

A LEADING CANADIAN GOLD EXPLORATION AND DEVELOPMENT COMPANY

FORWARD-LOOKING STATEMENTS

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 strong balance sheet of Osisko; the potential of the Windfall Lake gold deposit, if any; the proposed exploration activities at the Windfall Lake gold deposit, including the proposed 400,000 metre drill program; the timing and ability, if at all, of Osisko to obtain approval/permitting for a water treatment system in connection with underground ramp dewatering at the Windfall Lake gold deposit; the timing and ability, if at all, for Osisko to follow-up on the 130+ targets on the Urban Barry belt; the ability of Osisko to create shareholder value; the major shareholders and research coverage of Osisko going forward; the development of the ramp, if at all, including the advancement per day, if any; the potential of Lebel-sur-Quévillon as a potential mill location; the advantages of Lebel-sur-Quévillon as a potential mill location; the advantages of Lebel-sur-Quévillon as a potential mill location in the need for large construction and operations camp at Windfall lake, cost savings on transportation and construction/logistics from existing rail and road access, and improved economics as a result of the trucking distance to Lebel-sur-Quévillon; district-scaled exploration opportunities; comparisons of global resources to enterprise valuation; the potential of the Garrison project, if any; the proposed exploration activities at the Garrison project; 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 mine development and construction. All forward-looking information entails va

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 statements of beliefs, opinions, projections, or other factors, should they change, except



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



- ~ \$800M market capitalization
- Strong balance sheet with ~\$220M cash and investments
- Focused on the emerging Windfall district in Québec:
 - Drill program increased to 800,000 metres
 - 24 drills on Windfall/Urban Barry
 - 400,000 metre milestone in October
 - Advanced exploration at Windfall Deposit:
 - Exploration ramp underway
 - Metallurgical program ongoing
 - Follow up on 130+ targets on Urban Barry belt
- ~80,000m drilling completed at Garrison Project since July 2016



DISCOVERY – FINANCING – CONSTRUCTION – PRODUCTION

HISTORY OF CREATING STRONG SHAREHOLDER VALUE





THE OSISKO GROUP OF COMPANIES HAVE GENERATED OVER \$9 BILLION OF VALUE

EQUITY OVERVIEW

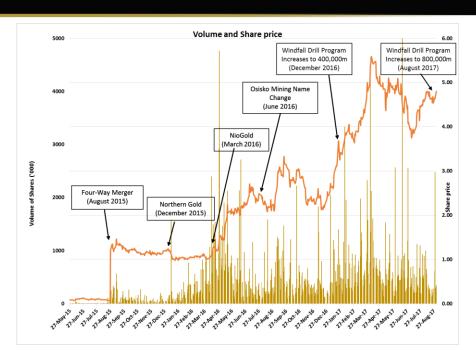


- Shares Outstanding: ~207M
- Fully Diluted Shares: ~248M
- Fully Diluted Cash: ~\$350M

Major Shareholders Include:

- Osisko Gold Royalties Ltd.
- }~18.5%
- Management and Directors
- JPMorgan Asset Management UK
- Dundee Corp.
- Tocqueville

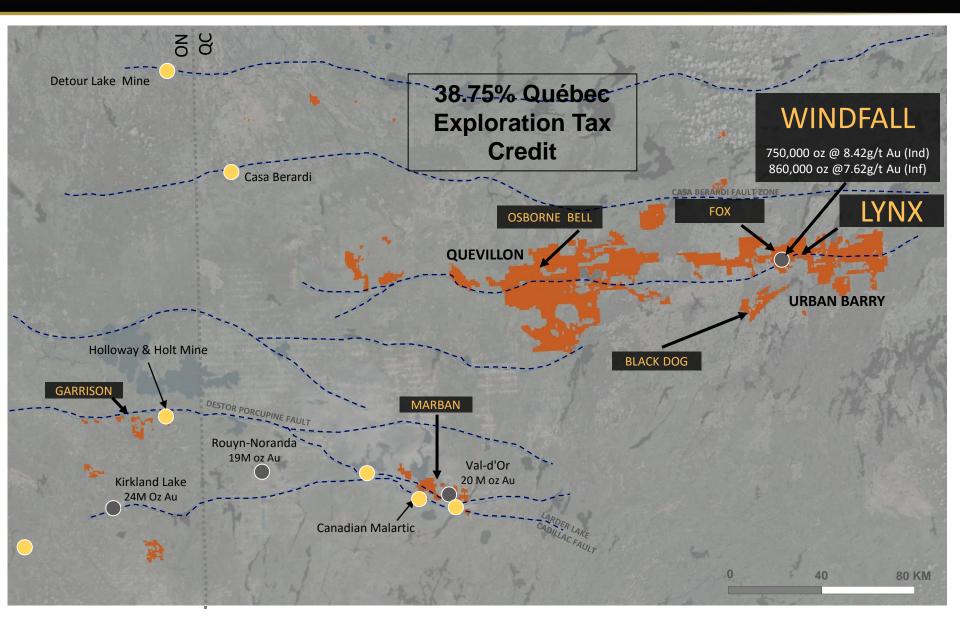
(Source: Bloomberg)



Research Coverage		
Cormark Securities Inc.	- Tyron Breytenbach	
Beacon Securities Ltd.	- Michael Curran	
Haywood Securities Inc.	- Mick Carew	
Canaccord Genuity Corp.	- Kevin MacKenzie / Tony Lesiak	
BMO Capital Markets	- Andrew Mikitchook	
iA Securities	- George Topping	
Echelon Wealth Partners	- Ryan Walker	
Eight Capital	- Craig Stanley	
RBC Capital Markets	- Dan Rollins	
National Bank Financial Markets	- Don DeMarco	

