



NEWS RELEASE

TSXV: CYP | OTCQB: CYDVF

## CYPRESS DEVELOPMENT TO START PILOT PLANT PROGRAM FOR CLAYTON VALLEY LITHIUM PROJECT, NEVADA

**October 13, 2021 - Vancouver, Canada - Cypress Development Corp. (TSXV: CYP) (OTCQB: CYDVF) (Frankfurt: C1Z1)** ("Cypress" or "the Company") is pleased to report that the assembly of the pilot plant for the Company's 100%-owned Clayton Valley Lithium Project in Nevada is complete. The pilot plant is located at a metallurgical facility approximately 100 miles south of the project. Purchasing of items for the pilot plant began in March and work progressed through the summer. With assembly and operational testing of component equipment finished, test extraction of lithium from the project's sample material will begin next week. The pilot plant will utilize chloride-based leaching combined with the Chemionex—Lionex process for direct lithium extraction (DLE), as described in previous announcements.

"The completion of the pilot plant represents a significant milestone and marks the culmination of months of work by Cypress, our consultants, and contractors" stated Bill Willoughby, President and CEO of Cypress. "This work, under the direction of Continental Metallurgical Services and supported by the management and personnel of del Sol Refining, Inc., has resulted in a pilot plant that embodies the research that went into our process flowsheet. The testing ahead will be one of the larger piloting efforts to extract lithium from clay in the world, and the only one based on a chloride approach to leaching. While the ultimate goal is to demonstrate the production of lithium hydroxide from our claystone resource on a larger scale, the results from the various areas within the plant, from leaching and tailings handling, to solution treatment and recycling, chemical usage and water balance, will provide the data necessary to carry the project forward to the feasibility level."

The Company's pilot plant is configured to use chloride-based leaching to liberate the lithium from the project's claystone. This was based on results from an internal scoping study completed in January 2021, which determined additional benefits in the areas of economics, process, and the environment when using a chloride-based rather than a sulphate-based leaching process. The sulphate-based process remains a viable alternative as detailed in the project's [Pre-Feasibility Study](#) (PFS, effective Date August 5, 2020 and amended March 15, 2021).

### **Pilot Plant Program Objectives**

The pilot plant is intended to confirm the extraction of lithium from the Company's Clayton Valley Lithium Project, in following the recommendations outlined in the Company's PFS.

There are four main sections in the pilot plant: leaching, tailings handling, pregnant leach solution (PLS) treatment and the Chemionex—Lionex DLE process area. Two additional processing steps will be conducted off-site at NORAM Engineering and Construction, Ltd's B.C. Research Laboratory in Richmond, Canada; these steps will take the concentrated lithium solution and a portion of the depleted solution following DLE for the production of lithium hydroxide and the generation of hydrochloric acid and sodium hydroxide.

Each section in the pilot plant has specific objectives. The leaching section will work to improve leach conditions and confirm lithium extraction into PLS. Testing of various feed size and grade of the claystone, reagent mixtures, and water balance will aid in optimization at scale.

The tailings handling section will utilize a counter current decantation arrangement of thickener settlers and flocculant mixing, with the objective of determining materials handling, moisture content and water consumption. Testing in this stage will provide key information for water requirements and design of tailings facilities.

The PLS treatment section will remove impurities prior to introduction into the DLE process through two-stage neutralization and filtration, a tertiary stage will follow the DLE process prior to recycling of solution back to leaching.

The DLE section consists of Chemionex's—Lionex DLE technology and will test compatibility of the PLS to be further concentrated with this process. Cypress was granted an option, upon completion of the pilot plant program, to license this process for commercial use at its project.

The final two steps will be conducted by NORAM Engineering, these will treat the concentrated lithium solution from the DLE portion of the pilot plant to produce lithium hydroxide and test the stripped leach solution for compatibility for recycling to the leaching section of the plant.

### **Pilot Plant Photos**





**About Cypress Development Corp**

Cypress Development Corp. is a Canadian advanced stage lithium exploration company, focused on developing its 100%-owned Clayton Valley Lithium Project in Nevada, USA. Work completed by Cypress led to the discovery of a world-class resource of lithium-bearing claystone adjacent to the Albemarle Silver Peak mine, North America's only lithium brine operation. The results of a positive Pre-Feasibility Study for the Clayton Valley Lithium Project were announced by Cypress Development in August 2020. Cypress Development trades on the TSX Venture Exchange under the symbol CYP, and on the OTCQB under the symbol CYDVF.

**ON BEHALF OF CYPRESS DEVELOPMENT CORP.**

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