011	-3	dBA	8766	-2	dBA
WS	Wet Scrubber	11100	11	dBA	4271	-11	dBA	3834	-12	dBA	4665	10	dBA	4511	10	dBA
MGR_SP	Motor Grader Route Stockpile	N/A	12	dBA	N/A	10	dBA	N/A	8	dBA	N/A	10	dBA	N/A	11	dBA
MGR_NPAG	Motor Grader Route NPAG	N/A	16	dBA	N/A	7	dBA	N/A	6	dBA	N/A	14	dBA	N/A	16	dBA
MGR_OB	Motor Grader Route OB	N/A	10	dBA	N/A	2	dBA	N/A	2	dBA	N/A	8	dBA	N/A	10	dBA
MGR_OPMill	Motor Grader Route Open Pit to Mill	N/A	12	dBA	N/A	8	dBA	N/A	7	dBA	N/A	9	dBA	N/A	12	dBA
MGR_PAG	Motor Grader Route PAG	N/A	4	dBA	N/A	10	dBA	N/A	6	dBA	N/A	2	dBA	N/A	4	dBA
TRE_NPAG	Truck Route-NPAG (Empty Truck)	N/A	19	dBA	N/A	11	dBA	N/A	11	dBA	N/A	17	dBA	N/A	19	dBA
TRE_OB	Truck Route-Overburden (Empty Truck)	N/A	18	dBA	N/A	11	dBA	N/A	10	dBA	N/A	15	dBA	N/A	18	dBA
TRE_OPMill	Truck Route Open Pit to Mill (Empty Truck)	N/A	12	dBA	N/A	8	dBA	N/A	7	dBA	N/A	9	dBA	N/A	12	dBA
TRE_PAG	Truck Route PAG (Empty Truck)	N/A	17	dBA	N/A	16	dBA	N/A	14	dBA	N/A	15	dBA	N/A	17	dBA
TRE_SP	Truck Route Stockpile (Empty Truck)	N/A	12	dBA	N/A	10	dBA	N/A	9	dBA	N/A	10	dBA	N/A	12	dBA
TRL_NPAG	Truck Route-NPAG (Loaded Truck)	N/A	31	dBA	N/A	25	dBA	N/A	25	dBA	N/A	30	dBA	N/A	31	dBA
TRL_OB	Truck Route-Overburden (Loaded Truck)	N/A	31	dBA	N/A	25	dBA	N/A	25	dBA	N/A	29	dBA	N/A	31	dBA
TRL_OPMill	Truck Route Open Pit to Mill (Loaded Truck)	N/A	25	dBA	N/A	22	dBA	N/A	21	dBA	N/A	23	dBA	N/A	25	dBA
TRL_PAG	Truck Route PAG (Loaded Truck)	N/A	30	dBA	N/A	30	dBA	N/A	28	dBA	N/A	29	dBA	N/A	30	dBA
TRL_SP	Truck Route Stockpile (Loaded Truck)	N/A	25	dBA	N/A	24	dBA	N/A	23	dBA	N/A	23	dBA	N/A	25	dBA
WTR_NPAG	Water Truck Route NPAG	N/A	15	dBA	N/A	4	dBA	N/A	4	dBA	N/A	13	dBA	N/A	15	dBA
WTR_OB	Water Truck Route OB	N/A	8	dBA	N/A	0	dBA	N/A	-1	dBA	N/A	7	dBA	N/A	8	dBA
WTR_OPMill	Water Truck Route Open Pit to Mill	N/A	11	dBA	N/A	6	dBA	N/A	5	dBA	N/A	8	dBA	N/A	11	dBA
WTR_PAG	Water Truck Route PAG	N/A	3	dBA	N/A	9	dBA	N/A	5	dBA	N/A	0	dBA	N/A	2	dBA
WTR_SP	Water Truck Route Stockpile	N/A	10	dBA	N/A	8	dBA	N/A	7	dBA	N/A	8	dBA	N/A	10	dBA
L04_TR	L04 Aggregate Pit Truck Route	N/A	14	dBA	N/A	8	dBA	N/A	8	dBA	N/A	15	dBA	N/A	14	dBA
OC3_TR	OC3 Aggregate Pit Truck Route	N/A	1	dBA	N/A	8	dBA	N/A	3	dBA	N/A	0	dBA	N/A	1	dBA
EO_TR	EO Aggregate Pit Truck Route	N/A	18	dBA	N/A	16	dBA	N/A	14	dBA	N/A	17	dBA	N/A	18	dBA
Roen_TR	Roen Aggregate Pit Truck Route	N/A	16	dBA	N/A	10	dBA	N/A	9	dBA	N/A	14	dBA	N/A	16	dBA
EG1	Emergency Generator 1 (CAT 2.5 MW)	11255	35	dBA	4520	37	dBA	3938	34	dBA	4848	35	dBA	4755	35	dBA
EG2	Emergency Generator 2 (CAT 2.5 MW)	10752	34	dBA	5502	33	dBA	5546	31	dBA	6390	33	dBA	5474	34	dBA
FP1	Fire Pump 1	11148	46	dBA	4425	36	dBA	3950	39	dBA	4817	45	dBA	4650	45	dBA
FP2	Fire Pump 2	11136	46	dBA	4392	34	dBA	3926	39	dBA	4786	45	dBA	4619	46	dBA

Table 2: Point of Reception Sound Impact

Project: RRP
Location: Township of Chapple ON



Point of Reception ID POR24			Point of Reception ID POR25		
Point of Reception Description Vacant Lot 56041-0135			Point of Reception Description Vacant Lot 56041-0139		
Point of reception coordinates X Y Z			Point of reception coordinates X Y Z		
425216	5406873	372.2	426109	5406850	378.7
Source ID	Source Description				
AC1	WMP Air Compressor 1				
AC2	WMP Air Compressor 2				
AC3	WMP Air Compressor 3				
AC4	WMP Air Compressor 4				
BD1	Blast Hole Drill 1- Sandvik DR461i				
BD2	Blast Hole Drill 2- Sandvik DR461i				
BD3	Blast Hole Drill 3 - Sandvik DP1500i				
BD4	Blast Hole Drill 4 - Sandvik DP1500i				
C	Crusher				
DC1	Dust Collector 1				
DC2	Dust Collector 2				
E1	Komatsu Diesel Excavator PC5500				
E2	Komatsu Diesel Excavator PC5500				
E3	Komatsu Diesel Excavator PC8000				
E4	Komatsu Diesel Excavator PC3000				
E5	Komatsu Diesel Excavator PC800LC				
E6	Komatsu Diesel Excavator PC360LC				
EO_E	East Outcrop Aggregate Pit Excavator PC360LC				
EO_FEL	East Outcrop Gravel Pit Mobile Crushing Plant Loader (CAT 966H)				
EO_PS	East Outcrop Gravel Pit Mobile Primary Crusher (PowerScreen)				
EO_SCNR	East Outcrop Gravel Pit Mobile Screener (Atlas Copco HCS3715)				
LD4_E	LD4 Aggregate Pit Excavator PC360LC				
LD4_FEL	LD4 Gravel Pit Mobile Crushing Plant Loader (CAT 966H)				
LD4_PS	LD4 Gravel Pit Mobile Primary Crusher (PowerScreen)				
LD4_SCNR	LD4 Gravel Pit Mobile Screener (Atlas Copco HCS3715)				
Outcrop3_E	Outcrop 3 Aggregate Pit Excavator PC360LC				
Outcrop3_FEL	Outcrop 3 Gravel Pit Mobile Crushing Plant Loader (CAT 966H)				
Outcrop3_PS	Outcrop 3 Gravel Pit Mobile Primary Crusher (PowerScreen)				
Outcrop3_SCNR	Outcrop3 Gravel Pit Mobile Screener (Atlas Copco HCS3715)				
PG1	Pinewood River Pumphouse Generator (CAT 660 kW)				
RD1	RC Drill Sandvik DR580				
RD2	RC Drill Sandvik DR580				
Roen_E	Roen Aggregate Pit Excavator PC360LC				
Roen_FEL	Roen Gravel Pit Mobile Crushing Plant Loader (CAT 966H)				
Roen_PS	Roen Gravel Pit Mobile Primary Crusher (PowerScreen)				
Roen_SCNR	Roen Gravel Pit Mobile Screener (Atlas Copco HCS3715)				
T1	Transformer 1				
T2	Transformer 2				
TD01	Track Dozer 01 (Pit - Komatsu D475)				
TD02	Track Dozer 02 (Pit -CAT D10)				
TD03	Track Dozer 03 (Pit -CAT D10)				
TD04	Track Dozer 04 (Pit -CAT D10)				
TD05	Track Dozer 05 (PAG - Komatsu D375)				
TD06	Track Dozer 06 (PAG - Komatsu D375)				
TD07D	Track Dozer 07 (PAG - Komatsu D475)				
TD07N	Track Dozer 07 (PAG - Komatsu D475)				
TD08D	Track Dozer 08 (PAG - Komatsu D375)				
TD08N	Track Dozer 08 (PAG - Komatsu D375)				
TD09	Track Dozer 09 (Ore -CAT D9)				
TD10	Track Dozer 10 (Ore -CAT D8)				
TD11D	Track Dozer 11 (NPAG/OB - Komatsu D475)				
TD11N	Track Dozer 11 (NPAG/OB - Komatsu D475)				
TD12D	Track Dozer 12 (NPAG/OB - Komatsu D375)				
TD12N	Track Dozer 12 (NPAG/OB - Komatsu D375)				
TD13	Track Dozer 13 (NPAG/OB -CAT D9)				
TD14	Track Dozer 14 (NPAG/OB -CAT D9)				
TD15	Track Dozer 15 (NPAG/OB -CAT D9)				
TD16	Track Dozer 16 (NPAG/OB -CAT D9)				
WD	Komatsu Wheel Dozer KM WD600				
WL1	Komatsu Wheel Loader WA1200				
WL2	Komatsu Wheel Loader WA900				
WP01	Water Pump WP01				

Table 2: Point of Reception Sound Impact

Project: RRP
Location: Township of Chapple ON



Point of Reception ID			Point of Reception ID		
POR24			POR25		
Point of Reception Description			Point of Reception Description		
Vacant Lot 56041-0135			Vacant Lot 56041-0139		
Point of reception coordinates	X	Y	Z	Point of reception coordinates	X
	425216	5406873	372.2		426109
					5406850
					378.7
Point of Reception 21					
Distance (m)	Sound Level at PoR	Units	Distance (m)	Sound Level at PoR	Units
2814	6	dBA	2934	0	dBA
2768	0	dBA	2774	0	dBA
2693	-6	dBA	2697	0	dBA
2652	-6	dBA	2693	0	dBA
2649	-1	dBA	2730	0	dBA
2643	-5	dBA	2765	0	dBA
2712	2	dBA	2846	0	dBA
2333	13	dBA	2443	0	dBA
2363	14	dBA	2300	0	dBA
2604	13	dBA	2392	0	dBA
2491	13	dBA	3026	0	dBA
2550	13	dBA	2961	0	dBA
4055	5	dBA	4609	0	dBA
4036	5	dBA	4584	0	dBA
3325	9	dBA	3425	0	dBA
4254	5	dBA	4590	0	dBA
4185	7	dBA	4931	0	dBA
3764	-11	dBA	3597	0	dBA
9624	-3	dBA	10517	0	dBA
4307	8	dBA	4134	0	dBA
N/A	12	dBA	N/A	0	dBA
N/A	15	dBA	N/A	0	dBA
N/A	9	dBA	N/A	0	dBA
N/A	12	dBA	N/A	0	dBA
N/A	6	dBA	N/A	0	dBA
N/A	18	dBA	N/A	0	dBA
N/A	17	dBA	N/A	0	dBA
N/A	11	dBA	N/A	0	dBA
N/A	17	dBA	N/A	0	dBA
N/A	12	dBA	N/A	0	dBA
N/A	30	dBA	N/A	0	dBA
N/A	30	dBA	N/A	0	dBA
N/A	24	dBA	N/A	0	dBA
N/A	30	dBA	N/A	0	dBA
N/A	25	dBA	N/A	0	dBA
N/A	14	dBA	N/A	0	dBA
N/A	8	dBA	N/A	0	dBA
N/A	10	dBA	N/A	0	dBA
N/A	4	dBA	N/A	0	dBA
N/A	11	dBA	N/A	0	dBA
N/A	12	dBA	N/A	0	dBA
N/A	5	dBA	N/A	0	dBA
N/A	18	dBA	N/A	0	dBA
N/A	15	dBA	N/A	0	dBA
4556	35	dBA	4379	0	dBA
5511	34	dBA	5549	0	dBA
4460	46	dBA	4296	0	dBA
4427	46	dBA	4262	0	dBA

Table 3: Acoustic Assessment Summary Table

Project: RRP
Location: Township of Chapple ON



Point of Reception ID	Point of Reception Description	Operation	Time Period ^[1]	Operational Sound Level at POR (dBA) ^[2]		Verified by Acoustic Audit ^[3]	Performance Limit ^[4]	Performance Limit Source ^[5]	Compliance with Performance Limit
				Early Operations	Life of Mine Operations				
POR01	House 01 - North	Regular	Daytime	35	N/A	No	45	D	Yes
			Evening/Night	34	N/A	No	40		Yes
		Emergency Equipment Testing	Daytime	48		No	50		Yes
POR02	House 02 - East	Regular	Daytime	35	N/A	No	45	D	Yes
			Evening/Night	34	N/A	No	40		Yes
		Emergency Equipment Testing	Daytime	43		No	50		Yes
POR03	House 03 - East	Regular	Daytime	35	N/A	No	45	D	Yes
			Evening/Night	34	N/A	No	40		Yes
		Emergency Equipment Testing	Daytime	45		No	50		Yes
POR04	House 04 - East	Regular	Daytime	35	N/A	No	45	D	Yes
			Evening/Night	34	N/A	No	40		Yes
		Emergency Equipment Testing	Daytime	45		No	50		Yes
POR06	House 06 - Southeast	Regular	Daytime	37	N/A	No	45	D	Yes
			Evening/Night	35	N/A	No	40		Yes
		Emergency Equipment Testing	Daytime	42		No	50		Yes
POR07	House 07 - South	Regular	Daytime	35	N/A	No	45	D	Yes
			Evening/Night	34	N/A	No	40		Yes
		Emergency Equipment Testing	Daytime	40		No	50		Yes
POR08	House 08 - South	Regular	Daytime	36	N/A	No	45	D	Yes
			Evening/Night	35	N/A	No	40		Yes
		Emergency Equipment Testing	Daytime	40		No	50		Yes
POR09	House 09 - South	Regular	Daytime	36	N/A	No	45	D	Yes
			Evening/Night	35	N/A	No	40		Yes
		Emergency Equipment Testing	Daytime	41		No	50		Yes
POR10	House 10 - South	Regular	Daytime	37	N/A	No	45	D	Yes
			Evening/Night	36	N/A	No	40		Yes
		Emergency Equipment Testing	Daytime	42		No	50		Yes

Table 3: Acoustic Assessment Summary Table

Project: RRP
Location: Township of Chapple ON



Point of Reception ID	Point of Reception Description	Operation	Time Period ^[1]	Operational Sound Level at POR (dBA) ^[2]		Verified by Acoustic Audit ^[3]	Performance Limit ^[4]	Performance Limit Source ^[5]	Compliance with Performance Limit
				Early Operations	Life of Mine Operations				
POR11	House 11 - South	Regular	Daytime	38	N/A	No	45	D	Yes
			Evening/Night	37	N/A	No	40		Yes
		Emergency Equipment Testing	Daytime	43		No	50		Yes
POR12	House 12 - South	Regular	Daytime	38	N/A	No	45	D	Yes
			Evening/Night	37	N/A	No	40		Yes
		Emergency Equipment Testing	Daytime	44		No	50		Yes
POR14	House 14 - South	Regular	Daytime	41	N/A	No	45	D	Yes
			Evening/Night	40	N/A	No	40		Yes
		Emergency Equipment Testing	Daytime	48		No	50		Yes
POR15	House 15 - West	Regular	Daytime	35	N/A	No	45	D	Yes
			Evening/Night	33	N/A	No	40		Yes
		Emergency Equipment Testing	Daytime	44		No	50		Yes
POR16	House 16 - West	Regular	Daytime	36	N/A	No	45	D	Yes
			Evening/Night	35	N/A	No	40		Yes
		Emergency Equipment Testing	Daytime	44		No	50		Yes
POR17	House 17 - Northwest	Regular	Daytime	34	N/A	No	45	D	Yes
			Evening/Night	33	N/A	No	40		Yes
		Emergency Equipment Testing	Daytime	48		No	50		Yes
POR19	Vacant Lot Near Pinewood River	Regular	Daytime	33	N/A	No	45	D	Yes
			Evening/Night	32	N/A	No	40		Yes
		Emergency Equipment Testing	Daytime	43		No	50		Yes
POR20	Vacant Lot 56041-0138	Regular	Daytime	41	N/A	No	45	D	Yes
			Evening/Night	40	N/A	No	40		Yes
		Emergency Equipment Testing	Daytime	49		No	50		Yes
POR21	Vacant Lot 56036-0023	Regular	Daytime	40	N/A	No	45	D	Yes
			Evening/Night	39	N/A	No	40		Yes
		Emergency Equipment Testing	Daytime	41		No	50		Yes

Table 3: Acoustic Assessment Summary Table

Project: RRP
Location: Township of Chapple ON



Point of Reception ID	Point of Reception Description	Operation	Time Period ^[1]	Operational Sound Level at POR (dBA) ^[2]		Verified by Acoustic Audit ^[3] (Yes/No)	Performance Limit ^[4] (dBA/dBAI)	Performance Limit Source ^[5] (C / M / D)	Compliance with Performance Limit (Yes/No)
				Early Operations	Life of Mine Operations				
POR22	Vacant Lot 56036-0184	Regular	Daytime	38	N/A	No	45	D	Yes
			Evening/Night	37	N/A	No	40		Yes
		Emergency Equipment Testing	Daytime	43		No	50		Yes
POR23	Vacant Lot 56041-0037	Regular	Daytime	39	N/A	No	45	D	Yes
			Evening/Night	39	N/A	No	40		Yes
		Emergency Equipment Testing	Daytime	48		No	50		Yes
POR24	Vacant Lot 56041-0135	Regular	Daytime	41	N/A	No	45	D	Yes
			Evening/Night	40	N/A	No	40		Yes
		Emergency Equipment Testing	Daytime	49		No	50		Yes
POR25	Vacant Lot 56041-0139	Regular	Daytime	41	N/A	No	45	D	Yes
			Evening/Night	40	N/A	No	40		Yes
		Emergency Equipment Testing	Daytime	49		No	50		Yes

Notes :

1 Daytime occurs from 0700-1900h. Evening occurs from 1900h to 2300h. Night-time occurs from 2300-0700h

2 Worst-case cumulative sound level from all applicable sources operating.

3 Has an acoustic audit (as defined in Publication NPC-233) been conducted with source in place and operating?

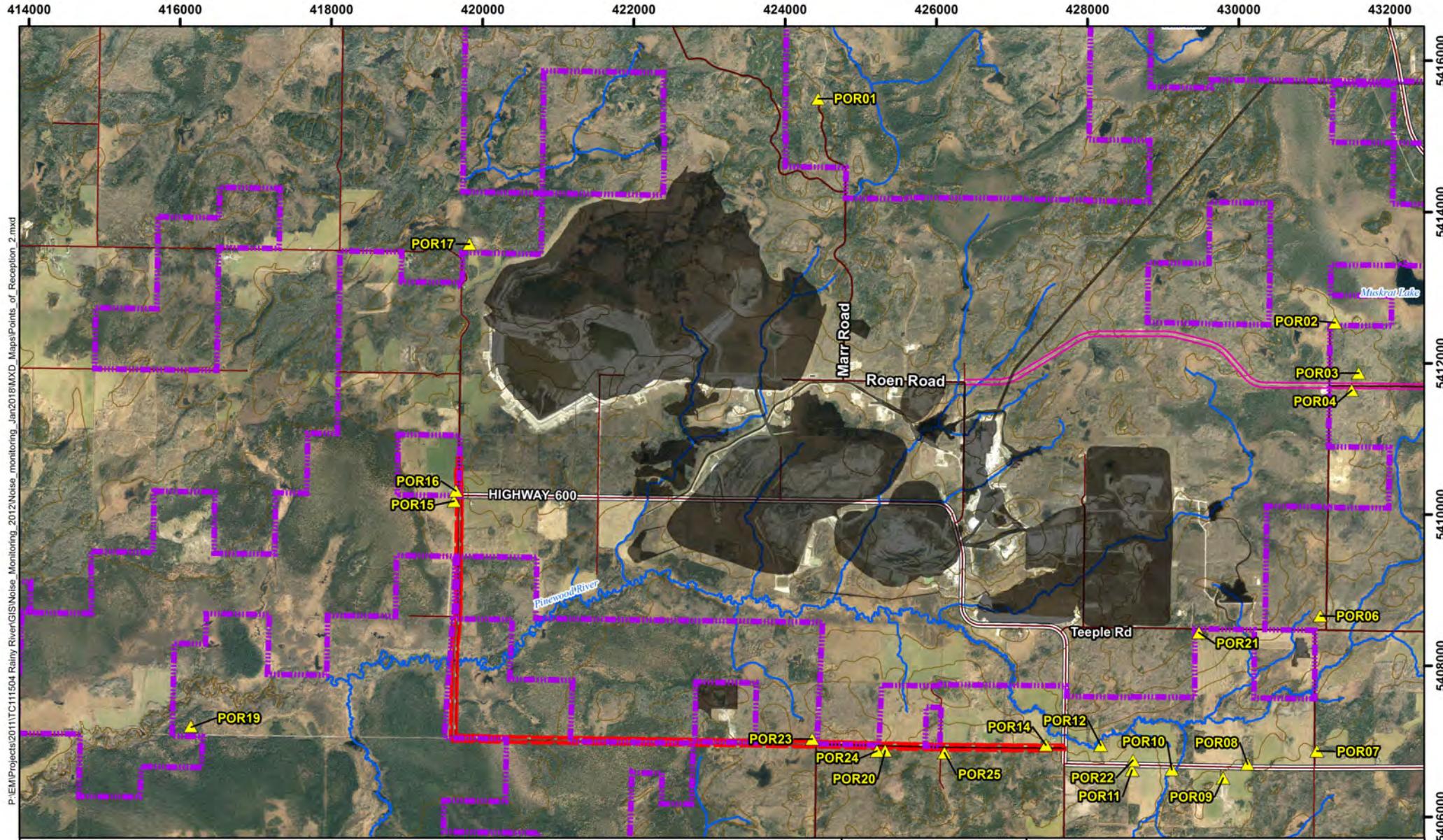
4 Applicable worst-case NPC-300 sound level limit.

5 Performance limit (aka guideline limit) based on following:

C = Calculated based on road traffic volumes in compliance with NPC-206 requirements.

M = Measured based on monitoring for a minimum 48 hour period, in accordance with NPC-233 requirements.

