



DIVISION OF
CORPORATION FINANCE

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

March 16, 2022

Anastasios Arima
Chief Executive Officer and Managing Director
IperionX Limited
129 W Trade Street
Suite 1405
Charlotte, NC 28202

Re: IperionX Limited
Draft Registration Statement on Form 20-F
Submitted February 17, 2022
CIK No. 0001898601

Dear Mr. Arima:

We have reviewed your draft registration statement and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter by providing the requested information and either submitting an amended draft registration statement or publicly filing your registration statement on EDGAR. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing the information you provide in response to these comments and your amended draft registration statement or filed registration statement, we may have additional comments.

Draft Registration Statement on Form 20-F

Cover page

1. You checked the box on the registration statement cover page to indicate that you qualify as an "emerging growth company." We note in addition the risk factor disclosure you provide at page 20 and the related discussion at pages 32-33. Please also identify any exemptions and scaled disclosures which overlap with those available to you as both a foreign private issuer and an emerging growth company. Lastly, please revise the disclosure at page 33 to clarify that the described exemptions and scaled disclosures as a result of your status as a foreign private issuer will be available to you even if you no longer qualify as an emerging growth company.

General, page 1

2. We note your disclosure in the last paragraph on page 7 regarding a Competent Persons Statement including references to certain ASX announcements dated October 6, 2021, which are available on your website, and findings of the competent persons that are presented in the registration statement.

Please expand your disclosure to clarify that you would need to obtain and file a report from a Qualified Person, as defined in Item 1300 of Regulation S-K, to support estimates of mineralization in your registration statement.

Please also identify and discuss the criteria that distinguish a Competent Person from a Qualified Person, based on the relevant definitions, and indicate whether you have plans to obtain a Technical Summary Report from a Qualified Person to support future disclosures of mineralization.

3. We note your disclosures on pages 29, 30, 32, and 38 regarding the preparation of a "maiden Mineral Resource" estimate for the Titan Project that was prepared under the JORC Code and which you believe "confirms the Titan Project as one of the largest critical mineral deposits" in the United States. Unless you are able to obtain and file a Technical Report Summary from a Qualified Person, as defined in Item 1300 of Regulation S-K, in support of the mineralization that has been estimated, please remove references to resources that have not been prepared under the guidelines described in Item 1302 of Regulation S-K.

Introduction, page 1

4. You disclose that you aim to commercialize a series of patented titanium manufacturing technologies that have the potential to reduce the cost and carbon emissions of titanium production relative to what is commercially available today. Please revise to balance your disclosure here and throughout to clarify that you do not directly own the technology patents.

Risk Factors, page 9

5. You disclose that you have access to the Technologies through a master services agreement with Blacksand. At an appropriate place, disclose the material terms (including the duration) of the MSA, and file it and all material contracts as exhibits pursuant to Instruction 4 to Exhibits, Form 20-F.
6. Expand your disclosure at page 14 under "Our directors may be in a position of conflict of interest" to name the four current members of management who apparently hold current positions with Piedmont Lithium, and expand the caption to also refer to officers as the text mentions both officers and directors. Also, please revise the description of your CEO's business experience at page 49 to clarify the scope of his participation with that entity after June 2021, which was the end of your most recent fiscal period.

7. You disclose at page F-18 that the Performance Shares will convert into Ordinary Shares based upon certain terms and conditions. Please revise to describe the potential conversion of the Performance Shares into your Ordinary Shares and the attendant risks.

Capital Expenditures, page 30

8. We note the disclosure that if you complete a definitive Feasibility Study for the Titan Project and ultimately make a decision to develop the Titan Project, you will require substantial additional funds. We further note that your filing discusses the potential development of the Titan Project throughout the filing. Revise to disclose the estimated additional funds that you will need to develop the Titan Project so that investors may assess your anticipated funding requirements. For guidance, consider Item 5.B.3 of Form 20-F.

