

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

Schedule 13D
Under the Securities Exchange Act of 1934
(Amendment No. 4)

ARCHAEA ENERGY INC.
(Name of Issuer)

Class A Common Stock, par value \$0.0001 per share
(Title of Class of Securities)

03940F 103
(CUSIP Number)

Matthew Pacey, P.C.
Lanchi Huynh
Kirkland & Ellis LLP
609 Main Street
Houston, Texas 77002
(713) 836-3600

(Name, Address and Telephone Number of Person
Authorized to Receive Notices and Communications)

December 28, 2022
(Date of Event which Requires Filing of this Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D, and is filing this schedule because of §240.13d-1(e), §240.13d-1(f) or §240.13d-1(g), check the following box:

The information required on 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. 03940F 103

1.	Name of reporting person Shalennial Fund I, L.P.
2.	Check the appropriate box if a member of a group (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>
3.	SEC use only
4.	Source of funds (See Instructions) OO
5.	Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e) <input type="checkbox"/>
6.	Citizenship or place of organization Delaware
Number of shares beneficially owned by each reporting person with	7. Sole voting power 0
	8. Shared voting power 0
	9. Sole dispositive power 0
	10. Shared dispositive power 0
11.	Aggregate amount beneficially owned by each reporting person 0
12.	Check if the aggregate amount in Row (11) excludes certain shares <input type="checkbox"/>
13.	Percent of class represented by amount in Row (11) 0%
14.	Type of reporting person PN

CUSIP No. 03940F 103

1.	Name of reporting person Shalennial GP I, L.P.	
2.	Check the appropriate box if a member of a group (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>	
3.	SEC use only	
4.	Source of funds (See Instructions) OO	
5.	Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e) <input type="checkbox"/>	
6.	Citizenship or place of organization Delaware	
Number of shares beneficially owned by each reporting person with	7.	Sole voting power 0
	8.	Shared voting power 0
	9.	Sole dispositive power 0
	10.	Shared dispositive power 0
11.	Aggregate amount beneficially owned by each reporting person 0	
12.	Check if the aggregate amount in Row (11) excludes certain shares <input type="checkbox"/>	
13.	Percent of class represented by amount in Row (11) 0%	
14.	Type of reporting person PN	

CUSIP No. 03940F 103

1.	Name of reporting person Rice Investment Group, L.P.	
2.	Check the appropriate box if a member of a group (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>	
3.	SEC use only	
4.	Source of funds (See Instructions) OO	
5.	Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e) <input type="checkbox"/>	
6.	Citizenship or place of organization Delaware	
Number of shares beneficially owned by each reporting person with	7.	Sole voting power 0
	8.	Shared voting power 0
	9.	Sole dispositive power 0
	10.	Shared dispositive power 0
11.	Aggregate amount beneficially owned by each reporting person 0	

12.	Check if the aggregate amount in Row (11) excludes certain shares	<input type="checkbox"/>
13.	Percent of class represented by amount in Row (11)	0%
14.	Type of reporting person	PN

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CUSIP No. 03940F 103

1.	Name of reporting person Rice Investment Group UGP, LLC	
2.	Check the appropriate box if a member of a group (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>	
3.	SEC use only	
4.	Source of funds (See Instructions) OO	
5.	Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e)	<input type="checkbox"/>
6.	Citizenship or place of organization Delaware	
Number of shares beneficially owned by each reporting person with	7.	Sole voting power 0
	8.	Shared voting power 0
	9.	Sole dispositive power 0
	10.	Shared dispositive power 0
11.	Aggregate amount beneficially owned by each reporting person 0	
12.	Check if the aggregate amount in Row (11) excludes certain shares	<input type="checkbox"/>
13.	Percent of class represented by amount in Row (11)	0%
14.	Type of reporting person	OO

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CUSIP No. 03940F 103

1.	Name of reporting person Daniel J. Rice, IV	
2.	Check the appropriate box if a member of a group (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>	
3.	SEC use only	
4.	Source of funds (See Instructions) OO	
5.	Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e)	<input type="checkbox"/>
6.	Citizenship or place of organization United States	
Number of shares beneficially owned by each	7.	Sole voting power 0
	8.	Shared voting power 0
	9.	Sole dispositive power

reporting person with		0
	10.	Shared dispositive power 0
11.	Aggregate amount beneficially owned by each reporting person 0	
12.	Check if the aggregate amount in Row (11) excludes certain shares <input type="checkbox"/>	
13.	Percent of class represented by amount in Row (11) 0%	
14.	Type of reporting person IN	

