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

FORM S-3 REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

ARQ, INC. (Exact name of registrant as specified in its charter)

Delaware 27-5472457
(State or other jurisdiction of incorporation or organization) (I.R.S. Employer Identification Number)

8051 E. Maplewood Ave., Suite 210

Greenwood Village, CO 80111 (720) 598-3500

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Robert Rasmus Chief Executive Officer 8051 E. Maplewood Ave., Suite 210 Greenwood Village, CO 80111 (720) 598-3500

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

Clay Smith General Counsel and Secretary 8051 E. Maplewood Ave., Suite 210 Greenwood Village, CO 80111 (720) 598-3500 Jeffrey A. Sherman
Faegre Drinker Biddle & Reath LLP
1144 15th Street, Suite 3400
Denver, CO 80202
(303) 607-3500

Approximate date of commencement of proposed sale of the securities to the public:

As soon as practicable after the effectiveness of this registration statement.

f the only securities being registered on this form are being offered pursuant to dividend or interest reinvestment plans, please check the following b	эх. □
f any of the securities being registered on this form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act other than securities offered only in connection with dividend or interest reinvestment plans, check the following box. ⊠	of 1933,

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. \Box

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer \square	Accelerated filer □	Non-accelerated filer \boxtimes	Smaller reporting company ⊠	Emerging growth company \square
		k if the registrant has elected not to Section 7(a)(2)(B) of the	ot to use the extended transition p Securities Act. \square	eriod for complying with new or
Registrant shall file a fur	ther amendment which spe ecurities Act of 1933 or un	ecifically states that this Regis	or dates as may be necessary to d stration Statement shall thereaft shall become effective on such o	er become effective in accordance
s-				

The information in this prospectus is not complete and may be changed. The securities may not be sold until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

Subject to completion, PRELIMINARY PROSPECTUS DATED May [1, 2024

2,142,858 Shares



Arq, Inc.

2,142,858 Shares of Common Stock Offered by the Selling Stockholders

The selling stockholders identified in this prospectus (the "Selling Stockholders") may offer and sell, from time to time, in one or more offerings, up to 2,142,858 shares of our common stock (the "Shares"). We are not selling any common stock under this prospectus and will not receive any proceeds from the sale of the shares by the Selling Stockholders. You should carefully read this prospectus and any accompanying prospectus supplement before you decide to invest in the shares that may be offered under this prospectus.

The Selling Stockholders may sell or otherwise dispose of the Shares in a number of different ways and at varying prices. The Selling Stockholders may sell any, all or none of the Shares offered by this prospectus and we do not know when or in what amount the Selling Stockholders may sell their shares hereunder following the effective date of the registration statement of which this prospectus forms a part. We provide more information about how the Selling Stockholders may sell or otherwise dispose of the Shares in the section entitled "Plan of Distribution" on page 10. Discounts, concessions, commissions and similar selling expenses attributable to the sale of the Shares will be borne by the Selling Stockholder(s). We will pay all expenses (other than discounts, concessions, commissions and similar selling expenses) relating to the registration of the Shares with the U.S. Securities and Exchange Commission.

Our common stock is listed on the Nasdaq Global Market ("Nasdaq") under the symbol "ARQ." On May 24, 2024, the last reported sales price of a share of our common stock on Nasdaq was \$7.17.

An investment in our securities is subject to various risks. See the sections entitled "Risk Factors" starting on page 2 of this prospectus, "Item 1A. Risk Factors" in our most recent Annual Report on Form 10-K as well as in any of our subsequent filings with the Securities and Exchange Commission ("SEC"), and in, or incorporated by reference into, the applicable prospectus supplement and in any free writing prospectuses we may authorize for use in connection with a specific offering, and under similar headings in the other documents that are incorporated by reference into this prospectus, to read about factors you should consider, including the risk of leverage, before investing in our securities.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is May 28, 2024.

TABLE OF CONTENTS

	Page
ABOUT THIS PROSPECTUS	<u>i</u>
WHERE YOU CAN FIND MORE INFORMATION	<u>ii</u>
INCORPORATION BY REFERENCE	<u>iv</u>
PROSPECTUS SUMMARY	-
RISK FACTORS	2
SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS	<u>.</u>
USE OF PROCEEDS	<u>.</u>
SELLING STOCKHOLDERS	<u>(</u>
DESCRIPTION OF CAPITAL STOCK	- -
PLAN OF DISTRIBUTION	<u>10</u>
LEGAL MATTERS	<u>1</u>
EXPERTS	11

ABOUT THIS PROSPECTUS

This prospectus is part of the registration statement that we filed with the U.S. Securities and Exchange Commission (the "SEC"), using a "shelf" registration process. Under this shelf registration process, the Selling Stockholders may, from time to time, offer and sell certain shares of our common stock in one or more offerings. When a Selling Stockholder sells shares of common stock under this shelf registration process, we may provide a prospectus supplement that will contain more specific information about the terms of such offering. The prospectus supplement may also add to, update or change any of the information contained in this prospectus. You should carefully read this prospectus, any accompanying prospectus supplement, any free writing prospectus supplement by reference. See "Incorporation by Reference." Any information in any accompanying prospectus or any earlier prospectus or any subsequent material incorporated herein or therein by reference will supersede the information in this prospectus or any earlier prospectus supplement.

This prospectus contains summaries of certain provisions in some of the documents described herein, but reference is hereby made to the actual documents for complete information. All of the summaries are qualified in their entirety by reference to the complete text of the actual documents. Copies of some of the documents referred to herein have been filed or will be filed or incorporated by reference as exhibits to the registration statement of which this prospectus is a part, and you may obtain copies of those documents as described below in the section entitled "Where You Can Find More Information."

Neither we nor any of the Selling Stockholders have authorized anyone to provide any information or to make any representations other than those contained in this prospectus, in any accompanying prospectus supplement or in any free writing prospectuses we have prepared or authorized. You should rely only on the information provided in this prospectus or any prospectus supplement, including information incorporated by reference herein or therein, or any free writing prospectus that we have specifically referred you to. Neither we nor any of the Selling Stockholders take responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. This prospectus is an offer to sell only the shares offered hereby and only under circumstances and in jurisdictions where it is lawful to do so. The information contained in this prospectus, any prospectus supplement or any documents we incorporate herein or therein, or in any free writing prospectus, is current only as of the respective dates thereof. Our business, financial condition, results of operations and prospects may have changed since those respective dates.

No action is being taken in any jurisdiction outside the United States to permit a public offering of common stock or possession or distribution of this prospectus in that jurisdiction. Persons who come into possession of this prospectus in jurisdictions outside the United States are required to inform themselves about and to observe any restriction as to this offering and the distribution of this prospectus applicable to those jurisdictions.