D. Property, Plant and Equipment, page 38

9. Please revise your mineral property disclosure to include the following information pursuant to Item 1304(b) of regulation S-K:
- A description of your mineral rights, including the name and number of leases or options, the conditions that you must adhere to or achieve in order to retain the property, expiration dates, required payments, and royalties.
 - A description of future exploration plans and the associated costs.
 - A description of any significant encumbrances to the property including current and future permitting requirements based on current plans.
10. We note that you refer to the results of 107 sonic core drill holes that were drilled "during the fiscal years ended June 30, 2021 and 2022" on pages 31 and 38, which have been incorporated into a Mineral Resource estimate that you have reported publicly, although you do not disclose your exploration results.

Please expand your disclosures to include the information required by Item 1304(g)(2) and (6)(i) of Regulation S-K. Please note that exploration results must be prepared by a qualified person to comply with Item 1302 (a)(1) of Regulation S-K.

Employment Agreements with Executive Officers and Directors, page 55

11. Please file your employment agreements with your directors and officers as exhibits to your registration statement. See Instruction 4(c) to Exhibits of Form 20-F.

Item 10. Additional Information

A. Share Capital -- Overview, page 62

12. Please revise your disclosure in the last paragraph under Overview on page 62, which begins by indicating the number of ordinary shares outstanding, to also specify the number of performance shares outstanding, and to more clearly differentiate between

ordinary and performance shares that have been issued, and ordinary shares that have been reserved for issuance upon conversion of options, restricted stock units, performance shares, and performance rights.

Financial Statements

Note 10. Contributed Equity, page F-17

13. Please revise the table of Movements in issued capital on page F-17 to recast the shares issued using the exchange ratio established in the acquisition agreement to reflect the number of shares of the legal parent issued in the reverse acquisition as well as the Consolidated Statement of Changes in Equity on page F-5, if necessary, to comply with paragraph B22(d) of IFRS 3.

In addition, please revise the table to include the Class A and Class B performance shares mentioned on page F-18 in separate columns; and revise the first paragraph on page F-19, regarding the circumstances under which performance shares will convert into ordinary shares if such shares have not converted by the expiry date, to clarify whether the statement "such Performance Shares for each holder will automatically lapse and consolidate into one Performance Share and will then convert into one Ordinary Share" is indicating that multiple performance shares would be combined into a single performance share that would then be converted to an ordinary share, or simply that you would be removing the class distinction before converting each performance share to an ordinary share.

14. We note the table of Movements in issued capital on page F-49 reflects 57,386,667 ordinary shares of IperionX Limited outstanding as of December 1, 2020. Please reconcile this number of shares to the share information in the table of Movements in issued capital on page F-17 which depicts 60,036,667 ordinary shares and 3,600,000 performance shares of the legal acquirer outstanding as of December 1, 2020.

Note 14. Reverse Acquisition Accounting, page F-22

15. We note your disclosure in which you state you completed the acquisition of Hyperion Metals (Australia) Pty Ltd ("HMAPL") by issuing shares and options to "the vendors." Please confirm your reference to vendors refers to the shareholders of HMAPL.
16. We note your disclosure in which you state within the interim financial statements for the period ended December 31, 2020 you provisionally accounted for the transaction as an asset acquisition by the legal parent; however, you concluded that in substance the transaction reflects a reverse acquisition. Further, you disclose that you expect to restate the interim financial statements to reflect the accounting implications of this change. Please confirm that the financial statements and related financial information presented in the registration statement reflect the appropriate accounting for this transaction and your reference to a restatement relates to financial statements filed

Anastasios Arima
IperionX Limited
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elsewhere. In addition, please confirm the interim financial statements have been restated and filed accordingly.

You may contact Joseph Klinko, Staff Accountant, at (202) 551-3824 or Jenifer Gallagher, Staff Accountant, at (202) 551-3706 if you have questions regarding comments on the financial statements and related matters. For questions regarding engineering comments, you may contact John Coleman, Mining Engineer, at (202) 551-3610. You may contact Timothy S. Levenberg, Special Counsel, at (202) 551-3707 or Loan Lauren Nguyen, Legal Branch Chief, at (202) 551-3642 with any other questions.

Sincerely,

Division of Corporation Finance
Office of Energy & Transportation

cc: Jeanne McMullin, Esq., Chief Legal Officer