



Northern Dynasty Minerals Ltd



THE PEBBLE PROJECT



HELPING TO SECURE AMERICA'S **GREEN FUTURE**

OCTOBER 2022



TSX: **NDM**
NYSE AMERICAN: **NAK**



CAUTIONARY & FORWARD LOOKING INFORMATION

PLEASE REVIEW CAREFULLY

All statements of Northern Dynasty Minerals Ltd. ("NDM") in this presentation, other than statements of historical facts, that address the permitting, development and production for the Pebble Project and the ability of the Company to successfully complete the full financing transaction (the "Royalty Financing") are forward-looking statements. These include statements regarding (i) the timing of the appeal process and the ability to successfully appeal the negative Record of Decision and secure the issuance of a positive Record of Decision by the USACE, (ii) the political and public support for the permitting process, (iii) the ability of the Pebble Project to ultimately secure all required federal and state permits, (iv) future metals prices, including the price of copper, (v) the right-sizing and de-risking of the Pebble Project, (vi) the design and operating parameters for the Pebble Project mine plan, including projected capital and operating costs, (vii) exploration potential of the Pebble Project, (viii) future demand for copper and gold, (ix) the potential addition of partners in the Pebble Project, (x) if permitting is ultimately secured, the ability to demonstrate that the Pebble Project is commercially viable, (xi) the EPA's Proposed Determination process under the CWA and the impact of this process on the ability of the Pebble Partnership to develop the Pebble Project, and (xii) the ability and timetable of NDM to develop the Pebble Project and (iv) the successful completion of the full Royalty Financing. Although NDM believes the expectations expressed in these forward-looking statements are based on reasonable assumptions, such statements should not be in any way be construed as guarantees that the Pebble Project will secure all required government permits, establish the commercial feasibility of the Pebble Project, achieve the required financing or develop the Pebble Project.

Forward-looking statements are necessarily based upon a number of factors and assumptions that, while considered reasonable by NDM as of the date of such statements, are inherently subject to significant business, economic and competitive uncertainties and contingencies. Assumptions used by NDM to develop forward-looking statements include the following assumptions, all of which are subject to risks (i) the Pebble Project will ultimately obtain all required environmental and other permits and all land use and other licenses, (ii) any feasibility studies prepared for the development of the Pebble Project will be positive, (iii) NDM's estimates of mineral resources will not change, and NDM will be successful in converting mineral resources to mineral reserves, (iv) NDM will be able to establish the commercial feasibility of the Pebble Project, (v) NDM will be able to secure the financing required to develop the Pebble Project, including the Royalty Financing, and (vi) any action taken by the EPA in connection with the Proposed Determination will ultimately not be successfully in restricting or prohibiting development of the Pebble Project. The likelihood of future mining at the Pebble Project is subject to a large number of risks and will require achievement of a number of technical, economic and legal objectives, including (i) obtaining necessary mining and construction permits, licenses and approvals without undue delay, including without delay due to third party opposition or changes in government policies, (ii) finalization of the mine plan for the Pebble Project, (iii) the completion of feasibility studies demonstrating that any Pebble Project mineral resources that can be economically mined, (iv) completion of all necessary engineering for mining and processing facilities, (v) the ability of NDM to secure a partner for the development of the Pebble Project, and (vi) receipt by NDM of significant additional financing, including the Royalty Financing, to fund these objectives as well as funding mine construction, which financing may not be available to NDM on acceptable terms or on any terms at all. NDM is also subject to the specific risks inherent in the mining business as well as general economic and business conditions, such as the current uncertainties with regard to COVID-19. Investors should also consider the risk factors identified in its Annual Information Form for the year ended December 31, 2020, as filed on SEDAR and included in the Company's annual report on Form 40-F filed by the Company with the SEC on EDGAR, and the Company's Management Discussion and Analysis for the six months ended June 30, 2022, as filed on SEDAR and EDGAR, for a discussion of the risks that may impact our forward-looking statements.

The National Environment Policy Act Environmental Impact Statement process requires a comprehensive "alternatives assessment" be undertaken to consider a broad range of development alternatives, the final project design and operating parameters for the Pebble Project and associated infrastructure may vary significantly from that currently contemplated.

For more information on the Company, Investors should review the Company's filings with the United States Securities and Exchange Commission at www.sec.gov and its home jurisdiction filings that are available at www.sedar.com.

This presentation also uses the terms "Measured Resources", "Indicated Resources" and "Inferred Resources". The Company advises investors that these terms are recognized and required by Canadian regulations (National Instrument 43-101, Standards of Disclosure for Mineral Properties). The SEC has adopted amendments to its disclosure rules to modernize the mineral property disclosure required for issuers whose securities are registered with the SEC under the U.S. Exchange Act ("The SEC Modernization Rules"). The SEC Modernization Rules include the adoption of definitions of the terms and categories of resources which are "substantially similar" to the corresponding terms under 43-101. Accordingly, there is no assurance any mineral resources that we may report as Measured Resources, Indicated Resources and Inferred Resources under 43-101 would be the same had we prepared the resource estimates under the standards adopted under the SEC Modernization Rules. Investors are cautioned not to assume that all or any part of the mineral deposits in these categories will ever be converted into reserves or be proven to be legally and economically mineable. In addition, Inferred Resources have a great amount of uncertainty as to their economic and legal feasibility. Under Canadian rules, estimates of Inferred Resources may not form the basis of feasibility or pre-feasibility studies, or economic studies except for a Preliminary Economic Assessment as defined under 43-101.

The 2021 PEA is preliminary in nature, and includes Inferred mineral resources that are considered too speculative geologically to have economic considerations applied to them that would enable them to be categorized as mineral reserves. There is no assurance that the 2021 PEA will be realized. Mineral Resources that are not mineral reserves do not have demonstrated economic viability. Neither the 2021 PEA, nor the mineral resource estimates on which the 2021 PEA is based, have been adjusted for any risk that the Pebble Partnership may not be able to successfully appeal the record of decision issued by the USACE on November 25, 2020 denying the granting of the required permit under the Clean Water Act. The 2021 PEA further does not account for the impact of the prepayment sale of a portion of our gold and silver production from the Pebble Project under the Royalty Agreement.

