



# GREENLAND RESOURCES

## MALMBJERG MOLYBDENUM PROJECT

*"Building the Only World Class Molybdenum Deposit in and for the European Union Green Energy Deal"*

[www.greenlandresources.ca](http://www.greenlandresources.ca)

- ❑ World Class Climax-type 100% owned pure molybdenum deposit in East Greenland near tide-water
- ❑ Critical Mineral needed in all future green energy technologies, World Bank (2020); IEA (2021)
- ❑ Environmental mine design focused on reduced CO<sub>2</sub> emissions and water usage, clean tailings
- ❑ Low disturbance modularized mine design with minimum mine closure footprint after reclamation
- ❑ NI 43-101 Feasibility Study with Robust Economics (2022 Tetra Tech)
- ❑ Strategic Project capable of supplying twenty years 23% of European total molybdenum demand
- ❑ Europe consumes 25% of global molybdenum demand yet has no domestic production
- ❑ Steel needs molybdenum and EU steel dependent industries represent 18% of EU US\$15 trillion GDP
- ❑ Very clean ore body ideal for world leading high performance steel industry in Europe
- ❑ Project can significantly reduce unemployment and generate taxes in Greenland
- ❑ Currently re-permitting project (was fully permitted in 2009)

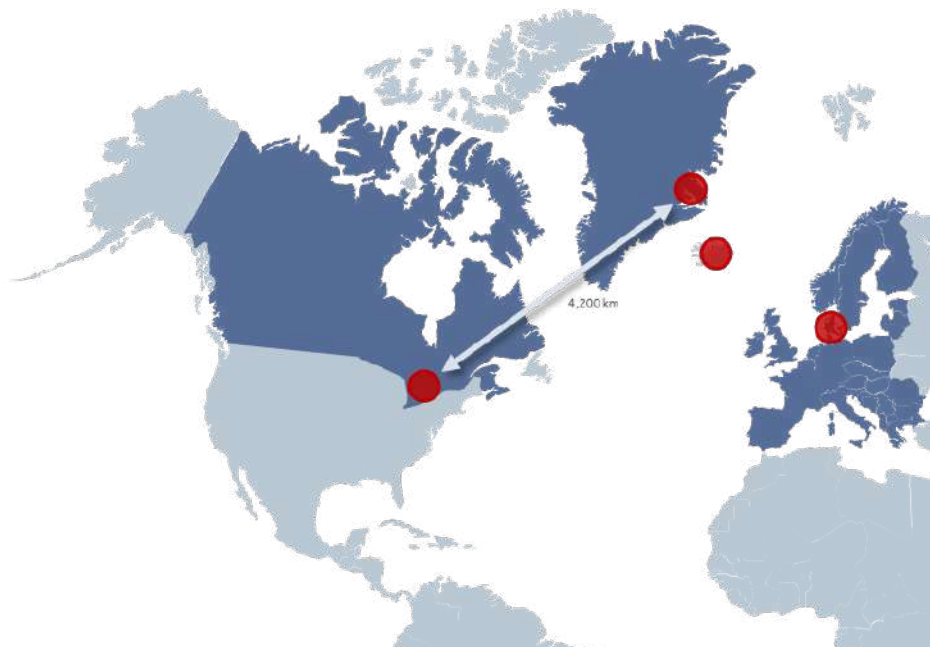
- ❑ **Robust Economics on a twenty-year open pit mine life<sup>1</sup>**
- ❑ **Average annual production** in years 1-10 of 32.8 million pounds per year of contained molybdenum metal at an average grade of 0.23% MoS<sub>2</sub> and average annual LOM production of **24.1 million pounds** with a cash cost of **US\$6.38/lb Mo**
- ❑ **Base Cash case after-tax IRR of 22.4%, NPV6% of US\$1.17 billion (€1.02 billion)**
- ❑ **Levered Case pre-tax IRR of 40.4%, after tax IRR of 33.8% and payback of 2.4 years<sup>2</sup>**
- ❑ **Mineral Reserves 245 million tonnes at an average grade of 0.176% MoS<sub>2</sub> containing 571 million pounds of molybdenum metal** with very low impurity elements ideal for European high performance steel products
- ❑ **Potential to generate LOM corporate taxes of more than US\$800 million to the Greenland Government**

Notes:

<sup>1</sup> See Appendix for Feasibility Study Key Results and Sensitivity Analysis

<sup>3</sup> Levered Case assumes initial capex is financed as 40% equity and 60 % debt repaid over 15 years at 7% interest rate.

