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October 20, 2025 Aercoustics Project #: 05259.00

St Marys Cement Inc. (Canada)
CBM Aggregates - Codrington
55 Industrial Street
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M4G 3W9

ATTN: Mike Le Breton, Lands Manager, Eastern Region, CBM
Jillian Werry, Land and Environmental Coordinator, CBM

Subject: CBM Aggregates Codrington Pit Acoustical Audit 2025
MNR Licence # 624984
Part of Lots 32-34, Concession 6, Geographic Township of Brighton, County of Northumberland

1 Introduction

Aercoustics Engineering Limited (Aercoustics) was retained to conduct an acoustic audit of the Codrington Pit to fulfil the monitoring condition set by the Ministry of Natural Resources (MNR) and by the "Environmental Noise Monitoring Program & Complaint Procedure – Codrington Pit", dated February 24, 2013. The Noise Study for the pit is titled "An assessment of the Potential Noise Associated with Aggregate Extraction & Processing at the Proposed Codrington Pit" (May 14, 2009), prepared by Aercoustics. There is also an accompanying Addendum Letter dated April 5, 2012. The Codrington Pit is located about 1 km east of the intersection of Highway 30 and Old Wooler Road, about 1.5 km southeast of Codrington, Ontario. The pit is bounded by an Ontario Hydro line to the north.

The audit has been conducted in accordance with the guidelines and procedures of the Ontario Ministry of the Environment, Conservation and Parks (MECP).

2 Site Visit Conditions

During the site visit on September 19, 2025, audit measurements captured operation of the main processing spread toward the northeastern portion of the pit, including operation of the mobile crusher, wash plant, and screening plant. The average air temperature was 20 degrees Celsius and the prevailing winds were from the north at about 11 km/h.

A CAT 980 loader was observed was observed organizing material stockpiles and loading Volvo AG40 shipping trucks with material near the wash plant, with a CAT 966G loading

the wash plant. A John Deere 844L loader was observed operating near the screening plant, while two CAT 980K loaders were observed at the crushing plant, with one operating and one idling.

It is a condition of the licence that the sound levels from the pit comply with the MECP guidelines for noise from stationary sources. The current MECP criteria for noise from a stationary source are set forth in publication NPC 300, ”Environmental Noise Guideline – Stationary and Transportation Sources – Approval and Planning”.

The allowable noise levels from the extraction, processing and shipping operations in the pit as established by the MECP and the Noise Study are outlined in Table 1. The equivalent sound level (L_{EQ}) is an average sound level based on acoustical energy. It is a steady sound level that for the specified time period contains the same acoustical energy as the varying sound level which prevails.

Table 1: Applicable MECP Sound Level Limits (Daytime)

Receptor	Sound Level Limit One Hour L_{EQ} (dBA)
R1 to R13	45
R14	50
R15	52

The allowable sound level limits for the pit operations at the residences at R1 to R13 correspond to the Class 3 daytime equivalent sound level exclusion limit of 45 dBA. Receptors R14 and R15, which are closer to Highway 30, are considered Class 2 receptors. Based on traffic noise impact predictions, the sound level limit for Receptor R15 is defined by the minimum background sound level of 52 dBA.

As per the Addendum Letter, the extraction and processing operations in the pit are restricted to weekday daytime hours (07:00 to 19:00). The noise from a stationary source should not in any hour exceed the limits outlined in Table 1. It should be noted that noise from Highway 30 has been observed to be consistently audible at Receptors R1 and R2 due to the elevated topography at these locations. These receptors’ sound level limits may be increased to a Class 2 designation in future audits to reflect the road traffic noise.

The surrounding receptors and equipment locations are illustrated in Figure 1.

3 Equipment

A summary of the test equipment used for the acoustic measurements is presented below in Table 2. The sound level meter was calibrated before and after the site visit.

Table 2: Test Equipment Summary

Equipment	Make / Model	Serial Number
Sound Level Meter	Bruel & Kjaer / 2250	3006579
Sound Level Calibrator	Norsonic / Nor1256	125627203

4 Measurements

During the site visit, sound level measurements were conducted where appropriate at locations representative of the residences surrounding the pit. Sound level measurements were conducted at the R13 receptor to the north of the site, and Receptor R10 to the east.

Sound level measurements were paused as required to minimize the contribution from vehicle passes on the local road, as well as aircraft passes. High-frequency noise from insects was present and dominant in the measured receptor sound levels. In addition to the reported L_{EQ} values, the sound level reflects the exclusion of frequencies at and above 4,000 Hz. Sound energy from the plant at and above 4,000 Hz is insignificant relative to the other dominant frequencies; the values with footnotes can be considered representative of the worst-case noise impact from pit operations. Table 3 presents the noise measurements and observations at the receptors.

Table 3: Measured Sound Levels

Receptor	Measured Sound Level (dBA) L_{EQ}	Noise Sources
R10	44*	Pit activities slightly audible during lulls in ambient; insect, tree, and animal noise present; ambient dominant.
R13	42*	Pit activities slightly audible during lulls in ambient; distant traffic, insect, tree, and bird noise dominant.

* Measured value reflects exclusion of insect noise at 4,000 Hz and above.

Measurements of the processing plants were conducted to confirm the assumed reference sound levels used in the noise study. The cumulative noise emissions of all processing equipment was found to be 87 dBA at 30 m, which aligns with the reference sound pressure level of 87 dBA at 30 m. The sound pressure level of each loader was measured to be below the reference sound level of 74 dBA at 30 m. An outline of the equipment and receptor locations is illustrated in Figure 1.

5 Observations and Conclusions

The measured sound levels include the contribution from the background noise sources with distant road and air traffic minimized. The Codrington Pit operations were generally audible during periods with low background noise. The measurement results indicated that the sound level from the Codrington Pit operations at all applicable receptors was below the allowable limits. It can be concluded from the acoustical audit that, based on the measurements, the Codrington Pit is operating in compliance with the MECP guidelines for stationary sources.

Sincerely,

AERCOUSTICS ENGINEERING LIMITED

Noman Ali, M.Eng.

Kohl Clark, B.Eng., P.Eng.

Legend

- Equipment
- Receptors
- Licence Boundary
- Limit of Extraction

N

0 250 500 m

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Project ID: 05259.00

Scale:	As Indicated
Drawn by:	NA
Reveiwed by:	KC
Date:	October 2025
Revision:	1

Codrington Pit - CBM

Codrington Pit 2025 Acoustical Audit

Figure Title

Key Plan Showing Site Receptors and Location

Figure 1