

April 23, 2024

Keyvan Samini  
President and Chief Financial Officer  
Mobix Labs, Inc.  
15420 Laguna Canyon Rd., Suite 100  
Irvine, California 92618

Re: Mobix Labs, Inc.  
Registration

Statement on Form S-1

Filed April 2, 2024  
File No. 333-278451

Dear Keyvan Samini:

We have conducted a limited review of your registration statement and have the following comments.

Please respond to this letter by amending your registration statement and providing the requested information. If you do not believe a comment applies to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your registration statement and the information you provide in response to this letter, we may have additional comments.

Registration Statement on Form S-1 filed April 2, 2024

General

1. Please revise to update your disclosures throughout the filing, as applicable, consistent with the revised disclosure that you provide in response to our comment letter issued on April 23, 2024, with respect to your Form S-1 filed April 16, 2024.

2. Please disclose how you determined the total amount and material terms of the Common Stock Purchase Agreement with B. Riley Principal Capital II, LLC, including a discussion of any material discussions or negotiations.  
Cover Page

3. We note the significant number of redemptions of your Class A Common Stock in connection with your business combination, the number of shares of being registered for resale here and in your registration statement on Form S-1 filed April 16, 2024, will

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constitute a number of shares that is larger than your current public float. Please highlight the significant negative impact that the collective sales of shares could have on the public trading price of the shares of Class A Common Stock. Please highlight the potential significant negative impact sales of shares on this registration statement, and separately, combined with the sales of shares in your Form S-1 filed April 16, 2024, could have on the public trading price of the Class A Common Stock.  
Summary of the Prospectus, page 1

4. Please expand your discussion here to reflect the fact that this offering involves the potential sale of a substantial portion of shares for resale and discuss

how such sales could impact the market price of your Class A Common Stock. Your discussion should highlight the fact that over time B. Riley Principal Capital II, LLC may purchase approximately 40% of your current outstanding shares, while consistently selling its shares, as needed, to maintain 4.99% ownership. Please describe the impact that such continuous sales may have on the market price of your Class A Common Stock and please disclose that B. Riley Principal Capital II, LLC will generally be able to sell all of their shares for so long as the registration statement of which this prospectus forms a part is available for use, or earlier termination by the parties. Please also revise to highlight the fact that in your Form S-1 filed April 16, 2024, your shareholders will generally be able to sell all of their shares (as indicated in the Selling Securityholders table) at the same time that this registration statement is available for use. Please describe the impact that such continuous sales may have on the market price of your Class A Common Stock. Please include risk factor disclosure that discusses the same.

We remind you that the company and its management are responsible for the accuracy and adequacy of their disclosures, notwithstanding any review, comments, action or absence of action by the staff.

Refer to Rules 460 and 461 regarding requests for acceleration. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement.

Please contact Thomas Jones at 202-551-3602 or Erin Purnell at 202-551-3454 with any questions.

FirstName LastNameKeyvan Samini  
Corporation Finance  
Comapany NameMobix Labs, Inc.

Manufacturing  
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cc: Raymond Lee, Esq.  
FirstName LastName

Sincerely,  
Division of  
Office of