D = Default guideline minima per NCP300, as applicable (e.g., 45 dBA daytime limit for Class 3 Areas)



LEGEND

▲ Receptor (labelled with ID)
■ RRP-NG Property Boundary

Proposed Site Features
■ Approximate Principal RRP Facilities
— Highway Re-alignment
— East Access Road

Contours, 10 m interval
— Existing Highway
— Existing Road
— River

NOTES:
- Aerial Imagery provided by NewGold Scene date is October 2017.
- Only major facilities are shown connecting infrastructure and supporting facilities are generally shown.

newgold™ Rainy River Project



RAINY RIVER MINE

Site Aerial Map with Points of Reception

Datum: NAD83
Projection: UTM Zone 15N



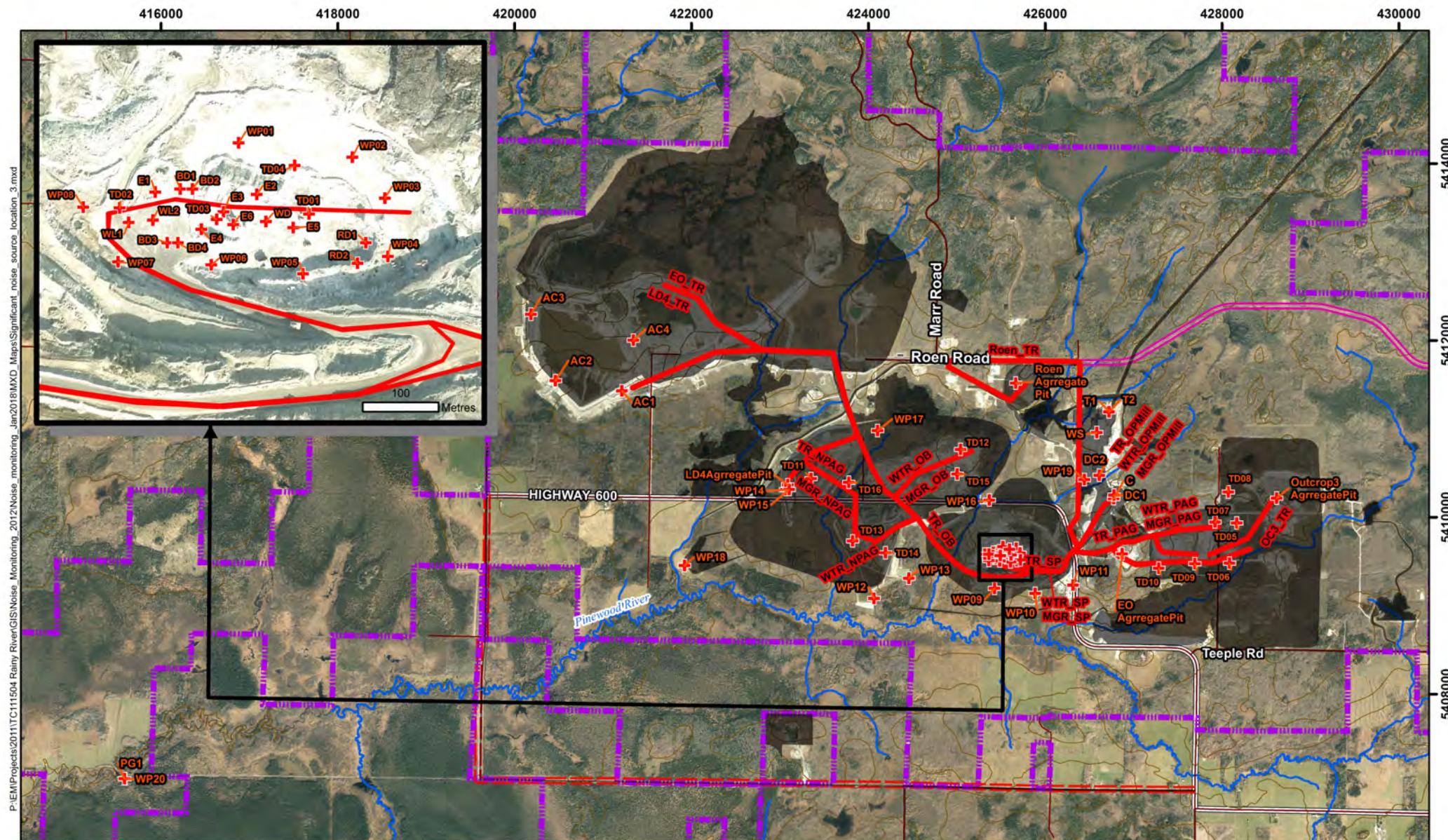
PROJECT N°: TC111504

FIGURE: 1

SCALE: 1:70,000

DATE: January 2018

0 2 4 6 8 Kilometres



LEGEND

- + Point Source (labelled with ID)
- Line Source (labelled with ID)
- RRP-NG Property Boundary

- Proposed Site Features**
- Approximate Principal RRP Facilities
 - Highway Re-alignment
 - East Access Road

- Contours, 10 m interval
- Existing Highway
- Existing Road
- River

NOTES:

- Aerial Imagery provided by NewGold Scene date is October 2017.
- Only major facilities are shown connecting infrastructure and supporting facilities are generally shown.

newgold™ Rainy River Project



RAINY RIVER MINE

Significant Sound Source Locations

Datum: NAD83
Projection: UTM Zone 15N



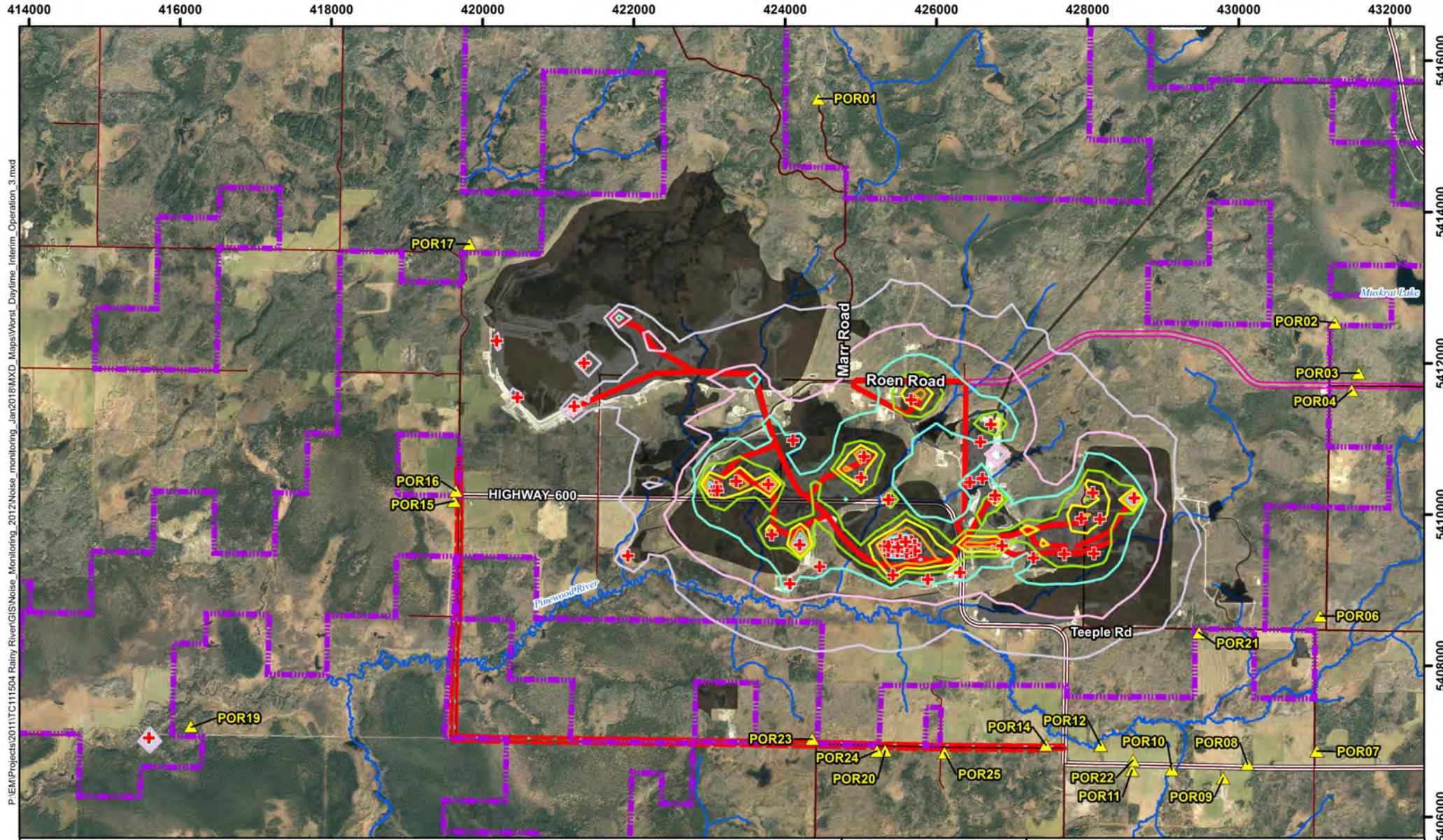
PROJECT N°: TC111504

FIGURE: 2

SCALE: 1:60,000

DATE: January 2018

0 2 4 6 8 Kilometres



LEGEND

- + Point Source
- Line Source
- ▲ Receptor (labelled with ID)
- RRP-NG Property Boundary

Proposed Site Features

- Approximate Principal RRP Facilities
- Highway Re-alignment
- East Access Road

Worst Daytime Interim Operation dBA Contours

≥ 45	≥ 60	≥ 75
≥ 50	≥ 65	≥ 80
≥ 55	≥ 70	≥ 85

NOTES:

- Aerial Imagery provided by NewGold Scene date is October 2017.
- Only major facilities are shown connecting infrastructure and supporting facilities are generally shown.

newgold™ Rainy River Project



RAINY RIVER MINE

Sound Contours for Worst-Case Daytime Early Operations

Datum: NAD83
Projection: UTM Zone 15N



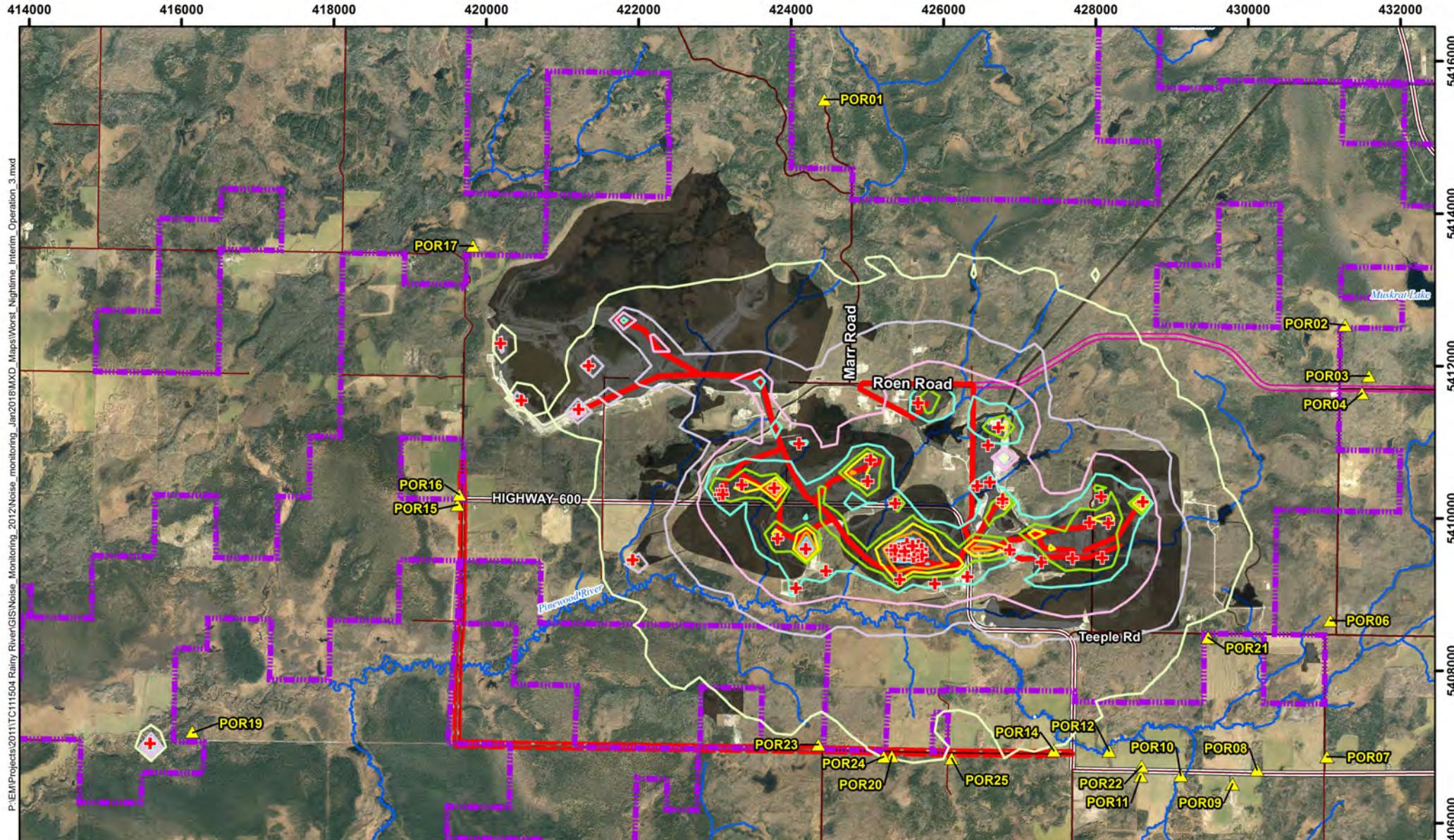
PROJECT N°: TC111504

FIGURE: 3

SCALE: 1:70,000

DATE: January 2018

0 2 4 6 8 Kilometres



LEGEND

- + Point Source
- Line Source
- ▲ Receptor (labelled with ID)
- RRP-NG Property Boundary

Proposed Site Features

- Approximate Principal RRP Facilities
- Highway Re-alignment
- East Access Road

Worst Night-time Interim Operation dBA Contours

>=40	>=60	>=75
>=45	>=65	>=80
>=50	>=70	>=85
>=55		

NOTES:

- Aerial Imagery provided by NewGold Scene date is October 2017.
- Only major facilities are shown connecting infrastructure and supporting facilities are generally shown.

newgold™ Rainy River Project



RAINY RIVER MINE

Sound Contours for Worst-Case Evening and Night-time Early Operations

Datum: NAD83
Projection: UTM Zone 15N



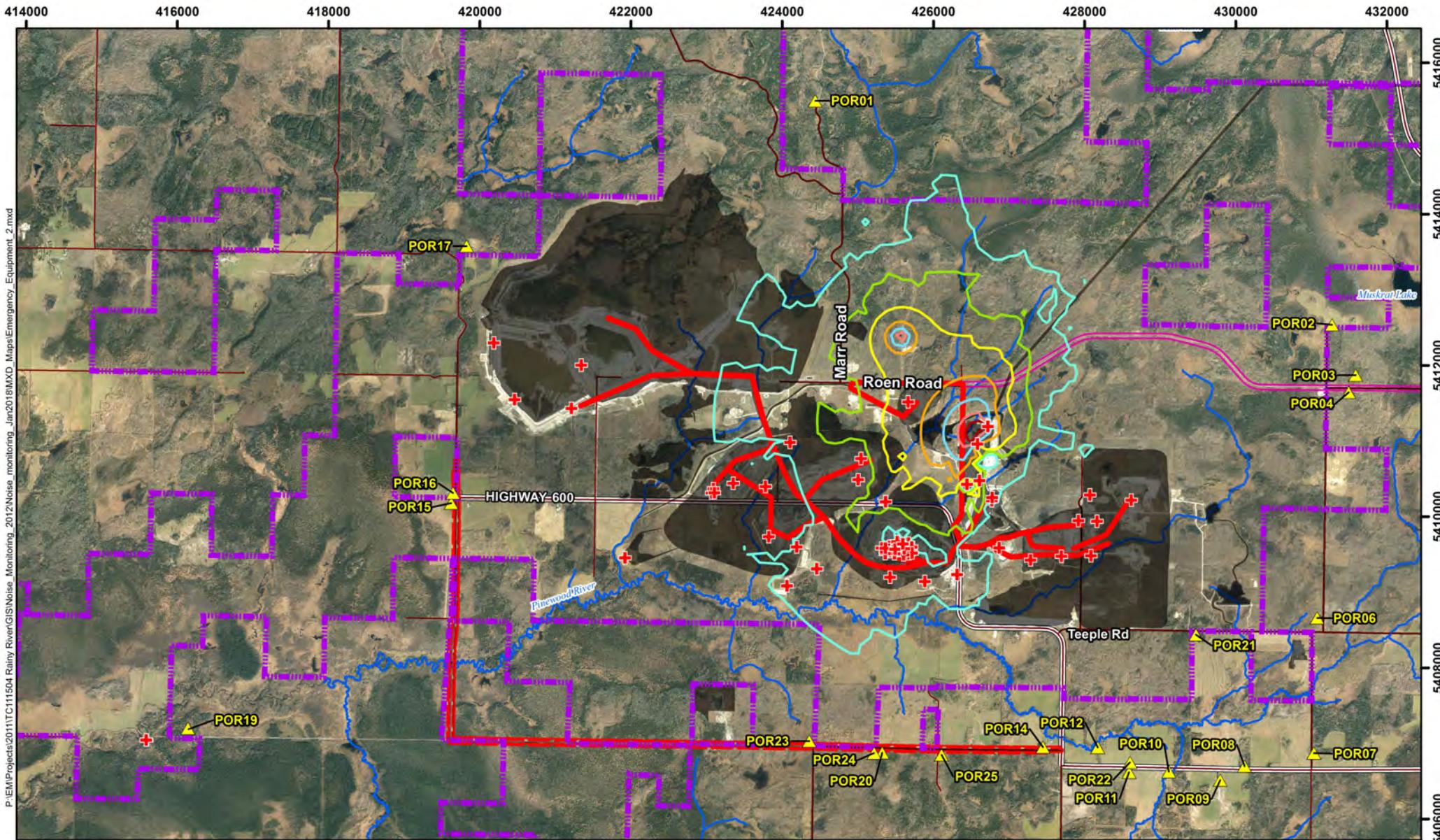
PROJECT N°: TC111504

FIGURE: 4

SCALE: 1:70,000

DATE: January 2018

0 2 4 6 8 Kilometres



LEGEND

- Point Source
 - Line Source
 - Receptor (labelled with ID)
 - RRP-NG Property Boundary

Proposed Site Features

-  Approximate Principal RRP Facilities
 -  Highway Re-alignment
 -  East Access Road

Emergency Equipment Testing Operation dBA Contours

-

NOTES:

- Aerial Imagery provided by NewGold Scene date is October 2017.
- Only major facilities are shown connecting infrastructure and supporting facilities are generally shown.

newgold™ Rainy River Project



RAINY RIVER MINE

Sound Contours for Emergency Equipment Testing

Datum: NAD83
Projection: UTM Zone 15N



PROJECT N°: TC111504

FIGURE: 5

SCALE 1:70 000

DATE: January 2018

APPENDIX A

ACOUSTIC ASSESSMENT REPORT CHECK-LIST

ACOUSTIC ASSESSMENT REPORT CHECK-LIST

Company Name: New Gold Inc.

Company Address: 1111 Victoria Ave. East

Thunder Bay, Ontario, P7C 1B7

Location of Facility: Rainy River Project

Township of Chapple, Ontario

The attached Acoustic Assessment Report was prepared in accordance with the guidance in the ministry document "Information to be Submitted for Approval of Stationary Sources of Sound" (NPC 233) dated October 1995 and the minimum required information identified in the check-list on the reverse of this sheet has been submitted.

Company Contact: New Gold Inc.

Name: _____

Title: _____

Phone Number: _____

Signature: _____

Date: _____

Technical Contact: Amec Foster Wheeler

Name: Mohammed Salim, P.Eng.

Representing: New Gold Inc.

Phone Number: (905) 568 2929 Extn. 4212

M. Salim

Signature: _____

Date: October 20, 2017

ACOUSTIC ASSESSMENT REPORT CHECKLIST

Required Information		Submitted	Explanation/Reference
1.0	Introduction (Project Background and Overview)	<input checked="" type="checkbox"/> Yes	Section 1
2.0	Facility Description		
2.1	Operating hours of facility and significant Noise Sources	<input checked="" type="checkbox"/> Yes	Section 2 & Section 3
2.2	Site Plan identifying all significant Noise Sources	<input checked="" type="checkbox"/> Yes	Figure 2
3.0	Noise Source Summary		
3.1	Noise Source Summary Table	<input checked="" type="checkbox"/> Yes	Table 1
3.2	Source noise emissions specifications	<input checked="" type="checkbox"/> Yes	Section 3
3.3	Source Power/capacity ratings	<input checked="" type="checkbox"/> Yes	Appendix D
3.4	Noise control equipment description and acoustical specifications	<input checked="" type="checkbox"/> Yes	Section 4
4.0	Point of Reception Noise Impact Calculations		
4.1	Point of Reception Noise Impact Table	<input checked="" type="checkbox"/> Yes	Table 2
4.2	Point(s) of Reception (POR) list and description	<input checked="" type="checkbox"/> Yes	Section 5
4.3	Land-use Zoning Plan	<input checked="" type="checkbox"/> Yes	Appendix B
4.4	Scaled Area Location Plan	<input checked="" type="checkbox"/> Yes	Figure 1
4.5	Procedure used to assess noise impacts at each POR	<input checked="" type="checkbox"/> Yes	Section 7
4.6	List of parameters/assumptions used in calculations	<input checked="" type="checkbox"/> Yes	Section 7/Appendix F
5.0	Acoustic Assessment Summary		
5.1	Acoustic Assessment Summary Table	<input checked="" type="checkbox"/> Yes	Table 3
5.2	Rationale for selecting applicable noise guideline limits	<input checked="" type="checkbox"/> Yes	Section 6
5.3	Predictable Worst Case Impacts Operating Scenario	<input checked="" type="checkbox"/> Yes	Section 7
6.0	Conclusions		
6.1	Statement of compliance with the selected noise performance limits	<input checked="" type="checkbox"/> Yes	Section 8
7.0	Appendices (Provide details such as)		
	Listing of Insignificant Noise Sources	<input checked="" type="checkbox"/> Yes	Appendix E
	Manufacture's Noise Specifications	<input type="checkbox"/> Yes	N/A
	Calculations	<input checked="" type="checkbox"/> Yes	Appendix D
	Instrumentation	<input checked="" type="checkbox"/> Yes	Appendix D
	Meteorology during Sound level Measurements	<input checked="" type="checkbox"/> Yes	Appendix D
	Raw Data from Measurements	<input checked="" type="checkbox"/> Yes	Appendix D
	Drawings (Facility/Equipment)	<input checked="" type="checkbox"/> Yes	Appendix C

APPENDIX B

LAND-USE ZONING MAP OF THE SITE AND SURROUNDING AREA

TOWNSHIP OF CHAPPLE ZONING BY-LAW SCHEDULE A

Council Adoption October 8, 2013



Village Settlement Area

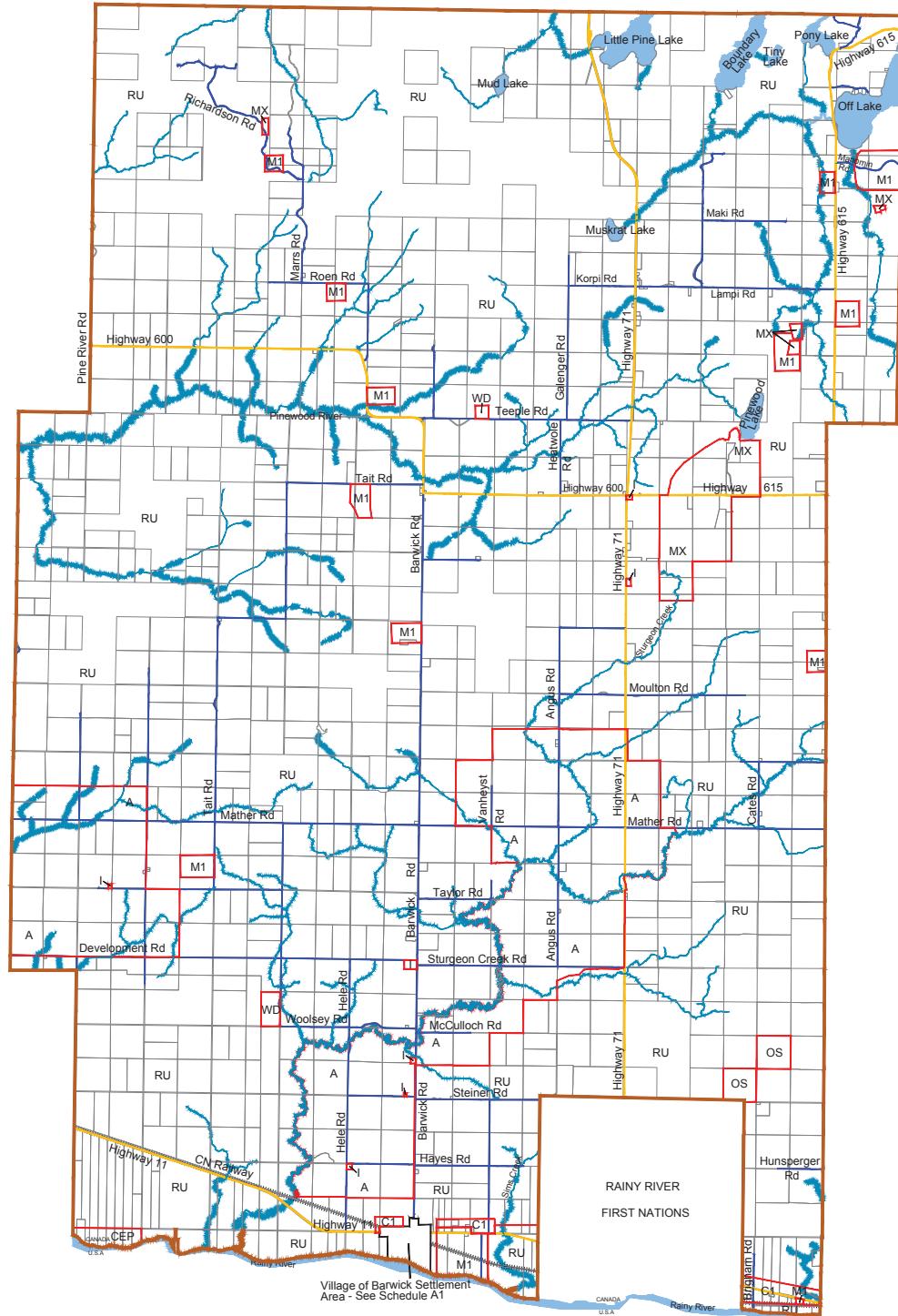
Zone Boundary
A - Agricultural Zone
RU - Rural Zone
C1 - Highway Commercial Zone
I - Institutional
M1 - Industrial Zone
MX - Aggregate Extraction Zone
WD - Waste Disposal Zone
OS - Open Space Zone
CEP - Conservation and Environmental Protection Zone



Transportation
Provincial Highway
Township Roads
CN Railway



Watercourses



Digital Map Created By:

FOTENN PLANNING & URBAN DESIGN

CGIS Spatial Solutions
52 South Street
Perth, ON K7H 2G7
TEL: 613-366-4321
www.cgis.com

500m 1000m 1500m 2000m 2500m

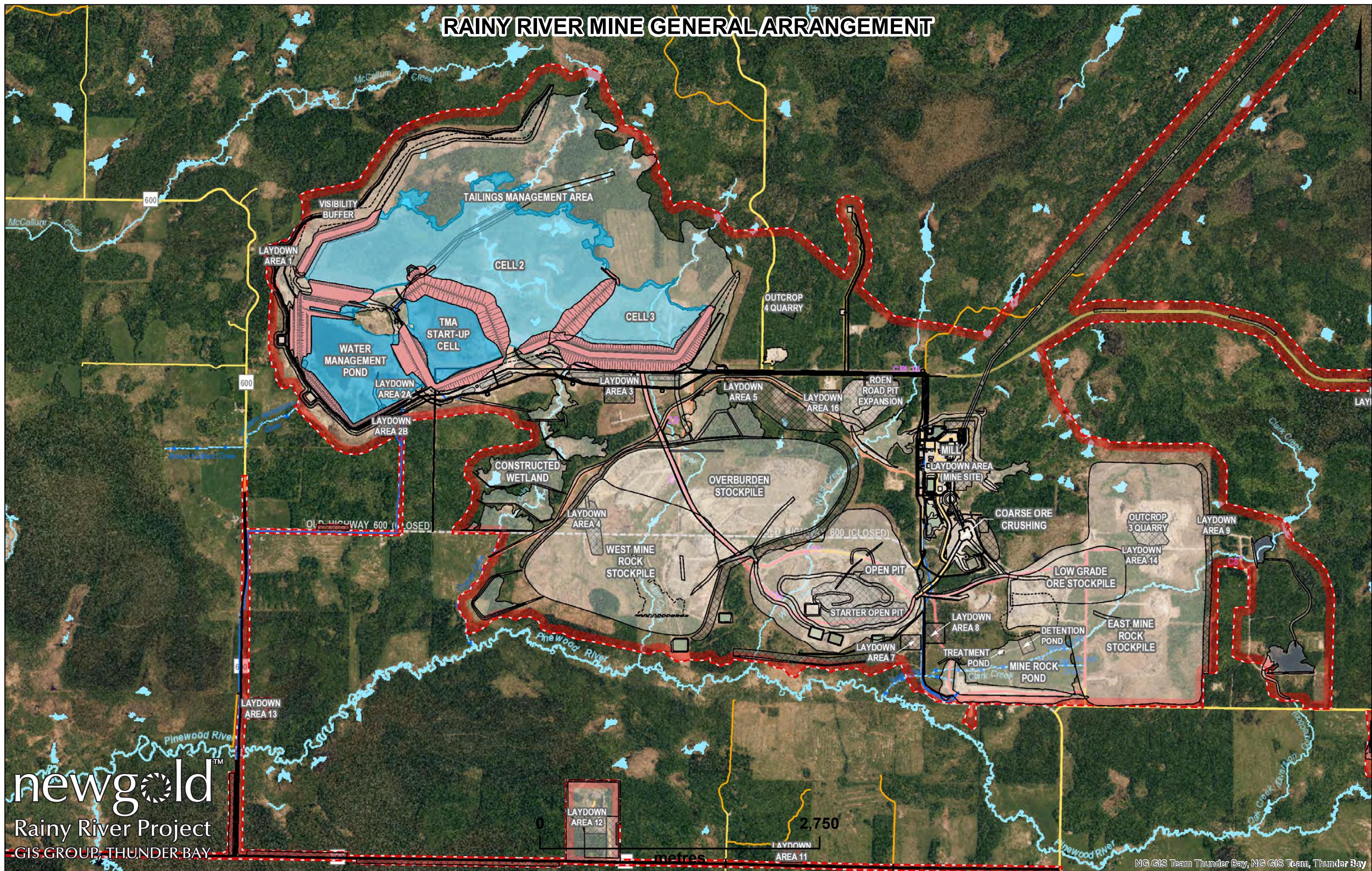
Note: The base information on this plan was prepared from a variety of map sources and was used by permission of the Township of Chapple. It is not a legal plan of survey. For precise location of plan features recourse should be had to the original source data.