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CUSIP No. 03940F 103

1.	Name of reporting person Nicholas Stork	
2.	Check the appropriate box if a member of a group (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>	
3.	SEC use only	
4.	Source of funds (See Instructions) OO	
5.	Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e) <input type="checkbox"/>	
6.	Citizenship or place of organization United States	
Number of shares beneficially owned by each reporting person with	7.	Sole voting power 0
	8.	Shared voting power 0
	9.	Sole dispositive power 0
	10.	Shared dispositive power 0
11.	Aggregate amount beneficially owned by each reporting person 0	
12.	Check if the aggregate amount in Row (11) excludes certain shares <input type="checkbox"/>	
13.	Percent of class represented by amount in Row (11) 0%	
14.	Type of reporting person IN	

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CUSIP No. 03940F 103

1.	Name of reporting person Richard Walton	
2.	Check the appropriate box if a member of a group (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>	
3.	SEC use only	
4.	Source of funds (See Instructions) OO	
5.	Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e) <input type="checkbox"/>	
6.	Citizenship or place of organization United States	

Number of shares beneficially owned by each reporting person with	7.	Sole voting power 0
	8.	Shared voting power 0
	9.	Sole dispositive power 0
	10.	Shared dispositive power 0
11.	Aggregate amount beneficially owned by each reporting person 0	
12.	Check if the aggregate amount in Row (11) excludes certain shares <input type="checkbox"/>	
13.	Percent of class represented by amount in Row (11) 0%	
14.	Type of reporting person IN	

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This Amendment No. 4 amends and supplements the Schedule 13D filed on September 27, 2021, as previously amended on May 13, 2022, September 19, 2022 and October 18, 2022 (as amended, the "Schedule 13D"). Except as specifically provided herein, this Amendment No. 4 does not modify any of the information previously reported in the Schedule 13D. Capitalized terms used but not defined in this Amendment No. 4 shall have the same meanings ascribed to them in the Schedule 13D.

Item 5. Interest in Securities of the Issuer

Item 5 of the Schedule 13D is amended and restated as follows:

(a)-(b) Each Reporting Person beneficially owns zero shares of Class A Common Stock.

(c) On December 28, 2022, the Mergers were completed in accordance with the Merger Agreement. Pursuant to the Merger Agreement, Merger Sub merged with and into the Issuer with the Issuer continuing as the surviving corporation and a wholly owned subsidiary of Parent, and Opco Merger Sub merged with and into Opco with Opco continuing as the surviving company and a wholly owned subsidiary of Parent.

Class A Common Stock and Class B Common Stock

At the Effective Time, in accordance with the terms and conditions set forth in the Merger Agreement, (i) each share of Class A Common Stock that was issued and outstanding as of immediately prior to the Effective Time (other than any shares of Class A Common Stock held by the Issuer as treasury stock or owned by Parent, Merger Sub, Opco Merger Sub or any other subsidiaries thereof, or any shares of Class A Common Stock as to which appraisal rights have been properly exercised in accordance with Delaware law) was automatically canceled, extinguished and converted into the right to receive the Per Share Price, (ii) each share of Class A Common Stock held by the Issuer as treasury stock or owned by Parent, Merger Sub, Opco Merger Sub or any other subsidiaries thereof, in each case, as of immediately prior to the Effective Time, was automatically canceled and extinguished without conversion thereof or consideration paid therefor and (iii) each share of Class B Common Stock was automatically canceled and extinguished without any conversion thereof or consideration paid therefor.

Opco Class A Units

At the Opco Merger Effective Time, in accordance with the terms and conditions set forth in the Merger Agreement, (i) each Opco Class A Unit held by a holder other than the Issuer or any of its subsidiaries issued and outstanding as of immediately prior to the Opco Merger Effective Time was automatically canceled, extinguished and converted into the right to receive cash in an amount equal to the Per Share Price and (ii) each Opco Class A Unit held by the Issuer or any of its subsidiaries immediately prior to the Opco Merger Effective Time became an equivalent number of limited liability company interests of the surviving Opco held by the Issuer, as the surviving corporation in the Issuer Merger.

