



SEPTEMBER 2023

# SEABRIDGE GOLD

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A 23-year track record of delivering outsized returns to its shareholder

## FORWARD LOOKING STATEMENTS

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All reserve and resource estimates reported by the Company were calculated in accordance with the Canadian National Instrument 43-101 and the Canadian Institute of Mining and Metallurgy Classification system. These standards differ significantly from the requirements of the U.S. Securities and Exchange Commission. Mineral resources which are not mineral reserves do not have demonstrated economic viability.

Statements relating to the estimated or expected future production and operating results and costs and financial condition of Seabridge, planned work at the Company's projects and the expected results of such work are forward-looking statements within the meaning of the United States Private Securities Litigation Reform Act of 1995. 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, 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 fulfill 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, including those described in the Company's Annual Information Form filed with SEDAR in Canada (available at [www.sedar.com](http://www.sedar.com)) for the year ended December 31, 2022 and in the Company's Annual Report Form 40-F filed with the U.S. Securities and Exchange Commission on EDGAR (available at [www.sec.gov/edgar.shtml](http://www.sec.gov/edgar.shtml)).

Forward-looking statements are based on the beliefs, estimates and opinions of the Company's management or its independent professional consultants on the date the statements are made.

## NATIONAL INSTRUMENT 43-101 DISCLOSURE

The scientific and technical information in respect of the KSM Project herein was derived from the technical Report entitled KSM (Kerr – Sulphurets – Mitchell) Prefeasibility Study and Preliminary Economic Assessment dated effective August 8, 2022. This information was prepared by leading consulting firms and their Qualified Persons (as defined in NI 43-101), all of whom are independent of Seabridge and are listed below along with their areas of responsibility:

- (i) Tetra Tech, Inc. under the direction of Hassan Ghaffari P.Eng. (surface infrastructure, capital estimate and financial analysis), John Huang P.Eng. (metallurgical testing review, permanent water treatment, mineral process design and operating cost estimation for process, general and administrative (“G&A”) and site services, and overall report preparation)
- (ii) Wood Canada Limited, under the direction of Henry Kim P.Geo. (Mineral Resources)
- (iii) Moose Mountain Technical Services under the direction of Jim Gray P.Eng. (open pit Mineral Reserves, open pit mining operations, mine capital and mine operating costs, MTT and rail ore conveyance design, tunnel capital costs)
- (iv) W.N. Brazier Associates Inc. under the direction of W.N. Brazier P.Eng. (Electrical power supply, energy recovery plants)
- (v) ERM Consultants Canada Ltd. under the direction of Rolf Schmitt P.Geo. (environment and permitting)
- (vi) Klohn Crippen Berger Ltd. under the direction of David Willms P.Eng. (design of surface water diversions, diversion tunnels, tailing management facility, water treatment dam and RSF and tunnel geotechnical)
- (vii) BGC Engineering Inc. under the direction of Derek Kinakin P.Geo., P.L.Eng., P.G. (rock mechanics, geohazards and mining pit slopes)
- (viii) WSP Golder Inc., under the direction of Ross Hammett P.Eng. (Block Cave mining)

# THE CASE FOR SEABRIDGE

## UNPARALLELED LEVERAGE IN EMERGING GOLD AND COPPER BULL MARKETS

- ▶ Seabridge is ranked among the world's top ten companies in gold reserves
- ▶ Over 2 oz of gold resources per share, top amongst the world's leading companies
- ▶ Over 600 pounds of copper resources per share, more than the world's largest copper companies
- ▶ Two PFS-stage projects (KSM & Courageous Lake) with a combined proven and probable reserve of 53.8M oz of gold plus 7.3 billion pounds of copper and tremendous torque to higher gold and copper prices

## KSM: WORLD'S LARGEST UNDEVELOPED GOLD/COPPER PROJECT

- ▶ Environmental approvals in hand in a low-risk jurisdiction
- ▶ Substantially Started activities fully funded and underway to ensure permits are valid for life of project
- ▶ P&P reserves: 47.3M oz Au, 7.3B lbs Cu, 160M oz Ag
- ▶ 2022 PFS demonstrates 33-year open-pit only mine plan with all-in costs of gold production (inclusive of all capital and closure costs) of \$601 per ounce
- ▶ 2022 PEA shows potential of an additional 39-years of mine life from block caves at Kerr and Iron Cap deposits

## LARGE PORTFOLIO OF EXPLORATION PROJECTS IN NORTH AMERICA

- ▶ Iskut (BC): exploring for potential copper-gold porphyry similar to Kerr
- ▶ Snowstorm (Nevada): massive property at intersection of three major Nevada gold belts
- ▶ 3 Aces (Yukon): potential for multiple district-scale, high-grade orogenic gold deposits
- ▶ Control of over 1,200 km<sup>2</sup> of largely unexplored properties in highly prospective districts
- ▶ \$18M in exploration planned for 2023

## MANY NEAR-TERM CATALYSTS

- ▶ KSM: top candidate for a potential JV with a major on attractive terms
- ▶ Iskut: 2022 drill program encounters large mineralized breccia pipe. \$8 million 2023 now underway focusing on gold/copper porphyry opportunities
- ▶ Snowstorm: ongoing exploration to test structures with similar geology as nearby Turquoise Ridge Complex. \$3 million drill program planned for 2023
- ▶ 3 Aces: \$7 million drill program planned for 2023

## RECORD OF ADDING VALUE WITH MINIMAL SHARE DILUTION

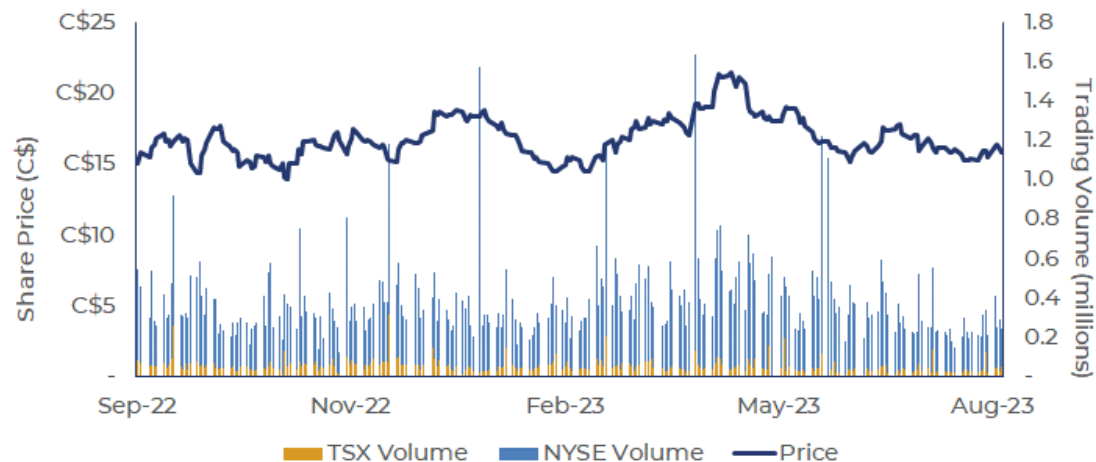
- ▶ Added 89M oz Au and 35B lbs Cu resources at KSM since discovering Deep Kerr in 2013
- ▶ Built a large project pipeline following three low-cost acquisitions (Iskut, Snowstorm, 3 Aces) since 2015
- ▶ Since 2003, total gold resources have increased by 997% while shares outstanding have only grown by 191%

## PROVEN LEADERSHIP TEAM AND COMPELLING VALUE

- ▶ Assembled a premier exploration & development team that has discovered over 100 million ounces of gold at KSM and advanced the project through engineering and EA approvals
- ▶ Trading at an EV/reserve multiple of only US\$15/oz of gold and an EV/resource multiple of only US\$5/oz

# CAPITAL MARKETS PROFILE

## SHARE PRICE AND VOLUME (LAST 12 MONTHS)



## TOP SHAREHOLDERS

Management, Board & Insiders	>25%
National Bank Financial	5.7%
Van Eck Associates	4.8%
Kopernik Global Investors	3.3%
Paulson & Co.	2.5%
Sprott Asset Management	1.7%
TD Asset Management	1.5%
Jupiter Asset Management	1.3%
Fidelity Management	1.2%

1. Includes 832.8K Options and RSUs
2. Balance of cash and short-term deposits as of August 31, 2023
3. Marketable securities include common shares of several mining companies that were received as consideration for optioned mineral properties, other short-term investments and ~7.84% of Paramount Gold Nevada Corp.

## CAPITAL STRUCTURE

Tickers	TSX:SEA   NYSE:SA
Indices	GDXJ, S&P/TSX Composite, Global Mining and Global Gold
Share Price (August 31, 2023)	C\$15.86 (US\$11.75)
52-Week Trading Range	C\$13.83 – C\$21.78
Basic Shares Outstanding	83.5M
FD Shares Outstanding	84.4M <sup>1</sup>
Market Capitalization	C\$1.3B
Cash and Short-Term Deposits	>C\$200M
Marketable Securities	C\$3M <sup>3</sup>

## RESEARCH COVERAGE

Company	Research Analyst
B Riley	Lucas Pipes
Cantor Fitzgerald	Mike Kozak
Gold Stock Analyst	John Doody
Red Cloud	David Talbot

# LARGE NORTH AMERICAN PORTFOLIO OF PREMIER GOLD PROJECTS

## ISKUT PROJECT (100%)

British Columbia, Canada

- ▶ 294 km<sup>2</sup> property located in northern British Columbia, ~110 km northwest of Stewart, BC
- ▶ Only 20 km by air from the KSM Project
- ▶ Includes the former high-grade Johnny Mountain gold mine and the Bronson Slope Cu-Au deposit
- ▶ \$8M drill program planned for 2023

## COURAGEOUS LAKE (100%)

Northwest Territories, Canada

- ▶ One of Canada largest undeveloped projects by gold reserves (6.5M oz Au at 2.2 g/t Au)
- ▶ 2012 PFS demonstrates project with exceptional leverage to higher gold prices
- ▶ Updated PFS underway

## 3 ACES (100%)

Yukon Territory, Canada

- ▶ 314 km<sup>2</sup> property with year-round access
- ▶ District-scale, orogenic gold zones
- ▶ 300 holes with 37% intersecting +5 g/t Au
- ▶ \$7M drill program planned for 2023

## KSM (100%)

British Columbia, Canada

- ▶ World's largest undeveloped gold and copper project
- ▶ Received B.C. Environmental Assessment certificate and federal environmental approval
- ▶ 2022 PFS captures 47.3M ozs Au and 7.3B lbs Cu and 160M ozs Ag in proven and probable reserves
- ▶ Recently completed 2022 PEA shows additional upside potential focused on copper rich deposits
- ▶ US\$375 million secured for early site construction activities to lock in permits for life of project