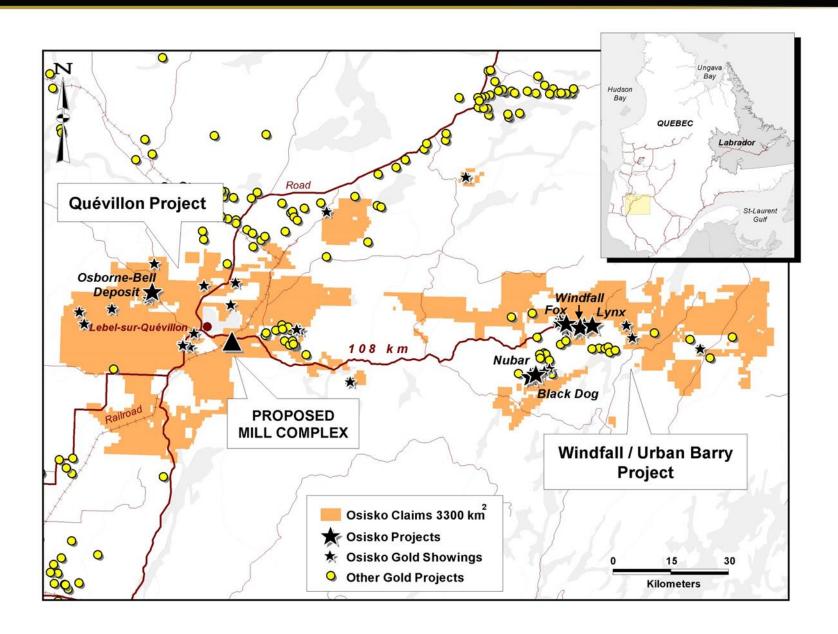
FLAGSHIP OSISKO PROJECTS: Quevillon / Urban Barry





LEBEL-SUR-QUÉVILLON





LEBEL-SUR-QUÉVILLON - POTENTIAL MILL LOCATION

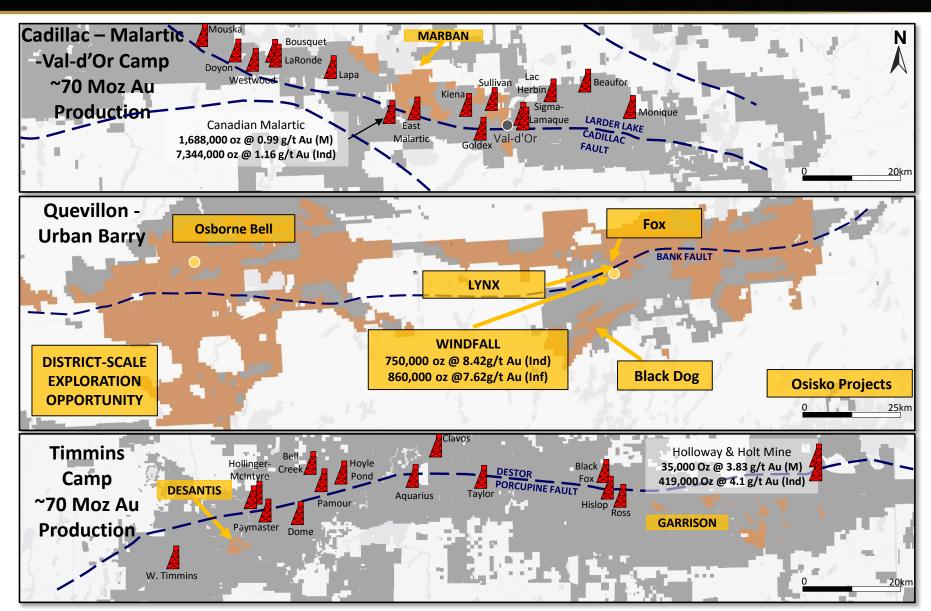


Lebel-Sur-Quévillon Advantages:

- Existing grid power and the Hydro-Québec electrical substation eliminates 103 kilometre power line
- Access to the existing water pumping station
- Reduces the need for a large construction and operations camp at Windfall Lake, reduces rotational work force
- Limits infrastructure needs at Windfall Lake to mining activity
- Cost savings on transportation and construction/operations logistics from existing rail and road access to Lebel-sur-Quévillon
- Location of the proposed site positively affects the economics of gold deposits within trucking distance of Lebel-sur-Quévillon

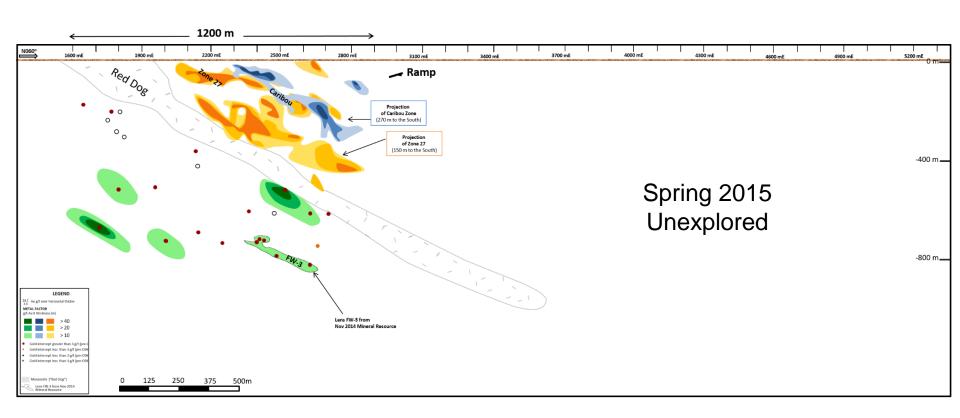
AN EMERGING MINING DISTRICT





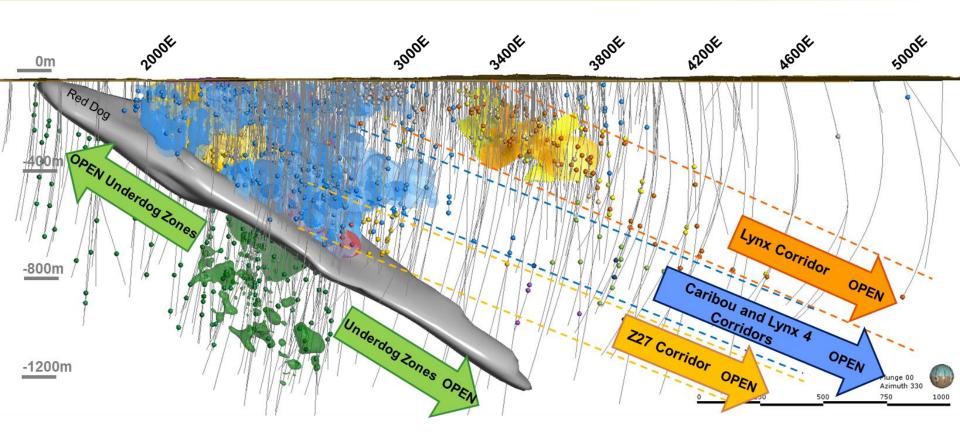
WINDFALL DEPOSIT SPRING 2015 – PRE-OSISKO RESOURCE Composite Long Section





