

A Leading Canadian Gold Exploration and Development Company

Cautionary Statement Regarding Forward-Looking Information

This presentation (the "Presentation") contains "forward-looking information" and "forward-looking statements" (collectively, "forward-looking statements") within the meaning of the applicable Canadian securities legislation. All statements, other than statements of historical fact, are forward-looking statements and are based on expectations, estimates and projections as at the date of this Presentation. Any statement that involves discussions with respect to predictions, expectations, beliefs, plans, projections, objectives, assumptions, future events or performance (often but not always using phrases such as "expects", or "does not expect", "is expected", "anticipates" or "does not anticipate", "plans", "budget", "scheduled", "forecasts", "estimates", "believes" or "intends" or variations of such words and phrases or stating that certain actions, events or results "may" or "could", "would", "might" or "will" be taken to occur or be achieved) are not statements of historical fact and may be forward-looking statements.

In this Presentation, forward-looking statements relate, among other things, to the market capitalization of Osisko Mining Inc. ("Osisko"); the value of Osisko's cash and investments; the timing and ability of Osisko to release a resource estimate in respect of the Windfall/Lynx deposit in May 2018, if at all; the timing and ability of Osisko to release a reasource estimate in respect of the Windfall/Lynx deposit in Q1 2019, if at all; the timing and ability of Osisko to advance the exploration ramp at the Windfall/Lynx deposit; the bulk-sampling program scheduled to start in Q2 2018 at the Windfall Lake gold deposit, if at all; the timing and ability of Osisko to release a resource estimate in respect of the Osbourne-Bell deposit in April 2018, if at all; the prior success of the "Osisko Group" in creating strong shareholder value having any impact on the ability of Osisko to create value for shareholders of Osisko; the potential of the Windfall Lake gold deposit, if any; the proposed exploration activities at the Windfall Lake gold deposit; the target timelines in respect of the Windfall Lake gold deposit and Osisko's ability to make advance the proposed exploration activities at the Windfall Lake gold deposit in January 2018; the major shareholders of Osisko going forward; Québec exploration tax credits; the feasibility of the proposed mill complex at Lebel-sur-Quévillon; the development of the ramp, if at all; the timing and success of exploration, development and metallurgical testing activities; the timing, extent and success of mining operations (if any), project development and related permitting; the results of exploration programs; the results of economic analyses (including the Windfall Lake PEA as defined below); the ability to expand mineral resources beyond current mineral resource estimates; opportunities for growth of mineral projects; estimates of gold prices; the ability to adapt to changes in gold prices; estimates of planned exploration and development expenditures and estimates of mine deve

These uncertainties and risks include, but are not limited to, risks relating to the ability of exploration activities (including drill results) to accurately predict mineralization; errors in management's geological modelling; the ability of Osisko to complete further exploration activities, including drilling; property interests in the Windfall Lake gold project; the ability of Osisko to obtain required approvals and complete transactions on terms announced; the results of exploration activities; risks relating to mining activities; fluctuations in spot and forward prices of gold, silver, base metals or certain other commodities; fluctuations in currency markets (such as the Canadian dollar to United States dollar exchange rate); change in international, national and local government, legislation, taxation, controls, regulations and political or economic developments; 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 and flooding); inability to obtain adequate insurance to cover risks and hazards; the presence of laws and regulations that may impose restrictions on mining; employee relations; relationships with and claims by local communities and indigenous populations; availability of increasing costs associated with mining inputs and labour; the speculative nature of mineral exploration and development (including the risks of obtaining necessary licenses, permits and approvals from government authorities); and title to properties. Risks and uncertainties about Osisko's business are more fully discussed in the disclosure materials filed with the securities regulatory authorities in Canada, which are available on SEDAR under the issuer profile of Osisko at www.sedar.com. Readers are urged to read these materials and should not place undue reliance on any forward-looking statement and information contained in this Presentation. Except as required by law, Osisk

Cautionary Statements Regarding Technical Information

MINERAL RESOURCES

This Presentation contains information regarding mineral resources estimated at the projects of the companies referenced herein. Mineral resources are not mineral reserves and do not have demonstrated economic viability. The estimate of mineral resources may be materially affected by environmental, permitting, legal, title, socio-political, marketing or other relevant issues. In particular, the quantity and grade of reported inferred mineral resources in the estimates referenced in this Presentation are uncertain in nature and there is insufficient exploration to define these inferred mineral resources as an indicated or measured mineral resource in all cases. It is uncertain in all cases whether further exploration will result in upgrading the inferred mineral resources to an indicated or measured mineral resource category.

For details regarding the key assumptions, parameters and methods used to estimate the mineral resources presented in respect of the Windfall Lake gold project, please see the "Technical Report for the Windfall Lake Gold Project, Québec" dated April 17, 2014 (effective date March 3, 2014) filed on SEDAR under the issuer profile of Eagle Hill Exploration Corporation at www.sedar.com. Please note that the Windfall Lake PEA (as defined below) is based on a mineral resource estimate with an effective date of November 13, 2014.

For details regarding the key assumptions, parameters and methods used to estimate the mineral resources presented in respect of the Golden Bear project, please see the "Technical Report for the Golden Bear Project, Ontario" dated March 3, 2014 (effective December 30, 2013) filed on SEDAR under the issuer profile of Northern Gold Mining Inc. at www.sedar.com.

