As filed with the Securities and Exchange Commission on November 19, 2021

Registration No. 333-

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

FORM S-1
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

ProFrac Holding Corp.
(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation or organization)	1389 (Primary Standard Industrial Classification Code Number)	87-2424964 (I.R.S. Employer Identification Number)

333 Shops Boulevard, Suite 301
Willow Park, Texas 76087
(254) 776-3722
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Brian Uhlmer
Chief Financial Officer
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Willow Park, Texas 76087
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(Name, address, including zip code, and telephone number, including area code, of agent for service)

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Approximate date of commencement of proposed sale to the public: As soon as practicable after the effective date of this Registration Statement.

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, check the following box. ☐

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) 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 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 Rule 462(d) 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. ☐

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	☐	Accelerated filer	☐
Non-accelerated filer	☒	Smaller reporting company	☐
		Emerging growth company	☒

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 the Securities Act. ☐

CALCULATION OF REGISTRATION FEE

Title of each class of securities to be registered	Proposed maximum aggregate offering price(1)(2)	Amount of registration fee(3)
Class A common stock, par value $0.01 per share	$100,000,000.00	$9,270.00

(1) Includes shares of Class A common stock issuable upon exercise of the underwriters' option to purchase additional shares of Class A common stock.

(2) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(o) under the Securities Act of 1933, as amended.

(3) Calculated pursuant to Rule 457(o) under the Securities Act of 1933, as amended.

The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933, as amended, or until this Registration Statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

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Subject to completion, dated , 2021

Prospectus

shares

ProFrac Holding Corp.

Class A common stock

This is our initial public offering. We are offering shares of our Class A common stock.

Prior to this offering, there has been no public market for our Class A common stock. It is currently estimated that the initial public offering price will be between $ and $ per share of Class A common stock. We have applied to list our Class A common stock on the Nasdaq Global Select Market ("Nasdaq") under the symbol "PFHC."

To the extent that the underwriters sell more than shares of Class A common stock, the underwriters have the option to purchase, exercisable within 30 days from the date of this prospectus, up to an additional shares of Class A common stock from us at the public offering price less the underwriting discounts and commissions.

We are an "emerging growth company" as that term is used in the Jumpstart Our Business Startups Act of 2012, or JOBS Act, and as such, we have elected to take advantage of certain reduced public company reporting requirements for this prospectus and future filings. See "Risk Factors" and "Summary—Emerging Growth Company."

Investing in our Class A common stock involves risks. See " Risk Factors" beginning on page 34 to read about factors you should consider before buying shares of our Class A common stock.

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.

	Per share	Total
Initial public offering price	$	$
Underwriting discounts and commissions(1)	$	$
Proceeds, before expenses, to ProFrac Holding Corp.	$	$

(1) Please read "Underwriting" for a description of all underwriting compensation payable in connection with this offering.

Delivery of the shares of Class A common stock is expected to be made on or about , 2021.

J.P. Morgan **Piper Sandler** **Morgan Stanley**

The date of this prospectus is , 2021.

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Mission:
We equip our customers with industry-leading solutions for harnessing critical natural resources. We continually innovate our equipment and services to be more efficient, sustainable, and cost-effective.

Vision:
Our vision is a world where affordable and reliable energy, and the opportunity that comes with it, is a reality for everyone.

Provide Amazing Service:
Amaze our customers with world class service and expertise.

Value our People:
Commit to the safety and wellness of our employees, foster career development, and encourage and reward innovation.

Protect the Environment:
Continue to implement new strategies to reduce our environmental impact.

Give Back:
Make positive impacts on the communities in which we work and live.

Do the Right Thing:
Lead with honesty and act with integrity.

PROFRAC®

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About this prospectus

You should rely only on the information contained in this prospectus or in any free writing prospectus prepared by us or on behalf of us or to which we have referred you. We have not, and the underwriters have not, authorized any other person to provide you with information different from that contained in this prospectus and any free writing prospectus. If anyone provides you with different or inconsistent information, you should not rely on it. We are not, and the underwriters are not, making an offer to sell the securities described herein in any jurisdiction where an offer or sale is not permitted. The information in this prospectus is accurate only as of the date of this prospectus, regardless of the time of delivery of this prospectus or any sale of our common stock. Our business, financial condition, results of operations and prospects may have changed since that date.

This prospectus contains forward-looking statements that are subject to a number of risks and uncertainties, many of which are beyond our control. Please read "Risk Factors" and "Cautionary Statement Regarding Forward-Looking Statements."

Unless the context otherwise requires, the information in this prospectus (other than in the historical financial statements) assumes that the underwriters will not exercise their option to purchase additional shares.

Presentation of financial and operating data

ProFrac Holding Corp. was formed on August 17, 2021, and has not conducted and will not conduct any material business operations prior to the completion of the transactions described under "Corporate Reorganization" other than certain activities related to this offering. Our predecessor consists of ProFrac Holdings, LLC ("ProFrac LLC" or "ProFrac"), Best Pump and Flow, LP ("Best Flow") and Alpine Silica, LLC ("Alpine" and, together with ProFrac LLC and Best Flow, "ProFrac Predecessor") on a consolidated and combined basis. Dan and Farris Wilks (or entities they control) (collectively, the "Wilks") hold a controlling interest in ProFrac LLC, Best Flow and Alpine. On , 2021, all of the then-outstanding membership interests in Best Flow and Alpine were contributed to ProFrac LLC in exchange for membership interests in ProFrac LLC. Following the contribution, on , 2021, certain indebtedness with a principal amount of $18.0 million of Best Flow and Alpine held by THRC Holdings, Farris Wilks and Wilks Brothers, LLC was contributed to ProFrac LLC in exchange for equity in ProFrac LLC, and then further contributed to Best Flow and the debt was cancelled.

As more fully described under "Prospectus Summary—Recent Developments," on October 21, 2021, ProFrac LLC agreed to acquire FTS International, Inc., a Delaware corporation (such entity, "FTSI", and such acquisition, the "FTSI Acquisition") pursuant to an Agreement and Plan of Merger. You should read "Prospectus Summary—Recent Developments—FTSI Acquisition" for more information regarding the FTSI Acquisition. Unless otherwise indicated, the historical financial and operating information included in this prospectus is that of ProFrac Predecessor and does not give effect to the FTSI Acquisition.

Unless otherwise indicated, references in this prospectus to our financial or operating information on a "pro forma basis" refer to the historical financial or operating information of ProFrac Predecessor, as adjusted to give pro forma effect to the items described in the pro forma column in "Capitalization," in each case as if they occurred on January 1, 2020. Except as otherwise indicated, such information does not give effect to the FTSI Acquisition.

Unless otherwise indicated, references in this prospectus to our financial or operating information on a "pro forma basis" give pro forma effect to the transactions described in the unaudited pro forma financial statements included elsewhere in this prospectus. Results of interim periods are not indicative of the results expected for a full year or for future periods. Historical financial and operating information is not indicative of the results that may be expected in any future periods. For more information, please see the historical consolidated and combined financial statements and unaudited pro forma condensed financial statements and related notes thereto included elsewhere in this prospectus.

Industry and market data

The market data and certain other statistical information used throughout this prospectus are based on independent industry publications, government publications and other published independent sources. Although we believe these third-party sources are reliable as of their respective dates, neither we nor the underwriters have independently verified the accuracy or completeness of this information. Some data is also based on our good faith estimates. The industry in which we operate is subject to a high degree of uncertainty and risk due to a variety of factors, including those described in the section entitled “Risk Factors.” These and other factors could cause results to differ materially from those expressed in these publications.

Trademarks and trade names

We own or have rights to various trademarks, service marks and trade names that we use in connection with the operation of our business. This prospectus may also contain trademarks, service marks and trade names of third parties, which are the property of their respective owners. Our use or display of third parties’ trademarks, service marks, trade names or products in this prospectus is not intended to, and does not imply, a relationship with, or endorsement or sponsorship by us. Solely for convenience, the trademarks, service marks and trade names referred to in this prospectus may appear without the ®, TM or SM symbols, but such references are not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights or the right of the applicable licensor to these trademarks, service marks and trade names.

Summary

This summary provides a brief overview of information contained elsewhere in this prospectus. This summary does not contain all of the information that you should consider before making an investment decision with respect to our Class A common stock. You should read the entire prospectus carefully, including the financial statements and the notes to those financial statements included in this prospectus. Unless indicated otherwise, the information presented in this prospectus assumes (i) an initial public offering price of $ per share of Class A common stock (the midpoint of the price range set forth on the cover page of this prospectus) and (ii) that the underwriters do not exercise their option to purchase additional shares of Class A common stock. You should read "Risk Factors" for more information about important risks that you should consider carefully before buying our Class A common stock.

Unless the context otherwise requires or as otherwise indicated, references in this prospectus to (i) the "Company," "we," "our" and "us," or like terms, refer to (a) ProFrac and its consolidated subsidiaries, (b) Best Flow and (c) Alpine before the completion of our corporate reorganization in connection with this offering and (ii) ProFrac Holding Corp. and its consolidated subsidiaries as of the completion of our corporate reorganization and thereafter. See "Corporate Reorganization" below. When we refer to a "fleet" or a "frac fleet," we are referring to the pumping units, truck tractors, data trucks, storage tanks, chemical additive and hydration units, blenders and other equipment necessary to perform hydraulic fracturing services, including back-up pumping capacity. We have provided definitions for some of the terms we use to describe our business and industry and other terms used in this prospectus in the "Glossary of Selected Terms" beginning on page A-1 of this prospectus.

Overview

We are a growth-oriented, vertically integrated and innovation-driven energy services company providing hydraulic fracturing, completion services and other complementary products and services to leading upstream oil and gas companies engaged in the exploration and production ("E&P") of North American unconventional oil and natural gas resources. Founded in 2016, ProFrac was built to be the go-to service provider for E&P companies' most demanding hydraulic fracturing needs. We are focused on employing new technologies to significantly reduce "greenhouse gas" ("GHG") emissions and increase efficiency in what has historically been an emissions-intensive component of the unconventional E&P development process. We believe the technical and operational capabilities of our fleets ideally position us to capture increased demand resulting from the market recovery and our customers' shifting preferences favoring the sustainable development of natural resources.

Our operations are primarily focused in the Appalachian, East Texas/Louisiana and Permian Basins, where we have cultivated deep and longstanding customer relationships with some of those regions' most active E&P companies. We operate in three business segments: stimulation services, manufacturing and proppant production. We believe we are the largest privately owned provider of hydraulic fracturing services in North America by hydraulic horsepower ("HHP"), with an aggregate installed capacity of over 1.0 million HHP across 20 conventional fleets, of which, as of September 30, 2021, 16 were active, reflecting an aggregate installed capacity of approximately 840,000 HHP across our active fleets, one is inactive but able to be deployed with no to minimal required capital expenditures and the remainder were inactive but able to be deployed with an average of $2.0 million in required capital expenditures per fleet. In addition, as of September 30, 2021, FTSI was operating 13 active fleets, and, following the consummation of the FTSI Acquisition, we expect to continue operating such fleets in the Permian Basin, Eagle Ford Shale, Midcontinent, Haynesville Shale and Uinta Basin. We believe a greater percentage of our conventional fleets utilize lower-emission Tier IV diesel engines relative to our peers, making them among the most emissions-friendly and capable in the industry. Further, we believe that because of our fleets' capabilities and reliability, and our relentless focus on efficient and environmentally-sound energy service solutions, our high-quality customer base views us as an integral partner in their efforts to improve their environmental, social and governance ("ESG") profiles without sacrificing service quality.

Our lower-emission conventional hydraulic fracturing fleets have been designed to reduce our customers' relative emissions footprint while handling the most demanding well completions, which are characterized by higher pumping pressures, higher pumping volumes, longer horizontal wellbores, more frac stages per lateral and increasing amounts of proppant pumped per well. More than 90% of our fleets are less than five years old, with 56% having Tier IV engines and 43% having dual fuel capabilities. In addition, we have paired these technologies with our proprietary engine standby controllers ("ESCs") to reduce idle time, which is the time during which an engine generates the highest amount of emissions, by as much as 90%, and reduce fuel consumption and GHG emissions by as much as 24%. In addition, these ESCs are capable of cold starting the engines on our pumping units without the assistance of truck tractors. This technology allows us to significantly decrease the number of truck tractors required for our operations, not only further reducing overall emissions but also eliminating the capital, safety risks and operating and maintenance costs associated with operating the additional truck tractors required for fleets that do not utilize ESCs. On the whole, these cost savings are significant and we are able to avoid an incremental $15,000 per year in costs associated with each truck tractor eliminated from our operations. Since early 2021, we have installed ESCs in five fleets, and have reduced our truck tractor count by 101. We continue to install ESCs throughout all of our fleets and anticipate being able to realize total cost savings of approximately $300,000 per year per fleet as a result. When further combined with our real time GHG emissions monitoring, our fleets create additional synergies in efficiency that result in cost savings for our customers. We intend to continue to upgrade and overhaul our other fleets with the goal of having all of our conventional fleets similarly equipped, a process made cheaper by our in-house manufacturing capabilities detailed below. This strategy aligns with our ESG initiative to minimize our carbon footprint as a part of our goal to have all of our conventional fleets equipped with emissions reduction technology.

In concert with our existing low-emission conventional fleets, we have recently entered into an agreement with U.S. Well Services, Inc. ("USWS"), allowing us to acquire up to 20 licenses (along with certain other rights) to construct in-house new, electric-powered hydraulic fracturing fleets utilizing Clean Fleet® technology. This technology utilizes electric motors powered by lower-cost, lower-emission power solutions, including local utility-sourced line power, or on-site generation from natural gas produced and conditioned in the field, compressed natural gas ("CNG"), liquefied natural gas ("LNG"), and/or traditional fuels, if needed. This flexibility in fuel supply can provide our customers with additional tools to meet their emissions and sustainability goals by reducing their reliance on diesel, as well as offer potentially significant fuel cost savings. We believe that our fleets equipped with Clean Fleet® technology will supplement our environmentally advantaged conventional fleets and provide our customers an optimized suite of options to satisfy their ESG objectives while maximizing operating efficiency. We have three electric-powered hydraulic fracturing fleets under construction and we currently expect the first of these fleets to be ready for deployment during the first quarter of 2022. We believe that our new electric fleets, together with our existing conventional fleets, which we continue to optimize to incorporate efficiency-enhancing features, place us on the leading edge of the domestic hydraulic fracturing business and position us to maintain a high equipment utilization rate, low emissions and attractive profitability.

Facilitating the advanced technology and operational capability of our equipment is our vertically integrated business model and supply chain management, which allows us to manufacture, assemble, repair and maintain our own fleets and ancillary frac equipment, including power ends, fluid ends, flow iron and monolines. We operate facilities in Cisco and Fort Worth, Texas, including an International Organization for Standardization

(“ISO”) 9001 2015 certified OEM manufacturing facility, in which we manufacture and refurbish many of the components used by our fleets, including pumps, fluid ends, power ends, flow iron and other consumables. These facilities provide in-house manufacturing capacity that enables cost-advantaged growth and maintenance.

We have a proven capability to manufacture up to 55,000 HHP per month (including electric fleets) and perform substantially all of the maintenance, repair and servicing of our hydraulic fracturing fleets in-house.

Vertical integration enables us to realize a lower capital investment and operating expense by capturing the margin of manufacturing and/or maintenance, by recycling and refurbishing older machinery in our fleet, as opposed to disposing of it, and by enabling the ongoing improvement of our equipment and processes as part of a continuous research and development cycle. This combination also facilitates our “Acquire, Retire, Replace”™ approach to growing, maintaining and modernizing our fleets, and helps insulate us from supply chain constraints that have disrupted competitors’ and customers’ operations in the past. For example, we believe that the FTSI Acquisition will allow us to further expand the scope of our vertically integrated business model and manufacturing capabilities, as well as provide us an opportunity to implement our “Acquire, Retire, Replace”™ strategy with respect to certain of FTSI’s older equipment. For additional information on the FTSI Acquisition, please see “Prospectus Summary—Recent Developments—FTSI Acquisition.” Our in-house manufacturing capabilities also allow us to rapidly implement new technologies in a cost-effective manner not possible for many of our peers. We believe that as a result of this vertical integration, we are able to achieve conventional Tier IV dual fuel fleet construction costs of $540 per HHP contrasted with an industry cost of up to $861 per HHP, according to Daniel Energy Partners, and an average expected price to build electric fleets, excluding power generation, of $467 per HHP.

Our manufacturing capabilities and control over the manufacturing process have allowed us to design and build hydraulic fracturing fleets to uniform specifications intended for deployment in resource basins requiring high levels of pressure, flow rate and sand intensity. We believe the standardized, modular configuration of our equipment provides us with several competitive advantages, including reduced repair and maintenance costs, reduced downtime, reduced inventory costs, reduced complexity in our operations, training efficiencies and the ability to redeploy equipment among operating basins. We believe that our uniform fleet specifications along with the ability to more directly control our supply chain and end-of-life management for our equipment differentiates us from competitors who typically purchase such equipment from third party manufacturers and rely on such manufacturers or other third parties for repair and maintenance.

We also provide ancillary services, further increasing our value as a business partner to our customers, including frac design and related services, frac sand and chemical supply, logistics coordination and real time data reporting, such as operational statistics, inventory management, completions updates and emissions monitoring. We also operate an approximate three-million-ton-per-year sand mine and processing facility in Kermit, Texas, with proved reserves of 42.3 million tons, which allows us to sell proppant to our customers in West Texas and Southeastern New Mexico. Our integrated service platform creates operational efficiencies for our customers and allows us to capture a greater portion of their development capital spending, positioning us to maintain high equipment utilization rates, low emissions and attractive profitability.

For the nine months ended September 30, 2021, we generated net losses of approximately $48.5 million, Adjusted EBITDA of approximately $86.3 million, and Surplus Cash Generation of approximately $33.2 million. For the definitions of Adjusted EBITDA and Surplus Cash Generation and a reconciliation to their most directly comparable financial measure calculated and presented in accordance with generally accepted accounting principles (“GAAP”), please read “—Summary Historical and Pro Forma Financial Data—Non-GAAP Financial Measures.”

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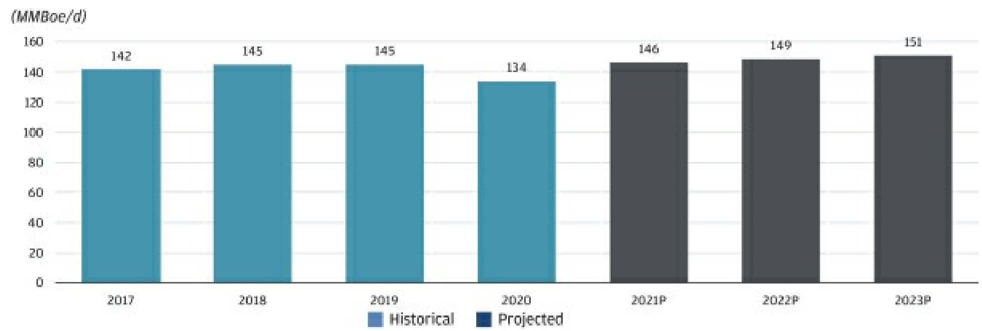
Industry trends

Demand for hydraulic fracturing services is primarily driven by the level of drilling and completion activity by E&P companies in the United States. Drilling and completion activity is driven by well profitability and returns, which in turn are influenced by a number of factors, including current domestic and international supply and demand for oil and gas and current and expected future prices for oil and gas, as well as the perceived stability and sustainability of those prices over the longer term.

In 2020, the COVID-19 pandemic and disagreements over production levels among oil producing nations combined to cause unprecedented reductions in global economic activity and significantly reduced the demand for oil and gas. These declines led to a significant dip in commodity prices, with per-barrel prices of West Texas Intermediate ("WTI") crude oil briefly falling as low as negative $37.63/Bbl in April of 2020 and averaging $40/Bbl for the full year 2020, versus $57/Bbl for the full year 2019. In response to the unfavorable price environment, U.S. E&P companies dramatically reduced capital spending, oil and gas drilling and completion activity, and thus, demand for hydraulic fracturing services declined significantly in 2020.

Supported by the COVID-19 vaccination program rollouts and the lifting of mobility restrictions in multiple countries, the global demand for oil and gas is recovering rapidly. According to McKinsey & Company, the average projected global 2021 crude oil and gas demand is forecast to be around 146 MMBoe/d, an increase of 9% or more than 12 MMBoe/d relative to the 2020 trough. Oil demand is expected to surpass pre-pandemic levels by mid-2022. Demand for natural gas is also expected to grow to support the continued industrialization of developing countries over the coming decades. Fundamental trends shaping the energy transition, including the use of natural gas as a transition fuel, are expected to drive gas to continue gaining global energy demand share.

Global Historical and Projected Oil and Gas Demand

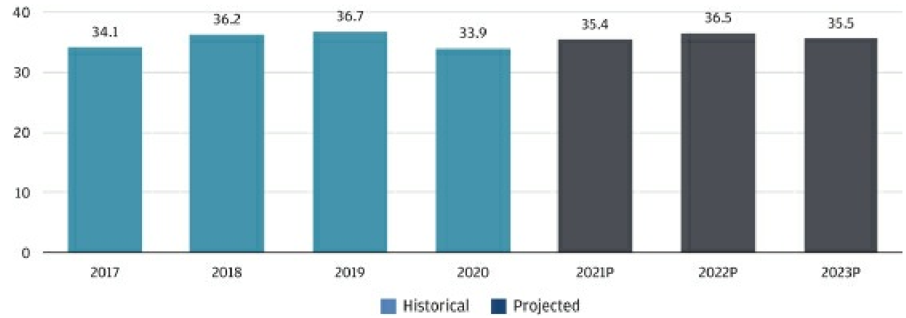


Source: McKinsey & Company Global Energy Perspective January 2021 report.

Supported by the backdrop of improved global economic growth, U.S. oil and gas consumption is forecasted to increase 6% from 2020 through 2022, according to the U.S. Energy Information Administration ("EIA"). U.S. natural gas consumption is expected to increase due to use of natural gas as feedstock in domestic petrochemical projects, the growing exports of LNG to international markets in Europe and Asia and the addition of gas fired power generation as coal plants are decommissioned.

U.S. Historical and Projected Oil and Gas Demand

(MMBoe/d)



Source: EIA Short-Term Energy Outlook as of November 9, 2021 for 2017 through 2022P figures, and EIA Annual Energy Outlook 2021 report as of January 2021 for 2023P figure.

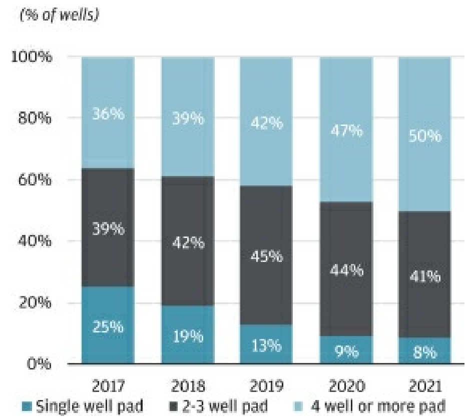
As of November 5, 2021, oil and natural gas prices have increased substantially compared to year-end 2020 prices and have also surpassed year-end 2019 (pre-COVID-19) levels by 33% and 164%, respectively. Natural gas prices are currently at their highest level since 2018. Moreover, commodities futures markets as of November 5, 2021 price natural gas contracts above $3.16/MMBtu for the next 18 months, and over the longer-term, EIA expects exports and industrial use will continue to drive increased demand for natural gas. If hydrocarbon prices remain at or near current levels, we expect drilling and completion activity to continue to increase, thereby positively impacting demand for our services and improving our revenues and pricing.

With the growth in oil and gas demand and stabilization of improved commodity prices, E&P activity has increased significantly across all onshore oil and gas basins in the United States. According to Baker Hughes Company's ("Baker Hughes") North American Rig Count, the number of active U.S. land drilling rigs has increased more than 86% over the last 12 months to 537 rigs and by 132% since its recent trough of 231 rigs in August 2020, as reported on November 5, 2021. Rig activity in our primary areas of operation (the Appalachian, East Texas/Louisiana and Permian Basins) has also increased substantially over that same period.

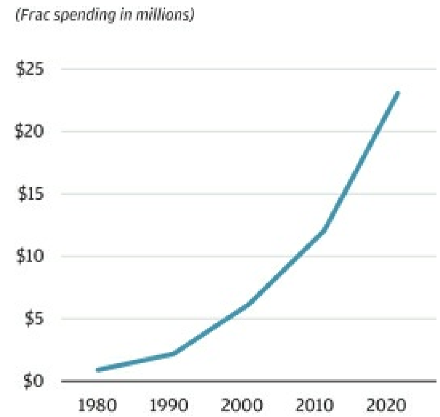
We believe that the following market dynamics and trends in our industry should benefit our operations and our ability to achieve our business objectives as commodity prices recover:

Increasing frac intensity per working rig . Techniques used by E&P companies, such as multi-well pad development programs, have led to improved rig efficiencies, resulting in more horizontal wells drilled per rig. Coupled with longer laterals, this trend indicates that demand for well completion services as well as frac spend per rig can be expected to outpace standalone rig growth. The co-location of wells on a single pad also allows for more efficient access to wellbores and sharply reduces the mobilization and de-mobilization time between completion and production service jobs. These efficiencies improve our operating leverage and enable us to more successfully provide our services.

Total Well Split by Pad Size



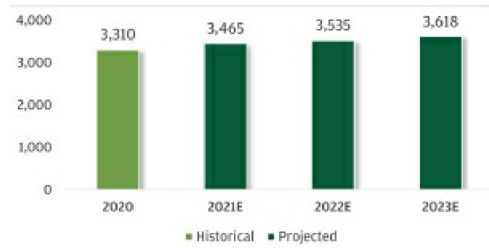
Frac Spend per Rig



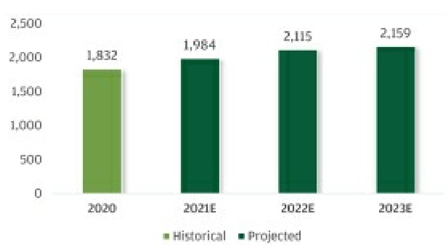
Source: Rystad Energy as of June 2021 for total well split by pad size and Spears & Associates Q2 2021 Frac/Proppant Report for frac sales per rig.

Total U.S. Wells Completed (total wells)

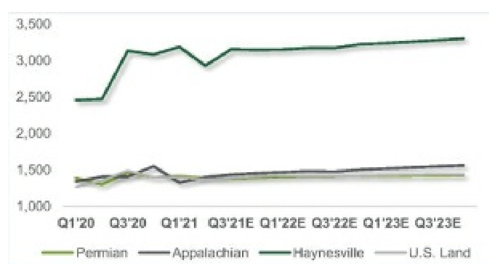
Total U.S. Average Proppant Pumped (thousands of lbs. / day)



Total U.S. Average Well Stimulated Length (feet / day)



Total U.S. Average Pumping Intensity (avg.HHP-hrs. / well in thousands)



Source: Rystad Energy as of September 2021. Metrics are reflective of total U.S. market.

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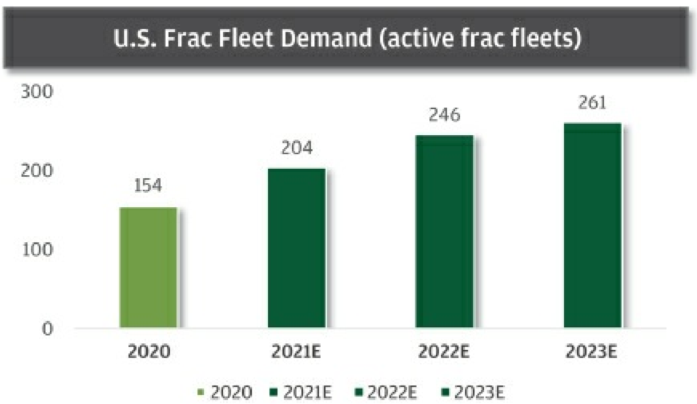
Investor and regulator focus on ESG. The energy industry is undergoing a significant change of operating practices with an emphasis on incorporating more environmental and social considerations into operating models. Companies are experiencing increased market pressure to bolster ESG programs, particularly related to climate change and reduction of GHG emissions. As the regulatory environment becomes more stringent, we believe that state and federal governments are likely to implement increased measures to regulate GHG emissions, increasing pressure on E&P companies to decrease their emissions footprint. Additional ESG topics, such as human rights, supply chain management, water usage, natural capital and biodiversity, among others, are also receiving increased attention, and there may be increasing pressure on our customers to take actions to address these topics, as well.

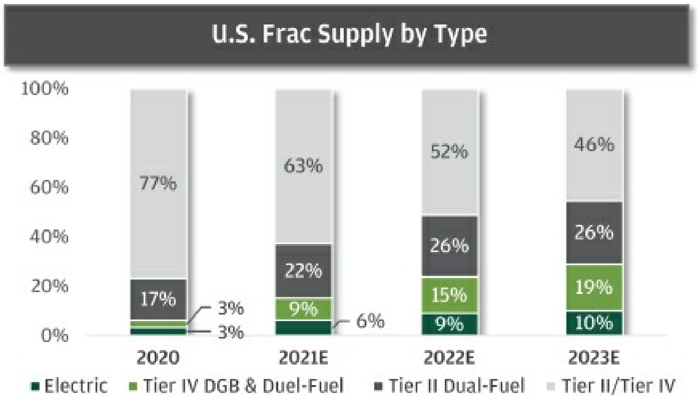
Adoption of dynamic gas blending ("DGB") and electric fleets. We believe E&P operators' focus on improving their emissions profile will accelerate the transition from legacy, emission-heavy Tier II diesel frac fleets to greener Tier IV DGB frac fleets and electric fleets because Tier IV DGB fleets utilize gas, including natural gas, CNG, LNG, pipeline and field gas, as a cheaper, cleaner fuel source. Rystad Energy Inc. ("Rystad Energy") anticipates that by the end of 2023, approximately 60-70% of active horsepower in North America will be utilizing gas capable fleets. We believe the shift to cleaner gas capable fleets positions us well to capture additional market share as the broader industry recovery continues accelerating.

U.S. Frac Fleet Demand (active frac fleets)



Source: Daniel Energy Partners as of October 2021.

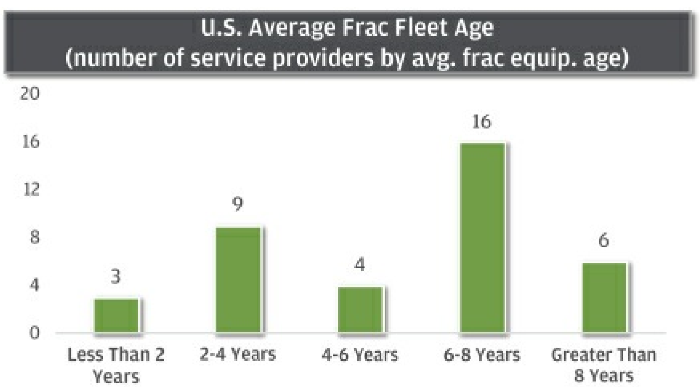
Historical and Projected U.S. Frac Supply by Type



Source: Rystad Energy as of August 2021. Metrics are reflective of total U.S. market.

Obsolescence of significant hydraulic fracturing horsepower in the market. We believe the U.S. frac market is currently facing a pivotal transition with significant fleet capacity nearing retirement due to obsolescence. We believe that prolonged underinvestment has resulted in an over-supply of legacy fleets and an increasing preference for low-emission fleets is driving an undersupply of more desirable greener frac fleets. Even prior to the COVID-19 induced downturn, substantial legacy capacity had already reached the end of its useful life, according to Rystad Energy. We believe this was further exacerbated by the lack of capital investment by frac operators during the downturn. The majority of frac service providers' fleets have an average equipment age of more than six years, according to Rystad Energy. We believe that our vertical integration and lower capital cost resulting from our in-house manufacturing of our own frac equipment will benefit our ability to both maintain attractive utilization rates and earn higher returns on invested capital versus other peers that source their new fleets from third parties at higher prices.

U.S. Average Frac Fleet Age



Source: Rystad Energy as of August 2021. Metrics are reflective of total U.S. market.

Despite the negative impact to the overall oil and gas industry in 2020, we believe the challenging industry conditions allowed us to strengthen our leadership position by implementing targeted and forward-looking initiatives. We took actions to maintain the ongoing operational integrity of our equipment, implemented back-office optimization projects, successfully completed our in-house research and development of advanced power end and fluid-end designs, and added over 140 dual fuel kits to our Tier IV engines. All of the aforementioned initiatives materially enhanced our company and positioned us to take advantage of expected improving industry conditions.

Competitive strengths

We believe the following characteristics differentiate us from our peers and uniquely position us to execute on our strategy to create value for our stakeholders:

- ***High performing, technologically advanced fleet focused on cash flow, increased efficiencies, and lower emissions*** . We believe we are strongly positioned to continue to respond to the increased demand for highly-efficient and environmentally advantaged energy services, which are those that produce fewer negative impacts on the environment than those provided by standard Tier II fleets. We believe we have the largest fleet of low emissions and technologically advanced conventional frac equipment in the United States, with 56% of our fleets equipped with Tier IV engines and 43% with dual fuel capabilities. We believe our technologically advanced fleets are among the most reliable and best performing in the industry with the capabilities to meet the most demanding pressure and flow rate requirements in the field. For example, we are one of the few energy services companies to install 60-inch pumps in our fleets, providing for significantly higher capacity and capability. The combination of these factors provides us with an ability to operate efficiently in the most demanding environments while helping our customers meet their ESG goals. Further, our standardized, high specification equipment, manufacturing capabilities and direct control over our supply chain lead to lower total cost of ownership, which we believe allows us to both increase our margins and meet increasing demand for efficient, environmentally-advantaged energy services.

  Our standardized equipment reduces our downtime as our mechanics can quickly and efficiently diagnose and repair our equipment and reduces the amount of inventory we need on hand. We are able to easily shift equipment among operating areas as needed to take advantage of market conditions or to replace temporarily damaged equipment. This flexibility allows us to target customers that are offering higher prices for our services, regardless of the basins in which they operate. Standardized equipment also reduces the complexity of our operations, which lowers our training costs and improves our safety profile.

  To complement our modern and highly efficient conventional fleets, we have three electric-powered hydraulic fracturing fleets under construction and we currently expect completion and deployment of the first of these fleets in the first quarter of 2022. By replacing Tier II diesel engines with electric engines, we expect our fleets equipped with Clean Fleet® technology will reduce carbon emissions by up to 33% per fleet annually. These estimates are based on manufacturer specifications for fuel consumption of each engine configuration and hold constant operational factors that influence the rate of fuel consumption and emissions, such as rate and pressure. This expected reduction is equivalent to a reduction of approximately 1,700 cars on the road per year per fleet based on U.S. Environmental Protection Agency ("EPA") estimates.

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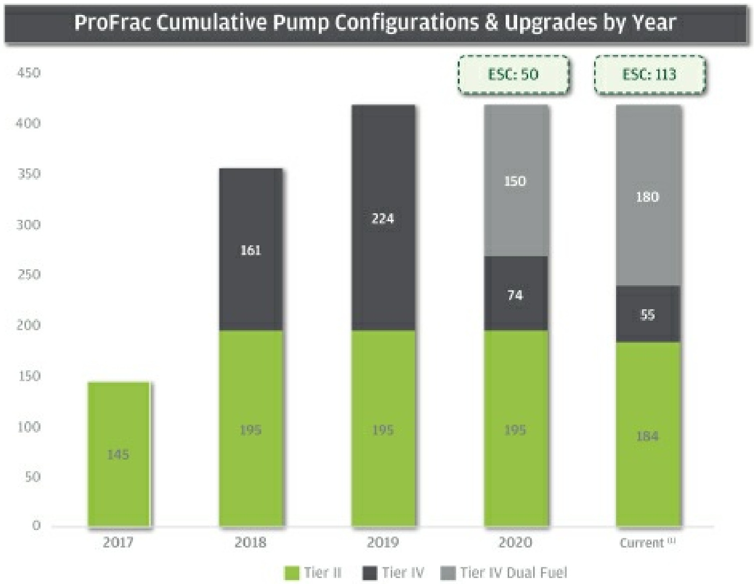
ProFrac Cumulative Pump Configurations & Upgrades by Year:



(1) Fleet mix as of 9/30/2021.

- ***Vertically integrated business model enhances our ability to meet our customers' needs*** . We operate a vertically integrated business model that includes complementary manufacturing, frac design, sand and chemical supply and data reporting services. This enhances our profitability through reduced capital and maintenance expenditures, and provides a significant advantage in cost savings and supply chain management versus our peers who do not manufacture and rebuild/refurbish their own equipment and components. Furthermore, our vertically integrated operations offer greater supply chain control and management of critical components, insulating us from disruptions that have previously impacted the operations of our competitors and customers. We manufacture and refurbish many of the components used by our fleets, including pumps, fluid ends, power ends, flow iron and other consumables at our facilities in Cisco and Fort Worth, Texas. We have the proven capability to manufacture up to 55,000 HHP per month (including electric fleets) and perform substantially all of the maintenance, repair and servicing of our hydraulic fracturing fleets in-house.

  - *"We do the hard jobs."* Vertical integration of our business enables us to take on premium frac jobs that have more demanding pressure and flow rate requirements and put extra wear and tear on frac equipment, requiring more frequent equipment rebuilds. We believe many competitors avoid these jobs as they lack the capital or repair capability to make such work profitable. However, we find such challenging work to be more economically attractive versus less intensive "commodity" work that is easier on equipment, but more competitive and with lower associated profitability.

  - *Rapid and cost-effective implementation of new technologies* . Much of our equipment is customized for our operations and built to substantially uniform specifications. As a result of our in-house manufacturing capabilities, we are able to rapidly fabricate, develop and deploy new equipment and rebuild/refurbish existing equipment without relying on third-party supply chains or paying price markups for bespoke orders or processes. In addition to manufacturing our pumping units, we have the capability to manufacture many of the other components of our fleets such as blenders and hydration units. Our manufacturing capabilities facilitated our development of the Centipede™ high pressure flow system, which reduces non-productive time by reducing rig up time by up to 50% and iron connections by up to 70%, while also preventing shutdowns. We have also developed proprietary vibration monitoring technology to gather enabling data for artificial intelligence-driven predictive pre-failure maintenance, performance reporting and design customizations on core equipment.

- *Advantaged in tight market.* Our manufacturing capabilities reduce the risk that we will be unable to source important components, such as fluid-ends, power-ends and other consumable parts. During periods of high demand for hydraulic fracturing services, external equipment vendors often report order backlogs of up to nine months, which can lead to increased costs or inability to deploy fleets. We have historically manufactured, and believe we have the in-house capacity to manufacture, all major consumable components required to operate all of our fleets at full capacity.

- ***Organizational culture based on world class service, innovation, safety, improving environmental impact and active contributions to our communities***. We believe our corporate culture plays a significant role in our ability to consistently deliver excellent service to our customers, as well as our ability to attract and retain high quality personnel. We encourage innovation throughout our organization and empower our employees to innovate. For example, we maintain an innovation award program for our employees which provides cash incentives for changes to equipment and processes that improve efficiency and safety. Motivated by this program, our employees have developed numerous tools, processes and equipment enhancements that improve our operations, such as a tool for performing maintenance on fluid ends that reduces the time required for a routine maintenance procedure from 45 minutes to 15 minutes, our PadTrac system that performs live job monitoring and a tool for rebuilding butterfly valves that allows this task to be performed by a single technician. We are committed to the safety and wellness of our employees and we actively foster training, advancement and career development. We also seek to actively contribute our time and resources to positively impact the communities in which we work and live.

- ***Loyal and active customers that appreciate our efficiency, suite of services and ability to complete the most difficult and demanding projects***. We have a strong portfolio of active customers that value our modern, technologically advanced equipment and our commitment to a more ESG-conscious service offering. While our customer base includes a broad range of E&P companies, we currently primarily serve leading private, midsize operators in our areas of operation. These customers trust us to execute on their most technically demanding operations and value our unique ability to meet their needs with our vertically integrated business model. We believe our operating history combined with our emissions savings equipment has us well positioned to add larger, well-capitalized customers with consistent work to our business. Additionally, our customers benefit substantially from our complementary services, including frac design and related services, frac sand and chemical supply, logistics and real time data reporting. Our track record of consistently providing high-quality, safe and reliable service has enabled us to develop long-term partnerships with our customers, and we expect that our customers will continue to support our growth. Additionally, through the FTSI Acquisition, we believe we will have access to new customers in new basins where we did not previously have operations. For additional information on the FTSI Acquisition, please see "Prospectus Summary—Recent Developments—FTSI Acquisition."

- ***Strong data and digital capabilities.*** ***Our focus on technology and innovation also underpins our efficiency through real time data analysis of operational statistics, inventory management, completions updates and emissions monitoring. We offer a comprehensive and competitive suite of data and digital solutions such as PadTrac, SOPHIA, and our Spartyn platform. PadTrac is a real time data stream that provides pertinent equipment data on location to our operators. SOPHIA is our cloud-based platform that accompanies the ESC and provides visibility into fuel savings and carbon footprint reduction. SOPHIA enhances the credibility, consistency, and transparency of carbon footprint quantification by following ISO standards. Our Spartyn platform digitally tracks maintenance tasks completed, plans preventative maintenance, tracks assets, and a various other operational equipment and tasks. Spartyn further allows business users to access all data from various operational and financial sources in one centralized location for rapid analysis and decision making. These digital systems provide critical, real-time insights to our customers during operations, our maintenance department to help extend the operational life of our equipment and maintain higher fleet utilization and our financial systems for rapid and accurate reporting. We believe our digital infrastructure saves time, money, and makes us more productive and cost effective enterprise.***

- ***Large scale and leading market share across most active major U.S. basins*** . We believe we are the largest privately held hydraulic fracturing provider in North America based on HHP. We operate in some of the most active basins in the United States, including the Appalachian, East Texas/Louisiana and Permian Basins and our operations are heavily weighted towards natural gas production activity. This geographic diversity reduces volatility in our revenue due to basin trends, relative commodity prices, adverse weather and other events. Our large footprint and standardized equipment enables us to rapidly reposition our fleets based on demand trends among different basins and allows us to spread our fixed costs over a greater number of fleets. Our large scale also strengthens our negotiating position with our suppliers and our customers. The FTSI Acquisition will further expand our scale and geographic footprint, establishing a presence in four additional areas of operation—Eagle Ford Shale, Haynesville Shale, Midcontinent and Uinta—and increasing our customer base. For additional information on the FTSI Acquisition, please see "Prospectus Summary—Recent Developments—FTSI Acquisition." Additionally, we expect to leverage our strengths to capture market share in these regions in response to customer demand for more efficient and cleaner fleets.

- ***Experienced management and shareholder team that have driven extreme value creation for stakeholders in past endeavors***. Our senior management team has more than 100 years of relevant experience in hydraulic fracturing and the energy industry. The management team is focused on the operational success of the Company and their interests are aligned with those of investors and customers. Additionally, our principal shareholders, the Wilks, have a proven history of founding and growing pressure pumping companies. Prior to founding ProFrac, the Wilks founded FracTech Holdings, LLC, the predecessor to FTSI in 2000, which they grew into one of the largest North American hydraulic fracturing companies based on HHP before selling their 70% interest in that business in 2011 in a transaction that valued the business at $5 billion. The FTSI Acquisition will reunite that business with a management team familiar with FTSI's personnel, culture and equipment and well suited to execute our "Acquire, Retire, Replace"™ strategy through strategic cannibalization of FTSI's older fleets. For additional information on the FTSI Acquisition, please see "Prospectus Summary—Recent Developments—FTSI Acquisition." Combined, the Wilks have more than 75 years' experience in the energy and energy services sectors. Under their leadership, we have grown our hydraulic fracturing business to a total of 20 fleets, as of September 30, 2021, with an aggregate of over 1.0 million HHP and revenues in excess of $500 million for the nine months ended September 30, 2021. The Wilks are not selling any equity in this offering and we believe that their experience will continue to benefit our operations and business.

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Business strategies

We intend to achieve our primary business objective of creating value for our stakeholders through the following business strategies:

- ***Position ourselves as a key partner to our customers in response to increasing focus on environmental sustainability*** . As the demand for energy services in the United States recovers from the lows experienced in 2020, we expect demand for our hydraulic fracturing services to continue to grow significantly. In particular, as one of the largest hydraulic fracturing service providers in North America based on HHP, we believe our modern, technologically advanced fleets position us to capitalize on customer mandates for “next generation” frac fleets due to their lower emissions and the economic benefits of fuel cost savings. We also offer our customers a holistic suite of services that we believe is responsive to our customers’ evolving needs, including frac design, manufacturing and related services, proppant and chemical supply, logistics and real time data reporting. We have increased our number of active fleets by two in the second quarter of 2021 as a result of customer demand and continue to receive customer interest in reactivating additional fleets. Rystad Energy estimates that total HHP capacity has declined by approximately 8.3 million HHP as of July 31, 2021 from approximately 21 million HHP at the end of 2019, as a result of frac equipment permanently leaving the market as a result of scrapping, cannibalization and deferred maintenance. In addition, approximately 30% of remaining horsepower is comprised of obsolete or non-operational fleets, according to Rystad Energy. By contrast, we have focused on upgrading and expanding our fleets’ capabilities and have positioned ourselves as ready to respond to our customers’ needs as upstream activity returns and the focus on ESG-sensitive operations grows. Furthermore, our consistently high fleet utilization levels and 24 hours per day, seven days per week operating schedule should result in greater revenue opportunity and enhanced margins as fixed costs are spread over a broader revenue base. We believe that any incremental future fleet additions will benefit from these trends and associated economies of scale.

- ***Commitment to returns-driven, environmentally-advantaged investments and technology to support further emissions reduction and greater operational efficiency****.* We believe demand for lower emissions operations will outpace current supply and lead to further opportunities to deploy new technical solutions to our customers relative to our competition, particularly with natural gas playing an increasingly critical role in the transition away from less clean sources of energy. We have invested in various businesses and technologies that we plan to leverage to strengthen our market position and to better serve our customers as well as share in the fuel savings provided by our investments. For example, we recently acquired a majority stake in EKU Power Drives, GMBh (“EKU”), a provider of idle reduction technologies and the manufacturer of our proprietary ESCs. Based on our own provision of hydraulic fracturing services, we believe our ESCs eliminate roughly 90% of idle hours and result in substantially lower emissions and fuel costs. This reduction in idle time can reduce carbon dioxide emissions by up to 24% compared to standard operations in which engines generally run continuously during a frac job.

  Additionally, we are supplementing our already environmentally-advantaged conventional fleets with electric fleets equipped with Clean Fleet® technology, which will provide customers additional low emission and cost effective solutions. We intend to continue this focus on efficiency and emissions-optimized technology in order to capitalize on the increased demand for higher efficiency and higher performing hydraulic fracturing services. We believe that by pursuing the development of advanced technology in both our conventional fleets and complementary electric-powered fleets, we will be well positioned to capture the increasing demand for highly capable and environmentally-advantaged energy services with which operators may satisfy their ESG imperatives.

- ***Pursue accretive mix of organic growth and strategic consolidation*.** We plan to continue to grow our operations and fleets in response to increased customer demand as well as selectively evaluate potential strategic acquisitions that increase our scale and capabilities and diversify our operations. We believe opportunities exist to acquire older generation diesel frac fleets at attractive prices and use our in-house manufacturing capabilities to upgrade and maintain them, thus extending their useful life and maximizing their cash flow, after which they can be replaced with cutting edge dual fuel or electric technology as part of our "Acquire, Retire, Replace"™ strategy. We believe that the FTSI Acquisition presents an ideal opportunity for the implementation of this strategy by retiring older FTSI fleets and using the equipment as a source of spare parts and components in our vertically integrated manufacturing segment and selectively upgrading legacy equipment to Tier IV dual fuel engines, increasing efficiency and sustainability. For additional information on the FTSI Acquisition, please see "Prospectus Summary—Recent Developments—FTSI Acquisition." The resulting displacement of older fleets should yield significant improvements in emissions, operating efficiency, safety and profitability. The retired fleets can also serve as a source of spare parts and components that can reduce our maintenance capital expenditures. Our vertically integrated business model and in house manufacturing enables faster integration of assets we may acquire and allows us to more economically and efficiently cannibalize, refurbish, and redeploy equipment. Additionally, we expect that our technology and focus on lower emission fleets will promote growth and attract new customers focused on reducing their emissions profiles.

- ***Continued focus on safe, efficient and reliable operations*.** We are an industry leader with a proven track record in safety with a Total Reportable Incident Rate ("TRIR") of 0.32 for the year ended December 31, 2020, including our manufacturing division, compared to the industry average of 0.7, according to the International Association of Oil & Gas Producers ("IOGP"). We prioritize safety in our equipment through mechanisms like AFEX fire control, which is installed on all of our field equipment and is designed to suppress fires immediately. We believe our excellent safety record is partly attributable to the standardization of our equipment, which makes it easier for mechanics and equipment operators to identify and diagnose problems with equipment before a safety hazard arises. Our fleets are also standardized to use Centipede™ mono-line, which has fewer iron connections on site and allows for a safer and quicker rig up versus traditional flow iron assemblies. Our streamlined, innovative equipment enables for safer operations and time savings, mitigation of inefficiencies from shutdowns, and improvements relative to the amount of horsepower required to put down hole. Additionally, our standardized equipment and in-house manufacturing capability allows us to rapidly assess operations as well as test new equipment while also reducing the complexity of our operations and lowering our training costs.

