

**UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK**

JOHN MANRIQUE, Derivatively on
Behalf of ASP ISOTOPES, INC.,

Plaintiff,

PAUL E. MANN, MICHAEL GORLEY,
DUNCAN MOORE, PHD, ROBERT
RYAN, HENDRIK STRYDOM, PHD, and
TODD WIDER, MD,

Defendants,

and

ASP ISOTOPES, INC.,

Nominal Defendant.

Case No.:

JURY TRIAL DEMANDED

VERIFIED SHAREHOLDER DERIVATIVE COMPLAINT

Plaintiff John Manrique (“Plaintiff”), by and through his undersigned counsel, derivatively on behalf of ASP Isotopes, Inc. (“ASPI,” “ASP Isotopes,” or the “Company”), submits this Verified Shareholder Derivative Complaint (the “Complaint”). Plaintiff’s allegations are based upon his personal knowledge as to himself and his own acts, and upon information and belief, developed from the investigation and analysis by Plaintiff’s counsel, including a review of publicly available information, including filings by the Company with the U.S. Securities and Exchange Commission (“SEC”), press releases, news reports, analyst reports, investor conference transcripts, publicly available filings in lawsuits, and matters of public record. In addition, one of the grounds for Plaintiff’s allegations is its review of books and records produced by ASP Isotopes Inc., all of which are incorporated by reference in this Complaint. Plaintiff believes that substantial

evidentiary support will exist for the allegations set forth herein after a reasonable opportunity for discovery.

NATURE OF THE ACTION

1. This is a shareholder derivative action brought in the right, and for the benefit, of the Company against certain of its officers and directors seeking to remedy the Individual Defendants' (defined below) violations of state and federal law that have caused substantial harm to the Company.

JURISDICTION

2. This Court has subject-matter jurisdiction over this action pursuant to 28 U.S.C. § 1331 as Plaintiff's claims raise a federal question under Section 14(a) of the Exchange Act, 15 U.S.C. § 78n(a)(1), Rule 14a-9 of the Exchange Act, 17 C.F.R. § 240.14a-9. This Court has supplemental jurisdiction over the state law claims asserted herein pursuant to 28 U.S.C. § 1367(a). This action is not a collusive one to confer jurisdiction on a court of the United States which it would not otherwise have.

3. This Court has personal jurisdiction over each defendant named herein because each defendant is either a corporation that conducts business in and maintains operations in this District or is an individual who has sufficient minimum contacts with this District to render the exercise of jurisdiction by the courts of this District permissible under traditional notions of fair play and substantial justice.

4. Venue is proper in this Court pursuant to 28 U.S.C. § 1391(b) because: (i) one or more of the defendants either resides in or maintains executive offices in this District; (ii) a substantial portion of the transactions and wrongs complained of herein, including defendants' primary participation in the wrongful acts detailed herein and aiding and abetting and conspiracy

in violation of fiduciary duties owed to the Company, occurred in this District; (iii) defendants have received substantial compensation in this District by doing business here and engaging in numerous activities that had an effect in this District; and (iv) defendants have otherwise purposefully availed themselves of this District through issuing false statements in this District and otherwise operating in this District.

5. In connection with the acts, transactions, and conduct alleged herein, the Individual Defendants directly and indirectly used the means and instrumentalities of interstate commerce, including the United States mail, interstate telephone communications, and the facilities of a national securities exchange.

PARTIES

Plaintiff

6. Plaintiff is, and was at all relevant times, a shareholder of the Company and presently owns shares of the Company's common stock. Plaintiff will fairly and adequately represent the interests of the shareholders in enforcing the rights of the corporation.

Nominal Defendant

7. *Nominal Defendant ASP Isotopes* is incorporated under the laws of Delaware with its principal executive offices located in Washington, DC. ASP Isotopes' common stock trades on the NASDAQ exchange under the symbol "ASPI."

Director Defendants

8. *Defendant Paul E. Mann* ("Mann") was the Company's Founder, Chief Executive Officer ("CEO"), and director at all relevant times. According to the Company's 2025 Proxy Statement, Defendant Mann received \$4,767,309 in total compensation in 2024 and beneficially owned 8,084,191 shares of ASPI stock worth approximately \$81,569,487 at the time.

9. ***Defendant Michael Gorley*** (“Gorley”) has served as a Company director at all relevant times hereto. According to the 2025 Proxy Statement, Defendant Gorley received \$70,000 in Fees Paid in Cash and \$304,032 in Stock Awards in 2024 and beneficially owned 81,360 shares of ASPI stock worth approximately \$820,922 at the time.

10. ***Defendant Duncan Moore, PhD*** (“Moore”) has served as a Company director at all relevant times hereto. According to the 2025 Proxy Statement, Defendant Moore received \$70,000 in Fees Paid in Cash and \$304,032 in Stock Awards in 2024 and beneficially owned 994,553 shares of ASPI stock worth approximately \$10,035,039 at the time.

11. ***Defendant Robert Ryan*** (“Ryan”) has served as a Company director at all relevant times hereto. According to the 2025 Proxy Statement, Defendant Ryan received \$70,000 in Fees Paid in Cash and \$304,032 in Stock Awards in 2024 and beneficially owned 615,674 shares of ASPI stock worth approximately \$6,212,150 at the time.

12. ***Defendant Todd Wider*** (“Wider”) has served as a Company director at all relevant times hereto. According to the 2025 Proxy Statement, Defendant Wider received \$70,000 in Fees Paid in Cash and \$304,032 in Stock Awards in 2024 and beneficially owned 710,230 shares of ASPI stock worth approximately \$7,166,220 at the time.

13. ***Defendant Hendrik Strydom*** (“Strydom”) has served as a Company director and Chief Technology Officer (“CTO”) at all relevant times hereto until April 2025.

14. The above-named defendants are collectively referred to herein as the “Director Defendants.”

Officer Defendants

15. ***Defendant Heather Kiessling*** (“Kiessling”) was the Company’s Chief Financial Officer (“CFO”) at all relevant times.

16. Defendant Kiessling along with Defendants Mann and Strydom are collectively referred to herein as the “Officer Defendants.”

17. The Director Defendants along with the Officer Defendants are collectively referred to herein as the “Individual Defendants.”

SUBSTANTIVE ALLEGATIONS

Overview of Isotope Separation and the Uranium Enrichment Market

18. Chemical elements are comprised of atoms. Atoms have a nucleus containing protons and neutrons, which is orbited by electrons. All atoms with the same number of protons are the same element and share similar chemical properties (*e.g.*, hydrogen has one proton, uranium has 92). Atoms with the same number of protons but different numbers of neutrons are called isotopes (*e.g.*, uranium-235 has 92 protons and 143 neutrons, whereas uranium-238 has 92 protons and 146 neutrons). Different isotopes of the same element can have different physical properties giving rise to different applications. For example, uranium-235 can sustain a nuclear chain reaction which can generate power or be used in nuclear weapons, whereas uranium-238 cannot.

19. Isotope enrichment is the process of separating isotopes of the same element from each other. While different elements can be separated from each other through chemical processes due to their differing chemical properties, the chemical similarity of different isotopes of the same element generally requires more difficult and costly means of separation. Commercial applications of the use of enriched isotopes include generation of nuclear power, nuclear medicine (introducing radioactive materials to the body for use in medical imaging and diagnosis), and radiation therapy (introducing radioactive materials to the body to selectively kill cancer cells).

20. One established method of isotope separation uses gas centrifuges. Because isotopes of the same element have different numbers of neutrons, they have different mass. For

example, uranium-238 has approximately 1% more mass than uranium-235. A gas centrifuge relies on centrifugal force in a rapidly spinning cylinder to move heavier isotopes to the cylinder's outer wall, with lighter isotopes remaining closer to its center. Feed gas is introduced into the centrifuge, and the heavier and lighter gas streams are extracted, using tubes located at different positions in the centrifuge. Numerous centrifuges are employed in a cascade to achieve successively greater levels of enrichment. The vast majority of uranium presently used in nuclear power generation is enriched through centrifuges processing uranium hexafluoride (UF₆) as the feed gas. Naturally occurring uranium is approximately 99.3% U-238 and 0.7% U-235.

21. The commercial market for uranium enrichment is competitive and dominated by established companies with substantial resources and governmental ownership, all of which use large scale centrifuge plants: Rosatom (owned by the Russian government); Orano SA (majority owned by the French government); and Urenco (majority owned by the Dutch and British governments). The China National Nuclear Corporation, or CNNC, also has significant enrichment capacity and employs centrifuge plants.

22. As stated by prospective U.S.-based centrifuge uranium enrichment supplier Centrus Energy Corp. (which itself is much larger, better established, and financially supported than ASPI), competitors such as Rosatom, Orano, and Urenco:

have greater financial resources than we do. Foreign competitors enjoy financial and other support from their government owners, which may enable them to be less cost or profit-sensitive than we are. In addition, decisions by foreign competitors may be influenced by political and economic policy considerations rather than commercial considerations. For example, foreign competitors may elect to increase their production or exports of . . . uranium products . . . even when not justified by market conditions, thereby depressing prices and reducing demand . . .

ASPI's Business Centered on Acquiring the Assets of Klydon

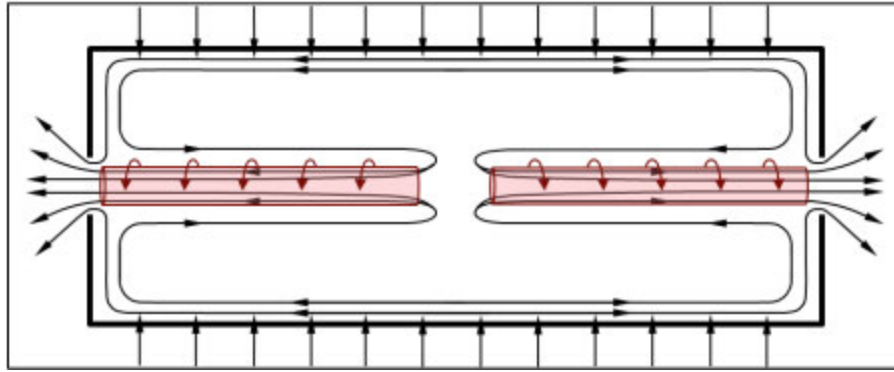
23. ASPI was incorporated in Delaware in September 2021 to acquire assets and license

intellectual property rights from Klydon, a private company based in South Africa, related to the production of molybdenum-100 using Klydon's Aerodynamic Separation Process ("ASP") technology.

24. When Klydon's business was taken over by ASPI, Klydon was financially distressed and it had unsuccessfully sought to restructure its debt. ASPI eventually acquired certain Klydon assets through a "business rescue" process, which Defendant Mann has described as "basically the South African version of bankruptcy." Beginning in September 2019 Klydon was investigated by a forensic account ("Forensic Accountant"),¹ working on behalf of a Klydon investor. For six weeks Forensic Accountant investigated Klydon, interviewing its leaders and members of its finance team, and reviewing financial reports, investor agreements, and other documentation. According to Forensic Accountant, when she investigated Klydon in 2019 "very little was happening. The project had effectively stopped – which is why [the investor] wanted an investigation done there."

25. Klydon's ASP technology employs a technique similar to a so-called "stationary-wall centrifuge," in which the outer wall of the separation device does not move. The isotope material in feed gas form enters a stationary tube, and then follows a flow pattern that results in two gas vortexes occurring around the geometrical axis of the separator as shown below:

¹ Allegations regarding the Forensic Accountant and Former Employees are taken from the Securities Class Action (defined herein) and are based upon information and belief. According to the plaintiff in the Securities Class Action, Forensic Accountant has worked as an accountant and certified fraud examiner for over 20 years, including roles at a Big Four accounting firm and at a major public company.



