As filed with the Securities and Exchange Commission on February 14, 2020

Registration No. 333-224956

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

POST-EFFECTIVE AMENDMENT NO. 1
to
FORM S-3
REGISTRATION STATEMENT

Under
THE SECURITIES ACT OF 1933

SELECT ENERGY SERVICES, INC.

(Exact name of registrant as specified in its charter)

Delaware

81-4561945

(State or other jurisdiction of incorporation or organization)

(I.R.S. Employer Identification Number)

1233 W. Loop South, Suite 1400 Houston, Texas 77027 (713) 235-9500

(Addresses, including zip code, and telephone number, including area code, of registrants' principal executive offices)

Adam R. Law 1233 W. Loop South, Suite 1400 Houston, Texas 77027 (713) 235-9500

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

Copies to:

David P. Oelman James R. Brown Vinson & Elkins L.L.P. 1001 Fannin, Suite 2500 Houston, Texas 77002 (713) 758-2222

Approximate date of commencement of proposed sale to the public: From time to time after this Registration Statement becomes effective.

If the only securities being registered on this form are being offered pursuant to dividend or interest reinvestment plans, please check the following box. o

If 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 of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box: ý

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.

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 registration statement 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. ý

If this form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box. o

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 ý

Accelerated filer o

Non-accelerated filer o

Smaller reporting company o Emerging growth company o

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of Securities Act. o

EXPLANATORY NOTE

This Post-Effective Amendment No. 1 (this "Post-Effective Amendment") to the Registration Statement on Form S-3 (Commission File No. 333-224956) (the "Registration Statement") of Select Energy Services, Inc. (the "Company") is being filed because the Company expects that it will no longer be a well-known seasoned issuer (as such term is defined in Rule 405 of the Securities Act of 1933, as amended) when it files its Annual Report on Form 10-K for the year ended December 31, 2019. This Post-Effective Amendment adds disclosure to the Registration Statement required for a registrant other than a well-known seasoned issuer and makes certain other amendments. All filing fees payable in connection with the registration of the shares covered by this Post-Effective Amendment were paid by the Company at the time of the initial filing of the Registration Statement.



Select Energy Services, Inc.

44,181,406 Shares of Class A common stock

The securities to be offered and sold using this prospectus are currently issued and outstanding shares of our Class A common stock. These shares of Class A common stock may be offered and sold by the selling stockholders named in this prospectus or in any supplement to this prospectus from time to time in accordance with the provisions set forth under "Plan of Distribution."

The selling stockholders may sell the shares of Class A common stock offered by this prospectus from time to time on any exchange on which the shares of Class A common stock are listed on terms to be negotiated with buyers. They may also sell the shares of Class A common stock in private sales or through dealers or agents. The selling stockholders may sell the shares of Class A common stock at prevailing market prices or at prices negotiated with buyers. The selling stockholders will be responsible for any commissions due to brokers, dealers or agents. We will be responsible for all other offering expenses. We will not receive any of the proceeds from the sale by the selling stockholders of the shares of Class A common stock offered by this prospectus.

We are registering these 44,181,406 shares of our Class A common stock for sale by the selling stockholders named in the "Selling Stockholders" section of this prospectus.

Our Class A common stock is traded on the New York Stock Exchange under the symbol "WTTR."

Our principal executive offices are located at 1233 W. Loop South, Suite 1400, Houston, Texas 77027, and our telephone number at that address is (713) 235-9500.

You should read carefully this prospectus, the documents incorporated by reference in this prospectus and any prospectus supplement before you invest. See "Risk Factors" beginning on page 6 of this prospectus for information on certain risks related to the purchase of our securities.

Neither the Securities and Exchange Commission (the "SEC") 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 February 14, 2020.

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You should rely only on the information contained in this prospectus, any prospectus supplement and the documents we have incorporated by reference. We have not authorized any dealer, salesperson or other person to provide you with additional or different information. If anyone provides you with different or inconsistent information, you should not rely on it. This prospectus and any prospectus supplement are not an offer to sell or a solicitation of an offer to buy any securities other than the securities to which they relate and are not an offer to sell or a solicitation of an offer to buy securities in any jurisdiction to any person to whom it is unlawful to make an offer or solicitation in that jurisdiction. You should not assume that the information contained in this prospectus is accurate as of any date other than the date on the front cover of this prospectus, or that the information contained in any document incorporated by reference is accurate as of any date other than the date of the document incorporated by reference, regardless of the time of delivery of this prospectus or any sale of a security.

ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we have filed with the SEC using a "shelf" registration process. Under this shelf registration process, the selling stockholders may use this prospectus to offer and sell up to an aggregate of 44,181,406 shares of our Class A common stock from time to time. This prospectus generally describes Select Energy Services, Inc. and the Class A common stock that our selling stockholders may offer. The selling stockholders will deliver a prospectus supplement with this prospectus, to the extent appropriate, to update the information contained in this prospectus. We urge you to carefully read this prospectus and any applicable prospectus supplement, together with the information incorporated herein by reference as described under the heading "Incorporation of Certain Documents by Reference," before buying any of the securities being offered. The selling stockholders may sell their shares of Class A common stock through any means described below under the heading "Plan of Distribution".

This prospectus contains summaries of certain provisions contained in some of the documents described herein, but reference is made to the actual documents for complete information. All of the summaries are qualified in their entirety by the actual documents. Copies of some of the documents referred to herein have been filed, will be filed or will be 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 under the heading "Available Information."

ABOUT SELECT ENERGY SERVICES, INC.

Overview

We are a leading provider of comprehensive water-management services to the oil and gas industry in the United States. We also develop, manufacture and deliver a full suite of chemical solutions for use in oil and gas well completions and production operations. Through a combination of organic growth and acquisitions over the last decade, we have developed a leading position in the relatively new water solutions industry. We believe we are one of the few large oilfield services companies whose primary focus is on the management of water and water logistics in the oil and gas industry. Furthermore, we believe we are the only company in the oilfield services industry that combines comprehensive water-management services with related chemical products. Accordingly, the importance of responsibly managing water resources through our operations to help conserve and protect the environment is paramount to our continued success. For additional information about our company, please read the documents listed under "Incorporation of Certain Documents by Reference."

Company Information

We are a Delaware corporation. Our principal executive offices are located at 1233 W. Loop South, Suite 1400, Houston, Texas 77027, and our telephone number at that address is (713) 235-9500. Our website address is www.selectenergyservices.com. Information contained on our website does not constitute part of this prospectus.

As used in this prospectus, the "Company," "we," "our," "us" or like terms mean Select Energy Services, Inc. and its consolidated subsidiaries unless we state otherwise or the context otherwise requires.

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The SEC allows us to "incorporate by reference" the information we have filed with the SEC. This means that we can disclose important information to you without actually including the specific information in this prospectus by referring you to other documents filed separately with the SEC. The information incorporated by reference is an important part of this prospectus. Information that we later

provide to the SEC, and which is deemed to be "filed" with the SEC, will automatically update information previously filed with the SEC, and may replace information in this prospectus and information previously filed with the SEC. You should not assume that the information contained in the documents incorporated by reference in this prospectus or any supplement thereto is accurate as of any date other than the respective dates of those documents.