Unless otherwise indicated or the context otherwise requires, all references in this prospectus to "we," "our," "us," "ARQ" and the "Company" refer to Arq, Inc. together with its consolidated subsidiaries.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. The SEC maintains an internet website at www.sec.gov that contains periodic and current reports, proxy and information statements, and other information regarding registrants, including us, that file electronically with the SEC.

We also make available, free of charge, on or through our Internet website, www.arq.com, our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, Proxy Statements on Schedule 14A and, if applicable, amendments to those reports filed or furnished pursuant to Section 13(a) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC. The information on or that can be accessed through our website is not a part of this prospectus and the inclusion of our website address in this prospectus is an inactive textual reference only. In addition, you may request copies of these filings at no cost at: Arq, Inc., 8051 E. Maplewood Ave., Suite 210, Greenwood Village, Colorado 80111, telephone: (720) 598-3500.

We have filed with the SEC a registration statement on Form S-3 under the Securities Act of 1933, as amended (the "Securities Act"), including exhibits, of which this prospectus forms a part, with respect to the shares of common stock that may be offered hereunder. This prospectus does not contain all of the information set forth in the registration statement and exhibits thereto. For further information with respect to our company and the shares of common stock offered hereby, reference is made to the registration statement, including the exhibits thereto. Whenever we make reference in this prospectus to any of our contracts, agreements or other documents, the references are summaries and are not necessarily complete and you should refer to the exhibits attached to or incorporated by reference into the registration statement for copies of the actual contract, agreement or other document. Our SEC filings, including the registration statement of which this prospectus forms a part and the exhibits thereto, are available to you for free on the SEC's website listed above.

INCORPORATION BY REFERENCE

The SEC allows us to "incorporate by reference" into this prospectus and any prospectus supplement the information we file with the SEC. This means that we can disclose important information to you by referring you to another document filed separately with the SEC. Any information referenced in this way is considered part of this prospectus. Any subsequent information filed with the SEC will automatically be deemed to update and supersede the information in this prospectus and in our other filings with the SEC.

We incorporate by reference in this prospectus the documents listed below that have been previously filed with the SEC, as well as any filings made by us with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act from the initial filing of the registration statement of which this prospectus forms a part until the termination or completion of the offering of the securities described in this prospectus; provided, however, we are not incorporating by reference any documents or portions of documents deemed to have been furnished rather than filed in accordance with SEC rules:

- our Annual Report on Form 10-K for the year ended December 31, 2023, as filed with the SEC on March 12, 2024, including the information specifically incorporated by reference into our Annual Report on Form 10-K from our definitive proxy statement on Schedule 14A, filed with the SEC on April 29, 2024;
- our Quarterly Report on Form 10-Q for the quarter ended March 31, 2024, as filed with the SEC on May 8, 2024;
- our Current Reports on Form 8-K filed with the SEC on January 24, 2024, January 31, 2024, February 13, 2024, April 16, 2024 and May 16, 2024;
- the description of our common stock contained or incorporated by reference in our Registration Statement on Form 8-A filed with the SEC on July 6, 2016, as updated by any amendments or reports filed for the purpose of updating such description; and
- the description of our Series B Junior Participating Preferred Stock (currently traded with our common stock (contained or incorporated by reference in our Registration Statement on Form 8-A filed on May 8, 2017, as most recently amended by the Form 8-A filed on April 16, 2024, as updated by any amendments or reports filed for the purpose of updating such description.

All reports and other documents we subsequently file pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act prior to the termination of this offering, including all such documents we may file with the SEC after the date of the initial registration statement and prior to the effectiveness of the registration statement, and on or after the date of this prospectus, but excluding any information furnished to, rather than filed with, the SEC, will also be incorporated by reference into this prospectus and deemed to be part of this prospectus from the date of the filing of such reports and documents. You may request a copy of these filings, other than an exhibit to a filing unless that exhibit is specifically incorporated by reference into that filing, at no cost, by writing to or telephoning us at the following:

Arq, Inc. 8051 E. Maplewood Ave., Suite 210 Greenwood Village, CO 80111 Attn: General Counsel and Secretary (720) 598-3500

PROSPECTUS SUMMARY

This summary highlights selected information contained elsewhere or incorporated by reference in this prospectus. This summary does not contain all the information that you should consider before investing in our securities. You should read the entire prospectus and any applicable prospectus supplement carefully, including the "Risk Factors" contained in this prospectus, any applicable prospectus supplement, and the documents incorporated by reference herein and therein and the financial statements incorporated by reference in this prospectus supplement and the accompanying prospectus, before making an investment decision.

ABOUT THE COMPANY

Arq, Inc. ("Arq" or the "Company"), is an environmental technology company and is principally engaged in the sale of consumable air, water, and soil treatment solutions including activated carbon ("AC") and chemical technologies. The Company's proprietary AC products enable customers to reduce air, water, and soil contaminants, including mercury, per and polyfluoroalkyl substances ("PFAS") and other pollutants, to help our customers meet the challenges of existing and pending air quality and water regulations. The Company manufactures and sells AC and other chemicals used to capture and remove contaminants for coal-fired power generation, industrial, municipal water and air, water, and soil treatment and remediation markets (collectively, the advanced purification technologies or "APT" market).

Our primary products are comprised of AC, which is produced from a variety of carbonaceous raw materials. Our AC products include both powdered activated carbon ("PAC") and granular activated carbon ("GAC"). Additionally, we own the Five Forks Mine, a lignite mine that currently supplies the primary raw material for the manufacturing of our products.

In February 2023, we acquired 100% of the equity of the subsidiaries of Arq Limited (hereafter the Arq Limited subsidiaries referred to as "Legacy Arq", and the acquisition itself referred to as the "Arq Acquisition") to secure access to a feedstock, a manufacturing facility and certain patented processes as a means to manufacture additional GAC products for sale into the APT and other markets. With the Arq Acquisition, we now control bituminous coal waste reserves and own a manufacturing facility, both located in Corbin, Kentucky (the "Corbin Facility"), and a process to recover and purify the bituminous coal fines for sale or further conversion to GAC products. Under this manufacturing process, we convert coal waste into a purified, microfine carbon powder known as Arq powderTM ("Arq Powder"). We expect to begin using Arq Powder as a feedstock to manufacture high-quality GAC products for sale in the APT and other markets by the end of 2024.

We believe Arq Powder has additional potential for us to access new markets and applications. We expect to secure customer interest in Arq Powder as an additive into other markets, such as components for asphalt. These products utilizing Arq Powder are expected to have a lower carbon footprint compared to similar products utilizing conventional materials. These applications are currently in various stages of proof-of-concept testing or preliminary customer testing.

In February 2024, as part of a larger rebranding, we changed our name to Arq, Inc., and on February 1, 2024, our common stock commenced trading under the ticker symbol, "ARQ".