APPENDIX C

FACILITY DRAWINGS

RAINY RIVER MINE GENERAL ARRANGEMENT





APPENDIX D

SOUND MEASUREMENT DETAILS AND CALCULATIONS

CONVERSION OF SOUND PRESSURE LEVELS TO SOUND POWER LEVELS



Project Name: RRP

Project Number: TC111504

Location: Barwick ON

A-WEIGHTING (dB) - Applied to total PWL

-39.4	-26.2	-16.1	-8.6	-3.2	0.0	1.2	1.0	-1.1
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1/4 WAVELENGTH CRITERION (m)

2.722	1.361	0.686	0.343	0.172	0.086	0.043	0.021	0.011
-------	-------	-------	-------	-------	-------	-------	-------	-------

Measurement Reference ^[1,2]	Source Description	Calc Type ^[3]	SPL Ref Distance ^[4] (S or C) (m)	Length ^[5] (C only) (m)	Partition Coefficient (S or C) (%)	Net Surface Area ^[5] (m ²)	Spectral Weighting (A or Flat)	Octave Band Sound Pressure Level Data ^[6] (dB or dBA) ^[6]									Total (dBA)	Octave Band Sound Power Level Data ^[8] (dB or dBA) ^[7]									Total (dBA)
								31.5	63	125	250	500	1000	2000	4000	8000		31.5	63	125	250	500	1000	2000	4000	8000	
831_Data.001	Komatsu Diesel Excavator PC360LC	S	10.0		50%	628.0	Flat	85.1	87.4	89.0	89.0	85.4	84.0	80.1	71.0	65.2	88	113.1	115.4	117.0	117.0	113.3	111.9	108.1	99.0	93.2	116
831_Data.002	Truck Komatsu 830 - Pass-by (Empty Truck)	C	16.0	21.0	50%	1055.0	Flat	83.1	87.8	84.6	77.9	75.9	72.1	68.7	63.9	57.2	78	113.3	118.0	114.8	108.1	106.1	102.3	98.9	94.2	87.4	108
831_Data.003	Truck Komatsu 830 - Pass-by (Loaded Truck)	C	16.0	21.0	50%	1055.0	Flat	90.3	99.4	102.6	89.4	83.9	77.7	72.9	68.6	64.9	89	120.5	129.7	132.9	119.6	114.1	108.0	103.1	98.9	95.2	119
831_Data.006	Komatsu Wheel Loader WA1200	S	15.5		50%	1508.8	Flat	80.9	89.3	91.9	81.2	79.8	78.5	78.2	73.4	68.9	85	112.7	121.1	123.7	113.0	111.6	110.3	110.0	105.2	100.7	117
831_Data.007	Komatsu Wheel Dozer KM WD600	S	11.0		50%	759.9	Flat	77.4	84.7	79.8	74.2	71.7	72.3	68.1	61.1	54.7	76	106.2	113.5	108.6	103.0	100.5	101.1	96.9	89.9	83.5	105
831_Data.008	Motor Grader CAT 16M	S	10.0		50%	628.0	Flat	80.5	84.8	86.4	81.5	80.3	77.6	75.2	71.5	68.2	83	108.5	112.8	114.4	109.5	108.3	105.6	103.1	99.4	96.2	111
831_Data.009	Motor Grader CAT 14	S	7.3		50%	334.7	Flat	74.2	78.5	79.5	84.1	78.7	76.9	74.5	69.4	59.7	82	99.4	103.7	104.8	109.4	103.9	102.2	99.8	94.6	85.0	108
831_Data.010	Track Dozer CAT9T	S	10.0		50%	628.0	Flat	71.8	75.0	78.4	79.1	78.1	76.6	75.9	72.2	65.2	82	99.8	103.0	106.4	107.1	106.0	104.6	103.9	100.2	93.2	110
831_Data.011	Track Dozer CAT10T	S	10.0		50%	628.0	Flat	79.4	82.9	86.9	85.6	85.4	82.4	79.1	70.9	64.4	87	107.4	110.8	114.9	113.6	113.4	110.4	107.1	98.9	92.4	115
831_Data.012	Track Dozer Komatsu 375	S	10.0		50%	628.0	Flat	75.1	82.4	79.7	79.8	78.3	75.3	75.6	67.2	60.3	81	103.1	110.4	107.7	107.8	106.3	103.3	103.6	95.1	88.3	109
831_Data.013	Komatsu Diesel Excavator PC5500	S	13.0		50%	1061.3	Flat	83.2	87.9	91.7	86.6	83.4	79.2	75.8	68.8	61.6	85	113.5	118.2	122.0	116.9	113.7	109.4	106.1	99.1	91.8	116
831_Data.014	Blast Hole Drill 2- Sandvik DR461i	S	10.0		50%	628.0	Flat	80.0	84.6	86.3	86.5	88.5	90.0	85.0	80.6	74.5	93	107.9	112.6	114.3	114.5	116.4	118.0	113.0	108.6	102.5	121
831_Data.015	Komatsu Diesel Excavator PC3000	S	13.0		50%	1061.3	Flat	84.8	87.7	95.9	90.4	86.8	84.5	78.8	73.3	67.2	89	115.1	118.0	126.2	120.6	117.0	114.8	109.0	103.5	97.4	120
831_Data.017	Track Dozer Komatsu 475	S	10.0		50%	628.0	Flat	82.5	82.9	86.3	85.1	87.6	81.9	79.6	77.8	72.3	88	110.5	110.9	114.3	113.1	115.6	109.9	107.6	105.7	100.2	116
831_Data.019	Motor Grader CAT 16H	S	7.0		50%	307.7	Flat	71.1	84.8	72.6	72.4	75.0	77.9	75.1	70.0	64.7	81	96.0	109.6	97.5	97.3	99.9	102.8	100.0	94.9	89.6	106
831_Data.021	Water Truck (Komatsu HD785 / CR20000K) Pass-by	C	9.5	21.0	50%	626.4	Flat	73.4	78.7	84.5	82.0	79.6	81.9	79.6	72.3	65.7	86	101.4	106.7	112.5	109.9	107.6	109.9	107.6	100.3	93.6	114
831_Data.022	Diesel Water Pump WP004	S	2.7		50%	45.8	Flat	83.1	91.9	91.7	80.4	84.0	85.4	84.1	76.9	73.1	90	99.7	108.5	108.3	97.1	100.6	102.0	100.7	93.5	89.7	106
831_Data.023	Blast Hole Drill 3 - Sandvik DP1500i	S	9.0		50%	508.7	Flat	77.7	83.4	82.1	79.4	83.4	83.5	84.1	80.5	83.0	90	104.8	110.4	109.2	106.4	110.5	111.2	107.6	110.1	117	
831_Data.024	Crusher	S	7.9		50%	391.9	Flat	79.0	78.6	74.5	69.9	65.3	58.8	52.2	46.5	42.9	67	104.9	104.5	100.4	95.9	91.3	84.8	78.1	72.4	68.9	93
831_Data.025	Crusher - Dumping	S	15.0		50%	1413.0	Flat	77.1	84.3	77.2	75.0	76.0	74.9	72.3	68.2	61.3	79	108.6	115.9	108.7	106.5	107.5	106.4	103.8	99.7	92.8	111
831_Data.026	Crusher - Filling	S	15.0		50%	1413.0	Flat	71.2	73.1	73.1	71.2	71.2	64.0	64.1	60.6	50.2	72	102									

Measure Raw Data

File Name	1/1 Octave Frequency Range										1/3 Octave Frequency Band																											
	31.5	63	125	250	500	1000	2000	4000	8000	20	25	32	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000	12500
831_Data.001	85.1	87.4	89.0	89.0	85.4	84.0	80.1	71.0	65.2	70.4	70.6	72.8	84.8	79.7	83.7	83.4	86.0	83.2	83.2	88.2	81.6	77.4	81.9	81.1	78.0	80.3	79.3	77.9	77.8	74.8	71.7	68.8	64.9	63.2	62.7	59.5	57.7	57.5
831_Data.002	83.1	87.8	84.6	77.9	75.9	72.1	68.7	63.9	57.2	70.7	68.0	73.4	82.5	84.1	76.4	84.5	82.5	78.3	75.8	74.2	72.7	72.7	72.9	70.4	69.6	69.1	67.0	65.2	65.3	63.2	62.8	61.2	58.4	56.7	54.6	51.8	49.2	45.4
831_Data.003	90.3	99.4	102.6	89.4	83.9	77.7	72.9	68.6	64.9	73.4	75.0	80.9	89.3	94.6	89.6	97.0	98.9	99.9	88.8	85.4	84.9	82.4	81.2	77.8	77.2	74.7	72.5	70.4	69.1	68.1	66.9	65.4	62.8	63.0	63.7	56.9	54.9	49.2
831_Data.004	86.5	96.2	96.9	88.3	85.5	81.3	77.7	74.4	69.9	73.0	75.0	78.9	85.3	85.3	90.7	93.9	92.8	93.6	87.9	86.0	82.5	78.8	80.3	81.4	80.2	77.4	76.6	75.4	73.6	72.8	72.2	71.0	68.9	68.2	68.0	63.6	60.9	55.9
831_Data.005	80.5	88.5	89.4	80.9	80.7	77.5	74.5	69.9	64.9	68.3	71.7	75.7	77.8	83.0	82.9	84.4	88.2	82.2	79.8	76.1	77.0	75.5	75.3	73.7	72.6	71.8	70.6	69.7	68.8	66.4	64.8	63.5	62.9	59.3	55.2	49.7		
831_Data.006	80.9	89.3	91.9	81.2	79.8	78.5	78.2	73.4	68.9	75.6	72.5	77.1	77.4	81.0	83.4	86.8	91.0	84.7	80.7	74.6	75.5	77.9	75.9	74.0	75.3	74.6	73.2	73.4	76.0	71.8	69.1	68.7	67.9	66.7	63.6	59.3	54.0	
831_Data.007	77.4	84.7	79.8	74.2	71.7	72.3	68.1	61.1	54.7	62.8	64.4	67.9	76.9	80.3	80.3	79.2	77.5	75.0	71.7	69.4	70.2	68.5	67.0	67.1	66.5	65.9	65.7	69.7	66.1	61.4	60.0	58.3	55.7	54.0	52.0	49.6	46.5	43.6
831_Data.008	80.5	84.8	86.4	81.5	80.3	77.6	75.2	71.5	68.2	65.1	67.7	70.2	79.7	75.7	82.0	80.8	84.4	80.7	79.6	77.2	74.0	77.9	77.3	74.4	73.4	73.5	72.6	72.1	71.0	70.5	69.7	67.9	66.1	65.4	65.6	62.7	60.5	57.9
831_Data.009	74.2	78.5	79.5	84.1	78.7	76.9	74.5	69.4	59.7	65.7	64.9	71.0	70.5	76.1	70.3	72.4	73.8	73.9	76.0	82.9	77.2	75.0	73.6	75.1	72.8	72.5	72.1	71.3	69.0	68.3	67.5	63.1	59.7	57.0	54.8	49.1		
831_Data.010	71.8	75.0	78.4	79.1	78.1	76.6	75.9	72.2	65.2	64.3	66.5	65.8	68.7	69.8	69.4	71.8	73.8	75.0	71.4	71.6	75.3	75.5	72.2	74.0	73.6	71.7	71.7	72.0	73.3	69.7	69.8	69.3	67.1	65.0	62.3	59.9	57.9	56.6
831_Data.011	79.4	82.9	86.9	85.6	85.4	82.4	79.1	70.9	64.4	70.3	71.3	74.4	76.8	77.2	76.9	79.7	82.3	82.5	81.8	79.7	81.5	81.3	80.4	82.3	77.4	76.7	75.0	80.1	76.9	71.2	69.7	67.9	65.9	63.6	61.3	59.5	57.0	60.2
831_Data.012	75.1	82.4	79.7	79.8	78.3	75.3	75.6	67.2	60.3	69.6	69.4	70.7	71.4	72.5	76.6	80.6	75.0	75.2	74.6	74.7	75.7	75.0	72.5	75.4	72.0	71.7	70.6	69.3	70.2	73.2	66.5	64.3	61.7	60.0	57.2	55.4	52.7	49.4
831_Data.013	83.2	87.9	91.7	86.6	83.4	79.2	75.8	68.8	61.6	74.8	75.6	80.4	78.4	80.1	79.1	85.9	91.9	79.9	79.7	85.9	78.8	76.5	81.2	78.0	74.6	73.5	72.2	76.8	72.0	69.5	68.5	65.9	63.3	61.3	58.9	56.8	52.5	48.2
831_Data.014	80.0	84.6	86.3	86.5	88.5	90.0	85.0	80.6	74.5	69.3	70.0	75.6	77.5	78.4	76.5	82.0	84.9	78.1	79.7	82.6	81.8	80.8	83.5	83.5	84.1	85.9	86.1	83.5	80.8	80.0	79.7	77.0	75.5	74.3	72.0	68.4	66.9	66.3
831_Data.015	84.8	87.7	95.9	90.4	86.8	84.5	78.8	73.3	67.2	73.3	75.5	82.2	80.1	78.8	77.7	86.0	93.3	82.0	92.8	85.7	84.1	84.9	81.8	82.5	81.4	81.2	79.6	77.9	75.8	73.5	71.9	69.8	67.3	68.1	62.2	59.5	64.1	52.8
831_Data.016	84.6	90.3	95.7	87.9	84.9	81.9	76.4	70.6	62.9	73.2	74.7	81.6	80.6	77.3	79.0	89.3	95.8	81.7	85.2	84.3	80.3	83.9	80.7	79.9	79.7	77.7	77.2	76.4	73.0	71.1	69.9	67.0	65.7	63.8	60.0	58.4	53.0	46.9
831_Data.017	82.5	82.9	86.3	85.1	87.6	81.9	79.6	77.8	72.3	71.1	73.9	80.1	76.8	77.5	75.8	80.3	81.4	80.5	82.5	78.8	81.2	80.7	79.9	85.5	80.5	77.5	77.1	76.7	74.4	73.3	71.5	73.7	69.9	65.5	65.2	61.6		
831_Data.018	71.1	84.8	72.6	72.4	75.0	77.9	75.1	70.0	64.7	61.8	65.0	67.6	65.4	78.8	83.2	68.7	66.5	69.2	66.9	65.5	68.5	68.5	67.6	71.3	71.1	73.3	73.6	72.7	72.7	71.2	68.3	67.2	64.9	62.4	59.9	58.6	56.7	
831_Data.021	73.4	78.7	84.5	82.0	79.6	81.9	79.6	72.3	65.7	66.5	65.8	70.2	68.5	69.3	70.2	77.2	82.0	80.1	76.0	74.5	79.9	74.9	73.5	74.2	76.3	77.3	77.1	77.2	78.0	73.6	69.2	68.4	68.5	64.9	63.5	60.1	56.5	52.0
831_Data.022	83.1	91.9	91.7	80.4	84.0	85.4	84.1	76.9	73.1	59.0	59.0	64.4	80.0	91.9	73.4	82.3	92.6	74.8	69.2	69.3	77.6	76.6	71.9	81.7	79.6	79.5	81.3	80.9	79.8	78.7	79.5	74.3	70.3	69.5	69.8	68.5	66.1	66.3
831_Data.023	77.7	83.4	82.1	79.4	83.4	83.5	84.1	80.5	83.0	67.8	67.8	69.7	70.9	76.0	79.2	77.0	79.6	79.7	75.5	75.5	75.5	69.6	76.6	78.0	76.3	80.8	77.4	79.6	78.6	79.3	79.2	75.4	75.7	76.2	79.9	77.7	76.8	
831_Data.024	79.0	78.6	74.5	69.9	65.3	58.8	58.2	42.6	47.9	71.7	73.5	75.2	73.4	75.5	74.8	67.4	71.4	70.1	66.7	68.3	62.4	62.2	61.8	59.0	60.4	56.0	53.3	51.4	49.7	47.3	44.9	43.5	41.3	39.4	38.3	38.0	39.0	
831_Data.025	77.1	84.3	77.2	75.0	76.0	74.9	72.3	68.2	61.3	68.7	70.5	72.4	73.1	76.3	81.7	80.0	73.0	73.0	71.2	67.8	70.4	72.5	70.7	70.6	70.9	70.0	69.7	68.6	67.5	66.4	65.1	63.1	59.0	56.0	52.4	48.4		
831_Data.026	71.2	73.1	73.1	71.2	71.2	64.0	64.1	60.6	50.2	65.3	66.0	68.4	64.3	67.1	69.4	68.7	68.3	69.0	67.8	66.4	62.4	68.5	68.0	65.2	65.4	62.2	57.2	55.9	60.0	60.3	57.4	56.9	57.7	48.4	46.2	45.6	44.4	41.6
831_Data.027	91.1	97.0	93.7	94.9	93.3	90.3	87.4	82.7	76.0	75.9	78.6	81.8	90.2	88.7	94.9	90.9	87.5	87.8	90.6	91.9	88.6	89.0	89.5	87.7	88.7	86.8	85.2	84.2	83.1	83.2	81.3	79.9	77.5	75.1	73.1	70.9	68.3	64.4
831_Data.028	89.7	99.4	92.4	81.2	82.0	81.0	76.3	70.7	65.2	62.8	67.3	72.2	89.7	92.9	96.9	92.7	92.3	80.8	78.6	76.8	76.2	76.4	78.1	77.1	76.6	76.2	75.0	77.1	72.6	71.3	69.4	67.1	65.5	64.7	62.0	59.8	58.9	60.6
831_Data.030	74.4	86.8	83.0	82.4	74.9	72.8	68.7	63.9	56.9	59.7	67.4	65.5	73.1	70.9	82.9	84.1	80.4	73.6	73.8	73.1	72.1	70.7	71.4	70.7	68.1	69.3	68.3	66.0	64.9	64.1	62.8	61.2	58.5	56.1	53.7	52.4	49.4	47.7
831_Data.031	81.8	80.8	82.7	87.3	81.5	77.9	74.8	71.5	68.9	80.6	77.9	76.8	77.0	76.3	76.0	75.7	74.0	78.2	79.8	79.0	86.6	77.8	73.3	79.0	76.1	74.7	70.6	72.9	70.0	67.4	66.3	64.4	62.3	56.7				
831_Data.032	89.6	100.4	93.1	83.5	87.7	88.9	88.1	83.9	80.7	70.0	73.1	89.2	76.7	81.0	100.2	86.1	90.0	88.5	86.8	78.1	79.8	78.3	82.5	84.3	81													



Sound Level Measurement Instrumentation

Equipment sound level measurements at the RRP site were conducted by Amec Foster Wheeler on September 27 through 29, 2017. A Larson Davis Sound Track 831 Type I sound level meter equipped with a windscreen was used for the measurement. The Model 831 uses a Larson Davis Model PRML831 preamplifier and a PCB Electronics Model 377B02 precision microphone, which have been factory calibrated with the SLM unit. The SLM meets IEC 61672-1 Type 1 requirements. The sound level meter was field calibrated with a Larson-Davis Model CA200 precision acoustic calibrator before and after the measurements.

All measurements were conducted in accordance with MOECC NPC-103 measurement protocols. The sound level meter was programmed to record 1-second L_{eq}, L_{min} and L_{max}.

Vehicle Trips and Speed

Description	Route ID	Vehicle Type	Number of Trips/hr	Speed (km/h)
Motor Grader Route Stockpile	MGR_SP	CAT16M	1	10
Motor Grader Route NPAG	MGR_NPAG	CAT16M	1	10
Motor Grader Route OB	MGR_OB	CAT16M	1	10
Motor Grader Route Open Pit to Mill	MGR_OPMill	CAT16M	1	10
Motor Grader Route PAG	MGR_PAG	CAT16M	1	10
Truck Route-NPAG	TR_NPAG	Komatsu 830E	28	70
Truck Route-Overburden	TR_OB	Komatsu 830E	26	70
Truck Route Open Pit to Mill	TR_OPMill	Komatsu 830E	14	70
Truck Route PAG	TR_PAG	Komatsu 830E	34	70
Truck Route Stockpile	TR_SP	Komatsu 830E	12	70
Water Truck Route NPAG	WTR_NPAG	Komatsu CR20000	2	30
Water Truck Route OB	WTR_OB	Komatsu CR20000	2	30
Water Truck Route Open Pit to Mill	WTR_OPMill	Komatsu CR20000	2	30
Water Truck Route PAG	WTR_PAG	Komatsu CR20000	2	30
Water Truck Route Stockpile	WTR_SP	Komatsu CR20000	2	30
LD4 Aggregate Pit Truck Route	LD4_TR	CAT777/Komatsu 400/Equivalent	32	70
OC3 Aggregate Pit Truck Route	OC3_TR	CAT777/Komatsu 400/Equivalent	6	70
EO Aggregate Pit Truck Route	EO_TR	CAT777/Komatsu 400/Equivalent	12	70
Roen Aggregate Pit Truck Route	Roen_TR	CAT777/Komatsu 400/Equivalent	6	70

APPENDIX E
INSIGNIFICANT SOUND SOURCES

Summary of Insignificant Noise Sources

Project: Norbord Inc.
Location: Barwick, ON



Source ID	Source Description	Reason/Rational
DC3	Furnace Dust Collector	Small unit - no significant noise source
DC4	Lime Bin Dust Collector	Small unit - no significant noise source
DC5	Flocculant Handling Cartridge Filter	Small unit - no significant noise source
DC6	Copper Sulphate Loading & Mixing	Small unit - no significant noise source
DC7	Sodium Metabisulphate Loading	Small unit - no significant noise source
EF2	Cyanide Tank Exhaust	Small unit - no significant noise source
EF3	Dilute Acid Tank	Small unit - no significant noise source
VENT3	Hydrochloric Acid Tank	Not a noise source
LEACH	Leach Tanks	Not a noise source
HCND1	CN Destruction Tank	Not a noise source
HCND2	CN Destruction Tank	Not a noise source
Various	Space Heating in Buildings	Not noise sources

APPENDIX F

KEY PARAMETERS INCLUDED IN THE MODEL AND SAMPLE CALCULATIONS

Key Parameters Included in the Noise Model

Project: RRP
Location: Township of Chapple ON



Parameter	Value	Rationale
Ground Absorption	0.7	Accounts mostly soft surface between facility and receptors of interest.
Temperature	10°C	Ontario standard conditions
Relative Humidity	70%	Ontario standard conditions
Max. Order of Reflection	1	To account reflections from buildings and structures.
Reflection Coefficient	N/A	Accounts for absorption/attenuation from building surfaces

Sample Calculations

Receiver

Name: House 14 - South
 ID: POR14
 X: 427450.26
 Y: 5406952.27
 Z: 362.87

Point Source, ISO 9613, Name: "Komatsu Diesel Excavator PC3000", ID: "E4"

Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
5052	425474.25	5409553.14	273.00	0	DEN	A	124.7	0.0	0.0	0.0	0.0	81.3	6.2	0.7	0.5	0.0	6.7	0.0	0.0	29.3

Point Source, ISO 9613, Name: "Track Dozer 01 (Pit - Komatsu D475)", ID: "TD01"

Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
5053	425616.05	5409573.45	272.00	0	DEN	A	121.4	0.0	0.0	0.0	0.0	81.1	8.2	0.3	0.8	0.0	9.4	0.0	0.0	21.6

Point Source, ISO 9613, Name: "Track Dozer 03 (Pit -CAT D10)", ID: "TD03"

Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
5055	425493.52	5409566.02	272.00	0	DEN	A	121.4	0.0	0.0	0.0	0.0	81.3	8.3	0.3	0.8	0.0	8.1	0.0	0.0	22.6

Point Source, ISO 9613, Name: "Track Dozer 02 (Pit -CAT D10)", ID: "TD02"

Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
5057	425365.79	5409581.00	272.00	0	DEN	A	121.4	0.0	0.0	0.0	0.0	81.5	8.4	0.3	0.9	0.0	6.7	0.0	0.0	23.6

Point Source, ISO 9613, Name: "Komatsu Diesel Excavator PC8000", ID: "E3"

Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
5059	425503.23	5409575.74	274.00	0	DEN	A	121.1	0.0	0.0	0.0	0.0	81.3	6.7	-0.9	0.7	0.0	6.8	0.0	0.0	26.5

Point Source, ISO 9613, Name: "Blast Hole Drill 2- Sandvik DR461i", ID: "BD2"

Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
5060	425462.14	5409605.87	272.00	0	DEN	A	121.0	0.0	0.0	0.0	0.0	81.4	10.6	-0.3	0.9	0.0	6.4	0.0	0.0	21.9

Point Source, ISO 9613, Name: "Blast Hole Drill 1- Sandvik DR461i", ID: "BD1"

Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
5064	425446.18	5409606.15	272.00	0	DEN	A	121.0	0.0	0.0	0.0	0.0	81.4	10.6	-0.3	0.9	0.0	6.4	0.0	0.0	21.9

Point Source, ISO 9613, Name: "East Outcrop Gravel Pit Mobile Primary Crusher (PowerScreen)", ID: "EO_PS"

Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
5065	426865.70	5409576.31	374.00	0	DEN	A	119.1	0.0	0.0	0.0	0.0	79.6	7.1	0.3	0.9	0.0	4.7	0.0	0.0	26.4