The technical information contained in this presentation has been reviewed and approved by qualified persons who are not independent of NDM. Information on Mineral Resources was reviewed by David Gaunt, PGeo., and engineering by Stephen Hodgson, PEng.



COPPER IS AN ESSENTIAL METAL FOR THE GREEN ECONOMY¹

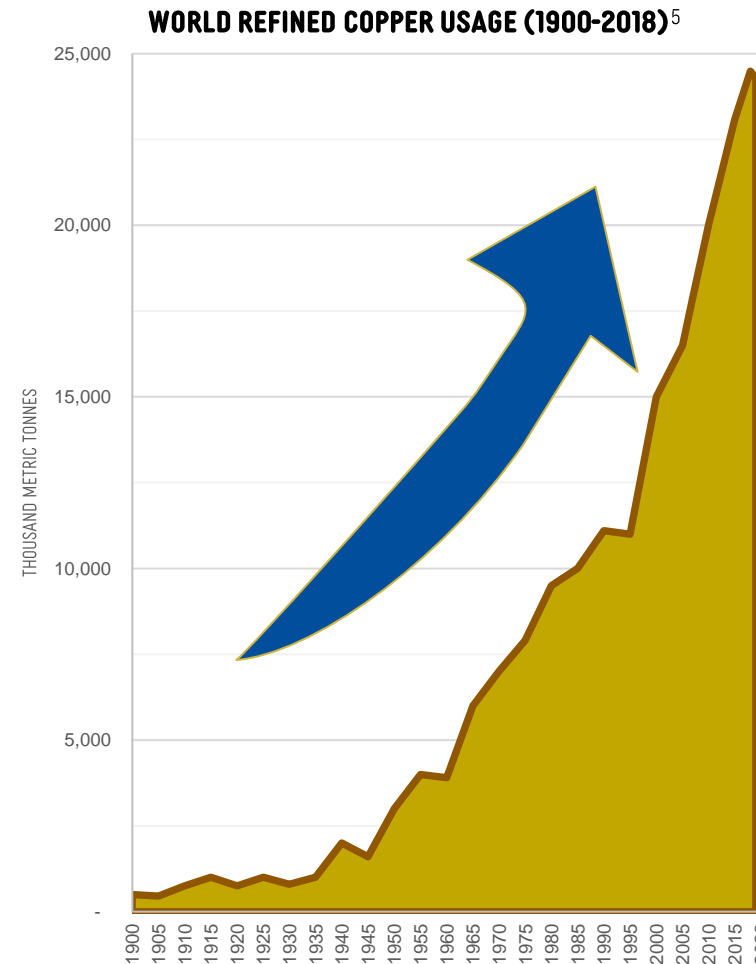
Copper is a strategic metal for renewable energy systems due to its properties:

- Electrical Conductivity increases efficiency
- Thermal Management allows rapid heating and cooling
- Durability withstands pressure and extreme temperatures
- Anti-Corrosive maintains integrity
- Versatile processed for numerous industries & products

Global shift to green technologies expected to increase consumption >40% by 2035 & more than 100% by 2050²

- Renewable power systems up to twelve times more copper-intensive than conventional power systems
- Average electric vehicle (EV) contains triple the copper of an internal combustion car

Global focus on carbon neutrality driving copper demand from ~23 million tons in 2020 to >30 million tons by 2030, potentially doubling by 2050³

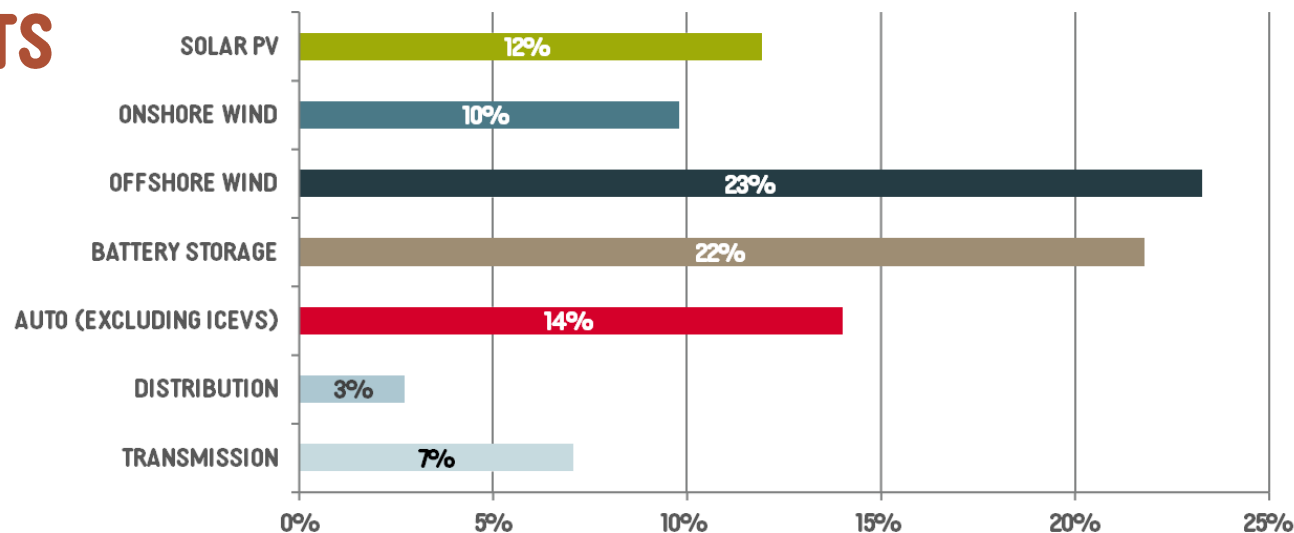


1. Source: <https://copperalliance.org/about-copper/the-copper-industry/>
 2. Source: <https://stockhead.com.au/resources/glencore-has-some-stunning-figures-on-the-levels-of-battery-metals-the-world-will-need-by-2050/>
 3. Source: <https://stockhead.com.au/resources/glencore-has-some-stunning-figures-on-the-levels-of-battery-metals-the-world-will-need-by-2050/>
 4. Source: CRU Presentation/Study Groups

