

RAINY RIVER PROJECT

UPDATED ACOUSTIC ASSESSMENT REPORT FOR EARLY OPERATIONS



Prepared for:
New Gold Inc.

Prepared by:
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TC111504



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**

<Original signed by>

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EXECUTIVE SUMMARY

The Rainy River Project (RPP) 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 predicable 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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Senior Acoustic Engineer

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Senior Acoustic Engineer / Group Lead

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) |
| 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
 Q = Quasi-Steady Impulsive
 I = Impulsive
 B = Buzzing
 T = Tonal
 C = Cyclic
 3. Noise Control Measures To Be Included
 S = Silencer/Muffler
 A = Acoustic lining, plenum
 B = Barrier
 L = Lagging
 E = acoustic enclosure
 O = other
 U = uncontrolled
 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 Chapple ON



| Point of Reception ID | Point of Reception ID | Point of Reception ID | Point of Reception ID | Point of Reception ID |
|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| POR01 | POR02 | POR03 | POR04 | POR06 |
| Point of Reception Description | Point of Reception Description | Point of Reception Description | Point of Reception Description | Point of Reception Description |
| House 01 - North | House 02 - East | House 03 - East | House 04 - East | House 06 - Southeast |
| Point of reception coordinates | 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 | 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 | | |
|---------------|---|----------------------|--------------------|-------|----------------------|--------------------|-------|----------------------|--------------------|-------|----------------------|--------------------|-------|----------------------|--------------------|-------|
| | | 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 | Distance (m) | Sound Level at PoR | Units |
| AC1 | WMP Air Compressor 1 | 5191 | -6 | dBA | 10121 | -7 | dBA | 10382 | -7 | dBA | 10284 | -7 | dBA | 10245 | -7 | dBA |
| AC2 | WMP Air Compressor 2 | 5607 | -7 | dBA | 10858 | -8 | dBA | 11130 | -8 | dBA | 11035 | -8 | dBA | 11000 | -8 | dBA |
| AC3 | WMP Air Compressor 3 | 5323 | -8 | dBA | 11091 | -8 | dBA | 11409 | -8 | dBA | 11329 | -8 | dBA | 11482 | -9 | dBA |
| AC4 | WMP Air Compressor 4 | 4668 | -6 | dBA | 9945 | -7 | dBA | 10244 | -6 | dBA | 10159 | -7 | dBA | 10291 | -8 | dBA |
| BD1 | Blast Hole Drill 1 - Sandvik DR461i | 5979 | 13 | dBA | 6525 | 13 | dBA | 6546 | 13 | dBA | 6385 | 14 | dBA | 5710 | 14 | dBA |
| BD2 | Blast Hole Drill 2 - Sandvik DR461i | 5982 | 13 | dBA | 6510 | 13 | dBA | 6531 | 13 | dBA | 6370 | 14 | dBA | 5695 | 14 | dBA |
| BD3 | Blast Hole Drill 3 - Sandvik DP1500i | 6046 | 6 | dBA | 6573 | 6 | dBA | 6587 | 7 | dBA | 6424 | 7 | dBA | 5717 | 7 | dBA |
| BD4 | Blast Hole Drill 4 - Sandvik DP1500i | 6049 | 6 | dBA | 6560 | 6 | dBA | 6574 | 7 | dBA | 6411 | 7 | dBA | 5703 | 7 | dBA |
| C | Crusher | 5783 | 14 | dBA | 5066 | 14 | dBA | 5090 | 14 | dBA | 4934 | 11 | dBA | 4572 | 9 | dBA |
| DC1 | Dust Collector 1 | 5748 | 7 | dBA | 5042 | 9 | dBA | 5072 | 10 | dBA | 4917 | 7 | dBA | 4582 | 8 | dBA |
| DC2 | Dust Collector 2 | 5474 | 6 | dBA | 5098 | 5 | dBA | 5167 | 6 | dBA | 5022 | 6 | dBA | 4819 | 5 | dBA |
| E1 | Komatsu Diesel Excavator PC5500 | 5977 | 15 | dBA | 6556 | 15 | dBA | 6578 | 15 | dBA | 6417 | 16 | dBA | 5742 | 16 | dBA |
| E2 | Komatsu Diesel Excavator PC5500 | 6003 | 15 | dBA | 6438 | 15 | dBA | 6454 | 15 | dBA | 6291 | 16 | dBA | 5610 | 16 | dBA |
| E3 | Komatsu Diesel Excavator PC8000 | 6019 | 20 | dBA | 6487 | 20 | dBA | 6503 | 20 | dBA | 6340 | 20 | dBA | 5649 | 20 | dBA |
| E4 | Komatsu Diesel Excavator PC3000 | 6036 | 24 | dBA | 6524 | 24 | dBA | 6538 | 24 | dBA | 6375 | 24 | dBA | 5674 | 24 | dBA |
| E5 | Komatsu Diesel Excavator PC800LC | 6056 | 10 | dBA | 6416 | 10 | dBA | 6425 | 10 | dBA | 6261 | 8 | dBA | 5556 | 11 | dBA |
| E6 | Komatsu Diesel Excavator PC360LC | 6037 | 13 | dBA | 6483 | 13 | dBA | 6496 | 13 | dBA | 6334 | 13 | dBA | 5634 | 14 | dBA |
| EO_E | East Outcrop Aggregate Pit Excavator PC360LC | 6394 | 15 | dBA | 5302 | 15 | dBA | 5241 | 16 | dBA | 5063 | 16 | dBA | 4307 | 16 | dBA |
| EO_FEL | East Outcrop Gravel Pit Mobile Crushing Plant Loader (CAT 966H) | 6413 | 19 | dBA | 5301 | 19 | dBA | 5237 | 19 | dBA | 5059 | 16 | dBA | 4292 | 19 | dBA |
| EO_PS | East Outcrop Gravel Pit Mobile Primary Crusher (PowerScreen) | 6400 | 18 | dBA | 5311 | 18 | dBA | 5249 | 18 | dBA | 5071 | 18 | dBA | 4310 | 19 | dBA |
| EO_SCNR | East Outcrop Gravel Pit Mobile Screener (Atlas Copco HCS3715) | 6392 | 6 | dBA | 5327 | 6 | dBA | 5266 | 7 | dBA | 5089 | 8 | dBA | 4329 | 7 | dBA |
| LD4_E | LD4 Aggregate Pit Excavator PC360LC | 5322 | 9 | dBA | 8533 | 8 | dBA | 8696 | 9 | dBA | 8570 | 9 | dBA | 8234 | 8 | dBA |
| LD4_FEL | LD4 Gravel Pit Mobile Crushing Plant Loader (CAT 966H) | 5283 | 14 | dBA | 8459 | 14 | dBA | 8622 | 14 | dBA | 8497 | 14 | dBA | 8170 | 14 | dBA |
| LD4_PS | LD4 Gravel Pit Mobile Primary Crusher (PowerScreen) | 5313 | 11 | dBA | 8520 | 11 | dBA | 8683 | 11 | dBA | 8557 | 11 | dBA | 8224 | 10 | dBA |
| LD4_SCNR | LD4 Gravel Pit Mobile Screener (Atlas Copco HCS3715) | 5305 | 1 | dBA | 8467 | 0 | dBA | 8629 | 1 | dBA | 8503 | 0 | dBA | 8168 | 0 | dBA |
| Outcrop3_E | Outcrop 3 Aggregate Pit Excavator PC360LC | 6737 | 17 | dBA | 3527 | 18 | dBA | 3398 | 19 | dBA | 3212 | 23 | dBA | 2909 | 19 | dBA |
| Outcrop3_FEL | Outcrop 3 Gravel Pit Mobile Crushing Plant Loader (CAT 966H) | 6711 | 21 | dBA | 3542 | 22 | dBA | 3418 | 22 | dBA | 3233 | 25 | dBA | 2939 | 22 | dBA |
| Outcrop3_PS | Outcrop 3 Gravel Pit Mobile Primary Crusher (PowerScreen) | 6738 | 22 | dBA | 3536 | 23 | dBA | 3406 | 23 | dBA | 3220 | 26 | dBA | 2911 | 21 | dBA |
| Outcrop3_SCNR | Outcrop 3 Gravel Pit Mobile Screener (Atlas Copco HCS3715) | 6735 | 11 | dBA | 3573 | 11 | dBA | 3443 | 12 | dBA | 3257 | 11 | dBA | 2927 | 9 | dBA |
| PC1 | Pinewood River Pumphouse Generator (CAT 660 KW) | 12239 | 0 | dBA | 16260 | 0 | dBA | 16711 | 0 | dBA | 16560 | 0 | dBA | 15573 | 0 | dBA |
| RD1 | RC Drill Sandvik DR580 | 6094 | 15 | dBA | 6340 | 15 | dBA | 6342 | 16 | dBA | 6177 | 10 | dBA | 5458 | 14 | dBA |
| RD2 | RC Drill Sandvik DR580 | 6119 | 15 | dBA | 6363 | 15 | dBA | 6363 | 16 | dBA | 6197 | 8 | dBA | 5464 | 12 | dBA |
| Roen_E | Roen Aggregate Pit Excavator PC360LC | 4142 | 15 | dBA | 5610 | 15 | dBA | 5846 | 15 | dBA | 5748 | 14 | dBA | 6071 | 12 | dBA |
| Roen_FEL | Roen Gravel Pit Mobile Crushing Plant Loader (CAT 966H) | 4215 | 19 | dBA | 5525 | 18 | dBA | 5754 | 18 | dBA | 5654 | 18 | dBA | 5967 | 16 | dBA |
| Roen_PS | Roen Gravel Pit Mobile Primary Crusher (PowerScreen) | 4125 | 17 | dBA | 5675 | 17 | dBA | 5875 | 17 | dBA | 5778 | 16 | dBA | 6101 | 14 | dBA |
| Roen_SCNR | Roen Gravel Pit Mobile Screener (Atlas Copco HCS3715) | 4168 | 6 | dBA | 5698 | 5 | dBA | 5929 | 5 | dBA | 5829 | 5 | dBA | 6116 | 3 | dBA |
| T1 | Transformer 1 | 4865 | 16 | dBA | 4743 | 15 | dBA | 4910 | 15 | dBA | 4794 | 15 | dBA | 5043 | 12 | dBA |
| T2 | Transformer 2 | 4876 | 16 | dBA | 4747 | 15 | dBA | 4911 | 15 | dBA | 4795 | 15 | dBA | 5037 | 13 | dBA |
| TD01 | Track Dozer 01 (Pit - Komatsu D475) | 6042 | 17 | dBA | 6388 | 17 | dBA | 6398 | 17 | dBA | 6235 | 15 | dBA | 5538 | 17 | dBA |
| TD02 | Track Dozer 02 (Pit -CAT D10) | 5991 | 16 | dBA | 6608 | 16 | dBA | 6630 | 16 | dBA | 6469 | 18 | dBA | 5786 | 17 | dBA |
| TD03 | Track Dozer 03 (Pit -CAT D10) | 6026 | 16 | dBA | 6501 | 16 | dBA | 6515 | 17 | dBA | 6353 | 16 | dBA | 5657 | 17 | dBA |
| TD04 | Track Dozer 04 (Pit -CAT D10) | 5976 | 11 | dBA | 6376 | 11 | dBA | 6393 | 11 | dBA | 6232 | 10 | dBA | 5567 | 12 | dBA |
| TD05 | Track Dozer 05 (PAG - Komatsu D375) | 6698 | 17 | dBA | 4053 | 18 | dBA | 3930 | 19 | dBA | 3742 | 21 | dBA | 3177 | 17 | dBA |
| TD06 | Track Dozer 06 (PAG - Komatsu D375) | 7037 | 16 | dBA | 4417 | 17 | dBA | 4239 | 18 | dBA | 4038 | 21 | dBA | 3102 | 18 | dBA |
| TD07D | Track Dozer 07 (PAG - Komatsu D475) | 6556 | 23 | dBA | 4238 | 23 | dBA | 4140 | 24 | dBA | 3958 | 26 | dBA | 3407 | 22 | dBA |
| TD07N | Track Dozer 07 (PAG - Komatsu D475) | 6556 | 0 | dBA | 4238 | 0 | dBA | 4140 | 0 | dBA | 3958 | 0 | dBA | 3407 | 0 | dBA |
| TD08D | Track Dozer 08 (PAG - Komatsu D375) | 6356 | 24 | dBA | 3916 | 24 | dBA | 3856 | 25 | dBA | 3684 | 26 | dBA | 3416 | 22 | dBA |
| TD08N | Track Dozer 08 (PAG - Komatsu D375) | 6356 | 0 | dBA | 3916 | 0 | dBA | 3856 | 0 | dBA | 3684 | 0 | dBA | 3416 | 0 | dBA |
| TD09 | Track Dozer 09 (Ore -CAT D9) | 6849 | 15 | dBA | 4713 | 16 | dBA | 4572 | 16 | dBA | 4378 | 20 | dBA | 3479 | 17 | dBA |
| TD10 | Track Dozer 10 (Ore -CAT D8) | 6710 | 14 | dBA | 5060 | 14 | dBA | 4948 | 15 | dBA | 4760 | 18 | dBA | 3867 | 19 | dBA |
| TD11D | Track Dozer 11 (NPAG/OB - Komatsu D475) | 5175 | 12 | dBA | 8194 | 12 | dBA | 8356 | 12 | dBA | 8231 | 13 | dBA | 7925 | 12 | dBA |
| TD11N | Track Dozer 11 (NPAG/OB - Komatsu D475) | 5175 | 0 | dBA | 8194 | 0 | dBA | 8356 | 0 | dBA | 8231 | 0 | dBA | 7925 | 0 | dBA |
| TD12D | Track Dozer 12 (NPAG/OB - Komatsu D375) | 4771 | 16 | dBA | 6476 | 16 | dBA | 6634 | 16 | dBA | 6511 | 17 | dBA | 6389 | 15 | dBA |
| TD12N | Track Dozer 12 (NPAG/OB - Komatsu D375) | 4771 | 0 | dBA | 6476 | 0 | dBA | 6634 | 0 | dBA | 6511 | 0 | dBA | 6389 | 0 | dBA |
| TD13 | Track Dozer 13 (NPAG/OB -CAT D9) | 5798 | 7 | dBA | 7961 | 7 | dBA | 8052 | 7 | dBA | 7907 | 9 | dBA | 7332 | 8 | dBA |
| TD14 | Track Dozer 14 (NPAG/OB -CAT D9) | 5905 | 8 | dBA | 7666 | 8 | dBA | 7734 | 8 | dBA | 7583 | 10 | dBA | 6946 | 9 | dBA |
| TD15 | Track Dozer 15 (NPAG/OB -CAT D9) | 5043 | 10 | dBA | 6595 | 10 | dBA | 6725 | 10 | dBA | 6592 | 11 | dBA | 6340 | 9 | dBA |
| TD16 | Track Dozer 16 (NPAG/OB -CAT D9) | 5145 | 8 | dBA | 7794 | 7 | dBA | 7944 | 8 | dBA | 7816 | 8 | dBA | 7499 | 7 | dBA |
| WD | Komatsu Wheel Dozer KM WD600 | 6042 | 4 | dBA | 6444 | 4 | dBA | 6455 | 4 | dBA | 6292 | 4 | dBA | 5592 | 4 | dBA |
| WL1 | Komatsu Wheel Loader WA1200 | 6011 | 15 | dBA | 6606 | 15 | dBA | 6625 | 15 | dBA | 6464 | 17 | dBA | 5771 | 16 | dBA |
| WL2 | Komatsu Wheel Loader WA900 | 6014 | 15 | dBA | 6576 | 15 | dBA | 6594 | 15 | dBA | 6432 | 16 | dBA | 5740 | 16 | dBA |
| WP01 | Water Pump WP01 | 5932 | 1 | dBA | 6428 | 1 | dBA | 6452 | 1 | dBA | 6292 | 2 | dBA | 5645 | 1 | dBA |

