

**The Metals Company (Nasdaq: TMC) –  
Unlocking the World's Largest Undeveloped Resource of Metals  
for Energy, Defense, Manufacturing and Infrastructure**

May 2025

## Forward looking statements.

This presentation contains “forward-looking statements” within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, that relate to future events, TMC the metals company Inc.’s (“TMC” or the “Company”) future operations and financial performance, and the Company’s plans, strategies and prospects. These statements involve risks, uncertainties and assumptions and are based on the current estimates and assumptions of the management of the Company as of the date of this presentation and are subject to uncertainty and changes. Given these uncertainties, you should not place undue reliance on these forward-looking statements.

Important factors that could cause actual results to differ materially from those indicated by such forward-looking statements include, among others, those set forth under the heading “Risk Factors” contained in TMC’s Annual Report on Form 10-K for the year ended December 31, 2024, which was filed with the Securities and Exchange Commission on March 27, 2025, as well as any updates to those risk factors filed from time to time in TMC’s subsequent periodic and current reports. All information in this presentation is as of the date of this presentation, and the Company undertakes no duty to update this information unless required by law.

## Why nodules?

### Polymetallic

High grades of four critical metals: nickel, copper, cobalt and manganese.

### Far offshore

Far away from people, no physical impact on communities.

### Very deep

The deeper you go, the less life you will find.

### Unattached

No overburden to remove, no hard rock to break. Nodules are *collected*, not mined.

### Portable

Once nodules are transferred to a bulk carrier, they can go to places with existing infrastructure and low-carbon power.

### No tailings, near zero waste

The nature of nodules and our flowsheet design make nearly the entirety of the nodule into useable products.

**We have achieved groundbreaking milestones since inception in 2011, materially de-risking execution...and we now have a clear permitting path as well.**

**Key milestones achieved since 2011:**



**Permitting has been remaining hurdle,  
and we now have a clear path:**

**the  
metals company  
USA**

Our subsidiary, The Metals Company USA, LLC (TMC USA), filed applications in April 2025 that could allow us to begin production in international waters under the existing U.S. seabed mining code.



# TMC USA has filed the world's first commercial recovery permit application and two exploration license applications under existing U.S. seabed mining code.



## Commercial Recovery Permit Application



## Exploration License Applications



# NOAA is reviewing TMC USA applications pursuant to its authority under DSHMRA.



| Regulator                       | National Oceanic and Atmospheric Administration (NOAA)                                                                                                                                                                                                                                                                                                                                                     |                                                 |       |
|---------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|-------|
| Regulatory basis                | <ul style="list-style-type: none"><li>- The Deep Seabed Hard Mineral Resources Act of 1980 (DSHMRA)</li><li>- NOAA Implementing Regulations for Exploration Licenses (1981)</li><li>- NOAA Implementing Regulations for Commercial Recovery Permits (1989)</li></ul>                                                                                                                                       |                                                 |       |
|                                 |                                                                                                                                                                                                                                                                                                                                                                                                            |                                                 |       |
| Applicant                       | TMC USA                                                                                                                                                                                                                                                                                                                                                                                                    |                                                 |       |
| Application type                | Commercial recovery permit                                                                                                                                                                                                                                                                                                                                                                                 | Exploration licenses                            |       |
| Area name                       | USA-A_2                                                                                                                                                                                                                                                                                                                                                                                                    | USA-A_1                                         | USA-B |
| Area size, CCZ                  | 25,160 km <sup>2</sup>                                                                                                                                                                                                                                                                                                                                                                                     | 199,895 km <sup>2</sup>                         |       |
| Nodule resource                 | 1.635 billion wet tonnes (Measured, Indicated & Inferred) <ul style="list-style-type: none"><li>- Nickel<ul style="list-style-type: none"><li>- 15.5 Mt</li></ul></li><li>- Copper<ul style="list-style-type: none"><li>- 12.8 Mt</li></ul></li><li>- Cobalt<ul style="list-style-type: none"><li>- 2.0 Mt</li></ul></li><li>- Manganese<ul style="list-style-type: none"><li>- 345 Mt</li></ul></li></ul> |                                                 |       |
| Initial NOAA application review | First milestone: 60-day review for substantial compliance                                                                                                                                                                                                                                                                                                                                                  | First milestone: 30-day review for completeness |       |

# President Trump's Executive Order of April 24, 2025, calls for America's return to leadership in the offshore minerals industry.

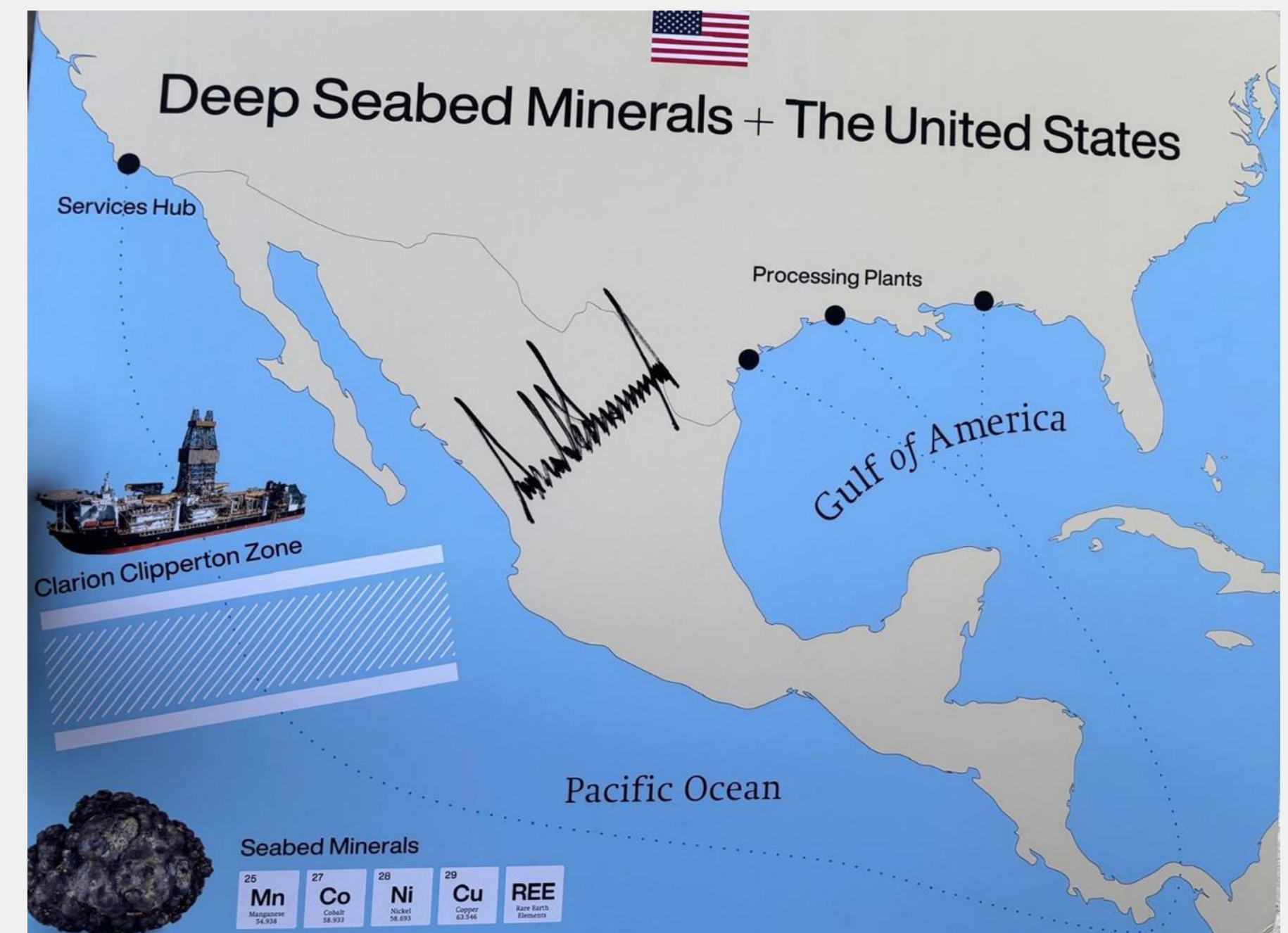
On April 24, 2025, President Trump signed an Executive Order — 'Unleashing America's Offshore Critical Minerals and Resources' — directing the Commerce Secretary to implement an expedited permitting process under DSHMRA.

The Order directs the Departments of Defense and Energy to assess:

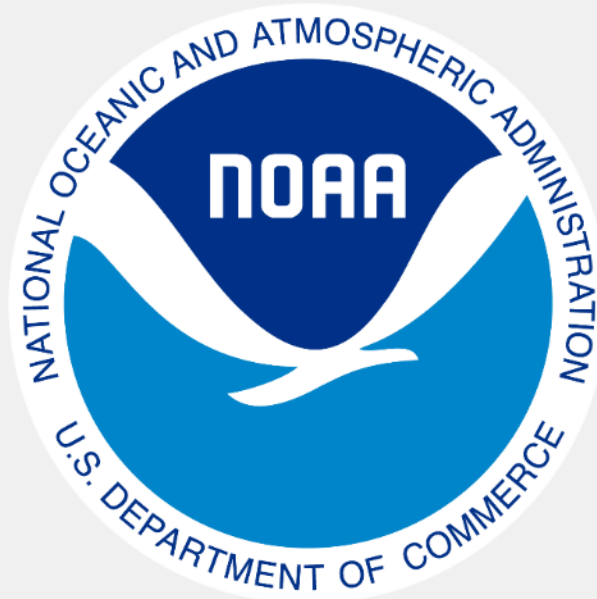
- The use of the National Defense Stockpile for nodule-derived minerals
- Entering into offtake agreements for the procurement of these minerals
- In addition, these departments are directed to review and revise domestic processing capabilities for seabed mineral resources and Defense Production Act authorities.

The order also directs the International Development Finance Corporation, Export-Import Bank and Trade and Development Agency to identify financials tools to support this new industry.

In light of its long-standing Pacific partnerships, TMC welcomes the directive for a joint assessment—led by the Secretaries of Commerce, State, Interior, and Energy in coordination with U.S. partners and allies—on the feasibility of an international seabed benefit-sharing mechanism.



# NOAA, Commerce and State Departments have made positive statements on the Executive Order and U.S. seabed mining permitting process.



## NOAA press release on Executive Order April 2025

"In support of the Executive Order, NOAA is committed to an expeditious review of applications for exploration licenses and commercial recovery permits. The agency will provide the necessary resources for license and permit reviews to ensure that those reviews go forward without undue delays..."