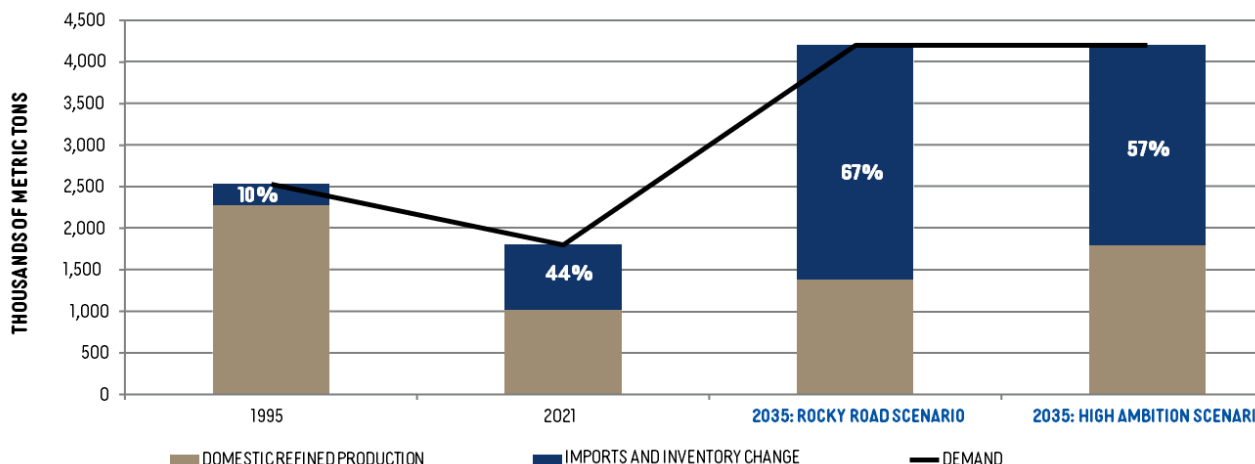


COPPER DEMAND GROWTH BY TECHNOLOGY & GROWING U.S. RELIANCE ON COPPER IMPORTS

GROSS COPPER DEMAND COMPOUND ANNUAL GROWTH RATE FOR KEY ENERGY TRANSITION APPLICATIONS (2021-35)



US COPPER SUPPLY, DEMAND, AND RELIANCE ON IMPORTS



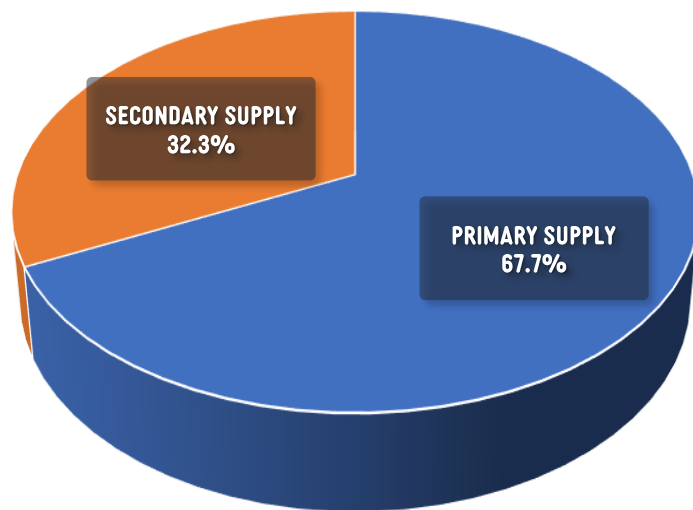
Source: S&P GLOBAL (2022)
The Future of Copper Will the looming supply gap short-circuit the energy transition?



RECYCLING CANNOT FILL SUPPLY GAP

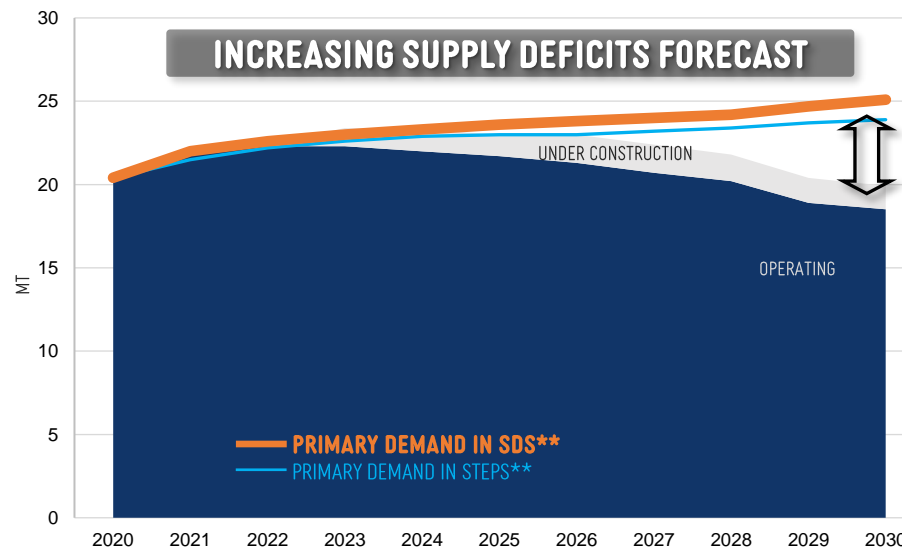
- The low-carbon, sustainable economy—with additional renewables and electric vehicles, greater energy efficiency and electrification—will require a nearly endless supply of metals, both from responsible mining and recycling¹
- Even a 100 percent end-of-life recycling rate for metals would not be enough to meet the growing demand for clean energy technologies¹
- Global manufacturers (from 2006 to 2015) used 25 million tonnes of copper, 35% of which was recycled copper².
 - Currently, a total of around 8.5 million tonnes of copper per year come from the recycling of “old” scrap (copper contained in end-of-life products) and “new” scrap (generated during production and downstream manufacturing processes)