Our Corporate Information

We were incorporated as a Delaware corporation in 2011. Our current corporate headquarters address is 8051 E. Maplewood Ave., Suite 210, Greenwood Village, Colorado 80111. Our official company website can be found at www.arq.com. Information included or referred to on, or otherwise accessible through, our website is not deemed to form a part of, or be incorporated by reference into, this prospectus or the registration statement of which this prospectus forms a part, and you should not rely on that information when making a decision to invest in our common stock.

RISK FACTORS

Investing in our common stock involves a high degree of risk. You should consider the risks, uncertainties and other factors described in "Risk Factors" and elsewhere in our most recent Annual Report on Form 10-K, as supplemented and updated by subsequent Quarterly Reports on Form 10-Q, that we have filed or will file with the SEC, and in other documents which are incorporated by reference in this prospectus, as well as the risk factors and other information contained in or incorporated by reference in any accompanying prospectus supplement, together with all of the other information included in this prospectus. If any of these or any unanticipated risks actually occur, our business, financial condition and results of operations could be materially and adversely affected and the trading price of our common stock could decline, causing you to lose some or all of your investment in our common stock.

Risks Related to the Common Shares Offered by the Selling Stockholders

If the Selling Stockholders sell significant amounts of our common shares, or the perception exists that these sales could occur, such events could cause our common share price to decline.

This prospectus covers the resale from time to time by the Selling Stockholders of up to 2,142,858 shares of our common stock. Once the registration statement of which this prospectus is a part is declared effective, all of these shares will be available for resale in the public market. If the Selling Stockholders sell significant amounts of our common shares following the effectiveness of the registration statement of which this prospectus is a part, the market price of our common shares could decline. Further, the perception of these sales could impair our ability to raise additional capital through the sale of our equity securities.

The proceeds from the sale of our common shares by the Selling Stockholders in this offering will not be available to us.

We will not receive any proceeds from the sale of our common shares by the Selling Stockholders in this offering. The Selling Stockholders will receive all proceeds from the sale of such shares. Consequently, none of the proceeds from such sale by the Selling Stockholders will be available to us for our use.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains "forward-looking statements" within the meaning of Section 27A of the Securities Act, and Section 21E of the Exchange Act. Forward-looking statements generally relate to future events or our future financial or operating performance. Words or phrases such as "anticipates," "believes," "may," "expects," "intends," "plans," "estimates," "predicts," the negative expressions of such words, or similar expressions are used in this prospectus to identify forward-looking statements, and such forward-looking statements include, but are not limited to, statements or expectations regarding:

- the anticipated effects from an increase in pricing of our AC products;
- the anticipated effects from an increase in costs of our AC products and related cost increases in supply and logistics;
- expected supply and demand for our AC products and services;
- increasing competition in the AC market;
- the ability to successfully integrate Legacy Arq's business;
- the ability to develop and utilize Legacy Arq's products and technology;
- the ability to make Legacy Arq's products commercially viable;
- the expected future demand of Legacy Arq's products;
- future level of research and development activities;
- future plant capacity expansions and site development projects, including the GAC Facility;
- the effectiveness of our technologies and the benefits they provide;
- probability of any loss occurring with respect to certain guarantees made by Tinuum Group;
- the timing of awards of, and work and related testing under, our contracts and agreements and their value;
- the timing and amounts of, or changes in, future revenues, backlog, funding for our business and projects, margins, expenses, earnings, tax rates, cash flows, royalty payment obligations, working capital, liquidity and other financial and accounting measures;
- the amount and timing of future capital expenditures needed for our business plan;
- · awards of patents designed to protect our proprietary technologies both in the U.S. and other countries;
- the adoption and scope of regulations to control certain chemicals in drinking water and other environmental concerns;
- the impact of adverse global macroeconomic conditions, including rising interest rates, recession fears and inflationary pressures, and geopolitical events or conflicts;
- opportunities to effectively provide solutions to U.S. coal-related businesses to comply with regulations, improve efficiency, lower costs and maintain reliability.
- the impact of prices of competing power generation sources such as natural gas and renewable energy on demand for our products; and
- bank failures or other events affecting financial institutions.

The forward-looking statements included in this prospectus involve risks and uncertainties. Actual events or results could differ materially from those discussed in the forward-looking statements as a result of various factors including, but not limited to, timing of new and pending regulations and any legal challenges to or extensions of compliance dates of them; the U.S. government's failure to promulgate regulations that benefit our business; changes in laws and regulations, accounting rules, prices, economic conditions and market demand; impact of competition; availability, cost of and demand for alternative energy sources and other technologies; technical, start up and operational difficulties; competition within the industries in which the Company operates; our inability to commercialize our products on favorable terms; our inability to effectively and efficiently commercialize new products; changes in construction costs or availability of construction materials; our inability to effectively manage construction and startup of the Red River GAC Facility or Corbin Facility; our inability to obtain required financing or financing on terms that are favorable to us; our inability to ramp up our operations to effectively address recent and expected growth in our business; loss of key personnel; ongoing effects of the inflation and macroeconomic uncertainty, including from the ongoing pandemic and armed conflicts around the world, and such uncertainty's effect on market demand and input costs; availability of materials and equipment for our business; intellectual property infringement claims from third parties; pending litigation; as well as other factors relating to our business strategy, goals and expectations concerning the Legacy Arq Acquisition (including future operations, future performance or results);

our ability to maintain relationships with customers, suppliers and others with whom we do business and meet supply requirements, or our results of operations and business generally; risks related to diverting management's attention from our ongoing business operations; costs related to the Legacy Arq Acquisition; opportunities for additional sales of our lignite AC products and end-market diversification; the timing and scope of new and pending regulations and any legal challenges to or extensions of compliance dates of them; our ability to meet customer supply requirements; the rate of coal-fired power generation in the U.S., the timing and cost of capital expenditures and the resultant impact to our liquidity and cash flows as described in our filings with the SEC, with particular emphasis on the risk factor disclosures contained in those filings. You are cautioned not to place undue reliance on the forward-looking statements made in this prospectus and to consult filings we have made and will make with the SEC for additional discussion concerning risks and uncertainties that may apply to our business and the ownership of our securities. The forward-looking statements contained in this prospectus are presented as of the date hereof, and we disclaim any duty to update such statements unless required by law to do so.

USE OF PROCEEDS

All shares of our common stock sold pursuant to this prospectus will be offered and sold by the Selling Stockholders. The Selling Stockholders will receive all proceeds from the sale of the shares of common stock offered by this prospectus and any accompanying prospectus supplement. We will not receive any of the proceeds from the sale of our common stock by the Selling Stockholders.

