Hydrogen and Helium Discovered at Hammaslahti RNS Number : 83871 80 Mile PLC 21 October 2024

> AIM: 80M FSE: S5WA



21 October 2024

80 Mile PLC / Ticker: 80M / Market: AIM / Sector: Mining Natural Hydrogen and Helium Discovered at Hammaslahti

80 Mile plc ('**80 Mile**' or the '**Company**'), the AIM, FSE listed and Pink-Market traded exploration and development company with projects in Greenland and Finland, is pleased to announce the identification of significant concentrations of natural hydrogen, along with helium, in two historical drill holes at its Hammaslahti Project, Finland. These findings mark a major advancement in the Company's exploration efforts, highlighting the potential of the Hammaslahti region for industrial gas resources.

Highlights:

- Natural Hydrogen Detection: Surface sampling at two historical drill holes has resulted in natural hydrogen concentrations reaching 1000 ppm, representing the upper detection limit of the portable equipment used and indicating the strong potential for higher concentrations. The presence of hydrogen flowing at such concentrations at surface suggests substantial subsurface gas accumulations and highlights the potential for hydrogen resource development in the region.
- Helium Measurement: Helium was detected flowing at surface at one historical drill hole, with readings reaching up to 8.90% and stabilising at 7.10%.
- **First Surface Detection of Natural Hydrogen and Helium:** This marks the first documented occurrence of hydrogen and helium detected flowing to the surface in the Hammaslahti area. This detection is a notable advancement, indicating the potential for economically recoverable gas deposits within the area.
- **Extensive Historical Dataset:** The Company's Hammaslahti license area contains **over 600 historical drill holes**, providing a substantial geological dataset enhancing the Company's ability to efficiently target additional hydrogen and helium prospects. This comprehensive data will support rapid exploration and resource assessment.
- Acceleration of Exploration Efforts: The positive results from surface sampling will enable the Company to expedite its exploration activities. These surface readings provide a solid foundation for continued

evaluation of the Hammaslahti project's potential as an industrial gas resource.

The detection of geological hydrogen and helium at surface at the Hammaslahti Project aligns with 80 Mile's broader strategy to diversify its resource base and expand its industrial gas portfolio. These measurements build upon previous exploration successes and offer a unique opportunity to position the Company as a leader in hydrogen and helium exploration in Finland. In light of these findings, 80 Mile intends to continue and intensify its gas sampling programme across its Finnish licenses, further evaluating the region's industrial gas potential.

Eric Sondergaard, Managing Director of 80 Mile, commented:

"The detection of hydrogen and helium at Hammaslahti is a major development for 80 Mile, reinforcing the exceptional potential of this region for industrial gas resources. Hydrogen is a key component in the global shift towards cleaner energy, and the presence of helium - an increasingly critical resource for advanced technologies- further enhances the strategic value of this project. These results underscore the significant opportunities that lie ahead for Hammaslahti, and we remain fully committed to expanding our exploration efforts and delivering meaningful, long-term value for our shareholders."

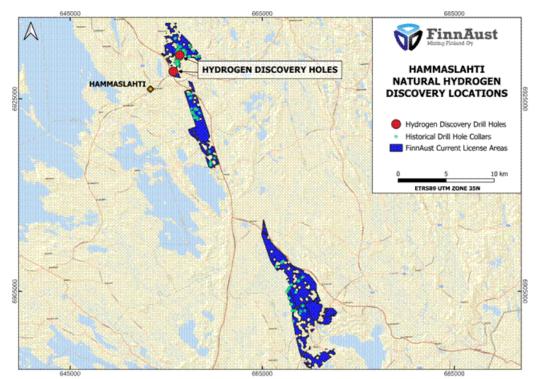
Market Abuse Regulation (MAR) Disclosure

The information contained within this announcement is deemed by the Company to constitute inside information as stipulated under the Market Abuse Regulations (EU) No. 596/2014 ('MAR') which has been incorporated into UK law by the European Union (Withdrawal) Act 2018.