## SNOWSTORM PROJECT (100%)

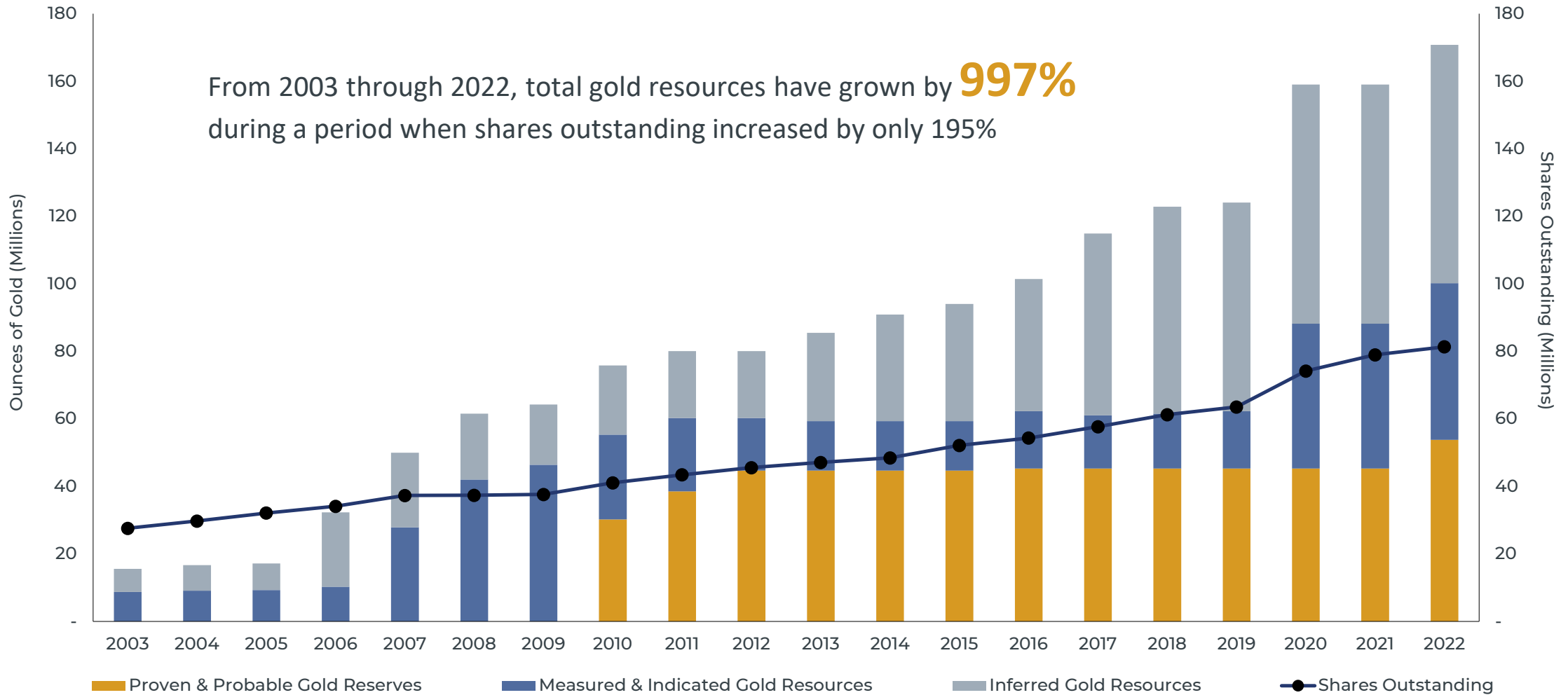
Nevada, USA

- ▶ 103 km<sup>2</sup> property located at intersection of three major Nevada gold belts
- ▶ Contiguous and on strike with several large gold mines (Turquoise Ridge, Twin Creeks)
- ▶ \$3M drill program planned for 2023

10% NPI in Grassy Mountain (Oregon)

# SHARE DILUTION MATTERS

- ▶ Our objective is to grow ounces in the ground faster than shares outstanding

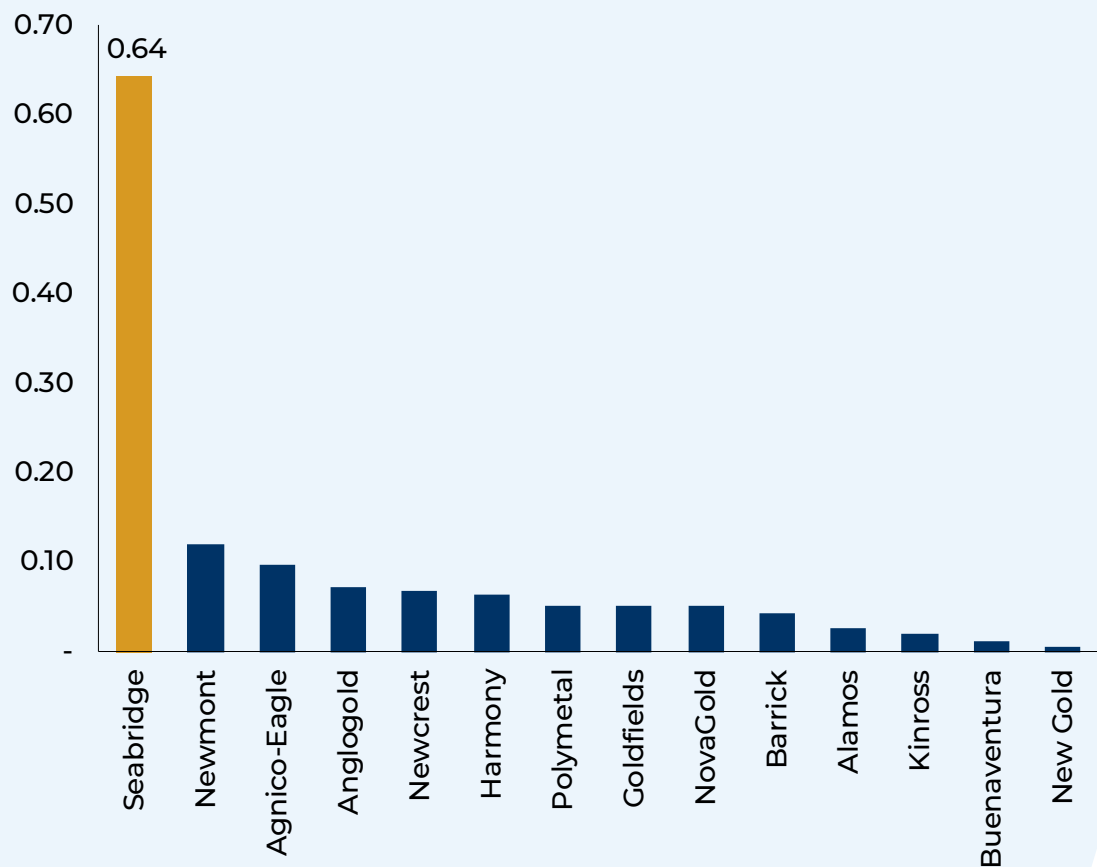


Source: Company data  
 Note: For a breakdown of Seabridge’s mineral reserves and resources by project, tonnes and grade, please visit <http://seabridgegold.com>

## SUPERIOR LEVERAGE TO GOLD

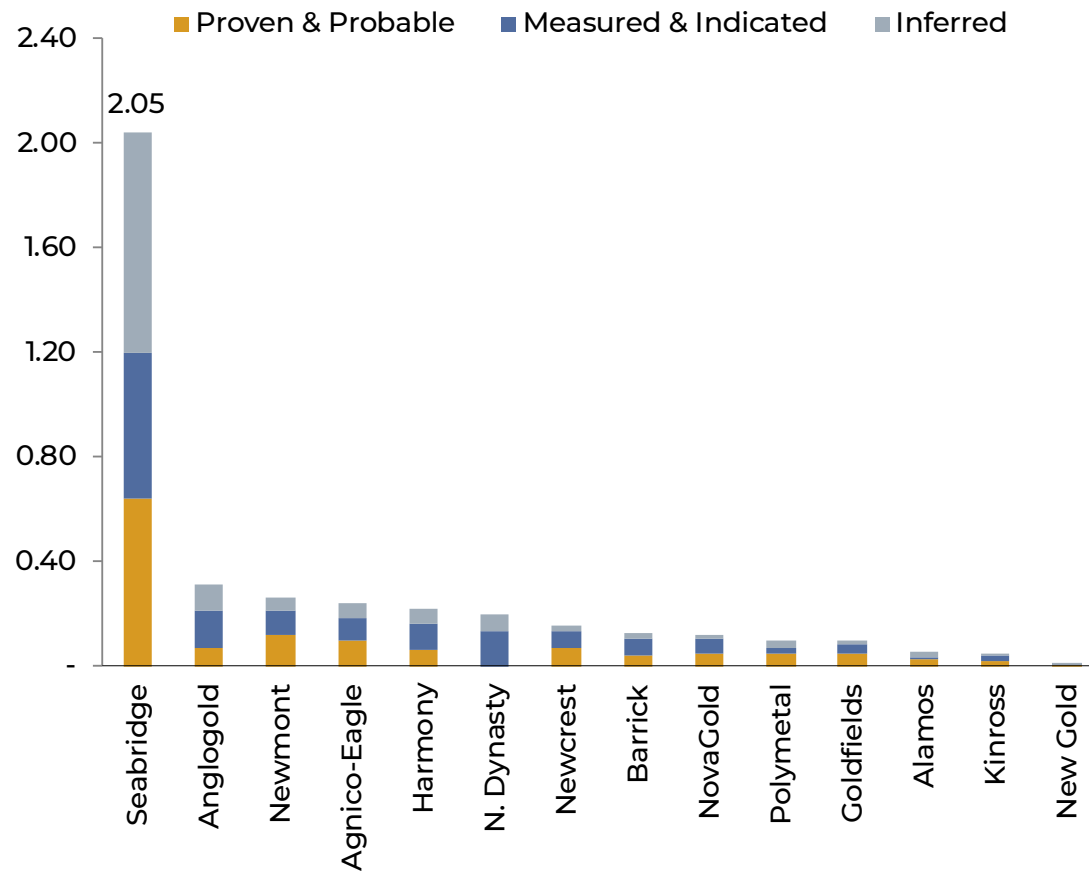
- ▶ Seabridge ranks 1st in gold reserves/share among North American listed gold companies

### GOLD RESERVES (OUNCES) PER COMMON SHARE



- ▶ Seabridge ranks 1st in gold resources/share among North American listed gold companies

### GOLD RESOURCES (OUNCES) PER COMMON SHARE

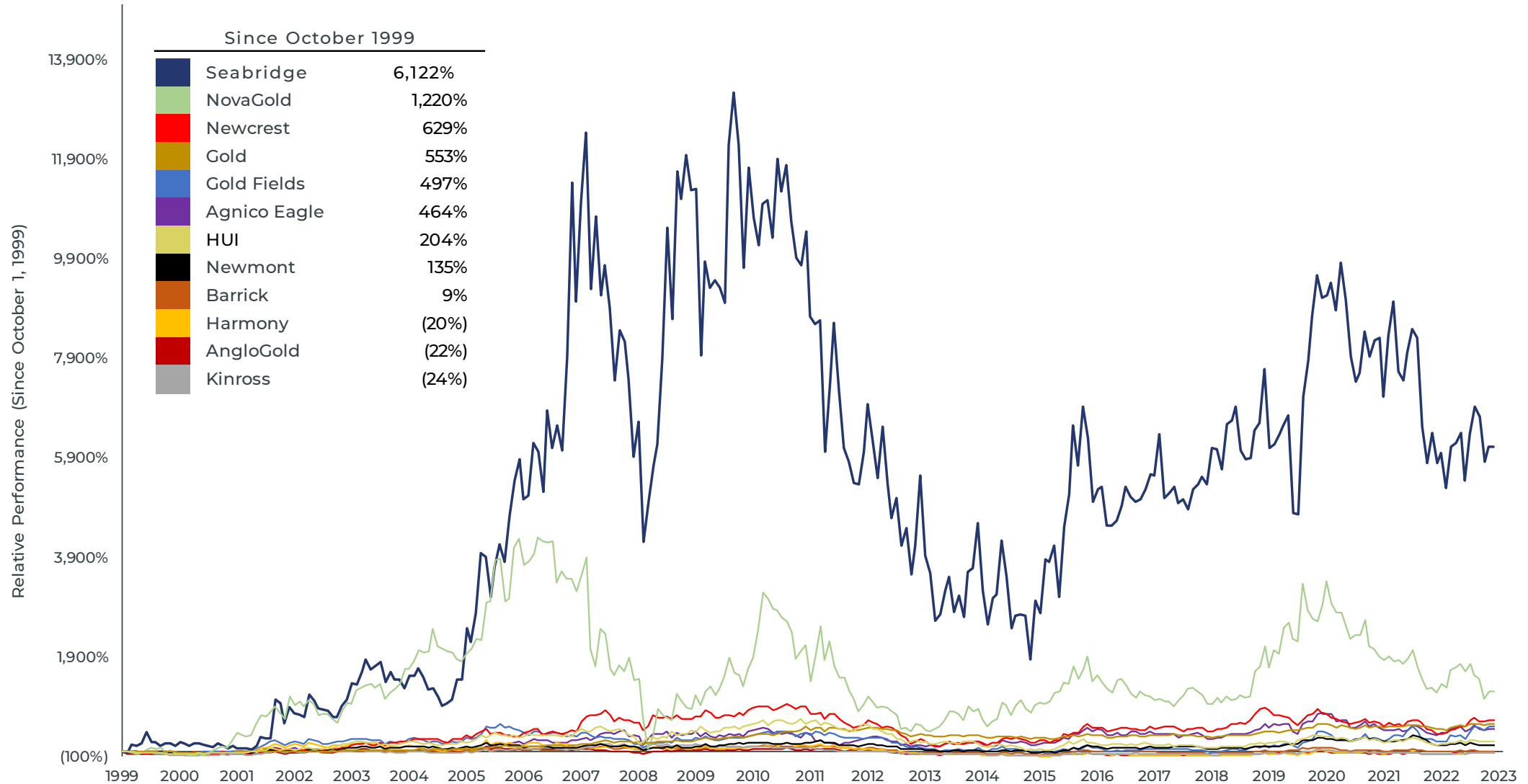


Source: Company data. Data as of August 31, 2023

Note: Companies shown include North America's largest gold companies and selected gold project development companies