We incorporate by reference the documents listed below and any future filings we make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), from the date of this prospectus until the termination of each offering under this prospectus (excluding any information furnished pursuant to Item 2.02 or Item 7.01 on any Current Report on Form 8-K):

- our Annual Report on Form 10-K for the year ended December 31, 2018;
- our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2019, June 30, 2019 and September 30, 2019;
- our Current Reports on Form 8-K filed on March 22, 2019, May 15, 2019, December 19, 2019 and January 24, 2020;
- the information specifically incorporated by reference into our <u>Annual Report on Form 10-K for the year ended December 31, 2018</u> from our <u>Definitive Proxy Statement on Schedule 14A filed on March 22, 2019</u>; and
- the description of our Class A common stock contained in our Form 8-A filed on April 18, 2017, including any amendment to that form or exhibit to our Annual Report on Form 10-K that we may file in the future for the purpose of updating the description of our Class A common stock.

These reports contain important information about us, our financial condition and our results of operations.

These documents can be accessed free of charge on our website at www.selectenergyservices.com. Information on our website is not incorporated by reference into this prospectus. You may request a copy of any document incorporated by reference in this prospectus, including the exhibits thereto, at no cost, by writing or telephoning us at the following address or telephone number:

Select Energy Services, Inc. 1233 W. Loop South, Suite 1400 Houston, Texas 77027 Phone: (713) 235-9500

AVAILABLE INFORMATION

We are required to file annual, quarterly and current reports, proxy statements and other information with the SEC. Our filings with the SEC are available to the public from commercial document retrieval services and at the SEC's website at www.sec.gov.

Our Class A common stock is listed and traded on The New York Stock Exchange (the "NYSE"). Our reports, proxy statements and other information filed with the SEC can also be inspected and copied at the NYSE, 20 Broad Street, New York, New York 10005.

We also make available free of charge on our website at www.selectenergyservices.com all of the documents that we file with the SEC as soon as reasonably practicable after we electronically file such material with the SEC. Information contained on our website is not incorporated by reference into this prospectus.

This prospectus is part of a registration statement that we have filed with the SEC relating to the securities to be offered. This prospectus does not contain all of the information we have included in the registration statement and the accompanying exhibits and schedules in accordance with the rules and regulations of the SEC, and we refer you to the omitted information. The statements this prospectus makes pertaining to the content of any contract, agreement or other document that is an exhibit to the registration statement necessarily are summaries of their material provisions and do not describe all exceptions and qualifications contained in those contracts, agreements or documents. You should read those contracts, agreements or documents for information that may be important to you. The registration statement, exhibits and schedules are available through the SEC's Internet website at www.sec.gov.

CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS

The information in this prospectus and the documents incorporated by reference herein includes "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended (the "Securities Act"), and Section 21E of the Exchange Act. All statements, other than statements of historical fact, included in this prospectus and the documents incorporated by reference herein regarding our strategy, future operations, financial position, estimated revenues and losses, projected costs, prospects, plans and objectives of management are forward-looking statements. When used in this prospectus and the documents incorporated by reference herein, the words "could," "believe," "anticipate," "intend," "estimate," "expect," "project," "preliminary," "forecast," and similar expressions or variations are intended to identify forward-looking statements, although not all forward-looking statements contain such identifying words. These forward-looking statements are based on our current expectations and assumptions about future events and are based on currently available information as to the outcome and timing of future events. When considering forward-looking statements, you should keep in mind the risk factors and other cautionary statements described under, but not limited to, the heading "Risk Factors" and elsewhere in our most recent Annual Report on Form 10-K, which are incorporated by reference herein, and the cautionary statements included in this prospectus, any applicable prospectus supplement and the other documents incorporated by reference herein. These forward-looking statements are based on management's current belief, based on currently available information, as to the outcome and timing of future events. Important factors that could cause actual results to differ materially from those in the forward-looking statements include, but are not limited to, those summarized below:

- the level of capital spending and access to capital markets by oil and gas companies;
- trends and volatility in oil and gas prices;
- demand for our services;
- the impact of current and future laws, rulings and governmental regulations, including those related to hydraulic fracturing, accessing water, disposing of wastewater, transferring produced water, interstate freshwater transfer, chemicals and various environmental matters;
- capacity constraints on regional oil, natural gas and water gathering, processing and pipeline systems that result in a slowdown or delay in drilling and completion
 activity, and thus a slowdown or delay in the demand for our services in our core markets;
- our ability to retain key management and employees;
- · our ability to hire and retain skilled labor;
- regional impacts to our business, including our key infrastructure assets within the Bakken and Northern Delaware formation of the Permian Basin;
- our access to capital to fund expansions, acquisitions and our working capital needs and our ability to obtain debt or equity financing on satisfactory terms;
- our health, safety and environmental performance;
- the impact of competition on our operations;
- the degree to which our exploration and production ("E&P") customers may elect to bring their water-management services in-house rather than source these services from companies like us;
- our level of indebtedness and our ability to comply with covenants contained in our Credit Agreement (as defined herein) or future debt instruments;
- delays or restrictions in obtaining permits by us or our customers;

- constraints in supply or availability of equipment used in our business;
- the impact of advances or changes in well-completion technologies or practices that result in reduced demand for our services, either on a volumetric or time basis;
- changes in global political or economic conditions, generally, and in the markets we serve;
- the ability to source certain raw materials globally from economically advantaged sources;
- · accidents, weather, seasonality or other events affecting our business; and
- the other risks identified in this prospectus, any applicable prospectus supplement and the documents incorporated by reference.

These factors are not necessarily all of the important factors that could cause actual results to differ materially from those expressed in any of our forward-looking statements. Other unknown or unpredictable factors also could have material adverse effects on our future results. Our future results will depend upon various other risks and uncertainties, including those described elsewhere in this prospectus. Readers are cautioned not to place undue reliance on forward-looking statements, which speak only as of the date hereof. We undertake no obligation to update or revise any forward-looking statements after the date they are made, whether as a result of new information, future events or otherwise. All forward-looking statements attributable to us are qualified in their entirety by this cautionary statement.

RISK FACTORS

An investment in our securities involves a significant degree of risk. Before you invest in our securities you should carefully consider those risk factors described under, but not limited to, the heading "Risk Factors" in our most recent Annual Report on Form 10-K, any subsequently filed Quarterly Reports on Form 10-Q and any subsequently filed Current Reports on Form 8-K (excluding any information furnished pursuant to Item 2.02 or Item 7.01 on any Current Report on Form 8-K), which are incorporated herein by reference, and those risk factors that may be included in any applicable prospectus supplement, together with all of the other information included in this prospectus, any prospectus supplement and the documents we incorporate by reference, in evaluating an investment in our securities. If any of these risks were actually to occur, our business, financial condition or results of operations could be materially adversely affected. Additional risks not presently known to us or that we currently believe are immaterial may also significantly impair our business operations and financial condition. Please read "Cautionary Statement Regarding Forward-Looking Statements."

USE OF PROCEEDS

We will not receive any proceeds from the sale of the Class A common stock offered under this prospectus. Any proceeds from the sale of Class A common stock under this prospectus will be received by the selling stockholders. We will pay all expenses related to this offering, other than underwriting discounts and commissions related to the shares sold by the selling stockholders.