26. The isotope material spins rapidly, resulting in separation. The gas flows to the ends of the separator where different portions of gas, containing different mixes of isotopes, are collected. In January 2022 ASPI licensed from Klydon intellectual property rights related to the production of uranium-235 using ASP technology. In July 2022 ASPI licensed from Klydon intellectual property rights related to the production of all isotopes using the ASP technology. Also in July 2022, ASPI acquired from Klydon a dormant pilot plant for processing of silicon-28 using ASP technology, located in Pretoria, South Africa.

27. On November 1, 2021, an ASPI subsidiary named ASP Isotopes South Africa (Proprietary) Ltd (“ASP South Africa”) and Klydon entered into a contract under which Klydon was to design and build a plant to enrich molybdenum in South Africa. Klydon failed to perform as required by the contract, and on November 30, 2022 ASP South Africa and Klydon entered arrangements under which Klydon pledged its assets to secure its performance by December 31, 2022. Klydon failed to meet that deadline, and according to ASPI’s SEC filings the Company “did not believe that the amounts owed by Klydon were realizable.” In April 2023 ASPI perfected its interests in Klydon’s assets, acquiring certain intellectual property and Klydon’s interest in four entities which were inactive and in the process of being dissolved.

28. As ASPI stated in SEC filings, “[w]e are dependent on technology, know-how, and proprietary materials licensed from Klydon.”

29. According to Former ASPI Employee 1 who worked at Klydon and then ASPI, ASPI “took over the employees of Klydon,” and “[t]hey forced us to end our contracts with Klydon and take up our contracts with ASPI.” Similarly, Former Klydon Employee 1 described ASP Isotopes and Klydon as “all the same team,” stating “I think the guys from Klydon went to ASP.”

30. Numerous Klydon employees became ASPI employees. For example, Klydon was co-founded by Dr. Einar Ronander (who served as its Executive Chairperson) and Dr. Hendrik Strydom (who served as its CEO), in or about 1993. Ronander served as Chief Scientific Adviser to ASPI (beginning in January 2022 until he was later pushed out of the Company), and Strydom served as Chief Technology Officer and a director of ASPI (from January 2022 through present). ASPI’s Head of Engineering (from 2023 to present), Hendrik (Heino) Van Wyk, served as Process Engineer and Engineering Manager at Klydon (from April 2022 to December 2022). ASPI’s Medical Director (from November 2023 to present) and CEO of its PET Labs subsidiary (from 2014 to present), Gerdus Kemp, served as Medical Director of Klydon. ASPI’s Head of Chemistry, Ben Swanepoel, served as a chemist at Klydon.

ASPI Was Small, Unprofitable, and Depending on Investors for Funding

31. ASPI completed its initial public offering on November 15, 2022, selling 1.25 million shares of common stock for \$4.00 each, raising gross proceeds of \$5 million. Throughout its brief history, ASPI has generated little or no revenue, and large and growing losses.

32. The revenue reported by ASPI beginning in 2023 was not generated by the Company through the production and sale of isotopes, but rather by ASPI’s ownership interest in Pet Labs Pharmaceuticals Proprietary Limited (“PET Labs”). In October 2023, ASPI entered into an agreement to purchase 51% of the shares of PET Labs for an aggregate price of \$2 million. ASPI described PET Labs as:

a South African radiopharmaceutical operations company dedicated to nuclear medicine and the science of radiopharmaceutical production. PET Labs focuses on the production of fluorinated radioisotopes and active pharmaceutical ingredients. PET Labs currently operates a single cyclotron in Pretoria, South Africa.

33. ASPI admitted in SEC filings that it had “not generated any revenue to date attributable to isotopes (and only limited revenues attributable to PET Labs), and we continue to incur significant research and development and other expenses related to our ongoing operations. As a result, we are not profitable and have incurred losses since our inception in September 2021.”

34. As stated by ASPI’s auditor, EisnerAmper LLP, in connection with the Company’s 2023 financial statements, “the Company has incurred recurring operating losses and negative cash flows from operating activities that raise substantial doubt about its ability to continue as a going concern.”

35. As further stated in ASPI’s SEC filings:

Until such time as we can generate significant revenue from sales of our future isotopes or nuclear medical doses for PET scanning, if ever, we expect to finance our cash needs through public or private equity or debt financings or other capital sources, including potential collaborations, licenses and other similar arrangements. However, we may be unable to raise additional funds or enter into such other arrangements when needed on favorable terms or at all.

36. ASPI paid for stock promotion services to publish information about the Company. One such promoter, RedChip Companies Inc., describes itself as “an investor relations firm hired by certain companies to increase investor awareness to the small-cap equity community.” RedChip features ASPI on its website, and has published promotional videos about the Company including multiple interviews with Defendant Mann. A disclaimer on RedChip’s website states:

ASP Isotopes (ASPI) agreed to pay RedChip Companies, Inc., a \$12,500 monthly cash fee and \$50,000 of Rule 144 stock, deemed earned immediately after the IPO, beginning in August 2022, for 12 months of RedChip investor awareness services. ASPI also agreed to pay RedChip a \$50,000 fee for a national TV ad campaign aired May 10 to May 24, 2024.

37. ASPI and Defendant Mann also repeatedly published videos promoting the Company through the Emerging Growth Conference, which discloses on its website that “[i]n addition to any other services provided by EG, Companies that present on the Emerging Growth Conference pay Emerging Growth \$12,500.00 quarterly.”

38. From the November 2022 IPO up to September 2024, ASPI and its subsidiaries repeatedly sold stock, warrants, and convertible notes, to fund the Company’s operations, in the aggregate totaling tens of millions of dollars.

39. ASPI has been a small company at all times, reporting only 31 full-time employees as of March 2023 (prior to ASPI acquiring its interest in PET Labs). ASPI disclosed in its Form 10-K filed with the SEC on April 29, 2024 that, as of year-end 2023, “we employed 76 people on a full-time basis. Of the total employees, 6 employees are in research and development, 33 employees are in engineering, construction and manufacturing, 20 employees are in plant operations and 17 employees are in general management.” In investor presentations, ASPI stated that it had “over 70 employees.”

The Individual Defendants Touted Uranium Enrichment as a Core Operation for ASPI

40. At all relevant times, the Individual Defendants repeatedly emphasized the key importance of uranium enrichment to ASPI.

41. For example, in an investor presentation filed with the SEC on September 26, 2024, ASPI prominently featured “Nuclear Energy,” specifically enrichment of uranium, as one of three areas of focus for the Company, alongside nuclear medicine and enrichment of silicon²⁸ for semiconductor manufacturing.

42. The presentation highlighted the potential for soaring demand for enriched uranium, as governments around the world seek to meet their declared targets for reduction of

greenhouse gas emissions. The presentation stated “Uranium supply has been in a state of sustained deficit since 2018,” and showed that prices for uranium enrichment had more than doubled over the last four years.

43. Also on September 26, 2024, Defendant Mann spoke on an ASPI conference call hosted by the Emerging Growth Conference paid stock promotion service. Mann stated:

we’re a company operates in three industries, the medical industry, the semiconductor industry and the nuclear energy industry . . . we do that via three verticals in the company, ASP isotopes . . . produces stable isotopes . . . PET labs which makes isotopes for the medical industry . . . and then Quantum Leap Energy is a division we started about a year ago that’s going to focus on nuclear fuels for the future, specifically high assay low enriched uranium.

44. Later in the call, Mann further stated, “most investors are more excited about the nuclear energy opportunity than stable isotopes.”

45. In the Q&A portion of the call, Mann was asked “how many advanced nuclear power companies are you currently in partnership discussions with?” He replied in relevant part “we have signed 2 MOU’s both with large US based SMR [small modular reactor] companies. Collectively they need about \$37 billion of HALEU [high assay low enriched uranium] between now and 2037.”

46. The Individual Defendants also emphasized the importance of their so-called “quantum enrichment” technology. In a September 28, 2023 press release announcing plans to use quantum enrichment for uranium, ASPI stated:

The Company has incorporated a new subsidiary, Quantum Leap Energy LLC (QLE) . . . which will focus on producing advanced nuclear fuels.

Specifically, QLE will concentrate on producing HALEU for use in Small Modular Reactors by 2027 and Lithium-6, which will be necessary for Nuclear Fusion. This production will come from the development of the Quantum Enrichment Process. Quantum Enrichment Process, an isotope enrichment method under development by our scientists, is a laser-based enrichment method, which we believe will have both the lowest levelized cost of HALEU production, the lowest cash operating cost

of HALEU production, low capital expenditure, and efficient construction cycles. This will make the Quantum Enrichment Process ideal for enriching smaller-to-mid size quantities or flexible and growing amounts of specialized materials (HALEU and Lithium-6), as opposed to existing isotope enrichers who rely on a more extensive and slower process to produce commodity products.

47. ASPI's September 26, 2024 investor presentation explained quantum enrichment in the following slide:

Our Technology: What is Quantum Enrichment (QE)?

- Isotopes of every element have unique spectroscopic "signatures" defined by the electromagnetic radiation or "light" absorbed by their atoms from electron transitions.
- QE separates two isotopes by taking advantage of the slight differences in the transition energy between two isotopes. This method is described as a "quantum mechanics" method.

In principle, Quantum Enrichment can separate isotopes of most elements, achieving desired enrichment in a single step.

A laser is a device that can produce large numbers of photons, all having almost precisely the same frequency or energy.

By precisely tuning lasers to a specific isotope's spectrum (color) signature, those atoms can be selectively photoionized and then electrically separated based on their electric charge.

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48. Defendant Mann stated in the September 26, 2024 conference call, "we think our quantum enrichment technology is perfect for enriching uranium."

**THE INDIVIDUAL DEFENDANTS CONCEALED
THAT ASPI'S URANIUM RESEARCH WAS THEORETICAL**

49. At all relevant times, the Individual Defendants knew, but failed to disclose to investors, that neither ASPI nor its predecessor Klydon had ever experimented with or tested their technology on uranium. These undisclosed facts severely undermined the misleading public statements such as those touting experience using lasers to enrich uranium, and publishing data comparing quantum enrichment to other uranium enrichment methods. The misrepresentations and

omissions materially misled not only the investing public, but even a professional stock analyst specializing in the sustainable energy industry who covered ASPI.

50. Former Klydon Employee 1 (“FKE1”) was a Process Engineer at Klydon from March 2017 to December 2017, reporting to Engineering Manager Japie Grant. FKE1 has a masters degree in chemical engineering, and worked on Klydon’s experiments. FKE1 “didn’t work on uranium,” and “nobody” at Klydon did during her tenure there. While FKE1 believes there is a “possibility” Klydon’s technology would work on uranium, she “never” spoke about this with anybody at Klydon.