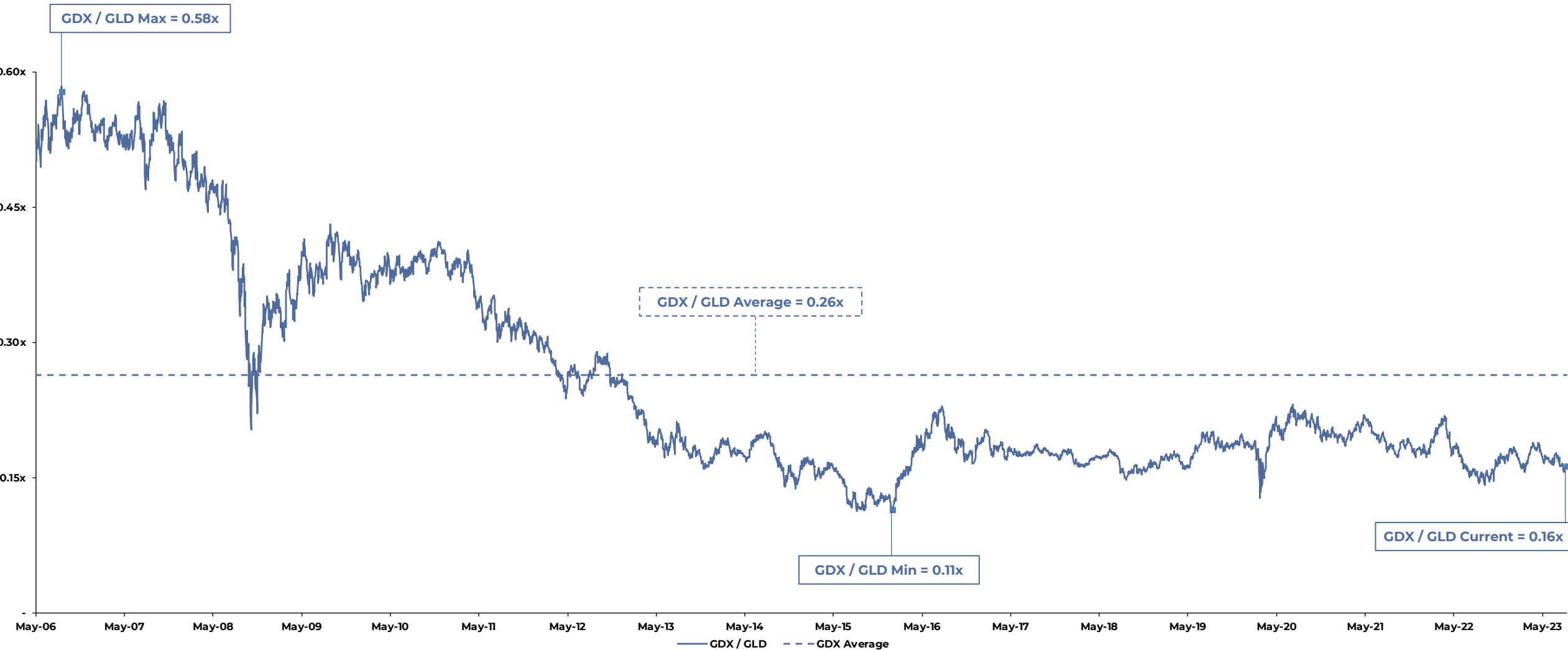


# IN A RISING GOLD MARKET, SEABRIDGE IS A STOCK TO OWN



Source: Company data. As of August 31, 2023

# RATIO OF GDJ TO GLD OVER TIME



Source: SPDR Gold Trust, Van Eck GDJ ETF Trust. As of August 31, 2023

# RATIO OF GDXJ TO GLD OVER TIME

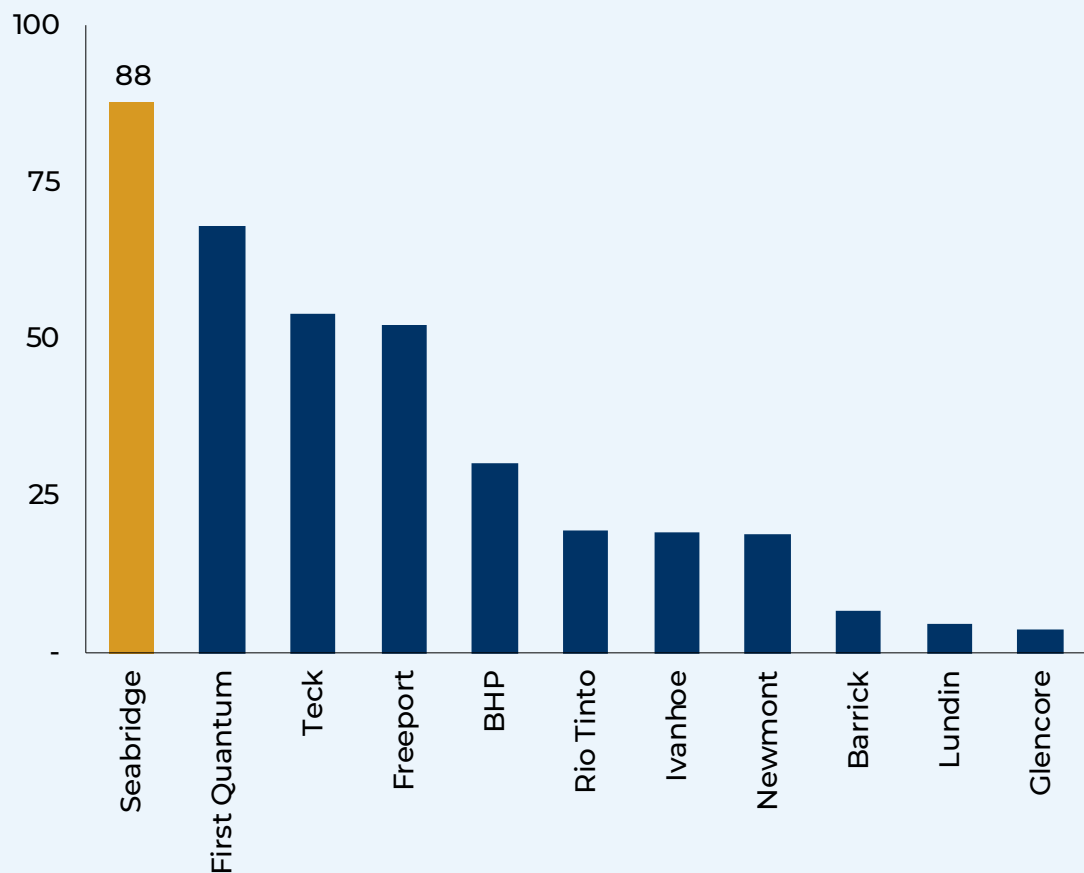


Source: SPDR Gold Trust, Van Eck GDXJ ETF Trust. As of August 31, 2023

## SUPERIOR LEVERAGE TO COPPER

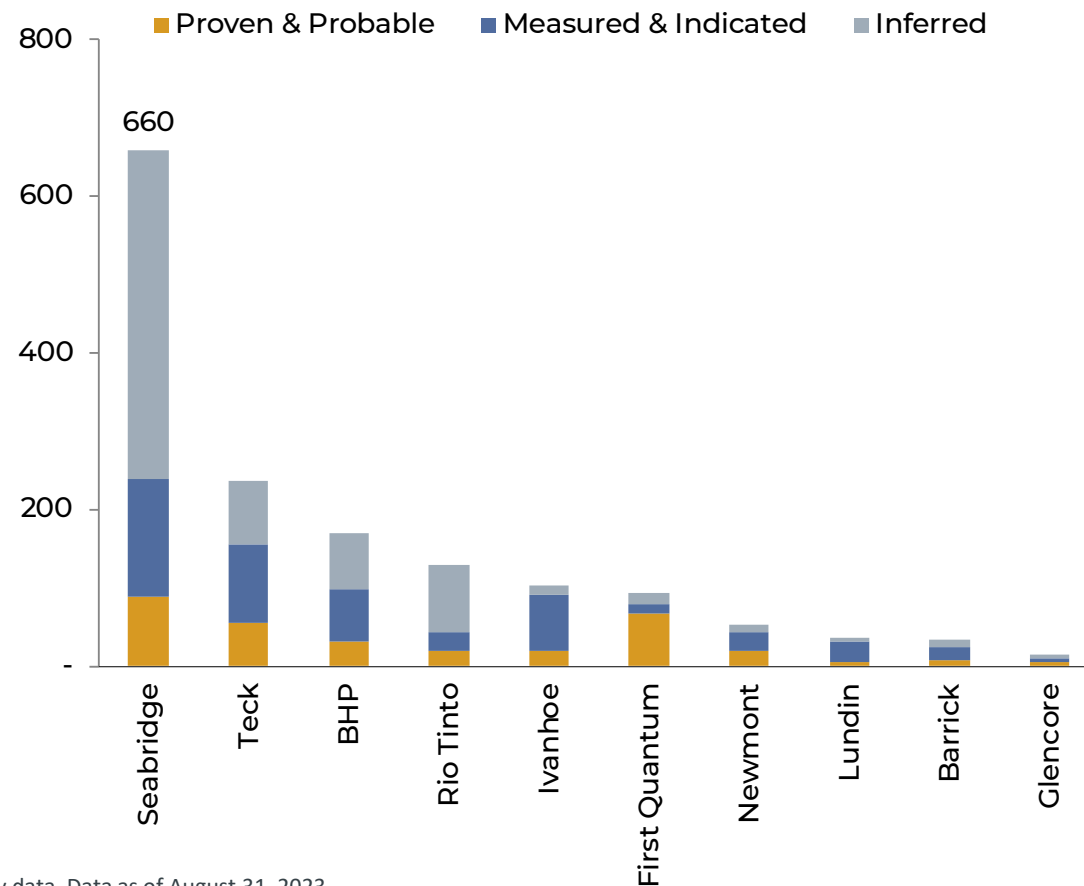
- ▶ Seabridge ranks 1st in copper reserves/share among major listed copper/gold companies

### COPPER RESERVES (POUNDS) PER COMMON SHARE



- ▶ Seabridge ranks 1st in copper resources/share among major listed copper/gold companies

### COPPER RESOURCES (POUNDS) PER COMMON SHARE



Source: Company data. Data as of August 31, 2023

Note: In addition to Seabridge, companies shown include North America's largest copper and gold/copper producing companies

