

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): **October 13, 2025**

ASP Isotopes Inc.

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation)	001-41555 (Commission File Number)	87-2618235 (IRS Employer Identification No.)
601 Pennsylvania Avenue NW, South Building, Suite 900 Washington, DC (Address of principal executive offices)		20004 (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	Trading 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).

Emerging growth company ☒

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

Item 8.01. Other Events.

On October 13, 2025, ASP Isotopes Inc. (the “Company”) issued a press release announcing business updates, including a supply agreement for enriched silicon-28 and an acquisition of a radiopharmacy in the United States. A copy of the press release is attached to this Current Report on Form 8-K as Exhibit 99.1 and is incorporated herein by reference, other than the seventh, tenth and eleventh paragraphs of the press release.

Item 9.01. Financial Statements and Exhibits.

Exhibit No.	Description
99.1	Press Release, dated October 13, 2025, of ASP Isotopes Inc. announcing business updates, including a supply agreement for enriched silicon-28 and an acquisition of a radiopharmacy in the United States.
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)

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: October 14, 2025

By: /s/ Donald G. Ainscow

Name: Donald G. Ainscow

Title: Executive Vice President,
General Counsel and Secretary



ASP Isotopes Provides Business Updates

Washington, D.C., October 13, 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 provided a business development update, including a supply agreement for the largest quantity of enriched silicon-28 received by the Company to date and a strategic acquisition of a radiopharmacy in the United States to complement and expand the operations of PET Labs Pharmaceuticals (Pty) Ltd ("PET Labs"), the Company's South African radiopharmaceutical operations company, dedicated to nuclear medicine and the science of radiopharmaceutical production.

In Summary:

- 1.) The Company has entered into a supply contract with a U.S.-based customer for enriched silicon-28, with deliveries expected during Q1 2026. This represents the Company's largest silicon-28 contract to date.
- 2.) The Company has acquired an independent radiopharmacy located in Florida, United States. This acquisition is in furtherance of the Company's strategy to expand PET Labs' nuclear medicine business and represents PET Labs' first expansion outside South Africa. This acquisition aligns with PET Labs' strategy to build a vertically integrated supply chain, manufacturing and distribution system for the delivery of radiopharmaceutical products. This acquisition is expected to be accretive to 2026 revenues, EBITDA and EPS.

Enriched Silicon-28: Enabling the Quantum Future

In September 2025, the Company entered into a supply contract with a U.S.-based customer for enriched silicon-28, with deliveries expected during Q1 2026. This represents the Company's largest silicon-28 contract to date.

Isotopically pure silicon-28 is a key material in the development of solid-state quantum computing and advanced semiconductor architectures. By removing the nuclear spin noise present in natural silicon, enriched silicon-28 provides a pristine environment for qubits, dramatically improving coherence times and overall device performance. This unique material advantage is critical for building scalable, fault-tolerant quantum processors that can operate reliably at industrial scale.

As global investment in quantum computing and advanced electronics accelerates, demand for high-purity silicon-28 continues to grow. The ability to supply this material at commercial scale marks an important step toward establishing a robust and diversified supply chain for the next generation of computing technologies.

Viktor Petkov, Chief Commercial Officer of ASP Isotopes, commented: *"This significant customer order for silicon-28 underscores how our Electronic Gases strategy is gaining real traction across multiple end markets. Enriched silicon is emerging as a cornerstone material not only for quantum computing but also for high-precision semiconductor and photonics applications. Our goal is to become the world's most reliable supplier of enriched silane and other isotopically pure gases — a foundation for the technologies driving the next industrial revolution. The scale and sophistication of demand we are seeing confirm that this is rapidly becoming one of the most dynamic sectors in advanced materials."*

PET Labs – Expanding Globally in a Growing RadioPharmacy Market

In October 2025, the Company acquired an independent radiopharmacy in Florida, United States, to complement and expand the operations of PET Labs (the Company's South African radiopharmaceutical operations company, dedicated to nuclear medicine and the science of radiopharmaceutical production). The Florida radiopharmacy currently offers only SPECT services and with PET Labs' expertise, the Company expects to start offering PET services from 2027 onwards. These additional services are expected to grow revenues and profits in future years. This small acquisition is expected to be accretive to revenues, EBITDA and EPS during 2026.