51. Former ASPI Employee 1 (“FAE1”) was Head of Empirical Research at Klydon from July 2007, and eventually transitioned from working at Klydon to ASPI in connection with ASPI’s acquisition of Klydon. At ASPI she was Assistant to the Manager of R&D, Xandra van Heerden, until FAE1’s employment was terminated in January 2024. FAE1 worked directly with Defendant Mann and ASPI’s COO, Robert Ainscow, among others, and attended weekly management meetings with Mann relating to ASPI’s planned molybdenum plant. According to FAE1, regarding ASPI’s laser technology, at the time she left the Company, “[t]hey were only planning it. They were working on the theory behind the experiments, and on the design for the test facility.” According to FAE1, “[CTO] Hendrik Strydom and [laboratory manager] Hendrik Kloppers were working alone on lasers, with some input from [Chief Scientific Advisor] Einar Ronander,” in an effort probably headed by Defendant Mann. FAE1 stated that “Einar was working on the theoretical side” and “[i]f a project is not even, on a laboratory scale, proved, then it’s a long time before it can be used in a plant.” According to FAE1, the laser technology “may not be economically feasible,” and “there has been a lot of talk from Hendrik Strydom and Einar Ronander that it would be economical and would be better than centrifuge. But that has not been

proven.” FAE1 stated that Ronander was pushed out of ASPI, and that after Ronander had gone on medical leave his office was locked, and “they wouldn’t give him access to any documents.”

52. On November 27, 2024, Defendant Mann participated in an interview with Canaccord Genuity analyst George Gianarikas, in an attempt to respond to the claims made in the Fuzzy Panda Research report published the previous day.

53. During the interview Gianarikas asked, “[s]o we’ll get to TerraPower in a second, but to the extent TerraPower wants to use, just assume this for the sake of the argument, only use ASP for its HALEU needs, right? One reactor will need tens if not hundreds of modules from ASP.” Defendant Mann responded in relevant part, “[y]es, we don’t actually know the exact number yet because we haven’t actually enriched uranium. And so until we’ve actually tried the process out with uranium and worked out an enrichment factor . . . difficult for us to know exact numbers.”

54. Later in the interview, following up on a series of questions regarding ASPI’s memorandum of understanding (“MOU”) with TerraPower and TerraPower’s due diligence into ASPI’s technology, the following exchange took place:

Gianarikas: So anyone who’s signing an MOU like this has looked at the results of what you’ve done, sort of at a lab scale in enriching uranium, which you’ve done at a lab scale, right?

Mann: We’ve actually got commercial plants as well. So we’ve got three commercial plants in South Africa that are enriching today.

Gianarikas: But I’m referring to uranium only.

Mann: Say again?

Gianarikas: I’m referring to uranium only. I’m not talking about the other . . .

Mann: I mean, again, you know, we need to get a license before we’re able to test our processes on the uranium . . . we need to get into Pelindaba and start working on uranium before we know definitively how, what the process looks like. But you

know we have a very good idea. The team have done it in the day, 20-30 years ago, so they'll be able to do. But I mean again we are enriching isotopes today so people can look at [unintelligible]

Gianarikas: So what would TerraPower base their optimism on then?

Mann: I guess, we show enrichment of isotopes in all our plants and how we do it. And they have experts, they may have experts who have done it as well, maybe they were involved in the AVLIS [atomic vapor laser isotope separation] program, maybe they've been down to visit us. So . . . based on that.

55. As shown by the comments of former employees of Klydon and ASPI, and as later publicly admitted by Defendant Mann in response to the Fuzzy Panda Research report, neither ASPI nor its predecessor Klydon had ever worked with or tested their technology on uranium, even on a laboratory scale. As shown by the comments of professional stock analyst Gianarikas, this was in stark contrast to what the Individual Defendants had conveyed to the market, giving a materially misleading impression of the state of ASPI's technology and the prospects for its commercial success.

MATERIALLY FALSE AND MISLEADING STATEMENTS

56. The Individual Defendants made multiple statements that misleadingly misrepresented and/or omitted to disclose that neither ASPI nor its predecessor Klydon had ever experimented with or tested their technology on uranium. These undisclosed facts severely undermined the misleading public statements.

57. On September 26, 2024, ASPI filed with the SEC a Form 8-K current report signed by Defendant Mann, which attached as an exhibit a slide deck presentation titled "ASP Isotopes Corporate Overview" and dated September 2024. A copy of the presentation was also made available on ASPI's website. Also, on the morning of September 26, Defendant Mann spoke on an ASPI conference call hosted by the Emerging Growth Conference paid stock promotion service, in which he gave prepared remarks while presenting the slide deck, and then responded to

questions.

58. Page 26 of the presentation bears the heading “HALEU Supply: A Growing Concern for SMRs” and states “[w]e believe that our proprietary Single Stage Quantum Enrichment Technology provides an ideal solution...” Similarly, in his prepared remarks in the conference call Defendant Mann stated that “we think our quantum enrichment technology is perfect for enriching uranium.”

59. The statements identified in the preceding paragraph were materially false and/or misleading, and/or failed to disclose material adverse facts the omission of which rendered those statements misleading because, as the Individual Defendants knew or recklessly disregarded, the Individual Defendants had no reasonable basis for the professed belief that quantum enrichment technology provides an ideal solution for HALEU supply, or a perfect solution for enriching uranium, because the Individual Defendants had never attempted to use any ASPI technology on uranium.

60. Page 28 of the presentation bears the heading “Comparing and Contrasting Enrichment Methods,” and presents the following data purporting to compare uranium enrichment under various methods including ASPI’s quantum enrichment technology:

Comparing and Contrasting Enrichment Methods					
	Gaseous Diffusion	Centrifugation	Atomic Vapor laser Isotope Separation (AVLIS)	Separation of Isotopes by Laser Excitation	Quantum Leap Energy
Cost	High Capital Cost	Capital 1/10 of Diffusion	Low Capital, Small Size	Low Capital, Small Size	Low Capital, Small Size
Speed	High Pressure	High Speed	U Metal 3000K	Adiabatic expansion nozzles (10-20K)	U Metal 3000K
Technology Notes	High Technology	Rotor Design & Material	Selective Photoionization	Laser Excitation Transmission by Skimmer	Enhanced Resonant Multiphoton Ionization
Selectivity	Selectivity $\alpha \geq 1.003$	Selectivity $\alpha \geq 1.15$	Selectivity $\alpha \geq 10-50$	Selectivity $\alpha \geq 2-20$	Selectivity $\alpha \geq 50$
SWU	2500 kWh/SWU	50 kWh/SWU	40 kWh/SWU	Estimate < 50 kWh/SWU	40 kWh/SWU
Stages Required	500 Stages to reactor grade	50 Stages	1-2 Stages	1-2 Stages	Single Stage

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61. On the conference call Defendant Mann stated in connection with this slide and the following page 29 of the presentation:

this kind of contrasts and compares different types of enrichment and you'll see the most important line here is the selectivity line, the alpha line, and so the selectivity for centrifuge, it's about 1.15. And so that's good, and . . . when you put it into a cascade, you compound that 1.15 across the cascade, and that gives you your desired enrichment. But for quantum leap or quantum enrichment, selectivity is greater than 50. And here's an example of quantum enrichment in a real world application. This is Lithium 6 and lithium 7, so you'll see in the top chart there. That's Lithium 6 is at 7% and Lithium 7 is at 93% and after a single pass through our enrichment chamber, the Lithium 6 is now over 90%. And so that's an enrichment factor of 112. So when we say greater than 50, we mean substantially greater than 50.

62. The statements identified in the preceding paragraph were materially false and/or misleading, and/or failed to disclose material adverse facts the omission of which rendered those statements misleading because, as the Individual Defendants knew or recklessly disregarded, the Individual Defendants had no reasonable basis to make claims about the enrichment selectivity or energy required per separative work unit ("SWU") for quantum enrichment of uranium, because they had never attempted to use any ASPI technology on uranium.

63. Page 29 of the presentation bears the heading “Quantum Enrichment: Real World Experience” and states:

Our team have used lasers to enrich many different metals

- Uranium
- Lithium (the only isotopes where results have been published)
- Zirconium
- Zinc

64. The statements identified in the preceding paragraph were materially false and/or misleading, and/or failed to disclose material adverse facts the omission of which rendered those statements misleading because, as the Individual Defendants knew or recklessly disregarded, neither ASPI nor its predecessor Klydon had any real world experience enriching uranium with lasers or otherwise. As later admitted by Defendant Mann, “[t]he team have done it in the day, 20-30 years ago.”

65. Page 32 of the presentation bears the heading “Potential to Close the Loop on Nuclear Waste” and states “Depleted tails from other uranium enrichers produce nuclear waste. The management of this waste is becoming a problem. We believe that our technology can process this waste into HALEU.” The page also presents a table showing that ASPI’s work on uranium-235 using both quantum enrichment and ASP technology is currently in the “R&D Stage”:

Potential to Close the Loop on Nuclear Waste



Depleted tails from other uranium enrichers produce nuclear waste. The management of this waste is becoming a problem.



We believe that our technology can process this waste into HALEU - Potentially providing a solution to this growing environmental problem.



If we can secure access to this nuclear waste at an attractive cost, we should be able to produce HALEU at highly competitive prices.



Depleted UF₆ Tails stored in Ohio, USA

Isotopes	End-Market	R&D Stage	R&D Evaluation	Under Construction	Anticipated Market Entry	Technology
Chlorine-37	Nuclear Energy	✓	--	--	TBD	ASP
Lithium-6		✓	--	--	TBD	QE
Uranium-235		✓	--	--	TBD	QE and ASP

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66. The statements identified in the preceding paragraph were materially false and/or misleading, and/or failed to disclose material adverse facts the omission of which rendered those statements misleading because, as the Individual Defendants knew or recklessly disregarded: (i) the Individual Defendants had no reasonable basis for the professed belief that ASPI's technology can process depleted uranium tails into HALEU, because the Individual Defendants had never attempted to use any ASPI technology on uranium, let alone depleted tails; and (ii) ASPI's quantum enrichment and ASP technologies as applied to uranium-235 were entirely theoretical and lacked any real-world research and development.

67. Page 33 of the presentation bears the heading "Investment Overview" and states under the sub-heading "Proven Proprietary Technology" that "ASPI's advanced technologies leverage 20 years of R&D history to enrich isotopes in varying levels of atomic mass, allowing it to meet the growing demand in the Nuclear Medicine, Semiconductors, and Nuclear Energy industries."

68. The statements identified in the preceding paragraph were materially false and/or misleading, and/or failed to disclose material adverse facts the omission of which rendered those statements misleading because, as the Individual Defendants knew or recklessly disregarded, ASPI's technology was not "proven" with respect to the nuclear energy industry because ASPI had never worked with uranium, and its technology had never been tested on uranium.

69. On the morning of October 17, 2024, ASPI published a press release titled "ASP Isotopes Inc. Enriches Ytterbium-176 During Commissioning Phase of First Quantum Enrichment Facility and Expects to Offer Highly Enriched Ytterbium-176 for Commercial Sale in 2025." Later that day, ASPI filed a copy of the press release with the SEC as an exhibit to a Form 8-K signed by Defendant Mann.

70. The press release "announced the successful enrichment of Ytterbium-176 using Quantum Enrichment, a novel laser isotope enrichment technique," and stated that:

The Company believes that this proprietary technology is not only more efficient and scalable than other enrichment technologies, but also has considerable advantages with respect to capital efficiency and industrial pollution. Additionally, ASP Isotopes believes that because of this milestone achievement it is likely that other important isotopes can be produced using the Quantum Enrichment technology with the same benefits.

71. The press release further stated that "ASPI believe its Quantum Enrichment process will be able to produce HALEU (High Assay Low Enriched Uranium) at an attractive price, allowing new nuclear energy to become available at a 'green discount' to carbon-intensive electricity production processes."

72. On this news, on October 17, 2024, ASPI's stock closed at \$4.04 per share, up 15.4% from the previous day's closing price.