For further information please visit <u>http://www.80mile.com</u> or contact:

Eric Sondergaard	80 Mile plc	enquiry@80mile.com
Ewan Leggat / Adam Cowl	SP Angel Corporate Finance LLP (Nominated Adviser and Broker)	+44 (0) 20 3470 0470
Tim Blythe / Megan Ray / Said Izagaren	BlytheRay (Media Contact)	+44 (0) 20 7138 3205

Map of Hammaslahti Tenement Belt



	Initial Result		3 Minute Result		24hr Sealed Cap Result*		24hr Sealed Result After 3 Minutes*	
Hole ID	He (% vol)	H ₂ (ppm)	He (% vol)	H ₂ (ppm)	He (% vol)	H₂ (ppm)	He (% vol)	H ₂ (ppm)
N54320R305 N54320R301	1.3 0.0	>1000 150.0	1.0 0.0	>1000 75.0	8.90 0.0	>1000 642.0	7.10 0.0	>1000 252.0
Hole ID	Drill Year	Hole Depth (m)	Azimuth	Dip				
N54320R305 N54320R301	2020 2020	875.7 294.8	225 75	-45 -50				

Hammaslahti Hydrogen and Helium Sampling Results

*24hr Sealed Cap columns represent gas concentrations after the collar was sealed for 24 hours, allowing gases to accumulate for a more accurate reflection of downhole conditions. The final 3-minute readings indicate how concentrations stabilised post-sealing.

Updated Standard Operating Procedure for In-Field H₂ and He Gas Analysis

The following updated procedure was introduced during the second phase of sampling, ensuring precise and consistent measurement of hydrogen and helium gases from historical drill holes:

- 1. **Drill Collar Identification**: Navigate to the designated drill collar, photograph the collar cap showing the Hole ID, GPS coordinates, and record the information.
- 2. Initialise Equipment: Power on the FD-311-He and FD-600M-H2 analysers. Allow the units to complete their pre-startup checks and ensure both devices display a 0.00 reading before proceeding.
- 3. **Insert Collection Tube**: Insert the gas collection tube into the collar, avoiding contact with any water. Lower the tube to a depth of up to 20 cm or a safe depth, as deemed necessary.
- 4. **Conduct Initial Gas Measurement**: Take an initial 3-minute gas reading using the analyser to capture hydrogen and helium concentrations.
- 5. **Clear and Reset Analyser**: If gas readings are detected, complete the initial 3-minute measurement. Remove the analyser from the collar and clear it by pumping fresh air through the device for 30 seconds. Ensure the unit returns to a 0.00 reading.
- 6. **Repeat Measurement**: Reinsert the collection tube and conduct a second 3-minute reading. Record any changes in the readings, noting whether they increase, peak, remain consistent, or decrease over time.
- 7. **Collar Height Measurement**: Measure and record the collar height above ground level to ensure accurate depth readings.
- 8. **Water Depth Determination**: Pretest the In Situ 200 water depth device to ensure the sensor is functional. Insert the probe into the collar until the water level alarm sounds. Retrieve the probe until the alarm stops and record the water level depth. Subtract the collar height for accurate depth readings and note them in the field book.