Point Source, ISO 9613, Name: "RC Drill Sandvik DR580", ID: "RD2"

Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
5068	425679.85	5409508.19	271.50	0	DEN	A	119.4	0.0	0.0	0.0	0.0	80.9	10.7	-0.6	0.1	0.0	15.8	0.0	0.0	12.5

Point Source, ISO 9613, Name: "RC Drill Sandvik DR580", ID: "RD1"

Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
5071	425690.73	5409535.38	271.50	0	DEN	A	119.4	0.0	0.0	0.0	0.0	80.9	10.8	-0.6	0.1	0.0	13.2	0.0	0.0	15.1

Point Source, ISO 9613, Name: "East Outcrop Aggregate Pit Excavator PC360LC", ID: "EO_E"

Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
5073	426870.62	5409584.69	374.00	0	DEN	A	116.4	0.0	0.0	0.0	0.0	79.6	6.7	0.8	0.9	0.0	4.2	0.0	0.0	24.3

Sample Calculations

Point Source, ISO 9613, Name: "Track Dozer 10 (Ore -CAT D8)", ID: "TD10"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
5075	427286.03	5409422.56	390.28	0	DEN	A	115.2	0.0	0.0	0.0	0.0	78.9	6.6	0.3	1.1	0.0	0.0	0.0	28.3	

Point Source, ISO 9613, Name: "Track Dozer 09 (Ore -CAT D9)", ID: "TD09"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
5076	427694.14	5409472.79	374.00	0	DEN	A	115.2	0.0	0.0	0.0	0.0	79.1	6.7	0.3	1.1	0.0	0.0	0.0	28.0	

Point Source, ISO 9613, Name: "Track Dozer 06 (PAG - Komatsu D375)", ID: "TD06"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
5078	428085.83	5409480.41	374.67	0	DEN	A	115.2	0.0	0.0	0.0	0.0	79.3	6.9	0.3	1.1	0.0	0.0	0.0	27.6	

Point Source, ISO 9613, Name: "Blast Hole Drill 4 - Sandvik DP1500i", ID: "BD4"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
5079	425442.74	5409534.81	271.50	0	DEN	A	117.0	0.0	0.0	0.0	0.0	81.3	13.1	0.7	0.7	0.0	10.6	0.0	10.5	

Point Source, ISO 9613, Name: "Blast Hole Drill 3 - Sandvik DP1500i", ID: "BD3"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
5080	425428.58	5409534.81	271.50	0	DEN	A	117.0	0.0	0.0	0.0	0.0	81.3	13.2	0.7	0.7	0.0	10.5	0.0	10.6	

Point Source, ISO 9613, Name: "Track Dozer 07 (PAG - Komatsu D475)", ID: "TD07D"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
5083	427921.22	5409944.86	373.19	0	D	A	121.4	0.0	0.0	0.0	0.0	80.6	7.8	0.3	0.9	0.0	4.1	0.0	0.0	
5083	427921.22	5409944.86	373.19	0	N	A	121.4	0.0	-188.0	0.0	0.0	80.6	7.8	0.3	0.9	0.0	4.1	0.0	0.0	
5083	427921.22	5409944.86	373.19	0	E	A	121.4	0.0	-188.0	0.0	0.0	80.6	7.8	0.3	0.9	0.0	4.1	0.0	0.0	

Point Source, ISO 9613, Name: "Komatsu Diesel Excavator PC360LC", ID: "E6"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
5084	425516.35	5409558.98	272.00	0	DEN	A	116.4	0.0	0.0	0.0	0.0	81.2	7.6	1.0	0.7	0.0	7.3	0.0	0.0	

Point Source, ISO 9613, Name: "Komatsu Wheel Loader WA900", ID: "WL2"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
5087	425409.83	5409564.52	272.00	0	DEN	A	116.5	0.0	0.0	0.0	0.0	81.4	7.5	1.4	0.3	0.0	5.1	0.0	0.0	

Point Source, ISO 9613, Name: "Komatsu Wheel Loader WA1200", ID: "WL1"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
5089	425377.81	5409561.82	273.00	0	DEN	A	116.5	0.0	0.0	0.0	0.0	81.5	7.5	0.7	0.3	0.0	5.4	0.0	0.0	

Point Source, ISO 9613, Name: "East Outcrop Gravel Pit Mobile Crushing Plant Loader (CAT 966H)", ID: "EO_FEL"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)																	

Sample Calculations

Point Source, ISO 9613, Name: "Komatsu Diesel Excavator PC5500", ID: "E1"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
5100	425413.33	5409602.18	273.00	0	DEN	A	115.7	0.0	0.0	0.0	0.0	81.5	6.1	0.5	0.6	0.0	4.4	0.0	0.0	22.6
Point Source, ISO 9613, Name: "Track Dozer 04 (Pit -CAT D10)", ID: "TD04"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
5102	425597.37	5409636.80	272.00	0	DEN	A	115.2	0.0	0.0	0.0	0.0	81.3	8.1	0.6	0.8	0.0	5.0	0.0	0.0	19.5
Point Source, ISO 9613, Name: "Outcrop 3 Graval Pit Mobile Crushing Plant Loader (CAT 966H)", ID: "Outcrop3_FEL"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
5103	428590.07	5410226.58	374.00	0	DEN	A	114.3	0.0	0.0	0.0	0.0	81.8	6.5	-1.5	0.2	0.0	3.9	0.0	0.0	23.4
Point Source, ISO 9613, Name: "Track Dozer 12 (NPAG/OB - Komatsu D375)", ID: "TD12D"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
5108	425044.71	5410766.17	368.00	0	D	A	121.4	0.0	0.0	0.0	0.0	84.1	10.4	0.6	0.9	0.0	3.9	0.0	0.0	21.6
5108	425044.71	5410766.17	368.00	0	N	A	121.4	0.0	-188.0	0.0	0.0	84.1	10.4	0.6	0.9	0.0	3.9	0.0	0.0	-166.4
5108	425044.71	5410766.17	368.00	0	E	A	121.4	0.0	-188.0	0.0	0.0	84.1	10.4	0.6	0.9	0.0	3.9	0.0	0.0	-166.4
Point Source, ISO 9613, Name: "Outcrop 3 Graval Pit Mobile Primary Crusher (PowerScreen)", ID: "Outcrop3_PS"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
5110	428612.73	5410209.23	374.00	0	D	A	119.1	0.0	0.0	0.0	0.0	81.8	8.4	0.5	0.8	0.0	3.7	0.0	0.0	23.8
5110	428612.73	5410209.23	374.00	0	N	A	119.1	0.0	-188.0	0.0	0.0	81.8	8.4	0.5	0.8	0.0	3.7	0.0	0.0	-164.2
5110	428612.73	5410209.23	374.00	0	E	A	119.1	0.0	-188.0	0.0	0.0	81.8	8.4	0.5	0.8	0.0	3.7	0.0	0.0	-164.2
Point Source, ISO 9613, Name: "Track Dozer 14 (NPAG/OB -CAT D9)", ID: "TD14"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
5114	424194.32	5409598.40	352.00	0	DEN	A	115.2	0.0	0.0	0.0	0.0	83.5	9.6	0.9	0.8	0.0	3.6	0.0	0.0	16.9
Point Source, ISO 9613, Name: "Track Dozer 15 (NPAG/OB -CAT D9)", ID: "TD15"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
5116	425005.74	5410487.02	360.00	0	DEN	A	115.2	0.0	0.0	0.0	0.0	83.7	9.8	0.9	0.8	0.0	3.5	0.0	0.0	16.5
Point Source, ISO 9613, Name: "Komatsu Diesel Excavator PC800LC", ID: "E5"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
5118	425594.55	5409554.60	273.00	0	DEN	A	112.6	0.0	0.0	0.0	0.0	81.1	7.7	-0.8	0.5	0.0	11.0	0.0	0.0	13.2
Point Source, ISO 9613, Name: "Track Dozer 13 (NPAG/OB -CAT D9)", ID: "TD13"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
5122	423823.44	5409732.75	358.36	0	DEN	A	115.2	0.0	0.0	0.0	0.0	84.2	10.2	1.0	0.8	0.0	3.5	0.0	0.0	15.6
Point Source, ISO 9613, Name: "Track Dozer 11 (NPAG/OB - Komatsu D475)", ID: "TD11D"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
5126	423353.77	5410438.11	364.00	0	D	A	121.4	0.0	0.0	0.0	0.0	85.6	11.8	0.8	0.8	0.0	3.7	0.0	0.0	18.7
5126	423353.77	5410438.11	364.00	0	N	A	121.4	0.0	-188.0	0.0	0.0	85.6	11.8	0.8	0.8	0.0	3.7	0.0	0.0	-169.3
5126	423353.77	5410438.11	364.00	0	E	A	121.4	0.0	-188.0	0.0	0.0	85.6	11.8	0.8	0.8	0.0	3.7	0.0	0.0	-169.3
Point Source, ISO 9613, Name: "Track Dozer 16 (NPAG/OB -CAT D9)", ID: "TD16"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
5129	423780.87	5410394.72	352.16	0	DEN	A	115.2	0.0	0.0	0.0	0.0	85.0	10.9	1.1	0.8	0.0	3.4	0.0	0.0	14.1
Point Source, ISO 9613, Name: "Track Dozer 07 (PAG - Komatsu D475)", ID: "TD07N"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
5131	427921.22	5409944.86	373.19	0	D	A	115.2	0.0	-188.0	0.0	0.0	80.6	7.6	0.5	0.9	0.0	3.9	0.0	0.0	-166.3
5131	427921.22	5409944.86	373.19	0	N	A	115.2	0.0	0.0	0.0	0.0	80.6	7.6	0.5	0.9	0.0	3.9	0.0	0.0	21.7
5131	427921.22	5409944.86	373.19	0	E	A	115.2	0.0	-188.0	0.0	0.0	80.6	7.6	0.5	0.9	0.0	3.9	0.0	0.0	-166.3

Sample Calculations

Point Source, ISO 9613, Name: "Roen Graval Pit Mobile Crushing Plant Loader (CAT 966H)", ID: "Roen_FEL"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)		(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	
5136	425842.83	5411524.72	372.00	0	DEN	A	114.3	0.0	0.0	0.0	0.0	84.7	7.6	-1.9	0.1	0.0	3.9	0.0	0.0	19.8
Point Source, ISO 9613, Name: "Transformer 2", ID: "T2"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)		(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	
5142	426722.32	5411191.07	376.55	0	DEN	A	113.3	0.0	0.0	0.0	0.0	83.7	7.8	1.1	0.6	0.0	3.2	0.0	0.0	16.9
Point Source, ISO 9613, Name: "Transformer 1", ID: "T1"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)		(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	
5145	426722.50	5411203.18	375.99	0	DEN	A	113.3	0.0	0.0	0.0	0.0	83.7	7.8	1.1	0.6	0.0	3.2	0.0	0.0	16.8
Point Source, ISO 9613, Name: "Crusher", ID: "C"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)		(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	
5148	426774.93	5410209.00	396.00	0	DEN	A	110.9	0.0	0.0	0.0	0.0	81.4	9.6	-0.5	0.7	0.0	4.1	0.0	0.0	15.6
Point Source, ISO 9613, Name: "Outcrop 3 Aggregate Pit Excavator PC360LC", ID: "Outcrop3_E"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)		(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	
5153	428618.55	5410215.86	374.00	0	D	A	116.4	0.0	0.0	0.0	0.0	81.8	7.9	1.0	0.8	0.0	3.3	0.0	0.0	21.5
5153	428618.55	5410215.86	374.00	0	N	A	116.4	0.0	-188.0	0.0	0.0	81.8	7.9	1.0	0.8	0.0	3.3	0.0	0.0	166.5
5153	428618.55	5410215.86	374.00	0	E	A	116.4	0.0	-188.0	0.0	0.0	81.8	7.9	1.0	0.8	0.0	3.3	0.0	0.0	166.5
Point Source, ISO 9613, Name: "Track Dozer 08 (PAG - Komatsu D375)", ID: "TD08N"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)		(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	
5158	428071.74	5410284.02	382.04	0	D	A	115.2	0.0	-188.0	0.0	0.0	81.6	8.3	0.6	0.9	0.0	3.8	0.0	0.0	-167.9
5158	428071.74	5410284.02	382.04	0	N	A	115.2	0.0	0.0	0.0	0.0	81.6	8.3	0.6	0.9	0.0	3.8	0.0	0.0	20.1
5158	428071.74	5410284.02	382.04	0	E	A	115.2	0.0	-188.0	0.0	0.0	81.6	8.3	0.6	0.9	0.0	3.8	0.0	0.0	-167.9
Point Source, ISO 9613, Name: "Roen Graval Pit Mobile Primary Crusher (PowerScreen)", ID: "Roen_PS"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)		(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	
5165	425718.77	5411577.59	372.00	0	D	A	119.1	0.0	0.0	0.0	0.0	84.9	10.6	0.8	0.8	0.0	3.4	0.0	0.0	18.6
5165	425718.77	5411577.59	372.00	0	N	A	119.1	0.0	-188.0	0.0	0.0	84.9	10.6	0.8	0.8	0.0	3.4	0.0	0.0	-169.4
5165	425718.77	5411577.59	372.00	0	E	A	119.1	0.0	-188.0	0.0	0.0	84.9	10.6	0.8	0.8	0.0	3.4	0.0	0.0	-169.4
Point Source, ISO 9613, Name: "LD4 Graval Pit Mobile Crushing Plant Loader (CAT 966H)", ID: "LD4_FEL"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)		(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	
5169	423092.38	5410389.41	353.06	0	DEN	A	114.3	0.0	0.0	0.0	0.0	85.9	8.1	-2.1	0.0	0.0	3.9	0.0	0.0	18.5
Point Source, ISO 9613, Name: "LD4 Graval Pit Mobile Primary Crusher (PowerScreen)", ID: "LD4_PS"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)		(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	
5176	423033.38	5410373.89	356.00	0	D	A	119.1	0.0	0.0	0.0	0.0	85.9	11.5	0.8	0.0	0.0	3.3	0.0	0.0	17.5
5176	423033.38	5410373.89	356.00	0	N	A	119.1	0.0	-188.0	0.0	0.0	85.9	11.5	0.8	0.0	0.0	3.3	0.0	0.0	-170.5
5176	423033.38	5410373.89	356.00	0	E	A	119.1	0.0	-188.0	0.0	0.0	85.9	11.5	0.8	0.0	0.0	3.3	0.0	0.0	-170.5
Point Source, ISO 9613, Name: "Water Pump WP11", ID: "WP11"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)		(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	
5182	426316.27	5409233.06	362.27	0	DEN	A	106.3	0.0	0.0	0.0	0.0	79.1	8.9	2.1	1.0	0.0	0.0	0.0	0.0	15.2
Point Source, ISO 9613, Name: "Water Pump WP10", ID: "WP10"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)		(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	
5186	425887.64	5409139.23	357.61	0	DEN	A	106.3	0.0	0.0	0.0	0.0	79.6	9.2	2.2	0.9	0.0	2.6	0.0	0.0	11.9
Point Source, ISO 9613, Name: "Track Dozer 12 (NPAG/OB - Komatsu D375)", ID: "TD12N"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)		(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	
5191	425044.71	5410766.17	368.00	0	D	A	115.2	0.0	-188.0	0.0	0.0	84.1	10.1	1.0	0.8	0.0	3.5	0.0	0.0	-172.2
5191	425044.71	5410766.17	368.00	0	N	A	115.2	0.0	0.0	0.0	0.0	84.1	10.1	1.0	0.8	0.0	3.5	0.0	0.0	15.8

Sample Calculations

Point Source, ISO 9613, Name: "Track Dozer 12 (NPAG/OB - Komatsu D375)", ID: "TD12N"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
5191	425044.71	5410766.17	368.00	0	E	A	115.2	0.0	-188.0	0.0	0.0	84.1	10.1	1.0	0.8	0.0	3.5	0.0	0.0	-172.2
Point Source, ISO 9613, Name: "Roen Aggregate Pit Excavator PC360LC", ID: "Roen_E"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
5203	425747.92	5411568.95	372.00	0	D	A	116.4	0.0	0.0	0.0	0.0	84.8	10.0	1.5	0.8	0.0	2.9	0.0	0.0	16.4
5203	425747.92	5411568.95	372.00	0	N	A	116.4	0.0	-188.0	0.0	0.0	84.8	10.0	1.5	0.8	0.0	2.9	0.0	0.0	-171.6
5203	425747.92	5411568.95	372.00	0	E	A	116.4	0.0	-188.0	0.0	0.0	84.8	10.0	1.5	0.8	0.0	2.9	0.0	0.0	-171.6
Point Source, ISO 9613, Name: "Water Pump WP09", ID: "WP09"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
5212	425427.68	5409196.41	349.19	0	DEN	A	106.3	0.0	0.0	0.0	0.0	80.6	9.8	2.2	0.6	0.0	2.5	0.0	0.0	10.6
Point Source, ISO 9613, Name: "Water Pump WP04", ID: "WP04"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
5218	425720.13	5409517.11	270.75	0	DEN	A	106.3	0.0	0.0	0.0	0.0	80.8	10.0	2.2	0.3	0.0	18.9	0.0	0.0	-5.9
Point Source, ISO 9613, Name: "Water Pump WP05", ID: "WP05"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
5219	425608.12	5409494.17	270.75	0	DEN	A	106.3	0.0	0.0	0.0	0.0	80.9	10.1	2.2	0.2	0.0	16.7	0.0	0.0	-3.8
Point Source, ISO 9613, Name: "Water Pump WP03", ID: "WP03"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
5221	425716.08	5409594.04	270.75	0	DEN	A	106.3	0.0	0.0	0.0	0.0	81.0	10.1	2.3	0.3	0.0	7.9	0.0	0.0	4.8
Point Source, ISO 9613, Name: "Water Pump WP06", ID: "WP06"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
5227	425486.66	5409506.32	270.75	0	DEN	A	106.3	0.0	0.0	0.0	0.0	81.2	10.2	2.3	0.2	0.0	16.3	0.0	0.0	-3.8
Point Source, ISO 9613, Name: "Water Pump WP02", ID: "WP02"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
5229	425672.89	5409648.02	270.75	0	DEN	A	106.3	0.0	0.0	0.0	0.0	81.2	10.2	2.3	0.5	0.0	3.3	0.0	0.0	8.9
Point Source, ISO 9613, Name: "LD4 Aggregate Pit Excavator PC360LC", ID: "LD4_E"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
5238	423021.76	5410367.74	356.00	0	D	A	116.4	0.0	0.0	0.0	0.0	86.0	10.8	1.6	0.0	0.0	2.8	0.0	0.0	15.2
5238	423021.76	5410367.74	356.00	0	N	A	116.4	0.0	-188.0	0.0	0.0	86.0	10.8	1.6	0.0	0.0	2.8	0.0	0.0	-172.8
5238	423021.76	5410367.74	356.00	0	E	A	116.4	0.0	-188.0	0.0	0.0	86.0	10.8	1.6	0.0	0.0	2.8	0.0	0.0	-172.8
Point Source, ISO 9613, Name: "Track Dozer 11 (NPAG/OB - Komatsu D475)", ID: "TD11N"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
5245	423353.77	5410438.11	364.00	0	D	A	115.2	0.0	-188.0	0.0	0.0	85.6	11.4	1.2	0.8	0.0	3.3	0.0	0.0	-175.0
5245	423353.77	5410438.11	364.00	0	N	A	115.2	0.0	0.0	0.0	0.0	85.6	11.4	1.2	0.8	0.0	3.3	0.0	0.0	13.0
5245	423353.77	5410438.11	364.00	0	E	A	115.2	0.0	-188.0	0.0	0.0	85.6	11.4	1.2	0.8	0.0	3.3	0.0	0.0	-175.0
Point Source, ISO 9613, Name: "Water Pump WP07", ID: "WP07"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
5251	425363.85	5409510.37	270.75	0	DEN	A	106.3	0.0	0.0	0.0	0.0	81.4	10.4	2.3	0.2	0.0	15.4	0.0	0.0	-3.3
Point Source, ISO 9613, Name: "Water Pump WP01", ID: "WP01"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
5256	425523.49	5409667.40	270.75	0	DEN	A	106.3	0.0	0.0	0.0	0.0	81.5	10.4	2.3	0.5	0.0	2.5	0.0	0.0	9.2

Sample Calculations

Point Source, ISO 9613, Name: "Water Pump WP08", ID: "WP08"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
5262	425317.96	5409581.89	270.75	0	DEN	A	106.3	0.0	0.0	0.0	0.0	81.6	10.5	2.3	0.4	0.0	3.7	0.0	0.0	7.9

Point Source, ISO 9613, Name: "Water Pump WP19", ID: "WP19"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
5280	426445.21	5410424.32	154.89	0	DEN	A	106.3	0.0	0.0	0.0	0.0	82.2	10.9	2.3	0.5	0.0	22.0	0.0	0.0	-11.6

Point Source, ISO 9613, Name: "Komatsu Wheel Dozer KM WD600", ID: "WD"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
5291	425558.89	5409562.62	272.00	0	DEN	A	104.9	0.0	0.0	0.0	0.0	81.2	7.8	-0.3	0.3	0.0	8.3	0.0	0.0	7.7

Point Source, ISO 9613, Name: "Water Pump WP13", ID: "WP13"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
5295	424459.30	5409308.63	348.45	0	DEN	A	106.3	0.0	0.0	0.0	0.0	82.6	11.2	2.3	0.5	0.0	2.3	0.0	0.0	7.5

Point Source, ISO 9613, Name: "Water Pump WP16", ID: "WP16"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
5303	425369.52	5410194.45	350.85	0	DEN	A	106.3	0.0	0.0	0.0	0.0	82.7	11.3	2.3	0.5	0.0	2.2	0.0	0.0	7.3

Point Source, ISO 9613, Name: "Dust Collector 1", ID: "DC1"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
5307	426780.20	5410251.09	397.00	0	DEN	A	105.0	0.0	0.0	0.0	0.0	81.5	6.9	0.4	0.9	0.0	3.7	0.0	0.0	11.5

Point Source, ISO 9613, Name: "Water Pump WP12", ID: "WP12"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
5316	424065.23	5409081.91	350.33	0	DEN	A	106.3	0.0	0.0	0.0	0.0	83.0	11.5	2.3	0.5	0.0	2.2	0.0	0.0	6.8

Point Source, ISO 9613, Name: "Dust Collector 2", ID: "DC2"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
5327	426611.94	5410474.13	369.41	0	DEN	A	105.0	0.0	0.0	0.0	0.0	82.2	7.3	0.4	0.9	0.0	3.7	0.0	0.0	10.5

Point Source, ISO 9613, Name: "East Outcrop Gravel Pit Mobile Screener (Atlas Copco HCS3715)", ID: "EO_SCNR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
5358	426845.69	5409577.47	374.00	0	DEN	A	101.5	0.0	0.0	0.0	0.0	79.6	3.3	3.2	0.7	0.0	2.3	0.0	0.0	12.5

Point Source, ISO 9613, Name: "Wet Scrubber", ID: "WS"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
5367	426584.81	5410957.29	373.97	0	DEN	A	105.0	0.0	0.0	0.0	0.0	83.3	7.9	1.8	0.9	0.0	2.8	0.0	0.0	8.4

Point Source, ISO 9613, Name: "Water Pump WP17", ID: "WP17"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)														

Sample Calculations

Point Source, ISO 9613, Name: "Water Pump WP18", ID: "WP18"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB(A))							
5426	421921.50	5409452.64	345.75	0	DEN	A	106.3	0.0	0.0	0.0	0.0	86.7	14.0	1.9	0.0	0.0	2.2	0.0	0.0	1.6

Line Source, ISO 9613, Name: "Truck Route-NPAG (Loaded Truck)", ID: "TRL_NPAG"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB(A))						
5215	423588.65	5410425.62	357.09	0	DEN	A	82.3	28.0	0.0	0.0	0.0	85.3	3.7	2.1	0.1	0.0	2.0	0.0	0.0	17.1
5225	424863.06	5409601.02	355.94	0	DEN	A	82.3	25.0	0.0	0.0	0.0	82.4	2.9	2.1	0.2	0.0	2.1	0.0	0.0	17.7
5230	425631.13	5409578.92	272.50	0	DEN	A	82.3	23.7	0.0	0.0	0.0	81.1	2.6	2.1	0.1	0.0	4.3	0.0	0.0	15.9
5249	424652.91	5409852.22	356.25	0	DEN	A	82.3	25.4	0.0	0.0	0.0	83.1	3.1	2.1	0.2	0.0	0.0	0.0	0.0	19.2
5259	425556.58	5409447.84	294.43	0	DEN	A	82.3	23.2	0.0	0.0	0.0	80.9	2.6	2.1	0.1	0.0	10.0	0.0	0.0	9.8
5263	425588.80	5409328.01	337.34	0	DEN	A	82.3	22.8	0.0	0.0	0.0	80.6	2.5	2.1	0.1	0.0	7.7	0.0	0.0	12.2
5273	423851.12	5410040.68	357.23	0	DEN	A	82.3	26.3	0.0	0.0	0.0	84.5	3.5	2.1	0.1	0.0	8.9	0.0	0.0	9.5
5299	424210.85	5409812.81	355.72	0	DEN	A	82.3	25.0	0.0	0.0	0.0	83.7	3.3	2.1	0.1	0.0	2.0	0.0	0.0	16.1
5304	425316.70	5409335.94	355.75	0	DEN	A	82.3	22.1	0.0	0.0	0.0	81.1	2.6	2.1	0.2	0.0	2.1	0.0	0.0	16.4
5324	425041.41	5409441.92	354.94	0	DEN	A	82.3	22.2	0.0	0.0	0.0	81.8	2.8	2.1	0.2	0.0	2.1	0.0	0.0	15.6
5329	425738.14	5409357.59	325.97	0	DEN	A	82.3	20.7	0.0	0.0	0.0	80.4	2.5	2.1	0.1	0.0	5.9	0.0	0.0	12.1
5331	425715.33	5409425.81	318.99	0	DEN	A	82.3	20.8	0.0	0.0	0.0	80.6	2.5	2.1	0.2	0.0	2.2	0.0	0.0	15.6
5336	423963.54	5409775.56	360.35	0	DEN	A	82.3	24.0	0.0	0.0	0.0	84.0	3.4	2.1	0.1	0.0	2.0	0.0	0.0	14.7
5339	424448.61	5409947.90	354.25	0	DEN	A	82.3	23.6	0.0	0.0	0.0	83.5	3.2	2.1	0.1	0.0	2.0	0.0	0.0	14.9
5341	425171.97	5409370.15	355.50	0	DEN	A	82.3	21.3	0.0	0.0	0.0	81.4	2.7	2.1	0.2	0.0	2.1	0.0	0.0	15.2
5368	425445.75	5409321.97	351.12	0	DEN	A	82.3	19.9	0.0	0.0	0.0	80.8	2.6	2.1	0.2	0.0	2.1	0.0	0.0	14.5
5401	425395.32	5409583.25	272.50	0	DEN	A	82.3	19.6	0.0	0.0	0.0	81.5	2.7	2.1	0.1	0.0	3.1	0.0	0.0	12.4
5415	425423.50	5409490.18	273.88	0	DEN	A	82.3	18.8	0.0	0.0	0.0	81.2	2.6	2.1	0.1	0.0	14.1	0.0	0.0	0.9
5418	425476.60	5409587.50	272.50	0	DEN	A	82.3	18.7	0.0	0.0	0.0	81.4	2.7	2.1	0.1	0.0	3.1	0.0	0.0	11.7
5453	425790.98	5409416.03	324.43	0	DEN	A	82.3	16.3	0.0	0.0	0.0	80.5	2.5	2.1	0.2	0.0	2.1	0.0	0.0	11.3
5455	425370.43	5409524.25	272.50	0	DEN	A	82.3	17.2	0.0	0.0	0.0	81.4	2.7	2.1	0.1	0.0	10.0	0.0	0.0	3.3
5500	425799.97	5409390.54	324.50	0	DEN	A	82.3	14.3	0.0	0.0	0.0	80.4	2.5	2.1	0.2	0.0	2.2	0.0	0.0	9.3
5510	425351.11	5409558.08	272.50	0	DEN	A	82.3	15.0	0.0	0.0	0.0	81.5	2.7	2.1	0.1	0.0	5.7	0.0	0.0	5.3

