

5E ADVANCED MATERIALS RECEIVES APPROVAL FROM ENVIRONMENTAL PROTECTION AGENCY TO CONDUCT STEP-RATE TESTING UNDER EXISTING PERMIT

Process to inject water into the wellfield expected to begin next week, representing a critical step prior to commencing operations and mineral extraction

HESPERIA, CA., September 22, 2023 - 5E Advanced Materials, Inc. (Nasdaq: FEAM) (ASX: 5EA) ("5E" or the "Company"), a boron and lithium company with U.S. government Critical Infrastructure designation for its 5E Boron Americas (Fort Cady) Complex, today announced that it has received authorization from the Environmental Protection Agency ("EPA", "the Agency") to inject water, which initiates Step-Rate Testing, a condition under the Company's underground injection control (UIC) permit required to complete the final tests of injection-recovery wells. This approval to progress under the terms of the Company's existing permit marks a meaningful step towards conducting full boric acid and lithium carbonate extraction operations. Crucially, receipt of approval to conduct the Step-Rate Test to inject water marks significant advancement of the Company's goal of becoming the primary local U.S. provider of boron solutions, and a leading global producer of boron and boron-advanced derivatives.

This decision comes after transparent communication with the EPA to ensure all conditions are met to receive authorization to inject water. Following the Company's letter to the EPA defining testing protocol, the agency has officially confirmed that conditions are met for authorization to inject water, or Step-Rate Testing. Step-Rate Testing establishes porosity of the ore body and forms a base-line parameter. Once the Step-Rate Testing is successfully completed, the Company will use the data to advance discussions with the EPA to further progress implementing the UIC permit.

"We are thrilled to announce our receipt of authorization to begin Step-Rate Testing, allowing 5E to advance through the final stages of preparing the wellfield and its ore body before commencing commercial operations, bringing 5E closer to being the first commercial scale Boric Acid production project in decades," said Chris Knight, VP of Operations at 5E Advanced Materials. "We appreciate the EPA's diligence and transparency throughout our application process. Once Step-Rate Testing is completed, we can progress with our strategy and operations to begin the production of boric acid and lithium carbonate. In turn, this crucial step also allows the Company to advance discussions surrounding strategic funding through a combination of direct investment, off-taking agreements and royalty rights, and potential project financing through U.S. government agencies including both the Departments of Energy and Defense. This authorization represents a landmark step for 5E in its strategic, operational, and commercial pursuits, bringing us closer to executing the Company's vision of becoming a leading global producer and supplier of the critical materials boron and lithium."

About 5E Advanced Materials, Inc.

5E Advanced Materials, Inc. (Nasdaq: FEAM) (ASX: 5EA) is focused on becoming a vertically integrated global leader and supplier of boron specialty and advanced materials, complemented by lithium co-product production. The Company's mission is to become a supplier of these critical materials to industries addressing global decarbonization, food and domestic security. Boron and lithium products will target applications in the fields of electric transportation, clean energy infrastructure, such as solar and wind power, fertilizers, and domestic security. The business strategy and objectives are to develop capabilities ranging from upstream extraction and product sales of boric acid, lithium carbonate and potentially other co-products, to downstream boron advanced material processing and development. The business is based on our large domestic boron and lithium resource, which is located in Southern California and designated as Critical Infrastructure by the Department of Homeland Security's Cybersecurity and Infrastructure Security Agency.

Forward Looking Statements and Disclosures

This press release includes "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995, as amended. All statements other than statements of historical fact included in this press release regarding our business strategy, plans, goal, and objectives are forward-looking statements. When used in this press release, the

words “believe,” “project,” “expect,” “anticipate,” “estimate,” “intend,” “budget,” “target,” “aim,” “strategy,” “estimate,” “plan,” “guidance,” “outlook,” “intent,” “may,” “should,” “could,” “will,” “would,” “will be,” “will continue,” “will likely result,” and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain such identifying words. These forward-looking statements are based on 5E’s current expectations and assumptions about future events and are based on currently available information as to the outcome and timing of future events. We caution you that these forward-looking statements are subject to all of the risks and uncertainties, most of which are difficult to predict and many of which are beyond our control, incident to the extraction of the critical materials we intend to produce and advanced materials production and development. These risks include, but are not limited to: our limited operating history in the borates and lithium industries and no revenue from our proposed extraction operations at our properties; our need for substantial additional financing to execute our business plan and our ability to access capital and the financial markets; our status as an exploration stage company dependant on a single project with no known Regulation S-K 1300 mineral reserves and the inherent uncertainty in estimates of mineral resources; our lack of history in mineral production and the significant risks associated with achieving our business strategies, including our downstream processing ambitions; our incurrence of significant net operating losses to date and plans to incur continued losses for the foreseeable future; risks and uncertainties relating to the development of the Fort Cady project, including our ability to timely and successfully complete our Small Scale Boron Facility; our ability to obtain, maintain and renew required governmental permits for our development activities, including satisfying all mandated conditions to any such permits; and other risks. Should one or more of these risks or uncertainties occur, or should underlying assumptions prove incorrect, our actual results and plans could differ materially from those expressed in any forward-looking statements. No representation or warranty (express or implied) is made as to, and no reliance should be place on, any information, including projections, estimates, targets, and opinions contained herein, and no liability whatsoever is accepted as to any errors, omissions, or misstatements contained herein. You are cautioned not to place undue reliance on any forward-looking statements, which speak only as to the date of this press release.

For additional information regarding these various factors, you should carefully review the risk factors and other disclosures in the Company’s Form 10-K filed on August 30, 2023. Additional risks are also disclosed by 5E in its filings with the U.S. Securities and Exchange Commission throughout the year, including its Form 10-K, Form 10-Qs and Form 8-Ks, as well as in its filings under the Australian Securities Exchange. Any forward-looking statements are given only as of the date hereof. Except as required by law, 5E expressly disclaims any obligation to update or revise any such forward-looking statements. Additionally, 5E undertakes no obligation to comment on third party analyses or statements regarding 5E’s actual or expected financial or operating results or its securities.

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