For the key assumptions, parameters and methods used to estimate the mineral resources presented in respect of the Marban project, please see the "Details regarding Technical Report for the Marban project – Marban block property, Ontario" dated August 15, 2013 (effective date June 1, 2013) filed on SEDAR under the issuer profile of NioGold at www.sedar.com.

PRELIMINARY ECONOMIC ASSESSMENT

The preliminary economic assessment of the Windfall Lake gold project (the "Windfall Lake PEA") is preliminary in nature and includes inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves, and there is no certainty that the Windfall Lake PEA will be realized.

QUALIFIED PERSON

The scientific and technical information contained in this Presentation has been reviewed and approved by Robert Wares, P.Geo. and Executive Vice President Exploration and Resource Development of Osisko, a "qualified person" within the meaning of National Instrument 43-101 – Standards for Disclosure of Mineral Projects.



A Leading Canadian Gold Exploration and Development Company



- ~ \$550M market capitalization
- ~ \$190M cash and investments end Q4/17
- Focused on the emerging Windfall district in Québec:
 - Resource estimate Windfall/Lynx Deposit May 2018
 - Updated Windfall PEA June 2018
 - Exploration ramp ongoing
 - Bulk-sampling program start Q2 2018
 - Feasibility study Q1 2019

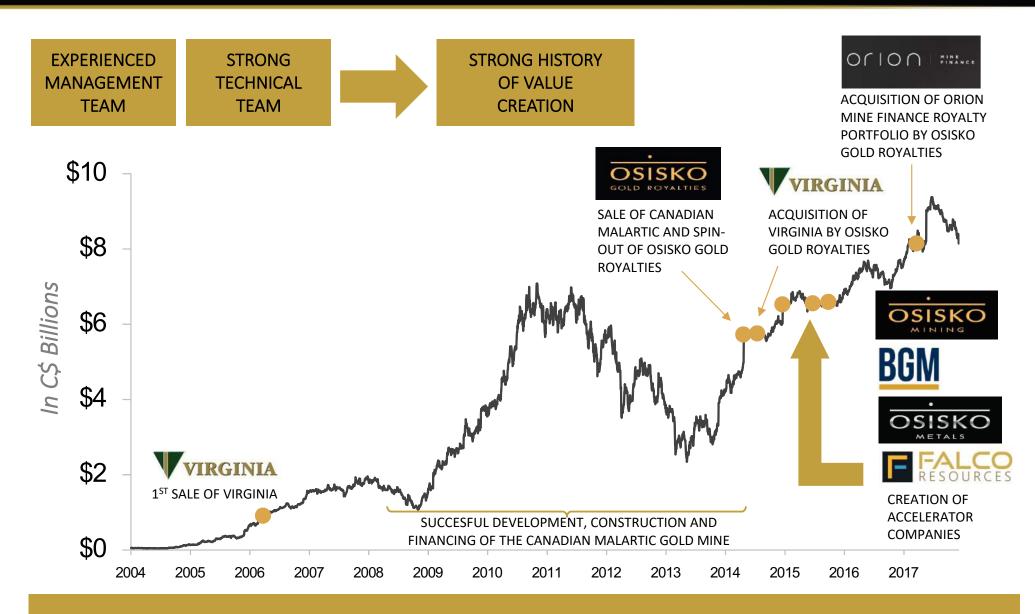


EXPERIENCED MANAGEMENT, BOARD AND TECHNICAL TEAM

DISCOVERY – FINANCING – CONSTRUCTION – PRODUCTION

History of Creating Strong Shareholder Value





THE OSISKO GROUP OF COMPANIES HAVE GENERATED OVER \$8 BILLION OF VALUE

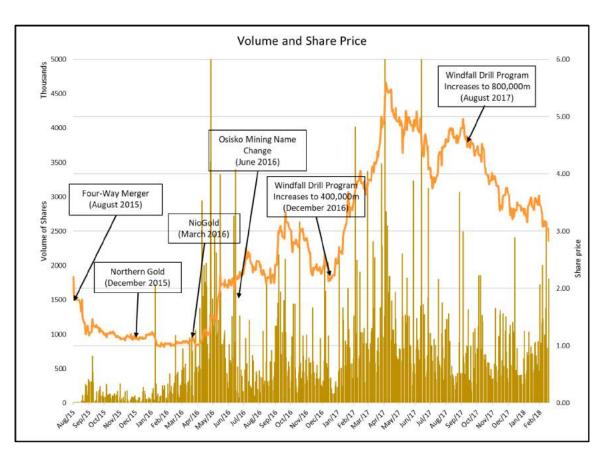
Equity Overview



- Shares Outstanding: ~208M
- Fully Diluted Shares: ~249M
- Fully Diluted Cash: ~\$330M