NOAA is working to update and streamline the application process by enhancing coordination across agencies."

Source: <https://www.noaa.gov/news-release/next-gold-rush-president-trump-unlocks-access-to-critical-deep-seabed-minerals>



## U.S. Commerce Dept. statement to NY Times March 2025

"Companies can apply for exploration licenses and commercial recovery permits for deep-sea mining in ocean areas beyond national jurisdiction," Maureen O'Leary, a [Commerce] department spokeswoman said, citing a 1980 federal law, the Deep Seabed Hard Mineral Resources Act."

Source: <https://www.nytimes.com/2025/03/30/us/politics/trump-mining-metals-company.html>



## Sec. of State Rubio on Executive Order April 2025

On April 24, Secretary of State and interim National Security Advisory Marco Rubio tweeted "Today's @POTUS executive order makes it clear: the United States – not China – will lead the world in responsibly unlocking seabed mineral resources and securing critical mineral supply chains with our partners and allies."

Source: X, @SecRubio, April 24, 2025

# The Economist: Trump is right to support deep sea nodule production.

## Donald Trump is Right to Go After Metals in the Deep Sea

The  
Economist

- In a [Leader](#) published on May 1, The Economist's second article on deep-sea mining in a week, they highlight the lower environmental impacts of sourcing metals from deep-sea polymetallic nodules
- "The Metals Company...is at the front of Mr Trump's deep-sea queue"
- "There is a strong argument that deep-sea collection will be better for the environment than mining on land. It will cause the release of less carbon dioxide and it will do less harm to rare species and precious habitat"
- "Compared with, say, mining in the Democratic Republic of Congo, activity on the seabed is straightforward to monitor"
- "However, if the ISA and its members want to exert any influence, it is time for them to stop behaving like dogs in a manger"

## A Trump Executive Order Will Unleash a Global Deep-sea Mining Boom

The  
Economist

- "The Clarion-Clipperton Zone (CCZ) alone covers some 4.5m square km in the north Pacific and contains an estimated 21bn tonnes of nodules (see map); they may hold four times all known cobalt reserves on land"
- "The administration insists that this new strategy will not only hugely increase American-controlled supplies of critical minerals. It will also, officials claim, create around 100,000 jobs"
- "Many demand levels of certainty about the environmental impacts that are significantly higher than those available for terrestrial mining"
- "Miners argue, correctly, that far more biomass resides in a tropical forest in Sulawesi, one of the world's most heavily mined sources of nickel, than in the deep ocean—which is therefore the better place to mine"

# TMC Chairman & CEO in Congress: Nodules can revitalize American industry.

## TMC CEO Testifies Before Congress: Deep-Sea Minerals Key to U.S. Industrial Future



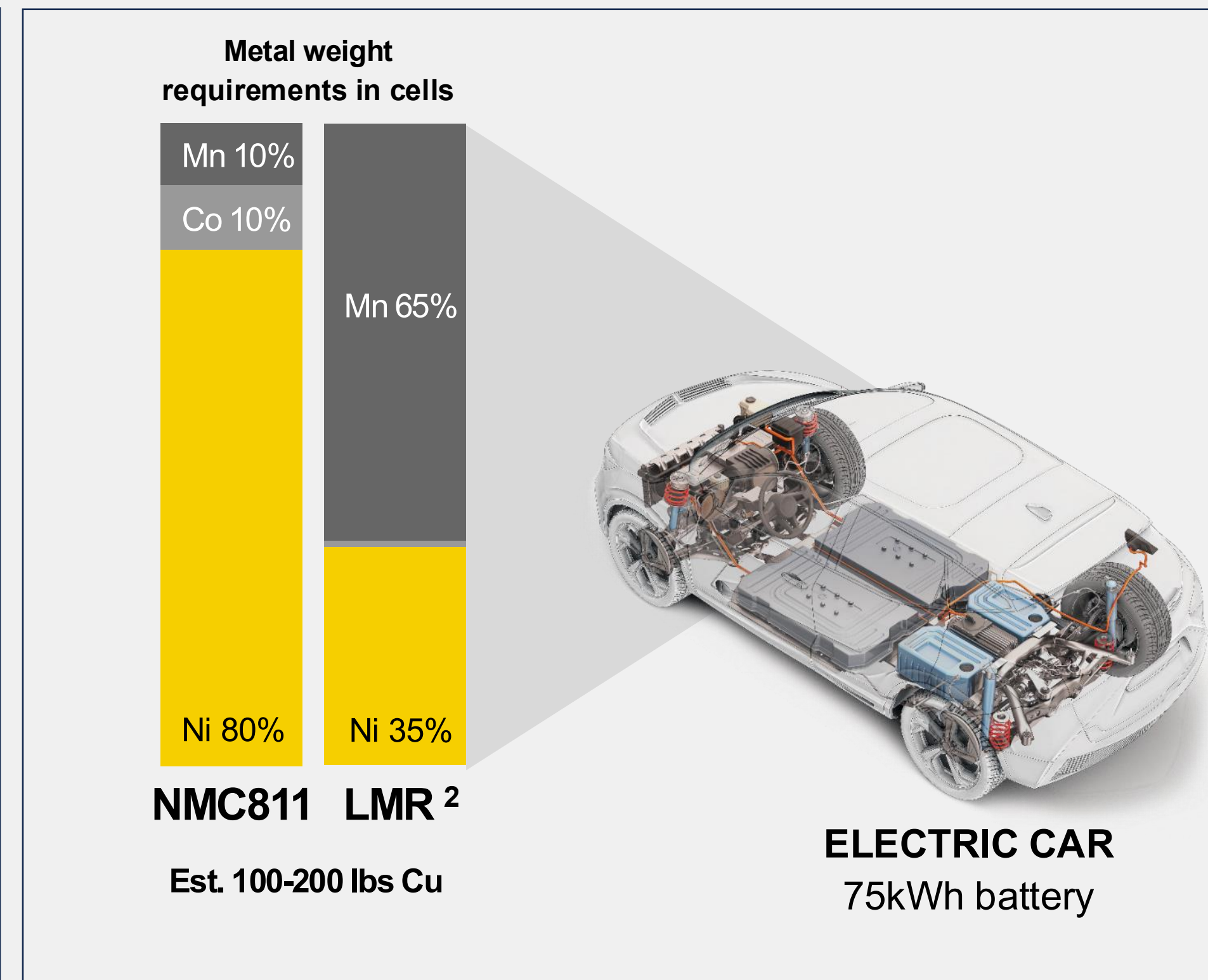
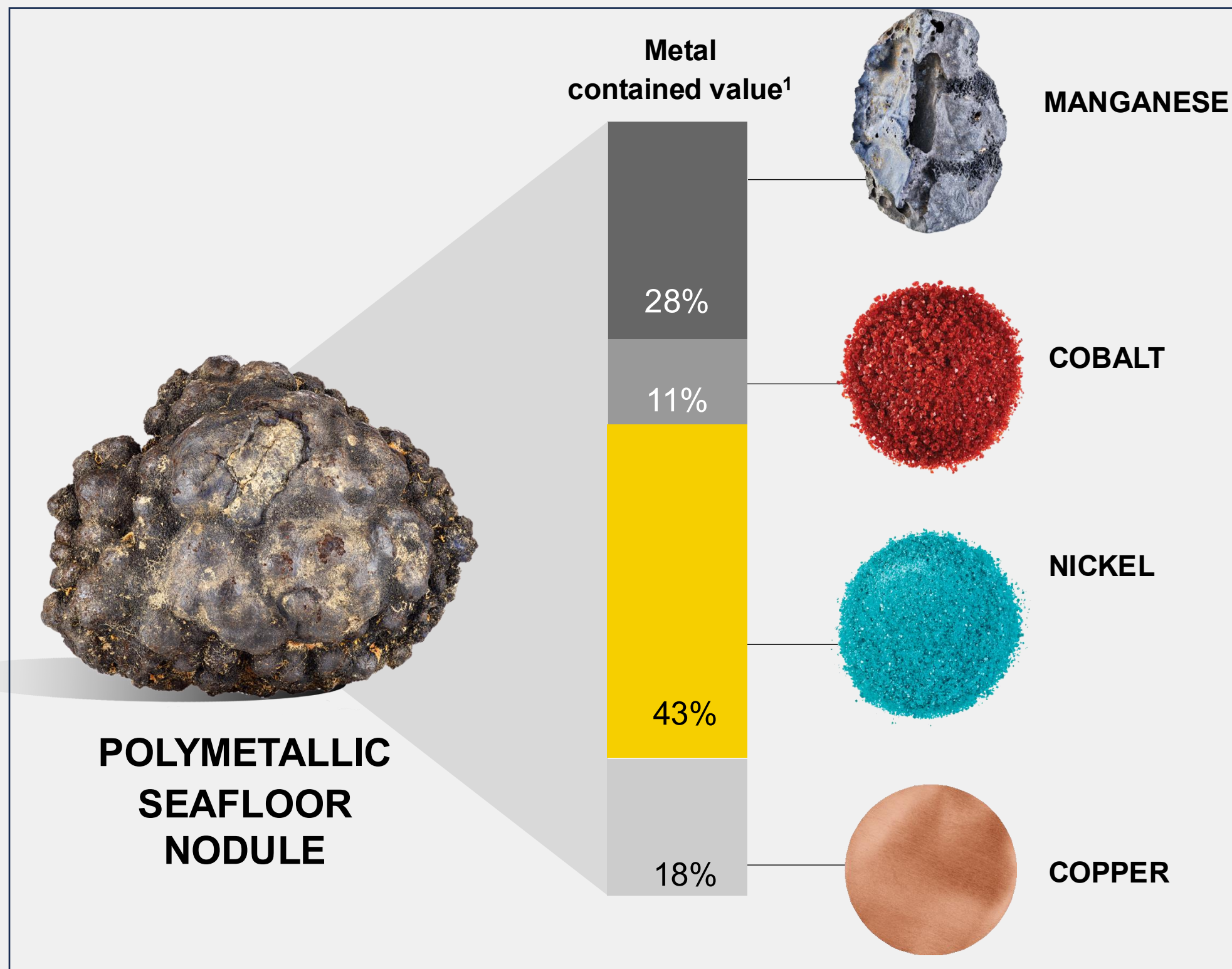
- Gerard Barron testified before the House Committee on Natural Resources on “Exploring the Potential of Deep-Sea Mining to Expand American Mineral Production”
- Subcommittee Chair Paul A. Gosar (R-AZ) called upon colleagues to “think about widespread economic, energy, technology and national security implications of deep-sea mining” and their duty to ensure the U.S. responsibly “leads the charge to harvest seafloor critical minerals”
- Gerard Barron: “From the 1880s to 1970, America was a mining and processing powerhouse. Since, domestic production sank, leaving America dangerously dependent on adversaries. We can change this, without sacrificing American landscapes or communities”