Line Source, ISO 9613, Name: "Truck Route-Overburden (Loaded Truck)", ID: "TRL_OB"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB(A))						
5197	424849.97	5410618.91	366.88	0	D	A	82.0	28.4	0.0	0.0	0.0	84.1	3.4	2.1	0.2	0.0	0.0	0.0	0.0	20.7
5197	424849.97	5410618.91	366.88	0	N	A	82.0	28.4	0.0	0.0	0.0	84.1	3.4	2.1	0.2	0.0	0.0	0.0	0.0	20.7
5197	424849.97	5410618.91	366.88	0	E	A	82.0	28.4	0.0	0.0	0.0	84.1	3.4	2.1	0.2	0.0	0.0	0.0	0.0	20.7
5261	425630.86	5409578.95	272.50	0	D	A	82.0	23.7	0.0	0.0	0.0	81.1	2.6	2.1	0.1	0.0	4.2	0.0	0.0	15.5
5261	425630.86	5409578.95	272.50	0	N	A	82.0	23.7	0.0	0.0	0.0	81.1	2.6	2.1	0.1	0.0	4.2	0.0	0.0	15.5
5261	425630.86	5409578.95	272.50	0	E	A	82.0	23.7	0.0	0.0	0.0	81.1	2.6	2.1	0.1	0.0	4.2	0.0	0.0	15.5
5266	424653.62	5409851.80	356.23	0	D	A	82.0	25.3	0.0	0.0	0.0	83.1	3.1	2.1	0.2	0.0	0.0	0.0	0.0	18.8
5266	424653.62	5409851.80	356.23	0	N	A	82.0	25.3	0.0	0.0	0.0	83.1	3.1	2.1	0.2	0.0	0.0	0.0	0.0	18.8
5266	424653.62	5409851.80	356.23	0	E	A	82.0	25.3	0.0	0.0	0.0	83.1	3.1	2.1	0.2	0.0	0.0	0.0	0.0	18.8
5267	425555.94	5409447.62	294.25	0	D	A	82.0	23.3	0.0	0.0	0.0	80.9	2.6	2.1	0.1	0.0	10.1	0.0	0.0	9.5
5267	425555.94	5409447.62	294.25	0	N	A	82.0	23.3	0.0	0.0	0.0	80.9	2.6	2.1	0.1	0.0	10.1	0.0	0.0	9.5
5267	425555.94	5409447.62	294.25	0	E	A	82.0	23.3	0.0	0.0	0.0	80.9	2.6	2.1	0.1	0.0	10.1	0.0	0.0	9.5
5275	425591.86	5409328.39	337.02	0	D	A	82.0	22.7	0.0	0.0	0.0	80.6	2.5	2.1	0.1	0.0	8.1	0.0	0.0	11.3
5275	425591.86	5409328.39	337.02	0	N	A	82.0	22.7	0.0	0.0	0.0	80.6	2.5	2.1	0.1	0.0	8.1	0.0	0.0	11.3
5275	425591.86	5409328.39	337.02	0	E	A	82.0	22.7	0.0	0.0	0.0	80.6	2.5	2.1	0.1	0.0	8.1	0.0	0.0	11.3
5286	424427.12	5410109.54	356.23	0	D	A	82.0	25.4	0.0	0.0	0.0	83.8	3.3	2.1	0.2	0.0	0.0	0.0	0.0	18.0
5286	424427.12	5410109.54	356.23	0	N	A	82.0	25.4	0.0	0.0	0.0	83.8	3.3	2.1	0.2	0.0	0.0	0.0	0.0	18.0
5311	424413.83	5410358.11	361.50	0	D	A	82.0	25.5	0.0	0.0	0.0	84.2	3.4	2.1	0.1	0.0	2.0	0.0	0.0	15.6
5311	424413.83	5410358.11	361.50	0	N	A	82.0	25.5	0.0	0.0	0.0	84.2	3.4	2.1	0.1	0.0	2.0	0.0	0.0	15.6
5311	424413.83	5410358.11	361.50	0	E	A	82.0	25.5	0.0	0.0	0.0	84.2	3.4	2.1	0.1	0.0	2.0	0.0	0.0	15.6
5320	425308.84	5409337.94	356.01	0	D	A	82.0	22.0	0.0	0.0	0.0	81.1	2.6	2.1	0.2	0.0	2.1	0.0	0.0	15.9
5320	425308.84	5409337.94	356.01	0	N	A	82.0	22.0	0.0	0.0	0.									

Sample Calculations

Line Source, ISO 9613, Name: "Truck Route-Overburden (Loaded Truck)", ID: "TRL_OB"																					
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr	
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)							
5344	425716.15	5409425.27	319.14	0	N		A	82.0	20.8	0.0	0.0	0.0	80.6	2.5	2.1	0.2	0.0	2.2	0.0	0.0	15.2
5344	425716.15	5409425.27	319.14	0	E		A	82.0	20.8	0.0	0.0	0.0	80.6	2.5	2.1	0.2	0.0	2.2	0.0	0.0	15.2
5350	425046.39	5409436.86	354.50	0	D		A	82.0	21.7	0.0	0.0	0.0	81.8	2.8	2.1	0.2	0.0	2.1	0.0	0.0	14.8
5350	425046.39	5409436.86	354.50	0	N		A	82.0	21.7	0.0	0.0	0.0	81.8	2.8	2.1	0.2	0.0	2.1	0.0	0.0	14.8
5350	425046.39	5409436.86	354.50	0	E		A	82.0	21.7	0.0	0.0	0.0	81.8	2.8	2.1	0.2	0.0	2.1	0.0	0.0	14.8
5360	425167.98	5409371.49	355.50	0	D		A	82.0	21.2	0.0	0.0	0.0	81.4	2.7	2.1	0.2	0.0	2.1	0.0	0.0	14.7
5360	425167.98	5409371.49	355.50	0	N		A	82.0	21.2	0.0	0.0	0.0	81.4	2.7	2.1	0.2	0.0	2.1	0.0	0.0	14.7
5360	425167.98	5409371.49	355.50	0	E		A	82.0	21.2	0.0	0.0	0.0	81.4	2.7	2.1	0.2	0.0	2.1	0.0	0.0	14.7
5363	425443.87	5409323.62	351.10	0	D		A	82.0	20.5	0.0	0.0	0.0	80.8	2.6	2.1	0.2	0.0	2.1	0.0	0.0	14.7
5363	425443.87	5409323.62	351.10	0	N		A	82.0	20.5	0.0	0.0	0.0	80.8	2.6	2.1	0.2	0.0	2.1	0.0	0.0	14.7
5363	425443.87	5409323.62	351.10	0	E		A	82.0	20.5	0.0	0.0	0.0	80.8	2.6	2.1	0.2	0.0	2.1	0.0	0.0	14.7
5385	424943.13	5409519.90	355.44	0	D		A	82.0	20.7	0.0	0.0	0.0	82.1	2.8	2.1	0.2	0.0	2.1	0.0	0.0	13.4
5385	424943.13	5409519.90	355.44	0	N		A	82.0	20.7	0.0	0.0	0.0	82.1	2.8	2.1	0.2	0.0	2.1	0.0	0.0	13.4
5385	424943.13	5409519.90	355.44	0	E		A	82.0	20.7	0.0	0.0	0.0	82.1	2.8	2.1	0.2	0.0	2.1	0.0	0.0	13.4
5409	425395.00	5409583.31	272.50	0	D		A	82.0	19.6	0.0	0.0	0.0	81.5	2.7	2.1	0.1	0.0	3.1	0.0	0.0	12.1
5409	425395.00	5409583.31	272.50	0	N		A	82.0	19.6	0.0	0.0	0.0	81.5	2.7	2.1	0.1	0.0	3.1	0.0	0.0	12.1
5409	425395.00	5409583.31	272.50	0	E		A	82.0	19.6	0.0	0.0	0.0	81.5	2.7	2.1	0.1	0.0	3.1	0.0	0.0	12.1
5428	425421.34	5409491.11	273.60	0	D		A	82.0	18.8	0.0	0.0	0.0	81.2	2.6	2.1	0.1	0.0	14.1	0.0	0.0	0.7
5428	425421.34	5409491.11	273.60	0	N		A	82.0	18.8	0.0	0.0	0.0	81.2	2.6	2.1	0.1	0.0	14.1	0.0	0.0	0.7
5428	425421.34	5409491.11	273.60	0	E		A	82.0	18.8	0.0	0.0	0.0	81.2	2.6	2.1	0.1	0.0	14.1	0.0	0.0	0.7
5434	425476.90	5409587.56	272.50	0	D		A	82.0	18.8	0.0	0.0	0.0	81.4	2.7	2.1	0.1	0.0	3.1	0.0	0.0	11.4
5434	425476.90	5409587.56	272.50	0	N		A	82.0	18.8	0.0	0.0	0.0	81.4	2.7	2.1	0.1	0.0	3.1	0.0	0.0	11.4
5434	425476.90	5409587.56	272.50	0	E		A	82.0	18.8	0.0	0.0	0.0	81.4	2.7	2.1	0.1	0.0	3.1	0.0	0.0	11.4
5458	425791.49	5409415.83	324.49	0	D		A	82.0	16.2	0.0	0.0	0.0	80.5	2.5	2.1	0.2	0.0	2.1	0.0	0.0	10.9
5458	425791.49	5409415.83	324.49	0	N		A	82.0	16.2	0.0	0.0	0.0	80.5	2.5	2.1	0.2	0.0	2.1	0.0	0.0	10.9
5458	425791.49	5409415.83	324.49	0	E		A	82.0	16.2	0.0	0.0	0.0	80.5	2.5	2.1	0.2	0.0	2.1	0.0	0.0	10.9
5460	425368.99	5409525.35	272.50	0	D		A	82.0	17.0	0.0	0.0	0.0	81.4	2.7	2.1	0.1	0.0	9.8	0.0	0.0	3.0
5460	425368.99	5409525.35	272.50	0	N		A	82.0	17.0	0.0	0.0	0.0	81.4	2.7	2.1	0.1	0.0	9.8	0.0	0.0	3.0
5460	425368.99	5409525.35	272.50	0	E		A	82.0	17.0	0.0	0.0	0.0	81.4	2.7	2.1	0.1	0.0	9.8	0.0	0.0	3.0
5509	425800.02	5409390.79	324.50	0	D		A	82.0	14.3	0.0	0.0	0.0	80.4	2.5	2.1	0.2	0.0	2.2	0.0	0.0	9.0
5509	425800.02	5409390.79	324.50	0	N		A	82.0	14.3	0.0	0.0	0.0	80.4	2.5	2.1	0.2	0.0	2.2	0.0	0.0	9.0
5509	425800.02	5409390.79	324.50	0	E		A	82.0	14.3	0.0	0.0	0.0	80.4	2.5	2.1	0.2	0.0	2.2	0.0	0.0	9.0
5521	425350.50	5409558.44	272.50	0	D		A	82.0	15.0	0.0	0.0	0.0	81.5	2.7	2.1	0.1	0.0	5.7	0.0	0.0	4.9
5521	425350.50	5409558.44	272.50	0	N		A	82.0	15.0	0.0	0.0	0.0	81.5	2.7	2.1	0.1	0.0	5.7	0.0	0.0	4.9
5521	425350.50	5409558.44	272.50	0	E		A	82.0	15.0	0.0	0.0	0.0	81.5	2.7	2.1	0.1	0.0	5.7	0.0	0.0	4.9

Point Source, ISO 9613, Name: "Outcrop3 Gravel Pit Mobile Screener (Atlas Copco HCS3715)", ID: "Outcrop3_SCNR"																					
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr	
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	
5573	428581.67	5410189.02	374.00	0	D		A	101.5	0.0	0.0	0.0	0.0	81.7	3.8	3.3	0.3	0.0	1.4	0.0	0.0	11.1
5573	428581.67	5410189.02	374.00	0	N		A	101.5	0.0	-188.0	0.0	0.0	81.7	3.8	3.3	0.3	0.0	1.4	0.0	0.0	-176.9
5573	428581.67	5410189.02	374.00	0	E		A	101.5	0.0	-188.0	0.0	0.0	81.7	3.8	3.3	0.3	0.0	1.4	0.0	0.0	-176.9

Point Source, ISO 9613, Name: "Pinewood River Water Pump", ID: "WP20"																					
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr	
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)							
5611	415594.37	5407042.99	340.75	0	DEN		A	106.3	0.0	0.0	0.0	0.0	92.5	17.7	0.3	0.0	0.0	2.8	0.0	0.0	-7.0

Line Source, ISO 9613, Name: "Water Truck Route PAG", ID: "WTR_PAG"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
5446	4277																			

Sample Calculations

Line Source, ISO 9613, Name: "Truck Route Open Pit to Mill (Loaded Truck)", ID: "TRL_OPMill"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB(A))							
5289	426038.87	5409390.74	335.10	0	DEN	A	79.3	24.3	0.0	0.0	0.0	80.0	2.4	2.1	0.6	0.0	9.6	0.0	0.0	9.0
5353	425629.72	5409578.70	272.50	0	DEN	A	79.3	23.7	0.0	0.0	0.0	81.1	2.6	2.1	0.1	0.0	4.2	0.0	0.0	12.9
5355	426345.87	5409644.29	366.78	0	DEN	A	79.3	22.9	0.0	0.0	0.0	80.3	2.4	2.1	0.2	0.0	2.1	0.0	0.0	15.1
5357	426538.83	5409923.32	385.70	0	DEN	A	79.3	23.3	0.0	0.0	0.0	80.8	2.6	2.1	0.3	0.0	0.0	0.0	0.0	16.9
5361	425556.60	5409447.40	294.41	0	DEN	A	79.3	23.2	0.0	0.0	0.0	80.9	2.6	2.1	0.1	0.0	10.1	0.0	0.0	6.8
5403	425840.07	5409411.51	324.61	0	DEN	A	79.3	21.3	0.0	0.0	0.0	80.4	2.5	2.1	0.2	0.0	2.1	0.0	0.0	13.4
5405	426451.31	5409770.81	376.37	0	DEN	A	79.3	21.4	0.0	0.0	0.0	80.5	2.5	2.1	0.3	0.0	0.0	0.0	0.0	15.4
5430	425715.40	5409425.95	319.00	0	DEN	A	79.3	20.8	0.0	0.0	0.0	80.6	2.5	2.1	0.2	0.0	2.2	0.0	0.0	12.5
5435	426198.87	5409424.30	349.80	0	DEN	A	79.3	19.5	0.0	0.0	0.0	79.9	2.4	2.0	0.6	0.0	2.6	0.0	0.0	11.4
5444	426616.94	5410059.66	390.65	0	DEN	A	79.3	20.0	0.0	0.0	0.0	81.1	2.6	2.1	0.2	0.0	2.1	0.0	0.0	11.2
5448	426236.26	5409496.49	356.92	0	DEN	A	79.3	18.8	0.0	0.0	0.0	80.0	2.4	2.1	0.2	0.0	2.1	0.0	0.0	11.4
5472	425394.90	5409583.08	272.50	0	DEN	A	79.3	19.6	0.0	0.0	0.0	81.5	2.7	2.1	0.1	0.0	3.1	0.0	0.0	9.4
5476	426703.70	5410166.27	393.25	0	DEN	A	79.3	19.4	0.0	0.0	0.0	81.4	2.7	2.1	0.2	0.0	2.1	0.0	0.0	10.3
5477	425422.66	5409490.06	273.82	0	DEN	A	79.3	18.8	0.0	0.0	0.0	81.2	2.6	2.1	0.1	0.0	14.2	0.0	0.0	-2.1
5479	425476.27	5409587.12	272.50	0	DEN	A	79.3	18.7	0.0	0.0	0.0	81.4	2.7	2.1	0.1	0.0	3.1	0.0	0.0	8.7
5488	426261.44	5409555.18	360.19	0	DEN	A	79.3	17.2	0.0	0.0	0.0	80.1	2.4	2.1	0.2	0.0	2.1	0.0	0.0	9.6
5541	425369.42	5409524.53	272.50	0	DEN	A	79.3	17.1	0.0	0.0	0.0	81.4	2.7	2.1	0.1	0.0	10.0	0.0	0.0	0.3
5554	426655.98	5410121.94	389.96	0	DEN	A	79.3	16.6	0.0	0.0	0.0	81.3	2.7	2.1	0.2	0.0	2.1	0.0	0.0	7.6
5694	425350.40	5409558.15	272.50	0	DEN	A	79.3	15.1	0.0	0.0	0.0	81.5	2.7	2.1	0.1	0.0	5.7	0.0	0.0	2.3

Point Source, ISO 9613, Name: "Pinewood River Pumphouse Generator (CAT 660 kW)", ID: "PG1"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB(A))						
5710	415588.16	5407043.32	342.00	0	DEN	A	105.2	0.0	0.0	0.0	0.0	92.5	10.7	3.0	0.0	0.0	1.4	0.0	0.0	-2.4

Line Source, ISO 9613, Name: "Motor Grader Route OB", ID: "MGR_OB"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB(A))						
5515	424846.71	5410617.03	365.09	0	DEN	A	71.1	28.4	0.0	0.0	0.0	84.1	9.6	0.5	0.7	0.0	0.0	0.0	0.0	4.6
5685	424426.86	5410109.39	356.24	0	DEN	A	71.1	25.4	0.0	0.0	0.0	83.8	9.4	0.5	0.7	0.0	0.0	0.0	0.0	2.1
5722	424412.01	5410356.27	359.59	0	DEN	A	71.1	25.4	0.0	0.0	0.0	84.2	9.7	0.6	0.6	0.0	3.4	0.0	0.0	-1.9

Line Source, ISO 9613, Name: "Motor Grader Route PAG", ID: "MGR_PAG"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB(A))						
5473	427734.84	5409874.76	379.29	0	DEN	A	71.1	26.6	0.0	0.0	0.0	80.4	7.4	0.1	0.7	0.0	3.8	0.0	0.0	5.3
5668	427428.21	5409835.98	387.44	0	DEN	A	71.1	22.2	0.0	0.0	0.0	80.2	7.3	0.1	0.7	0.0	3.8	0.0	0.0	1.2
5727	427280.60	5409802.25	390.64	0	DEN	A	71.1	21.3	0.0	0.0	0.0	80.1	7.3	0.1	0.8	0.0	3.8	0.0	0.0	0.5

Point Source, ISO 9613, Name: "Roen Graval Pit Mobile Screener (Atlas Copco HCS3715)", ID: "Roen_SCNR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB(A))						
5804	425668.03	5411515.58	372.00	0	D	A	101.5	0.0	0.0	0.0	0.0	84.8	4.8	3.4	0.3	0.0	1.2	0.0	0.0	7.1
5804	425668.03	5411515.58	372.00	0	N	A	101.5	0.0	-188.0	0.0	0.0	84.8	4.8	3.4	0.3	0.0	1.2	0.0	0.0	-180.9
5804	425668.03	5411515.58	372.00	0	E	A	101.5	0.0	-188.0	0.0	0.0	84.8	4.8	3.4	0.3	0.0	1.2	0.0	0.0	-180.9

Line Source, ISO 9613, Name: "Truck Route Stockpile (Loaded Truck)", ID: "TRL_SP"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB(A))						
5258	427524.15	5409592.10</td																		

Sample Calculations

Line Source, ISO 9613, Name: "Truck Route Stockpile (Loaded Truck)", ID: "TRL_SP"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
5480	425395.60	5409583.43	272.50	0	DEN	A	78.6	19.5	0.0	0.0	0.0	81.5	2.7	2.1	0.1	0.0	3.1	0.0	0.0	8.7
5486	425422.45	5409490.02	274.06	0	DEN	A	78.6	19.0	0.0	0.0	0.0	81.2	2.6	2.1	0.1	0.0	14.2	0.0	0.0	-2.5
5503	425476.42	5409587.79	272.50	0	DEN	A	78.6	18.7	0.0	0.0	0.0	81.4	2.7	2.1	0.1	0.0	3.1	0.0	0.0	8.1
5507	426261.76	5409556.01	360.53	0	DEN	A	78.6	17.4	0.0	0.0	0.0	80.1	2.4	2.1	0.2	0.0	2.1	0.0	0.0	9.1
5530	426294.77	5409595.16	364.77	0	DEN	A	78.6	16.9	0.0	0.0	0.0	80.2	2.4	2.1	0.2	0.0	2.1	0.0	0.0	8.5
5543	427324.82	5409616.26	399.04	0	DEN	A	78.6	15.9	0.0	0.0	0.0	79.5	2.3	2.0	0.6	0.0	2.1	0.0	0.0	7.9
5574	425368.22	5409524.95	272.50	0	DEN	A	78.6	17.1	0.0	0.0	0.0	81.4	2.7	2.1	0.1	0.0	9.9	0.0	0.0	-0.5
5601	427298.96	5409639.05	398.83	0	DEN	A	78.6	14.9	0.0	0.0	0.0	79.6	2.3	2.0	0.3	0.0	0.0	0.0	0.0	9.3
5660	427231.03	5409784.83	390.50	0	DEN	A	78.6	14.7	0.0	0.0	0.0	80.1	2.4	2.1	0.2	0.0	2.1	0.0	0.0	6.5
5730	427284.95	5409661.13	398.83	0	DEN	A	78.6	13.4	0.0	0.0	0.0	79.7	2.3	2.0	0.3	0.0	0.0	0.0	0.0	7.7
5757	425351.12	5409558.61	272.50	0	DEN	A	78.6	14.9	0.0	0.0	0.0	81.5	2.7	2.1	0.1	0.0	5.7	0.0	0.0	1.6
5877	427249.50	5409774.00	390.50	0	DEN	A	78.6	11.9	0.0	0.0	0.0	80.0	2.4	2.1	0.2	0.0	2.1	0.0	0.0	3.8

Point Source, ISO 9613, Name: "WMP Air Compressor 1", ID: "AC1"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
5890	421213.68	5411429.46	370.28	0	DEN	A	99.0	0.0	0.0	0.0	0.0	88.7	8.1	4.0	0.0	0.0	0.6	0.0	0.0	-2.4

Point Source, ISO 9613, Name: "LD4 Graval Pit Mobile Screener (Atlas Copco HCS3715)", ID: "LD4_SCNR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
5896	423089.66	5410366.72	352.00	0	D	A	101.5	0.0	0.0	0.0	0.0	85.9	5.2	3.4	0.0	0.0	1.2	0.0	0.0	5.9
5896	423089.66	5410366.72	352.00	0	N	A	101.5	0.0	-188.0	0.0	0.0	85.9	5.2	3.4	0.0	0.0	1.2	0.0	0.0	-182.1
5896	423089.66	5410366.72	352.00	0	E	A	101.5	0.0	-188.0	0.0	0.0	85.9	5.2	3.4	0.0	0.0	1.2	0.0	0.0	-182.1

Point Source, ISO 9613, Name: "WMP Air Compressor 4", ID: "AC4"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
5932	421343.51	5412002.41	366.00	0	DEN	A	99.0	0.0	0.0	0.0	0.0	89.0	8.3	4.0	0.0	0.0	0.6	0.0	0.0	-2.9

Point Source, ISO 9613, Name: "WMP Air Compressor 2", ID: "AC2"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
5969	420461.43	5411544.61	364.13	0	DEN	A	99.0	0.0	0.0	0.0	0.0	89.4	8.6	3.9	0.0	0.0	0.6	0.0	0.0	-3.6

Point Source, ISO 9613, Name: "WMP Air Compressor 3", ID: "AC3"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
6006	420185.80	5412295.08	363.39	0	DEN	A	99.0	0.0	0.0	0.0	0.0	90.1	9.0	3.9	0.0	0.0	0.7	0.0	0.0	-4.7

Line Source, ISO 9613, Name: "Water Truck Route NPAG", ID: "WTR_NPAG"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
5534	423588.91	5410425.34	357.10	0	DEN	A	71.9	28.0	0.0	0.0	0.0	85.3	13.4	0.7	0.7	0.0	3.4	0.0	0.0	-3.6
5555	424857.88	5409605.74	356.23	0	DEN	A	71.9	24.8	0.0	0.0	0.0	82.4	11.1	0.1	0.8	0.0	3.8	0.0	0.0	-1.5
5565	424653.14	5409852.45	356.25	0	DEN	A	71.9	25.4	0.0	0.0	0.0	83.1	11.6	0.2	0.9	0.0	0.0	0.0	0.0	1.5
5590	425589.14	5409327.95	337.35	0	DEN	A	71.9	22.7	0.0	0.0	0.0	80.6	9.7	-0.2	0.7	0.0	13.4	0.0	0.0	-9.6
5602	423851.49	5410040.72	357.25	0	DEN	A	71.9	26.3	0.0	0.0	0.0	84.5	12.8	0.5	0.5	0.0	14.2	0.0	0.0	-14.3
5655	424210.92	5409812.69	355.70	0	DEN	A	71.9	25.0	0.0	0.0	0.0	83.7	12.1	0.4	0.8	0.0	3.6	0.0	0.0	-3.6
5697	42																			