EXCHANGE OF SES HOLDINGS LLC UNITS AND CLASS B COMMON STOCK

Prior to the completion on April 26, 2017 of our initial public offering of 8,700,000 shares of our Class A common stock at a price to the public of \$14.00 per share (our "IPO"), the membership interests of SES Holdings, LLC ("SES Holdings") were converted into a single class of common units (each, an "SES Holdings LLC Unit"). Each holder of SES Holdings LLC Units holds one share of our Class B common stock for each SES Holdings LLC Unit held by such holder. Subject to certain limitations, pursuant to the Eighth Amended and Restated Limited Liability Company Agreement of SES Holdings, as amended from time to time (the "SES Holdings LLC Agreement"), certain holders of SES Holdings LLC Units have the right (the "Exchange Right") to exchange such holder's SES Holdings LLC Units, together with an equal number of shares of our Class B common stock, for, at SES Holdings' election, (i) shares of our Class A common stock on a one-for-one basis, subject to conversion rate adjustments for stock splits, stock dividends, reclassification and other similar transactions, or (ii) cash in an amount equal to the Cash Election Value (as defined below) of such Class A common stock. Alternatively, upon any exercise of any Exchange Right, we (instead of SES Holdings) will have the right (our "Call Right") to acquire the tendered SES Holdings LLC Units from the exchanging unitholder for, at its election, (i) the number of shares of our Class A common stock the exchanging unitholder would have received pursuant to under the Exchange Right, or (ii) cash in an amount equal to the Cash Election Value. In connection with any exchange of SES Holdings LLC Units pursuant to an Exchange Right or our Call Right, the corresponding number of shares of Class B common stock will be cancelled. As holders exchange their SES Holdings LLC Units, our membership interest in SES Holdings will be reduced.

"Cash Election Value" means, with respect to the shares of Class A common stock to be delivered to the exchanging unitholder by us pursuant to our Call Right, (i) if our Class A common stock is then admitted to trading on a national securities exchange, the amount that would be received if the number of shares of Class A common stock to which the exchanging unitholder would otherwise be entitled were sold at a per share price equal to the trailing 10-day volume weighted average price of a share of Class A common stock on such exchange, net of actual or deemed offering expenses, or (ii) if our Class A common stock is not then admitted to trading on a national securities exchange, the value that would be obtained in an arm's length transaction for cash between an informed and willing buyer and an informed and willing seller, neither of whom is under any compulsion to purchase or sell, respectively, and without regard to the particular circumstances of the buyer and the seller, as determined by us, net of deemed offering expenses.

We are required to pay any stamp or other similar tax in respect of any issuance of our securities upon the exercise of the Exchange Right or our Call Rights, except for transfer taxes in the event such securities are to be issued in a name other than that of the exchanging unitholder.

SELLING STOCKHOLDERS

The selling stockholders named below may offer and sell from time to time in the future up to an aggregate of 44,181,406 shares of our Class A common stock, par value \$0.01 per share. The term "selling stockholders" includes the stockholders listed in the table below and their transferees, pledgees, donees, assignees or other successors.

We are registering these 44,181,406 shares of our Class A common stock for sale by the selling stockholders named below pursuant to the Amended and Restated Registration Rights Agreement, dated July 18, 2017 (the "Amended and Restated Registration Rights Agreement"), by and among us and SES Legacy Holdings, LLC ("Legacy Owner Holdco"), Crestview Partners II SES Investment B, LLC ("Crestview Holdings B"), SCF-VI, L.P., SCF-VII, L.P. and SCF-VII(A), L.P. (together with SCF-VI, L.P. and SCF-VII, L.P., the "SCF Group") and WDC Aggregate LLC (together with Legacy Owner Holdco, Crestview Holdings B and the SCF Group, the "Registration Rights Holders"), which we initially entered into on December 20, 2016 in connection with our IPO and amended and restated in connection with our November 1, 2017 combination with Rockwater Energy Solutions, Inc. ("Rockwater").

Pursuant to the Amended and Restated Registration Rights Agreement, we will pay all expenses relating to the offering of these shares, except that the selling stockholders will pay any underwriting discounts or commissions. See "Description of Capital Stock—Amended and Restated Registration Rights Agreement." We will indemnify the selling stockholders against liabilities, including liabilities under the Securities Act. We may be indemnified by the selling stockholders against civil liabilities, including liabilities under the Securities Act, which may arise from any written information furnished to us by the selling stockholders specifically for use in this prospectus.

The following table sets forth information as of February 12, 2020 regarding the beneficial ownership of shares of our Class A common stock held by each selling stockholder and the number of shares of our Class A common stock that may from time to time be offered or sold pursuant to this prospectus. For those selling stockholders obtaining shares of Class A common stock through an exchange of SES Holdings LLC Units, the percentage of shares beneficially owned before the offering is based on the number of shares of our Class A common stock and Class B common stock outstanding as of February 12, 2020, assuming the exchange of all SES Holdings LLC Units held by the selling stockholders named herein.

Information concerning the selling stockholders may change from time to time and any changed information will be set forth in supplements to this prospectus, if and when necessary. The selling stockholders may offer all, some or none of their shares of Class A common stock. We cannot advise you as to whether the selling stockholders will in fact sell any or all of such shares of Class A common stock. In addition, the selling stockholders listed in the table below may have sold, transferred or otherwise dispose of, or may sell, transfer or otherwise dispose of, at any time and from time to time, shares of our Class A common stock in transactions exempt from the registration requirements of the Securities Act after the date on which they provided the information set forth in the table below.

Beneficial ownership is determined in accordance with the rules and regulations of the SEC. As described in "Exchange of SES Holdings LLC Units and Class B Common Stock" above, the SES Holdings LLC Units are exchangeable (along with a corresponding number of shares of our Class B common stock) for newly issued shares of our Class A common stock on a one-for-one basis. As of February 12, 2020, we had 87,157,751 shares of Class A common stock and 16,221,101 shares of Class B common stock outstanding. Assuming the exchange of 16,221,101 SES Holdings LLC Units (together with an equal number of shares of our Class B common stock) held by the selling stockholders named herein for an equivalent number of shares of our Class A common stock, as of February 12, 2020, there would have been 103,378,852 shares of our Class A common stock and no shares of our Class B common stock outstanding. The beneficial ownership information presented

below assumes that all 16,221,101 SES Holdings LLC Units held by the selling stockholders named below have been exchanged for an equivalent number of shares of Class A common stock. The information regarding shares beneficially owned after the offering assumes the sale of all shares offered by the selling stockholders and that the selling stockholders do not acquire any additional shares. Information in the table below is based on information filed with the SEC or obtained from the persons named below.

Name of Selling Stockholder	Shares of Class A Common Stock Owned Prior to this Offering(1)	Number of Shares of Class A Common Stock Being Sold (Assuming All Shares Registered Hereunder Are Sold)	Shares of Class A Common Stock Owned After this Offering	Before Offering(1)	After Offering (Assuming All Shares Registered Hereunder Are Sold)
SCF Group(2)	16,191,331	16,191,331		15.7%	
SES Legacy Holdings, LLC(3)(4)	16,221,101	16,221,101	_	15.7%	_
John Schmitz(5)	5,725,128	5,725,128	_	5.5%	_
Crestview Partners II GP, L.P.(6)	3,802,972	3,802,972	_	3.7%	_
Proactive Investments, LP(7)	1,120,437	1,120,437	_	1.1%	_
Superior Capital Investments, LP(8)	1,120,437	1,120,437	_	1.1%	_
Total	44,181,406	44,181,406	_	42.7%	_