Table 2: Point of Reception Sound Impact

Project: RRP
 Location: Township of Chappelle ON



| Point of Reception ID | Point of Reception ID | Point of Reception ID | Point of Reception ID | Point of Reception ID |
|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| POR01 | POR02 | POR03 | POR04 | POR06 |
| Point of Reception Description | Point of Reception Description | Point of Reception Description | Point of Reception Description | Point of Reception Description |
| House 01 - North | House 02 - East | House 03 - East | House 04 - East | House 06 -Southeast |
| Point of reception coordinates | 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 | 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 | | |
|------------|---|----------------------|--------------------|-------|----------------------|--------------------|-------|----------------------|--------------------|-------|----------------------|--------------------|-------|----------------------|--------------------|-------|
| | | 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 | Distance (m) | Sound Level at PoR | Units |
| 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 House 07 - South | Point of Reception Description House 08 - South | Point of Reception Description House 9 - South | Point of Reception Description House 10 - South | Point of Reception Description House 11 - South |
| 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 |
| 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 | | | Point of Reception 9 | | | Point of Reception 10 | | |
|---------------|---|----------------------|--------------------|-------|----------------------|--------------------|-------|----------------------|--------------------|-------|----------------------|--------------------|-------|-----------------------|--------------------|-------|
| | | 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 | Distance (m) | Sound Level at PoR | Units |
| AC1 | WMP Air Compressor 1 | 10826 | -6 | dBA | 10082 | -6 | dBA | 9890 | -5 | dBA | 9248 | -4 | dBA | 8805 | -3 | dBA |
| AC2 | WMP Air Compressor 2 | 11559 | -7 | dBA | 10803 | -7 | dBA | 10604 | -6 | dBA | 9955 | -5 | dBA | 9504 | -5 | dBA |
| AC3 | WMP Air Compressor 3 | 12128 | -8 | dBA | 11399 | -8 | dBA | 11215 | -7 | dBA | 10578 | -6 | dBA | 10141 | -6 | dBA |
| AC4 | WMP Air Compressor 4 | 10964 | -7 | dBA | 10251 | -6 | dBA | 10078 | -5 | dBA | 9451 | -5 | dBA | 9026 | -4 | dBA |
| BD1 | Blast Hole Drill 1- Sandvik DR461i | 6221 | 15 | dBA | 5502 | 16 | dBA | 5338 | 17 | dBA | 4729 | 18 | dBA | 4337 | 16 | dBA |
| BD2 | Blast Hole Drill 2- Sandvik DR461i | 6207 | 15 | dBA | 5488 | 16 | dBA | 5324 | 17 | dBA | 4716 | 18 | dBA | 4325 | 15 | dBA |
| BD3 | Blast Hole Drill 3 - Sandvik DP1500i | 6206 | 9 | dBA | 5480 | 8 | dBA | 5311 | 8 | dBA | 4698 | 6 | dBA | 4301 | 3 | dBA |
| BD4 | Blast Hole Drill 4 - Sandvik DP1500i | 6193 | 8 | dBA | 5468 | 8 | dBA | 5299 | 8 | dBA | 4687 | 6 | dBA | 4290 | 3 | dBA |
| C | Crusher | 5410 | 10 | dBA | 4846 | 10 | dBA | 4773 | 12 | dBA | 4280 | 13 | dBA | 4022 | 15 | dBA |
| DC1 | Dust Collector 1 | 5432 | 6 | dBA | 4873 | 6 | dBA | 4802 | 8 | dBA | 4313 | 9 | dBA | 4057 | 11 | dBA |
| DC2 | Dust Collector 2 | 5703 | 5 | dBA | 5151 | 6 | dBA | 5081 | 7 | dBA | 4591 | 8 | dBA | 4332 | 10 | dBA |
| E1 | Komatsu Diesel Excavator PC5500 | 6249 | 17 | dBA | 5528 | 17 | dBA | 5382 | 19 | dBA | 4752 | 18 | dBA | 4388 | 16 | dBA |
| E2 | Komatsu Diesel Excavator PC5500 | 6128 | 17 | dBA | 5413 | 17 | dBA | 5252 | 19 | dBA | 4646 | 18 | dBA | 4259 | 15 | dBA |
| E3 | Komatsu Diesel Excavator PC8000 | 6157 | 22 | dBA | 5437 | 22 | dBA | 5273 | 23 | dBA | 4665 | 21 | dBA | 4274 | 17 | dBA |
| E4 | Komatsu Diesel Excavator PC3000 | 6173 | 25 | dBA | 5450 | 26 | dBA | 5284 | 25 | dBA | 4673 | 25 | dBA | 4280 | 22 | dBA |
| E5 | Komatsu Diesel Excavator PC800LC | 6065 | 12 | dBA | 5349 | 12 | dBA | 5187 | 11 | dBA | 4581 | 9 | dBA | 4194 | 7 | dBA |
| E6 | Komatsu Diesel Excavator PC360LC | 6138 | 15 | dBA | 5418 | 15 | dBA | 5253 | 15 | dBA | 4644 | 12 | dBA | 4253 | 9 | dBA |
| EO_E | East Outcrop Aggregate Pit Excavator PC360LC | 4969 | 18 | dBA | 4343 | 18 | dBA | 4241 | 20 | dBA | 3714 | 22 | dBA | 3427 | 20 | dBA |
| EO_FEL | East Outcrop Gravel Pit Mobile Crushing Plant Loader (CAT 966H) | 4950 | 19 | dBA | 4324 | 20 | dBA | 4221 | 20 | dBA | 3695 | 22 | dBA | 3407 | 20 | dBA |
| EO_PS | East Outcrop Gravel Pit Mobile Primary Crusher (PowerScreen) | 4968 | 20 | dBA | 4341 | 21 | dBA | 4238 | 22 | dBA | 3711 | 24 | dBA | 3422 | 21 | dBA |
| EO_SCNR | East Outcrop Gravel Pit Mobile Screener (Atlas Copco HCS3715) | 4986 | 8 | dBA | 4357 | 9 | dBA | 4253 | 10 | dBA | 3724 | 11 | dBA | 3433 | 10 | dBA |
| LD4_E | LD4 Aggregate Pit Excavator PC360LC | 8741 | 10 | dBA | 7987 | 10 | dBA | 7794 | 11 | dBA | 7151 | 12 | dBA | 6712 | 14 | dBA |
| LD4_FEL | LD4 Gravel Pit Mobile Crushing Plant Loader (CAT 966H) | 8685 | 15 | dBA | 7935 | 15 | dBA | 7743 | 16 | dBA | 7103 | 17 | dBA | 6665 | 17 | dBA |
| LD4_PS | LD4 Gravel Pit Mobile Primary Crusher (PowerScreen) | 8733 | 12 | dBA | 7980 | 12 | dBA | 7786 | 14 | dBA | 7145 | 15 | dBA | 6705 | 16 | dBA |
| LD4_SCNR | LD4 Gravel Pit Mobile Screener (Atlas Copco HCS3715) | 8679 | 1 | dBA | 7927 | 2 | dBA | 7734 | 3 | dBA | 7093 | 4 | dBA | 6655 | 5 | dBA |
| Outcrop3_E | Outcrop 3 Aggregate Pit Excavator PC360LC | 4124 | 20 | dBA | 3822 | 20 | dBA | 3884 | 21 | dBA | 3624 | 21 | dBA | 3596 | 22 | dBA |
| Outcrop3_FEL | Outcrop 3 Gravel Pit Mobile Crushing Plant Loader (CAT 966H) | 4149 | 22 | dBA | 3843 | 22 | dBA | 3903 | 23 | dBA | 3639 | 23 | dBA | 3606 | 24 | dBA |
| Outcrop3_PS | Outcrop 3 Gravel Pit Mobile Primary Crusher (PowerScreen) | 4122 | 22 | dBA | 3818 | 22 | dBA | 3880 | 23 | dBA | 3618 | 23 | dBA | 3589 | 24 | dBA |
| Outcrop3_SCNR | Outcrop3 Gravel Pit Mobile Screener (Atlas Copco HCS3715) | 4124 | 10 | dBA | 3812 | 10 | dBA | 3870 | 11 | dBA | 3603 | 11 | dBA | 3569 | 11 | dBA |
| PG1 | Pinewood River Pumphouse Generator (CAT 660 kW) | 15447 | -5 | dBA | 14533 | -5 | dBA | 14218 | -4 | dBA | 13535 | -4 | dBA | 13009 | -3 | dBA |
| RD1 | RC Drill Sandvik DR590 | 5971 | 13 | dBA | 5257 | 13 | dBA | 5038 | 12 | dBA | 4495 | 10 | dBA | 4112 | 9 | dBA |
| RD2 | RC Drill Sandvik DR580 | 5968 | 11 | dBA | 5252 | 10 | dBA | 5091 | 9 | dBA | 4486 | 8 | dBA | 4101 | 7 | dBA |
| Roen_E | Roen Aggregate Pit Excavator PC360LC | 7071 | 13 | dBA | 6542 | 13 | dBA | 6476 | 14 | dBA | 5981 | 15 | dBA | 5707 | 16 | dBA |
| Roen_FEL | Roen Gravel Pit Mobile Crushing Plant Loader (CAT 966H) | 6970 | 17 | dBA | 6446 | 17 | dBA | 6382 | 18 | dBA | 5892 | 18 | dBA | 5621 | 19 | dBA |
| Roen_PS | Roen Gravel Pit Mobile Primary Crusher (PowerScreen) | 7098 | 15 | dBA | 6568 | 15 | dBA | 6501 | 16 | dBA | 6005 | 17 | dBA | 5729 | 18 | dBA |
| Roen_SCNR | Roen Gravel Pit Mobile Screener (Atlas Copco HCS3715) | 7095 | 4 | dBA | 6556 | 4 | dBA | 6485 | 5 | dBA | 5983 | 6 | dBA | 5701 | 6 | dBA |
| T1 | Transformer 1 | 6110 | 14 | dBA | 5639 | 14 | dBA | 5606 | 14 | dBA | 5165 | 15 | dBA | 4949 | 16 | dBA |
| T2 | Transformer 2 | 6102 | 14 | dBA | 5630 | 14 | dBA | 5596 | 14 | dBA | 5155 | 15 | dBA | 4937 | 16 | dBA |
| TD01 | Track Dozer 01 (Pit - Komatsu D475) | 6055 | 18 | dBA | 5341 | 19 | dBA | 5181 | 18 | dBA | 4577 | 16 | dBA | 4192 | 13 | dBA |
| TD02 | Track Dozer 02 (Pit -CAT D10) | 6283 | 18 | dBA | 5557 | 19 | dBA | 5389 | 20 | dBA | 4776 | 19 | dBA | 4378 | 16 | dBA |
| TD03 | Track Dozer 03 (Pit -CAT D10) | 6161 | 18 | dBA | 5441 | 19 | dBA | 5276 | 19 | dBA | 4666 | 15 | dBA | 4275 | 13 | dBA |
| TD04 | Track Dozer 04 (Pit -CAT D10) | 6100 | 13 | dBA | 5391 | 13 | dBA | 5233 | 15 | dBA | 4632 | 14 | dBA | 4250 | 12 | dBA |
| TD05 | Track Dozer 05 (PAG - Komatsu D375) | 4195 | 19 | dBA | 3777 | 18 | dBA | 3789 | 20 | dBA | 3442 | 20 | dBA | 3341 | 22 | dBA |
| TD06 | Track Dozer 06 (PAG - Komatsu D375) | 3936 | 20 | dBA | 3443 | 20 | dBA | 3424 | 22 | dBA | 3035 | 22 | dBA | 2904 | 24 | dBA |
| TD07D | Track Dozer 07 (PAG - Komatsu D475) | 4373 | 24 | dBA | 3918 | 24 | dBA | 3909 | 25 | dBA | 3527 | 26 | dBA | 3391 | 28 | dBA |
| TD07N | Track Dozer 07 (PAG - Komatsu D475) | 4373 | 0 | dBA | 3918 | 0 | dBA | 3909 | 0 | dBA | 3527 | 0 | dBA | 3391 | 0 | dBA |
| TD08D | Track Dozer 08 (PAG - Komatsu D375) | 4518 | 23 | dBA | 4126 | 23 | dBA | 4145 | 24 | dBA | 3804 | 25 | dBA | 3700 | 26 | dBA |
| TD08N | Track Dozer 08 (PAG - Komatsu D375) | 4518 | 0 | dBA | 4126 | 0 | dBA | 4145 | 0 | dBA | 3804 | 0 | dBA | 3700 | 0 | dBA |
| TD09 | Track Dozer 09 (Ore -CAT D9) | 4232 | 19 | dBA | 3682 | 19 | dBA | 3629 | 21 | dBA | 3182 | 22 | dBA | 2990 | 24 | dBA |
| TD10 | Track Dozer 10 (Ore -CAT D9) | 4533 | 18 | dBA | 3928 | 18 | dBA | 3842 | 20 | dBA | 3342 | 25 | dBA | 3091 | 24 | dBA |
| TD11D | Track Dozer 11 (NPAG/OB - Komatsu D475) | 8467 | 13 | dBA | 7728 | 14 | dBA | 7543 | 15 | dBA | 6909 | 16 | dBA | 6480 | 18 | dBA |
| TD11N | Track Dozer 11 (NPAG/OB - Komatsu D475) | 8467 | 0 | dBA | 7728 | 0 | dBA | 7543 | 0 | dBA | 6909 | 0 | dBA | 6480 | 0 | dBA |
| TD12D | Track Dozer 12 (NPAG/OB - Komatsu D375) | 7143 | 16 | dBA | 6501 | 17 | dBA | 6376 | 18 | dBA | 5807 | 19 | dBA | 5455 | 20 | dBA |
| TD12N | Track Dozer 12 (NPAG/OB - Komatsu D375) | 7143 | 0 | dBA | 6501 | 0 | dBA | 6376 | 0 | dBA | 5807 | 0 | dBA | 5455 | 0 | dBA |
| TD13 | Track Dozer 13 (NPAG/OB -CAT D9) | 7757 | 9 | dBA | 6986 | 10 | dBA | 6785 | 12 | dBA | 6137 | 13 | dBA | 5693 | 14 | dBA |
| TD14 | Track Dozer 14 (NPAG/OB -CAT D9) | 7363 | 9 | dBA | 6594 | 11 | dBA | 6395 | 13 | dBA | 5750 | 13 | dBA | 5309 | 15 | dBA |
| TD15 | Track Dozer 15 (NPAG/OB -CAT D9) | 7029 | 11 | dBA | 6361 | 11 | dBA | 6223 | 13 | dBA | 5639 | 13 | dBA | 5272 | 15 | dBA |
| TD16 | Track Dozer 16 (NPAG/OB -CAT D9) | 8063 | 9 | dBA | 7335 | 9 | dBA | 7158 | 11 | dBA | 6532 | 12 | dBA | 6113 | 13 | dBA |
| WD | Komatsu Wheel Dozer KM WD600 | 6101 | 5 | dBA | 5383 | 6 | dBA | 5221 | 6 | dBA | 4614 | 5 | dBA | 4225 | 2 | dBA |
| WL1 | Komatsu Wheel Loader WA1200 | 6264 | 17 | dBA | 5537 | 17 | dBA | 5368 | 18 | dBA | 4754 | 18 | dBA | 4356 | 15 | dBA |
| WL2 | Komatsu Wheel Loader WA900 | 6236 | 17 | dBA | 5511 | 17 | dBA | 5343 | 18 | dBA | 4731 | 17 | dBA | 4335 | 15 | dBA |
| WPO1 | Water Pump WPO1 | 6180 | 3 | dBA | 5470 | 3 | dBA | 5311 | 5 | dBA | 4708 | 5 | dBA | 4324 | 4 | 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 House 07 - South | Point of Reception Description House 08 - South | Point of Reception Description House 9 - South | Point of Reception Description House 10 - South | Point of Reception Description House 11 - South |
| 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 |
| 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 | | | Point of Reception 9 | | | Point of Reception 10 | | |
|------------|---|----------------------|--------------------|-------|----------------------|--------------------|-------|----------------------|--------------------|-------|----------------------|--------------------|-------|-----------------------|--------------------|-------|
| | | 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 | Distance (m) | Sound Level at PoR | Units |
| WP02 | Water Pump WP02 | 6038 | 3 | dBA | 5334 | 3 | dBA | 5180 | 4 | dBA | 4582 | 4 | dBA | 4205 | 1 | dBA |
| WP03 | Water Pump WP03 | 5975 | 1 | dBA | 5268 | 1 | dBA | 5113 | 1 | dBA | 4514 | -1 | dBA | 4137 | -3 | dBA |
| WP04 | Water Pump WP04 | 5936 | -10 | dBA | 5223 | -10 | dBA | 5063 | -10 | dBA | 4461 | -10 | dBA | 4079 | -10 | dBA |
| WP05 | Water Pump WP05 | 6027 | -4 | dBA | 5305 | -5 | dBA | 5141 | -6 | dBA | 4532 | -7 | dBA | 4142 | -8 | dBA |
| WP06 | Water Pump WP06 | 6142 | -1 | dBA | 5415 | -3 | dBA | 5247 | -5 | dBA | 4634 | -6 | dBA | 4239 | -8 | dBA |
| WP07 | Water Pump WP07 | 6254 | 1 | dBA | 5523 | -1 | dBA | 5351 | -3 | dBA | 4734 | -6 | dBA | 4332 | -7 | dBA |
| WP08 | Water Pump WP08 | 6326 | 2 | dBA | 5599 | 3 | dBA | 5429 | 4 | dBA | 4814 | 4 | dBA | 4414 | 1 | dBA |
| WP09 | Water Pump WP09 | 6069 | 3 | dBA | 5313 | 4 | dBA | 5126 | 5 | dBA | 4496 | 7 | dBA | 4079 | 8 | dBA |
| WP10 | Water Pump WP10 | 5623 | 4 | dBA | 4882 | 5 | dBA | 4708 | 7 | dBA | 4092 | 8 | dBA | 3694 | 10 | dBA |
| WP11 | Water Pump WP11 | 5275 | 5 | dBA | 4568 | 6 | dBA | 4416 | 7 | dBA | 3826 | 9 | dBA | 3463 | 11 | dBA |
| WP12 | Water Pump WP12 | 7311 | 1 | dBA | 6504 | 1 | dBA | 6280 | 3 | dBA | 5616 | 4 | dBA | 5151 | 5 | dBA |
| WP13 | Water Pump WP13 | 7011 | 1 | dBA | 6230 | 2 | dBA | 6024 | 3 | dBA | 5374 | 4 | dBA | 4928 | 6 | dBA |
| WP14 | Water Pump WP14 | 8678 | -2 | dBA | 7922 | -2 | dBA | 7727 | 0 | dBA | 7084 | 0 | dBA | 6644 | 2 | dBA |
| WP15 | Water Pump WP15 | 8643 | -2 | dBA | 7888 | -2 | dBA | 7694 | 0 | dBA | 7052 | 1 | dBA | 6612 | 2 | dBA |
| WP16 | Water Pump WP16 | 6567 | 2 | dBA | 5895 | 2 | dBA | 5756 | 3 | dBA | 5174 | 4 | dBA | 4811 | 6 | dBA |
| WP17 | Water Pump WP17 | 8055 | -1 | dBA | 7380 | -1 | dBA | 7234 | 0 | dBA | 6638 | 1 | dBA | 6255 | 2 | dBA |
| WP18 | Water Pump WP18 | 9471 | -3 | dBA | 8646 | -3 | dBA | 8405 | -2 | dBA | 7730 | -1 | dBA | 7245 | 0 | dBA |
| WP19 | Water Pump WP19 | 5807 | -16 | dBA | 5234 | -16 | dBA | 5154 | -15 | dBA | 4648 | -14 | dBA | 4372 | -13 | dBA |
| WP20 | Pinewood River Water Pump | 15441 | -10 | dBA | 14527 | -9 | dBA | 14212 | -9 | dBA | 13528 | -8 | dBA | 13002 | -8 | dBA |
| WS | Wet Scrubber | 6039 | -15 | dBA | 5532 | -10 | dBA | 5482 | -13 | dBA | 5017 | -12 | dBA | 4778 | -12 | dBA |
| MGR_SP | Motor Grader Route Stockpile | N/A | 4 | dBA | N/A | 4 | dBA | N/A | 6 | dBA | N/A | 7 | dBA | N/A | 9 | dBA |
| MGR_NPAG | Motor Grader Route NPAG | N/A | 4 | dBA | N/A | 4 | dBA | N/A | 5 | dBA | N/A | 7 | dBA | N/A | 7 | dBA |
| MGR_OB | Motor Grader Route OB | N/A | -1 | dBA | N/A | 0 | dBA | N/A | 1 | dBA | N/A | 2 | dBA | N/A | 3 | dBA |
| MGR_OPMill | Motor Grader Route Open Pit to Mill | N/A | 4 | dBA | N/A | 4 | dBA | N/A | 6 | dBA | N/A | 7 | dBA | N/A | 8 | dBA |
| MGR_PAG | Motor Grader Route PAG | N/A | 3 | dBA | N/A | 3 | dBA | N/A | 5 | dBA | N/A | 6 | dBA | N/A | 7 | dBA |
| TRE_NPAG | Truck Route-NPAG (Empty Truck) | N/A | 9 | dBA | N/A | 9 | dBA | N/A | 10 | dBA | N/A | 12 | dBA | N/A | 11 | dBA |
| TRE_OB | Truck Route-Overburden (Empty Truck) | N/A | 8 | dBA | N/A | 9 | dBA | N/A | 10 | dBA | N/A | 11 | dBA | N/A | 11 | dBA |
| TRE_OPMill | Truck Route Open Pit to Mill (Empty Truck) | N/A | 5 | dBA | N/A | 5 | dBA | N/A | 6 | dBA | N/A | 7 | dBA | N/A | 7 | dBA |
| TRE_PAG | Truck Route PAG (Empty Truck) | N/A | 11 | dBA | N/A | 12 | dBA | N/A | 13 | dBA | N/A | 14 | dBA | N/A | 15 | dBA |
| TRE_SP | Truck Route Stockpile (Empty Truck) | N/A | 6 | dBA | N/A | 6 | dBA | N/A | 7 | dBA | N/A | 8 | dBA | N/A | 9 | dBA |
| TRL_NPAG | Truck Route-NPAG (Loaded Truck) | N/A | 23 | dBA | N/A | 24 | dBA | N/A | 24 | dBA | N/A | 26 | dBA | N/A | 26 | dBA |
| TRL_OB | Truck Route-Overburden (Loaded Truck) | N/A | 23 | dBA | N/A | 23 | dBA | N/A | 24 | dBA | N/A | 25 | dBA | N/A | 25 | dBA |
| TRL_OPMill | Truck Route Open Pit to Mill (Loaded Truck) | N/A | 19 | dBA | N/A | 20 | dBA | N/A | 21 | dBA | N/A | 21 | dBA | N/A | 22 | dBA |
| TRL_PAG | Truck Route PAG (Loaded Truck) | N/A | 26 | dBA | N/A | 26 | dBA | N/A | 27 | dBA | N/A | 28 | dBA | N/A | 29 | dBA |
| TRL_SP | Truck Route Stockpile (Loaded Truck) | N/A | 21 | dBA | N/A | 21 | dBA | N/A | 22 | dBA | N/A | 23 | dBA | N/A | 23 | dBA |
| WTR_NPAG | Water Truck Route NPAG | N/A | 1 | dBA | N/A | 1 | dBA | N/A | 3 | dBA | N/A | 5 | dBA | N/A | 5 | dBA |
| WTR_OB | Water Truck Route OB | N/A | -4 | dBA | N/A | -3 | dBA | N/A | -2 | dBA | N/A | -1 | dBA | N/A | 1 | dBA |
| WTR_OPMill | Water Truck Route Open Pit to Mill | N/A | 2 | dBA | N/A | 2 | dBA | N/A | 3 | dBA | N/A | 5 | dBA | N/A | 6 | dBA |
| WTR_PAG | Water Truck Route PAG | N/A | 1 | dBA | N/A | 1 | dBA | N/A | 3 | dBA | N/A | 4 | dBA | N/A | 6 | dBA |
| WTR_SP | Water Truck Route Stockpile | N/A | 2 | dBA | N/A | 2 | dBA | N/A | 4 | dBA | N/A | 6 | dBA | N/A | 8 | dBA |
| LD4_TR | LD4 Aggregate Pit Truck Route | N/A | 6 | dBA | N/A | 6 | dBA | N/A | 7 | dBA | N/A | 8 | dBA | N/A | 9 | dBA |
| OC3_TR | OC3 Aggregate Pit Truck Route | N/A | 1 | dBA | N/A | 1 | dBA | N/A | 2 | dBA | N/A | 3 | dBA | N/A | 4 | dBA |
| EO_TR | EO Aggregate Pit Truck Route | N/A | 11 | dBA | N/A | 11 | dBA | N/A | 13 | dBA | N/A | 15 | dBA | N/A | 15 | dBA |
| Roen_TR | Roan Aggregate Pit Truck Route | N/A | 7 | dBA | N/A | 7 | dBA | N/A | 8 | dBA | N/A | 9 | dBA | N/A | 10 | dBA |
| EG1 | Emergency Generator 1 (CAT 2.5 MW) | 6147 | 33 | dBA | 5668 | 33 | dBA | 5632 | 34 | dBA | 5185 | 34 | dBA | 4963 | 35 | dBA |
| EG2 | Emergency Generator 2 (CAT 2.5 MW) | 7756 | 30 | dBA | 7273 | 30 | dBA | 7226 | 31 | dBA | 6755 | 31 | dBA | 6499 | 32 | dBA |
| FP1 | Fire Pump 1 | 6158 | 36 | dBA | 5664 | 36 | dBA | 5621 | 38 | dBA | 5163 | 39 | dBA | 4931 | 40 | 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 | Point of Reception ID | Point of Reception ID | Point of Reception ID | Point of Reception ID |
|--|--|---|---|---|
| POR12 | POR14 | POR15 | POR16 | 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 - Nothwest |
| 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 |
| 428175 5406947 361.5 | 427450 5406952 362.9 | 419623 5410178 358.0 | 419645 5410314 359.5 | 419827 5413577 372.5 |

