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## Clean TeQ successfully completes demonstration project for brine hardness removal in China

**MELBOURNE, Australia** – Clean TeQ Holdings Limited (**Clean TeQ** or **Company**) (ASX/TSX:CLQ; OTCQX:CTEQF) is pleased to announce the successful completion of its hardness removal demonstration project in Inner Mongolia for Jiutai New Material (**Jiutai**).

The aim of the project was to confirm, at demonstration scale, the cost effectiveness of Clean TeQ's continuous ion exchange process to remove hardness from high saline brines to increase the recovery rates of subsequent membrane systems and thus improve water recoveries for recycling and reduce the volume of polluting waste brine.

Membrane systems (including reverse osmosis and nanofiltration) are abundant throughout the world for water treatment and water recovery. One common challenge, especially for high water recovery systems, is the presence of water hardness (ie high mineral content) that causes membranes to foul, which increases costs and limits water recovery. The Jutai project confirmed that the Clean TeQ Continuous Ionic Filtration (**CIF**<sup>®</sup>) system cost effectively removes hardness entirely, allowing membranes to run at close to maximum capacity without fouling.

During the demonstration project Clean TeQ's mobile demonstration unit treated reverse osmosis (**RO**) filtration brine continuously for two weeks, consistently removing hardness (Calcium and Magnesium) down to zero to allow the subsequent second step RO to significantly increase water recovery.

The demonstration program treated wastewater from a large coal-to-chemical refinery, producing DME (Dimethyl Ether) owned by Jiutai located about 100 km from Hohhot, China. The process requires large volumes of industrial grade water, putting a strain on sources of water supply in this water scarce region. The demonstration program confirmed that increasing water recovery by adopting Clean TeQ's CIF<sup>®</sup> system could substantially reduce the plant's net water use.

Willem Vriesendorp, General Manager of Clean TeQ's Water Division, commented, *"The results from this project convincingly demonstrate our ability to remove hardness from brines at low cost, allowing substantial improvement in the efficiency of existing or new membrane systems. Clean TeQ has commenced discussions with Jiutai over potential commercial scale application of the CIF<sup>®</sup> technology at Jutai's planned new water treatment facilities. The market for this application is very large, as hundreds of factories throughout China have*

*implemented complex membrane systems over the past decade, and many are facing challenges with fouling or are looking to improve the operations of these systems.”*



Clean TeQ Continuous Ionic Filtration (CIF®) Mobile Demonstration Plant

Successful completion of this campaign provides valuable demonstration of yet another application for the Clean TeQ water technology in addition to the commercial scale plants currently nearing completion in Australia, Oman and DRC. Over the coming months, the Company plans to expand this marketing and technology demonstration campaign by deploying the mobile CIF® unit to other facilities in China which have similar issues as Jiutai with a view to generating additional sales.

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**About Clean TeQ Holdings Limited (ASX/TSX: CLQ)** – Based in Melbourne, Australia, Clean TeQ is a global leader in metals recovery and industrial water treatment through the application of its proprietary Clean-iX® continuous ion exchange technology. For more information about Clean TeQ please visit the Company's website [www.cleanteq.com](http://www.cleanteq.com).

**About the Clean TeQ Sunrise Project** – Clean TeQ is the 100% owner of the Clean TeQ Sunrise Project, located in New South Wales. Clean TeQ Sunrise is one of the largest cobalt deposits outside of Africa, and one of the largest and highest-grade accumulations of scandium ever discovered.

**About Clean TeQ Water** – Through its wholly owned subsidiary Clean TeQ Water, Clean TeQ is also providing innovative wastewater treatment solutions for removing hardness, desalination, nutrient removal, zero liquid discharge. The sectors of focus include municipal wastewater, surface water, industrial waste water and mining waste water. For more information about Clean TeQ Water please visit [www.cleanteqwater.com](http://www.cleanteqwater.com).

**FORWARD-LOOKING STATEMENTS**

Certain statements in this news release constitute "forward-looking statements" or "forward-looking information" within the meaning of applicable securities laws. Such statements involve known and unknown risks, uncertainties and other factors, which may cause actual results, performance or achievements of the Company, Clean TeQ Water, or industry results, to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements or information. Such statements can be identified by the use of words such as "may", "would", "could", "will", "intend", "expect", "believe", "plan", "anticipate", "estimate", "scheduled", "forecast", "predict" and other similar terminology, or state that certain actions, events or results "may", "could", "would", "might" or "will" be taken, occur or be achieved. These statements reflect the Company's current expectations regarding future events, performance and results, and speak only as of the date of this new release.

Statements in this news release that constitute forward-looking statements or information include, but are not limited to statements regarding: the cost effectiveness of Clean TeQ's CIF® process and its ability to remove hardness from high saline brines, substantially improve the efficiency of existing or new membrane systems and substantially reduce a plant's net water use; that the market for applications of this technology is very large; and that the Company will expand its marketing and technology demonstration campaign. Readers are cautioned that actual results may vary from those presented. All such forward-looking information and statements are based on certain assumptions and analyses made by Clean TeQ's management in light of their experience and perception of historical trends, current conditions and expected future developments, as well as other factors management believe are appropriate in the circumstances. These statements, however, are subject to a variety of risks and uncertainties and other factors that could cause actual events or results to differ materially from those projected in the forward-looking information or statements including, but not limited to, unexpected changes in laws, rules or regulations, or their enforcement by applicable authorities; the failure of parties to contracts to perform as agreed; changes in commodity prices; unexpected failure or inadequacy of infrastructure, or delays in the development of infrastructure, and the failure of exploration programs or other studies to deliver anticipated results or results that would justify and support continued studies, development or operations. Other important factors that could cause actual results to differ from these forward-looking statements also include those described under the heading "Risk Factors" in the Company's most recently filed Annual Information Form available under its profile on SEDAR at [www.sedar.com](http://www.sedar.com).

Readers are cautioned not to place undue reliance on forward-looking information or statements.

Although the forward-looking statements contained in this news release are based upon what management of the Company believes are reasonable assumptions, the Company cannot assure investors that actual results will be consistent with these forward-looking statements. These forward-looking statements are made as of the date of this news release and are expressly qualified in their entirety by this cautionary statement. Subject to applicable securities laws, the Company does not assume any obligation to update or revise the forward-looking statements contained herein to reflect events or circumstances occurring after the date of this news release.