- ***Focus on generating superior returns while maintaining a conservative balance sheet and financial policies*.** We plan to maintain a conservative balance sheet following this offering, which will allow us to better react to potential changes in industry and market conditions and opportunistically grow our business. We had $293.8 million of net debt, defined as total debt of $310.2 million less $16.4 million of cash and equivalents, as of September 30, 2021. We have committed approximately $75 million of capital, or $25 million per fleet, to the construction of three electric-powered fleets, and we are currently in contract negotiations with a customer for one of these fleets. Other than these three electric-powered fleets, we intend to align fleet construction and other growth capital expenditures with visible customer demand, by strategically deploying new equipment in response to inbound customer requests and industry trends. For example, while we have budgeted an additional $25 million to construct a fourth electric-powered fleet during 2022, no capital has been committed or deployed for such fleet and we will only deploy capital for the fourth fleet with a contract. We are disciplined about deploying growth capital to our business, and expect investments in new fleets to have a simple payback of 2.0 years or fewer before investing. As a result of this approach, we believe that we operate one of the most profitable frac businesses and that our strategies and competitive advantages have contributed to our strong relative financial performance, as demonstrated by our history of positive EBITDA generation despite recent market volatility. Our vertical integration of key supply chains enables consistent cost management, low capital intensity and high conversion of EBITDA to Surplus Cash Generation, which we believe will help us deliver shareholder returns across market cycles, while maintaining a conservative balance sheet.

At the closing of this offering, we expect to have $ million of liquidity, in the form of cash on hand and undrawn borrowing capacity under our $ million revolving credit facility, to support our growth ambitions. For additional discussion of our 2022 capital program, please see "Management's Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resource—Our 2022 Capital Budget."

Recent developments

EKU

EKU manufactures ESCs for heavy-duty engines. Following our initial installation and testing of EKU's ESCs in 2019, we made an initial investment in EKU in late 2020 and acquired a controlling equity position in EKU in January 2021. Engines with ESCs will automatically turn off during non-operating time, shutting down the powertrain when it is not pumping and immediately restarting it to full load upon request. This technology reduces the wear and tear on equipment, reduces fuel consumption and eliminates emissions when the engines on our pumping units are automatically turned off and on between stages. A typical frac spread will pump between 14 to 18 hours per day and idle the remaining time. As idle time widely varies between operating stages, most frac companies leave the engines in idle due to the labor-intensive process associated with using the power take-off on a truck tractor to re-start the engine.

Monoline patent

Multiple trailers and distribution systems are used on frac locations to distribute natural gas for dual fuel operations. The purpose of the new monoline system is to place all distribution systems on a singular skid or trailer-mounted system as part of the existing frac manifold which is used for the distribution of low pressure frac fluid to frac pumps and the high pressure frac fluid from the pumps to the wellhead. The advantage of this design over a conventional setup is that it utilizes substantially less space, removes trip and leak hazards for a safer site, allows for quicker mobilization and demobilization, and reduces headcount of up to four people per shift. The monoline system is internally developed and is a patented approach that we have deployed.

Electric fleets

We entered into an agreement with USWS to purchase up to 20 licenses of its Clean Fleet ® electric frac, or "efrac" technology. We purchased three licenses upon closing and are in the process of building these three electric fleets. These fleets significantly reduce emissions, sound pollution, and fuel consumption when compared to Tier II diesel fleets without sacrificing strong operational performance. We intend to align additional fleet construction with visible customer demand and to use our vertically integrated manufacturing facility to build the units, leading to what we believe will be the lowest capital cost electric frac technology in the market.

FTSI acquisition

On October 21, 2021, ProFrac LLC agreed to acquire FTSI for approximately $407 million in cash pursuant to an Agreement and Plan of Merger (the "FTSI Merger Agreement"). FTSI is one of the largest providers of hydraulic fracturing services in North America, with 1.3 million HHP as of September 30, 2021. FTSI averaged 13 active fleets in the third quarter of 2021, with operations in the Permian Basin, Eagle Ford Shale, Midcontinent, Haynesville Shale and Uinta Basin.

While we expect to complete the FTSI Acquisition during the first quarter of 2022, there can be no assurance that we will complete the FTSI Acquisition at such time or at all. This offering is not conditioned upon completion of the FTSI Acquisition, and the FTSI Acquisition is not conditioned upon completion of this offering. See "Risk Factors—Risks Related to the FTSI Acquisition."

The FTSI Merger Agreement includes a 45-day "go-shop" period that expires on December 5, 2021, during which time the FTSI board of directors (the "FTSI Board") and its advisors are allowed to solicit alternative acquisition proposals from third parties. Following the end of the "go-shop" period, FTSI's Board and its advisors are no longer allowed to solicit alternative acquisition proposals from third parties, but they are permitted to continue negotiations with parties that commenced negotiations during the "go-shop" period and to entertain proposals from parties received after the "go-shop" period that were not solicited by FTSI's Board or its advisors. Subject to the terms and conditions in the FTSI Merger Agreement, FTSI's Board will have the right to change its recommendation of the merger and/or terminate the FTSI Merger Agreement to enter into a superior acquisition proposal. If FTSI terminates the FTSI Merger Agreement to enter into a definitive written agreement with respect to a superior acquisition proposal, FTSI will be obligated to pay ProFrac LLC (i) a one-time fee equal to $7.8 million in cash if terminated prior to the "go-shop" period end date, or (ii) a one-time fee equal to $11.7 million in cash if terminated after the "go-shop" period end date. In addition, if ProFrac LLC terminates the FTSI Merger Agreement because FTSI's Board withdraws or adversely modifies its recommendation that FTSI's stockholders vote in favor of adopting the FTSI Merger Agreement, FTSI will be obligated to pay ProFrac LLC a one-time fee equal to $11.7 million in cash.

The consummation of the FTSI Acquisition is subject to the satisfaction or waiver of customary closing conditions, including, among others, approval by both a majority of FTSI's stockholders as a whole as well as a majority of FTSI's stockholders, excluding stockholders that are affiliates of ProFrac LLC, and receipt of regulatory approvals.

The FTSI Acquisition is not conditioned upon our obtaining financing. We expect to fund the FTSI Acquisition and associated expenses with a combination of a portion of the net proceeds from this offering and borrowings under the a new $ term loan facility with (collectively, the "Lenders," and such facility, the "New Term Loan") to $ million (the "New Term Loan"). We expect to use additional borrowings under the New Term Loan at the closing of the FTSI Acquisition, to repay in full and terminate the existing indebtedness and credit facilities of ProFrac LLC, Best Flow and Alpine, other than amounts outstanding under ProFrac LLC's ABL Credit Facility (as defined herein).

This offering is not conditioned upon completion of the FTSI Acquisition or the closing of the New Term Loan, and the FTSI Acquisition is not conditioned upon completion of this offering. There can be no assurance that ProFrac LLC will finance the FTSI Acquisition in the manner anticipated. We expect that funding of the New Term Loan will be contingent on the satisfaction of customary conditions, including, among other things, the execution and delivery of definitive documentation and the consummation of the FTSI Acquisition in accordance with the terms of the FTSI Merger Agreement.

In connection with the signing of the FTSI Merger Agreement, THRC Holdings, LP, a Texas limited partnership ("THRC Holdings") which is controlled by Dan Wilks, has delivered an equity financing letter (the "ECL") to FTSI, pursuant to which, upon the terms and subject to the conditions set forth therein, THRC Holdings has committed to provide the necessary equity financing (up to a maximum of $400 million) to ProFrac LLC to fund the FTSI Acquisition. We do not anticipate utilization of the ECL to fund any portion of the purchase price in the FTSI Acquisition.

The foregoing description of the FTSI Merger Agreement and the transactions contemplated thereby, including the FTSI Acquisition, does not purport to be complete and is qualified in its entirety by reference to the FTSI Merger Agreement. The FTSI Merger Agreement is incorporated by reference to the registration statement of which this prospectus forms a part.

West Munger acquisition

On November 17, 2021, we agreed to acquire West Munger, an in-basin Permian Basin frac sand resource, for an aggregate consideration of $30 million, which, subject to certain terms and conditions, is payable at the option of each West Munger seller in the form of cash or, following the closing of this offering, shares of our Class A common stock (the “West Munger Acquisition”). We expect to install mining and processing facilities at the site that would permit us to mine two million tons of sand per year and we expect such facilities to be operational in the third quarter of 2022. The acquisition increases our proppant production capacity while insulating the company from supply chain constraints and operational disruptions. While we expect to complete the West Munger Acquisition before the end of 2021, there can be no assurance that we will complete the West Munger Acquisition at such time or at all.

This offering is not conditioned upon the closing of the West Munger Acquisition, and the West Munger Acquisition is not conditioned upon the closing of this offering.

Principal shareholders

The Wilks are our principal shareholders. Prior to founding ProFrac in 2016, the Wilks founded the predecessor to FTSI in 2000, which they grew into one of the largest North American hydraulic fracturing companies based on HHP before selling their interest in that business in 2011. Combined, Dan and Farris Wilks have more than 75 years’ experience in the energy and energy services sectors.

Upon completion of this offering, the Wilks will beneficially own approximately % of our Class B common stock, collectively representing approximately % of the voting power of the Company. We are also a party to certain agreements with other businesses owned by or affiliated with the Wilks. For a description of these agreements, please read “Certain Relationships and Related Party Transactions.”

Our history and corporate reorganization

We were incorporated as a Delaware corporation on August 17, 2021. Following this offering and the related transactions, ProFrac Holding Corp. will be a holding company whose only material asset will consist of ProFrac LLC Units (as defined below). ProFrac LLC owns, directly or indirectly, all of the outstanding equity interests in the subsidiaries through which we operate our assets. After the consummation of the corporate reorganization, ProFrac Holding Corp. will be the sole managing member of ProFrac LLC and will be responsible for all operational, management and administrative decisions relating to ProFrac LLC’s business and will consolidate the financial results of ProFrac LLC and its subsidiaries. On 2021, all of the then-outstanding membership interests in Best Flow and Alpine were contributed to ProFrac LLC in exchange for membership interests in ProFrac LLC. Following the contribution, on , 2021, certain indebtedness with a principal amount of $18.0 million of Best Flow and Alpine held by THRC Holdings, Farris Wilks and Wilks Brothers, LLC was contributed to ProFrac LLC in exchange for equity in ProFrac LLC, and then further contributed to Best Flow and the debt was cancelled.

In connection with the offering:

- all of the membership interests in ProFrac LLC held by the then-existing owners of ProFrac LLC (the "Pre-IPO Owners") will be converted into a single class of common units in ProFrac LLC ("ProFrac LLC Units");
- certain of the Pre-IPO Owners (the "Exchanging Owners") will transfer all of their ProFrac LLC Units to ProFrac Holding Corp. in exchange for shares of Class A common stock;
- the remaining Pre-IPO Owners will continue to hold ProFrac LLC Units (such holders, the "ProFrac LLC Unit Holders") and ProFrac Holding Corp. will issue to each ProFrac LLC Unit Holder a number of shares of Class B common stock equal to the number of ProFrac LLC Units held by such ProFrac LLC Unit Holder following this offering in exchange for a cash payment equal to the par value of such shares;
- ProFrac Holding Corp. will issue shares of Class A common stock to purchasers in this offering in exchange for the proceeds of this offering; and
- ProFrac Holding Corp. will contribute the net proceeds of this offering to ProFrac LLC in exchange for a number of ProFrac LLC Units such that ProFrac Holding Corp. holds a total number of ProFrac LLC Units equal to the number of shares of Class A common stock outstanding following this offering.

After giving effect to these transactions and the offering contemplated by this prospectus, ProFrac Holding Corp. will own an approximate % interest in ProFrac LLC (or % if the underwriters' option to purchase additional shares is exercised in full), and the ProFrac LLC Unit Holders will own an approximate % interest in ProFrac LLC (or % if the underwriters' option to purchase additional shares is exercised in full) and all of our Class B common stock. Please see "—Principal Shareholders."

Each share of Class B common stock has no economic rights but entitles its holder to one vote on all matters to be voted on by stockholders generally. Holders of Class A common stock and Class B common stock will vote together as a single class on all matters presented to our stockholders for their vote or approval, except as otherwise required by applicable law or by our amended and restated certificate of incorporation. We do not intend to list the Class B common stock on any exchange.

Following this offering, under the Third Amended and Restated Limited Liability Company Agreement of ProFrac LLC (the "ProFrac LLC Agreement"), each ProFrac LLC Unit Holder will, subject to certain limitations, have the right, which we refer to as the "Redemption Right," to cause ProFrac LLC to acquire all or a portion of its ProFrac LLC Units for, at ProFrac LLC's election, (i) shares of our Class A common stock at a redemption ratio of one share of Class A common stock for each ProFrac LLC Unit redeemed, subject to conversion rate adjustments for stock splits, stock dividends and reclassifications and other similar transactions, or (ii) an equivalent amount of cash. The independent members of our board of directors will determine whether to pay cash in lieu of the issuance of shares of Class A common stock based on facts in existence at the time of the decision, which we expect would include the relative value of the Class A common stock (including trading prices for the Class A common stock at the time), the cash purchase price, the availability of other sources of liquidity (such as an issuance of stock) to acquire the ProFrac LLC Units and alternative uses for such cash. Alternatively, upon the exercise of the Redemption Right, ProFrac Holding Corp. (instead of ProFrac LLC) will have the right, which we refer to as the "Call Right," to, for administrative convenience, acquire each tendered ProFrac LLC Unit directly from the redeeming ProFrac LLC Unit Holder for, at its election, (x) one share of Class A common stock, subject to conversion rate adjustments for stock splits, stock dividends and reclassifications and other similar transactions, or (y) an equivalent amount of cash. In addition, ProFrac Holding Corp. will have the right to require, upon the acquisition by ProFrac Holding Corp. of substantially all of the ProFrac LLC Units or upon a change of control of ProFrac Holding Corp., each ProFrac LLC Unit Holder to exercise its Redemption Right with respect to some or all of such unitholder's ProFrac LLC Units. In connection with any redemption of ProFrac LLC Units pursuant to the Redemption Right or acquisition of ProFrac LLC Units pursuant to the Call Right, a corresponding number of shares of Class B common stock held by the relevant ProFrac LLC Unit Holder will be cancelled. See "Certain Relationships and Related Party Transactions—ProFrac LLC Agreement."

ProFrac Holding Corp.'s acquisition (or deemed acquisition for U.S. federal income tax purposes) of ProFrac LLC Units in connection with this offering or pursuant to an exercise of the Redemption Right or the Call Right is expected to result in adjustments to the tax basis of the tangible and intangible assets of ProFrac LLC, and such adjustments will be allocated to ProFrac Holding Corp. These adjustments would not have been available to ProFrac Holding Corp. absent its acquisition or deemed acquisition of ProFrac LLC Units and are expected to reduce the amount of cash tax that ProFrac Holding Corp. would otherwise be required to pay in the future.

ProFrac Holding Corp. will enter into the Tax Receivable Agreement with certain of the ProFrac LLC Unit Holders (each such person or its permitted transferees, a "TRA Holder", and collectively, the "TRA Holders") at the closing of this offering. This agreement will generally provide for the payment by ProFrac Holding Corp. to each TRA Holder of 85% of the net cash savings, if any, in U.S. federal, state and local income tax and franchise tax (computed using simplifying assumptions to address the impact of state and local taxes) that ProFrac Holding Corp. actually realizes (or is deemed to realize in certain circumstances) in periods after this offering as a result of (i) certain increases in tax basis that occur as a result of ProFrac Holding Corp.'s acquisition (or deemed acquisition for U.S. federal income tax purposes) of all or a portion of such TRA Holder's ProFrac LLC Units pursuant to the exercise of the Redemption Right or the Call Right and (ii) imputed interest deemed to be paid by ProFrac Holding Corp. as a result of, and additional tax basis arising from, any payments ProFrac Holding Corp. makes under the Tax Receivable Agreement. ProFrac Holding Corp. will be dependent on ProFrac LLC to make distributions to ProFrac Holding Corp. in an amount sufficient to cover ProFrac Holding Corp.'s obligations under the Tax Receivable Agreement.

We will retain the benefit of the remaining 15% of any actual net cash tax savings.

For additional information regarding the Tax Receivable Agreement, see "Risk Factors—Risks Related to this Offering and Our Class A Common Stock" and "Certain Relationships and Related Party Transactions—Tax Receivable Agreement."

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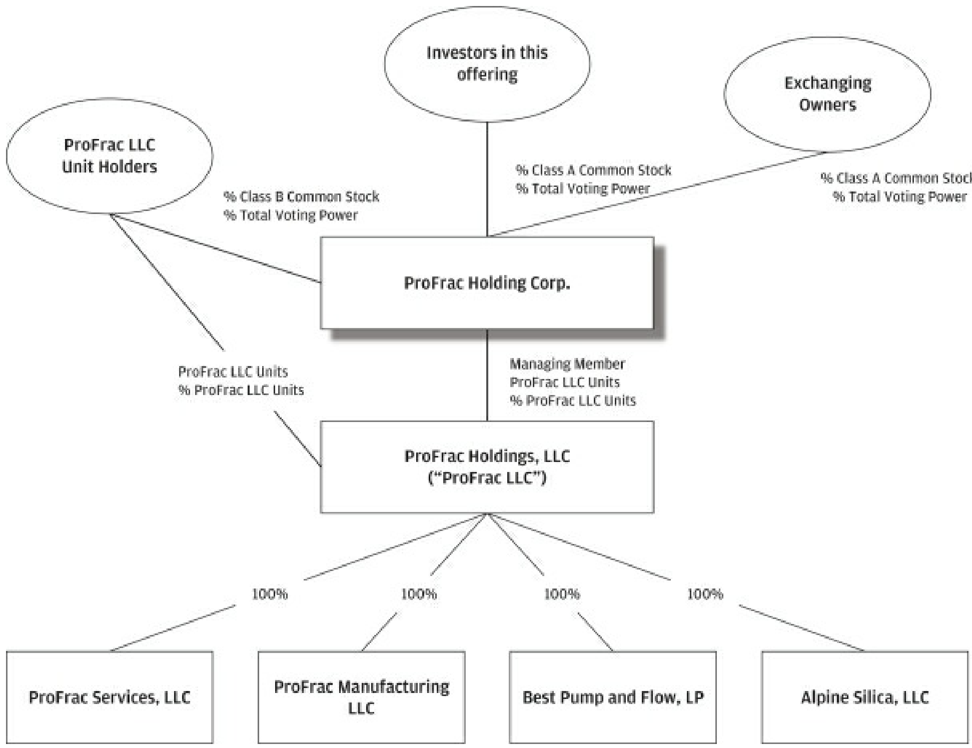
The following diagram indicates our simplified ownership structure immediately following this offering and the transactions related thereto (assuming that the underwriters' option to purchase additional shares is not exercised):



Summary risk factors

Investing in our Class A common stock involves risks. You should carefully read the section of this prospectus entitled "Risk Factors" beginning on page 34 and the other information in this prospectus for an explanation of these risks before investing in our Class A common stock. In particular, the following considerations may offset our competitive strengths or have a negative effect on our strategy or operating activities, which could cause a decrease in the price of our Class A common stock and a loss of all or part of your investment.

Risks related to our business

- Our business and financial performance depends on the oil and natural gas industry and particularly on the level of capital spending and E&P activity within the United States and in the basins in which we operate.
- The COVID-19 pandemic significantly reduced demand for our services, and has had, and may continue to have, a material adverse effect on our operations, business and financial results.

- The cyclical nature of the oil and natural gas industry may cause our operating results to fluctuate.
- We face significant competition that may cause us to lose market share.
- Our business depends upon our ability to obtain specialized equipment, parts and key raw materials from third-party suppliers, and we may be vulnerable to delayed deliveries and future price increases.
- We currently rely on a limited number of suppliers for major equipment to build new electric-powered hydraulic fracturing fleets utilizing Clean Fleet® technology, and our reliance on these vendors exposes us to risks including price and timing of delivery.
- Reliance upon a few large customers may adversely affect our revenue and operating results.
- We are exposed to counterparty credit risk. Nonpayment and nonperformance by our customers, suppliers or vendors could adversely impact our operations, cash flows and financial condition.
- Oil and natural gas companies' operations using hydraulic fracturing are substantially dependent on the availability of water. Restrictions on the ability to obtain water for E&P activities and the disposal of flowback and produced water may impact their operations and have a corresponding adverse effect on our business, results of operations and financial condition.
- We rely on a few key employees whose absence or loss could adversely affect our business.
- A negative shift in investor sentiment of the oil and gas industry has had and will continue to have adverse effects on our customers' operations and ability to raise debt and equity capital.
- Our operations require substantial capital and we may be unable to obtain needed capital or financing on satisfactory terms or at all, which could limit our ability to grow.
- Concerns over general economic, business or industry conditions may have a material adverse effect on our results of operations, liquidity and financial condition.
- Our indebtedness and liquidity needs could restrict our operations and make us more vulnerable to adverse economic conditions.
- Restrictions in our debt agreements and any future financing agreements may limit our ability to finance future operations, meet capital needs or capitalize on potential acquisitions and other business opportunities.
- Our operations are subject to unforeseen interruptions and hazards inherent in the oil and natural gas industry, for which we may not be adequately insured and which could cause us to lose customers and substantial revenue.
- Inaccuracies in our estimates of mineral reserves and resource deposits, or deficiencies in our title to those deposits, could result in our inability to mine the deposits or require us to pay higher than expected costs.
- Increasing trucking regulations may increase our costs and negatively impact our results of operations.
- We are subject to cyber security risks. A cyber incident could occur and result in information theft, data corruption, operational disruption and/or financial loss. If we are unable to fully protect our intellectual property rights, or if we are adversely affected by disputes regarding intellectual property rights of third parties, we may suffer a loss in our competitive advantage or market share.

Risks related to environmental and regulatory matters

- Our operations and the operations of our customers are subject to environmental, health and safety laws and regulations, and future compliance, claims, and liabilities relating to such matters may have a material adverse effect on our results of operations, financial position or cash flows.
- Our operations, and those of our customers, are subject to a series of risks arising from climate change.
- Federal, state and local legislative and regulatory initiatives relating to hydraulic fracturing as well as governmental reviews and investment practices for such activities may serve to limit future oil and natural gas E&P activities and could have a material adverse effect on our results of operations and business.
- Conservation measures, commercial development and technological advances could reduce demand for oil and natural gas and our services.
- Additional restrictions on drilling activities intended to protect certain species of wildlife may adversely affect our ability to conduct completion activities.

Risks related to this offering and our Class A common stock

- ProFrac Holding Corp. is a holding company. ProFrac Holding Corp.'s only material asset after completion of this offering will be its equity interest in ProFrac LLC, and ProFrac Holding Corp. will accordingly be dependent upon distributions from ProFrac LLC to pay taxes, make payments under the Tax Receivable Agreement and cover its corporate and other overhead expenses.
- Conflicts of interest could arise in the future between us, on the one hand, and Dan and Farris Wilks and entities owned by or affiliated with them, on the other hand, concerning, among other things, business transactions, potential competitive business activities or business opportunities.
- The requirements of being a public company, including compliance with the reporting requirements of the Exchange Act and the requirements of Sarbanes-Oxley, may strain our resources, increase our costs and distract management, and we may be unable to comply with these requirements in a timely or cost-effective manner.
- The Wilks have the ability to direct the voting of a majority of our voting stock, and their interests may conflict with those of our other stockholders.
- A significant reduction by Dan and Farris Wilks of their ownership interests in us could adversely affect us.
- In certain cases, payments under the Tax Receivable Agreement may be accelerated and/or significantly exceed the actual benefits, if any, ProFrac Holding Corp. realizes in respect of the tax attributes subject to the Tax Receivable Agreement.
- We expect to be a "controlled company" within the meaning of the Nasdaq rules and, as a result, will qualify for and intend to rely on exemptions from certain corporate governance requirements.

Risks related to the FTSI Acquisition

- This offering is not conditioned upon the completion of the FTSI Acquisition or the closing of the New Term Loan.

- We may experience difficulties in integrating FTSI's operations into our business and in realizing expected benefits from the FTSI Acquisition.

Principal executive offices and internet address

Our principal executive offices are located at 333 Shops Boulevard, Suite 301, Willow Park, Texas 76087, and our telephone number is (254) 776-3722. Following the closing of this offering, our website will be located at *http://www.profrac.com. We expect to make our periodic reports and other information filed with or furnished to the Securities and Exchange Commission ("SEC") available, free of charge, through our website, as soon as reasonably practicable after those reports and other information are electronically filed with or furnished to the SEC. Information on our website or any other website is not incorporated by reference into this prospectus and does not constitute a part of this prospectus.*

Emerging growth company status

As a company with less than $1.07 billion in revenue during our last fiscal year, we qualify as an "emerging growth company" as defined in the Jumpstart Our Business Startups Act of 2012 (the "JOBS Act"). As an emerging growth company, we may, for up to five years, take advantage of specified exemptions from reporting and other regulatory requirements that are otherwise applicable generally to public companies. These exemptions include:

- the presentation of only two years of audited financial statements and only two years of related Management's Discussion and Analysis of Financial Condition and Results of Operations in this prospectus;
- deferral of the auditor attestation requirement on the effectiveness of our system of internal control over financial reporting;
- exemption from the adoption of new or revised financial accounting standards until they would apply to private companies;
- exemption from compliance with any new requirements adopted by the Public Company Accounting Oversight Board requiring mandatory audit firm rotation or a supplement to the auditor's report in which the auditor would be required to provide additional information about the audit and the financial statements of the issuer; and
- reduced disclosure about executive compensation arrangements.

In addition, Section 107 of the JOBS Act also provides that an emerging growth company can use the extended transition period provided in Section 7(a)(2)(B) of the Securities Act of 1933, as amended (the "Securities Act") for complying with new or revised accounting standards. This permits an emerging growth company to delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. We are choosing to take advantage of this extended transition period and, as a result, we will comply with new or revised accounting standards on the relevant dates on which adoption of such standards is required for private companies.

We may take advantage of these provisions until we are no longer an emerging growth company, which will occur on the earliest of (i) the last day of the fiscal year following the fifth anniversary of this offering, (ii) the last day of the fiscal year in which we have more than $1.07 billion in annual revenue, (iii) the date on which we issue more than $1 billion of non-convertible debt over a three-year period and (iv) the date on which we are deemed to be a "large accelerated filer," as defined in Rule 12b-2 promulgated under the Securities Exchange Act of 1934, as amended (the "Exchange Act").

Controlled company status

Because the Wilks will initially own ProFrac LLC Units and shares of Class B common stock, representing approximately % of the voting power of the Company following the completion of this offering, we expect to be a controlled company as of the completion of the offering under the Sarbanes-Oxley Act of 2002 ("Sarbanes-Oxley") and rules of Nasdaq. A controlled company is not required to have a majority of independent directors or to maintain an independent compensation or nominating and governance committee. As a controlled company, we will remain subject to rules of Sarbanes-Oxley that require us to have an audit committee composed entirely of independent directors. Under these rules, we must have at least one independent director on our audit committee by the date our Class A common stock is listed on Nasdaq, at least two independent directors on our audit committee within 90 days of the listing date, and at least three independent directors on our audit committee within one year of the listing date. We expect to have independent directors upon the closing of this offering.

If at any time we cease to be a controlled company, we will take all action necessary to comply with Sarbanes-Oxley and rules of Nasdaq, including by appointing a majority of independent directors to our board of directors and ensuring we have a compensation committee and nominating and governance committee composed of independent directors, subject to a permitted "phase-in" period. See "Management—Status as a Controlled Company."

The offering

Issuer	ProFrac Holding Corp.
Class A common stock offered by us	shares.
Option to purchase additional shares	We have granted the underwriters a 30-day option to purchase up to an aggregate of additional shares of our Class A common stock to the extent the underwriters sell more than shares of Class A common stock in this offering.
Class A common stock outstanding after this offering	shares (or shares if the underwriters exercise in full their option to purchase additional shares).
Class B common stock outstanding immediately after this offering	shares or one share for each ProFrac LLC Unit held by the ProFrac LLC Unit Holders immediately following this offering. Shares of Class B common stock are non-economic and are not entitled to receive dividends. In connection with any redemption of ProFrac LLC Units pursuant to the Redemption Right or acquisition of ProFrac LLC Units pursuant to the Call Right, a corresponding number of shares of Class B common stock will be cancelled.
Voting power of Class A common stock after giving effect to this offering	% (or 100.0% if all outstanding ProFrac LLC Units held by the ProFrac LLC Unit Holders were redeemed for newly issued shares of Class A common stock on a one-for-one basis).
Voting power of Class B common stock after giving effect to this offering	% (or 0.0% if all outstanding ProFrac LLC Units held by the ProFrac LLC Unit Holders were redeemed for newly issued shares of Class A common stock on a one-for-one basis). Upon completion of this offering, the ProFrac LLC Unit Holders will initially own, in the aggregate, shares of Class B common stock, representing approximately % of the voting power of the Company.
Voting rights	Each share of our Class A common stock entitles its holder to one vote on all matters to be voted on by stockholders generally. Each share of our Class B common stock entitles its holder to one vote on all matters to be voted on by stockholders generally. Holders 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 otherwise required by applicable law or by our amended and restated certificate of incorporation. See "Description of Capital Stock."

Use of proceeds	We expect to receive approximately $ million of net proceeds (assuming the midpoint of the price range set forth on the cover of this prospectus) from the sale of Class A common stock in this offering, after deducting underwriting discounts and commissions and estimated offering expenses. Each $1.00 increase (decrease) in the public offering price would increase (decrease) our net proceeds by approximately $ million. We intend to contribute all of the net proceeds of this offering to ProFrac LLC in exchange for ProFrac LLC Units. ProFrac LLC intends to use the net proceeds from this offering, together with borrowings under the New Term Loan, to fund the FTSI Acquisition and to repay and terminate all of the existing indebtedness and credit facilities of ProFrac LLC, Best Flow and Alpine, other than amounts outstanding under ProFrac LLC's ABL Credit Facility. Pending completion of the FTSI Acquisition, ProFrac LLC intends to invest the net proceeds from this offering in U.S. government securities, short-term certificates of deposit, cash equivalents, money market funds or other short-term investments or demand deposit accounts. In the event ProFrac LLC does not complete the FTSI Acquisition, it intends to use the net proceeds of this offering to repay existing indebtedness, including all outstanding borrowings under the ABL Credit Facility and the Term Loan Credit Facility, and the remainder for general corporate purposes. Please read "Use of Proceeds."
Dividend policy	We do not anticipate paying any cash dividends on our Class A common stock. In addition, our existing debt agreements place, and we expect our future debt agreements will place, certain restrictions on our ability to pay cash dividends. Please read "Dividend Policy."
Redemption Rights of ProFrac LLC Unit Holders	Under the ProFrac LLC Agreement, each ProFrac LLC Unit Holder will, subject to certain limitations, have the right, pursuant to the Redemption Right, to cause ProFrac LLC to acquire all or a portion of its ProFrac LLC Units for, at ProFrac LLC's election, (i) shares of our Class A common stock at a redemption ratio of one share of Class A common stock for each ProFrac LLC Unit redeemed, subject to conversion rate adjustments for stock splits, stock dividends and reclassifications and other similar transactions, or (ii) an equivalent amount of cash. Alternatively, upon the exercise of the Redemption Right, ProFrac Holding Corp. (instead of ProFrac LLC) will have the right, pursuant to the Call Right, to acquire each tendered ProFrac LLC Unit directly from the redeeming ProFrac LLC Unit Holder for, at its election, (x) one share of Class A common stock, subject to conversion rate adjustments for stock splits, stock dividends and reclassifications and other similar transactions, or (y) an equivalent amount of cash. In connection with any redemption of ProFrac LLC Units pursuant to the Redemption Right or acquisition of ProFrac LLC Units pursuant to the Call Right, a corresponding number of shares of Class B common stock held by the relevant ProFrac LLC Unit Holder will be cancelled. See "Certain Relationships and Related Party Transactions—ProFrac LLC Agreement."

Directed share program	At our request, the underwriters have reserved up to % of the Class A common stock being offered by this prospectus for sale, at the initial public offering price, to our directors, executive officers, employees and business associates. The sales will be made by the underwriters through a directed share program. We do not know if these persons will choose to purchase all or any portion of these reserved shares, but any purchases they do make will reduce the number of shares available to the general public. Please read "Underwriting—Directed Share Program."
Listing and trading symbol	We have applied to list our Class A common stock on Nasdaq under the symbol "PFHC."
Risk factors	You should carefully read and consider the information set forth under the heading "Risk Factors" and all other information set forth in this prospectus before deciding to invest in our Class A common stock.

Summary historical and pro forma financial data

The following table presents summary historical consolidated and combined financial data of ProFrac Predecessor and the unaudited pro forma financial data of ProFrac Holding Corp. as of the dates and for the periods indicated. The summary historical consolidated and combined financial data as of and for the years ended December 31, 2020 and 2019 is derived from the audited financial statements appearing elsewhere in this prospectus. The summary historical consolidated and combined interim financial data as of September 30, 2021 and 2020, and for the nine months ended September 30, 2021 and 2020, are derived from the unaudited consolidated and combined interim financial statements appearing elsewhere in this prospectus.

The unaudited pro forma financial data was derived from the unaudited pro forma financial statements included elsewhere in this prospectus. The unaudited interim consolidated and combined financial statements have been prepared on the same basis as our audited financial statements and, in our opinion, include all adjustments, consisting of normal recurring adjustments, that are considered necessary for a fair presentation of ProFrac Predecessor's financial position, results of operations and cash flows for such periods. Results of interim periods are not necessarily indicative of the results expected for a full year or for future periods. Historical results are not necessarily indicative of future results.

The summary unaudited pro forma statement of operations for the year ended December 31, 2020 and the nine months ended September 30, 2021 has been prepared to give pro forma effect to (i) the corporate reorganization transactions described under "Corporate Reorganization", (ii) this offering and the application of the net proceeds therefrom as described in "Use of Proceeds", including the contribution by the Company of the net proceeds of this offering to ProFrac LLC and the investment by ProFrac LLC of such net proceeds in U.S. government securities, short-term certificates of deposit, cash equivalents, money market funds or other short-term investments or demand deposit accounts pending their application as described in subsection (iii) of this paragraph, and (iii) the completion of the FTSI Acquisition and the New Term Loan, and application by ProFrac LLC of the net proceeds from this offering together with borrowings under the New Term Loan to complete the FTSI Acquisition and repay and terminate all of the existing indebtedness and credit facilities of ProFrac LLC, Best Flow and Alpine, other than amounts outstanding under ProFrac LLC's ABL Credit Facility, in each case as if they had been completed on January 1, 2020.

The summary unaudited pro forma balance sheet data as of September 30, 2021 has been prepared to give pro forma effect to (i) the corporate reorganization transactions described under "Corporate Reorganization", (ii) this offering and the application of the net proceeds therefrom as described in "Use of Proceeds", including the contribution by the Company of the net proceeds of this offering to ProFrac LLC and the investment by ProFrac LLC of such net proceeds in U.S. government securities, short-term certificates of deposit, cash equivalents, money market funds or other short-term investments or demand deposit accounts pending their application as described in subsection (iii) of this paragraph, and (iii) the completion of the FTSI Acquisition and the New Term Loan, and application by ProFrac LLC of the net proceeds from this offering together with borrowings under the New Term Loan to complete the FTSI Acquisition and repay and terminate all of the existing indebtedness and credit facilities of ProFrac LLC, Best Flow and Alpine, other than amounts outstanding under ProFrac LLC's ABL Credit Facility, in each case as if they had been completed on September 30, 2021.

This information is subject to and gives effect to the assumptions and adjustments described in the notes accompanying the unaudited pro forma financial statements included elsewhere in this prospectus. The unaudited pro forma financial data is presented for informational purposes only, should not be considered indicative of actual results of operations that would have been achieved had such transactions been consummated on the dates indicated and does not purport to be indicative of statements of financial position or results of operations as of any future date or for any future period. This offering is not conditioned on the consummation of the FTSI Acquisition or the related transactions, and there can be no assurance that the FTSI Acquisition or any of the related transactions described herein will close.

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The summary historical consolidated and combined and unaudited pro forma financial data presented below should be read in conjunction with "Risk Factors," "Management's Discussion and Analysis of Financial Condition and Results of Operations" and the consolidated and combined financial statements of ProFrac Predecessor and the related notes and the pro forma financial statements of ProFrac Holding Corp. and the related notes and other financial data included elsewhere in this prospectus. Among other things, the historical and pro forma financial statements include more detailed information regarding the basis of presentation for the information in the following table.

	ProFrac predecessor historical				ProFrac pro forma		ProFrac pro forma, including FTSI	
	Nine months ended September 30,		Year ended December 31,		Nine months ended September 30,	Year ended December 31,	Nine months ended September 30,	Year ended December 31,
	2021	2020	2020	2019	2021	2020	2021	2020
								($ in thousands)
Statement of Operations Data:								
Total revenues	$520,336	$412,487	$ 547,679	$847,688				
Total cost of revenues, exclusive of depreciation, depletion and amortization	389,177	326,675	432,570	673,559				
Depreciation, depletion and amortization	105,606	113,772	150,662	133,092				
Loss on disposal of assets, net	7,472	5,382	8,447	14,809				
Selling, general and administrative	47,919	33,746	50,798	38,488				
Impairments and other charges	—	—	—	—				
Interest expense, net	(19,118)	(18,321)	(23,276)	(26,026)				
Gain on extinguishment of debt, net	—	—	—	—				
Reorganization items, net	—	—	—	—				
Other income	148	268	108	327				
Income tax benefit (provision)	138	(370)	(582)	(587)				
Net loss	(48,670)	(85,511)	(118,548)	(30,546)				
Net loss attributable to noncontrolling interest	(161)	—	—	—				
Net loss attributable to ProFrac Predecessor	$ (48,509)	$ (85,511)	$(118,548)	$ (38,546)				
Pro Forma Per share information:								
Net loss per common share:								
Basic	$	$						
Diluted	$	$						
Weighted average common shares outstanding:								
Basic								
Diluted								
Balance Sheet Data (as of end of period):								
Cash and equivalents	$ 16,367	$ 13,305	$ 2,952	$ 17,837				
Property, plant and equipment (net of accumulated depreciation)	$340,894	$460,580	$ 429,684	$556,106				
Total assets	$578,885	$615,551	$ 577,277	$728,593				

	ProFrac predecessor historical				ProFrac pro forma		ProFrac pro forma, including FTSI	
	Nine months ended September 30,		Year ended December 31,		Nine months ended September 30,	Year ended December 31,	Nine months ended September 30,	Year ended December 31,
	2021	2020	2020	2019	2021	2020	2021	2020
								($ in thousands)
Total Long-term debt	$294,535	$268,977	$260,229	$ 279,841				
Total equity	$129,427	$209,849	$176,812	$ 284,811				
Cash Flow Statement Data:								
Net cash provided by operating activities	$ 37,690	$ 44,008	$ 45,054	$ 145,421				
Net cash used in investing activities	$ (55,528)	$ (37,521)	$ (44,617)	$(202,375)				
Net cash (used in) provided by financing activities	$ 31,253	$ (11,019)	$ (15,322)	$ 58,444				
Other Data:								
Adjusted EBITDA(1)	$ 86,277	$ 59,177	$ 72,797	$ 136,199				
Surplus Cash Generation(1)	$ 33,179	$ 21,656	$ 29,440	$ (66,176)				
Capital expenditures	$ 70,585	$ 40,475	$ 48,037	$ 208,068				

(1) For the definitions of Adjusted EBITDA and Surplus Cash Generation and a reconciliation to their most directly comparable financial measure calculated and presented in accordance with GAAP, please read "—Non-GAAP Financial Measures."

Non-GAAP financial measures

Adjusted EBITDA and Surplus Cash Generation

Adjusted EBITDA and Surplus Cash Generation are non-GAAP financial measures and should not be considered as substitutes for net income, net loss, operating loss or any other performance measure derived in accordance with GAAP or as an alternative to net cash provided by operating activities as a measure of our profitability or liquidity. Adjusted EBITDA and Surplus Cash Generation are supplemental measures utilized by our management and other users of our financial statements such as investors, commercial banks, research analysts and others, to assess our financial performance because they allow us to compare our operating performance on a consistent basis across periods by removing the effects of our capital structure (such as varying levels of interest expense), asset base (such as depreciation and amortization) and items outside the control of our management team (such as income tax rates).

We view Adjusted EBITDA and Surplus Cash Generation as important indicators of performance. We define Adjusted EBITDA as our net income (loss), before (i) interest expense, net, (ii) income tax provision, (iii) depreciation, depletion and amortization, (iv) loss on disposal of assets and (v) other unusual or non-recurring charges, such as costs related to our initial public offering, non-recurring supply commitment charges, certain bad debt expense and gain on extinguishment of debt. We define Surplus Cash Generation as Adjusted EBITDA less capital expenditures plus cash proceeds from sales of assets.

We believe that our presentation of Adjusted EBITDA and Surplus Cash Generation will provide useful information to investors in assessing our financial condition and results of operations. Net income is the GAAP measure most directly comparable to Adjusted EBITDA and Surplus Cash Generation. Adjusted EBITDA and Surplus Cash Generation should not be considered as an alternative to net income. Adjusted EBITDA and Surplus Cash Generation have important limitations as analytical tools because they exclude some but not all items that affect the most directly comparable GAAP financial measure. Surplus Cash Generation is not necessarily indicative of cash available for discretionary expenditures. You should not consider Adjusted EBITDA or Surplus Cash Generation in isolation or as a substitute for an analysis of our results as reported

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under GAAP. Because Adjusted EBITDA and Surplus Cash Generation may be defined differently by other companies in our industry, our definition of these non-GAAP financial measures may not be comparable to similarly titled measures of other companies, thereby diminishing their utility.

Reconciliation of net loss to Adjusted EBITDA and Surplus Cash Generation

	ProFrac predecessor historical				ProFrac pro forma		ProFrac pro forma, including FTSI	
	Nine months ended September 30,		Year ended December 31,		Nine months ended September 30,	Year ended December 31,	Nine months ended September 30,	Year ended December 31,
	2021	2020	2020	2019	2021	2020	2021	2020
								($ in thousands)
Net loss attributable to ProFrac Predecessor	$ (48,509)	$ (85,511)	$(118,548)	$ (38,546)				
Interest expense, net	19,118	18,321	23,276	26,026				
Income tax provision (benefit)	(138)	370	582	587				
Depreciation, depletion and amortization	105,606	113,772	150,662	133,092				
Loss on disposal of assets, net	7,472	5,382	8,447	14,809				
Bad debt expense	2,562	1,243	2,778	231				
Supply commitment charges	—	5,600	5,600	—				
Foreign Currency Translation Adjustments	166	—	—	—				
Adjusted EBITDA	$ 86,277	$ 59,177	$ 72,797	$ 136,199				
Capital expenditures	70,585	40,475	(48,037)	(208,068)				
Cash proceeds from sales of assets	17,487	2,954	4,680	5,693				
Surplus Cash Generation	$ 33,179	$ 21,656	$ 29,440	$ (66,176)				

Cautionary statement regarding forward-looking statements

This prospectus contains forward-looking statements. Statements that are predictive in nature, that depend upon or refer to future events or conditions or that include the words “may,” “could,” “plan,” “project,” “budget,” “predict,” “pursue,” “target,” “seek,” “objective,” “believe,” “expect,” “anticipate,” “intend,” “estimate,” and other expressions that are predictions of or indicate future events and trends and that do not relate to historical matters identify forward-looking statements. Our forward-looking statements include statements about our business strategy, our industry, our future profitability, our expected capital expenditures and the impact of such expenditures on our performance, the costs of being a publicly traded corporation and our capital programs.

A forward-looking statement may include a statement of the assumptions or bases underlying the forward-looking statement. We believe that we have chosen these assumptions or bases in good faith and that they are reasonable. You are cautioned not to place undue reliance on any forward-looking statements. You should also understand that it is not possible to predict or identify all such factors and should not consider the following list to be a complete statement of all potential risks and uncertainties. Factors that could cause our actual results to differ materially from the results contemplated by such forward-looking statements include:

- uncertainty regarding the timing, pace and extent of an economic recovery in the United States and elsewhere, which in turn will likely affect demand for crude oil and natural gas and therefore the demand for our services;
- the level of production of crude oil, natural gas and other hydrocarbons and the resultant market prices of crude oil, natural gas, natural gas liquids and other hydrocarbons;
- the severity and duration of world health events, including the outbreak of the novel coronavirus (“COVID-19”) pandemic, related economic repercussions and the resulting severe disruption in the oil and gas industry and negative impact on demand for oil and gas, which has and may continue to negatively impact our business;
- a further decline or future decline in domestic spending by the onshore oil and natural gas industry;
- the current significant surplus in the supply of oil and actions by the members of the Organization of the Petroleum Exporting Countries (“OPEC”) and Russia (together with OPEC and other allied producing countries, “OPEC+”) with respect to oil production levels and announcements of potential changes in such levels, including the ability of the OPEC+ countries to agree on and comply with supply limitations;
- changes in general economic and geopolitical conditions;
- competitive conditions in our industry;
- changes in the long-term supply of and demand for oil and natural gas;
- actions taken by our customers, competitors and third-party operators;
- a decline demand for proppant;
- our ability to obtain permits, approvals and authorizations from governmental and third parties, and the effects of or changes to U.S. government regulation;
- changes in the availability and cost of capital;

- our ability to successfully implement our business plan;
- large or multiple customer defaults, including defaults resulting from actual or potential insolvencies;
- the effects of consolidation on our customers or competitors;
- the price and availability of debt and equity financing (including changes in interest rates);
- our ability to complete growth projects on time and on budget;
- our ability to consummate, integrate and realize benefits from the FTSI Acquisition;
- introduction of new drilling or completion techniques, or services using new technologies subject to patent or other intellectual property protections;
- operating hazards, natural disasters, weather-related delays, casualty losses and other matters beyond our control;
- acts of terrorism, war or political or civil unrest in the United States or elsewhere;
- loss or corruption of our information or a cyberattack on our computer systems;
- the price and availability of alternative fuels and energy sources;
- federal, state and local regulation of hydraulic fracturing and other oilfield service activities, as well as E&P activities, including public pressure on governmental bodies and regulatory agencies to regulate our industry;
- the availability of water resources, suitable proppant and chemicals in sufficient quantities for use in hydraulic fracturing fluids;
- the effects of existing and future laws and governmental regulations (or the interpretation thereof) on us and our customers;
- the effects of future litigation; and
- other factors discussed in this prospectus.

You should not place undue reliance on our forward-looking statements. Although forward-looking statements reflect our good faith beliefs at the time they are made, forward-looking statements involve known and unknown risks, uncertainties and other factors, including the factors described under “Risk Factors,” which may cause our actual results, performance or achievements to differ materially from anticipated future results, performance or achievements expressed or implied by such forward-looking statements. We undertake no obligation to publicly update or revise any forward-looking statement, whether as a result of new information, future events, changed circumstances or otherwise, unless required by law. These cautionary statements qualify all forward-looking statements attributable to us or persons acting on our behalf.

Risk factors

Investing in our Class A common stock involves risks. You should carefully consider the risks described below with all of the other information included in this prospectus before deciding to invest in our Class A common stock. If any of the following risks were to occur, our business, financial condition, results of operations and cash flows could be materially adversely affected. In that case, the trading price of our Class A common stock could decline and you could lose all or part of your investment. These risk factors do not identify all risks that we face. Our operations could also be affected by factors, events, or uncertainties that are not presently known to us or that we currently do not consider to present material risks to our operations.

Risks related to our business

Our business and financial performance depends on the oil and natural gas industry and particularly on the level of capital spending and E&P activity within the United States and in the basins in which we operate, and a decline in prices for oil and natural gas may have an adverse effect on our revenue, cash flows, profitability and growth.

Demand for most of our services depends substantially on the level of capital expenditures in the United States by companies in the oil and natural gas industry. As a result, our operations are dependent on the levels of capital spending and activity in oil and gas exploration, development and production. A prolonged reduction in oil and gas prices would generally depress the level of oil and natural gas exploration, development, production, and well completion activity and would result in a corresponding decline in the demand for the hydraulic fracturing services that we provide. The significant decline in oil and natural gas prices that occurred in 2020 caused a reduction in our customers' spending and associated drilling and completion activities, which had an adverse effect on our revenue. While oil and natural gas prices have since increased, should prices again decline, similar declines in our customers' spending would have an adverse effect on our revenue. In addition, a worsening of these conditions may result in a material adverse impact on certain of our customers' liquidity and financial position resulting in further spending reductions, delays in the collection of amounts owing to us and similar impacts.

Many factors over which we have no control affect the supply of and demand for, and our customers' willingness to explore, develop and produce oil and natural gas, and therefore, influence prices for our services, including:

- the U.S. and non-U.S. supply of, and demand for, oil and natural gas;
- the level of prices, and expectations about future prices, of oil and natural gas;
- the level of global oil and natural gas E&P;
- the cost of exploring for, developing, producing and delivering oil and natural gas;
- the supply of and demand for drilling and hydraulic fracturing equipment;
- global or national health concerns, including health epidemics such as the ongoing COVID-19 pandemic;
- the expected decline rates of current production;
- inability to acquire or maintain necessary permits or mining or water rights;
- the price and quantity of foreign imports;
- political and economic conditions in oil and natural gas producing countries and regions, including the United States, the Middle East, Africa, South America and Russia;

- actions by the members of OPEC+ and other oil-producing countries with respect to oil production levels and announcements of potential changes in such levels;
- speculative trading in crude oil and natural gas derivative contracts;
- the level of consumer product demand;
- the discovery rates of new oil and natural gas reserves;
- the availability of water resources, suitable proppant and chemical additives in sufficient quantities for use in hydraulic fracturing fluids;
- contractions in the credit market;
- the strength or weakness of the U.S. dollar;
- available pipeline and other transportation capacity;
- the levels of oil and natural gas storage;
- adverse weather conditions and other natural disasters;
- U.S. and non-U.S. tax policy;
- U.S. and non-U.S. governmental approvals and regulatory requirements and conditions;
- the continued threat of terrorism and the impact of military and other action, including military action in the Middle East;
- technical advances affecting energy consumption;
- the proximity and capacity of oil and natural gas pipelines and other transportation facilities;
- the price and availability of alternative fuels and energy sources;
- uncertainty in capital commodities markets and the ability of oil and natural gas producers to raise equity capital and debt financing;
- merger and divestiture activity among oil and natural gas producers;
- cyclical/seasonal business and dependence upon spending of our customers;
- competition among oilfield service and equipment providers;
- changes in transportation regulations that result in increased costs or administrative burdens; and
- overall domestic and global economic conditions.

