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ASX Release

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POSITIVE MINERALOGY AND COMMINUTION RESULTS

Highlights

- Mineralogy analysis shows excellent liberation of niobium minerals from primary carbonatite samples
- Comminution testwork shows soft material, easy to grind
- Flotation tests are well advanced, with results expected in a month

Cradle Resources Limited (ASX: CXX, CXXO) (Cradle) is pleased to announce that results from the mineralogy and comminution testwork performed to date are encouraging.

The mineralogy work undertaken shows well-liberated niobium minerals in relatively coarse size fractions. The implication is that these minerals should be relatively easy to recover within a standard flotation process. As set out in Table 1, the (maximum) potential niobium recovery in the flotation circuit is between 82% and 88%, which is at the upper end of our expectations. We note that desliming and other parts of the circuit are anticipated to cost a further 15% in recovery.

The primary carbonatite ore zone comprises a combination of fresh and weakly oxidised material. Importantly, the mineralogy liberation data for the weakly oxidised material is as good as for the fresh carbonatite.

The comminution test work shows a medium to soft material that is expected to have low energy requirements in the grinding stages (Table 2). This will have operating cost benefits for the project.

The flotation tests comprising 20 open circuit tests and 2 locked cycle tests are well advanced and expected to be completed by late November.

Grant Davey, the Managing Director of Cradle, commented "I am encouraged with the comminution and mineralogy tests which show that niobium should be efficiently and economically recovered from all ore types tested. Confirmation of metallurgical recoveries will be available in about a month's time and we anticipate recoveries that will confirm Panda Hill as a world class niobium resource."



 Table 1: Potential Nb₂O₅ Grade – Recovery Curves based on Quantitative

 Mineralogy for a P80 Grind Size of ~200um

Table 2: Comminution Data (Bond Indices)

Sample Designation	Standard Bond Rod Mill Work Index		Standard Bond Ball Mill Work Index		Standard Bond Abrasion Test	
	Value (kwh/t)	Classification	Value (kwh/t)	Classification	Value	Classification
Comp A	11.5	medium / low	11.9	medium / low	0.051	low
Comp B	11.6	medium / low	10.4	low	0.057	low
Comp C	11.0	low	10.7	low	0.026	low
Comp D	11.7	medium / low	10.6	low	0.030	low

Bond Work Indices (Rod and Ball) are a measure of the resistance of the material to crushing and grinding. They are used to determine the grinding power required for a given throughput of material under the specified grinding conditions.

For further information, please visit <u>www.cradleresources.com.au</u> or contact:

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