## **Alturas – Geology & Discovery**





Toronto Geological Discussion Group April 2016

#### CAUTIONARY STATEMENT ON FORWARD-LOOKING INFORMATION



Certain information contained in this presentation, including any information as to our strategy, projects, plans or future financial or operating performance, constitutes "forwardlooking statements". All statements, other than statements of historical fact, are forward-looking statements. The words "believe", "expect", "anticipate", "contemplate", "target", "plan", "intend", "project", "continue", "budget", "estimate", "potential", "may", "will", "can", "could" and similar expressions identify forward-looking statements. In particular, this presentation contains forward-looking statements with respect to cash flow forecasts, projected capital, operating and exploration expenditures, targeted cash flow improvements and debt reductions, mine life and production rates, potential mineralization and metal or mineral recoveries. Forward-looking statements are necessarily based upon a number of estimates and assumptions that, while considered reasonable by the company in light of management's experience and perception of current conditions and expected developments, are inherently subject to significant business, economic and competitive uncertainties and contingencies. Known and unknown factors could cause actual results to differ materially from those projected in the forward-looking statements. Such factors include, but are not limited to: fluctuations in the spot and forward price of gold, copper or certain other commodities (such as silver, diesel fuel, natural gas and electricity); the speculative nature of mineral exploration and development; changes in mineral production performance, exploitation and exploration successes; diminishing quantities or grades of reserves; increased costs, delays, suspensions and technical challenges associated with the construction of capital projects; operating or technical difficulties in connection with mining or development activities, including geotechnical challenges and disruptions in the maintenance or provision of required infrastructure and information technology systems; failure to comply with environmental and health and safety laws and regulations; timing of receipt of, or failure to comply with, necessary permits and approvals; the impact of global liquidity and credit availability on the timing of cash flows and the values of assets and liabilities based on projected future cash flows; adverse changes in our credit ratings; the impact of inflation; fluctuations in the currency markets; changes in U.S. dollar interest rates; risks arising from holding derivative instruments; changes in national and local government legislation, taxation, controls or regulations and/or changes in the administration of laws, policies and practices, expropriation or nationalization of property and political or economic developments in Canada, the United States and other jurisdictions in which the company does or may carry on business in the future; damage to the company's reputation due to the actual or perceived occurrence of any number of events, including negative publicity with respect to the company's handling of environmental matters or dealings with community groups, whether true or not; the possibility that future exploration results will not be consistent with the company's expectations; risks that exploration data may be incomplete and considerable additional work may be required to complete further evaluation, including but not limited to drilling, engineering and socio-economic studies and investment; risk of loss due to acts of war, terrorism, sabotage and civil disturbances; litigation; contests over title to properties, particularly title to undeveloped properties, or over access to water, power and other required infrastructure; business opportunities that may be presented to, or pursued by, the company; our ability to successfully integrate acquisitions or complete divestitures; employee relations; increased costs and physical risks including extreme weather events and resource shortages related to climate change; availability and increased costs associated with mining inputs and labor; and the organization of our previously held African gold operations and properties under a separate listed company. In addition, there are risks and hazards associated with the business of mineral exploration, development and mining, including environmental hazards, industrial accidents, unusual or unexpected formations, pressures, cave-ins, flooding and gold bullion, copper cathode or gold or copper concentrate losses (and the risk of inadequate insurance, or inability to obtain insurance, to cover these risks).

Many of these uncertainties and contingencies can affect our actual results and could cause actual results to differ materially from those expressed or implied in any forward-looking statements made by, or on behalf of, us. Readers are cautioned that forward-looking statements are not guarantees of future performance. All of the forward-looking statements made in this presentation are qualified by these cautionary statements. Specific reference is made to the most recent Form 40-F/Annual Information Form on file with the SEC and Canadian provincial securities regulatory authorities for a discussion of some of the factors underlying forward-looking statements.

The company disclaims any intention or obligation to update or revise any forward-looking statements whether as a result of new information, future events or otherwise, except as required by applicable law.