These factors and the volatility of the energy markets make it extremely difficult to predict future oil and natural gas price movements with any certainty. Such a decline would have a material adverse effect on our business, results of operation and financial condition.

The COVID-19 pandemic significantly reduced demand for our services, and has had, and may continue to have, a material adverse effect on our operations, business and financial results.

We face risks related to public health crises, including the COVID-19 pandemic. The effects of the COVID-19 pandemic, including travel bans, prohibitions on group events and gatherings, shutdowns of certain businesses, curfews, shelter-in-place orders and recommendations to practice social distancing in addition to other actions taken by both businesses and governments, resulted in a significant and swift reduction in international and U.S. economic activity. The collapse in the demand for oil caused by this unprecedented global health and economic crisis contributed to the significant decrease in crude oil prices in 2020 and had and could in the future continue to have a material adverse impact on the demand for our services.

Since the beginning of 2021, the distribution of COVID-19 vaccines progressed and many government-imposed restrictions were relaxed or rescinded. However, we continue to monitor the effects of the pandemic on our customers, operations, and employees. These effects have included, and may continue to include, adverse revenue and net income effects, financial health of our customers and therefore their ability to drill and complete wells or pay for services provided, financial health of our suppliers and therefore their ability to deliver necessary goods and services, disruptions to our operations, and ultimately the financial health and results of the Company.

The extent to which our operating and financial results are affected by COVID-19 will depend on various factors and consequences beyond our control, such as the emergence of more contagious and harmful variants of the COVID-19 virus, the duration and scope of the pandemic, additional actions by businesses and governments in response to the pandemic, and the speed and effectiveness of responses to combat the virus. COVID-19, and the volatile regional and global economic conditions stemming from the pandemic, could also aggravate the other risk factors that we identify herein. While the effects of the COVID-19 pandemic have lessened recently in the United States, we cannot predict the duration or future effects of the pandemic, or more contagious and harmful variants of the COVID-19 virus, and such effects may materially adversely affect our operating and financial results in a manner that is not currently known to us or that we do not currently consider to present significant risks to our operations.

The cyclical nature of the oil and natural gas industry may cause our operating results to fluctuate.

We derive our revenues from companies in the oil and natural gas E&P industry, a historically cyclical industry with levels of activity that are significantly affected by the levels and volatility of oil and natural gas prices. We have experienced, and may in the future experience, significant fluctuations in operating results as a result of the reactions of our customers to changes in oil and natural gas prices. For example, prolonged low commodity prices experienced by the oil and natural gas industry during 2015, 2016 and recently in 2020, combined with adverse changes in the capital and credit markets, caused many E&P companies to reduce their capital budgets and drilling activity. This resulted in a significant decline in demand for oilfield services and adversely impacted the prices oilfield services companies could charge for their services. In addition, a majority of the service revenue we earn is based upon a charge for a relatively short period of time (for example, a day, a week or a month) for the actual period of time the service is provided to our customers. By contracting services on a short-term basis, we are exposed to the risks of a rapid reduction in market prices and utilization and resulting volatility in our revenues.

We face significant competition that may cause us to lose market share.

The oilfield services industry is highly competitive and has relatively few barriers to entry. The principal competitive factors impacting sales of our services are price, reputation and technical expertise, equipment and service quality and health and safety standards. The market is also fragmented and includes numerous small companies capable of competing effectively in our markets on a local basis, as well as several large companies that possess substantially greater financial and other resources than we do. Our larger competitors' greater resources could allow those competitors to compete more effectively than we can. For instance, our larger competitors may offer services at below-market prices or bundle ancillary services at no additional cost our customers. We compete with large national and multi-national companies that have longer operating histories, greater financial, technical and other resources and greater name recognition than we do. Several of our competitors provide a broader array of services and have a stronger presence in more geographic markets.

Some jobs are awarded on a bid basis, which further increases competition based on price. Pricing is often the primary factor in determining which qualified contractor is awarded a job. The competitive environment may be further intensified by mergers and acquisitions among oil and natural gas companies or other events that have the effect of reducing the number of available customers. As a result of a combination of continued pressure from increased competition which began during the second half of 2018 and 2019 and decreased demand for our services in 2020 due to the COVID-19 pandemic, we had to lower the prices for our services, which adversely affected our results of operations. If competition remains the same or increases as a result of a continued industry downturn or future industry downturns, we may be required to lower our prices, which would adversely affect our results of operations. In the future, we may lose market share or be unable to maintain or increase prices for our present services or to acquire additional business opportunities, which could have a material adverse effect on our business, financial condition, results of operations and cash flows.

Our competitors may be able to respond more quickly to new or emerging technologies and services and changes in customer requirements. The amount of equipment available may exceed demand, which could result in active price competition. In addition, depressed commodity prices lower demand for hydraulic fracturing equipment, which results in excess equipment and lower utilization rates. In addition, some E&P companies have commenced completing their wells using their own hydraulic fracturing equipment and personnel. Any increase in the development and utilization of in-house fracturing capabilities by our customers could decrease the demand for our services and have a material adverse impact on our business.

In addition, competition among oilfield service and equipment providers is affected by each provider’s reputation for safety and quality. We cannot assure that we will be able to maintain our competitive position.

Our business depends upon our ability to obtain specialized equipment, parts and key raw materials from third-party suppliers, and we may be vulnerable to delayed deliveries and future price increases.

While we operate a vertically integrated business, we purchase certain specialized equipment, parts and raw materials from third party suppliers and affiliates. At times during the commodity price cycle, there is a high demand for hydraulic fracturing and other oilfield services and extended lead times to obtain equipment and raw materials needed to provide these services. Should our current suppliers be unable or unwilling to provide the necessary equipment, parts or raw materials or otherwise fail to deliver the products timely and in the quantities required, any resulting delays in the provision of our services could have a material adverse effect on our business, financial condition, results of operations and cash flows. In addition, future price increases for this type of equipment, parts and raw materials could negatively impact our ability to purchase new equipment, to update or expand our existing fleet, to timely repair equipment in our existing fleet or meet the current demands of our customers.

We currently rely on a limited number of suppliers for major equipment to build new electric-powered hydraulic fracturing fleets utilizing Clean Fleet® technology, and our reliance on these vendors exposes us to risks including price and timing of delivery.

We currently rely on a limited number of suppliers for major equipment to build our new electric-powered hydraulic fracturing fleets utilizing Clean Fleet® technology. During periods in which fracturing services are in high demand, we may experience delays in obtaining certain parts that are used in fabricating and assembling our fleets. If demand for hydraulic fracturing fleets or the components necessary to build such fleets increases or these vendors face financial distress or bankruptcy, these vendors may not be able to provide the components necessary to construct our electric-powered hydraulic fracturing fleets on schedule or at the current price. If this were to occur, we could be required to seek other suppliers for major equipment to build our electric-powered hydraulic fracturing fleets, which may adversely affect our revenues or increase our costs.

Reliance upon a few large customers may adversely affect our revenue and operating results.

The majority of our revenue is generated from our hydraulic fracturing services. Due to the large percentage of our revenue historically derived from our hydraulic fracturing services with recurring customers and the limited availability of our fracturing units, we have had some degree of customer concentration. Our top ten customers represented approximately 69% and 71% of our consolidated revenue for the years ended December 31, 2020 and 2019, respectively. It is likely that we will depend on a relatively small number of customers for a significant portion of our revenue in the future. If a major customer fails to pay us, cash flow from operations would be impacted and our operating results and financial condition could be harmed. Additionally, if we were to lose any material customer, we may not be able to redeploy our equipment at similar utilization or pricing levels and such loss could have an adverse effect on our business until the equipment is redeployed at similar utilization or pricing levels.

We are exposed to counterparty credit risk. Nonpayment and nonperformance by our customers, suppliers or vendors could adversely impact our operations, cash flows and financial condition.

Weak economic conditions and widespread financial distress, including the significantly reduced global and national economic activity caused by the COVID-19 pandemic, could reduce the liquidity of our customers, suppliers or vendors, making it more difficult for them to meet their obligations to us. We are therefore subject to heightened risks of loss resulting from nonpayment or nonperformance by our customers, suppliers and vendors. Severe financial problems encountered by our customers, suppliers and vendors could limit our ability to collect amounts owed to us, or to enforce the performance of obligations owed to us under contractual arrangements. In the event that any of our customers was to enter into bankruptcy, we could lose all or a portion of the amounts owed to us by such customer, and we may be forced to cancel all or a portion of our service contracts with such customer at significant expense to us.

In addition, nonperformance by suppliers or vendors who have committed to provide us with critical products or services could raise our costs or interfere with our ability to successfully conduct our business. All of the above may be exacerbated in the future as the COVID-19 outbreak and the governmental responses to the outbreak continue. These factors, combined with volatile prices of oil and natural gas, may precipitate a continued economic slowdown and/or a recession.

Oil and natural gas companies' operations using hydraulic fracturing are substantially dependent on the availability of water. Restrictions on the ability to obtain water for E&P activities and the disposal of flowback and produced water may impact their operations and have a corresponding adverse effect on our business, results of operations and financial condition.

Water is an essential component of shale oil and natural gas production during both the drilling and hydraulic fracturing processes. Our oil and natural gas producing customers' access to water to be used in these processes may be adversely affected due to reasons such as periods of extended drought, privatization, third party competition for water in localized areas or the implementation of local or state governmental programs to monitor or restrict the beneficial use of water subject to their jurisdiction for hydraulic fracturing to assure adequate local water supplies. The occurrence of these or similar developments may result in limitations being placed on allocations of water due to needs by third party businesses with more senior contractual or permitting rights to the water. Our customers' inability to locate or contractually acquire and sustain the receipt of sufficient amounts of water could adversely impact their E&P operations and have a corresponding adverse effect on our business, results of operations and financial condition.

Moreover, the imposition of new environmental regulations and other regulatory initiatives could include increased restrictions on our producing customers' ability to dispose of flowback and produced water generated by hydraulic fracturing or other fluids resulting from E&P activities. Applicable laws impose restrictions and strict controls regarding the discharge of pollutants into waters of the United States and require that permits or other approvals be obtained to discharge pollutants to such waters. Additionally, regulations implemented under both federal and state laws prohibit the discharge of produced water and sand, drilling fluids, drill cuttings and certain other substances related to the natural gas and oil industry into coastal waters. These laws provide for civil, criminal and administrative penalties for any unauthorized discharges of pollutants and unauthorized discharges of reportable quantities of oil and hazardous substances. Compliance with current and future environmental regulations and permit requirements governing the withdrawal, storage and use of surface water or groundwater necessary for hydraulic fracturing of wells and any inability to secure transportation and access to disposal wells with sufficient capacity to accept all of our flowback and produced water on economic terms may increase our customers' operating costs and could result in restrictions, delays, or cancellations of our customers' operations, the extent of which cannot be predicted.

We rely on a few key employees whose absence or loss could adversely affect our business.

Many key responsibilities within our business have been assigned to a small number of employees. The loss of their services could adversely affect our business. In particular, the loss of the services of one or more members of our executive team, including our Chief Executive Officer, Executive Chairman, Chief Operating Officer, Chief Legal Officer and Chief Financial Officer, could disrupt our operations. We do not maintain "key person" life insurance policies on any of our employees. As a result, we are not insured against any losses resulting from the death of our key employees.

If we are unable to employ a sufficient number of skilled and qualified workers, our capacity and profitability could be diminished and our growth potential could be impaired.

The delivery of our services requires skilled and qualified workers with specialized skills and experience who can perform physically demanding work. As a result of the volatility of the oilfield services industry and the demanding nature of the work, workers may choose to pursue employment in fields that offer a more desirable work environment at wage rates that are competitive. Our ability to be productive and profitable will depend upon our ability to employ and retain skilled workers. In addition, our ability to expand our operations depends in part on our ability to increase the size of our skilled labor force. The demand for skilled workers is high, and the supply is limited. As a result, competition for experienced oilfield service personnel is intense, and we face significant challenges in competing for crews and management with large and well-established competitors. A significant increase in the wages paid by competing employers could result in a reduction of our skilled labor force, increases in the wage rates that we must pay, or both. If either of these events were to occur, our capacity and profitability could be diminished and our growth potential could be impaired.

A negative shift in investor sentiment of the oil and gas industry has had and will continue to have adverse effects on our customers' operations and ability to raise debt and equity capital.

Certain segments of the investor community have developed negative sentiment towards investing in our industry. Recent equity returns in the sector versus other industry sectors have led to lower oil and gas and related services representation in certain key equity market indices. In addition, some investors, including investment advisors and certain sovereign wealth funds, pension funds, university endowments and family foundations, have stated policies to disinvest in the oil and gas sector based on their social and environmental considerations. Certain other stakeholders have also pressured commercial and investment banks and other lenders and investors to stop financing oil and gas production and related infrastructure projects, which adversely affects our customers. Such developments, including environmental activism and initiatives aimed at limiting climate change and reducing air pollution, could result in downward pressure on the stock prices of oilfield service companies, including ours. This may also potentially result in a reduction of available capital funding for potential transactions, impacting our future financial results.

Additionally, negative public perception regarding our industry may lead to increased regulatory scrutiny, which may, in turn, lead to new state and federal safety and environmental laws, regulations, guidelines or enforcement interpretations. Additionally, environmental groups, landowners, local groups and other advocates may oppose our customers' operations through organized protests, attempts to block or sabotage our customers' operations, intervene in regulatory or administrative proceedings involving our customers' assets, or file lawsuits or other actions designed to prevent, disrupt or delay the development or operation of our customers' assets. These actions may cause operational delays or restrictions, increased operating costs, additional regulatory burdens and increased risk of litigation for our customers, which could reduce our customers' production levels over time and, as a result, may reduce demand for our services. Moreover, governmental authorities exercise considerable discretion in the timing and scope of permit issuance and the public may engage in the permitting process, including through intervention in the courts. Negative public perception could cause the permits that our customers require to conduct their operations to be withheld, delayed or burdened by requirements that restrict our customers' ability to profitably conduct their businesses, which would also reduce demand for our services. Ultimately, this could make it more difficult to secure funding for our operations.

In addition, organizations that provide information to investors on corporate governance and related matters have developed ratings processes for evaluating companies on their approach to ESG matters. Such ratings are used by some investors to inform their investment and voting decisions. Unfavorable ESG ratings and recent activism directed at shifting funding away from companies with fossil fuel-related assets could lead to increased negative investor sentiment toward us and our industry and to the diversion of investment to other industries, which could have a negative impact on the price of our common stock and our or our customers' access to and cost of capital. Also, institutional lenders may decide not to provide funding for fossil fuel energy companies based on climate change-related concerns, which could affect our or our customers' access to capital for potential growth projects.

Our operations require substantial capital and we may be unable to obtain needed capital or financing on satisfactory terms or at all, which could limit our ability to grow.

The oilfield services industry is capital intensive. In conducting our business and operations, we have made, and expect to continue to make, substantial capital expenditures. Our total capital expenditures were approximately $48.0 million for the year ended December 31, 2020 and $70.6 million for the nine months ended September 30, 2021. We have historically financed capital expenditures primarily with cash generated by operations, equipment and vendor financing and borrowings under our ABL Credit Facility (as defined herein) and other debt financing. Following the completion of this offering, we intend to finance our capital expenditures primarily with cash on hand, cash flow from operations and borrowings under our ABL Credit Facility. We may be unable to generate sufficient cash from operations and other capital resources to maintain planned or future levels of capital expenditures which, among other things, may prevent us from acquiring new equipment or properly maintaining our existing equipment. Further, any disruptions or continuing volatility in the global financial markets may lead to an increase in interest rates or a contraction in credit availability impacting our ability to finance our operations. This could put us at a competitive disadvantage or interfere with our growth plans. Further, our actual capital expenditures for 2021 or future years could exceed our capital expenditure budget. In the event our capital expenditure requirements at any time are greater than the amount we have available, we could be required to seek additional sources of capital, which may include debt financing, joint venture partnerships, sales of assets, offerings of debt or equity securities or other means. We may not be able to obtain any such alternative source of capital. We may be required to curtail or eliminate contemplated activities. If we can obtain alternative sources of capital, the terms of such alternative may not be favorable to us. In particular, the terms of any debt financing may include covenants that significantly restrict our operations. Our inability to grow as planned may reduce our chances of maintaining and improving profitability.

Concerns over general economic, business or industry conditions may have a material adverse effect on our results of operations, liquidity and financial condition.

Concerns over global economic conditions, geopolitical issues, interest rates, inflation, the availability and cost of credit and the United States and foreign financial markets have contributed to increased economic uncertainty and diminished expectations for the global economy. These factors, combined with volatility in commodity prices, business and consumer confidence and unemployment rates, have precipitated an economic slowdown. Concerns about global economic growth have had a significant adverse impact on global financial markets and commodity prices. If the economic climate in the United States or abroad deteriorates, worldwide demand for petroleum products could diminish further, which could impact the price at which oil, natural gas and natural gas liquids can be sold, which could affect the ability of our customers to continue operations and ultimately adversely impact our results of operations, liquidity and financial condition.

Our indebtedness and liquidity needs could restrict our operations and make us more vulnerable to adverse economic conditions.

Our existing and future indebtedness, whether incurred in connection with acquisitions, operations or otherwise, may adversely affect our operations and limit our growth, and we may have difficulty making debt service payments on such indebtedness as payments become due. Our level of indebtedness may affect our operations in several ways, including the following:

- increasing our vulnerability to general adverse economic and industry conditions;
- the covenants that are contained in the agreements governing our indebtedness could limit our ability to borrow funds, dispose of assets, pay dividends and make certain investments;
- our debt covenants could also affect our flexibility in planning for, and reacting to, changes in the economy and in our industry;
- any failure to comply with the financial or other debt covenants, including covenants that impose requirements to maintain certain financial ratios, could result in an event of default, which could result in some or all of our indebtedness becoming immediately due and payable;
- our level of debt could impair our ability to obtain additional financing, or obtain additional financing on favorable terms, in the future for working capital, capital expenditures, acquisitions or other general corporate purposes; and
- our business may not generate sufficient cash flow from operations to enable us to meet our obligations under our indebtedness.

Restrictions in our debt agreements and any future financing agreements may limit our ability to finance future operations, meet capital needs or capitalize on potential acquisitions and other business opportunities.

The operating and financial restrictions and covenants in existing and future debt agreements could restrict our ability to finance future operations, meet capital needs or to expand or pursue our business activities. For example, our debt agreements will restrict or limit our ability to:

- grant liens;
- incur additional indebtedness;
- engage in a merger, consolidation or dissolution;
- enter into transactions with affiliates;
- sell or otherwise dispose of assets, businesses and operations;
- materially alter the character of our business as conducted at the closing of this offering; and
- make acquisitions, investments and capital expenditures and pay dividends.

Furthermore, our debt agreements contain certain other operating and financial covenants. Our ability to comply with the covenants and restrictions contained in our debt agreements may be affected by events beyond our control, including prevailing economic, financial and industry conditions. If market or other economic conditions deteriorate, our ability to comply with these covenants may be impaired. If we violate any of the restrictions, covenants, ratios or tests in our debt agreements, a significant portion of our indebtedness may become immediately due and payable, and our lenders' commitment to make further loans to us may terminate. We might not have, or be able to obtain, sufficient funds to make these accelerated payments. Any subsequent replacement of our debt agreements or any new indebtedness could have similar or greater restrictions. Please read "Management's Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources—Credit Facilities and Other Financing Arrangements—ABL Credit Facility."

An increase in interest rates would increase the cost of servicing our indebtedness and could reduce our profitability, decrease our liquidity and impact our solvency.

A number of our existing debt agreements provide for, and our future debt agreements may provide for, debt incurred thereunder to bear interest at variable rates. As a result, increases in interest rates could increase the cost of servicing such indebtedness and materially reduce our profitability and cash flows. Furthermore, the upcoming cessation of the availability of the London Interbank Offered Rate ("LIBOR") may adversely affect our business, financial position, results of operations and cash flows. On July 27, 2017, the United Kingdom's Financial Conduct Authority ("FCA"), which regulates LIBOR, announced that after December 31, 2021, it would no longer compel banks to submit the rates required to calculate LIBOR. On March 5, 2021, the ICE Benchmark Administration, which administers LIBOR, and the FCA announced that all LIBOR settings will either cease to be provided by an administrator, or no longer be representative immediately after December 31, 2021, for all non-U.S. dollar LIBOR settings and one-week and two-month U.S. dollar LIBOR settings, and immediately after June 30, 2023 for the remaining U.S. dollar LIBOR settings (the "LIBOR Announcement"). It is not possible to predict the effect that the LIBOR Announcement, the discontinuation of LIBOR or the establishment of alternative reference rates may have on LIBOR, but financial products with interest rates tied to LIBOR may be adversely affected. Once LIBOR ceases to be published, it is uncertain whether it will continue to be viewed as an acceptable market benchmark, what rate or rates may become accepted alternatives to LIBOR or what the effect of any such changes in views or alternatives may be on the markets for LIBOR-indexed financial instruments. Our ABL Credit Facility and Term Loan each contain mechanics intended to address the anticipated cessation of the availability of LIBOR.

Our operations are subject to unforeseen interruptions and hazards inherent in the oil and natural gas industry, for which we may not be adequately insured and which could cause us to lose customers and substantial revenue.

Our operations are exposed to the risks inherent to our industry, such as equipment defects, vehicle accidents, fires, explosions, blowouts, surface cratering, uncontrollable flows of gas or well fluids, pipe or pipeline failures, abnormally pressured formations and various environmental hazards, such as oil spills and releases of, and exposure to, hazardous substances. For example, our operations are subject to risks associated with hydraulic fracturing, including any mishandling, surface spillage or potential underground migration of fracturing fluids, including chemical additives. In addition, our operations are exposed to potential natural disasters, including blizzards, tornadoes, storms, floods, other adverse weather conditions and earthquakes. The occurrence of any of these events could result in substantial losses to us due to injury or loss of life, severe damage to or destruction of property, natural resources and equipment, pollution or other environmental damage, clean-up responsibilities, regulatory investigations and penalties or other damage resulting in curtailment or suspension of our operations. The cost of managing such risks may be significant. The frequency and severity of such incidents will affect operating costs, insurability and relationships with customers, employees and regulators. In particular, our customers may elect not to purchase our services if they view our environmental or safety record as unacceptable, which could cause us to lose customers and substantial revenues.

Our insurance may not be adequate to cover all losses or liabilities we may suffer. Furthermore, we may be unable to maintain or obtain insurance of the type and amount we desire at reasonable rates. As a result of market conditions, premiums and deductibles for certain of our insurance policies have increased and could escalate further. In addition, sub-limits have been imposed for certain risks. In some instances, certain insurance could become unavailable or available only for reduced amounts of coverage. If we were to incur a significant liability for which we are not fully insured, it could have a material adverse effect on our business, results of operations and financial condition. In addition, we may not be able to secure additional insurance or bonding that might be required by new governmental regulations. This may cause us to restrict our operations, which might severely impact our financial position.

Since hydraulic fracturing activities are part of our operations, they are covered by our insurance against claims made for bodily injury, property damage and clean-up costs stemming from a sudden and accidental pollution event. However, we may not have coverage if we are unaware of the pollution event and unable to report the “occurrence” to our insurance company within the time frame required under our insurance policy. In addition, these policies do not provide coverage for all liabilities, and the insurance coverage may not be adequate to cover claims that may arise, or we may not be able to maintain adequate insurance at rates we consider reasonable. A loss not fully covered by insurance could have a material adverse effect on our financial position, results of operations and cash flows.

Inaccuracies in our estimates of mineral reserves and resource deposits, or deficiencies in our title to those deposits, could result in our inability to mine the deposits or require us to pay higher than expected costs.

We base our mineral reserve and resource estimates on engineering, economic and geological data assembled and analyzed by our mining engineers, which are reviewed periodically by outside firms. However, commercial silica reserve estimates are necessarily imprecise and depend to some extent on statistical inferences drawn from available drilling data, which may prove unreliable. There are numerous uncertainties inherent in estimating quantities and qualities of commercial silica reserves and non-reserve commercial silica deposits and costs to mine recoverable reserves, many of which are beyond our control and any of which could cause actual results to differ materially from our expectations. These uncertainties include:

- geological and mining conditions and/or effects from prior mining that may not be fully identified by available data or that may differ from experience;

- assumptions regarding the effectiveness of our mining, quality control and training programs;
- assumptions concerning future prices of commercial silica products, operating costs, mining technology improvements, development costs and reclamation costs; and
- assumptions concerning future effects of regulation, including the issuance of required permits and taxes by governmental agencies.

In addition, title to, and the area of, mineral properties and water rights may also be disputed. Mineral properties sometimes contain claims or transfer histories that examiners cannot verify. A successful claim that we do not have title to one or more of our properties or lack appropriate water rights could cause us to lose any rights to explore, develop and extract any minerals on that property, without compensation for our prior expenditures relating to such property. Any inaccuracy in our estimates related to our mineral reserves and non-reserve mineral deposits, or our title to such deposits, could result in our inability to mine the deposits or require us to pay higher than expected costs.

Additionally, a portion of our reserves are located on approximately 630 acres that we lease pursuant to a lease that terminates in 2052 and requires that we commence production from the leased premises by January 1, 2032. If we do not commence mining activities by January 1, 2032, our lease of this property would terminate and we would lose our interest in these reserves.

A terrorist attack or armed conflict could harm our business.

Terrorist activities, anti-terrorist efforts and other armed conflicts involving the United States could adversely affect the U.S. and global economies and could prevent us from meeting financial and other obligations. We could experience loss of business, delays or defaults in payments from payors or disruptions of fuel supplies and markets if pipelines, production facilities, processing plants, refineries or transportation facilities are direct targets or indirect casualties of an act of terror or war. Such activities could reduce the overall demand for oil and natural gas, which, in turn, could also reduce the demand for our services. Terrorist activities and the threat of potential terrorist activities and any resulting economic downturn could adversely affect our results of operations, impair our ability to raise capital or otherwise adversely impact our ability to realize certain business strategies.

Increasing trucking regulations may increase our costs and negatively impact our results of operations.

In connection with our business operations, including the transportation and relocation of our hydraulic fracking equipment and shipment of frac sand, we operate trucks and other heavy equipment. As such, we operate as a motor carrier in providing certain of our services and therefore are subject to regulation by the United States Department of Transportation (“DOT”) and by various state agencies. These regulatory authorities exercise broad powers, governing activities such as the authorization to engage in motor carrier operations, driver licensing, insurance requirements, financial reporting and review of certain mergers, consolidations and acquisitions, and transportation of hazardous materials. Our trucking operations are subject to possible regulatory and legislative changes that may increase our costs. Some of these possible changes include increasingly stringent environmental regulations, changes in the hours of service regulations which govern the amount of time a driver may drive or work in any specific period, onboard black box recorder device requirements or limits on vehicle weight and size.

Interstate motor carrier operations are subject to safety requirements prescribed by the DOT. To a large degree, intrastate motor carrier operations are subject to state safety regulations that mirror federal regulations. Matters such as the weight and dimensions of equipment are also subject to federal and state regulations. From time to time, various legislative proposals are introduced, including proposals to increase federal, state, or local taxes, including taxes on motor fuels, which may increase our costs or adversely impact the recruitment of drivers. We cannot predict whether, or in what form, any increase in such taxes applicable to us will be enacted.

Certain motor vehicle operators require registration with the DOT. This registration requires an acceptable operating record. The DOT periodically conducts compliance reviews and may revoke registration privileges based on certain safety performance criteria that could result in a suspension of operations.

We may be subject to claims for personal injury and property damage, which could materially adversely affect our financial condition and results of operations.

We operate with most of our customers under master service agreements ("MSAs"). We endeavor to allocate potential liabilities and risks between the parties in the MSAs. Generally, under our MSAs, including those relating to our hydraulic fracturing services, we assume responsibility for, including control and removal of, pollution or contamination which originates above surface and originates from our equipment or services. Our customer assumes responsibility for, including control and removal of, all other pollution or contamination which may occur during operations, including that which may result from seepage or any other uncontrolled flow of drilling fluids. We may have liability in such cases if we are negligent or commit willful acts. Generally, our customers also agree to indemnify us against claims arising from their employees' personal injury or death to the extent that, in the case of our hydraulic fracturing operations, their employees are injured or their properties are damaged by such operations, unless resulting from our gross negligence or willful misconduct. Similarly, we generally agree to indemnify our customers for liabilities arising from personal injury to or death of any of our employees, unless resulting from gross negligence or willful misconduct of the customer. In addition, our customers generally agree to indemnify us for loss or destruction of customer-owned property or equipment and in turn, we agree to indemnify our customers for loss or destruction of property or equipment we own. Losses due to catastrophic events, such as blowouts, are generally the responsibility of the customer. However, despite this general allocation of risk, we might not succeed in enforcing such contractual allocation, might incur an unforeseen liability falling outside the scope of such allocation or may be required to enter into an MSA with terms that vary from the above allocations of risk. Litigation arising from a catastrophic occurrence at a location where our equipment and services are being used may result in our being named as a defendant in lawsuits asserting large claims. As a result, we may incur substantial losses which could materially and adversely affect our financial condition and results of operation.

We are subject to cyber security risks. A cyber incident could occur and result in information theft, data corruption, operational disruption and/or financial loss.

The oil and natural gas industry has become increasingly dependent on digital technologies to conduct certain processing activities. For example, we depend on digital technologies to perform many of our services and process and record operational and accounting data. At the same time, cyber incidents, including deliberate attacks or unintentional events, have increased. The U.S. government has issued public warnings that indicate that energy assets might be specific targets of cyber security threats. Our technologies, systems and networks, and those of our vendors, suppliers and other business partners, may become the target of cyberattacks or information security breaches that could result in the unauthorized release, gathering, monitoring, misuse, loss or destruction of proprietary and other information, or other disruption of our business operations. In addition, certain cyber incidents, such as surveillance, may remain undetected for an extended period. Our systems and insurance coverage for protecting against cyber security risks may not be sufficient. As cyber incidents continue to evolve, we may be required to expend additional resources to continue to modify or enhance our protective measures or to investigate and remediate any vulnerability to cyber incidents. Our insurance coverage for cyberattacks may not be sufficient to cover all the losses we may experience as a result of such cyberattacks.

If we are unable to fully protect our intellectual property rights, we may suffer a loss in our competitive advantage or market share.

While we have acquired licenses from USWS to construct electric-powered hydraulic fracturing fleets utilizing Clean Fleet ® technology, we do not have patents or patent applications relating to many of our key processes and technology. If we are not able to maintain the confidentiality of our trade secrets, or if our competitors are able to replicate our technology or services, our competitive advantage would be diminished. We also cannot ensure that any patents we may obtain in the future would provide us with any significant commercial benefit or would allow us to prevent our competitors from employing comparable technologies or processes.

We may be adversely affected by disputes regarding intellectual property rights of third parties.

Third parties from time to time may initiate litigation against us by asserting that the conduct of our business infringes, misappropriates or otherwise violates intellectual property rights. We may not prevail in any such legal proceedings related to such claims, and our products and services may be found to infringe, impair, misappropriate, dilute or otherwise violate the intellectual property rights of others. If we are sued for infringement and lose, we could be required to pay substantial damages and/or be enjoined from using or selling the infringing products or technology. Any legal proceeding concerning intellectual property could be protracted and costly regardless of the merits of any claim and is inherently unpredictable and could have a material adverse effect on our financial condition, regardless of its outcome.

If we were to discover that our technologies or products infringe valid intellectual property rights of third parties, we may need to obtain licenses from these parties or substantially re-engineer our products in order to avoid infringement. We may not be able to obtain the necessary licenses on acceptable terms, or at all, or be able to re-engineer our products successfully. If our inability to obtain required licenses for our technologies or products prevents us from selling our products, that could adversely impact our financial condition and results of operations.

Additionally, we currently license certain third party intellectual property in connection with our business, and the loss of any such license could adversely impact our financial condition and results of operations.

Seasonal weather conditions, natural disasters, public health crises, and other catastrophic events outside of our control could severely disrupt normal operations and harm our business.

Our operations are located in different regions of the United States. Some of these areas are adversely affected by seasonal weather conditions, primarily in the winter and spring. However, as evidenced by the severe winter weather experienced in the southern United States and Canada during February 2021, weather-related hazards can exist in almost all the areas where we operate. During periods of heavy snow, ice or rain, we may be unable to move our equipment between locations or obtain adequate supplies of raw material or fuel, thereby reducing our ability to provide services and generate revenues. The exploration activities of our customers may also be affected during such periods of adverse weather conditions. Additionally, extended drought conditions in our operating regions could impact our ability or our customers' ability to source sufficient water or increase the cost for such water. As a result, a natural disaster or inclement weather conditions could severely disrupt the normal operation of our business and adversely impact our financial condition and results of operations. Climate change may exacerbate the likelihood or intensity of such natural disasters or inclement weather conditions. Furthermore, if the area in which we operate or the market demand for oil and natural gas is affected by a public health crisis, such as the coronavirus, or other similar catastrophic event outside of our control, our business and results of operations could suffer.

Risks related to environmental and regulatory matters

Our operations and the operations of our customers are subject to environmental, health and safety laws and regulations, and future compliance, claims, and liabilities relating to such matters may have a material adverse effect on our results of operations, financial position or cash flows.

The nature of our operations, and those of our customers, including the handling, transporting and disposing of a variety of fluids and substances, including hydraulic fracturing fluids and other regulated substances, air emissions, and wastewater discharges exposes us and our customers to some risk of environmental liability, including the release of pollutants from oil and natural gas wells and associated equipment to the environment. We are also subject to laws and regulations associated with sand mining and equipment manufacturing operations, including the processing, and the related storage, handling, transportation and disposal of raw materials, products and wastes. The cost of compliance with these laws can be significant. Failure to properly handle, transport or dispose of these materials or otherwise conduct our operations in accordance with these and other environmental, health and safety laws could expose us to substantial liability for administrative, civil and criminal penalties, cleanup and site restoration costs and liability associated with releases of such materials, damages to natural resources and other damages, as well as potentially impair our ability to conduct our operations. Such liability is commonly on a strict, joint and several liability basis, without regard to fault. Liability may be imposed as a result of our conduct that was lawful at the time it occurred or the conduct of, or conditions caused by, prior operators or other third parties. Neighboring landowners and other third parties may file claims against us for personal injury or property damage allegedly caused by the release of pollutants into the environment. Environmental, health and safety laws and regulations have changed in the past, and they may change in the future and become more stringent. Current and future claims and liabilities may have a material adverse effect on us because of potential adverse outcomes, defense costs, diversion of management resources, unavailability of insurance coverage and other factors. The ultimate costs of these liabilities are difficult to determine and may exceed any reserves we may have established. If existing environmental, health and safety requirements or enforcement policies change, we may be required to make significant unanticipated capital and operating expenditures. For more information, see “Business—Environmental and Occupational Health and Safety Regulations.”

Our operations, and those of our customers, are subject to a series of risks arising from climate change.

Climate change continues to attract considerable public and scientific attention. As a result, numerous proposals have been made and are likely to continue to be made at the international, national, regional and state levels of government to monitor and limit emissions of carbon dioxide, methane and other GHGs. These efforts have included consideration of cap-and-trade programs, carbon taxes, GHG reporting and tracking programs and regulations that directly limit GHG emissions from certain sources.

In the United States, no comprehensive climate change legislation has been implemented at the federal level. However, President Biden has established addressing climate change as a priority of his administration and has issued several executive orders addressing climate change. Moreover, following the U.S. Supreme Court finding that GHG emissions constitute a pollutant under the federal Clean Air Act (“CAA”), the EPA has adopted regulations that, among other things, establish construction and operating permit reviews for GHG emissions from certain large stationary sources, require the monitoring and annual reporting of GHG emissions from certain petroleum and natural gas system sources in the United States, and together with the DOT, set GHG emissions and fuel economy standards for vehicles in the United States. The regulation of methane from oil and gas facilities has been subject to uncertainty in recent years. The EPA previously had promulgated new source performance standards (“NSPS”) imposing limitations on methane emissions from sources in the oil and gas sector. Subsequently, in September 2020, the Trump Administration rescinded those methane standards and removed the transmission and storage segments from the oil and gas source category under the CAA’s NSPS. However, in

June 2021, President Biden signed a resolution passed by the U.S. Congress under the Congressional Review Act nullifying the September 2020 rule, effectively reinstating the prior standards. In November 2021, as required by President Biden's executive order, the EPA proposed new regulations to expand NSPS requirements for oil and gas sector sources and establish comprehensive standards of performance and emission guidelines for methane and volatile organic compound emissions from existing operations in the oil and gas sector, including the exploration and production, transmission, processing, and storage segments. The EPA is currently seeking public comments on its proposal, which the EPA hopes to finalize by the end of 2022. Once finalized, the regulations are likely to be subject to legal challenge and will also need to be incorporated into the states' implementation plans, which will need to be approved by the EPA in individual rulemakings that could also be subject to legal challenge. The reinstatement of direct regulation of methane emission for new sources and the promulgation of requirements for existing oil and gas customers could result in increased costs for our customers and consequently adversely affect demand for our services.

Separately, various states and groups of states have adopted or are considering adopting legislation, regulation or other regulatory initiatives that are focused on such areas as GHG cap and trade programs, carbon taxes, reporting and tracking programs, and restriction of emissions. For example, several states, including Pennsylvania and New Mexico, have proposed or adopted regulations restricting the emission of methane from E&P activities. At the international level, the United Nations-sponsored "Paris Agreement" requires member states to submit non-binding, individually-determined reduction goals known as Nationally Determined Contributions every five years after 2020. President Biden has recommitted the United States to the Paris Agreement and, in April 2021, announced a goal of reducing the United States' emissions by 50-52% below 2005 levels by 2030. In November 2021, President Biden released "The Long-Term Strategy of the United States: Pathways to Net-Zero Greenhouse Gas Emissions by 2050," which, among other things, explains that the U.S. and EU are co-leading the "Global Methane Pledge" that aims to cut global methane pollution at least 30% by 2030 relative to 2020 levels. The impacts of these orders, pledges, agreements, and any legislation or regulation promulgated to fulfill the United States' commitments under the Paris Agreement, cannot be predicted at this time.

Governmental, scientific, and public concern over the threat of climate change arising from GHG emissions has resulted in increasing political risks in the United States, including climate change related pledges made by certain candidates now in public office. On January 27, 2021, President Biden issued an executive order that calls for substantial action on climate change, including, among other things, the increased use of zero-emission vehicles by the federal government, the elimination of subsidies provided to the fossil fuel industry, and increased emphasis on climate-related risks across government agencies and economic sectors. The Biden Administration has also issued orders temporarily suspending the issuance of authorizations, and suspending the issuance of new leases pending a study, for oil and gas development on federal lands. For more information, see our regulatory disclosure titled "Regulation of Hydraulic Fracturing and Related Activities." As a result, we cannot predict the full impact of these developments or whether the Biden Administration may pursue further restrictions. Other actions that could be pursued by the Biden Administration may include the imposition of more restrictive requirements for the establishment of pipeline infrastructure or the permitting of LNG export facilities, as well as more restrictive GHG emission limitations for oil and gas facilities. Litigation risks are also increasing as a number of entities have sought to bring suit against various oil and natural gas companies in state or federal court, alleging among other things, that such companies created public nuisances by producing fuels that contributed to climate change or alleging that the companies have been aware of the adverse effects of climate change for some time but defrauded their investors or customers by failing to adequately disclose those impacts.

There are also increasing financial risks for fossil fuel producers as shareholders currently invested in fossil-fuel energy companies may elect in the future to shift some or all of their investments into non-fossil fuel related sectors. Institutional lenders who provide financing to fossil fuel energy companies also have become more attentive to sustainable lending practices and some of them may elect not to provide funding for fossil fuel energy companies. There is also a risk that financial institutions will be required to adopt policies that have the effect of reducing the funding provided to the fossil fuel sector. Recently, President Biden signed an executive order calling for the development of a “climate finance plan” and, separately, the Federal Reserve announced that is has joined the Network for Greening the Financial System, a consortium of financial regulators focused on addressing climate-related risks in the financial sector. Limitation of investments in and financing for fossil fuel energy companies could result in the restriction, delay or cancellation of drilling programs or development or production activities.

The adoption and implementation of new or more stringent international, federal or state legislation, regulations or other regulatory initiatives that impose more stringent standards for GHG emissions from the oil and natural gas sector or otherwise restrict the areas in which this sector may produce oil and natural gas or generate the GHG emissions could result in increased costs of compliance or costs of consuming, and thereby reduce demand for oil and natural gas, which could reduce demand for our services. Additionally, political, litigation and financial risks may result in our customers restricting or cancelling production activities, incurring liability for infrastructure damages as a result of climatic changes, or impairing their ability to continue to operate in an economic manner, which also could reduce the demand for our services. One or more of these developments could have a material adverse effect on our business, financial condition and results of operation.

Finally, many scientists have concluded that increasing concentrations of GHG in the atmosphere may produce climate changes that have significant physical effects, such as increased frequency and severity of storms, droughts, and floods and other climate events that could have an adverse effect on our customers’ operations.

Federal, state and local legislative and regulatory initiatives relating to hydraulic fracturing as well as governmental reviews and investment practices for such activities may serve to limit future oil and natural gas E&P activities and could have a material adverse effect on our results of operations and business.

Various federal, state and local legislative and regulatory initiatives have been, or could be undertaken which could result in additional requirements or restrictions being imposed on hydraulic fracturing operations. Currently, hydraulic fracturing is generally exempt from federal regulation under the Safe Drinking Water Act Underground Injection Control (the “SDWA UIC”) program and is typically regulated by state oil and gas commissions or similar agencies. However, certain federal agencies have increased scrutiny and regulation. For example, in late 2016, the EPA released a final report on the potential impacts of hydraulic fracturing on drinking water resources, concluding that “water cycle” activities associated with hydraulic fracturing may impact drinking water resources under certain limited circumstances. Additionally, the EPA has asserted regulatory authority pursuant to the SDWA UIC program over hydraulic fracturing activities involving the use of diesel fuel in the fracturing fluid and issued guidance of such activities. Furthermore, the U.S. Bureau of Land Management (the “BLM”) published a final rule in 2015 that established stringent standards relating to hydraulic fracturing on federal and Native American lands. The rule was rescinded, but the rescission is currently on appeal to the U.S. Court of Appeals for the Ninth Circuit. Similarly, the EPA has adopted rules on the capture of methane and other emissions released during hydraulic fracturing. In addition to federal regulatory actions, legislation has been introduced, but not enacted, in U.S. Congress to provide for federal regulation of hydraulic fracturing and to require disclosure of the chemicals used in the hydraulic fracturing process.

Separately, the Biden Administration has taken action to restrict E&P activities, including hydraulic fracturing, on public lands. For more information, see “Business—Environmental and Occupational Health and Safety Regulations—Regulation of Hydraulic Fracturing and Related Activities.”

Many states and local governments have also adopted regulations that impose more stringent permitting, disclosure, disposal and well-construction requirements on hydraulic fracturing operations, including states where we or our customers operate, such as Texas, Colorado and North Dakota. States could also elect to place prohibitions on hydraulic fracturing, as several states have already done. In addition, some states have adopted broader sets of requirements related to oil and gas development more generally that could impact hydraulic fracturing activities. Separately, state and federal regulatory agencies have at times focused on a possible connection between hydraulic fracturing related activities, including the underground injection of wastewater into disposal wells, and the increased occurrence of seismic activity. Regulators in some states have imposed, or are considering imposing, additional requirements in the permitting of produced water disposal wells or otherwise to assess any relationship between seismicity and the use of such wells. To the extent any new regulations are adopted to restrict hydraulic fracturing activities or the disposal of fluids associated with such activities, it may adversely affect our customers and, as a result, demand for our services. For more information see “Business—Environmental and Occupational Health and Safety Regulations—Regulation of Hydraulic Fracturing and Related Activities.”

Increased regulation and attention given to the hydraulic fracturing process could lead to greater opposition to, and litigation concerning, oil and natural gas production activities using hydraulic fracturing techniques. Additional legislation or regulation could also lead to operational delays for our customers or increased operating costs in the production of oil and natural gas, including from the developing shale plays, or could make it more difficult for us and our customers to perform hydraulic fracturing. The adoption of any additional laws or regulations regarding hydraulic fracturing or further restrictions on the availability of capital for hydraulic fracturing could potentially cause a decrease in the completion of new oil and natural gas wells and an associated decrease in demand for our services and increased compliance costs and time. Such a decrease could have a material adverse effect on our liquidity, consolidated results of operations, and consolidated financial condition. Moreover, the increased competitiveness of alternative energy sources (such as wind, solar, geothermal, tidal and biofuels) or increased focus on reducing the use of combustion engines in transportation (such as governmental mandates that ban the sale of new gasoline-powered automobiles) could reduce demand for hydrocarbons and therefore for our services, which would lead to a reduction in our revenues.

Conservation measures, commercial development and technological advances could reduce demand for oil and natural gas and our services.

Fuel conservation measures, alternative fuel requirements, increasing consumer demand for alternatives to oil and natural gas, technological advances in fuel economy and energy generation devices could reduce demand for oil and natural gas, resulting in reduced demand for oilfield services. The impact of the changing demand for oil and natural gas services and products may have a material adverse effect on our business, financial condition, results of operations and cash flows.

The commercial development of economically-viable alternative energy sources and related products (such as electric vehicles, wind, solar, geothermal, tidal, fuel cells and biofuels) could have a similar effect. In addition, certain U.S. federal income tax deductions currently available with respect to oil and natural gas exploration and development, including the allowance of percentage depletion for oil and natural gas properties, may be eliminated as a result of proposed legislation. Any future decreases in the rate at which oil and natural gas reserves are discovered or developed, whether due to the passage of legislation, increased governmental regulation leading to limitations, or prohibitions on exploration and drilling activity, including hydraulic fracturing, or other factors, could have a material adverse effect on our business and financial condition, even in a stronger oil and natural gas price environment.

Additional restrictions on drilling activities intended to protect certain species of wildlife may adversely affect our ability to conduct completion activities.

In the United States, the Endangered Species Act (the “ESA”) restricts activities that may affect endangered or threatened species or their habitats. Similar protections are offered to migratory birds under the Migratory Bird Treaty Act (the “MBTA”). To the extent species that are listed under the ESA or similar state laws, or are protected under the MBTA, inhabit the areas where we or our customers operate, our operations and the operations of our customers could be adversely impacted. Moreover, drilling activities may be delayed, restricted or precluded in protected habitat areas or during certain seasons, such as breeding and nesting seasons. The listing of new species under the ESA in the areas where our customers operate similarly has the potential to adversely impact our operations and demand for our services as a result of restrictions on oil and gas activities. For example, recently there have been renewed calls to review protections currently in place for the dunes sagebrush lizard, whose habitat includes parts of the Permian Basin, and to reconsider listing the species under the ESA, and, separately, a lawsuit has been filed to list the eastern hellbender salamander, whose habitat includes parts of the Appalachian Basin. Additionally, on June 1, 2021, U.S. Fish & Wildlife Service (the “FWS”) proposed to list two distinct population segments of the lesser prairie-chicken under the ESA. Various stakeholders have, in consultation with the FWS, developed a voluntary conservation plan to protect dunes sagebrush lizard habitat and limit disturbance of the dunes sagebrush lizard by participants’ activities. The voluntary conservation plan is known as a Candidate Conservation Agreement with Assurances (“CCAA”). We have joined the CCAA in an effort to mitigate potential impacts on our business of a listing of the dunes sagebrush lizard by the FWS.

In addition, as a result of one or more settlements approved by the FWS, the agency was required to make a determination on the listing of numerous other species as endangered or threatened under the ESA by the end of the FWS’ 2017 fiscal year. The FWS did not meet that deadline, but continues to evaluate whether to take action with respect to those species. The designation of previously unidentified endangered or threatened species could cause our operations to become subject to operating restrictions or bans, and limit future development activity in affected areas. The FWS and similar state agencies may designate critical or suitable habitat areas that they believe are necessary for the survival of threatened or endangered species. In October 2021, the Biden administration published two rules that reversed changes made by the Trump administration, namely to the definition of “habitat” and a policy that made it easier to exclude territory from critical habitat. It is possible the October 2021 rules could increase the portion of our customers’ operating areas that could be designated as critical habitat. Such a designation could materially restrict use of or access to federal, state and private lands.

Risks related to this offering and our Class A Common stock

ProFrac Holding Corp. is a holding company. ProFrac Holding Corp.’s only material asset after completion of this offering will be its equity interest in ProFrac LLC, and ProFrac Holding Corp. will accordingly be dependent upon distributions from ProFrac LLC to pay taxes, make payments under the Tax Receivable Agreement and cover its corporate and other overhead expenses.