| Source ID | Source Description | Point of Reception 11 | | | Point of Reception 12 | | | Point of Reception 13 | | | Point of Reception 14 | | | Point of Reception 15 | | |
|---------------|---|-----------------------|--------------------|-------|-----------------------|--------------------|-------|-----------------------|--------------------|-------|-----------------------|--------------------|-------|-----------------------|--------------------|-------|
| | | 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 | Distance (m) | Sound Level at PoR | Units |
| AC1 | WMP Air Compressor 1 | 8279 | -2 | dBA | 7677 | 15 | dBA | 2024 | 14 | dBA | 1925 | 11 | dBA | 2556 | 0 | dBA |
| AC2 | WMP Air Compressor 2 | 8980 | -4 | dBA | 8363 | 15 | dBA | 1604 | 14 | dBA | 1477 | 13 | dBA | 2129 | 1 | dBA |
| AC3 | WMP Air Compressor 3 | 9614 | -5 | dBA | 9018 | 11 | dBA | 2191 | 10 | dBA | 2054 | 11 | dBA | 1331 | -1 | dBA |
| AC4 | WMP Air Compressor 4 | 8498 | -3 | dBA | 7924 | 12 | dBA | 2508 | 11 | dBA | 2395 | 12 | dBA | 2186 | -1 | dBA |
| BD1 | Blast Hole Drill 1- Sandvik DR461i | 3811 | 22 | dBA | 3327 | 7 | dBA | 5852 | 15 | dBA | 5845 | 12 | dBA | 6881 | 5 | dBA |
| BD2 | Blast Hole Drill 2- Sandvik DR461i | 3799 | 22 | dBA | 3317 | 8 | dBA | 5868 | 15 | dBA | 5861 | 12 | dBA | 6895 | 5 | dBA |
| BD3 | Blast Hole Drill 3 - Sandvik DP1500i | 3774 | 11 | dBA | 3281 | -1 | dBA | 5842 | 8 | dBA | 5837 | 5 | dBA | 6909 | -1 | dBA |
| BD4 | Blast Hole Drill 4 - Sandvik DP1500i | 3764 | 11 | dBA | 3272 | 0 | dBA | 5856 | 8 | dBA | 5851 | 5 | dBA | 6920 | -1 | dBA |
| C | Crusher | 3550 | 16 | dBA | 3326 | 9 | dBA | 7152 | 9 | dBA | 7131 | 8 | dBA | 7721 | 3 | dBA |
| DC1 | Dust Collector 1 | 3586 | 12 | dBA | 3366 | 4 | dBA | 7158 | 4 | dBA | 7136 | 3 | dBA | 7708 | -4 | dBA |
| DC2 | Dust Collector 2 | 3858 | 11 | dBA | 3620 | 1 | dBA | 6995 | 1 | dBA | 6969 | 4 | dBA | 7461 | -4 | dBA |
| E1 | Komatsu Diesel Excavator PC5500 | 3832 | 23 | dBA | 3344 | 9 | dBA | 5819 | 16 | dBA | 5813 | 14 | dBA | 6857 | 9 | dBA |
| E2 | Komatsu Diesel Excavator PC5500 | 3734 | 23 | dBA | 3261 | 15 | dBA | 5953 | 16 | dBA | 5946 | 14 | dBA | 6968 | 9 | dBA |
| E3 | Komatsu Diesel Excavator PC8000 | 3749 | 27 | dBA | 3268 | 18 | dBA | 5912 | 21 | dBA | 5905 | 19 | dBA | 6946 | 14 | dBA |
| E4 | Komatsu Diesel Excavator PC3000 | 3754 | 29 | dBA | 3268 | 21 | dBA | 5885 | 25 | dBA | 5879 | 23 | dBA | 6935 | 18 | dBA |
| E5 | Komatsu Diesel Excavator PC800LC | 3669 | 13 | dBA | 3197 | 10 | dBA | 6005 | 11 | dBA | 5999 | 9 | dBA | 7032 | 4 | dBA |
| E6 | Komatsu Diesel Excavator PC360LC | 3728 | 19 | dBA | 3247 | 11 | dBA | 5926 | 14 | dBA | 5920 | 12 | dBA | 6966 | 7 | dBA |
| EO_E | East Outcrop Aggregate Pit Excavator PC360LC | 2942 | 24 | dBA | 2696 | 11 | dBA | 7272 | 11 | dBA | 7262 | 12 | dBA | 8096 | 7 | 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 | 8114 | 15 | dBA |
| EO_PS | East Outcrop Gravel Pit Mobile Primary Crusher (PowerScreen) | 2937 | 26 | dBA | 2688 | 13 | dBA | 7268 | 13 | dBA | 7258 | 15 | dBA | 8096 | 10 | dBA |
| EO_SCNR | East Outcrop Gravel Pit Mobile Screener (Atlas Copco HCS3715) | 2947 | 13 | dBA | 2694 | 3 | dBA | 7248 | 3 | dBA | 7238 | 2 | dBA | 8078 | -2 | dBA |
| LD4_E | LD4 Aggregate Pit Excavator PC360LC | 6185 | 15 | dBA | 5593 | 21 | dBA | 3404 | 21 | dBA | 3377 | 18 | dBA | 4529 | 13 | dBA |
| LD4_FEL | LD4 Gravel Pit Mobile Crushing Plant Loader (CAT 966H) | 6138 | 19 | dBA | 5550 | 23 | dBA | 3476 | 24 | dBA | 3448 | 21 | dBA | 4563 | 19 | dBA |
| LD4_PS | LD4 Gravel Pit Mobile Primary Crusher (PowerScreen) | 6179 | 18 | dBA | 5587 | 24 | dBA | 3416 | 24 | dBA | 3389 | 20 | dBA | 4532 | 16 | dBA |
| LD4_SCNR | LD4 Gravel Pit Mobile Screener (Atlas Copco HCS3715) | 6128 | 6 | dBA | 5538 | 11 | dBA | 3472 | 11 | dBA | 3445 | 8 | dBA | 4577 | 2 | dBA |
| Outcrop3_E | Outcrop 3 Aggregate Pit Excavator PC360LC | 3298 | 22 | dBA | 3466 | 8 | dBA | 8996 | 8 | dBA | 8974 | 7 | dBA | 9412 | 4 | 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 | 9382 | 14 | dBA |
| Outcrop3_PS | Outcrop 3 Gravel Pit Mobile Primary Crusher (PowerScreen) | 3291 | 24 | dBA | 3458 | 10 | dBA | 8990 | 10 | dBA | 8968 | 9 | dBA | 9409 | 8 | dBA |
| Outcrop3_SCNR | Outcrop 3 Gravel Pit Mobile Screener (Atlas Copco HCS3715) | 3267 | 11 | dBA | 3429 | 0 | dBA | 8959 | 0 | dBA | 8938 | -1 | dBA | 9387 | -4 | dBA |
| PG1 | Pinewood River Pumphouse Generator (CAT 660 kW) | 12587 | -2 | dBA | 11862 | 10 | dBA | 5109 | 11 | dBA | 5211 | 4 | dBA | 7788 | 28 | dBA |
| RD1 | RC Drill Sandvik DR580 | 3538 | 15 | dBA | 3127 | 16 | dBA | 6102 | 16 | dBA | 6096 | 14 | dBA | 7122 | 10 | dBA |
| RD2 | RC Drill Sandvik DR580 | 3576 | 13 | dBA | 3111 | 16 | dBA | 6094 | 16 | dBA | 6089 | 14 | dBA | 7129 | 10 | dBA |
| Roen_E | Roen Aggregate Pit Excavator PC360LC | 5220 | 16 | dBA | 4921 | 13 | dBA | 6281 | 16 | dBA | 6231 | 16 | dBA | 6252 | 7 | dBA |
| Roen_FEL | Roen Gravel Pit Mobile Crushing Plant Loader (CAT 966H) | 5137 | 20 | dBA | 4847 | 17 | dBA | 6364 | 21 | dBA | 6315 | 21 | dBA | 6356 | 16 | dBA |
| Roen_PS | Roen Gravel Pit Mobile Primary Crusher (PowerScreen) | 5241 | 19 | dBA | 4939 | 16 | dBA | 6254 | 19 | dBA | 6204 | 19 | dBA | 6222 | 11 | dBA |
| Roen_SCNR | Roen Gravel Pit Mobile Screener (Atlas Copco HCS3715) | 5211 | 7 | dBA | 4899 | 5 | dBA | 6191 | 6 | dBA | 6142 | 6 | dBA | 6194 | -1 | dBA |
| T1 | Transformer 1 | 4497 | 17 | dBA | 4313 | 10 | dBA | 7173 | 10 | dBA | 7133 | 13 | dBA | 7293 | 3 | dBA |
| T2 | Transformer 2 | 4485 | 17 | dBA | 4301 | 10 | dBA | 7171 | 10 | dBA | 7132 | 13 | dBA | 7297 | 3 | dBA |
| TD01 | Track Dozer 01 (Pit - Komatsu D475) | 3668 | 22 | dBA | 3200 | 17 | dBA | 6024 | 18 | dBA | 6018 | 15 | dBA | 7039 | 9 | dBA |
| TD02 | Track Dozer 02 (Pit -CAT D10) | 3852 | 24 | dBA | 3356 | 4 | dBA | 5774 | 16 | dBA | 5768 | 15 | dBA | 6831 | 9 | dBA |
| TD03 | Track Dozer 03 (Pit -CAT D10) | 3749 | 23 | dBA | 3266 | 13 | dBA | 5903 | 18 | dBA | 5897 | 15 | dBA | 6943 | 9 | dBA |
| TD04 | Track Dozer 04 (Pit -CAT D10) | 3726 | 20 | dBA | 3263 | 11 | dBA | 5999 | 12 | dBA | 5992 | 9 | dBA | 6988 | 4 | dBA |
| TD05 | Track Dozer 05 (PAG - Komatsu D375) | 2988 | 25 | dBA | 3068 | 6 | dBA | 8547 | 6 | dBA | 8530 | 7 | dBA | 9100 | 2 | dBA |
| TD06 | Track Dozer 06 (PAG - Komatsu D375) | 2535 | 28 | dBA | 2607 | 6 | dBA | 8482 | 6 | dBA | 8482 | 7 | dBA | 9219 | 2 | dBA |
| TD07D | Track Dozer 07 (PAG - Komatsu D475) | 3008 | 28 | dBA | 3029 | 12 | dBA | 8302 | 12 | dBA | 8285 | 14 | dBA | 8872 | 7 | dBA |
| TD07N | Track Dozer 07 (PAG - Komatsu D475) | 3008 | 0 | dBA | 3029 | 0 | dBA | 8302 | 0 | dBA | 8285 | 0 | dBA | 8872 | 0 | dBA |
| TD08D | Track Dozer 08 (PAG - Komatsu D375) | 3338 | 26 | dBA | 3389 | 12 | dBA | 8449 | 12 | dBA | 8427 | 14 | dBA | 8878 | 7 | dBA |
| TD08N | Track Dozer 08 (PAG - Komatsu D375) | 3338 | 0 | dBA | 3389 | 0 | dBA | 8449 | 0 | dBA | 8427 | 0 | dBA | 8878 | 0 | dBA |
| TD09 | Track Dozer 09 (Ore -CAT D9) | 2571 | 28 | dBA | 2532 | 7 | dBA | 8102 | 7 | dBA | 8093 | 8 | dBA | 8873 | 3 | dBA |
| TD10 | Track Dozer 10 (Ore -CAT D9) | 2630 | 28 | dBA | 2476 | 8 | dBA | 7700 | 8 | dBA | 7693 | 9 | dBA | 8538 | 3 | dBA |
| TD11D | Track Dozer 11 (NPAG/OB - Komatsu D475) | 5952 | 19 | dBA | 5379 | 25 | dBA | 3740 | 29 | dBA | 3711 | 21 | dBA | 4721 | 16 | dBA |
| TD11N | Track Dozer 11 (NPAG/OB - Komatsu D475) | 5952 | 0 | dBA | 5379 | 0 | dBA | 3740 | 0 | dBA | 3711 | 0 | dBA | 4721 | 0 | dBA |
| TD12D | Track Dozer 12 (NPAG/OB - Komatsu D375) | 4938 | 22 | dBA | 4509 | 19 | dBA | 5454 | 19 | dBA | 5419 | 22 | dBA | 5927 | 12 | dBA |
| TD12N | Track Dozer 12 (NPAG/OB - Komatsu D375) | 4938 | 0 | dBA | 4509 | 0 | dBA | 5454 | 0 | dBA | 5419 | 0 | dBA | 5927 | 0 | dBA |
| TD13 | Track Dozer 13 (NPAG/OB -CAT D9) | 5167 | 16 | dBA | 4570 | 17 | dBA | 4224 | 18 | dBA | 4219 | 13 | dBA | 5545 | 10 | dBA |
| TD14 | Track Dozer 14 (NPAG/OB -CAT D9) | 4783 | 17 | dBA | 4196 | 15 | dBA | 4608 | 16 | dBA | 4605 | 12 | dBA | 5908 | 9 | dBA |
| TD15 | Track Dozer 15 (NPAG/OB -CAT D9) | 4751 | 17 | dBA | 4298 | 14 | dBA | 5392 | 13 | dBA | 5364 | 15 | dBA | 6031 | 7 | dBA |
| TD16 | Track Dozer 16 (NPAG/OB -CAT D9) | 5585 | 14 | dBA | 5031 | 18 | dBA | 4164 | 17 | dBA | 4137 | 15 | dBA | 5076 | 7 | dBA |
| WD | Komatsu Wheel Dozer KM W/D600 | 3700 | 8 | dBA | 3225 | 4 | dBA | 5788 | 5 | dBA | 5962 | 3 | dBA | 6999 | -1 | dBA |
| WL1 | Komatsu Wheel Loader WA1200 | 3830 | 21 | dBA | 3334 | 7 | dBA | 5968 | 16 | dBA | 5783 | 15 | dBA | 6852 | 10 | dBA |
| WL2 | Komatsu Wheel Loader WA900 | 3808 | 21 | dBA | 3316 | 9 | dBA | 5820 | 16 | dBA | 5814 | 14 | dBA | 6876 | 10 | dBA |
| W/P01 | Water Pump W/P01 | 3800 | 9 | dBA | 3331 | -2 | dBA | 5923 | -3 | dBA | 5915 | 0 | dBA | 6910 | -4 | 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 |
|---|---|---|---|---|
| POR12 | POR14 | POR15 | POR16 | 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 428175 5406947 361.5 | Point of reception coordinates X Y Z 427450 5406952 362.9 | Point of reception coordinates X Y Z 419623 5410178 358.0 | Point of reception coordinates X Y Z 419645 5410314 359.5 | Point of reception coordinates X Y Z 419827 5413577 372.5 |