- (1) Includes shares of our Class B common stock owned by these selling stockholders that, subject to the terms of the SES Holdings LLC Agreement, are, together with an equivalent number of SES Holdings LLC Units, exchangeable for shares of Class A common stock on a one-for-one basis.
- (2) The board of directors of SCF GP LLC ("SCF GP"), the ultimate general partner of SCF-VI, L.P., SCF-VII, L.P. and SCF-VII(A), L.P. (collectively, the "SCF Group"), has voting and investment control over the securities owned by the SCF Group. The board of directors of SCF GP consists of David C. Baldwin, Anthony F. DeLuca, L.E. Simmons and Andrew L. Waite. Because SCF-VI, L.P., SCF-VII, L.P. and SCF-VII(A), L.P. are controlled by SCF GP, these entities may be considered to be a group for purposes of Section 13(d)(3) under the Exchange Act. As a group, the SCF Group beneficially owns 16,191,331 shares of our Class A common stock in the aggregate. This beneficial ownership includes 8,773,760 shares of Class A common stock held by SCF-VI, L.P., 6,374,474 shares of Class A common stock held by SCF-VII, L.P. and 1,043,097 shares of Class A common stock held by SCF-VII(A), L.P. The address for SCF-VI, L.P., SCF-VII, L.P. and SCF-VII(A), L.P. is 600 Travis Street, Suite 6600, Houston, Texas 77002.
- (3) Subject to the terms of the SES Holdings LLC Agreement, Legacy Owner Holdco (or its members) (and its permitted transferees, including certain members of Legacy Owner Holdco, under the SES Holdings LLC Agreement) has the right to exchange all or a portion of its SES Holdings LLC Units (together with a corresponding number of shares of Class B common stock) for Class A common stock at an exchange ratio of one share of Class A common stock for each SES Holdings LLC Unit (and corresponding share of Class B common stock) exchanged. The exchange of all shares of our Class B common stock (along with the corresponding SES Holdings LLC Units) held by Legacy Owner Holdco, as of February 12, 2020, for shares of Class A common stock would result in the issuance of an additional 16,221,101 shares of Class A common stock. The address for SES Legacy Holdings, LLC is c/o Select Energy Services, Inc., 1233 W. Loop South, Suite 1400, Houston, TX 77027.

- (4) The board of managers of Legacy Owner Holdco has voting and dispositive power over the shares held by it. The board of managers of Legacy Owner Holdco consists of two representatives of Crestview Partners II SES Investment, LLC ("Crestview Holdings A"), our directors, Robert Delaney and Adam Klein, and our Chairman, John D. Schmitz, and is controlled by Crestview Partners II GP, L.P. ("Crestview GP").
- (5) Represents 5,325,444 shares of Class A common stock held directly by B-29 Holdings, LP and 399,684 shares of Class A common stock held directly by B-29 Investments, LP. John D. Schmitz has voting and dispositive power over shares held by B-29 Holdings, LP and B-29 Investments, LP. The address for John D. Schmitz is c/o Select Energy Services, Inc., 1233 W. Loop South, Suite 1400, Houston, TX 77027.
- (6) Based on information obtained from a Schedule 13G/A jointly filed with the SEC on February 13, 2020 by Crestview GP, Crestview Holdings B and Crestview Holdings A, Crestview GP has voting and dispositive power with respect to 20,024,073 shares of our Class A common stock. Crestview GP may be deemed to be the beneficial owner of 16,221,101 shares of Class B common stock and corresponding SES Holdings LLC Units held directly by Legacy Owner Holdco and 3,802,972 shares of Class A common stock held directly by Crestview Holdings B. Crestview Holdings A generally has the right to acquire beneficial ownership of 16,221,101 shares of Class B common stock and corresponding SES Holdings LLC Units held by Legacy Owner Holdco at its election pursuant to the Legacy Owner Holdco limited liability company agreement, and Crestview GP has voting power of 16,221,101 shares of Class B common stock through its control of the board of managers of Legacy Owner Holdco. Crestview GP disclaims beneficial ownership of shares of Class B common stock and corresponding SES Holdings LLC Units held by Legacy Owner Holdco, except to the extent of its pecuniary interest. Crestview GP is the general partner of the investment funds which are direct or indirect members of Crestview Holdings A. Crestview GP is also the general partner of the investment funds which are members of Crestview Holdings B. Decisions by Crestview GP to vote or dispose of the interests held by Crestview Holdings A and Crestview Holdings B require the approval of its investment committee, which is composed of the following individuals: Barry S. Volpert, Thomas S. Murphy, Jr., Richard M. DeMartini, Robert V. Delaney, Jr., Brian P. Cassidy, Alexander M. Rose and Adam J. Klein. None of the foregoing persons has the power individually to vote or dispose of any of such interests. Each of the foregoing individuals disclaims beneficial ownership of all such interests. The address of each of the foregoing is c/o Crestview Partners, 590 Madison Avenue, 36th Floor, New York, New York 10022.
- (7) Cody Ortowski has voting and dispositive power over shares held by Proactive Investments, LP. The address for Cody Ortowski is c/o Select Energy Services, Inc., 1233 W. Loop South, Suite 1400, Houston, TX 77027.
- (8) Cole Ortowski has voting and dispositive power over shares held by Superior Capital Investments, LP. The address for Cole Ortowski is c/o Select Energy Services, Inc., 1233 W. Loop South, Suite 1400, Houston, TX 77027.

DESCRIPTION OF CAPITAL STOCK

As of February 12, 2020, our authorized capital stock consisted of: 350,000,000 shares of Class A common stock, \$0.01 par value per share, of which 87,157,751 shares were issued and outstanding; 150,000,000 shares of Class B common stock, \$0.01 par value per share, of which 16,221,101 shares were issued and outstanding; 40,000,000 shares of Class A-2 common stock, \$0.01 par value per share, of which no shares were issued and outstanding; and 50,000,000 shares of preferred stock, \$0.01 par value per share, of which no shares were issued and outstanding.

The following is a summary of our capital stock, our Second Amended and Restated Bylaws and our Fourth Amended and Restated Certificate of Incorporation, which we refer to as our "amended and restated bylaws" and our "amended and restated certificate of incorporation," respectively, and applicable provisions of law. The following summary does not purport to be complete and is qualified in its entirety by reference to the provisions of applicable law and to our amended and restated certificate of incorporation and amended and restated bylaws.

Class A Common Stock

Voting Rights. Holders of shares of our Class A common stock are entitled to one vote per share held of record on all matters to be voted upon by the stockholders. Under our amended and restated certificate of incorporation, holders of shares of our Class A common stock do not have cumulative voting rights in the election of directors. Under the amended and restated certificate of incorporation, holders of shares of our Class A common stock and Class B common stock vote together as a single class on all matters presented to our stockholders for their vote or approval, except as required by law.

Dividend Rights. Holders of shares of our Class A common stock are entitled to ratably receive dividends when and if declared by our board of directors out of funds legally available for that purpose, subject to any statutory or contractual restrictions on the payment of dividends and to any prior rights and preferences that may be applicable to any outstanding preferred stock.

Liquidation Rights. Upon our liquidation, dissolution, distribution of assets or other winding up, holders of shares of our Class A common stock are entitled to receive ratably the assets available for distribution to the stockholders after payment of liabilities and the liquidation preference of any of our outstanding shares of preferred stock.

Other Matters. The shares of Class A common stock have no preemptive or conversion rights and are not subject to further calls or assessment by us. There are no redemption or sinking fund provisions applicable to the Class A common stock. All outstanding shares of our Class A common stock are fully paid and non-assessable.

Class B Common Stock

Voting Rights. Holders of shares of our Class B common stock are entitled to one vote per share held of record on all matters to be voted upon by the stockholders. Holders of shares of our Class A common stock and Class B common stock vote together as a single class on all matters presented to our stockholders for their vote or approval, except as required by law.