ESTIMATED PRIMARY SUPPLY REQUIREMENTS FOR COPPER IN 2040³



COMMITTED MINE PRODUCTION AND PRIMARY DEMAND FOR COPPER⁴

(PRIMARY DEMAND IS TOTAL DEMAND NET OF RECYCLED VOLUME)



1. <https://copperalliance.org/policy-focus/society-economy/circular-economy/>
 2. <https://sn.astm.org/features/bright-future-recycled-copper/j22.html>
 3. IEA, Primary supply requirements for copper by scenario, 2020-2040, IEA, Paris <https://www.iea.org/data-and-statistics/charts/primary-supply-requirements-for-copper-by-scenario-2020-2040>
 4. IEA, Committed mine production and primary demand for copper, 2020-2030, IEA, Paris (May 2021)

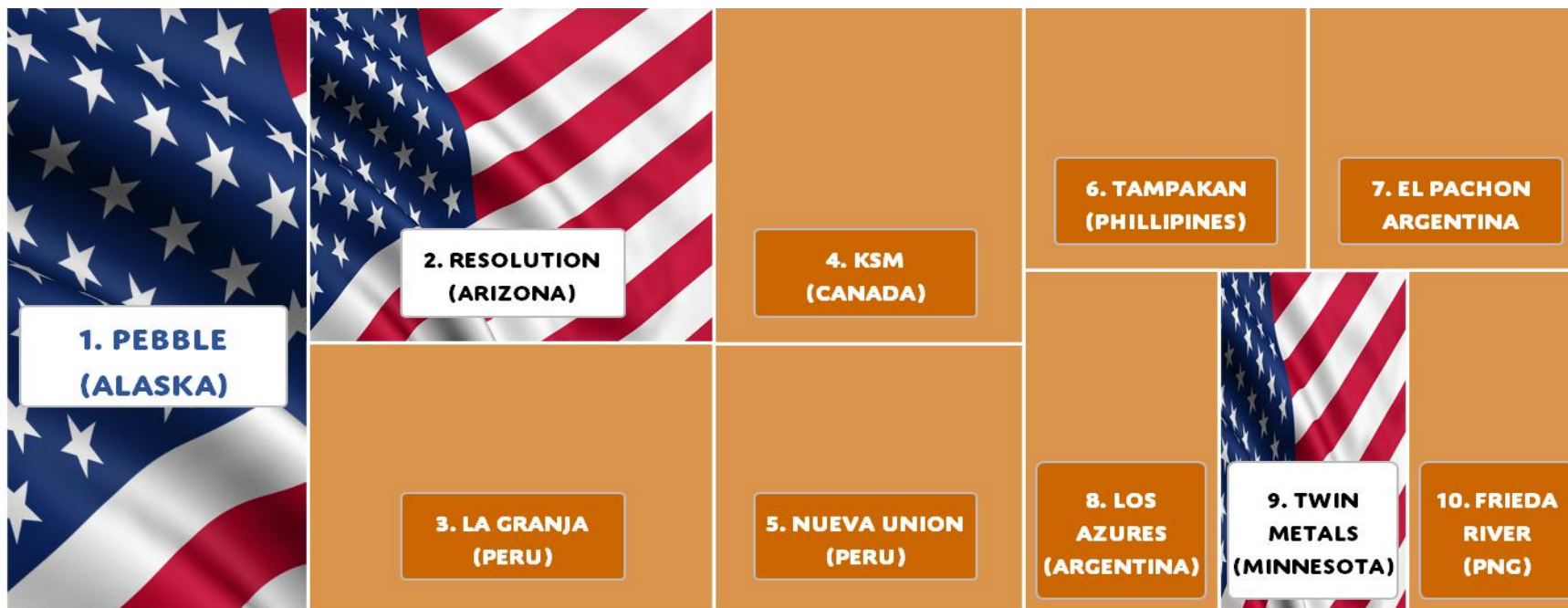
* IEA's Stated Policies Scenario (STEPS) and the Sustainable Development Scenario (SDS)
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WHERE WILL THE U.S. GET ITS COPPER?

- World's top copper projects predominantly located outside of the U.S
 - 60% of contained copper in top copper projects is foreign based; 40% "held-up" in U.S. permitting
- Pebble ranks as the largest undeveloped copper project globally
 - 37% of contained copper of top copper projects
 - 47% of contained copper of top U.S. located projects

COMPARATIVE SIZE OF WORLD'S TOP COPPER PROJECTS BY CONTAINED COPPER



Source: Mining Intelligence 2022



URGENT NEED FOR SIGNIFICANT COPPER PROJECTS¹

Erik Heimlich, head of base metals supply at CRU, noted the following while speaking at the 2022 CRU World Copper Conference held in Santiago, Chile

- “Miners need to invest over \$100 billion over the next 8 years to meet copper demand”
- “That means you have to build 8 projects the size of Escondida (the world’s largest copper mine owned by BHP) in the next 8 years”
- Projected annual deficit of 4.5 million tonnes by 2030; after 2030, it widens to 6Mt per year