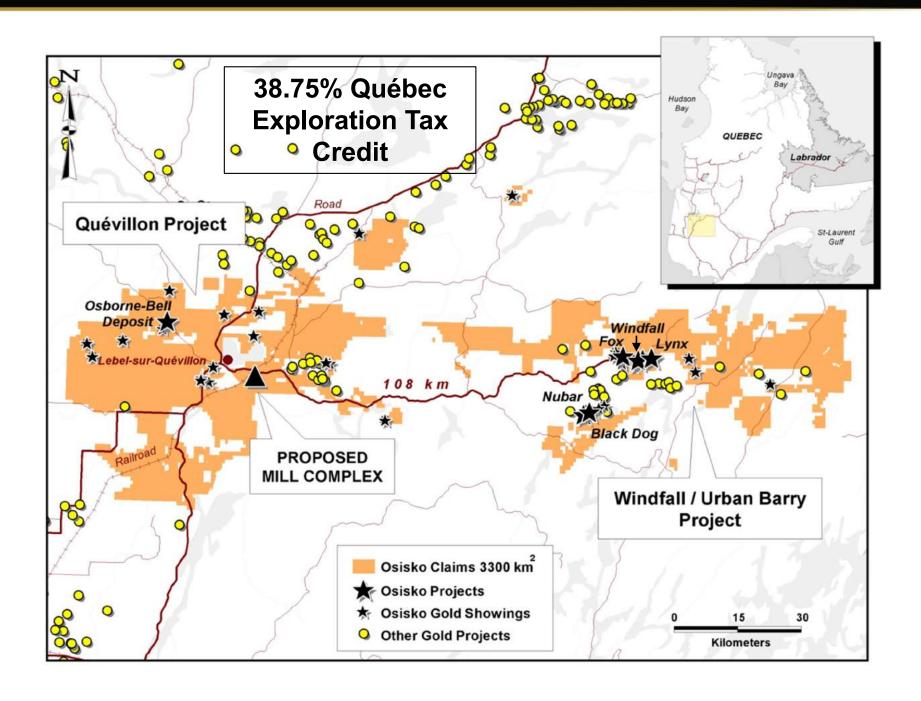
Major Shareholders

- Osisko Gold Royalties Ltd.
- Management and Directors
- M&G/Vanguard
- Blackrock
- JP Morgan Asset Mgmt UK
- Tocqueville



