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

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): April 14, 2025

ASP Isotopes Inc.

(Exact name of registrant as specified in its charter) 001-41555 Delaware 87-2618235 (State or other jurisdiction of (IRS Employer (Commission incorporation) File Number) Identification No.) 601 Pennsylvania Avenue NW, South Building, Suite 900 20004 Washington, DC (Address of principal executive offices) (Zip Code) Registrant's telephone number, including area code: (202) 756-2245 Not Applicable (Former name or former address, if changed since last report.) Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions: Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425) Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12) Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b)) Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c)) Securities registered pursuant to Section 12(b) of the Act: Title of each class Ticker symbol(s) Name of each exchange on which registered Common Stock, par value \$0.01 ASPI The Nasdaq Stock Market LLC Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial

Emerging growth company ⊠

accounting standards provided pursuant to Section 13(a) of the Exchange Act \square

Item 5.02. Departure of Directors or Certain Officers; Election of Directors; Appointment of Certain Officers; Compensatory Arrangements of Certain Officers.

On April 15, 2025, ASP Isotopes Inc. (the "Company") announced that, effective April 14, 2025, Dr. Hendrik Strydom, PhD, Chief Technology Officer of the Company, stepped down as a member of the board of directors of the Company (the "Board") and joined the board of managers of Quantum Leap Energy LLC, the Company's subsidiary that is pursuing an initiative to produce advanced nuclear fuels, such as HALEU and Lithium-6, in South Africa. Dr. Strydom's resignation as a Board member was not the result of any disagreement with the Company regarding its operations, policies or practices.

Effective April 14, 2025, the Board appointed Sipho Maseko as director, to fill the vacancy on the Board created by the resignation of Dr. Strydom. Mr. Maseko will serve as a Class III director whose term will expire at the Company's 2025 annual meeting of stockholders. There is no arrangement or understanding between Mr. Maseko and any other person pursuant to which he was selected as a director of the Company, and there is no family relationship between Mr. Maseko and any of the Company's other directors or executive officers. The Company is not aware of any transaction involving Mr. Maseko requiring disclosure under Item 404(a) of Regulation S-K. Additional information about Mr. Maseko is set forth below.

Sipho Maseko, age 56, is an experienced executive and serves as a director and advisor to a number of companies. Mr. Maseko has served as an independent non-executive director of KAP Limited, a South African diversified industrial group consisting of industrial, chemical and logistics businesses, since March 2024, and he has served as an independent non-executive director of Shoprite Holdings Ltd, Africa's largest retail group, since June 2023. Mr. Maseko previously served as Chief Executive Officer of Telkom SA SOC Ltd, a South African wireline and wireless telecommunications provider, from April 2013 to June 2022. Prior to joining Telkom, Mr. Maseko served as Managing Director of Vodacom SA and Group Chief Operating Officer of Vodacom after serving almost 14 years at BP Africa Limited where he held a number of senior positions, including Chief Executive Officer and Chief Operating Officer for BP Downstream activities. Mr. Maseko joined BP in 1997 after being with Werksmans Attorneys and the Financial Services Board. Mr. Maseko received a bachelor's degree from the University of the Witwatersrand and a law degree (LLB) from the University of KwaZulu-Natal. The Board believes that Mr. Maseko's extensive relevant experience and competencies, including senior management experience, financial expertise, knowledge of the market and regulatory landscape in South Africa, and risk governance, will be a valuable addition to the Board.

Mr. Maseko will be entitled compensation in accordance with the Company's non-employee director compensation policy approved by the Board in October 2024 (filed as Exhibit 10.31 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2024, filed with Securities and Exchange Commission on March 31, 2015). In connection with his appointment to the Board, Mr. Maseko received an award of 22,422 shares of restricted stock, which shall vest in full on the one-year anniversary of the grant date (subject to continued service as a director). Mr. Maseko will be eligible for additional grants under the Company's non-employee compensation policy beginning at the Company's 2025 annual meeting of stockholders.