### Exploration's Mission ...





#### Outline



- Overview
- Deposit Geology
- Exploration to Discovery
- Reflection







### Alturas Project Snapshot



- Oxidized high sulfidation epithermal gold deposit
- Belt-scale exploration program initiated in 2010 and led to ...
- Greenfield discovery announced in 2015

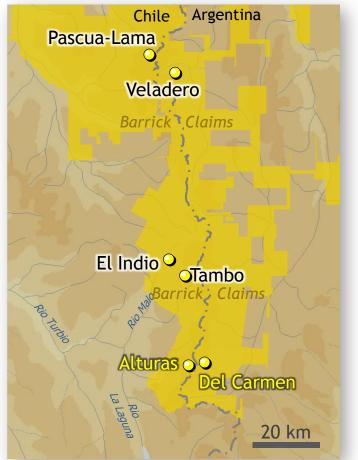
- Initial inferred resource of 5.5Moz
  @ 1.25 g/t announced in Feb 2016<sup>(1)</sup>
- Advanced exploration stage;
  Scoping study initiated
- Core drilling on-going



#### High Sulfidation Gold Deposits of the Andes and El Indio Belt

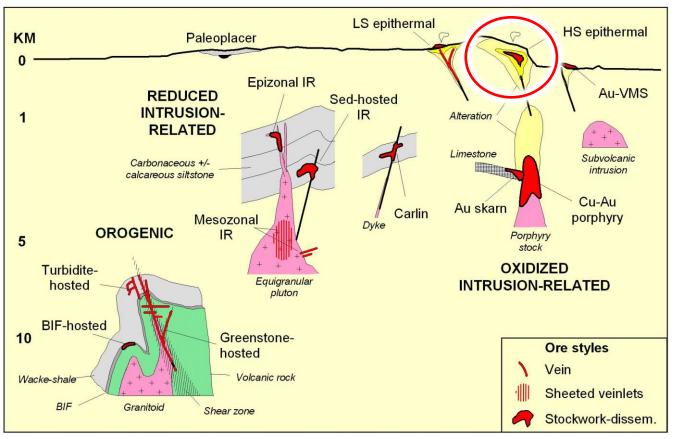






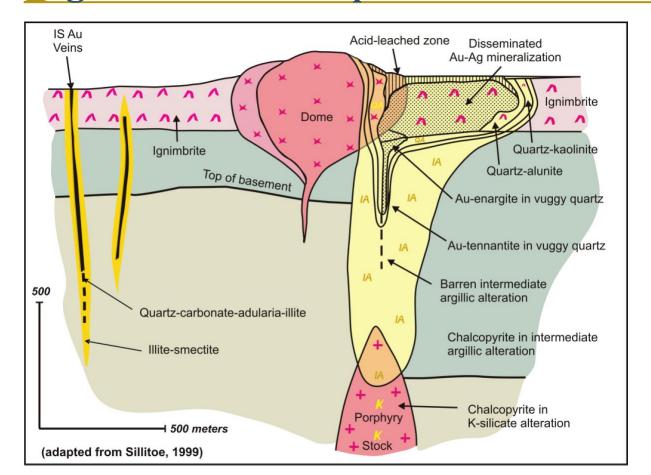
### High Sulfidation Epithermal Refresher