- 9. **Blockage Detection**: Lower the water meter into the hole. If the device encounters a blockage before reaching 100 meters, retrieve the meter and record the depth at the top of the collar. Subtract the collar height for an accurate reading.
- 10. **Water Agitation**: If no blockages are detected, lower the device to the full 100-meter depth to agitate the water in the drill string.
- 11. **Collar Sealing**: Retrieve the water meter and cover the collar with a heavy-duty polythene plastic bag, securing it tightly with a cable tie and tape to ensure an airtight seal. This process helps ensure the gas sample collected more accurately reflects downhole gas concentration.
- 12. **24-Hour Wait Period**: Record the time of the procedure and return after 24 hours to sample the accumulated gases from the drill hole.
- 13. **Gas Sampling Setup**: Upon returning, turn on the helium (He) and hydrogen (H₂) analysers, ensuring both are functioning properly and display a 0.00 reading.
- 14. **Final Gas Sampling**: Check the plastic cover for condensation buildup, and gently tap it to dislodge any excess. Insert both the He and H₂ needle probes into the plastic cover, ensuring they avoid contact with the collar wall or condensation. Conduct a 3-minute gas test and observe whether readings rise, peak, or lower during this time.
- 15. **Analyser Reset and Repeat**: Remove the needle probes and clear the analysers with fresh air until they return to 0.00. If anomalous readings were observed, reinsert the probes and conduct a second 3-minute reading. Clear the analysers again after testing.
- 16. **Completion**: After the final test, remove the probes, clear the analysers, and securely replace the collar cap. Record all data.

About 80 Mile Plc:

80 Mile Plc, listed on the London AIM market, Frankfurt Stock Exchange, and the U.S. Pink Market, is an exploration and development company focused on highgrade critical metals in Tier 1 jurisdictions. With a diversified portfolio in Greenland and Finland, 80 Mile's strategy is centred on advancing key projects while creating value through partnerships and strategic acquisitions.

The Disko-Nuussuaq nickel-copper-cobalt-PGE project in Greenland is a primary focus for 80 Mile, developed in partnership with KoBold Metals. 80 Mile, through its wholly owned subsidiary Disko Exploration Ltd., has a definitive Joint Venture Agreement with KoBold Metals to guide and fund exploration efforts. The JV has completed intensive analysis and interpretation of the extensive geochemical, geophysical, and geological data collected during the previous exploration campaigns. Leveraging KoBold's proprietary artificial intelligence and machine learning platforms, this comprehensive analysis has resulted in the identification of seven initial priority targets within the project area. These seven priority targets exhibit spatial characteristics indicative of potential deposits on a scale comparable to renowned mining operations such as Norilsk, Voisey's Bay, and Jinchuan. The JV is now planning a focused ground-loop electromagnetic survey to refine and prioritise each locality appropriately.

In Finland, 80 Mile currently holds three large scale multi-metal projects through its wholly owned subsidiary FinnAust Mining Finland Oy. 80 Mile's Finland portfolio includes the Outokumpu project, where the indication of industrial gases like helium and hydrogen adds significant economic potential to the already prospective coppernickel-cobalt-zinc-gold-silver targets. 80 Mile is conducting further exploration to fully assess these resources.

80 Mile's recent acquisition of White Flame Energy expands its portfolio into the energy sector, adding large-scale licenses for industrial gas, natural gas, and liquid hydrocarbons in East Greenland. Approved by shareholders in July 2024, this acquisition diversifies the Company's assets and aligns with its strategy to contribute to sustainable energy solutions, while also exploring conventional energy resources.

The Dundas Ilmenite Project, 80 Mile's most advanced asset in northwest Greenland,

is fully permitted and progressing towards near-term production. With a JORCcompliant Mineral Resource of 117 Mt at 6.1% ilmenite and an offshore Exploration Target of up to 530 Mt, Dundas is poised to become a major supplier of high-quality ilmenite. Recent discoveries of hard rock titanium mineralization, with bedrock samples showing nearly double the ilmenite content of previous estimates, further enhance the project's world-class potential. 80 Mile owns 100% of the Dundas Ilmenite Project under its subsidiary Dundas Titanium A/S in Greenland.

The Thule Copper Project is a significant component of 80 Mile's portfolio in northwest Greenland, focused on exploring and developing high-grade copper deposits within the Thule Basin in northwest Greenland. Leveraging existing infrastructure and exploration credits, the project is strategically positioned in an underexplored region with substantial mineral potential. 80 Mile's established basecamp at Moriusaq will support cost-effective exploration, aligning with the Company's broader strategy to secure high-quality copper and industrial gas projects.

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