





RAW MATERIALS SUMMIT

EUROPE'S LEADING RAW MATERIALS EVENT 14 - 16 MAY 2024 | BRUSSELS



"Securing high-quality long term molybdenum supply for the EU Green Deal from a responsible EU associate source"



www.greenlandresources.ca

We know from our previous projects that responsible mining can significantly improve peoples' lives









PROJECT HIGHLIGHTS

- U World Class Climax-type molybdenum (Mo) deposit with copper in East Greenland
 - ✓ Strategic EU Project supported by EIT Raw Materials / ERMA
 - ✓ Mo is used in all green energy technologies
 - ✓ Awarded the 2023 Prospector and Developer of the year by the Greenland government
- EU currently has no Mo production; the Project can supply 25% of EU Mo needs
 - \checkmark EU is the 2nd largest Mo user with large roasting capacity and end product manufacturers
- Current NI 43-101 Feasibility Study EBITA>US\$350M per year for 20 years
 - ✓ Lenders Due Diligence reports completed in Q1/2024 (include IFC Standards, Equator Principles)
 - ✓ Applied for exploitation license in Q1/2024
- Project has signed long term LOIs on offtakes with EU end users, banks and other agreements
 - ✓ Offtakes directly with largest EU chemical and metallurgical steel companies
 - ✓ LOIs on Capex from AAA and AA- credit rated banks
 - ✓ Agreements with EU equipment suppliers, EU roasters and EU / CAD construction companies
- \Box Lower CO₂ intensity vs other primary molybdenum mines with strong local support
 - ✓ Sustainability report and UNFC for Resources report ready in Q2/2024
- Team track record: TSX listed mining companies from \$0 to over US\$6b market cap



GREENLAND – AN ATTRACTIVE MINING JURISDICTION



GRFFNI AND RESOURCES

- ✓ Autonomous country within the Kingdom of Denmark (AAA S&P credit rating)
- Ranked Greenland as Global #1 in "Current Mineral Potential Index"
- ✓ Member of the European Raw Material Alliance
- State-of-the-art University and School of Mining with over 100 years of geological data
- Short transport distance to EU main markets
- ✓ EU Greenland 2024 strategic partnership on sustainable raw materials value chains
- Among the world's largest molybdenum producers (China, USA, Chile, Peru, Mexico), Greenland ranks:
 - #1: Education & health \$ as % GDP
 - #1 Best GINI social inequality Index
 - #1 Lowest poverty rates
 - #1 Hospital beds per capita
 - #2 GDP per capita (>US\$50,000)

MOLYBDENUM MARKET STATISTICS



REGIONAL PRODUCTION & USE

Million pounds of Molybdenum Content				
2023				
Production	Use			
113	83			
168	14			
-	125			
282	279			
64	129			
627	630			
	s of Molybdenur 202 Production 113 168 - 282 64 64 627			

Global Molybdenum recycling rate is approx. 26%

Source: IMOA

✓ Largest Mo markets in EU: Germany = 19 million pounds per year; Italy 17; Finland 13; Sweden 11

- ✓ High performance steel and specialty metal alloys represent the most important applications (87%)
- \checkmark Catalysts and specialty chemical products are the second biggest market (13%)



WESTERN PRODUCTION IS CONTINUOUSLY DECREASING

Selected Western Mo Producers	2019	2020	2021	2022	2023	2023	2023 Production
Producer	YoY %	mlbs	Comments				
Freeport McMoRan (USA, Peru)	-5.3	-15.5	11.8	0	-1.53	83.7	12% below 2017 level
Grupo Mexico (Mexico, Peru)	22.3	12.5	0	-13.3	2.42	59.2	
Codelco (Chile)	-7	24.5	-24.6	-2.6	-15.71	38.1	47% below 2014 level
Other Chilean Mines	n/a	-2.8	-1.8	16.5	0.00	28.1	
Antofagasta (Chile)	-14.7	8.6	-16.9	-7.8	14.02	24.4	
Rio Tinto (Bingham Canyon, USA)	93	82.2	-62.7	-56.5	-45.21	4	79% below 2017 level
Sierra Gorda (Chile)	-25.2	-18	-9.7	-52.5	-8.33	6.6	80% below 2017 level
Antamina (Peru)	7.8	1.3	-38	36.7	14.93	7.7	23% below 2016 level
Teck (Highland Valley, Canada)	-24.1	-50	-66.7	-9.1	-10.00	0.9	91% below 2017 level