#### High Sulfidation Epithermal Refresher

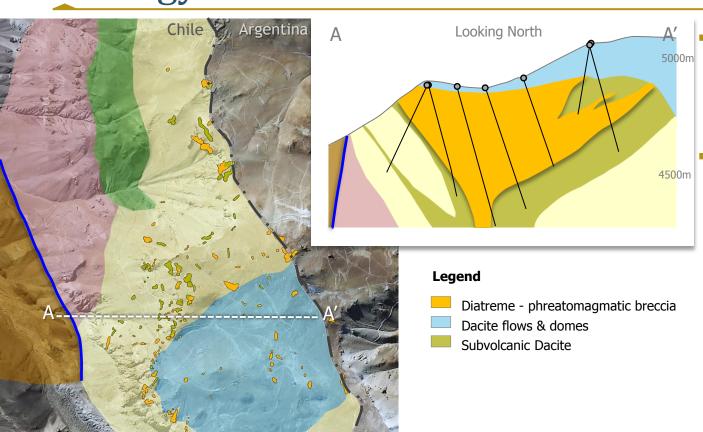




- Disseminated Au & Ag mineralization
- Generally large and low grade with local bonanza zones possible
- Amenable to heap leach when oxidized
- Often associated with large alteration halos

## Geology



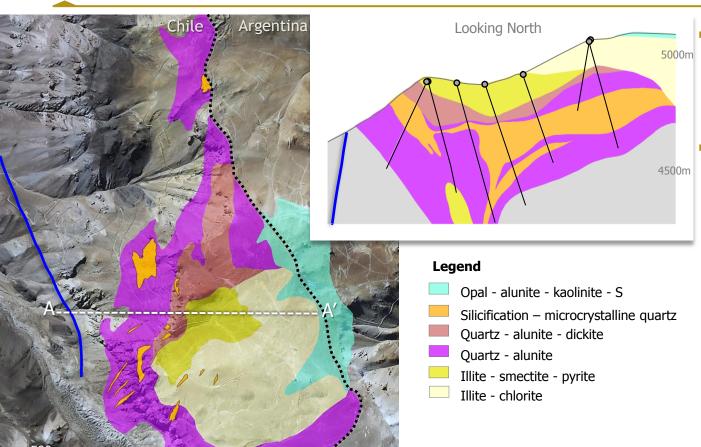


Dacite

- Subvolcanic, flows, & domes
- Diatreme Complex
- Partially concealed by later flows & domes

#### Alteration

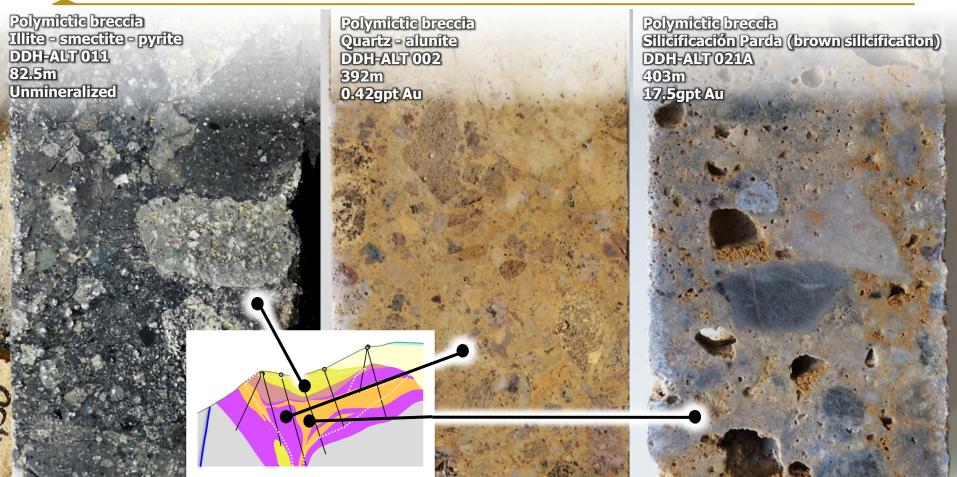




- Multi-stage & overlaps development of the diatreme complex
- Classic zonation
- Shallow steam heated zone
- Vertical and lateral zoning from intermediate argillic to advance argillic to leached rock
- Overprinted by late silicification
- Deep oxidation