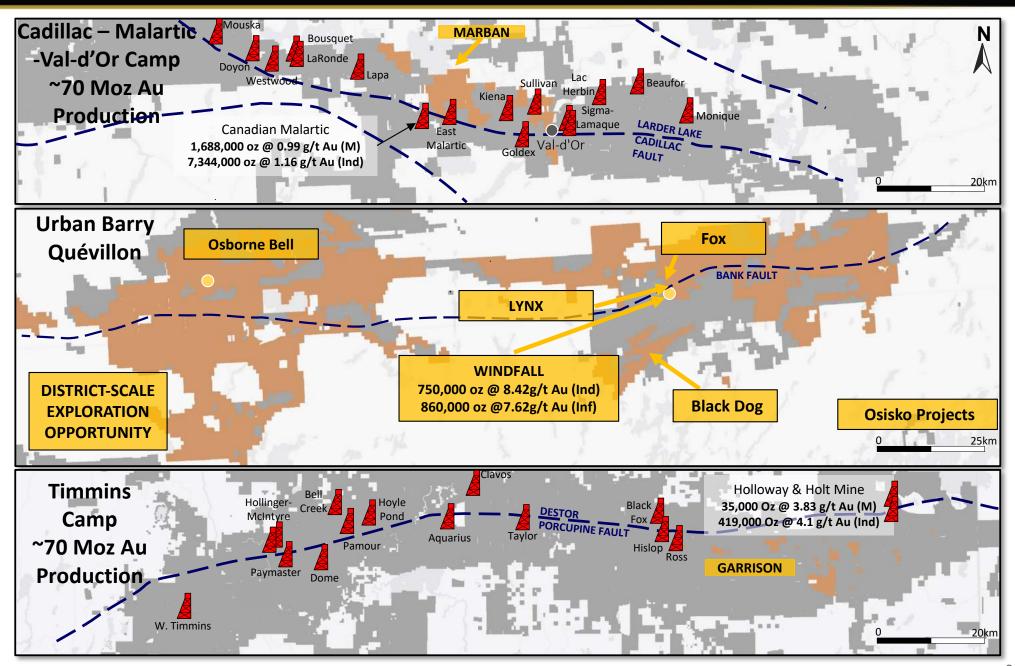
Urban Barry and Quévillon Properties





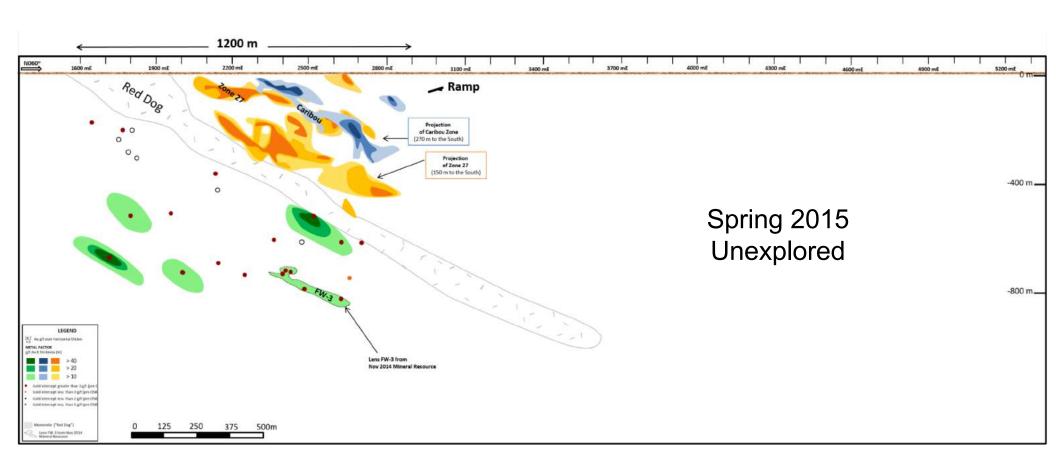
An Emerging Mining District





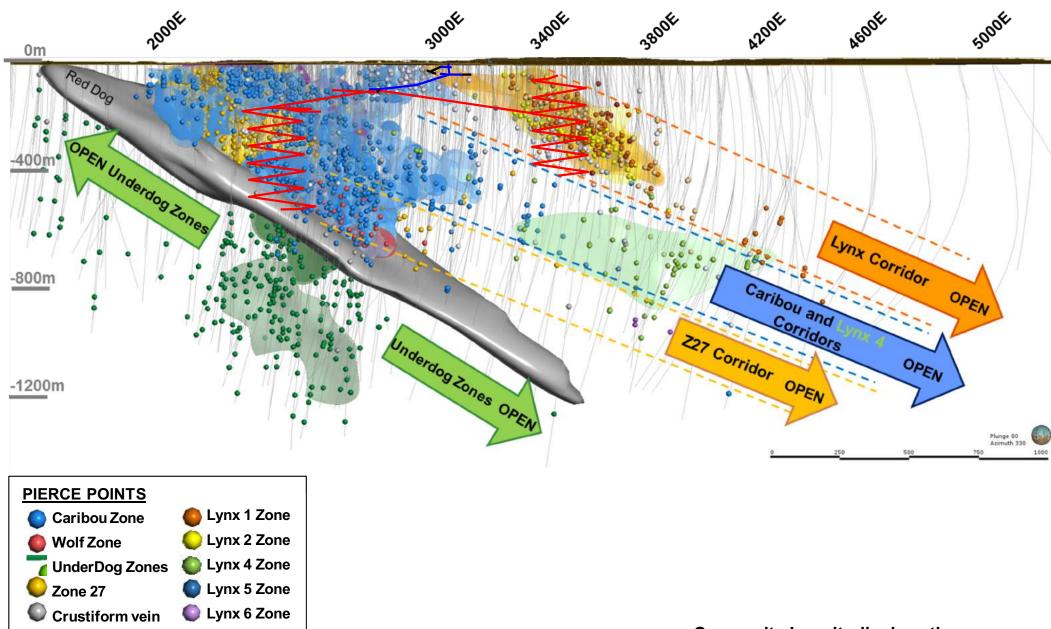
Windfall Deposit Spring 2015 – Pre-Osisko Resource Composite Long Section





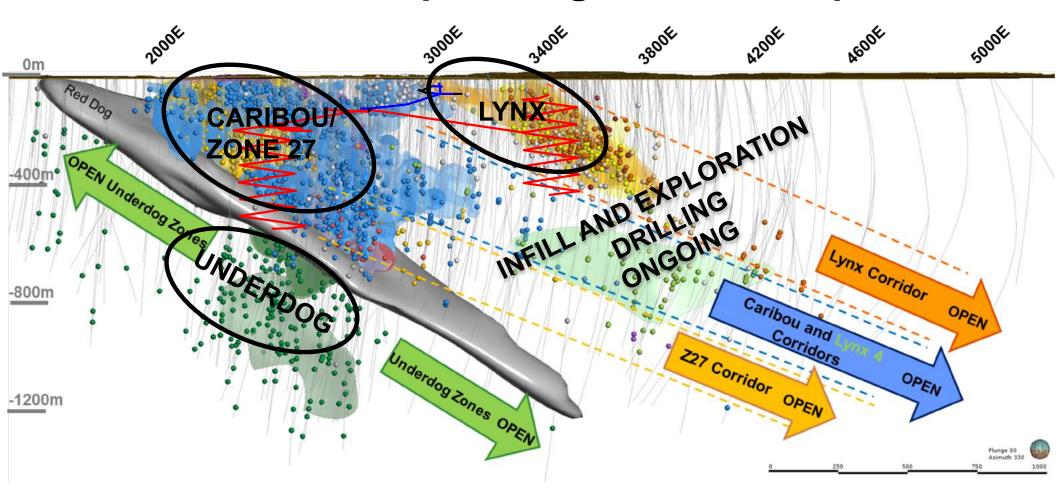
Windfall Deposit January 2018 +500,000 Metres Drilling





