Assessment of Mozley and Wilfley shaking tables for concentrating carbonatite indicator minerals, Aley carbonatite, British Columbia, Canada

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1. Objectives

To assess the effectiveness of two mineral concentrating screens, the Mozley C800 and Wilfley #13, for concentrating carbonatite indicator minerals. To determine the optimal conditions for concentration and the efficiency of the two screens for concentrating target minerals.

2. Methods

The Mozley C800 and Wilfley #13 screens were used to concentrate carbonatite indicator minerals from Aley carbonatite, British Columbia, Canada. The screens were tested under various conditions, including different shaking amplitudes, frequencies, and weights. The concentrate samples were analyzed for a suite of pathfinder elements to determine the efficiency of the screens for concentrating target minerals.

3. Results

The Mozley C800 was found to be more effective than the Wilfley #13 for concentrating carbonatite indicator minerals. The Mozley C800 was more effective at concentrating the target minerals, with higher recoveries and lower contamination levels.

4. Conclusion

The Mozley C800 is recommended for the concentration of carbonatite indicator minerals from Aley carbonatite. The Wilfley #13 is less effective and is recommended for smaller sample weights.

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References


Risk of contamination is lower when using the Mozley C800.