Annual Production Evolution of Key Western Moly Producers

Source: CPM Group / GRI

- \checkmark Global output has been flatlining or falling in recent years
- ✓ Existing mines are old and depleting or having unstable by-product concentration
- ✓ China's increased production (+6% in 6 years) doesn't offset the falling western production
- ✓ Very few new projects in the pipeline with long development times



MALMBJERG VIDEO

https://greenlandresources.ca/data/video/Malmbjerg-Final-Cut-HighRes-65.mp4



MINE PLAN – LOW ENVIRONMENTAL IMPACT

Open pit mine with the primary crusher onsite; ore transport of 35,000 t/d by 26km aerial rope conveyor with no CO₂ generation; processing on landed barges (no greenfield development) at Mestersvig Inlet, a natural deep draft harbor where process facility and modularized infrastructure (low footprint disturbance) is located; world standard design natural tailings management facility; boast low carbon emissions vs comparable mines





Aerial Rope Conveyor



FROM MINE TO MARKET





FEASIBILITY STUDY HIGHLIGHTS (NI 43-101 Feasibility Study Malmbjerg, February 2022)

□ Initial Capex US\$820M

- □ Mineral Reserves 245 Mt ; 0.176% MoS₂ av. grade containing 571Mlb of Mo metal*
- Production years 1-10 of 32.8 Mlb per year of Mo metal av grade 0.23% MoS₂
- Production 20 year LOM of 24.1 Mlb per year, throughput of 35,000 t/d, strip ratio 0.8 to 1
- Base case cash @ US\$18/lb Mo: After-tax IRR 22.4%, NPV6 US\$1.17b
- Levered case 60/40% debt/equity @ US\$18/Ib Mo: After tax IRR of 33.8% and payback of 2.4 years
- Sensitivity: Levered @ US\$36/lb Mo: After tax IRR of 75.2%, NPV6 of US\$4.3 b payback of 1 years

* The economics exclude the contained copper



NPV & IRR SENSITIVITY (NI 43-101 FEASIBILITY STUDY MALMBJERG, FEBRUARY 2022)



MOLYBDENUM PRICE EVOLUTION (2006-2023)

AFTER TAX SENSITIVITY NPV6% AND IRR TO CHANGES IN US\$ MO PRICES FOR LEVERED CASE (60/40% - DEBT/EQUITY)





Rope Conveyor 🚝 (Austria) US\$200M, 180 indirect jobs ; FLS 🚝 (Denmark) Mining equipment

- ✓ Ropes 3,400 tons / 130 km + Belting 2,900 tons / 43,5 km sourced from: ContiTech (Germany); Phoenix CBS (Germany); Sidewall (Italy), REMA TIP TOP (Germany); Sempertrans (Austria), Dunlop (Holland)
- ✓ Steel, nickel, zinc, and lead can be sourced Terrafame (Finland), LKKB (Sweden), and Boliden (Sweden), etc.

Construction 2-3 years; ≃ 350 direct jobs ^{Ca} & 400 Indirect ^{Ca}, ^{Ca}, ^{Ca}, ^{Ca}

GREENLAND RESOURCES Malmbjerg

> Molybdenum Mine

Production 20 years; ≃ 300 direct jobs ^{Ca} ^{III}, ^{III} & significant indirect jobs in EU

Molybdenum 🖾 processed / sold:

- ✓ Molymet (Belgium) to process RMC, FeMo, PurOx, etc.
- Metallurgical and chemical industry to receive reliable, cost competitive and environmentally friendly molybdenum products

Capex US\$820M

GREENLAND RESOURCES

- ✓ Government Funding Programs 🔍, 🛃
- \checkmark Supranational and Development Banks
- ✓ Commercial Banks, Strategic Investors, Funds



Industries: Auto, Energy, Manufacturing, Agricultural, Mining, Chemical, Defense,...