| Source ID | Source Description | Point of Reception 11 | | | Point of Reception 12 | | | Point of Reception 13 | | | Point of Reception 14 | | | Point of Reception 15 | | |
|------------|---|-----------------------|--------------------|-------|-----------------------|--------------------|-------|-----------------------|--------------------|-------|-----------------------|--------------------|-------|-----------------------|--------------------|-------|
| | | 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 | Distance (m) | Sound Level at PoR | Units |
| WP02 | Water Pump WP02 | 3683 | 9 | dBA | 3230 | 2 | dBA | 6074 | 1 | dBA | 6065 | 0 | dBA | 7044 | -5 | dBA |
| WP03 | Water Pump WP03 | 3614 | 5 | dBA | 3161 | 2 | dBA | 6122 | 2 | dBA | 6114 | -1 | dBA | 7110 | -5 | dBA |
| WP04 | Water Pump WP04 | 3555 | -6 | dBA | 3095 | 1 | dBA | 6133 | 2 | dBA | 6128 | -1 | dBA | 7157 | -5 | dBA |
| WP05 | Water Pump WP05 | 3617 | -4 | dBA | 3141 | 1 | dBA | 6025 | 2 | dBA | 6020 | 0 | dBA | 7078 | -5 | dBA |
| WP06 | Water Pump WP06 | 3713 | -4 | dBA | 3223 | -2 | dBA | 5903 | 2 | dBA | 5898 | 0 | dBA | 6972 | -4 | dBA |
| WP07 | Water Pump WP07 | 3805 | -3 | dBA | 3302 | -2 | dBA | 5780 | -13 | dBA | 5776 | 0 | dBA | 6871 | -4 | dBA |
| WP08 | Water Pump WP08 | 3887 | 8 | dBA | 3387 | -13 | dBA | 5727 | -3 | dBA | 5721 | 0 | dBA | 6791 | -4 | dBA |
| WP09 | Water Pump WP09 | 3550 | 11 | dBA | 3021 | 2 | dBA | 5887 | 2 | dBA | 5890 | -1 | dBA | 7111 | -4 | dBA |
| WP10 | Water Pump WP10 | 3168 | 12 | dBA | 2688 | 1 | dBA | 6350 | 1 | dBA | 6352 | -1 | dBA | 7512 | -2 | dBA |
| WP11 | Water Pump WP11 | 2946 | 15 | dBA | 2547 | 0 | dBA | 6760 | 0 | dBA | 6758 | -2 | dBA | 7809 | -3 | dBA |
| WP12 | Water Pump WP12 | 4631 | 7 | dBA | 3999 | 5 | dBA | 4575 | 5 | dBA | 4589 | 1 | dBA | 6178 | -2 | dBA |
| WP13 | Water Pump WP13 | 4402 | 8 | dBA | 3808 | 4 | dBA | 4914 | 4 | dBA | 4918 | 1 | dBA | 6299 | 0 | dBA |
| WP14 | Water Pump WP14 | 6117 | 3 | dBA | 5523 | 7 | dBA | 3446 | 7 | dBA | 3421 | 5 | dBA | 4600 | -1 | dBA |
| WP15 | Water Pump WP15 | 6085 | 3 | dBA | 5493 | 1 | dBA | 3485 | 2 | dBA | 3460 | 5 | dBA | 4626 | -1 | dBA |
| WP16 | Water Pump WP16 | 4291 | 7 | dBA | 3852 | 2 | dBA | 5747 | 2 | dBA | 5726 | 1 | dBA | 6493 | -2 | dBA |
| WP17 | Water Pump WP17 | 5729 | 3 | dBA | 5236 | 6 | dBA | 4553 | 5 | dBA | 4510 | 4 | dBA | 5005 | -3 | dBA |
| WP18 | Water Pump WP18 | 6737 | 2 | dBA | 6068 | 12 | dBA | 2410 | 12 | dBA | 2434 | 4 | dBA | 4626 | 1 | dBA |
| WP19 | Water Pump WP19 | 3889 | -12 | dBA | 3621 | -20 | dBA | 6830 | -19 | dBA | 6804 | -1 | dBA | 7334 | -6 | dBA |
| WP20 | Pinewood River Water Pump | 12581 | -7 | dBA | 11856 | 5 | dBA | 5105 | 5 | dBA | 5206 | -2 | dBA | 7785 | 25 | dBA |
| WS | Wet Scrubber | 4314 | 8 | dBA | 4097 | 1 | dBA | 7005 | 1 | dBA | 6970 | 1 | dBA | 7248 | -5 | dBA |
| MGR_SP | Motor Grader Route Stockpile | N/A | 12 | dBA | N/A | -1 | dBA | N/A | 0 | dBA | N/A | -1 | dBA | N/A | -5 | dBA |
| MGR_NPAG | Motor Grader Route NPAG | N/A | 10 | dBA | N/A | 6 | dBA | N/A | 6 | dBA | N/A | 5 | dBA | N/A | 1 | dBA |
| MGR_OB | Motor Grader Route OB | N/A | 7 | dBA | N/A | 3 | 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 | N/A | -4 | dBA |
| MGR_PAG | Motor Grader Route PAG | N/A | 8 | dBA | N/A | -5 | dBA | N/A | -5 | dBA | N/A | -5 | dBA | N/A | -9 | dBA |
| TRE_NPAG | Truck Route-NPAG (Empty Truck) | N/A | 14 | dBA | N/A | 10 | dBA | N/A | 10 | dBA | N/A | 9 | dBA | N/A | 7 | dBA |
| TRE_OB | Truck Route-Overburden (Empty Truck) | N/A | 14 | dBA | N/A | 9 | dBA | N/A | 10 | dBA | N/A | 9 | dBA | N/A | 6 | 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 | N/A | -1 | dBA |
| TRE_PAG | Truck Route PAG (Empty Truck) | N/A | 17 | dBA | N/A | 7 | dBA | N/A | 8 | dBA | N/A | 8 | dBA | N/A | 4 | dBA |
| TRE_SP | Truck Route Stockpile (Empty Truck) | N/A | 12 | dBA | N/A | 3 | dBA | N/A | 4 | dBA | N/A | 3 | dBA | N/A | -1 | dBA |
| TRL_NPAG | Truck Route-NPAG (Loaded Truck) | N/A | 28 | dBA | N/A | 25 | dBA | N/A | 25 | dBA | N/A | 23 | dBA | N/A | 21 | dBA |
| TRL_OB | Truck Route-Overburden (Loaded Truck) | N/A | 28 | dBA | N/A | 24 | dBA | N/A | 24 | dBA | N/A | 23 | dBA | N/A | 20 | 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 | N/A | 13 | dBA |
| TRL_PAG | Truck Route PAG (Loaded Truck) | N/A | 31 | dBA | N/A | 22 | dBA | N/A | 22 | dBA | N/A | 22 | dBA | N/A | 18 | dBA |
| TRL_SP | Truck Route Stockpile (Loaded Truck) | N/A | 26 | dBA | N/A | 17 | dBA | N/A | 18 | dBA | N/A | 17 | dBA | N/A | 13 | dBA |
| WTR_NPAG | Water Truck Route NPAG | N/A | 8 | dBA | N/A | 4 | dBA | N/A | 4 | dBA | N/A | 2 | 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 | N/A | -6 | 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 | N/A | -8 | dBA |
| WTR_PAG | Water Truck Route PAG | N/A | 6 | dBA | N/A | -8 | dBA | N/A | -8 | dBA | N/A | -8 | dBA | N/A | -14 | dBA |
| WTR_SP | Water Truck Route Stockpile | N/A | 11 | dBA | N/A | -4 | dBA | N/A | -3 | dBA | N/A | -4 | dBA | N/A | -10 | dBA |
| LD4_TR | LD4 Aggregate Pit Truck Route | N/A | 10 | dBA | N/A | 17 | dBA | N/A | 17 | dBA | N/A | 19 | dBA | N/A | 7 | dBA |
| OC3_TR | OC3 Aggregate Pit Truck Route | N/A | 7 | dBA | N/A | -7 | dBA | N/A | -7 | dBA | N/A | -5 | dBA | N/A | -9 | dBA |
| EO_TR | EO Aggregate Pit Truck Route | N/A | 17 | dBA | N/A | 13 | dBA | N/A | 13 | dBA | N/A | 15 | dBA | N/A | 6 | dBA |
| Roen_TR | Roen Aggregate Pit Truck Route | N/A | 12 | dBA | N/A | 14 | dBA | N/A | 13 | dBA | N/A | 12 | dBA | N/A | 5 | dBA |
| EG1 | Emergency Generator 1 (CAT 2.5 MW) | 4508 | 36 | dBA | 4314 | 30 | dBA | 7112 | 30 | dBA | 7072 | 31 | dBA | 7239 | 25 | dBA |
| EG2 | Emergency Generator 2 (CAT 2.5 MW) | 6021 | 33 | dBA | 5739 | 31 | dBA | 6335 | 33 | dBA | 6269 | 33 | dBA | 5864 | 26 | dBA |
| FP1 | Fire Pump 1 | 4470 | 45 | dBA | 4260 | 41 | dBA | 7017 | 41 | dBA | 6978 | 44 | dBA | 7182 | 40 | dBA |
| FP2 | Fire Pump 2 | 4437 | 45 | dBA | 4225 | 41 | dBA | 7012 | 41 | dBA | 6974 | 44 | dBA | 7194 | 40 | 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 |
|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| POR19 | POR20 | POR21 | POR22 | POR23 |
| Point of Reception Description | Point of Reception Description | Point of Reception Description | Point of Reception Description | Point of Reception Description |
| Vacant Lot Near Pinewood River | Vacant Lot 56041-0138 | Vacant Lot 56036-0023 | Vacant Lot 56036-0184 | Vacant Lot 56041-0037 |
| Point of reception coordinates | 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 | X Y Z |
| 416140 5407200 344.5 | 425325 5406877 373.2 | 429474 5408438 384.1 | 428602 5406751 366.5 | 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 | | |
|---------------|---|-----------------------|--------------------|-------|-----------------------|--------------------|-------|-----------------------|--------------------|-------|-----------------------|--------------------|-------|-----------------------|--------------------|-------|
| | | 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 | Distance (m) | Sound Level at PoR | Units |
| AC1 | WMP Air Compressor 1 | 6605 | 1 | dBA | 6134 | -4 | dBA | 8786 | -4 | dBA | 8745 | 3 | dBA | 5406 | 1 | dBA |
| AC2 | WMP Air Compressor 2 | 6128 | -1 | dBA | 6741 | -6 | dBA | 9533 | -5 | dBA | 9447 | 2 | dBA | 5962 | -1 | dBA |
| AC3 | WMP Air Compressor 3 | 6506 | -2 | dBA | 7468 | -6 | dBA | 10058 | -6 | dBA | 10078 | -1 | dBA | 6716 | -2 | dBA |
| AC4 | WMP Air Compressor 4 | 7081 | 0 | dBA | 6490 | -5 | dBA | 8878 | -5 | dBA | 8959 | 1 | dBA | 5813 | 1 | dBA |
| BD1 | Blast Hole Drill 1- Sandvik DR4611 | 9612 | 22 | dBA | 2734 | 18 | dBA | 4196 | 18 | dBA | 4257 | 11 | dBA | 2795 | 21 | dBA |
| BD2 | Blast Hole Drill 2- Sandvik DR4611 | 9628 | 21 | dBA | 2735 | 17 | dBA | 4180 | 16 | dBA | 4245 | 11 | dBA | 2801 | 22 | dBA |
| BD3 | Blast Hole Drill 3 - Sandvik DP1500I | 9578 | 4 | dBA | 2662 | 10 | dBA | 4193 | 6 | dBA | 4223 | 1 | dBA | 2722 | 4 | dBA |
| BD4 | Blast Hole Drill 4 - Sandvik DP1500I | 9591 | 5 | dBA | 2663 | 10 | dBA | 4180 | 6 | dBA | 4212 | 1 | dBA | 2728 | 4 | dBA |
| C | Crusher | 11052 | 18 | dBA | 3634 | 16 | dBA | 3229 | 13 | dBA | 3911 | 17 | dBA | 3990 | 18 | dBA |
| DC1 | Dust Collector 1 | 11069 | 14 | dBA | 3675 | 12 | dBA | 3247 | 9 | dBA | 3946 | 13 | dBA | 4027 | 14 | dBA |
| DC2 | Dust Collector 2 | 10972 | 10 | dBA | 3821 | 11 | dBA | 3513 | 8 | dBA | 4222 | 9 | dBA | 4112 | 10 | dBA |
| E1 | Komatsu Diesel Excavator PC5500 | 9579 | 21 | dBA | 2729 | 20 | dBA | 4226 | 19 | dBA | 4279 | 13 | dBA | 2778 | 21 | dBA |
| E2 | Komatsu Diesel Excavator PC5500 | 9708 | 22 | dBA | 2733 | 18 | dBA | 4097 | 18 | dBA | 4178 | 15 | dBA | 2829 | 22 | dBA |
| E3 | Komatsu Diesel Excavator PC8000 | 9660 | 26 | dBA | 2707 | 23 | dBA | 4132 | 21 | dBA | 4194 | 17 | dBA | 2789 | 26 | dBA |
| E4 | Komatsu Diesel Excavator PC3000 | 9626 | 27 | dBA | 2683 | 27 | dBA | 4154 | 25 | dBA | 4201 | 20 | dBA | 2757 | 27 | dBA |
| E5 | Komatsu Diesel Excavator PC800LC | 9743 | 14 | dBA | 2693 | 10 | dBA | 4039 | 9 | dBA | 4113 | 8 | dBA | 2809 | 14 | dBA |
| E6 | Komatsu Diesel Excavator PC360LC | 9669 | 17 | dBA | 2691 | 16 | dBA | 4115 | 13 | dBA | 4173 | 10 | dBA | 2780 | 17 | dBA |
| EO_E | East Outcrop Aggregate Pit Excavator PC360LC | 10992 | 23 | dBA | 3118 | 19 | dBA | 2845 | 22 | 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 | 3576 | 24 | dBA |
| EO_PS | East Outcrop Gravel Pit Mobile Primary Crusher (PowerScreen) | 10986 | 24 | dBA | 3109 | 22 | dBA | 2846 | 24 | dBA | 3317 | 23 | dBA | 3570 | 24 | dBA |
| EO_SCNR | East Outcrop Gravel Pit Mobile Screener (Atlas Copco HCS3715) | 10966 | 11 | dBA | 3100 | 12 | dBA | 2865 | 11 | dBA | 3328 | 11 | dBA | 3557 | 10 | dBA |
| LD4_E | LD4 Aggregate Pit Excavator PC360LC | 7576 | 19 | dBA | 4182 | 12 | dBA | 6735 | 13 | dBA | 6650 | 21 | dBA | 3593 | 19 | dBA |
| LD4_FEL | LD4 Gravel Pit Mobile Crushing Plant Loader (CAT 966H) | 7649 | 22 | dBA | 4162 | 17 | dBA | 6674 | 17 | dBA | 6603 | 23 | dBA | 3588 | 22 | dBA |
| LD4_PS | LD4 Gravel Pit Mobile Primary Crusher (PowerScreen) | 7589 | 21 | dBA | 4181 | 15 | dBA | 6726 | 15 | dBA | 6644 | 23 | dBA | 3594 | 21 | dBA |
| LD4_SCNR | LD4 Gravel Pit Mobile Screener (Atlas Copco HCS3715) | 7637 | 9 | dBA | 4144 | 4 | dBA | 6670 | 4 | dBA | 6593 | 11 | dBA | 3567 | 9 | dBA |
| Outcrop3_E | Outcrop 3 Aggregate Pit Excavator PC360LC | 12838 | 17 | dBA | 4690 | 25 | dBA | 1973 | 21 | dBA | 3465 | 15 | dBA | 5317 | 17 | 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 | 5300 | 20 | dBA |
| Outcrop3_PS | Outcrop 3 Gravel Pit Mobile Primary Crusher (PowerScreen) | 12830 | 19 | dBA | 4682 | 26 | dBA | 1970 | 24 | dBA | 3459 | 18 | dBA | 5308 | 19 | dBA |
| Outcrop3_SCNR | Outcrop3 Gravel Pit Mobile Screener (Atlas Copco HCS3715) | 12795 | 8 | dBA | 4645 | 13 | dBA | 1966 | 11 | 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 | 8772 | 2 | dBA |
| RD1 | RC Drill Sandvik DR580 | 9832 | 15 | dBA | 2686 | 11 | dBA | 3941 | 10 | dBA | 4030 | 11 | dBA | 2836 | 15 | dBA |
| RD2 | RC Drill Sandvik DR580 | 9815 | 12 | dBA | 2657 | 9 | dBA | 3944 | 8 | dBA | 4019 | 9 | dBA | 2807 | 12 | dBA |
| Roen_E | Roen Aggregate Pit Excavator PC360LC | 10554 | 20 | dBA | 4711 | 17 | dBA | 4867 | 15 | dBA | 5600 | 17 | dBA | 4743 | 20 | dBA |
| Roen_FEL | Roen Gravel Pit Mobile Crushing Plant Loader (CAT 966H) | 10623 | 24 | dBA | 4677 | 20 | dBA | 4766 | 19 | dBA | 5514 | 20 | dBA | 4730 | 24 | dBA |
| Roen_PS | Roen Gravel Pit Mobile Primary Crusher (PowerScreen) | 10531 | 23 | dBA | 4717 | 19 | dBA | 4895 | 17 | dBA | 5623 | 19 | dBA | 4743 | 23 | dBA |
| Roen_SCNR | Roen Gravel Pit Mobile Screener (Atlas Copco HCS3715) | 10460 | 9 | dBA | 4652 | 7 | dBA | 4895 | 6 | dBA | 5596 | 8 | dBA | 4669 | 9 | dBA |
| T1 | Transformer 1 | 11314 | 16 | dBA | 4547 | 18 | dBA | 3901 | 15 | dBA | 4833 | 16 | dBA | 4793 | 16 | dBA |
| T2 | Transformer 2 | 11310 | 16 | dBA | 4535 | 18 | dBA | 3893 | 15 | 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 | 2836 | 21 | dBA |
| TD02 | Track Dozer 02 (Pit -CAT D10) | 9528 | 20 | dBA | 2707 | 22 | dBA | 4266 | 19 | 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 | 2777 | 21 | dBA |
| TD04 | Track Dozer 04 (Pit -CAT D10) | 9766 | 21 | dBA | 2775 | 13 | dBA | 4060 | 14 | dBA | 4167 | 12 | dBA | 2884 | 21 | dBA |
| TD05 | Track Dozer 05 (PAG - Komatsu D375) | 12334 | 17 | dBA | 4175 | 27 | dBA | 1988 | 21 | dBA | 3214 | 15 | dBA | 4787 | 17 | dBA |
| TD06 | Track Dozer 06 (PAG - Komatsu D375) | 12161 | 18 | dBA | 3795 | 28 | dBA | 1736 | 23 | dBA | 2778 | 19 | dBA | 4458 | 18 | dBA |
| TD07D | Track Dozer 07 (PAG - Komatsu D475) | 12097 | 23 | dBA | 4019 | 32 | dBA | 2164 | 27 | dBA | 3266 | 21 | dBA | 4600 | 23 | dBA |
| TD07N | Track Dozer 07 (PAG - Komatsu D475) | 12097 | 0 | dBA | 4019 | 0 | dBA | 2164 | 0 | dBA | 3266 | 0 | dBA | 4600 | 0 | dBA |
| TD08D | Track Dozer 08 (PAG - Komatsu D375) | 12324 | 22 | dBA | 4377 | 31 | dBA | 2318 | 25 | dBA | 3573 | 20 | dBA | 4934 | 22 | dBA |
| TD08N | Track Dozer 08 (PAG - Komatsu D375) | 12324 | 0 | dBA | 4377 | 0 | dBA | 2318 | 0 | dBA | 3573 | 0 | dBA | 4934 | 0 | dBA |
| TD09 | Track Dozer 09 (Ore -CAT D9) | 11775 | 20 | dBA | 3515 | 26 | dBA | 2059 | 23 | dBA | 2870 | 21 | dBA | 4131 | 19 | dBA |
| TD10 | Track Dozer 10 (Ore -CAT D8) | 11365 | 25 | dBA | 3214 | 25 | dBA | 2400 | 26 | dBA | 2979 | 22 | dBA | 3778 | 24 | dBA |
| TD11D | Track Dozer 11 (NPAG/OB - Komatsu D475) | 7907 | 27 | dBA | 4070 | 16 | dBA | 6439 | 17 | dBA | 6414 | 29 | dBA | 3550 | 27 | dBA |
| TD11N | Track Dozer 11 (NPAG/OB - Komatsu D475) | 7907 | 0 | dBA | 4070 | 0 | dBA | 6439 | 0 | dBA | 6414 | 0 | dBA | 3550 | 0 | dBA |
| TD12D | Track Dozer 12 (NPAG/OB - Komatsu D375) | 9592 | 28 | dBA | 3900 | 20 | dBA | 5004 | 19 | dBA | 5365 | 24 | dBA | 3795 | 28 | dBA |
| TD12N | Track Dozer 12 (NPAG/OB - Komatsu D375) | 9592 | 0 | dBA | 3900 | 0 | dBA | 5004 | 0 | dBA | 5365 | 0 | dBA | 3795 | 0 | dBA |
| TD13 | Track Dozer 13 (NPAG/OB -CAT D9) | 8090 | 25 | dBA | 3227 | 13 | dBA | 5797 | 13 | dBA | 5633 | 27 | dBA | 2752 | 25 | dBA |
| TD14 | Track Dozer 14 (NPAG/OB -CAT D9) | 8404 | 26 | dBA | 2947 | 13 | dBA | 5406 | 13 | dBA | 5248 | 28 | dBA | 2571 | 26 | dBA |
| TD15 | Track Dozer 15 (NPAG/OB -CAT D9) | 9455 | 23 | dBA | 3624 | 14 | dBA | 4916 | 14 | dBA | 5186 | 20 | dBA | 3514 | 23 | dBA |
| TD16 | Track Dozer 16 (NPAG/OB -CAT D9) | 8282 | 18 | dBA | 3842 | 12 | dBA | 6020 | 12 | dBA | 6044 | 20 | dBA | 3411 | 18 | dBA |
| WD | Komatsu Wheel Dozer KM WD600 | 9711 | 9 | dBA | 2698 | 6 | dBA | 4075 | 4 | dBA | 4145 | 2 | dBA | 2801 | 9 | dBA |
| WL1 | Komatsu Wheel Loader WA1200 | 9535 | 14 | dBA | 2688 | 20 | dBA | 4249 | 17 | dBA | 4279 | 9 | dBA | 2728 | 14 | dBA |
| WL2 | Komatsu Wheel Loader WA900 | 9567 | 19 | dBA | 2691 | 19 | dBA | 4219 | 17 | dBA | 4256 | 11 | dBA | 2742 | 19 | dBA |
| WP01 | Water Pump WP01 | 9702 | 11 | dBA | 2800 | 5 | dBA | 4139 | 5 | dBA | 4242 | 3 | dBA | 2881 | 10 | 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 |
|--|---|---|---|---|
| POR19 | POR20 | POR21 | POR22 | 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 | 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 |
| 416140 5407200 344.5 | 425325 5406877 373.2 | 429474 5408438 384.1 | 428602 5406751 366.5 | 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 | | |
|------------|---|-----------------------|--------------------|-------|-----------------------|--------------------|-------|-----------------------|--------------------|-------|-----------------------|--------------------|-------|-----------------------|--------------------|-------|
| | | 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 | 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 |
| LD4_TR | LD4 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 | 8 | 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
 425216 5406873 372.2

Point of reception coordinates
 X Y Z
 426109 5406850 378.7

| Source ID | Source Description | Point of Reception 21 | | | Point of Reception 22 | | |
|--------------|---|-----------------------|--------------------|-------|-----------------------|--------------------|-------|
| | | Distance (m) | Sound Level at PoR | Units | Distance (m) | Sound Level at PoR | Units |
| AC1 | WMP Air Compressor 1 | 6065 | 0 | dBA | 6703 | 0 | dBA |
| AC2 | WMP Air Compressor 2 | 6666 | -2 | dBA | 7344 | 0 | dBA |
| AC3 | WMP Air Compressor 3 | 7396 | -3 | dBA | 8046 | 0 | dBA |
| AC4 | WMP Air Compressor 4 | 6427 | -1 | dBA | 7018 | 0 | dBA |
| BD1 | Blast Hole Drill 1- Sandvik DR461i | 2744 | 22 | dBA | 2836 | 0 | dBA |
| BD2 | Blast Hole Drill 2- Sandvik DR461i | 2745 | 22 | dBA | 2833 | 0 | dBA |
| BD3 | Blast Hole Drill 3 - Sandvik DP1500i | 2672 | 6 | dBA | 2772 | 0 | dBA |
| BD4 | Blast Hole Drill 4 - Sandvik DP1500i | 2673 | 6 | dBA | 2768 | 0 | dBA |
| C | Crusher | 3682 | 19 | dBA | 3424 | 0 | dBA |
| DC1 | Dust Collector 1 | 3722 | 15 | dBA | 3466 | 0 | dBA |
| DC2 | Dust Collector 2 | 3862 | 10 | dBA | 3658 | 0 | dBA |
| E1 | Komatsu Diesel Excavator PC5500 | 2738 | 23 | dBA | 2840 | 0 | dBA |
| E2 | Komatsu Diesel Excavator PC5500 | 2748 | 18 | dBA | 2808 | 0 | dBA |
| E3 | Komatsu Diesel Excavator PC8000 | 2719 | 26 | dBA | 2794 | 0 | dBA |
| E4 | Komatsu Diesel Excavator PC3000 | 2694 | 28 | dBA | 2778 | 0 | dBA |
| E5 | Komatsu Diesel Excavator PC800LC | 2710 | 9 | dBA | 2755 | 0 | dBA |
| E6 | Komatsu Diesel Excavator PC360LC | 2704 | 18 | dBA | 2775 | 0 | dBA |
| EO_E | East Outcrop Aggregate Pit Excavator PC360LC | 3176 | 24 | dBA | 2838 | 0 | dBA |
| EO_FEL | East Outcrop Gravel Pit Mobile Crushing Plant Loader (CAT 966H) | 3169 | 25 | dBA | 2826 | 0 | dBA |
| EO_PS | East Outcrop Gravel Pit Mobile Primary Crusher (PowerScreen) | 3166 | 25 | dBA | 2829 | 0 | dBA |
| EO_SCNR | East Outcrop Gravel Pit Mobile Screener (Atlas Copco HCS3715) | 3157 | 11 | dBA | 2825 | 0 | dBA |
| LD4_E | LD4 Aggregate Pit Excavator PC360LC | 4127 | 20 | dBA | 4680 | 0 | dBA |
| LD4_FEL | LD4 Gravel Pit Mobile Crushing Plant Loader (CAT 966H) | 4108 | 20 | dBA | 4651 | 0 | dBA |
| LD4_PS | LD4 Gravel Pit Mobile Primary Crusher (PowerScreen) | 4126 | 19 | dBA | 4677 | 0 | dBA |
| LD4_SCNR | LD4 Gravel Pit Mobile Screener (Atlas Copco HCS3715) | 4090 | 8 | dBA | 4635 | 0 | dBA |
| Outcrop3_E | Outcrop 3 Aggregate Pit Excavator PC360LC | 4769 | 19 | dBA | 4198 | 0 | dBA |
| Outcrop3_FEL | Outcrop 3 Gravel Pit Mobile Crushing Plant Loader (CAT 966H) | 4757 | 21 | dBA | 4190 | 0 | dBA |
| Outcrop3_PS | Outcrop 3 Gravel Pit Mobile Primary Crusher (PowerScreen) | 4761 | 21 | dBA | 4189 | 0 | dBA |
| Outcrop3_SC | Outcrop3 Gravel Pit Mobile Screener (Atlas Copco HCS3715) | 4724 | 9 | dBA | 4154 | 0 | dBA |
| PG1 | Pinewood River Pumphouse Generator (CAT 660 kW) | 9630 | 1 | dBA | 10523 | 0 | dBA |
| RD1 | RC Drill Sandvik DR590 | 2706 | 11 | dBA | 2720 | 0 | dBA |
| RD2 | RC Drill Sandvik DR580 | 2677 | 9 | dBA | 2694 | 0 | dBA |
| Roen_E | Roen Aggregate Pit Excavator PC360LC | 4726 | 20 | dBA | 4732 | 0 | dBA |
| Roen_FEL | Roen Gravel Pit Mobile Crushing Plant Loader (CAT 966H) | 4693 | 24 | dBA | 4682 | 0 | dBA |
| Roen_PS | Roen Gravel Pit Mobile Primary Crusher (PowerScreen) | 4731 | 23 | dBA | 4743 | 0 | dBA |
| Roen_SCNR | Roen Gravel Pit Mobile Screener (Atlas Copco HCS3715) | 4664 | 9 | dBA | 4686 | 0 | dBA |
| T1 | Transformer 1 | 4584 | 17 | dBA | 4396 | 0 | dBA |
| T2 | Transformer 2 | 4573 | 17 | dBA | 4384 | 0 | dBA |
| TD01 | Track Dozer 01 (Pit - Komatsu D475) | 2731 | 14 | dBA | 2769 | 0 | dBA |
| TD02 | Track Dozer 02 (Pit -CAT D10) | 2714 | 22 | dBA | 2832 | 0 | dBA |
| TD03 | Track Dozer 03 (Pit -CAT D10) | 2709 | 22 | dBA | 2787 | 0 | dBA |
| TD04 | Track Dozer 04 (Pit -CAT D10) | 2791 | 16 | dBA | 2835 | 0 | dBA |
| TD05 | Track Dozer 05 (PAG - Komatsu D375) | 4252 | 22 | dBA | 3708 | 0 | dBA |
| TD06 | Track Dozer 06 (PAG - Komatsu D375) | 3877 | 24 | dBA | 3290 | 0 | dBA |
| TD07D | Track Dozer 07 (PAG - Komatsu D475) | 4093 | 25 | dBA | 3586 | 0 | dBA |
| TD07N | Track Dozer 07 (PAG - Komatsu D475) | 4093 | 0 | dBA | 3586 | 0 | dBA |
| TD08D | Track Dozer 08 (PAG - Komatsu D375) | 4448 | 24 | dBA | 3955 | 0 | dBA |
| TD08N | Track Dozer 08 (PAG - Komatsu D375) | 4448 | 0 | dBA | 3955 | 0 | dBA |
| TD09 | Track Dozer 09 (Ore -CAT D9) | 3591 | 25 | dBA | 3064 | 0 | dBA |
| TD10 | Track Dozer 10 (Ore -CAT D8) | 3284 | 27 | dBA | 2829 | 0 | dBA |
| TD11D | Track Dozer 11 (NPAG/OB - Komatsu D475) | 4022 | 25 | dBA | 4524 | 0 | dBA |
| TD11N | Track Dozer 11 (NPAG/OB - Komatsu D475) | 4022 | 0 | dBA | 4524 | 0 | dBA |
| TD12D | Track Dozer 12 (NPAG/OB - Komatsu D375) | 3897 | 27 | dBA | 4058 | 0 | dBA |
| TD12N | Track Dozer 12 (NPAG/OB - Komatsu D375) | 3897 | 0 | dBA | 4058 | 0 | dBA |
| TD13 | Track Dozer 13 (NPAG/OB -CAT D9) | 3181 | 19 | dBA | 3679 | 0 | dBA |
| TD14 | Track Dozer 14 (NPAG/OB -CAT D9) | 2911 | 24 | dBA | 3350 | 0 | dBA |
| TD15 | Track Dozer 15 (NPAG/OB -CAT D9) | 3620 | 18 | dBA | 3800 | 0 | dBA |
| TD16 | Track Dozer 16 (NPAG/OB -CAT D9) | 3803 | 17 | dBA | 4241 | 0 | dBA |
| WD | Komatsu Wheel Dozer KM WD600 | 2713 | 3 | dBA | 2770 | 0 | dBA |
| WL1 | Komatsu Wheel Loader WA1200 | 2695 | 16 | dBA | 2810 | 0 | dBA |
| WL2 | Komatsu Wheel Loader WA900 | 2700 | 20 | dBA | 2805 | 0 | dBA |
| WP01 | Water Pump WP01 | 2813 | 7 | dBA | 2879 | 0 | 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 |
| 425216 | 5406873 | 372.2 |