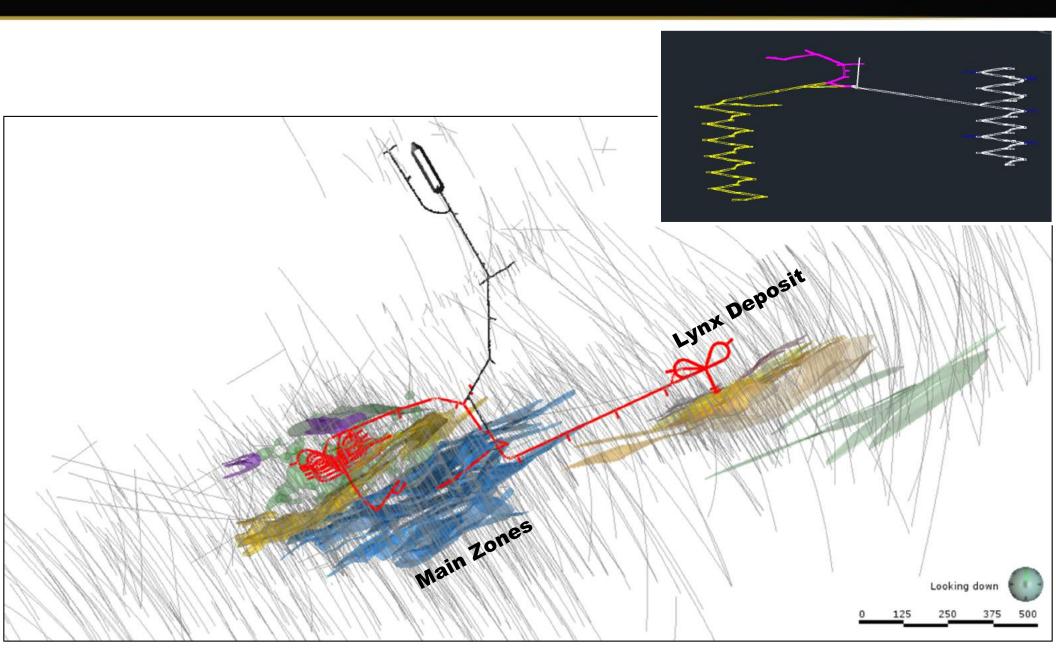


Focus Areas for Upcoming Resource Update



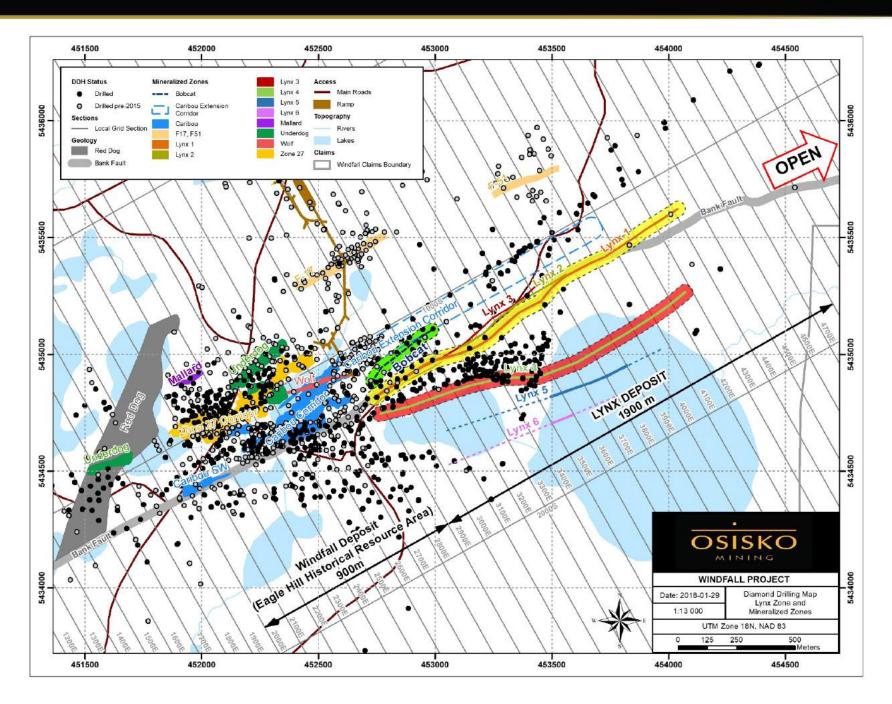
Exploration Ramp: Plan View and Cross Section View (inset)





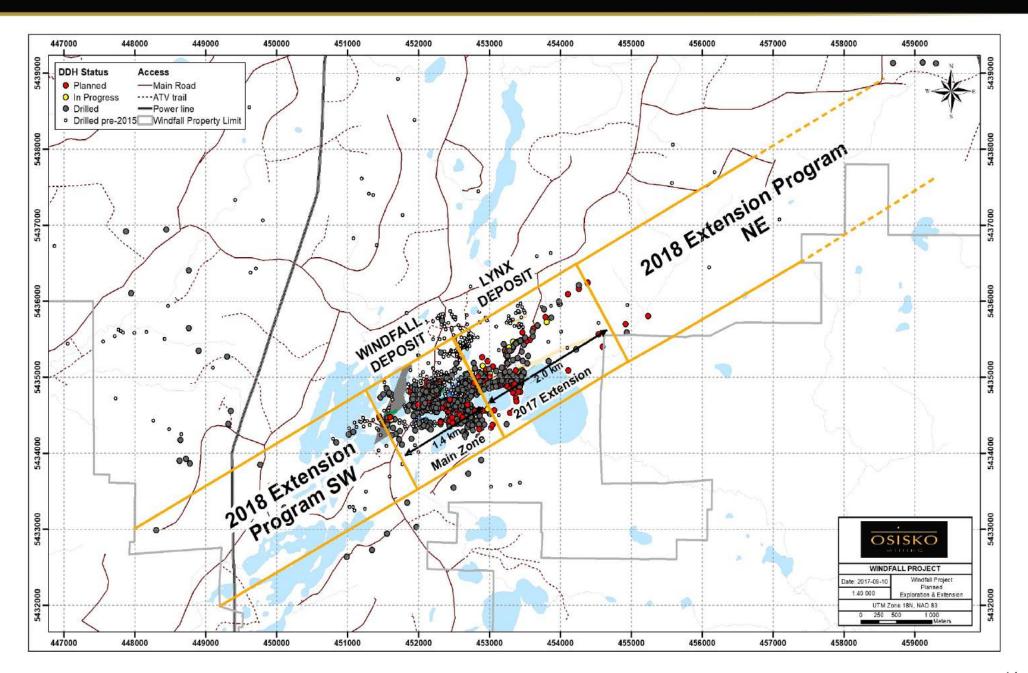
Deposit Continues to Expand: Lynx Deposit >2 km Long