WINDFALL DEPOSIT OCTOBER 2017 +400,000 METRES DRILLING



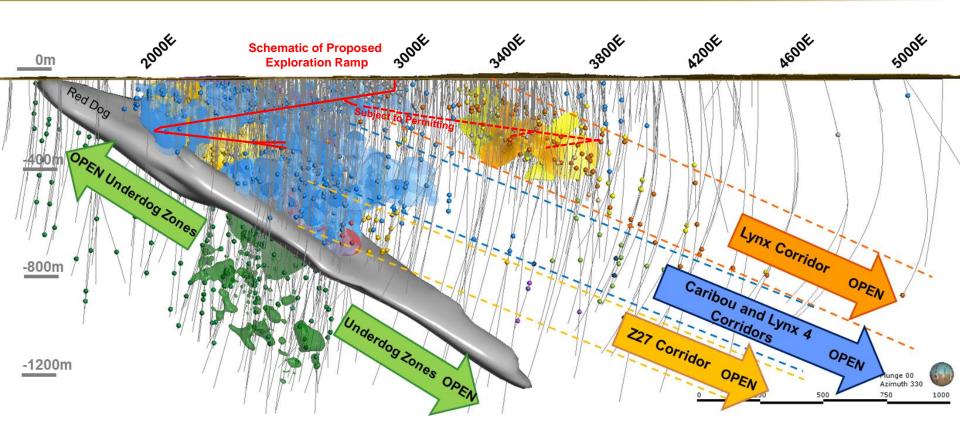




LONGSECTION NORTH-EAST EXTENSION

WINDFALL DEPOSIT OCTOBER 2017 +400,000 METRES DRILLING





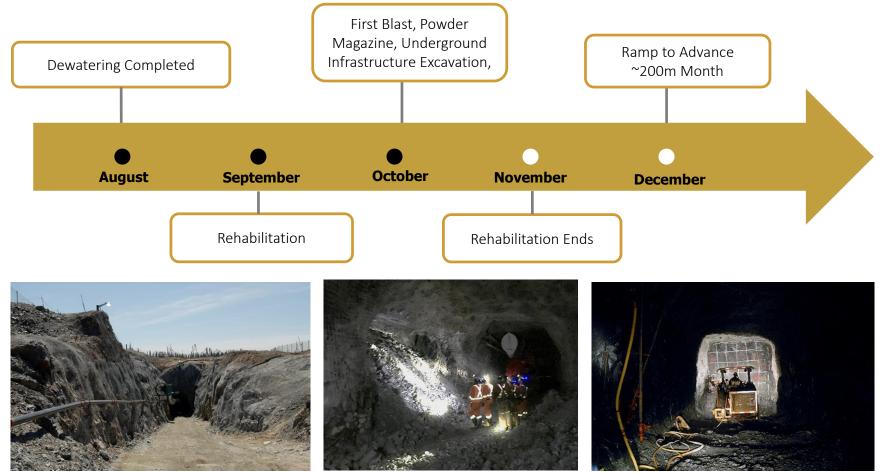


LONGSECTION NORTH-EAST EXTENSION

EXPLORATION RAMP — FIRST BLAST COMPLETED

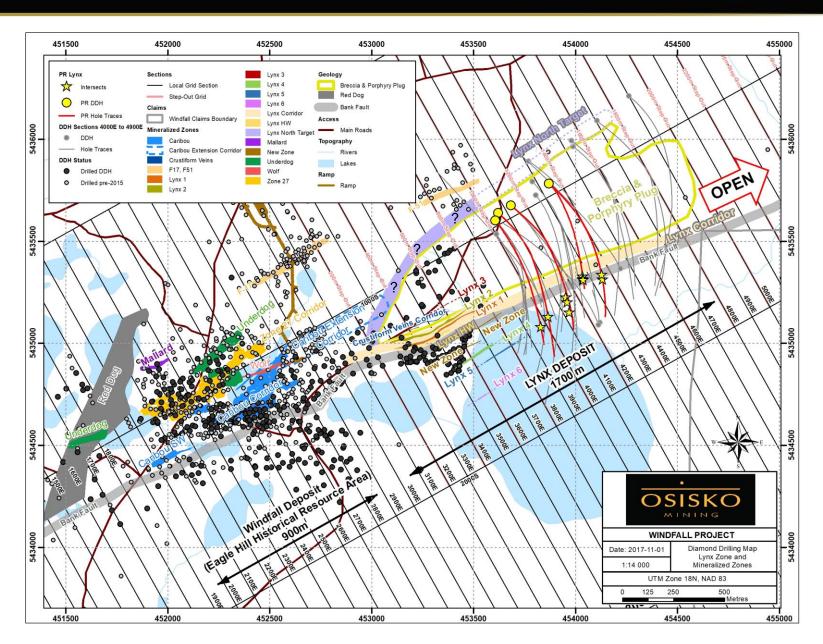


- Rehabilitation ending in November
- Underground infrastructure including powder magazine currently being excavated
- Exploration ramp to advance at about 200 metres per month



