

Cycladex Ltd Discovers New Process For Lithium

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London, UK - Cycladex Ltd, the developer of an environmentally-clean and effective gold recovery process has today announced that it has discovered and scaled a new technology to extract lithium from both hard ore and potentially spent lithium batteries. The company has run commercial scale extraction tests on ore in the United States generating a lithium salt which will be converted to lithium carbonate using carbon dioxide.

“Following an enquiry from a key investor, we looked to see if our gold recovery technology could also be used for lithium. We analysed our historical data and identified lithium in several of our recovery streams. The ore we are currently processing at our demonstration plant in the US for gold also contains lithium”, said Roger Pettman, Executive Chairman. “This ore has generated an average of 400 ppm of lithium per metric tonne of ore, which is equivalent to 4,200 ppm lithium carbonate per metric tonne of ore. After one recycle, we can boost the concentration of lithium to 8,400 ppm per metric tonne of lithium carbonate equivalent and we expect that this concentration can be increased. Significantly, the process is run at room temperature and takes only 30 minutes per batch and has the potential to become a continuous process. The scale of testing is currently in two tonne batches but there is no limit to scale” Roger Pettman added.

The overall advantages of the process versus the existing sulfuric acid extraction are: i) a significant reduction in the use and waste from the large quantities of sulfuric acid without the need to build a sulfuric acid plant ; ii) there is no need to source a sulfur mineral to feed a sulfuric acid plant as commercial sulfuric acid suppliers have the capacity to supply the needs of the process, iii) recycle of the key ingredients in the leach reducing cost and waste; iv) a reduction in the amount of water, and; v) a reduction in operating and capital expenditure costs. Another potential major benefit is to offer battery manufacturers a carbon dioxide credit. The plants are relatively inexpensive, can be installed at lithium mine sites, at battery recyclers and be deployed quickly worldwide speeding up the supply of lithium carbonate.

As Cycladex is the first to identify this technology, it has been able to patent many complimentary technologies, which have been used for gold and Cycladex has adapted these to develop a complete chemistry set for lithium. The Company has also filed a very broad patent to cover this new fundamental technology. Cycladex Ltd has also established Cycladex Lithium Ltd, which is a wholly-owned subsidiary of Cycladex Ltd. Details can be found on the Company’s website www.cycladex.com.

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