# GREENLAND



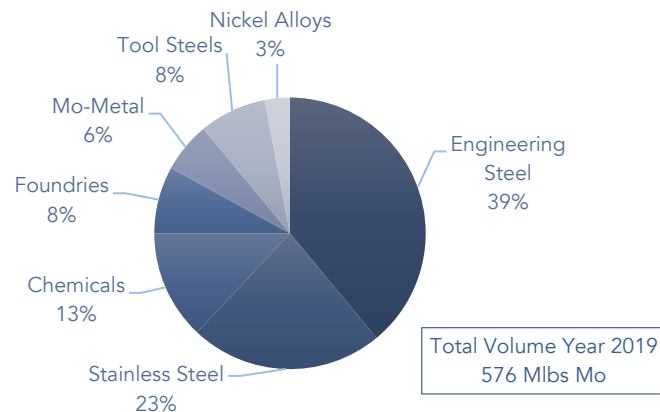
## AN ATTRACTIVE MINING JURISDICTION

- ✓ Autonomous country within the Kingdom of Denmark (AAA credit)
- ✓ Ranked Greenland as Global #1 in "Current Mineral Potential Index"
- ✓ Greenland is a member of the European Raw Material Alliance (ERMA)
- ✓ >US\$45,000 GDP per capita
- ✓ Over 100 years of geological data
- ✓ State of the art University and School of Mining
- ✓ Malmbjerg Project located in nearest point to the EU

## POSITIVE MACRO ECONOMIC FACTORS

- ✓ Metal that when added to steel and cast irons, enhances strength, hardenability, weldability, toughness, temperature strength, and corrosion resistance
- ✓ Molybdenum prices broke 13 year high in September 2021 reaching ~ US\$20/lb Mo
- ✓ ~10% of world production is pure Climax-type Mo – higher grades, purity and cheaper for end users to process
- ✓ Project capable of producing 24 million pounds a year of clean high-grade molybdenum in and for European consumers for twenty years
- ✓ Europe largest molybdenum consumers include Germany with approximately 23 million pounds per year, Finland 16 and Sweden 14
- ✓ > 60% of world producers operate in countries with low environmental & social standards - impact consumption in developed world
- ✓ China accounts for 37% of global molybdenum use and production and in 2020 & Q1-2021 became a significant net importer of molybdenum

## MOLYBDENUM USES



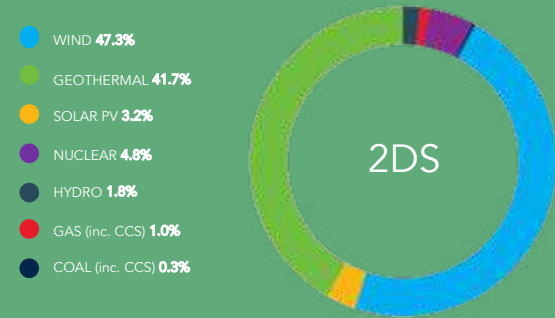
## REGIONAL PRODUCTION

Region	Million pounds of Molybdenum Content	
	2019	
	Production	Use
North America	142	64
South America	187	28
Europe	-	134
China	206	221
Other	40	129
<b>Total</b>	<b>575</b>	<b>576</b>

## GREEN FUTURE

- ✓ **Green Energy** transition to increase global demand of molybdenum
- ✓ Government infrastructure-projects aiming to promote economic growth will use molybdenum
- ✓ **World Bank (2020)** estimates **119% demand increase for molybdenum through 2050** under IRENA REmap scenario from energy technologies only
- ✓ **International Energy Agency (2021)** estimate **290% demand increase for molybdenum through 2040** under SDS scenario for renewables
- ✓ **Molybdenum** named one of the six cross cutting **critical minerals by the World Bank in 2020** that will be used in all technologies in the green energy transition
- ✓ The Paris Agreement signed by 196 countries, aims to keep global temperature rise this century below 2 degrees Celsius scenario (2DS)

