

November 8, 2022

United States Securities and Exchange Commission
Division of Corporate Finance
Office of Industrial Applications and Services
Washington, D.C. 20549-6010

Attention: Ibolya Ignat
Kevin Kuhar
Jordan Nimitz
Margaret Schwartz

Re: **ASP Isotopes Inc.**
Amendment No 4 to Registration Statement on Form S-1
Filed November 4, 2022
File No. 333-267392

Ladies and Gentlemen:

On behalf of ASP Isotopes, Inc. (the "**Company**"), we are transmitting this letter in response to the comment received from the staff (the "**Staff**") of the Securities and Exchange Commission (the "**Commission**") contained in its letter dated November 8, 2022, with respect to Amendment No. 4 to Registration Statement on Form S-1 (the "**Amendment No. 4**") filed by the Company with the Commission on November 4, 2022.

For your convenience, we have set forth each comment of the Staff from its letter in bold and provided the Company's response below each comment. Unless otherwise indicated, capitalized terms used herein have the meaning assigned to them in the Amendment No. 4.

Amendment No. 4 to Registration Statement on Form S-1 filed on November 4, 2022

Risk Factors

Risks Related to This Offering and Ownership of Our Common Stock

The price of our stock may be volatile, and you could lose all or part of your investment, page 33

1. We note recent instances of extreme stock price run-ups followed by rapid price declines and stock price volatility seemingly unrelated to company performance following a number of recent initial public offerings, particularly among companies with relatively smaller public floats. Please revise your risk factor to clearly state that such volatility, including any stock run-up, may be unrelated to both your actual and expected operating performance and financial condition or prospects, making it difficult for prospective investors to assess the rapidly changing value of your stock.

United States Securities and Exchange Commission
November 8, 2022
Page 2

Response:

We have revised our risk factor to include the following disclosure:

The trading price of our common stock following this offering may be subject to instances of extreme stock price run-ups followed by rapid price declines and stock price volatility unrelated to both our actual and expected operating performance and financial condition or prospects, making it difficult for prospective investors to assess the rapidly changing value of our stock. Further, the trading price of our common stock following this offering is likely to be highly volatile and could be subject to wide fluctuations in response to various other factors, some of which are beyond our control, including limited trading volume.

Very truly yours,

/s/ Brenda Hamilton
Brenda Hamilton
For the Firm
