

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

SCHEDULE 13G
Under the Securities Exchange Act of 1934

Arcadium Lithium PLC

(Name of Issuer)

COMMON STOCK

(Title of Class of Securities)

G0508H110

(CUSIP Number)

September 30, 2024

(Date of Event Which Requires Filing of this Statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

☒ Rule 13d-1(b)

☐ Rule 13d-1(c)

☐ Rule 13d-1(d)

*The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter the disclosures provided in a prior cover page.

The information required in the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

CUSIP No. G0508H110

1. Names of Reporting Persons
I.R.S. Identification Nos. of above persons (entities only)
Van Eck Associates Corporation
666 Third Ave. - 9th Floor, New York, New York 10017

2. Check the Appropriate Box if a Member of a Group (See Instructions)
(a) N/A
(b)

3 SEC Use Only

4. Citizenship or Place of Organization: **Delaware**

Number of Shares Beneficially Owned by Each Reporting Person With	5.	Sole Voting Power	21,620,944 common shares
	6.	Shared Voting Power	None
	7.	Sole Dispositive Power	21,620,944 common shares
	8.	Shared Dispositive Power	None

9. Aggregate Amount Beneficially Owned by Each Reporting Person **21,620,944 Common Shares are held within mutual funds and other client accounts managed by Van Eck Associates Corporation, none of which individually owns more than 5% of the outstanding shares.**

10. Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions) N/A

11. Percent of Class Represented by Amount in Row (9) **6.19%**

12. Type of Reporting Person (See Instructions) **IA**

Item 1. (a) Name of Issuer

Arcadium Lithium PLC

Item 1. (b) Address of Issuer's Principal Executive Offices

**Shannon Airport house, Gateway Hub, Suite 12
Channon, Clare 70 Ireland**

Item 2. (a) Name of Person Filing

Van Eck Associates Corporation

Item 2. (b) Address of Principal Business Office or, if none, Residence

666 Third Ave. - 9th Floor, New York, New York 10017

Item 2. (c) Citizenship or Place of Organization:

Delaware

Item 2. (d) Title of Class of Securities

Common Shares

Item 2. (e) CUSIP Number

Not Applicable

Item 3. If this statement is filed pursuant to Rule 13d-1(b) or 13d-2(b) or (c), check whether the person filing is a:

(a) ☐ Broker or dealer registered under section 15 of the Act (15 U.S.C. 78o).

(b) ☐ Bank as defined in section 3(a)(6) of the Act (15 U.S.C. 78c).

(c) ☐ Insurance company as defined in section 3(a)(19) of the Act (15 U.S.C. 78c).

(d) ☐ Investment company registered under section 8 of the Investment Company Act of 1940 (15 U.S.C. 80a-8).

(e) ☒ An investment adviser in accordance with Rule 13d-1(b)(1)(ii)(E);

(f) ☐ An employee benefit plan or endowment fund in accordance with Rule 13d-1(b)(1)(ii)(F);

(g) ☐ A parent holding company or control person in accordance with Rule 13d-1(b)(1)(ii)(G);

(h) ☐ A savings associations as defined in Section 3(b) of the Federal Deposit Insurance Act (12 U.S.C. 1813);

(i) ☐ A church plan that is excluded from the definition of an investment company under section 3(c)(14) of the Investment Company Act of 1940 (15 U.S.C. 80a-3);

(j) ☐ Group, in accordance with Rule 13d-1(b)(1)(ii)(J).

Item 4. Ownership.

- (a) Amount beneficially owned: **21,620,944 Common Shares**
- (b) Percent of class: **6.19%**
- (c) Number of shares as to which the person has:
 - (i) Sole power to vote or to direct the vote **21,620,944 Common Shares**
 - (ii) Shared power to vote or to direct the vote **None**
 - (iii) Sole power to dispose or to direct the disposition of **21,620,944 Common Shares**
 - (iv) Shared power to dispose or to direct the disposition of **None**

Item 5. Ownership of Five Percent or Less of a Class

If this statement is being filed to report the fact that as of the date hereof the reporting person has ceased to be the beneficial owner of more than five percent of the class of securities, check the following:
☐

Item 6. Ownership of More than Five Percent on Behalf of Another Person.

Not applicable.

Item 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on By the Parent Holding Company

Not applicable.

Item 8. Identification and Classification of Members of the Group

Not applicable.

Item 9. Notice of Dissolution of Group

Not applicable.

Item 10. Certification

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect.

SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

November 14, 2024

Date

/S/ Ashley Sousa

Signature
Ashley Sousa, Manager

Name/Title

The original statement shall be signed by each person on whose behalf the statement is filed or his authorized representative. If the statement is signed on behalf of a person by his authorized representative other than an executive officer or general partner of the filing person, evidence of the representative's authority to sign on behalf of such person shall be filed with the statement, provided, however, that a power of attorney for this purpose which is already on file with the Commission may be incorporated by reference. The name and any title of each person who signs the statement shall be typed or printed beneath this signature.