## TOTAL MOLYBDENUM DEMAND BY ENERGY TECHNOLOGY THROUGH 2050 UNDER 2DS<sup>(1)</sup>



Note: 2DS = 2-degree scenario, CCS = carbon capture and storage, CSP = concentrated solar power. PV = photovoltaic.

Source: (1) Minerals for Climate Action: The Mineral Intensity of the Clean Energy Transition, 2020 World Bank Group, Figure ES.2 Total Molybdenum Demand by Energy Technology Through 2050 Under 2DS

## OVERVIEW

- ✓ Set of policy initiatives by the European Commission with the aim of becoming the world's first climate-neutral bloc by 2050
- ✓ A new growth strategy that aims to transform the EU into a fair and prosperous society, with a modern, resource-efficient and competitive economy
- ✓ The European Green Deal has goals extending to different sectors, including construction, biodiversity, energy, transport and food

Zero Pollution



Affordable Secure Energy



Smarter Transport



High-Quality Food



## ERMA

- ✓ The European Raw Materials Alliance (ERMA) was created in 2020 as part of the European Green Deal
- ✓ ERMA aim to reduce Europe's key green energy transition raw material dependency on third countries and diversify supply promoting responsible sourcing worldwide
- ✓ Greenland Resources Inc. is a member of ERMA
- ✓ ERMA helps selected raw materials mining projects to secure the most suitable financing option

I  
Evaluation of  
investment cases

II  
Selection of  
investment cases

IV  
Financing and  
execution monitoring

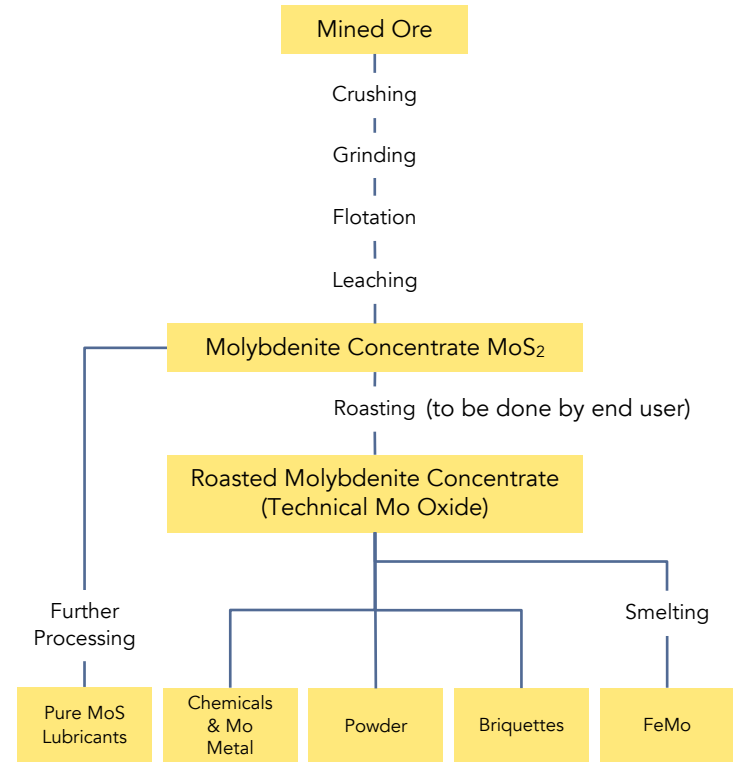
III  
Matchmaking  
with investors

# ENVIRONMENTALLY FRIENDLY OPERATION

## OVERVIEW

- ✓ Malmbjerg has the potential to become Europe's first environmentally friendly source of molybdenum
- ✓ Processing produces no deleterious elements into the water environment and tailings
- ✓ Hauling our ore with an EU built rope conveyor that produces its own electricity and no CO<sub>2</sub>
- ✓ Designed process plant operation to use recycled salt water as process water, with very low reagent concentrations to mitigate any potential environmental contamination
- ✓ Limited molybdenum and mine-site consumables shipping season; 8-10 months no aquatic wildlife environmental disturbance in Kong Oscar Fjord
- ✓ Low disturbance footprint mine design and minimum mine closure footprint after reclamation because most of the infrastructure is modularized

