

## PILOT PLANT COMMISSIONING IMMINENT ADVANCING TOWARDS FIRST PRODUCTION

### HIGHLIGHTS

- Pilot Plant commissioning and start up works progressing towards first production.
- Completion of relocation of plant to new facility in Salta.
- Completion of dynamic simulation, mass balances and plant layout design conceptually producing 250 tonnes per annum of 99.95% battery grade Lithium Carbonate via conventional evaporation process method.
- Completion of mass balance and engineering study by Worley in addition to upgrade and optimisation plans from Pursuit Engineering Team.
- Engagement of highly experienced engineering team to oversee and manage plant operations and first production of Lithium Carbonate.

Pursuit Minerals Ltd (ASX: **PUR**) (“**PUR**”, “**Pursuit**” or the “**Company**”) is pleased to provide the following update on key developments for its Lithium Carbonate Pilot Plant at the Rio Grande Sur Lithium Project following a recent site visit by management to Argentina.

#### Lithium Carbonate Pilot Plant

The Company is progressing with its commissioning and start up works of the Lithium Carbonate Pilot Plant.



*Figure 1 – Plant mixing tanks and columns being refurbished at the new Pursuit Lithium Facility in Salta, Argentina.*

The plant is currently in the process of being commissioned with equipment currently being refurbished for testing of the circuit and first production of material. This process is being overseen by Pursuit's plant operations and engineering team led by:

**Pedro Mauricio Torres**

Senior Lithium Process Engineer.

Mr. Torres has been working for more than 15 years in Lithium Projects (Process, Operation, Engineering and Project area), in Chile where he worked for more than 10 years in a senior role at SQM (NYSE:SQM) and was in charge of carrying out the commissioning of the new La Negra Lithium Hydroxide Plant. In addition, Mr. Torres has held senior roles with Galaxy Lithium now Allkem (ASX:AKE) and Alpha Lithium Corp (NEO: ALLI | OTC: APHLF | FRB: 765). Mr. Torres is an engineer with significant experience in the development of lithium processing operations with a strong technical profile. He is one of the founders of Beyond Lithium LLC Consultants.

**Adrian Arias**

Senior Lithium Brine Technology Engineer

Mr. Arias has held senior roles with several different Lithium development companies with vast experience in Argentina, with a focus on the development of chemical plants. Mr Arias was formerly the Process Manager of the Sal de Vida Project of Allkem (ASX:AKE) in addition to being a consultant of Alpha Lithium Corp (NEO: ALLI | OTC: APHLF | FRB: 765) in the establishment of its Pilot Plant at the Tolilar Salar. Currently, Mr. Arias is the leader of technology development for Beyond Lithium LLC, where his experience in laboratories, field testing and operations development positions him as a leader in the construction of Lithium Projects focusing on the brines of the Argentine Puna.

**Worley Process Report - Mass Balance, Evaporation Ponds and Li<sub>2</sub>CO<sub>3</sub> 100tpa Plant Study**

Earlier in 2023, Pursuit commissioned global engineering firm Worley to commission a study to outline a process route for the Rio Grande Brines through development of a dynamic mass balance for the production of 100 tonnes per annum of battery grade lithium carbonate, through the use of evaporation ponds and a lithium carbonate plant.

Worley has now developed the dynamic simulation of the evaporation ponds and the lithium carbonate plant to produce 100 TPA of battery grade lithium carbonate. To achieve this production, the following consecutive stages are defined:

- Solar evaporation through Halite Ponds
- Impurity removal through Liming Plant
- Solar evaporation through Sylvinite Ponds
- Boron removal through solvent extraction (SX)
- Calcium and Magnesium (impurity removal) through reagent addition
- Calcium and Magnesium removal through ion exchange columns (IX)
- Lithium carbonate precipitation through soda ash addition
- Drying and cooling