Sample Calculations

Line Source, ISO 9613, Name: "Water Truck Route Open Pit to Mill", ID: "WTR_OPMill"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
5557	426345.87	5409644.29	366.78	0	DEN	A	71.9	22.9	0.0	0.0	0.0	80.3	9.5	-0.3	0.9	0.0	4.0	0.0	0.0	0.4
5558	426538.83	5409923.32	385.70	0	DEN	A	71.9	23.3	0.0	0.0	0.0	80.8	9.9	-0.2	0.9	0.0	0.0	0.0	0.0	3.7
5568	425560.58	5409446.41	295.26	0	DEN	A	71.9	23.2	0.0	0.0	0.0	80.9	10.0	-0.2	0.6	0.0	16.0	0.0	0.0	-12.2
5675	425844.00	5409411.55	324.96	0	DEN	A	71.9	21.4	0.0	0.0	0.0	80.4	9.6	-0.3	0.9	0.0	4.1	0.0	0.0	-1.3
5693	426451.31	5409770.81	376.37	0	DEN	A	71.9	21.4	0.0	0.0	0.0	80.5	9.7	-0.2	0.9	0.0	0.0	0.0	0.0	2.5
5751	425719.47	5409425.42	319.50	0	DEN	A	71.9	20.7	0.0	0.0	0.0	80.6	9.7	-0.2	0.9	0.0	4.3	0.0	0.0	-2.6
5779	426198.89	5409424.32	349.80	0	DEN	A	71.9	19.5	0.0	0.0	0.0	79.9	9.2	-0.3	1.0	0.0	5.5	0.0	0.0	-3.7
5837	426616.94	5410059.66	390.65	0	DEN	A	71.9	20.0	0.0	0.0	0.0	81.1	10.1	-0.1	0.9	0.0	4.0	0.0	0.0	-4.0
5858	426236.26	5409496.49	356.92	0	DEN	A	71.9	18.8	0.0	0.0	0.0	80.0	9.3	-0.3	0.9	0.0	4.1	0.0	0.0	-3.2
5910	425395.27	5409582.92	272.50	0	DEN	A	71.9	19.7	0.0	0.0	0.0	81.5	10.4	-0.1	0.8	0.0	6.5	0.0	0.0	-7.5
5934	426703.70	5410166.27	393.25	0	DEN	A	71.9	19.4	0.0	0.0	0.0	81.4	10.3	-0.1	0.9	0.0	3.9	0.0	0.0	-5.1
5945	425424.74	5409489.19	274.26	0	DEN	A	71.9	19.0	0.0	0.0	0.0	81.2	10.2	-0.1	0.6	0.0	20.2	0.0	0.0	-21.2
5973	425477.98	5409587.36	272.50	0	DEN	A	71.9	18.8	0.0	0.0	0.0	81.4	10.3	-0.1	0.8	0.0	6.5	0.0	0.0	-8.1
5990	426261.44	5409555.18	360.19	0	DEN	A	71.9	17.2	0.0	0.0	0.0	80.1	9.4	-0.3	0.9	0.0	4.1	0.0	0.0	-5.0
6060	425370.05	5409523.95	272.50	0	DEN	A	71.9	17.2	0.0	0.0	0.0	81.4	10.3	-0.1	0.6	0.0	15.8	0.0	0.0	-18.9
6074	426655.98	5410121.94	389.96	0	DEN	A	71.9	16.6	0.0	0.0	0.0	81.3	10.2	-0.1	0.9	0.0	3.9	0.0	0.0	-7.6
6142	425350.52	5409557.70	272.50	0	DEN	A	71.9	15.0	0.0	0.0	0.0	81.5	10.4	-0.1	0.7	0.0	10.7	0.0	0.0	-16.3

Line Source, ISO 9613, Name: "LD4 Aggregate Pit Truck Route", ID: "LD4_TR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
5512	423198.10	5411877.59	359.35	0	DEN	A	73.7	29.1	0.0	0.0	0.0	87.3	9.1	0.4	0.0	0.0	3.1	0.0	0.0	2.8
5550	423595.43	5410813.66	360.92	0	DEN	A	73.7	26.8	0.0	0.0	0.0	85.7	8.1	0.6	0.3	0.0	7.5	0.0	0.0	-1.8
5572	423663.44	5411614.67	357.86	0	DEN	A	73.7	27.0	0.0	0.0	0.0	86.6	8.6	0.5	0.0	0.0	3.1	0.0	0.0	1.8
5589	423224.87	5410573.58	356.47	0	DEN	A	73.7	26.4	0.0	0.0	0.0	85.9	8.2	0.6	0.0	0.0	3.1	0.0	0.0	2.2
5630	422537.17	5412047.57	361.50	0	DEN	A	73.7	27.8	0.0	0.0	0.0	88.0	9.6	0.3	0.0	0.0	3.2	0.0	0.0	0.4
5671	423779.11	5411211.95	357.98	0	DEN	A	73.7	25.3	0.0	0.0	0.0	86.0	8.3	0.6	0.0	0.0	3.1	0.0	0.0	1.0
5846	421882.84	5412552.36	365.03	0	DEN	A	73.7	26.0	0.0	0.0	0.0	88.9	10.2	0.2	0.0	0.0	3.2	0.0	0.0	-2.9
5874	422173.01	5412338.89	363.11	0	DEN	A	73.7	25.5	0.0	0.0	0.0	88.5	10.0	0.2	0.0	0.0	3.2	0.0	0.0	-2.8
6079	423846.06	5411016.09	358.48	0	DEN	A	73.7	19.0	0.0	0.0	0.0	85.7	8.1	0.6	0.5	0.0	3.1	0.0	0.0	-5.4
6145	423839.64	5410910.06	360.92	0	DEN	A	73.7	17.2	0.0	0.0	0.0	85.6	8.0	0.6	0.5	0.0	3.1	0.0	0.0	-7.0
6150	423858.92	5410953.97	358.50	0	DEN	A	73.7	17.1	0.0	0.0	0.0	85.6	8.1	0.6	0.5	0.0	3.1	0.0	0.0	-7.2

Line Source, ISO 9613, Name: "Motor Grader Route NPAG", ID: "MGR_NPAG"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
5579	423588.85	5410425.47	357.07	0	DEN	A	71.1	28.0	0.0	0.0	0.0	85.3	10.4	0.7	0.6	0.0	3.3	0.0	0.0	-1.1
5634	424652.81	5409852.25	356.25	0	DEN	A	71.1	25.4	0.0	0.0	0.0	83.1	9.0	0.4	0.8	0.0	0.0	0.0	0.0	3.2
5644	425588.15	5409327.40	337.43	0	DEN	A	71.1	22.8	0.0	0.0	0.0	80.6	7.5	0.1	0.5	0.0	12.1	0.0	0.0	-6.9
5673	423851.17	5410040.27	357.25	0	DEN	A	71.1	26.3	0.0	0.0	0.0	84.5	9.9	0.6	0.3	0.0	12.2	0.0	0.0	-10.1
5716	424211.06	5409812.83	355.70	0	DEN	A	71.1	25.0	0.0	0.0	0.0	83.7	9.4	0.5	0.6	0.0	3.4	0.0	0.0	-1.5
5741	425302.99	5409338.96	355.91	0	DEN	A	71.1	22.1	0.0	0.0	0.0	81.1	7.8	0.2	0.7	0.0	3.7	0.0	0.0	-0.4
5753	424825.01	5409635.22	356.44	0	DEN	A	71.1	23.3	0.0	0.0	0.0	82.5	8.6	0.3	0.8	0.0	0.0	0.0	0.0	2.2
5791	425736.85	5409358.23	326.08	0	DEN	A	71.1	20.7	0.0	0.0	0.0	80.4	7.4	0.1	0.5	0.0	9.5	0.0	0.0	-6.1
5799	423963.76	5409775.36	360.34	0	DEN	A	71.1	24.0	0.0	0.0	0.0	84.0	9.6	0.5	0.6	0.0	3.4	0.0	0.0	-3.0
5810	424448.65	5409947.94	354.25	0	DEN	A	71.1	23.6	0.0	0.0	0.0	83.5	9.3	0.5	0.6	0.0	3.5	0.0	0.0	-2.6
5824	425041.75	5409441.14	354.52	0	DEN	A	71.1	21.6	0.0	0.0	0.0	81.8	8.2	0.3	0.7	0.0	3.6	0.0	0.0	-1.9
5828	425162.00	5409375.86	355.46	0	DEN	A	71.1	21.2	0.0	0.0	0.0	81.5	8.0	0.2	0.7	0.0	3.7	0.0	0.0	-1.7
5839	425438.48	5409321.87	351.31	0	DEN	A	71.1	20.5	0.0	0.0	0.0	80.9	7.7	0.1	0.7	0.0	3.7	0.0	0.0	-1.5
5947	424941.20	5409521.32	355.47	0	DEN	A	71.1	20.6	0.0	0.0	0.0	82.1	8.4	0.3	0.7	0.0	3.6	0.0	0.0	-3.4
6081	425790.31	5409416.47	324.40	0	DEN	A	71.1	16.2	0.0	0.0	0.0	80.5	7.5	0.1	0.7	0.0	3.8	0.0	0.0	-5.2
6154	425799.18	5409391.28	324.50	0	DEN	A	71.1	14.3	0.0	0.0	0.0	80.4	7.4	0.1	0.7	0.0	3.9	0.0	0.0	-7.2

Line Source, ISO 9613, Name: "EO Aggregate Pit Truck Route", ID: "EO_TR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
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Sample Calculations

Line Source, ISO 9613, Name: "EO Aggregate Pit Truck Route", ID: "EO_TR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB(A))							
5699	425792.43	5409363.59	326.46	0	DEN	A	69.4	23.7	0.0	0.0	0.0	80.3	5.4	0.6	0.5	0.0	7.3	0.0	0.0	-1.0
5731	424859.74	5409603.46	356.03	0	DEN	A	69.4	24.9	0.0	0.0	0.0	82.4	6.3	0.6	0.6	0.0	3.2	0.0	0.0	1.1
5768	426642.31	5409616.20	380.50	0	DEN	A	69.4	22.4	0.0	0.0	0.0	79.9	5.2	0.6	0.7	0.0	3.3	0.0	0.0	2.1
5774	425585.85	5409327.03	337.73	0	DEN	A	69.4	22.8	0.0	0.0	0.0	80.6	5.5	0.6	0.4	0.0	10.4	0.0	0.0	-5.4
5786	423199.78	5411875.06	359.16	0	DEN	A	69.4	29.0	0.0	0.0	0.0	87.3	9.1	0.4	0.0	0.0	3.1	0.0	0.0	-1.5
5796	424426.43	5410109.22	356.23	0	DEN	A	69.4	25.4	0.0	0.0	0.0	83.8	7.0	0.6	0.6	0.0	0.0	0.0	0.0	2.8
5822	423948.39	5410776.29	359.04	0	DEN	A	69.4	26.6	0.0	0.0	0.0	85.3	7.9	0.6	0.5	0.0	3.1	0.0	0.0	-1.4
5860	426797.33	5409607.09	381.33	0	DEN	A	69.4	21.0	0.0	0.0	0.0	79.7	5.1	0.6	0.7	0.0	3.3	0.0	0.0	0.9
5879	425309.13	5409338.51	356.04	0	DEN	A	69.4	22.0	0.0	0.0	0.0	81.1	5.7	0.6	0.7	0.0	3.3	0.0	0.0	-0.0
5908	423662.25	5411616.62	357.86	0	DEN	A	69.4	27.0	0.0	0.0	0.0	86.6	8.6	0.5	0.0	0.0	3.1	0.0	0.0	-2.4
5935	425035.40	5409445.48	355.03	0	DEN	A	69.4	22.1	0.0	0.0	0.0	81.8	6.0	0.6	0.7	0.0	3.3	0.0	0.0	-0.8
5941	424113.03	5410432.85	359.04	0	DEN	A	69.4	24.8	0.0	0.0	0.0	84.7	7.5	0.6	0.6	0.0	0.0	0.0	0.0	0.9
5959	422538.38	5412043.38	361.30	0	DEN	A	69.4	27.8	0.0	0.0	0.0	88.0	9.6	0.3	0.0	0.0	3.2	0.0	0.0	-3.8
5970	425166.31	5409373.36	355.50	0	DEN	A	69.4	21.4	0.0	0.0	0.0	81.4	5.9	0.6	0.7	0.0	3.3	0.0	0.0	-1.1
5988	426199.13	5409423.64	349.76	0	DEN	A	69.4	19.5	0.0	0.0	0.0	79.8	5.2	0.6	0.8	0.0	4.2	0.0	0.0	-1.7
5996	424701.04	5409782.55	355.50	0	DEN	A	69.4	22.3	0.0	0.0	0.0	82.9	6.6	0.6	0.6	0.0	3.2	0.0	0.0	-2.3
6000	425439.62	5409323.21	351.51	0	DEN	A	69.4	20.3	0.0	0.0	0.0	80.9	5.6	0.6	0.7	0.0	3.3	0.0	0.0	-1.4
6016	424604.21	5409922.56	355.23	0	DEN	A	69.4	22.3	0.0	0.0	0.0	83.3	6.8	0.6	0.6	0.0	3.2	0.0	0.0	-2.8
6025	426236.11	5409496.00	356.95	0	DEN	A	69.4	18.9	0.0	0.0	0.0	80.0	5.3	0.6	0.7	0.0	3.3	0.0	0.0	-1.5
6054	423814.06	5411112.67	358.10	0	DEN	A	69.4	24.3	0.0	0.0	0.0	85.8	8.2	0.6	0.0	0.0	3.1	0.0	0.0	-4.1
6100	422167.72	5412339.23	363.20	0	DEN	A	69.4	25.6	0.0	0.0	0.0	88.6	10.0	0.2	0.0	0.0	3.2	0.0	0.0	-7.0
6102	426261.40	5409555.40	360.35	0	DEN	A	69.4	17.3	0.0	0.0	0.0	80.1	5.3	0.6	0.7	0.0	3.3	0.0	0.0	-3.4
6108	421879.42	5412552.90	365.12	0	DEN	A	69.4	25.9	0.0	0.0	0.0	89.0	10.2	0.2	0.0	0.0	3.2	0.0	0.0	-7.3
6112	424241.91	5410262.81	357.50	0	DEN	A	69.4	21.2	0.0	0.0	0.0	84.3	7.3	0.6	0.6	0.0	0.0	0.0	0.0	-2.1
6118	426294.34	5409594.72	364.62	0	DEN	A	69.4	17.0	0.0	0.0	0.0	80.2	5.3	0.6	0.5	0.0	7.1	0.0	0.0	-7.3
6152	426742.17	5409646.73	382.09	0	DEN	A	69.4	15.5	0.0	0.0	0.0	79.9	5.2	0.6	0.7	0.0	3.3	0.0	0.0	-4.8
6158	423747.65	5411306.00	357.60	0	DEN	A	69.4	21.5	0.0	0.0	0.0	86.1	8.4	0.5	0.0	0.0	3.1	0.0	0.0	-7.2

Line Source, ISO 9613, Name: "Truck Route-NPAG (Empty Truck)", ID: "TRE_NPAG"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB(A))							
5564	423589.38	5410424.95	357.09	0	DEN	A	71.4	28.0	0.0	0.0	0.0	85.3	8.1	-0.2	0.3	0.0	3.5	0.0	0.0	2.4
5581	424862.12	5409602.31	356.00	0	DEN	A	71.4	24.9	0.0	0.0	0.0	82.4	6.6	-0.2	0.5	0.0	3.6	0.0	0.0	3.4
5592	425632.16	5409578.97	272.50	0	DEN	A	71.4	23.6	0.0	0.0	0.0	81.1	6.1	-0.2	0.3	0.0	6.5	0.0	0.0	1.2
5600	424652.84	5409852.46	356.25	0	DEN	A	71.4	25.4	0.0	0.0	0.0	83.1	7.0	-0.2	0.5	0.0	0.0	0.0	0.0	6.3
5608	425556.47	5409447.71	294.40	0	DEN	A	71.4	23.2	0.0	0.0	0.0	80.9	6.0	-0.2	0.2	0.0	12.4	0.0	0.0	-4.8
5640	425590.88	5409327.62	337.15	0	DEN	A	71.4	22.6	0.0	0.0	0.0	80.6	5.8	-0.2	0.2	0.0	10.5	0.0	0.0	-3.0
5652	423851.43	5410040.49	357.26	0	DEN	A	71.4	26.3	0.0	0.0	0.0	84.5	7.7	-0.2	0.1	0.0	11.0	0.0	0.0	-5.5
5712	424210.84	5409812.70	355.71	0	DEN	A	71.4	25.0	0.0	0.0	0.0	83.7	7.3	-0.2	0.4	0.0	3.5	0.0	0.0	1.7
5718	425310.42	5409335.82	355.91	0	DEN	A	71.4	22.1	0.0	0.0	0.0	81.1	6.1	-0.2	0.5	0.0	3.6	0.0	0.0	2.3
5764	425039.36	5409442.94	355.00	0	DEN	A	71.4	22.2	0.0	0.0	0.0	81.8	6.4	-0.2	0.5	0.0	3.6	0.0	0.0	1.5
5773	425736.90	5409358.02	326.06	0	DEN	A	71.4	20.7	0.0	0.0	0.0	80.4	5.8	-0.2	0.3	0.0	8.2	0.0	0.0	-2.3
5782	425715.39	5409425.73	319.04	0	DEN	A	71.4	20.8	0.0	0.0	0.0	80.6	5.9	-0.2	0.5	0.0	3.8	0.0	0.0	1.5
5784	423963.84	5409775.37	360.36	0	DEN	A	71.4	24.0	0.0	0.0	0.0	84.0	7.4	-0.2	0.4	0.0	3.5	0.0	0.0	0.2
5788	424448.71	5409947.88	354.25	0	DEN	A	71.4	23.6	0.0	0.0	0.0	83.5	7.2	-0.2	0.4	0.0	3.5	0.0	0.0	0.5
5806	425168.16	5409370.27	355.50	0	DEN	A	71.4	21.3	0.0	0.0	0.0	81.4	6.2	-0.2	0.5	0.0	3.6	0.0	0.0	1.0
5825	425444.91	5409321.30	351.00	0	DEN	A	71.4	20.4	0.0	0.0	0.0	80.8	6.0	-0.2	0.5	0.0	3.6	0.0	0.0	1.0
5972	425395.34	5409583.21	272.50	0	DEN	A	71.4	19.5	0.0	0.0	0.0	81.5	6.2	-0.2	0.4	0.0	5.1	0.0	0.0	-2.1
5991	425422.22	5409491.23	273.76	0	DEN	A	71.4	18.9	0.0	0.0	0.0	81.2	6.1	-0.2	0.2	0.0	16.2	0.0	0.0	-13.4
5994	425478.06	5409587.36	272.50	0	DEN	A	71.4	18.9	0.0	0.0	0.0	81.4	6.2	-0.2	0.4	0.0	5.1	0.0	0.0	-2.6
6076	425790.28	5409416.53	324.40	0	DEN	A	71.4	16.2	0.0	0.0	0.0	80.5	5.8	-0.2	0.5	0.0	3.7	0.0	0.0	-2.7
6077	425369.34	5409525.41	272.50	0	DEN	A	71.4	17.0	0.0	0.0	0.0	81.4	6.2	-0.2	0.2	0.0	12.1	0.0	0.0	-11.3
6146	425799.09	5409391.23	324.50	0	DEN	A	71.4	14.3	0.0	0.0	0.0	80.4	5.8	-0.2	0.5	0.0	3.8	0.0	0.0	-4.6
6159	425351.11	5409558.34	272.50	0	DEN	A	71.4	15.0	0.0	0.0	0.0	81.5	6.2	-0.2	0.3	0.0	8.0	0.0	0.0	-9.1

Line Source, ISO 9613, Name: "Motor Grader Route Open Pit to Mill", ID: "MGR_OPMill"																		
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw											
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Sample Calculations

Line Source, ISO 9613, Name: "Motor Grader Route Open Pit to Mill", ID: "MGR_OPMill"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
5736	425842.66	5409411.08	324.85	0	DEN	A	71.1	21.3	0.0	0.0	0.0	80.4	7.4	0.1	0.7	0.0	3.8	0.0	0.0	0.0
5749	426451.31	5409770.81	376.37	0	DEN	A	71.1	21.4	0.0	0.0	0.0	80.5	7.5	0.1	0.8	0.0	0.0	0.0	0.0	3.6
5809	425718.94	5409425.59	319.45	0	DEN	A	71.1	20.7	0.0	0.0	0.0	80.6	7.5	0.1	0.7	0.0	4.0	0.0	0.0	-1.1
5862	426198.86	5409424.30	349.80	0	DEN	A	71.1	19.5	0.0	0.0	0.0	79.9	7.1	0.0	0.9	0.0	4.9	0.0	0.0	-2.1
5912	426616.94	5410059.66	390.65	0	DEN	A	71.1	20.0	0.0	0.0	0.0	81.1	7.8	0.2	0.7	0.0	3.7	0.0	0.0	-2.4
5919	426236.26	5409496.49	356.92	0	DEN	A	71.1	18.8	0.0	0.0	0.0	80.0	7.2	0.1	0.8	0.0	3.8	0.0	0.0	-1.9
5979	425395.38	5409583.21	272.50	0	DEN	A	71.1	19.5	0.0	0.0	0.0	81.5	8.0	0.2	0.6	0.0	5.7	0.0	0.0	-5.4
5983	426703.70	5410166.27	393.25	0	DEN	A	71.1	19.4	0.0	0.0	0.0	81.4	8.0	0.2	0.7	0.0	3.7	0.0	0.0	-3.5
5987	425424.53	5409489.89	274.41	0	DEN	A	71.1	19.1	0.0	0.0	0.0	81.2	7.9	0.2	0.4	0.0	18.3	0.0	0.0	-17.8
6009	425478.21	5409587.42	272.50	0	DEN	A	71.1	18.9	0.0	0.0	0.0	81.4	7.9	0.2	0.6	0.0	5.7	0.0	0.0	-5.8
6048	426261.44	5409555.18	360.19	0	DEN	A	71.1	17.2	0.0	0.0	0.0	80.1	7.3	0.1	0.8	0.0	3.8	0.0	0.0	-3.7
6089	425369.19	5409524.43	272.50	0	DEN	A	71.1	17.1	0.0	0.0	0.0	81.4	8.0	0.2	0.4	0.0	14.1	0.0	0.0	-15.9
6110	426655.98	5410121.94	389.96	0	DEN	A	71.1	16.6	0.0	0.0	0.0	81.3	7.9	0.2	0.7	0.0	3.7	0.0	0.0	-6.1
6162	425351.20	5409558.11	272.50	0	DEN	A	71.1	15.0	0.0	0.0	0.0	81.5	8.0	0.2	0.5	0.0	9.3	0.0	0.0	-13.5