Dividend and Liquidation Rights. Holders of our Class B common stock do not have any right to receive dividends, unless (i) the dividend consists of shares of our Class B common stock or of rights, options, warrants or other securities convertible or exercisable into or exchangeable for shares of Class B common stock paid proportionally with respect to each outstanding share of our Class B common stock and (ii) a dividend consisting of shares of Class A common stock or of rights, options, warrants or other securities convertible or exercisable into or exchangeable for shares of Class A common stock on the same terms is simultaneously paid to the holders of Class A common stock.

Holders of our Class B common stock do not have any right to receive a distribution upon our liquidation or winding up.

Other Matters. The shares of Class B common stock have no preemptive rights and are not subject to further calls or assessment by us. There are no redemption or sinking fund provisions applicable to the Class B common stock. All outstanding shares of our Class B common stock are fully paid and non-assessable.

Class A-2 Common Stock

General. Our shares of Class A-2 common stock were issued to holders of Class A-1 common stock in Rockwater in connection with our November 1, 2017 business combination with Rockwater. Each share of our Class A-2 common stock converted automatically into a share of our Class A common stock on a one-for-one basis on March 29, 2018, and no shares of our Class A-2 common stock are outstanding.

Amended and Restated Registration Rights Agreement

We are filing this registration statement pursuant to our obligations under the Amended and Restated Registration Rights Agreement. Pursuant to the Amended and Restated Registration Rights Agreement, we agreed, among other things, (i) to provide the rights for the Registration Rights Holders to participate in certain future underwritten public offerings of our Class A common stock, (ii) certain Registration Rights Holders will have the right to initiate an underwritten offering of our Class A common stock and (iii) the Registration Rights Holders will have certain customary "piggyback" registration rights, in each case subject to certain conditions. We will not be required to effect (x) more than five demand registrations delivered in the aggregate, (y) more than two demand registrations delivered by the Registration Rights Holders in any 12-month period or (z) a demand registration within 100 days of the pricing of a previous demand registration or a primary offering of our Class A common stock.

At any time, a party to the registration rights agreement will have the right to require us by written notice to demand registration of its registrable shares. Our obligations under this agreement include short-form, long-form and shelf registration statements, subject to certain restrictions as to number of demands, timing and value of sales to be registered or shares to be sold in an underwritten offering.

If, at any time, we propose to register or conduct an underwritten offering of our securities (subject to certain exceptions) for our own account or for the account of any stockholder other than the parties to our registration rights agreement with B. Riley FBR, Inc. entered in connection with our December 2016 private placement of 16,100,000 shares of our Class A-1 common stock at \$20.00 per share or their permitted transferees, then we must give notice to the Registration Rights Holders or their permitted transferees to allow them to participate, or piggyback, in that registration statement or offering. In addition, any Registration Rights Holder shall have the right to piggyback in any registration statement or offering effected at the request of any other Registration Rights Holder.

These registration rights are subject to certain conditions and limitations, including the right of the underwriters to limit the number of shares to be included in a registration and our right to delay or withdraw a registration statement under certain circumstances. We will generally be obligated to pay all registration expenses in connection with these registration obligations, regardless of whether a registration statement is filed or becomes effective. The obligations to register registrable shares under the registration rights agreement will terminate when no registrable shares remain outstanding. Registrable shares will cease to be covered by the registration rights agreement when they (i) have been sold pursuant to an effective registration statement under the Securities Act, (ii) have been sold in a transaction exempt from registration under the Securities Act (including transactions pursuant to

Rule 144), (iii) are held by us or one of our subsidiaries; (iv) have been sold in a private transaction in which the transferor's rights under the Amended and Restated Registration Rights Agreement are not assigned to the transferee of such securities; or (v) are sold in a private transaction in which the transferor's rights under the registration rights agreement are assigned to the transferee and such transferee is not an affiliate of us, two years following the transfer of such registrable share to such transferee.

The registration rights granted to the Registration Rights Holders may be freely assigned, including to their transferees.

Anti-Takeover Effects of Provisions of Our Amended and Restated Certificate of Incorporation, our Amended and Restated Bylaws and Delaware Law

Some provisions of our amended and restated certificate of incorporation, our amended and restated bylaws and Delaware law contain provisions that could make the following transactions more difficult: (i) acquisitions of us by means of a tender offer, proxy contest or otherwise or (ii) removal of our incumbent officers and directors. These provisions may also have the effect of preventing changes in our management. It is possible that these provisions could make it more difficult to accomplish or could deter transactions that stockholders may otherwise consider to be in their best interest or in our best interests, including transactions that might result in a premium over the market price for our shares.

These provisions, summarized below, are expected to discourage coercive takeover practices and inadequate takeover bids. These provisions are also designed to encourage persons seeking to acquire control of the board of directors or of our Class A common stock to first negotiate with us. We believe that the benefits of increased protection and our potential ability to negotiate with the proponent of an unfriendly or unsolicited proposal to acquire or restructure us outweigh the disadvantages of discouraging these proposals because, among other things, negotiation of these proposals could result in improved terms for our stockholders.

Delaware Law

In general, Section 203 of the Delaware General Corporation Law ("DGCL") provides that, subject to certain exceptions set forth therein, a Delaware corporation shall not engage in any business combinations with any interested stockholder for a period of three years following the date that the stockholder became an interested stockholder, unless:

- the transaction is approved by the board of directors before the date the interested stockholder attained that status;
- upon consummation of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the
 voting stock of the corporation outstanding at the time the transaction commenced; or
- on or after such time the business combination is approved by the board of directors and authorized at a meeting of stockholders by at least two-thirds of the outstanding voting stock that is not owned by the interested stockholder.

For purposes of Section 203 of the DGCL, a business combination is defined to include a merger or consolidation, asset sale or other transaction resulting in a financial benefit to the interested stockholder, and an interested stockholder is defined to include (i) any person that is the owner of 15% or more of the outstanding voting stock of the corporation, or is an affiliate or associate of the corporation and was the owner of 15% or more of the outstanding voting stock of the corporation at any time within three years immediately prior to the date of determination and (ii) the affiliates and associates of such person.

We have opted out of Section 203 of the DGCL. Our amended and restated certificate of incorporation contains, however, provisions that are similar to Section 203 of the DGCL (except with respect to certain of our owners prior to our IPO, including Crestview Partners II GP, L.P., B-29 Investments, LP, and the SCF Group, and any funds, limited partnerships or other investment entities or vehicles managed or controlled by SCF Partners, Inc.).

Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws

Provisions of our amended and restated certificate of incorporation and amended and restated bylaws may delay or discourage transactions involving an actual or potential change in control or change in our management, including transactions in which stockholders might otherwise receive a premium for their shares or transactions that our stockholders might otherwise deem to be in their best interests. Therefore, these provisions could adversely affect the price of our Class A common stock.