Mr. Maseko has entered into the Company's standard form of indemnification agreement, a form of which has been filed as Exhibit 10.4 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2024, filed with Securities and Exchange Commission on March 31, 2015.

Item 7.01. Regulation FD Disclosure.

On April 15, 2025, ASP Isotopes Inc. (the "Company") issued a press release announcing changes in the Boards of ASP Isotopes Inc. and Quantum Leap Energy LLC, a copy of which is attached hereto as Exhibit 99.1 and incorporated herein by reference.

The information in this Item 7.01, including Exhibit 99.1, shall not be deemed to be "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or otherwise subject to the liability of that section, and shall not be incorporated by reference into any registration statement or other document filed under the Securities Act of 1933, as amended, or the Exchange Act, except as shall be expressly set forth by specific reference in such filing.

Item 9.01. Financial Statements and Exhibits.

Exhibit No.	Description
<u>99.1</u>	Press Release, dated April 15, 2025, of ASP Isotopes Inc. Announcing Changes in Boards of ASP Isotopes Inc. and Quantum Leap Energy LLC.
104	Cover Page Interactive Date File (embedded within the Inline XBRL document)
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SIGNATURES

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 hereunto duly authorized.

ASP ISOTOPES INC.

Date: April 15, 2025 By: /s/ Paul Mann

Name: Paul Mann

Title: Chief Executive Officer

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ASP Isotopes Inc. Announces Changes in Boards of ASP Isotopes Inc. and Quantum Leap Energy LLC

- Highly respected South African Businessman, Mr Sipho Maseko, former CEO of Telkom SA Soc Ltd and MD of Vodacom SA, Has Joined the Board of Directors of ASP Isotopes Inc.
- Dr. Hendrik Strydom, PhD, Chief Technology Officer of ASP Isotopes Inc., is transitioning from the Board of Directors of ASP Isotopes Inc. to the Board of Managers of Quantum Leap Energy LLC.
- The Company Intends to pursue the Separation of its Nuclear Fuels Business, Quantum Leap Energy LLC, and Specialist Isotope Products and Related Services Business in Two Independent Companies during 2H 2025.

Washington, D.C., April 15, 2025 (GLOBE NEWSWIRE) -- ASP Isotopes Inc. NASDAQ: ASPI ("ASP Isotopes" or the "Company"), an advanced materials company dedicated to the development of technology and processes for the production of isotopes for use in multiple industries, today announced that Mr. Sipho Maseko has joined the board of directors of ASP Isotopes, and Dr. Hendrik Strydom, PhD, Chief Technology Officer of ASP Isotopes, has transitioned from the board of directors of ASP Isotopes to the board of managers of Quantum Leap Energy LLC, the Company's subsidiary that is pursuing an initiative to produce advanced nuclear fuels, such as HALEU and Lithium-6, in South Africa.

Sipho Maseko is a well respected and highly experienced executive and serves as a director and advisor to a number of companies. Mr. Maseko has served as an independent non-executive director of KAP Limited, a South African diversified industrial group consisting of industrial, chemical and logistics businesses, since March 2024, and he has served as an independent non-executive director of Shoprite Holdings Ltd, Africa's largest retail group, since June 2023. Mr. Maseko previously served as Chief Executive Officer of Telkom SA SOC Ltd, a South African wireline and wireless telecommunications provider, from April 2013 to June 2022. Prior to joining Telkom, Mr. Maseko served as Managing Director of Vodacom SA and Group Chief Operating Officer of Vodacom after serving almost 14 years at BP Africa Limited where he held a number of senior positions, including Chief Executive Officer and Chief Operating Officer for BP Downstream activities. Mr. Maseko joined BP in 1997 after being with Werksmans Attorneys and the Financial Services Board. Mr. Maseko received a bachelor's degree from the University of the Witwatersrand and a law degree (LLB) from the University of KwaZulu-Natal.

