



Memorandum

To: Todd Powell, Director, Mineral Resources, Energy, Mines and Resources

From: Alexco Keno Hill Mining Corp.

CC: Keno City Residents

Date: July 30, 2022

Re: 2022 Q2 Noise Monitoring Results Summary

INTRODUCTION

This report has been created to summarize noise monitoring levels recorded during the second quarter of 2022 within Keno City, in accordance with the Keno Hill Silver District Mining Operations (KHSD) Noise Monitoring and Management Plan (October 2021).

Addressing potential noise effects on community wellbeing is of key importance given the location of the KHSD Mine Operations to Keno City. Alexco Keno Hill Mining Corp. (AKHM) monitors noise levels within the community at various locations to assess noise levels and to determine if the noise mitigation measures are effective. These locations are shown on Figure 1.

Noise within the 20-60 dBA range is considered acceptable for daytime noise limits. A permissible sound level (PSL) of 40 decibels energy level equivalent (dBA Leq)^{1,2} has been established from a noise impact assessment (NIA). AKHM has a maximum NIA threshold of 39 Db that the company uses to assess if noise is excessive and may cause issues for residents in the area. The company has also set up a system for recording and keeping record of any noise complaints filed by area residents.

RESULTS

The data used to evaluate noise during the second quarter of 2022 was collected between April 1 up until June 26, 2022. There were 27 days between this period where data was collected. The data also provides maximum dB that occurred where April's maximum noise level recorded was 37.2, May's maximum was 34.7, and June's maximum was recorded at 32.8. Table 1 outlines the data recorded for the maximum dB reached during the quarter at each location. The data shows no dates where the 39dB threshold was exceeded which aligns with residents of Keno City making no formal noise complaints about the company's operations.

Table 1: Q2 2022 Maximum noise levels per monitoring station

Location	RO1	RO2	RO3	RO4	RO5	Campground
Maximum dBA	31.1	37.2	31.1	30.6	34.7	20.7
Date	2022/04/01	2022/04/17	2022/06/27	2022/04/24	2022/05/02	2022/05/14
Time	15:05:08	21:48:57	17:19:53	15:22:35	18:21:01	14:39:55

CONCLUSION

The data collected during the second quarter of 2022 shows that noise from AKHM was kept at a minimum and did not exceed the threshold that warrants a change in operations for noise reduction. The noise monitoring program will continue at AKHM throughout the year to ensure AKHM operations maintain minimal impact on the surrounding communities.

REFERENCES

AKHM (Alexco Keno Hill Mining Corp.). (2021). *Keno Hill Silver District Mining Operations, Noise Monitoring and Management Plan*, October 2021.

PAAE (Patching Associates Acoustical Engineering Ltd.). (2014). *Noise Impact Assessment Update, Alexco Keno Hill Mining Corp., Proposed Flame and Moth Mine Project, Yukon Territory*. Prepared for Yukon Environmental and Socio-Economic Assessment Board (YESAB), September 23, 2014.

¹ dBA The decibel sound pressure level filtered through the A filtering network to approximate human hearing response at low intensities.

¹ L_{eq} The equivalent continuous level - the equivalent continuous sound which would contain the same sound energy as the time varying sound



Satellite imagery obtained from Yukon Geomatics map service <http://mapservices.gov.yk.ca/ArcGIS/services> on February 2020

Datum: NAD 83; Projection: UTM Zone 8N

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1:6,000 (when printed on 11 x17 inch paper)

0 50 100 150 200 250 Meters

- Noise Monitoring Station
- Current DSTF
- Pond
- Mine Feature Footprint
- Watercourse
- Silver Trail Highway
- Secondary Road
- Adit



ALEXCO KENO HILL MINING CORP.

FIGURE 2-1

NOISE MONITORING STATIONS

FEBRUARY 2020

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