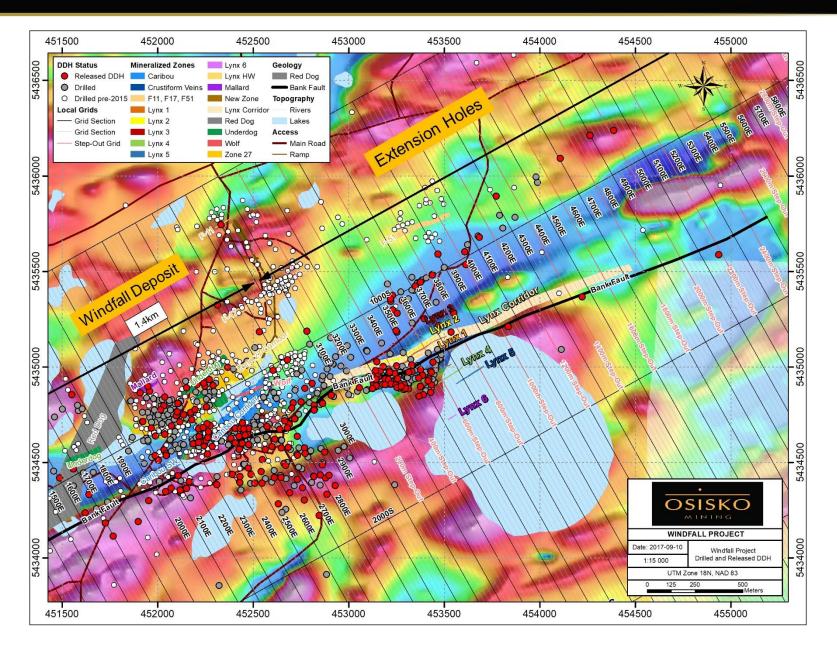
DEPOSIT EXPLORATION: LYNX CONTINUES TO DELIVER





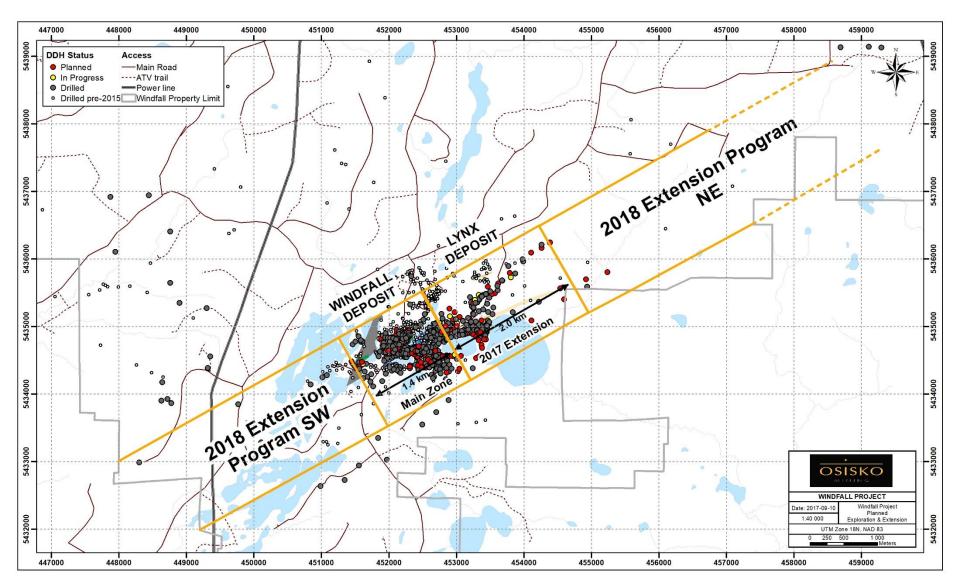
NEAR DEPOSIT EXPLORATION: MAG SURVEY MAP





DEPOSIT EXPLORATION: STEP OUT DRILLING CONTINUES



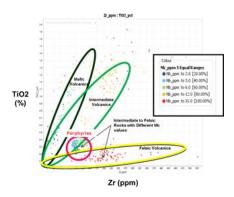


WINDFALL DEPOSIT: INTRUSIVE-RELATED MINERALIZATION

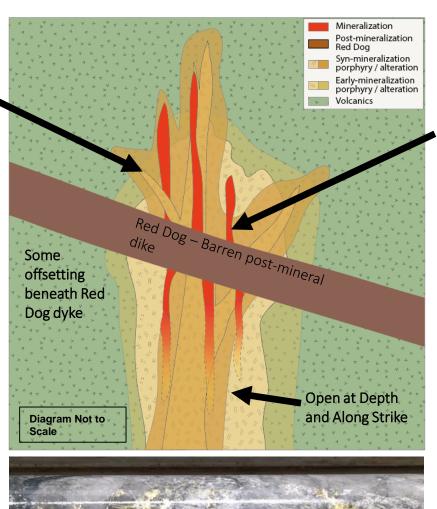


Early Syn

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



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





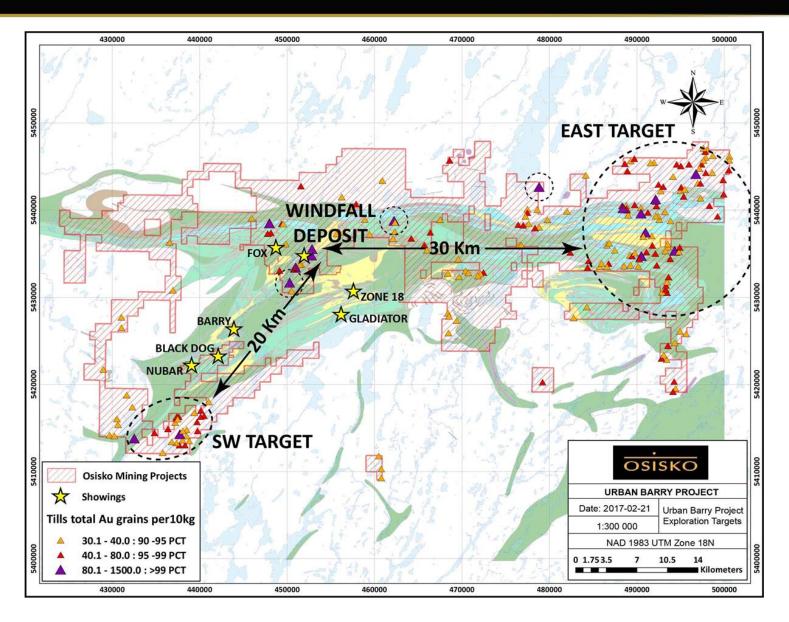
Mineralization hosted in texture destructive quartz-sericite alteration. Gold mineralization associated with pyrite forming stringers and disseminations in stockwork.