For personal use only

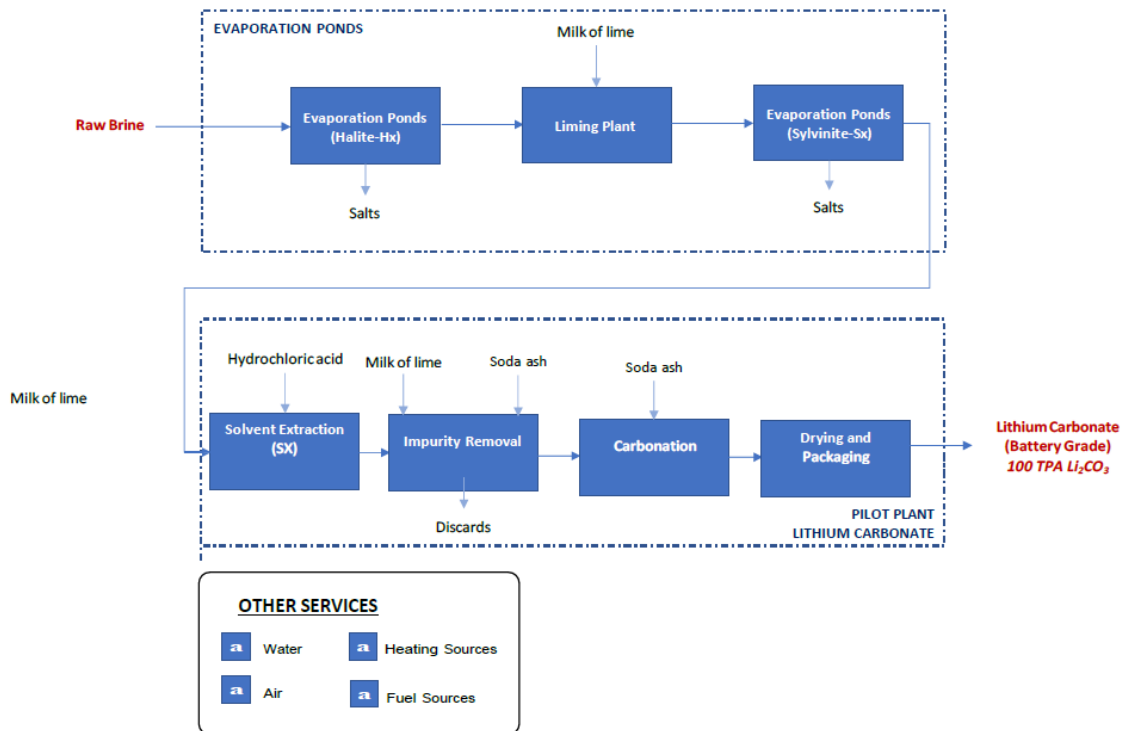


Figure 2 – Block diagram of the main stages of the Evaporation Ponds and Lithium Carbonate Plant

With the definition of these stages, as well as with the definition of certain assumptions and parameters, the dynamic simulation was developed for the evaporation ponds and lithium carbonate plant with the results summarized as follows:

- Effective area required for the solar evaporation ponds:
  - 57,005 m<sup>2</sup>
- Lithium concentration in brine at the outlet of the evaporation ponds (inlet of lithium carbonate plant):
  - 1.67 % Li (% w/w).
- Final production of lithium carbonate:
  - 100.04 TPA
- Lithium content in lithium carbonate battery grade:
  - 99.99586% (purity)
- The simulation resulted in the following conceptual lithium recoveries:
  - Ponds: 70%
  - Lithium carbonate plant: 78%

The pond simulation has established that Rio Grande brine will be able to commence processing into the plant circuit after 363 days where the brine will reach 1.6-1.8% Lithium after reaching 'Out Pond S4' being the final pond.

For personal use only

To generate this level of production, Worley has concluded 57,005m<sup>2</sup> of evaporation ponds are required to continuously feed the lithium carbonate plant with a target production of 100.04 tonnes per annum of Battery Grade Lithium Carbonate