ProFrac Holding Corp. is a holding company and will have no material assets after completion of this offering other than its equity interest in ProFrac LLC. ProFrac Holding Corp. will have no independent means of generating revenue. To the extent ProFrac LLC has available cash, we intend to cause ProFrac LLC to make (i) generally pro rata distributions to the holders of ProFrac LLC Units, including ProFrac Holding Corp., in an amount at least sufficient to allow ProFrac Holding Corp. to pay its taxes and to make payments under the Tax Receivable Agreement it will enter into with the TRA Holders and any subsequent tax receivable agreement that it may enter into in connection with future acquisitions and (ii) non-pro rata payments to ProFrac Holding Corp.

to reimburse it for its corporate and other overhead expenses. To the extent that ProFrac Holding Corp. needs funds and ProFrac LLC or its subsidiaries are restricted from making such distributions or payments under applicable law or regulation or under the terms of any current or future financing arrangements, or are otherwise unable to provide such funds, our liquidity and financial condition could be materially adversely affected.

Moreover, because ProFrac Holding Corp. will have no independent means of generating revenue, ProFrac Holding Corp.'s ability to make tax payments and payments under the Tax Receivable Agreement will be dependent on the ability of ProFrac LLC to make distributions to ProFrac Holding Corp. in an amount sufficient to cover ProFrac Holding Corp.'s tax obligations and obligations under the Tax Receivable Agreement. This ability, in turn, may depend on the ability of ProFrac LLC's subsidiaries to make distributions to it. We intend that such distributions from ProFrac LLC and its subsidiaries be funded with cash from operations or from future borrowings. The ability of ProFrac LLC, its subsidiaries and other entities in which it directly or indirectly holds an equity interest to make such distributions will be subject to, among other things, (i) the applicable provisions of Texas law (or other applicable jurisdiction) that may limit the amount of funds available for distribution and (ii) restrictions in relevant debt instruments issued by ProFrac LLC or its subsidiaries and other entities in which it directly or indirectly holds an equity interest. To the extent that ProFrac Holding Corp. is unable to make payments under the Tax Receivable Agreement for any reason, such payments will be deferred and will accrue interest until paid.

Conflicts of interest could arise in the future between us, on the one hand, and Dan and Farris Wilks and entities owned by or affiliated with them, on the other hand, concerning among other things, business transactions, potential competitive business activities or business opportunities.

Conflicts of interest could arise in the future between us, on the one hand, and Dan and Farris Wilks and entities owned by or affiliated with them, on the other hand, concerning among other things, business transactions, potential competitive business activities or business opportunities. Dan and Farris Wilks and other businesses owned by or affiliated with them operate in the energy and oilfield services industries. In the normal course of business, we have engaged in transactions with some of these companies. For more information, please see "Certain Relationships and Related Party Transactions." Furthermore, Dan and Farris Wilks and other businesses owned by or affiliated with them may now, or in the future, directly or indirectly, compete with us for investment or business opportunities.

Dan and Farris Wilks and their affiliates are not restricted from owning assets or engaging in businesses that compete directly or indirectly with us and will not have any duty to refrain from engaging, directly or indirectly, in the same or similar business activities or lines of business as us, including those business activities or lines of business deemed to be competing with us, or doing business with any of our clients, customers or vendors.

Dan and Farris Wilks or their affiliates may become aware, from time to time, of certain business opportunities (such as acquisition opportunities) and may direct such opportunities to other businesses in which they have invested, in which case we may not become aware of or otherwise have the ability to pursue such opportunity. In addition, Dan and Farris Wilks and their affiliates may dispose of their interests in energy or other oilfield services companies or other assets in the future, without any obligation to offer us the opportunity to purchase any of those interests or assets.

In any of these matters, the interests of Dan and Farris Wilks and their affiliates and other business owned by or affiliated with them may differ or conflict with the interests of our other shareholders. Any actual or perceived conflicts of interest with respect to the foregoing could have an adverse impact on the trading price of our Class A common stock.

The requirements of being a public company, including compliance with the reporting requirements of the Exchange Act and the requirements of Sarbanes-Oxley, may strain our resources, increase our costs and distract management, and we may be unable to comply with these requirements in a timely or cost-effective manner.

As a public company, we will need to comply with new laws, regulations and requirements, certain corporate governance provisions of Sarbanes-Oxley, related regulations of the SEC and the requirements of Nasdaq, with which we are not required to comply as a private company. Complying with these statutes, regulations and requirements will occupy a significant amount of time of our board of directors and management and will significantly increase our costs and expenses. We will need to:

- institute a more comprehensive compliance function;
- comply with rules promulgated by Nasdaq;
- continue to prepare and distribute periodic public reports in compliance with our obligations under the federal securities laws;
- establish new internal policies, such as those relating to insider trading; and
- involve and retain to a greater degree outside counsel and accountants in the above activities.

In addition, we expect that being a public company subject to these rules and regulations may make it more difficult and more expensive for us to obtain director and officer liability insurance and we may be required to accept reduced policy limits and coverage or incur substantially higher costs to obtain the same or similar coverage. As a result, it may be more difficult for us to attract and retain qualified individuals to serve on our board of directors or as executive officers. We are currently evaluating these rules, and we cannot predict or estimate the amount of additional costs we may incur or the timing of such costs.

We will be required to comply with certain provisions of Section 404 of Sarbanes-Oxley as early as our fiscal year ending December 31, 2022. Section 404 requires that we document and test our internal control over financial reporting and issue management's assessment of our internal control over financial reporting. This section also requires that our independent registered public accounting firm opine on those internal controls upon becoming a large accelerated filer, as defined in the SEC rules, or otherwise ceasing to qualify as an emerging growth company under the JOBS Act. We are evaluating our existing controls against the standards adopted by the Committee of Sponsoring Organizations of the Treadway Commission. During the course of our ongoing evaluation and integration of the internal control over financial reporting, we may identify areas requiring improvement, and we may have to design enhanced processes and controls to address issues identified through this review. For example, we anticipate the need to hire additional administrative and accounting personnel to conduct our financial reporting.

We cannot be certain at this time that we will be able to successfully complete the procedures, certification and attestation requirements of Section 404 or that we or our independent registered public accounting firm will not identify material weaknesses in our internal control over financial reporting. If we fail to comply with the requirements of Section 404 or if we or our independent registered public accounting firm identify and report such material weaknesses, the accuracy and timeliness of the filing of our annual and quarterly reports may be materially adversely affected and could cause investors to lose confidence in our reported financial information, which could have a negative effect on the price of our Class A common stock. In addition, a material weakness in the effectiveness of our internal control over financial reporting could result in an increased chance of fraud and the loss of customers, reduce our ability to obtain financing and require additional expenditures to comply with these requirements, each of which could have a material adverse effect on our business, results of operations and financial condition.

The initial public offering price of our Class A common stock may not be indicative of the market price of our Class A common stock after this offering. In addition, an active, liquid and orderly trading market for our Class A common stock may not develop or be maintained, and our stock price may be volatile.

Prior to this offering, our Class A common stock was not traded on any market. An active, liquid and orderly trading market for our Class A common stock may not develop or be maintained after this offering. Active, liquid and orderly trading markets usually result in less price volatility and more efficiency in carrying out investors' purchase and sale orders. The market price of our Class A common stock could vary significantly as a result of a number of factors, some of which are beyond our control. In the event of a drop in the market price of our Class A common stock, you could lose a substantial part or all of your investment in our Class A common stock. The initial public offering price will be negotiated between us and representatives of the underwriters, based on numerous factors which we discuss in "Underwriting," and may not be indicative of the market price of our Class A common stock after this offering. Consequently, you may not be able to sell shares of our Class A common stock at prices equal to or greater than the price paid by you in this offering.

The following is a non-exhaustive list of factors that could affect our stock price:

- our operating and financial performance
- quarterly variations in our financial and operating results;
- the public reaction to our press releases, our other public announcements and our filings with the SEC;
- strategic actions by our competitors;
- our failure to meet revenue or earnings estimates by research analysts or other investors;
- changes in revenue or earnings estimates, or changes in recommendations or withdrawal of research coverage, by equity research analysts;
- speculation in the press or investment community;
- the failure of research analysts to cover our common stock;
- sales of our common stock by us or other shareholders, or the perception that such sales may occur;
- changes in accounting principles, policies, guidance, interpretations or standards;
- additions or departures of key management personnel;
- actions by our stockholders;
- general market conditions, including fluctuations in commodity prices;
- domestic and international economic, legal and regulatory factors unrelated to our performance; and
- the realization of any risks described under this "Risk Factors" section.

The stock markets in general have experienced extreme volatility that has often been unrelated to the operating performance of particular companies. These broad market fluctuations may adversely affect the trading price of our Class A common stock. Securities class action litigation has often been instituted against companies following periods of volatility in the overall market and in the market price of a company's securities. Such litigation, if instituted against us, could result in very substantial costs, divert our management's attention and resources and materially harm our business, operating results and financial condition.

The unaudited pro forma financial data included in this prospectus may not be representative of our actual financial condition and results of operations in the future.

The unaudited pro forma financial data included in this prospectus is presented for illustrative purposes only and is not necessarily indicative of what our actual financial position or results of operations would have been as of the dates indicated, nor is it indicative of our future operating results or financial position. The preparation of the pro forma financial information is based upon available information and certain assumptions and estimates that the Company currently believe are reasonable. There may be differences between preliminary estimates in the pro forma financial information and the final accounting presentation, which could result in material differences from the pro forma information presented in this prospectus in respect of our estimated financial position and results of operations. Further, to the extent the FTSI Acquisition is not consummated, adjustments related thereto will have no bearing on our actual financial position and results of operations. Accordingly, the Company's business, assets, cash flows, results of operations and financial condition may differ significantly from those indicated by the unaudited pro forma financial data included in this prospectus. In addition, the assumptions used in preparing the unaudited pro forma financial data may not prove to be accurate and other factors may affect our financial condition or results of operations. Any potential decline in our financial condition or results of operations may cause significant variations in our stock price.

The Wilks have the ability to direct the voting of a majority of our voting stock, and their interests may conflict with those of our other stockholders.

Upon completion of this offering, the Wilks will own approximately % of our voting stock (or approximately % if the underwriters' option to purchase additional shares is exercised in full). As a result, the Wilks will be able to control matters requiring stockholder approval, including the election of directors, changes to our organizational documents and significant corporate transactions. This concentration of ownership makes it unlikely that any other holder or group of holders of our Class A common stock will be able to affect the way we are managed or the direction of our business. The interests of the Wilks with respect to matters potentially or actually involving or affecting us, such as future acquisitions, financings and other corporate opportunities and attempts to acquire us, may conflict with the interests of our other stockholders.

For example, the Wilks may have different tax and other positions from us, especially in light of the Tax Receivable Agreement, that could influence their decisions regarding whether and when to support the disposition of assets, the incurrence or refinancing of new or existing indebtedness, or the termination of the Tax Receivable Agreement and acceleration of our obligations thereunder. In addition, the determination of future tax reporting positions, the structuring of future transactions and the handling of any challenge by any taxing authority to our tax reporting positions may take into consideration tax or other considerations of the Wilks which may differ from the considerations of us or our other stockholders. Please read "Certain Relationships and Related Party Transactions—Tax Receivable Agreement."

Furthermore, in connection with this offering, we expect to enter into a stockholders' agreement with the Wilks that will address the right to designate nominees for election to our board following this offering. See "Certain Relationships and Related Party Transactions—Stockholders' Agreement." The existence of significant stockholders may have the effect of deterring hostile takeovers, delaying or preventing changes in control or changes in management, or limiting the ability of our other stockholders to approve transactions that they may deem to be in the best interests of the Company. Moreover, the Wilks' concentration of stock ownership may adversely affect the trading price of our Class A common stock to the extent investors perceive a disadvantage in owning stock of a company with significant stockholders.

A significant reduction by Dan and Farris Wilks of their ownership interests in us could adversely affect us.

We believe that the Wilks' substantial ownership interest in us provides them with an economic incentive to assist us to be successful. Upon the expiration or earlier waiver of the lock-up restrictions on transfers or sales of our securities following the completion of this offering, the Wilks will not be subject to any obligation to maintain their ownership interest in us and may elect at any time thereafter to sell all or a substantial portion of or otherwise reduce their ownership interest in us. If the Wilks sell all or a substantial portion of their ownership interests in us, they may have less incentive to assist in our success and they may choose to resign from their positions as members of our board of directors. Such actions could adversely affect our ability to successfully implement our business strategies which could adversely affect our cash flows or results of operations.

Our amended and restated certificate of incorporation and amended and restated bylaws, as well as Delaware law, will contain provisions that could discourage acquisition bids or merger proposals, which may adversely affect the market price of our Class A common stock and could deprive our investors of the opportunity to receive a premium for their shares.

Our amended and restated certificate of incorporation will authorize our board of directors to issue preferred stock without stockholder approval in one or more series, designate the number of shares constituting any series, and fix the rights, preferences, privileges and restrictions thereof, including dividend rights, voting rights, rights and terms of redemption, redemption price or prices and liquidation preferences of such series. If our board of directors elects to issue preferred stock, it could be more difficult for a third party to acquire us. In addition, some provisions of our amended and restated certificate of incorporation and amended and restated bylaws could make it more difficult for a third party to acquire control of us, even if the change of control would be beneficial to our stockholders. These provisions include the following:

- until we cease to be a controlled company, the members of our board of directors designated by the parties to the Stockholders' Agreement will have a majority of the voting power of our board of directors;
- after we cease to be a controlled company, dividing our board of directors into three classes of directors, with each class serving staggered three-year terms;
- after we cease to be a controlled company, and subject to the terms of our Stockholders' Agreement, providing 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, only be filled by the affirmative vote of a majority of directors then in office, even if less than a quorum (prior to such time, vacancies may also be filled by stockholders holding a majority of the outstanding shares);
- after we cease to be a controlled company, permitting any action by stockholders to be taken only at an annual meeting or special meeting rather than by a written consent of the stockholders, subject to the rights of any series of preferred stock with respect to such rights;
- after we cease to be a controlled company, permitting special meetings of our stockholders to be called only by our Chief Executive Officer, the Executive Chairman of our board of directors and our board of directors pursuant to a resolution adopted by the affirmative vote of a majority of the total number of authorized directors whether or not there exist any vacancies in previously authorized directorships;
- after we cease to be a controlled company, and subject to the rights of the holders of shares of any series of our preferred stock and the terms of our Stockholders' Agreement, requiring the affirmative vote of the holders of at least 66 2/3% in voting power of all then outstanding common stock entitled to vote generally in the election of directors, voting together as a single class, to remove any or all of the directors from office at any time, and directors will be removable only for "cause";

- prohibiting cumulative voting in the election of directors;
- establishing advance notice provisions for stockholder proposals and nominations for elections to the board of directors to be acted upon at meetings of stockholders; and
- providing that the board of directors is expressly authorized to adopt, or to alter or repeal our bylaws.

In addition, certain change of control events will have the effect of accelerating the payments due under the Tax Receivable Agreement, which could be substantial and accordingly serve as a disincentive to a potential acquirer of the Company. Please see "—In certain cases, payments under the Tax Receivable Agreement may be accelerated and/or significantly exceed the actual benefits, if any, ProFrac Holding Corp. realizes in respect of the tax attributes subject to the Tax Receivable Agreement."

Our amended and restated certificate of incorporation will designate the Court of Chancery of the State of Delaware as the sole and exclusive forum for certain types of actions and proceedings that may be initiated by our stockholders, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers, employees or agents.
Our amended and restated certificate of incorporation will provide that, unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware, or, if such court does not have subject matter jurisdiction thereof, the federal district court of the State of Delaware, will, to the fullest extent permitted by applicable law, be the sole and exclusive forum for (i) any derivative action, suit or proceeding brought on our behalf, (ii) any action, suit or proceeding asserting a claim of breach of a fiduciary duty owed by any of our current or former directors, officers, employees or stockholders to us or our stockholders, (iii) any action, suit or proceeding asserting a claim arising pursuant to any provision of the Delaware General Corporation Law (the "DGCL"), our certificate of incorporation or our bylaws (as either may be amended or restated) or as to which the DGCL confers jurisdiction on the Court of Chancery of the State of Delaware, or (iv) any action, suit or proceeding asserting a claim 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. Notwithstanding the foregoing, the exclusive forum provision will not apply to actions brought to enforce any liability or duty created by the Exchange Act. Any person or entity purchasing or otherwise acquiring any interest in shares of our capital stock will be deemed to have notice of, and consented to, the provisions of our amended and restated certificate of incorporation described in the preceding sentences. This choice of forum provision may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or our directors, officers, employees or stockholders, which may discourage such lawsuits against us and such persons. Alternatively, if a court were to find these provisions of our certificate of incorporation inapplicable to, or unenforceable in respect of, one or more of the specified types of actions or proceedings, we may incur additional costs associated with resolving such matters in other jurisdictions, which could adversely affect our business, financial condition or results of operations.

Investors in this offering will experience immediate and substantial dilution of $ per share.

Based on an assumed initial public offering price of $ per share (the midpoint of the price range set forth on the cover of this prospectus), purchasers of our Class A common stock in this offering will experience an immediate and substantial dilution of $ per share in the net tangible book value per share of Class A common stock from the initial public offering price, and our historical and pro forma net tangible book value as of , 2021 would be $ per share. See "Dilution."

We have broad discretion in the use of the net proceeds from this offering and may not use them effectively.

Our management will have broad discretion in the application of the net proceeds from this offering and could spend the proceeds in ways that do not improve our results of operations or enhance the value of our Class A common stock. We intend to contribute all of the net proceeds of this offering to ProFrac LLC in exchange for ProFrac LLC Units. ProFrac LLC intends to use the net proceeds from this offering, together with borrowings under the New Term Loan, to fund the FTSI Acquisition and to repay and terminate of all of the existing indebtedness and credit facilities of ProFrac LLC, Best Flow and Alpine, other than amounts outstanding under ProFrac LLC's ABL Credit Facility. Pending completion of the FTSI Acquisition, ProFrac LLC intends to invest the net proceeds from this offering in U.S. government securities, short-term certificates of deposit, cash equivalents, money market funds or other short-term investments or demand deposit accounts. In the event ProFrac LLC does not complete the FTSI Acquisition, it intends to use the net proceeds of this offering to repay existing indebtedness, including all outstanding borrowings under the ABL Credit Facility and the Term Loan Credit Facility, and the remainder for general corporate purposes. However, our use of these proceeds may differ substantially from our current plans. The failure by our management to apply these funds effectively could result in financial losses that could have a material adverse effect on our business and cause the price of our Class A common stock to decline. Pending their use, we may invest the net proceeds from this offering in a manner that does not produce income or that loses value.

We do not intend to pay cash dividends on our Class A common stock and our existing debt agreements place certain restrictions on our ability to do so. Consequently, your only opportunity to achieve a return on your investment is if the price of our Class A common stock appreciates.

We do not anticipate paying any cash dividends on our Class A common stock in the foreseeable future. In addition, our existing debt agreements place, and we expect our future debt agreements will place, certain restrictions on our ability to pay cash dividends. Consequently, unless we revise our dividend policy, your only opportunity to achieve a return on your investment in us will be if you sell your Class A common stock at a price greater than you paid for it. There is no guarantee that the price of our Class A common stock that will prevail in the market will ever exceed the price that you pay in this offering.

Future sales of our Class A common stock in the public market, or the perception that such sales may occur, could reduce our stock price, and any additional capital raised by us through the sale of equity or convertible securities may dilute your ownership in us.

We may issue or sell additional shares of Class A common stock or securities that are convertible or exchangeable therefor. After the completion of this offering, we will have outstanding shares of Class A common stock (or shares of Class A common stock if the underwriters' option to purchase additional shares is exercised in full). This number includes shares that we are selling in this offering and shares that we may sell in this offering if the underwriters' option to purchase additional shares is fully exercised, which may be resold immediately in the public market. Following the completion of this offering, and assuming full exercise of the underwriters' option to purchase additional shares, the Wilks will own shares of our Class B common stock, or approximately % of our total outstanding shares. Certain ProFrac LLC Unit Holders will be party to a registration rights agreement, which will require us to effect the registration of any shares of Class A common stock that they receive in exchange for their ProFrac LLC Units in certain circumstances no earlier than the expiration of the lock-up period contained in the underwriting agreement entered into in connection with this offering.

In connection with this offering, we intend to file a registration statement with the SEC on Form S-8 providing for the registration of shares of our Class A common stock issued or reserved for issuance under our long term incentive plan. Subject to the satisfaction of vesting conditions, the expiration of lock-up agreements and the requirements of Rule 144, shares registered under the registration statement on Form S-8 may be made available for resale immediately in the public market without restriction.

We cannot predict the size of future issuances of our Class A common stock or securities convertible into Class A common stock or the effect, if any, that future issuances and sales of shares of our Class A common stock will have on the market price of our Class A common stock. Sales of substantial amounts of our Class A common stock (including shares issued in connection with an acquisition), or the perception that such sales could occur, may adversely affect prevailing market prices of our Class A common stock.

The underwriters of this offering may waive or release parties to the lock-up agreements entered into in connection with this offering, which could adversely affect the price of our Class A common stock.

We, all of our directors that will own equity in us following the completion of this offering and all of our executive officers have entered or will enter into lock-up agreements pursuant to which we and they will be subject to certain restrictions with respect to the sale or other disposition of our Class A common stock for a period of days following the date of this prospectus. The underwriters, at any time and without notice, may release all or any portion of the Class A common stock subject to the foregoing lock-up agreements. See “Underwriting” for more information on these agreements. If the restrictions under the lock-up agreements are waived, then the Class A common stock, subject to compliance with the Securities Act or exceptions therefrom, will be available for sale into the public markets, which could cause the market price of our Class A common stock to decline and impair our ability to raise capital.

ProFrac Holding Corp. will be required to make payments under the Tax Receivable Agreement for certain tax benefits that it may claim, and the amounts of such payments could be significant.

In connection with the closing of this offering, ProFrac Holding Corp. will enter into the Tax Receivable Agreement with the TRA Holders. This agreement will generally provide for the payment by ProFrac Holding Corp. to the TRA Holders of 85% of the net cash savings, if any, in U.S. federal, state and local income tax and franchise tax (computed using simplifying assumptions to address the impact of state and local taxes) that ProFrac Holding Corp. actually realizes (or is deemed to realize in certain circumstances) in periods after this offering as a result of certain increases in tax basis available to ProFrac Holding Corp. as a result of the exercise of the Redemption Right or the Call Right and certain benefits attributable to imputed interest. We will retain the benefit of the remaining 15% of any actual net cash tax savings.

The term of the Tax Receivable Agreement will commence upon the completion of this offering and will continue until all tax benefits that are subject to the Tax Receivable Agreement have been utilized or expired, unless we experience a change of control (as defined in the Tax Receivable Agreement, which includes certain mergers, asset sales, or other forms of business combinations) or the Tax Receivable Agreement otherwise terminates early (at our election or as a result of our breach or the commencement of bankruptcy or similar proceedings by or against us) and ProFrac Holding Corp. makes the termination payments specified in the Tax Receivable Agreement in connection with such change of control or other early termination. In the event that the Tax Receivable Agreement is not terminated, the payments under the Tax Receivable Agreement are anticipated to commence in and to continue for years after the date of the last redemption of the ProFrac LLC Units.

The payment obligations under the Tax Receivable Agreement are ProFrac Holding Corp.’s obligations and not obligations of ProFrac LLC, and we expect that the payments required to be made under the Tax Receivable Agreement will be substantial. Estimating the amount and timing of payments that may become due under the Tax Receivable Agreement is by its nature imprecise. For purposes of the Tax Receivable Agreement, net cash tax savings generally are calculated by comparing ProFrac Holding Corp.’s actual tax liability (determined by using the actual applicable U.S. federal income tax rate and an assumed combined state and local income and franchise tax rate) to the amount ProFrac Holding Corp. would have been required to pay had it not been able to utilize any of the tax benefits subject to the Tax Receivable Agreement. The actual increases in tax basis covered by the Tax Receivable Agreement, as well as the amount and timing of any payments under the Tax

Receivable Agreement, will vary depending on a number of factors, including the timing of any redemption of ProFrac LLC Units, the price of ProFrac Holding Corp.'s Class A common stock at the time of each redemption, the extent to which such redemptions are taxable transactions, the amount of the redeeming ProFrac LLC Unit Holder's tax basis in its ProFrac LLC Units at the time of the relevant redemption, the depreciation and amortization periods that apply to the increase in tax basis, the amount and timing of taxable income we generate in the future, the U.S. federal income tax rates then applicable, and the portion of ProFrac Holding Corp.'s payments under the Tax Receivable Agreement that constitute imputed interest or give rise to depreciable or amortizable tax basis. Any distributions made by ProFrac LLC to ProFrac Holding Corp. in order to enable ProFrac Holding Corp. to make payments under the Tax Receivable Agreement, as well as any corresponding pro rata distributions made to the ProFrac LLC Unit Holders, could have an adverse impact on our liquidity.

The payments under the Tax Receivable Agreement will not be conditioned upon a TRA Holder having a continued ownership interest in ProFrac Holding Corp. or ProFrac LLC. For additional information regarding the Tax Receivable Agreement, see "Certain Relationships and Related Party Transactions—Tax Receivable Agreement."

In certain cases, payments under the Tax Receivable Agreement may be accelerated and/or significantly exceed the actual benefits, if any, ProFrac Holding Corp. realizes in respect of the tax attributes subject to the Tax Receivable Agreement.

If we experience a change of control (as defined under the Tax Receivable Agreement, which includes certain mergers, asset sales and other forms of business combinations) or the Tax Receivable Agreement otherwise terminates early (at our election or as a result of our breach or the commencement of bankruptcy or similar proceedings by or against us), ProFrac Holding Corp.'s obligations under the Tax Receivable Agreement would accelerate and ProFrac Holding Corp. would be required to make an immediate payment equal to the present value of the anticipated future payments to be made by it under the Tax Receivable Agreement (determined by applying a discount rate equal to (i) the greater of (A) 0.25% and (B) a per annum rate of the Secured Overnight Financing Rate ("SOFR"), *plus* (ii) 150 basis points) and such payment is expected to be substantial. The calculation of anticipated future payments will be based upon certain assumptions and deemed events set forth in the Tax Receivable Agreement, including (i) that ProFrac Holding Corp. has sufficient taxable income to fully utilize the tax benefits covered by the Tax Receivable Agreement, and (ii) that any ProFrac LLC Units (other than those held by ProFrac Holding Corp.) outstanding on the termination date are deemed to be redeemed on the termination date. Any early termination payment may be made significantly in advance of, and may materially exceed, the actual realization, if any, of the future tax benefits to which the termination payment relates.

If we experience a change of control (as defined under the Tax Receivable Agreement) or the Tax Receivable Agreement otherwise terminates early, ProFrac Holding Corp.'s obligations under the Tax Receivable Agreement could have a substantial negative impact on our liquidity and could have the effect of delaying, deferring or preventing certain mergers, asset sales, or other forms of business combinations or changes of control. For example, if we were to experience a change of control or the Tax Receivable Agreement was otherwise terminated immediately after this offering, the estimated termination payments would, in the aggregate, be approximately $ million (calculated using a discount rate equal to (i) the greater of (A) 0.25% and (B) a per annum rate of SOFR, *plus* (ii) 150 basis points, applied against an undiscounted liability of $ million calculated at the 21% U.S. federal corporate income tax rate and estimated applicable state and local income tax rates). The foregoing amount is merely an estimate and the actual payment could differ materially. There can be no assurance that we will be able to satisfy our obligations under the Tax Receivable Agreement.

Please read "Certain Relationships and Related Party Transactions—Tax Receivable Agreement."

In the event that payment obligations under the Tax Receivable Agreement are accelerated in connection with certain mergers, other forms of business combinations or other changes of control, the consideration payable to holders of our Class A common stock could be substantially reduced.

If we experience a change of control (as defined under the Tax Receivable Agreement, which includes certain mergers, asset sales and other forms of business combinations), ProFrac Holding Corp. would be obligated to make a substantial immediate lump-sum payment, and such payment may be significantly in advance of, and may materially exceed, the actual realization, if any, of the future tax benefits to which the payment relates. As a result of this payment obligation, holders of our Class A common stock could receive substantially less consideration in connection with a change of control transaction than they would receive in the absence of such obligation. Further, any payment obligations under the Tax Receivable Agreement will not be conditioned upon the TRA Holders' having a continued interest in ProFrac Holding Corp. or ProFrac LLC. Accordingly, the TRA Holders' interests may conflict with those of the holders of our Class A common stock. Please read "Risk Factors—Risks Related to this Offering and Our Class A Common Stock—In certain cases, payments under the Tax Receivable Agreement may be accelerated and/or significantly exceed the actual benefits, if any, ProFrac Holding Corp. realizes in respect of the tax attributes subject to the Tax Receivable Agreement" and "Certain Relationships and Related Party Transactions —Tax Receivable Agreement."

We will not be reimbursed for any payments made under the Tax Receivable Agreement in the event that any tax benefits are subsequently disallowed.

Payments under the Tax Receivable Agreement will be based on the tax reporting positions that we will determine. The U.S. Internal Revenue Service ("IRS") or another taxing authority may challenge all or part of the tax basis increases covered by the Tax Receivable Agreement, as well as other related tax positions we take, and a court could sustain such challenge. The TRA Holders will not reimburse us for any payments previously made under the Tax Receivable Agreement if any tax benefits that have given rise to payments under the Tax Receivable Agreement are subsequently disallowed, except that excess payments made to any TRA Holder will be netted against future payments that would otherwise be made to such TRA Holder, if any, after our determination of such excess (which determination may be made a number of years following the initial payment and after future payments have been made). As a result, in such circumstances, we could make payments that are greater than ProFrac Holding Corp.'s actual cash tax savings, if any, and we may not be able to recoup those payments, which could materially adversely affect our liquidity.

If ProFrac LLC were to become a publicly traded partnership taxable as a corporation for U.S. federal income tax purposes, ProFrac Holding Corp. and ProFrac LLC might be subject to potentially significant tax inefficiencies, and we would not be able to recover payments previously made by ProFrac Holding Corp. under the Tax Receivable Agreement even if the corresponding tax benefits were subsequently determined to have been unavailable due to such status.

We intend to operate such that ProFrac LLC does not become a publicly traded partnership taxable as a corporation for U.S. federal income tax purposes. A "publicly traded partnership" is a partnership the interests of which are traded on an established securities market or are readily tradable on a secondary market or the substantial equivalent thereof. Under certain circumstances, redemptions of ProFrac LLC Units pursuant to the Redemption Right (or acquisitions of ProFrac LLC Units pursuant to the Call Right) or other transfers of ProFrac LLC Units could cause ProFrac LLC to be treated as a publicly traded partnership. Applicable U.S. Treasury regulations provide for certain safe harbors from treatment as a publicly traded partnership, and we intend to operate such that redemptions or other transfers of ProFrac LLC Units qualify for one or more such safe harbors. For example, we intend to limit the number of unitholders of ProFrac LLC, and the ProFrac LLC Agreement, which will be entered into in connection with the closing of this offering, will provide for limitations on the ability of unitholders of ProFrac LLC to transfer their ProFrac LLC Units and will provide ProFrac Holding

Corp., as the managing member of ProFrac LLC, with the right to impose restrictions (in addition to those already in place) on the ability of unitholders of ProFrac LLC to redeem their ProFrac LLC Units pursuant to the Redemption Right to the extent ProFrac Holding Corp. believes it is necessary to ensure that ProFrac LLC will continue to be treated as a partnership for U.S. federal income tax purposes.

If ProFrac LLC were to become a publicly traded partnership taxable as a corporation for U.S. federal income tax purposes, significant tax inefficiencies might result for ProFrac Holding Corp. and for ProFrac LLC, including as a result of ProFrac Holding Corp.'s inability to file a consolidated U.S. federal income tax return with ProFrac LLC. In addition, ProFrac Holding Corp. might not be able to realize tax benefits covered under the Tax Receivable Agreement, and we would not be able to recover any payments previously made by ProFrac Holding Corp. under the Tax Receivable Agreement, even if the corresponding tax benefits (including any claimed increase in the tax basis of ProFrac LLC's assets) were subsequently determined to have been unavailable.

Changes in effective tax rates, or adverse outcomes resulting from other tax increases or an examination of our income or other tax returns, could adversely affect our results of operations and financial condition.

Any changes in our effective tax rates or tax liabilities could adversely affect our results of operations and financial condition. Our future effective tax rates could be subject to volatility or adversely affected by a number of factors, including:

- changes in the valuation of our deferred tax assets and liabilities;
- expected timing and amount of the release of any tax valuation allowances;
- expansion into or future activities in new jurisdictions;
- the availability of tax deductions, credits, exemptions, refunds and other benefits to reduce tax liabilities;
- tax effects of share-based compensation; and
- changes in tax laws, tax regulations, accounting principles, or interpretations or applications thereof.

In addition, an adverse outcome arising from an examination of our income or other tax returns could result in higher tax exposure, penalties, interest or other liabilities that could have an adverse effect on our operating results and financial condition.

We may issue preferred stock whose terms could adversely affect the voting power or value of our Class A common stock.

Our amended and restated certificate of incorporation will authorize us to issue, without the approval of our stockholders, one or more classes or series of preferred stock having such designations, preferences, limitations and relative rights, including preferences over our Class A common stock respecting dividends and distributions, as our board of directors may determine. The terms of one or more classes or series of preferred stock could adversely impact the voting power or value of our Class A common stock. For example, we might grant holders of preferred stock the right to elect some number of our directors in all events or on the happening of specified events or the right to veto specified transactions. Similarly, the repurchase or redemption rights or liquidation preferences we might assign to holders of preferred stock could affect the residual value of the Class A common stock.

If we were deemed to be an investment company under the Investment Company Act of 1940, as amended (the "1940 Act"), applicable restrictions could make it impractical for us to continue our business as contemplated and could have a material adverse effect on our business, financial condition and results of operations.

Under Sections 3(a)(1)(A) and (C) of the 1940 Act, a company generally will be deemed to be an "investment company" for purposes of the 1940 Act if (i) it is, or holds itself out as being, engaged primarily, or proposes to engage primarily, in the business of investing, reinvesting or trading in securities or (ii) it engages, or proposes to engage, in the business of investing, reinvesting, owning, holding or trading in securities and it owns or proposes to acquire investment securities having a value exceeding 40% of the value of its total assets (exclusive of U.S. government securities and cash items) on an unconsolidated basis. We do not believe that we are an “investment company,” as such term is defined in either of those sections of the 1940 Act.

As the sole managing member of ProFrac LLC, we will control and operate ProFrac LLC. On that basis, we believe that our interest in ProFrac LLC is not an “investment security” as that term is used in the 1940 Act. However, if we were to cease participation in the management of ProFrac LLC, our interest in ProFrac LLC could be deemed to be an “investment security” for purposes of the 1940 Act.

Although we and ProFrac LLC intend to conduct our operations so that we will not be deemed an investment company, if we were to be deemed an investment company, restrictions imposed by the 1940 Act, including limitations on our capital structure and our ability to transact with affiliates, could make it impractical for us to continue our business as contemplated and could have a material adverse effect on our business, financial condition and results of operations.

We expect to be a “controlled company” within the meaning of the Nasdaq rules and, as a result, will qualify for and intend to rely on exemptions from certain corporate governance requirements.

Because the Wilks will initially own ProFrac LLC Units, shares of Class A common stock and shares of Class B common stock, representing approximately % of the voting power of our Company following the completion of this offering, we expect to be a controlled company as of the completion of the offering under Sarbanes-Oxley and rules of Nasdaq. Additionally, we expect that the Wilks will be deemed a group for purposes of certain rules and regulations of the SEC as a result of the Stockholders’ Agreement. Under the Nasdaq rules, a company of which more than 50% of the voting power is held by another person or group of persons acting together is a controlled company and may elect not to comply with certain Nasdaq corporate governance requirements, including the requirements that:

- a majority of the board of directors consist of independent directors as defined under the rules of Nasdaq;
- the nominating and governance committee be composed entirely of independent directors with a written charter addressing the committee’s purpose and responsibilities; and
- the compensation committee be composed entirely of independent directors with a written charter addressing the committee’s purpose and responsibilities.

These requirements will not apply to us as long as we remain a controlled company. Following this offering, we intend to utilize some or all of these exemptions. Accordingly, you may not have the same protections afforded to stockholders of companies that are subject to all of the corporate governance requirements of Nasdaq. See “Management.”

For as long as we are an emerging growth company, we will not be required to comply with certain reporting requirements, including those relating to accounting standards and disclosure about our executive compensation, that apply to other public companies.

We are classified as an “emerging growth company” under the JOBS Act. For as long as we are an emerging growth company, which may be up to five full fiscal years, unlike other public companies, we will not be required to, among other things: (i) provide an auditor’s attestation report on management’s assessment of the effectiveness of our system of internal control over financial reporting pursuant to Section 404(b) of Sarbanes-Oxley; (ii) comply with any new requirements adopted by the Public Company Accounting Oversight Board requiring mandatory audit firm rotation or a supplement to the auditor’s report in which the auditor would be required to provide additional information about the audit and the financial statements of the issuer;

(iii) provide certain disclosures regarding executive compensation required of larger public companies; or (iv) hold nonbinding advisory votes on executive compensation. Additionally, as an emerging growth company, we are required to have only two years of audited financial statements and only two years of related Management's Discussion and Analysis of Financial Condition and Results of Operations disclosure. We will remain an emerging growth company for up to five years, although we will lose that status sooner if we have more than $1.07 billion of revenues in a fiscal year, have more than $700.0 million in market value of our Class A common stock held by non-affiliates, or issue more than $1.0 billion of non-convertible debt over a three-year period.

To the extent that we rely on any of the exemptions available to emerging growth companies, you will receive less information about our executive compensation and internal control over financial reporting than issuers that are not emerging growth companies. Additionally, we intend to take advantage of the extended transition periods for the adoption of new or revised financial accounting standards under the JOBS Act until we are no longer an emerging growth company. Our election to use the transition periods permitted by this election may make it difficult to compare our financial statements to those of non-emerging growth companies and other emerging growth companies that have opted out of the extended transition periods permitted under the JOBS Act and who will comply with new or revised financial accounting standards.

If some investors find our Class A common stock to be less attractive as a result, there may be a less active trading market for our Class A common stock and our stock price may be more volatile.

If securities or industry analysts do not publish research reports or publish unfavorable research about our business, the price and trading volume of our Class A common stock could decline.

The trading market for our Class A common stock will depend in part on the research reports that securities or industry analysts publish about us or our business. We do not currently have and may never obtain research coverage by securities and industry analysts. If no securities or industry analysts commence coverage of us the trading price for our Class A common stock and other securities would be negatively affected. In the event we obtain securities or industry analyst coverage, if one or more of the analysts who covers us downgrades our securities, the price of our securities would likely decline. If one or more of these analysts ceases to cover us or fails to publish regular reports on us, interest in the purchase of our securities could decrease, which could cause the price of our Class A common stock and other securities and their trading volume to decline.

Risks related to the FTSI Acquisition

This offering is not conditioned upon the completion of the FTSI Acquisition or the closing of the New Term Loan.

We have entered into an agreement to acquire FTSI. See "Prospectus Summary—Recent Developments—FTSI Acquisition." Completion of the FTSI Acquisition and the closing of the New Term Loan are subject to a number of risks and uncertainties, and we can provide no assurance that the various conditions to the FTSI Acquisition or the closing of the New Term Loan will be satisfied or waived. Those conditions include, in the case of the FTSI Acquisition, approval of the FTSI Merger Agreement by both a majority of FTSI's stockholders as a whole as well as a majority of FTSI's stockholders, excluding stockholders that are affiliates of ProFrac LLC, as well as receipt of certain requisite regulatory approvals. If the conditions to the FTSI Acquisition or the closing of the New Term Loan are not satisfied or waived on a timely basis, we may be unable to complete the FTSI Acquisition or the closing of the New Term Loan as quickly as expected or at all. Because this offering is not conditioned on the consummation of the FTSI Acquisition or the closing of the New Term Loan, you will become an owner of our shares at the closing of this offering regardless of whether the FTSI Acquisition is consummated or the closing of the New Term Loan occurs. Accordingly, if you decide to purchase our Class A common stock in this offering, you should be willing to do so whether or not we complete the FTSI Acquisition or enter into the New Term Loan.

Moreover, the FTSI Acquisition is not conditioned upon the closing of the New Term Loan or our otherwise obtaining financing. We expect to fund the FTSI Acquisition and associated expenses with a combination of a portion of the net proceeds from this offering and borrowings under the New Term Loan, with the remainder of the borrowings under the New Term Loan being used to repay and terminate all of the existing and indebtedness and credit facilities of ProFrac LLC, Best Flow and Alpine, other than amounts outstanding under ProFrac LLC's ABL Credit Facility. If we complete the FTSI Acquisition but are unable to close on the New Term Loan, we expect to fund the FTSI Acquisition with a combination of cash on hand, cash held by FTSI and advances under the ECL, which could adversely affect our liquidity.

We may experience difficulties in integrating FTSI's operations into our business and in realizing expected benefits from the FTSI Acquisition.

The success of the FTSI Acquisition will depend, in part, on our ability to integrate effectively FTSI's business into our existing business. The integration process may involve unforeseen difficulties and may require a disproportionate amount of our managerial and financial resources. If we are unable to successfully integrate the operations of FTSI with our business, we may be unable to achieve consolidation savings and may incur unanticipated costs and liabilities.

Potential difficulties that may be encountered in the integration process include, among other factors:

- the inability to successfully integrate FTSI's business in a manner that permits us to achieve the full benefits and strategic objectives anticipated from the FTSI Acquisition;
- complexities associated with managing a larger, more complex, integrated business;
- the inability to retain and integrate key relationships with employees, customers, vendors and business partners;
- potential unknown costs or liabilities associated with the FTSI Acquisition;
- difficulty or inability to comply with the covenants of the debt of the combined company;
- performance shortfalls at one or both of the companies as a result of the diversion of management's attention from their day-to-day responsibilities caused by completing the FTSI Acquisition and integrating FTSI's operations into the combined company; and
- the disruption of each company's ongoing business or inconsistencies in standards, controls, procedures and policies during the transition and integration.

Ultimately, the occurrence of any of these risks or uncertainties with regard to the FTSI Acquisition may have a material adverse effect on our business, financial condition and results of operations.

Use of proceeds

We expect to receive approximately $ million of net proceeds (assuming the midpoint of the price range set forth on the cover of this prospectus) from the sale of Class A common stock in this offering, after deducting underwriting discounts and commissions and estimated offering expenses. We intend to contribute all of the net proceeds of this offering to ProFrac LLC in exchange for ProFrac LLC Units. ProFrac LLC intends to use the net proceeds from this offering, together with borrowings under the New Term Loan, to complete the FTSI Acquisition and to repay and terminate all existing indebtedness of ProFrac LLC. Pending completion of the FTSI Acquisition, ProFrac LLC intends to invest the net proceeds from this offering in U.S. government securities, short-term certificates of deposit, cash equivalents, money market funds or other short-term investments or demand deposit accounts. The following table illustrates our estimated anticipated use of the net proceeds from this offering:

Sources of funds		Uses of funds	
	(in thousands)		
Borrowings under our New Term Loan	$	Merger Consideration in FTSI Acquisition	$
Net proceeds from this offering		Repayment of indebtedness	
		Estimated fees and expenses	
Total sources of funds	$	Total uses of funds	$

In the event ProFrac LLC does not complete the FTSI Acquisition, it intends to use the net proceeds of this offering to repay existing indebtedness, including all outstanding borrowings under the ABL Credit Facility and the Term Loan Credit Facility, and the remainder for general corporate purposes. This offering is not conditioned upon the completion of the FTSI Acquisition or any of the related financing transactions described herein and there can be no assurance that the FTSI Acquisition or any of the related financing transactions described herein will close. See “Risk Factors—Risks Related to the FTSI Acquisition.”

The ABL Credit Facility has a maturity date of March 14, 2023. The average annual interest rate on borrowings under the ABL Credit Facility during the nine months ended September 30, 2021 was 2.75%, and such borrowings were incurred primarily to fund working capital. See “Management’s Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources—Credit Facilities and Other Financing Arrangements.”

The Term Loan Credit Facility has a maturity date of September 15, 2023. The average annual interest rate on borrowings under the Term Loan Credit Facility during the nine months ended September 30, 2021 was 9.75%, and such borrowings were incurred primarily to fund capital expenditures, including for the build out of our frac fleet. See “Management’s Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources—Credit Facilities and Other Financing Arrangements.”

A $1.00 increase or decrease in the assumed initial public offering price of $ per share would cause the net proceeds from this offering, after deducting the underwriting discounts and commissions and estimated offering expenses, received by us to increase or decrease, respectively, by approximately $ million, assuming the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same. If the proceeds increase due to a higher initial public offering price or due to the issuance of additional shares, we would use the additional net proceeds for general corporate purposes. If the proceeds decrease due to a lower initial public offering price or a decrease in the number of shares issued, then we would reduce by a corresponding amount the net proceeds directed to repay indebtedness.

Dividend policy

We do not anticipate declaring or paying any cash dividends to holders of our Class A common stock in the foreseeable future. We currently intend to retain future earnings, if any, to finance the growth of our business. Our future dividend policy is within the discretion of our board of directors and will depend upon then-existing conditions, including our results of operations, financial condition, capital requirements, investment opportunities, statutory restrictions on our ability to pay dividends and other factors our board of directors may deem relevant. In addition, our existing debt agreements place, and we expect our future debt agreements will place, certain restrictions on our ability to pay cash dividends on our Class A common stock. See “Risk Factors—Risks Related to this Offering and Our Class A Common Stock—We do not intend to pay cash dividends on our Class A common stock and our existing debt agreements place certain restrictions on our ability to do so. Consequently, your only opportunity to achieve a return on your investment is if the price of our Class A common stock appreciates.”

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Capitalization

The following table sets forth our cash and cash equivalents and capitalization as of September 30, 2021:

- on an actual basis for ProFrac Predecessor;
- on a pro forma basis to give effect to (i) the transactions described under "Corporate Reorganization," (ii) the sale of shares of our Class A common stock in this offering at the initial offering price of $ per share, after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us and (iii) the investment of the net proceeds from this offering in U.S. government securities, short-term certificates of deposit, cash equivalents, money market funds or other short-term investments or demand deposit accounts pending their application in the FTSI Acquisition as described under "Use of Proceeds"; and
- on a pro forma basis to give effect to (i) the closing of the FTSI Acquisition, (ii) the closing of the New Term Loan and (iii) the application of the net proceeds from this offering together with borrowings under the New Term Loan to complete the FTSI Acquisition and to repay and terminate of all of the existing indebtedness and credit facilities of ProFrac LLC, Best Flow and Alpine, other than amounts outstanding under ProFrac LLC's ABL Credit Facility.

The information set forth in the table below is illustrative only and will be adjusted based on the actual initial public offering price and other terms of this offering. This table is derived from, should be read together with and is qualified in its entirety by reference to the historical consolidated and combined financial statements and the accompanying notes included elsewhere in this prospectus. You should also read this table in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations," "Corporate Reorganization" and "Use of Proceeds."

	As of September 30, 2021		
	Actual(1)	Pro forma(2)	Pro forma, including FTSI(2)(3)
	(in thousands, except share counts and par value)		
Cash and cash equivalents	$	$	$
Long-term debt:			
ABL Credit Facility	$	$	
New term loan			
Term loan due 2023			
Main Street loan due 2025			
Best Flow Credit Facility			
Alpine Credit Facility			
Note payable due 2021			
Note payable due 2021			
Note payable due 2022			
Less: unamortized debt issuance costs			
Less: current portion of long term debt			
Total long-term debt	$	$	$
Temporary equity	$	$	$

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	As of , 2021		
	Actual(1)	Pro forma(2)	Pro forma, including FTSI(2)(3)
	(in thousands, except share counts and par value)		
Members'/Shareholders' equity:			
Class A common stock, $ par value; no shares authorized, issued or outstanding (Actual Historical); shares authorized, shares issued and outstanding, As Adjusted			
Class B common stock, $ par value; no shares authorized, issued or outstanding (Actual Historical); shares authorized, shares issued and outstanding, As Adjusted			
Equity			
Additional paid-in capital			
Accumulated deficit			
Non-controlling interest			
Total shareholders' equity			
Total Capitalization	$	$	$

(1) ProFrac Holding Corp. was incorporated on August 17, 2021. The data in this table has been derived from the historical consolidated and combined financial statements included in this prospectus, which reflect the financial condition and results of operations of ProFrac Predecessor as discussed elsewhere in this prospectus.

(2) A $1.00 increase or decrease in the assumed initial public offering price of $ per share (the midpoint of the rage on the cover page of this prospectus) would increase or decrease total equity and total capitalization by approximately $ million and $ million, respectively, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us. We may also increase or decrease the number of shares we are offering. An increase or decrease of one million shares offered by us at an assumed offering price of $ per share (the midpoint of the range on the cover page of this prospectus) would increase or decrease total equity and total capitalization by approximately $ million and $ million, respectively, after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us. Any decrease in either the assumed initial public offering price or the number of shares we are offering, or a combination of both, that results in a total decrease of $ million or more in the expected proceeds of this offering, after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us, would result in an equivalent total decrease in cash and cash equivalents.

(3) In the event ProFrac LLC does not complete the FTSI Acquisition, it intends to use the net proceeds of this offering to repay existing indebtedness, including all outstanding borrowings under the ABL Credit Facility and the Term Loan Credit Facility, and the remainder for general corporate purposes. This offering is not conditioned upon the completion of the FTSI Acquisition or any of the related financing transactions described herein and there can be no assurance that the FTSI Acquisition or any of the related financing transactions described herein will be completed.

Dilution

Purchasers of our Class A common stock in this offering will experience immediate and substantial dilution in the net tangible book value (tangible assets less total liabilities) per share of our Class A common stock for accounting purposes. Our net tangible book value as of September 30, 2021, after giving pro forma effect to our corporate reorganization, was approximately $ million, or $ per share of Class A common stock.