| Point of reception coordinates | | |
|--------------------------------|---------|-------|
| X | Y | Z |
| 426109 | 5406850 | 378.7 |

| Source ID | Source Description | Point of Reception 21 | | | Point of Reception 22 | | |
|------------|---|-----------------------|--------------------|-------|-----------------------|--------------------|-------|
| | | Distance (m) | Sound Level at PoR | Units | Distance (m) | Sound Level at PoR | Units |
| WP02 | Water Pump WP02 | 2814 | 6 | dBA | 2834 | 0 | dBA |
| WP03 | Water Pump WP03 | 2768 | 0 | dBA | 2774 | 0 | dBA |
| WP04 | Water Pump WP04 | 2693 | -6 | dBA | 2697 | 0 | dBA |
| WP05 | Water Pump WP05 | 2652 | -6 | dBA | 2693 | 0 | dBA |
| WP06 | Water Pump WP06 | 2649 | -1 | dBA | 2730 | 0 | dBA |
| WP07 | Water Pump WP07 | 2643 | -5 | dBA | 2765 | 0 | dBA |
| WP08 | Water Pump WP08 | 2712 | 2 | dBA | 2846 | 0 | dBA |
| WP09 | Water Pump WP09 | 2333 | 13 | dBA | 2443 | 0 | dBA |
| WP10 | Water Pump WP10 | 2363 | 14 | dBA | 2300 | 0 | dBA |
| WP11 | Water Pump WP11 | 2604 | 13 | dBA | 2392 | 0 | dBA |
| WP12 | Water Pump WP12 | 2491 | 13 | dBA | 3026 | 0 | dBA |
| WP13 | Water Pump WP13 | 2550 | 13 | dBA | 2961 | 0 | dBA |
| WP14 | Water Pump WP14 | 4055 | 5 | dBA | 4609 | 0 | dBA |
| WP15 | Water Pump WP15 | 4036 | 5 | dBA | 4584 | 0 | dBA |
| WP16 | Water Pump WP16 | 3325 | 9 | dBA | 3425 | 0 | dBA |
| WP17 | Water Pump WP17 | 4254 | 5 | dBA | 4590 | 0 | dBA |
| WP18 | Water Pump WP18 | 4185 | 7 | dBA | 4931 | 0 | dBA |
| WP19 | Water Pump WP19 | 3764 | -11 | dBA | 3597 | 0 | dBA |
| WP20 | Pinewood River Water Pump | 9624 | -3 | dBA | 10517 | 0 | dBA |
| WS | Wet Scrubber | 4307 | 8 | dBA | 4134 | 0 | dBA |
| MGR_SP | Motor Grader Route Stockpile | N/A | 12 | dBA | N/A | 0 | dBA |
| MGR_NPAG | Motor Grader Route NPAG | N/A | 15 | dBA | N/A | 0 | dBA |
| MGR_OB | Motor Grader Route OB | N/A | 9 | dBA | N/A | 0 | dBA |
| MGR_OPMill | Motor Grader Route Open Pit to Mill | N/A | 12 | dBA | N/A | 0 | dBA |
| MGR_PAG | Motor Grader Route PAG | N/A | 6 | dBA | N/A | 0 | dBA |
| TRE_NPAG | Truck Route-NPAG (Empty Truck) | N/A | 18 | dBA | N/A | 0 | dBA |
| TRE_OB | Truck Route-Overburden (Empty Truck) | N/A | 17 | dBA | N/A | 0 | dBA |
| TRE_OPMill | Truck Route Open Pit to Mill (Empty Truck) | N/A | 11 | dBA | N/A | 0 | dBA |
| TRE_PAG | Truck Route PAG (Empty Truck) | N/A | 17 | dBA | N/A | 0 | dBA |
| TRE_SP | Truck Route Stockpile (Empty Truck) | N/A | 12 | dBA | N/A | 0 | dBA |
| TRL_NPAG | Truck Route-NPAG (Loaded Truck) | N/A | 30 | dBA | N/A | 0 | dBA |
| TRL_OB | Truck Route-Overburden (Loaded Truck) | N/A | 30 | dBA | N/A | 0 | dBA |
| TRL_OPMill | Truck Route Open Pit to Mill (Loaded Truck) | N/A | 24 | dBA | N/A | 0 | dBA |
| TRL_PAG | Truck Route PAG (Loaded Truck) | N/A | 30 | dBA | N/A | 0 | dBA |
| TRL_SP | Truck Route Stockpile (Loaded Truck) | N/A | 25 | dBA | N/A | 0 | dBA |
| WTR_NPAG | Water Truck Route NPAG | N/A | 14 | dBA | N/A | 0 | dBA |
| WTR_OB | Water Truck Route OB | N/A | 8 | dBA | N/A | 0 | dBA |
| WTR_OPMill | Water Truck Route Open Pit to Mill | N/A | 10 | dBA | N/A | 0 | dBA |
| WTR_PAG | Water Truck Route PAG | N/A | 4 | dBA | N/A | 0 | dBA |
| WTR_SP | Water Truck Route Stockpile | N/A | 11 | dBA | N/A | 0 | dBA |
| LD4_TR | LD4 Aggregate Pit Truck Route | N/A | 12 | dBA | N/A | 0 | dBA |
| OC3_TR | OC3 Aggregate Pit Truck Route | N/A | 5 | dBA | N/A | 0 | dBA |
| EO_TR | EO Aggregate Pit Truck Route | N/A | 18 | dBA | N/A | 0 | dBA |
| Roen_TR | Roen Aggregate Pit Truck Route | N/A | 15 | dBA | N/A | 0 | dBA |
| EG1 | Emergency Generator 1 (CAT 2.5 MW) | 4556 | 35 | dBA | 4379 | 0 | dBA |
| EG2 | Emergency Generator 2 (CAT 2.5 MW) | 5511 | 34 | dBA | 5549 | 0 | dBA |
| FP1 | Fire Pump 1 | 4460 | 46 | dBA | 4296 | 0 | dBA |
| FP2 | Fire Pump 2 | 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] (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 | | | | |
| 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 9 - 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] (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 | | | | |
| 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 |

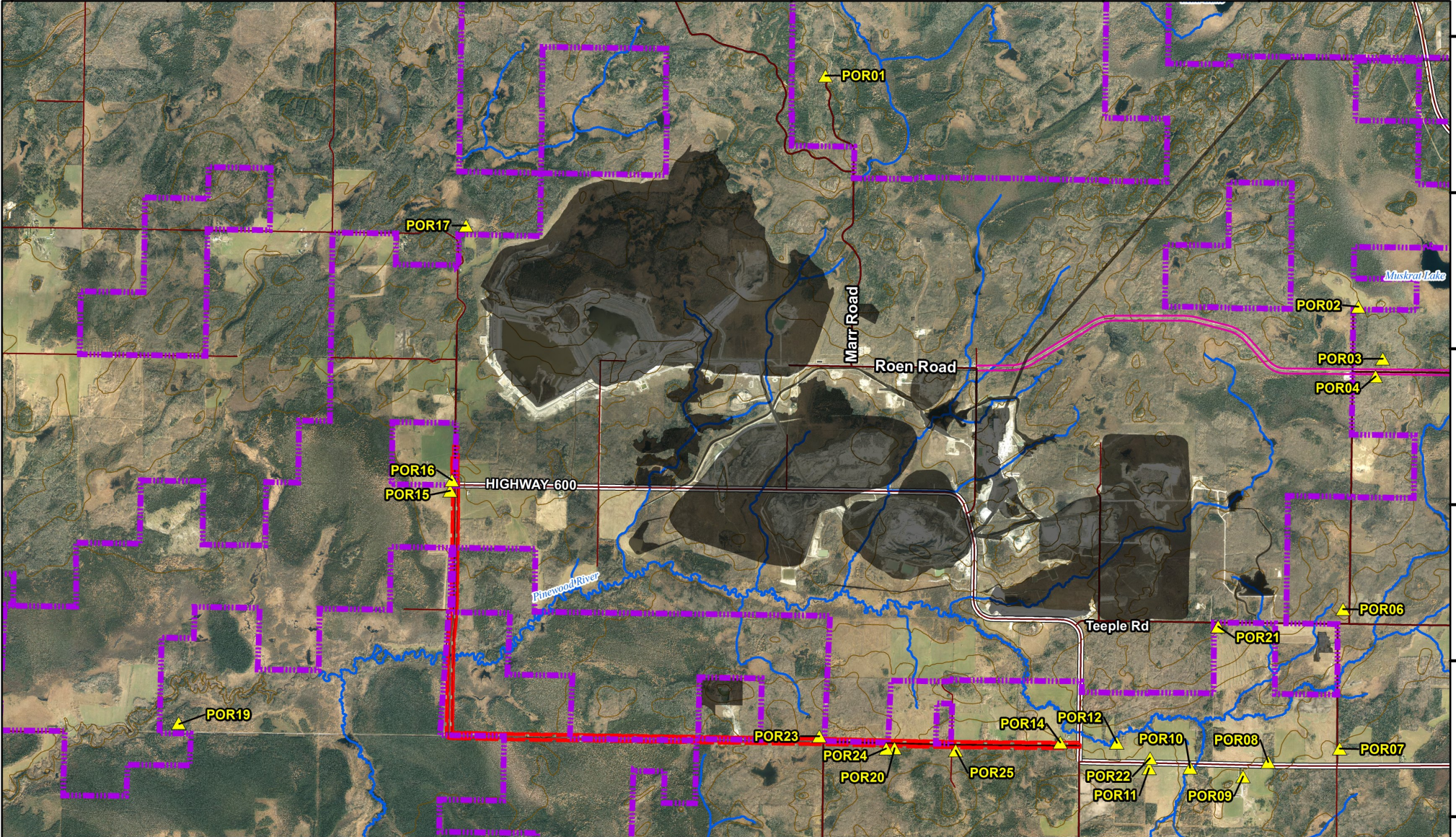
Notes :

- 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)

414000 416000 418000 420000 422000 424000 426000 428000 430000 432000

P:\EM\Projects\2011\TC111504 Rainy River\GIS\Noise_Monitoring_2012\Noise_monitoring_2012\Noise_monitoring_Jan2018\MXD_Map\Points of Reception_2.mxd

5416000
5414000
5412000
5410000
5408000
5406000



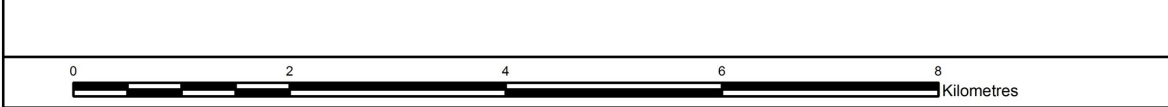
LEGEND

- | | | |
|-----------------------------|--------------------------------------|-------------------------|
| Receptor (labelled with ID) | Approximate Principal RRP Facilities | Contours, 10 m interval |
| RRP-NG Property Boundary | Highway Re-alignment | Existing Highway |
| | East Access Road | 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

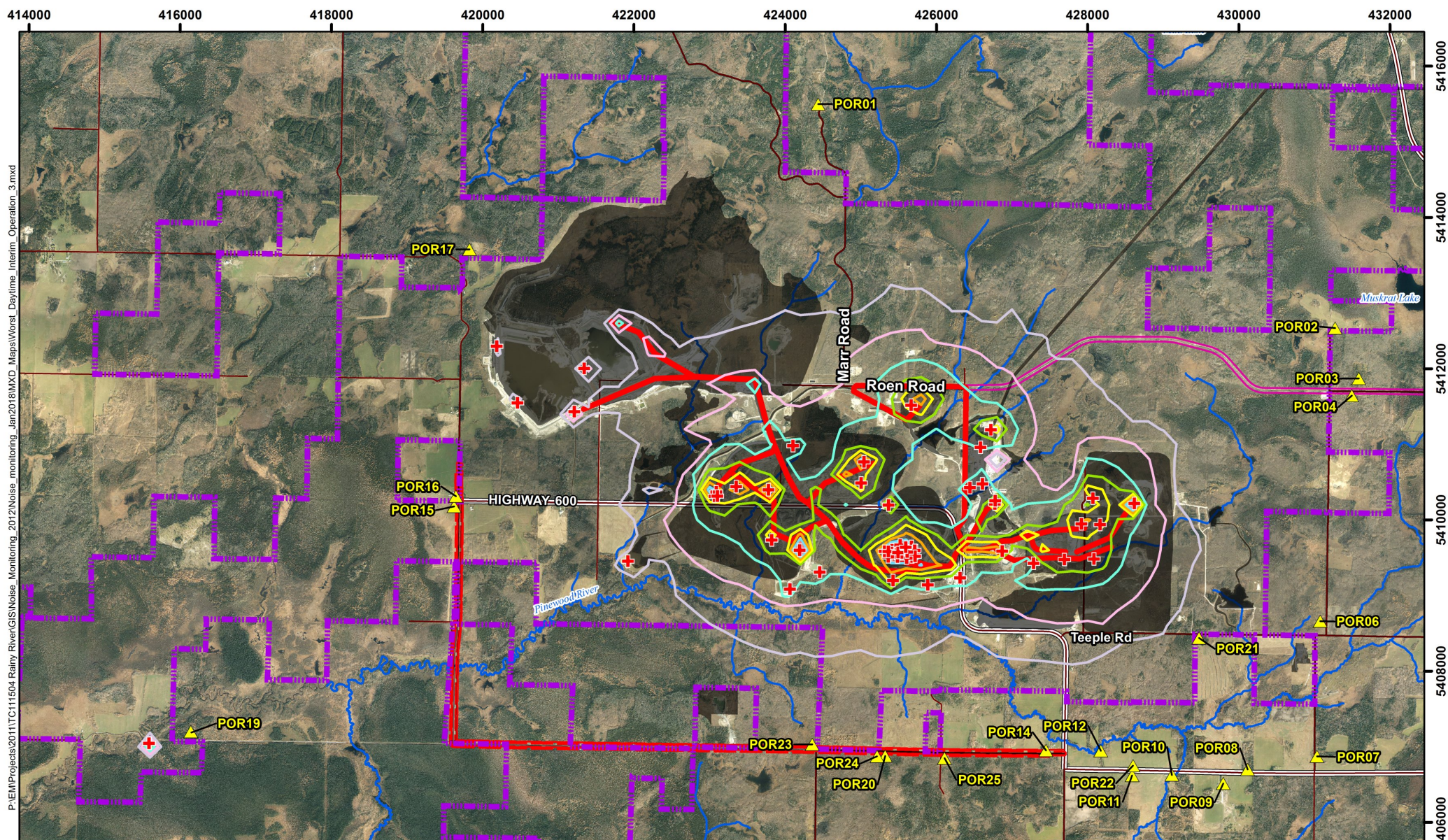
RAINY RIVER MINE
Site Aerial Map with Points of Reception



Datum: NAD83
 Projection: UTM Zone 15N

PROJECT N^o: TC111504
 SCALE: 1:70,000

FIGURE: 1
 DATE: January 2018



P:\E\MP\Projects\2011\TC111504 Rainy River\GIS\Noise_Monitoring_2012\Noise_monitoring_2012\Noise_Monitoring_Jan2018\MXD_Map\Worst_Daytime_Interim_Operation_3.mxd

- 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



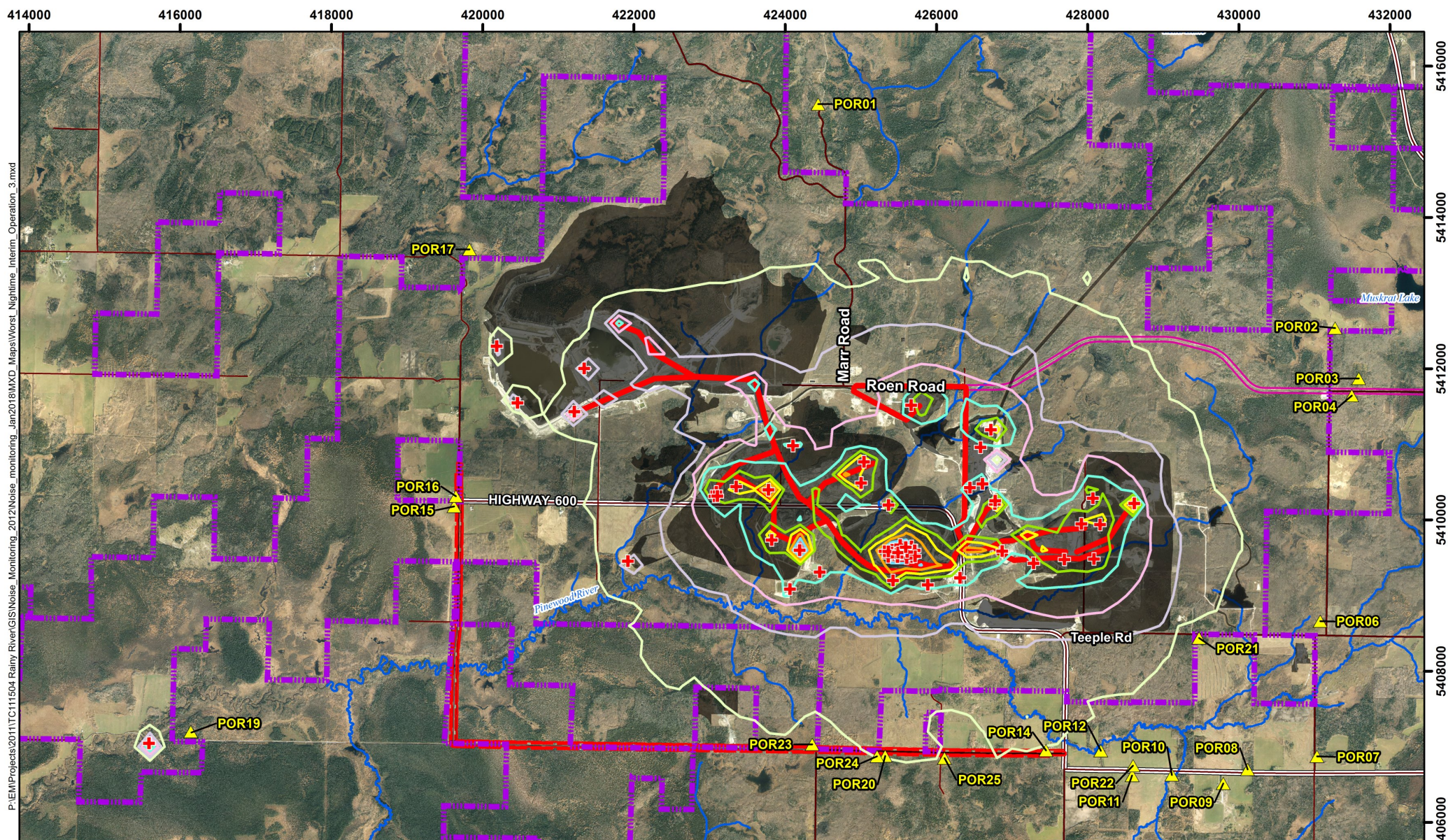
PROJECT N^o: TC111504

FIGURE: 3



SCALE: 1:70,000

DATE: January 2018



P:\EM\Projects\2011\TC111504 Rainy River\GIS\Noise_Monitoring_2012\Noise_monitoring_2012\Noise_monitoring_2012\Map\Worst_Nightime_Interim_Operation_3.mxd

- 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
 - >=45
 - >=50
 - >=55
 - >=60
 - >=65
 - >=70
 - >=75
 - >=80
 - >=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.