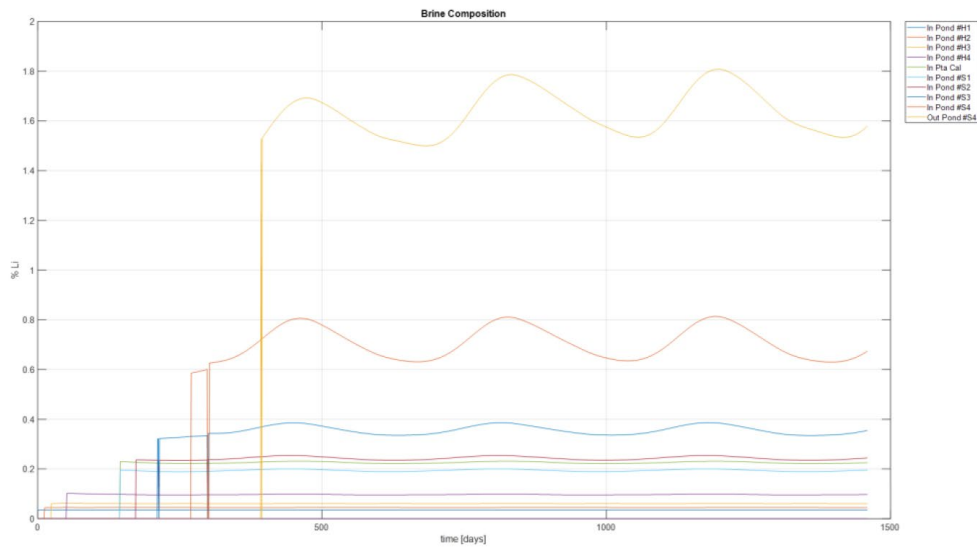


Figure 4 – Brine Evaporation Chemical Composition Evolution

**250tpa Plant Capacity Increase**

Building on the study carried out by Worley, Pursuit’s engineering team has carried out a gap analysis of the pilot plant equipment to identify the additional tanks and equipment required to upgrade the plant capacity from its existing 100tpa to 250tpa with the following operations layout designed.

For personal use only

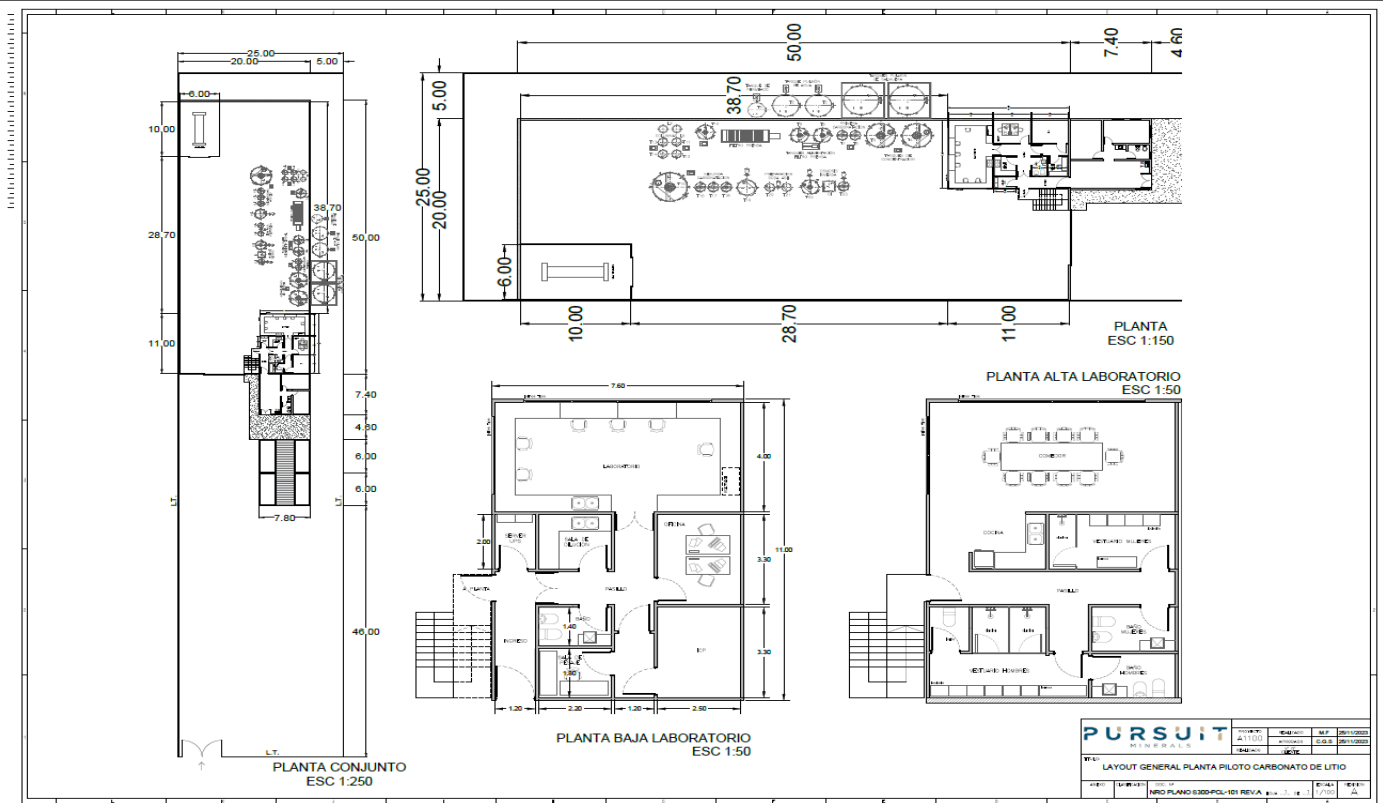


Figure 5 – Pursuit Lithium Carbonate 250tpa Plant Design Layout.