## PROCESSING FLOWSHEET





## MINERAL RESOURCE ESTIMATE – Effective Date October 12, 2021

Mineral Resource Estimate  
(Open Pit) by TETRA TECH

Classification	Tonnes (Million)	Grade (% MoS <sub>2</sub> )	Contained Mo (M Lb)
Measured	128	0.204	345
Indicated	153	0.156	317
<b>TOTAL Measured + Indicated</b>	<b>281</b>	<b>0.178</b>	<b>661</b>
Inferred	33	0.096	42

## MINERAL RESERVE ESTIMATE – Effective Date February 8, 2022

Mineral Reserve Estimate  
(Open Pit) by TETRA TECH

Classification	Tonnes (Million)	Grade (% MoS <sub>2</sub> )	Contained Mo (M Lb)
Proven	123	0.202	328
Probable	122	0.151	243
<b>TOTAL Proven + Probable</b>	<b>245</b>	<b>0.176</b>	<b>571</b>

Location

- ❑ License MER 2018/11 located in central east Greenland; ~30 km from the coast and ~ 600 km NW of Iceland

Access & Infrastructure

- ❑ Ice rated ships can access the east coast and Scoresbysund Fjord from July to November
- ❑ Access from any airport to Mestersvig Airfield, rated for Boeing 737 and Hercules C130 aircraft

Geology & Mineralization

- ❑ Host rocks for the Malmbjerg deposit comprise of Mid- Tertiary alkalic leuco-granite stocks
- ❑ Malmbjerg is a porphyry molybdenum deposit similar in style and morphology to Climax deposits
- ❑ Over 16,915 meters of near-pristine condition mining-grade molybdenum are available and were audited in the summer of 2021





# FEASIBILITY STUDY - BARGES

- ❑ Three process barges are situated on bedrock away from the inlet water line protected with a suitable rock barrier from inlet water and winter ice conditions
- ❑ Upon project closure, the rock barrier around the barges will be recontoured into the slope and the three barges will be towed by a tug boat for salvage.