# **KSM PROJECT**

British Columbia, Canada

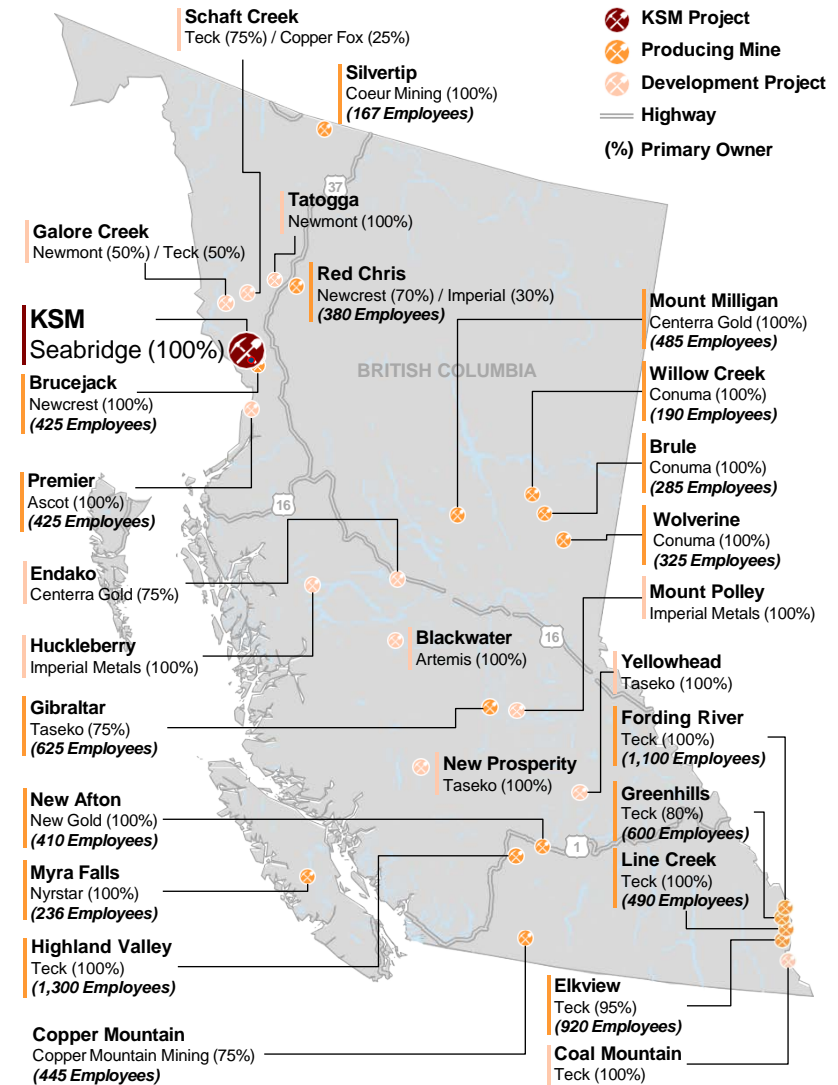


# KSM: A RARE, WORLD-CLASS PROJECT IN A TOP MINING JURISDICTION

- ▶ World’s largest undeveloped gold/copper project by gold and copper resources
- ▶ 2022 PFS demonstrates a more sustainable and more profitable mining operation than its 2016 predecessor
- ▶ Located in mining-friendly British Columbia near existing and past producers
  - ▶ Adjacent to established infrastructure
  - ▶ Access to regional workforce and supplies
  - ▶ Established procedures for obtaining permits

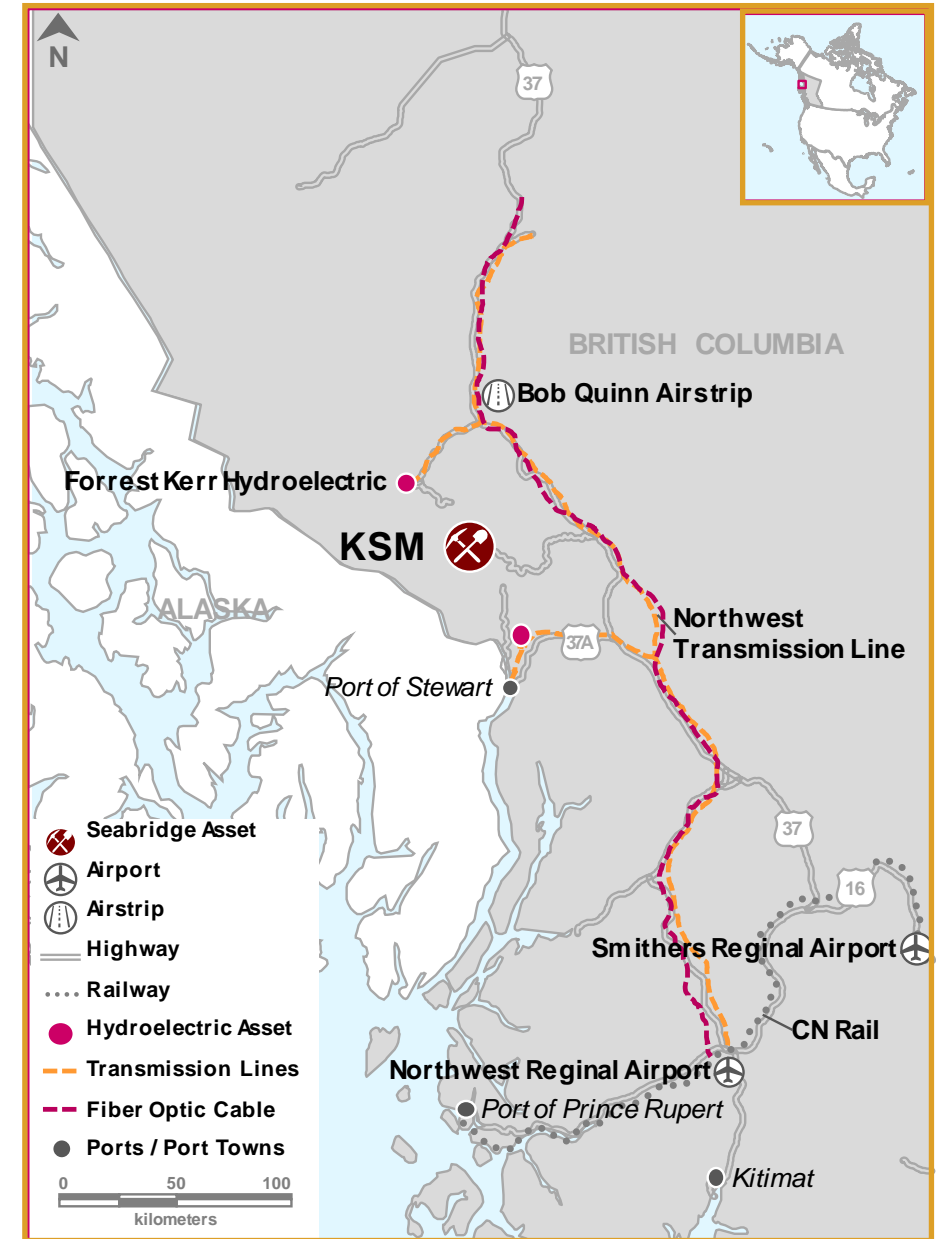
## ENVIRONMENTAL AND SOCIAL APPROVALS

- ▶ B.C. Environmental Assessment certificate issued July 2014
- ▶ Federal Environmental approval received December 2014
- ▶ Established social license with local communities
  - ▶ Signed Impact Benefit Agreements with Nisga’a and Tahltan Nations
  - ▶ Letters of support received from Terrace, Smithers and the Gitxsan Nation
  - ▶ Non opposition agreement with Gitanyow Nation



## SIGNIFICANT REGIONAL & LOCAL INFRASTRUCTURE

- ▶ Northwest Transmission Line completed in 2014
  - ▶ 30 km between powerline to KSM process plant
- ▶ Paved Highway 37 allows efficient transport to and from port and mine – in use to support Brucejack and Red Chris
- ▶ Two nearby ports at Stewart B.C.
- ▶ Two nearby regional airports and a local airstrip
- ▶ Recent federal and provincial government additional funding to complete bringing fiber-optic communications to the Tahltan Territory



## MULTI-GENERATIONAL DISTRICT POTENTIAL

- ▶ Mine plans focused on highest grade and most economic portions of deposits
- ▶ Current mine plans capture less than 1/4 of total mineral resources and does not include Kerr or Iron Cap deposits
- ▶ 63% of reserves are classified as Proven

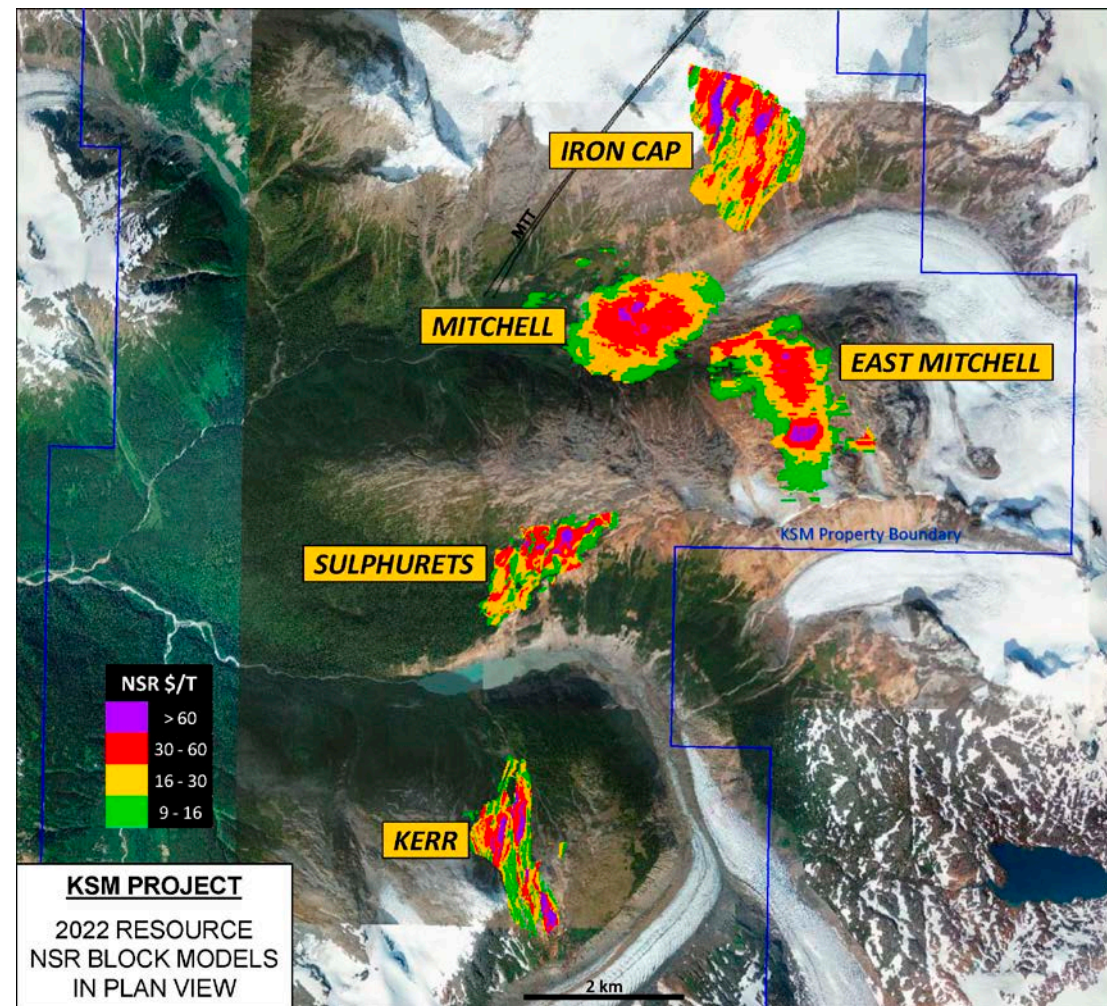
### NI 43-101 COMPLIANT RESERVES & RESOURCES

		<i>M tonnes</i>	<i>g/t Au</i>	<i>% Cu</i>	<i>g/t Ag</i>	<i>ppm Mo</i>	<i>M oz Au</i>	<i>M lbs Cu</i>	<i>M oz Ag</i>	<i>M lbs Mo</i>
Mitchell	P&P	935	0.67	0.18	2.9	61	20.1	3,619	87	126
	M&I	2,359	0.54	0.15	2.9	62	41.1	7,996	222	320
	Inferred	1,283	0.29	0.14	2.5	47	11.8	3,832	102	133
Iron Cap	M&I	423	0.41	0.22	4.6	41	5.6	2,051	63	38
	Inferred	1,899	0.45	0.30	2.6	30	27.5	12,556	159	126
Kerr	M&I	370	0.22	0.41	1.2	5	2.7	3,405	14	4
	Inferred	1,999	0.31	0.40	1.8	23	19.8	17,720	114	103
Sulphurets	P&P	151	0.68	0.26	1.0	70	3.3	874	5	23
	M&I	446	0.55	0.21	1.0	53	7.9	2,064	14	52
	Inferred	223	0.31	0.41	1.3	31	3.2	639	9	15
East Mitchell	P&P	1,206	0.62	0.11	1.8	89	23.9	2,826	68	236
	M&I	1,759	0.55	0.10	1.8	85	31.2	3,904	101	328
	Inferred	281	0.37	0.07	2.3	61	3.4	403	21	38
All	P&P	2,292	0.64	0.14	2.2	76	47.3	7,320	160	385
	M&I	5,357	0.51	0.16	2.4	63	88.4	19,420	414	742
	Inferred	5,685	0.36	0.28	2.2	33	65.6	35,150	406	415

Note: M&I resources are inclusive of reserves

Mineral Resources were estimated by Wood Plc under the direction of Henry Kim P.Geo.