In conjunction with the plant layout Pursuit's engineering team, under the direction of Mr. Torres and Mr. Adrias, has developed an upgraded mass balance and plant design for increased capacity to 250tpa.

The plant design has been separated into two stages, the liming plant component, which is intended to be constructed at site upon relocation of the plant to the Salar, and the process circuit, which is currently being commissioned for operation at Pursuit's facility in Salta.

It is expected that the upgraded 250tpa plant will produce a 99.5% battery grade Lithium Carbonate, a product with guaranteed 99.5 wt. % purity and a relatively fine particle size. Battery Grade product is a superior purity grade for use as a precursor in making critical battery materials.

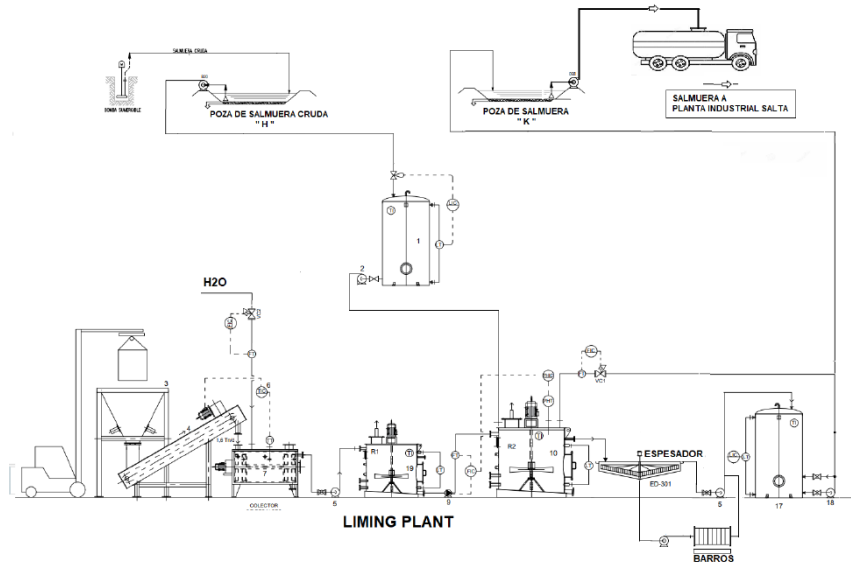


Figure 6 – Liming Plant Engineering Design

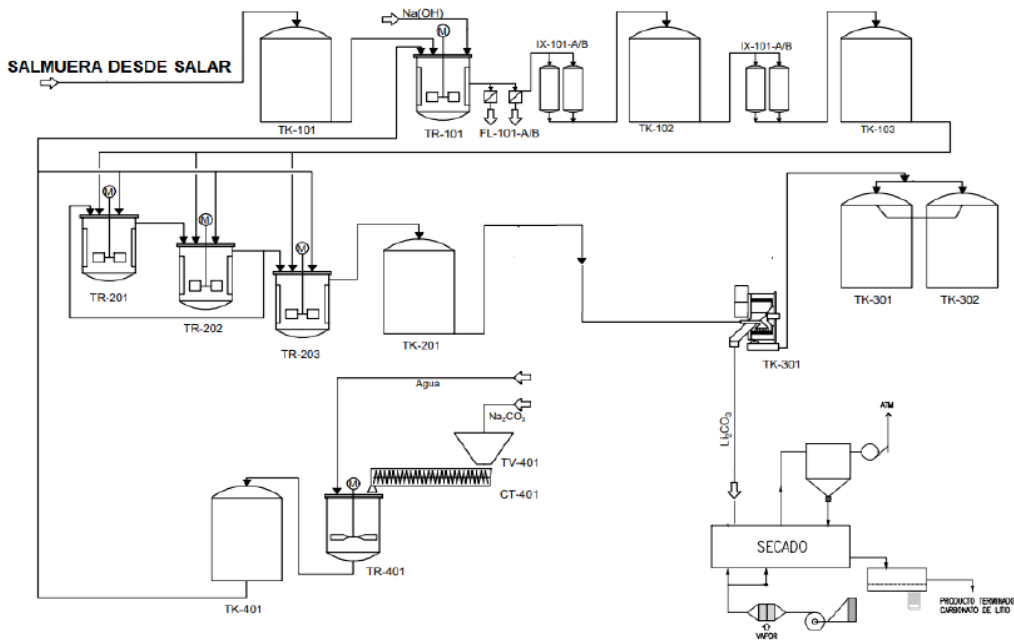
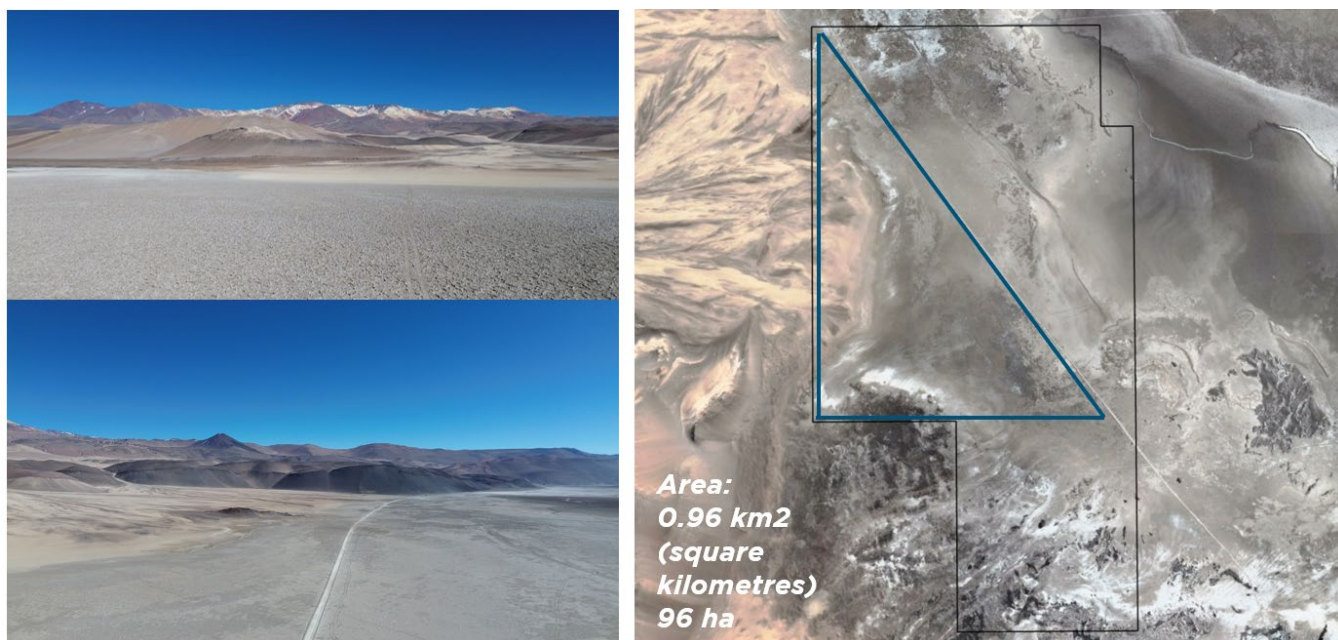


Figure 7 – Lithium Carbonate Plant Engineering Design

For personal use only

It is intended that the plant refurbishment, capacity upgrade and commissioning will be completed in the first quarter of 2024 where the Pilot Plant will have an operational capacity of 250tpa, upon which Pursuit's engineering team will commence production of Lithium Carbonate from the plant.

Currently, Pursuit's engineering team is developing the pond layout and design for the 250tpa plant for the environmental permit applications for construction of the evaporation ponds. The construction of the ponds is anticipated to occur in the second half of 2024 subject to environmental approvals from discussions with the Salta Mining Secretary, other relevant government stakeholders and Pursuit board approval. The ponds and plant are intended to be located on the Sal Rio 02 tenement where first production of Lithium Carbonate at site could occur in 2025.



**Figure 8 – Proposed Pond Location at Rio Grande Sur**

Pursuit has also received several expressions of interest for off-take agreements for the initial 250 tonnes of Lithium Carbonate production which will be advanced in the development of the project inclusive of identifying appropriate methods of financing construction of the evaporation ponds and site facilities.