Paul Mann, Chairman and CEO of ASP Isotopes said, "We are pleased to welcome Sipho to the board of directors of ASP Isotopes. We have been working closely with Sipho for three years now and he has already been instrumental in helping ASP Isotopes advance its business in South Africa and navigating the complex political environment".

Mr. Maseko commented, "South Africa has huge potential with regards to its ability to produce critical materials that the world needs for industries such as advanced next generation semiconductors, nuclear medicine and green energy. I look forward to working with ASP Isotopes to help the Company bring solutions for these industries to market over the next several years".

Quantum Leap Energy LLC

As previously announced, the board of directors of ASP Isotopes intends to pursue the separation of the Company's Nuclear Fuels business and Specialist Isotopes and Related Services business in two independent companies. The Company plans to effect the separation through a spin-out of Quantum Leap Energy LLC ("QLE"), the Company's subsidiary that is pursuing the development and commercialization of advanced nuclear fuels such as HALEU and Lithium-6, in a transaction that results in QLE as a separate public company with shares listed on a U.S. national securities exchange and a portion of QLE's common equity distributed to ASPI's stockholders as of a to-be-determined future record date, in each case subject to obtaining applicable approvals and consents and complying with applicable rules and regulations and public market trading and listing requirements.

As the Company progresses its plan to implement a spin-out of QLE as a separate public company, the board of directors of ASP Isotopes is evaluating the optimal composition of the QLE board of managers. Dr. Hendrik Strydom, PhD, Chief Technology Officer of ASP Isotopes, has stepped down as a director of ASP Isotopes and joined QLE as a board member and a member of the management team. Dr. Strydom has a forty year career in isotope enrichment starting his career and previously working on nuclear fuel programs at AEC (Atomic Energy Corporation) and UCOR (Uranium Enrichment Corporation). Dr Strydom has conducted extensive research on the laser separation of heavy isotopes (AVLIS, MLIS, SILEX) and has a PhD (Physics) from the University of Natal (Durban).

After the addition of Dr. Strydom, the board of managers of QLE is now comprised of Paul Mann (Chairman and CEO of QLE), Michael Gorley, Ph.D. and Duncan Moore, Ph.D., who are also independent directors of ASP Isotopes, and Dr. Strydom. Additional independent directors of QLE will be named later.

Paul Mann, Chairman and CEO of ASP Isotopes and CEO of QLE said, "The creation of two independent companies is driven by the different regulatory landscapes, supply chains and funding requirements for the production of nuclear fuel and medical and industrial isotopes. We believe that ASP Isotopes and QLE will be better served operating independently from each other, with separate strategic plans, business models and capital investments. However, there will be a number of ongoing commercial agreements between the two companies."

Dr. Hendrik Strydom, PhD, Chief Technology Officer of ASP Isotopes and QLE said, "Following the successful commissioning of the laser system at the Company's first Quantum Enrichment facility and the commencement of production of commercial samples of highly enriched Ytterbium-176, I am excited to pursue the Company's HALEU enrichment initiative in South Africa and apply our technologies to the enrichment of uranium."

Although no assurance can be given, the Company is aiming to execute the spin-out of QLE as a separate public company during the 2H25, subject to market conditions and obtaining applicable approvals and consents and complying with applicable rules and regulations and public market trading and listing requirements. While the Company currently expects that a spin-out of QLE as a separate public company is the most likely separation transaction, the board of directors of ASP Isotopes remains committed to maximizing shareholder value creation, and will continue to evaluate other options for separation to maximize shareholder value.

Inducement Awards.

In connection with commencing employment, on April 14, 2025, three new non-executive employees of ASP Isotopes Inc. were granted awards of restricted stock covering an aggregate of 250,000 shares of ASP Isotopes Inc.'s common stock, par value \$0.01 per share. The shares of restricted stock will vest, based on continued service to ASP Isotopes Inc., in eight equal semi-annual installments over a four-year period. The restricted stock awards were approved by the Company's Compensation Committee and Board of Directors and were granted under the Company's 2024 Inducement Equity Incentive Plan as employment inducement awards pursuant to Nasdaq Listing Rule 5635(c)(4).