S&P Global echoed similar comments in its widely-read report

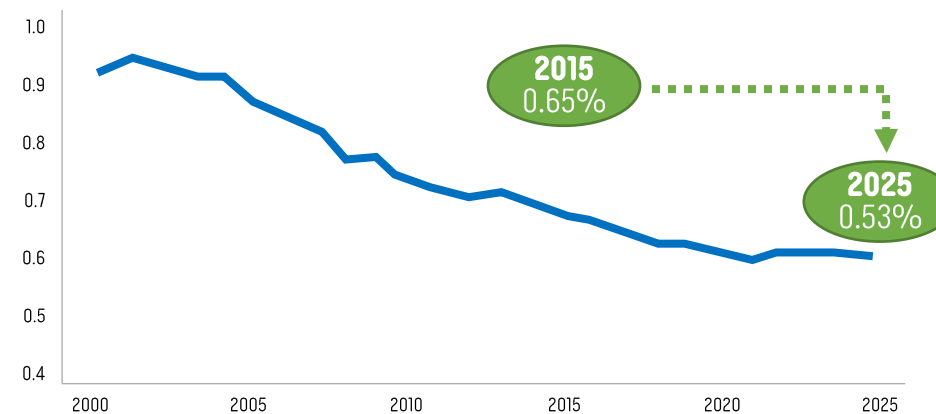
- “[i]n the 21st century, copper scarcity may emerge as a key destabilizing threat to international security.”

New expected supply is concentrated in 5 mines -

- Escondida
- Spence
- Quebrada Blanca
- Cobre Panama, and
- Kamo-a-Kakula

Of these 100% of Phase 1 production from Kamo-a-Kakula is contracted to China and 50% of Cobre Panama is contracted to South Korea.

AVERAGE COPPER ORE HEAD GRADES²



1. Source: <https://www.nextmine.com/uncategorized/8-escondidas-needed-over-the-next-eight-years/>
 2. Source: Energy & Capital



PEBBLE

A WORLD CLASS MINERAL RESOURCE

- RESOURCES**
- 6.5 B tonnes of Measured & Indicated
 - 4.5 B tonnes of Inferred

	MEASURED & INDICATED	INFERRED
COPPER	57 B LB	25 B LB
GOLD	71 M OZ	36 M OZ
MOLYBDENUM	3.4 B LB	2.2 B LB
SILVER	345 M OZ	170 M OZ
RHENIUM	2.6 M KG	1.6 M KG

* Refer to table of Measured, Indicated and Inferred Resources in Appendix



PEBBLE: GOOD FOR ALASKA¹

Alaska's ongoing fiscal crisis exacerbated by declining oil and gas investment, Covid-19, the current inflationary/slowing economic environment

Pebble represents:

- Capital investment and GDP growth
- Jobs and economic diversification
- Much needed government revenue
- New transportation and power infrastructure

Southwest Alaska/Bristol Bay region characterized by:

- High levels of unemployment and underemployment
- Decreasing population, outmigration and school closures
- Among America's highest cost of living

The ability of Pebble to produce copper at a low cash cost, and generate many millions in annual taxes and other government revenues in Alaska, while setting aside appropriate closure funding, could propel this region of Alaska into prosperity and opportunity.





- Regional residents can participate directly in the economic outcomes through the Pebble Performance Dividend ("PPD")²

		PROPOSED PROJECT	EXPANSION SCENARIOS ^{4,5}			
			YEAR 21	YEAR 10	YEAR 5	
ANNUAL TAXES³						
	ALASKA MINING LICENSE	\$M	34	81	92	93
	ALASKA ROYALTY	\$M	15	36	41	41
	ALASKA INCOME TAX	\$M	38	101	115	116
	BOROUGH SEVERANCE & TAX	\$M	25	43	48	47
LIFE OF MINE TAXES						
	ALASKA MINING LICENSE	\$B	0.69	8.16	8.34	8.32
	ALASKA ROYALTY	\$B	0.30	3.61	3.68	3.68
	ALASKA INCOME TAX	\$B	0.75	10.20	10.46	10.40
	BOROUGH SEVERANCE & TAX	\$B	0.49	4.34	4.33	4.34

1. All figures are in U.S. dollars unless otherwise stated
 2. See Northern Dynasty news release dated June 16, 2020
 3. Estimated based on current Alaskan statutes. Based on Economic Contribution Study see NDM February 28, 2022 news release
 4. Any of these scenarios could form the basis for future permit applications and review. Neither Northern Dynasty nor the Pebble Partnership has proposed or intends to propose any of these development alternatives to the Proposed Project in the near-term for regulatory approval. Each would require extensive federal, state and local permitting processes and approvals before proceeding. Scenarios based on 2021 Preliminary Economic Assessment see NDM October 25, 2021 news release.
 5. See Appendix for information on 2021 PEA



NDM SECURES INNOVATIVE ROYALTY AGREEMENT UP TO \$60 MILLION ON NON-CORE METALS






-  The Pebble Project requires time, patience and sufficient liquidity to successfully navigate the established permitting process and continue to develop the project working with federal, state and local stakeholders
-  NDM will receive up to \$60 million over the next two years, in return for the right to receive a portion of the future gold and silver production from the Pebble Project for the life of the mine
 - Initial payment of \$12 million was received upon execution; Royalty Agreement provides the right to purchase 2% gold for 1,500/oz and 6% silver for \$10/oz
 - Non-equity dilutive way of raising additional financing
-  The agreement potentially raises significant capital over the next two years in return for the right to buy a small portion of future, non-core gold and silver production from the Proposed Project, while keeping 100% of the copper production
-  Pebble's contained copper value is anticipated to increase significantly as the expected supply/demand imbalance leads to future copper price increases

NDM CONTINUES TO BUILD THE FINANCIAL WHEREWITHAL TO
ADVANCE PEBBLE THROUGH PERMITTING AND
KEEP FIGHTING AGAINST WHAT WE CONSIDER TO BE UNFOUNDED INTERFERENCE
BY U.S. FEDERAL GOVERNMENT AGENCIES IN AN
OTHERWISE WELL-ESTABLISHED, LEGAL PERMITTING PROCESS

Source: See Northern Dynasty news release dated July 27, 2022



PEBBLE IS WORKING ITS WAY THROUGH THE PERMITTING PROCESS

-  Permitting in the U.S. often involves litigation
-  Positive Federal E.I.S. received in Spring 2020
-  Negative ROD received in Fall 2020 contains questionable conclusions
-  **WE ARE APPEALING THE DECISION**
-  The EPA is currently pursuing a Revised Proposed Determination (veto) and has said they will make a decision by early December, 2022