Despite short term volatility in the price of Lithium Carbonate, long term security of supply remains a constant driver of market demand with forecasts stating that demand could increase 225% to 2.6 million tons of lithium carbonate equivalent (LCE) globally by 2030, a compound annual growth rate of 16%.

It is expected that Lithium Carbonate will continue to be the material of choice due to its use in Lithium Iron Phosphate Batteries (LFP). LFP batteries accounted for 65.81% of China's total battery output in the first six months of 2023, while nickel manganese cobalt batteries made up 33.91%. In August 2023, Chinese battery manufacturer CATL announced a new fast-charging LFP battery which will be capable of 400km of travel from a ten-minute charge. CATL expects mass production of the battery to begin by the end of 2024.

In relation to the plant operations and commissioning towards production, Pursuit Managing Director & CEO, Aaron Revelle, said:

*“The Rio Grande Sur Project continues to advance toward production at a significant pace. In less than 12 months since the project’s acquisition by Pursuit, our executive and local team have defined a maiden JORC resource in addition to outlining a commercially viable engineering pathway to the production of battery grade Lithium Carbonate in the near term, significantly de-risking the project since its acquisition in a very short period of time.*”

For personal use only

*In conjunction with our proposed drilling program and potential upgrade to our existing resource, which we continue to aggressively progress, the Pilot Plant is expected to be processing lithium in Q1 2024 following the commissioning and circuit adjustments currently being made. The Company is looking forward to completion of these significant milestones in conjunction with the site pond design and lodgement of environmental permits to relocate the plant to site that will accelerate Pursuit's ambitions to move toward being a Lithium Carbonate producer helping to meet the supply side response to the significant forecast demand for Lithium."*

**This release was approved by the Board.**

**- ENDS -**

**For more information about Pursuit Minerals and its projects, contact:**

**Aaron Revelle**

Managing Director & CEO

[aaronr@pursuitminerals.com.au](mailto:aaronr@pursuitminerals.com.au)

T: + 61 413 275 456

**Competent Person's Statement**

Statements contained in this announcement relating to exploration results, are based on, and fairly represents, information and supporting documentation prepared by Dr. Brian Luinstra, BSc honours (Geology), PhD (Earth Sciences), MAIG, PGeo (Ontario). Dr Luinstra is a Principal Consultant of SRK Consulting (Australasia) Pty Ltd and a consultant to the Company. Dr. Luinstra has sufficient relevant experience in relation to the mineralisation style being reported on to qualify as a Competent Person for reporting exploration results, as defined in the Australian Code for Reporting of Identified Mineral Resources and Ore Reserves (JORC) Code 2012. Mr Luinstra consents to the use of this information in this announcement in the form and context in which it appears. Mr Luinstra confirms that the information in this announcement provided under listing rules 5.12.2 to 5.12.7 is an accurate presentation of the available data and studies for the material mining project.

**Forward looking statements**

Statements relating to the estimated or expected future production, operating results, cash flows and costs and financial condition of Pursuit Minerals Limited's planned work at the Company's projects and the expected results of such work are forward-looking statements. Forward-looking statements are statements that are not historical facts and are generally, but not always, identified by words such as the following: expects, plans, anticipates, forecasts, believes, intends, estimates, projects, assumes, potential and similar expressions. Forward-looking statements also include reference to events or conditions that will, would, may, could or should occur. Information concerning exploration results and mineral reserve and resource estimates may also be deemed to be forward-looking statements, as it constitutes a prediction of what might be found to be present when and if a project is actually developed.

These forward-looking statements are necessarily based upon a number of estimates and assumptions that, while considered reasonable at the time they are made, are inherently subject to a variety of risks and uncertainties which could cause actual events or results to differ materially from those reflected in the forward-looking statements, including, without limitation: uncertainties related to raising sufficient financing to fund the planned work in a timely manner and on acceptable terms; changes in planned work resulting from logistical, technical or other factors; the possibility that results of work will not fulfil projections/expectations and realize the perceived potential of the Company's projects; uncertainties involved in the interpretation of drilling results and other tests and the estimation of gold reserves and resources; risk of accidents, equipment breakdowns and labour disputes or other unanticipated difficulties or interruptions; the possibility of environmental issues at the Company's projects; the possibility of cost overruns or unanticipated expenses in work programs; the need to obtain permits and comply with environmental laws and regulations and other government requirements; fluctuations in the price of gold and other risks and uncertainties.

For personal use only