SELLING STOCKHOLDERS

This prospectus covers an aggregate of up to 2,142,858 shares of our common stock that may be sold or otherwise disposed of by the Selling Stockholders. The shares offered by this prospectus may be offered from time to time by the Selling Stockholders. The Selling Stockholders may sell some, all or none of their shares. We do not know how long the Selling Stockholders will hold the shares offered hereunder before selling them. The Selling Stockholders may have sold or transferred, in transactions exempt from the registration requirements of the Securities Act, some or all of their respective shares since the date on which the information in the table below is presented. Information about the Selling Stockholders may change over time. As used in this prospectus, the term "Selling Stockholders" includes the Selling Stockholders listed below, and any donee, pledgee, transferee or other successor in interest selling shares received after the date of this prospectus from a Selling Stockholder as a gift, pledge, or other non-sale related transfer.

The following table sets forth the name of each Selling Stockholder, the number of shares of our common stock and the percentage of our common stock beneficially owned by each Selling Stockholder prior to this offering, the number of shares that may be offered under this prospectus by each Selling Stockholder, and the number of shares of our common stock and the percentage of our common stock to be beneficially owned by each Selling Stockholder after completion of this offering, assuming that all shares offered hereunder are sold as contemplated herein. The number of shares in the column "Maximum Number of Shares That May Be Offered" represents all of the shares that the Selling Stockholder may offer under this prospectus.

Beneficial ownership is determined under the rules of the SEC and generally includes voting or investment power over securities. Except in cases where community property laws apply or as indicated in the footnotes to this table, we believe that each stockholder identified in the table possesses sole voting and investment power over all shares of common stock shown as beneficially owned by the stockholder. Shares of common stock subject to options and warrants that are exercisable or exercisable within 60 days of the date of this prospectus are considered outstanding and beneficially owned by the person holding the options for the purpose of computing the percentage ownership of that person but are not treated as outstanding for the purpose of computing the percentage ownership of any other person.

The Selling Stockholders are each entities affiliated with AIGH Capital Management, LLC and Mr. Orin Hirschman. The address for each Selling Stockholder named below is 6006 Berkley Avenue, Baltimore, Maryland 21209. Percentage ownerships shown are based on 36,040,062 shares of common stock outstanding as of May 20, 2024 (after giving effect to the issuance of the shares being registered hereunder).

Name	Shares of Common Stock Beneficially Owned Prior to the Offering	Percentage of Total Outstanding Common Stock (%)	Shares of Common Stock to be Sold	Shares of Common Stock Owned After the Offering	Percentage of Common Stock Owned After the Offering
AIGH Investment Partners, LP ⁽¹⁾	1,450,965	4.03 %	1,450,965	_	*
WVP Emerging Manager Onshore Fund, LLC - AIGH Series ⁽²⁾	426,016	1.18 %	426,016	_	*
AIGH Investment Partners, LLC(3)	142,858	*	142,858	_	*
WVP Emerging Manager Onshore Fund, LLC - Optimized Equity	122.010	4	122.010		*
Series ⁽⁴⁾	123,019	*	123,019		*
Total	2,142,858	5.95 %	2,142,858	_	*

- * Designated ownership of less than 1% of our common stock.
 - (1) Mr. Orin Hirschman is the managing member of AIGH Capital Management, LLC, a Maryland limited liability company ("AIGH CM"), who is an advisor with respect to the securities held by AIGH Investment Partners, L.P. ("AIGH LP"). Mr. Hirschman has voting and investment control over the securities indirectly held by AIGH CM, directly held by AIGH IP and directly held by Mr. Hirschman and his family.
 - (2) Mr. Orin Hirschman is the managing member of AIGH Capital Management, LLC, a Maryland limited liability company ("AIGH CM"), who is a sub-advisor with respect to the securities held by WVP Emerging Manager Onshore Fund, LLC AIGH Series. Mr. Hirschman has voting and investment control over the securities indirectly held by AIGH CM and directly held by Mr. Hirschman and his family directly.
 - (3) Mr. Orin Hirschman is the managing Member of AIGH Investment Partners LLC ("AIGH LLC"). Mr. Hirschman has voting and investment control over the securities indirectly held by AIGH LLC and directly held by Mr. Hirschman and his family directly.
 - (4) Mr. Orin Hirschman is the managing member of AIGH CM, who is a sub-advisor with respect to the securities held by WVP Emerging Manager Onshore Fund, LLC Optimized Equity Series. Mr. Hirschman has voting and investment control over the securities indirectly held by AIGH CM and directly held by Mr. Hirschman and his family directly.

DESCRIPTION OF CAPITAL STOCK

The following descriptions of our capital stock and certain provisions of our second amended and restated certificate of incorporation, as amended (our "Certificate of Incorporation"), our amended and restated bylaws (the "Bylaws"), and our Tax Asset Protection Plan (as defined below), as amended, are summaries and are qualified by reference to our Certificate of Incorporation and Bylaws, copies of which have been incorporated by reference as exhibits to the registration statement of which this prospectus forms a part.

Our authorized capital stock consists of 150,000,000 shares of capital stock, par value \$0.001 per share, of which:

- 100,000,000 shares are designated as common stock; and
- 50,000,000 shares are designated as preferred stock.

As of May 24, 2024, there were 36,040,062 shares of our common stock outstanding and no shares of our preferred stock outstanding. Our board of directors is authorized, without stockholder approval except as required by the listing standards of Nasdaq, to issue additional shares of our capital stock. 50,000 shares of Series B Junior Participating Preferred Stock, par value \$0.001 per share, are authorized and reserved for issuance upon the exercise of the Rights (as defined below) under our Tax Asset Protection Plan, as described below.

Common Stock

Voting Rights

Each holder of common stock is entitled to one vote for each share on all matters submitted to a vote of the stockholders. Our Certificate of Incorporation does not provide for cumulative voting rights. Our Bylaws provide that the election of any director and proposals designated by the directors will be decided by a plurality of the votes cast at a meeting of the stockholders by the holders of stock entitled to vote in the election. With respect to matters other than the election of directors and proposals designated by the director as being subject to a plurality vote, such matters shall be approved if the votes cast favoring the matter exceed the votes cast opposing the matter at a meeting of the stockholders by the holders of stock entitled to vote. The holders of one-third of the voting power of the outstanding shares of Common Stock entitled to vote at the meeting, present in person or represented by proxy, shall constitute a quorum for the transaction of business at all meetings of the stockholders.

Dividends

Our Bylaws provide that, subject to applicable law, dividends upon shares of our capital stock may be declared by the board of directors and may be paid in cash, in property or in shares of our capital stock, unless otherwise provided by applicable law.

Liquidation

In the event of our liquidation, dissolution or winding up, whether voluntary or involuntary, after payment or provision for payment of our debts and other liabilities and the preferential amounts to which the holders of any outstanding shares of preferred stock are entitled to receive on dissolution, liquidation, or winding up, the holders of the common stock are entitled to share on a pro rata basis in our remaining assets.