Pro forma net tangible book value per share is determined by dividing our net tangible book value, or total tangible assets less total liabilities, by our shares of Class A common stock that will be outstanding immediately prior to the closing of this offering. Assuming an initial public offering price of $ per share (which is the midpoint of the price range set forth on the cover page of this prospectus), after giving effect to the sale of the shares in this offering and further assuming the receipt of the estimated net proceeds (after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us and the application of such proceeds as described in the pro forma column in “Capitalization”), our adjusted pro forma net tangible book value as of September 30, 2021 would have been approximately $ million, or $ per share. This represents an immediate increase in the net tangible book value of $ per share to the ProFrac LLC Unit Holders and an immediate dilution to new investors purchasing shares in this offering of $ per share, resulting from the difference between the offering price and the pro forma as adjusted net tangible book value after this offering. The following table illustrates the per share dilution to new investors purchasing shares in this offering (assuming that 100% of the ProFrac LLC Units have been exchanged for Class A common stock):

Assumed initial public offering price per share		$
Pro forma net tangible book value per share as of September 30, 2021 (before this offering and after giving effect to our corporate reorganization)	$	
Increase per share attributable to new investors in this offering		
As adjusted pro forma net tangible book value per share (after giving effect to the corporate reorganization and this offering)		
Dilution in pro forma net tangible book value per share to new investors in this offering(1)		$

(1) If the initial public offering price were to increase or decrease by $1.00 per share, then dilution in pro forma net tangible book value per share to new investors in this offering would equal $ or $, respectively.

The following table summarizes, on an adjusted pro forma basis as of September 30, 2021, the total number of shares of Class A common stock owned by the ProFrac LLC Unit Holders (assuming that 100% of the ProFrac LLC Units held by the ProFrac LLC Unit Holders have been exchanged for shares of Class A common stock (and the corresponding shares of Class B common stock have been cancelled)) and to be owned by new investors, the total consideration paid and the average price per share paid by the ProFrac LLC Unit Holders and to be paid by new investors in this offering at $ per share, calculated before deduction of estimated underwriting discounts and commissions.

	Shares acquired		Total consideration		Average price per share
	Number	Percent	Amount	Percent	
ProFrac LLC Unit Holders		%	$	%	$
New investors in this offering					
Total		%	$	%	$

The data in the table excludes shares of Class A common stock initially reserved for issuance under our long term incentive plan.

Each $1.00 increase (decrease) in the assumed initial public offering price of $ per share of Class A common stock would increase (decrease) the total consideration paid by new investors in this offering and the total consideration paid by all holders of Class A common stock by $ million, assuming the number of shares of Class A common stock offered by us remains the same, after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

If the underwriters' option to purchase additional shares is exercised in full, the number of shares of Class A common stock being offered in this offering will be increased to , or approximately % of the total number of shares of Class A common stock.

Management's discussion and analysis of financial condition and results of operations

You should read the following discussion and analysis of our financial condition and results of operations together with ProFrac Predecessor's audited financial statements and related notes thereto and interim unaudited financial statements and the related notes thereto appearing at the end of this prospectus. Unless otherwise indicated, the historical financial information in this "Management's Discussion and Analysis of Financial Condition and Results of Operations" reflects only the historical financial results of ProFrac Predecessor prior to the Corporate Reorganization.

Some of the information contained in this discussion and analysis or set forth elsewhere in this prospectus, including information with respect to our plans and strategy for our business and related financing, includes forward-looking statements that involve risks and uncertainties. You should read the sections of this prospectus entitled "Risk Factors" and "Cautionary Statement Regarding Forward-Looking Statements" for a discussion of important factors that could cause actual results to differ materially from the results described in or implied by the forward-looking statements contained in the following discussion and analysis. We do not undertake any obligation to publicly update any forward-looking statements except as otherwise required by applicable law.

Our Predecessor and ProFrac Holding Corp.

ProFrac Holding Corp. was formed on August 17, 2021, and has not conducted and will not conduct any material business operations prior to the completion of the transactions described under "Corporate Reorganization" other than certain activities related to this offering. Our predecessor consists of ProFrac LLC, Best Flow and Alpine (which we refer to as "ProFrac Predecessor") on a consolidated and combined basis. The Wilks hold a controlling interest in ProFrac LLC, Best Flow and Alpine. On , 2021, all of the then-outstanding membership interests in Best Flow and Alpine were contributed to ProFrac LLC in exchange for membership interests in ProFrac LLC. Following the contribution, on , 2021, certain indebtedness with a principal amount of $18.0 million of Best Flow and Alpine held by THRC Holdings, Farris Wilks and Wilks Brothers, LLC was contributed to ProFrac LLC in exchange for equity in ProFrac LLC, and then further contributed to Best Flow and the debt was cancelled. Unless otherwise indicated, the historical consolidated and combined financial information included in this prospectus presents the historical financial information of ProFrac Predecessor. Historical consolidated and combined financial information is not indicative of the results that may be expected in any future periods. For more information, please see the historical consolidated and combined financial statements and related notes thereto included elsewhere in this prospectus and "—Factors Affecting the Comparability of Our Financial Results."

Overview

We are a growth-oriented, vertically integrated and innovation-driven energy services company providing hydraulic fracturing, completion services and other complementary products and services to leading upstream oil and gas companies engaged in the E&P of North American unconventional oil and natural gas resources. Founded in 2016, ProFrac was built to be the go-to service provider for E&P companies' most demanding hydraulic fracturing needs. We are focused on employing new technologies to significantly reduce GHG emissions and increase efficiency in what has historically been an emissions-intensive component of the unconventional E&P development process. We believe the technical and operational capabilities of our fleets ideally position us to capture increased demand resulting from the market recovery and our customers' shifting preferences favoring the sustainable development of natural resources.

Our operations are primarily focused in the Appalachian, East Texas/Louisiana and Permian Basins, where we have cultivated deep and longstanding customer relationships with some of those regions' most active E&P

companies. We operate in three business segments: stimulation services, manufacturing and proppant production. We believe we are the largest privately owned provider of hydraulic fracturing services in North America by HHP, with an aggregate installed capacity of over 1.0 million HHP across 20 conventional fleets, of which, as of September 30, 2021, 16 were active, reflecting an aggregate installed capacity of approximately 840,000 HHP across our active fleets, one is inactive but able to be deployed with no to minimal required capital expenditures and the remainder were inactive but able to be deployed with an average of $2.0 million in required capital expenditures per fleet. In addition, as of September 30, 2021, FTSI was operating 13 active fleets, and, following the consummation of the FTSI Acquisition, we expect to continue operating such fleets in the Permian Basin, Eagle Ford Shale, Midcontinent, Haynesville Shale and Uinta Basin. We believe a greater percentage of our conventional fleets utilize lower-emission Tier IV diesel engines relative to our peers, making them among the most emissions-friendly and capable in the industry. Further, we believe that because of our fleets' capabilities and reliability, and our relentless focus on efficient and environmentally-sound energy service solutions, our high-quality customer base views us as an integral partner in their efforts to improve their ESG profiles without sacrificing service quality.

Our lower-emission conventional hydraulic fracturing fleets have been designed to reduce our customers' relative emissions footprint while handling the most demanding well completions, which are characterized by higher pumping pressures, higher pumping volumes, longer horizontal wellbores, more frac stages per lateral and increasing amounts of proppant pumped per well. More than 90% of our fleets are less than five years old, with 56% having Tier IV engines and 43% having dual fuel capabilities. In addition, we have paired these technologies with our proprietary ESCs to reduce idle time, which is the time during which an engine typically generates the highest amount of emissions, by as much as 90%, and reduce fuel consumption and GHG emissions by as much as 24%. In addition, these ESCs are capable of cold starting the engines on our pumping units without the assistance of truck tractors. This technology allows us to significantly decrease the number of truck tractors required for our operations, not only further reducing overall emissions but also eliminating the capital, safety risks and operating and maintenance costs associated with operating the additional truck tractors required for fleets that do not utilize ESCs. On the whole, these cost savings are significant and we are able to avoid an incremental $15,000 per year in costs associated with each truck tractor eliminated from our operations. Since early 2021, we have installed ESCs in five fleets, and have reduced our truck tractor count by 101. We continue to install ESCs throughout all of our fleets and anticipate being able to realize total cost savings of approximately $300,000 per year per fleet as a result. When further combined with our real time GHG emissions monitoring, our fleets create additional synergies in efficiency that result in cost savings for our customers. We intend to continue to upgrade and overhaul our other fleets with the goal of having all of our conventional fleets similarly equipped, a process made cheaper by our in-house manufacturing capabilities detailed below. This strategy aligns with our ESG initiative to minimize our carbon footprint as a part of our goal to have all of our conventional fleets equipped with emissions reduction technology.

In concert with our existing low-emission conventional fleets, we have recently entered into an agreement with USWS, allowing us to acquire up to 20 licenses (along with certain other rights) to construct in-house new, electric-powered hydraulic fracturing fleets utilizing Clean Fleet® technology. This technology utilizes electric motors powered by lower-cost, lower-emission power solutions, including local utility-sourced line power, or on-site generation from natural gas produced and conditioned in the field, CNG, LNG, and/or traditional fuels, if needed. This flexibility in fuel supply can provide our customers with additional tools to meet their emissions and sustainability goals by reducing their reliance on diesel, as well as offer potentially significant fuel cost savings. We believe that our fleets equipped with Clean Fleet® technology will supplement our environmentally advantaged conventional fleets and provide our customers an optimized suite of options to satisfy their ESG objectives while maximizing operating efficiency. We have three electric-powered hydraulic fracturing fleets under construction and we currently expect the first of these fleets to be ready for deployment during the first quarter of 2022. We believe that our new electric fleets, together with our existing conventional fleets, which we continue to optimize to incorporate efficiency-enhancing features, place us on the leading edge of the domestic hydraulic fracturing business and position us to maintain a high equipment utilization rate, low emissions and attractive profitability.

Facilitating the advanced technology and operational capability of our equipment is our vertically integrated business model and supply chain management, which allows us to manufacture, assemble, repair and maintain our own fleets and ancillary frac equipment, including power ends, fluid ends, flow iron and monolines. We operate facilities in Cisco and Fort Worth, Texas, including an ISO 9001 2015 certified OEM manufacturing facility, in which we manufacture and refurbish many of the components used by our fleets, including pumps, fluid ends, power ends, flow iron and other consumables. These facilities provide in-house manufacturing capacity that enables cost-advantaged growth and maintenance. We have the ability to manufacture up to 55,000 HHP per month (including electric fleets) and perform substantially all of the maintenance, repair and servicing of our hydraulic fracturing fleets.

Vertical integration enables us to realize a lower capital investment and operating expense by capturing the margin of manufacturing and/or maintenance, by recycling and refurbishing older machinery in our fleet, as opposed to disposing of it, and by enabling the ongoing improvement of our equipment and processes as part of a continuous research and development cycle. This combination also facilitates our “Acquire, Retire, Replace”™ approach to growing, maintaining and modernizing our fleets, and helps insulate us from supply chain constraints that have disrupted competitors’ and customers’ operations in the past. For example, we believe that the FTSI Acquisition will allow us to further expand the scope of our vertically integrated business model and manufacturing capabilities, as well as provide us an opportunity to implement our “Acquire, Retire, Replace”™ strategy with respect to certain of FTSI’s older equipment. For additional information on the FTSI Acquisition, please see “Prospectus Summary—Recent Developments—FTSI Acquisition.” Our in-house manufacturing capabilities also allow us to rapidly implement new technologies in a cost-effective manner not possible for many of our peers. We believe that as a result of this vertical integration, we are able to achieve conventional Tier IV dual fuel fleet construction costs of $540 per HHP contrasted with an industry cost of up to $861 per HHP, according to Daniel Energy Partners, and an average expected price to build electric fleets, excluding power generation, of $467 per HHP.

Our manufacturing capabilities and control over the manufacturing process have allowed us to design and build hydraulic fracturing fleets to uniform specifications intended for deployment in resource basins requiring high levels of pressure, flow rate and sand intensity. We believe the standardized, modular configuration of our equipment provides us with several competitive advantages, including reduced repair and maintenance costs, reduced downtime, reduced inventory costs, reduced complexity in our operations, training efficiencies and the ability to redeploy equipment among operating basins. We believe that our uniform fleet specifications along with the ability to more directly control our supply chain and end-of-life management for our equipment differentiates us from competitors who typically purchase such equipment from third party manufacturers and rely on such manufacturers or other third parties for repair and maintenance.

We also provide ancillary services, further increasing our value as a business partner to our customers, including frac design and related services, frac sand and chemical supply, logistics coordination and real time data reporting, such as operational statistics, inventory management, completions updates and emissions monitoring. We also operate an approximate three-million-ton-per-year sand mine and processing facility in Kermit, Texas, with proved reserves of 42.3 million tons, which allows us to sell proppant to our customers in West Texas and Southeastern New Mexico. Our integrated service platform creates operational efficiencies for our customers and allows us to capture a greater portion of their development capital spending, positioning us to maintain high equipment utilization rates, low emissions and attractive profitability.

For the nine months ended September 30, 2021, we generated net losses of approximately $48.5 million, Adjusted EBITDA of approximately $86.3 million, and Surplus Cash Generation of approximately $33.2 million.

For the definitions of Adjusted EBITDA and Surplus Cash Generation and a reconciliation from to their most directly comparable financial measure calculated and presented in accordance with GAAP, please read "Summary—Summary Historical and Pro Forma Financial Data—Non-GAAP Financial Measures."

Overall trends and outlook

The global public health crisis associated with the COVID-19 pandemic had an unprecedented effect on demand for energy, crude oil prices and global economic activity. In 2020, the combined effect of COVID-19 and the disruptions to the energy industry led to a rapid and significant decline in WTI crude oil prices and Henry Hub natural gas prices, further exacerbating the oilfield service industry conditions still reeling from the broad oil and gas downturn that originally started in 2014. In response to the significant drop in commodity prices, E&P companies acted swiftly to reduce capital budgets and drilling and completion activity. Reduced demand for services compounded by constrained capital access forced the acceleration of the attrition cycle for pressure pumping equipment as older equipment requiring higher repair and maintenance spending were used for spare parts or scrapped in a process that we refer to as cannibalization. Compounding the shrinking effects of cannibalization, several competitors became insolvent and liquidated assets, many of which were sold to overseas markets for use in less demanding well completions activity. Rystad Energy estimates that total HHP capacity has declined by approximately 8.3 million HHP as of July 31, 2021 from approximately 21 million HHP at the end of 2019, as a result of frac equipment permanently leaving the market as a result of scrapping, cannibalization and deferred maintenance. In addition, approximately 30% of remaining horsepower is comprised of obsolete or non-operational fleets, according to Rystad Energy.

Difficult industry conditions allowed us to strengthen our industry leadership position by implementing targeted and forward-looking initiatives. First, we utilized our in-house repair and maintenance yards to maintain and ensure ongoing operational integrity of our equipment without cannibalization, retaining the quality and reliability of our fleet. Second, we implemented several back-office optimization projects, allowing us to automate processes, increase data accuracy and maintain lower headcount in anticipation of an improving market. Third, we successfully completed in-house research and development regarding advanced power end and fluid ends designs, leading to substantially longer life of our expendables and reduced repair and maintenance costs. Fourth, we added over 140 dual fuel kits to our Tier IV engines, in order to position ourselves as a market leading provider of low carbon emission solutions. Finally, we completed the acquisition of EKU, a provider of idle reduction technologies and other equipment engineering and controls that further reduce the carbon footprint of our fleet.

Drilling and completion activities for oil and gas are heavily influenced by oil and gas prices. While recently a significant amount of E&P activity and spending has been allocated toward Permian oil development, we have remained committed to the gas basins and this commitment has yielded superior profitability results and high utilization of our fleets. We have a significant presence in the Haynesville Shale, a high-pressure, high-rate natural gas basin in East Texas and Louisiana, and the northeast's Marcellus and Utica shales. Natural gas prices are currently at their highest level since 2018. Over the long term, EIA expects exports and industrial use will drive natural gas demand. Industrial consumption is expected to increase 35%, or 3.6 Tcf over the next 30 years. Adding to the strong demand outlook for our services in natural gas basins, there are 11.31 bcfpd of existing LNG export facilities in the United States, 8.37 bcfpd of new facilities currently under construction and 22.13 bcfpd of new facilities approved by the Federal Energy Regulatory Commission.

While commodity prices have returned to and exceeded pre-pandemic levels, the pandemic has nonetheless led to supply chain disruptions worldwide. Tariffs, access to employees, increased shipping rates and raw material shortages are plaguing markets. Our supply chain is either vertically integrated or predominantly U.S. based, insulating us from global disruptions and price increases and allowing us to continue to maintain attractive margins. In response to industry-wide compensation reductions and layoffs, we implemented a variety of programs to help improve employee morale and loyalty during the downturn. The result was minimal turnover of middle to senior management at corporate and district levels, including retaining all district managers. We believe our committed base of employees will allow us to continue providing superior customer service as the industry is exiting the downturn.

The oil and gas industry is currently undergoing significant realignment of operating practices with a focus on reducing impacts to the environment. Many E&P companies are implementing carbon tracking and reduction initiatives and are expecting oilfield service providers to deliver products and services that utilize the most advanced and environmentally friendly technologies. We believe that companies in the pressure pumping industry with the most technologically advanced fleets and lowest carbon footprint will likely see significant growth in market share at the expense of companies with less advanced equipment. We have embraced tangible initiatives that help to protect the environment and improve our environment and communities making it part of our organizational culture since early in the life of the company. We have and we continue to invest in a number of industry leading advanced technologies that reduce carbon emissions while increasing profitability. Since the company's inception, we ordered and installed over 220 Tier IV engines for our new-build program. In late 2018, we sold our first fleet, which we originally bought at auction in 2016, due to its inefficiency and high emission profile. In early-2019 we installed our first engine standby controller, which reduces idle in our frac engines and reduces the number of truck tractors we need on location. In mid-2019, we installed our first Tier IV dual fuel system that we developed along with a third party, and we have installed over 160 dual fuel kits since that time. To facilitate our efforts to further reduce fuel consumption in our fleets, in January 2021 we acquired a majority stake in EKU, which manufactures our ESCs. We also co-developed an emissions dashboard for our customers, which has enabled us to accurately track carbon emissions reductions on location. In 2021, we completed the upgrade of a Tier II engine to a Tier IV DGB engine and began field testing. We are currently upgrading two to three engines per month from Tier II to Tier IV DGB. Finally, in June, 2021 we entered into an agreement with USWS under which we have the ability to acquire up to 20 licenses to construct electric-powered hydraulic fracturing fleets utilizing Clean Fleet® technology. We believe that these initiatives and commitment to lower emissions will help us lead the energy transition of the frac industry towards cleaner and sustainable business.

Our competitors include many large and small oilfield services companies, including Haliburton, Liberty Oilfield Services, ProPetro Holding, NexTier Oilfield Solutions and a number of private locally oriented businesses in each of the basins in which we operate. Competitive factors impacting sales of our services are price, reputation and technical expertise, service and equipment quality, and health and safety standards. Although we believe our customers consider all of these factors, we believe price is a key factor in E&P companies' criteria in choosing a service provider. While we seek to price our services competitively, we believe many of our customers elect to work with us based on our technological innovation, equipment capability and our commitment to a more ESG-conscious service offering.

How we generate revenue

We operate three business segments: stimulation services, manufacturing and proppant production.

Stimulation services. We own and operate a fleet of mobile hydraulic fracturing units and other auxiliary equipment that generates revenue by providing stimulation services to our customers. We also provide personnel and services that are tailored to meet each of our customers' needs. We generally do not have long-term written contractual arrangements with our customers other than standard master service agreements, which include general contractual terms between our customers and us. We charge our customers on a per-job basis, in which we set pricing terms after receiving full specifications for the requested job, including the lateral length of the customer's wellbore, the number of frac stages per well, the amount of proppant employed and other specifications of the job. Well stimulation contains complementary services that we often provide to our customers, including sand and associated logistics, chemicals and fuel. These complementary services are provided through various contractual arrangements based on our customers' needs.

Manufacturing. We primarily generate revenue through sales of highly engineered, tight tolerance machined, assembled, and factory tested products such as high horsepower pumps, valves, piping, swivels, large-bore manifold systems, seats, and fluid ends. We operate facilities in Cisco and Fort Worth, Texas, including an ISO 9001 2015 certified OEM manufacturing facility, in which we manufacture and refurbish many of the components used by our fleets, including pumps, fluid ends, power ends, flow iron and other consumables. Additionally, we provide iron inspection, iron recertification, pump refurbishment, fluid end refurbishment, pump function testing, paint, scrap, and lube system change services. We charge our customers for equipment based on a per-order basis, in which we set pricing terms after receiving full specifications for the requested equipment. We charge our customers for our services based on the parts and labor incurred. For the nine months ended September 30, 2021, approximately 88% of our manufacturing segment's revenue was intersegment revenue.

Proppant production. We generate revenue by providing proppant to oilfield service providers and E&P companies. We own and operate a sand mine in west Texas, and we charge our customers on a per ton of proppant basis at current market prices. We do not have long-term written contractual arrangements with our customers with fixed pricing. For the nine months ended September 30, 2021, approximately 40%, of our proppant production segment's revenue was intersegment revenue.

Costs of conducting our business

The principal costs of products and services involved in operating our business are expendables, personnel, equipment repairs and maintenance and fuel. Our fixed costs are relatively low and a large portion of the costs described below are only incurred as we perform jobs for our customers.

Expendables. Expendables used in our stimulation services business are the largest expenses incurred, and include the fuel, product and freight costs associated with proppant, chemicals and other consumables. Fuel is consumed both in the operation and movement of our hydraulic fracturing fleets and other equipment. In our proppant production business, fuel to run equipment is one of our major expenses. These costs comprise a substantial variable component of our service costs, particularly with respect to the quantity and quality of sand demanded when providing hydraulic fracturing services. Expendable product costs comprised approximately 52% and 50% of total costs of service for the nine months ended September 30, 2021 and 2020, respectively. Expendable product costs comprised approximately 52% and 57% of total costs of service for the years ended December 31, 2020 and 2019, respectively.

Raw Materials. Our manufacturing segment relies on various raw materials, specifically various grades of steel and other raw metals, and electricity.

Direct Labor Costs. Payroll and benefit expenses directly related to the delivery of our products and services are included in our operating costs. Direct labor costs amounted to 19% and 21% of total costs of products and services for the nine months ended September 30, 2021 and 2020, respectively. Direct labor costs amounted to 16% and 16% of total costs of products and services for the years ended December 31, 2020 and 2019, respectively.

Other Direct Costs. We incur other expenses related to our products and service offerings, including the costs of repairs and maintenance, general supplies, equipment rental and other miscellaneous operating expenses. Capital expenditures to upgrade or extend the useful life of equipment are not included in other direct costs. Other expenses were 29% and 29% of total costs of products and service for the nine months ended September 30, 2021 and 2020, respectively. Other expenses were 30% and 23% of total costs of products and service for the years ended December 31, 2020 and 2019, respectively.

How we evaluate our operations

Our management uses a variety of financial and operating metrics to evaluate and analyze the performance of our business, including Adjusted EBITDA and Surplus Cash Generation.

Note regarding Non-GAAP financial measures

Adjusted EBITDA and Surplus Cash Generation

Adjusted EBITDA and Surplus Cash Generation are non-GAAP financial measures and should not be considered as substitutes for net income, net loss, operating loss or any other performance measure derived in accordance with GAAP or as an alternative to net cash provided by operating activities as a measure of our profitability or liquidity. Adjusted EBITDA and Surplus Cash Generation are supplemental measures utilized by our management and other users of our financial statements such as investors, commercial banks, research analysts and others, to assess our financial performance because they allow us to compare our operating performance on a consistent basis across periods by removing the effects of our capital structure (such as varying levels of interest expense), asset base (such as depreciation and amortization) and items outside the control of our management team (such as income tax rates).

We view Adjusted EBITDA and Surplus Cash Generation as important indicators of performance. We define Adjusted EBITDA as our net income (loss), before (i) interest expense, net, (ii) income tax provision, (iii) depreciation, depletion and amortization, (iv) loss on disposal of assets and (v) other unusual or non-recurring charges, such as costs related to our initial public offering, non-recurring supply commitment charges, certain bad debt expense and gain on extinguishment of debt. We define Surplus Cash Generation as Adjusted EBITDA less capital expenditures plus cash proceeds from sales of assets.

We believe that our presentation of Adjusted EBITDA and Surplus Cash Generation will provide useful information to investors in assessing our financial condition and results of operations. Net income is the GAAP measure most directly comparable to Adjusted EBITDA and Surplus Cash Generation. Adjusted EBITDA and Surplus Cash Generation should not be considered as an alternative to net income. Adjusted EBITDA and Surplus Cash Generation have important limitations as analytical tools because they exclude some but not all items that affect the most directly comparable GAAP financial measure. Surplus Cash Generation is not necessarily indicative of cash available for discretionary expenditures. You should not consider Adjusted EBITDA or Surplus Cash Generation in isolation or as a substitute for an analysis of our results as reported under GAAP. Because Adjusted EBITDA and Surplus Cash Generation may be defined differently by other companies in our industry, our definition of these non-GAAP financial measures may not be comparable to similarly titled measures of other companies, thereby diminishing their utility. Please read “Summary—Summary Historical and Pro Forma Financial Data—Non-GAAP Financial Measures.”

Factors affecting the comparability of our financial results

Our future results of operations may not be comparable to our historical results of operations for the reasons described below:

Corporate reorganization

ProFrac Holding Corp. was incorporated to serve as the issuer in this offering and has no previous operations, assets or liabilities. Following the completion of the corporate reorganization, ProFrac LLC, Best Flow and Alpine will be our direct and indirect subsidiaries. As we integrate our operations and further implement controls, processes and infrastructure, it is likely that we will incur incremental selling, general and administrative expenses relative to historical periods.

In addition, ProFrac Holding Corp. will enter into the Tax Receivable Agreement with the TRA Holders. This agreement generally will provide for the payment by ProFrac Holding Corp. to each TRA Holder of 85% of the net cash savings, if any, in U.S. federal, state and local income tax or franchise tax that it actually realizes (or is deemed to realize in certain circumstances) in periods after this offering as a result of (i) certain increases in tax basis that occur as a result of ProFrac Holding Corp.'s acquisition (or deemed acquisition for U.S. federal income tax purposes) of all or a portion of such TRA Holder's ProFrac LLC Units pursuant to the exercise of the Redemption Right or the Call Right and (ii) imputed interest deemed to be paid by ProFrac Holding Corp. as a result of, and additional tax basis arising from, any payments ProFrac Holding Corp. makes under the Tax Receivable Agreement. ProFrac Holding Corp. will be dependent on ProFrac LLC to make distributions to ProFrac Holding Corp. in an amount sufficient to cover ProFrac Holding Corp.'s obligations under the Tax Receivable Agreement.

Public company expenses

ProFrac Holding Corp. expects to incur additional recurring administrative expenses as a publicly traded corporation that we have not previously incurred, including costs associated with compliance under the Exchange Act, annual and quarterly reports to shareholders, registrar and transfer agent fees, audit fees, incremental director and officer liability insurance costs and director and officer compensation. We additionally expect to incur approximately $2.5 million in incremental, non-recurring costs related to our transition to a publicly traded corporation.

Income taxes

ProFrac Holding Corp. is a corporation and will be subject to U.S. federal, state and local income taxes. Although the ProFrac Predecessor entities are subject to franchise tax in the State of Texas (at less than 1% of modified pre-tax earnings), they have historically been treated as pass-through entities for U.S. federal and other state and local income tax purposes and as such were not subject to U.S. federal income taxes or other state or local income taxes. Rather, the tax liability with respect to the taxable income of the ProFrac Predecessor entities was passed through to their owners. Accordingly, the financial data attributable to ProFrac Predecessor contains no provision for U.S. federal income taxes or income taxes in any state or locality (other than franchise tax in the State of Texas). We estimate that we will be subject to U.S. federal, state and local taxes at a blended statutory rate of approximately 23% of pre-tax earnings.

We account for income taxes under the asset and liability method. Under this method, deferred tax assets and liabilities are recognized for the estimated future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax basis. Deferred tax assets and liabilities are measured using enacted tax rates in effect for the year in which those temporary differences are expected to be recovered or settled pursuant to the provisions of Accounting Standards Codification ("ASC") 740, Income Taxes. The effect on deferred tax assets and liabilities of a change in tax rate is recognized in earnings in the period that includes the enactment date. Valuation allowances are established when necessary to reduce deferred tax assets to the amounts more likely than not to be realized.

We expect to record a full valuation allowance on our net deferred tax assets based on our assessment that it is more likely than not that the deferred tax asset will not be realized. A change in these assumptions could cause a decrease to the valuation allowance, which could materially impact our results of operations.

Results of operations

	Nine months ended September 30,		Years ended December 31,	
	2021	2020	2020	2019
	(in thousands, except industry data)			
Revenues—Stimulation services	$ 502,932	$ 405,326	$ 538,282	$ 824,075
Revenues—Manufacturing	50,741	37,128	46,222	65,866
Revenues—Proppant production	19,769	8,170	10,215	17,587
Eliminations	(53,106)	(38,137)	(47,040)	(59,840)
Total revenues	520,336	412,487	547,679	847,688
Cost of revenues, exclusive of depreciation, depletion and amortization—Stimulation services	391,302	327,739	433,122	659,915
Cost of revenues, exclusive of depreciation, depletion, and amortization—Manufacturing	41,091	33,573	40,424	58,770
Cost of revenues, exclusive of depreciation, depletion, and amortization—Proppant production	9,890	3,500	6,064	14,714
Eliminations	(53,106)	(38,137)	(47,040)	(59,840)
Total cost of revenues, exclusive of depreciation and depletion	389,177	326,675	432,570	673,559
Depreciation and depletion	105,606	113,772	150,662	133,092
Loss on disposal of assets, net	7,472	5,382	8,447	14,809
Selling, general and administrative	47,919	33,746	50,798	38,488
Interest expense, net	(19,118)	(18,321)	(23,276)	(26,026)
Other income	148	268	108	327
Income tax benefit (provision)	138	(370)	(582)	(587)
Net loss	$ (48,670)	$ (85,511)	$ (118,548)	$ (38,546)
Net loss attributable to noncontrolling interest	(161)	—	—	—
Net loss attributable to ProFrac Predecessor	$ (48,509)	$ (85,511)	$ (118,548)	$ (38,546)
Other data:				
Adjusted EBITDA—Stimulation services	$ 75,027	$ 54,107	$ 68,787	$ 134,246
Adjusted EBITDA—Manufacturing	$ 3,181	$ 1,809	$ 1,325	$ 3,033
Adjusted EBITDA—Proppant production	$ 8,069	$ 3,261	$ 2,685	$ (1,080)
Adjusted EBITDA(1)	$ 86,277	$ 59,177	$ 72,797	$ 136,199
Surplus Cash Generation(1)	$ 33,179	$ 21,656	$ 29,440	$ (66,176)
Baker Hughes Domestic Average Rig Count—Onshore(2)	431	460	524	1,077
Average oil price (per barrel)(3)	$ 59.40	$ 42.74	$ 39.16	$ 56.99
Average natural gas price (per thousand cubic feet)(4)	$ 3.62	$ 1.87	$ 2.03	$ 2.56

(1) For definitions of the non-GAAP financial measures of Adjusted EBITDA and Surplus Cash Generation and reconciliation of Adjusted EBITDA and Surplus Cash Generation to our most directly comparable financial measures calculated in accordance with GAAP, please read "Summary—Summary Historical and Pro Forma Financial Data—Non-GAAP Financial Measures."

(2) Average onshore U.S. rig count published by Baker Hughes.

(3) Average West TX Intermediate Spot Price published by EIA.

(4) Average Henry Hub Natural Gas Spot Price published by EIA.

Nine months ended September 30, 2021 compared to nine months ended September 30, 2020

Revenues

Revenues—Stimulation services. Stimulation services revenues increased 24%, or $97.6 million, to $502.9 million for the nine months ended September 30, 2021, from $405.3 million for the nine months ended September 30, 2020. The increase was primarily attributable to strong recovery from the COVID-19 pandemic resulting in an increase in customer activity for our stimulation services. We increased pumping hours 24% for the nine months ended September 20, 2021, versus the nine months ended September 30, 2020. Our average marketed active fleet count increased 33% to 16 for the nine months ended September 30, 2021, from 12 in the nine months ended September 30, 2020. We define a marketed fleet as 50,000 hydraulic horsepower, three blenders, high pressure iron, one hydration unit, one data van, suction hoses, a manifold system and other ancillary equipment as needed.

Revenues—Manufacturing. Manufacturing revenues increased 37%, or $13.6 million, to $50.7 million for the nine months ended September 30, 2021, from $37.1 million for the nine months ended September 30, 2020. The increase was primarily attributable to an increase in demand for our products due to an increase in commodity prices, demand for manufactured components utilized in the oilfield service industry, and the acquisition of a majority stake in EKU. For the nine months ended September 30, 2021 and 2020, intersegment revenues accounted for 88% and 97% of manufacturing revenues, respectively.

Revenues—Proppant production. Proppant production revenues increased 141%, or $11.6 million, to $19.8 million for the nine months ended September 30, 2021, from $8.2 million for the nine months ended September 30, 2020. The increase was primarily attributable to a 122% increase in proppant production and a 10% increase in proppant pricing resulting from increases in commodity prices and proppant demand in the Permian basin. The plant operated all nine months of 2021 as a result of the COVID-19 pandemic recovery compared to six months of the same period for 2020. For the nine months ended September 30, 2021 and 2020, intersegment revenues accounted for 40% and 17% of proppant production revenues, respectively.

Total revenues. Total revenues increased 26%, or $107.9 million, to $520.3 million for the nine months ended September 30, 2021, from $412.5 million for the nine months ended September 30, 2020. The increase was primarily attributable to recovery from the COVID-19 pandemic resulting in increased demand for oilfield services. Average oil and natural gas prices have increased 40% and 67%, respectively, from the nine months ended September 30, 2021, to the comparative period in 2020. The Baker Hughes U.S. onshore rig count also increased 108% when comparing the same periods.

Operating costs and expenses

Cost of revenues, exclusive of depreciation, depletion, and amortization—Stimulation services . Cost of revenues, exclusive of depreciation, depletion, and amortization—Stimulation services increased 19%, or $63.6 million, to $391.3 million for the nine months ended September 30, 2021, from $327.7 million for the nine months ended September 30, 2020. The increase was primarily due to an increase in fuel, personnel, expendable and other variable costs due to higher activity levels and an increase in our average marketed fleet count from 12 in the nine months ended September 30, 2020, to 16 in the nine months ended September 30, 2021. As a percentage of revenues, Cost of revenues, exclusive of depreciation and depletion—Stimulation services was 78% for the nine months ended September 30, 2021, as compared to 81% for the nine months ended September 30, 2020.

Cost of revenues, exclusive of depreciation, depletion, and amortization—Manufacturing . Cost of revenues, exclusive of depreciation, depletion, and amortization—Manufacturing increased 22%, or $7.5 million, to $41.1 million for the nine months ended September 30, 2021, from $33.6 million for the nine months ended

September 30, 2020. The increase was due to higher activity levels, coupled with higher personnel headcount and our acquisition of EKU. As a percentage of revenues, Cost of revenues—manufacturing was 81% for the nine months ended September 30, 2021, as compared to 90% for the nine months ended September 30, 2020. The decrease in Cost of revenues., exclusive of depreciation and depletion—Manufacturing as a percentage of revenues resulted from a relative increase in power end and fluid end sales, which have a higher margin, compared to flow iron.

Cost of revenues, exclusive of depreciation, depletion, and amortization—Proppant production . Cost of revenues, exclusive of depreciation, depletion, and amortization—Proppant production increased 183%, or $6.4 million, to $9.9 million for the nine months ended September 30, 2021, from $3.5 million for the nine months ended September 30, 2020. The increase was primarily due to a 122% increase in proppant production combined with higher personnel and repairs and maintenance costs resulting from greater market demand and higher activity. As a percentage of revenues, Cost of revenues—Proppant production was 50% for the nine months ended September 30, 2021, as compared to 43% for the nine months ended September 30, 2020. The increase in Cost of revenues, exclusive of depreciation and depletion—Proppant production as a percentage of revenues resulted from higher personnel and repairs and maintenance costs associated with higher proppant production activity.

Depreciation, depletion, and amortization. Depreciation, depletion, and amortization decreased 7%, or $8.2 million, to $105.6 million for the nine months ended September 30, 2021, from $113.8 million for the nine months ended September 30, 2020. The decrease was primarily due to fully depreciated high-pressure iron associated with fleets manufactured in 2018 as well as a reduced number of tractor trucks eliminated through our ESC upgrade program.

Loss on disposal of assets, net. Loss on disposal of assets, net increased 39%, or $2.1 million, to $7.5 million for the nine months ended September 30, 2021, from $5.4 million for the nine months ended September 30, 2020. The increase resulted from an increase in the early failure and disposal of components of our pressure pumping equipment as a result of higher activity levels.

Selling, general and administrative. Selling, general and administrative expenses increased 42%, or $14.2 million, to $47.9 million for the nine months ended September 30, 2021, from $33.7 million for the nine months ended September 30, 2020. The increase was due to higher headcount and personnel costs associated with the increased demand of our stimulation services, higher insurance costs due to increased market rates associated with business and medical insurance, and an increase in bad debt expense.

Interest expense, net. Interest expense, net increased 4%, or $0.8 million, to $19.1 million for the nine months ended September 30, 2021, from $18.3 million for the nine months ended September 30, 2020. The increase in interest expense, net was attributable to upsizing our term loan for the purchase of three efrac licenses from USWS.

Other income. Other income decreased to $0.1 million for the nine months ended September 30, 2021 from $0.3 million for the nine months ended September 30, 2020.

Income tax benefit (provision). Income tax benefit was $0.1 million for the nine months ended September 30, 2021 compared to an income tax provision of $0.4 million for the nine months ended September 30, 2020.

Segment results

The performance of our segments is evaluated primarily on Adjusted EBITDA. For definition of the non-GAAP financial measure of Adjusted EBITDA and reconciliation of Adjusted EBITDA to our most directly comparable financial measures calculated in accordance with GAAP, please read "Summary—Summary Historical and Pro Forma Financial Data—Non-GAAP Financial Measures."

Adjusted EBITDA—Stimulation services. Adjusted EBITDA—Stimulation services increased 39%, or $20.9 million, to $75.0 million for the nine months ended September 30, 2021, from $54.1 million for the nine months ended September 30, 2020. The increase was primarily attributable to the impacts from the COVID-19 pandemic recovery resulting in an increase in customer activity.

Adjusted EBITDA—Manufacturing. Adjusted EBITDA—Manufacturing increased 76%, or $1.4 million, to $3.2 million for the nine months ended September 30, 2021, from $1.8 million for the nine months ended September 30, 2020. The increase was primarily attributable to an increase in demand for our products due to a decrease in commodity prices and demand for manufactured components utilized in the oilfield service industry, and increased power end and fluid end sales, which have a higher margin compared to flow iron.

Adjusted EBITDA—Proppant production. Adjusted EBITDA—Proppant production increased 147%, or $4.8 million, to $8.1 million for the nine months ended September 30, 2021, from $3.3 million for the nine months ended September 30, 2020. The increase was primarily attributable to a 122% increase in proppant production and a 10% increase in proppant pricing resulting from increases in commodity prices and proppant demand in the Permian basin.

Year ended December 31, 2020 compared to year ended December 31, 2019

Revenues

Revenues—Stimulation services. Stimulation services revenues decreased 35%, or $285.8 million to $538.3 million for the year ended December 31, 2020 from $824.1 million for the year ended December 31, 2019. The decrease was primarily attributable to impacts from the COVID-19 pandemic resulting in a reduction in customer activity and pricing for our stimulation services. We pumped 5% fewer stages in 2020 compared to 2019 and price per pump hour declined by 38% in 2020 compared to 2019. Our average marketed active fleet count decreased from 16 in the year ended December 31, 2019 to 12 in the year ended December 31, 2020. We define a marketed fleet as 50,000 hydraulic horsepower, three blenders, high pressure iron, one hydration unit, one data van, suction hoses, a manifold system and other ancillary equipment as needed.

Revenues—Manufacturing. Manufacturing revenues decreased 30%, or $19.7 million, to $46.2 million for the year ended December 31, 2020, from $65.9 million for the year ended December 31, 2019. The decrease was primarily attributable to a decrease in demand for our products due to a decrease in commodity prices and demand for manufactured components utilized in the oilfield service industry. For the years ended December 31, 2020 and 2019, intersegment revenues accounted for 97% and 89% of manufacturing revenues, respectively.

Revenues—Proppant production. Proppant production revenues decreased 42%, or $7.4 million, to $10.2 million for the year ended December 31, 2020, from $17.6 million for the year ended December 31, 2019. The decrease was primarily attributable to 27% decrease in proppant production and a 20% decrease in realized proppant prices. Production decreased due to a temporary shut-down of operations resulting from low proppant demand due to the COVID-19 pandemic. For the years ended December 31, 2020 and 2019, intersegment revenues accounted for 20% and 8% of proppant production revenues, respectively.

Total revenues. Total revenues decreased 35%, or $300.0 million to $547.7 million for the year ended December 31, 2020, from $847.7 million for the year ended December 31, 2019. The decrease was primarily attributable to impacts from the COVID-19 pandemic resulting in a reduction in demand for oilfield services. Average oil and natural gas prices have decreased 31% and 21%, respectively, from the year ended

December 31, 2019 to the comparative period in 2020. The Baker Hughes U.S. onshore rig count also decreased 51% when comparing the same periods.

Operating costs and expenses

Cost of revenues, exclusive of depreciation and depletion—Stimulation services . Cost of revenues, exclusive of depreciation and depletion —Stimulation services decreased 34%, or $226.8 million, to $433.1 million for the year ended December 31, 2020, from $659.9 million for the year ended December 31, 2019. The decrease was primarily due to a reduction in fuel, personnel, expendable and other variable costs due to lower activity levels and a decrease in our average marketed fleet count from 16 in the year ended December 31, 2019 to 12 in the year ended December 31, 2020. As a percentage of revenues, Cost of revenues, exclusive of depreciation and depletion—Stimulation services was 80% for the years ended December 31, 2020 and 2019.

Cost of revenues, exclusive of depreciation and depletion—Manufacturing . Cost of revenues, exclusive of depreciation and depletion—Manufacturing decreased 31%, or $18.4 million, to $40.4 million for the year ended December 31, 2020 from $58.8 million for the year ended December 31, 2019. The decrease was due to lower activity levels, coupled with reduced personnel headcount. As a percentage of revenues, Cost of revenues—manufacturing decreased to 87% for the year ended December 31, 2020, as compared to 92% for the year ended December 31, 2019. The decrease in Cost of revenues, exclusive of depreciation and depletion—Manufacturing as a percentage of revenues resulted from a relative increase in sales of power ends and fluid ends, which have a higher margin, compared to flow iron.

Cost of revenues, exclusive of depreciation and depletion—Proppant production . Cost of revenues, exclusive of depreciation and depletion – Proppant production decreased 59%, or $8.6 million, to $6.1 million for the year ended December 31, 2020, from $14.7 million for the year ended December 31, 2019. The decrease was primarily due to a 27% decrease in proppant production. As a percentage of revenues, Cost of revenues—Proppant production decreased to 59% for the year ended December 31, 2020, as compared to 84% for the year ended December 31, 2019. The decrease in Cost of revenues, exclusive of depreciation and depletion—Proppant production as a percentage of revenues resulted from temporary shut-down of our operations resulting from low proppant demand due to the COVID-19 pandemic.

Depreciation and depletion . Depreciation and depletion increased 13%, or $17.6 million, to $150.7 million for the year ended December 31, 2020 from $133.1 million for the year ended December 31, 2019. The increase was primarily a result of frac fleet upgrades throughout 2019.

Loss on disposal of assets, net . Loss on disposal of assets, net decreased 43%, or $6.4 million, to $8.4 million for the year ended December 31, 2020, from $14.8 million for the year ended December 31, 2019. The decrease resulted from a reduction in the early failure and disposal of components of our pressure pumping equipment as a result of reduced activity levels.

Selling, general and administrative . Selling, general and administrative expenses increased 32%, or $12.3 million, to $50.8 million for the year ended December 31, 2020, from $38.5 million for the year ended December 31, 2019. The increase was due to supply commitment charges of $5.6 million, an increase in bad debt expense of $2.5 million and an increase in insurance expense due to increased market rates associated with business and medical insurance.

Interest expense, net. Interest expense, net decreased 11%, or $2.7 million, to $23.3 million for the year ended December 31, 2020, from $26.0 million for the year ended December 31, 2019. The decrease in interest expense, net was attributable to a reduction in our average debt balance during the 2020 period, a decrease in applicable margin rates on our credit agreements and a decrease in the floating interest rates.

Other income. Other income decreased to $0.1 million for the year ended December 31, 2020, from $0.3 million for the year ended December 31, 2019.

Income tax provision. Income tax provision was $0.6 million for the years ended December 31, 2020 and 2019. The recorded income tax provision relates to state income taxes.

Segment results

The performance of our segments is evaluated primarily on Adjusted EBITDA. For definition of the non-GAAP financial measure of Adjusted EBITDA and reconciliation of Adjusted EBITDA to our most directly comparable financial measures calculated in accordance with GAAP, please read “Summary—Summary Historical and Pro Forma Financial Data—Non-GAAP Financial Measures.”

Adjusted EBITDA—Stimulation services. Adjusted EBITDA—Stimulation services decreased 49%, or $65.4 million, to $68.8 million for the year ended December 31, 2020, from $134.2 million for the year ended December 31, 2019. The decrease was primarily attributable to impacts from the COVID-19 pandemic resulting in a reduction in customer activity and pricing for our stimulation services.

Adjusted EBITDA—Manufacturing. Adjusted EBITDA—Manufacturing decreased 56%, or $1.7 million, to $1.3 million for the year ended December 31, 2020, from $3.0 million for the year ended December 31, 2019. The decrease was primarily attributable to a decrease in demand for our products due to a decrease in commodity prices and demand for manufactured components utilized in the oilfield service industry. This was partially offset by an improvement in margins due to a relative increase in sales of power ends and fluid ends, which have a higher margin compared to flow iron.

Adjusted EBITDA—Proppant production. Adjusted EBITDA—Proppant production increased 349%, or $3.8 million, to $2.7 million for the year ended December 31, 2020, from an Adjusted EBITDA – Proppant production loss of $1.1 million for the year ended December 31, 2019. During the year ended December 31, 2020, we implemented several cost saving initiatives to improve profitability, despite declines in proppant production and pricing.

Liquidity and capital resources

Historically, our primary sources of liquidity and capital resources have been borrowings under our ABL Credit Facility, cash flows from our operations and capital contributions from our shareholders. Our primary uses of capital have been investing in and maintaining our property and equipment and repaying indebtedness.

We expect that our primary sources of liquidity and capital resources after the consummation of this offering will be cash on hand, cash flows generated by operating activities and borrowings under our ABL Credit Facility. We expect that our primary uses of capital will be to continue to fund our operations, support organic growth opportunities and satisfy future debt payments. We believe that our operating cash flow will be sufficient to fund our planned capital expenditures and debt obligations for at least the next 12 months.

Following the consummation of this offering, ProFrac Holding Corp. will be obligated to make payments under the Tax Receivable Agreement. The actual timing and amount of any payments that may be made under the Tax Receivable Agreement are unknown at this time and will vary based on a number of factors. For more information about these factors, see “Certain Relationships and Related Party Transactions—Tax Receivable Agreement.” However, we expect that the payments that ProFrac Holding Corp. will be required to make to the TRA Holders in connection with the Tax Receivable Agreement will be substantial. Any payments made by ProFrac Holding Corp. to the TRA Holders under the Tax Receivable Agreement will generally reduce the amount of cash that might have otherwise been available to ProFrac Holding Corp. or ProFrac LLC. To the extent ProFrac LLC has available cash, and subject to the terms of any current or future debt instruments, the ProFrac LLC Agreement will require ProFrac LLC to make pro rata cash distributions to the holders of ProFrac

LLC Units, including ProFrac Holding Corp., in an amount at least sufficient to allow ProFrac Holding Corp. to pay its taxes and to make payments under the Tax Receivable Agreement. We generally expect ProFrac LLC to fund such distributions out of available cash. However, except in cases where we elect to terminate the Tax Receivable Agreement early, the Tax Receivable Agreement is terminated early due to certain mergers or other changes of control or ProFrac Holding Corp. has available cash but fails to make payments when due, generally ProFrac Holding Corp. may elect to defer payments due under the Tax Receivable Agreement if it does not have available cash to satisfy its payment obligations under the Tax Receivable Agreement or if our contractual obligations limit its ability to make these payments. Any such deferred payments under the Tax Receivable Agreement generally will accrue interest at the rate provided for in the Tax Receivable Agreement, and such interest may significantly exceed our other costs of capital. In certain circumstances (including but not limited to an early termination of the Tax Receivable Agreement due to a change of control or otherwise), payments under the Tax Receivable Agreement may be accelerated and/or significantly exceed the actual benefits, if any, ProFrac Holding Corp. realizes in respect of the tax attributes subject to the Tax Receivable Agreement. In the case of such an acceleration in connection with a change of control, where applicable, we generally expect the accelerated payments due under the Tax Receivable Agreement to be funded out of the proceeds of the change of control transaction giving rise to such acceleration, which could have a significant impact on our ability to consummate a change of control transaction or could result in substantially less proceeds being received by our shareholders in connection with such change of control compared to what they would receive in the absence of the Tax Receivable Agreement obligation. However, we may be required to fund such payment from other sources, and, as a result, any early termination of the Tax Receivable Agreement could have a substantial negative impact on our liquidity or financial condition.