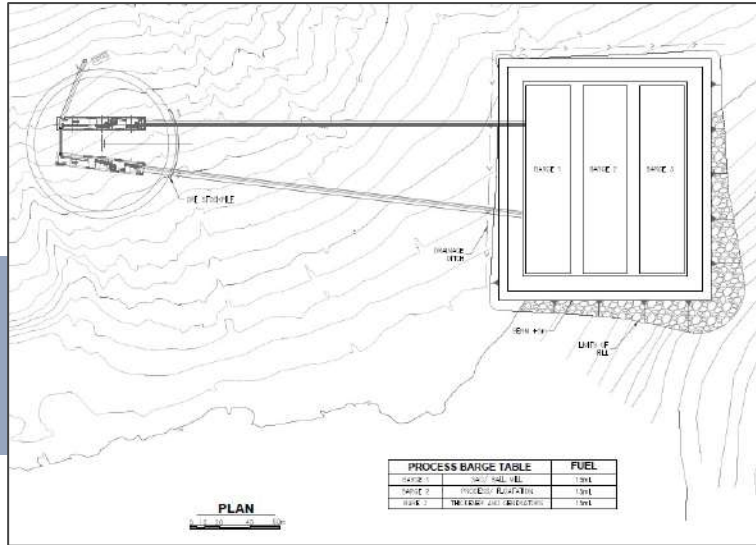


Figure 3. Mesters Vig Port and Beached Process Barges

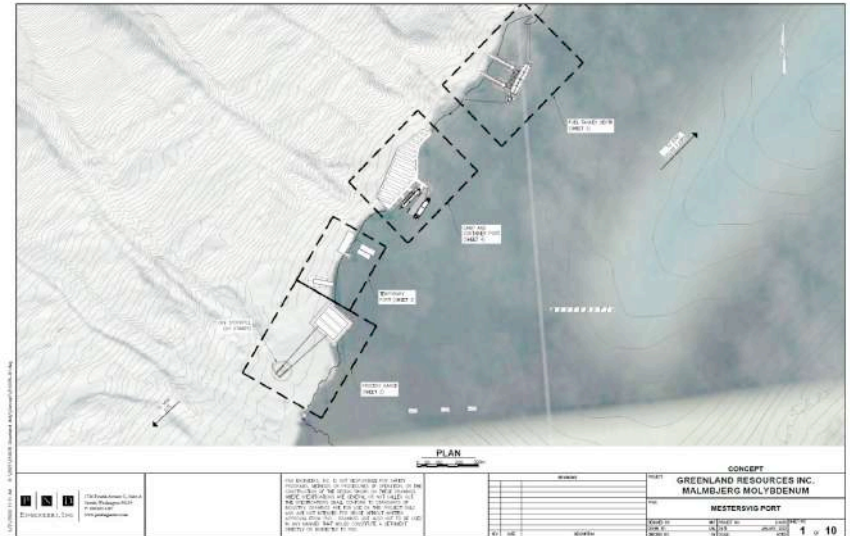


Figure 4. Mesters Vig Beached Process Barges (Concentrator)

# FEASIBILITY STUDY – AERIAL ROPE CONVEYOR

- ❑ A 26-km aerial rope conveyor will transport the ore from the mine site to Mestersvig Inlet processing plant
- ❑ No input energy is required to operate the rope aerial conveyor; as a result there will be no CO2 generation.
- ❑ The elevation difference from ore conveyor loading and discharge will be 930 metres. As a result the conveyor will generate 1.3 Mw of electrical energy from conveyor braking at transfer stations. Excess electrical energy so produced will be fed into the mine grid.



Figure 5. Aerial Rope Conveyor

# FEASIBILITY STUDY – TAILINGS MANAGEMENT FACILITY

- ❑ World standard design tailings management facility
- ❑ A filter embankment will be constructed at the outlet of Noret Lake to prevent water/ice/tailings migration
- ❑ As the orebody has no deleterious elements, and processing is done with seawater, tailings are clean with no acid mine drainage



Figure 6: TMF Operating Design Plan

# FEASIBILITY STUDY – MINERAL RESERVES

MINERAL RESERVE ESTIMATE – Effective Date February 8, 2022

Classification	Tonnes (Million)	Grade (% MoS <sub>2</sub> )	Contained Mo (M Lb)
Proven	123	0.202	328
Probable	122	0.151	243
<b>TOTAL Proven + Probable</b>	<b>245</b>	<b>0.176</b>	<b>571</b>

Notes for Tables above:

1. *The Mineral Reserves statement is prepared by Jesse Aarsen, P.Eng. (who is also an Independent Qualified Person), reported using the 2014 CIM Definition Standards and the 2019 CIM Best Practices Guidelines, and have an effective date of February 08, 2022*
2. *Mineral Reserves are mined tonnes and grade, the reference point is the primary crusher prior to transport via the rope conveyor to the processing plant*
3. *Mineral Reserves are reported at a cut-off NSR of \$11.14/tonne NSR (diluted). The cut-off value covers the processing + G&A costs of \$8.34/tonne, ore transport costs of \$0.14/tonne and stockpile rehandle costs of \$1.25/tonne*
4. *NSR cut-off grade assumes \$18/lb Mo, block recoveries from the model, 99% MoS<sub>2</sub> payable, 0.15% roasting losses, \$1/lb roasting charges, \$1,290/tonne concentrate off-site costs, and 2.5% royalty*
5. *The average molybdenum metallurgical recovery is 84.6%*
6. *Conversion from MoS<sub>2</sub> to Mo is 0.599 based on the respective atomic weights*
7. *Mined tonnes and grade are based on an SMU of 15m x 15m x 12m, including additional mining losses estimated for the removal of isolated blocks (bounded by waste on 4 sides)*
8. *Mineral Reserves are converted from Measured and Indicated Mineral Resources through the process of pit optimization, pit design, production scheduling and are supported by a positive cash flow model*
9. *The estimate of Mineral Reserves may be materially affected by environmental, permitting, legal, title, socio-political, marketing, or other relevant issues*
10. *Rounding as required by reporting guidelines may result in summation differences*