Near Deposit Exploration in 2018: NE & SE Extensions

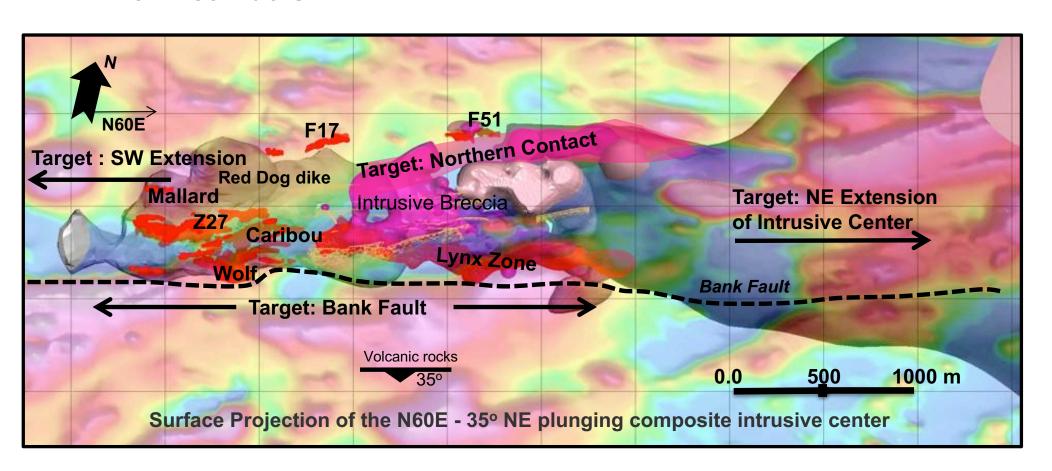




Windfall and Lynx Deposits Intrusive Related Mineralization



- SW Extension: up plunge extensions of mineralized corridors
- NE Extension: potential for new discoveries
- Near Deposit: northern contact, Bank Fault plus extensions and new zones in known corridors

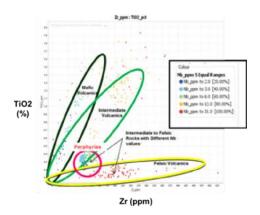


Windfall and Lynx Deposits Intrusive Related Mineralization

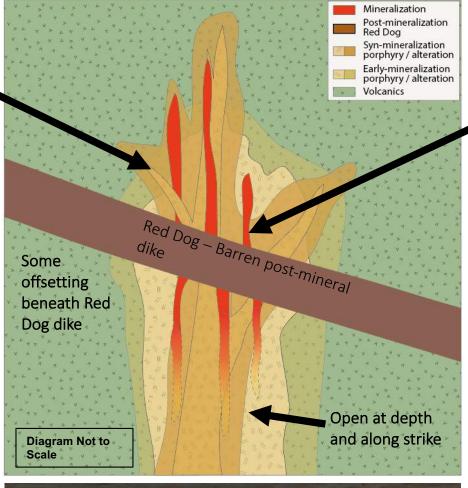


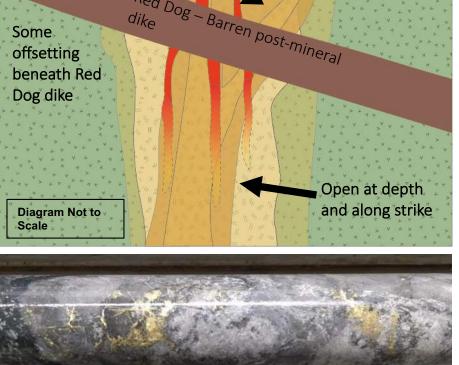
Early Syn

Multiphase Porphyry Intrusive Complex - Gold mineralization genetically related to porphyry dikes.



Immobile element geochemistry used to identify intrusive phases and "see through" alteration processes.







Mineralization hosted in texture destructive quartz-sericite alteration. Gold mineralization associated with pyrite forming stringers and disseminations in stockwork.