RAINY RIVER MINE

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

Datum: NAD83
Projection: UTM Zone 15N

PROJECT N^o: TC111504

FIGURE: 4

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

<Original signed by>

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

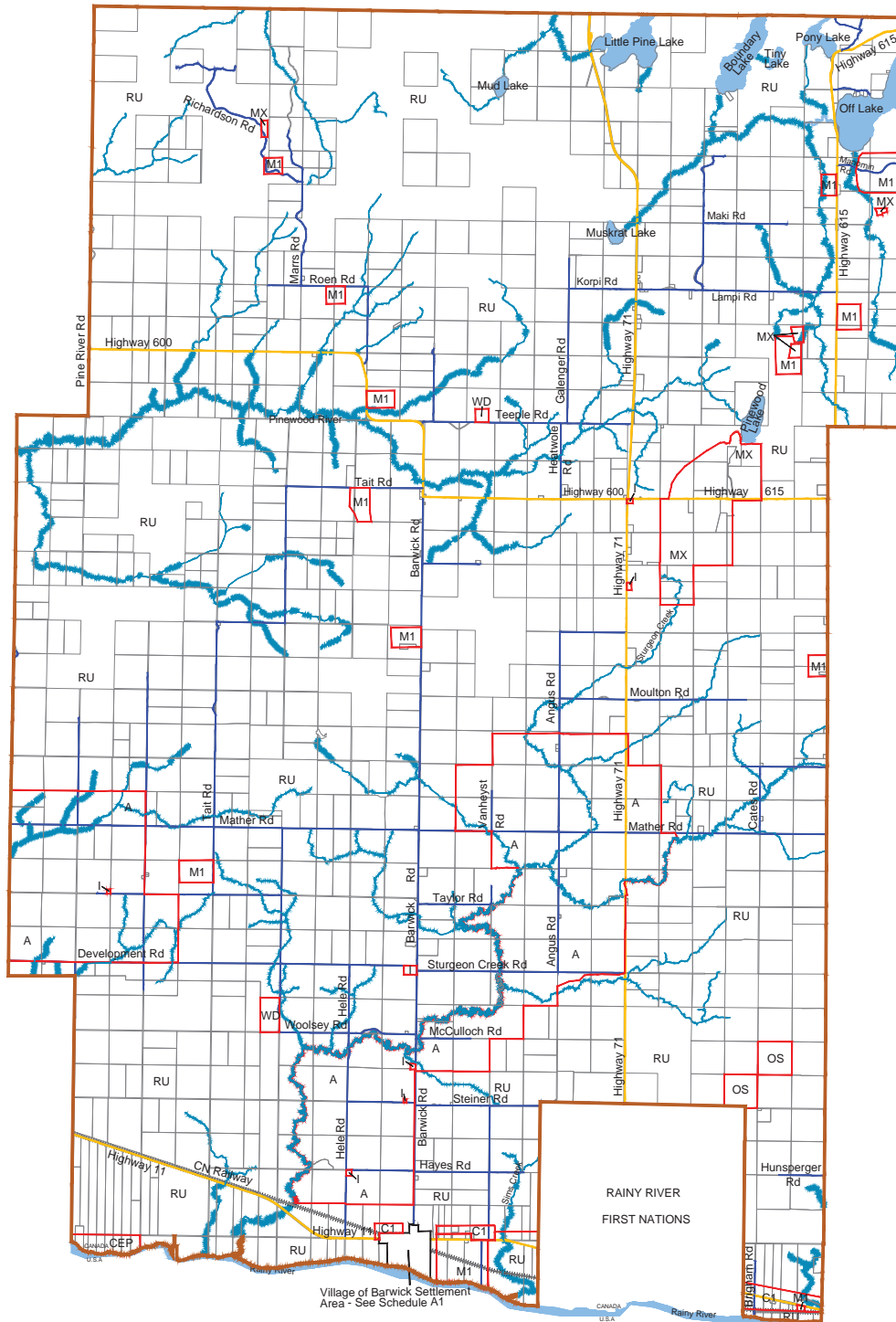
TOWNSHIP OF CHAPPLE ZONING BY-LAW SCHEDULE A

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

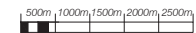
Watercourses



Village of Barwick Settlement Area - See Schedule A1

RAINY RIVER
FIRST NATIONS

FOTENN PLANNING & URBAN DESIGN



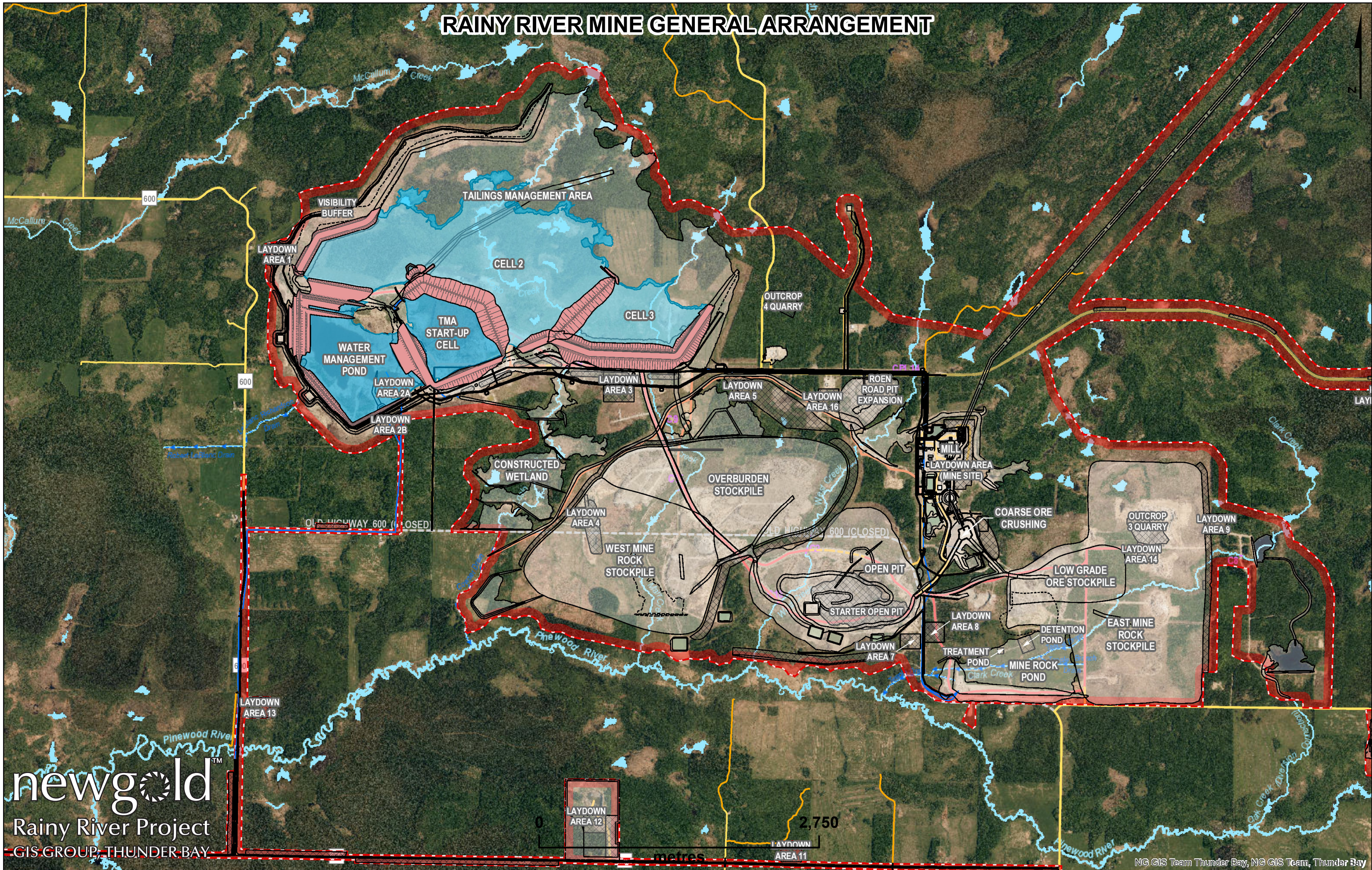
Note: The base information on this plan was prepared from a variety of map sources and was used by permission of the Township of Chapple. It is not a legal plan of survey. For precise location of plan features recourse should be had to the original source data.

Digital Map Created By:
CGIS Spatial Solutions
52 South Street
Perth, ON, K7H 2G7
TEL: 613-868-4221
www.cgis.com

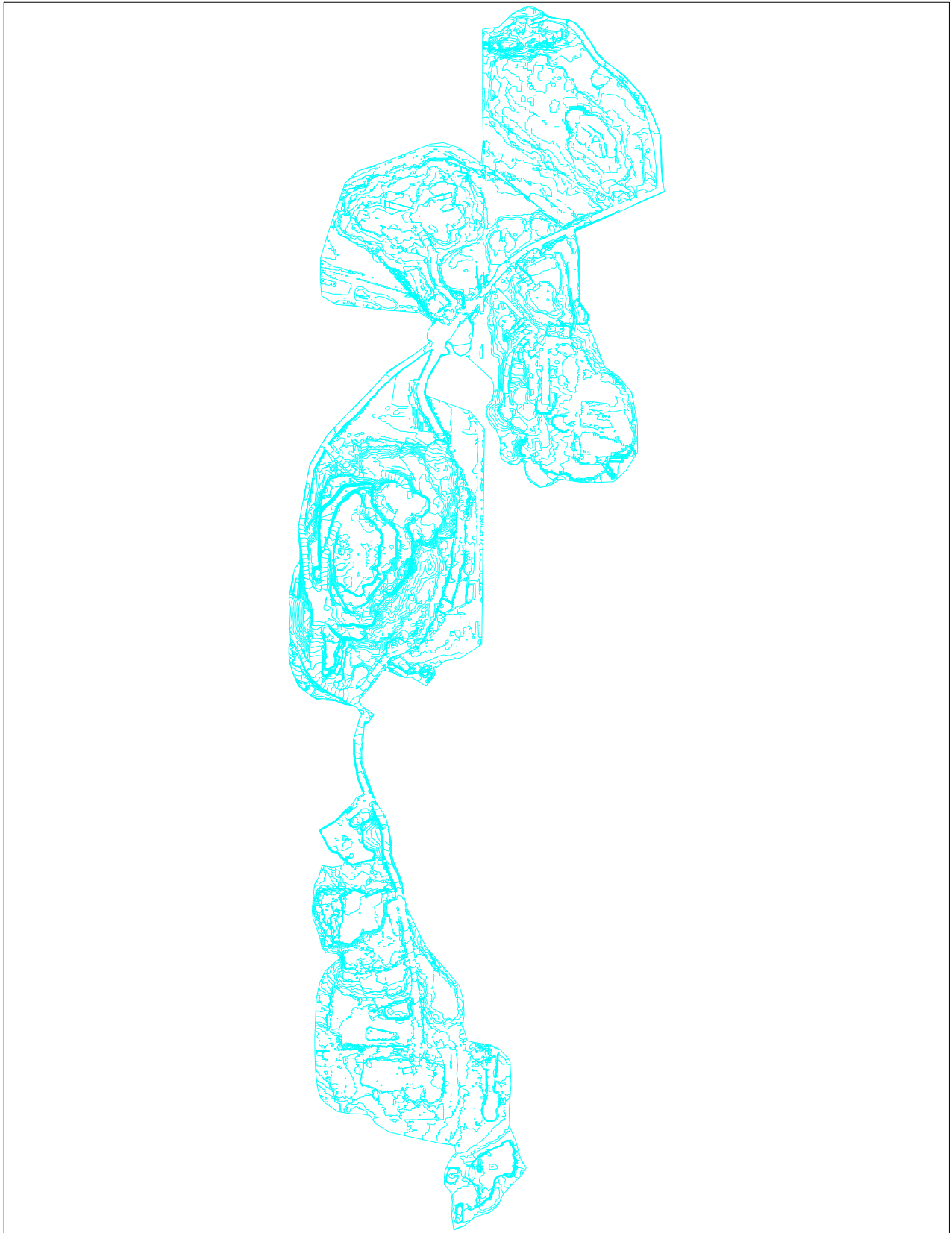


APPENDIX C
FACILITY DRAWINGS

RAINY RIVER MINE GENERAL ARRANGEMENT



newgoldTM
Rainy River Project
GIS GROUP THUNDER BAY



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 |
| 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] (A, C, or S) | 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 (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 | |
| 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 | 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 | 102.7 | 104.6 | 104.6 | 102.7 | 102.8 | 95.5 | 95.6 | 92.1 | 81.7 | 104 | | |
| 831_Data.027 | Aggregate Pit Primary Crusher (Powerscreen) | S | 6.0 | | 50% | 226.1 | Flat | 91.1 | 97.0 | 93.7 | 94.9 | 93.3 | 90.3 | 87.4 | 82.7 | 76.0 | 96 | 114.6 | 120.6 | 117.3 | 118.4 | 116.9 | 113.8 | 110.9 | 106.3 | 99.5 | 119 | | |
| 831_Data.028 | Aggregate Pit Loader (CAT 980H) | S | 11.0 | | 50% | 759.9 | Flat | 89.7 | 99.4 | 92.4 | 81.2 | 82.0 | 81.0 | 76.3 | 70.7 | 65.2 | 86 | 118.5 | 128.2 | 121.2 | 110.0 | 110.8 | 109.8 | 105.1 | 99.5 | 94.0 | 114 | | |
| 831_Data.030 | Truck Komatsu 400 - Pass-by | C | 10.0 | 21.0 | 50% | 659.4 | Flat | 74.4 | 86.8 | 83.0 | 82.4 | 74.9 | 72.8 | 68.7 | 63.9 | 56.9 | 79 | 102.6 | 114.9 | 111.2 | 110.6 | 103.1 | 101.0 | 96.9 | 92.1 | 85.1 | 107 | | |
| 831_Data.031 | Dust Collector | S | 4.3 | | 50% | 116.1 | Flat | 81.8 | 80.8 | 82.7 | 87.3 | 81.5 | 77.9 | 74.8 | 71.5 | 68.9 | 84 | 102.5 | 101.5 | 103.4 | 107.9 | 102.2 | 98.6 | 95.4 | 92.1 | 89.6 | 105 | | |
| 831_Data.032 | RC Drill Sandvik DR580 | S | 7.6 | | 50% | 362.7 | Flat | 89.6 | 100.4 | 93.1 | 83.5 | 87.7 | 88.9 | 88.1 | 83.9 | 80.7 | 94 | 115.2 | 126.0 | 118.7 | 109.1 | 113.3 | 114.5 | 113.7 | 109.5 | 106.3 | 119 | | |
| 831_Data.034 | Komatsu Diesel Excavator PC800LC | S | 20.0 | | 50% | 2512.0 | Flat | 74.6 | 81.8 | 81.4 | 73.2 | 77.7 | 73.1 | 69.8 | 64.7 | 58.8 | 79 | 108.6 | 115.8 | 115.4 | 107.2 | 111.7 | 107.1 | 103.8 | 98.7 | 92.8 | 113 | | |
| 831_Data.035 | Komatsu Diesel Excavator PC8000 | S | 15.0 | | 50% | 1413.0 | Flat | 86.2 | 95.0 | 90.0 | 90.6 | 88.8 | 83.3 | 79.9 | 71.8 | 63.6 | 90 | 117.7 | 126.5 | 121.5 | 122.1 | 120.3 | 114.8 | 111.4 | 103.3 | 95.1 | 121 | | |
| 831_Data.037 | Track Dozer CAT8T | S | 7.5 | | 50% | 353.3 | Flat | 74.2 | 78.2 | 80.4 | 79.0 | 78.8 | 77.3 | 73.9 | 67.6 | 59.1 | 82 | 99.7 | 103.7 | 105.8 | 104.5 | 104.3 | 102.8 | 99.4 | 93.1 | 84.6 | 107 | | |

- Notes:
1. All measurements conducted on September 26-28, 2017, using Larson Davis 831 SLM.
 2. All measurements were consistent with the applicable portions of the MOECC Publication NPC-103.
 3. Calc Type of C, A, or S refer to the source geometry, and represent Cylindrical, Area, or Spherical sources, respectively.
 4. SPL Ref Distance refers to the radial distance from the microphone to the acoustic centre of a spherical source or the symmetrical axis of a cylindrical source.
 5. Net surface area refers to surface area corrected for partition coefficient. Partition coefficient applies only to spherical and cylindrical geometries. Sound power level is estimated using an area correction 10 log A.
 6. Refer to "Spectral Weighting" column for dB or dBA application information.

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 | 75.8 | 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 | 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 | 72.1 | 71.3 | 69.0 | 68.3 | 67.5 | 63.1 | 59.7 | 57.0 | 54.8 | 50.8 | 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 | 74.4 | 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 | 78.9 | 75.5 | 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 | 76.2 | 73.6 | 74.4 | 73.3 | 71.5 | 73.7 | 69.9 | 65.5 | 65.2 | 61.6 |
| 831_Data.019 | 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 | 71.2 | 71.1 | 68.3 | 67.2 | 64.9 | 62.4 | 59.9 | 58.6 | 60.8 | 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 | 67.9 | 70.9 | 76.0 | 79.2 | 77.0 | 79.6 | 79.7 | 75.5 | 75.5 | 69.6 | 66.6 | 78.0 | 76.3 | 80.8 | 77.4 | 79.6 | 78.6 | 79.3 | 79.2 | 79.5 | 75.4 | 75.7 | 76.2 | 79.9 | 77.7 | 76.8 | 74.0 | |
| 831_Data.024 | 79.0 | 78.6 | 74.5 | 69.9 | 65.3 | 58.8 | 52.2 | 46.5 | 42.9 | 71.7 | 73.5 | 75.2 | 73.4 | 75.5 | 74.8 | 67.4 | 71.0 | 70.2 | 66.7 | 68.3 | 62.4 | 62.2 | 61.8 | 59.0 | 60.4 | 56.0 | 53.3 | 51.4 | 49.0 | 47.3 | 44.9 | 43.5 | 41.3 | 39.4 | 38.3 | 38.0 | 38.3 | 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 | 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 | 61.3 | 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 | 87.9 | 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 | 78.3 | 81.9 | 79.2 | 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 | 70.9 | 86.6 | 77.8 | 73.3 | 79.0 | 76.1 | 74.7 | 70.6 | 72.9 | 70.0 | 69.5 | 70.0 | 67.4 | 66.3 | 66.4 | 64.1 | 62.3 | 65.5 | 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 | 81.9 | 84.9 | 84.1 | 83.3 | 85.0 | 83.5 | 80.7 | 81.0 | 79.0 | 76.3 | 74.5 | 78.2 | 73.9 | 72.6 |
| 831_Data.033 | 74.7 | 81.3 | 82.8 | 73.1 | 69.0 | 70.1 | 69.8 | 62.9 | 52.6 | 70.9 | 68.1 | 70.9 | 70.1 | 72.1 | 76.7 | 78.3 | 82.7 | 73.1 | 70.0 | 68.1 | 69.1 | 68.1 | 65.3 | 63.1 | 64.0 | 64.2 | 66.5 | 64.6 | 68.4 | 61.4 | 63.8 | 61.7 | 54.2 | 52.7 | 51.4 | 45.1 | 40.5 | 39.6 |
| 831_Data.034 | 74.6 | 81.8 | 81.4 | 73.2 | 77.7 | 73.1 | 69.8 | 64.7 | 58.8 | 69.1 | 66.8 | 72.4 | 68.9 | 74.3 | 78.1 | 77.8 | 79.6 | 75.7 | 73.1 | 69.6 | 68.9 | 65.7 | 72.7 | 74.6 | 71.4 | 67.9 | 69.6 | 66.9 | 67.0 | 63.7 | 64.0 | 61.7 | 59.3 | 57.8 | 56.3 | 53.4 | 50.4 | 46.7 |
| 831_Data.035 | 86.2 | 95.0 | 90.0 | 90.6 | 88.8 | 83.3 | 79.9 | 71.8 | 63.6 | 74.9 | 78.6 | 80.2 | 83.4 | 85.1 | 86.3 | 93.9 | 83.0 | 86.9 | 84.6 | 85.8 | 84.9 | 86.8 | 86.1 | 82.6 | 82.6 | 80.0 | 78.2 | 77.0 | 76.7 | 75.6 | 71.8 | 68.8 | 66.5 | 64.6 | 61.4 | 58.3 | 53.0 | 47.8 |
| 831_Data.036 | 69.9 | 74.8 | 75.7 | 72.5 | 73.4 | 72.2 | 70.0 | 63.9 | 55.6 | 61.5 | 61.6 | 64.6 | 67.6 | 67.8 | 68.7 | 72.1 | 73.3 | 70.9 | 67.4 | 66.0 | 67.7 | 68.9 | 67.6 | 69.0 | 68.8 | 68.7 | 66.9 | 66.7 | 67.4 | 64.5 | 62.6 | 60.8 | 59.2 | 56.2 | 53.4 | 49.8 | 47.1 | 46.2 |
| 831_Data.037 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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 | l/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) |
| 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 | l/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) |
| 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 | l/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) |
| 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 | l/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) |
| 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 | l/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) |
| 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 DR4611", ID: "BD2"