Rights and Preferences

Holders of our common stock have no preemptive, conversion, subscription or other rights, and there are no redemption or sinking fund provisions applicable to our common stock. The rights, preferences and privileges of the holders of our common stock are subject to and may be adversely affected by the rights of the holders of shares of any series of our preferred stock that we may designate in the future.

Fully Paid and Nonassessable

All of our outstanding shares of common stock are fully paid and nonassessable.

Preferred Stock

As of May 24, 2024, there were no shares of preferred stock outstanding.

Our Certificate of Incorporation provides that our board of directors has the authority, subject to limitations prescribed by Delaware law, to issue preferred stock in one or more series, to establish from time to time the number of shares to be included in each series, and to fix the designation, powers, preferences, and rights of the shares of each series and any of its qualifications, limitations, or restrictions, in each case without further vote or action by our stockholders. Our board of directors also has the authority to increase or decrease the number of shares of any series of preferred stock, but not below the number of shares of that series then outstanding, without any further vote or action by our stockholders. Our board of directors may authorize the issuance of preferred stock with voting or conversion rights that could adversely affect the voting power or other rights of the holders of our common stock. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions and other corporate purposes, could,

among other things, have the effect of delaying, deferring, or preventing a change in control of our company and might adversely affect the market price of our common stock and the voting and other rights of the holders of our common stock. We have no current plan to issue any shares of preferred stock.

Anti-Takeover Provisions

Certain provisions of Delaware law, and our Certificate of Incorporation and Bylaws, which are summarized below, may have the effect of delaying, deferring, or discouraging another person from acquiring control of us. They are also designed, in part, to encourage persons seeking to acquire control of us to negotiate first with our board of directors. We believe that the benefits of increased protection of our potential ability to negotiate with an unfriendly or unsolicited acquirer outweigh the disadvantages of discouraging a proposal to acquire us because negotiation of these proposals could result in an improvement of their terms.

Delaware Takeover Statute and Certain Business Combinations

We have elected not to be governed by the provisions of Section 203 of the DGCL. In general, Section 203 prohibits a public Delaware corporation from engaging in a "business combination" with an "interested stockholder" for a period of three years after the date of the transaction in which the person became an interested stockholder, subject to certain exceptions. Our Certificate of Incorporation includes provisions requiring certain business combinations to be approved by the affirmative vote of the holders of at least a majority of the voting power of the then outstanding voting stock, voting together as a single class, including the affirmative vote of the holders of at least a majority of the voting power of the then outstanding voting stock not owned directly or indirectly by any interested stockholder (i.e. a person who owns 10% or more of our outstanding voting stock) or any affiliate of an interested stockholder. Subject to some exceptions set forth in the Certificate of Incorporation, such affirmative vote shall be required notwithstanding the fact that no vote may be required, or that a lesser percentage may be permitted, by applicable law or in any agreement with any national securities exchange or otherwise.

Removal of Directors; Vacancies.

The DGCL provides that a director may be removed, with or without cause, by the holders of a majority of the shares entitled to vote at an election of directors. Our Bylaws provide that newly created directorships resulting from an increase in the authorized number of directors and any vacancies occurring in the board of directors, may be filled by the affirmative votes of a majority of the remaining members of the board of directors, although less than a quorum. A director so elected shall hold office until the earlier of the expiration of the term of office of the director whom he or she has replaced, a successor is duly elected and qualified or the earlier of such director's death, resignation or removal.

No Cumulative Voting. The DGCL provides that stockholders are not entitled to cumulate votes in the election of directors unless a corporation's certificate of incorporation provides otherwise. Our Certificate of Incorporation does not provide for cumulative voting.

Stockholder Meetings; Requirements for Advance Notice. Our Bylaws provide that special meetings of stockholders for any purpose or purposes may be called pursuant to a resolution approved by the board of directors or by the holders of shares entitled to cast not less than 20% of the votes at the meeting, and shall be held at such place, on such date, and at such time as the board of directors shall fix. Our Bylaws provide that notice of the place, if any, date, hour, the record date for determining the stockholders entitled to vote at the meeting (if such date is different from the record date for stockholders entitled to notice of the meeting) and means of remote communication, if any, of every meeting of stockholders shall be given not less than ten days nor more than 60 days before such meeting (unless a different time is specified by law) to every stockholder entitled to vote at the meeting as of the record date for determining the stockholders entitled to notice of the meeting and that notices of special meetings shall also specify the purpose or purposes for which the meeting has been called.

Authorized but Unissued Shares. Our authorized but unissued shares of common stock and preferred stock will be available for future issuances without stockholder approval, except as required by the listing standards of Nasdaq, and could be utilized for a variety of corporate purposes, including future offerings to raise additional capital, acquisitions and employee benefit plans. The existence of authorized but unissued and unreserved common stock and preferred stock could render more difficult or discourage an attempt to obtain control of the company by means of a proxy contest, tender offer, merger or otherwise.

Tax Asset Protection Plan. On May 5, 2017, our board of directors approved the Tax Asset Protection Plan (the "Original TAPP", and as amended up to the date of this prospectus, the "TAPP") and declared a dividend of one preferred share purchase right (each, a "Right") for each outstanding share of our common stock. During the years 2018-2024, we executed amendments to the TAPP (the "TAPP Amendments"), which extend the duration of the TAPP to a later "Final Expiration Date" and make associated changes in connection therewith. The most recent TAPP Amendment extended the Final Expiration Date to be the close of business on the earlier of (i) December 31, 2025 or (ii) December 31, 2024 if stockholder approval has not been obtained prior to such date.

Subject to the terms, provisions and conditions of the TAPP, if the Rights become exercisable, each Right would initially represent the right to purchase one ten-thousandth of a shares of our Series B Junior Participating Preferred Stock, par value \$0.001

per share, for a purchase price of \$50.00, subject to certain adjustments. The description and terms of the Rights were set forth in the Original TAPP, dated as of May 5, 2017, by and between us and Computershare Trust Company, N.A., as Rights Agent, as amended.

The TAPP was adopted in an effort to protect stockholder value by attempting to diminish the risk that our ability to use certain general business credits carryforwards to reduce potential future federal income tax obligations may become substantially limited if we experience an "ownership change," as defined by Section 382 of the Internal Revenue Code. The TAPP is intended to act as a deterrent to any person acquiring beneficial ownership of 4.99% or more of our outstanding common stock without the approval of the board of directors. Stockholders who beneficially owned 4.99% or more of our outstanding common stock upon execution of the TAPP will not trigger the TAPP so long as they do not acquire beneficial ownership of additional shares of our common stock. The board of directors may, in its sole discretion, also exempt any person from triggering the TAPP.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is Computershare Trust Company, N.A.

Listing

Our common stock is listed on Nasdaq under the symbol "ARQ."