Our 2022 Capital Budget

Our 2022 capital expenditure budget, excluding acquisitions, is estimated to be in a range between $175 million and $225 million. We have budgeted approximately $100 million to construct four electric-powered fleets. We are currently in contract negotiations with a customer for one of these fleets and we are fully committed to building that fleet. We have ordered long lead items and purchased the license for two additional electric-powered fleets but will not complete the assembly of those fleets without contracts. While we have budgeted $25 million for the fourth fleet, no capital has been committed or deployed. We will only deploy capital for the fourth fleet with a contract. Other than the three electric-powered fleets currently under construction, we intend to align fleet construction and other growth capital expenditures with visible customer demand, by strategically deploying new equipment in response to inbound customer requests and industry trends. The remainder of our 2022 capital expenditure budget, excluding acquisitions, will be used to fund maintenance capital expenditures and upgrade Tier II fleets to Tier IV duel fuel fleets. We continually evaluate our capital expenditures, and the amount that we ultimately spend will depend on a number of factors, including customer demand for new fleets and expected industry activity levels. We believe we will be able to fund our 2022 capital program from cash flows from operations.

We do not expect completion of the FTSI Acquisition to have a material impact on our 2022 capital program.

Working Capital

Our working capital was $46.9 million as of September 30, 2021, compared to a working capital deficit of $0.5 million as of December 31, 2020. The $47.4 million increase in working capital was primarily due to an increase in cash and accounts receivable.

Our working capital deficit was $0.5 million as of December 31, 2020, compared to a working capital surplus of $4.1 million as of December 31, 2019. The $4.6 million reduction in working capital was primarily due to a decrease in cash, which was used to reduce debt obligations.

Cash and Cash Flows

Our cash and cash equivalents were $16.4 million and $13.3 million as of September 30, 2021 and 2020, respectively.

The following table sets forth the historical cash flows for the nine months ended September 30, 2021 and 2020:

	Nine months ended September 30,	
	2021	2020
	($ in thousands)	
Net cash provided by operating activities	$ 37,690	$ 44,008
Net cash (used in) investing activities	$ (55,528)	$ (37,521)
Net cash (used in) provided by financing activities	$ 31,253	$ (11,019)
Net (decrease) increase in cash and equivalents	$ 13,415	$ (4,532)

Operating activities

Net cash provided by operating activities was $37.7 million and $44.0 million for the nine months ended September 30, 2021 and 2020, respectively. The decrease in cash provided by operating activities was primarily due to an increase in accounts receivable and inventory, driven by higher activity levels during the period.

Investing activities

Net cash used in investing activities was $55.5 million and $37.5 million for the nine months ended September 30, 2021 and 2020, respectively. The increase was primarily due to higher capital expenditures related to dual fuel engine upgrades, ESC installations, and efrac build program.

Financing activities

Net cash provided by financing activities was $31.3 million for the nine months ended September 30, 2021, compared to net cash used in financing activities of $11.0 million for the nine months ended September 30, 2020.

The increase in cash provided by financing activities was primarily due to the $40 million expansion of our Term Loan.

Cash and Cash Flows

Our cash and cash equivalents were $3.0 million and $17.8 million at December 31, 2020 and December 31, 2019, respectively.

The following table sets forth the historical cash flows for the years ended December 31, 2020 and 2019:

	Year ended December 31,	
	2020	2019
	($ in thousands)	
Net cash provided by operating activities	$ 45,054	$ 145,421
Net cash (used in) investing activities	$ (44,617)	$ (202,375)
Net cash (used in) provided by financing activities	$ (15,322)	$ 58,444
Net (decrease) increase in cash and equivalents	$ (14,885)	$ 1,490

Operating activities

Net cash provided by operating activities was $45.1 million and $145.4 million for the years ended December 31, 2020 and 2019, respectively. The decrease in cash provided by operating activities was primarily due to a decrease in demand for our products and services as a result of depressed commodity prices and the COVID-19 pandemic.

Investing activities

Net cash used in investing activities was $44.6 million and $202.4 million for the years ended December 31, 2020 and 2019, respectively. The decrease was primarily due to a decrease in capital expenditures of $160.0 million. In 2020, we reduced our capital expenditures to conserve cash in response to overall weakness in the demand for our products and services in 2020.

Financing activities

Net cash used in financing activities was $15.3 million for the year ended December 31, 2020, compared to net cash provided by financing activities of $58.4 million for the year ended December 31, 2019. In 2020, we had net payments of debt of $13.7 million, compared to net borrowings of debt of $42.8 million in 2019. Additionally, we received $16.1 million in capital contributions in 2019.

Credit facilities and other financing arrangements

ABL Credit facility

On March 14, 2018, ProFrac LLC and its wholly owned subsidiary, ProFrac Services, LLC (“Services” or, in such capacity, the “ABL Borrower”), entered into a senior secured asset-based revolving credit agreement (the “ABL Credit Facility”), with Barclays Bank PLC, as administrative agent and collateral agent (the “ABL Agent”), and the lenders party thereto. The ABL Credit Facility provides for an asset-based revolving credit facility, originally in the amount of up to $50.0 million, subject to borrowing base availability. On May 13, 2019, the ABL Credit Facility was amended in order to, among other things, increase the aggregate commitments under the ABL Credit Facility to $105.0 million overall. The ABL Credit Facility has a borrowing base composed of certain eligible accounts receivable and eligible inventory less customary reserves, as redetermined monthly. As of September 30, 2021, the borrowing base was approximately $85.9 million, and the ABL Borrower had approximately $3.1 million in letters of credit outstanding and $52.0 million in borrowings under the ABL Credit Facility, leaving $30.8 million of remaining availability. Our ABL Credit Facility matures on March 14, 2023. However, the ABL Credit Facility provides that the ABL Borrower may request that lenders extend the maturity date of their commitments and loans and that each individual lender shall have the right to consent to such request with respect to its commitments and loans without the consent of any other lender.

Borrowings under the ABL Credit Facility accrue interest based on a three-tier pricing grid tied to average historical availability, and we may elect for loans to be based on either LIBOR or base rate, plus the applicable margin. The interest rate under our ABL Credit Facility for (a) LIBOR Rate Loans is the applicable margin plus the fluctuating per annum rate equal to LIBOR Rate (as defined in the ABL Credit Facility); and (b) Base Rate Loans (as defined in the ABL Credit Facility) are the applicable margin plus the fluctuating per annum rate equal to the greater of (i) the federal funds rate plus 1/2 of 1%; (ii) the interest rate quoted in the print edition of *The Wall Street Journal*, Money Rates Section, as the prime rate in effect; and (iii) LIBOR Rate for a one-month interest period as determined on such day, plus 1.0%. The applicable margin for LIBOR Rate Loans ranges from 1.50% to 2.00% and for Base Rate Loans ranges from 0.50% to 1.00%, depending on the average daily availability over the last three months under our revolving credit agreement. The ABL Credit Facility provides for mechanics intended to address the anticipated cessation of the availability of LIBOR as it relates to the LIBOR announcement discussed in "Risk Factors—An increase in interest rates would increase the cost of servicing our indebtedness and could reduce our profitability, decrease our liquidity and impact our solvency" above. The ABL Credit Facility bears a commitment fee ranging from 0.250% to 0.375%, depending on the average daily availability over the last three months payable quarterly in arrears. The ABL Credit Facility also bears customary letter of credit fees.

Our ABL Credit Facility is guaranteed by us, the ABL Borrower, ProFrac Manufacturing, LLC ("Manufacturing") and certain direct and indirect future wholly-owned U.S. restricted subsidiaries of ABL Borrower. Our ABL Credit Facility is secured by a first priority lien on, and security interest in, substantially all of each such guarantor's assets, which consists of:

- a perfected first-priority security interest in all present and after-acquired accounts, chattel paper, credit card accounts receivables, deposit accounts, commodity accounts and securities accounts, inventory (except fracturing equipment), fracturing equipment parts (prior to their assembly into fracturing equipment), and, to the extent evidencing or otherwise related to such items, all documents, general intangibles, instruments, investment property, commercial tort claims, letters of credit, letter-of-credit rights and supporting obligations, and the proceeds and products of any of the foregoing and all books, records and documents relating to, or arising from, any of the foregoing, in each case, except to the extent such proceeds constitute Fixed Asset Priority Collateral (as defined under "Term Loan" below), and subject to customary exceptions (collectively, the "ABL Priority Collateral"), which security interest is senior to the security interest in the foregoing assets securing the Term Loan; and

- a perfected security interest in the Fixed Asset Priority Collateral, which security interest is junior to the security interest in the Fixed Asset Priority Collateral securing the Term Loan.

The respective rights of the ABL Credit Facility lenders and the Term Loan lenders in the ABL Priority Collateral and the Fixed Asset Priority Collateral are governed by an intercreditor agreement between the ABL Agent and the Term Loan Agent (as defined below).

Our ABL Credit Facility is subject to customary mandatory prepayments, including a mandatory prepayment if the aggregate amount of outstanding revolving credit loans, swingline borrowings, unreimbursed drawings under letters of credit and the undrawn amount of outstanding letters of credit exceeds the lesser of (x) the then applicable borrowing base and (y) the then total effective commitments under the ABL Credit Facility, in an amount equal to such excess. After the occurrence and the continuance of a Cash Dominion Period (defined in the ABL Credit Facility as (a) any period starting on the date availability shall have been less than the greater of (i) 15.0% of the maximum credit (which is the lesser of the maximum revolver amount and the borrowing base at such time) and (ii) $10,000,000 for a period of five consecutive business days and continuing until the date on which availability shall have been at least the greater of (y) 15.0% of the maximum credit and (z) $10,000,000 for 20 consecutive calendar days or (b) any period commencing on the occurrence of certain specified events of default, and continuing during the period that such specified event of default shall be continuing) and notification thereof by the ABL Agent to the ABL Borrower, all amounts deposited in the concentration account controlled by the ABL Agent will be applied on a daily basis to the outstanding loan balances under the ABL Credit Facility and certain other secured obligations then due and owing. Voluntary reductions of the unutilized portion of the ABL commitments and prepayments of borrowings under the ABL Credit Facility are permitted at any time, in specified minimum principal amounts, without premium or penalty, subject to reimbursement of the lenders' redeployment costs actually incurred in the case of a prepayment of adjusted LIBOR borrowings other than on the last day of the relevant interest period.

Our ABL Credit Facility contains certain customary representations and warranties and affirmative and negative covenants. The negative covenants include, subject to customary exceptions, limitations on indebtedness, dividends, distributions and other restricted payments, investments, acquisitions, prepayments of specified junior indebtedness, amendments of specified junior indebtedness, transactions with affiliates, dispositions, mergers and consolidations, liens, restrictive agreements, sale and leaseback transactions, changes in fiscal periods and changes in line of business.

We are required by our ABL Credit Facility to maintain minimum liquidity of $5.0 million. Additionally, when availability is less than the greater of (i) 15.0% of the maximum credit (which is the lesser of the maximum revolver amount and the borrowing base at such time) and (ii) $12,600,000 and continuing until such time as availability has been in excess of such threshold for a period of 30 consecutive calendar days, we are required by our ABL Credit Facility to maintain a springing Fixed Charge Coverage Ratio (as defined in our ABL Credit Facility) of at least 1.0 to 1.0, which is tested quarterly during such period.

Our ABL Credit Facility contains customary events of default. If an event of default occurs and is continuing, the lenders may declare all loans to be immediately due and payable. Some events of default require an automatic termination of the loans and become immediately due and payable.

Term Loan Credit Facility

On September 7, 2018, ProFrac LLC and its wholly owned subsidiary, Services (in such capacity, the "Term Loan Borrower"), entered into senior secured term loan credit agreement (the "Term Loan Credit Facility"), with Barclays Bank PLC, as administrative agent and collateral agent (the "Term Loan Agent"), and the lenders party thereto. The Term Loan Credit Facility provides for a term loan credit facility, in an aggregate principal amount up to $180.0 million. As of September 30, 2021, the Term Loan Borrower had approximately $171.4 million outstanding under the Term Loan Credit Facility. Our Term Loan Credit Facility matures on September 15, 2023. On June 24, 2021, the Term Loan Credit Facility was amended to increase the aggregate commitments thereunder by $40.0 million. However, the Term Loan Credit Facility provides that the Term Loan Borrower may request that lenders extend the maturity date of their commitments and loans and each individual lender shall have the right to consent to such request with respect to its commitments and loans without the consent of any other lender.

Borrowings under the Term Loan Credit Facility accrue interest based on a four-tier pricing grid tied to Total Net Leverage Ratio (as defined in the Term Loan Credit Facility), and we may elect for loans to be based on either LIBOR or base rate, plus the applicable margin. The interest rate on our Term Loan Credit Facility for (a) LIBOR Loans are the applicable margin plus the fluctuating per annum rate equal to LIBOR Rate (as defined in the Term Loan Credit Facility), with a LIBOR floor of 1.25% and (b) Base Rate Loans are the applicable margin plus the fluctuating per annum rate equal to the greater of (i) the federal funds rate plus 1/2 of 1%, (ii) the interest rate quoted in the print edition of *The Wall Street Journal*, Money Rates Section, as the prime rate in effect, (iii) LIBOR Rate for a one-month interest period as determined on such day, plus 1.0% and (iv) 2.25%. The applicable margin for (a) LIBOR Loans ranges from 6.25% to 8.50%; and (b) Base Rate Loans ranges from 5.25% to 7.50%, depending on the Total Net Leverage Ratio (as defined in the Term Loan Credit Facility) as of the first day of the then-current fiscal quarter. The Term Loan Credit Facility provides for mechanics intended to address the anticipated cessation of the availability of LIBOR as it relates to the LIBOR announcement discussed in "Risk Factors—An increase in interest rates would increase the cost of servicing our indebtedness and could reduce our profitability, decrease our liquidity and impact our solvency" above.

Our Term Loan Credit Facility is guaranteed by us, the Term Loan Borrower, Manufacturing and certain direct and indirect future wholly-owned U.S. restricted subsidiaries of the Term Loan Borrower. Our Term Loan Credit

Facility is secured by a first priority lien on, and security interest in, substantially all of each such guarantor's assets, which consists of:

- a perfected first-priority security interest in all present and after-acquired equipment, fixtures, fracturing equipment, real estate, intellectual property, equity interests in all direct and indirect subsidiaries of any grantor, intercompany loans, all other assets not constituting ABL Priority Collateral (as defined under "ABL Credit Facility" above), and, except to the extent constituting ABL Priority Collateral and to the extent evidencing or otherwise related to such items, all documents, general intangibles, instruments, investment property, commercial tort claims, letters of credit, letter-of-credit rights and supporting obligations, all books, records and documents relating to, or arising from, any of the foregoing, in each case, except to the extent such proceeds constitute ABL Priority Collateral, any fixed asset priority proceeds account and the proceeds of any of the foregoing, and subject to customary exceptions (collectively, the "Fixed Asset Priority Collateral"), which security interest is senior to the security interest in the foregoing assets securing the ABL Credit Facility; and

- a perfected security interest in the ABL Priority Collateral, which security interest is junior to the security interest in the ABL Priority Collateral securing the ABL Credit Facility.

The respective rights of the Term Loan Credit Facility lenders and the ABL Credit Facility lenders in the ABL Priority Collateral and the Fixed Asset Priority Collateral are governed by an intercreditor agreement between the Term Loan Agent and the ABL Agent.

Our Term Loan Credit Facility is subject to quarterly amortization beginning in December 2018, though any cumulative voluntary prepayments, including excess cash flow payments, reduce the required amortization. Due to prepayments made to date, there will be no required minimum amortization (other than excess cash flow prepayments) before termination of the Term Loan.

Additionally, our Term Loan Credit Facility is subject to a quarterly mandatory prepayment in an amount equal to the Applicable ECF Percentage (as defined in the Term Loan Credit Facility). The Applicable ECF Percentage ranges from 75% of Excess Cash Flow (as defined in the Term Loan Credit Facility) to 25% of Excess Cash Flow depending on the Total Net Leverage Ratio as of the last day of the applicable fiscal quarter, provided that for the fiscal quarters ending March 31, 2022, June 30, 2022, September 30, 2022, December 31, 2022, March 31, 2023 and June 30, 2023, the amount prepaid shall not in each case be less than $5,000,000. Our Term Loan Credit Facility is subject to additional customary mandatory prepayments, subject in some cases to the right of the Term Loan Borrower and its restricted subsidiaries to reinvest such proceeds within a specified period of time, and certain other exceptions.

Voluntary prepayments of borrowings under the Term Loan Credit Facility are permitted at any time, in specified minimum principal amounts, subject to reimbursement of the lenders' redeployment costs actually incurred in the case of a prepayment of adjusted LIBOR borrowings other than on the last day of the relevant interest period. Between September 7, 2020 and September 7, 2021, certain voluntary prepayments of the Term Loan Credit Facility are subject to a 0.50% prepayment premium.

Our Term Loan Credit Facility contains certain customary representations and warranties and affirmative and negative covenants. The negative covenants include, subject to customary exceptions, limitations on indebtedness, dividends, distributions and other restricted payments, investments, acquisitions, prepayments of specified junior indebtedness, amendments of specified junior indebtedness, transactions with affiliates, dispositions, mergers and consolidations, liens, restrictive agreements, changes in fiscal periods and changes in line of business.

We are required by our Term Loan Credit Facility to maintain a Total Net Leverage Ratio (as defined in our Term Loan Credit Facility) of no more than 2.25 to 1.00 for the fiscal quarters ended September 30, 2019 through and including March 31, 2020, 3.50 to 1.00 for the fiscal quarters ended June 30, 2020 through and including March 31, 2021, 3.00 to 1.00 for the fiscal quarter ended June 30, 2021, 2.75 to 1.00 for the fiscal quarter ended September 30, 2021, 2.50 to 1.00 for the fiscal quarter ended December 31, 2021, and 2.00 to 1.00 for the fiscal quarters ended March 31, 2022 and thereafter. We were in compliance with the Total Net Leverage Ratio covenant as of June 30, 2021.

Our Term Loan Credit Facility contains customary events of default. If an event of default occurs and is continuing, the lenders may declare all loans to be immediately due and payable. Some events of default require an automatic termination of the loans and become immediately due and payable.

$17.5 million loan

On May 9, 2018, ProFrac LLC entered into a $17.5 million loan agreement with First Financial Bank, N.A. which matured on November 9, 2020 (“Tractor Note A”). The interest rate on Tractor Note A was 5.35%. Tractor Note A was fully paid during the year ended December 31, 2020.

$12.5 million loan

On May 9, 2018, ProFrac LLC entered into a $12.5 million loan agreement with First Financial Bank, N.A. with a stated maturity date of April 9, 2021 (“Tractor Note B”). The interest rate on Tractor Note B is 5.35%.

Tractor Note B contained certain restrictive covenants which require ProFrac LLC to maintain a Tangible Net Worth, as defined in the agreement, of at least $200.0 million, a Tangible Debt to Worth Ratio, as defined in the agreement, of no greater than 1.50:1.00, and a Consolidated Debt Service Coverage Ratio, as defined in the agreement, of at least 1.50:1.00. The Company was not in compliance with the Tangible Net Worth covenant as of December 31, 2020; however, the Company resolved this non-compliance by fully paying down Tractor Note B in January 2021.

$5.5 million loan

On May 3, 2019, ProFrac LLC entered into a $5.5 million loan agreement with First Financial Bank, N.A. with a stated maturity date of November 3, 2021 (“Tractor Note C”). The interest rate on Tractor Note C is 6.10%.

Tractor Note C contained certain restrictive covenants which require the Company to maintain a Tangible Net Worth, as defined in the agreement, of at least $200.0 million, a Tangible Debt to Worth Ratio, as defined in the agreement, of no greater than 2.00:1.00, and a Consolidated Debt Service Coverage Ratio, as defined in the agreement, of at least 1.50:1.00. The Company was not in compliance with the Tangible Net Worth covenant as of December 31, 2020; however, the Company resolved this non-compliance by fully paying down Tractor Note C in January 2021.

Best Flow Credit Facility

On February 4, 2019, Best Flow, LP entered into a revolving loan credit agreement (the “Best Flow Credit Facility”), with Equify Financial, LLC (“Equify Financial”) as lender. Equify Financial is a related party. The Best Flow Credit Facility matures on February 4, 2026. As of December 31, 2020, the Best Flow Credit Facility provided for a revolving credit facility in an aggregate principal amount of $37.5 million, subject to borrowing base availability, with outstanding borrowings of approximately $37.3 million, leaving $0.2 million of remaining availability. The Best Flow Credit Facility is subject to a borrowing base of an amount equal to the sum of 85%

of the value of eligible accounts plus 25% of the value of eligible inventory less the reserves established by Equify Financial in its sole discretion, as determined in connection with weekly borrowing base reports by Best Flow. In 2021, Best Flow entered into the Best Loan Agreement (defined below) and the Best Flow Note (defined below), which were utilized to pay down outstanding amounts under the Best Flow Credit Facility.

As of September 30, 2021, the borrowing base was approximately $9.0 million, with outstanding borrowings of approximately $8.8 million, leaving $0.2 million of remaining availability. The Best Flow Credit Facility terminates on February 4, 2026; however, the Best Flow Borrower may request to terminate the commitment(s) with at least five business days prior written notice to Equify Financial and pay a termination fee outlined in the Best Flow Credit Facility.

The interest rate under the Best Flow Credit Facility is the lesser of (i) the Prime Rate (as defined in the Best Flow Credit Facility) plus the applicable margin (3.50%) and (ii) the Maximum Rate (as defined in the Best Flow Credit Facility). All accrued but unpaid interest on the outstanding principal balance is due and payable monthly on the first day of each calendar month.

The Best Flow Credit Facility is secured by a first lien on substantially all of the assets of Best Flow.

The Best Flow Credit facility is subject to mandatory prepayments of the entire amount of the excess if the unpaid balance of Advances (as defined in the Best Flow Credit Facility) exceeds the borrowing base then in effect. The Best Flow Borrower can voluntarily prepay all or any portion of the Obligations (as defined in the Best Flow Credit Facility).

The Best Flow Credit Facility contains certain customary representations and warranties and affirmative and negative covenants. The negative covenants include, subject to exceptions, limitations on indebtedness, dividends, distributions and other restricted payments, investments, acquisitions, prepayments of indebtedness, transactions with affiliates, dispositions, mergers and consolidations, liens, restrictive agreements, changes in fiscal periods and changes in line of business.

The Best Flow Credit Facility contains certain customary events of default. If an event of default occurs and is continuing, the lenders may declare all loans to be immediately due and payable. Some events of default require an automatic termination of the loans and become immediately due and payable.

Best Loan Agreement

On January 25, 2021, Best Flow entered into a loan agreement with THRC Holdings and Farris Wilks, as lenders, and Equify Financial as the administrative agent (the "Best Loan Agreement"), for an aggregate principal amount of $15 million. Proceeds from the Best Loan Agreement were utilized to pay down outstanding balances on the Best Flow Credit Facility. The Best Loan Agreement provided for interest at a fixed rate of 8% payable monthly. On , 2021, the lenders under the Best Loan Agreement contributed the debt (including accrued interest thereon) under the Best Loan Agreement in exchange for equity interests in ProFrac LLC, and such debt was canceled in connection therewith.

Best Flow Note

On January 28, 2021, Best Flow issued a promissory note (the "Best Flow Note"), with Equify Financial, as holder. The Best Flow Note provides for a term loan in an initial aggregate principal amount equal to $13.0 million. Proceeds from the Best Flow Note were utilized to pay down $7.6 million of the outstanding balance on the Best Flow Credit Facility and to pay down other equipment financing agreements for $5.4 million. The Best Flow Note matures on February 1, 2026.

The Best Flow Note is secured by a lien on, and security interest in, substantially all of the assets of Best Flow.

Interest is a precomputed amount equal to $2,869,600. The principal and interest are paid in equal monthly amortizing amounts of $264,635 through maturity. Prepaid amounts are subject to a 0.19% prepayment premium of the principal amount then being prepaid multiplied by the number of calendar months between the date of prepayment and the maturity date.

Upon nonpayment when due of any amount owed under the Best Flow Note or if default occurs under any other obligation of Best Flow to the holder, the holder may declare the accrued and unpaid interest then outstanding immediately due and payable without notice.

Best Flow Term Loan

On June 1, 2021, Best Flow entered into an unsecured term loan agreement (the "Best Flow Term Loan") with Wilks Brothers, LLC ("Wilks Brothers") as lender and Equify Financial, LLC as administrative agent, for an aggregate principal amount of $3.0 million. On , 2021, the lenders under the Best Flow Term Loan contributed the debt (including accrued interest thereon) under the Best Flow Term Loan in exchange for equity interests in ProFrac LLC, and such debt was canceled in connection therewith.

The Best Term Loan provided for interest at a fixed rate of 8% with payments due quarterly.

Alpine Credit Facility

On October 25, 2018, Alpine entered into a secured revolving credit note with Equify Financial as the holder, with a principal amount of $25.25 million (the "Alpine Credit Facility"). Interest was paid monthly at a fixed rate of 8%. Prepayments were allowed subject to certain limitations and premiums. The Alpine Credit Facility was secured by a lien on, and security interest in, substantially all of the assets of Alpine. The stated maturity date under the Alpine Credit Facility was November 25, 2020.

Alpine had outstanding borrowings under the Alpine Credit Facility of $21.1 million and $20.8 million at December 31, 2020, and 2019, respectively. Alpine was not in compliance with the terms of the Alpine Credit Facility as of December 31, 2020 as the facility had matured. Negotiations for the refinancing of the facility were underway and no letter of default or non-compliance was issued to Alpine. In January 2021, Alpine entered into the Alpine Note (defined below), the proceeds of which were utilized to pay off the Alpine Credit Facility, thereby curing non-compliance.

Alpine Note

On January 15, 2021, Alpine issued a promissory note (the "Alpine Note"), with Equify Financial, as holder. The Alpine Note provides for a term loan in an initial aggregate principal amount equal to $21.4 million. The principal and interest are paid in equal monthly amortizing amounts of $335,918 through maturity. Prepaid amounts are subject to a 0.19% prepayment premium of the principal amount then being prepaid multiplied by the number of calendar months between the date of prepayment and the maturity date. On June 30, 2021, Wilks Brothers separately acquired from Equify Financial a 33.815% participation interest in the loans under the Alpine Note. The Alpine Note matures on February 1, 2028.

The Alpine Note is secured by a lien on, and security interest in, substantially all of the assets of Alpine.

If Alpine fails to make required payments when due or if default occurs under any other obligation of Alpine to the holder, the holder may declare all loans to be immediately due and payable.

Main Street Loan

On July 22, 2020, ProFrac LLC, as borrower, and Services and Manufacturing, as guarantors, entered into a Loan Agreement (the "Main Street Loan") with First Financial Bank, N.A., as lender ("First Financial"). The Main Street Loan provides for a term loan in an aggregate principal amount of $35.0 million. The Main Street Loan is evidenced by a promissory note, which is secured by, among other things, a first-lien security interest in certain identified truck tractors.

The Main Street Loan is guaranteed by Services and Manufacturing. The interest rate on the Main Street Loan is a variable rate based on the three month LIBOR rate plus 3.00%, floating daily. The Main Street Loan provides that the lender shall designate a comparable service or index in the event that LIBOR becomes unavailable, as discussed in "Risk Factors—An increase in interest rates would increase the cost of servicing our indebtedness and could reduce our profitability, decrease our liquidity and impact our solvency" above. The promissory note provides for a deferral of payments of accrued interest until July 22, 2021, after which date payments on accrued interest are paid monthly. Additionally, the Main Street Loan requires prepayments on or about July 22, 2023 and July 22, 2024, each in an amount equal to 15.0% of the outstanding principal balance of the term loan. The default rate is the interest rate in effect immediately prior to defaulting plus 2.0%. The Main Street Loan matures on July 22, 2025.

The Main Street Loan contains certain customary representations and warranties, affirmative and negative covenants and events of default. If an event of default occurs and is continuing, First Financial may declare all loans to be immediately due and payable, take possession of any or all of the collateral, enforce collection of the collateral, take possession or control of any Insurance Proceeds (as defined in the Main Street Loan), or accept additions to, releases, reductions, exchanges, or substitution of the collateral.

The Main Street Loan required us to (a) have a tangible net worth of at least $200.0 million, which is calculated by subtracting our total liabilities from our total assets, less any receivables from us, Services, and Manufacturing or any of our affiliates, plus the amount of debt owed by us to Services, Manufacturing or any of our affiliates; (b) a tangible debt to worth ratio of no greater than 2.00 to 1.00, which is calculated by subtracting any debt owed by us to Services, Manufacturing or any of our affiliates from our total liabilities and dividing by the tangible net worth set forth in clause (a) above; and (c) a consolidated debt service coverage ratio of at least 1.50 to 1.00, which is calculated by combining our net income, depreciation expenses, and interest expenses, less distributions, and dividing by our total annual debt service. The Company was not in compliance with the Tangible Net Worth or Tangible Debt to Worth covenants as of December 31, 2020. In April 2021, First Financial provided notice of agreement to forbear exercising its rights related to the Main Street Loan covenant noncompliance. The forbearance is effective until June 30, 2021.

In August 2021, ProFrac LLC and First Financial amended the Main Street Loan. The amendment deleted the covenants with which ProFrac LLC was not in compliance as of December 31, 2020, and replaced them with a covenant requiring ProFrac LLC to maintain a minimum Fixed Charge Coverage Ratio of 1.00:1.00, and a covenant to maintain a Maximum Leverage Ratio of 3.50:1.00. ProFrac LLC was in compliance with the amended covenants for all periods presented and did not incur any expense related to this modification.

Other Indebtedness

As of September 30, 2021 and 2020, we had other debt agreements outstanding with unpaid principal balances of $1.7 million and $5.8 million, respectively. These were primarily comprised of various equipment financing agreements. As of September 30, 2021, these agreements have a weighted average interest rate of 6.6% and a weighted average remaining term of 1.9 years. In January 2021, $5.4 million of other indebtedness was retired with proceeds from the Best Flow Note.

Contractual obligations

As of September 30, 2021, our contractual obligations include long-term debt and lease obligations under operating leases. The following table summarizes these commitments as of September 30, 2021.

	2021	2022	2023	2024	2025	Thereafter
Asset backed loans	$ —	$ —	$ 52,000	$ —	$ —	$ —
Term Loan	—	15,000	156,355	—	—	—
Main Street Loan	—	—	4,833	4,108	23,276	—
Best Flow notes payable	—	3,000	15,000	—	—	13,880
Best Flow Credit Facility	—	—	—	—	—	8,784
Alpine Credit Facility	535	2,758	2,990	3,240	3,515	4,336
Other indebtedness(1)	—	710	185	579	186	—
Total	$ 535	$ 21,468	$ 231,363	$ 7,927	$ 26,977	$ 27,000

(1) We have other debt agreements, primarily comprised of various equipment financing agreements, at various maturity dates.

Capital expenditures

During the nine months ended September 30, 2021 and 2020, our capital expenditures were $70.6 million and $40.7 million, respectively. Capital expenditures were $48 million and $206.1 million for the years ended December 31, 2020 and 2019, respectively. We currently expect our capital expenditures to increase in 2021 and 2022. The primary drivers of the increase are building electric-powered hydraulic fracturing fleets, continued engine upgrades as part of our ESG initiatives, and deployment costs associated with reactivating hydraulic fracturing fleets.

Customer concentration

For the year ended December 31, 2020, sales to Rockcliff Energy Management, LLC, Alta Resources Development LLC and Sabine Oil & Gas Corporation accounted for 15%, 11% and 10%, respectively, of total revenue. No other customer accounted for more than 10% of total revenue for this period.

For the nine months ended September 30, 2021, sales to Rockcliff Energy Management, LLC, Sabine Oil & Gas Corporation and Surge Energy America accounted for 18%, 13% and 10%, respectively, of total revenue. No other customer accounted for more than 10% of total revenue for this period.

Off-Balance sheet arrangements

From time-to-time, we enter into off-balance sheet arrangements and transactions that can give rise to off-balance sheet obligations. As of September 30, 2021 and December 31, 2020, the off-balance sheet arrangements and transactions that we have entered into include undrawn letters of credit and operating lease agreements. We do not believe that these arrangements are reasonably likely to materially affect our liquidity or availability of, or requirements for, capital resources.

Quantitative and qualitative disclosure of market risks

Market risk is the risk of loss arising from adverse changes in market rates and prices. Historically, our risks have been predominantly related to potential changes in the fair value of our long-term debt due to fluctuations in applicable market interest rates. Going forward our market risk exposure generally will be limited to those risks that arise in the normal course of business, as we do not engage in speculative, non-operating transactions, nor do we utilize financial instruments or derivative instruments for trading purposes.

Commodity price risk

Our material and fuel purchases expose us to commodity price risk. Our material costs primarily include the cost of inventory consumed while performing our pressure pumping services such as proppants, chemicals, trucking and fluid supplies. For our manufacturing segment, our material costs primarily include the cost of steel. For our proppant production segment, our material costs primarily include the cost of fuel. Our fuel costs consist primarily of diesel fuel used by our trucks, frac fleets and other motorized equipment. The prices for fuel and the raw materials in our inventory are volatile and are impacted by changes in supply and demand, as well as market uncertainty and regional shortages. Additionally, the market for our products and services is indirectly exposed to fluctuations in the prices of oil and natural gas to the extent such fluctuations impact well completion activity levels. Historically, we have generally been able to pass along price increases to our customers; however, we may be unable to do so in the future. We do not engage in commodity price hedging activities.

Interest rate risk

We are subject to interest rate risk on our variable rate debt. The Company also has fixed rate debt, but does not currently utilize derivative instruments to manage the economic effect of changes in interest rates. The impact of a 1% increase in interest rates on our outstanding debt as of December 31, 2020 and September 30, 2021 would have resulted in an increase in interest expense of approximately $2.5 million for the year ended December 31, 2020 and $3.0 million for the nine months ended September 30, 2021.

Credit risk

Financial instruments that potentially subject us to concentrations of credit risk are trade receivables. We extend credit to customers and other parties in the normal course of business. We have established various procedures to manage our credit exposure, including credit evaluations and maintaining an allowance for doubtful accounts.

Internal controls and procedures

We are not currently required to comply with the SEC's rules implementing Section 404 of the Sarbanes Oxley Act of 2002, and are therefore not required to make a formal assessment of the effectiveness of our internal control over financial reporting for that purpose. Upon becoming a public company, we will be required to comply with the SEC's rules implementing Section 302 of Sarbanes-Oxley, which will require our management to certify financial and other information in our quarterly and annual reports and provide an annual management report on the effectiveness of our internal control over financial reporting. We will not be required to make our first assessment of our internal control over financial reporting until the year of our second annual report required to be filed with the SEC. To comply with the requirements of being a public company, we may need to implement additional financial and management controls, reporting systems and procedures and hire additional accounting, finance and legal staff.

Further, our independent registered public accounting firm is not yet required to formally attest to the effectiveness of our internal controls over financial reporting, and will not be required to do so for as long as we are an "emerging growth company" pursuant to the provisions of the JOBS Act. Please read "Summary—Emerging Growth Company Status."

Recent accounting pronouncements

We have not yet implemented Financial Accounting Standards Board (FASB) Accounting Standards Update (ASU) No. 2016-02, Leases (Topic 842). The ASU introduces a new accounting model for leases, which requires recognition of a right-of-use asset and lease liability on the balance sheet for operating leases. Implementation is not expected to have a material impact on our results of operations, however the Company may be required to recognize material assets or liabilities associated with the right to use certain leased assets upon adoption. Implementation of this guidance is currently required for fiscal years beginning after December 15, 2021. The Company is continuing to evaluate the potential impact of adopting this standard.

We have not yet implemented Financial Accounting Standards Board (FASB) Accounting Standards Update (ASU) No. 2016-13, Financial Instruments—Credit Losses. The ASU introduces a new accounting model, the Current Expected Credit Losses model (CECL), which requires earlier recognition of credit losses and additional disclosures related to credit risk. The CECL model utilizes a lifetime expected credit loss measurement objective for the recognition of credit losses for loans and other receivables at the time the financial asset is originated or acquired. The expected credit losses are adjusted each period for changes in expected lifetime credit losses. This model replaces the multiple existing impairment models previously used under U.S. GAAP, which generally require that a loss be incurred before it is recognized. The new standard also applies to financial assets arising from revenue transactions such as contract assets and accounts receivable. Implementation of this standard is currently required for fiscal years beginning after December 15, 2022. The Company does not believe implementation will have a material impact on its financial statements.

Emerging growth company

We qualify as an “emerging growth company” pursuant to the provisions of the JOBS Act, enacted on April 5, 2012. Section 102 of the JOBS Act provides that an “emerging growth company” can take advantage of the extended transition period provided in Section 7(a)(2)(B) of the Securities Act for complying with new or revised accounting standards.

Critical accounting policies and estimates

The discussion and analysis of our financial condition and results of operations is based on our consolidated and combined financial statements, which have been prepared in accordance with accounting principles generally acceptable in the United States of America. The preparation of these financial statements requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the dates of the financial statements and the reported revenues and expenses during the reporting periods. We evaluate these estimates and assumptions on an ongoing basis and base our estimates on historical experience, current conditions and various other assumptions that we believe to be reasonable under the circumstances. The results of these estimates form the basis for making judgments about the carrying values of assets and liabilities as well as identifying and assessing the accounting treatment with respect to commitments and contingencies. Our actual results may materially differ from these estimates.

Listed below are the accounting policies that we believe are critical to our financial statements due to the degree of uncertainty regarding the estimates or assumptions involved, and that we believe are critical to the understanding of our operations.

Property and equipment

Our property and equipment are recorded at cost, less accumulated depreciation.

Upon sale or retirement of property and equipment, the cost and related accumulated depreciation are removed from the balance sheet and the net amount, less proceeds from disposal, is recognized as a gain or loss in earnings.

Depreciation of property and equipment is provided on the straight-line method over the following estimated useful lives. The estimated useful lives and salvage values of property and equipment is subject to key assumptions such as maintenance, utilization and job variation. Unanticipated future changes in these assumptions could negatively or positively impact our net income.

The determination of the appropriate useful life of our property and equipment requires significant judgment resulting from the demanding operating environments in which we conduct our business as well as the significant volatility and demand fluctuations we have seen in our industry in recent years. A significant change in our established useful lives could cause depreciation expenses to fluctuate materially.

Depreciation of property and equipment is provided on the straight-line method over the following estimated useful lives:

Machinery and equipment	2—10 years
Office equipment, software and other	3—7 years
Buildings and leasehold improvements	2—40 years

Impairment of Long-Lived Assets

In accordance with Financial Accounting Standards Board (FASB) ASC 360, *Accounting for the Impairment or Disposal of Long-Lived Assets*, we review our long-lived assets to be held and used whenever events or circumstances indicate that the carrying value of those assets may not be recoverable. An impairment loss is indicated if the sum of the expected future undiscounted cash flows attributable to the assets is less than the carrying amount of such assets. In this circumstance, we recognize an impairment loss for the amount by which the carrying amount of the asset exceeds the fair value of the asset. Our cash flows forecasts require us to make certain judgements regarding long-term forecasts of future revenue and costs and cash flows related to the assets subject to review. Our fair value estimates for certain long-lived assets require us to use significant other observable and unobservable inputs among others including assumptions related to replacement cost based on actual recent auction sales of comparable equipment. The estimates of fair value are also subject to significant variability, are sensitive to changes in market conditions, and are reasonably likely to change in the future. For these reasons, the evaluation of recoverability of our long-lived assets and the measurement of any impairment, as necessary, are considered critical accounting estimates.

Income Taxes

ProFrac Holding Corp. is a corporation and will be subject to U.S. federal, state and local income taxes. Although the ProFrac Predecessor entities are subject to franchise tax in the State of Texas (at less than 1% of modified pre-tax earnings), they have historically been treated as pass-through entities for U.S. federal and other state and local income tax purposes and as such were not subject to U.S. federal income taxes or other state or local income taxes. Rather, the tax liability with respect to the taxable income of the ProFrac Predecessor entities was passed through to their owners. Accordingly, the financial data attributable to ProFrac Predecessor contains no provision for U.S. federal income taxes or income taxes in any state or locality (other than franchise tax in the State of Texas). We estimate that we will be subject to U.S. federal, state and local taxes at a blended statutory rate of approximately 23% of pre-tax earnings.

We account for income taxes under the asset and liability method. Under this method, deferred tax assets and liabilities are recognized for the estimated future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax basis. Deferred tax assets and liabilities are measured using enacted tax rates in effect for the year in which those temporary differences are expected to be recovered or settled pursuant to the provisions of Accounting Standards Codification ("ASC") 740, Income Taxes. The effect on deferred tax assets and liabilities of a change in tax rate is recognized in earnings in the period that includes the enactment date. Valuation allowances are established when necessary to reduce deferred tax assets to the amounts more likely than not to be realized. We expect to record a full valuation allowance on our net deferred tax assets based on our assessment that it is more likely than not that the deferred tax asset will not be realized. A change in these assumptions could cause a decrease to the valuation allowance, which could materially impact our results of operations.

Industry overview

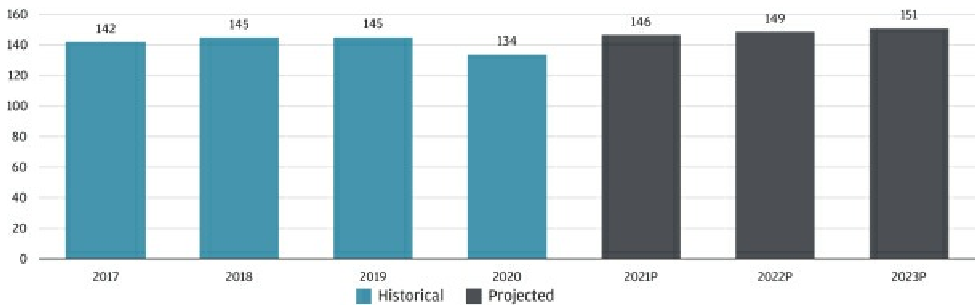
Demand for hydraulic fracturing services is primarily driven by the level of drilling and completion activity by E&P companies in the United States. Drilling and completion activity is driven by well profitability and returns, which in turn are influenced by a number of factors, including current domestic and international supply and demand for oil and gas and current and expected future prices for oil and gas, as well as the perceived stability and sustainability of those prices over the longer term.

In 2020, the COVID-19 pandemic and disagreements over production levels among oil producing nations combined to cause unprecedented reductions in global economic activity and significantly reduced the demand for oil and gas. These declines led to a significant dip in commodity prices, with per-barrel prices of WTI crude oil briefly falling as low as negative $37.63/Bbl in April of 2020 and averaging $40/Bbl for the full year 2020, versus $57/Bbl for the full year 2019. In response to the unfavorable price environment, U.S. E&P companies dramatically reduced capital spending, oil and gas drilling and completion activity, and thus, demand for hydraulic fracturing services declined significantly in 2020.

Supported by the COVID-19 vaccination program rollouts and the lifting of mobility restrictions in multiple countries, the global demand for oil and gas is recovering rapidly. According to McKinsey & Company, the average projected global 2021 crude oil and gas demand is forecast to be around 146 MMBoe/d, an increase of 9% or more than 12 MMBoe/d relative to the 2020 trough. Oil demand is expected to surpass pre-pandemic levels by mid-2022. Demand for natural gas is also expected to grow to support the continued industrialization of developing countries over the coming decades. Fundamental trends shaping the energy transition, including the use of natural gas as a transition fuel, are expected to drive gas to continue gaining global energy demand share.

Global Historical and Projected Oil and Gas Demand

(MMBoe/d)

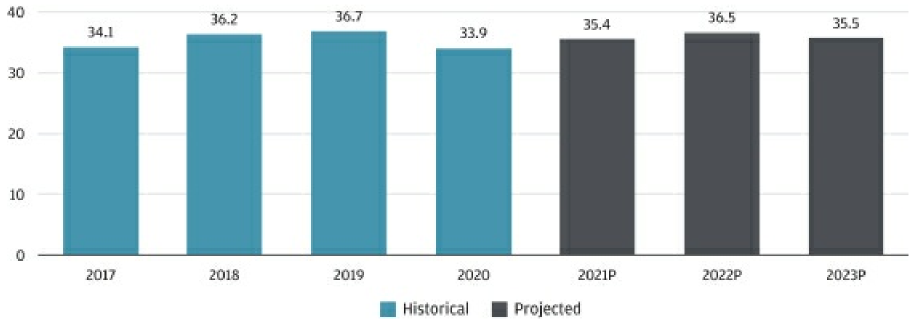


Source: McKinsey & Company Global Energy Perspective January 2021 report.

Supported by the backdrop of improved global economic growth, U.S. oil and gas consumption is forecasted to increase 6% from 2020 through 2022, according to the EIA. U.S. natural gas consumption is expected to increase due to use of natural gas as feedstock in domestic petrochemical projects, the growing exports of LNG to international markets in Europe and Asia and the addition of gas fired power generation as coal plants are decommissioned.

U.S. Historical and Projected Oil and Gas Demand

(MMBoe/d)



Source: EIA Short-Term Energy Outlook as of November 9, 2021 for 2017 through 2022P figures, and EIA Annual Energy Outlook 2021 report as of January 2021 for 2023P figure.

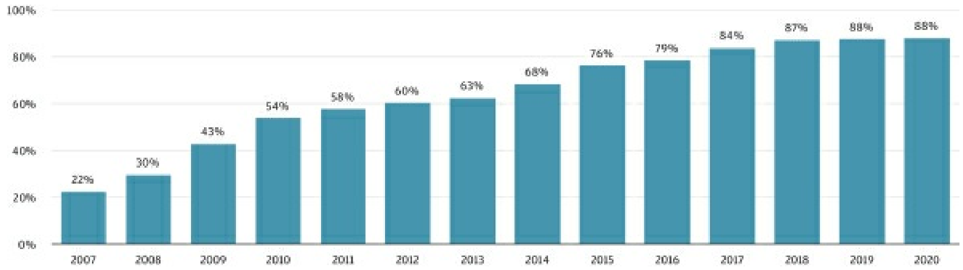
As of November 5, 2021, oil and natural gas prices have increased substantially compared to year-end 2020 prices and have also surpassed year-end 2019 (pre-COVID-19) levels. Natural gas prices are currently at their highest level since 2018. Moreover, commodities futures markets as of November 5, 2021 price natural gas contracts above $3.16/MMBtu for the next 18 months, and over the longer-term, EIA expects exports and industrial use will continue to drive increased demand for natural gas. If hydrocarbon prices remain at or near current levels, we expect drilling and completion activity to continue to increase, thereby positively impacting demand for our services and improving our revenues and pricing.

With the growth in oil and gas demand and stabilization of improved commodity prices, E&P activity has increased significantly across all onshore oil and gas basins in the United States. According to Baker Hughes' North American Rig Count, the number of active U.S. land drilling rigs has increased more than 86% over the last 12 months to 537 rigs and by 132% since its recent trough of 231 rigs in August 2020, as reported on November 5, 2021. Rig activity in our primary areas of operation (the Appalachian, East Texas/Louisiana and Permian Basins) has also increased substantially over that same period.

We believe that the following market dynamics and trends in our industry should benefit our operations and our ability to achieve our business objectives as commodity prices recover:

Increased use of horizontal drilling to develop high-pressure U.S. resource basins . The horizontal rig count as a percentage of the overall onshore rig count has increased every year since 2007, when horizontal rigs represented only approximately 25% of the total U.S. onshore rig count to approximately 89% at the end of 2020. We believe horizontal drilling activity will continue to grow as a portion of overall onshore wells drilled in the United States, primarily due to E&P companies increasingly developing unconventional resources such as shales. Successful economic production of these unconventional resource basins frequently requires hydraulic fracturing services like those we provide.

U.S. Active Horizontal Land Drilling Rigs as a Percent of Active Land Rig Count

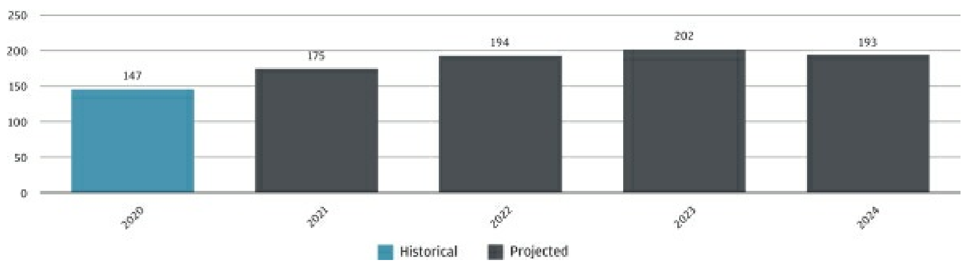


Source: Baker Hughes as of August 6, 2021.

Growth in hydraulic fracturing services. Hydraulic fracturing is a mission-critical service required for the continued development of shale resources in North America. Demand for hydraulic fracturing fleets is expected to recover materially in 2021 to 220 fleets in the fourth quarter from recent trough levels of 90 fleets in the second quarter of 2020 (an increase of more than 144% across the same period). The rebound in demand for hydraulic fracturing services is expected to continue beyond 2021, with hydraulic fracturing fleets projected to increase from an average of 204 fleets in 2021 to an average of 261 fleets in 2023 (an increase of more than 28%).