Mineral Reserve were estimated by Moose Mountain Technical Services under the direction of Jim Gray P.Eng.



Note: blue lines indicate KSM property boundaries following announced transaction to acquire 100% of the Snowfield deposit now renamed East Mitchell property

**11.0 Billion tonnes including East Mitchell (Snowfield)**



## 2022 PRELIMINARY FEASIBILITY STUDY (PFS)

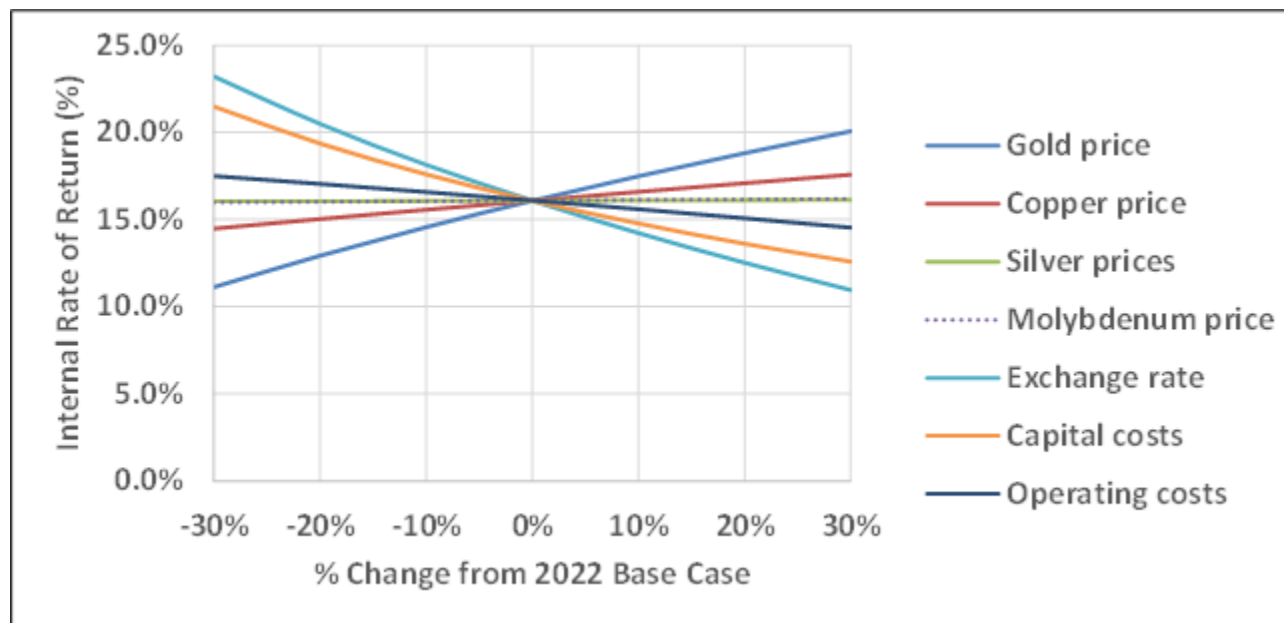
- ▶ Proven and probable reserves total 47.3 million ounces of gold, 7.3 billion pounds of copper and 160 million ounces of silver
- ▶ Reserves calculated using US\$1300 gold, US\$3.00 copper and US\$20 silver
- ▶ All reserves derived from open pit only (Mitchell, East Mitchell and Sulphurets)
- ▶ Life-of-mine strip ratio of 1:1
- ▶ Mine plan limited to permitted tailings capacity (2.3 billion tonnes), just 21% of known resource
- ▶ 33-year initial mine life averaging 1.0 million ounces of gold production per year, 178 million pounds of copper and 3 million ounces of silver
- ▶ Removal of capital-intensive block caves reduces total project capital costs from previous capital estimates
- ▶ Payback period estimated at 10% of mine life
- ▶ Optionality to bring additional copper production forward in mine plan by adding Iron Cap and/or Kerr deposits

	Unit	Base Case 2022 PFS
Proven and Probable Reserves:		
Tonnes	M tonnes	2,292
Gold	M oz	47.3
Copper	B lbs	7.3
Silver	M oz	160
Designed Throughput	000 TPD	195
Mine Life	Years	33
Average Annual Production (Years 1-7):		
Gold	000 oz	1,413
Copper	M lbs	250
Silver	M oz	3.8
Average Annual Production (LOM):		
Gold	000 oz	1,027
Copper	M lbs	178
Silver	M oz	3.0
Initial Capital Costs	US\$B	\$6.4
Sustaining Capital Costs	US\$B	\$3.2
Total LOM Capital Costs	US\$B	\$9.6
LOM Unit Operating Costs	US\$/T to Mill	\$11.36
Base Case Metal Prices:		
Gold	US\$/oz	\$1,742
Copper	US\$/lb	\$3.53
Silver	US\$/oz	\$18.00
US\$/C\$ Exchange Rate		0.77
Cash Op Costs (net of by-products)	US\$/oz Au	\$275
All-In Total Costs (net of by-products)	US\$/oz Au	\$601
After Tax Cash Flow	US\$B	\$23.9
After-Tax NPV <sub>5%</sub>	US\$B	\$7.9
After-Tax IRR	%	16.1
Payback Period	years	3.7

## 2022 PFS SENSITIVITY

- ▶ Project robust at lower metal prices
- ▶ Significantly leverage to higher metal prices
- ▶ Comparison from 2022 Base Case using recent spot prices:
  - ▶ Total after tax net cash flow increases from US\$23.9B to US\$31.5B
  - ▶ After tax NPV increase from US\$7.9B to US\$11.0B
  - ▶ After tax IRR increase from 16.1% to 19.3%
  - ▶ Payback period reduce from 3.7 years to 3.2 years
- ▶ Project can withstand higher capital and operating costs

	Unit	Alternate Case 2022 PFS	Recent Spot Case 2022 PFS
Metal Prices:			
Gold	US\$/oz	\$1,500	\$2,000
Copper	US\$/lb	\$3.00	\$4.00
Silver	US\$/oz	\$20.00	\$25.00
US\$/C\$ Exchange Rate		0.77	0.75
Cash Op Costs (net of by-products)	US\$/oz Au	\$351	\$188
All-In Total Costs (net of by-products)	US\$/oz Au	\$677	\$505
Initial Capital Costs	US\$B	\$6.4	\$6.3
Sustaining Capital Costs	US\$B	\$3.2	\$3.1
After Tax Cash Flow	US\$B	\$17.1	\$31.5
After-Tax NPV <sub>5%</sub>	US\$B	\$5.2	\$11.0
After-Tax IRR	%	13.1	19.3
Payback Period	years	4.3	3.2



## 2022 PRELIMINARY ECONOMIC ASSESSMENT (PEA)

- ▶ PEA based on mining copper rich block caves at Kerr and Iron Cap deposits which were not included in 2022 PFS
- ▶ Depending on preference of gold versus copper, block caves could be moved forward in KSM mine life
- ▶ 39-year PEA mill feed of 1.7 billion tonnes contains 16 billion pounds of copper, 23.2 million ounces of gold and 122 million ounces of silver
- ▶ Base Case operating cost estimated at US\$0.38 per pound of copper produced after gold, silver and molybdenum credits
- ▶ Base Case total cost (including all capital) estimated at US\$1.44 per pound of copper produced after gold, silver and molybdenum credits
- ▶ Initial capital of US\$1.5 billion to be funded from end-of-life 2022 PFS cash flows
- ▶ Sustaining capital of US\$12.8 billion to be funded from 2022 PEA cash flows
- ▶ 39-year PEA mine plan results in estimated:
  - ▶ Total after tax net cash flow of US\$18.5 billion
  - ▶ After tax NPV<sub>5%</sub> of US\$5.8 billion
  - ▶ After tax IRR of 18.9%

	Unit	Base Case 2022 PEA
Proven and Probable Reserves:		
Tonnes	M tonnes	1,690
Gold	M oz	23.2
Copper	B lbs	16.0
Silver	M oz	122
Designed Throughput	000 TPD	170
Mine Life	Years	39
Average Annual Production (LOM):		
Gold	000 oz	368
Copper	M lbs	366
Silver	M oz	1.8
Initial Capital Costs	US\$B	\$1.5
Sustaining Capital Costs	US\$B	\$12.8
Total LOM Capital Costs	US\$B	\$14.3
LOM Unit Operating Costs	US\$/T to Mill	\$11.98
Base Case Metal Prices:		
Gold	US\$/oz	\$1,742
Copper	US\$/lb	\$3.53
Silver	US\$/oz	\$18.00
US\$/C\$ Exchange Rate		0.77
Cash Op Costs (net of by-products)	US\$/Lb Cu	\$0.38
All-In Total Costs (net of by-products)	US\$/Lb Cu	\$1.44
After Tax Cash Flow	US\$B	\$18.5
After-Tax NPV <sub>5%</sub>	US\$B	\$5.8
After-Tax IRR	%	18.9
Payback Period	years	6.2

## KSM SUBSTANTIALLY STARTED DESIGNATION

- ▶ To extend KSM’s EA approvals for the life of the project, KSM must be “substantially started” by July 2026
- ▶ BC regulators will award a “substantially started” designation based on 3 main criteria:
  1. Indigenous support
  2. Extent of physical disturbance associated with permanent infrastructure
  3. Expenditures (to a lesser extent)
- ▶ KSM substantial start work commenced in 2021
- ▶ Work will focus on roads, camps, fish compensation and power infrastructure
- ▶ BC projects obtaining “substantially started” designation include Galore Creek and Kitsault Moly
- ▶ In February 2022, Seabridge secured US\$225 million in funding for substantially started activities from Sprott Royalties and Ontario Teachers Pension Plan by issuing a note that converts into a 60% silver royalty at KSM at commercial production
- ▶ In June 2023, Seabridge secured an additional US\$150 million in funding for substantially started activities from Sprott Royalties by issuing a note that converts into a 1.0% NSR at KSM at commercial production