PLAN OF DISTRIBUTION

Each Selling Stockholder (the "Selling Stockholders") of the securities and any of their pledgees, assignees and successors-in-interest may, from time to time, sell any or all of their securities covered hereby on the principal Trading Market or any other stock exchange, market or trading facility on which the securities are traded or in private transactions. These sales may be at fixed or negotiated prices. A Selling Stockholder may use any one or more of the following methods when selling securities:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the securities as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- settlement of short sales;
- in transactions through broker-dealers that agree with the Selling Stockholders to sell a specified number of such securities at a stipulated price per security;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- a combination of any such methods of sale; or
- any other method permitted pursuant to applicable law.

The Selling Stockholders may also sell securities under Rule 144 or any other exemption from registration under the Securities Act of 1933, as amended (the "Securities Act"), if available, rather than under this prospectus.

Broker-dealers engaged by the Selling Stockholders may arrange for other brokers-dealers to participate in sales. Broker-dealers may receive commissions or discounts from the Selling Stockholders (or, if any broker-dealer acts as agent for the purchaser of securities, from the purchaser) in amounts to be negotiated, but, except as set forth in a supplement to this Prospectus, in the case of an agency transaction not in excess of a customary brokerage commission in compliance with FINRA Rule 2121; and in the case of a principal transaction a markup or markdown in compliance with FINRA Rule 2121.

In connection with the sale of the securities or interests therein, the Selling Stockholders may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the securities in the course of hedging the positions they assume. The Selling Stockholders may also sell securities short and deliver these securities to close out their short positions, or loan or pledge the securities to broker-dealers that in turn may sell these securities. The Selling Stockholders may also enter into option or other transactions with broker-dealers or other financial institutions or create one or more derivative securities which require the delivery to such broker-dealer or other financial institution of securities offered by this prospectus, which securities such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

The Selling Stockholders and any broker-dealers or agents that are involved in selling the securities may be deemed to be "underwriters" within the meaning of the Securities Act in connection with such sales. In such event, any commissions received by such broker-dealers or agents and any profit on the resale of the securities purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act. Each Selling Stockholder has informed the Company that it does not have any written or oral agreement or understanding, directly or indirectly, with any person to distribute the securities.

The Company is required to pay certain fees and expenses incurred by the Company incident to the registration of the securities. The Company has agreed to indemnify the Selling Stockholders against certain losses, claims, damages and liabilities, including liabilities under the Securities Act.

We agreed to keep this prospectus effective until the earlier of (i) the date on which the securities may be resold by the Selling Stockholders without registration and without regard to any volume or manner-of-sale limitations by reason of Rule 144, without the requirement for the Company to be in compliance with the current public information under Rule 144 under the Securities Act or any other rule of similar effect or (ii) all of the securities have been sold pursuant to this prospectus or Rule 144 under the Securities Act or any other rule of similar effect. The resale securities will be sold only through registered or licensed brokers or dealers if required under applicable state securities laws. In addition, in certain states, the resale securities covered hereby may not be sold unless they have been registered or qualified for sale in the applicable state or an exemption from the registration or qualification requirement is available and is complied with.

Under applicable rules and regulations under the Exchange Act, any person engaged in the distribution of the resale securities may not simultaneously engage in market making activities with respect to the common stock for the applicable restricted period, as defined in Regulation M, prior to the commencement of the distribution. In addition, the Selling Stockholders will be subject to applicable provisions of the Exchange Act and the rules and regulations thereunder, including Regulation M, which may limit the timing of purchases and sales of the common stock by the Selling Stockholders or any other person. We will make copies of this prospectus available to the Selling Stockholders and have informed them of the need to deliver a copy of this prospectus to each purchaser at or prior to the time of the sale (including by compliance with Rule 172 under the Securities Act).

LEGAL MATTERS

The validity of the shares of common stock offered hereby will be passed upon for us by Faegre Drinker Biddle & Reath LLP. Certain legal matters in connection with the shares of common stock offered hereby may be passed upon for any underwriters, dealers or agents by counsel named in the applicable prospectus supplement.

EXPERTS

The consolidated financial statements of Arq, Inc. and subsidiaries (the "Company") incorporated in this prospectus by reference from the Annual Report on Form 10-K of the Company for the year ended December 31, 2023, have been audited by Moss Adams, LLP, an independent registered public accounting firm, as stated in their report, which is incorporated herein by reference. Such consolidated financial statements are incorporated by reference in reliance upon the report of such firm given their authority as experts in accounting and auditing.

2,142,858 Shares of Common Stock Offered by the Selling Stockholders

Arq, Inc.



Prospectus

May 2024

PART II INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution.

The following table sets forth the fees and expenses payable by us in connection with the offering described in this registration statement. The Selling Stockholders, however, will pay any other expenses incurred in selling their common stock, including any brokerage commissions or costs of sale. All amounts shown are estimates other than the SEC registration fee.

SEC registration fee	\$ 2,214
Printing fees and expenses	_
Legal fees and expenses	15,000
Accounting fees and expenses	12,000
Miscellaneous expenses	
	 _
Total	\$ 29,214

Item 15. Indemnification of Directors and Officers.

Section 145 of the DGCL provides that a corporation may indemnify directors and officers as well as other employees and individuals against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with any threatened, pending or completed actions, suits or proceedings in which such person is made a party by reason of such person being or having been a director, officer, employee or agent to the registrant. The DGCL provides that Section 145 is not exclusive of other rights to which those seeking indemnification may be entitled under any bylaw, agreement, vote of stockholders or disinterested directors or otherwise. Our Bylaws provide for indemnification by the registrant of its directors, officers and employees to the fullest extent permitted by the DGCL.

Section 102(b)(7) of the DGCL permits a corporation to provide in its certificate of incorporation that a director of the corporation shall not be personally liable to the corporation or its stockholders for monetary damages for breach of fiduciary duty as a director, except for liability (i) for any breach of the director's duty of loyalty to the corporation or its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) for unlawful payments of dividends or unlawful stock repurchases, redemptions or other distributions, or (iv) for any transaction from which the director derived an improper personal benefit. Our Certificate of Incorporation provides for such limitation of liability.

We maintain standard policies of insurance under which coverage is provided (a) to our directors and officers against loss arising from claims made by reason of breach of duty or other wrongful act, and (b) to us with respect to payments we may make to our officers and directors pursuant to the above indemnification provision or otherwise as a matter of law.

In addition, any underwriting agreement or sales agreement to be filed and incorporated by reference as an exhibit to this registration statement may provide for indemnification of our directors and officers by the underwriters or agents against certain liabilities.

Item 16. Exhibits and Financial Statement Schedules.