THANK YOU



Northern Dynasty Minerals Ltd

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pebblepartnership.com
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COPPER:
A CRITICAL METAL
FOR THE U.S.
GREEN FUTURE

PEBBLE:
A U.S.-BASED
WORLD CLASS
RESOURCE

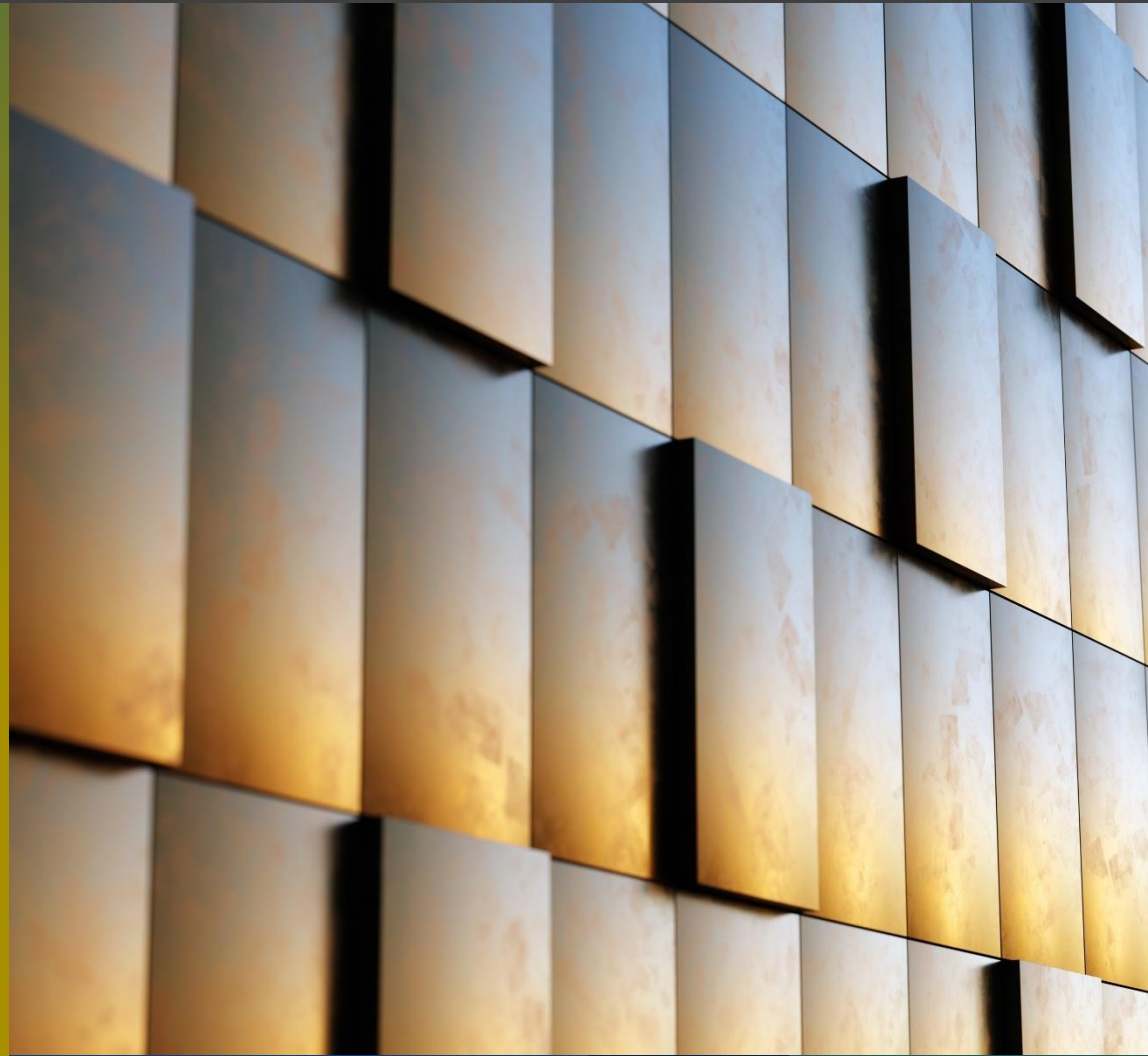
PEBBLE:
SIGNIFICANT
BENEFITS IN THE
PUBLIC INTEREST

PEBBLE:
A PATHWAY
FORWARD





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APPENDIX
...





PEBBLE RESOURCE ESTIMATE

6.5 BILLION TONNES MEASURED & INDICATED

4.5 BILLION TONNES INFERRED

August 2020

Category	Cutoff CuEQ %	CuEQ %	Million Tonnes	Cu (%)	Au (g/t)	Mo (ppm)	Ag (g/t)	Re (ppm)	Cu (B lbs)	Au (M oz)	Mo (B lbs)	Ag (M oz)	Re (Kkg)
Measured	0.3	0.65	527	0.33	0.35	178	1.7	0.32	3.83	5.93	0.21	28.1	167
	0.4	0.66	508	0.34	0.36	180	1.7	0.32	3.81	5.88	0.20	27.4	163
	0.6	0.77	279	0.40	0.42	203	1.8	0.36	2.46	3.77	0.12	16.5	100
	1.0	1.16	28	0.62	0.62	302	2.3	0.52	0.38	0.56	0.02	2.0	14
Indicated	0.3	0.77	5,929	0.41	0.34	246	1.7	0.41	53.58	64.81	3.21	316.4	2,443
	0.4	0.82	5,185	0.45	0.35	261	1.8	0.44	51.42	58.35	2.98	291.7	2,271
	0.6	0.99	3,455	0.55	0.41	299	2.0	0.51	41.88	45.54	2.27	221.1	1,748
	1.0	1.29	1,412	0.77	0.51	343	2.4	0.60	23.96	23.15	1.07	109.9	853
Measured + Indicated	0.3	0.76	6,456	0.40	0.34	240	1.7	0.41	56.92	70.57	3.42	344.6	2,615
	0.4	0.81	5,693	0.44	0.35	253	1.8	0.43	55.21	64.06	3.18	320.3	2,431
	0.6	0.97	3,734	0.54	0.41	291	2.0	0.50	44.44	49.22	2.40	237.7	1,848
	1.0	1.29	1,440	0.76	0.51	342	2.4	0.60	24.12	23.61	1.08	112.0	867
Inferred	0.3	0.55	4,454	0.25	0.25	226	1.2	0.36	24.54	35.80	2.22	170.4	1,603
	0.4	0.68	2,646	0.33	0.30	269	1.4	0.44	19.24	25.52	1.57	119.1	1,154
	0.6	0.89	1,314	0.48	0.37	292	1.8	0.51	13.90	15.63	0.85	75.6	673
	1.0	1.20	361	0.68	0.45	377	2.3	0.69	5.41	5.22	0.30	26.3	251