### CAMP 11 WORK AREA



# COURAGEOUS LAKE

Northwest Territories, Canada



# COURAGEOUS LAKE PROJECT (100% INTEREST)

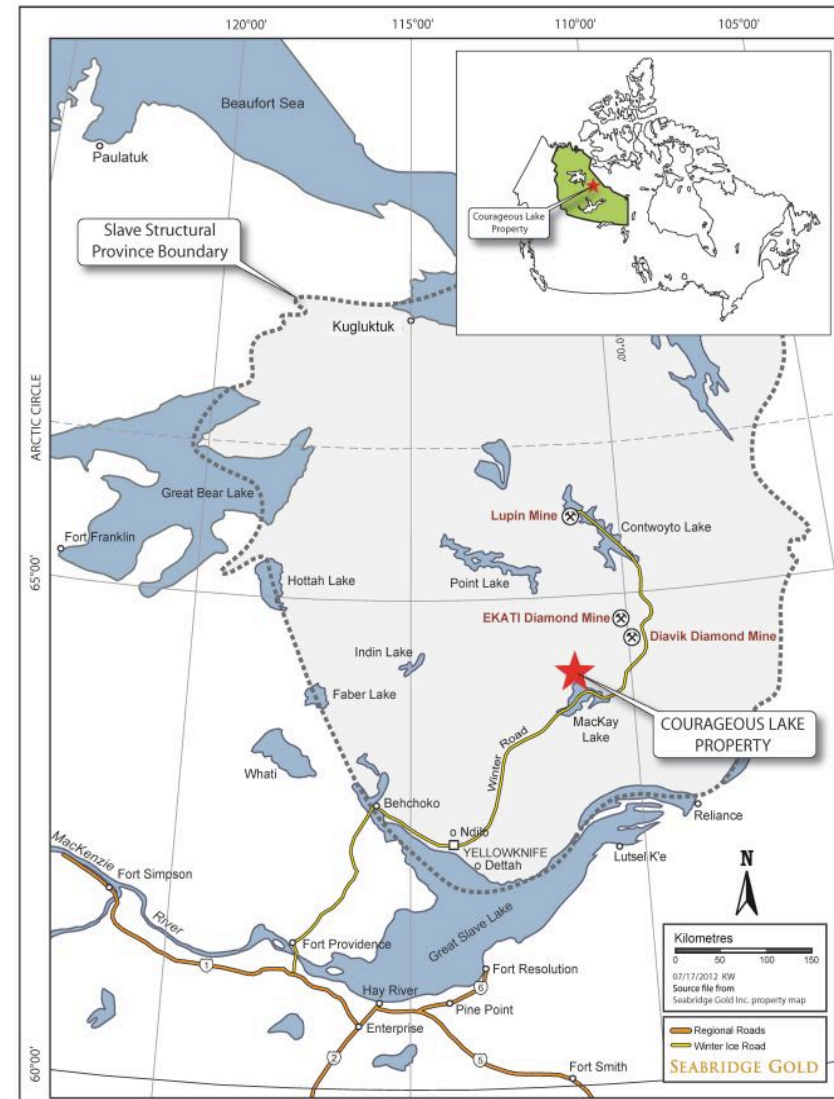
- ▶ 503 km<sup>2</sup> property located south of Courageous Lake approximately 240 km northeast of Yellowknife in the Northwest Territories
  - ▶ Lies on a historic mining district that includes two past producing gold mines
- ▶ Project located on winter ice road within 100 km of the Diavik and Ekati open pit diamond mines
  - ▶ Demonstrates feasibility of year-round open pit bulk tonnage operations
- ▶ 52 km long land position covering 85% of the Matthews Lake Greenstone Belt
- ▶ FAT is one Canada’s largest undeveloped gold deposits by reserves
- ▶ Walsh Lake is ~10 km south of the FAT deposit and demonstrates potential for discovery of new higher-grade deposits

## NI 43-101 COMPLIANT RESERVE AND RESOURCE ESTIMATES

Deposit	Cut-off Grade	Category	Tonnage	Grade	Contained
	<i>g/t Au</i>		<i>M tonnes</i>	<i>g/t Au</i>	<i>M oz Au</i>
FAT <sup>1</sup>	N/A	P&P reserves	91.0	2.20	6.50
	0.83	M&I resources	107.3	2.31	7.97
	0.83	Inferred resources	53.6	2.27	3.91
Walsh Lake	0.60	Inferred resources	4.6	3.24	0.48

Note: M&I resources are inclusive of reserves

1. Resource estimate for the FAT deposit is from a NI 43-101 compliant technical report prepared by Tetra Tech Wardrop dated September 5, 2012. A total of 589 holes (169,000 m) have been drilled on the FAT deposit by Seabridge, Placer Dome and Noranda. M&I and inferred resource estimates are undiluted. P&P reserves were estimated using a series of Lerchs-Grossman pit shell optimizations using a NSR cut-off of C\$20.50/tonne estimated from a gold price of US\$1,244/oz, strip ratio of 12.5:1 and assumes 5% dilution and 5% mine loss
2. Resource estimate for the Walsh Lake deposit was presented in a new release dated March 11, 2014 and completed under NI 43-101 standards by Resources Modelling Inc. Walsh Lake resource model is based on 53 diamond core holes (totaling 17,450 m). Resource estimate is constrained within a conceptual pit limit based on a gold price of US\$1,300/oz, recovery of 90% and pit slope of 50 degrees



## 2012 PFS DEMONSTRATES PROFITABLE MINE WITH EXCEPTIONAL LEVERAGE

- ▶ 2012 PFS for the Courageous Lake deposit is based on a single open-pit mining operation with on-site processing
- ▶ Project economics improve considerably when applying a more current gold price (US\$1,700/oz) and exchange rate (US\$0.73:C\$1.00)
- ▶ Numerous opportunities to enhance project economics
  - ▶ Access to lower-cost hydro-electric generated power, which also reduces diesel inventory and storage costs
  - ▶ PFS assumes project access by winter road, which would be available 3 months per year. Year-round road access could substantially reduce OPEX, CAPEX and working capital requirements
  - ▶ Recently completed internal studies confirm the potential for a smaller, less capital intensive and more economic robust starter project.
- ▶ Updated technical report planned for 2023 focusing on smaller, less capital intensive, more robust mine plan

### HIGHLIGHTS OF THE 2012 PFS

	Unit	Base	Recent Spot	Change
Gold Price	US\$/oz	\$1,384	\$1,700	
Exchange Rate	US\$:C\$	0.98	0.73	
Mine Life	years	15	15	
LOM Ore	M tonnes	91.1	91.1	
LOM Average Grade	g/t Au	2.20	2.20	
Throughput Rate	tpd	17,500	17,500	
LOM Average Strip Ratio	waste:ore	12.5:1	12.5:1	
Recovery Rate	%	89.4	89.4	
Average Annual Production	000 oz Au	385	385	
<b>Cash Costs</b>				
Years 1-5	US\$/oz Au	\$674	\$517	-23%
LOM	US\$/oz Au	\$780	\$596	-24%
All-in Costs	US\$/oz Au	\$1,123	\$849	-24%
Initial Capex	US\$M	\$1,522	\$1,138	-25%
Pre-Tax Cash Flow	US\$M	\$1,507	\$4,904	+225%
Pre-Tax NPV <sub>5%</sub>	US\$M	\$303	\$2,460	+712%
Pre-Tax IRR	%	7.3	25.4	+248%
Payback Period	years	11.2	3.2	-71%

# ISKUT PROJECT

British Columbia, Canada



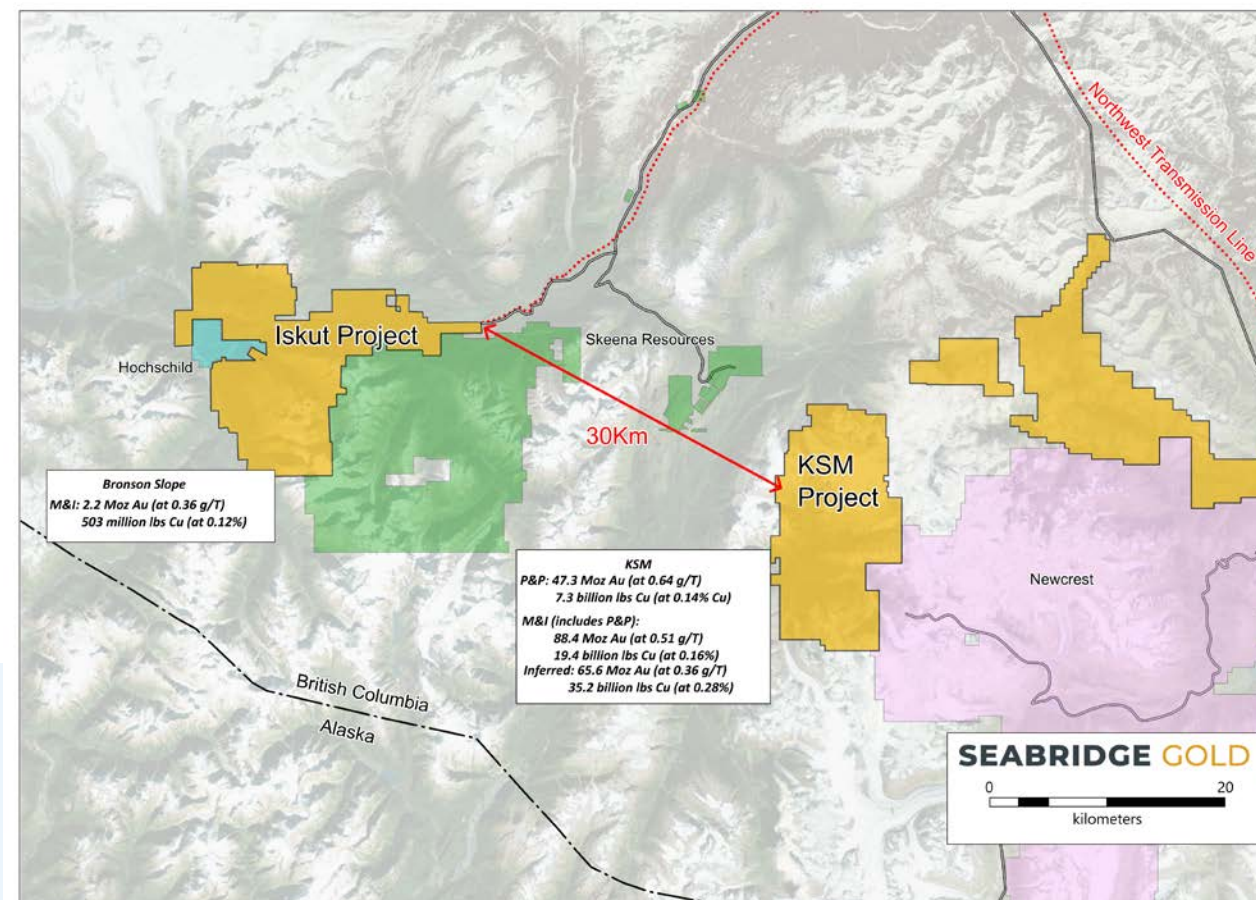


# ISKUT PROJECT (100% INTEREST)

- ▶ 294 km<sup>2</sup> property located in northern British Columbia, ~110 km northwest of Stewart, BC
- ▶ Only 30 km by air from the KSM Project
- ▶ Includes the former high-grade Johnny Mountain gold mine and the Bronson Slope Cu-Au deposit
- ▶ Since acquiring in June 2016, exploration has identified the potential for large gold-copper porphyry deposits
- ▶ 2022 drill program focused on zones below Bronson Slope deposit
  - ▶ Large mineralized breccia pipe found below Bronson Slope
  - ▶ **Hole 5 returned 174 meters at 0.86 gpt gold and .34% copper**
  - ▶ Large, fully-funded \$8M 2023 drill program underway

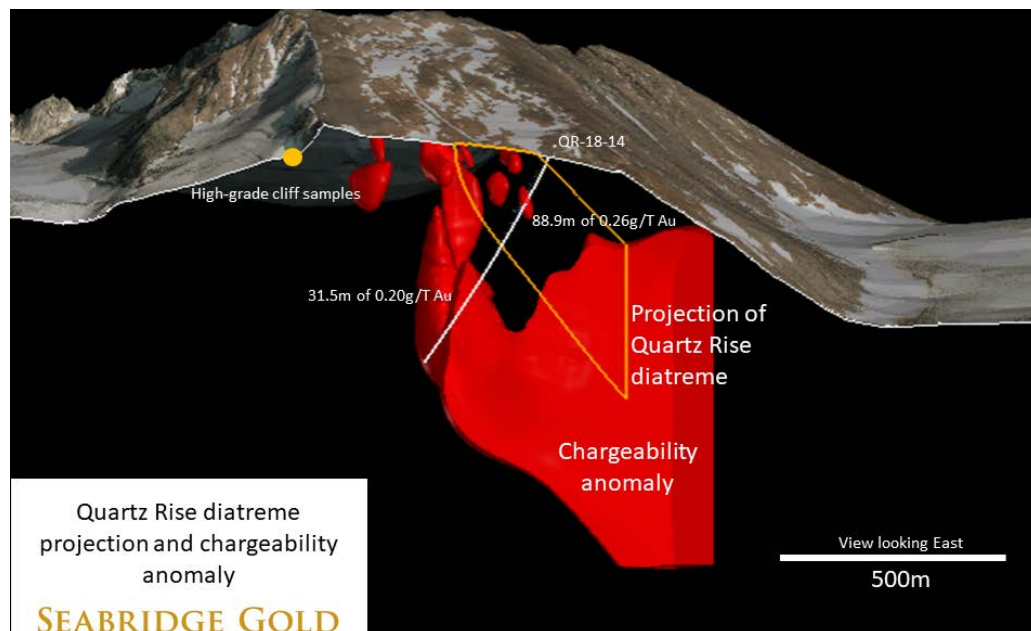
## BRONSON SLOPE PIT CONSTRAINED NI 43-101 RESOURCE ESTIMATE