73. The statements identified in paragraphs 70-71 were materially false and/or misleading, and/or failed to disclose material adverse facts the omission of which rendered those

statements misleading because, as the Individual Defendants knew or recklessly disregarded, the Individual Defendants had no reasonable basis for the professed belief that quantum enrichment technology would be able to produce HALEU at an attractive price, because the Individual Defendants had never attempted to use ASPI's technology on uranium.

74. On the morning of October 30, 2024, ASPI published a press release titled "ASP Isotopes Inc. enters into Term Sheet with TerraPower, LLC for Construction of a HALEU Production Facility." Later that day, ASPI filed a copy of the press release with the SEC as an exhibit to a Form 8-K signed by Defendant Mann.

75. The press release stated that ASPI "has entered into a term sheet with TerraPower, a nuclear innovation company and advanced nuclear energy developer, related to the construction of a uranium enrichment facility capable of producing High Assay Low-Enriched Uranium (HALEU) and the future supply of HALEU to TerraPower, as a customer of Quantum Leap Energy LLC (QLE)."

76. The press release further stated that "the parties anticipate entering into a long-term supply agreement for the HALEU expected to be produced at this facility pursuant to which the customer would purchase all the HALEU produced at the facility over a 10-year period after the expected completion of the facility."

77. The press release also stated that ASPI "believes that its enrichment technologies can be deployed in a new HALEU facility for considerably lower capital costs, and in much less time, compared to the construction of an enrichment facility using a traditional centrifuge process of HALEU production."

78. The press release quoted Defendant Mann stating "Over the last several decades, the scientists at ASP Isotopes have developed some of the world's most advanced isotope

enrichment technologies. This term sheet is further validation of our belief that ASP Isotopes can offer scalable and capital efficient technology solutions to the supply challenges which exist in global isotope markets.”

79. On this news, on October 30, 2024, ASPI’s stock closed at \$6.90 per share, up 19.8% from the previous day’s closing price, on extremely high trading volume. Only four days later ASPI would complete a sale of its shares at the artificially inflated price of \$6.75 per share, for gross proceeds of \$18.6 million.

80. The statements identified in the paragraphs 75-78 were materially false and/or misleading, and/or failed to disclose material adverse facts the omission of which rendered those statements misleading because, as the Individual Defendants knew or recklessly disregarded, there was no reasonable basis for their purported belief that ASPI could construct a commercially viable HALEU facility, and would produce commercial quantities of HALEU, given that the Individual Defendants had never attempted to use ASPI’s technology on uranium.

81. Also on the morning of October 30, 2024, Defendant Mann spoke on an ASPI conference call hosted by the Emerging Growth Conference, in which he gave prepared remarks while presenting ASPI’s corporate overview slide deck, and then responded to questions. Mann’s prepared remarks were similar to the misleading statements he made on the September 26, 2024 conference call.

82. During the question and answer session, the host relayed a listener’s question, “Is criticality an issue with your QE process enriching U-235?” Mann replied in part:

So, criticality is the problem in any enrichment process involving U-235. You have to demonstrate to the regulators and to the people who provide your license you’ll never going to be able to hit criticality. One of the advantages of our QE process is that we do it in batches, so rather than having a continuous process of hundreds of kilograms of product inside the plant at a time, you only have a small amount of product being enriched at a time. And so we believe we can demonstrate very

clearly to regulators that there's no chance of hitting criticality.

83. The statements identified in the preceding paragraph were materially false and/or misleading, and/or failed to disclose material adverse facts the omission of which rendered those statements misleading because, as the Individual Defendants knew or recklessly disregarded, the Individual Defendants had never used their quantum enrichment process, or any process, on uranium.

84. On October 21, 2024, the Company filed its 2024 Proxy Statement with the SEC soliciting shareholder votes to, among other things, elect Defendants Gorley and Moore to the Board and approve the Quantum Leap Energy LLC 2024 Equity Incentive Plan. The Proxy Statement was authorized by the Board and signed by Defendant Mann.

85. The 2024 Proxy Statement represents that the Board oversees and monitors the Company's risk exposures:

Although management is responsible for the day-to-day management of the risks our company faces, our board of directors and its committees take an active role in overseeing management of our risks and have the ultimate responsibility for the oversight of risk management. The board of directors regularly reviews information regarding our operational, financial, legal, cybersecurity and strategic risks. Specifically, senior management attends quarterly meetings of the board of directors, provides presentations on operations including significant risks, and is available to address any questions or concerns raised by our board of directors.

86. The 2024 Proxy Statement represents that the Audit Committee is engaged in vigorous oversight over risks to the Company noting that the Committee "coordinates the board of directors' oversight of our internal control over financial reporting, disclosure controls and procedures, related party transactions and code of conduct and corporate governance guidelines and management regularly reports" to the Audit Committee on "these areas."

87. The 2024 Proxy Statement represents that the Company was committed to strong corporate governance practices:

We are committed to maintaining strong corporate governance practices that drive effective functioning of the board of directors in its oversight role, promote the long-term interests of our stockholders and strengthen board and management accountability. Our governance practices are documented in our corporate governance guidelines, which address the role and composition of our board of directors and the functioning of the board and its committees.

88. The foregoing statements in the 2024 Proxy Statement were false and misleading and omitted material information. Contrary to the representations made in the 2024 Proxy Statement, the Board was required but failed to: (i) implement and maintain an effective system of internal controls to ensure that the Company was complying with all laws, rules, and regulations governing ASPI's core operations and making truthful, accurate, and complete statements regarding its core operations, financial condition, and business prospects, particularly regarding the Company's operational and technological capabilities to enrich uranium using its Quantum Enrichment and Aerodynamic Separation Process technologies; (ii) effectively oversee and monitor the material risks facing the Company; and (iii) investigate and take action when presented with red flags regarding misconduct or the lack of internal controls. Further, the 2024 Proxy Statement contained false and misleading statements related to risk and corporate governance oversight by the Board and the Audit Committee and the Company's commitment to good corporate governance practices.

89. These statements were material to investors in deciding how to vote on the matters in the 2024 Proxy Statement because they went to the Company's risk oversight and internal governance practices which is critical to investors, as research by academics and leading business advisors have established,² because these matters go towards the Company's ongoing and

² For example, a study conducted by McKinsey & Co. found that investors were willing to pay an average premium of 18% for a company with strong governance. A study of S&P 500 firms by Deutsche Bank showed that companies with strong or improving corporate governance

continued success. Thus, had investors known the truth, then it may have impacted how they voted on the matters in the 2024 Proxy Statement.

90. However, based upon the materially false and misleading 2024 Proxy Statement, the Company's shareholders voted to approve, among other things, the election of Defendants Gorley and Moore to the Board, thereby allowing them to continue breaching their fiduciary duties and harming the Company, and the approval of the Quantum Leap Energy LLC 2024 Equity Incentive Plan.

91. On November 19, 2024, POWER magazine published to its website an article titled "Mobility, Flexibility, Scalability: SMRs Forging Nuclear's Future," which included an interview with ASPI's vice president of fundraising and business development, Viktor Petkov.

92. In response to the question "What current technology is your company working on with regard to supporting the market for SMRs?", Petkov replied in part "ASP Isotopes (ASPI) is focusing on producing critical nuclear fuels necessary for the operation of small modular reactors. These include HALEU (High-Assay Low-Enriched Uranium), Lithium-6 and Lithium-7, Chlorine37, and Thorium Fluoride."

93. In response to the interviewer's next question, "Do you have a timeline for commercial operation of your technology?", Petkov replied:

Our technology is fully prepared for deployment, pending the necessary approvals to operate an isotope enrichment facility. We are targeting 2025/2026 for the production of Lithium-6 and Lithium-7. ASPI is actively engaged in discussions with multiple governments to secure authorization for the construction of a uranium enrichment plant, which will produce HALEU. Once the required permits are obtained, we anticipate that the facility could be operational within 12 to 18 months.

94. The statements identified in paragraphs 85-86 were materially false and/or

outperformed those with poor or deteriorating governance practices by about 19% over a two-year period.

misleading, and/or failed to disclose material adverse facts the omission of which rendered those statements misleading because, as the Individual Defendants knew or recklessly disregarded, ASPI was not currently working on uranium with its technology and never had, so its technology was not prepared for commercial deployment.

95. On November 25, 2024, ASPI posted from its account (@ASPIIsotopes) on X (formerly known as Twitter):

Great article about the role of SMRs in the future of nuclear energy from @POWERmagazine, including ASP Isotopes' VP of Funding & Business Development Viktor Petkov providing insights about how ASPI works with SMR designers and developers. Read here: <https://powermag.com/mobility-flexibilityscalability-smrs-forging-nuclears-future/>

96. ASPI published to its website a revised version of the September 26, 2024 investor presentation, with ASPI's website listing its date as November 22, 2024 (although the presentation's first page still said "September 2024"). The presentation was identical to the September 26, 2024 version, except that it removed page 9 titled "QE Technology: Illustrative Laser System," which contained pictures of lasers and laboratory equipment.

97. The November 22, 2024 investor presentation contained the same misleading statements as the September 26, 2024 presentation, which were materially false and misleading for the same reasons stated above.

THE TRUTH EMERGES

98. On November 26, 2024 and November 27, 2024, the material risks and adverse information previously concealed by the false and misleading statements and omissions materialized and were revealed. As a result, ASPI's investors suffered steep losses, with the Company's stock price declining by a total of 34.4% over those two days.

99. On the morning of November 26, 2024, Fuzzy Panda Research published online a

report titled “ASP Isotopes (ASPI): Failed Tech + Paid Stock Promotion + “Microcap Fraudsters” (Honig & Stetson) = Nuclear Meltdown.” Based on research including interviews with nuclear energy industry executives and consultations with an applied physicist, Fuzzy Panda Research revealed significant problems facing ASPI’s claimed uranium enrichment technology.

100. In response to the question, “Who would you rank at the bottom?”, the report quoted a “TerraPower Former Executive in Procurement” as stating “Probably ASP Isotopes ... [ASPI] still have to build the manufacturing facility. [ASPI] still have to qualify the process. ASPI is missing the manufacturing; They are missing the processes as well; They still have to develop the HALEU ... the most important part.”

101. The report quoted a “TerraPower Former Executive” as stating regarding ASPI’s projected timeline, “It’s too optimistic. And not real ... That’s my view on it. And again, I have been around. I’ve worked on real projects, and I’ve seen how things work.”

102. The report quoted a “Former Centrus C-Level Executive” stating “We could have bought it [ASPI] for a couple million, and we didn’t think it was worth it. So, at \$500 million [market cap], you’re scratching your head.”

103. Citing a former employee of Klydon, the report stated that “they told us that Klydon had also tried and failed at selling the tech to Cameco. The former Klydon employee told us Cameco’s scientists were ‘very skeptical of the technology’ and Cameco ‘did NOT think it would work on uranium’.”

104. Fuzzy Panda Research revealed that ASPI’s quantum enrichment technology appears to be based on AVLIS (atomic vapor laser isotope separation), a proposed enrichment method that was previously researched by governments around the world but discontinued after billions of dollars of investment failed to produce desired results. The report showed that ASPI’s

illustration of quantum enrichment technology used in investor presentations was simply a recreation of an illustration of AVLIS technology from a 2008 U.S. Nuclear Regulatory Commission report.

105. Fuzzy Panda Research asked an “applied physicist who recently worked at Los Alamos National Laboratory” to explain the basic problems with AVLIS technology, and quoted the physicist as stating “Quantum laser enrichment requires uranium in a gas form. The temperature required to make uranium a gas will damage other sensitive parts of the experiment such as . . . the parts used for separating the gaseous uranium.”

