Argyle Provides Update on Pilot Plant Facility

30.10.2024 | Newsfile

Calgary, October 30, 2024 - Argyle Resources Corp. (CSE: ARGL) (OTCQB: ARLYF) (FSE: ME0) ("Argyle" or the "Company"), further to the news release dated August 30, 2024, provides shareholders with an update on its strategically located pilot processing facility in St-Lambert-de-Lauzon. The pilot plant facility is in close proximity to its silica exploration properties in Quebec and also in close proximity to the Company's research partners, the Institut National de la Recherche Scientifique ("INRS") campus near Québec City.

"We are excited to announce the developments to the processing facility, which represents another step forward in our exploration and processing capabilities," said Jeff Stevens, CEO of Argyle Resources Corp. "Having the equipment on site and ready for the November 2024 restart of exploration at Matapedia is a positive milestone and maintains the planned schedule for the work partnership being executed by the INRS".

The Company has overseen some minimal upgrades to the facility and has begun the assembly of three pieces of equipment which will assist the INRS with their silica exploration field work and silica analysis. The three pieces of equipment which have been provided by the INRS are:

Ball Mill with Ceramic Liner and Ceramic Balls: The ball mill is a mineralogical device commonly used for crushing and grinding quartzite blocs to form silica sands. When high purity quartzite, which is primarily composed of silica is processed in a ball mill, it is ground into finer particles.

1. Particle Size Reduction: Effectively grind silica into finer particles, which is essential for various applications in industries such as photovoltaic solar panel, semi-conductor chips and electronics.
2. Uniformity: Help achieve a consistent particle size distribution, which is critical for ensuring that the silica meets specific industrial standards and performs effectively in its intended applications.
3. Quality Improvement: By controlling the grinding process, the mill can enhance the quality of silica by reducing impurities and achieving the desired purity levels.
4. Processing Efficiency: The mill is designed to optimize energy usage during the grinding process, making the operation more efficient and cost-effective.

Figure 1: Ball mill with ceramic liner and ceramic balls for quartzite processing.

To view an enhanced version of this graphic, please visit:
https://images.newsfilecorp.com/files/10451/228267_018135ba0400ca61_001full.jpg

Sieving machine : Sieves help separate these particles based on size, which is crucial for determining the material's suitability for various applications, such as in the production of silica for photovoltaic solar panels or for the use in the manufacture of semi-conductor wafers used for Artificial Intelligence ("AI") chips, like those produced by Nvidia.

The sieving machine use will allow INRS geologists and material scientists to:

1. Analyze Particle Size Distribution: Understand the range of particle sizes to help in assessing the quality and potential uses of the silica from the Matapedia project.

2. Optimize Milling Processes: Evaluate the output particle sizes. Adjustments can be made to the milling process for better efficiency and desired specifications.
3. Establish granulochemical curves to assess particle size release of contaminated particles associated with quartz particles.
4. Quality Control: Ensure that the silica meets industry standards by verifying that the particle size falls within acceptable limits.
5. Research and Development: In developing new products or applications, knowing the precise particle size can inform decisions on processing methods and end uses.

Figure 2: Automated sieving machine

To view an enhanced version of this graphic, please visit:
https://images.newsfilecorp.com/files/10451/228267_018135ba0400ca61_002full.jpg

Hydraulic Shaking Table: The hydraulic shaking table is used for the separation and concentration of mineral particles based on their specific gravity and hydrodynamic behavior in water.

1. Gravity Separation: The shaking table uses gravity to separate silica particles from lighter impurities or heavier particles such as iron and titanium oxides. This is particularly useful for concentrating high-purity silica from the quartzite samples taken from the Matapedia project.
2. Enhanced Purity: By effectively removing unwanted minerals and contaminants, the shaking table helps produce high-purity silica.
3. Particle Size Classification: The shaking action of the table allows for the separation of particles based on size and weight, enabling better classification of the silica material.
4. Efficient Processing: Shaking tables are known for their efficiency in processing larger volumes of material compared to other separation methods, making them cost-effective.
5. Visual Feedback: Operators can often observe the separation process in real time, allowing for adjustments and optimizations during operation.

Figure 3: Hydraulic Shaking Table.