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 – EXPLORATION PIPELINE





WINDFALL PROJECT ADVANCING QUICKLY



TARGET TIMELINES

RESOURCE UPDATE Q1/18

FEASIBILITY H2/18 PERMITTING 2018

CONSTRUCTION 2019



APPENDIX "A"

MINERAL RESOURCES(1)



CATEGORY	TONNES (MT)	AU GRADE (G/T)	AU (M OZ)
MEASURED			
MARBAN ⁽²⁾	7.70	1.47	0.36
GARRISON	15.1	1.07	0.52
	22.8	1.20	0.88
INDICATED			
MARBAN ⁽²⁾	29.4	1.18	1.12
WINDFALL	2.76	8.42	0.75
GARRISON	15.0	1.40	0.68
	47.2	1.68	2.55
TOTAL M&I			
MARBAN ⁽²⁾	37.0	1.24	1.48
WINDFALL	2.76	8.42	0.75
GARRISON	30.1	1.24	1.20
	69.9	1.53	3.43
INFERRED			
MARBAN ⁽²⁾	3.60	1.15	0.13
WINDFALL	3.51	7.62	0.86
GARRISON	7.87	3.19	0.81
	14.98	3.74	1.80

^{1.} See "Cautionary Statements Regarding Technical Information – Mineral Resources".

^{2.} Global mineral inventories are not pit-constrained

PROJECT SUMMARY



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MARBAN (1)

1.12Moz @ 1.18 g/t (Indicated)

0.13Moz @ 1.15 g/t (Inferred)

- Malartic Camp, Québec, Canada
- ~1000 ha
- Upside for further discovery
- 20,000m drill program in 2016

WINDFALL (2)

0.748Moz @ 8.42 g/t (Indicated)

0.860Moz @ 7.62 g/t (Inferred)

- Urban Barry Camp, Québec, Canada
- ~82,000 ha
- ~115,000m drilling completed todate. Program increased to 400,000m
- Resource upgrade and expansion
- Regional exploration advancing

GARRISON⁽³⁾

0.52Moz @ 1.07 g/t (Measured)

0.68Moz @ 1.40 g/t (Indicated)

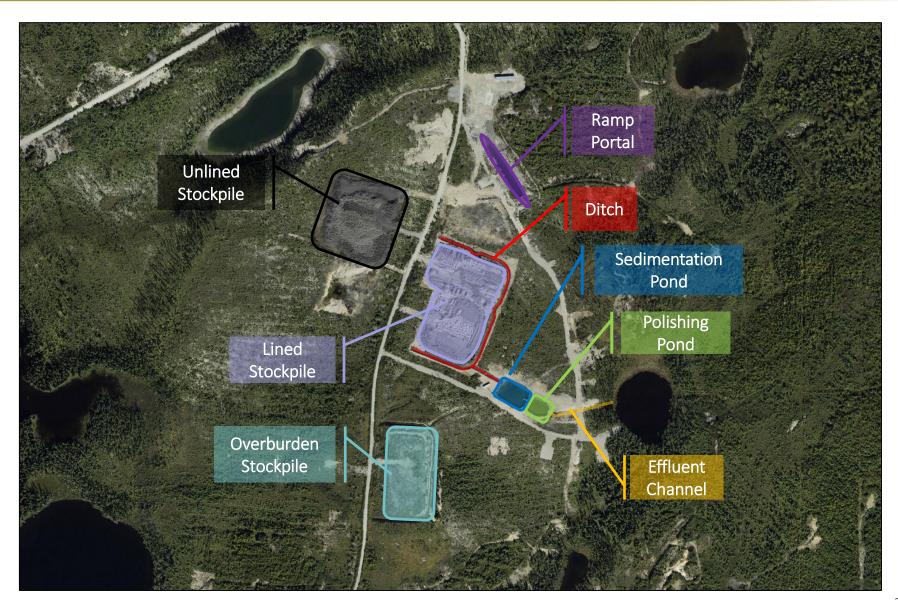
0.81Moz @ 3.19 g/t (Inferred)

- Kirkland Lake Camp, Ontario, Canada
- ~8,000 ha
- Good potential to expand known resources
- 25,000m drill program ongoing

0.88Moz Measured, 2.55Moz Indicated and 1.80Moz Inferred Across All Projects²

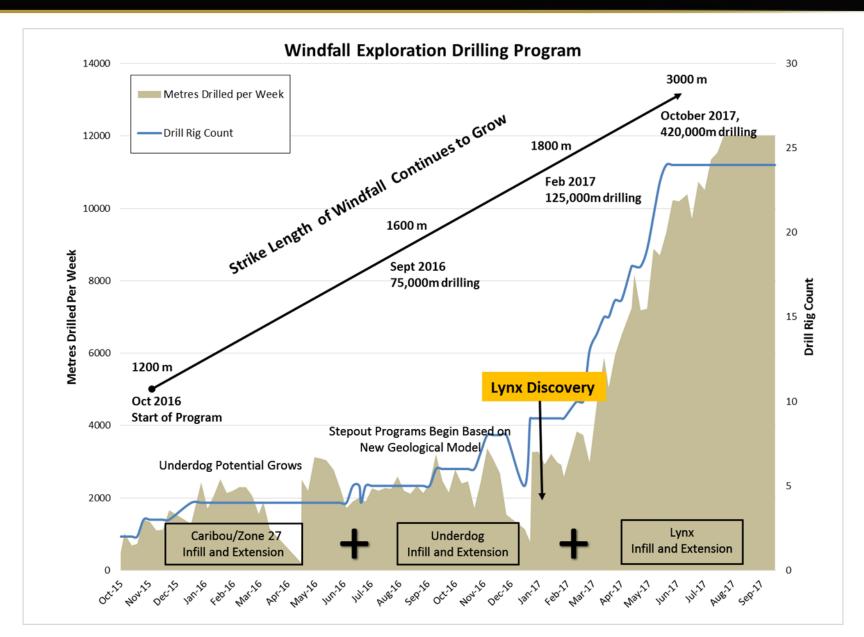
EXISTING INFRASTRUCTURE: READY TO ADVANCE