106. As Fuzzy Panda Research further explained in the report:

The fundamental issue with an AVLIS-based technology is that it requires uranium metal as a feedstock, as opposed to uranium hexafluoride (UF₆) which is a gas and is used as the feedstock in all other current enrichment technologies. Uranium metal causes many challenges because ASPI needs to vaporize the metal at an extreme temperature of 3,400°C. Atomic vapor is extremely corrosive and has been shown to destroy the material within the separator device. When the U.S. Government set up an AVLIS pilot plant, the vapor destroyed the equipment within the separator device and required refurbishing the separator every 400 hours (22 times a year), making it costly and uneconomical.

107. The report quoted Dr. Michael Goldsworthy, CEO of Silex Systems Limited and inventor of its Separation of Isotopes by Laser Excitation (“SILEX”) technology, as stating that “I can’t see any different way to do AVLIS ... AVLIS will take lots of time and money to do again ... I have very low hopes for ASPI.”

108. In the afternoon on November 26, 2024, ASPI issued its first public response to the Fuzzy Panda Research report. The only statement in the brief press release addressing the substance of the claims made by Fuzzy Panda Research was that “[b]ased upon ASP Isotopes’s and its legal counsel’s preliminary review and evaluation of the report, the Company believes the report includes speculative conjecture and claims that are inaccurate or filled with innuendo in an

attempt to mislead investors about ASP Isotopes' technology, leadership and future growth." That is, the Individual Defendants cast vague aspersions, while failing to dispute any of the report's particular claims, and failing to provide any information to support the prior misleading statements regarding the use of ASPI's technology for uranium enrichment.

109. On this news, ASPI's share price fell \$1.80 as compared to the prior day closing price, or 23.5%, to close at \$5.85 per share on November 26, 2024, on heavy trading volume.

110. On the morning of November 27, 2024, Defendant Mann participated in an interview with Canaccord Genuity analyst George Gianarikas, in an attempt to respond to the claims made in the Fuzzy Panda Research report published the previous day.

111. During the interview Gianarikas asked, "[s]o we'll get to TerraPower in a second, but to the extent TerraPower wants to use, just assume this for the sake of the argument, only use ASP for its HALEU needs, right? One reactor will need tens if not hundreds of modules from ASP." Defendant Mann responded: in relevant part, "[y]es, we don't actually know the exact number yet because we haven't actually enriched uranium. And so until we've actually tried the process out with uranium and worked out an enrichment factor . . . difficult for us to know exact numbers."

112. Later in the interview, following up on a series of questions regarding ASPI's MOU with TerraPower and TerraPower's due diligence into ASPI's technology, the following exchange took place:

Gianarikas: So anyone who's signing an MOU like this has looked at the results of what you've done, sort of at a lab scale in enriching uranium, which you've done at a lab scale, right?

Mann: We've actually got commercial plants as well. So we've got three commercial plants in South Africa that are enriching today.

Gianarikas: But I'm referring to uranium only.

Mann: Say again?

Gianarikas: I'm referring to uranium only. I'm not talking about the other . . .
Mann: I mean, again, you know, we need to get a license before we're able to test our processes on the uranium . . . we need to get into Pelindaba and start working on uranium before we know definitively how, what the process looks like. But you know we have a very good idea. The team have done it in the day, 20-30 years ago, so they'll be able to do. But I mean again we are enriching isotopes today so people can look at [unintelligible]

Gianarikas: So what would TerraPower base their optimism on then?

Mann: I guess, we show enrichment of isotopes in all our plants and how we do it. And they have experts, they may have experts who have done it as well, maybe they were involved in the AVLIS program, maybe they've been down to visit us. So . . . based on that.

113. Earlier in the interview, Gianarikas asked, "Is your quantum enrichment process based on AVLIS enrichment technology?" Defendant Mann admitted that it was, at least in part, while unsuccessfully attempting to distinguish ASPI's technology, and failing to identify any work ASPI had done experimenting with uranium:

That's, a little bit, but not really. That's a bit like saying it is a car today in 2024 based on a car in 1990 . . . AVLIS we feel was a very simple, very simplistic we feel. So the spectroscopy we use is a lot more complex than what AVLIS used. We have a team of scientists who work on spectroscopy, working out what wavelengths we have to use to ionize particular isotopes. And it means we can ionize isotopes that aren't necessarily [unintelligible] ground state, which is where a problem of AVLIS was. The beam shaping has changed a lot over the last 20 years, 30 years. We have a very sophisticated group of scientists at [unintelligible] University who do our beam shaping for us. And the lasers have changed a lot as well. Back in the AVLIS day people used copper vapor lasers, whereas now you know the lasers are much more powerful, have much higher repetition rates and you know they're very different. So there's a number of differences between what AVLIS was and what we do today. They're both laser based technologies though, but they're somewhat different.

114. In a follow up question regarding whether and how ASPI had improved on AVLIS technology, Gianarikas asked, "And how did you develop on AVLIS, or the Company or South Africa do that as its enrichment industry sort of remained dormant, for at least from what my

understanding is for a while, how did you improve on something when you really, I guess, allegedly weren't working on it?" Defendant Mann replied, implicitly acknowledging that work to improve on AVLIS was not conducted for many years:

You know, we've actually hired out of retirement quite a lot of the team who were involved in the enrichment back in the day. So one of our one of our main scientists, he's 73. He retired 10 years ago and we've hired him back . . . We hired a lot of those people back again. You know, and I think for a lot of them, you know, back in the 90s kind of the rug got pulled from under their feet, they suddenly stopped having to do they were doing. Their dream was to build bigger, more complex plants. And now that's what they're doing now.

115. Gianarikas questioned Mann as to doubts about the commercial viability AVLIS technology, and how ASPI had overcome those challenges. Mann responded by evasively referring to work on the laser component of an AVLIS system, without citing any work that ASPI had done processing uranium (because there was none):

Gianarikas: You can read this stuff online where people at least have tried AVLIS enrichment technology, laser based, quantum enrichment sort of enrichment technology. It hasn't worked right, it just hasn't really worked successfully. And I think what investors, what we are really looking to understand is well, how can you do it? If there's been country level efforts, billions I'm assuming of dollars spent on this stuff, suddenly this company from South Africa says "we can do it." You know like well, how do we feel comfortable with that? We'll get to a lot more questions in a second, but can you just talk about why you feel comfortable that it works? And you did it with Ytterbium, right? You're doing it right now at least in the facility that you've built, but how do we know that the technology is transferable to uranium? And how do we know that after all these other independent parties have tried to do it, suddenly you've figured it out?

Mann: So let's remember that everyone else was trying to do it back in the 90s, early part of 2000s, so 30 years ago. That was one of the longest bear markets we've ever seen in uranium and in isotopes. So I think most of those programs may well have shut down for commercial reasons because it's very challenging to compete against a country, who are basically selling downgraded weapons grade material at basically zero cost. That's a very challenging market to compete against. Also, I would not want to use AVLIS or lasers to produce LEU and compete against a Russian centrifuge. That's tough. That's a very tough business to do. And then secondly, what I said earlier about technology moving on. I mean technology doesn't stay stationary, it accelerates and moves, and technologies evolve over time. As I said earlier, the lasers are very different now to what they were, you know, 30

years ago. Everything's very different to almost 30 years ago . . . And also no one's tried to improve it for the last 20 years. These programs shut down over 20 years ago. And . . . in general in isotope enrichment, very few people invested in this industry over the last 20 years, there has been very little innovation.

116. Gianarikas further questioned Mann about the feasibility of laser enrichment, and technical problems with ASPI's stated approach. Again, Mann's response was vague and did not refer to any work ASPI conducted on uranium to overcome those problems:

Gianarikas: There have been some papers written that have skepticism around your approach to laser enrichment. You know, maybe it gets a little too hot. Maybe using uranium metal isn't the right feedstock. Can you just make us feel comfortable that it doesn't get too hot or the uranium metal is the right the right feedstock? And also, you're using the process for Ytterbium, right. Can you help us understand or give us comfort that jumping from that to uranium is, I don't call it easy, but not that much of a leap?

Mann: . . . We're [unintelligible] process uranium at about 3000 Kelvin, that's where it vaporizes. And again we can change that temperature a little bit, change some of the attributes inside where we process it. And, you know, none of the chemicals we process are particularly friendly chemicals. Would I rather process uranium at 3000 Kelvin or UF₆ gas at 70 degrees C? I'm not sure. Neither are particularly pleasant . . . we're very used to dealing with challenging chemistries. None of the chemicals we process are particularly friendly. So uranium is just one other challenging chemical. You just have the right abatement systems in place and the right safety processes in place.

117. Gianarikas pressed Mann for a direct answer to his questions, asking "But so can you talk about those technical questions. Is 3000 Kelvin too hot? Is there something that breaks down at that level, heat level? And also is uranium metal too difficult to work with as a feedstock?" Mann responded with more vague assertions of confidence unsupported by any real-world experience processing uranium:

So is 3000 Kelvin hot? Yes, it is hot. Is it too hot? There are materials that handle 3000 Kelvin. You have to heat it up slightly differently as well. You can't use thermal heating to heat up to 3000 Kelvin [unintelligible] efficient. So there's different ways to heat it up. And then in terms of is the material challenging process? Most of the chemicals we process are challenging. It's probably, uranium is a metal, its probably less challenging than a lot of the chemicals we currently handle. So our team are very confident they can process uranium metal.

118. As was clear from Mann's interview, ASPI had never worked with uranium, and so had not even come close to solving the challenging technical and scientific problems that had led prior efforts at laser-based uranium enrichment to be discontinued.

119. On this news, ASPI's share price fell \$0.83 as compared to the prior day closing price, or 14.2%, to close at \$5.02 per share on November 27, 2024, also on heavy trading volume.

THE INDIVIDUAL DEFENDANTS' KNOWLEDGE

120. Following the wrongdoing, Plaintiff, through his counsel, made a demand to inspect the Company's books and records pursuant to 8 *Del. C.* § 220. In response, the Company produced copies of [REDACTED]

[REDACTED]

[REDACTED] From a review of these documents, it is clear that [REDACTED]

[REDACTED]

[REDACTED]

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128. [REDACTED]

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[REDACTED]

[REDACTED]

DAMAGE TO THE COMPANY

Securities Class Action

129. On December 4, 2024, a securities class action complaint was filed in the United States District Court for the Southern District of New York against the Company the Officer Defendants. The complaint alleges violations of Sections 10(b) and 20(a) of the Securities

Exchange Act of 1934 (the “Exchange Act”), and SEC Rule 10b-5, in the case captioned: *Leone v. ASP Isotopes, Inc., et al.*, Case No. 1:24-cv-09253 (S.D.N.Y.) (the “Securities Class Action”).

130. As a result of the wrongs complained of herein, the Individual Defendants have subjected the Company to the significant cost of defending itself and certain of the Company’s officers. The Company will continue to incur significant sums in relation to the Securities Class Actions and any liability or settlement that results.

Unjust Compensation

131. At all relevant times, the Company paid lucrative compensation to each of the Individual Defendants. The Company paid the Individual Defendants in connection with their respective roles as officers and/or directors of the Company.

132. Accordingly, as part of their respective roles, the Individual Defendants were required to, among other things, exercise due care and diligence in the management and administration of the affairs of the Company, act ethically and in compliance with all laws and regulations, maintain adequate internal controls, and conduct business in a fair and transparent manner. Further, each of the Individual Defendants had additional duties and responsibilities owed to the Company by virtue of their executive, directorial and/or committee roles, as described *infra*, for which they were compensated for.