U.S. Historical and Projected Frac Fleet Demand

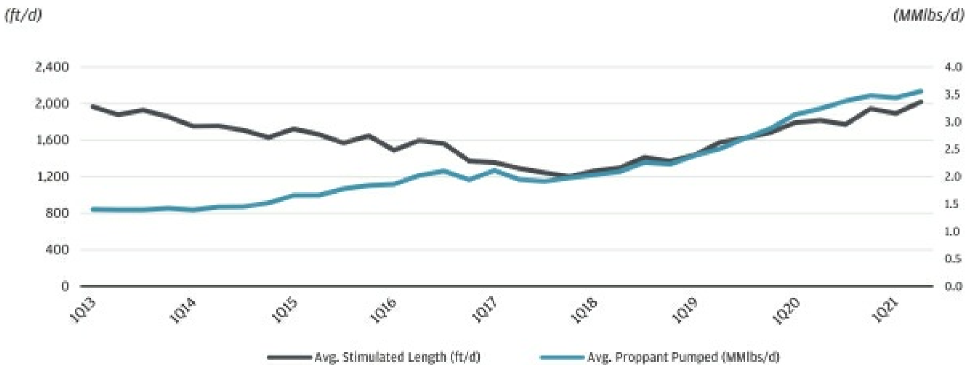
(Active frac fleets)



Source: Daniel Energy Partners as of October 2021.

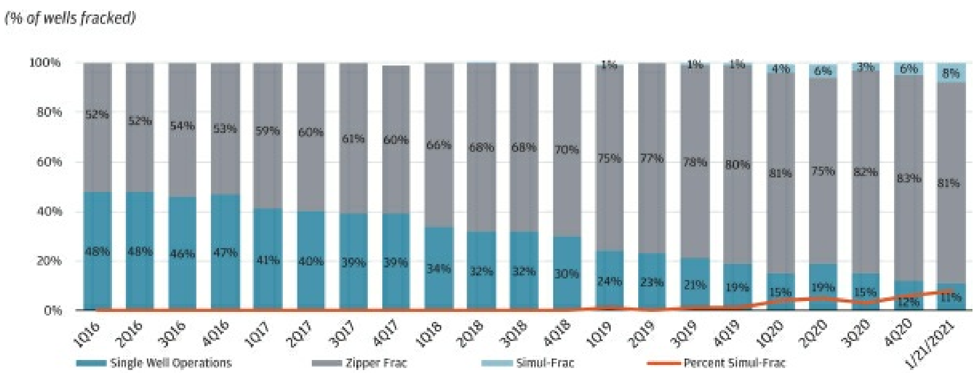
Increasing completion and pumping intensity. E&Ps continue to drill longer laterals and increase proppant loadings in order to maximize production and enhance well economics. Longer lateral lengths and greater volume of sand pumped require increased horsepower to execute a completion, which means that more fracturing units will be required for each fleet. Additionally, E&Ps are increasingly adopting zipper frac and simul-fracs techniques, where multiple wells are completed concurrently, in order to improve the efficiency and speed of completion operations. This consequently is driving demand for additional horsepower. We expect that the projected increase in completion intensity trends (as illustrated in the charts below) will result in an increased demand for our pressure pumping services.

U.S. Unconventional Completion Intensity



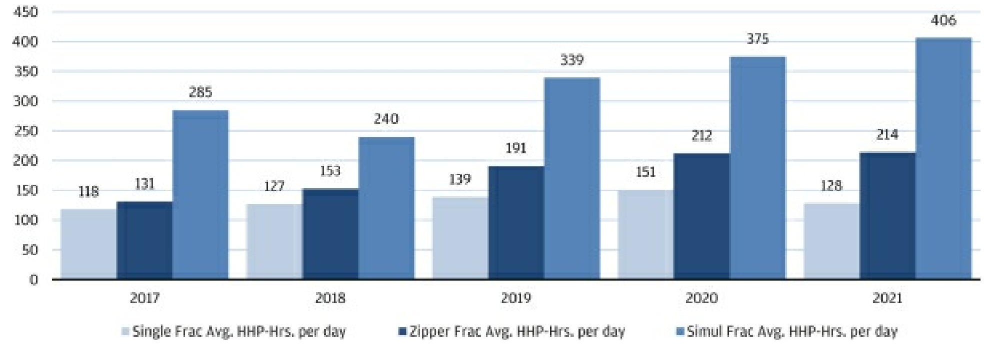
Source: Rystad Energy as of September 2021.

U.S. Frac Market Share by Frac Type



Source: Rystad Energy as of July 2021.

U.S. Land Hydraulic Horsepower Hours per Day per Well

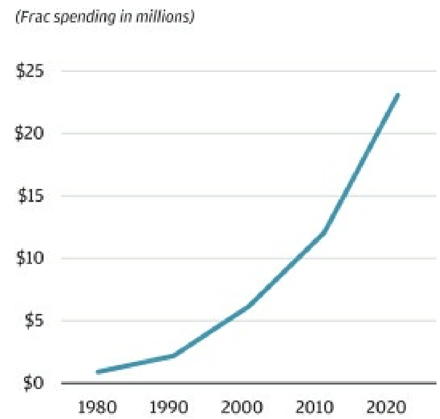


Source: Rystad Energy. As of June 2021.

Increasing frac intensity per working rig . Techniques used by E&P companies, such as multi-well pad development programs, have led to improved rig efficiencies, resulting in more horizontal wells drilled per rig. Coupled with longer laterals, this trend indicates that demand for well completion services as well as frac spend per rig can be expected to outpace standalone rig growth. The co-location of wells on a single pad also allows for more efficient access to wellbores and sharply reduces the mobilization and de-mobilization time between completion and production service jobs. These efficiencies improve our operating leverage and enable us to more successfully provide our services.

Total Well Split by Pad Size

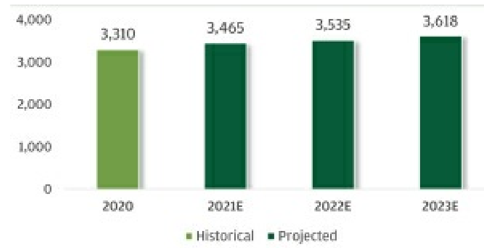
Frac Spend per Rig



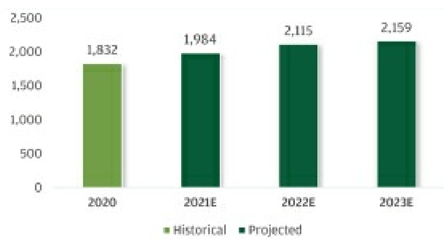
Source: Rystad Energy as of June 2021 for total well split by pad size and Spears & Associates Q2 2021 Frac/Proppant Report for frac sales per rig.

Total U.S. Wells Completed (total wells)

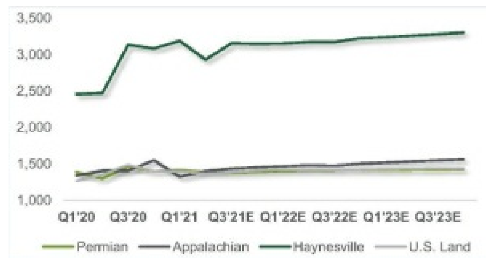
Total U.S. Average Proppant Pumped (thousands of lbs. / day)



Total U.S. Average Well Stimulated Length (feet / day)



Total U.S. Avg. Pumping Intensity (avg. HHP-hrs. / well in thousands)

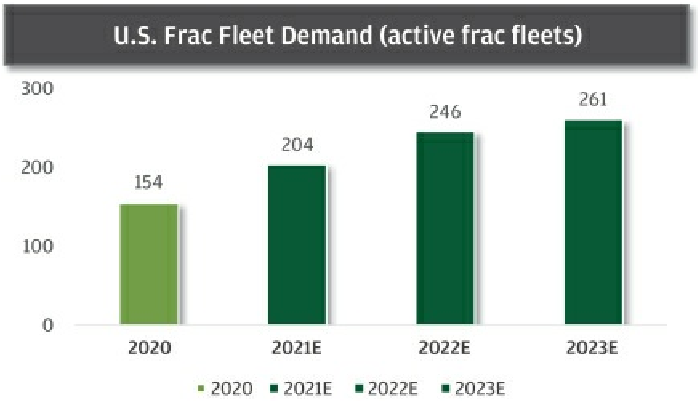


Source: Rystad Energy as of September 2021. Metrics are reflective of total U.S. market.

Investor and regulator focus on ESG. The energy industry is undergoing a significant change of operating practices with an emphasis on incorporating more environmental and social considerations into operating models. Companies are experiencing increased market pressure to bolster ESG programs, particularly related to climate change and reduction of GHG emissions. As the regulatory environment becomes more stringent, we believe that state and federal governments are likely to implement increased measures to regulate GHG emissions, increasing pressure on E&P companies to decrease their emissions footprint. Additional ESG topics, such as human rights, supply chain management, water usage, natural capital and biodiversity, among others, are also receiving increased attention, and there may be increasing pressure on our customers to take actions to address these topics, as well.

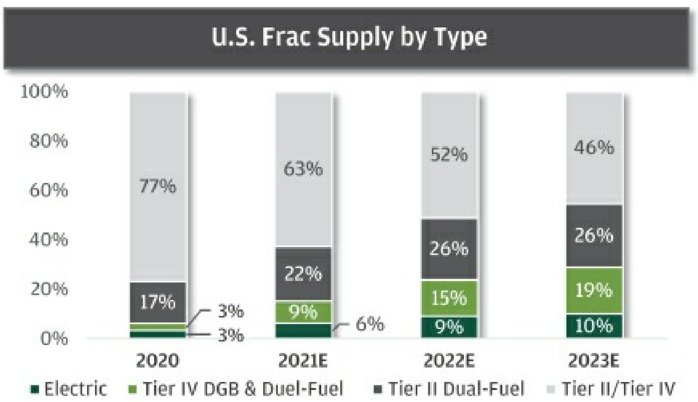
Adoption of DGB and e-fleets. We believe E&P operators' focus on improving their emissions profile will accelerate the transition from legacy, emission-heavy Tier II diesel frac fleets to greener Tier IV DGB frac fleets and electric fleets because Tier IV DGB fleets utilize gas, including natural gas, CNG, LNG, pipeline and field gas, as a cheaper, cleaner fuel source. Rystad Energy anticipates that by the end of 2023, approximately 60-70% of active horsepower in North America will be utilizing gas capable fleets. We believe the shift to cleaner gas capable fleets positions us well to capture additional market share as the broader industry recovery continues accelerating.

U.S. Frac Fleet Demand (active frac fleets)



Source: Daniel Energy Partners as of October 2021.

Historical and Projected U.S. Frac Supply by Type



Source: Rystad Energy as of August 2021. Metrics are reflective of total U.S. market.

Obsolescence of significant hydraulic fracturing horsepower in the market. We believe the U.S. frac market is currently facing a pivotal transition with significant fleet capacity nearing retirement due to obsolescence. We believe that prolonged underinvestment has resulted in an over-supply of legacy fleets and an increasing preference for low-emission fleets is driving an undersupply of more desirable greener frac fleets. Even prior to the COVID-19 induced downturn, substantial legacy capacity had already reached the end of its useful life, according to Rystad Energy. We believe this was further exacerbated by the lack of capital investment by frac operators during the downturn. The majority of frac service providers' fleets have an average equipment age of more than six years, according to Rystad Energy. We believe that our vertical integration and lower capital cost resulting from our in-house manufacturing of our own frac equipment will benefit our ability to both maintain attractive utilization rates and earn higher returns on invested capital versus other peers that source their new fleets from third parties at higher prices.

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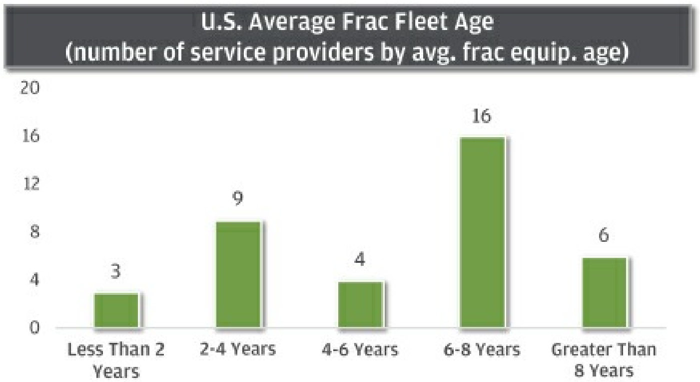
U.S. Average Frac Fleet Age



Source: Rystad Energy as of August 2021. Metrics are reflective of total U.S. market.

Despite the negative impact to the overall oil and gas industry in 2020, we believe the challenging industry conditions allowed us to strengthen our leadership position by implementing targeted and forward-looking initiatives. We took actions to maintain the ongoing operational integrity of our equipment, implemented back-office optimization projects, successfully completed our in-house research and development regarding advanced power end and fluid-end designs, and added over 140 dual fuel kits to our Tier IV engines. All of the aforementioned initiatives materially enhanced our company and positioned us to take advantage of expected improving industry conditions.

Business

Overview

We are a growth-oriented, vertically integrated and innovation-driven energy services company providing hydraulic fracturing, completion services and other complementary products and services to leading upstream oil and gas companies engaged in the E&P of North American unconventional oil and natural gas resources. Founded in 2016, ProFrac was built to be the go-to service provider for E&P companies' most demanding hydraulic fracturing needs. We are focused on employing new technologies to significantly reduce GHG emissions and increase efficiency in what has historically been an emissions-intensive component of the unconventional E&P development process. We believe the technical and operational capabilities of our fleets ideally position us to capture increased demand resulting from the market recovery and our customers' shifting preferences favoring the sustainable development of natural resources.

Our operations are primarily focused in the Appalachian, East Texas/Louisiana and Permian Basins, where we have cultivated deep and longstanding customer relationships with some of those regions' most active E&P companies. We operate in three business segments: stimulation services, manufacturing and proppant production. We believe we are the largest private provider of hydraulic fracturing services in North America by HHP, with an aggregate installed capacity of over 1.0 million HHP across 20 conventional fleets, of which, as of September 30, 2021, 16 were active, reflecting an aggregate installed capacity of approximately 840,000 HHP across our active fleets, one is able to be deployed with no to minimal required capital expenditures and the remainder were able to be deployed with an average of $2.0 million in required capital expenditures per fleet. In addition, as of September 30, 2021, FTSI was operating 13 active fleets, and, following the consummation of the FTSI Acquisition, we expect to continue operating such fleets in the Permian Basin, Eagle Ford Shale, Midcontinent, Haynesville Shale and Uinta Basin. We believe a greater percentage of our conventional fleets utilize lower-emission Tier IV diesel engines relative to our peers, making them among the most emissions-friendly and capable in the industry. Further, we believe that because of our fleets' capabilities and reliability, and our relentless focus on efficient and environmentally-sound energy service solutions, our high-quality customer base views us as an integral partner in these efforts which we believe provides us a competitive advantage over our peers as E&P companies seek to improve their ESG profiles without sacrificing service quality.

Our lower-emission conventional hydraulic fracturing fleets have been designed to reduce our customers' relative emissions footprint while handling the most demanding well completions, which are characterized by higher pumping pressures, higher pumping volumes, longer horizontal wellbores, more frac stages per lateral and increasing amounts of proppant pumped per well. More than 90% of our fleets are less than five years old, with 56% having Tier IV engines and 43% having dual fuel capabilities. In addition, we have paired these technologies with our proprietary ESCs to reduce idle time, which is the time during which an engine generates the highest amount of emissions, by as much as 90%, and reduce fuel consumption and GHG emissions by as much as 24%. In addition, these ESCs are capable of cold starting the engines on our pumping units without the assistance of truck tractors. This technology allows us to significantly decrease the number of truck tractors required for our operations, not only further reducing overall emissions but also eliminating the capital, safety risks and operating and maintenance costs associated with operating the additional truck tractors required for fleets that do not utilize ESCs. On the whole, these cost savings are significant and we are able to avoid an incremental $15,000 per year in costs associated with each truck tractor eliminated from our operations. Since early 2021, we have installed ESCs in five fleets, and have reduced our truck tractor count by 101. We continue to install ESCs throughout all of our fleets and anticipate being able to realize total cost savings of approximately $300,000 per year per fleet as a result. When further combined with our real time GHG emissions monitoring, our fleets create additional synergies in efficiency that result in cost savings for our customers. We intend to continue to upgrade and overhaul our other fleets with the goal of having all of our conventional fleets similarly equipped, a process made cheaper by our in-house manufacturing capabilities detailed below. This strategy aligns with our ESG initiative to minimize our carbon footprint as a part of our goal to have all of our conventional fleets equipped with emissions reduction technology.

In concert with our existing low-emission conventional fleets, we have recently entered into an agreement with USWS, allowing us to acquire up to 20 licenses (along with certain other rights) to construct in-house new, electric-powered hydraulic fracturing fleets utilizing Clean Fleet® technology. This technology utilizes electric motors powered by lower-cost, lower-emission power solutions, including local utility-sourced line power, or on-site generation from natural gas produced and conditioned in the field, CNG, LNG, and/or traditional fuels, if needed. This flexibility in fuel supply can provide our customers with additional tools to meet their emissions and sustainability goals by reducing their reliance on diesel, as well as offer potentially significant fuel cost savings. We believe that our fleets equipped with Clean Fleet® technology will supplement our environmentally advantaged conventional fleets and provide our customers an optimized suite of options to satisfy their ESG objectives while maximizing operating efficiency. We have three electric-powered hydraulic fracturing fleets under construction and we currently expect the first of these fleets, which we are currently in contract negotiations with a customer for a one-year term, to be ready for deployment during the first quarter of 2022. We believe that our new electric fleets, together with our existing conventional fleets, which we continue to optimize to incorporate efficiency-enhancing features, place us on the leading edge of the domestic hydraulic fracturing business and position us to maintain a high equipment utilization rate, low emissions and attractive profitability.

Facilitating the advanced technology and operational capability of our equipment is our vertically integrated business model and supply chain management, which allows us to manufacture, assemble, repair and maintain our own fleets and ancillary frac equipment, including power ends, fluid ends, flow iron and monolines. We operate facilities in Cisco and Fort Worth, Texas, including an ISO 9001 2015 certified OEM manufacturing facility, in which we manufacture and refurbish many of the components used by our fleets, including pumps, fluid ends, power ends, flow iron and other consumables. These facilities provide in-house manufacturing capacity that enables cost-advantaged growth and maintenance.

We have the proven capability to manufacture up to 55,000 HHP per month (including electric fleets) and perform substantially all of the maintenance, repair and servicing of our hydraulic fracturing fleets in-house.

Vertical integration enables us to realize a lower capital investment and operating expense by capturing the margin of manufacturing and/or maintenance, by recycling and refurbishing older machinery in our fleet, as opposed to disposing of it, and by enabling the ongoing improvement of our equipment and processes as part of a continuous research and development cycle. This combination also facilitates our “Acquire, Retire, Replace”™ approach to growing, maintaining and modernizing our fleets, and helps insulate us from supply chain constraints that have disrupted competitors’ and customers’ operations in the past. For example, we believe that the FTSI Acquisition will allow us to further expand the scope of our vertically integrated business model and manufacturing capabilities, as well as provide us an opportunity to implement our “Acquire, Retire, Replace”™ strategy with respect to certain of FTSI’s older equipment. For additional information on the FTSI Acquisition, please see “Prospectus Summary—Recent Developments.” Our in-house manufacturing capabilities also allow us to rapidly implement new technologies in a cost-effective manner not possible for many of our peers. We believe that as a result of this vertical integration, we are able to achieve conventional Tier IV dual fuel fleet construction costs of $540 per HHP contrasted with an industry cost of up to $861 per HHP, according to Daniel Energy Partners, and an average expected price to build electric fleets, excluding power generation, of $467 per HHP.

Our manufacturing capabilities and control over the manufacturing process have allowed us to design and build hydraulic fracturing fleets to uniform specifications intended for deployment in resource basins requiring high levels of pressure, flow rate and sand intensity. We believe the standardized, modular configuration of our equipment provides us with several competitive advantages, including reduced repair and maintenance costs, reduced downtime, reduced inventory costs, reduced complexity in our operations, training efficiencies and the ability to redeploy equipment among operating basins. We believe that our uniform fleet specifications along with the ability to more directly control our supply chain and end-of-life management for our equipment differentiates us from competitors who typically purchase such equipment from third party manufacturers and rely on such manufacturers or other third parties for repair and maintenance.

We also provide ancillary services, further increasing our value as a business partner to our customers, including frac design and related services, frac sand and chemical supply, logistics coordination and real time data reporting, such as operational statistics, inventory management, completions updates and emissions monitoring. We also operate an approximate three-million-ton-per-year sand mine and processing facility in Kermit, Texas, with proved reserves of 42.3 million tons, which allows us to sell proppant to our customers in West Texas and Southeastern New Mexico. Our integrated service platform creates operational efficiencies for our customers and allows us to capture a greater portion of their development capital spending, positioning us to maintain high equipment utilization rates, low emissions and attractive profitability.

For the nine months ended September 30, 2021, we generated net losses of approximately $48.5 million, Adjusted EBITDA of approximately $86.3 million, and Surplus Cash Generation of approximately $33.2 million. For the definitions of Adjusted EBITDA and Surplus Cash Generation and a reconciliation to their most directly comparable financial measure calculated and presented in accordance with generally accepted accounting principles (“GAAP”), please read “—Summary Historical and Pro Forma Financial Data—Non-GAAP Financial Measures.”

Competitive strengths

We believe the following characteristics differentiate us from our peers and uniquely position us to execute on our strategy to create value for our stakeholders:

- ***High performing, technologically advanced fleet focused on cash flow, increased efficiencies, and lower emissions*** . We believe we are strongly positioned to continue to respond to the increased demand for highly-efficient and environmentally advantaged energy services, which are those that produce fewer negative impacts on the environment than those provided by standard Tier II fleets. We believe we have the largest fleet of low emissions and technologically advanced conventional frac equipment in the United States, with 56% of our fleets equipped with Tier IV engines and 43% with dual fuel capabilities. We believe our technologically advanced fleets are among the most reliable and best performing in the industry with the capabilities to meet the most demanding pressure and flow rate requirements in the field. For example, we are one of the few energy services companies to install 60-inch pumps in our fleets, providing for significantly higher capacity and capability. The combination of these factors provides us with an ability to operate efficiently in the most demanding environments while helping our customers meet their ESG goals. Further, our standardized, high specification equipment, manufacturing capabilities and direct control over our supply chain lead to lower total cost of ownership, which we believe allows us to both increase our margins and meet increasing demand for efficient, environmentally-advantaged energy services.

  Our standardized equipment reduces our downtime as our mechanics can quickly and efficiently diagnose and repair our equipment and reduces the amount of inventory we need on hand. We are able to easily shift equipment among operating areas as needed to take advantage of market conditions or to replace temporarily damaged equipment. This flexibility allows us to target customers that are offering higher prices for our services, regardless of the basins in which they operate. Standardized equipment also reduces the complexity of our operations, which lowers our training costs and improves our safety profile.

To complement our modern and highly efficient conventional fleets, we have three electric-powered hydraulic fracturing fleets under construction and we currently expect completion and deployment of the first of these fleets in the first quarter of 2022. By replacing Tier II diesel engines with electric engines, we expect our fleets equipped with Clean Fleet® technology will reduce carbon emissions by up to 33% per fleet annually. These estimates are based on manufacturer specifications for fuel consumption of each engine configuration and hold constant operational factors that influence the rate of fuel consumption and emissions, such as rate and pressure. This expected reduction is equivalent to a reduction of approximately 1,700 cars on the road per year per fleet using EPA estimates.

- ***Vertically integrated business model enhances our ability to meet our customers' needs*** . We operate a vertically integrated business model that includes complementary manufacturing, frac design, sand and chemical supply and data reporting services. This enhances our profitability through reduced capital and maintenance expenditures, and provides a significant advantage in cost savings and supply chain management versus our peers who do not manufacture and rebuild/refurbish their own equipment and components. Furthermore, our vertically integrated operations offer greater supply chain control and management of critical components, insulating us from disruptions that have previously impacted the operations of our competitors and customers. We manufacture and refurbish many of the components used by our fleets, including pumps, fluid ends, power ends, flow iron and other consumables at our facilities in Cisco and Fort Worth, Texas. We have the proven capability to manufacture up to 55,000 HHP per month (including electric fleets) and perform substantially all of the maintenance, repair and servicing of our hydraulic fracturing fleets in-house.

  - *"We do the hard jobs."* Vertical integration of our business enables us to take on premium frac jobs that have more demanding pressure and flow rate requirements and put extra wear and tear on frac equipment, requiring more frequent equipment rebuilds. We believe many competitors avoid these jobs as they lack the capital or repair capability to make such work profitable. However, we find such challenging work to be more economically attractive versus less intensive "commodity" work that is easier on equipment, but more competitive and with lower associated profitability.

  - *Rapid and cost-effective implementation of new technologies* . Much of our equipment is customized for our operations and built to substantially uniform specifications. As a result of our in-house manufacturing capabilities, we are able to rapidly fabricate, develop and deploy new equipment and rebuild/refurbish existing equipment without relying on third-party supply chains or paying price markups for bespoke orders or processes. In addition to manufacturing our pumping units, we have the capability to manufacture many of the other components of our fleets such as blenders and hydration units. Our manufacturing capabilities facilitated our development of the Centipede™ high pressure flow system, which reduces non-productive time by reducing rig up time by up to 50% and iron connections by up to 70%, while also preventing shutdowns. We have also developed proprietary vibration monitoring technology to gather enabling data for artificial intelligence-driven predictive pre-failure maintenance, performance reporting and design customizations on core equipment.

  - *Advantaged in tight market.* Our manufacturing capabilities reduce the risk that we will be unable to source important components, such as fluid-ends, power-ends and other consumable parts. During periods of high demand for hydraulic fracturing services, external equipment vendors often report order backlogs of up to nine months, which can lead to increased costs or inability to deploy fleets. We have historically manufactured, and believe we have the in-house capacity to manufacture, all major consumable components required to operate all of our fleets at full capacity.

- ***Organizational culture based on world class service, innovation, safety, improving environmental impact and active contributions to our communities***. We believe our corporate culture plays a significant role in our ability to consistently deliver excellent service to our customers, as well as our ability to attract and retain high quality personnel. We encourage innovation throughout our organization and empower our employees to innovate. For example, we maintain an innovation award program for our employees which provides cash incentives for changes to equipment and processes that improve efficiency and safety. Motivated by this program, our employees have developed numerous tools, processes and equipment enhancements that improve our operations, such as a tool for performing maintenance on fluid ends that reduces the time required for a routine maintenance procedure from 45 minutes to 15 minutes, our PadTrac system that performs live job monitoring and a tool for rebuilding butterfly valves that allows this task to be performed by a single technician. We are committed to the safety and wellness of our employees and we actively foster training, advancement and career development. We also seek to actively contribute our time and resources to positively impact the communities in which we work and live.

- ***Loyal and active customers that appreciate our efficiency, suite of services and ability to complete the most difficult and demanding projects***. We have a strong portfolio of active customers that value our modern, technologically advanced equipment and our commitment to a more ESG-conscious service offering. While our customer base includes a broad range of E&P companies, we currently primarily serve leading private, midsize operators in our areas of operation. These customers trust us to execute on their most technically demanding operations and value our unique ability to meet their needs with our vertically integrated business model. We believe our operating history combined with our emissions savings equipment has us well positioned to add larger, well-capitalized customers with consistent work to our business. Additionally, our customers benefit substantially from our complementary services, including frac design and related services, frac sand and chemical supply, logistics and real time data reporting. Our track record of consistently providing high-quality, safe and reliable service has enabled us to develop long-term partnerships with our customers, and we expect that our customers will continue to support our growth. Additionally, through the FTSI Acquisition, we believe we will have access to new customers in new basins where we did not previously have operations. For additional information on the FTSI Acquisition, please see “Prospectus Summary—Recent Developments—FTSI Acquisition.”

- ***Strong data and digital capabilities.*** Our focus on technology and innovation also underpins our efficiency through real time data analysis of operational statistics, inventory management, completions updates and emissions monitoring. We offer a comprehensive and competitive suite of data and digital solutions such as PadTrac, SOPHIA, and our Spartyn platform. PadTrac is a real time data stream that provides pertinent equipment data on location to our operators. SOPHIA is our cloud-based platform that accompanies the ESC and provides visibility into fuel savings and carbon footprint reduction. SOPHIA enhances the credibility, consistency, and transparency of carbon footprint quantification by following ISO standards. Our Spartyn platform digitally tracks maintenance tasks completed, plans preventative maintenance, tracks assets, and a various other operational equipment and tasks. Spartyn further allows business users to access all data from various operational and financial sources in one centralized location for rapid analysis and decision making. These digital systems provide critical, real-time insights to our customers during operations, our maintenance department to help extend the operational life of our equipment and maintain higher fleet utilization and our financial systems for rapid and accurate reporting. We believe our digital infrastructure saves time, money, and makes us more productive and cost effective enterprise.

- ***Large scale and leading market share across most active major U.S. basins.*** We believe we are the largest privately held hydraulic fracturing provider in North America based on HHP. We operate in some of the most active basins in the United States, including the Appalachian, East Texas/Louisiana and Permian Basins and our operations are heavily weighted towards natural gas production activity. This geographic diversity reduces volatility in our revenue due to basin trends, relative commodity prices, adverse weather and other events. Our large footprint and standardized equipment enables us to rapidly reposition our fleets based on demand trends among different basins and allows us to spread our fixed costs over a greater number of fleets. Our large scale also strengthens our negotiating position with our suppliers and our customers. The FTSI Acquisition will further expand our scale and geographic footprint, establishing a presence in four additional areas of operation—Eagle Ford Shale, Haynesville Shale, Midcontinent and Uinta—and increasing our customer base. For additional information on the FTSI Acquisition, please see “Prospectus Summary—Recent Developments—FTSI Acquisition.” Additionally, we expect to leverage our strengths to capture market share in these regions in response to customer demand for more efficient and cleaner fleets.

- ***Experienced management and shareholder team that have driven extreme value creation for stakeholders in past endeavors***. Our senior management team has more than 100 years of relevant experience in hydraulic fracturing and the energy industry. The management team is focused on the operational success of the Company and their interests are aligned with those of investors and customers. Additionally, our principal shareholders, the Wilks, have a proven history of founding and growing pressure pumping companies. Prior to founding ProFrac, the Wilks founded FracTech Holdings, LLC, the predecessor to FTSI in 2000, which they grew into one of the largest North American hydraulic fracturing companies based on HHP before selling their 70% interest in that business in 2011 in a transaction that valued the business at $5 billion. The FTSI Acquisition will reunite that business with a management team familiar with FTSI’s personnel, culture and equipment and well suited to execute our “Acquire, Retire, Replace”™ strategy through strategic cannibalization of FTSI’s older fleets. For additional information on the FTSI Acquisition, please see “Prospectus Summary—Recent Developments—FTSI Acquisition.” Combined, the Wilks have more than 75 years’ experience in the energy and energy services sectors. Under their leadership, we have grown our hydraulic fracturing business to a total of 20 fleets, as of September 30, 2021, with an aggregate of over 1.0 million HHP and revenues in excess of $500 million for the nine months ended September 30, 2021. The Wilks are not selling any equity in this offering and we believe that their experience will continue to benefit our operations and business.

Business strategies

We intend to achieve our primary business objective of creating value for our stakeholders through the following business strategies:

- ***Position ourselves as a key partner to our customers in response to increasing focus on environmental sustainability*** . As the demand for energy services in the United States recovers from the lows experienced in 2020, we expect demand for our hydraulic fracturing services to continue to grow significantly. In particular, as one of the largest hydraulic fracturing service providers in North America based on HHP, we believe our modern, technologically advanced fleets position us to capitalize on customer mandates for “next generation” frac fleets due to their lower emissions and the economic benefits of fuel cost savings. We also offer our customers a holistic suite of services that we believe is responsive to our customers’ evolving needs, including frac design, manufacturing and related services, proppant and chemical supply, logistics and real time data reporting. We have increased our number of active fleets by two in the second quarter of 2021 as a result of customer demand and continue to receive customer interest in reactivating additional fleets. Rystad Energy estimates that total HHP capacity has declined by approximately 8.3 million HHP as of July 31, 2021 from approximately 21 million HHP at the end of 2019, as a result of frac equipment permanently leaving the market as a result of scrapping, cannibalization and deferred maintenance. In addition, approximately 30% of remaining horsepower is comprised of obsolete or non-operational fleets, according to Rystad Energy. By contrast, we have focused on upgrading and expanding our fleets’ capabilities and have positioned ourselves as ready to respond to our customers’ needs as upstream activity returns and the focus on ESG-sensitive operations grows. Furthermore, our consistently high fleet utilization levels and 24 hours per day, seven days per week operating schedule should result in greater revenue opportunity and enhanced margins as fixed costs are spread over a broader revenue base. We believe that any incremental future fleet additions will benefit from these trends and associated economies of scale.

- ***Commitment to returns-driven, environmentally-advantaged investments and technology to support further emissions reduction and greater operational efficiency**.* We believe demand for lower emissions operations will outpace current supply and lead to further opportunities to deploy new technical solutions to our customers relative to our competition, particularly with natural gas playing an increasingly critical role in the transition away from less clean sources of energy. We have invested in various businesses and technologies that we plan to leverage to strengthen our market position and to better serve our customers. For example, we recently acquired a majority stake in EKU, a provider of idle reduction technologies and the manufacturer of our proprietary ESCs. Based on our own provision of hydraulic fracturing services, we believe our ESCs will eliminate roughly 90% of idle hours and result in substantially lower emissions and fuel costs. This reduction in idle time can reduce carbon dioxide emissions by up to 24% compared to standard operations in which engines generally run continuously during a frac job.

  Additionally, we are supplementing our already environmentally-advantaged conventional fleets with electric fleets equipped with Clean Fleet® technology, which will provide customers additional low emission and cost effective solutions. We intend to continue this focus on efficiency and emissions-optimized technology in order to capitalize on the increased demand for higher efficiency and higher performing hydraulic fracturing services. We believe that by pursuing the development of advanced technology in both our conventional fleets and complementary electric-powered fleets, we will be well positioned to capture the increasing demand for highly capable and environmentally-advantaged energy services with which operators may satisfy their ESG imperatives.

- ***Pursue accretive mix of organic growth and strategic consolidation***. We plan to continue to grow our operations and fleets in response to increased customer demand as well as selectively evaluate potential strategic acquisitions that increase our scale and capabilities and diversify our operations. We believe opportunities exist to acquire older generation diesel frac fleets at attractive prices and use our in-house manufacturing capabilities to upgrade and maintain them, thus extending their useful life and maximizing their cash flow, after which they can be replaced with cutting edge dual fuel or electric technology as part of our “Acquire, Retire, Replace”™ strategy. We believe that the FTSI Acquisition presents an ideal opportunity for the implementation of this strategy by retiring older FTSI fleets and using the equipment as a source of spare parts and components in our vertically integrated manufacturing segment. We will also have the opportunity to upgrade legacy equipment to Tier IV dual fuel, increasing efficiency and sustainability. For additional information on the FTSI Acquisition, please see “Prospectus Summary—Recent Developments—FTSI Acquisition.” The resulting displacement of older fleets should yield significant improvements in emissions, operating efficiency, safety and profitability. The retired fleets can also serve as a source of spare parts and components that can reduce our maintenance capital expenditures. Our vertically integrated business model and in house manufacturing enables faster integration of assets we may acquire and allows us to more economically and efficiently cannibalize, refurbish, and redeploy equipment. Additionally, we expect that our technology and focus on lower emission fleets will promote growth and attract new customers focused on reducing their emissions profiles.

- ***Continued focus on safe, efficient and reliable operations***. We are an industry leader with a proven track record in safety with a TRIR of 0.32 for the twelve months ended December 31, 2020, including our manufacturing division, compared to the industry average of 0.7 as per IOGP. We prioritize safety in our equipment through mechanisms like AFEX fire control, which is installed on all of our field equipment and is designed to suppress fires immediately. We believe our excellent safety record is partly attributable to the standardization of our equipment, which makes it easier for mechanics and equipment operators to identify and diagnose problems with equipment before a safety hazard arises. Our fleets are also standardized to use

Centipede™ mono-line, which has fewer iron connections on site and allows for a safer and quicker rig up versus traditional flow iron assemblies. Our streamlined, innovative equipment enables for safer operations and time savings, mitigation of inefficiencies from shutdowns, and improvements relative to the amount of horsepower required to put down hole. Additionally, our standardized equipment and in-house manufacturing capability allows us to rapidly assess operations as well as test new equipment while also reducing the complexity of our operations and lowering our training costs.

- ***Focus on generating superior returns while maintaining a conservative balance sheet and financial policies*** . We plan to maintain a conservative balance sheet following this offering, which will allow us to better react to potential changes in industry and market conditions and opportunistically grow our business. We had $293.8 million of net debt, defined as total debt of $310.2 million less $16.4 million of cash and equivalents, as of September 30, 2021. We have committed approximately $75 million of capital, or $25 million per fleet, to the construction of three electric-powered fleets, and we are currently in contract negotiations with a customer for one of these fleets. Other than these three electric-powered fleets, we intend to align fleet construction and other growth capital expenditures with visible customer demand, by strategically deploying new equipment in response to inbound customer requests and industry trends. For example, while we have budgeted an additional $25 million to construct a fourth electric-powered fleet during 2022, no capital has been committed or deployed for such fleet and we will only deploy capital for the fourth fleet with a contract. We are disciplined about deploying growth capital to our business, and expect investments in new fleets to have a simple payback of 2.0 years or fewer before investing. As a result of this approach, we believe that we operate one of the most profitable frac businesses and that our strategies and competitive advantages have contributed to our strong relative financial performance, as demonstrated by our history of positive EBITDA generation despite recent market volatility. Our vertical integration of key supply chains enables consistent cost management, low capital intensity and high conversion of EBITDA to Surplus Cash Generation, which we believe will help us deliver shareholder returns across market cycles, while maintaining a conservative balance sheet.

  At the closing of this offering, we expect to have $ million of liquidity, in the form of cash on hand and undrawn borrowing capacity under our $ million revolving credit facility, to support our growth ambitions. For additional discussion of our 2022 capital program, please see “Management’s Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resource—Our 2022 Capital Budget.”

Properties

Our corporate headquarters are located at 333 Shops Boulevard, Suite 301, Willow Park, Texas 76087. We currently own or lease the following additional principal properties:

Location	Size	Leased or owned	Purpose
Willow Park, TX	8,244 sqft	Leased	Corporate Headquarters
Smithfield, PA	47,800 sqft	Leased	Field Operations
Odessa, TX	50,634 sqft	Leased	Field Operations
Marshall, TX	21,800 sqft	Leased	Field Operations
Pleasanton, TX	16,866 sqft	Leased	Field Operations
El Reno, OK	19,027 sqft	Leased	Field Operations
Winkler County, TX	641 acres	Owned	Sand Mine
Winkler County, TX	630 acres	Leased	Sand Mine
Fort Worth, TX	109,823 sqft	Leased	Manufacturing
Cisco, TX	130,000 sqft	Owned	Manufacturing

We believe that our facilities are adequate for our current operations.

Our mining and processing facility

We own and operate an approximately three million ton per year sand mine and processing facility located in Winkler County, Texas; the facility is located approximately 14 miles north of Kermit, Texas and approximately 58 miles west of the Midland-Odessa area. Our sand mine facility features two wash plants and a dry plant with two rotary dryers that clean and classify the sand. We built the facility in 2017 and produce 40/70-mesh and 100-mesh (70/200) sand. Additional onsite facilities include a scale house, office, shop, quality laboratory and onsite housing for up to 40 employees. The plant does not crush the material, but cleans and classifies the sand. The plant has a closed loop process water circuit to allow for the efficient use of water. Once the product is appropriately processed, it is stored in one of eight storage silos until it is transported by truck to its destination.

Our production

We produced and sold 1,184,443 tons, 534,774 tons, 736,726 tons and 1,015,665 tons of frac sand during the nine months ended September 30, 2021 and 2020 and the years ended December 31, 2020 and 2019, respectively.

Our reserves

We believe we have a high-quality mineral reserve base. “Reserves” are defined by SEC Industry Guide 7 as that part of a mineral deposit which could be economically and legally extracted or produced at the time of the reserve determination. Industry Guide 7 divides reserves between “proven (measured) reserves” and “probable (indicated) reserves” which are defined as follows:

- *Proven (measured) reserves.* Reserves for which (1) quantity is computed from dimensions revealed in outcrops, trenches, workings or drill holes; grade and/or quality are computed from the results of detailed sampling and (2) the sites for inspection, sampling and measurement are spaced so closely and the geologic character is so well defined that size, shape, depth and mineral content of reserves are well-established.
- *Probable (indicated) reserves.* Reserves for which quantity and grade and/or quality are computed from information similar to that used for proven (measured) reserves, but the sites for inspection, sampling, and measurement are farther apart or are otherwise less adequately spaced. The degree of assurance, although lower than that for proven (measured) reserves, is high enough to assume continuity between points of observation.

Summary of reserves

We follow SEC Industry Guide 7 in determining our mineral reserves. Exploration samples are evaluated in our laboratory facilities to assess product quality and mining/processing parameters. Members of our sales management team assess the salability of the product(s). Geologic, topographic and site data are used to create a geologic model and mining plan. We prepare an analysis of operating costs, capital costs and long-term anticipated sales volume and price to ensure the economic viability of the reserve.

The quantity and nature of the mineral reserves are estimated by our internal mine planning team and third-party companies. According to John T. Boyd Company ("John T. Boyd"), the relatively uniform nature of the sand deposit underlying the property, combined with laboratory testing results, indicate the sand deposit will produce a high-quality proppant sand product that will meet the customer specifications for regional proppant sand within the Permian Basin. Analysis of sand by independent third-party testing companies indicates that the reserves have characteristics which generally meet American Petroleum Institute specifications with regard to crush strength, turbidity and roundness and sphericity.

The following table provides a summary of our facilities as of December 31, 2020, both of which primarily provide proppant for the oil and natural gas industry:

Mine/plant location	Owned/ leased	Area (in acres)	Proven reserves (in thousands of tons)	Probable reserves (in thousands of tons)	Implied average reserve life (in years)
Winkler County, TX	Owned	641	29,025	896	27
Winkler County, TX	Leased	630	13,287	6,288	18
Total		1,271	42,312	7,184	45

Based on our proven reserves as of December 31, 2020, and average annual production volume for the three years ended December 31, 2020, our proven sand reserves had an implied average reserve life of more than 45 years.

Surface and mineral rights

A portion of our reserves are located on approximately 630 acres that we lease under a lease that terminates in 2052. The lease imposes a royalty rate of 2% of gross sales revenue and requires that we commence production from the leased premises by January 1, 2032.

Our customers

Our customers consist primarily of E&P companies in the continental United States. Our top five customers accounted for approximately 53% and 45% of our revenue for the years ended December 31, 2020 and 2019, respectively. During the year ended December 31, 2020, Rockcliff Energy Management, LLC accounted for 15%, Alta Resources Development, LLC accounted for 11% and Sabine Oil and Gas Corporation accounted for 10%, respectively, of our total revenue.

Competition

The markets in which we operate are highly competitive. To be successful, an energy services company must provide services that meet the specific needs of E&P companies at competitive prices. Competitive factors impacting sales of our services are price, environmental profile of our equipment and operations, reputation and technical expertise, service and equipment quality, and health and safety standards. Although we believe our customers consider all of these factors, we believe price and equipment capabilities are the key factors in our customers' criteria in choosing a service provider. While we seek to price our services competitively, we believe many of our customers elect to work with us based on our the capabilities and environmental profile of our fleet, as well as our extensive experience and operational expertise in U.S. unconventional oil and gas production, integrated business model and uniform fleet of standardized, high specification equipment.

We provide our services primarily in the Appalachian, East Texas/Louisiana and Permian Basins, and we compete against different companies in each of those locations. Our major competitors include Halliburton Company, Liberty Oilfield Services Inc. and NexTier Oilfield Solutions Inc.

Seasonality

Our results of operations have historically reflected seasonal tendencies, generally in the fourth quarter, relating to the conclusion of our customers' annual capital expenditure budgets, the holidays and inclement winter weather during which we may experience declines in our operating results.

Operating risks and insurance

Our operations are subject to hazards inherent in the energy services industry, such as accidents, blowouts, explosions, fires and spills and releases that can cause personal injury or loss of life, damage or destruction of property, equipment, natural resources and the environment and suspension of operations.

In addition, claims for loss of oil and natural gas production and damage to formations can occur in the oilfield services industry. If a serious accident were to occur at a location where our equipment and services are being used, it could result in our being named as a defendant in lawsuits asserting large claims.

Because our business involves the transportation of heavy equipment and materials, we may also experience traffic accidents which may result in spills, property damage and personal injury.

Despite what we view as our strong safety record and our efforts to maintain safety standards, we from time to time have suffered accidents in the past and anticipate that we could experience accidents in the future. In addition to the property damage, personal injury and other losses from these accidents, the frequency and severity of these incidents affect our operating costs and insurability and our relationships with customers, employees, regulatory agencies and other parties. Any significant increase in the frequency or severity of these incidents, or the general level of compensation awards, could adversely affect the cost of, or our ability to obtain, workers' compensation and other forms of insurance, and could have other material adverse effects on our financial condition and results of operations.

We maintain commercial general liability, workers' compensation, business auto, commercial property, excess liability, and directors and officers insurance policies providing coverages of risks and amounts that we believe to be customary in our industry. Further, we have pollution legal liability coverage for our business entities, which would cover, among other things, third party liability and costs of clean-up relating to environmental contamination on our premises, while our equipment is in transit and while on our customers' job site. With respect to our hydraulic fracturing operations, coverage would be available under our pollution legal liability policy for any surface environmental clean-up and liability to third parties arising from any surface contamination. We also have certain specific coverages for some of our business segments, including for our hydraulic fracturing services.

Although we maintain insurance coverage of types and amounts that we believe to be customary in the industry, we are not fully insured against all risks, either because insurance is not available or because of the high premium costs relative to perceived risk. Further, insurance rates have in the past been subject to wide fluctuation and changes in coverage could result in less coverage, increases in cost or higher deductibles and retentions. Liabilities for which we are not insured, or which exceed the policy limits of our applicable insurance, could have a material adverse effect on us. See “Risk Factors” for a description of certain risks associated with our insurance policies.

Environmental and occupational health and safety regulations

Environmental, health and safety matters and regulation

Our operations are subject to stringent laws and regulations governing the discharge of materials into the environment or otherwise relating to environmental protection, and occupational health and safety. Numerous federal, state and local governmental agencies issue regulations that often require difficult and costly compliance measures that could carry substantial administrative, civil and criminal penalties and may result in injunctive obligations for non-compliance. These laws and regulations may, for example, restrict the types, quantities and concentrations of various substances that can be released into the environment, limit or prohibit construction or drilling activities on certain lands lying within wilderness, wetlands, ecologically or seismically sensitive areas and other protected areas, or require action to prevent or remediate pollution from current or former operations. Moreover, it is not uncommon for neighboring landowners and other third parties to file claims for personal injury and property damage allegedly caused by the release of hazardous substances, hydrocarbons or other waste products into the environment. Changes in environmental, health and safety laws and regulations occur frequently, and any changes that result in more stringent and costly requirements could materially adversely affect our operations and financial position. For example, following the election of President Biden and Democratic control in both houses of Congress, it is possible that our operations may be subject to greater environmental, health and safety restrictions, particularly with regards to hydraulic fracturing, permitting and GHG emissions. We have not experienced any material adverse effect from compliance with current requirements; however, we cannot guarantee this will always be the case.

Below is an overview of some of the more significant environmental, health and safety requirements with which we must comply. Our customers’ operations are subject to similar laws and regulations. Any material adverse effect of these laws and regulations on our customers’ operations and financial position may also have an indirect material adverse effect on our operations and financial position.

Waste Handling. We handle, transport, store and dispose of wastes that are subject to the Resource Conservation and Recovery Act (“RCRA”) and comparable state laws and regulations, which affect our activities by imposing requirements regarding the generation, transportation, treatment, storage, disposal and cleanup of hazardous and non-hazardous wastes. With federal approval, the individual states administer some or all of the provisions of RCRA, sometimes in conjunction with their own, more stringent requirements. Although certain petroleum production wastes are exempt from regulation as hazardous wastes under RCRA, such wastes may constitute “solid wastes” that are subject to the less stringent requirements of non-hazardous waste provisions.

Administrative, civil and criminal penalties can be imposed for failure to comply with waste handling requirements. Moreover, the EPA or state or local governments may adopt more stringent requirements for the handling of non-hazardous wastes or re-categorize some non-hazardous wastes as hazardous wastes in the future. Indeed, legislation has been proposed from time to time in U.S. Congress to re-categorize certain oil and natural gas exploration, development and production wastes as hazardous wastes. Several environmental organizations have also at times petitioned the EPA to modify existing regulations to re-categorize certain oil and natural gas exploration, development and production wastes as hazardous. Any such changes in these laws and regulations could have a material adverse effect on our capital expenditures and operating expenses. Although we do not believe the current costs of managing our wastes, as presently classified, to be significant, any legislative or regulatory reclassification of oil and natural gas E&P wastes could increase our costs to manage and dispose of such wastes.

Remediation of Hazardous Substances. The Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA" or "Superfund") and analogous state laws generally impose liability without regard to fault or legality of the original conduct, on classes of persons who are considered to be responsible for the release of a hazardous substance into the environment. These persons include the current owner or operator of a contaminated facility, a former owner or operator of the facility at the time of contamination and those persons that disposed or arranged for the disposal of the hazardous substance at the facility. Liability for the costs of removing or remediating previously disposed wastes or contamination, damages to natural resources, the costs of conducting certain health studies, amongst other things, is strict and joint and several. In the course of our operations, we use materials that, if released, would be subject to regulation under CERCLA and comparable state laws. Therefore, governmental agencies or third parties may seek to hold us responsible under CERCLA and comparable state statutes for all or part of the costs to clean up sites at which such hazardous substances have been released. Such liability could require us to make significant expenditures to investigate and remediate such contamination or attain and maintain compliance with such laws, and may otherwise have a material adverse effect on our results of operations, competitive position or financial condition.