WINDFALL MILESTONES





WOLF LURKING BETWEEN 27 AND CARIBOU ZONES NEW ZONES ENCOUNTERED UP SECTION

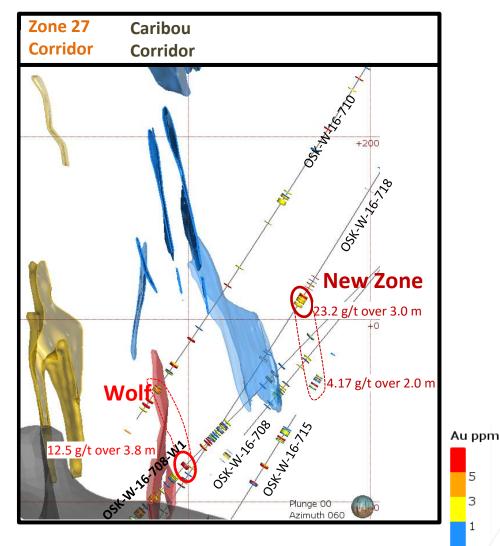


Section 2650 E

Zone 27 Caribou **Corridor** Corridor Wolf 11.8 g/t over 6.7 m 4.04 g/t over 2 m Plunge 00 Azimuth 060

Looking N060°, 100 m thick

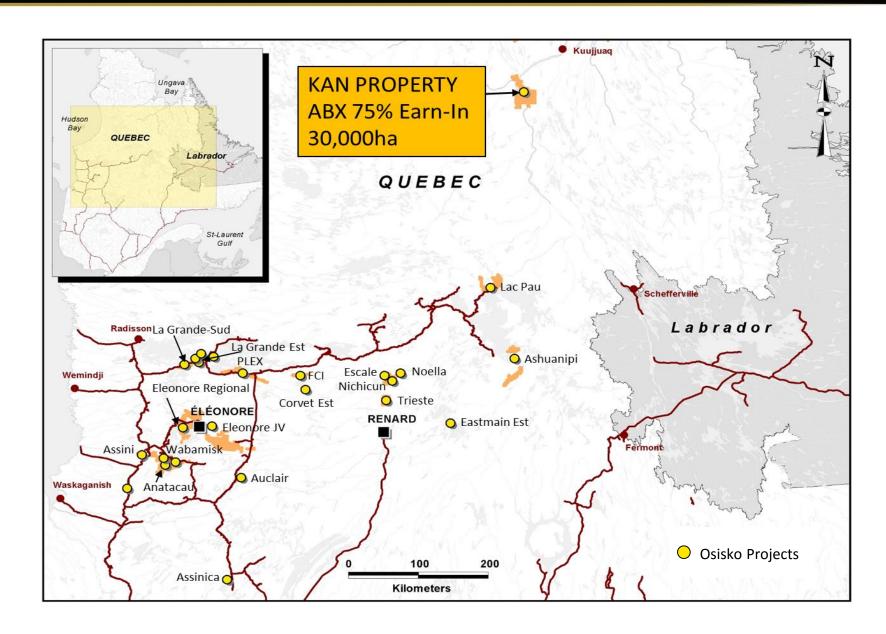
Section 2725 E



0.5

JAMES BAY AND NORTHERN QUEBEC PORTFOLIO





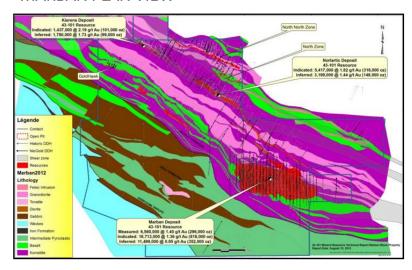
MARBAN OVERVIEW



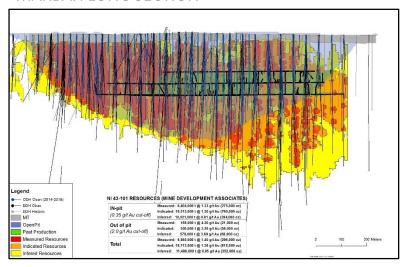
MARBAN (100% INTEREST)

- Marban is located ~15 km west of the town of Val-d'Or in the Abitibi region of Québec, Canada
- Property consists of 42 claims and three mining concessions for a total surface area of 9.8 km²
- Many active or past producing mines lie within a 10 km radius of the property:
 - Canadian Malartic
 - Goldex
 - Kiena
- Three past producing mines on the property (Marban, Norlartic and Kierens) had total historical production of 590 Koz Au
- Outside the deposit, the strike length of the Norlartic system is 1,200 metres and converge toward the hanging wall of the Marban deposit
- Approximately 135,000 metres of diamond drilling have been completed since 2006
- There are three known satellite zones to the deposits: Gold Hawk, North and North-North
- Several new showings were intersected in diamond drill holes throughout the property

MARBAN PLAN VIEW



MARBAN LONG SECTION



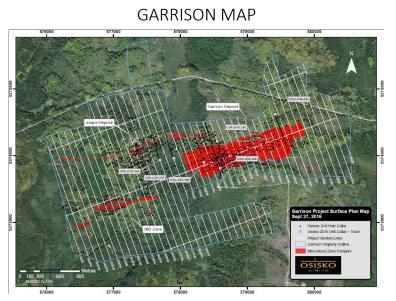
GARRISON PROJECT OVERVIEW



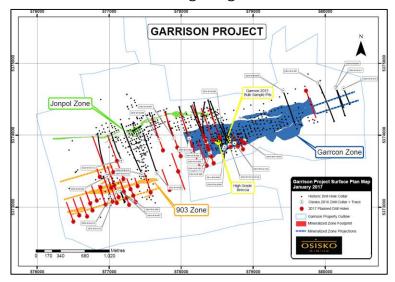
GARRISON (100% INTEREST)