The Company has a strategy to further expand PET Labs' business and activities in the United States and other jurisdictions to meet the increasing demand for radiodiagnostics and radiotherapeutics. PET Labs has recently signed an additional non-binding term sheet for an additional acquisition in the United States and is in discussions with multiple independent radiopharmacies in different jurisdictions for acquisition opportunities. PET Labs aims to build a radiopharmacy network that is vertically integrated with the capabilities to produce the stable isotopes that are subsequently used for the production of radioisotopes. The Company believes that this will provide PET Labs with a significant competitive advantage over its competition.

Dr Gerdus Kemp, CEO of PET Labs commented *"This acquisition marks the first important step in the planned expansion of PET Labs outside South Africa. Over the next several years we expect to grow PET Labs with both brownfield expansions such as this, as well as greenfield expansions, with the goal to ultimately turn PET Labs into a global leader in the production of radioisotopes to treat many forms of oncology."*

PET Labs looks forward to providing access to investors at its South African facilities during the Company's upcoming Investor Access Event (November 12- 13, 2025). During the event, PET Labs will also provide greater detail on its growth strategy, as well as providing further information on its four biotechnology assets that have been developed from first principles in South Africa that are expected to enter Phase I human clinical trials in South Africa during 2026 for various difficult to treat oncology indications.

Inducement Award

In connection with commencing employment with Quantum Leap Energy LLC, a new non-executive employee of ASP Isotopes Inc. was granted an award of restricted stock covering an aggregate of 30,000 shares of the Company's common stock. The shares of restricted stock will vest, based on continued service to ASP Isotopes Inc. or Quantum Leap Energy LLC, in eight equal semi-annual installments over a four-year period. The restricted stock award was approved by the Board of Directors and was granted under the Company's 2024 Inducement Equity Incentive Plan as an employment inducement award in accordance with Nasdaq Listing Rule 5635(c)(4).

About ASP Isotopes Inc.

ASP Isotopes Inc. is an advanced materials company dedicated to developing technology and processes to produce isotopes in multiple industries. The Company employs proprietary technology, the Aerodynamic Separation Process ("ASP technology"), for the production of all isotopes. 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. 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, including, without limitation, statements relating to the plans to deploy technologies to the enrichment of uranium. 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 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, but not limited to: the outcomes of various strategies and projects undertaken by the Company; the potential impact of laws or government regulations or policies in South Africa, the United Kingdom or elsewhere; our future capital requirements and sources and uses of cash; our ability to obtain funding for our operations and future growth; 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; contracts, dependence on our Intellectual Property (IP) rights, certain IP rights of third parties; the competitive nature of our industry; risks related to: (i) the implementation of the scheme of arrangement for the proposed Renergen acquisition in the anticipated timeframe or at all, (ii) the satisfaction of the scheme conditions, (iii) the failure to obtain necessary regulatory approvals and third party consents, (iv) the ability to realize the anticipated benefits of the proposed acquisition of Renergen, (v) the ability to successfully integrate the businesses; (vi) disruption from the proposed acquisition of Renergen making it more difficult to maintain business and operational relationships, (vii) the negative effects of the consummation of the proposed acquisition of Renergen on the market price of Renergen’s or ASPI’s securities, (viii) significant transaction costs and unknown liabilities, and (ix) litigation or regulatory actions related to the proposed acquisition of Renergen; and the factors disclosed under the heading “Risk Factors” in the company’s Annual Report on Form 10-K, quarterly reports on Form 10-Q and any other filings made with the SEC from time to time, which are available via the SEC’s website at www.sec.gov. 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. All forward-looking statements herein are qualified by reference to the cautionary statements set forth herein and should not be relied upon.

Contacts

Jason Assad– Investor relations
Email: Jassad@aspisotopes.com
Telephone: 561-709-3043