## Days After Trump Commits to Seabed Mining, Two Sides Face Off

*The New York Times*

- Following the Congressional hearing, the New York Times published an article noting the geostrategic and economic advantages of nodule collection, and the latest environmental data
- "The committee's chairman, Representative Paul Gosar, Republican of Arizona, said seabed mining was needed to get the United States out from under the 'supply chain yoke' of China"
- Gerard Barron likened President Trump's move to a “starting gun” for sourcing metals from the deep-sea, amid continued efforts from vested interests and activists at the ISA to delay adoption of regulations
- “Dr. Peacock said that while there were potentially hundreds of unknown species in the Clarion-Clipperton Zone and that specific areas deserved to be cordoned off from mining, ‘research indicates that some of the proposed impacts of nodule mining may not be as severe as speculated’”
- The piece notes how Dr Peacock addressed speculation on the topic of sediment plumes: “The debris would be ‘roughly the equivalent of a grain of sand in a fishbowl,’ Dr. Peacock said”

**Nodule composition fits well with high-nickel batteries and newly-announced lithium manganese rich (LMR) batteries being developed by GM, LG, Ford and others.**



<sup>1</sup> Contained metal value of polymetallic nodule resources calculated using dry nodule grades from the Technical Report Summary: Initial Assessment of the NORI Property, Clarion-Clipperton Zone, in accordance with the requirements of SEC Regulation S-K (subpart 1300) with an effective date of December 31, 2021 (the "NORI Report") (Ni 1.3%, Cu 1.1%, Co 0.2%, Mn 29.5%) and metal prices as of Feb 2024 for Ni at \$17,460/tonne ("t"), Cu at \$8,474/t, Co at \$28,550/t, Mn at \$5.0/dry metric tonne unit ("dmu").

<sup>2</sup> Narayanaswamy, Kushal. "Why LMR Batteries Will Change the Outlook for the EV Market." General Motors, 13 May 2025, <https://news.gm.com/home.detail.html/Pages/topic/us/en/2025/may/0513-LMR-batteries-outlook-EV-market.html>.

Date: 30/05/2020  
Time: 18:20:36 UTC  
Dive No: 144

Easting : 482149.97m  
Northing: 1147003.90m

HDG: 56.92  
Depth: 4294.20m  
Alt: 1.17m

# Nodules contain four critical metals for American manufacturing, defense, infrastructure and future technologies.

All four metals are on the U.S. critical minerals & materials lists.

28

Ni

Nickel  
58.693

- Alloy steel
- Batteries
- Boilers
- Desalination plants
- Electric generators
- Gas turbines
- Heat exchangers
- Jet engines
- Military hardware
- Nuclear reactors
- Oil rigs
- Power grid infrastructure
- Propulsion systems
- Solar panels
- Stainless steel appliances

27

Co

Cobalt  
58.933

- Aircraft engines
- Batteries
- Carbide tools
- Catalysts for petroleum
- Ceramics & pigments
- Dental prosthetics
- Electric car batteries
- Gas turbines
- Hard metals
- High-speed steels
- Industrial magnets
- Medical implants
- Paints and varnishes
- Solar panels
- Superalloys
- Tires

29

Cu

Copper  
63.546

- Air conditioners
- Automobile radiators
- Building wire
- Circuit boards
- Electric motors
- Electrical switches
- Heat exchangers
- Microwaves
- Piping (plumbing)
- Power cables
- Refrigerators
- Roofing & guttering
- Ship propellers
- Solar panels
- Telecom cables
- Transformers
- Water heaters
- Wiring

25

Mn

Manganese  
54.938

- Aluminum alloys
- Batteries
- Bricks (colorant)
- Catalysts
- Ceramic glazes
- Concrete additives
- Fertilizers
- Gasoline additives
- Glass
- Low-cost stainless steel formulations
- Paints and varnishes
- Pesticides
- Railroad tracks
- Steel alloys
- Welding rods
- Window glass (green tint)

## Access to a billion tonnes of nodules would be transformational for the U.S.

Number of years of current U.S. consumption that could be supplied by a billion tonnes of nodules