Among other things, our amended and restated certificate of incorporation and amended and restated bylaws:

- establish advance notice procedures with regard to stockholder proposals relating to the nomination of candidates for election as directors or new business to be brought before meetings of our stockholders. These procedures provide that notice of such stockholder proposals must be timely given in writing to our corporate secretary prior to the meeting at which the action is proposed to be taken. Generally, to be timely, notice must be received at our principal executive offices not less than 90 days nor more than 120 days prior to the first anniversary date of the annual meeting for the preceding year's annual meeting. Our amended and restated bylaws specify the requirements as to form and content of all stockholders' notices. These requirements may deter stockholders from bringing matters before the stockholders at an annual or special meeting;
- authorize our board of directors to issue undesignated preferred stock. This ability makes it possible for our board of directors to issue, without stockholder approval,
 preferred stock with voting or other rights or preferences that could impede the success of any attempt to change control of us. These and other provisions may have
 the effect of deferring hostile takeovers or delaying changes in control or management of our company;
- provide that the authorized number of directors may be changed only by resolution of the board of directors;
- provide that all vacancies, including newly created directorships, may, except as otherwise required by law or, if applicable, the rights of holders of a series of preferred stock, be filled by the affirmative vote of a majority of the total number of remaining authorized directors;
- provide that any action required or permitted to be taken by the stockholders must be effected at a duly called annual or special meeting of stockholders and may not be effected by any consent in writing in lieu of a meeting of such stockholders, subject to the rights of the holders of any series of preferred stock with respect to such series;
- · provide that special meetings of our stockholders may only be called by a majority of the total number of authorized directors; and
- provide that our amended and restated bylaws can be amended by unilateral action of a majority of the entire board of directors.

Forum Selection

Our amended and restated certificate of incorporation provides that unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware will, to the fullest extent permitted by applicable law, be the sole and exclusive forum for:

- any derivative action or proceeding brought on our behalf;
- any action asserting a claim of breach of a fiduciary duty owed by any of our directors, officers, employees or agents to us or our stockholders;
- any action asserting a claim against us or any director or officer or other employee or agent of ours arising pursuant to any provision of the DGCL, our amended and restated certificate of incorporation or our amended and restated bylaws; or
- · any action asserting a claim against us or any director or officer or other employee or agent of ours that is governed by the internal affairs doctrine;

in each such case subject to such Court of Chancery having personal jurisdiction over the indispensable parties named as defendants therein.

Our amended and restated certificate of incorporation also provides that any person or entity purchasing or otherwise acquiring any interest in shares of our capital stock will be deemed to have notice of, and to have consented to, this forum selection provision. Although we believe these provisions benefit us by providing increased consistency in the application of Delaware law for the specified types of actions and proceedings, the provisions may have the effect of discouraging lawsuits against our directors, officers, employees and agents. The enforceability of similar exclusive forum provisions in other companies' certificates of incorporation has been challenged in legal proceedings, and it is possible that, in connection with one or more actions or proceedings described above, a court could rule that this provision in our existing amended and restated certificate of incorporation is inapplicable or unenforceable.

The choice of forum provisions summarized above are not intended to, and would not, apply to suits brought to enforce any liability or duty created by the Securities Act or the Exchange Act, or other claim for which the federal courts have exclusive jurisdiction. To the extent that any such claims may be based upon federal law claims, Section 27 of the Exchange Act creates exclusive federal jurisdiction over all suits brought to enforce any duty or liability created by the Exchange Act or the rules and regulations thereunder. Furthermore, Section 22 of the Securities Act creates concurrent jurisdiction for federal and state courts over all suits brought to enforce any duty or liability created by the Securities Act or the rules and regulations thereunder. Stockholders may be subject to increased costs to bring these claims, and the choice of forum provisions could have the effect of discouraging claims or limiting investors' ability to bring claims in a judicial forum that they find favorable.

Limitation of Liability and Indemnification Matters

Our amended and restated certificate of incorporation limits the liability of our directors for monetary damages for breach of their fiduciary duty as directors, except to the extent such exemption or limitation thereof is not permitted under the DGCL. Delaware law provides that directors of a company will not be personally liable for monetary damages for breach of their fiduciary duty as directors, except for liabilities:

- for any breach of their duty of loyalty to us or our stockholders;
- for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law;

- for unlawful payment of dividend or unlawful stock repurchase or redemption, as provided under Section 174 of the DGCL; or
- for any transaction from which the director derived an improper personal benefit.

Any amendment, repeal or modification of these provisions will be prospective only and would not affect any limitation on liability of a director for acts or omissions that occurred prior to any such amendment, repeal or modification.

Our amended and restated bylaws also provide that we will indemnify and hold harmless our directors and officers to the fullest extent permitted by Delaware law, including the advancement of expenses, including attorneys' fees. Our amended and restated bylaws also permit us to purchase insurance on behalf of any officer, director, employee or other agent for any liability arising out of that person's actions as our officer, director, employee or agent, regardless of whether or not we would have the power under the DGCL to indemnify such persons against related expense, liability or loss. We expect to enter, or have entered, into indemnification agreements with each of our directors and officers. These agreements will or do require us to indemnify these individuals to the fullest extent permitted under Delaware law against liability that may arise by reason of their service to us and to advance expenses incurred as a result of any proceeding against them as to which they could be indemnified. We believe that the limitation of liability provision in our amended and restated certificate of incorporation and the indemnification agreements facilitate our ability to continue to attract and retain qualified individuals to serve as directors and officers.

Transfer Agent and Registrar

Broadridge Financial Solutions, Inc. is the transfer agent and registrar for our Class A common stock.

Listing

Our Class A common stock is listed on the NYSE under the symbol "WTTR."

PLAN OF DISTRIBUTION

The selling stockholders may, from time to time, sell, transfer or otherwise dispose of any or all of their shares or interests in the shares on any stock exchange, market or trading facility on which the shares are traded or in private transactions. The selling stockholders may sell their shares of Class A common stock from time to time at the prevailing market price or in privately negotiated transactions.

The selling stockholders may use any one or more of the following methods when disposing of shares or interests therein:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the shares 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;
- short sales effected after the date the registration statement of which this prospectus is a part is declared effective by the SEC;
- through the distribution of the securities by any selling stockholder to its partners, members or stockholders
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- broker-dealers may agree with the selling stockholders to sell a specified number of such shares at a stipulated price per share; and
- a combination of any such methods of sale.

The selling stockholders may sell the shares at fixed prices, at prices then prevailing or related to the then current market price or at negotiated prices. The offering price of the shares from time to time will be determined by the selling stockholders and, at the time of the determination, may be higher or lower than the market price of our Class A common stock on the NYSE or any other exchange or market.

The shares may be sold directly or through broker-dealers acting as principal or agent, or pursuant to a distribution by one or more underwriters on a firm commitment or best-efforts basis. The selling stockholders may also enter into hedging transactions with broker-dealers. In connection with such transactions, broker-dealers of other financial institutions may engage in short sales of our Class A common stock in the course of hedging the positions they assume with the selling stockholders. The selling stockholders may also enter into options or other transactions with broker-dealers or other financial institutions which require the delivery to such broker-dealer or other financial institution of shares offered by this prospectus, which shares such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction). In connection with an underwritten offering, underwriters or agents may receive compensation in the form of discounts, concessions from the selling stockholders or from purchasers of the offered shares for whom they may act as agents. In addition, underwriters may sell the shares to or through dealers, and those dealers may receive compensation in the form of discounts, concessions or commissions from the underwriters and/or commissions from the purchasers for whom they may act as agents. The selling stockholders and any underwriters, dealers or agents participating in a distribution of the shares may be deemed to be underwriters within the meaning of the Securities Act, and any

profit on the sale of the shares by the selling stockholders and any commissions received by broker-dealers may be deemed to be underwriting commissions under the Securities

The selling stockholders may agree to indemnify an underwriter, broker-dealer or agent against certain liabilities related to the selling of their shares, including liabilities arising under the Securities Act. Under the Amended and Restated Registration Rights Agreement, we have agreed to indemnify the selling stockholders against certain liabilities related to the sale of the Class A common stock, including certain liabilities arising under the Securities Act. Under the Amended and Restated Registration Rights Agreement, we have also agreed to pay the costs, expenses and fees of registering the shares of Class A common stock. All other expenses of issuance and distribution will be borne by the selling stockholders.

