Australian Securities Exchange & Media Announcement Clean TeQ Holdings Limited (CLQ:ASX; CTEQF:OTCQX)



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## **Autoclaves acquired for Syerston Project**

## Substantial capital saving and opportunity to significantly compress and de-risk project development schedule

**Melbourne, Australia** – Sam Riggall, Managing Director of Clean TeQ Holdings Limited (CLQ:ASX; CTEQF:OTCQX), today announced that the company has acquired two autoclaves for Clean TeQ's 100% owned Syerston Nickel/Cobalt/Scandium Project in NSW, Australia. The autoclaves were acquired from Vale International S.A., a subsidiary of Brazilian multinational metals and mining group, Vale SA, for US\$6.5 million.

The autoclaves, and their purpose designed agitators, flanges and associated equipment, have never been used, are in excellent condition and are ideally sized for the Syerston Project. Their acquisition is expected to significantly de-risk the project schedule, with delivery lead times in today's market for similar equipment being almost three years.

Mr Riggall noted "the acquisition of these autoclaves is a remarkable development for Clean TeQ and the Syerston Project. Securing this critical long lead item not only saves a substantial amount of capital cost, but allows us to significantly compress and de-risk the development schedule for this unique project."



Figure 1: Autoclave vessels in storage in New Caledonia



Figure 2: Autoclave vessel in transit to New Caledonia

The autoclaves are the major component of the high-pressure acid leach (HPAL) circuit for the Syerston Project. They are pressure vessels with steel shells and explosively bonded titanium lining, which are designed to withstand the operating conditions required for effective leaching of nickel, cobalt and scandium from Syerston ore. The key features of the autoclaves include:

- 1. Each of the two autoclaves, weighing approximately 600 tonnes, can manage a slurry volume of 647m<sup>3</sup>, which is more than sufficient to achieve the required residence time for an anticipated 2.5Mtpa ore throughput;
- 2. They operate at slurry temperatures of 250°C and an operating pressure of 4500 kPag, sufficient to prevent the slurry from evaporating;
- 3. Turbulence within the compartments of the vessels is maintained by vertical-shaft agitators to ensure mixing of the solids and acid; and,
- 4. The low pH (acid) slurry necessitates a titanium lining of the autoclaves, to protect the steel shell of the pressure vessel.

Vale arranged the design and fabrication of these vessels by Coek Engineering N.V (Coek), Belgium, in 2006 for the Niquel do Vermelho project in Brazil. Vale also procured agitators, mechanical seals and seal skids for each autoclave vessel from Ekato Corporation (Ekato). Coek is recognised as a world leader in the design and fabrication of such vessels. Ekato is considered a leader in agitator technology.

Vale discontinued the Niquel do Vermelho Project following the acquisition of Inco Limited and its Goro Nickel Project (under construction at the time) in 2006. The Niquel do Vermelho autoclaves remained in storage with Coek in Rotterdam for several years until Vale shipped them to the Goro Project in New Caledonia in 2012. The autoclaves have been stored there, in a customs bonded

yard, since. The agitators and associated equipment have been stored at Ekato's manufacturing facility in Schopfheim, Germany, since their fabrication.

Extensive due diligence was undertaken by Clean TeQ's project team and representatives of SNC Lavalin to ensure the suitability and good condition of the autoclaves. The due diligence program included process evaluation, technical evaluation, transport & logistics investigation and site visits.

In due course the autoclaves will be transported to Newcastle, Australia, where they will be stored until they are ready to be transported to the Syerston Project site for installation.

## For more information about Clean TeQ contact:

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**About Clean TeQ Holdings Limited (ASX: CLQ)** – Based in Melbourne, Clean TeQ, using its proprietary Clean-iX® continuous ion exchange technology, is a leader in metals recovery and industrial water treatment.

For more information about Clean TeQ please visit the Company's website <u>www.cleanteq.com</u>.

**About the Syerston Project** – Clean TeQ is the 100% owner of the Syerston Project, located in New South Wales. The Syerston Project is one of the largest and highest grade scandium deposits in the world and one of the highest grade and largest nickel and cobalt deposit outside of Africa.

**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 <u>www.cleanteqwater.com</u>

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