# FEASIBILITY STUDY – SUMMARY

Price Assumptions	Units	Base Case
Molybdenum	US\$/lb	18.00
Diesel Fuel	US\$/L	0.62
Electricity	US\$/kWhr	0.18
Exchange Rate	€/US\$	1.1477

Operating Data	Units	Values
Preproduction Period	Years	3
Mine Life	Years	20
Waste Stripped	kt	185,892
Strip Ratio	Waste / Ore	0.8
Ore Mined & Milled Directly	kt	110,325
Direct Feed MoS <sub>2</sub> Av. Grade	%	0.236%
Stockpile Ore trucked to Mill	kt	134,662
Stockpile Reclaim MoS <sub>2</sub> Grade	%	0.127%
Total Ore Milled	kt	245,000
Total MoS <sub>2</sub> Average Grade	%	0.176%
Total Contained Mo	M.lbs.	571
Mo Recovery to Concentrate	%	84.6%

Capital Cost	US\$ (millions)	€ (millions)
Initial Capital <sup>1</sup>	820	714
LOM Sustaining Capital	218	189
LOM Total Capital	1,038	904
Closure Costs <sup>2</sup>	TBD	

Note: <sup>1</sup> Initial Capital shown after equipment financing, <sup>2</sup> To be determined with the Greenland government

Operating Costs – Base Case	LOM Cost (millions)		LOM Unit Cost Tonne Milled		LOM Unit Cost per Lb Mo Payable	
	US\$	€	US\$	(€)	US\$	(€)
Mining (excludes pre-production)	966.0	841.7	3.94	3.44	2.02	1.76
Process & Infrastructure	1,964.5	1,711.6	8.02	6.99	4.12	3.59
G&A	112.0	97.6	0.46	0.40	0.23	0.20
Total Operating Cost	3,042.4	2,650.9	12.42	10.82	6.38	5.56

# FEASIBILITY STUDY - ECONOMICS

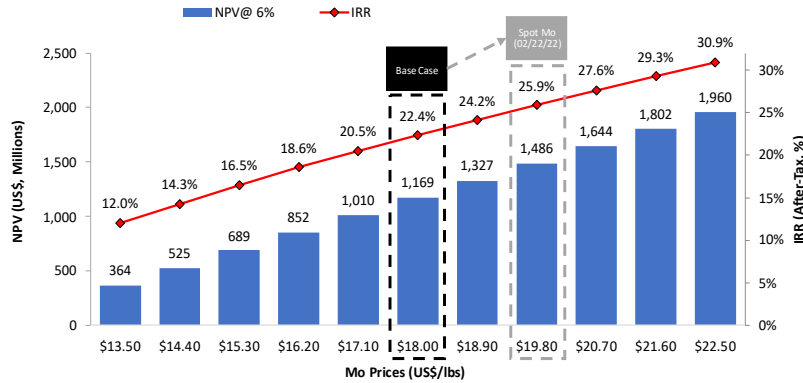
Economic Analysis	Units	Base Case		Levered Case	
Pre-tax Undiscounted Cash Flow	Millions	US\$3,574	€3,114	US\$3,101	€2,702
Pre-tax NPV@6%	Millions	US\$1,803	€1,570	US\$1,726	€1,504
Pre-tax IRR	%	27.7		40.4	
Pre-tax Payback	years	3.1		2.0	
After-tax Undiscounted Cash	Millions	US\$2,673	€2,329	US\$2,299	€2,002
After-tax NPV @ 6%	Millions	US\$1,169	€1,018	US\$1,129	€984
After-tax IRR	%	22.4		33.8	
After-tax Payback	years	3.6		2.4	