**456**

years

25

**Mn**

Manganese  
54.938

**165**

years

27

**Co**

Cobalt  
58.933

**81**

years

28

**Ni**

Nickel  
58.693

**4**

years

29

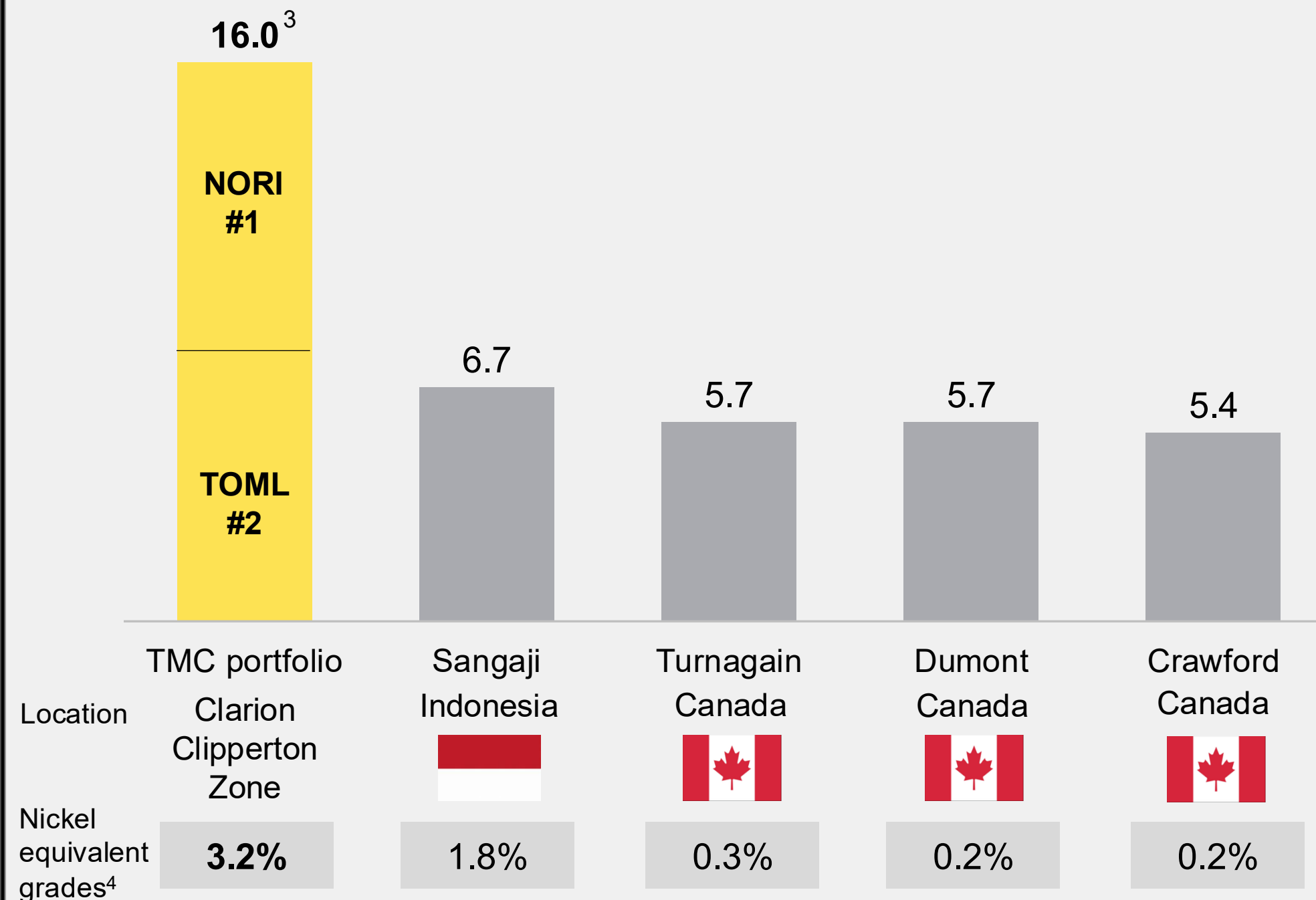
**Cu**

Copper  
63.546

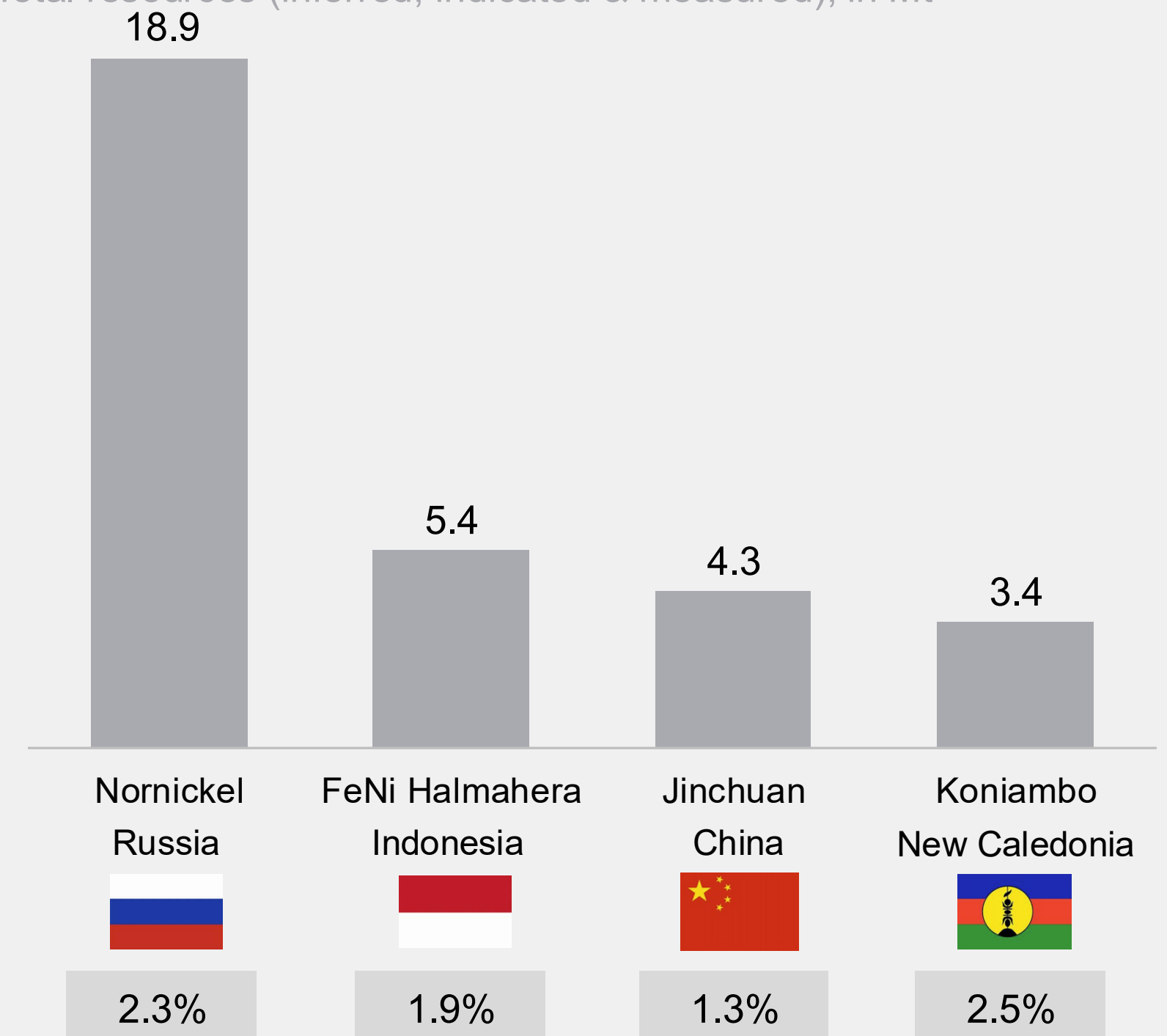
**TMC: ranked in 2022 and 2023 as #1 and #2 largest undeveloped nickel projects on the planet<sup>1</sup>; the high-grade alternative to Russian- and Chinese-funded supply.**

**World's largest undeveloped nickel projects**  
Total est. resources (inferred, indicated & measured), in Mt<sup>1</sup>

**MINING**  
**[DOT]COM**



**World's largest nickel operations ranked by resource**  
Total resources (inferred, indicated & measured), in Mt<sup>2</sup>



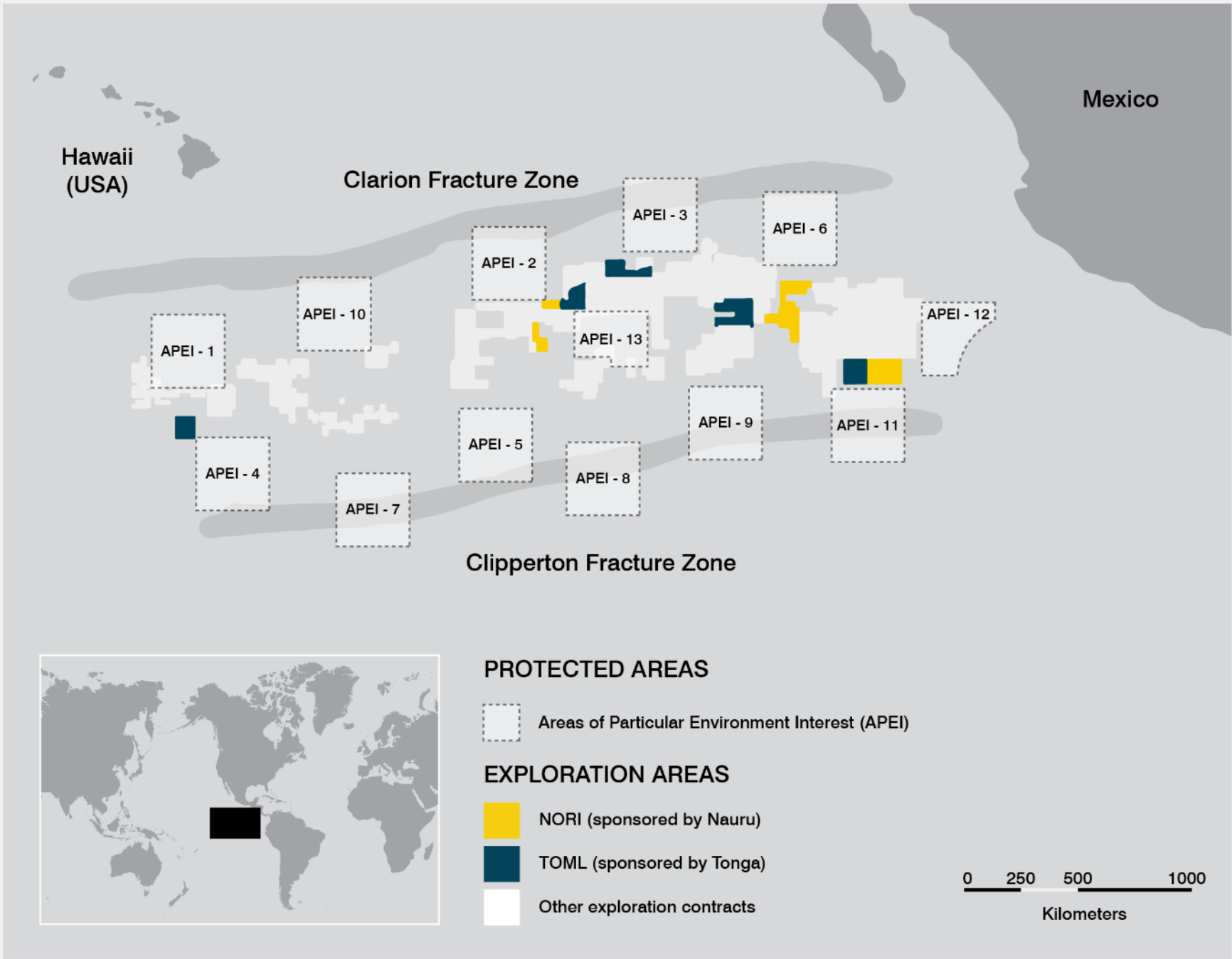
<sup>1</sup> <https://www.mining.com/featured-article/ranked-worlds-biggest-nickel-projects/>

<sup>2</sup> Global Nickel Industry Cost Summary, Wood Mackenzie, August 2020; inclusive of reserves. Asset Reports for FeNi Halmahera, Jinchuan and Koniambo.

<sup>3</sup> Canadian NI 43-101 Resource Statement for full field financial model (internal TMC development scenario).

<sup>4</sup> Nickel equivalence calculation uses NORI-D Model price deck as stated in NORI Initial Assessment available at [investors.metals.co](https://investors.metals.co).

TMC: technical resource statements issued on NORI + TOML, with an *in situ* estimated resource of Ni, Cu, Co and Mn sufficient to electrify the entire U.S. passenger car fleet<sup>1</sup>.



| TMC exploration contract area    | NORI <sup>2</sup>                     | TOML <sup>3</sup>        |
|----------------------------------|---------------------------------------|--------------------------|
| Sponsoring State                 | Republic of Nauru                     | Kingdom of Tonga         |
| Exploration area                 | 74,830 km <sup>2</sup>                | 74,713 km <sup>2</sup>   |
| Technical resource statement     | Yes                                   | Yes                      |
| Estimated nodule tonnage         | 866 <sup>4</sup> million tonnes (wet) | 768 million tonnes (wet) |
| Avg. grade across contract area: |                                       |                          |
| Manganese                        | 29.5%                                 | 29.2%                    |
| Nickel                           | 1.3%                                  | 1.3%                     |
| Copper                           | 1.1%                                  | 1.1%                     |
| Cobalt                           | 0.2%                                  | 0.2%                     |

<sup>1</sup> Assuming 75kWh batteries with NMC811 chemistry and nodule resource grade and abundance, "Where Should Metals for the Green Transition Come From?", Paulikas et al, LCA white paper, April 2020. Calculation based on estimated contained value of nickel.

<sup>2</sup> SEC Regulation S-K (Subpart 1300) Compliant NORI Clarion Clipperton Zone Mineral Resource Estimate AMC, 17 March 2021. 521 Mt Inferred, 341 Mt, 4 Mt Measured.

<sup>3</sup> SEC Regulation S-K (Subpart 1300) Compliant TOML Clarion Clipperton Zone Project Mineral Resource Estimate, AMC, 26 March 2021. 696 Mt inferred, 70 Mt Indicated, 2.6 Mt Measured.

<sup>4</sup> SEC Regulation S-K (Subpart 1300) Compliant NORI Area D Clarion Clipperton Zone Mineral Resource Estimate and associated financial model, AMC, 17 March 2021. 11 Mt Inferred @ 1.4% Ni, 1.1% Cu, 0.1% Co and 31.0 % Mn and 15.6 Kg/m2 abundance, 341 Mt Indicated @ 1.4% Ni, 1.1% Cu, 0.1% Co and 31.2% Mn and abundance 17.1Kg/m2, 4 Mt Measured @ 1.4% Ni, 1.1% Cu, 0.1% Co and 32.2 % Mn and 18.6 Kg/m2.

# Pilot collection system test and initial environmental impact monitoring campaign completed in Dec 2022. Over ~3,000 wet tonnes of nodules lifted to surface.