Exhibit Number	Description
3.1	Second Amended and Restated Certificate of Incorporation of Advanced Emissions Solutions, Inc. (incorporated by reference from Exhibit 3.1 to the Company's Quarterly Report on Form 10-Q filed on August 9, 2013).
3.2	Certificate of Amendment to the Amended and Restated Certificate of Incorporation, effective February 1, 2024 (incorporated by reference from Exhibit 3.2 to the Company's Quarterly Report on Form 10-Q filed with the SEC on May 8, 2024).
3.3	Certificate of Designation of Series A Preferred Stock (incorporated by reference from Exhibit 3.1 to the Company's Current Report on Form 8-K filed on February 1, 2023).
3.4	Certificate of Designation, Preferences, and Rights of Series B Junior Participating Preferred Stock of Advanced Emissions Solutions, Inc. (incorporated by reference from Exhibit 3.1 to the Company's Current Report on Form 8-K filed on May 8, 2017).
3.5	Conformed Copy of the Bylaws of Arq, Inc., as amended (incorporated by reference from Exhibit 3.1 to the Company's Quarterly Report on Form 10-Q filed with the SEC on May 8, 2024).
4.1	Tax Asset Protection Plan dated as of May 5, 2017, by and between the Company and Computershare Trust Company N.A., as rights agent, which includes as Exhibit B the Form of Rights Certificate (incorporated by reference from Exhibit 4.1 to the Company's Current Report on Form 8-K (File No. 001-37822) filed on May 8, 2017).
4.2	First Amendment to Tax Asset Protection Plan, dated as of April 6, 2018 by and between the Company and Computershare Trust Company, N.A., as rights agent (incorporated by reference from Exhibit 4.2 to the Company's Current Report on Form 8-K (File No. 001-37822) filed on April 11, 2018).
4.3	Second Amendment to Tax Asset Protection Plan, dated as of April 5, 2019 by and between the Company and Computershare Trust Company, N.A., as rights agent (incorporated by reference from Exhibit 4.3 to the Company's Current Report on Form 8-K (File No. 001-37822) filed on April 11, 2019).
4.4	Third Amendment to Tax Asset Protection Plan, dated as of April 8, 2020 by and between the Company and Computershare Trust Company, N.A., as rights agent (incorporated by reference from Exhibit 4.4 to the Company's Current Report on Form 8-K (File No. 001-37822) filed on April 9, 2020).
4.5	Fourth Amendment to Tax Asset Protection Plan, dated as of April 9, 2021 by and between the Company and Computershare Trust Company, N.A., as rights agent (incorporated by reference from Exhibit 4.5 to the Company's Current Report on Form 8-K (File No. 001-37822) filed on April 13, 2021).
4.6	Fifth Amendment to Tax Asset Protection Plan, dated as of March 15, 2022 by and between the Company and Computershare Trust Company, N.A., as rights agent (incorporated by reference from Exhibit 4.6 to the Company's Current Report on Form 8-K (File No. 001-37822) filed on March 16, 2022).
4.7	Sixth Amendment to Tax Asset Protection Plan, dated as of April 13, 2023 by and between the Company and Computershare Trust Company, N.A., as rights agent (incorporated by reference from Exhibit 4.7 to the Company's Current Report on Form 8-K (File No. 001-37822) filed on April 14, 2023).
4.8	Seventh Amendment to Tax Asset Protection Plan, dated as of April 15, 2024, by and between the Company and Computershare Trust Company, N.A., as rights agent (incorporated by reference from Exhibit 4.1 to the Company's Current Report on Form 8-K (File No. 001-37822) filed on April 16, 2024).
4.9†	Securities Purchase Agreement, dated as of May 15, 2024, by and among the Company and the Purchasers named therein (incorporated by reference from Exhibit 10.1 to the Company's Current Report on Form 8-K (File No. 001-37822) filed on May 16, 2024).
4.10†	Registration Rights Agreement, dated as of May 15, 2024, by and among the Company and the Purchasers named therein (incorporated by reference from Exhibit 10.2 to the Company's Current Report on Form 8-K (File No. 001-37822) filed on May 16, 2024).
5.1*	Opinion of Faegre Drinker Biddle & Reath LLP.
23.1*	Consent of Moss Adams LLP.
23.2*	Consent of Faegre Drinker Biddle & Reath LLP (included in Exhibit 5.1).
24.1*	Power of Attorney (included on the signature page).
107*	Filing Fee Table.

Filed herewith

[†] Schedules and exhibits have been omitted pursuant to Item 601(a)(5) of Regulation S-K. The Company hereby undertakes to furnish supplemental copies of any of the omitted schedules and exhibits upon request by the SEC.

Item 17. Undertakings.

- (a) The undersigned registrant hereby undertakes:
 - (1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:
 - (i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;
 - (ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement.
 - (iii) To include any material information with respect to the plan of distribution not previously disclosed in this registration statement or any material change to such information in this registration statement;

provided, however, that paragraphs (1)(i), (1)(ii) and (1)(iii) of this section do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in this registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of this registration statement.

- (2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.
- (4) That, for the purpose of determining any liability under the Securities Act of 1933 to any purchaser
 - (i) Each prospectus filed by the Registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the Registration Statement as of the date the filed prospectus was deemed part of and included in the Registration Statement; and
 - (ii) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii) or (x) for the purpose of providing the information required by Section 10(a) of the Securities Act shall be deemed to be part of and included in the Registration Statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the Registration Statement relating to the securities in the Registration Statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

Provided, however, that no statement made in a registration statement or prospectus that is part of the Registration Statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the Registration Statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the Registration Statement or made in any such document immediately prior to such effective date.

(5) That for the purpose of determining liability of the Registrant under the Securities Act to any purchaser in the initial distribution of the securities, the undersigned Registrant undertakes that in a primary offering of securities of the undersigned Registrant pursuant to this Registration Statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the

following communications, the undersigned Registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

- (i) Any preliminary prospectus or prospectus of the undersigned Registrant relating to the offering required to be filed pursuant to Rule 424;
- (ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned Registrant or used or referred to by the undersigned Registrant;
- (iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned Registrant or its securities provided by or on behalf of the undersigned Registrant; and
- (iv) Any other communication that is an offer in the offering made by the undersigned Registrant to the purchaser.
- (b) The undersigned Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the Registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in the Registration Statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (h) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Greenwood Village, Colorado, on May 28, 2024.

ARO, INC.

By: /s/ Robert Rasmus

Name: Robert Rasmus Title: Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Robert Rasmus and Stacia Hansen, and each of them, as the true and lawful attorney-in-fact and agent with full power of substitution and resubstitution, for them and in their name, place and stead, in any and all capacities to sign any and all amendments to this Registration Statement (including post-effective amendments, or any abbreviated registration statement and any amendments thereto filed pursuant to Rule 462(b) and otherwise), and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission granting unto said attorney-in-fact and agent the full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the foregoing, as to all intents and purposes as either of them might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent, or his substitute, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, as amended, the following persons have signed this Registration Statement in the capacities and on the date indicated.