NPV (After Tax) Sensitivity	Units	Base Case		Levered Case	
NPV @ 5%	Millions	US\$1,342	€1,169	US\$1,265	€1,102
NPV @ 6%	Millions	US\$1,169	€1,018	US\$1,129	€984
NPV @ 8%	Millions	US\$882	€769	US\$902	€786
NPV @ 10%	Millions	US\$659	€574	US\$723	€630

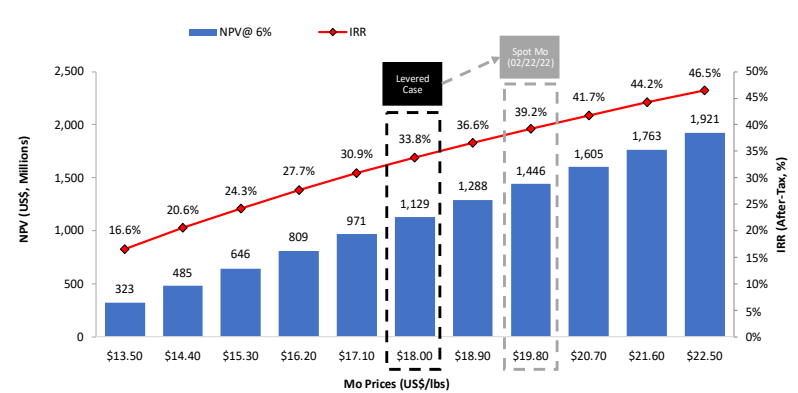


# FEASIBILITY STUDY – NPV & IRR SENSITIVITY

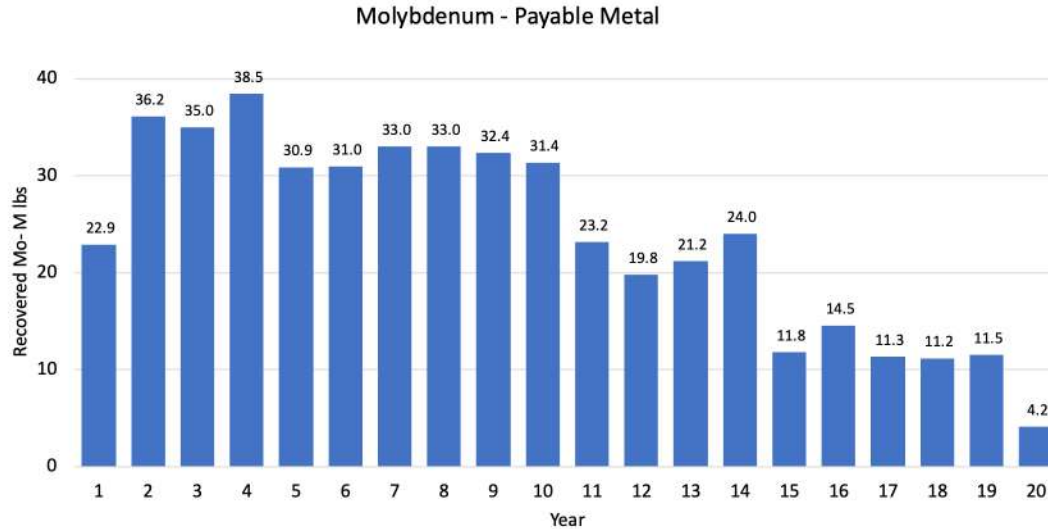
After Tax Sensitivity of Project NPV6% and IRR to changes in US\$ Molybdenum Prices for Base Case



After Tax Sensitivity of Project NPV6% and IRR to changes in US\$ Molybdenum Prices for Levered Case