The selling stockholders are subject to the applicable provisions of the Exchange Act, and the rules and regulations under the Exchange Act, including Regulation M. This regulation may limit the timing of purchases and sales of any of the shares of Class A common stock offered in this prospectus by the selling stockholders. The anti-manipulation rules under the Exchange Act may apply to sales of shares in the market and to the activities of the selling stockholders and its affiliates. Furthermore, Regulation M may restrict the ability of any person engaged in the distribution of the shares to engage in market-making activities for the particular securities being distributed for a period of up to five business days before the distribution. The restrictions may affect the marketability of the shares and the ability of any person or entity to engage in market-making activities for the shares.

To the extent required, this prospectus may be amended and/or supplemented from time to time to describe a specific plan of distribution. Instead of selling the shares of Class A common stock under this prospectus, the selling stockholders may sell the shares of Class A common stock in compliance with the provisions of Rule 144 under the Securities Act, if available, or pursuant to other available exemptions from the registration requirements of the Securities Act.

Under the securities laws of some states, if applicable, the securities registered hereby may be sold in those states only through registered or licensed brokers or dealers. In addition, in some states such securities may not be sold unless they have been registered or qualified for sale or an exemption from registration or qualification requirements is available and is complied with.

We cannot assure you that the selling stockholders will sell all or any portion of our Class A common stock offered hereby.

LEGAL MATTERS

The validity of the securities offered by this prospectus will be passed upon for us by Vinson & Elkins L.L.P., Houston, Texas. Legal counsel to any underwriters may pass upon legal matters for such underwriters.

EXPERTS

The audited consolidated financial statements and management's assessment of the effectiveness of internal control over financial reporting, incorporated by reference in this prospectus and elsewhere in the registration statement have been so incorporated by reference in reliance upon the reports of Grant Thornton LLP, independent registered public accountants, upon the authority of said firm as experts in accounting and auditing.



February 14, 2020

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution.

Set forth below are the expenses (other than underwriting discounts and commissions) expected to be incurred in connection with the offering of the securities registered hereby.

\$ 99,045(1)
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\$ *

(1) Fee previously paid.

Item 15. Indemnification of Directors and Officers.

Select Energy Services, Inc. is organized under the laws of Delaware. Our amended and restated certificate of incorporation provides that a director will not be liable to the corporation or its stockholders for monetary damages to the fullest extent permitted by the DGCL. In addition, if the DGCL is amended to authorize the further elimination or limitation of the liability of directors, then the liability of a director of the corporation, in addition to the limitation on personal liability provided for in our amended and restated certificate of incorporation, will be limited to the fullest extent permitted by the amended DGCL. Our amended and restated bylaws provide that the corporation will indemnify, and advance expenses to, any officer or director to the fullest extent authorized by the DGCL.

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 in connection with specified actions, suits and proceedings whether civil, criminal, administrative, or investigative, other than a derivative action by or in the right of the corporation, if they acted in good faith and in a manner they reasonably believed to be in or not opposed to the best interests of the corporation and, with respect to any criminal action or proceeding, had no reasonable cause to believe their conduct was unlawful. A similar standard is applicable in the case of derivative actions, except that indemnification extends only to expenses, including attorneys' fees, incurred in connection with the defense or settlement of such action and the statute requires court approval before there can be any indemnification where the person seeking indemnification has been found liable to the corporation. The statute provides that it is not exclusive of other indemnification that may be granted by a corporation's certificate of incorporation, bylaws, disinterested director vote, stockholder vote agreement or otherwise.

Our amended and restated certificate of incorporation also contains indemnification rights for our directors and our officers. Specifically, our amended and restated certificate of incorporation provides that we shall indemnify our officers and directors to the fullest extent authorized by the DGCL.

^{*} Estimated expenses are not presently known. The foregoing sets forth the general categories of expenses (other than underwriting discounts and commissions) that we anticipate we will incur in connection with the offering of securities under this Registration Statement. An estimate of the aggregate expenses in connection with the issuance and distribution of the securities being offered will be included in the applicable prospectus supplement.

Further, we may maintain insurance on behalf of our officers and directors against expense, liability or loss asserted incurred by them in their capacities as officers and directors.

We have obtained directors' and officers' insurance to cover our directors, officers and some of our employees for certain liabilities.

We have entered into, or will enter into, written indemnification agreements with our directors and executive officers. Under such agreements, if an officer or director makes a claim of indemnification to us, either a majority of the independent directors or independent legal counsel selected by the independent directors must review the relevant facts and make a determination whether the officer or director has met the standards of conduct under Delaware law that would permit (under Delaware law) and require (under the indemnification agreement) us to indemnify the officer or director.

Item 16. Exhibits.

The following documents are filed as exhibits to this registration statement, including those exhibits incorporated herein by reference to a prior filing of Select Energy Services, Inc. under the Securities Act or the Exchange Act as indicated in parentheses:

Exhibit Description Agreement and Plan of Merger, dated as of July 18, 2017, by and among Select Energy Services, Inc., SES Holdings, LLC, Raptor Merger Sub, Inc., Raptor Merger Sub, LLC, Rockwater Energy Solutions, Inc. and Rockwater Energy Solutions, LLC (incorporated by reference herein to Exhibit 2.1 to Select Energy Services, Inc.'s Current Report on Form 8-K, filed July 19, 2017). 4.1* Form of Stock Certificate (incorporated by reference herein to Exhibit 4.1 to Select Energy Services, Inc.'s Registration Statement on Form S-1, filed March 2, 2017 (Registration No. 333-216404)). 4.2* Amended and Restated Registration Rights Agreements, dated as of July 18, 2017, by and among Select Energy Services, Inc., SES Legacy Holdings, LLC, Crestview Partners II SES Investment B, LLC, SCF-VI, L.P., SCF-VII, L.P., SCF-VII(A), L.P. and WDC Aggregate LLC (incorporated by reference herein to Exhibit 4.1 to Select Energy Services, Inc.'s Current Report on Form 8-K, filed July 19, 2017). 4.3* Registration Rights Agreement, dated December 20, 2016, by and between Select Energy Services, Inc. and FBR Capital Markets & Co. (incorporated by reference herein to Exhibit 4.3 to Select Energy Services, Inc.'s Registration Statement on Form S-1, filed March 2, 2017 (Registration No. 333-216404)). 4.4* Assignment and Assumption Agreement, dated November 1, 2017, by and between Select Energy Services, Inc. and Rockwater Energy Solutions, Inc. (incorporated by reference herein to Exhibit 4.1 to Select Energy Services, Inc.'s Current Report on Form 8-K, filed November 2, 2017). 4.5* Registration Rights Agreement, dated February 16, 2017, by and between Rockwater Energy Solutions, Inc. and FBR Capital Markets & Co. (incorporated by reference herein to Exhibit 4.2 to Select Energy Services, Inc.'s Current Report on Form 8-K, filed November 2, 2017). 5.1**Opinion of Vinson & Elkins L.L.P. 23.1**Consent of Grant Thornton LLP. 23.2**Consent of Vinson & Elkins L.L.P. (included as part of Exhibit 5.1 hereto).