 ✓ World-class consumer, mobility and capital goods

MINERAL RESERVES GRADE AND EMISSIONS - COMPARABLES





WHY MOLYBDENUM IS VITAL FOR EU INDUSTRIES

□ The EU market using molybdenum already exists:

- ✓ The EU is the world's second largest consumer of molybdenum and has no molybdenum
- ✓ Steel needs molybdenum and EU steel dependent industries represent around 18% of the EU GDP
- ✓ Molybdenum is used in all green energy technologies
- ✓ The diversity of molybdenum containing EU products is very high
- ✓ Molybdenum cannot be substituted in products where it is needed
- The EU molybdenum supply chain is incomplete:
 - ✓ Two major molybdenum roasters are in the EU (Ghent, Rotterdam)
 - ✓ Molybdenum concentrate is currently supplied by overseas miners
 - ✓ Molybdenum is one of the scarcest metals in the Earth's upper crust
 - EU relies on one western country only for primary molybdenum supply, which is very relevant for high performance steel and chemical applications
 - ✓ Global demand & competition for molybdenum is increasing, China remains 45% of the market
 - \checkmark A local molybdenum mine is still needed



GLOBAL METALS PRODUCTION AND RESOURCE SCENARIO



	Material	UCA (ppm)	Estimate of Ultimately Available Resources (million t)
1	Aluminum	81,000	10,000,000
	Iron	48,000	6,000,000
	Magnesium	23,000	2,000,000
	Titanium	4,900	600,000
	Manganese	890	100,000
	Rare-earth elements	170	20,000
	Vanadium	130	20,000
	Chromium	110	10,000
	Zinc	72	9,000
	Nickel	68	8,000
	Copper	50	6,000
	Cobalt	24	3,000
	Lithium	18	2,000
	Niobium	17	2,000
	Boron	13	2,000
	Tin	2.9	300
	Tantalum	1.5	200
	Tungsten	1.5	200
	Molybdenum*	1.3	200
	Silver	0.069	8
	Platinum-group metals	0.023	3
	Rhenium	0.001	0.1

* Very low molybdenum availability in the upper 1km crust of the earth



MOLYBDENUM PRODUCTION & RESERVE ESTIMATES



- Global extraction of primary molybdenum in 2020 was 40 g per capita (world)
- Annual molybdenum consumption in industrialized countries is around 200 g per capita (local)
- Especially China will become major consumption driver

Minable reserve estimates

- ✓ 19.4 million mt
- Identified reserves by USGS 2017

✓ 60 million mt

• "Not unreasonable upper limit" of global molybdenum resources, based on the total amount of molybdenum in the upper 1 km of the Earth's crust

✓ 200 million mt

 Ultimately amount of molybdenum, based on the estimated amount of molybdenum in porphyry copper resources



CARBON FOOTPRINT OF SPECIALTY METALS

Primary metal or	CO ₂ equivalent in tons per	Global production	Calculated CO _{2eq.} emissions of
material	ton of metal or material	2018/2019 [10 ³ tons]	primary metal or material [10 ³ tons]
Specialty metals			
Neodymium	12-60	35	420-2,100
Lithium	5-16	80	400-1,280
Tungsten	33.6	146	4,905
Molybdenum	3.4-14.8	259	881-3,788
Manganese [#]	1.9	16,630	31,597
Silicon	10	8,400	81,000
Titanium	45	7,200	324,000
Nickel	42	2,330	97,860
Chromium	25	12,300	307,500
Magnesium	20-26	1,100	>22,000
Lead	3.2	11,640	37,248
Zinc	9.8	13,400	131,320
Subtotal		65,120	>1,039,131

Molybdenum industry average carbon footprint (acc. to IMOA)

- ✓ 4.96 per ton RMC (~60% Mo)
- ✓ 5.04 per ton RMC briquette (~59% Mo)
- ✓ 8.04 per ton FeMo (~67% Mo)
- \checkmark Mo by-product mines allocate most of their emissions to the copper production



EUROPE'S METALLURGICAL INDUSTRY NEEDS MOLYBDENUM

□ High-performance steels & specialty metals:

- ✓ Represent largest European Molybdenum use (>80%)
- Molybdenum has large variety of metallurgical benefits
- \checkmark Molybdenum provides unique product performance
- Molybdenum can hardly be substituted by other ferro-alloys (substitution potential <10%)

□ Key strategic product benefits:

- ✓ Ultra-high strength
- ✓ Better low-temperature toughness
- ✓ High temperature resistance
- ✓ Superior wear resistance
- ✓ Excellent corrosion resistance
- Weight reduction, resource. & energy savings, higher safety, longer product life, improved efficiencies



- European metallurgical industry is globally leading:
- ✓ Unique know-how and experience
- \checkmark Most advanced production facilities and processing chain
- High value addition and strategically important to Green Deal
- ✓ Global OEMs and Defense rely on European highperformance steels

MOLYBDENUM ALLOYED HIGH STRENGTH STEEL – IT'S A WIN-WIN SITUATION !



Scope 3 CO₂ intake to steel by molybdenum alloying:

Mo alloying range 0.10-0.30 wt.% = adding 1.5 – 4.5 kg FeMo/t_{steel} @ 8 kg CO₂/kg_{FeMo}

Scope 3 intake = $12 - 36 \text{ kg CO}_2/t_{\text{steel}}$

Producing 1 t of steel generates ~1.85 t of CO₂ emissions (world steel average) Scope 3 intake by molybdenum is much lower than achieved savings

RELEVANCE OF MOLY IN LOW-CARBON POWER GENERATION

Power generation technology	Mo kg/MW	Annual consumption (2023 – 2030)
Hydropower	3	
Wind (design dependent)	99-119	up to13,000 tpy Mo
Solar thermal parabolic trough	~200	
Solar thermal central tower	~50	
Solar PV (Si wafer)	0	
Solar PV (CdTe)	5	~65 tpy Mo
Solar PV (CIGS)	50-100	up to 500 tpy Mo
Geothermal	up to 7,000	
Nuclear	10	

□ Molybdenum is highly relevant to low-carbon power generation!

- \checkmark >5% of the annual Mo production is directly used in renewable power generation
- ✓ future trend: strongly increasing



MOLYBDENUM IS POWERING WIND TURBINES



✓ Vestas is the world's largest wind turbine supplier!

- Installed capacity >183 GW
- >18,300 t of Mo consumed

\checkmark Ørsted is the world's top offshore wind power group

- currently operates ~8 GW wind power generation
- >800 t of Mo contained
- Aims to add 20 GW by 2030 (+2,000 t Mo contained)

Direct drive technology

Based on permanent magnets Large consumption of rare earth elements: Approx. 200 kg Nd and Pr per MW



Geared drive train

Based on carburizing steels Key alloying elements are Mo and Ni

- Gear-based design relies on specialty steels made in Europe
- Reduces critical supply dependency on Rare Earth Elements



GREEN H₂, POWER-TO-L, BIO-FUEL: CATALYZED BY MOLY



 \Box Production of 1 kg H₂ consumes:

 \checkmark ~55 kWh of electricity

 \checkmark ~9 liters of fresh water

Green H2 plants in the sun & wind belts requires water desalination plants using duplex stainless steels with up to 6% Mo

- ✓ Moly-alloyed steels for tanks, pressure vessels, pumps, pipes, valves, compressors...
- ✓ Moly-based catalysts for chemical conversion processes
- Molybdenum carbide (Mo_xC) electrodes provide an excellent hydrogen evolution reaction in PEM electrolysers with potential to substitute Platinum



FORWARD LOOKING STATEMENT

This presentation contains "forward-looking information" (also referred to as "forward looking statements"), which relate to future events or future performance and reflect management's current expectations and assumptions. Often, but not always, forward-looking statements can be identified by the use of words such as "plans", "hopes", "expects", "is expected", "budget", "scheduled", "estimates", "forecasts", "intends", "anticipates", or "believes" or variations (including negative variations) of such words and phrases, or state that certain actions, events or results "may", "could", "would", "might" or "will" be taken, occur or be achieved. Such forward-looking statements reflect management's current beliefs and are based on assumptions made by and information currently available to the Company. All statements, other than statements of historical fact, are forward-looking statements or information in this presentation relate to, among other things: complete the feasibility study in a timely manner, and the anticipated capital and operating costs, sustaining costs, net present value, internal rate of return, payback period, process capacity, average annual metal production, average process recoveries, expected recoveries and grades, anticipated production rates, infrastructure, social and environmental impact studies, future financial or operating performance of the Company, subsidiaries and its projects, estimation of mineral resources, exploration results, opportunities for exploration, development and explansion of the Malmbjerg Molybdenum Project, its potential mineralization, the future price of metals, the realization of mineral reserve estimates, costs and timing of future exploration, the timing of the development of new deposits, requirements for additional capital, foreign exchange risk, government regulation of mining and exploration perations, environmental risks, reclamation expenses, title disputes or fully production achieve the results outlined in the Feasibility Study, and the ability to raise