133. However, the Individual Defendants failed to carry out their duties adequately or at all, causing harm to the Company, as alleged herein. Because the Individual Defendants failed to carry out their respective duties, the compensation they received was excessive and undeserved. As such, the Individual Defendants were unjustly enriched to the detriment of the Company.

Additional Damage to the Company

134. In addition to the damages specified above, the Company will also suffer further losses in relation to any internal investigations and amounts paid to lawyers, accountants, and investigators in connection thereto.

135. The Company will also suffer losses in relation to the Individual Defendants' failure to maintain adequate internal controls, including the expense involved with implementing and maintaining improved internal controls.

136. The Company has also suffered, and will continue to suffer, a loss of reputation as a direct and proximate result of the Individual Defendants' misconduct which will plague the Company's share price going forward.

CORPORATE GOVERNANCE

137. At all relevant times, the Company had in place extensive corporate governance documents imposing duties and responsibilities on its directors and officers, and additional duties on the Company's committee members. Accordingly, each of the Individual Defendants were required to comply with the corporate governance documents, as detailed below.

138. Despite the following corporate governance, the conduct of the Individual Defendants complained of herein involves a knowing and culpable violation of their obligations as directors and officers of the Company, the absence of good faith on their part, and a reckless disregard for their duties to the Company and its investors that the Individual Defendants were aware posed a risk of serious injury to the Company.

Code of Conduct

139. At all relevant times, ASPI maintained a Code of Business Conduct and Ethics (the "Code of Conduct"), which states that "[o]ne of our Company's most valuable assets is its integrity. Protecting this asset is the job of everyone in the Company."

140. In an opening letter from Defendant Mann, the Company's Chairman and CEO, the Code of Conduct states that "[a]ll of the Company's officers, directors and employees must carry out their duties in accordance with the policies set forth in this Code and with applicable laws and regulations."

141. In a section entitled "Compliance with Laws and Regulations", the Code of Conduct provides the following, in relevant part:

The Company is committed to full compliance with the laws and regulations of the cities, states and countries in which it operates. You must comply with all applicable laws, rules and regulations in performing your duties for the Company. Numerous federal, state and local laws and regulations define and establish obligations with which the Company, its employees and agents must comply. Under certain circumstances, local country law may establish requirements that differ from this Code. You are expected to comply with all local country laws in conducting the Company's business. If you violate these laws or regulations in performing your duties for the Company, you not only risk individual indictment, prosecution and penalties, as well as civil actions and penalties, you also subject the Company to the same risks and penalties. If you violate these laws in performing your duties for the Company, you may be subject to immediate disciplinary action, including possible termination of your employment or affiliation with the Company.

142. In a section entitled "Fair Dealing", the Code of Conduct provides the following, in relevant part:

You should endeavor to deal honestly with the Company's customers, suppliers, competitors and employees. Under federal and state laws, the Company is prohibited from engaging in unfair methods of competition, and unfair or deceptive acts and practices. You should not take unfair advantage of anyone through manipulation, concealment, abuse of privileged information, misrepresentation of material facts, or any other unfair dealing.

Examples of prohibited conduct include, but are not limited to:

- bribery or payoffs to induce business or breaches of contracts by others;
- acquiring a competitor's trade secrets through bribery or theft;
- making false, deceptive or disparaging claims or comparisons about competitors or their products or services; or
- mislabeling products or services.

143. In a section entitled "Accurate Business Records", the Code of Conduct provides:

Accurate and complete business records give our Company a comprehensive view of our operations and allows us to make well-informed business decisions. Keeping our records in order also helps us to build trust with our customers and our business partners. Each of us contributes to recordkeeping in some form and has a responsibility to be honest, accurate, and complete. One of the most common forms of recordkeeping with which all Company employees are concerned is timekeeping; it is important to record your time spent on projects and tasks accurately and in a timely manner. Furthermore, because it is a crime to knowingly make false statements or false claims to the U.S. and other governments, employees who violate these standards could subject the Company and themselves to liability, damaging publicity, expensive and time-consuming audits and investigations, reduction in contract prices, and loss of government contracts. Moreover, the Company and individual employees may be subject to criminal or civil penalties (e.g., imprisonment, fines, and/or suspension and debarment from government contracting), in addition to being subject to disciplinary action, up to and including termination.

144. The Individual Defendants failed to adhere to the Code of Conduct when they issued false and misleading statements and engaged in the wrongdoing described herein. Additionally, the Individual Defendant's failure to maintain the accuracy of Company records and reports, along with their failure to report other mismanagement, violates the Code of Conduct's sections regarding ethical obligations, confidentiality, and company assets.

Audit Committee Charter

145. At all relevant times, the Company had in place its Audit Committee Charter which sets forth the duties and responsibilities of the Audit Committee. The Audit Committee Charter provides that the Audit Committee's purpose is to:

. . . oversee the accounting and financial reporting processes of the Company, the integrity of the financial reports and other financial information, the audits of the Company's financial statements, and the Company's compliance with legal and regulatory requirements. The Committee shall also review the qualifications, independence and performance, and approve the terms of engagement, of the Company's independent auditor and prepare any reports required of the Committee under rules of the Securities and Exchange Commission ("SEC").

146. 205. The Audit Committee Charter sets out the following specific duties and

responsibilities:

B. Review of Financial Reporting Policies and Processes

To fulfill its responsibilities and duties, to the extent that it deems necessary or appropriate, and in addition to the items described above, the Committee shall:

1. Review and discuss with management and the independent auditor the Company's annual audited financial statements and any certification, report, opinion or review rendered by the independent auditor, and recommend to the Board whether the audited financial statements should be included in the Company's annual report on Form 10-K.
2. Review and discuss with management and the independent auditor the Company's quarterly financial statements.
3. Review and discuss with management and the independent auditor the Company's disclosure under "Management's Discussion and Analysis of Financial Condition and Results of Operations" appearing in the Company's periodic reports.
4. Review and discuss with management press releases regarding the Company's financial results and any other information provided to securities analysts and rating agencies, including any "pro-forma," "non-GAAP" or adjusted financial information.
5. Review with management and the independent auditor any significant judgments made in management's preparation of the financial statements and the view of each as to appropriateness of such judgments.
6. Review with management its assessment of the effectiveness and adequacy of the Company's internal control structure and procedures for financial reporting ("Internal Controls"), review with the independent auditor the attestation to and report on the assessment made by management, and consider whether any changes to the Internal Controls are appropriate in light of management's assessment or the independent auditor's attestation and report.
7. To the extent that it deems appropriate, review with management its evaluation of the Company's procedures and controls designed to assure that information required to be disclosed in the Company's periodic reports is recorded, processed, summarized and reported in such reports within the time periods specified by the SEC for the filing of such reports ("Disclosure Controls"), and consider whether any changes are appropriate in light of management's evaluation of the effectiveness of such Disclosure Controls.
8. Review and discuss with management and the independent auditor any off-balance sheet transactions or structures and their effect on the Company's financial

results and operations, as well as the disclosure regarding such transactions and structures in the Company's public filings.

9. Review with management and the independent auditor the effect of regulatory and accounting initiatives on the financial statements. Review any major issues regarding accounting principles and financial statement presentations, including any significant changes in selection of an application of accounting principles. Consider and approve, if appropriate, changes to the Company's auditing and accounting principles and practices as suggested by the independent auditor or management.

10. Review any analyses prepared by management or any independent or internal auditor setting forth significant financial reporting issues and judgments made in connection with the preparation of the financial statements, including the effects of alternative GAAP methods on the financial statements.

11. Review any special audit steps adopted in light of material control deficiencies. Review with the independent auditor and management the extent to which changes or improvements in financial or accounting practices, as approved by the Committee, have been implemented.

12. Review the appointment and replacement of the head of any internal audit function at the Company. Review and discuss with any internal auditors (i) the charter, purpose, authority and organizational reporting lines of the internal audit function and (ii) the annual audit plan and changes to the audit plan. Review reports to management and the Board prepared by any internal auditors. Consult with management and the head of internal audit function the responsibilities, budget and staffing of the internal audit function and the planning and execution of internal audit activities.

C. Risk Management, Related Party Transactions, Legal Compliance and Ethics

To further fulfill its responsibilities and duties, and in addition to the items described above, the Committee shall:

1. Review with the chief executive officer and chief financial officer of the Company any report on significant deficiencies in the design or operation of the Internal Controls that could adversely affect the Company's ability to record, process, summarize or report financial data, any material weaknesses in the Internal Controls identified to the auditors, and any fraud, whether or not material, that involves management or other employees who have a significant role in the Internal Controls.

2. Review and approve any transactions between the Company and any related

parties (as defined in Item 404 of Regulation S-K) and any other potential conflict of interest situations on an ongoing basis.

3. Establish procedures for the receipt, retention and treatment of complaints received by the Company regarding accounting, internal accounting controls or auditing matters, and the confidential, anonymous submission by employees of the Company of concerns regarding questionable accounting or auditing matters. Adopt, as necessary, appropriate remedial measures or actions with respect to such complaints or concerns.

4. In consultation with the Nominating and Corporate Governance Committee, review and recommend to the Board for adoption any revisions to the Company's Code of Conduct (the "Code"), which meets the requirements of Item 406 of the SEC's Regulation S-K, and provide for prompt disclosure to the public of any change in, or waiver of, the Code, and adopt procedures for monitoring and enforcing compliance with the Code.

5. As requested by the Board, review and investigate conduct alleged by the Board to be in violation of the Code, and adopt as necessary or appropriate, remedial, disciplinary, or other measures with respect to such conduct.

6. Discuss with management and the independent auditor any correspondence with regulators or governmental agencies that raise material issues regarding the Company's financial statements or accounting policies.

7. Discuss guidelines and policies to govern the process by which risk assessment and management is undertaken and handled. Discuss with management the Company's major financial risk exposures and the steps management has taken to monitor and control such exposures.

8. Review with the Company's general counsel or outside legal counsel and report to the Board on litigation, material government investigations and compliance with applicable legal and regulatory requirements (including policies and practices designed to ensure compliance therewith) and the Code. As requested by the Board, oversee compliance audits or assessments, including evaluating findings and recommendations and management responses and action plans.

9. Prepare the Committee's report required by the rules of the SEC to be included in the Company's annual proxy statement.

10. Develop, in coordination with the Nominating and Corporate Governance Committee, and implement an annual performance evaluation of the Committee.

11. Regularly report to the Board on the Committee's activities, recommendations and conclusions.

12. Review and reassess the adequacy of this Charter at least annually and recommend any proposed changes to the Board for approval.

147. The Audit Committee failed to uphold their duties required by the Audit Committee Charter by failing to conduct oversight of the Company's engagement in the Individual Defendant's issuing false and misleading statements to the public. Furthermore, the Audit Committee violated the Audit Committee Charter by failing to maintain the accuracy of Company reports and records, failing to comply with laws and regulations, and failing to properly report violations to the rest of the Audit Committee.

FIDUCIARY DUTIES OF THE DIRECTOR DEFENDANTS

148. As members of The Company's Board, the Director Defendants were held to the highest standards of honesty and integrity and charged with overseeing the Company's business practices and policies and assuring the integrity of its financial and business records.

149. The conduct of the Director Defendants complained of herein involves a knowing and culpable violation of their obligations as directors and officers of the Company, the absence of good faith on their part, and a reckless disregard for their duties to the Company and its investors that the Director Defendants were aware posed a risk of serious injury to the Company.

150. By reason of their positions as officers and/or directors of the Company, and because of their ability to control the business and corporate affairs of the Company, the Director Defendants owed the Company and its investors the fiduciary obligations of trust, loyalty, and good faith. The obligations required the Director Defendants to use their utmost abilities to control and manage the Company in an honest and lawful manner. The Director Defendants were and are required to act in furtherance of the best interests of the Company and its investors.

151. Each director of the Company owes to the Company and its investors the fiduciary duty to exercise loyalty, good faith, and diligence in the administration of the affairs of the

Company and in the use and preservation of its property and assets. In addition, as officers and/or directors of a publicly held company, the Director Defendants had a duty to promptly disseminate accurate and truthful information with regard to the Company's operations, finances, and financial condition, as well as present and future business prospects, so that the market price of the Company's stock would be based on truthful and accurate information.

152. To discharge their duties, the officers and directors of the Company were required to exercise reasonable and prudent supervision over the management, policies, practices, and controls of the affairs of the Company. By virtue of such duties, the officers and directors of the Company were required to, among other things:

- (a) ensure that the Company complied with its legal obligations and requirements, including acting only within the scope of its legal authority and disseminating truthful and accurate statements to the SEC and investing public;
- (b) conduct the affairs of the Company in an efficient, businesslike manner so as to make it possible to provide the highest quality performance of its business, to avoid wasting the Company's assets, and to maximize the value of the Company's stock;
- (c) properly and accurately guide investors and analysts as to the true financial condition of the Company at any given time, including making accurate statements about the Company's business prospects, and ensuring that the Company maintained an adequate system of financial controls such that the Company's financial reporting would be true and accurate at all times;
- (d) remain informed as to how the Company conducted its operations, and, upon receipt of notice or information of imprudent or unsound conditions or practices, make reasonable inquiries in connection therewith, take steps to correct such

conditions or practices, and make such disclosures as necessary to comply with federal and state securities laws;

(e) ensure that the Company was operated in a diligent, honest, and prudent manner in compliance with all applicable federal, state and local laws, and rules and regulations; and

(f) ensure that all decisions were the product of independent business judgment and not the result of outside influences or entrenchment motives.

153. Each Director Defendant, by virtue of his position as a director and/or officer, owed to the Company and to its shareholders the fiduciary duties of loyalty, good faith, and the exercise of due care and diligence in the management and administration of the affairs of the Company, as well as in the use and preservation of its property and assets. The conduct of the Director Defendants complained of herein involves a knowing and culpable violation of their obligations as directors and officers of the Company, the absence of good faith on their part, and a reckless disregard for their duties to the Company and its shareholders that the Director Defendants were aware, or should have been aware, posed a risk of serious injury to the Company.

154. The Director Defendants breached their duties of loyalty and good faith by causing the Company to issue false and misleading statements concerning the financial condition of the Company. As a result, the Company has expended, and will continue to expend, significant sums of money related to investigations and lawsuits and to structure settlements to resolve them.

DERIVATIVE AND DEMAND FUTILITY ALLEGATIONS

155. Plaintiff brings this action derivatively in the right and for the benefit of the Company to redress injuries suffered and to be suffered as a direct and proximate result of the

Individual Defendants' breaches of fiduciary duties, gross mismanagement, and other wrongful conduct as alleged herein.

156. Plaintiff will adequately and fairly represent the interests of the Company and its shareholders in enforcing and prosecuting its rights and has retained counsel competent and experienced in derivative litigation.

157. Plaintiff is a current owner of the Company's common stock and has continuously been an owner of the Company's stock during the times relevant to the Director Defendants' wrongful course of conduct alleged herein. Plaintiff understands his obligation to hold stock throughout the duration of this action and is prepared to do so.

158. Because of the facts set forth herein, Plaintiff has not made a demand on the Board to institute this action against Defendants. Such a demand would be a futile and useless act because the Board is incapable of making an independent and disinterested decision to institute and vigorously prosecute this action.

159. At the time this suit was filed, the Company's Board was comprised of seven (7) members, consisting of Mann, Gorley, Moore, Ryan, Wider, and Non-Parties Sipho N. Maseko ("Maseko") and Ralph Hunter ("Hunter") (collectively, the "Current Directors"). Thus, Plaintiff is required to show that a majority of the Current Directors, *i.e.*, four (4), cannot exercise independent objective judgment about whether to bring this action or whether to vigorously prosecute this action.

160. The Current Directors (or at the very least a majority of them) cannot exercise independent objective judgment about whether to bring this action or whether to vigorously prosecute this action. For the reasons that follow, and for reasons detailed elsewhere in this complaint, Plaintiff has not made (and should be excused from making) a pre-filing demand on

the Board to initiate this action because making a demand would be a futile and useless act

**THE DIRECTOR DEFENDANTS ARE
NOT INDEPENDENT OR DISINTERESTED**

161. Each of the Director Defendants face a likelihood of liability in this action because they caused and/or permitted the Company to make false and misleading statements and omissions concerning the information described herein. Because of their advisory, managerial, and directorial positions within the Company, the Director Defendants had knowledge of material, non-public information regarding the Company and were directly involved in the operations of the Company at the highest levels.

162. The Director Defendants either knew or should have known of the false and misleading statements that were issued on the Company's behalf and took no steps in a good faith effort to prevent or remedy that situation.

163. Each of the Director Defendants, by virtue of their roles, were required to, among other things: (i) ensure that the Company complied with its legal and regulatory obligations and requirements; (ii) properly and accurately guide investors and analysts as to the true financial condition of the Company at any given time; (iii) remain informed as to how the Company conducted its operations, make reasonable inquiries, and take steps to correct any improper conditions or practices; and (iv) ensure the Company was operated in a diligent, honest, and prudent manner. Despite this, the Director Defendants failed to fulfil these duties by permitting the false and misleading statements to be made and not correcting those statements.

164. As trusted Company directors, the Director Defendants conducted little, if any, oversight of the scheme to cause the Company to make false and misleading statements, consciously disregarded their duties to monitor such controls over reporting and engagement in the scheme, and consciously disregarded their duties to protect corporate assets.

165. Each of the Director Defendants approved and/or permitted the wrongs alleged herein to have occurred and participated in efforts to conceal or disguise those wrongs from the Company's stockholders or recklessly and/or with gross negligence disregarded the wrongs complained of herein and are therefore not disinterested parties.

166. Each of the Director Defendants reviewed, authorized, signed, and thus personally made and/or otherwise permitted the false statements to be disseminated directly to the public and made available and distributed to shareholders, authorized and/or permitted the issuance of various false and misleading statements, and are principal beneficiaries of the wrongdoing alleged herein, and thus, could not fairly and fully prosecute such a suit even if they instituted it.

167. Moreover, each of the Director Defendants solicited the materially false and misleading 2024 Proxy Statement, as alleged herein. Thus, not only do each of the Director Defendants face a substantial likelihood of liability for their issuance of the false and misleading proxy statement, but Defendants Gorley and Moore each received a material personal benefit from their re-election thereby allowing each of them continue their service on ASPI's Board while breaching their fiduciary duties and receiving lucrative compensation in connection therewith.

168. Additionally, each of the Director Defendants received payments, benefits, stock options, and other emoluments by virtue of their membership on the Board and their control of the Company.

169. Despite having knowledge of the history of their own misconduct and mismanagement, the Director Defendants have failed to seek recovery for the Company for any of the misconduct alleged herein.

Defendant Mann

170. Defendant Mann is neither disinterested nor independent and is thus incapable of

considering a demand to sue because he (as its CEO) is an employee of the Company who derives substantially all of his income from his employment with the Company, making him not independent. As such, Defendant Mann cannot independently consider any demand to sue himself for breaching his fiduciary duties to the Company, because that would expose him to liability and threaten his livelihood.

171. As CEO, Defendant Mann also fails the bright-line independence test as set forth under stock exchange rules and cannot, therefore, be considered independent, as admitted by the Company in its 2025 Proxy Statement. As such, Defendant Mann could not objectively and disinterestedly consider a demand to sue the Individual Defendants and any demand upon Defendant Mann is therefore futile.

172. Defendant Mann also personally reviewed, signed, authorized, and/or made the false and misleading statements alleged herein during earnings calls, in SEC filings, press releases, and in other public forums. Thus, as a main perpetrator of the wrongdoing alleged herein, Defendant Mann is irreconcilably conflicted, faces a substantial likelihood of liability, and cannot consider a demand to sue.

173. In addition, Defendant Mann receives lucrative compensation in connection with his employment with the Company. Defendant Mann is not independent from the Current Directors serving on the People, Culture and Compensation Committee (“Compensation Committee”) and are responsible for evaluating and determining the compensation of the CEO and Executive Officers, including Defendant Mann. The purpose of the Compensation Committee is to assist the Board in discharging its responsibilities related to the compensation provided by the Company to its CEO and Executive Officers. Because of his status as an inside director, and the concomitant substantial compensation he receives, Defendant Mann could not consider a demand adverse to

the other Director Defendants serving on the Compensation Committee who are responsible for his financial future.

174. Because of Defendant Mann's participation in the gross dereliction of fiduciary duties, and breaches of the duties of due care, good faith, and loyalty, Defendant Mann is unable to comply with his fiduciary duties and prosecute this action. Defendant Mann is in a position of irreconcilable conflict of interest in terms of the prosecution of this action and defending himself in the Securities Class Action.

Defendant Moore

175. Moore's independence from Mann is undermined by their longstanding professional and educational connections. Before joining the ASPI Board, Moore served as a top ranked pharmaceutical analyst and Managing Director at Morgan Stanley from 1991 to 2008, leading the firm's global healthcare equity research team. Mann also held positions at Morgan Stanley during his career in healthcare-focused investment roles. Both Mann and Moore are graduates of the University of Cambridge, where Mann earned an MA and an MEng in Natural Sciences and Chemical Engineering, and Moore earned an M.Phil. and Ph.D. in Biochemistry and served as a post-doctoral research fellow. These overlapping professional and educational histories establish a pre-existing network of personal and professional relationships between Mann and Moore that call into question Moore's ability to independently evaluate a demand adverse to Mann.

Defendant Wider

176. Wider's lack of independence from Mann is demonstrated by their longstanding professional relationship. Before joining the ASPI Board at its founding, Wider served alongside Mann on the board of directors of Abeona Therapeutics Inc. (NASDAQ: ABEO), a clinical-stage biopharmaceutical company. By October 2020, following a series of board resignations, Mann and

Wider were two of only four remaining directors at Abeona during a period of significant corporate upheaval, including the resignation of the CEO and a strategic alternatives review. One year later, Wider joined the ASPI Board at its founding in October 2021. This prior board service at a small company during a period of crisis established a close working relationship between Mann and Wider that predates ASPI's formation and undermines Wider's ability to independently evaluate a demand that would require him to initiate litigation against Mann.

Defendant Moore, Ryan, and Wider

177. Defendants Moore, Ryan, and Wider either serve, or served, as members of the Audit Committee. Pursuant to the Audit Committee Charter, Defendants Moore, Ryan, and Wider were specifically charged with the responsibility of assisting the Board in fulfilling its oversight responsibilities related to internal controls over financial reporting and public disclosure requirements.

178. However, Defendants Moore, Ryan, and Wider breached their fiduciary duties to the Company by failing to prevent or correct the issuance of material misstatements and omissions described herein. Therefore, Defendants Moore, Ryan, and Wider each face a substantial likelihood of liability for their breach of fiduciary duties and any demand upon them is futile.