To view an enhanced version of this graphic, please visit:
https://images.newsfilecorp.com/files/10451/228267_018135ba0400ca61_003full.jpg

The goal for this equipment is to process grab samples and an eventual bulk sample from quartzite silica outcrops that have been previously identified within Argyle's three 100% owned quartzite silica exploration properties in Quebec, beginning with samples taken from the Matapedia project located in St. Moise, Quebec.

Beginning the first week of November 2024 after the month-long access restriction to Matapedia for the annual one-month hunting season in the region, and as part of the 2024 field season, the goal is to extract 200 kg bulk samples of quartzite silica outcrops from Matapedia. These samples will then undergo processing of crushing, grinding and pulverizing quartzite samples to produce high-grade metallurgical silica using the equipment listed above. The resulting product will be analyzed to determine its suitability for various industrial and high technology applications such as solar panel manufacturing, semiconductor chip manufacturing for artificial intelligence applications and EV battery manufacturing. With the resulting high purity silica material produced after the ball mill, grain sizing and hydraulic separation, analysis for final purity of the silica produced from Matapedia will be completed at the INRS Campus laboratories near Quebec City.

This rented facility in St-Lambert-de-Lauzon will serve as a crucial hub for the company's silica outcrop samples processing operations. This new equipment will allow Argyle to optimize processing and increase the efficiency of its silica operations by having the ability to extract grab samples which are then easily, and cost efficiently transported by INRS technicians to the proximal pilot plant facility for processing. The pilot plant will further the Company's capabilities by enabling real-time testing and optimization of its silica solutions directly at the point of need.

Marc Richer-Lafleche P.GEO., as a consultant to the Company and a Qualified Person, as such term is defined by National Instrument 43-101 - Standards of Disclosure for Mineral Projects, has reviewed and approved the scientific and technical information reported in this news release.

ON BEHALF OF THE BOARD OF DIRECTORS

'Jeffrey Stevens'
President & CEO

About Argyle Resources Corp.

Argyle Resources Corp. is a junior mineral exploration company engaged in the business of acquiring, exploring, staking and evaluating natural resource properties in North America. The Company currently holds an option to acquire up to 100% of the Frenchvale Graphite Property located in Nova Scotia, Canada and owns 100% interest in the Pilgrim Islands, Matapedia and Lac Comporte quartzite silica projects in Quebec, Canada. Argyle is engaged in a research partnership with the INRS, a high-level research and training institute funded by the Quebec government to conduct exploration programs on the Company's silica projects. The Company was incorporated in 2023 and its head office is located in Calgary, Alberta, Canada.

For all other inquiries:

Email: info@argylresourcescorp.com

Phone: (825) 724-0033

Website: www.argyleresourcescorp.com

Forward-Looking Statements

This news release contains forward-looking statements and other statements that are not historical facts. Forward-Looking statements are often identified by terms such as "will", "may", "should", "anticipate", "expects" and similar expressions. All statements other than statements of historical fact, included in this news release are forward-looking statements that involve risks and uncertainties. Such statements in this news release include, but are not limited to, the statements with respect to future processing at the pilot facility and laboratory, goals for extraction of bulk samples for processing, the suitability of sample product for industrial and technology applications, increased efficiency of processing, the Company's planned exploration program; the execution of such exploration program in collaboration with INRS; and the initiation of work programs generally. There can be no assurance that such statements will prove to be accurate and actual results and future events could differ materially from those anticipated in such statements. Important factors that could cause actual results to vary from forward-looking statements or may affect the operations, performance, development and results of the Company's business include, among other things that mineral exploration is inherently uncertain and may be unsuccessful in achieving the desired results; that mineral exploration plans may change and be re-defined based on a number of factors, many of which are outside of the Company's control. Such information, although considered reasonable by management at the time of preparation, may prove to be incorrect and actual results may differ materially from those anticipated. Forward-Looking statements contained in this news release are expressly qualified by this cautionary statement. The forward-looking statements contained in this news release are made as of the date of this news release and the Company will only update or revise publicly any of the included forward-looking statements as expressly required by applicable law.

The Canadian Securities Exchange (CSE) has not reviewed and does not accept responsibility for the adequacy or the accuracy of the contents of this release.

To view the source version of this press release, please visit https://www.newsfilecorp.com/release/228267