## PILOT COLLECTOR SYSTEM TEST PROGRAM IN 2022

|                |                                                                                                      |
|----------------|------------------------------------------------------------------------------------------------------|
| January        | Riser acceptance test                                                                                |
| February       | Thruster re-lift, dockside vessel commissioning, review of nodule offloading & handling test program |
| Feb 7          | LARS load test                                                                                       |
| Feb 28–Mar 3   | Thruster installation                                                                                |
| March 2–9      | Collector wet function tests in outer harbor                                                         |
| March 12–17    | Hidden Gem dynamic positioning trials                                                                |
| March 18–28    | Collector drive test in the North Sea                                                                |
| April 6–11     | Deep-water test in the Atlantic                                                                      |
| April 21–24    | Riser deployment test                                                                                |
| April 22–May 3 | Jumper deployment and connection test                                                                |
| May 3–June 29  | Transit to Mexico                                                                                    |
| June 29        | Mobilization                                                                                         |

## ENVIRONMENTAL IMPACT MONITORING CAMPAIGN

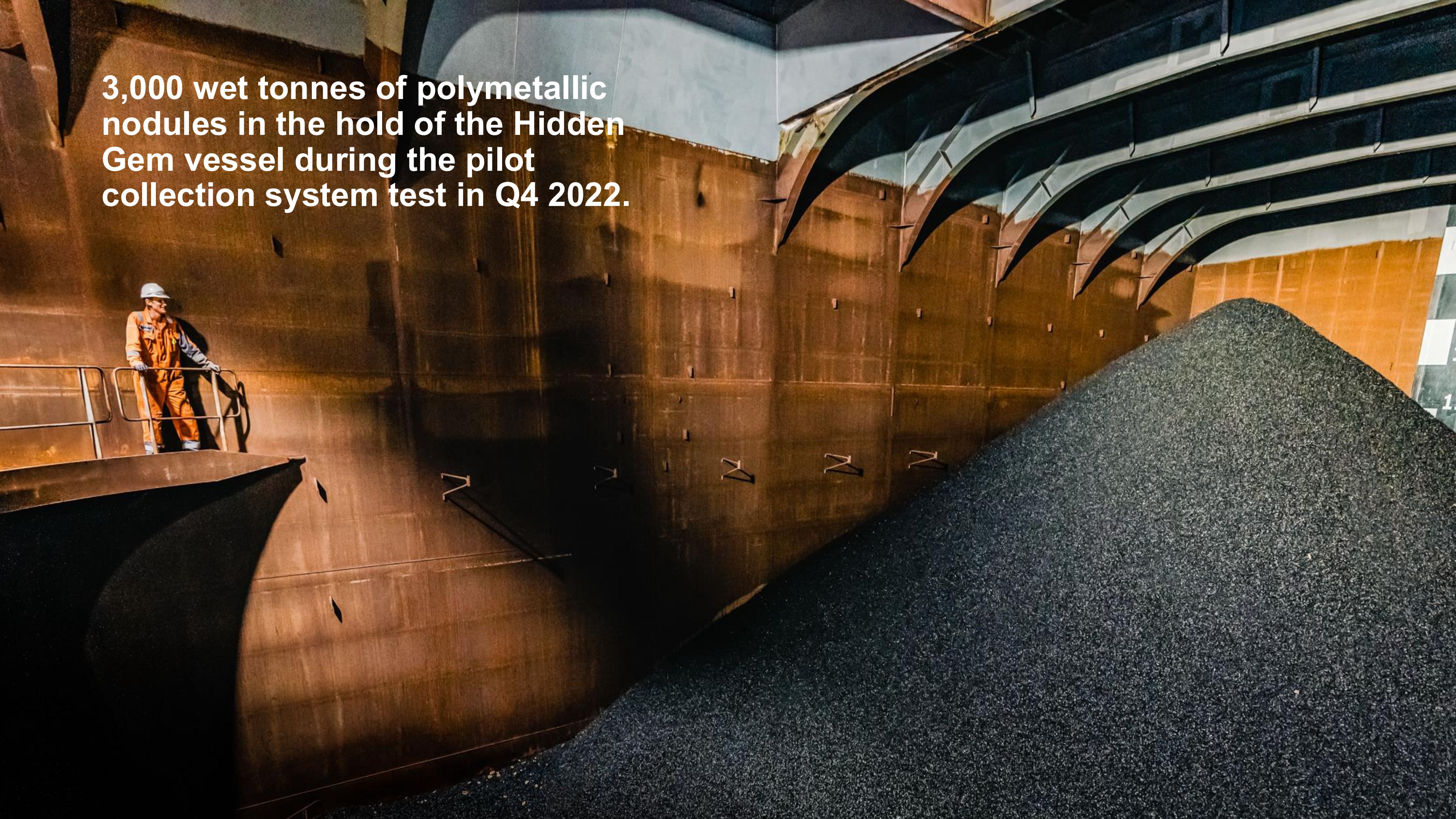
|           |                                         |
|-----------|-----------------------------------------|
| 2021-2022 | EIS, EMMP & revisions submitted to ISA  |
| July 8–15 | Mobilization                            |
| July 15   | Pre-collector test survey               |
| Sept 7    | ISA recommendation to proceed           |
| Sept-Dec  | Pre, during, post environmental surveys |

## PILOT TRIALS IN NORI-D

|          |                                                                                                |
|----------|------------------------------------------------------------------------------------------------|
| Sept-Dec | Integrated collector test<br>~4.5k wet tonnes collected, over 3k wet tonnes brought to surface |
|----------|------------------------------------------------------------------------------------------------|

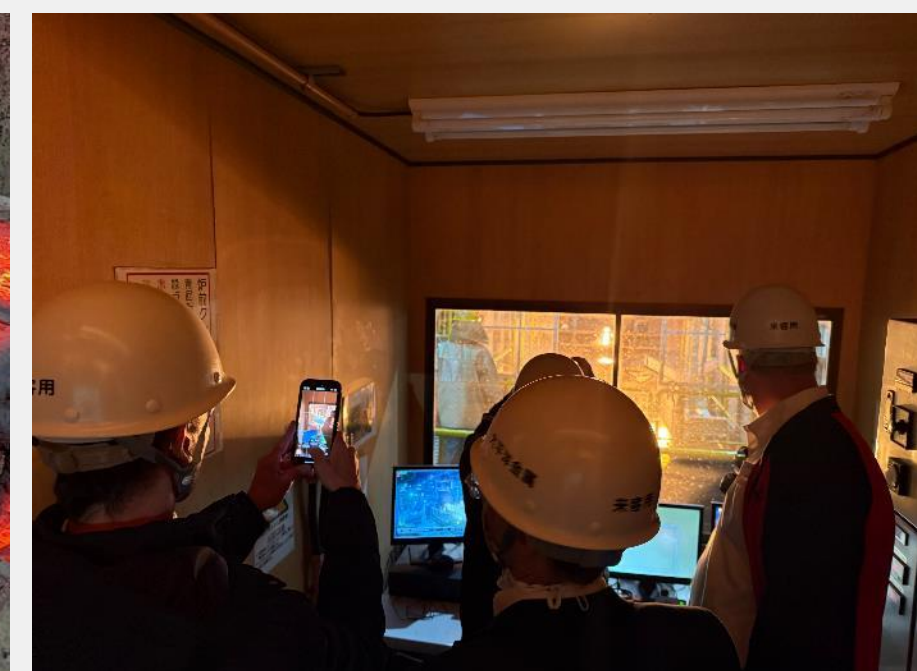


**3,000 wet tonnes of polymetallic nodules in the hold of the Hidden Gem vessel during the pilot collection system test in Q4 2022.**



## In April, equity analysts, traders and downstream consumers attended a site visit at PAMCO's commercial operating facility in Japan.

- In April 2025, TMC and PAMCO welcomed over 50 representatives including equity research analysts, commodity traders, steelmakers and battery metal consumers to PAMCO's Hachinohe plant in Japan for a site visit
- Attendees were given a full tour of PAMCO's Rotary Kiln Electric-Arc Furnace (RKEF) facility
- During the tour, attendees spoke with PAMCO engineers about TMC's commercial production flowsheet and the final specifications of its metal products, and were given the opportunity to view samples of the products up close
- Following commercial-scale production of calcine in September 2024, PAMCO successfully demonstrated the smelting of calcine into high-grade nickel-copper-cobalt alloy and manganese silicate products in February 2025
- By utilizing PAMCO's existing facility, TMC can eliminate the need for upfront onshore capital expenditures as part of its capital-light approach



# China wants to dominate deep sea mining and is using it to alter geopolitics in the Pacific, spurring action in the U.S. and beyond.

| 2001-18                                                                                                                                                                                                                                                                                                                  | 2019                                                                                                                                                                                                                                                          | Apr 2024                                                                                                                                      | Jul 2024                                                                                                                                                                                               | Feb/Mar 2025                                                                                                                                                                                                                                                                                                        |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>China sponsors 5 deep-sea mineral exploration contracts in international waters (3 for nodules), the most of any country, yielding significant influence at the International Seabed Authority.</p> <p>National Deep Sea Center opens in Qingdao in 2010.</p> <p>COMRA seafloor testing in national waters, 2018.</p> | <p>Launch of Sanya Deep Sea Technology City: over 220 acres, equipment and vessels made available for testing and research voyages out of Nanshan Port, almost 12,000 registered enterprises (30+ in Top 500) representing approx. US \$2B in investment.</p> | <p>China Minmetals and Beijing Pioneer submit environmental impact statements to the ISA for test mining in international waters in 2025.</p> | <p>Industrial Innovation Consortium for development of deep-sea minerals launched by SASAC of the State Council. Pioneer II test mining in national waters sub-4km, a world first for the Chinese.</p> | <p>China signs agreement with the Cook Islands, focused on deep-sea minerals.</p> <p>Following the deal, New Zealand, which acts in ‘free association’ with Cook Islands, considers withdrawing support for a moratorium on deep-sea mining.</p> <p>Kiribati explores a deep-sea mining partnership with China.</p> |



## The world's top industrial economies announced key actions in the last year on seafloor resources, potentially also growing the addressable market for services business.



Nat'l Defense Authorization Act for 2025 calls for feasibility study on domestic nodule refining capacity.

[December 2024](#)



Two Chinese contractors launched stakeholder consultations for environmental impact statements for upcoming collector tests in 2025. [April 2024](#) and [May 2024](#)



India has submitted two ISA applications for seabed mineral exploration, and recently conducted pilot technology trials. [January 2024](#) and [October 2024](#)



Sweden granted an exploration license for nodules in the Bothnian Bay and Baltic Sea between Sweden and Finland. [July 2024](#)



Belgium parliament adopted legislation to "ensure deep-sea mining is undertaken responsibly."

[May 2024](#)



Japan has announced its intention to conduct a polymetallic nodule collection system test in its territorial waters as early as 2025.

[June 2024](#)



Norway will begin accepting exploration applications for marine minerals in its EEZ and has announced US\$14M extra funding for offshore research.

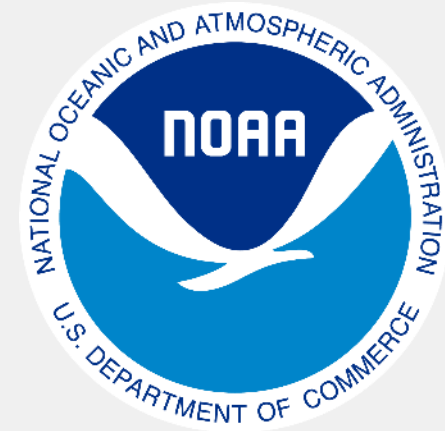
[June 2024](#) and [October 2024](#)



South Korea announced that it would re-commence work on the preparation and promulgation of domestic deep-sea mineral legislation.