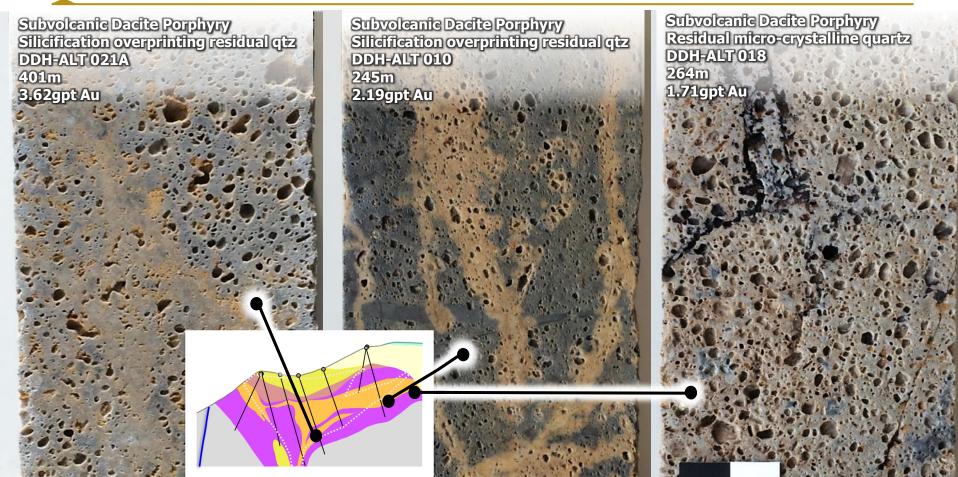
#### Breccia (2)