- The Garrison Property is located in Garrison Township,
 ~40 km north of Kirkland Lake, Ontario
- Comprises 63 patented mining claims and three unpatented claims covering an area of approximately 788 hectares
- 43 of the patented claims that make up the Property have been historically grouped into four contiguous claim blocks known as the Newfield, Garrcon, Brydges and Linton Groups
- Historical PEA completed in 2011:

2011 Garrcon PEA Financial Summary	
NPV 5% Cumulative Cash Flow Taxes Payable IRR	C\$266 MM C\$394 MM C\$120 MM 47%
Payback	~2 Years
Operating Cost (\$/oz) Total Cost (\$/oz)	\$494 \$648
Gold Produced	~1MM oz

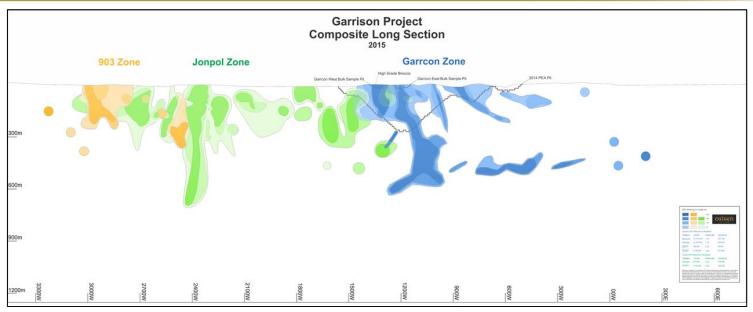


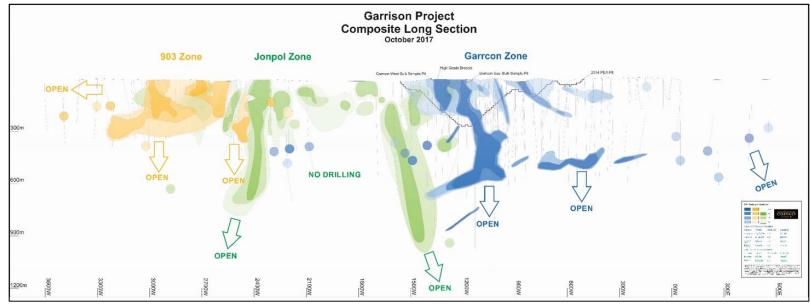




GARRISON DEPOSIT: BEFORE AND AFTER OSK (~80,000M)







MANAGEMENT & BOARD OF DIRECTORS



N	MANAGEMENT
John Burzynski	President & CEO
Robert Wares	Executive Vice President of Exploration and Resource Development
Jose Vizquerra	Executive Vice President of Strategic Development
John Hayes	Senior Vice President, Corporate Development
Don Njegovan	Vice President, New Business Development
Blair Zaritsky	Chief Financial Officer
Gernot Wober	Vice President Exploration
Mathieu Savard	Vice President Exploration Quebec
Alix Drapack	Vice President Environmental Services & Sustainable Development

BOARD OF DIRECTORS
Ned Goodman – Chairman Emeritus
Sean Roosen – Chairman
John Burzynski
Robert Wares
Jose Vizquerra-Benavides
Patrick Anderson
Keith McKay
Bernardo Alvarez Calderon
David Christie
Murray John
Amy Satov



NED GOODMAN

CHAIRMAN EMERITUS

Mr. Goodman is the founder of Dundee Corporation, an independent asset management company focused in the areas of real estate and infrastructure, energy, resources and agriculture. From July 2014 to January 2015, Mr. Goodman was Chairman of Dundee Corporation and from June 1993 to July 2014 he was President and CEO of Dundee Corporation.

SEAN ROOSEN

CHAIRMAN

Sean Roosen is Chair of the Board of Directors and Chief Executive Officer of Osisko Gold Royalties since June 2014. Prior to this, Mr. Roosen was the President and CEO of Old Osisko. He has led the transition of Old Osisko from a junior exploration company to a leading intermediate gold producer. He was responsible for leading the strategic development of Old Osisko and was instrumental in securing the necessary financing to fund the development of the \$1 billion Canadian Malartic Mine. Among other awards, Mr. Roosen was a co-winner of the Prospectors and Developers Association of Canada's "Prospector of the Year Award" for 2007, and was named, together with John Burzynski and Robert Wares as "Mining Men of the Year" for 2009 by the Northern Miner. Mr. Roosen is a Supervisory Board member of EurAsia Resource Holdings AG – a European based venture capital fund – and a director of EurAsia Resource Value SE. Mr. Roosen also sits on the Board of Directors of the following publicly listed companies: Condor Petroleum Inc., Dalradian Resources Inc., Falco Resources Ltd. and Barkerville Gold Mines Ltd. Mr. Roosen is a graduate of the Haileybury School of Mines and has had various progressive positions in the mining industry both domestically and internationally.

JOHN BURZYNSKI

Mr. Burzynski is the President and CEO of Osisko Mining Inc. and a Director of Osisko Gold Royalties since its inception in June 2014. He is a registered P.Geo. in the province of Québec and has over 25 years experience as a professional geologist on international mining and development projects. He was one of the three founding members of Osisko Mining Corporation, and was also a founding member of EurAsia Holding AG and EurAsia RH, a private European resource investment group. Mr. Burzynski was a co-winner of the Prospectors and Developers Association of Canada's "Prospector of the Year Award" for 2007, and among other awards was named, together with Sean Roosen and Robert Wares, as "Mining Men of the Year" for 2009 by The Northern Miner.