[January 2025](#)

**U.S. companies and government agencies such as NOAA were nodule pioneers beginning in the 1970s. But while 168 nations ceded control of seabed mining in international waters to the ISA, the U.S. did not.**



### **US Government**

**Legislation:** Congress adopted the Deep Seabed Hard Mineral Resources Act (DSHMRA, 1980) establishing the legal framework and regulatory authority for the U.S. citizens to engage in deep seabed mining while ensuring that such activities were environmentally responsible and while safeguarding U.S. economic and strategic interests.

### **Programmatic Environmental Impact**

**Assessment:** NOAA delivered Deep Ocean Mining Environmental Study (DOMES) in the Clarion-Clipperton Zone 1975-1995 with encouraging conclusions concerning the impacts.

### **US companies**

Led exploration, developed and piloted nodule collection technology. Developed and tested processing flowsheets:

- Amoco Minerals (now BP)
- Deepsea Ventures Inc.
- International Nickel Company (now Vale)
- Kennecott Copper Corp (now Rio Tinto)
- Lockheed
- Ocean Management Inc.
- Sedco (now Transocean)
- Sun Oil (now Sunoco)
- US Steel

# Instead, the U.S. developed its own seabed mining code regulating exploration *and* commercial recovery in international waters.



## BACKGROUND

No. 2746 | DECEMBER 4, 2012

The U.S. Can Mine the Deep Seabed Without Joining the U.N. Convention on the Law of the Sea  
Steven Groves

**Abstract**  
*The United States can mine the deep seabed without acceding to the United Nations Convention on the Law of the Sea (UNCLOS). For more than 30 years, through domestic law and bilateral agreements, the U.S. has established a legal framework for deep seabed mining. In fact, U.S. accession would penalize U.S. companies by subjecting them to the whims of an unelected and unaccountable international bureaucracy. U.S. companies would be forced to pay excessive fees, costs, and royalties to the International Seabed Authority for redistribution to developing countries. U.S. interests are better served by not acceding to UNCLOS.*

This paper, in its entirety, can be found at <http://report.heritage.org/bg2746>  
Produced by the Margaret Thatcher Center for Freedom  
**The Heritage Foundation**  
214 Massachusetts Avenue, NE  
Washington, DC 20002  
(202) 546-4400 | [heritage.org](http://heritage.org)  
Nothing written here is to be construed as necessarily reflecting the views of The Heritage Foundation or as an attempt to aid or hinder the passage of any bill before Congress.

Proponents of U.S. accession to the United Nations Convention on the Law of the Sea (UNCLOS) maintain that the United States may not engage in deep seabed mining unless and until it joins the convention. That is not the case. The United States has a sovereign and inherent right to mine the deep seabed and has successfully secured that right in the past through bilateral and multilateral agreements with other nations that also engaged in seabed exploration.  
Accession to UNCLOS is simply not a viable option. The philosophical basis of the convention, in the words of the preamble, is to “contribute to the realization of a just and equitable international economic order which takes into account the interests and needs of mankind as a whole and, in particular, the special interests and needs of developing countries.”<sup>1</sup> The convention declares that the deep seabed and its resources are the “common heritage of mankind” and may be mined only “for the benefit of mankind as a whole, irrespective of the geographical location of States.”<sup>2</sup>  
The resulting UNCLOS deep seabed mining regime, designed on that philosophical basis and negotiated during the 1970s at the Third

### KEY POINTS

- The United States has a sovereign and inherent right to mine the deep seabed. This right is not dependent on membership in the United Nations Convention on the Law of the Sea.
- In the past, the U.S. has successfully secured its rights to mine the deep seabed through bilateral and multilateral agreements with other deep seabed mining nations.
- The UNCLOS mining regime is based on the philosophy that the deep seabed is the “common heritage of mankind” and that the profits generated from mining must be shared with developing and landlocked countries.
- By acceding to UNCLOS, the United States would place itself and its mining companies under the regulatory power and control of the International Seabed Authority, an international organization created by the convention, and U.S. companies would be forced to pay excessive fees, costs, and royalties to the Authority for redistribution to developing countries.

## Deep Seabed Hard Mineral Resources Act (DSHMRA 1980) and NOAA’s implementing regulations

DSHMRA was designed to allow U.S. citizens to engage in the exploration and commercial recovery of deep seabed minerals in areas beyond U.S. national jurisdiction. U.S. entities can apply to NOAA for exploration and commercial recovery permits.



- **PART 970—DEEP SEABED MINING REGULATIONS FOR EXPLORATION LICENSES**  
Authority: 30 U.S.C. 1401 et seq.
- **Subpart A—General**  
Source: 46 FR 45896, Sept. 15, 1981, unless otherwise noted.
- **§ 970.100 Purpose.**
  - (a) **General.** The purpose of this part is to implement those responsibilities and authorities of the National Oceanic and Atmospheric Administration (NOAA), pursuant to Public Law 96-283, the Deep Seabed Hard Mineral Resources Act (the Act), to issue to eligible United States citizens licenses for the exploration for deep seabed hard minerals.
  - (b) **Purposes of the Act.** In preparing these regulations NOAA has been mindful of the purposes of the Act, as set forth in section 2(b) thereof. These include:
    - (1) Encouraging the successful conclusion of a comprehensive Law of the Sea Treaty, which will give legal definition to the principle that the hard mineral resources of the deep seabed are the common heritage of mankind and which will assure, among other things, nondiscriminatory access to such resources for all nations;
    - (2) Establishing, pending the ratification by, and entering into force with respect to, the United States of such a treaty, an interim program to regulate the exploration for and commercial recovery of hard mineral resources of the deep seabed by United States citizens;

- **PART 971—DEEP SEABED MINING REGULATIONS FOR COMMERCIAL RECOVERY PERMITS**  
Authority: 30 U.S.C. 1401 et seq.  
Source: 54 FR 525, Jan. 6, 1989, unless otherwise noted.
- **Subpart A—General**
- **§ 971.100 Purpose.**

The purpose of this part is to implement the responsibilities and authorities of the Administrator of the National Oceanic and Atmospheric Administration (NOAA) pursuant to Public Law 96-283, the Deep Seabed Hard Mineral Resources Act (the Act), to issue to eligible United States citizens permits for the commercial recovery of deep seabed hard minerals.
- **§ 971.101 Definitions.**

For purposes of this part, the term

  - (a) **Act** means the Deep Seabed Hard Mineral Resources Act (Pub. L. 96-283; 94 Stat. 553; 30 U.S.C. 1401 et seq.);
  - (b) **Administrator** means the Administrator of the National Oceanic and Atmospheric Administration, or the Administrator’s designee;
  - (c) **Affected State** means any State with a coastal zone management program approved under Section 306 of the Coastal Zone Management Act, as amended, where coastal zone land and water uses are affected by the issuance of a commercial recovery permit under the provisions of the Act or this part;

# FAQs on TMC USA and DSHMRA compliance with international law.

| Question                                                                                                                                                                         | Answer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Are The Metals Company USA LLC’s planned operations compliant with international law?                                                                                            | <p>Yes. The Metals Company USA LLC (TMC USA) is a private entity established in 2013 under the laws of the United States. Its actions are lawful and fully compliant with U.S. law, as the Deep Seabed Hard Mineral Resources Act (DSHMRA) was enacted by the U.S. Congress to authorize the exploration and commercial recovery of deep-seabed minerals in international waters by United States citizens. Statements from NOAA, Commerce, State Departments and White House concur.</p> <p>TMC USA is not a State or a national of a State which ratified the United Nations Convention on the Law of the Sea (UNCLOS) and therefore does not bear obligations under UNCLOS. Its rights and obligations are defined by the laws and regulations of the United States.</p> |
| Why doesn’t UNCLOS apply to the United States?                                                                                                                                   | <p>UNCLOS does not apply because the U.S. is not a State Party to UNCLOS and has never ratified UNCLOS or the 1994 Agreement relating to the formation of the International Seabed Authority</p> <ul style="list-style-type: none"><li>- According to Article 34 of the Vienna Convention on the Law of Treaties (VCLT), “[a] treaty does not create either obligations or rights for a third State without its consent.”</li><li>- Under Article 14 of the VCLT, a treaty is binding upon a State only when it has expressed its consent to be bound, typically through ratification. Since the U.S. has not done so, it is not legally bound by UNCLOS.</li></ul>                                                                                                         |
| Does the entirety of UNCLOS reflect customary international law, and if so, is it binding on the United States despite its non-party status?                                     | <p>The U.S. has never contradicted its original understanding of deep-sea mining as a freedom of the high seas and has steadfastly opposed Part XI’s framework for the ISA-led exploitation of deep seabed minerals.</p> <p>The parts of UNCLOS that are recognized as customary deal with traditional legal rights such as navigation, overflight, EEZ regimes and maritime boundary delimitation. Part XI, in contrast, is a highly complex and bespoke international arrangement that has yet to be fully implemented in practice, let alone adopted by States with the requisite consistency needed to prove an international custom.</p>                                                                                                                               |
| What dispute resolution options under UNCLOS do Member States or the ISA have to challenge any exploration license or commercial recovery permit issued to TMC USA under DSHRMA? | <p>The United States is not a party to UNCLOS, and therefore no action can be brought against the U.S. by UNCLOS member States or the ISA under the dispute resolution mechanisms set out in Part XV or Article 187.</p> <p>In addition, the United States withdrew from the compulsory jurisdiction of the International Court of Justice in 1986, meaning U.S. consent would be required for the International Court of Justice to have jurisdiction to hear any contentious claim against the U.S..</p>                                                                                                                                                                                                                                                                  |

