



# Characteristics Of Noise From : Mining Industries

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# INTRODUCTION

- ✓ This presentation provides a information about the acoustic characteristics of noise in the mining industry.
- ✓ We will focus on the sources of noise, its effects on workers, and the measures that can be taken to reduce its impact.





# SOURCES OF MINING INDUSTRY NOISE

Mining industry noise is generated by a variety of sources, including drilling, blasting, crushing, and transportation. Heavy machines like dozers, dumpers, and loaders, are moving sources of noise in mines. In contrast, certain sources are stationary, e.g., crusher plants, screening plants, belt conveyors, etc.







# HOW LOUD IS MINING NOISE

The loudness of noise depends on the distance from the sound source to the sound receiver and the topology and other factors such as wind direction, wind speed, humidity levels, and underlying ambient sound level that might effect the overall noise.

Some examples of mining equipment and locations and their noise levels from operators' positions:

- Drills: 116 dBA
- Muckers: 107 dBA
- Load haul dump: 101 dBA
- Miners/loaders: 100 dBA
- Longwalls: 98 dBA
- Shuttle cars: 93 dBA



# EFFECTS OF MINING INDUSTRY NOISE



- Mining industry noise can have a range of effects on workers, including hearing loss, tinnitus, and stress.
- Prolonged exposure to noise levels of above 90 dB can cause permanent deafness.
- Miners may show digestive and neurological disorders under such conditions.
- It can also have an impact on the environment, including wildlife and nearby communities.



# REDUCING THE IMPACT OF MINING INDUSTRY NOISE

There are a range of measures that can be taken to reduce the impact of mining industry noise, including engineering controls, administrative controls, and personal protective equipment.





# REDUCING THE IMPACT OF MINING INDUSTRY NOISE

Instead of focusing on only targeting personal hearing protection, engineering measures should be implemented in order to reduce noise emissions. These include:

- Engine Enclosure & Cabin Soundproofing Acoustic Barrier Walls.
- Vibration Isolation (Steel spring, Resilient pad, Air mount).
- Vibration Damping (Sorbothane).







REFERENCES :

[https://en.wikipedia.org/wiki/Main\\_Page](https://en.wikipedia.org/wiki/Main_Page)

<https://www.researchgate.net/>

<https://www.softdb.com/blog/mining-exploration-noise-social-acceptance/>