#### Altered & Mineralized Dacite (2)





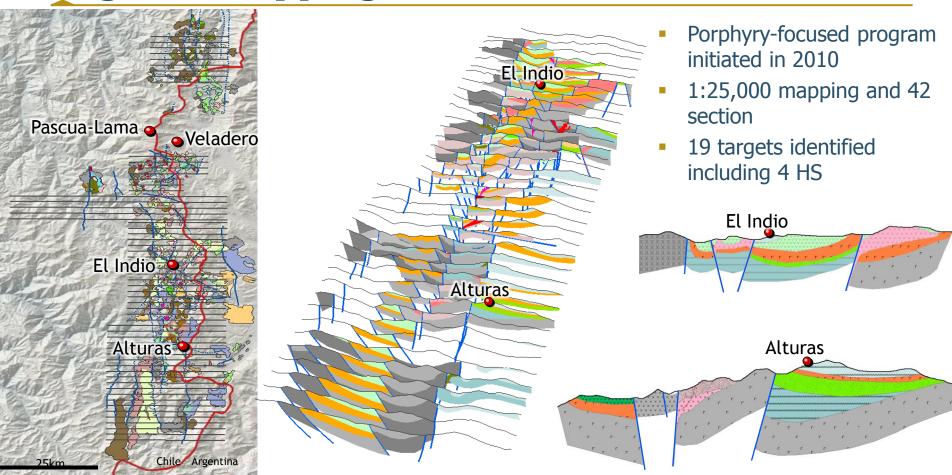
# Discovery





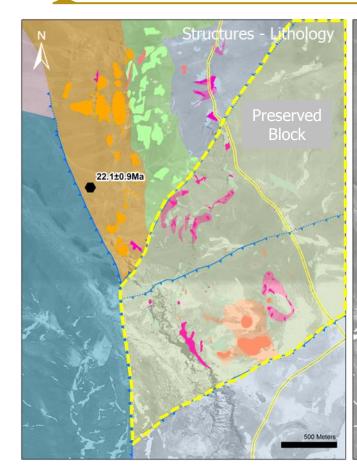
## Regional Mapping and Sections

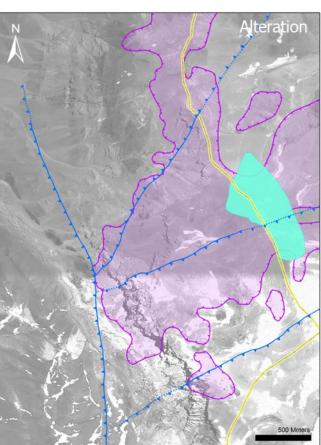




## Mapping



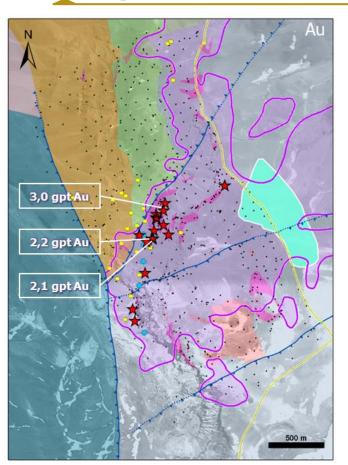


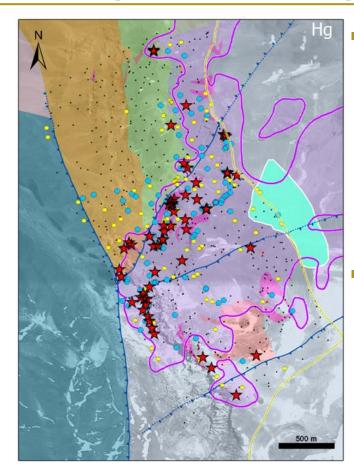


- Outcrop mapping identified key criteria
  - Preservation
  - Favorable host rock
  - Favorable alteration
  - Breccia

### Target Delineation Stage – Sampling







#### Geochemistry

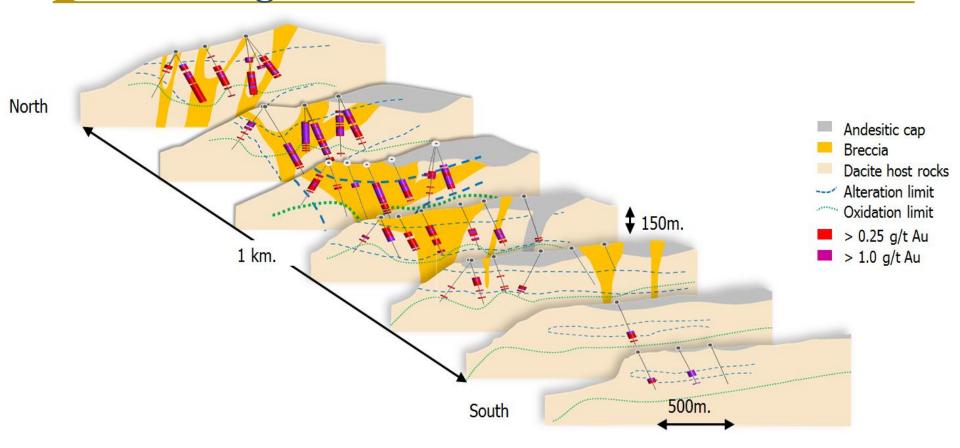
- Small but significant
  Au anomaly (2)
- Broader Hg anomaly
- Support for concealed target to the east

#### Geophysics

- Strong resistors identified by CSAMT
- Also support for concealed target to the east