Category	Tonnage		Grade		Contained		
	M tonnes	g/t Au	% Cu	g/t Ag	M oz Au	M lbs Cu	M oz Ag
M&I	186.9	0.360	0.122	2.192	2.163	502.66	13.20
Inferred	4.9	0.321	0.074	2.187	8.1	0.05	0.35



## ISKUT: EXPLORING FOR GOLD-COPPER PORPHYRIES SIMILAR TO DEEP KERR

- ▶ In 2020 completed a 9,000 m drill program to test the large intrusion system identified in the 2019 program
  - ▶ followed rigorous procedures to minimize risks of COVID-19
- ▶ Drilled across 750 m of strike and 800 m of vertical projection on coincident magnetic and IP anomalies below and west of the well-developed lithocap
- ▶ Similar magnetic and resistivity anomalies that led to the discovery of the Deep Kerr zone
- ▶ 2020 drill program provided further evidence for a large gold-copper porphyry system which may lie below drilling completed to date
- ▶ 2020 drilling encountered 32 meters at 0.62% copper and 158 meters at 0.16 g/T gold and 0.16% copper in zones believed to be outer portions of gold-copper porphyry
- ▶ 2022 Drill Program completed. Gold and copper found in all 10 holes drilled including discovery of a large, mineralized breccia zone below Bronson
- ▶ 2023 Drill Program underway to expand Bronson deposit and test for new porphyry gold-copper system as source of newly discovered breccia pipe
- ▶ Undertaking environmental work to ensure compliance and remediation programs to mitigate impact of historical mining activity



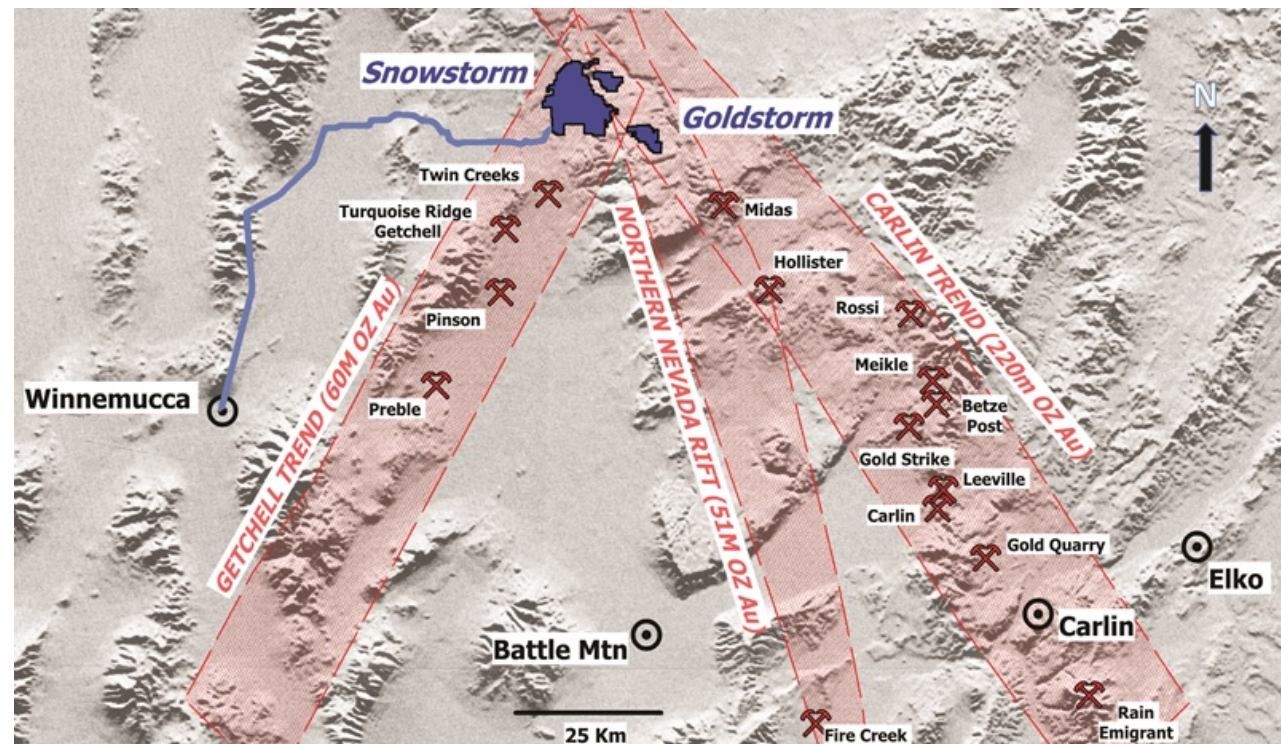
# SNOWSTORM PROJECT

Nevada, USA



## SNOWSTORM PROJECT (100% INTEREST)

- ▶ 102.8 km<sup>2</sup> property located in the northern Snowstorm Mountains in Humboldt and Elko counties, Nevada
  - ▶ Located in an established gold mining region with access to key regional infrastructure
- ▶ Sits on the intersection of three major Nevada gold belts where over 300M oz of gold has been discovered
  - ▶ Getchell, Carlin and the Northern Nevada Rift Zone
- ▶ Contiguous and on strike with several large producing gold mines
  - ▶ 6 km north of Nevada Gold Mine's (Barrick and Newmont JV) Twin Creeks mine and 15 km northwest of the Turquoise Ridge mine (combined 19.8M oz Au of resources and 25.8M oz of production through end of 2019)
- ▶ Geologic, geochem and geophysical data documents hydrothermal alteration zones and structural settings consistent with large Nevada gold deposits
  - ▶ During 2019 drill program, Seabridge encountered the same Ordovician carbonate stratigraphy that is characteristic of Getchell-style deposits
  - ▶ 2020 drill program confirmed the presence of gold in the system
  - ▶ 2021 drill program completed in Q1 2022 continues to confirm potential of Getchell-style deposits
  - ▶ \$3M 2023 fully-funded drill program now underway



**Large, early-stage property with potential for a major gold discovery**

# ALL THE RIGHT INGREDIENTS FOR A MAJOR DISCOVERY AT SNOWSTORM

- ▶ Best place to look for new deposits is in close proximity to existing mines
- ▶ 2023 program focuses on Twin Creeks and Turquoise Ridge type targets
- ▶ Challenging exploration (targets are deep under cover) with major discovery potential (patience is required)
- ▶ Seabridge's exploration team is well suited to explore this exciting project
  - ▶ Worked at Placer Dome during the initial drilling at Turquoise Hill



# 3 ACES PROJECT

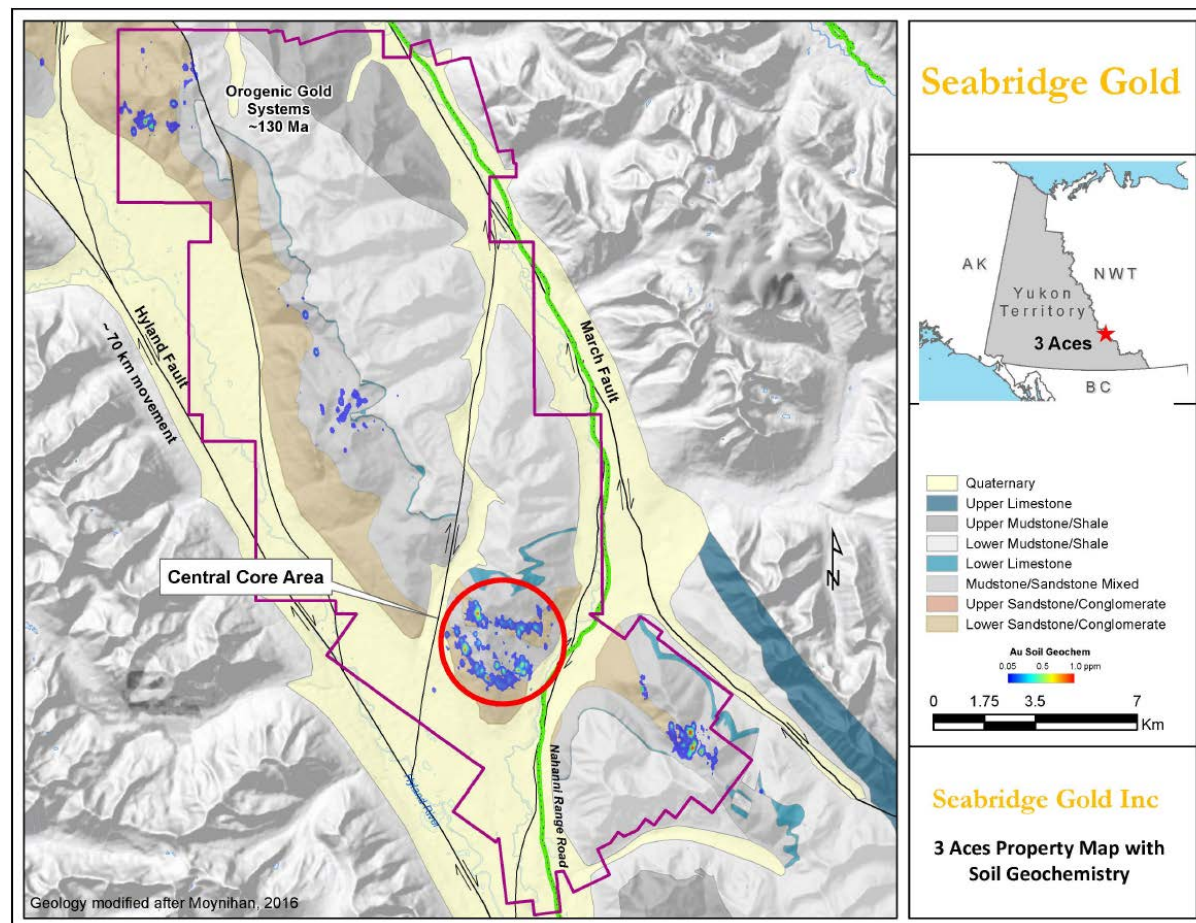
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Yukon Territory, Canada



## 3 ACES PROJECT (100% INTEREST)

- ▶ In May 2020, Seabridge acquired 100% of the 3 Aces Project in the Yukon from Golden Predator Mining
  - ▶ Upfront payment of 300K shares and a 0.5% NSR royalty
  - ▶ Conditional future cash payments of C\$1.0M on discovery of 2.5M oz Au, plus a further C\$1.25M on finding an additional 2.5M oz Au
- ▶ 314 km<sup>2</sup> property located in southwestern Yukon Territory with year-round access
  - ▶ Accessible by road through Yukon Highway 10
  - ▶ Includes 25-person exploration camp
- ▶ District-scale, orogenic gold project with many sizable, near surface, high-grade gold zones identified
- ▶ High-grade gold showings over entire 35 km strike length of property
- ▶ Building working relationship with First Nations
- ▶ Geophysics and surface mapping/sampling program completed in 2021
- ▶ New Class 4 Permit received September 9, 2022
- ▶ \$7 million fully-funded 2023 drill program now underway



**Rare combination of high-grades plus district-scale**

## POTENTIAL HIGH-GRADE, BULK-MINEABLE GOLD DEPOSIT AT 3 ACES

- ▶ Geological setting similar to some of the world's largest and richest gold deposits
  - ▶ Located on the eastern margin of the Selwyn Basin (host to several enormous base metal deposits)
  - ▶ Polyphase fold and fault systems overprint the stratigraphy, creating ideal traps for gold-bearing fluids in quartz veins
- ▶ 300 holes drilled in the Central Core Area, with 37% intersecting +5 g/t Au and 27% with +8 g/t Au
- ▶ Halo of lower grade zones exists outside of high-grade gold zones
- ▶ Bulk sampling programs recovered 86% to 95% of gold in gravity circuit
- ▶ 2022 drill program completed at the Hearts and Hearts West Zone with results confirming geologic model
- ▶ \$7M 2023 drill program underway to test Spades, Hearts and Clubs zones