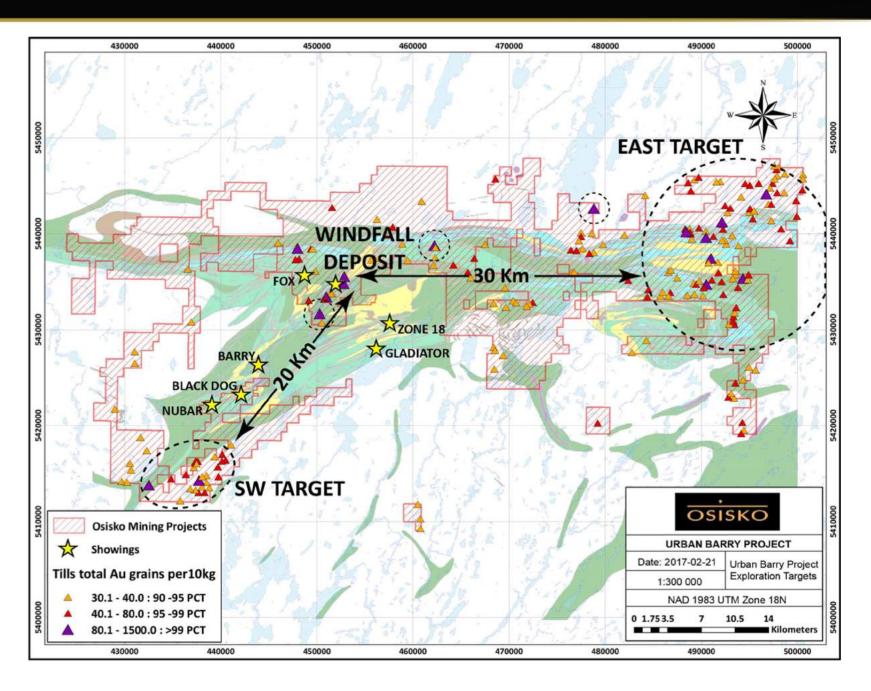
Host 2718Ma Macho formation volcanic units are intruded by Windfall porphyry dykes at about 2697Ma

Visible gold associated with dark-grey silica alteration at Lynx.

(OSK-W-17-834 293.0-293.5m)

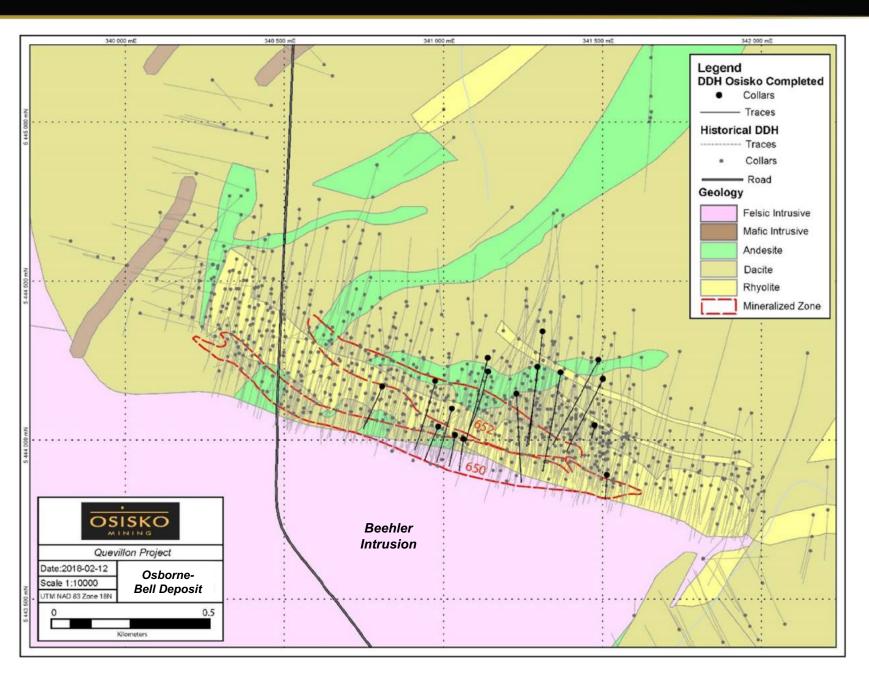
Urban Barry Property: Exploration Pipeline of 130 Targets





Osborne-Bell Deposit





Windfall Project is Advancing Quickly



TARGET TIMELINES

RESOURCE UPDATE May 2018

PEA
June 2018

FEASIBILITY Q1/2019 PERMITTING 2019

CONSTRUCTION 2019/20





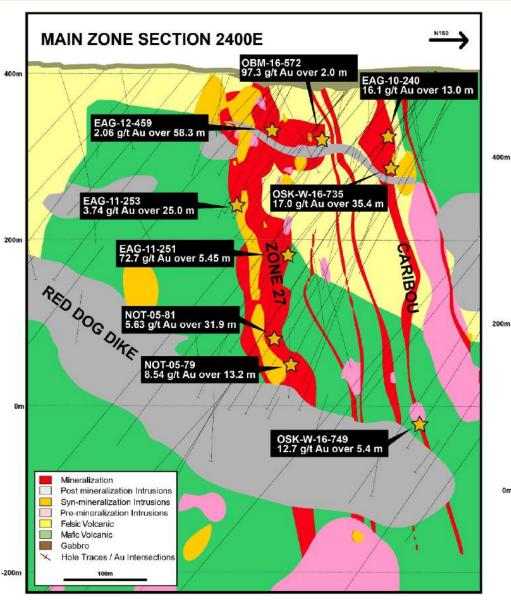


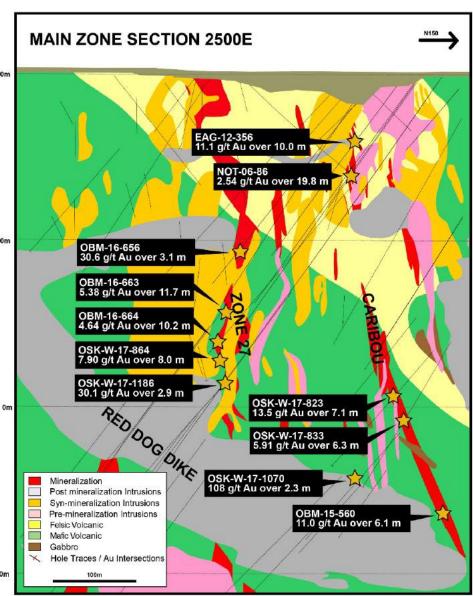


APPENDIX "A"