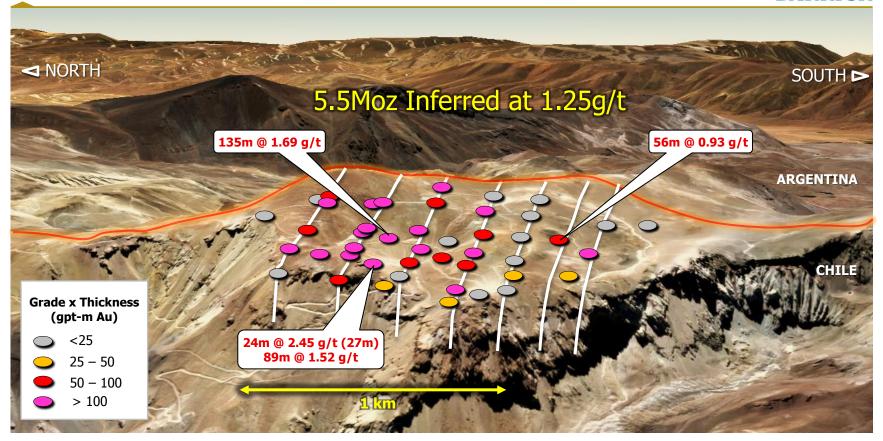
## Drill Testing<sup>(2,3)</sup>





### Alturas – Initial Resource Announced (1,2,3) BARRICK





#### Alturas – Value Add Drill Drivers

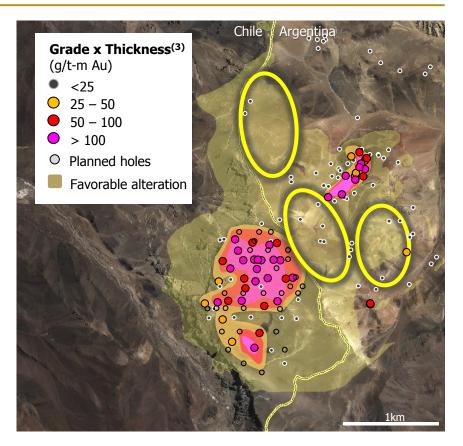


#### **Define Starter Project**

- Establish resources through southern and western extension, and infill high grade
- Improve project economics by establishing strip ratio and confidence in high grade continuity

#### **Assess Full Project Potential**

- Delineate potential adjacent to Alturas in Argentina
- Test opportunities in camp for new discoveries with stand-alone or satellite potential



#### Lessons Learned



- Persistence required
  - Multiple exploration campaigns completed over the years
  - Small mineralized outcrop identified at target delineation stage
  - Otherwise mineralization largely concealed
- Systematic evaluation important to prioritize the best targets
- Exploration team included professionals with a range of expertise; diversity & experience contributed to success

# Thank you





#### Footnotes



- 1. Scientific or technical information in this presentation relating to the geology of particular properties and exploration programs is based on information prepared by employees of Barrick, its joint venture partners or its joint venture operating companies, as applicable, in each case under the supervision of Robert Krcmarov, Executive Vice President, Global Exploration of Barrick. Resources estimated in accordance with National Instrument 43-101 as required by Canadian securities regulatory authorities. Estimates are as of December 31, 2015, unless otherwise noted. Complete mineral reserve and mineral resource data for all mines and projects referenced in this presentation, including tonnes, grades and ounces, can be found on pages 25-35 of Barrick's 2015 40-F / Annual Information Form.
- 2. The drilling results for the Alturas property contained in this presentation have been prepared in accordance with National Instrument 43-101 Standards of Disclosure for Mineral Projects. All drill hole assay information has been manually reviewed and approved by staff geologists and re-checked by the project manager. Sample preparation and analyses are conducted by an independent laboratory. Procedures are employed to ensure security of samples during their delivery from the drill rig to the laboratory. The quality assurance procedures, data verification and assay protocols used in connection with drilling and sampling on the Alturas property conform to industry accepted quality control methods. Refer to Appendix B of Barrick's 2016 Investor Day presentation, dated as of February 22, 2016 and available at Barrick.com and Appendix 3 to Barrick's First Quarter Report 2015, for additional information regarding the significant intercepts presented.
- 3. An aerial oblique view looking to the east of the drilling at Alturas showing significant intercepts as of February 2016. The holes are color-coded by grade times thickness, showing the strength of the mineralized intercept. For example, the red symbol represents greater than 100 gpt Au-m and is calculated by multiplying the grade encountered by the thickness of the interval (i.e. "100 gram-meters" may represent 100 meters, grading one gram per ton Au, or 50 meters, averaging two grams per ton Au). The significant intercepts presented were calculated using a 0.5 gpt Au cutoff with internal dilution of no more than 10% included in the calculation. No capping grade was used to calculate the significant intercepts. The majority of holes are steeply inclined to the east and the mineralization is tabular and sub-horizontal to shallowly west dipping and intersections are considered to reflect true thicknesses.