These forward-looking statements and information reflect the Company's current views with respect to future events and are necessarily based upon a number of assumptions that, while considered reasonable by the Company, are inherently subject to significant operational, business, economic and regulatory uncertainties and contingencies. These assumptions include: our mineral reserve estimates and the assumptions upon which they are based, including geotechnical and metallurgical characteristics of rock confirming to sampled results and metallurgical performance; tonnage of ore to be mined and processed; ore grades and recoveries; assumptions and discount rates being appropriately applied to the technical studies; success of the Company's projects, including the Malmbjerg Molybdenum Project; prices for molybdenum remaining as estimated; currency exchange rates remaining as estimated; availability of funds for the Company's projects; capital decommissioning and reclamation estimates; mineral reserve and resource estimates and the assumptions upon which they are based; prices for energy inputs, labour, materials, supplies and services (including transportation); no labour-related disruptions; no unplanned delays or interruptions in scheduled construction and production; all necessary permits, licenses and regulatory approvals are received in a timely manner; and the ability to comply with environmental, health and safety laws. The foregoing list of assumptions is not exhaustive.



FORWARD LOOKING STATEMENT

The Company cautions the reader that forward-looking statements and information include known and unknown risks, uncertainties and other factors that may cause actual results and developments to differ materially from those expressed or implied by such forward-looking statements or information contained in this presentation and the Company has made assumptions and estimates based on or related to many of these factors. Such factors include, without limitation: the projected and actual effects of the COVID-19 coronavirus on the factors relevant to the business of the Corporation, including the effect on supply chains, labour market, currency and commodity prices and global and Canadian capital markets, fluctuations in molybdenum and commodity prices; fluctuations in prices for energy inputs, labour, materials, supplies and services (including transportation); fluctuations in currency markets (such as the Canadian dollar versus the U.S. dollar versus the Euro); operational risks and hazards inherent with the business of mining (including environmental accidents and hazards, industrial accidents, equipment breakdown, unusual or unexpected geological or structure formations, cave-ins, flooding and severe weather); inadequate insurance, or the inability to obtain insurance, to cover these risks and hazards; our ability to obtain all necessary permits, licenses and regulatory approvals in a timely manner; changes in laws, regulations and government practices in Greenland, including environmental, export and import laws and regulations; legal restrictions relating to mining; risks relating to expropriation; increased competition in the mining industry for equipment and gualified personnel; the availability of additional capital; title matters and the additional risks identified in our filings with Canadian securities regulators on SEDAR in Canada (available at www.sedar.com). Although the Company has attempted to identify important factors that could cause actual results to differ materially, there may be other factors that cause results not to be as anticipated, estimated, described or intended. Investors are cautioned against undue reliance on forwardlooking statements or information. These forward-looking statements are made as of the date hereof and, except as required by applicable securities regulations, the Company does not intend, and does not assume any obligation, to update the forward-looking information. Neither the NEO Exchange Inc. nor its regulation services provider accepts responsibility for the adequacy of this presentation. No stock exchange, securities commission or other regulatory authority has approved or disapproved the information contained herein. The presentation has been reviewed and approved by Mr. Jim Steel, P.Geo., M.B.A. a Qualified Person as defined by Canadian Securities Administrators National Instrument 43-101 "Standards of Disclosure for Mineral Projects".

Non-GAAP Measures

This presentation includes certain terms or performance measures commonly used in the mining industry that are not defined under International Financial Reporting Standards ("IFRS"), including LOM Total Initial & Sustaining Capital, Closure Costs, and operating costs per tonne processed. Non-GAAP measures do not have any standardized meaning prescribed under IFRS and, therefore, they may not be comparable to similar measures employed by other companies. The Company discloses "LOM Total Initial & Sustaining Capital" and operating costs per tonne processed because it understands that certain investors use this information to determine the Company's ability to generate earnings and cash flows for use in investing and other activities. The Company believes that conventional measures of performance prepared in accordance with IFRS, do not fully illustrate the ability of mines to generate cash flows. The measures, as determined under IFRS, are not necessarily indicative of operating profit or cash flows. Non-GAAP financial measures should not be considered in isolation as a substitute for measures of performance prepared in accordance with IFRS and cash flows. Non-GAAP financial measures should not be considered in isolation as a substitute for measures of performance prepared in accordance with IFRS and are not necessarily indicative of operating costs, operating profit or cash flows presented under IFRS. Readers should also refer to our management's discussion and analysis, available under our corporate profile at www.sedar.com for a more detailed discussion of how we calculate such measures.