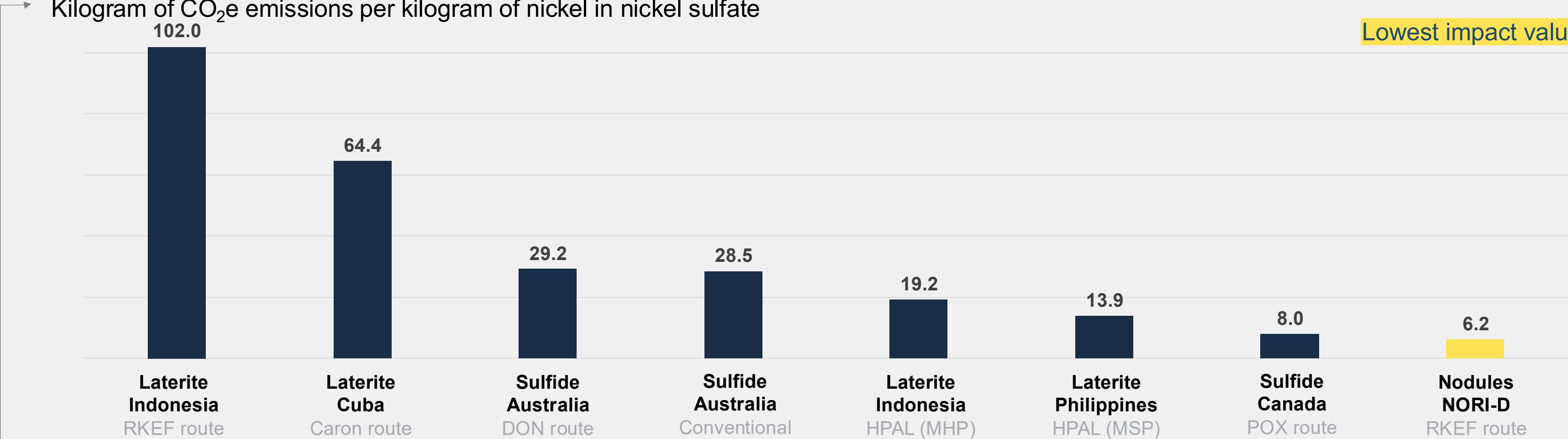
# Benchmark: Nickel from NORI-D could have dramatically lower lifecycle impacts including substantially lower CO<sub>2</sub>e emissions.<sup>1</sup>



### Global Warming Potential

Kilogram of CO<sub>2</sub>e emissions per kilogram of nickel in nickel sulfate

Lowest impact value



~93% of global refined nickel production for 2022

|                                   |                       | Laterite<br>Indonesia<br>RKEF route | Laterite<br>Cuba<br>Caron route | Sulfide<br>Australia<br>DON route | Sulfide<br>Australia<br>Conventional | Laterite<br>Indonesia<br>HPAL (MHP) | Laterite<br>Philippines<br>HPAL (MSP) | Sulfide<br>Canada<br>POX route | Nodules<br>NORI-D<br>RKEF route |
|-----------------------------------|-----------------------|-------------------------------------|---------------------------------|-----------------------------------|--------------------------------------|-------------------------------------|---------------------------------------|--------------------------------|---------------------------------|
| Impact category                   | Unit                  |                                     |                                 |                                   |                                      |                                     |                                       |                                |                                 |
| Global warming potential          | kg CO <sub>2</sub> eq | 102.0                               | 64.4                            | 29.2                              | 28.5                                 | 19.2                                | 13.9                                  | 8.0                            | 6.2                             |
| Stratospheric ozone depletion     | mg CFC11 eq           | 14.1                                | 17.3                            | 27.5                              | 27.1                                 | 3.1                                 | 3.1                                   | 3.4                            | 0.7                             |
| Fine particulate matter formation | g PM2.5 eq            | 1,187.0                             | 31.7                            | 43.1                              | 42.9                                 | 262.0                               | 160.4                                 | 39.5                           | 9.2                             |
| Terrestrial acidification         | kg SO <sub>2</sub> eq | 0.96                                | 0.09                            | 0.13                              | 0.13                                 | 0.69                                | 0.53                                  | 0.13                           | 0.03                            |
| Freshwater eutrophication         | g P eq                | 91.0                                | 9.5                             | 75.8                              | 76.4                                 | 9.1                                 | 5.2                                   | 2.9                            | 1.0                             |
| Marine eutrophication             | g N eq                | 5.5                                 | 0.1                             | 2.3                               | 2.3                                  | -1.8                                | -1.3                                  | 0.2                            | -2.1                            |
| Water consumption                 | m <sup>3</sup>        | 0.31                                | 0.17                            | 0.15                              | 0.13                                 | 0.25                                | 0.24                                  | 0.15                           | 0.05                            |
| Land-based waste generation       | kg                    | 244                                 | 365                             | 545                               | 545                                  | 337                                 | 337                                   | 82                             | 0                               |
| Marine waste generation*          | kg                    | N/A                                 | N/A                             | N/A                               | N/A                                  | N/A                                 | N/A                                   | N/A                            | 137                             |

\* Nodule collection operations entrain underlying sediment, separate it from nodules and return to the seafloor within meters of its origin. For the purposes of the LCA, this entrained sediment has been defined as a marine waste stream

1. Benchmark Mineral Intelligence, "The Metals Company – Life Cycle Assessment for TMC's NORI-D polymetallic nodule project and comparison to key land-based routes for producing nickel, cobalt and copper" (March 2023). [https://metals.co/wp-content/uploads/2023/03/TMC\\_NORI-D\\_LCA\\_Final\\_Report\\_March2023.pdf](https://metals.co/wp-content/uploads/2023/03/TMC_NORI-D_LCA_Final_Report_March2023.pdf).

# Environmental Impact Statement (EIS): based on one of the largest deep-sea datasets ever compiled.

**100+** studies

## Seabed-to-surface ocean research program

### Surface biology

Surface fauna logbook (PelagOS)  
Remote Sensing, Hydrophone Acousitics

### Pelagic biology

Microbial Community Characterization  
Phytoplankton Community Characterization  
Zooplankton Community Characterization  
Gelatinous Zooplankton Characterization  
Micronekton Characterization  
Trophic Analysis (Stable Isotopes)  
Temporal Variability of Pelagic Communities  
Trace Element Profiles In Water Column  
Particulate Profiles in Water Column  
Discharge Plume Characterization (Physical)  
Discharge Plume Characterization (Biological)  
Midwater Discharge (food webs particle composition)



### Benthic biology

Mega fauna Characterization (Photo transects)  
Mega fauna Characterization (Time Lapse)  
Macro Fauna Characterization  
Micro Fauna Characterization  
Meso Fauna Characterization  
Macro Fauna Characterization

### Sediment analysis

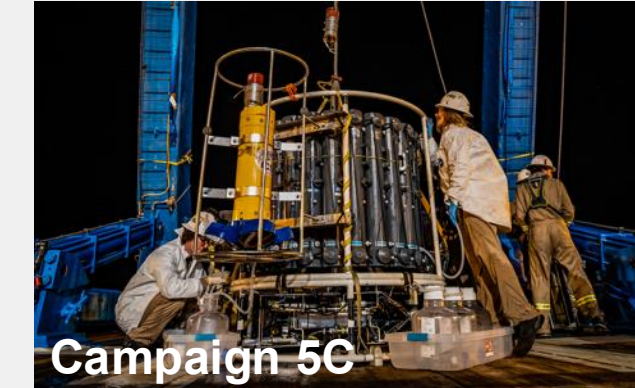
Baited camera and traps  
Benthic respiration and nutrient cycling  
Seafloor metabolic activities  
Bioturbation, sediment characteristics  
Porewater sampling  
Exposure toxicology studies  
Metals determination by ICP analysis  
Induction of gene transcripts (metals)

### Collector impact studies

Met ocean studies  
Bathymetry (seabed mapping)  
Habitat mapping  
Database development  
Digital twin development  
Collector test nearfield studies  
Collector test far-field modeling  
Plume modeling  
Existing Resource Utilization Study  
Noise & Light Study  
Meteorology & Air Quality Study  
Hazard & Risk Assessment  
Emergency Response Planning  
Cultural & Historical Resources  
Waste Management  
Cumulative Impacts



Campaign 4D



Campaign 5C



Campaign 7C



Campaign 5A



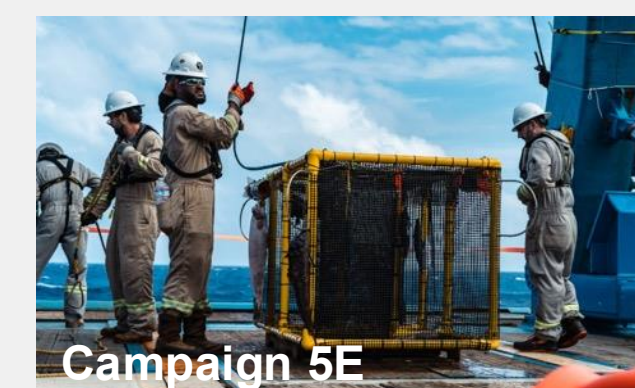
Campaign 5D



Campaign 7B 1&2



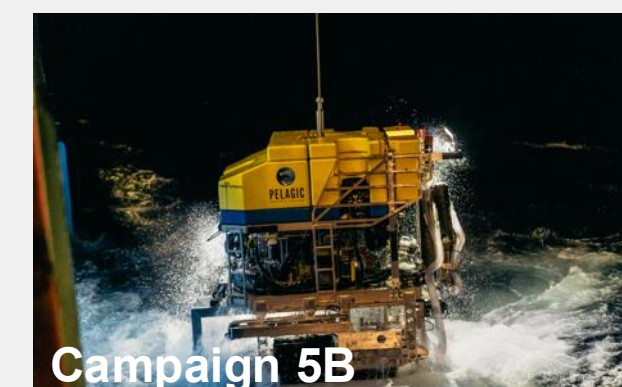
Campaign 4E



Campaign 5E



Campaign 8A



Campaign 5B



Campaign 7A 1&2



Campaign 8B

**Our EIS is addressing six primary concerns. Results are encouraging on every one of them.**

### **Seafloor plumes**

Concern: “Seafloor plumes could travel 10,000s km beyond mining sites.”

Status: in-field observed data shows very localized and limited seafloor plume impact, with 95% of mobilized mass resettling within 1 km.

### **Midwater plumes**

Concern: “Midwater plumes could travel over a 1,000 km and be toxic for tuna fisheries.”

Status: preliminary in-field data shows limited and very diluted midwater plume, released far deeper than fisheries.

### **Carbon**

Concern: “Planet’s biggest carbon sink could be disturbed.”

Status: most ocean carbon is in the seawater, not the sediment. Further, no known path for seafloor carbon to reach atmosphere.

### **Noise**

Concern: “Noise from operations could disrupt whales’ communications.”

Status: HRW report in May 2024: “risk of injury to animal hearing from the sound generated by the scaled-up NORI deep sea mining activity is relatively low.”

### **Biodiversity loss**

Concern: “Mining could lead to the extinction of species unknown to science.”

Status: our work is making deep-sea species known to science at an unprecedented rate, and ~43% of the CCZ is already set aside for protection.