Line Source, ISO 9613, Name: "Truck Route-Overburden (Empty Truck)", ID: "TRE_OB"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
5525	424847.12	5410617.13	365.01	0	D	A	71.0	28.4	0.0	0.0	0.0	84.1	7.5	-0.2	0.4	0.0	0.0	0.0	0.0	7.7
5525	424847.12	5410617.13	365.01	0	N	A	71.0	28.4	0.0	0.0	0.0	84.1	7.5	-0.2	0.4	0.0	0.0	0.0	0.0	7.7
5525	424847.12	5410617.13	365.01	0	E	A	71.0	28.4	0.0	0.0	0.0	84.1	7.5	-0.2	0.4	0.0	0.0	0.0	0.0	7.7
5615	425631.51	5409579.05	272.50	0	D	A	71.0	23.7	0.0	0.0	0.0	81.1	6.1	-0.2	0.3	0.0	6.5	0.0	0.0	0.9
5615	425631.51	5409579.05	272.50	0	N	A	71.0	23.7	0.0	0.0	0.0	81.1	6.1	-0.2	0.3	0.0	6.5	0.0	0.0	0.9
5615	425631.51	5409579.05	272.50	0	E	A	71.0	23.7	0.0	0.0	0.0	81.1	6.1	-0.2	0.3	0.0	6.5	0.0	0.0	0.9
5637	425555.68	5409447.77	294.14	0	D	A	71.0	23.3	0.0	0.0	0.0	80.9	6.0	-0.2	0.2	0.0	12.5	0.0	0.0	-5.1
5637	425555.68	5409447.77	294.14	0	N	A	71.0	23.3	0.0	0.0	0.0	80.9	6.0	-0.2	0.2	0.0	12.5	0.0	0.0	-5.1
5637	425555.68	5409447.77	294.14	0	E	A	71.0	23.3	0.0	0.0	0.0	80.9	6.0	-0.2	0.2	0.0	12.5	0.0	0.0	-5.1
5665	425590.26	5409327.63	337.22	0	D	A	71.0	22.7	0.0	0.0	0.0	80.6	5.8	-0.2	0.2	0.0	10.4	0.0	0.0	-3.2
5665	425590.26	5409327.63	337.22	0	N	A	71.0	22.7	0.0	0.0	0.0	80.6	5.8	-0.2	0.2	0.0	10.4	0.0	0.0	-3.2
5665	425590.26	5409327.63	337.22	0	E	A	71.0	22.7	0.0	0.0	0.0	80.6	5.8	-0.2	0.2	0.0	10.4	0.0	0.0	-3.2
5692	424426.85	5410109.31	356.24	0	D	A	71.0	25.4	0.0	0.0	0.0	83.8	7.3	-0.2	0.4	0.0	0.0	0.0	0.0	5.1
5692	424426.85	5410109.31	356.24	0	N	A	71.0	25.4	0.0	0.0	0.0	83.8	7.3	-0.2	0.4	0.0	0.0	0.0	0.0	5.1
5692	424426.85	5410109.31	356.24	0	E	A	71.0	25.4	0.0	0.0	0.0	83.8	7.3	-0.2	0.4	0.0	0.0	0.0	0.0	5.1
5732	424411.86	5410356.31	359.55	0	D	A	71.0	25.4	0.0	0.0	0.0	84.2	7.5	-0.2	0.4	0.0	3.5	0.0	0.0	1.1
5732	424411.86	5410356.31	359.55	0	N	A	71.0	25.4	0.0	0.0	0.0	84.2	7.5	-0.2	0.4	0.0	3.5	0.0	0.0	1.1
5732	424411.86	5410356.31	359.55	0	E	A	71.0	25.4	0.0	0.0	0.0	84.2	7.5	-0.2	0.4	0.0	3.5	0.0	0.0	1.1
5755	425307.41	5409338.58	355.98	0	D	A	71.0	22.0	0.0	0.0	0.0	81.1	6.1	-0.2	0.5	0.0	3.6	0.0	0.0	1.9
5755	425307.41	5409338.58	355.98	0	N	A	71.0	22.0	0.0	0.0	0.0	81.1	6.1	-0.2	0.5	0.0	3.6	0.0	0.0	1.9
5755	425307.41	5409338.58	355.98	0	E	A	71.0	22.0	0.0	0.0	0.0	81.1	6.1	-0.2	0.5	0.0	3.6	0.0	0.0	1.9
5762	424825.15	5409635.14	356.44	0	D	A	71.0	23.2	0.0	0.0	0.0	82.5	6.7	-0.2	0.5	0.0	0.0	0.0	0.0	4.7
5762	424825.15	5409635.14	356.44	0	N	A	71.0	23.2	0.0	0.0	0.0	82.5	6.7	-0.2	0.5	0.0	0.0	0.0	0.0	4.7
5762	424825.15	5409635.14	356.44	0	E	A	71.0	23.2	0.0	0.0	0.0	82.5	6.7	-0.2	0.5	0.0	0.0	0.0	0.0	4.7
5767	424625.17	5409892.14	355.24	0	D	A	71.0	23.9	0.0	0.0	0.0	83.2	7.0	-0.2	0.4	0.0	3.5	0.0	0.0	0.9
5767	424625.17	5409892.14	355.24	0	N	A	71.0	23.9	0.0	0.0	0.0	83.2	7.0	-0.2	0.4	0.0	3.5	0.0	0.0	0.9
5767	424625.17	5409892.14	355.24	0	E	A	71.0	23.9	0.0	0.0	0.0	83.2	7.0	-0.2	0.4	0.0	3.5	0.0	0.0	0.9
5794	425736.91	5409358.26	326.07	0	D	A	71.0	20.7	0.0	0.0	0.0	80.4	5.8	-0.2	0.3	0.0	8.1	0.0	0.0	-2.6
5794	425736.91	5409358.26	326.07	0	N	A	71.0	20.7	0.0	0.0	0.0	80.4	5.8	-0.2	0.3	0.0	8.1	0.0	0.0	-2.6
5794	425736.91	5409358.26	326.07	0	E	A	71.0	20.7	0.0	0.0	0.0	80.4	5.8	-0.2	0.3	0.0	8.1	0.0	0.0	-2.6
5813	425715.66	5409425.93	319.06	0	D	A	71.0	20.7	0.0	0.0	0.0	80.6	5.9	-0.2	0.5	0.0	3.8	0.0	0.0	1.2
5813	425715.66	5409425.93	319.06	0	N	A	71.0	20.7	0.0	0.0	0.0	80.6	5.9	-0.2	0.5	0.0	3.8	0.0	0.0	1.2
5813	425715.66	5409425.93	319.06	0	E	A	71.0	20.7	0.0	0.0	0.0	80.6	5.9	-0.2	0.5	0.0	3.8	0.0	0.0	1.2
5829	425046.70	5409438.38	354.50	0	D	A	71.0	21.6	0.0	0.0	0.0	81.8	6.4	-0.2	0.5	0.0	3.6	0.0	0.0	0.6
5829	425046.70	5409438.38	354.50	0	N	A	71.0	21.6	0.0	0.0	0.0	81.8	6.4	-0.2	0.5	0.0	3.6	0.0	0.0	0.6
5829	425046.70	5409438.38	354.50	0	E	A	71.0	21.6	0.0	0.0	0.0	81.8	6.4	-0.2	0.5	0.0	3.6	0.0	0.0	0.6
5829	425046.70	5409438.38	354.50	0	E	A	71.0	21.6	0.0	0.0	0.0	81.8	6.4	-0.2	0.5	0.0				

Sample Calculations

Line Source, ISO 9613, Name: "Truck Route-Overburden (Empty Truck)", ID: "TRE_OB"																					
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr	
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB(A))								
5985	425394.30	5409583.13	272.50	0	D		A	71.0	19.5	0.0	0.0	0.0	81.5	6.2	-0.2	0.4	0.0	5.1	0.0	0.0	-2.5
5985	425394.30	5409583.13	272.50	0	N		A	71.0	19.5	0.0	0.0	0.0	81.5	6.2	-0.2	0.4	0.0	5.1	0.0	0.0	-2.5
5985	425394.30	5409583.13	272.50	0	E		A	71.0	19.5	0.0	0.0	0.0	81.5	6.2	-0.2	0.4	0.0	5.1	0.0	0.0	-2.5
6011	425476.38	5409587.61	272.50	0	D		A	71.0	18.9	0.0	0.0	0.0	81.4	6.2	-0.2	0.4	0.0	5.1	0.0	0.0	-2.9
6011	425476.38	5409587.61	272.50	0	N		A	71.0	18.9	0.0	0.0	0.0	81.4	6.2	-0.2	0.4	0.0	5.1	0.0	0.0	-2.9
6011	425476.38	5409587.61	272.50	0	E		A	71.0	18.9	0.0	0.0	0.0	81.4	6.2	-0.2	0.4	0.0	5.1	0.0	0.0	-2.9
6014	425420.93	5409490.49	273.48	0	D		A	71.0	18.7	0.0	0.0	0.0	81.2	6.1	-0.2	0.2	0.0	16.5	0.0	0.0	-14.1
6014	425420.93	5409490.49	273.48	0	N		A	71.0	18.7	0.0	0.0	0.0	81.2	6.1	-0.2	0.2	0.0	16.5	0.0	0.0	-14.1
6014	425420.93	5409490.49	273.48	0	E		A	71.0	18.7	0.0	0.0	0.0	81.2	6.1	-0.2	0.2	0.0	16.5	0.0	0.0	-14.1
6046	424722.88	5409750.81	355.50	0	D		A	71.0	20.0	0.0	0.0	0.0	82.8	6.9	-0.2	0.4	0.0	3.5	0.0	0.0	-2.5
6046	424722.88	5409750.81	355.50	0	N		A	71.0	20.0	0.0	0.0	0.0	82.8	6.9	-0.2	0.4	0.0	3.5	0.0	0.0	-2.5
6046	424722.88	5409750.81	355.50	0	E		A	71.0	20.0	0.0	0.0	0.0	82.8	6.9	-0.2	0.4	0.0	3.5	0.0	0.0	-2.5
6086	425790.23	5409416.55	324.40	0	D		A	71.0	16.2	0.0	0.0	0.0	80.5	5.8	-0.2	0.5	0.0	3.7	0.0	0.0	-3.0
6086	425790.23	5409416.55	324.40	0	N		A	71.0	16.2	0.0	0.0	0.0	80.5	5.8	-0.2	0.5	0.0	3.7	0.0	0.0	-3.0
6086	425790.23	5409416.55	324.40	0	E		A	71.0	16.2	0.0	0.0	0.0	80.5	5.8	-0.2	0.5	0.0	3.7	0.0	0.0	-3.0
6090	425369.34	5409524.48	272.50	0	D		A	71.0	17.0	0.0	0.0	0.0	81.4	6.2	-0.2	0.2	0.0	12.2	0.0	0.0	-11.8
6090	425369.34	5409524.48	272.50	0	N		A	71.0	17.0	0.0	0.0	0.0	81.4	6.2	-0.2	0.2	0.0	12.2	0.0	0.0	-11.8
6090	425369.34	5409524.48	272.50	0	E		A	71.0	17.0	0.0	0.0	0.0	81.4	6.2	-0.2	0.2	0.0	12.2	0.0	0.0	-11.8
6157	425799.05	5409391.27	324.50	0	D		A	71.0	14.3	0.0	0.0	0.0	80.4	5.8	-0.2	0.5	0.0	3.8	0.0	0.0	-4.9
6157	425799.05	5409391.27	324.50	0	N		A	71.0	14.3	0.0	0.0	0.0	80.4	5.8	-0.2	0.5	0.0	3.8	0.0	0.0	-4.9
6157	425799.05	5409391.27	324.50	0	E		A	71.0	14.3	0.0	0.0	0.0	80.4	5.8	-0.2	0.5	0.0	3.8	0.0	0.0	-4.9
6163	425350.90	5409558.06	272.50	0	D		A	71.0	15.0	0.0	0.0	0.0	81.5	6.2	-0.2	0.3	0.0	8.0	0.0	0.0	-9.8
6163	425350.90	5409558.06	272.50	0	N		A	71.0	15.0	0.0	0.0	0.0	81.5	6.2	-0.2	0.3	0.0	8.0	0.0	0.0	-9.8
6163	425350.90	5409558.06	272.50	0	E		A	71.0	15.0	0.0	0.0	0.0	81.5	6.2	-0.2	0.3	0.0	8.0	0.0	0.0	-9.8

Line Source, ISO 9613, Name: "OC3 Aggregate Pit Truck Route", ID: "OC3_TR"																					
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr	
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB(A))								
5638	428074.24	5409670.23	374.16	0	DEN		A	66.4	26.7	0.0	0.0	0.0	79.9	5.2	0.6	0.7	0.0	6.1	0.0	0.0	0.6
5714	428414.53	5409951.17	375.07	0	DEN		A	66.4	26.6	0.0	0.0	0.0	81.0	5.7	0.6	0.7	0.0	0.0	0.0	0.0	5.0
6167	428555.99	5410180.09	376.07	0	DEN		A	66.4	19.4	0.0	0.0	0.0	81.7	6.0	0.6	0.7	0.0	3.3	0.0	0.0	-6.4

Line Source, ISO 9613, Name: "Water Truck Route Stockpile", ID: "WTR_SP"																					
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr	
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB(A))								
5451	427525.13	5409591.57	387.26	0	DEN		A	71.9	25.7	0.0	0.0	0.0	79.4	8.9	-0.4	0.9	0.0	15.7	0.0	0.0	-6.9
5506	426435.67	5409603.46	373.34	0	DEN		A	71.9	23.9	0.0	0.0	0.0	80.1	9.4	-0.3	0.9	0.0	0.0	0.0	0.0	5.8
5569	426643.41	5409615.78	380.58	0	DEN		A	71.9	22.4	0.0	0.0	0.0	79.9	9.2	-0.3	0.9	0.0	4.1	0.0	0.0	0.6
5583	426799.68	5409678.92	385.50	0	DEN		A	71.9	22.2	0.0	0.0	0.0	80.0	9.3	-0.3	0.9	0.0	4.1	0.0	0.0	0.3
5639	427068.74	5409750.73	394.26	0	DEN		A	71.9	21.6	0.0	0.0	0.0	80.0	9.3	-0.3	0.9	0.0	0.0	0.0	0.0	3.6
5687	426936.24	5409723.09	390.54	0	DEN		A	71.9	21.1	0.0	0.0	0.0	80.0	9.3	-0.3	0.9	0.0	0.0	0.0	0.0	3.1
5734	427267.00	5409718.30	394.50	0	DEN		A	71.9	20.0	0.0	0.0	0.0	79.9	9.2	-0.3	0.9	0.0	4.5	0.0	0.0	-2.2
5834	427176.72	5409781.97	393.22	0	DEN		A	71.9	19.1	0.0	0.0	0.0	80.1	9.4	-0.3	0.9	0.0	4.1	0.0	0.0	-3.1
6045	427324.32	5409616.81	399.02	0	DEN		A	71.9	15.9	0.0	0.0	0.0	79.5	9.0	-0.4	1.0	0.0	4.1	0.0	0.0	-5.4
6087	427299.54	5409638.56	398.79	0	DEN		A	71.9	14.5	0.0	0.0	0.0	79.6	9.0	-0.4	0.9	0.0	0.0	0.0	0.0	-2.8
6091	427231.00	5409784.30	390.50	0	DEN		A	71.9	14.8	0.0	0.0	0.0	80.1	9.4	-0.3	0.9	0.0	4.1	0.0	0.0	-7.4
6133	427285.54	5409659.63	398.79	0	DEN		A	71.9	13.6	0.0	0.0	0.0	79.7	9.1	-0.4	0.9	0.0	0.0	0.0	0.0	-3.8
6172	427249.55	5409773.60	390.50	0	DEN		A	71.9	12.0	0.0	0.0	0.0	80.0	9.3	-0.3	0.9	0.0	4.1	0.0	0.0	-10.1

Line Source, ISO 9613, Name: "Motor Grader Route Stockpile", ID: "MGR_SP"																			
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous			

Sample Calculations

Line Source, ISO 9613, Name: "Motor Grader Route Stockpile", ID: "MGR_SP"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB(A))						
6151	427285.54	5409659.63	398.79	0	DEN	A	71.1	13.6	0.0	0.0	0.0	79.7	7.0	0.0	0.8	0.0	0.0	0.0	0.0	-2.9
6185	427249.55	5409773.60	390.50	0	DEN	A	71.1	12.0	0.0	0.0	0.0	80.0	7.2	0.1	0.8	0.0	3.8	0.0	0.0	-8.8

Line Source, ISO 9613, Name: "Truck Route Open Pit to Mill (Empty Truck)", ID: "TRE_OPMill"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB(A))						
5703	426039.27	5409390.58	335.15	0	DEN	A	68.3	24.3	0.0	0.0	0.0	80.0	5.6	-0.2	0.6	0.0	12.3	0.0	0.0	-5.7
5817	425631.53	5409578.99	272.50	0	DEN	A	68.3	23.7	0.0	0.0	0.0	81.1	6.1	-0.2	0.3	0.0	6.5	0.0	0.0	-1.8
5826	426345.87	5409644.29	366.78	0	DEN	A	68.3	22.9	0.0	0.0	0.0	80.3	5.7	-0.2	0.5	0.0	3.7	0.0	0.0	1.2
5832	426538.83	5409923.32	385.70	0	DEN	A	68.3	23.3	0.0	0.0	0.0	80.8	6.0	-0.2	0.6	0.0	0.0	0.0	0.0	4.5
5836	425559.43	5409446.22	295.04	0	DEN	A	68.3	23.3	0.0	0.0	0.0	80.9	6.0	-0.2	0.2	0.0	12.5	0.0	0.0	-7.8
5974	425841.43	5409411.18	324.75	0	DEN	A	68.3	21.3	0.0	0.0	0.0	80.4	5.8	-0.2	0.5	0.0	3.7	0.0	0.0	-0.5
5976	426451.31	5409770.81	376.37	0	DEN	A	68.3	21.4	0.0	0.0	0.0	80.5	5.8	-0.2	0.6	0.0	0.0	0.0	0.0	3.0
6018	425718.41	5409424.81	319.50	0	DEN	A	68.3	20.7	0.0	0.0	0.0	80.6	5.9	-0.2	0.5	0.0	3.8	0.0	0.0	-1.5
6052	426198.89	5409424.31	349.80	0	DEN	A	68.3	19.5	0.0	0.0	0.0	79.9	5.5	-0.2	0.7	0.0	4.5	0.0	0.0	-2.5
6071	426616.94	5410059.66	390.65	0	DEN	A	68.3	20.0	0.0	0.0	0.0	81.1	6.1	-0.2	0.5	0.0	3.6	0.0	0.0	-2.8
6075	426236.26	5409496.49	356.92	0	DEN	A	68.3	18.8	0.0	0.0	0.0	80.0	5.6	-0.2	0.5	0.0	3.7	0.0	0.0	-2.4
6113	425396.33	5409583.55	272.50	0	DEN	A	68.3	19.5	0.0	0.0	0.0	81.5	6.2	-0.2	0.4	0.0	5.1	0.0	0.0	-5.2
6115	426703.70	5410166.27	393.25	0	DEN	A	68.3	19.4	0.0	0.0	0.0	81.4	6.2	-0.2	0.5	0.0	3.6	0.0	0.0	-3.8
6119	425422.84	5409489.28	274.04	0	DEN	A	68.3	19.0	0.0	0.0	0.0	81.2	6.1	-0.2	0.2	0.0	16.5	0.0	0.0	-16.6
6134	425477.27	5409587.88	272.50	0	DEN	A	68.3	18.8	0.0	0.0	0.0	81.4	6.2	-0.2	0.4	0.0	5.1	0.0	0.0	-5.7
6141	426261.44	5409555.18	360.19	0	DEN	A	68.3	17.2	0.0	0.0	0.0	80.1	5.7	-0.2	0.5	0.0	3.7	0.0	0.0	-4.2
6168	425368.73	5409523.74	272.50	0	DEN	A	68.3	17.1	0.0	0.0	0.0	81.4	6.2	-0.2	0.2	0.0	12.4	0.0	0.0	-14.6
6174	426655.98	5410121.94	389.96	0	DEN	A	68.3	16.6	0.0	0.0	0.0	81.3	6.2	-0.2	0.5	0.0	3.6	0.0	0.0	-6.4
6188	425351.54	5409557.98	272.50	0	DEN	A	68.3	15.1	0.0	0.0	0.0	81.5	6.2	-0.2	0.3	0.0	8.0	0.0	0.0	-12.3

Line Source, ISO 9613, Name: "Truck Route Stockpile (Empty Truck)", ID: "TRE_SP"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB(A))						
5604	427524.15	5409592.10	387.98	0	DEN	A	67.7	25.7	0.0	0.0	0.0	79.4	5.4	-0.2	0.6	0.0	9.5	0.0	0.0	-1.4
5748	426038.59	5409390.36	335.07	0	DEN	A	67.7	24.3	0.0	0.0	0.0	80.0	5.6	-0.2	0.6	0.0	12.5	0.0	0.0	-6.6
5780	426432.91	5409603.33	373.37	0	DEN	A	67.7	23.8	0.0	0.0	0.0	80.1	5.6	-0.2	0.6	0.0	0.0	0.0	0.0	5.4
5878	425631.13	5409578.50	272.50	0	DEN	A	67.7	23.7	0.0	0.0	0.0	81.1	6.1	-0.2	0.3	0.0	6.5	0.0	0.0	-2.5
5897	425555.66	5409447.88	294.17	0	DEN	A	67.7	23.3	0.0	0.0	0.0	80.9	6.0	-0.2	0.2	0.0	12.4	0.0	0.0	-8.4
5900	426638.34	5409616.36	380.50	0	DEN	A	67.7	22.4	0.0	0.0	0.0	79.9	5.6	-0.2	0.5	0.0	3.7	0.0	0.0	0.6
5916	426796.68	5409678.62	385.50	0	DEN	A	67.7	22.3	0.0	0.0	0.0	80.0	5.6	-0.2	0.5	0.0	3.7	0.0	0.0	0.4
5977	427069.33	5409751.17	394.11	0	DEN	A	67.7	21.7	0.0	0.0	0.0	80.0	5.6	-0.2	0.5	0.0	3.7	0.0	0.0	-0.3
6007	426935.43	5409722.42	390.52	0	DEN	A	67.7	21.1	0.0	0.0	0.0	80.0	5.6	-0.2	0.6	0.0	0.0	0.0	0.0	2.8
6010	425840.18	5409410.87	324.63	0	DEN	A	67.7	21.3	0.0	0.0	0.0	80.4	5.8	-0.2	0.5	0.0	3.7	0.0	0.0	-1.2
6055	427267.01	5409719.16	394.50	0	DEN	A	67.7	20.0	0.0	0.0	0.0	79.9	5.5	-0.2	0.5	0.0	3.8	0.0	0.0	-1.9
6057	425715.96	5409425.31	319.13	0	DEN	A	67.7	20.8	0.0	0.0	0.0	80.6	5.9	-0.2	0.5	0.0	3.8	0.0	0.0	-2.1
6069	426199.24	5409424.15	349.80	0	DEN	A	67.7	19.5	0.0	0.0	0.0	79.9	5.5	-0.2	0.7	0.0	4.5	0.0	0.0	-3.2
6093	426236.18	5409496.59	357.03	0	DEN	A	67.7	18.9	0.0	0.0	0.0	80.0	5.6	-0.2	0.5	0.0	3.7	0.0	0.0	-3.1
6095	427177.51	5409782.91	393.09	0	DEN	A	67.7	19.0	0.0	0.0	0.0	80.1	5.6	-0.2	0.5	0.0	3.7	0.0	0.0	-3.0
6139	425395.14	5409583.20	272.50	0	DEN	A	67.7	19.5	0.0	0.0	0.0	81.5	6.2	-0.2	0.4	0.0	5.1	0.0	0.0	-5.8
6144	425420.26	5409490.94	273.50	0	DEN	A	67.7	18.8	0.0	0.0	0.0	81.2	6.1	-0.2	0.2	0.0	16.4	0.0	0.0	-17.3
6147	425476.61	5409587.11	272.50	0	DEN	A	67.7	18.8	0.0	0.0	0.0	81.4	6.2	-0.2	0.4	0.0	5.1	0.0	0.0	-6.4
6155	426261.76	5409556.01	360.53	0	DEN	A	67.7	17.4	0.0	0.0	0.0	80.1	5.7	-0.2	0.5	0.0	3.7	0.0	0.0	-4.7
6166	426294.77	5409595.16	364.77	0	DEN	A	67.7	16.9	0.0	0.0	0.0	80.2	5.7	-0.2	0.5	0.0	3.7	0.0	0.0	-5.3
6169	427324.82	5409616.26	399.04	0	DEN	A	67.7	15.9	0.0	0.0	0.0	79.5	5.4	-0.2	0.8	0.0	3.7	0.0	0.0	-5.6
6178	425368.17	5409525.22	272.50	0	DEN	A	67.7	17.1	0.0	0.0	0.0	81.4	6.2	-0.2	0.2	0.0	12.1	0.0	0.0	-15.0
6186	427298.96	5409639.05	398.83	0	DEN	A	67.7	14.9	0.0	0.0	0.0	79.6	5.4	-0.2	0.6	0.0	0.0	0.0	0.0	-2.9
6187	427231.03	5409784.83	390.50	0	DEN	A	67.7	14.7	0.0	0.0	0.0	80.1	5.6	-0.2	0.5	0.0	3.7	0.0	0.0	-7.3
6190	427284.95	5409661.13	398.83	0	DEN	A	67.7	13.4	0.0											

Sample Calculations

Line Source, ISO 9613, Name: "Roen Aggregate Pit Truck Route", ID: "Roen_TR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB(A))							
5684	426013.16	5411765.80	370.47	0	DEN	A	66.4	28.5	0.0	0.0	0.0	85.0	7.7	0.6	0.6	0.0	3.1	0.0	0.0	-2.1
5841	426038.88	5409389.89	335.07	0	DEN	A	66.4	24.3	0.0	0.0	0.0	80.0	5.3	0.6	0.6	0.0	13.7	0.0	0.0	-9.4
5855	425255.37	5411510.42	364.70	0	DEN	A	66.4	29.0	0.0	0.0	0.0	85.1	7.7	0.6	0.6	0.0	3.1	0.0	0.0	-1.7
5938	425791.92	5409362.56	326.48	0	DEN	A	66.4	23.7	0.0	0.0	0.0	80.3	5.4	0.6	0.5	0.0	7.4	0.0	0.0	-4.1
5944	426318.77	5409769.11	366.24	0	DEN	A	66.4	23.7	0.0	0.0	0.0	80.6	5.5	0.6	0.7	0.0	3.3	0.0	0.0	-0.7
5998	424652.94	5409851.38	356.21	0	DEN	A	66.4	25.3	0.0	0.0	0.0	83.1	6.7	0.6	0.6	0.0	0.0	0.0	0.0	0.7
6021	423204.42	5411872.47	358.94	0	DEN	A	66.4	29.0	0.0	0.0	0.0	87.3	9.1	0.4	0.0	0.0	3.1	0.0	0.0	-4.5
6022	425590.51	5409325.83	337.31	0	DEN	A	66.4	22.5	0.0	0.0	0.0	80.6	5.5	0.6	0.4	0.0	11.5	0.0	0.0	-9.7
6034	422037.26	5411766.76	372.50	0	DEN	A	66.4	27.1	0.0	0.0	0.0	88.2	9.7	0.3	0.0	0.0	0.0	0.0	0.0	-4.7
6040	421568.11	5411565.39	372.50	0	DEN	A	66.4	27.1	0.0	0.0	0.0	88.5	9.9	0.3	0.0	0.0	0.0	0.0	0.0	-5.2
6044	424427.00	5410108.00	356.21	0	DEN	A	66.4	25.4	0.0	0.0	0.0	83.8	7.0	0.6	0.6	0.0	0.0	0.0	0.0	-0.2
6049	423948.30	5410773.96	359.08	0	DEN	A	66.4	26.6	0.0	0.0	0.0	85.3	7.9	0.6	0.5	0.0	3.1	0.0	0.0	-4.4
6063	423673.19	5411583.93	357.85	0	DEN	A	66.4	27.5	0.0	0.0	0.0	86.5	8.6	0.5	0.0	0.0	3.1	0.0	0.0	-4.9
6065	426322.13	5409945.21	365.98	0	DEN	A	66.4	22.3	0.0	0.0	0.0	81.1	5.7	0.6	0.7	0.0	3.3	0.0	0.0	-2.7
6067	425308.53	5409336.85	356.01	0	DEN	A	66.4	22.0	0.0	0.0	0.0	81.1	5.7	0.6	0.7	0.0	3.3	0.0	0.0	-3.0
6070	424900.13	5409562.69	356.00	0	DEN	A	66.4	23.0	0.0	0.0	0.0	82.2	6.3	0.6	0.6	0.0	3.2	0.0	0.0	-3.6
6078	425038.73	5409443.21	355.00	0	DEN	A	66.4	22.2	0.0	0.0	0.0	81.8	6.0	0.6	0.7	0.0	3.3	0.0	0.0	-3.7
6083	424113.98	5410428.24	359.08	0	DEN	A	66.4	24.9	0.0	0.0	0.0	84.7	7.5	0.6	0.6	0.0	0.0	0.0	0.0	-2.1
6116	425167.68	5409370.33	355.50	0	DEN	A	66.4	21.2	0.0	0.0	0.0	81.4	5.9	0.6	0.7	0.0	3.3	0.0	0.0	-4.3
6117	425444.83	5409322.13	351.01	0	DEN	A	66.4	20.6	0.0	0.0	0.0	80.8	5.6	0.6	0.7	0.0	3.3	0.0	0.0	-4.0
6121	423801.02	5411149.17	358.00	0	DEN	A	66.4	25.4	0.0	0.0	0.0	85.9	8.2	0.6	0.0	0.0	3.1	0.0	0.0	-6.0
6122	426199.81	5409423.62	349.79	0	DEN	A	66.4	19.5	0.0	0.0	0.0	79.8	5.2	0.6	0.8	0.0	4.2	0.0	0.0	-4.7
6128	422539.50	5411878.60	366.10	0	DEN	A	66.4	27.3	0.0	0.0	0.0	87.8	9.5	0.4	0.0	0.0	3.2	0.0	0.0	-7.1
6130	425692.32	5411414.77	370.74	0	DEN	A	66.4	24.1	0.0	0.0	0.0	84.6	7.5	0.6	0.6	0.0	3.2	0.0	0.0	-5.9
6143	426236.92	5409496.84	356.99	0	DEN	A	66.4	18.9	0.0	0.0	0.0	80.0	5.3	0.6	0.7	0.0	3.3	0.0	0.0	-4.5
6160	426338.53	5409636.49	368.87	0	DEN	A	66.4	18.6	0.0	0.0	0.0	80.3	5.4	0.6	0.7	0.0	0.0	0.0	0.0	-1.9
6165	424789.26	5409672.09	356.50	0	DEN	A	66.4	20.5	0.0	0.0	0.0	82.6	6.4	0.6	0.6	0.0	0.0	0.0	0.0	-3.4
6176	426262.22	5409556.21	360.50	0	DEN	A	66.4	17.2	0.0	0.0	0.0	80.1	5.3	0.6	0.7	0.0	3.3	0.0	0.0	-6.4
6181	424243.35	5410259.78	357.50	0	DEN	A	66.4	21.1	0.0	0.0	0.0	84.3	7.3	0.6	0.6	0.0	0.0	0.0	0.0	-5.2
6183	426294.90	5409594.61	364.78	0	DEN	A	66.4	16.9	0.0	0.0	0.0	80.2	5.3	0.6	0.7	0.0	3.4	0.0	0.0	-6.9
6197	424908.35	5411724.09	360.59	0	DEN	A	66.4	16.8	0.0	0.0	0.0	85.7	8.1	0.6	0.5	0.0	3.1	0.0	0.0	-14.8
6201	424927.24	5411761.88	361.46	0	DEN	A	66.4	16.4	0.0	0.0	0.0	85.7	8.1	0.6	0.5	0.0	3.1	0.0	0.0	-15.2
6203	426379.05	5411757.85	373.26	0	DEN	A	66.4	13.2	0.0	0.0	0.0	84.8	7.6	0.6	0.6	0.0	3.2	0.0	0.0	-17.1
6208	426391.38	5411743.40	373.09	0	DEN	A	66.4	13.1	0.0	0.0	0.0	84.8	7.6	0.6	0.6	0.0	3.2	0.0	0.0	-17.2