ROBERT WARES

Mr. Wares is a professional geologist with over 35 years experience in mineral exploration and development. He was responsible for the discovery of the Canadian Malartic bulk tonnage gold deposit, which was subsequently developed by Osisko Mining Corporation into one of Canada's largest gold producers. Among other awards, Mr. Wares was a co-winner of the Prospectors and Developers Association of Canada's "Prospector of the Year Award" for 2007, and was named, together with John Burzynski and Sean Roosen as "Mining Men of the Year" for 2009 by the Northern Miner. Mr. Wares is also the President and Director of the Ordre des Géologues du Québec, and sits on the Board of Directors of the following public companies: Bowmore Exploration Inc., Komet Resources Inc. and Wildcat Silver Inc. Mr. Wares has a BSc. and an Honorary Doctorate in Earth Sciences from McGill University.

JOSE VIZQUERRA BENAVIDES

Mr. Vizquerra is the Executive Vice President of Strategic Development of Osisko Mining Inc. Prior to that, he served over 4 years as the President & CEO of Oban Mining Corporation (combination of Braeval Mining Corporation and Oban Exploration Limited). Mr. Vizquerra previously worked as Head of Business Development for Compania de Minas Buenaventura (BVN:NYSE), prior to which he worked as production and exploration geologist at the Red Lake gold mine. He is currently a board member of Timmins Gold. Mr Vizquerra holds a M.Sc. from Queens University in MINEX, and is a QP (AIPG-11679).

PATRICK ANDERSON

Mr. Anderson is an exploration geologist, entrepreneur and business executive with over 20 years of experience working in the resource sector. He is the founder, CEO and a director of Dalradian Resources Inc. where he has led the discovery of nearly 4 million ounces of gold at the Curraghinalt deposit in Northern Ireland and delivery of a robust Feasibility Study to develop a mine at the deposit. After graduating with a geology degree from the University of Toronto, he moved to Venezuela to work as the resident project geologist on a successful kimberlite exploration program. He has been a consulting geologist on gold, base metals and diamond projects for junior explorers, major producers and mineral industry consulting firms in South America, North America and Europe. Mr. Anderson was a director, President, Chief Executive Officer and co-founder of Aurelian Resources Inc., which discovered a 13.7 million ounce gold deposit in 2006 and was acquired by Kinross Gold in 2008. He was named Mining Man of the Year by The Northern Miner in 2009 and received the PDAC's Thayer Lindsley award for an international mineral discovery in 2008.

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KEITH MCKAY

Currently CFO of Dalradian Resources Inc. Mr. McKay was previously the CFO at Continental Gold Limited, CFO of Andina Minerals Inc., Vice President and CFO at Aurelian Resources Ltd.

BERNARDO ALVAREZ CALDERON

Director, B. Sc (Geological Engineering) Officer of Analytica Mineral Services since January 2005. Mr. Alvarez Calderon has taken the Owners/President Management Program at the Harvard Business School and holds a Bachelor of Science in geological engineering from the Colorado School of Mines.

DAVID CHRISTIE

Mr. Christie has 29 years of experience in the resource sector. He is currently Vice President with Goodman & Company, Investment Counsel Inc. and Dundee Resources Limited, wholly owned subsidiaries of Dundee Corporation. Previously Mr. Christie was also President, CEO and Director of Eagle Hill Exploration Corporation which was acquired by Oban Mining Corp. He is a Director of Formation Metals Inc. (FCO-T) and two private companies: True North Nickel Inc. and Condor Precious Metals Inc. Prior to joining Goodman and Company in 2011, Mr. Christie was a highly ranked gold and precious minerals equity research analyst at two bank-owned dealers for 12 years. He also has extensive experience in the North American mining industry working as a professional geologist exploring for gold, base metals, uranium and platinum group metals. Mr. Christie is a member of the PDAC convention planning committee. He received a Bachelor of Science in Geology from McMaster University in 1986, is a Professional Geoscientist with APGO and NAPEG, and a fellow of the Geological Association of Canada.

MURRAY JOHN

Prior to his retirement in December 2015, Mr. John was President and Chief Executive Officer of Dundee Resources Limited, a private resource-focused investment company and Managing Director and a portfolio manager with Goodman Investment Counsel, where he was responsible for managing resource and precious metals focused mutual funds and Flow-Through Limited Partnerships. Mr. John is a former, President and Chief Executive Officer of Corona Gold Corporation and Ryan Gold Corp., which were both acquired by Oban Mining Corp. in August 2015.Mr. John is also a director of Dundee Precious Metals Inc. and a former director of several other companies. He has been involved with the resource investment industry since 1992 and has worked as an investment banker, buy-side mining analyst, sell-side mining analyst and portfolio manager. Mr. John graduated from the Camborne School of Mines in 1980 and has extensive industry experience working as a mining engineer for Strathcona Mineral Services Ltd., Nanisivik Mines Ltd. and Eldorado Nuclear Limited. He also received a Master of Business Administration from the University of Toronto in 1992.



AMY SATOV

Ms. Satov, B.A., LL.B., M.B.A. is the Chief Executive Officer and co-founder of Litron Distributors Ltd., a national lighting distributor. Founded in Montreal, Litron expanded across Canada in 2014, adding locations in Halifax, Ottawa, Toronto, Saskatoon, Calgary and Edmonton and subsequently in Québec City and Vancouver. Litron has experienced exponential growth since inception. For the 12 years prior to Litron, Ms. Satov was the Executive Vice President of Legal, Compliance and Distribution and Corporate Secretary of Dundee Wealth, a wealth management company with \$80 billion dollars of assets under management that was acquired by The Bank of Nova Scotia in 2011. In her role as EVP, she was in charge of all legal and compliance matters, was actively involved in Dundee Wealth's expansion into Europe and the U.S. and sat on various subsidiary boards. Ms. Satov advised on all M&A activities as well as securities, regulatory and all other corporate commercial matters. In 2010 Ms. Satov was recognized by Strathmore's "Who's Who" for excellence and achievement in her profession. Ms. Satov is also a member of the McGill University Chancellor's Advisory Group.