Name	Title	Date
/s/ Robert Rasmus		
Robert Rasmus	Chief Executive Officer, Director (Principal Executive Officer)	May 28, 2024
/s/ Stacia Hansen		
Stacia Hansen	Chief Accounting Officer (Principal Accounting and Financial Officer)	May 28, 2024
/s/ Jeremy Blank		
Jeremy Blank	Director	May 28, 2024
/s/ Laurie Bergman	_	
Laurie Bergman	Director	May 28, 2024
/s/ Richard Campbell-Breeden		
Richard Campbell-Breeden	Director	May 28, 2024
/s/ Carol Eicher		
Carol Eicher	Director	May 28, 2024
/s/ Gilbert Li	_	
Gilbert Li	Director	May 28, 2024

/s/ Julian McIntyre		
Julian McIntyre	Director	May 28, 2024
/s/ L. Spencer Wells		
L. Spencer Wells	Director	May 28, 2024

Calculation of Filing Fee Tables

FORM S-3

(Form Type)

Advanced Emissions Solutions, Inc.

(Exact Name of Registrant as Specified in its Charter)

Table 1: Newly Registered Securities

	Security Type	Security Class Title	Fee Calculation or Carry Forward Rule	Amount Registered(1)	Proposed Maximum Offering price Per Unit	Maximum Aggregate fering Price(2)	Fee Rate	Amount o	
Fees to be Paid	Equity (2)	Common stock, par value \$0.001 per share	457(a) and 457(c)	2,142,858	\$7.00 (3)	\$ 15,000,006	0.0001476	\$ 2	2,214
	Total Offering	Amounts				\$ 15,000,006		\$ 2	2,214
	Total Fees Pre	eviously Paid						\$	_
	Total Fee Offs	sets						\$	_
	Net Fee Due							\$ 2	2,214

- (1) Pursuant to Rule 416 under the Securities Act of 1933, as amended, the shares being registered hereunder include such indeterminate number of shares of common stock as may be issuable with respect to the shares being registered hereunder, as a result of stock splits, stock dividends or other similar transactions.
- (2) This registration statement registers 2,142,858 shares of common stock for resale by the selling stockholders.
- (3) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(c) under the Securities Act of 1933, as amended ("Securities Act"), based on the average of the high and low prices of a share of common stock on The Nasdaq Global Market on May 22, 2024, which was \$7.00.



Faegre Drinker Biddle & Reath LLP 1144 15th Street, Suite 3400 Denver, Colorado 80202 +1 215 988 3330 main

May 28, 2024

Arq, Inc. 8051 E. Maplewood Ave., Suite 210 Greenwood Village, CO 80111

Ladies and Gentlemen

We have acted as counsel to Arq Inc., a Delaware corporation (the "Company"), in connection with the preparation and filing with the Securities and Exchange Commission (the "Commission") of a Registration Statement on Form S-3 (the "Registration Statement") by the Company under the Securities Act of 1933, as amended (the "Act"). The Registration Statement relates to the potential offer and sale from time to time by certain selling stockholders named therein (the "Selling Stockholders") of up to an aggregate of 2,142,858 shares of the Company's common stock, par value \$0.001 per share (the "Common Stock") that are issued and outstanding and are currently held by the Selling Stockholders (the "Shares"). The Shares were issued to the Selling Stockholders pursuant to that certain securities purchase agreement, dated May 15, 2024, between the Company and the Selling Stockholders (the "Private Placement Agreement").

This opinion letter is being delivered in accordance with the requirements of Item 601(b)(5) of Regulation S-K.

For purposes of this opinion letter, we have examined originals, or copies certified or otherwise authenticated to our satisfaction, of the following documents: (i) the Registration Statement, (ii) the Private Placement Agreement, (iii) that certain registration rights agreement, dated May 15, 2024, between the Company and the Selling Stockholders, (iv) the Company's Second Amended and Restated Certificate of Incorporation, as amended to date, (v) the Amended and Restated Bylaws of the Company, as amended to date, and (vi) the resolutions of the Company's board of directors authorizing the issuance of the Shares. We have also examined originals, or copies certified or otherwise authenticated to our satisfaction, of such corporate records and other records, agreements, instruments, certificates of public officials and documents as we have deemed necessary as a basis for the opinions hereinafter expressed and have reviewed such matters of law as we have deemed relevant hereto. As to all issues of fact material to this opinion letter, we have relied on certificates, statements or representations of public officials, of officers and representatives of the Company and of others, without any independent verification thereof or other investigation.

In our examination, we have assumed without investigation: (i) the legal capacity of all natural persons; (ii) the genuineness of all signatures, including electronic signatures; (iii) the authenticity of all documents submitted to us as originals; (iv) the conformity to authentic original documents of all documents submitted to us as certified, conformed, photostatic or facsimile copies; (v) the truth, accuracy and completeness of the information, representations and warranties contained in the agreements, documents, instruments, certificates and records we have reviewed; and (vi) the absence of any undisclosed modifications to the agreements and instruments reviewed by us.

Based upon and subject to the foregoing qualifications, assumptions and limitations and the further limitations set forth below, we are of the opinion that the Shares have been authorized for issuance by the Company, and that the Shares are validly issued, fully paid and nonassessable.

Our opinions set forth herein are limited to the General Corporation Law of the State of Delaware, and we express no opinion as to the effect of any other laws.

This opinion letter is rendered as of the date first written above, and we assume no responsibility for updating this opinion letter or the opinions or statements set forth herein to take into account any event, action, interpretation or change in law occurring subsequent to the date hereof that may affect the validity of such opinions or statements. This opinion is expressly limited to the matters set forth above, and we render no opinion, whether by implication or otherwise, as to any other matters relating to the Company or the Shares.

We hereby consent to the filing of this opinion letter as an exhibit to the Registration Statement and to being named in the Prospectus under the caption "Legal Matters" with respect to the matters stated therein. In giving these consents, we do not imply or admit that we are "experts" within the meaning of the Act or that we are within the category of persons whose consent is required under Section 7 of the Act or the rules and regulations of the Commission issued thereunder with respect to any part of the Registration Statement, including this exhibit.

Very truly yours,

/s/ Faegre Drinker Biddle & Reath LLP

FAEGRE DRINKER BIDDLE & REATH LLP

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in this Registration Statement on Form S-3 of Arq, Inc., of our report dated March 12, 2024, relating to the consolidated financial statements of Arq, Inc. (the "Company"), appearing in the Annual Report on Form 10-K of the Company for the year ended December 31, 2023, filed with the Securities and Exchange Commission. We also consent to the reference to us under the heading "Experts" in such Registration Statement.

/s/ Moss Adams LLP

Denver, Colorado, May 28, 2024