Hole ID	DH Type	From (m)	To (m)	Intercept (m)	Gold (g/t)
<i>Spades High-Grade Zone</i>					
3A16-032	RC	16.76	27.43	10.67	32.86
3A16-042	RC	17.53	24.38	6.85	25.61
3A16-044	RC	17.53	35.05	17.52	3.65
3A17-100	RC	19.05	25.91	6.86	20.15
3A17-124	RC	6.10	10.67	4.57	58.75
3A17-132	DD	20.00	33.30	13.30	6.69
3A17-127	RC	12.95	19.05	6.10	22.30
3A17-133	DD	23.80	40.00	16.80	20.50
and	DD	57.50	65.00	7.50	13.92
3A17-138	DD	7.50	15.50	8.00	50.40
3A17-157	DD	19.00	23.20	4.20	20.04
3A17-208	RC	0.76	5.33	4.57	81.35
3A17-209	RC	2.29	23.62	21.33	18.33
3A17-211	RC	1.52	9.91	8.39	14.05
3A17-218	RC	5.33	18.29	12.96	14.19
3A17-220	RC	1.52	15.24	13.72	43.02
3A17-224	RC	1.52	11.43	9.91	21.81
3A17-238	RC	0.76	9.91	9.15	41.03
<i>Hearts Zone</i>					
3A16-048	RC	96.01	104.49	8.38	6.39
3A16-054	RC	38.86	58.67	19.81	4.76
3A16-055	RC	51.05	60.20	9.15	9.37
3A16-082	DD	42.67	60.96	18.29	16.75
3A16-084	DD	103.98	115.82	11.84	1.72
3A16-085	RC	86.87	96.01	9.14	8.65
3A17-203	RC	10.67	30.48	19.81	3.32
<i>Other occurrences</i>					
3A17-143	DD	12.70	32.00	19.30	16.15
3A17-144	RC	5.33	52.58	47.25	1.11
3A17-147	DD	13.00	15.50	2.50	15.51
and	DD	18.50	22.00	3.50	21.44
3A17-275	RC	40.39	48.77	8.38	5.24
3A18-335	DD	16.20	33.06	16.86	1.35
3A17-175	RC	32.00	33.53	1.53	36.33



## WHY INVEST IN SEABRIDGE



**UNPARALLELED LEVERAGE IN EMERGING GOLD AND COPPER BULL MARKETS**



**OWNERSHIP OF THE LARGEST UNDEVELOPED GOLD/COPPER PROJECT IN THE WORLD**



**UPSIDE FROM LARGE NORTH AMERICAN EXPLORATION PROJECT PORTFOLIO**



**ADDITION OF EAST MITCHELL (FKA SNOWFIELD) SIGNIFICANTLY IMPROVES KSM ECONOMICS**



**KSM JV AGREEMENT WITH MAJOR MINING COMPANY EXPECTED TO UNLOCK VALUE**



**EXCELLENT RECORD OF CREATING SHAREHOLDER VALUE WITH MINIMAL SHARE DILUTION**

## PROVEN MANAGEMENT TEAM

<b>Rudi Fronk</b> CHAIRMAN AND CEO	<ul style="list-style-type: none"> <li>Over 35 years of experience in the gold industry, primarily as a senior officer and director of publicly traded companies</li> <li>In 1999, co-founded Seabridge and has acted as CEO since that time</li> <li>Bachelor of Science in Mining Engineering and a Master of Science in Mineral Economics from Columbia University</li> </ul>	<b>Chris Reynolds</b> VP, FINANCE AND CFO	<ul style="list-style-type: none"> <li>Over 30 years of mining industry and public accounting experience. Previously served as VP, Finance and CFO of Norsemont Mining Inc. and held various finance and accounting positions at SouthernEra Diamonds Inc., Southern Platinum Corp., TVX Gold Inc., Inmet Mining Corporation and PricewaterhouseCoopers</li> <li>CPA and holds a Bachelor of Arts degree in Economics at McGill University</li> </ul>
<b>Bill Threlkeld</b> SENIOR VP, EXPLORATION	<ul style="list-style-type: none"> <li>Over 35 years of exploration experience, including 19 years at Seabridge where he has designed and executed exploration programs that have defined more than 45 million ounces of M&amp;I gold resource</li> <li>Previously served as VP and Exploration Manager at Placer Dome and led the discovery and delineation of the Las Cristinas (Venezuela, 9.7M oz Au) Cerro Crucitas (Costa Rica, 2.3M oz Au) and Mulatos (Mexico, 2.0M oz Au) deposits</li> <li>MSc in Economic Geology from the University of Western Ontario and BSc in Geology from Colorado State University</li> </ul>	<b>Bruce Scott</b> SENIOR VP, GENERAL COUNSEL AND CORPORATE SECRETARY	<ul style="list-style-type: none"> <li>Has practiced law in the areas of corporate finance and securities, corporate and mining since 1993 and has been counsel to Seabridge since 1999</li> <li>Partner at DuMoulin Black LLP from 1998 to 2011 and prior to that worked in a full-service Vancouver-based law firm that is part of Borden Ladner Gervais LLP</li> <li>LL.B. from University of Toronto and B.A. (hons) in Economics from Western University</li> </ul>
<b>Ryan Hoel</b> SENIOR VP, CHIEF OPERATING OFFICER	<ul style="list-style-type: none"> <li>More than 25 years of experience in large-scale project management, development, and operations with companies including Rio Tinto, Lundin Mining, New Gold, Arizona Mining, and South32</li> <li>Bachelor of Science in Mining Engineering from the South Dakota School of Mines and Technology, an MBA from Westminster Gore School of Business, and is a registered Professional Engineer</li> </ul>	<b>Elizabeth Miller</b> VP, ENVIRONMENT AND SOCIAL RESPONSIBILITY	<ul style="list-style-type: none"> <li>20 years of experience as a Biologist and Environmental Specialist in BC and Canada's north</li> <li>Responsible for the environmental, social, regulatory programs and indigenous affairs</li> </ul>
<b>Melanie Miller</b> VP, CHIEF SUSTAINABILITY OFFICER	<ul style="list-style-type: none"> <li>Executive with over 20 years of success leading business and supply chain innovation for Fortune 500 organizations</li> <li>Two undergraduate degrees from Miami University of Ohio and has pursued graduate education at both University of Chicago and Harvard</li> <li>Comprehensive experience increasing company performance and profitability through supply chain leadership, strategic planning and analysis, and organizational management.</li> </ul>	<b>Tracey Meintjes</b> VP, ENGINEERING STUDIES	<ul style="list-style-type: none"> <li>25 years of experience in mining project development in North America, South America, Europe and Africa.</li> <li>Recent practice as a consultant followed a career with Anglo American, Anglo Gold, Rio Tinto and Teck</li> <li>Registered Professional Engineer</li> </ul>
<b>Peter Williams</b> SENIOR VP, TECHNICAL SERVICES	<ul style="list-style-type: none"> <li>Over 37 years of experience in mine engineering, design, strategic analysis and start-ups</li> <li>Responsible for managing the engineering of Seabridge's two main projects (KSM and Courageous Lake)</li> <li>Formerly a group executive of Mine Engineering at Newmont Mining Corporation</li> </ul>	<b>Julie Rachynski</b> VP, HUMAN RESOURCES	<ul style="list-style-type: none"> <li>25 years of experience in human resources in the resource industry at site and at corporate levels, including mining, pulp and paper, wood products, and timberlands</li> <li>Bachelor of Business Administration with Human Resource Major from Simon Fraser University - registered Human Resources Professional in British Columbia and the Yukon</li> </ul>
<b>Brent Murphy</b> SENIOR VP, ENVIRONMENTAL AFFAIRS	<ul style="list-style-type: none"> <li>Over 30 years of experience, responsible for developing and managing Seabridge's environmental programs and community engagement strategies</li> <li>Instrumental in leading the technical and social teams that obtained the federal and provincial environmental assessment approvals for KSM in 2014 following a 7-year review process</li> <li>Former Chief Environmental Officer for the EKATI Diamond Mine and the Environmental Manager for NovaGold (Alaska) . Exploration geologist who holds a M.Sc. In Geology from Acadia University</li> </ul>		

## EXPERIENCED BOARD OF DIRECTORS

### Rudi Fronk

EXECUTIVE CHAIRMAN AND CEO

- Over 35 years of experience in the gold industry, primarily as a senior officer and director of publicly traded companies
- In 1999, co-founded Seabridge and has acted as CEO since that time
- Bachelor of Science in Mining Engineering and a Master of Science in Mineral Economics from Columbia University

### Trace Arlaud

DIRECTOR

- Over 28 years of experience in mining, geology, geotechnical engineering, mining engineering and project management
- Served as Chief Engineer at PT Freeport in Indonesia and held engineering roles at WMC Resources Ltd. and Normandy Ltd. both of Australia
- Masters of Mining Engineering from the University of Ballarat and an BSc with Honours from La Trobe University

### Matthew Coon Come

DIRECTOR

- Former Grand Chief of the Grand Council of the Crees
- Founding Member of the Board of Compensation of the Cree Nation and founding director of the First Nations Bank of Canada
- Director of Labrador Iron Mines Holdings Limited, and former director of Goldcorp Inc. and Newmont Corporation
- Invested into the Order of Canada for his contribution to the nation

### Eliseo Gonzalez-Urien

DIRECTOR

- With over 30 years of experience, Mr. Gonzalez-Urien is one of the most highly regarded exploration geologists in the mining industry
- From 1989 – 2001, held various executive positions with Placer Dome Inc. including Senior Vice President of the parent company & President of Placer Dome Exploration Inc.
- Degree in Geology from the University of Santiago, Chile, followed by post graduate studies in Geology at the University of California, Berkeley

### Jay Layman

DIRECTOR

- Former COO of Seabridge Gold designing and managing the technical programs for KSM and Courageous Lake
- Former VP Solutions and Innovations at Newmont Mining Corporation
- Current Director of Star Royalties
- Bachelors Degrees in Mechanical Engineering and Finance from Washington State University and an MBA from Eastern Washington University

### Melanie Miller

DIRECTOR, CHIEF SUSTAINABILITY OFFICER

- Executive with over 20 years of success leading business and supply chain innovation for Fortune 500 organizations
- Two undergraduate degrees from Miami University of Ohio and has pursued graduate education at both University of Chicago and Harvard

## BOARD OF DIRECTORS - CONTINUED

### Clement Pelletier

DIRECTOR

- Process chemist/metallurgist by training with 14 years in industry and 36 years in resource-related environmental consulting
- In 1981, founded the Rescan Group, a industry-leading mining/mineral processing engineering & environmental consulting firm
- Managed large Environmental Impact Studies & permitting for major projects: the KSM Project, the Jansen Potash Project, Goro Nickel, the Voisey's Bay Nickel Project, Escondida, the Ekati Diamond Mine and others

### Julie Richardson

DIRECTOR

- A Certified Public Accountant having worked at PWC, Nortel and Barrick Gold
- Former VP Finance & Capital markets at Centerra Gold Corp. and current Chief Financial Officer of Marathon Gold Corp.
- Former Director and Chair of the Audit & Risk management committee of Quebec Precious Metals Corp. and former Chair of CPA Canada's Mining Industry Task Force on IFRS
- Holds a Bachelor of Arts (BA), Accounting and Finance from the University of Western Ontario and a Diploma of Accounting and Finance from Wilfrid Laurier University

### John Sabine

DIRECTOR

- Seasoned lawyer practicing in Toronto with extensive experience in mining, corporate reorganization, securities, financing, and M&A
- Former director and CEO of Arbor Memorial Services Inc and was non-executive Chair of Anvil Mining Limited and of North American Nickel Inc.

### Gary Sugar

DIRECTOR

- Well-known former mining investment banker with 32 years at RBC Capital Markets, including 24 years as a Managing Director
- Holds a BSc in Geology and an MBA, both from the University of Toronto

### Carol Willson

DIRECTOR

- Over 28 years of experience in risk assurance and advisory consulting with Ernst & Young LLP (EY)
- Runs own consulting business with her last 15 years focusing on the mining and metals sector as well as leading corporate governance, enterprise risk management, internal controls and internal audit consulting work
- Holds an MBA (Accounting) from the University of Toronto, risk and fraud certifications and a Directors designation (ICD.D) from the Institute of Corporate Directors

# SEABRIDGE GOLD

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