Line Source, ISO 9613, Name: "Truck Route PAG (Loaded Truck)", ID: "TRL_PAG"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB(A))						
5150	427736.36	5409874.78	379.22	0	D	A	83.2	26.5	0.0	0.0	0.0	80.4	2.5	2.1	0.2	0.0	2.1	0.0	0.0	22.5
5150	427736.36	5409874.78	379.22	0	N	A	83.2	26.5	0.0	0.0	0.0	80.4	2.5	2.1	0.2	0.0	2.1	0.0	0.0	22.5
5150	427736.36	5409874.78	379.22	0	E	A	83.2	26.5	0.0	0.0	0.0	80.4	2.5	2.1	0.2	0.0	2.1	0.0	0.0	22.5
5180	426038.55	5409390.92	335.07	0	D	A	83.2	24.3	0.0	0.0	0.0	80.0	2.4	2.1	0.6	0.0	9.4	0.0	0.0	13.1
5180	426038.55	5409390.92	335.07	0	N	A	83.2	24.3	0.0	0.0	0.0	80.0	2.4	2.1	0.6	0.0	9.4	0.0	0.0	13.1
5180	426038.55	5409390.92	335.07	0	E	A	83.2	24.3	0.0	0.0	0.0	80.0	2.4	2.1	0.6	0.0	9.4	0.0	0.0	13.1
5184	426432.69	5409603.26	373.27	0	D	A	83.2	23.9	0.0	0.0	0.0	80.1	2.4	2.1	0.3	0.0	0.0	0.0	0.0	22.2
5184	426432.69	5409603.26	373.27	0	N	A	83.2	23.9	0.0	0.0	0.0	80.1	2.4	2.1	0.3	0.0	0.0	0.0	0.0	22.2
5184	426432.69	5409603.26	373.27	0	E	A	83.2	23.9	0.0	0.0	0.0	80.1	2.4	2.1	0.3	0.0	0.0	0.0	0.0	22.2
5199	427242.73	5409796.07	393.05	0	D	A	83.2	23.3	0.0	0.0	0.0	80.1	2.4	2.1	0.2	0.0	2.1	0.0	0.0	19.5
5199	427242.73	5409796.07	393.05	0	N	A	83.2	23.3	0.0	0.0	0.0	80.1	2.4	2.1	0.2	0.0	2.1	0.0	0.0	19.5
5199	427242.73	5409796.07	393.05	0	E	A	83.2	23.3	0.0	0.0	0.0	80.1	2.4	2.1	0.2	0.0	2.1	0.0	0.0	19.5
5206	425633.22	5409578.74	272.50	0	D	A	83.2	23.7	0.0	0.0	0.0	81.1	2.6	2.1	0.1	0.0	4.3	0.0	0.0	16.7
5206	425633.22	5409578.74	272.50	0	N	A	83.2	23.7	0.0	0.0	0.0	81.1	2.6	2.1	0.1	0.0	4.3	0.0	0.0	16.7
5206	425633.22	5409578.74	272.50	0	E	A	83.2	23.7	0.0	0.0	0.0	81.1	2.6	2.1	0.1	0.0	4.3	0.0	0.0	16.7
5208	426640.46	5409616.78	380.50	0	D	A	83.2	22.5	0.0	0.0	0.0	79.9	2.4	2.0	0.2	0.0	2.1	0.0	0.0	19.0
5208	426640.46	5409616.78	380.50	0	N	A	83.2	22.5	0.0	0.0	0.0	79.9	2.4	2.0						

Sample Calculations

Line Source, ISO 9613, Name: "Truck Route PAG (Loaded Truck)", ID: "TRL_PAG"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)							
5224	427429.10	5409836.24	387.41	0	N		A	83.2	22.3	0.0	0.0	0.0	80.2	2.4	2.1	0.2	0.0	2.1	0.0	18.5
5224	427429.10	5409836.24	387.41	0	E		A	83.2	22.3	0.0	0.0	0.0	80.2	2.4	2.1	0.2	0.0	2.1	0.0	18.5
5254	427069.39	5409750.84	394.06	0	D		A	83.2	21.7	0.0	0.0	0.0	80.0	2.4	2.1	0.2	0.0	2.1	0.0	18.1
5254	427069.39	5409750.84	394.06	0	N		A	83.2	21.7	0.0	0.0	0.0	80.0	2.4	2.1	0.2	0.0	2.1	0.0	18.1
5254	427069.39	5409750.84	394.06	0	E		A	83.2	21.7	0.0	0.0	0.0	80.0	2.4	2.1	0.2	0.0	2.1	0.0	18.1
5274	425839.72	5409411.72	324.57	0	D		A	83.2	21.3	0.0	0.0	0.0	80.4	2.5	2.1	0.2	0.0	2.1	0.0	17.3
5274	425839.72	5409411.72	324.57	0	N		A	83.2	21.3	0.0	0.0	0.0	80.4	2.5	2.1	0.2	0.0	2.1	0.0	17.3
5274	425839.72	5409411.72	324.57	0	E		A	83.2	21.3	0.0	0.0	0.0	80.4	2.5	2.1	0.2	0.0	2.1	0.0	17.3
5278	426936.78	5409723.25	390.51	0	D		A	83.2	21.0	0.0	0.0	0.0	80.0	2.4	2.1	0.3	0.0	0.0	0.0	19.5
5278	426936.78	5409723.25	390.51	0	N		A	83.2	21.0	0.0	0.0	0.0	80.0	2.4	2.1	0.3	0.0	0.0	0.0	19.5
5278	426936.78	5409723.25	390.51	0	E		A	83.2	21.0	0.0	0.0	0.0	80.0	2.4	2.1	0.3	0.0	0.0	0.0	19.5
5309	425715.83	5409425.84	319.09	0	D		A	83.2	20.7	0.0	0.0	0.0	80.6	2.5	2.1	0.2	0.0	2.2	0.0	16.3
5309	425715.83	5409425.84	319.09	0	N		A	83.2	20.7	0.0	0.0	0.0	80.6	2.5	2.1	0.2	0.0	2.2	0.0	16.3
5309	425715.83	5409425.84	319.09	0	E		A	83.2	20.7	0.0	0.0	0.0	80.6	2.5	2.1	0.2	0.0	2.2	0.0	16.3
5326	426198.97	5409423.50	349.74	0	D		A	83.2	19.5	0.0	0.0	0.0	79.8	2.4	2.0	0.6	0.0	2.6	0.0	15.1
5326	426198.97	5409423.50	349.74	0	N		A	83.2	19.5	0.0	0.0	0.0	79.8	2.4	2.0	0.6	0.0	2.6	0.0	15.1
5326	426198.97	5409423.50	349.74	0	E		A	83.2	19.5	0.0	0.0	0.0	79.8	2.4	2.0	0.6	0.0	2.6	0.0	15.1
5348	426236.40	5409495.89	356.85	0	D		A	83.2	18.9	0.0	0.0	0.0	80.0	2.4	2.1	0.2	0.0	2.1	0.0	15.3
5348	426236.40	5409495.89	356.85	0	N		A	83.2	18.9	0.0	0.0	0.0	80.0	2.4	2.1	0.2	0.0	2.1	0.0	15.3
5348	426236.40	5409495.89	356.85	0	E		A	83.2	18.9	0.0	0.0	0.0	80.0	2.4	2.1	0.2	0.0	2.1	0.0	15.3
5373	425395.07	5409583.04	272.50	0	D		A	83.2	19.5	0.0	0.0	0.0	81.5	2.7	2.1	0.1	0.0	3.1	0.0	13.2
5373	425395.07	5409583.04	272.50	0	N		A	83.2	19.5	0.0	0.0	0.0	81.5	2.7	2.1	0.1	0.0	3.1	0.0	13.2
5373	425395.07	5409583.04	272.50	0	E		A	83.2	19.5	0.0	0.0	0.0	81.5	2.7	2.1	0.1	0.0	3.1	0.0	13.2
5382	425477.97	5409587.51	272.50	0	D		A	83.2	19.0	0.0	0.0	0.0	81.4	2.7	2.1	0.1	0.0	3.1	0.0	12.8
5382	425477.97	5409587.51	272.50	0	N		A	83.2	19.0	0.0	0.0	0.0	81.4	2.7	2.1	0.1	0.0	3.1	0.0	12.8
5382	425477.97	5409587.51	272.50	0	E		A	83.2	19.0	0.0	0.0	0.0	81.4	2.7	2.1	0.1	0.0	3.1	0.0	12.8
5388	425420.99	5409490.77	273.43	0	D		A	83.2	18.7	0.0	0.0	0.0	81.2	2.6	2.1	0.1	0.0	14.2	0.0	1.6
5388	425420.99	5409490.77	273.43	0	N		A	83.2	18.7	0.0	0.0	0.0	81.2	2.6	2.1	0.1	0.0	14.2	0.0	1.6
5388	425420.99	5409490.77	273.43	0	E		A	83.2	18.7	0.0	0.0	0.0	81.2	2.6	2.1	0.1	0.0	14.2	0.0	1.6
5412	426293.15	5409593.86	364.37	0	D		A	83.2	17.2	0.0	0.0	0.0	80.2	2.4	2.1	0.2	0.0	2.1	0.0	13.3
5412	426293.15	5409593.86	364.37	0	N		A	83.2	17.2	0.0	0.0	0.0	80.2	2.4	2.1	0.2	0.0	2.1	0.0	13.3
5412	426293.15	5409593.86	364.37	0	E		A	83.2	17.2	0.0	0.0	0.0	80.2	2.4	2.1	0.2	0.0	2.1	0.0	13.3
5413	426260.95	5409554.66	360.11	0	D		A	83.2	17.0	0.0	0.0	0.0	80.1	2.4	2.1	0.2	0.0	2.1	0.0	13.3
5413	426260.95	5409554.66	360.11	0	N		A	83.2	17.0	0.0	0.0	0.0	80.1	2.4	2.1	0.2	0.0	2.1	0.0	13.3
5413	426260.95	5409554.66	360.11	0	E		A	83.2	17.0	0.0	0.0	0.0	80.1	2.4	2.1	0.2	0.0	2.1	0.0	13.3
5438	425369.28	5409524.87	272.50	0	D		A	83.2	17.1	0.0	0.0	0.0	81.4	2.7	2.1	0.1	0.0	9.9	0.0	4.1
5438	425369.28	5409524.87	272.50	0	N		A	83.2	17.1	0.0	0.0	0.0	81.4	2.7	2.1	0.1	0.0	9.9	0.0	4.1
5438	425369.28	5409524.87	272.50	0	E		A	83.2	17.1	0.0	0.0	0.0	81.4	2.7	2.1	0.1	0.0	9.9	0.0	4.1
5485	425350.93	5409558.03	272.50	0	D		A	83.2	14.9	0.0	0.0	0.0	81.5	2.7	2.1	0.1	0.0	5.7	0.0	6.0
5485	425350.93	5409558.03	272.50	0	N		A	83.2	14.9	0.0	0.0	0.0	81.5	2.7	2.1	0.1	0.0	5.7	0.0	6.0
5485	425350.93	5409558.03	272.50	0	E		A	83.2	14.9	0.0	0.0	0.0	81.5	2.7	2.1	0.1	0.0	5.7	0.0	6.0
6209	426553.92	5409594.59	378.50	0	D		A	83.2	-15.7	0.0	0.0	0.0	79.9	2.4	2.0	0.3	0.0	0.0	0.0	-17.1
6209	426553.92	5409594.59	378.50	0	N		A	83.2	-15.7	0.0	0.0	0.0	79.9	2.4	2.0	0.3	0.0	0.0	0.0	-17.1
6209	426553.92	5409594.59	378.50	0	E		A	83.2	-15.7	0.0	0.0	0.0	79.9	2.4	2.0	0.3	0.0	0.0	0.0	-17.1

Line Source, ISO 9613, Name: "Truck Route PAG (Empty Truck)", ID: "TRE_PAG"																					
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr	
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)							
5439	427736.36	5409874.78	379.22	0	D		A	72.2	26.5	0.0	0.0	0.0	80.4	5.8	-0.2	0.5	0.0	3.7	0.0	0.0	8.6
5439	427736.36	5409874.78	379.22	0	N		A	72.2	26.5	0.0	0.0	0.0	80.4	5.8	-0.2	0.5	0.0	3.7	0.0	0.0	8.6
5439	427736.36	5409874.78	379.22	0	E		A	72.2	26.5	0.0	0.0	0.0	80.4	5.8	-0.2	0.5	0.0	3.7	0.0	0.0	8.6
5483	426038.88	5409390.91	335.10	0	D		A	72.2	24.3	0.0	0.0	0.0	80.0	5.6	-0.2	0.6	0.0	11.9	0.0	0.0	-1.4
5483	426038.88	5409390.91	335.10	0	N		A	72.2	24.3	0.0	0.0	0.0	80.0	5.6	-0.2	0.6	0.0	11.9	0.0	0.0	-1.4
5483	426038.88	5409390.91	335.10	0	E		A	72.2	24.3	0.0	0.0	0.0	80.0	5.6	-0.2	0.6	0.0	11.9	0.0	0.0	-1.4
5501	426432.69	5409603.26	373.27	0	D		A	72.2	23.9	0.0	0.0	0.0	80.1	5.6	-0.2	0.6	0.0	0.0	0.0	0.0	10.0
5501	426432.69	5409603.26	373.27	0	N		A	72.2	23.9	0.0	0.0	0									

Sample Calculations

Line Source, ISO 9613, Name: "Truck Route PAG (Empty Truck)", ID: "TRE_PAG"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	
5551	426640.46	5409616.78	380.50	0	D		A	72.2	22.5	0.0	0.0	0.0	79.9	5.6	-0.2	0.5	0.0	3.7	0.0	0.0
5551	426640.46	5409616.78	380.50	0	N		A	72.2	22.5	0.0	0.0	0.0	79.9	5.6	-0.2	0.5	0.0	3.7	0.0	0.0
5551	426640.46	5409616.78	380.50	0	E		A	72.2	22.5	0.0	0.0	0.0	79.9	5.6	-0.2	0.5	0.0	3.7	0.0	0.0
5552	425554.97	5409448.47	293.93	0	D		A	72.2	23.3	0.0	0.0	0.0	80.9	6.0	-0.2	0.3	0.0	21.3	0.0	0.0
5552	425554.97	5409448.47	293.93	0	N		A	72.2	23.3	0.0	0.0	0.0	80.9	6.0	-0.2	0.3	0.0	21.3	0.0	0.0
5552	425554.97	5409448.47	293.93	0	E		A	72.2	23.3	0.0	0.0	0.0	80.9	6.0	-0.2	0.3	0.0	21.3	0.0	0.0
5552	425554.97	5409448.47	293.93	0	E		A	72.2	23.3	0.0	0.0	0.0	80.9	6.0	-0.2	0.3	0.0	21.3	0.0	0.0
5567	426800.25	5409680.19	385.50	0	D		A	72.2	22.3	0.0	0.0	0.0	80.0	5.6	-0.2	0.5	0.0	3.7	0.0	0.0
5567	426800.25	5409680.19	385.50	0	N		A	72.2	22.3	0.0	0.0	0.0	80.0	5.6	-0.2	0.5	0.0	3.7	0.0	0.0
5567	426800.25	5409680.19	385.50	0	E		A	72.2	22.3	0.0	0.0	0.0	80.0	5.6	-0.2	0.5	0.0	3.7	0.0	0.0
5575	427429.10	5409836.24	387.41	0	D		A	72.2	22.3	0.0	0.0	0.0	80.2	5.7	-0.2	0.5	0.0	3.7	0.0	0.0
5575	427429.10	5409836.24	387.41	0	N		A	72.2	22.3	0.0	0.0	0.0	80.2	5.7	-0.2	0.5	0.0	3.7	0.0	0.0
5575	427429.10	5409836.24	387.41	0	E		A	72.2	22.3	0.0	0.0	0.0	80.2	5.7	-0.2	0.5	0.0	3.7	0.0	0.0
5603	427069.23	5409750.98	394.10	0	D		A	72.2	21.7	0.0	0.0	0.0	80.0	5.6	-0.2	0.5	0.0	3.7	0.0	0.0
5603	427069.23	5409750.98	394.10	0	N		A	72.2	21.7	0.0	0.0	0.0	80.0	5.6	-0.2	0.5	0.0	3.7	0.0	0.0
5603	427069.23	5409750.98	394.10	0	E		A	72.2	21.7	0.0	0.0	0.0	80.0	5.6	-0.2	0.5	0.0	3.7	0.0	0.0
5657	425840.04	5409411.71	324.61	0	D		A	72.2	21.3	0.0	0.0	0.0	80.4	5.8	-0.2	0.5	0.0	3.7	0.0	0.0
5657	425840.04	5409411.71	324.61	0	N		A	72.2	21.3	0.0	0.0	0.0	80.4	5.8	-0.2	0.5	0.0	3.7	0.0	0.0
5657	425840.04	5409411.71	324.61	0	E		A	72.2	21.3	0.0	0.0	0.0	80.4	5.8	-0.2	0.5	0.0	3.7	0.0	0.0
5657	425840.04	5409411.71	324.61	0	E		A	72.2	21.3	0.0	0.0	0.0	80.4	5.8	-0.2	0.5	0.0	3.7	0.0	0.0
5663	426936.88	5409723.39	390.51	0	D		A	72.2	21.0	0.0	0.0	0.0	80.0	5.6	-0.2	0.6	0.0	0.0	0.0	0.0
5663	426936.88	5409723.39	390.51	0	N		A	72.2	21.0	0.0	0.0	0.0	80.0	5.6	-0.2	0.6	0.0	0.0	0.0	0.0
5663	426936.88	5409723.39	390.51	0	E		A	72.2	21.0	0.0	0.0	0.0	80.0	5.6	-0.2	0.6	0.0	0.0	0.0	0.0
5719	425715.61	5409425.90	319.05	0	D		A	72.2	20.7	0.0	0.0	0.0	80.6	5.9	-0.2	0.5	0.0	3.8	0.0	0.0
5719	425715.61	5409425.90	319.05	0	N		A	72.2	20.7	0.0	0.0	0.0	80.6	5.9	-0.2	0.5	0.0	3.8	0.0	0.0
5719	425715.61	5409425.90	319.05	0	E		A	72.2	20.7	0.0	0.0	0.0	80.6	5.9	-0.2	0.5	0.0	3.8	0.0	0.0
5769	426198.96	5409423.51	349.74	0	D		A	72.2	19.5	0.0	0.0	0.0	79.8	5.5	-0.2	0.7	0.0	4.5	0.0	0.0
5769	426198.96	5409423.51	349.74	0	N		A	72.2	19.5	0.0	0.0	0.0	79.8	5.5	-0.2	0.7	0.0	4.5	0.0	0.0
5769	426198.96	5409423.51	349.74	0	E		A	72.2	19.5	0.0	0.0	0.0	79.8	5.5	-0.2	0.7	0.0	4.5	0.0	0.0
5816	426236.40	5409495.89	356.85	0	D		A	72.2	18.9	0.0	0.0	0.0	80.0	5.6	-0.2	0.5	0.0	3.7	0.0	0.0
5816	426236.40	5409495.89	356.85	0	N		A	72.2	18.9	0.0	0.0	0.0	80.0	5.6	-0.2	0.5	0.0	3.7	0.0	0.0
5816	426236.40	5409495.89	356.85	0	E		A	72.2	18.9	0.0	0.0	0.0	80.0	5.6	-0.2	0.5	0.0	3.7	0.0	0.0
5880	425395.02	5409583.17	272.50	0	D		A	72.2	19.6	0.0	0.0	0.0	81.5	6.2	-0.2	0.4	0.0	5.1	0.0	0.0
5880	425395.02	5409583.17	272.50	0	N		A	72.2	19.6	0.0	0.0	0.0	81.5	6.2	-0.2	0.4	0.0	5.1	0.0	0.0
5880	425395.02	5409583.17	272.50	0	E		A	72.2	19.6	0.0	0.0	0.0	81.5	6.2	-0.2	0.4	0.0	5.1	0.0	0.0
5943	425477.69	5409587.63	272.50	0	D		A	72.2	18.9	0.0	0.0	0.0	81.4	6.2	-0.2	0.4	0.0	5.1	0.0	0.0
5943	425477.69	5409587.63	272.50	0	N		A	72.2	18.9	0.0	0.0	0.0	81.4	6.2	-0.2	0.4	0.0	5.1	0.0	0.0
5943	425477.69	5409587.63	272.50	0	E		A	72.2	18.9	0.0	0.0	0.0	81.4	6.2	-0.2	0.4	0.0	5.1	0.0	0.0
5946	425420.18	5409491.64	273.29	0	D		A	72.2	18.7	0.0	0.0	0.0	81.2	6.1	-0.2	0.2	0.0	16.3	0.0	0.0
5946	425420.18	5409491.64	273.29	0	N		A	72.2	18.7	0.0	0.0	0.0	81.2	6.1	-0.2	0.2	0.0	16.3	0.0	0.0
5946	425420.18	5409491.64	273.29	0	E		A	72.2	18.7	0.0	0.0	0.0	81.2	6.1	-0.2	0.2	0.0	16.3	0.0	0.0
5980	426293.15	5409593.86	364.37	0	D		A	72.2	17.2	0.0	0.0	0.0	80.2	5.7	-0.2	0.5	0.0	3.7	0.0	0.0
5980	426293.15	5409593.86	364.37	0	N		A	72.2	17.2	0.0	0.0	0.0	80.2	5.7	-0.2	0.5	0.0	3.7	0.0	0.0
5980	426293.15	5409593.86	364.37	0	E		A	72.2	17.2	0.0	0.0	0.0	80.2	5.7	-0.2	0.5	0.0	3.7	0.0	0.0
5980	426293.15	5409593.86	364.37	0	E		A	72.2	17.2	0.0	0.0	0.0	80.2	5.7	-0.2	0.5	0.0	3.7	0.0	0.0
5982	426260.95	5409554.66	360.11	0	D		A	72.2	17.0	0.0	0.0	0.0	80.1	5.7	-0.2	0.5	0.0	3.7	0.0	0.0
5982	426260.95	5409554.66	360.11	0	N		A	72.2	17.0	0.0	0.0	0.0	80.1	5.7	-0.2	0.5	0.0	3.7	0.0	0.0
5982	426260.95	5409554.66	360.11	0	E		A	72.2	17.0	0.0	0.0	0.0	80.1	5.7	-0.2	0.5	0.0	3.7	0.0	0.0
5982	426260.95	5409554.66	360.11	0	E		A	72.2	17.0	0.0	0.0	0.0	80.1	5.7	-0.2	0.5	0.0	3.7	0.0	0.0
6058	425369.10	5409525.28	272.50	0	D		A	72.2	17.0	0.0	0.0	0.0	81.4	6.2	-0.2	0.2	0.0	12.1	0.0	0.0
6058	425369.10	5409525.28	272.50	0	N		A	72.2	17.0	0.0	0.0	0.0	81.4	6.2	-0.2	0.2	0.0	12.1	0.0	0.0
6058	425369.10	5409525.28	272.50	0	E		A	72.2	17.0	0.0	0.0	0.0	81.4	6.2	-0.2	0.2	0.0	12.1	0.0	0.0
6140	425350.94	5409558.34	272.50	0	D		A	72.2	14.9	0.0	0.0	0.0	81.5	6.2	-0.2	0.3	0.0	8.0	0.0	0.0
6140	425350.94	5409558.34	272.50	0	N		A	72.2	14.9	0.0	0.0	0.0	81.5	6.2	-0.2	0.3	0.0	8.0	0.0	0.0
6140	425350.94	5409558.34	272.50	0	E		A	72.2	14.9	0.0	0.0	0.0	81.5	6.2	-0.2	0.3	0.0	8.0	0.0	0.0
6140	425350.94	5409558.34	272.50	0	E		A	72.2	14.9	0.0	0.0	0.0	81.5	6.2	-0.2	0.3	0.0	8.0	0.0	0.0
6211	426553.92	5409594.59	378.50	0	D		A	72.2	-15.7	0.0	0.0	0.0	79.9	5.6	-0.2	0.6	0.0	0.0	0.0	-29.3
6211	426553.92	5409594.59	378.50	0	N		A	72.2	-15.7	0.0	0.0	0.0</								