| Nr. | X | Y | Z | Refl. | DEN | Freq. | Lw | l/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) |
| 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 DR4611", ID: "BD1"

| Nr. | X | Y | Z | Refl. | DEN | Freq. | Lw | l/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) |
| 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 Graval Pit Mobile Primary Crusher (PowerScreen)", ID: "EO_PS"

| Nr. | X | Y | Z | Refl. | DEN | Freq. | Lw | l/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) |
| 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 | l/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) |
| 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 | l/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) |
| 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 | l/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) |
| 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 | l/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) |
| 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 | 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 | l/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) |
| 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 | 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 | l/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) |
| 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 | 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 | l/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) |
| 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 | 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 | l/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) |
| 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 | 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 | l/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) |
| 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 | 27.6 |
| 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 | -160.4 |
| 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 | -160.4 |

| Point Source, ISO 9613, Name: "Komatsu Diesel Excavator PC360LC", ID: "E6" | | | | | | | | | | | | | | | | | | | | |
|--|-----------|------------|--------|-------|-----|-------|-------|-----|--------|------|------|------|------|------|------|-------|------|------|------|-------|
| Nr. | X | Y | Z | Refl. | DEN | Freq. | Lw | l/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) |
| 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 | 18.6 |

| Point Source, ISO 9613, Name: "Komatsu Wheel Loader WA900", ID: "WL2" | | | | | | | | | | | | | | | | | | | | |
|---|-----------|------------|--------|-------|-----|-------|-------|-----|--------|------|------|------|------|------|------|-------|------|------|------|-------|
| Nr. | X | Y | Z | Refl. | DEN | Freq. | Lw | l/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) |
| 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 | 20.9 |

| Point Source, ISO 9613, Name: "Komatsu Wheel Loader WA1200", ID: "WL1" | | | | | | | | | | | | | | | | | | | | |
|--|-----------|------------|--------|-------|-----|-------|-------|-----|--------|------|------|------|------|------|------|-------|------|------|------|-------|
| Nr. | X | Y | Z | Refl. | DEN | Freq. | Lw | l/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) |
| 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 | 21.2 |

| Point Source, ISO 9613, Name: "East Outcrop Graval Pit Mobile Crushing Plant Loader (CAT 966H)", ID: "EO_FEL" | | | | | | | | | | | | | | | | | | | | |
|---|-----------|------------|--------|-------|-----|-------|-------|-----|--------|------|------|------|------|------|------|-------|------|------|------|-------|
| Nr. | X | Y | Z | Refl. | DEN | Freq. | Lw | l/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) |
| 5090 | 426882.01 | 5409568.78 | 375.35 | 0 | DEN | A | 114.3 | 0.0 | 0.0 | 0.0 | 0.0 | 79.6 | 5.6 | -1.3 | 0.5 | 0.0 | 6.7 | 0.0 | 0.0 | 23.2 |

| Point Source, ISO 9613, Name: "Track Dozer 05 (PAG - Komatsu D375)", ID: "TD05" | | | | | | | | | | | | | | | | | | | | |
|---|-----------|------------|--------|-------|-----|-------|-------|-----|--------|------|------|------|------|------|------|-------|------|------|------|-------|
| Nr. | X | Y | Z | Refl. | DEN | Freq. | Lw | l/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) |
| 5092 | 428166.79 | 5409934.89 | 379.45 | 0 | DEN | A | 115.2 | 0.0 | 0.0 | 0.0 | 0.0 | 80.7 | 7.7 | 0.5 | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 | 25.3 |

| Point Source, ISO 9613, Name: "Track Dozer 08 (PAG - Komatsu D375)", ID: "TD08D" | | | | | | | | | | | | | | | | | | | | |
|--|-----------|------------|--------|-------|-----|-------|-------|-----|--------|------|------|------|------|------|------|-------|------|------|------|--------|
| Nr. | X | Y | Z | Refl. | DEN | Freq. | Lw | l/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) |
| 5097 | 428071.74 | 5410284.02 | 382.04 | 0 | D | A | 121.4 | 0.0 | 0.0 | 0.0 | 0.0 | 81.6 | 8.5 | 0.3 | 0.9 | 0.0 | 4.1 | 0.0 | 0.0 | 26.0 |
| 5097 | 428071.74 | 5410284.02 | 382.04 | 0 | N | A | 121.4 | 0.0 | -188.0 | 0.0 | 0.0 | 81.6 | 8.5 | 0.3 | 0.9 | 0.0 | 4.1 | 0.0 | 0.0 | -162.0 |
| 5097 | 428071.74 | 5410284.02 | 382.04 | 0 | E | A | 121.4 | 0.0 | -188.0 | 0.0 | 0.0 | 81.6 | 8.5 | 0.3 | 0.9 | 0.0 | 4.1 | 0.0 | 0.0 | -162.0 |

| Point Source, ISO 9613, Name: "Komatsu Diesel Excavator PC5500", ID: "E2" | | | | | | | | | | | | | | | | | | | | |
|---|-----------|------------|--------|-------|-----|-------|-------|-----|--------|------|------|------|------|------|------|-------|------|------|------|-------|
| Nr. | X | Y | Z | Refl. | DEN | Freq. | Lw | l/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) |
| 5099 | 425547.03 | 5409599.19 | 273.00 | 0 | DEN | A | 115.7 | 0.0 | 0.0 | 0.0 | 0.0 | 81.3 | 6.0 | 0.5 | 0.6 | 0.0 | 4.0 | 0.0 | 0.0 | 23.3 |

Sample Calculations

| Point Source, ISO 9613, Name: "Komatsu Diesel Excavator PC5500", ID: "E1" | | | | | | | | | | | | | | | | | | | | |
|---|-----------|------------|--------|-------|-----|-------|-------|-----|--------|------|------|------|------|------|------|-------|------|------|------|-------|
| Nr. | X | Y | Z | Refl. | DEN | Freq. | Lw | l/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) |
| 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 | l/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) |
| 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 | l/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) |
| 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 | l/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) |
| 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 | l/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) |
| 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 | l/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) |
| 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 | l/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) |
| 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 | l/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) |
| 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 | l/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) |
| 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 | l/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) |
| 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 | l/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) |
| 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 | l/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) |
| 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 | l/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 | l/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 | l/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 | l/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 | l/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 | l/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 | l/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 | l/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 | l/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 | l/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 | l/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 | l/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 | l/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 | 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 | l/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) |
| 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 | l/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) |
| 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 | l/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) |
| 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 | l/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) |
| 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 | l/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) |
| 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 | l/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) |
| 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 | l/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) |
| 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 | l/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) |
| 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 | l/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) |
| 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 | l/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) |
| 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 | l/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) |
| 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 | l/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) |
| 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 | l/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) |
| 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 | l/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) |
| 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 | l/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) |
| 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 | l/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) |
| 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 | l/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) |
| 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 | l/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) |
| 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 | l/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) |
| 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 | l/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) |
| 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 | l/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) |
| 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 | l/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) |
| 5381 | 424105.05 | 5410979.95 | 355.42 | 0 | DEN | A | 106.3 | 0.0 | 0.0 | 0.0 | 0.0 | 85.4 | 13.1 | 2.1 | 0.3 | 0.0 | 2.1 | 0.0 | 0.0 | 3.3 |

| Point Source, ISO 9613, Name: "Water Pump WP15", ID: "WP15" | | | | | | | | | | | | | | | | | | | | |
|---|-----------|------------|--------|-------|-----|-------|-------|-----|--------|------|------|------|------|------|------|-------|------|------|------|-------|
| Nr. | X | Y | Z | Refl. | DEN | Freq. | Lw | l/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) |
| 5393 | 423105.04 | 5410312.80 | 346.64 | 0 | DEN | A | 106.3 | 0.0 | 0.0 | 0.0 | 0.0 | 85.8 | 13.4 | 2.1 | 0.3 | 0.0 | 2.1 | 0.0 | 0.0 | 2.6 |

| Point Source, ISO 9613, Name: "Water Pump WP14", ID: "WP14" | | | | | | | | | | | | | | | | | | | | |
|---|-----------|------------|--------|-------|-----|-------|-------|-----|--------|------|------|------|------|------|------|-------|------|------|------|-------|
| Nr. | X | Y | Z | Refl. | DEN | Freq. | Lw | l/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) |
| 5399 | 423065.90 | 5410311.46 | 353.00 | 0 | DEN | A | 106.3 | 0.0 | 0.0 | 0.0 | 0.0 | 85.8 | 13.4 | 2.0 | 0.0 | 0.0 | 2.1 | 0.0 | 0.0 | 2.9 |

Sample Calculations

| Point Source, ISO 9613, Name: "Water Pump WP18", ID: "WP18" | | | | | | | | | | | | | | | | | | | | |
|---|-----------|------------|--------|-------|-----|-------|-------|-----|--------|------|------|------|------|------|------|-------|------|------|------|-------|
| Nr. | X | Y | Z | Refl. | DEN | Freq. | Lw | l/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) |
| 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 | l/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) |
| 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 | l/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) |
| 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 |
| 5286 | 424427.12 | 5410109.54 | 356.23 | 0 | E | 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 | 0.0 | 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 | E | 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 |
| 5322 | 424825.32 | 5409635.11 | 356.44 | 0 | D | A | 82.0 | 23.3 | 0.0 | 0.0 | 0.0 | 82.5 | 2.9 | 2.1 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 17.5 |
| 5322 | 424825.32 | 5409635.11 | 356.44 | 0 | N | A | 82.0 | 23.3 | 0.0 | 0.0 | 0.0 | 82.5 | 2.9 | 2.1 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 17.5 |
| 5322 | 424825.32 | 5409635.11 | 356.44 | 0 | E | A | 82.0 | 23.3 | 0.0 | 0.0 | 0.0 | 82.5 | 2.9 | 2.1 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 17.5 |
| 5343 | 425738.38 | 5409357.57 | 325.93 | 0 | D | A | 82.0 | 20.7 | 0.0 | 0.0 | 0.0 | 80.4 | 2.5 | 2.1 | 0.1 | 0.0 | 5.9 | 0.0 | 0.0 | 11.8 |
| 5343 | 425738.38 | 5409357.57 | 325.93 | 0 | N | A | 82.0 | 20.7 | 0.0 | 0.0 | 0.0 | 80.4 | 2.5 | 2.1 | 0.1 | 0.0 | 5.9 | 0.0 | 0.0 | 11.8 |
| 5343 | 425738.38 | 5409357.57 | 325.93 | 0 | E | A | 82.0 | 20.7 | 0.0 | 0.0 | 0.0 | 80.4 | 2.5 | 2.1 | 0.1 | 0.0 | 5.9 | 0.0 | 0.0 | 11.8 |
| 5344 | 425716.15 | 5409425.27 | 319.14 | 0 | D | 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 |

Sample Calculations

| Line Source, ISO 9613, Name: "Truck Route-Overburden (Loaded Truck)", ID: "TRL_OB" | | | | | | | | | | | | | | | | | | | | |
|--|-----------|------------|--------|-------|-----|-------|-------|------|--------|------|------|------|------|------|------|-------|------|------|------|-------|
| Nr. | X | Y | Z | Refl. | DEN | Freq. | Lw | l/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) |
| 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 Graval Pit Mobile Screener (Atlas Copco HCS3715)", ID: "Outcrop3_SCNR" | | | | | | | | | | | | | | | | | | | | |
|--|-----------|------------|--------|-------|-----|-------|-------|-----|--------|------|------|------|------|------|------|-------|------|------|------|--------|
| Nr. | X | Y | Z | Refl. | DEN | Freq. | Lw | l/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 | l/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) |
| 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 | l/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) |
| 5446 | 427734.84 | 5409874.76 | 379.29 | 0 | DEN | A | 71.9 | 26.6 | 0.0 | 0.0 | 0.0 | 80.4 | 9.6 | -0.3 | 0.9 | 0.0 | 4.0 | 0.0 | 0.0 | 3.9 |
| 5595 | 427428.21 | 5409835.98 | 387.44 | 0 | DEN | A | 71.9 | 22.2 | 0.0 | 0.0 | 0.0 | 80.2 | 9.5 | -0.3 | 0.9 | 0.0 | 4.0 | 0.0 | 0.0 | -0.1 |
| 5647 | 427277.39 | 5409801.98 | 390.95 | 0 | DEN | A | 71.9 | 21.5 | 0.0 | 0.0 | 0.0 | 80.1 | 9.4 | -0.3 | 0.9 | 0.0 | 4.1 | 0.0 | 0.0 | -0.7 |

| Line Source, ISO 9613, Name: "Water Truck Route OB", ID: "WTR_OB" | | | | | | | | | | | | | | | | | | | | |
|---|-----------|------------|--------|-------|-----|-------|-------|------|--------|------|------|------|------|------|------|-------|------|------|------|-------|
| Nr. | X | Y | Z | Refl. | DEN | Freq. | Lw | l/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) |
| 5493 | 424846.28 | 5410617.34 | 365.01 | 0 | DEN | A | 71.9 | 28.4 | 0.0 | 0.0 | 0.0 | 84.1 | 12.4 | 0.4 | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 | 2.6 |
| 5606 | 424426.76 | 5410109.35 | 356.24 | 0 | DEN | A | 71.9 | 25.4 | 0.0 | 0.0 | 0.0 | 83.8 | 12.2 | 0.4 | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| 5669 | 424411.70 | 5410356.21 | 359.50 | 0 | DEN | A | 71.9 | 25.4 | 0.0 | 0.0 | 0.0 | 84.2 | 12.5 | 0.5 | 0.8 | 0.0 | 3.6 | 0.0 | 0.0 | -4.1 |

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 | l/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) |
| 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 | l/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) |
| 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 | l/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) |
| 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 | l/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) |
| 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 | l/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) |
| 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 | l/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) |
| 5258 | 427524.15 | 5409592.10 | 387.98 | 0 | DEN | A | 78.6 | 25.7 | 0.0 | 0.0 | 0.0 | 79.4 | 2.3 | 2.0 | 0.6 | 0.0 | 6.9 | 0.0 | 0.0 | 13.1 |
| 5319 | 426038.75 | 5409390.55 | 335.09 | 0 | DEN | A | 78.6 | 24.3 | 0.0 | 0.0 | 0.0 | 80.0 | 2.4 | 2.1 | 0.6 | 0.0 | 9.8 | 0.0 | 0.0 | 8.1 |
| 5334 | 426432.91 | 5409603.33 | 373.37 | 0 | DEN | A | 78.6 | 23.8 | 0.0 | 0.0 | 0.0 | 80.1 | 2.4 | 2.1 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 17.7 |
| 5371 | 425631.27 | 5409578.87 | 272.50 | 0 | DEN | A | 78.6 | 23.7 | 0.0 | 0.0 | 0.0 | 81.1 | 2.6 | 2.1 | 0.1 | 0.0 | 4.3 | 0.0 | 0.0 | 12.2 |
| 5374 | 426638.34 | 5409616.36 | 380.50 | 0 | DEN | A | 78.6 | 22.4 | 0.0 | 0.0 | 0.0 | 79.9 | 2.4 | 2.0 | 0.2 | 0.0 | 2.1 | 0.0 | 0.0 | 14.4 |
| 5375 | 425557.71 | 5409447.01 | 294.74 | 0 | DEN | A | 78.6 | 23.2 | 0.0 | 0.0 | 0.0 | 80.9 | 2.6 | 2.1 | 0.1 | 0.0 | 10.1 | 0.0 | 0.0 | 6.1 |
| 5376 | 426796.68 | 5409678.62 | 385.50 | 0 | DEN | A | 78.6 | 22.3 | 0.0 | 0.0 | 0.0 | 80.0 | 2.4 | 2.0 | 0.2 | 0.0 | 2.1 | 0.0 | 0.0 | 14.2 |
| 5407 | 427068.94 | 5409750.48 | 394.19 | 0 | DEN | A | 78.6 | 21.6 | 0.0 | 0.0 | 0.0 | 80.0 | 2.4 | 2.1 | 0.2 | 0.0 | 2.1 | 0.0 | 0.0 | 13.5 |
| 5416 | 426935.43 | 5409722.19 | 390.52 | 0 | DEN | A | 78.6 | 21.1 | 0.0 | 0.0 | 0.0 | 80.0 | 2.4 | 2.1 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 15.1 |
| 5419 | 425840.98 | 5409411.19 | 324.69 | 0 | DEN | A | 78.6 | 21.3 | 0.0 | 0.0 | 0.0 | 80.4 | 2.5 | 2.1 | 0.2 | 0.0 | 2.1 | 0.0 | 0.0 | 12.7 |
| 5436 | 427267.01 | 5409719.16 | 394.50 | 0 | DEN | A | 78.6 | 20.0 | 0.0 | 0.0 | 0.0 | 79.9 | 2.4 | 2.0 | 0.2 | 0.0 | 2.2 | 0.0 | 0.0 | 12.0 |
| 5437 | 425716.63 | 5409425.45 | 319.18 | 0 | DEN | A | 78.6 | 20.8 | 0.0 | 0.0 | 0.0 | 80.6 | 2.5 | 2.1 | 0.2 | 0.0 | 2.2 | 0.0 | 0.0 | 11.9 |
| 5442 | 426199.24 | 5409424.15 | 349.80 | 0 | DEN | A | 78.6 | 19.5 | 0.0 | 0.0 | 0.0 | 79.9 | 2.4 | 2.0 | 0.6 | 0.0 | 2.6 | 0.0 | 0.0 | 10.7 |
| 5462 | 427177.12 | 5409782.45 | 393.17 | 0 | DEN | A | 78.6 | 19.1 | 0.0 | 0.0 | 0.0 | 80.1 | 2.4 | 2.1 | 0.2 | 0.0 | 2.1 | 0.0 | 0.0 | 10.9 |
| 5465 | 426236.18 | 5409496.59 | 357.03 | 0 | DEN | A | 78.6 | 18.9 | 0.0 | 0.0 | 0.0 | 80.0 | 2.4 | 2.1 | 0.2 | 0.0 | 2.1 | 0.0 | 0.0 | 10.7 |

Sample Calculations

| Line Source, ISO 9613, Name: "Truck Route Stockpile (Loaded Truck)", ID: "TRL_SP" | | | | | | | | | | | | | | | | | | | | |
|---|-----------|------------|--------|-------|-----|-------|-------|------|--------|------|------|------|------|------|------|-------|------|------|------|-------|
| Nr. | X | Y | Z | Refl. | DEN | Freq. | Lw | l/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) |
| 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 | l/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) |
| 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 | l/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) |
| 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 | l/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) |
| 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 | l/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) |
| 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 | l/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) |
| 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 | l/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) |
| 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 | 425036.42 | 5409446.90 | 355.23 | 0 | DEN | A | 71.9 | 22.5 | 0.0 | 0.0 | 0.0 | 81.8 | 10.6 | -0.0 | 0.8 | 0.0 | 3.9 | 0.0 | 0.0 | -2.7 |
| 5713 | 425301.21 | 5409339.17 | 356.08 | 0 | DEN | A | 71.9 | 21.7 | 0.0 | 0.0 | 0.0 | 81.1 | 10.1 | -0.1 | 0.9 | 0.0 | 4.0 | 0.0 | 0.0 | -2.3 |
| 5724 | 425736.31 | 5409357.53 | 326.16 | 0 | DEN | A | 71.9 | 20.8 | 0.0 | 0.0 | 0.0 | 80.4 | 9.6 | -0.3 | 0.7 | 0.0 | 11.0 | 0.0 | 0.0 | -8.7 |
| 5746 | 423963.81 | 5409775.42 | 360.34 | 0 | DEN | A | 71.9 | 24.0 | 0.0 | 0.0 | 0.0 | 84.0 | 12.4 | 0.4 | 0.8 | 0.0 | 3.6 | 0.0 | 0.0 | -5.2 |
| 5759 | 424448.77 | 5409948.08 | 354.25 | 0 | DEN | A | 71.9 | 23.6 | 0.0 | 0.0 | 0.0 | 83.5 | 12.0 | 0.3 | 0.8 | 0.0 | 3.7 | 0.0 | 0.0 | -4.7 |
| 5760 | 425436.44 | 5409324.57 | 351.28 | 0 | DEN | A | 71.9 | 20.9 | 0.0 | 0.0 | 0.0 | 80.9 | 9.9 | -0.2 | 0.9 | 0.0 | 4.0 | 0.0 | 0.0 | -2.6 |
| 5775 | 425167.88 | 5409371.59 | 355.50 | 0 | DEN | A | 71.9 | 21.0 | 0.0 | 0.0 | 0.0 | 81.4 | 10.3 | -0.1 | 0.9 | 0.0 | 3.9 | 0.0 | 0.0 | -3.5 |
| 6061 | 425790.18 | 5409416.40 | 324.41 | 0 | DEN | A | 71.9 | 16.2 | 0.0 | 0.0 | 0.0 | 80.5 | 9.6 | -0.2 | 0.9 | 0.0 | 4.1 | 0.0 | 0.0 | -6.6 |
| 6138 | 425798.97 | 5409391.23 | 324.50 | 0 | DEN | A | 71.9 | 14.2 | 0.0 | 0.0 | 0.0 | 80.4 | 9.6 | -0.3 | 0.9 | 0.0 | 4.2 | 0.0 | 0.0 | -8.6 |

| Line Source, ISO 9613, Name: "Water Truck Route Open Pit to Mill", ID: "WTR_OPMill" | | | | | | | | | | | | | | | | | | | | |
|---|-----------|------------|--------|-------|-----|-------|-------|------|--------|------|------|------|------|------|------|-------|------|------|------|-------|
| Nr. | X | Y | Z | Refl. | DEN | Freq. | Lw | l/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) |
| 5498 | 426041.08 | 5409390.69 | 335.36 | 0 | DEN | A | 71.9 | 24.2 | 0.0 | 0.0 | 0.0 | 80.0 | 9.3 | -0.3 | 0.8 | 0.0 | 16.1 | 0.0 | 0.0 | -9.8 |
| 5553 | 425631.88 | 5409578.88 | 272.50 | 0 | DEN | A | 71.9 | 23.7 | 0.0 | 0.0 | 0.0 | 81.1 | 10.1 | -0.1 | 0.7 | 0.0 | 8.7 | 0.0 | 0.0 | -4.8 |