Windfall Deposit: Zone 27 and Caribou Corridors Cross Section View



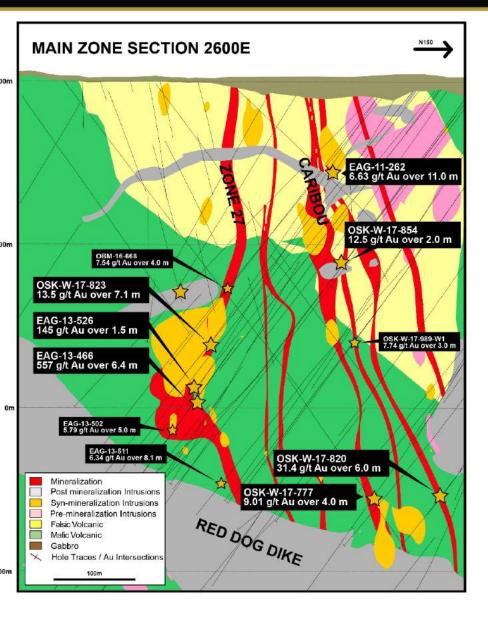


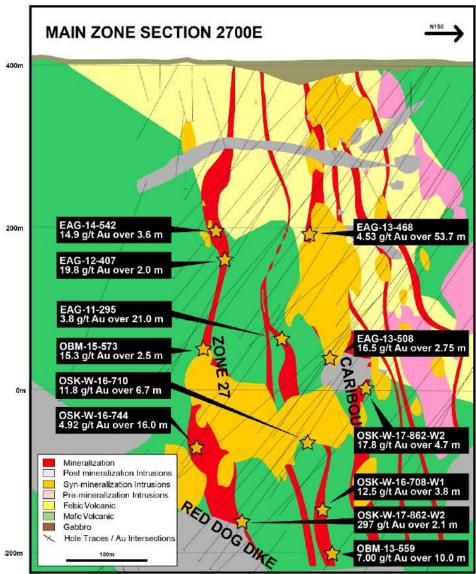


True widths are estimated at 65 - 80% of the reported core length interval.

Windfall Deposit: Zone 27 and Caribou Corridors Cross Section View

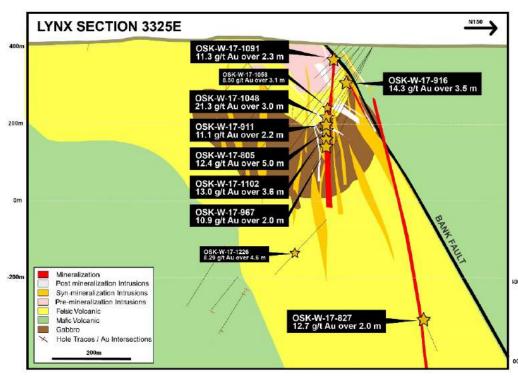


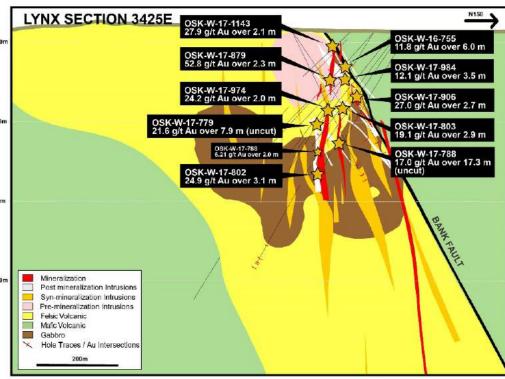




Lynx Deposit: Cross Section View



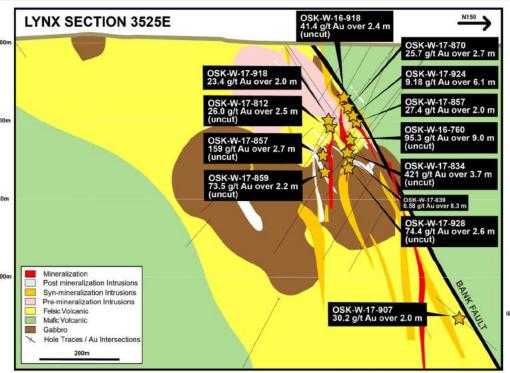


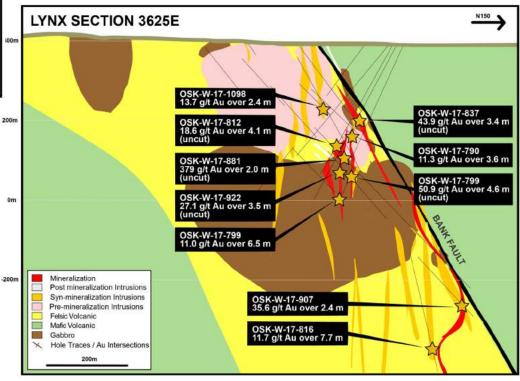


True widths are estimated at 65 - 80% of the reported core length interval.

Lynx Deposit: Cross Section View







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