### **Habitat destruction**

Concern: “Mining would irreversibly destroy ancient deep-sea habitats.”

Status: nodule collection in the CCZ could change the habitat of 0.18% of the seafloor at most, and life returning to test area after just one year.

Project economics: As an SEC-regulated resource company, we must issue standards-compliant studies.

PROJECT DEVELOPMENT

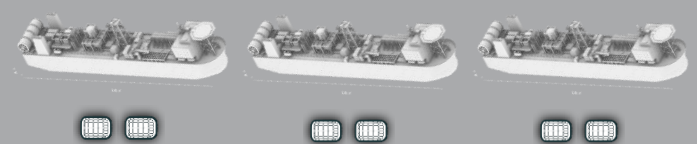
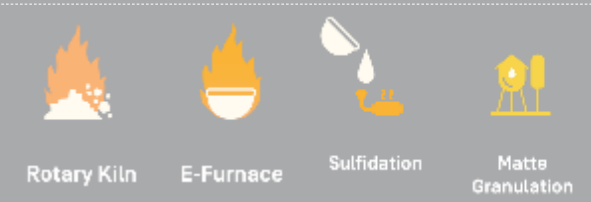
SEC Regulations Subpart S-K 1300

|                         | IA                                                                                                | PFS                                                                                                                           | FS                                                                                               |
|-------------------------|---------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|
|                         | Initial Assessment                                                                                | Pre-feasibility Study                                                                                                         | Feasibility Study                                                                                |
| CONCEPT                 | What it could be                                                                                  | What it should be                                                                                                             | What it will be                                                                                  |
| OBJECTIVE               | Early-stage conceptual assessment of the <b>potential economic viability</b> of mineral resources | Realistic economic and engineering studies sufficient to <b>demonstrate economic viability</b> and establish mineral reserves | Detailed study of how the mine will be built, used as the basis for a <b>production decision</b> |
| COST ACCURACY           | +/- 50%                                                                                           | +/- 25%                                                                                                                       | +/- 15%                                                                                          |
| MINERAL ESTIMATE INPUT  | Inferred/Indicated/Measured Resources                                                             | Indicated & Measured Resources                                                                                                |                                                                                                  |
| MINERAL ESTIMATE OUTPUT | Inferred/Indicated/Measured Resources                                                             | Probable & Proven Reserves                                                                                                    |                                                                                                  |

Our pivot to the U.S. introduced new assumptions that deviate from our previously planned PFS, including vessel flagging requirements and a lower topline royalty.

US pivot



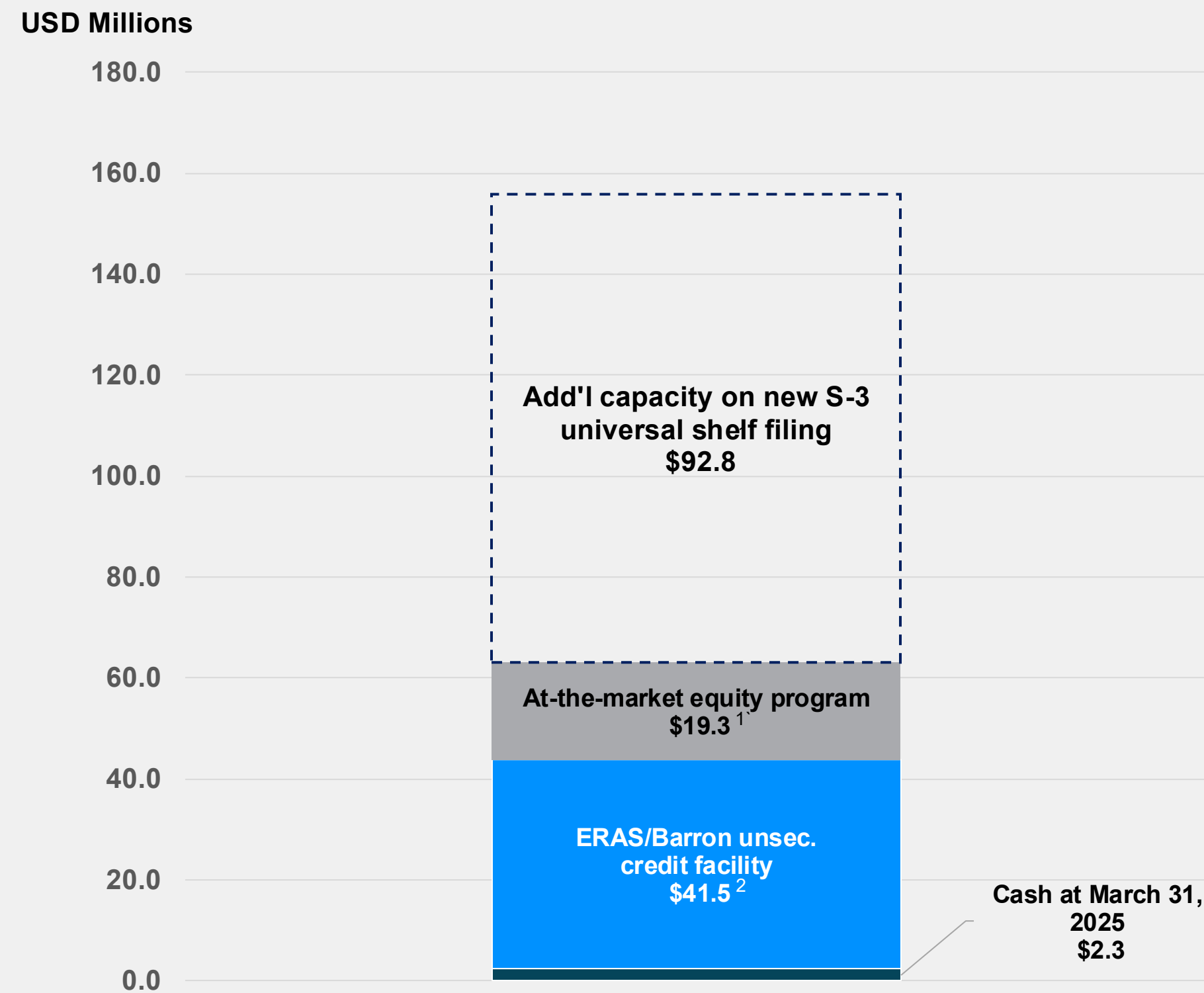
|                                                    | IA<br>Initial Assessment<br>May 2021                                                                                                                                                                                                    | PFS<br>Pre-feasibility study<br>Planned for early 2025                                                                                                                                                                | New assumptions<br>under the U.S. regulatory regime,<br>incl. lower life-of-mine royalty vs. ISA                                                                                                                                                                                   |
|----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| APPROACH                                           | Mostly new build*                                                                                                                                                                                                                       | Capital-light                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                    |
| NORI-D RESOURCE BASE<br>ANNUAL PRODUCTION CAPACITY | 254 Mt of wet nodules<br>12.5 Mt of wet nodules<br>- 2,903kt Mn in Mn silicate<br>- 125kt Ni in Ni sulfate<br>- 93kt Cu cathode<br>- 10kt Co in Co sulfate                                                                              | 203 Mt of wet nodules in the NORI-D Area<br>12 Mt of wet nodules<br>- 2,740kt Mn in Mn silicate<br>- 120/ 90/ 10kt NiCuCo in matte                                                                                    |                                                                                                                                                                                                                                                                                    |
| OFFSHORE<br>NODULE COLLECTION ASSETS               | CAPEX investment<br>                                                                                                                                | CAPEX investment<br> Contracted service<br> | US flagging for<br>- All mining vessels<br>- At least 1 transportation vessel                                                                                                                                                                                                      |
| NODULE TRANSFER VESSELS                            |                                                                                                                                                     |                                                                                                                                  |                                                                                                                                                                                                                                                                                    |
| ONSHORE<br>PROCESSING & REFINING<br>ASSETS         | CAPEX investment<br>RKEF lines (x4)<br><br>Refineries (x2)<br> | Contract-based tolling<br>RKEF lines (x9)<br><br>No refining.<br>Sell intermediate matte into existing refineries.               | Processing in the United States.<br>Optionality for exemption to process outside the United States subject to:<br>- Proving it is required for the economic viability of the project<br>- Offering reasonable assurances processed materials will be returned to the United States |

\* Offshore, 50% of capacity was assumed to come from drillship conversions, rather than new build. Onshore, ~40% of RKEF capacity was assumed to be contracted in on a tolling basis.  
Source: NORI Project Team

**\$37 million Registered Direct Offering funds us beyond potential grant of commercial recovery permit.**

|                  |                                                                                                                                                                                                                                    |
|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Issuer           | TMC the metals company Inc. (Nasdaq: TMC)                                                                                                                                                                                          |
| Securities       | 12.33 million common shares, with each share accompanied by a Class C warrant                                                                                                                                                      |
| Pricing          | \$3.00 per common share and warrants exercisable at \$4.50 per share, with mandatory exercise if shares trade above \$7.00 per share for 20 consecutive days                                                                       |
| Gross Proceeds   | \$37 million gross proceeds before offering expenses                                                                                                                                                                               |
| Participants     | <div><div>- Michael Hess, Chief Investment Officer of Hess Capital;</div><div>- Brian Paes-Braga, Managing Partner at SAF Group and Head of SAF Growth;</div><div>- An existing strategic TMC investor</div></div>                 |
| Expected Closing | May 22, 2025                                                                                                                                                                                                                       |
| Use of Proceeds  | Proceeds will be used to advance the Company’s commercial development plans and for general corporate purposes and are expected to be sufficient to fund operations through the potential issuance of a commercial recovery permit |

## TMC liquidity (cash plus borrowing capacity) of \$44 million at March 31, 2025 and \$81 million pro forma for Registered Direct Offering.



- The \$37 million RDO, when combined with \$55 million potential future proceeds from associated warrants at \$4.50, would use up the majority of existing S-3 shelf capacity. Shelf capacity calculations assume future exercise of any warrants at the time of issue
- The \$37 million alone (assuming no warrant exercise) can fund the company well beyond the key milestone of permitting for commercial production. However, as a matter of good corporate housekeeping, TMC expects to put in place another shelf to allow for future issue of various securities as discussions with additional strategic investors continue and we prepare ourselves for commercial production

1. \$5.7 million sold under the ATM program in Q1 2025, at an average share price of \$1.93.

2. \$1.8 million of the previously drawn amount was repaid and there was no further borrowing from the ERAS/Barron facility in Q1 2025.

**Thank you.**

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