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 | l/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) |
| 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 | l/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) |
| 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 | l/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) |
| 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 | l/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) |
| 5484 | 428105.04 | 5409564.14 | 373.36 | 0 | DEN | A | 69.4 | 26.5 | 0.0 | 0.0 | 0.0 | 79.6 | 5.1 | 0.6 | 0.8 | 0.0 | 3.3 | 0.0 | 0.0 | 6.5 |
| 5529 | 427735.51 | 5409493.45 | 379.10 | 0 | DEN | A | 69.4 | 25.1 | 0.0 | 0.0 | 0.0 | 79.2 | 4.9 | 0.5 | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 | 9.0 |
| 5536 | 427179.61 | 5409478.46 | 394.62 | 0 | DEN | A | 69.4 | 24.8 | 0.0 | 0.0 | 0.0 | 79.1 | 4.9 | 0.5 | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 | 8.9 |
| 5584 | 427452.74 | 5409495.59 | 390.75 | 0 | DEN | A | 69.4 | 23.9 | 0.0 | 0.0 | 0.0 | 79.1 | 4.9 | 0.5 | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 | 7.8 |
| 5607 | 426038.92 | 5409390.64 | 335.11 | 0 | DEN | A | 69.4 | 24.3 | 0.0 | 0.0 | 0.0 | 80.0 | 5.3 | 0.6 | 0.6 | 0.0 | 12.5 | 0.0 | 0.0 | -5.3 |
| 5642 | 426932.32 | 5409512.59 | 385.21 | 0 | DEN | A | 69.4 | 23.3 | 0.0 | 0.0 | 0.0 | 79.3 | 5.0 | 0.5 | 0.8 | 0.0 | 3.4 | 0.0 | 0.0 | 3.6 |
| 5645 | 426435.00 | 5409603.38 | 373.36 | 0 | DEN | A | 69.4 | 23.9 | 0.0 | 0.0 | 0.0 | 80.1 | 5.3 | 0.6 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 6.7 |

Sample Calculations

| Line Source, ISO 9613, Name: "EO Aggregate Pit Truck Route", ID: "EO_TR" | | | | | | | | | | | | | | | | | | | | |
|--|-----------|------------|--------|-------|-----|-------|-------|------|--------|------|------|------|------|------|------|-------|------|------|------|-------|
| Nr. | X | Y | Z | Refl. | DEN | Freq. | Lw | l/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) |
| 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 | l/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) |
| 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 | -9.5 |

| Line Source, ISO 9613, Name: "Motor Grader Route Open Pit to Mill", ID: "MGR_OPMill" | | | | | | | | | | | | | | | | | | | | |
|--|-----------|------------|--------|-------|-----|-------|-------|------|--------|------|------|------|------|------|------|-------|------|------|------|-------|
| Nr. | X | Y | Z | Refl. | DEN | Freq. | Lw | l/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) |
| 5518 | 426040.12 | 5409390.47 | 335.25 | 0 | DEN | A | 71.1 | 24.2 | 0.0 | 0.0 | 0.0 | 80.0 | 7.2 | 0.1 | 0.7 | 0.0 | 14.5 | 0.0 | 0.0 | -7.2 |
| 5612 | 425632.28 | 5409578.86 | 272.50 | 0 | DEN | A | 71.1 | 23.6 | 0.0 | 0.0 | 0.0 | 81.1 | 7.8 | 0.2 | 0.6 | 0.0 | 7.6 | 0.0 | 0.0 | -2.4 |
| 5614 | 426345.87 | 5409644.29 | 366.78 | 0 | DEN | A | 71.1 | 22.9 | 0.0 | 0.0 | 0.0 | 80.3 | 7.4 | 0.1 | 0.7 | 0.0 | 3.8 | 0.0 | 0.0 | 1.7 |
| 5632 | 426538.83 | 5409923.32 | 385.70 | 0 | DEN | A | 71.1 | 23.3 | 0.0 | 0.0 | 0.0 | 80.8 | 7.7 | 0.1 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 | 4.9 |
| 5635 | 425561.17 | 5409447.20 | 295.36 | 0 | DEN | A | 71.1 | 23.2 | 0.0 | 0.0 | 0.0 | 80.9 | 7.7 | 0.2 | 0.4 | 0.0 | 14.2 | 0.0 | 0.0 | -9.1 |

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 | l/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) |
| 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 | l/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) |
| 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 |
| 5838 | 425167.03 | 5409374.35 | 355.50 | 0 | D | A | 71.0 | 21.2 | 0.0 | 0.0 | 0.0 | 81.4 | 6.2 | -0.2 | 0.5 | 0.0 | 3.6 | 0.0 | 0.0 | 0.6 |
| 5838 | 425167.03 | 5409374.35 | 355.50 | 0 | N | A | 71.0 | 21.2 | 0.0 | 0.0 | 0.0 | 81.4 | 6.2 | -0.2 | 0.5 | 0.0 | 3.6 | 0.0 | 0.0 | 0.6 |
| 5838 | 425167.03 | 5409374.35 | 355.50 | 0 | E | A | 71.0 | 21.2 | 0.0 | 0.0 | 0.0 | 81.4 | 6.2 | -0.2 | 0.5 | 0.0 | 3.6 | 0.0 | 0.0 | 0.6 |
| 5864 | 425442.63 | 5409322.08 | 351.13 | 0 | D | A | 71.0 | 20.5 | 0.0 | 0.0 | 0.0 | 80.8 | 6.0 | -0.2 | 0.5 | 0.0 | 3.6 | 0.0 | 0.0 | 0.8 |
| 5864 | 425442.63 | 5409322.08 | 351.13 | 0 | N | A | 71.0 | 20.5 | 0.0 | 0.0 | 0.0 | 80.8 | 6.0 | -0.2 | 0.5 | 0.0 | 3.6 | 0.0 | 0.0 | 0.8 |
| 5864 | 425442.63 | 5409322.08 | 351.13 | 0 | E | A | 71.0 | 20.5 | 0.0 | 0.0 | 0.0 | 80.8 | 6.0 | -0.2 | 0.5 | 0.0 | 3.6 | 0.0 | 0.0 | 0.8 |
| 5936 | 424943.07 | 5409519.90 | 355.44 | 0 | D | A | 71.0 | 20.8 | 0.0 | 0.0 | 0.0 | 82.1 | 6.5 | -0.2 | 0.5 | 0.0 | 3.6 | 0.0 | 0.0 | -0.7 |
| 5936 | 424943.07 | 5409519.90 | 355.44 | 0 | N | A | 71.0 | 20.8 | 0.0 | 0.0 | 0.0 | 82.1 | 6.5 | -0.2 | 0.5 | 0.0 | 3.6 | 0.0 | 0.0 | -0.7 |
| 5936 | 424943.07 | 5409519.90 | 355.44 | 0 | E | A | 71.0 | 20.8 | 0.0 | 0.0 | 0.0 | 82.1 | 6.5 | -0.2 | 0.5 | 0.0 | 3.6 | 0.0 | 0.0 | -0.7 |

Sample Calculations

| Line Source, ISO 9613, Name: "Truck Route-Overburden (Empty Truck)", ID: "TRE_OB" | | | | | | | | | | | | | | | | | | | | |
|---|-----------|------------|--------|-------|-----|-------|-------|------|--------|------|------|------|------|------|------|-------|------|------|------|-------|
| Nr. | X | Y | Z | Refl. | DEN | Freq. | Lw | l/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) |
| 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 | l/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) |
| 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 | l/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) |
| 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 | l/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) |
| 5475 | 427525.13 | 5409591.57 | 387.26 | 0 | DEN | A | 71.1 | 25.7 | 0.0 | 0.0 | 0.0 | 79.4 | 6.9 | 0.0 | 0.7 | 0.0 | 13.9 | 0.0 | 0.0 | -4.1 |
| 5539 | 426435.67 | 5409603.46 | 373.34 | 0 | DEN | A | 71.1 | 23.9 | 0.0 | 0.0 | 0.0 | 80.1 | 7.2 | 0.1 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 | 6.9 |
| 5636 | 426643.41 | 5409615.78 | 380.58 | 0 | DEN | A | 71.1 | 22.4 | 0.0 | 0.0 | 0.0 | 79.9 | 7.2 | 0.0 | 0.8 | 0.0 | 3.8 | 0.0 | 0.0 | 1.9 |
| 5643 | 426799.68 | 5409678.92 | 385.50 | 0 | DEN | A | 71.1 | 22.2 | 0.0 | 0.0 | 0.0 | 80.0 | 7.2 | 0.1 | 0.8 | 0.0 | 3.8 | 0.0 | 0.0 | 1.6 |
| 5706 | 427068.88 | 5409751.09 | 394.16 | 0 | DEN | A | 71.1 | 21.7 | 0.0 | 0.0 | 0.0 | 80.0 | 7.2 | 0.1 | 0.8 | 0.0 | 3.8 | 0.0 | 0.0 | 0.9 |
| 5739 | 426936.03 | 5409722.77 | 390.52 | 0 | DEN | A | 71.1 | 21.1 | 0.0 | 0.0 | 0.0 | 80.0 | 7.2 | 0.1 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 | 4.1 |
| 5792 | 427267.00 | 5409718.30 | 394.50 | 0 | DEN | A | 71.1 | 20.0 | 0.0 | 0.0 | 0.0 | 79.9 | 7.1 | 0.0 | 0.7 | 0.0 | 4.1 | 0.0 | 0.0 | -0.8 |
| 5915 | 427177.06 | 5409782.65 | 393.14 | 0 | DEN | A | 71.1 | 19.0 | 0.0 | 0.0 | 0.0 | 80.1 | 7.3 | 0.1 | 0.8 | 0.0 | 3.8 | 0.0 | 0.0 | -1.8 |
| 6066 | 427324.32 | 5409616.81 | 399.02 | 0 | DEN | A | 71.1 | 15.9 | 0.0 | 0.0 | 0.0 | 79.5 | 7.0 | 0.0 | 0.9 | 0.0 | 3.8 | 0.0 | 0.0 | -4.2 |
| 6129 | 427299.54 | 5409638.56 | 398.79 | 0 | DEN | A | 71.1 | 14.5 | 0.0 | 0.0 | 0.0 | 79.6 | 7.0 | 0.0 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 | -1.9 |
| 6137 | 427231.00 | 5409784.30 | 390.50 | 0 | DEN | A | 71.1 | 14.8 | 0.0 | 0.0 | 0.0 | 80.1 | 7.3 | 0.1 | 0.8 | 0.0 | 3.8 | 0.0 | 0.0 | -6.1 |

Sample Calculations

| Line Source, ISO 9613, Name: "Motor Grader Route Stockpile", ID: "MGR_SP" | | | | | | | | | | | | | | | | | | | | |
|---|-----------|------------|--------|-------|-----|-------|-------|------|--------|------|------|------|------|------|------|-------|------|------|------|-------|
| Nr. | X | Y | Z | Refl. | DEN | Freq. | Lw | l/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) |
| 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 | l/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) |
| 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 | l/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) |
| 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 | 0.0 | 0.0 | 79.7 | 5.5 | -0.2 | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 | -4.5 |
| 6191 | 425350.77 | 5409558.82 | 272.50 | 0 | DEN | A | 67.7 | 14.9 | 0.0 | 0.0 | 0.0 | 81.5 | 6.2 | -0.2 | 0.3 | 0.0 | 7.9 | 0.0 | 0.0 | -13.2 |
| 6192 | 427249.50 | 5409774.00 | 390.50 | 0 | DEN | A | 67.7 | 11.9 | 0.0 | 0.0 | 0.0 | 80.0 | 5.6 | -0.2 | 0.5 | 0.0 | 3.7 | 0.0 | 0.0 | -10.0 |

| Line Source, ISO 9613, Name: "Roen Aggregate Pit Truck Route", ID: "Roen_TR" | | | | | | | | | | | | | | | | | | | | |
|--|-----------|------------|--------|-------|-----|-------|-------|------|--------|------|------|------|------|------|------|-------|------|------|------|-------|
| Nr. | X | Y | Z | Refl. | DEN | Freq. | Lw | l/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) |
| 5469 | 426388.49 | 5411303.58 | 371.91 | 0 | DEN | A | 66.4 | 29.3 | 0.0 | 0.0 | 0.0 | 84.0 | 7.2 | 0.6 | 0.6 | 0.0 | 3.2 | 0.0 | 0.0 | 0.2 |
| 5471 | 426377.10 | 5410443.70 | 369.96 | 0 | DEN | A | 66.4 | 29.3 | 0.0 | 0.0 | 0.0 | 82.3 | 6.3 | 0.6 | 0.6 | 0.0 | 3.2 | 0.0 | 0.0 | 2.7 |
| 5682 | 425300.41 | 5411772.54 | 364.93 | 0 | DEN | A | 66.4 | 28.5 | 0.0 | 0.0 | 0.0 | 85.4 | 8.0 | 0.6 | 0.5 | 0.0 | 3.1 | 0.0 | 0.0 | -2.7 |

Sample Calculations

| Line Source, ISO 9613, Name: "Roen Aggregate Pit Truck Route", ID: "Roen_TR" | | | | | | | | | | | | | | | | | | | | |
|--|-----------|------------|--------|-------|-----|-------|-------|------|--------|------|------|------|------|------|------|-------|------|------|------|---------|
| Nr. | X | Y | Z | Refl. | DEN | Freq. | Lw | l/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)) |
| 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 | l/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)) |
| 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 | 0.2 | 0.0 | 2.1 | 0.0 | 0.0 | 19.0 |
| 5208 | 426640.46 | 5409616.78 | 380.50 | 0 | E | 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 |
| 5209 | 425555.63 | 5409447.83 | 294.11 | 0 | D | A | 83.2 | 23.3 | 0.0 | 0.0 | 0.0 | 80.9 | 2.6 | 2.1 | 0.1 | 0.0 | 10.1 | 0.0 | 0.0 | 10.7 |
| 5209 | 425555.63 | 5409447.83 | 294.11 | 0 | N | A | 83.2 | 23.3 | 0.0 | 0.0 | 0.0 | 80.9 | 2.6 | 2.1 | 0.1 | 0.0 | 10.1 | 0.0 | 0.0 | 10.7 |
| 5209 | 425555.63 | 5409447.83 | 294.11 | 0 | E | A | 83.2 | 23.3 | 0.0 | 0.0 | 0.0 | 80.9 | 2.6 | 2.1 | 0.1 | 0.0 | 10.1 | 0.0 | 0.0 | 10.7 |
| 5216 | 426800.25 | 5409680.19 | 385.50 | 0 | D | A | 83.2 | 22.3 | 0.0 | 0.0 | 0.0 | 80.0 | 2.4 | 2.0 | 0.2 | 0.0 | 2.1 | 0.0 | 0.0 | 18.7 |
| 5216 | 426800.25 | 5409680.19 | 385.50 | 0 | N | A | 83.2 | 22.3 | 0.0 | 0.0 | 0.0 | 80.0 | 2.4 | 2.0 | 0.2 | 0.0 | 2.1 | 0.0 | 0.0 | 18.7 |
| 5216 | 426800.25 | 5409680.19 | 385.50 | 0 | E | A | 83.2 | 22.3 | 0.0 | 0.0 | 0.0 | 80.0 | 2.4 | 2.0 | 0.2 | 0.0 | 2.1 | 0.0 | 0.0 | 18.7 |
| 5224 | 427429.10 | 5409836.24 | 387.41 | 0 | D | 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 | 0.0 | 18.5 |

Sample Calculations

| Line Source, ISO 9613, Name: "Truck Route PAG (Loaded Truck)", ID: "TRL_PAG" | | | | | | | | | | | | | | | | | | | | |
|--|-----------|------------|--------|-------|-----|-------|-------|-------|--------|------|------|------|------|------|------|-------|------|------|------|-------|
| Nr. | X | Y | Z | Refl. | DEN | Freq. | Lw | l/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) |
| 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | l/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) |
| 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 | 0.0 | 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 | E | 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 |
| 5528 | 427242.46 | 5409796.07 | 393.09 | 0 | D | A | 72.2 | 23.3 | 0.0 | 0.0 | 0.0 | 80.1 | 5.6 | -0.2 | 0.5 | 0.0 | 3.7 | 0.0 | 0.0 | 5.7 |
| 5528 | 427242.46 | 5409796.07 | 393.09 | 0 | N | A | 72.2 | 23.3 | 0.0 | 0.0 | 0.0 | 80.1 | 5.6 | -0.2 | 0.5 | 0.0 | 3.7 | 0.0 | 0.0 | 5.7 |
| 5528 | 427242.46 | 5409796.07 | 393.09 | 0 | E | A | 72.2 | 23.3 | 0.0 | 0.0 | 0.0 | 80.1 | 5.6 | -0.2 | 0.5 | 0.0 | 3.7 | 0.0 | 0.0 | 5.7 |
| 5545 | 425632.54 | 5409579.12 | 272.50 | 0 | D | A | 72.2 | 23.7 | 0.0 | 0.0 | 0.0 | 81.1 | 6.1 | -0.2 | 0.3 | 0.0 | 6.5 | 0.0 | 0.0 | 2.0 |
| 5545 | 425632.54 | 5409579.12 | 272.50 | 0 | N | A | 72.2 | 23.7 | 0.0 | 0.0 | 0.0 | 81.1 | 6.1 | -0.2 | 0.3 | 0.0 | 6.5 | 0.0 | 0.0 | 2.0 |
| 5545 | 425632.54 | 5409579.12 | 272.50 | 0 | E | A | 72.2 | 23.7 | 0.0 | 0.0 | 0.0 | 81.1 | 6.1 | -0.2 | 0.3 | 0.0 | 6.5 | 0.0 | 0.0 | 2.0 |

Sample Calculations

| Line Source, ISO 9613, Name: "Truck Route PAG (Empty Truck)", ID: "TRE_PAG" | | | | | | | | | | | | | | | | | | | | |
|---|-----------|------------|--------|------|-----|-------|-------|-------|--------|------|------|------|------|------|------|-------|------|------|------|-------|
| Nr. | X | Y | Z | Ref. | DEN | Freq. | Lw | l/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) |
| 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 | 5.2 |
| 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 | 5.2 |
| 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 | 5.2 |
| 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 | -12.8 |
| 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 | -12.8 |
| 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 | -12.8 |
| 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 | 4.9 |
| 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 | 4.9 |
| 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 | 4.9 |
| 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 | 4.6 |
| 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 | 4.6 |
| 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 | 4.6 |
| 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 | 4.2 |
| 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 | 4.2 |
| 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 | 4.2 |
| 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 | 3.4 |
| 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 | 3.4 |
| 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 | 3.4 |
| 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 | 7.2 |
| 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 | 7.2 |
| 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 | 7.2 |
| 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 | 2.4 |
| 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 | 2.4 |
| 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 | 2.4 |
| 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 | 1.2 |
| 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 | 1.2 |
| 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 | 1.2 |
| 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 | 1.5 |
| 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 | 1.5 |
| 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 | 1.5 |
| 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 | -1.3 |
| 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 | -1.3 |
| 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 | -1.3 |
| 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 | -1.8 |
| 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 | -1.8 |
| 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 | -1.8 |
| 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 | -12.8 |
| 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 | -12.8 |
| 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 | -12.8 |
| 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 | -0.5 |
| 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 | -0.5 |
| 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 | -0.5 |
| 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 | -0.6 |
| 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 | -0.6 |
| 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 | -0.6 |
| 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 | -10.5 |
| 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 | -10.5 |
| 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 | -10.5 |
| 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 | -8.7 |
| 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 | -8.7 |
| 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 | -8.7 |
| 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 | 0.0 | -29.3 |
| 6211 | 426553.92 | 5409594.59 | 378.50 | 0 | N | 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 | 0.0 | -29.3 |
| 6211 | 426553.92 | 5409594.59 | 378.50 | 0 | E | 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 | 0.0 | -29.3 |