About ASP Isotopes Inc.

ASP Isotopes Inc. is a development stage advanced materials company dedicated to the development of technology and processes to produce isotopes for use in multiple industries. The Company employs proprietary technology, the Aerodynamic Separation Process ("ASP technology"). The Company's initial focus is on producing and commercializing highly enriched isotopes for the healthcare and technology industries. The Company also plans to enrich isotopes for the nuclear energy sector using Quantum Enrichment technology that the Company is developing. The Company has isotope enrichment facilities in Pretoria, South Africa, dedicated to the enrichment of isotopes of elements with a low atomic mass (light isotopes).

There is a growing demand for isotopes such as Silicon-28, which will enable quantum computing, and Molybdenum-100, Molybdenum-98, Zinc-68, Ytterbium-176, and Nickel-64 for new, emerging healthcare applications, as well as Chlorine-37, Lithium-6, and Uranium-235 for green energy applications. The ASP Technology (Aerodynamic Separation Process) is ideal for enriching low and heavy atomic mass molecules. For more information, please visit www.aspisotopes.com.

Forward Looking Statements

This press release contains "forward-looking statements" within the meaning of the safe harbor provisions of the U.S. Private Securities Litigation Reform Act of 1995. Forward-looking statements are neither historical facts nor assurances of future performance. Instead, they are based only on our current beliefs, expectations, and assumptions regarding the future of our business, future plans and strategies, projections, anticipated events and trends, the economy, and other future conditions. Forward-looking statements can be identified by words such as "believes," "plans," "anticipates," "expects," "estimates," "projects," "will," "may," "might," and words of a similar nature. Examples of forward-looking statements include, among others but are not limited to, statements relating to the plans for a spin-out of Quantum Leap Energy as a standalone public company, the future of the company's enrichment technologies as applied to uranium enrichment, the outcome of the company's initiative to commence enrichment of uranium in South Africa and the company's discussions with nuclear regulators, and statements we make regarding expected operating results, such as future revenues and prospects from the potential commercialization of isotopes, future performance under contracts, and our strategies for product development, engaging with potential customers, market position, and financial results. Because forward-looking statements relate to the future, they are subject to inherent uncertainties, risks, and changes in circumstances that are difficult to predict, many of which are outside our control. Our actual results, financial condition, and events may differ materially from those indicated in the forward-looking statements based upon a number of factors. Forward-looking statements are not a guarantee of future performance or developments. You are strongly cautioned that reliance on any forward-looking statements involves known and unknown risks and uncertainties. Therefore, you should not rely on any of these forward-looking statements. There are many important factors that could cause our actual results and financial condition to differ materially from those indicated in the forward-looking statements, including our reliance on the efforts of third parties; our ability to complete the construction and commissioning of our enrichment plants or to commercialize isotopes using the ASP technology or the Quantum Enrichment Process; our ability to obtain regulatory approvals for the production and distribution of isotopes; the financial terms of any current and future commercial arrangements; our ability to complete certain transactions and realize anticipated benefits from acquisitions and contracts; dependence on our Intellectual Property (IP) rights, certain IP rights of third parties; the competitive nature of our industry; and the factors disclosed in Part I, Item 1A. "Risk Factors" of the company's Annual Report on Form 10-K for the fiscal year ended December 31, 2024 and any amendments thereto and in the company's subsequent reports and filings with the U.S. Securities and Exchange Commission. Any forward-looking statement made by us in this press release is based only on information currently available to us and speaks only as of the date on which it is made. We undertake no obligation to publicly update any forward-looking statement, whether as a result of new information, future developments or otherwise. No information in this press release should be interpreted as an indication of future success, revenues, results of operation, or stock price. All forward-looking statements herein are qualified by reference to the cautionary statements set forth herein and should not be relied upon.

Contacts

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