Exhibit Number Description

24.1* Powers of Attorney (included on the signature page of this Registration Statement).

- Previously filed.
- ** Filed herewith.

Item 17. Undertakings.

The undersigned registrant hereby undertakes:

- (a) 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, as amended;
 - (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 percent 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 the registration statement or any material change to such information in the registration statement;

provided, however, that paragraphs (a)(i), (a)(ii) and (a)(iii) 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 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

- (b) That, for the purpose of determining any liability under the Securities Act of 1933, as amended, 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.
 - (c) 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.
 - (d) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:
 - (i) Each prospectus filed by such 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 of 1933 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 the 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.

- (e) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 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.
 - (f) The undersigned registrant hereby undertakes that:
 - (i) For purposes of determining any liability under the Securities Act, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective; and
 - (ii) For the purpose of determining any liability under the Securities Act, each post-effective amendment that contains a form of prospectus 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.

The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, as amended, each filing of the registrant's annual report pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) 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.

Insofar as indemnification for liabilities arising under the Securities Act of 1933, as amended, may be permitted to directors, officers or persons controlling the registrant pursuant to the provisions set forth or described in Item 15 of this registration statement, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities 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 Securities Act of 1933, as amended, 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 Houston, State of Texas, on February 14, 2020.

SELECT ENERGY SERVICES, INC.

By:	/s/ HOLLI C. LADHANI
	Holli C. Ladhani President and Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933, as amended, this Registration Statement has been signed below by the following persons in the capacities indicated on February 14, 2020.

<u>Name</u>	<u>Title</u>		
/s/ HOLLI C. LADHANI	President, Chief Executive Officer and Director (Principal		
Holli C. Ladhani	Executive Officer)		
*	Chief Financial Officer and Senior Vice President (Principal		
Nick L. Swyka	Financial Officer)		
*	Chief Accounting Officer (Principal Accounting Officer)		
Brian P. Szymanski	Cinci Accounting Officer (Finicipal Accounting Officer)		
*	Cl.		
John D. Schmitz	Chairman		
*	Director		
Robert V. Delaney	Director		
*	Director		
Adam J. Klein	Director		
*	Director		
David C. Baldwin	Director		
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	<u>Name</u>	<u>Title</u>
	* Douglas J. Wall	Director
	* Richard A. Burnett	— Director
	* Keith O. Rattie	Director
	* David A. Trice	Director
* By:	/s/ HOLLI C. LADHANI Holli C. Ladhani Attorney-in-fact	
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Vinson&Elkins

February 14, 2020

Select Energy Services, Inc. 1233 W. Loop South, Suite 1400 Houston, Texas 77027

Re: Registration Statement on Form S-3

Ladies and Gentlemen:

We have acted as counsel for Select Energy Services, Inc., a Delaware corporation (the "Company"), and certain of its subsidiaries with respect to the preparation of Post-Effective Amendment No. 1 to the Registration Statement on Form S-3, File No. 333-224956 (the "Registration Statement"), filed on or about the date hereof with the Securities and Exchange Commission (the "Commission") in connection with the registration by the Company under the Securities Act of 1933, as amended (the "Securities Act"), of the offer and sale (a) by the selling stockholders named in the Registration Statement that may exchange shares of the Company's Class B common stock (the "Exchanging Holders") along with a limited liability company unit of SES Holdings, LLC for a share of Class A common stock, par value \$0.01 per share, of the Company (the "Class A Common Stock") of up to 16,221,101 shares of Class A Common Stock (the "Exchange Common Stock"); and (b) by the selling stockholders named in the Registration Statement (the "Selling Stockholders"), of up to 27,960,305 shares of Class A Common Stock (the "Resale Common Stock").

We have also participated in the preparation of a prospectus relating to the Exchange Common Stock and the Resale Common Stock (the "Prospectus"), which is contained in the Registration Statement to which this opinion is an exhibit.

In connection with the opinions expressed herein, we have examined, among other things, the (i) the Fourth Amended and Restated Certificate of Incorporation and the Second Amended and Restated Bylaws of the Company, (ii) the Registration Statement, (iii) the Prospectus, and (iv) the records of corporate proceedings that have occurred prior to the date hereof with respect to the Registration Statement. We have also reviewed such questions of law as we have deemed necessary or appropriate. As to matters of fact relevant to the opinions expressed herein, and as to factual matters arising in connection with our examination of corporate documents, records and other documents and writings, we relied upon certificates and other communications of corporate officers of the Company, without further investigation as to the facts set forth therein.

Vinson & Elkins LLP Attorneys at Law
Austin Beijing Dallas Dubai Hong Kong Houston London
New York Richmond Riyadh San Francisco Tokyo Washington

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In connection with rendering the opinions set forth below, we have assumed that (i) all information contained in all documents reviewed by us is true and correct; (ii) all signatures on all documents examined by us are genuine; (iii) all documents submitted to us as originals are authentic and all documents submitted to us as copies conform to the originals of those documents; (iv) the Registration Statement and any subsequent amendments (including additional post-effective amendments), will be effective and comply with all applicable laws; and (v) the Exchange Common Stock and the Resale Common Stock will be sold in the manner set forth in the Registration Statement and the Prospectus.

Based on the foregoing, and subject to the assumptions, qualifications, limitations, and exceptions set forth herein, we are of the opinion that:

- 1. With respect to shares of Exchange Common Stock, when both (A) the board of directors of the Company (the "Board") has taken all necessary corporate action to approve the issuance of and the terms of the offering of the shares of Exchange Common Stock and related matters and (B) certificates representing the shares of Exchange Common Stock have been duly executed, countersigned, registered, and delivered (or non-certificated shares of Exchange Common Stock shall have been properly issued) in accordance with the SES Holdings, LLC Eighth Amended and Restated Limited Liability Company Agreement, as amended, then the shares of Exchange Common Stock will be legally issued, fully paid, and nonassessable; and
 - 2. The shares of Resale Common Stock proposed to be sold by the Selling Stockholders have been duly authorized and validly issued and are fully paid and nonassessable.

We express no opinions concerning the enforceability of indemnification provisions to the extent they purport to relate to liabilities resulting from or based upon negligence or any violation of federal or state securities or blue sky laws.

The foregoing opinions are limited to the Delaware General Corporation Law and Delaware Limited Liability Company Act (including the applicable provisions of the Delaware Constitution and the reported judicial decisions interpreting these laws) and the federal laws of the United States of America, and we are expressing no opinion as to the effect of the laws of any other jurisdiction, domestic or foreign.

We hereby consent to the filing of this opinion as an exhibit to the Registration Statement and to the use of our name in the Prospectus forming a part of the Registration Statement under the caption "Legal Matters." In giving this consent, we do not admit that we are within the category of persons whose consent is required under Section 7 of the Securities Act and the rules and regulations thereunder.

Very truly yours,

/s/ Vinson & Elkins L.L.P.

QuickLinks

Exhibit 5.1

EXHIBIT 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We have issued our reports dated March 1, 2019, with respect to the consolidated financial statements and internal control over financial reporting of Select Energy Services, Inc. included in the Annual Report on Form 10-K for the year ended December 31, 2018, which are incorporated by reference in this Registration Statement and Prospectus. We consent to the incorporation by reference of the aforementioned reports in this Registration Statement and Prospectus, and to the use of our name as it appears under the caption "Experts."

/s/ GRANT THORNTON LLP

Dallas, Texas February 14, 2020

QuickLinks

EXHIBIT 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM