



DIVISION OF
CORPORATION FINANCE

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

April 13, 2023

Gregory D. Swan
Chief Financial Officer
IperionX Limited
129 W Trade Street, Suite 1405
Charlotte, NC 28202

Re: IperionX Limited
Form 20-F for the Fiscal Year ended June 30, 2022
Filed August 26, 2022
File No. 001-41338

Dear Gregory D. Swan:

We have reviewed your March 31, 2023 response to our comment letter 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 these comments by providing the requested information or advise us as soon as possible when you will respond. If you do not believe our comments apply to your facts and circumstances, please tell us why in your response.

After reviewing your response to these comments, we may have additional comments. Unless we note otherwise, our references to prior comments are to comments in our March 20, 2023 letter.

Form 20-F for the Fiscal Year ended June 30, 2022

D. Property, Plant and Equipment

Titan Project, page 42

1. Please expand the disclosures proposed in response to prior comment 3, regarding the individual heavy mineral prices, to also include the individual prices for all of the Rare Earth Elements (REE) that contribute to your REE concentrate price along with the percentage of each REE found in your typical concentrate sold.

Section 11.8 - Cut-off Grade, page E-28

2. We note your response to prior comment 5 and the revisions proposed regarding disclosure of individual heavy mineral prices in the technical report summary. In addition to those changes, the individual prices for all of the Rare Earth Elements (REE) that

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contribute to the REE concentrate price along with the percentage of each REE found in your typical concentrate sold, should be disclosed; Table 21 should also be modified to include the historical prices along with the spot prices and forecast prices utilized.

Section 13.3 - Production Target and Mine Schedule, page E-32

3. We note your response to prior comment 7 including the proposed final mining limit map and LOM mine production schedule. The technical report summary should also include the mining schedules utilized in the cash flow analyses for mining both (i) indicated resources and (ii) indicated resources with inferred resources.

Section 19 - Economic Analysis, page E-57

4. We note the revisions proposed in response to prior comment 10 regarding the cash flow analyses for the indicated resources and combined indicated and inferred resources.

The cash flow analyses should be further revised to include the corresponding LOM production schedule (tonnage & grade) and a line item for royalties; and the results of the analyses should be described in the accompanying text with equal prominence.

You may contact George K. Schuler, Mining Engineer, at (202) 551-3718 if you have questions regarding the engineering comments or Karl Hiller, Branch Chief, at (202) 551-3686 with any other questions.

Sincerely,

Division of Corporation Finance
Office of Energy & Transportation