NOTES:

Mineral Resources that are not mineral reserves do not have demonstrated economic viability

David Gaunt, P.Geo., a qualified person as defined under 43-101 who is not independent of Northern Dynasty, is responsible for the estimate.

Copper equivalent (CuEQ) calculations use metal prices: US\$1.85/lb for Cu, US\$902/oz for Au and US\$12.50/lb for Mo, and recoveries: 85% Cu, 69.6% Au, and 77.8% Mo (Pebble West zone) and 89.3% Cu, 76.8% Au, 83.7% Mo (Pebble East zone).

Contained metal calculations are based on 100% recoveries. A 0.30% CuEQ cut-off is considered to be appropriate for porphyry deposit open pit mining operations in the Americas.

The mineral resource estimate is constrained by a conceptual pit shell that was developed using a Lerchs-Grossman algorithm and is based in the following parameters: 42 degree pit slope; metal prices and recoveries of US\$1,540.00/oz and 61% Au, US\$3.63/lb and 91% Cu, US\$20.00/oz and 67% Ag and US\$12.36/lb and 81% Mo, respectively; a mining cost of US\$1.01/ton with a US\$0.03/ton/bench increment and other costs (including processing, G&A and transport) of US\$6.74/ton.

All mineral resource estimates, cut-offs and metallurgical recoveries are subject to change as a consequence of more detailed analyses that would be required in pre-feasibility and feasibility studies. The mineral resource estimates contained herein have not been adjusted for any risk that the required environmental permits may not be obtained for the Pebble Project. The risk associated with the ability of the Pebble Project to obtain required environmental permits is a risk to the reasonable prospects for eventual economic extraction of the mineralisation and their classification as a mineral resource.



PEBBLE 2021 PEA PRODUCTION SUMMARY^{1,2,3}

		PROPOSED PROJECT	EXPANSION SCENARIOS		
			YEAR 21	YEAR 10	YEAR 5
MINERALIZED MATERIAL	B tons	1.3	8.6	8.6	8.6
COPPER EQUIVALENT ⁴	%	0.58	0.72	0.72	0.72
COPPER	%	0.29	0.39	0.39	0.39
GOLD	oz/ton	0.009	0.01	0.01	0.01
MOLYBDENUM	ppm	154	208	208	208
SILVER	oz/ton	0.042	0.047	0.046	0.046
RHENIUM	ppm	0.28	0.36	0.36	0.36
WASTE	B tons	0.2	14.4	14.4	14.4
OPEN PIT STRIP RATIO		0.12	1.67	1.67	1.67
OPEN PIT LIFE	Years	20	78	73	68
LIFE OF MINE⁵	Years	20	101	91	90
METAL PRODUCTION (LOM⁴)					
COPPER	M lb	6,400	60,400	60,400	60,400
GOLD (IN CU CONCENTRATE)	k oz	7,300	50,400	50,500	50,500
SILVER (IN CU CONCENTRATE)	k oz	37,000	267,000	267,000	267,000
GOLD (IN GRAVITY CONCENTRATE)	k oz	110	782	783	782
MOLYBDENUM	M lb	300	2,900	2,900	2,900
RHENIUM	k kg	200	2,000	2,000	2,000
METAL PRODUCTION (ANNUAL⁴)					
COPPER	M lb	320	600	660	670
COPPER CONCENTRATE	k tons	616	1,000	1,200	1,200
GOLD (IN CU CONCENTRATE)	k oz	363	500	560	560
SILVER (IN CU CONCENTRATE)	k oz	1,800	2,600	2,900	3,000
MOLYBDENUM	M lb	15	29	32	32
MOLYBDENUM CONCENTRATE	k tons	14	26	29	29
RHENIUM	k kg	12	20	22	22

1. All scenarios/alternatives include infrastructure outsourcing and gold streaming
2. Long-term metal prices: copper \$3.50/lb; gold \$1,600/oz; molybdenum \$10/lb; silver \$22/oz; rhenium \$1,500/kg
3. Any of these scenarios could form the basis for future permit applications and review. Neither Northern Dynasty nor the Pebble Partnership has proposed or intends to propose any of these development alternatives to the Proposed Project in the near-term for regulatory approval. Each would require extensive federal, state and local permitting processes and approvals before proceeding.
4. Copper equivalent (CuEq) calculations use metal prices: US\$1.85/lb for Cu, US\$902/oz for Au and US\$12.50/lb for Mo, and recoveries: 88% Cu, 75% Au, and 82% Mo
5. Life of mine volumes ÷ life of mine years



PEBBLE 2021 PEA

ROBUST FINANCIALS
WITH COMBINED GLOBALLY
SIGNIFICANT PRODUCTION &
EXCELLENT OPTIONALITY^{1,2,3,4}

IRR & NPV AT LONG TERM METALS PRICES

	IRR	NPV ₇
PROPOSED PROJECT:	15.7%	\$2.3B
EXPANSION SCENARIOS		
5 YEARS:	21.5%	\$8.5B
10 YEARS:	19.5%	\$7.3B
21 YEARS:	18.1%	\$5.7B