Additional Reasons Demand is Futile

179. The Company has been and will continue to be exposed to significant losses due to the wrongdoing complained of herein, yet the Current Directors have not caused the Company to take action to recover for the Company the damages it has suffered and will continue to suffer thereby.

180. The Company, at all material times, had its Code of Conduct and related corporate governance policies which required each of the Individual Defendants to maintain the highest

standards of honesty and integrity, particularly in relation to accurate and truthful public disclosures. Yet, despite this Code of Conduct and other relevant policies and committee charters, each of the Director Defendants failed to ensure that the Company upheld high standards of integrity, misrepresented facts to the investing public, and failed to report any concerns, or investigate any misconduct, let alone commence litigation against the Individual Defendants.

181. In violation of the Code of Conduct, the Director Defendants conducted little, if any, oversight of the Company's engagement in the Individual Defendants' scheme to cause the Company to issue materially false and misleading statements to the public and to facilitate and disguise the Defendants' violations of law, including breaches of fiduciary duty, waste of corporate assets, and unjust enrichment. In violation of the Code of Conduct, the Director Defendants failed to comply with laws and regulations, failed to maintain the accuracy of company records, public reports, and communications, and failed to uphold the responsibilities related thereto. Thus, the Director Defendants face a substantial likelihood of liability and demand is futile as to them.

182. The Director Defendants received, and continue to receive, substantial salaries, bonuses, payments, benefits, and other emoluments by virtue of their membership on the Board. They have benefitted from the wrongs alleged herein and have engaged therein to preserve their positions of control and the prerequisites thereof and are incapable of exercising independent objective judgment in deciding whether to bring this action.

183. The Director Defendants' conduct described herein and summarized above could not have been the product of legitimate business judgment as it was based on bad faith and intentional, reckless, or disloyal misconduct. Thus, none of the Director Defendants can claim exculpation from their violations of duty pursuant to the Company's charter (to the extent such a provision exists). As a majority of the Director Defendants face a substantial likelihood of liability,

they are self-interested in the transactions challenged herein and cannot be presumed to be capable of exercising independent and disinterested judgment about whether to pursue this action on behalf of the shareholders of the Company. Accordingly, demand is excused as being futile.

184. Publicly traded companies, such as ASPI, typically carry director and officer liability insurance from which the Company could potentially recover some or all of its losses. However, such insurance typically contains an “insured vs. insured” disclaimer that will foreclose a recovery from the insurers if the Individual Defendants sue each other to recover the Company’s damages. If no such insurance is carried, then the Current Directors will not cause the Company to sue the Individual Defendants named herein, since, if they did, they would face a large uninsured individual liability. Accordingly, demand is futile in that event.

185. Accordingly, each of the Director Defendants, and at least a majority of the Current Directors, cannot reasonably consider a demand with the requisite disinterestedness and independence. Indeed, any demand upon the Current Directors is futile and, thus, excused.

CLAIMS FOR RELIEF

FIRST CAUSE OF ACTION

(Against the Individual Defendants for Breach of Fiduciary Duty)

186. Plaintiff incorporates by reference and re-allege each and every allegation contained above, as though fully set forth herein.

187. The Individual Defendants owe the Company fiduciary obligations. By reason of their fiduciary relationships, the Individual Defendants owed and owe the Company the highest obligation of good faith, fair dealing, loyalty, and due care.

188. The Individual Defendants violated and breached their fiduciary duties of care, loyalty, reasonable inquiry, and good faith.

189. The Individual Defendants engaged in a sustained and systematic failure to properly

exercise their fiduciary duties. Among other things, the Individual Defendants breached their fiduciary duties of loyalty and good faith by engaging in the wrongdoing discussed herein.

190. As a direct and proximate result of the Individual Defendants' failure to perform their fiduciary obligations, the Company has sustained significant damages. As a result of the misconduct alleged herein, the Individual Defendants are liable to the Company.

191. As a direct and proximate result of the Individual Defendants' breach of their fiduciary duties, the Company has suffered damage, not only monetarily, but also to its corporate image and goodwill. Such damage includes, among other things, costs associated with defending securities lawsuits, severe damage to the share price of the Company, resulting in an increased cost of capital, the waste of corporate assets, and reputational harm.

SECOND CAUSE OF ACTION

(Against the Individual Defendants for Gross Mismanagement)

192. Plaintiff incorporates by reference and re-allege each allegation contained above, as though fully set forth herein.

193. By their actions alleged herein, the Individual Defendants, either directly or through aiding and abetting, abandoned and abdicated their responsibilities and fiduciary duties with regard to prudently managing the assets and business of the Company in a manner consistent with the operations of a publicly held corporation.

194. As a direct and proximate result of the Individual Defendants' gross mismanagement and breaches of duty alleged herein, the Company has sustained significant damages in excess of hundreds of millions of dollars.

195. Because of the misconduct and breaches of duty alleged herein, the Individual Defendants are liable to the Company.

THIRD CAUSE OF ACTION

(Against the Individual Defendants for Waste of Corporate Assets)

196. Plaintiff incorporates by reference and realleges each and every allegation contained above, as though fully set forth herein.

197. The wrongful conduct alleged regarding the issuance of false and misleading statements was continuous, connected, and on-going. It resulted in continuous, connected, and ongoing harm to the Company.

198. As a result of the misconduct described above, the Individual Defendants wasted corporate assets by, *inter alia*: (i) paying excessive compensation and bonuses to certain of its executive officers; (ii) awarding self-interested stock options to certain officers and directors; and (iii) incurring potentially millions of dollars of legal liability and/or legal costs to defend the Officer Defendants' unlawful actions.

199. As a result of the waste of corporate assets, the Individual Defendants are liable to the Company.

FOURTH CAUSE OF ACTION

(Against the Individual Defendants for Unjust Enrichment)

200. Plaintiff incorporates by reference and realleges each and every allegation set forth above, as though fully set forth herein.

201. By their wrongful acts, violations of law, and inaccurate and untruthful information and/or omissions of material fact that they made and/or caused to be made, the Individual Defendants were unjustly enriched at the expense of, and the detriment of, the Company.

202. The Individual Defendants either benefitted financially from the improper conduct, or received bonuses, stock options, or similar compensation from the Company that was tied to

the performance of the Company or its stock price or received compensation or other payments that were unjust in light of the Individual Defendants' bad faith conduct.

203. Plaintiff, as a shareholder and representative of the Company, seeks restitution from the Individual Defendants and seek an order from this Court disgorging all profits, including from the redemption of preferred stock, benefits, and other compensation, including any performance-based or valuation-based compensation, obtained by the Individual Defendants due to their wrongful conduct and breach of their fiduciary and contractual duties.

FIFTH CAUSE OF ACTION

(Against the Director Defendants for Violations of Section 14(a) of the Exchange Act)

204. Plaintiff incorporates by reference and re-alleges each and every allegation contained above, as though fully set forth herein.

205. Section 14(a) of the Exchange Act, 15 U.S.C. § 78n(a)(1), provides that “[i]t shall be unlawful for any person, by use of the mails or by any means or instrumentality of interstate commerce or of any facility of a national securities exchange or otherwise, in contravention of such rules and regulations as the [SEC] may prescribe as necessary or appropriate in the public interest or for the protection of investors, to solicit or to permit the use of his name to solicit any proxy or consent or authorization in respect of any security (other than an exempted security) registered pursuant to section 12 of this title [15 U.S.C. § 78l].”

206. Rule 14a-9, promulgated pursuant to § 14(a) of the Exchange Act, provides that no proxy statement shall contain “any statement which, at the time and in the light of the circumstances under which it is made, is false or misleading with respect to any material fact, or which omits to state any material fact necessary in order to make the statements therein not false or misleading.” 17 C.F.R. § 240.14a-9.

207. The Director Defendants violated § 14(a) of the Exchange Act, 15 U.S.C. § 78n(a)(1), and Rule 14a-9, 17 C.F.R. § 240.14a-9, promulgated thereunder by the SEC.

208. The Director Defendants, individually and in concert, disseminated and/or permitted the dissemination of materially false and misleading statements in the 2024 Proxy Statement, which was filed with the SEC. As alleged above, the 2024 Proxy Statement was materially false and misleading because the Board was required but failed to: (1) implement and maintain an effective system of internal controls to ensure that the Company was complying with all laws, rules, and regulations governing ASPI's core operations and making truthful, accurate, and complete statements regarding its core operations, financial condition, and business prospects, particularly regarding the Company's operational and technological capabilities to enrich uranium using its Quantum Enrichment and Aerodynamic Separation Process technologies; (2) effectively oversee and monitor the material risks facing the Company; and (3) investigate and take action when presented with red flags regarding misconduct or the lack of internal controls. Further, the 2024 Proxy Statement contained false and misleading statements related to risk and corporate governance oversight by the Board and the Audit Committee and the Company's commitment to good corporate governance practices.

209. The misrepresentations and omissions in the 2024 Proxy Statement were material to Company stockholders. Specifically, the misrepresentations and omissions were material to Company stockholders in voting on matters set forth for shareholder determination in the 2024 Proxy Statement, including, but not limited to, the reelection of certain Individual Defendants.

210. The materially false and misleading statements contained in the 2024 Proxy Statement improperly induced shareholders to vote for the reelection of Defendants Gorley and Moore to the Board, thereby allowing them to continue breaching their fiduciary duties to the

Company.

211. The Company was damaged as a result of the Director Defendants' material misrepresentations and omissions in the 2024 Proxy Statement.

REQUEST FOR RELIEF

WHEREFORE, Plaintiff demands judgment as follows:

A. Determining that this action is a proper derivative action maintainable under law, and that demand is excused;

B. Awarding, against all the Individual Defendants and in favor of the Company, the damages sustained by the Company as a result of the Individual Defendants' breaches of their fiduciary duties, gross mismanagement, waste of corporate assets, unjust enrichment;

C. Awarding, against all the Director Defendants and in favor of the Company, the damages sustained by the Company as a result of the Director Defendants' violations of Section 14(a) of the Securities Exchange Act of 1934;

D. Directing the Company to take all necessary actions to reform and improve its corporate governance and internal procedures, to comply with the Company's existing governance obligations and all applicable laws and to protect the Company and its investors from a recurrence of the damaging events described herein, including but not limited to removing and replacing its officers and directors;

E. Awarding to Plaintiff the costs and disbursements of the action, including reasonable attorneys' fees, accountants' and experts' fees, costs, and expenses; and

F. Granting such other and further relief as the Court deems just and proper.

JURY DEMAND

Plaintiff demands a trial by jury on all issues so triable.

Dated: June 29, 2026

GAINEY McKENNA & EGLESTON

/s/ Thomas J. McKenna

Thomas J. McKenna

Gregory M. Egleston

Christopher M. Brain

260 Madison Ave., 22nd Floor

New York, NY 10016

Tel.: (212) 983-1300

Fax: (212) 983-0383

Email: tjmckenna@gme-law.com

Email: gegleston@gme-law.com

Email: cbrain@gme-law.com

Attorneys for Plaintiff

VERIFICATION

I, JOHN MANRIQUE, declare that I have reviewed the verified shareholder derivative complaint (“Complaint”) prepared on behalf of ASP Isotopes, INC. and authorize its filing. I have reviewed the allegations made in the Complaint, and to those allegations of which I have personal knowledge, I believe those allegations to be true. As to those allegations of which I do not have personal knowledge, I rely on my counsel and their investigation and for that reason believe them to be true. I further declare that I am a current holder, and have been a holder, of Snowflake, Inc. common stock at all relevant times.


JOHN MANRIQUE