Equity Awards

At the Effective Time, each award of restricted stock units of the Issuer ("RSUs") that was outstanding and vested as of immediately prior to the Effective Time and each RSU that was held by a non-employee director of the Issuer immediately prior to the Effective Time, and each award of performance-based restricted stock units of the Issuer ("PSUs") that was outstanding and vested as of immediately prior to the Effective Time ("Vested RSUs" and "Vested PSUs," respectively) and, with respect to each holder of RSUs or PSUs, 50% of such holder's RSUs and such holder's PSUs that were outstanding and unvested as of immediately prior to the Effective Time ("Deemed Vested RSUs" and "Deemed Vested PSUs," respectively) were, in each case, automatically cancelled and converted into the right to receive an amount in cash (without interest and subject to applicable withholding taxes) equal to the product of (i) the Per Share Price and (ii) the total number of shares of Class A Common Stock subject to such Vested RSU or Deemed Vested RSU or such Vested PSU or Deemed Vested PSU (with Deemed Vested PSUs being deemed achieved at maximum performance), respectively, as of immediately prior to the Effective Time.

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Each award of RSUs and PSUs that was outstanding as of immediately prior to the Effective Time that is not a Vested RSU or Deemed Vested RSU (an "Unvested RSU") or a Vested PSU or Deemed Vested PSU (an "Unvested PSU"), respectively, was, in each case, automatically, at the Effective Time, cancelled and converted into an award representing the right to receive an amount in cash (without interest and subject to applicable withholding taxes) equal to the product of (i) the Per Share Price and (ii) the total number of shares of Class A Common Stock subject to such Unvested RSU or Unvested PSU (with Unvested PSUs being deemed achieved at maximum performance), respectively, as of immediately prior to the Effective Time (a "Deferred Cash RSU Award" or "Deferred Cash PSU Award," respectively). Each Deferred Cash RSU Award or Deferred Cash PSU Award will, subject to the holder's continued service with Parent or its affiliates through the applicable vesting dates, generally vest and be payable on the earlier of (A) the same time as the RSU or PSU for which the Deferred Cash RSU Award or Deferred Cash PSU Award, respectively, was exchanged would have vested and

been payable pursuant to its service-based vesting schedule and (B) the first anniversary of the date of the Effective Time.

Warrants

Immediately following the Opco Merger Effective Time, each of the Issuer's warrants were redeemed for cash in accordance with the terms of the Warrant Agreement, dated as of October 21, 2020 (the "Warrant Agreement"), by and between the Issuer (formerly known as Rice Acquisition Corp.), Opco (formerly known as Rice Acquisition Holdings LLC) and Continental Stock Transfer & Trust Company (the "Warrant Agent"), as amended by Amendment No. 1 to Warrant Agreement, dated as of October 16, 2022, by and between the Issuer, Opco and the Warrant Agent, pursuant to which, immediately following the Opco Merger Effective Time, each warrant that was issued and outstanding immediately prior to the Effective Time was automatically redeemed for the right to receive an amount, in cash, equal to (i) the Per Share Price minus (ii) the Warrant Price (as defined in the Warrant Agreement) as reduced pursuant to the calculation provided in Section 4.4 of the Warrant Agreement, without interest.

As a result of the Mergers, none of the Reporting Persons beneficially owns any securities of the Issuer.

(d) Not applicable.

(e) On December 28, 2022, and as a result of the Mergers, each of the Reporting Persons ceased to be a beneficial owner of more than five percent of the Class A Common Stock.

SIGNATURES

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

Date: December 28, 2022

SHALENNIAL FUND I, L.P.

By: Shalennial GP I, L.P.,
its general partner

By: Rice Investment Group UGP, LLC,
its general partner

By: /s/ Daniel J. Rice, IV

Name: Daniel J. Rice, IV

Title: Managing Member

SHALENNIAL GP I, L.P.

By: Rice Investment Group UGP, LLC,
its general partner

By: /s/ Daniel J. Rice, IV

Name: Daniel J. Rice, IV

Title: Managing Member

RICE INVESTMENT GROUP, L.P.

By: Rice Investment Group UGP, LLC,
its general partner

By: /s/ Daniel J. Rice, IV

Name: Daniel J. Rice, IV

Title: Managing Member

RICE INVESTMENT GROUP UGP, LLC

By: /s/ Daniel J. Rice, IV

Name: Daniel J. Rice, IV

Title: Managing Member

DANIEL J. RICE, IV

/s/ Daniel J. Rice, IV

NICHOLAS STORK

/s/ Nicholas Stork

RICHARD WALTON

/s/ Richard Walton