ANNUAL & LOM COPPER PRODUCTION (M lb)

	ANNUAL	LOM
PROPOSED PROJECT:	320	6.4B
EXPANSION SCENARIOS		
5 YEARS:	670	60,400
10 YEARS:	660	60,400
21 YEARS:	600	60,400

ANNUAL & LOM GOLD PRODUCTION (k oz)⁵

	ANNUAL	LOM
PROPOSED PROJECT:	363	7,300
EXPANSION SCENARIOS		
5 YEARS:	560	50,500
10 YEARS:	560	50,500
21 YEARS:	500	50,400

AVERAGE CASH COST

	AVG. CO PRODUCT		AVG. BY-PRODUCT	
	C1 Cu (Lb CuEq)	Au (oz)	C1 Cu (Lb)	Au (oz)
PROPOSED PROJECT:	\$1.65	\$753	\$0.69	(\$1,148)
EXPANSION SCENARIOS				
5 YEARS:	\$1.54	\$702	\$0.53	(\$2,014)
10 YEARS:	\$1.53	\$699	\$0.53	(\$2,024)
21 YEARS:	\$1.56	\$712	\$0.56	(\$1,979)

AVERAGE NSR & LOM NSR (\$M)

	AVG	LOM
PROPOSED PROJECT:	\$1,600	\$32,000
EXPANSION SCENARIOS		
5 YEARS:	\$3,200	\$285,000
10 YEARS:	\$3,100	\$285,000
21 YEARS:	\$2,800	\$285,000

1. Any of these scenarios could form the basis for future permit applications and review. Neither Northern Dynasty nor the Pebble Partnership has proposed or intends to propose any of these development alternatives to the Proposed Project in the near-term for regulatory approval. Each would require extensive federal, state and local permitting processes and approvals before proceeding.
 2. All figures are in U.S. dollars unless otherwise stated & all financial results are post-tax
 3. Long-term metal prices: copper \$3.50/lb; gold \$1,600/oz; molybdenum \$10/lb; silver \$22/oz; rhenium \$1,500/kg
 4. Excludes secondary gold plant. 5. Excludes gravity gold concentrate



PEBBLE PROPOSED PROJECT^{1,2,7}

- 20 years of open pit mining at a processing rate of 180,000 Tpd
- At forecast long-term³ metal prices
 - Internal Rate of Return (“IRR”) of 15.8%
 - Net Present Value at 7% discount rate of (“NPV₇”) of \$2.3 billion
- Estimated Capital of \$6.0B⁴

PROPOSED PROJECT - IRR SENSITIVITY TO METAL PRICE CHANGES (%)

		COPPER PRICE (\$ /LB)				
		3.00	3.25	3.50	3.75	4.00
GOLD PRICE (\$ /OZ)	1,200	8.9%	10.5%	12.1%	13.6%	15.0%
	1,400	10.6%	12.3%	13.8%	15.3%	16.7%
	1,600	12.5%	14.1%	15.7%	17.1%	18.5%
	1,800	14.4%	16.1%	17.6%	19.1%	20.5%
	2,000	16.5%	18.2%	19.7%	21.2%	22.6%

PROPOSED PROJECT - NPV₇ SENSITIVITY TO METAL PRICE CHANGES (\$B)

		COPPER PRICE (\$ /LB)				
		3.00	3.25	3.50	3.75	4.00
GOLD PRICE (\$ /OZ)	1,200	0.5	1.0	1.4	1.9	2.3
	1,400	0.9	1.4	1.9	2.3	2.8
	1,600	1.4	1.8	2.3	2.7	3.2
	1,800	1.8	2.3	2.7	3.1	3.6
	2,000	2.2	2.7	3.1	3.6	4.0

		PROPOSED PROJECT
MINERALIZED MATERIAL	B tons	1.3
COPPER EQUIVALENT ⁵	%	0.57
COPPER	%	0.29
GOLD	oz/ton	0.009
MOLYBDENUM	ppm	154
SILVER	oz/ton	0.042
RHENIUM	ppm	0.28
WASTE	B tons	0.2
OPEN PIT STRIP RATIO		0.12
OPEN PIT LIFE	Years	20
LIFE OF MINE	Years	20
METAL PRODUCTION (LOM⁶)		
COPPER	M lb	6,400
GOLD (IN CU CONCENTRATE)	k oz	7,300
SILVER (IN CU CONCENTRATE)	k oz	37,000
GOLD (IN GRAVITY CONCENTRATE)	k oz	110
MOLYBDENUM	M lb	300
RHENIUM	k kg	200
METAL PRODUCTION (ANNUAL⁶)		
COPPER	M lb	320
COPPER CONCENTRATE	k tons	616
GOLD (IN CU CONCENTRATE)	k oz	363
SILVER (IN CU CONCENTRATE)	k oz	1,800
MOLYBDENUM	M lb	15
MOLYBDENUM CONCENTRATE	k tons	14
RHENIUM	k kg	12

1. All scenarios/alternatives include infrastructure outsourcing and gold streaming
 2. All figures are in U.S. dollars unless otherwise stated & all financial results are post-tax
 3. Long-term metal prices: copper \$3.50/lb; gold \$1,600/oz; molybdenum \$10/lb; silver \$22/oz; rhenium \$1,500/kg
 4. Includes \$1.68 billion in estimated costs for transportation infrastructure and power supply, which are expected to be outsourced

5. Copper equivalent (CuEq) calculations use metal prices: US\$1.85/lb for Cu, US\$902/oz for Au and US\$12.50/lb for Mo, and recoveries: 88% Cu, 75% Au, and 82% Mo
 6. Life of mine volumes ÷ life of mine years
 7. The financial results incorporate reductions in capital cost due to infrastructure outsourcing (\$1.6 billion) and precious metals streaming (\$1.1 billion).