
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549**

FORM 6-K

**REPORT OF FOREIGN PRIVATE ISSUER
Pursuant to Rule 13a-16 or 15d-16 of the
Securities Exchange Act of 1934**

Date: August 14, 2024

Commission File Number: 001-41338

IperionX Limited
(Translation of registrant's name into English)

**129 W Trade Street, Suite 1405
Charlotte, North Carolina
(Address of principal executive offices)**

Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F.

Form 20-F ☒ X

Form 40-F ☐

EXHIBIT INDEX

The following exhibits are filed as part of this Form 6-K:

Exhibit	Description
99.1	Press Release

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

IPERIONX LIMITED
(registrant)

Date: August 14, 2024

By: /s/ Gregory Swan
Name: Gregory Swan
Title: Secretary

IPERIONX ACHIEVES MAJOR MILESTONE WITH FIRST SUCCESSFUL TITANIUM FURNACE PRODUCTION RUN

IperionX (NASDAQ: IPX, ASX: IPX) pleased to announce the successful commissioning of the Hydrogen Assisted Metallothermic Reduction (HAMR™) furnace, marking the first titanium de-oxygenation production run at the Titanium Manufacturing Campus in Virginia, U.S.A.

This first titanium de-oxygenation production run represents a key technological milestone for IperionX that underpins a breakthrough +60x increase in titanium production capacity.

Produced entirely from 100% scrap titanium (Ti-6Al-4V alloy, Grade 5 titanium), quality assessments confirmed a large reduction in oxygen levels from 3.42% to below 0.07%, far exceeding the ASTM standard requirement of 0.2% for Grade 5 titanium.

IperionX's proprietary HAMR technologies offer a range of competitive advantages, including lower operating temperatures, reduced energy consumption, enhanced process efficiency, and accelerated production cycles - all achieved with lower capital investment intensity.

Over the coming months, IperionX will commission and optimize the supporting process equipment to achieve full system production capacity in Virginia, with end-to-end system operations expected in late Q4 2024.



Figure 1: IperionX team at the Titanium Manufacturing Campus for the first successful HAMR furnace production run

Anastasios (Taso) Arima, CEO of IperionX, commented:

"The IperionX team delivered an important technological and commercial milestone for the global titanium industry.

Over the last two years, we have successfully operated our pilot titanium production facility in Utah, producing high performance titanium products for customers and importantly - delivering first revenues for our company.

Today, we demonstrated that our HAMR technology works at commercial scale. We successfully increased the furnace production capacity by ~60x times and produced high performance titanium that exceeds industry quality standards.

IperionX's patented technologies underpin long-term competitive advantages over the Kroll titanium production process - with lower energy consumption, lower capex, faster cycle times, higher product yields and the ability to utilize 100% scrap titanium or upgraded titanium minerals as feedstocks.

IperionX plans to expand the capacity of its Titanium Manufacturing Campus by adding modular, low-risk and low-cost HAMR furnaces. IperionX aims to be a leading U.S. titanium producer of +10,000 metric tons per annum by 2030.

Our goal is to re-shore the full titanium supply chain to the United States, at lower costs for our customers, and deliver the most sustainable titanium products on the market."

North Carolina
129 W Trade Street, Suite 1405
Charlotte, NC 28202

Tennessee
279 West Main Street
Camden, TN 38320

Virginia
1092 Confroy Drive
South Boston, VA 24592

Utah
1782 W 2300 S
West Valley City, UT 84119



Figure 2: IperionX HAMR first furnace production cycle

This announcement has been authorized for release by the CEO and Managing Director.

For further information and enquiries please contact:

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+1 704 461 8000

About IperionX

IperionX aims to become a leading American titanium metal and critical materials company – using patented metal technologies to produce high performance titanium alloys, from titanium minerals or scrap titanium, at lower energy, cost and carbon emissions.

Our Titan critical minerals project is the largest JORC-compliant mineral resource of titanium, rare earth and zircon minerals sands in the United States.

IperionX's titanium metal and critical minerals are essential for advanced U.S. industries including consumer electronics, space, aerospace, defense, hydrogen electric vehicles and additive manufacturing.

Forward Looking Statements

Information included in this release constitutes forward-looking statements. Often, but not always, forward looking statements can generally be identified by the use of forward-looking words such as "may", "will", "expect", "intend", "plan", "estimate", "anticipate", "continue", and "guidance", or other similar words and may include, without limitation, statements regarding plans, strategies and objectives of management, anticipated production or construction commencement dates and expected costs or production outputs.

Forward looking statements inherently involve known and unknown risks, uncertainties and other factors that may cause the Company's actual results, performance, and achievements to differ materially from any future results, performance, or achievements. Relevant factors may include, but are not limited to, changes in commodity prices, foreign exchange fluctuations and general economic conditions, increased costs and demand for production inputs, the speculative nature of exploration and project development, including the risks of obtaining necessary licenses and permits and diminishing quantities or grades of reserves, the Company's ability to comply with the relevant contractual terms to access the technologies, commercially scale its closed-loop titanium production processes, or protect its intellectual property rights, political and social risks, changes to the regulatory framework within which the Company operates or may in the future operate, environmental conditions including extreme weather conditions, recruitment and retention of personnel, industrial relations issues and litigation.

Forward looking statements are based on the Company and its management's good faith assumptions relating to the financial, market, regulatory and other relevant environments that will exist and affect the Company's business and operations in the future. The Company does not give any assurance that the assumptions on which forward looking statements are based will prove to be correct, or that the Company's business or operations will not be affected in any material manner by these or other factors not foreseen or foreseeable by the Company or management or beyond the Company's control.

Although the Company attempts and has attempted to identify factors that would cause actual actions, events or results to differ materially from those disclosed in forward looking statements, there may be other factors that could cause actual results, performance, achievements, or events not to be as anticipated, estimated or intended, and many events are beyond the reasonable control of the Company. Accordingly, readers are cautioned not to place undue reliance on forward looking statements. Forward looking statements in these materials speak only at the date of issue. Subject to any continuing obligations under applicable law or any relevant stock exchange listing rules, in providing this information the Company does not undertake any obligation to publicly update or revise any of the forward-looking statements or to advise of any change in events, conditions or circumstances on which any such statement is based.

Competent Persons Statement

The information in this announcement that relates to Exploration Results and Mineral Resources is extracted from IperionX's ASX Announcement dated October 6, 2021 ("Original ASX Announcement") which is available to view at IperionX's website at www.iperionx.com. IperionX confirms that a) it is not aware of any new information or data that materially affects the information included in the Original ASX Announcement; b) all material assumptions and technical parameters underpinning the Mineral Resource Estimate included in the Original ASX Announcement continue to apply and have not materially changed; and c) the form and context in which the relevant Competent Persons' findings are presented in this report have not been materially changed from the Original ASX Announcement.

