

# Advancements in Tin Recovery From Scrap Printed Circuit Boards

Vancouver, BC, June 24, 2021 - EnviroLeach Technologies Inc. (the "Company "or "EnviroLeach"), (CSE: ETI) (OTCQB: EVLLF) (7N2: FSE) is pleased to report the results of an ongoing research and development program to recover tin from scrap printed circuit board assemblies (PCBAs).

The recent phase of the research program was conducted using low-grade PCBAs and focused on lockedcycle tests and further process development to determine preliminary economic viability. The lock-cycle tests were designed to assess the reusability of the leach solution and address the potential accumulation of impurities. This is an important part of developing the process as it significantly reduces the reagent consumption and related costs and allows for predictable process control and the development of the final process flow sheet for subsequent pilot and full-scale plant design and engineering. Locked-cycle reusability tests demonstrated continuous recoveries averaging 84.2% over 16 cycles confirming the reusability of the leach solution. Previous laboratory tests performed using high-grade scrap PCBA concentrate material produced up to 92.6% tin recoveries (see Company news release dated November 5, 2020).

Cycle Number	Calculated Tin Head-Grade%	Tails Tin Grade %	Average Tin Recovery %
1 to 4	6.33	1.05	86.4
5 to 8	5.74	1.32	80.1
9 to 12	4.27	0.93	81.8
13 to 16	6.07	0.92	87.7
Average	5.57	1.06	84.2

## Low-Grade PCBA Tin Locked-Cycle Reusability Tests

The lab-scale research produced a tin oxide product which was sent to a tin refiner for detailed analysis and confirmation of the product's suitability for refining and sale. The next stage of this research is the development of a pilot scale plant to perform bulk tests on a variety of PCBA based concentrates to determine final process engineering and assess economics.

In combination with Enviroleach's existing technology, the potential to recover tin could give the EnviroLeach process for processing scrap PCBAs a significant economic advantage over other processing alternatives. EnviroLeach's current scrap PCBA processing technology extracts valuable metals from the PCBAs while reducing the volume of material sent to smelters. The reduced role of smelters results in significantly lower downstream processing charges, higher metal payments, and reduced environmental impact. The recovery and sale of tin would create further potential for increased operating margins.

# Tin Use in Electronics and Price

Tin is widely used in the manufacture of electronic components and PCBAs, primarily in solders. Increased tin demand is out pacing supply due to it supply constraints as well as broader use in new technologies and global electrification applications. Recent upward price movement supports the understanding of the metal's long term, enhanced value and metal prices is now at ten-year highs. While demand will be satisfied

by virgin metal sources, ethical sourcing is becoming a critical issue. Recycled tin is also highly compelling as a trackable, ethical source of tin which can be integrated with circular economy principles manufactures and OEMs are adopting.

Duane Nelson, CEO of EnviroLeach states, "This marks a pivotal breakthrough for the entire electronics sector. The cost-effective recovery of tin from scrap PCBAs has been a long-sought-after industry goal. This breakthrough technology could now lead to a significant secondary source for this critical and strategic metal. We are proud to be a part of this important step toward a new entrant to the electronics circular economy".

This innovative research program is being supported in part by advisory services and research and development funding from the National Research Council of Canada Industrial Research Assistance Program (NRC IRAP).

### About EnviroLeach Technologies Inc.

EnviroLeach Technologies is engaged in the development and commercialization of environmentally-friendly formulas and technologies for the treatment of materials in the primary and secondary metals sectors. Using its proprietary non-cyanide, water-based, neutral pH treatment process EnviroLeach extracts precious metals from ores, concentrates, and E-Waste.

Backed by a first-class staff of scientists and engineers, tens of thousands individual tests and assays, independent validations, and countless hours in research and development, EnviroLeach's technology is emerging as a potential new standard for the provision of eco-friendly methods for the hydrometallurgical extraction of precious metals in both the mining and E-Waste sectors. Further information is available on the EnviroLeach web site: https://EnviroLeach.com

### Forward-Looking Statements

This News Release contains "forward-looking information" and "forward-looking statements" within the meaning of applicable Canadian and the United States securities legislation. Statements contained herein that are not based on historical or current fact, including without limitation statements containing the words "anticipates," "believes," "may," "continues," "estimates," "expects," and "will" and words of similar import, constitute "forward-looking statements" within the meaning of the U.S. Private Securities Litigation Reform Act of 1995. Forward-looking information may include, but is not limited to, information with respect to our Research and Development activities, the accuracy of our capital and operating cost estimates; production and processing estimates; the results, the adequacy of EnviroLeach's financial resources and timing of development of ongoing research and development projects, costs and timing of future revenues or profits and adequacy of financial resources. Wherever possible, words such as "plans", "expects", "projects", "assumes", "budget", "strategy", "scheduled", "estimates", "forecasts", "anticipates", "believes", "intends", "targets" and similar expressions or statements that certain actions, events or results "may", "could", "would", "might" or "will" be taken, occur or be achieved, or the negative forms of any of these terms and similar expressions, have been used to identify forward-looking statements and information. Statements concerning future revenue or earnings estimates may also be deemed to constitute forward-looking information. Any statements that express or involve discussions with respect to predictions, expectations, beliefs, plans, projections, objectives, assumptions or future events or performance are not statements of historical fact and may be forward-looking information. Forward-looking information is subject to a variety of known and unknown risks, uncertainties and other factors that could cause actual events or results to differ from those expressed or implied by the forward-looking information. Forward-looking information is based on the expectations and opinions of EnviroLeach's management on the date the statements are made.

The assumptions used in the preparation of such statements, although considered reasonable at the time of preparation, may prove to be imprecise. We do not assume any obligation to update forward-looking information, whether as a result of new information, future events or otherwise, other than as required by applicable law. For the reasons set forth above, prospective investors should not place undue reliance on forward-looking information. The CSE has not approved or disapproved of the information contained herein.

**Contact Information:** 

Jason Leikam VP, Corporate Development EnviroLeach Technologies Inc. 604.282.0601 info@enviroleach.com