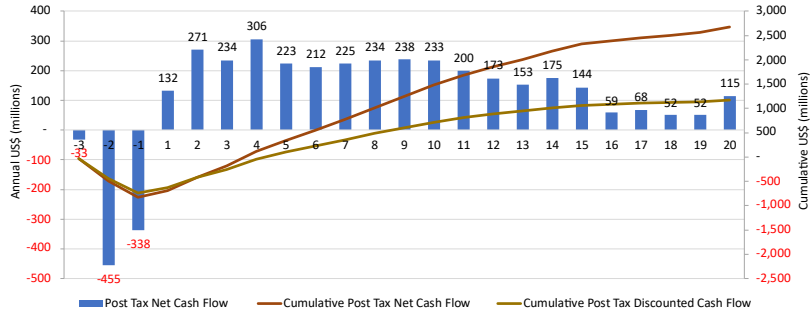


# FEASIBILITY STUDY – MOLYBDENUM PRODUCTION

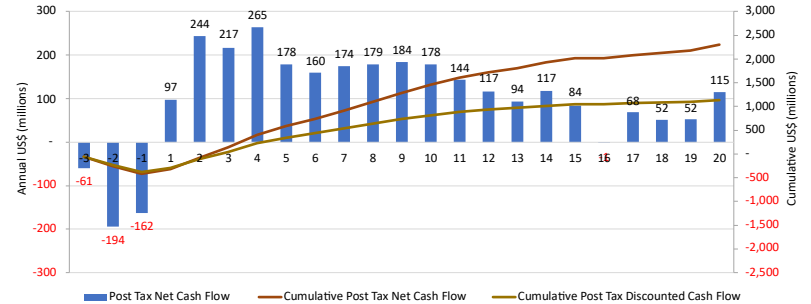


# FEASIBILITY STUDY - CASHFLOW

After Tax Cashflow and Cumulative Cashflow on Base Case



After Tax Cashflow and Cumulative Cashflow on Levered Case



# FEASIBILITY STUDY - CAPEX

Capital Costs (millions)	Initial Capex		Sustaining Capex		Total Capex	
	US\$M	(€M)	US\$	(€)	US\$	(€)
Mining	88.6	77.2	53.0	46.2	141.6	123.4
Rope Conveyor	194.4	169.4	50.0	43.6	244.4	212.9
Process Plant	112.9	98.4	50.0	43.6	162.9	142.0
Marine Vessels and Naval Architecture	28.3	24.7	10.0	8.7	38.3	33.4
Infrastructure	62.1	54.1	50.0	43.6	112.1	97.7
Tailings Storage and Reclaim Water	47.2	41.1	5.0	4.4	52.2	45.5
Construction Indirects	104.3	90.9				
Owner's Cost	10.0	8.7				
Preproduction, Start Up/Commissioning	147.5	128.5				
Subtotal (before equipment financing)	795.4	693.0	218.0	189.9	1,013.4	882.9
Contingency	83.7	73.0				
Subtotal (including contingency)	879.1	766				
Less: Equipment Financing Drawdowns	-88.6	-77.2				
Add: Equipment Lease Payment & Fees	29.6	25.8				
Total Initial Capital (after equipment financing)	820.1	714.6	218.0	189.9	1,038.1	904.5
Closure & Reclamation			TBD			
Total Capital Costs	820.1	714.6	218.0	189.9	1,038.1	904.5

Notes for the Table above:

1. Sums may not add up due to rounding
2. Contingency included at project sub-category basis and totals approximately 12%
3. Closure capital cost estimate has not been included in the analysis which will be considered as an operating cost as the finalized closure amount has not been negotiated with the Greenland Government authorities

# 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. 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, anticipated mining and processing methods, proposed Feasibility Study production schedule and metal production profile, anticipated construction period, anticipated mine life, 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 expansion 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 operations, environmental risks, reclamation expenses, title disputes or claims, insurance coverage and regulatory matters. In addition, these statements involve assumptions made with regard to the Company's ability to develop the Malmbjerg Molybdenum Project and to achieve the results outlined in the Feasibility Study, and the ability to raise capital to fund construction and development of the Malmbjerg Molybdenum Project.

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 qualified 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](http://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 forward-looking 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 from operating activities. The measures cash costs and all-in sustaining costs are considered to be key indicators of a project's ability to generate operating earnings 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](http://www.sedar.com) for a more detailed discussion of how we calculate such measures.