NORM. In the course of our operations, some of our equipment may be exposed to naturally occurring radioactive materials ("NORM") associated with oil and gas deposits and, accordingly, may result in the generation of wastes and other materials containing NORM. NORM exhibiting levels of radiation in excess of established state standards are subject to special handling and disposal requirements, and any storage vessels, piping and work area affected by NORM may be subject to remediation or restoration requirements.

Water Discharges. The Clean Water Act ("CWA"), SDWA, Oil Pollution Act ("OPA") and analogous state laws and regulations impose restrictions and strict controls regarding the unauthorized discharge of pollutants, including produced waters and other oil and gas wastes, into regulated waters. The discharge of pollutants into regulated waters is prohibited, except in accordance with the terms of a permit issued by the EPA or the state. The discharge of dredge and fill material into regulated waters, including wetlands, is also prohibited, unless authorized by a permit issued by the U.S. Army Corps of Engineers (the "Corps"). The scope of these regulated waters has been subject to controversy in recent years. In September 2015, the EPA and the Corps issued new rules revising the definition of "waters of the United States" (the "Clean Water Rule"), but in April 2020, the EPA and the Corps replaced the Clean Water Rule with the Navigable Waters Protection Rule, which narrows the definition of "waters of the United States" to four categories of jurisdictional waters and includes twelve categories of exclusions, including groundwater. However, these rulemakings are currently subject to litigation. In August 2021, a federal judge in the District of Arizona struck down the Navigable Waters Protection Rule, and the Biden administration and the Corps have announced that they have stopped enforcing the Navigable Waters Protection Rule nationwide, that they are reverting back to the 1986 definition of "waters of the United States," and that the administration intends to develop its own definition of "waters of the United States." In addition, the U.S. Supreme Court has held that, in certain cases, discharges from a point source to groundwater could fall within the scope of the CWA and require a permit. To the extent any new rules or court decisions expand the scope of the CWA's jurisdiction, ProFrac's customers could face increased costs and delays with respect to obtaining permits, including for dredge and fill activities in wetland areas.

Noncompliance with the CWA, SDWA, OPA, or other laws or regulations relating to water discharges may result in substantial administrative, civil and criminal penalties, as well as injunctive obligations, for us or our customers. The process for obtaining permits also has the potential to delay operations. Additionally, spill prevention, control and countermeasure plan requirements require appropriate containment berms and similar structures to help prevent the contamination of regulated waters.

Air Emissions. The CAA and comparable state laws and regulations, regulate emissions of various air pollutants through the issuance of permits and the imposition of other emissions control requirements. The EPA has developed, and continues to develop, stringent regulations governing emissions of air pollutants from specified sources. New facilities may be required to obtain permits before work can begin, and existing facilities may be required to obtain additional permits and incur capital costs in order to remain in compliance. For example, EPA has established emission control requirements for crude oil and natural gas production and processing operations and established criteria for aggregating multiple small surface sites into a single source for air quality permitting purposes, which could cause small facilities, on an aggregate basis, to be deemed a major source subject to more stringent air permitting processes and requirements. These and other laws and regulations may increase the costs of compliance for some facilities where we operate. Obtaining or renewing permits also has the potential to delay the development of oil and natural gas projects.

Climate Change. Climate change continues to attract considerable public and scientific attention. As a result, numerous proposals have been made and are likely to continue to be made at the international, national, regional and state levels of government to monitor and limit emissions of carbon dioxide, methane and other GHGs. These efforts have included consideration of cap-and-trade programs, carbon taxes, GHG reporting and tracking programs and regulations that directly limit GHG emissions from certain sources.

In the United States, no comprehensive climate change legislation has been implemented at the federal level. However, President Biden has highlighted addressing climate change as a priority of his administration and has issued several executive orders addressing climate change. Moreover, following the U.S. Supreme Court finding that GHG emissions constitute a pollutant under the CAA, the EPA has adopted regulations that, among other things, establish construction and operating permit reviews for GHG emissions from certain large stationary sources, require the monitoring and annual reporting of GHG emissions from certain petroleum and natural gas system sources in the United States, and together with the DOT, set GHG emissions and fuel economy standards for vehicles in the United States. The regulation of methane from oil and gas facilities has been subject to uncertainty in recent years. The EPA previously had promulgated NSPS imposing limitations on methane emissions from sources in the oil and gas sector. Subsequently, in September 2020, the Trump Administration rescinded those methane standards and removed the transmission and storage segments from the oil and gas source category under the CAA’s NSPS. However, in June 2021, President Biden signed a resolution passed by the U.S. Congress under the Congressional Review Act nullifying the September 2020 rule, effectively reinstating the prior standards. In November 2021, as required by President Biden’s executive order, the EPA proposed new regulations to expand NSPS requirements for oil and gas sector sources and establish comprehensive standards of performance and emission guidelines for methane and volatile organic compound emissions from existing operations in the oil and gas sector, including the exploration and production, transmission, processing, and storage segments. The EPA is currently seeking public comments on its proposal, which the EPA hopes to finalize by the end of 2022. Once finalized, the regulations are likely to be subject to legal challenge and will also need to be incorporated into the states’ implementation plans, which will need to be approved by the EPA in individual rulemakings that could also be subject to legal challenge. The reinstatement of direct regulation of methane emission for new sources and the promulgation of requirements for existing oil and gas customers could result in increased costs for our customers and consequently adversely affect demand for our services.

Separately, various states and groups of states have adopted or are considering adopting legislation, regulation or other regulatory initiatives that are focused on such areas as GHG cap and trade programs, carbon taxes, reporting and tracking programs, and restriction of emissions. For example, several states, including Pennsylvania and New Mexico, have proposed or adopted regulations restricting the emission of methane from E&P activities. At the international level, the United Nations-sponsored “Paris Agreement” requires member states to submit non-binding, individually-determined reduction goals known as Nationally Determined

Contributions every five years after 2020. President Biden has recommitted the United States to the Paris Agreement and, in April 2021, announced a goal of reducing the United States' emissions by 50-52% below 2005 levels by 2030. In November 2021, President Biden released "The Long-Term Strategy of the United States: Pathways to Net-Zero Greenhouse Gas Emissions by 2050," which, among other things, explains that the U.S. and EU are co-leading the "Global Methane Pledge" that aims to cut global methane pollution at least 30% by 2030 relative to 2020 levels. The impacts of these orders, pledges, agreements, and any legislation or regulation promulgated to fulfill the United States' commitments under the Paris Agreement, cannot be predicted at this time.

Governmental, scientific, and public concern over the threat of climate change arising from GHG emissions has resulted in increasing political risks in the United States, including climate change related pledges made by certain candidates now in public office. On January 27, 2021, President Biden issued an executive order that calls for substantial action on climate change, including, among other things, the increased use of zero-emission vehicles by the federal government, the elimination of subsidies provided to the fossil fuel industry, and increased emphasis on climate-related risks across government agencies and economic sectors. The Biden Administration has also issued orders temporarily suspending the issuance of authorizations, and suspending the issuance of new leases pending a study, for oil and gas development on federal lands. For more information, see our regulatory disclosure titled "Regulation of Hydraulic Fracturing and Related Activities." As a result, we cannot predict the full impact of these developments or whether the Biden Administration may pursue further restrictions. Other actions that could be pursued by the Biden Administration may include the imposition of more restrictive requirements for the establishment of pipeline infrastructure or the permitting of LNG export facilities, as well as more restrictive GHG emission limitations for oil and gas facilities.

The adoption and implementation of new or more stringent international, federal or state legislation, regulations or other regulatory initiatives that impose more stringent standards for GHG emissions from the oil and natural gas sector or otherwise restrict the areas in which this sector may produce oil and natural gas or generate the GHG emissions could result in increased costs of compliance or costs of consuming, and thereby reduce demand for oil and natural gas, which could reduce demand for our services. Additionally, political, litigation and financial risks may result in our customers restricting or cancelling production activities, incurring liability for infrastructure damages as a result of climatic changes, or impairing their ability to continue to operate in an economic manner, which also could reduce the demand for our services. One or more of these developments could have a material adverse effect on our business, financial condition and results of operation.

Endangered and Threatened Species. Environmental laws such as the ESA and analogous state laws may impact exploration, development and production activities in areas where we operate. The ESA provides broad protection for species of fish, wildlife and plants that are listed as threatened or endangered. Similar protections are offered to migratory birds under the MBTA and various state analogs. FWS may identify previously unidentified endangered or threatened species or may designate critical habitat and suitable habitat areas that it believes are necessary for survival of a threatened or endangered species. For example, the dunes sagebrush lizard, which is found only in the active and semi-stable shinnery oak dunes of southeastern New Mexico and adjacent portions of Texas (including areas where our customers operate), was a candidate species for listing under the ESA by the FWS for many years. As a result of a recent settlement with the environmental groups, the FWS, in July 2020, acted on a petition to list the dunes sagebrush lizard finding sufficient information to warrant a formal one-year review to consider listing the species. While the listing review is ongoing, FWS has also developed a conservation agreement that would implement certain protective practices for the species and authorize incidental take of the species resulting from certain covered activities, including exploration and development of oil and gas fields. The conservation agreement is known as a CCAA. We have joined the CCAA in an effort to mitigate potential impacts on our business of a listing of the dunes sagebrush lizard by the FWS.

On June 1, 2021, FWS also proposed to list two distinct population segments of the lesser prairie-chicken under the ESA, in response to a 2016 petition from conservation groups. Separately, on July 1, 2021, a lawsuit was filed by conservation groups to overturn a 2019 FWS decision that listing the eastern hellbender salamander under the ESA was not warranted. In October 2021, the Biden administration published two rules that reversed changes made by the Trump administration, namely to the definition of "habitat" and a policy that made it easier to exclude territory from critical habitat. To the extent any protections are implemented for these or any other species or habitat, it could cause us or our customers to incur additional costs or become subject to operating restrictions or operating bans in the affected areas.

Regulation of Hydraulic Fracturing and Related Activities . Our hydraulic fracturing operations are a significant component of our business. Hydraulic fracturing is an important and common practice that is used to stimulate production of hydrocarbons, particularly natural gas, from tight formations, including shales. The process, which involves the injection of water, sand and chemicals under pressure into formations to fracture the surrounding rock and stimulate production, is typically regulated by state oil and natural gas commissions. However, federal agencies have asserted regulatory authority over certain aspects of the process. For example, the EPA has previously issued a series of rules under the CAA that establish new emission control requirements for certain oil and natural gas production and natural gas processing operations and associated equipment. BLM also finalized rules to impose new or more stringent standards for performing hydraulic fracturing on federal and American Indian lands. While this regulation was subsequently rescinded in December 2017, which rescission was upheld by the District Court of Northern California, litigation is ongoing. Additionally, the Biden Administration may seek to revisit these regulations. Separately, the Biden Administration may also pursue further restriction of hydraulic fracturing and other oil and gas development on federal lands. For example, on January 27, 2021, President Biden issued an executive order that, among other things, called for the elimination of fossil fuel subsidies from federal budget requests beginning in 2022 and suspended the issuance of new leases for oil and gas development on federal lands to the extent permitted by law and calls for a review of existing leasing and permitting practices for such activities on federal lands (the order clarifies that it does not restrict such operations on tribal lands that the federal government merely holds in trust). However, legal challenges to this suspension are ongoing, and the District Court for the Western District of Louisiana has issued a preliminary injunction against the implementation of this suspension while such challenges are pending. Although the order does not apply to existing operations under valid leases, ProFrac cannot guarantee that further action will not be taken to curtail oil and gas development on federal lands. Any restrictions for new or existing production activities on federal land could adversely impact our customer's operations and consequently reduce demand for our services. Further, legislation to amend the SDWA to repeal the exemption for hydraulic fracturing (except when diesel fuels are used) from the definition of "underground injection" and require federal permitting and regulatory control of hydraulic fracturing, as well as legislative proposals to require disclosure of the chemical constituents of the fluids used in the fracturing process, have previously been proposed in Congress. Several states and local jurisdictions in which we or our customers operate also have adopted or are considering adopting regulations that could restrict or prohibit hydraulic fracturing in certain circumstances, impose more stringent operating standards and/or require the disclosure of the composition of hydraulic fracturing fluids.

Federal and state governments have also investigated whether the disposal of produced water into underground injection wells has caused increased seismic activity in certain areas. In response to concerns regarding induced seismicity, regulators in some states have imposed, or are considering imposing, additional requirements in the permitting of produced water disposal wells or otherwise to assess any relationship between seismicity and the use of such wells. For example, Oklahoma has issued rules for wastewater disposal wells that impose permitting and operating restrictions and reporting requirements on disposal wells in proximity to faults and also, from time to time, has implemented plans directing certain wells where seismic incidents have occurred to restrict or suspend disposal well operations. In particular, the Oklahoma Corporation Commission's well completion seismicity guidelines for operators in the SCOOP and STACK require hydraulic fracturing operations to be suspended following earthquakes of certain magnitudes in the vicinity. In addition, the Oklahoma Corporation Commission's Oil and Gas Conservation Division has previously issued an order limiting future increases in the volume of oil and natural gas wastewater injected into the ground in an effort to reduce the number of earthquakes in the state. The Texas Railroad Commission has adopted similar rules.

If new laws or regulations that significantly restrict hydraulic fracturing and related activities are adopted, such laws could make it more difficult or costly to perform fracturing to stimulate production from tight formations. In addition, if hydraulic fracturing is further regulated at the federal or state level, fracturing activities could become subject to additional permitting and financial assurance requirements, more stringent construction specifications, increased monitoring, reporting and recordkeeping obligations, plugging and abandonment requirements and also to attendant permitting delays and potential increases in costs. Such legislative changes could cause us to incur substantial compliance costs, and compliance or the consequences of any failure to comply could have a material adverse effect on our financial condition and results of operations.

OSHA Matters. The Occupational Safety and Health Act ("OSHA") and comparable state statutes regulate the protection of the health and safety of workers. In addition, the OSHA hazard communication standard requires that information be maintained about hazardous materials used or produced in operations and that this information be provided to employees, state and local government authorities and the public. In March 2016, the U.S. Occupational Safety and Health Administration issued a final rule to impose stricter standards for worker exposure to silica; our sand mining operations are subject to this rule and, moreover, the rule went into effect on June 23, 2021 for hydraulic fracturing activities. As a result, we or our customers may be required to incur additional costs associated with compliance with these standards, which costs may be material.

Mining Activities. Our sand mining operations are subject to the oversight of the U.S. Mine Safety and Health Administration ("MSHA"), which is the primary regulatory agency with jurisdiction over the commercial silica industry. MSHA regulates quarries, surface mines, underground mines, and the industrial mineral processing facilities associated with quarries and mines. MSHA administers and enforces the provisions of the Federal Mine Safety and Health Act of 1977 ("FMSHA"), as amended by the Mine Improvement and New Emergency Response Act of 2006. FMSHA imposes stringent health and safety standards on numerous aspects of our operations inclusive of mineral extraction and processing operations, transportation and transloading of silica and delivery of silica sand to well sites. These standards include, among others, the training of personnel, operating procedures, operating and safety equipment, and other matters. As part of MSHA's oversight, its representatives must perform at least two unannounced inspections annually for each surface mining facility in its jurisdiction.

Human capital

Our employees are a critical asset which are key to our innovative culture and overall success. We are focused on our high-performance culture through attracting, engaging, developing, retaining and rewarding top talent. We strive to enhance the economic and social well-being of our employees and the communities in which we operate. We are committed to providing a welcoming, inclusive environment for our workforce, with best-in-class training and career development opportunities to enable employees to thrive and achieve their career goals.

As of September 30, 2021, we employed 1,163 people, none of whom are represented by labor unions or subject to collective bargaining agreements.

Health and Safety. The health, safety, and well-being of our employees is of the utmost importance. We are an industry leader with a proven track record in safety with a TRIR of 0.32 for the year ended December 31, 2020, including our manufacturing division, compared to the industry average of 0.7.

We provide employees the option to participate in health and welfare plans, including medical, dental, life, accidental death and dismemberment and short-term and long-term disability insurance plans. We also offer a number of health and wellness programs, including telemedicine, health screens and fitness reimbursement as well as access to the Employee Assistance Program which provides employees and their family members access to professional providers to help navigate challenging life events 24 hours a day/365 days a year.

In response to COVID-19, we adopted enhanced safety measures and practices to protect employee health and safety and continue to follow guidelines from the Centers for Disease Control to protect our employees and minimize the risk of business disruption.

Legal proceedings

ProFrac Services, LLC entered into a Master Purchase Agreement For Products And/Or Services with Lonestar Prospects, Ltd. d/b/a Vista Sand ("Vista"), dated November 27, 2017 (the "Vista MSA"), as amended by the First Addendum to Vista MSA and the First Amendment to Vista MSA, both of which are dated June 10, 2018 (collectively, the "Agreement"). Under the terms of the Vista MSA, Services agreed to purchase certain quantities of sand from Vista. Vista filed a complaint against Services in the United States Bankruptcy Court for the Northern District of Texas on March 15, 2021, in which it alleges that Services breached the terms of the Agreement by failing to purchase the required amount of sand or pay for the underpurchased amounts as required by the Agreement. Vista is seeking damages of approximately $8.31 million. This matter is in the early stages of litigation activities, with the first discovery being served on or about July 30, 2021. Vista and Services have entered an agreed order to stay any deadlines until November 24, 2021.

From time to time we may be involved in litigation relating to claims arising out of our operations in the normal course of business, including workers' compensation claims and employment related disputes. Other than as described above, we are not currently a party to any legal proceedings that, if determined adversely against us, either individually or in the aggregate, would have a material adverse effect on our business, results of operations, cash flows or financial condition and are not aware of any material legal proceedings contemplated by governmental authorities. We are however, named defendants in certain lawsuits, investigations and claims arising in the ordinary course of conducting our business and we may be named defendants in similar lawsuits, investigations and claims in the future. While the outcome of these lawsuits, investigations and claims cannot be predicted with certainty, we do not expect these matters, if decided adversely, to have a material adverse effect on our business, results of operations, cash flows or financial condition.

Management

The following table sets forth the names, ages and titles of our directors and executive officers.

Name	Age	Position
Ladd Wilks	36	Chief Executive Officer
Brian Uhlmer	46	Chief Financial Officer
Coy Randle	60	Chief Operating Officer
Robert Willette	46	Chief Legal Officer, Secretary
Matthew D. Wilks	38	Executive Chairman of the Board
Sergei Krylov	44	Director Nominee
Terry Glebocki	59	Director Nominee
Stacy Nieuwoudt	41	Director Nominee
Gerald Haddock	74	Director Nominee

Ladd Wilks

Ladd Wilks has served as our Chief Executive Officer since May 2016. Since February 2012, Mr. Wilks has also served as Vice President of Breckenridge Geophysical, Inc. Mr. Wilks owns a controlling interest in two private E&P companies. Mr. Wilks currently sits on the Board of Directors of Cisco Safe, the Cisco Recreation Foundation and 13 Foundation. From March 2008 to July 2011, Mr. Wilks served as VP of Logistics of FTSI. Additionally, Mr. Wilks is an executive officer at Wilks Brothers and has an extensive background with our Company arising from his familial connection to our founders as the son of Farris Wilks and nephew of Dan Wilks.

Brian Uhlmer

Brian Uhlmer joined ProFrac in 2018 and has served as our Chief Financial Officer since November 2021, and previously served as our Senior Vice President of Strategy and Finance. From August 2016 to April 2019, Mr. Uhlmer served as Corporate Development and Investor Relations Consultant for Energy Recovery, Inc. Prior to that, Mr. Uhlmer was a Managing Director and Head of Energy Research at GMP Securities L.P. from September 2015 to August 2016. Mr. Uhlmer was Managing Director and Head of Energy Research at Global Hunter Securities, L.P. from October 2011 to March 2014. Mr. Uhlmer serves as a Director at Linear Labs Inc., a smart electric motor company which specializes in designing an electric motor system that has the potential for industry leading torque density. Mr. Uhlmer holds a B.S. in Chemical Engineering from the University of Florida, an M.B.A. from the University of Texas at Austin Red McCombs School of Business and has completed all three levels of the CFA Charterholder.

Coy Randle

Coy Randle joined ProFrac in May 2018 and has served as our Chief Operating Officer since October 2018. Mr. Randle has over 39 years' experience in the energy industry. Prior to joining the company, Mr. Randle provided technical consulting services for Nolan Transportation Group. Mr. Randle served as President and Chief Operating Officer of FTSI from March 2010 to October 2015 and as Senior Vice President of Operations from January 2008 to March 2010.

Robert Willette

Robert Willette has served as our Chief Legal Officer and Secretary since November 2021. Since October 2020, Mr. Willette has served as Assistant General Counsel of Wilks Brothers. From August 2017 to October 2020, Mr. Willette served as Senior Vice President, General Counsel, Corporate Secretary, Chief Compliance and ESG Officer of Carbo Ceramics Inc. Prior to that, Mr. Willette served as General Counsel and Corporate Secretary for Texon L.P., which transports and markets crude oil, natural gas and natural gas liquids. Mr. Willette holds a B.S., an M.B.A., and a J.D. from the University of Kansas.

Matthew D. Wilks

Matthew D. Wilks has served as Executive Chairman of our board of directors since August 2021 and has served as our President since October 2018. Previously, Mr. Wilks served as our Chief Financial Officer from May 2017 to August 2021. Mr. Wilks also has served as Vice President of Investments for Wilks Brothers since January 2012. From 2010 to 2012, Mr. Wilks served as Vice President of Logistics for FTSI. Additionally, Mr. Wilks served as a member of the board of directors of Approach Resources, Inc., an E&P company focused on the exploration, development and production of unconventional oil and gas resources in the United States. Mr. Wilks' background in numerous roles specific to our Company and his familial connection to our founders as the son of Dan Wilks and nephew of Farris Wilks, allow him to engage in board deliberations with valuable insight and experience.

Sergei Krylov

Sergei Krylov has been nominated to serve on our board of directors commencing concurrently with the consummation of this offering. Mr. Krylov has been in the energy industry for more than 20 years, both as an investment banker and as an executive officer. Currently, Mr. Krylov serves as Investment Partner and Chief Financial Officer of Wilks Brothers, LLC. From 2014 to 2020, Mr. Krylov served as an executive at Approach Resources Inc., a NASDAQ listed exploration and production company focused on Permian basin, initially as Executive Vice President and Chief Financial Officer and subsequently as President and Chief Executive Officer. From 2000 to 2013, Mr.Krylov worked at J.P. Morgan Securities LLC in the Energy Investment Banking group in New York and Houston, where he most recently served as Managing Director. During his career Mr.Krylov has executed numerous mergers and acquisitions, capital markets offerings and financial restructurings. Mr. Krylov holds a B.B.A. in finance from Pace University.

We believe that Mr. Krylov's skills and experience, particularly his financial expertise and understanding of capital markets, knowledge of the oil and gas industry and his public company executive experience make him well qualified to serve as a member of our board of directors.

Terry Glebocki

Terry Glebocki has been nominated to serve on our board of directors commencing concurrently with the consummation of this offering.Ms. Glebocki served as Chief Executive Officer of Ocean Casino from December 2019 through October 2021. From February 2019 to December 2019, Ms. Glebocki served as Chief Financial Officer of Ocean Casino. Prior to that, Ms. Glebocki served as Executive Vice President, Chief Financial Officer, and Treasurer of Tropicana Entertainment Inc. from April 2015 to October 2018. Ms. Glebocki has also served as Vice President of Finance and Chief Financial Officer of Revel Entertainment Group LLC from June 2007 to April 2015. Ms. Glebocki holds a B.S. from Lehigh University.

We believe that Ms. Glebocki's leadership skills and experience, including serving as an executive officer for several companies, will bring valuable insights to the board of directors and qualify her to serve on our board of directors.

Stacy Nieuwoudt

Stacy Nieuwoudt has been nominated to serve on our board of directors commencing concurrently with the consummation of this offering. Ms. Nieuwoudt is currently a private investor. From November 2017 to November 2019, Ms. Nieuwoudt served as a Senior Energy and Industrials Analyst at Aptigon Capital, a Citadel Company. Prior to that, Ms. Nieuwoudt served as an Energy Equities Analyst at Surveyor Capital, a Citadel Company, from September 2010 to November 2017. Since January 2021, Ms. Nieuwoudt has served as a director of Independence Contract Drilling. Ms. Nieuwoudt holds a B.A. from Rice University.

We believe that Ms. Nieuwoudt's skills and experience, particularly her specialized knowledge, background and expertise in the energy industry, combined with her understanding of capital markets and career long experience covering the energy industry qualify her to serve as a member of our board of directors.

Gerald Haddock

Gerald W. Haddock has been nominated to serve on our board of directors commencing concurrently with the consummation of this offering. Mr. Haddock founded Haddock Enterprises, LLC in 2000 and has served as its President since such time. Mr. Haddock formerly served as President and Chief Operating Officer of Crescent Real Estate Equities Company from 1994 to 1999, including serving as CEO from 1996 to 1999. He currently serves as a director of Meritage Homes Corporation and Union Acquisition Corp. III. Mr. Haddock has served on the board of trustees for Baylor College of Medicine in Houston and as a member of various other committees for Baylor University and at Baylor College of Medicine. Those committees included the Executive Investment Committee at Baylor University and Baylor College of Medicine. Additionally, he has served on the board of the M.D. Anderson Proton Therapy Education and Research Foundation, the CEELI Institute and the Johnny Unitas Golden Arm Educational Foundation. Mr. Haddock holds a B.B.A and J.D. from Baylor University. He also holds an L.L.M in Taxation from New York University School of Law and an M.B.A. from Dallas Baptist University.

We believe that Mr. Haddock's significant and extensive experience advising multiple companies across a breadth of industries, combined with his understanding and background in business will bring proven leadership and business and industry acumen to the board of directors and us and make him strongly qualified to serve as a member of our board of directors.

Family relationships

Ladd Wilks and Matthew D. Wilks are first cousins and the sons of our founders and principal shareholders, Farris and Dan Wilks, respectively.

Status as a controlled company

Because the Wilks will initially own ProFrac LLC Units and shares of Class B common stock, representing approximately % of the voting power of our Company following the completion of this offering, we expect to be a controlled company as of the completion of the offering under Sarbanes-Oxley and rules of Nasdaq. A controlled company is not required to have a majority of independent directors or to maintain an independent compensation or nominating and governance committee. As a controlled company, we will remain subject to rules of Sarbanes-Oxley and Nasdaq that require us to have an audit committee composed entirely of independent directors. Under these rules, we must have at least one independent director on our audit committee by the date our Class A common stock is listed on Nasdaq, at least two independent directors on our audit committee within 90 days of the listing date, and at least three independent directors on our audit committee within one year of the listing date. We expect to have independent directors upon the closing of this offering.

If at any time we cease to be a controlled company, we will take all action necessary to comply with Sarbanes-Oxley and rules of Nasdaq, including by appointing a majority of independent directors to our board of directors and ensuring we have a compensation committee and nominating and governance committee composed of independent directors, subject to a permitted "phase-in" period. See "Management—Status as a Controlled Company."

Board of directors and committees

Upon completion of this offering, our board of directors will consist of directors, of whom will satisfy the independence requirements of the Exchange Act and Nasdaq listing standards. The board of directors has determined that , and are independent within the meaning of the Nasdaq listing standards currently in effect and Rule 10A-3 of the Exchange Act.

Our certificate of incorporation provides that the terms of office of the directors are from the time of their election until the next annual meeting of shareholders or until their successors are duly elected and qualified.

Our certificate of incorporation provides that the authorized number of directors will generally be not less than nor more than , and the exact number of directors will be fixed from time to time exclusively by the board of directors pursuant to a resolution adopted by a majority of the whole board. In addition, our certificate of incorporation and our bylaws provide that, in general, vacancies on the board may be filled by a majority of directors in office, although less than a quorum.

Audit committee

Our board of directors will establish an audit committee in connection with this offering whose functions include the following:

- assist the board of directors in its oversight responsibilities regarding the integrity of our financial statements, our compliance with legal and regulatory requirements, the independent accountant's qualifications and independence and our accounting and financial reporting processes of and the audits of our financial statements;
- prepare the report required by the SEC for inclusion in our annual proxy or information statement;
- approve audit and non-audit services to be performed by the independent accountants;
- perform such other functions as the board of directors may from time to time assign to the audit committee.

The specific functions and responsibilities of the audit committee will be set forth in the audit committee charter. Upon completion of this offering, our audit committee will consist of directors who satisfy the independence requirements of the Exchange Act and Nasdaq listing standards, of whom will qualify as an audit committee financial expert as defined under these rules and listing standards, and of whom will satisfy the financial literacy standards for audit committee members under the Exchange Act and Nasdaq listing standards. Within one year after completion of the offering, we expect that our audit committee will be composed of three members that will satisfy the independence requirements of the Exchange Act and Nasdaq listing standards.

Pursuant to our bylaws, our board of directors may, from time to time, establish other committees to facilitate the management of our business and operations. Because we are considered to be controlled by the Wilks under Nasdaq rules, we are eligible for exemptions from provisions of these rules requiring a majority of independent directors, nominating and corporate governance and compensation committees composed entirely of independent directors and written charters addressing specified matters. We may elect to take advantage of these exemptions. In the event that we cease to be a controlled company within the meaning of these rules, we will be required to comply with these provisions after the specified transition periods.

Compensation committee

Our compensation committee will be comprised of . This committee will establish salaries, incentives and other forms of compensation for officers and directors. The compensation committee will also administer our long term incentive plan.

Compensation committee interlocks and insider participation

None of our executive officers serve on the board of directors or compensation committee of a company that has an executive officer that serves on our board or compensation committee. No member of our board is an executive officer of a company in which one of our executive officers serves as a member of the board of directors or compensation committee of that company.

Board role in risk oversight

Our corporate governance guidelines will provide that the board of directors is responsible for reviewing the process for assessing the major risks facing us and the options for their mitigation. This responsibility will be largely satisfied by our audit committee, which is responsible for reviewing and discussing with management and our independent registered public accounting firm our major risk exposures and the policies management has implemented to monitor such exposures, including our financial risk exposures and risk management policies.

Executive compensation

We are currently considered an "emerging growth company," within the meaning of the Securities Act, for purposes of the SEC's executive compensation disclosure rules. In accordance with such rules, we are required to provide a Summary Compensation Table and an Outstanding Equity Awards at Fiscal Year End Table, as well as limited narrative disclosures regarding executive compensation for our last completed fiscal year. Further, our reporting obligations extend only to our "named executive officers," who are the individuals who served as our principal executive officer, our next two other most highly compensated officers at the end of the last completed fiscal year and up to two additional individuals who would have been considered one of our next two most highly compensated officers except that such individuals did not serve as executive officers at the end of the last completed fiscal year. Accordingly, our "named executive officers" are:

- Ladd Wilks, Chief Executive Officer;
- Brian Uhlmer, Chief Financial Officer; and
- Coy Randle, Chief Operating Officer.

2020 summary compensation table

The following table summarizes the compensation awarded to, earned by or paid to our named executive officers for the fiscal year ended December 31, 2020.

Name and Principal Position	Year	Salary ($)	Bonus ($) (1)	Option awards ($)	All other compensation ($) (3)	Total ($)
Ladd Wilks *Chief Executive Officer*	2020	230,798	—	—	26,076	256,874
Brian Uhlmer *Chief Financial Officer*	2020	271,712	50,000	—	9,000	330,712
Coy Randle *Chief Operating Officer*	2020	289,635	—	—(2)	6,142	295,776

(1) For Mr. Uhlmer, the amounts in this column reflect a discretionary bonus earned by Mr. Uhlmer during the 2020 fiscal year. No other named executive officer earned a discretionary bonus during the 2020 fiscal year.

(2) For Mr. Randle the aggregate grant date fair value of incentive units (as defined below) in ProFrac LLC granted during fiscal year 2020 was $0. The incentive units are intended to constitute "profits interests" and represent actual (non-voting) equity interests that have no liquidation value for U.S. federal income tax purposes on the date of grant but are designed to gain value only after the underlying assets have realized a certain level of growth and return to those persons who hold certain other classes of equity. We believe that, despite the fact that the incentive units do not require the payment of an exercise price, these awards are most similar economically to stock options and, as such, they are properly classified as "options" for purposes of the SEC's executive compensation disclosure rules under the definition provided in Item 402(m)(5)(i) of Regulation S-K since these awards have "option-like features." For more information on the incentive units, see the "*Outstanding Equity Awards at 2020 Fiscal Year-End*" table and "*—Narrative Disclosure to Outstanding Equity Awards at 2020 Fiscal Year-End*" below.

(3) Amounts in this column reflect for the 2020 fiscal year: (a) for Mr. Wilks, matching contributions of $3,038 to the 401(k) Plan (as defined below), (b) the incremental cost associated with personal use of a company vehicle by Mr. Wilks and Mr. Randle equal to $23,038 and $6,142, respectively and (c) the aggregate cost of a monthly automobile allowance provided to Mr. Uhlmer.

Narrative to summary compensation table

Employment agreement

Mr. Randle entered into an employment agreement with Services on May 22, 2018 (the "Employment Agreement"). The Employment Agreement provided for an initial term of three years (the "Initial Term"), and automatically renews for successive one-year periods thereafter until terminated in accordance with its terms. Neither Mr. Wilks or Uhlmer is party to an employment agreement. The narrative below summarizes the payments and benefits that each named executive officer is currently eligible to receive on an annual basis. In addition to the payments and benefits described below, Mr. Randle is entitled to additional payments and benefits under the Employment Agreement in the event of a termination of his employment or in connection with the consummation of certain transactions by the Company. For more information on these amounts, see "*—Additional Narrative Disclosure—Potential Payments Upon Termination or Change in Control*" below.

Base salary

Each named executive officer's base salary is a fixed component of annual compensation for performing specific job duties and functions. The annual rate of base salary for each named executive officer was established at levels commensurate with historical compensation, with any adjustments deemed necessary to attract and retain individuals with superior talent appropriate relative to their expertise and experience.

Annual bonus

We have historically used cash incentive awards to motivate and reward our named executive officers. We do not maintain a formal annual cash incentive award plan; instead, such awards are determined on a discretionary basis. Under his Employment Agreement, the discretionary bonus for Mr. Randle is based on achievement of certain levels of revenue and profit for a given fiscal year. For individuals not party to an employment agreement, the discretionary bonus is generally based on individual and company performance.

For 2020, Mr. Uhlmer was the only named executive officer who earned an annual cash incentive award.

Equity compensation

For all periods prior to this offering, we have not maintained a formal equity compensation program, but have historically used long term equity incentive awards on a discretionary basis to motivate and reward certain of our executives. During 2020, Mr. Randle received an award of incentive units in ProFrac LLC. Such incentive units will be forfeited prior to the closing of this offering. For more information on the incentive units, see the "*Outstanding Equity Awards at 2020 Fiscal Year-End*" table and "*—Narrative Disclosure to Outstanding Equity Awards at 2020 Fiscal Year-End*" below.

In connection with this offering we intend to adopt the 2021 Plan (as defined below) in which certain of our employees, including the named executive officers, will be eligible to participate going forward but have not done so as of the date of this prospectus. For more information on the 2021 Plan, see "*—Additional Narrative Disclosure—2021 Long Term Incentive Plan*" below.

Other elements of compensation

Each named executive officer is entitled to vacation and paid time off in accordance with the terms and conditions of the applicable plan or policy. Subject to the terms of any applicable plans, policies or programs, each named executive officer is entitled to receive such employee benefits, including any and all medical, dental, vision, life and accidental death and disability, short-term and long-term disability, and voluntary life and disability benefits available to employees generally, and such other benefits as we may from time to time establish for the named executive officers. Each named executive officer is reimbursed by us for all ordinary and reasonable expenses incurred in the course of the performance of employment services subject to the terms of our reimbursement policy. We currently maintain a retirement plan intended to provide benefits under section 401(k) of the Code (the "401(k) Plan") in which employees, including the named executive officers, are allowed to contribute portions of their base compensation to a tax-qualified retirement account. See "*—Additional Narrative Disclosure—Retirement Benefits*" for more information.

Outstanding equity awards at fiscal year-end

The following table reflects information regarding outstanding equity-based awards held by each named executive officer as of December 31, 2020.

				Option awards(1)
Name	Number of securities underlying unexercised options (#) Exercisable(2)	Number of securities underlying unexercised options (#) Unexercisable(2)	Option exercise price ($)(3)	Option expiration date(2)
Ladd Wilks	—	—	—	—
Brian Uhlmer	—	—	—	—
Coy Randle	4	6	N/A	N/A

(1) The award described herein was issued to Mr. Randle by ProFrac LLC.

(2) On May 28, 2020, Mr. Randle received a grant of Class B Units in ProFrac LLC (the "incentive units"). The number of incentive units reflected in the table represents the number of Class B Units of ProFrac LLC owned by Mr. Randle, and not a number of shares of our common stock. The incentive units are structured as profits interests for tax purposes. Profits interests such as the incentive units do not require the payment of an exercise price nor do they have an expiration date; instead, they only entitle the holder thereof to receive value if and to the extent the underlying security appreciates in value following the grant of the award. Because of this appreciation feature, we believe profits interest awards are economically similar to stock options or stock appreciation rights for purposes of the SEC disclosure rules. Awards reflected as "Unexercisable" are incentive units that have not yet vested. Awards reflected as "Exercisable" are incentive units that have vested, but have not yet received payment in respect thereof. The incentive units were vested with respect to 40% of the award on the date of grant, and vest with respect to an additional 20% of the award on each of the first three anniversaries of the grant date, in each case subject to Mr. Randle's continued employment with us through the applicable vesting date. For a more detailed description of how and when the profits interest awards could become vested and when such awards could begin to receive payments, please see "*—Narrative Disclosure to Outstanding Equity Awards at 2020 Fiscal Year-End*" below.

(3) The incentive units do not have an "exercise price" in the same sense that a true stock option award would have an exercise price. Instead, the incentive unit award has a "participation threshold" associated with the award. Each incentive unit will entitle the holder to receive distributions only if the aggregate distributions made by ProFrac LLC in respect of each Class A Unit of ProFrac LLC issued and outstanding on or prior to date of the grant of the incentive units exceeds the participation threshold. The thresholds are set at the time of grant and typically represents the estimated fair value of a common unit or a multiple of fair value on the date of grant.

Narrative disclosure to outstanding equity awards at 2020 fiscal year-end

On May 28, 2020, Mr. Randle received a grant of incentive units from ProFrac LLC pursuant to the ProFrac LLC Agreement and a Class B Unit Award Agreement (the "Award Agreement"). The incentive units are intended to constitute "profits interests" and represent actual (non-voting) equity interests that have no liquidation value for U.S. federal income tax purposes on the date of grant but are designed to gain value only after the underlying assets realize a certain level of growth and return to those persons who hold certain other classes of equity. The incentive units were vested with respect to 40% of the incentive unit award on the date of grant, and vest with respect to an additional 20% of the award on each of the first three anniversaries of the grant date, subject to Mr. Randle's continued employment with us through each applicable vesting date. As such, Mr. Randle's incentive units are currently vested with respect to 60% of the total award, with vesting of an additional 20% of the award to occur on each of May 28, 2022 and May 28, 2023.

In connection with this offering, Mr. Randle will forfeit his incentive units and will receive an equity-based award under the 2021 Plan (as defined below), the terms of which have not yet been finalized.

Additional narrative disclosure

Retirement benefits

We currently maintain the 401(k) Plan under which employees, including the named executive officers, are allowed to contribute portions of their base compensation to a tax-qualified retirement account. We provide matching contributions to all employees who have completed one year of service with the Company in amounts equal to 100% of the employee's contribution up to 4% of total compensation.

Potential payments upon termination or change in control

The following discussion describes the amounts and benefits that would have been owed to Mr. Randle under the Employment Agreement and Award Agreement in the event of a termination of employment or the consummation of certain transactions by the Company as of December 31, 2020. Neither Mr. Wilks or Mr. Uhlmer is party to any employment, severance, change in control, equity award agreement or similar agreement, nor are we otherwise currently responsible for any payment upon a change in control of the Company or the termination of Mr. Wilks or Mr. Uhlmer.

Termination without cause or for good reason

In the event that Mr. Randle's employment were to be terminated by the Company without Cause or due to his resignation for Good Reason (as each term is defined below) prior to the expiration of the Initial Term in May 2021, then, in addition to payment of any earned but unpaid base salary and approved but unreimbursed expenses, the Employment Agreement provided that Mr. Randle would be entitled to receive an amount equal to his then-current annual base salary, paid in substantially equal installments in accordance with the Company's normal payroll practices for the 12 month period following such termination of employment. Mr. Randle's receipt of the severance payments would be conditioned on his continued compliance with his non-competition, non-solicitation and confidentiality obligations during the period that he receives the severance payments. However, after the expiration of the Initial Term in May 2021, the Employment Agreement provides that Mr. Randle is not entitled to the payments described in the preceding sentence or any other payments under the Employment Agreement upon a termination of his employment for any reason, other than payments for earned but unpaid base salary or unreimbursed business expenses.

In the event that Mr. Randle's employment is terminated by Services without Cause or by Mr. Randle for Good Reason (as each term is defined below), the Award Agreement provides that any unvested incentive units held by Mr. Randle are forfeited without consideration, and any vested incentive units are retained by Mr. Randle, subject to ProFrac LLC's right to repurchase the vested incentive units at the then current fair market value per unit.

For purposes of the Employment Agreement and the Award Agreement, Cause and Good Reason are generally defined as follows:

- "Cause" means (a) material failure or refusal by Mr. Randle to satisfactorily perform his lawful duties, responsibilities, or authorities under the Employment Agreement as requested by the supervisor; (B) any act of gross negligence, willful misconduct, or fraudulent or criminal behavior by Mr. Randle in the performance of his duties, responsibilities, or authorities under the Employment Agreement, including without limitation any misappropriation of any funds or property owned by Services or its affiliates, fraud, embezzlement, or theft; (C) any conviction of, guilty plea concerning, or entry into any deferred adjudication or similar diversion arrangement with respect to any felony or crime of moral turpitude or fraud by Mr. Randle; (D) any material violation of the Employment Agreement by Mr. Randle; (E) any breach of any applicable fiduciary duty by Mr. Randle to act exclusively and solely for the benefit of Services or its affiliates in all undertakings concerning or relating to Services or its affiliates; (F) any misconduct in the course and scope of employment, including without limitation dishonesty, disloyalty, disorderly conduct, insubordination, harassment of other employees or third parties, abuse of alcohol or controlled substances, or other material violations of Service's policies, rules, or practices; or (G) any act or omission that is contrary to the best interests of Services or its affiliates or is likely to damage the business, including without limitation the reputation of Services or its affiliates.

- "Good Reason" means a material diminution in Mr. Randle's base salary by Services without his consent, except that the foregoing shall not constitute Good Reason unless (i) Mr. Randle provides 60 days written notice to Services that Good Reason exists, (ii) Services fails to cure such circumstances for 30 days and (iii) Mr. Randle terminates his employment within 100 days of the existence of the circumstances that constitute Good Reason.

Termination due to death or disability

In the event that Mr. Randle's employment with the Company terminates due to his death or Disability (as defined below), the Award Agreement provides that any unvested portion of the incentive unit award will immediately vest, subject to ProFrac LLC's right to repurchase the vested incentive units at the then current fair market value per unit.

For purposes of the Award Agreement, "Disability" generally means that Mr. Randle is unable to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment that can be expected to result in death or which has lasted or can be expected to last for a continuous period of not less than twelve months, and the permanence and degree of which shall be supported by medical evidence satisfactory to the Company.

Change in control or IPO

In the event of a change in control that results in the transfer of at least fifty-one percent of the ownership interest of the Company or an initial public offering (each a "qualifying transaction"), Mr. Randle is entitled to receive a cash bonus payment under the Employment Agreement (the "Change in Control Bonus"). The Change in Control Bonus would have been equal to Mr. Randle's monthly base salary multiplied by the number of months remaining in the Initial Term, which expired in May 2021. The Change in Control Bonus is paid over eighteen months, with 20% paid at the time of the consummation of the qualifying transaction, 20% paid six months following the qualifying transaction, 20% paid on the one-year anniversary of the qualifying transaction and 40% paid eighteen months following the qualifying transaction, provided that Mr. Randle remains continuously employed by the Company or its affiliate through each such date. Because the Initial Term expired in May 2021, Mr. Randle is no longer entitled to any Change in Control Bonus as of the date hereof.

Under the Award Agreement, in the event of a Change in Control (as defined below), if the incentive units are not assumed or substituted in the Change in Control, the incentive units will immediately vest and become non-forfeitable. If the incentive units are assumed or substituted, the incentive units will not accelerate, but will instead remain outstanding and continue to vest, provided that, if Mr. Randle's employment is terminated by the successor entity within 24 months of such Change in Control, the incentive units will immediately vest and become non-forfeitable of the date immediately preceding such termination of employment.

2021 Long term incentive plan

In connection with this offering, we intend to adopt an omnibus equity incentive plan, the ProFrac Holding Corp. 2021 Long Term Incentive Plan (the "2021 Plan" or "long term incentive plan"), for employees, consultants and directors of us and our affiliates who perform services for us. The following description of the 2021 Plan is based on the form we anticipate adopting, but the 2021 Plan has not yet been adopted and the provisions discussed below remain subject to change. As a result, the following description is qualified in its entirety by reference to the final form of the 2021 Plan once adopted.

The 2021 Plan will provide for potential grants of: (i) incentive stock options qualified as such under U.S. federal income tax laws ("incentive options"); (ii) stock options that do not qualify as incentive stock options ("nonstatutory options" and, together with incentive options, "options"); (iii) stock appreciation rights ("SARs"); (iv) restricted stock awards ("restricted stock awards"); (v) restricted stock units ("restricted stock units" or

"RSUs"); (vi) bonus stock ("bonus stock awards"); (vii) dividend equivalents; (viii) other stock-based awards; (ix) cash awards; and (x) substitute awards (referred to collectively herein with the other awards as the "awards"). The vesting, exercise or settlement of awards may be subject to the achievement of one or more performance criteria selected by the Administrator (as defined herein).

Eligibility

Our employees, consultants and non-employee directors, and employees, consultants and non-employee directors of our affiliates, will be eligible to receive awards under the 2021 Plan.

Administration

Our board of directors, or a committee thereof (as applicable, the "Administrator"), will administer the 2021 Plan pursuant to its terms and all applicable state, federal or other rules or laws. The Administrator will have the power to determine to whom and when awards will be granted, determine the amount of awards (measured in cash or in shares of our common stock), proscribe and interpret the terms and provisions of each award agreement (the terms of which may vary), accelerate the vesting or exercisability of an award, delegate duties under the 2021 Plan and execute all other responsibilities permitted or required under the 2021 Plan.

Securities to be offered

Subject to adjustment in the event of any distribution, recapitalization, split, merger, consolidation or similar corporate event, a number of shares of our common stock equal to will be available for delivery pursuant to awards under the 2021 Plan. If an award under the 2021 Plan is forfeited, settled for cash or expires without the actual delivery of shares, any shares subject to such award will again be available for new awards under the 2021 Plan.

Types of awards

Options. We may grant options to eligible persons including: (i) incentive options (only to our employees or those of our subsidiaries) which comply with Section 422 of the Code; and (ii) nonstatutory options. The exercise price of each option granted under the 2021 Plan will be stated in the option agreement and may vary; however, the exercise price for an option must not be less than the fair market value per share of common stock as of the date of grant (or 110% of the fair market value for certain incentive options), nor may the option be re-priced without the prior approval of our stockholders. Options may be exercised as the Administrator determines, but not later than ten years from the date of grant. The Administrator will determine the methods and form of payment for the exercise price of an option (including, in the discretion of the Administrator, payment in common stock, other awards or other property) and the methods and forms in which common stock will be delivered to a participant.

SARs. A SAR is the right to receive a share of common stock, or an amount equal to the excess of the fair market value of one share of the common stock on the date of exercise over the grant price of the SAR, as determined by the Administrator. The exercise price of a share of common stock subject to the SAR shall be determined by the Administrator, but in no event shall that exercise price be less than the fair market value of the common stock on the date of grant. The Administrator will have the discretion to determine other terms and conditions of an SAR award.

Restricted stock awards. A restricted stock award is a grant of shares of common stock subject to a risk of forfeiture, performance conditions, restrictions on transferability and any other restrictions imposed by the

Administrator in its discretion. Restrictions may lapse at such times and under such circumstances as determined by the Administrator. Except as otherwise provided under the terms of the 2021 Plan or an award agreement, the holder of a restricted stock award will have rights as a stockholder, including the right to vote the common stock subject to the restricted stock award or to receive dividends on the common stock subject to the restricted stock award during the restriction period. The Administrator shall provide, in the restricted stock award agreement, whether the restricted stock will be forfeited upon certain terminations of employment. Unless otherwise determined by the Administrator, common stock distributed in connection with a stock split or stock dividend, and other property distributed as a dividend, will be subject to restrictions and a risk of forfeiture to the same extent as the restricted stock award with respect to which such common stock or other property has been distributed.

Restricted stock units. RSUs are rights to receive common stock, cash, or a combination of both at the end of a specified period. The Administrator may subject RSUs to restrictions (which may include a risk of forfeiture) to be specified in the RSU award agreement, and those restrictions may lapse at such times determined by the Administrator. Restricted stock units may be settled by delivery of common stock, cash equal to the fair market value of the specified number of shares of common stock covered by the RSUs, or any combination thereof determined by the Administrator at the date of grant or thereafter. Dividend equivalents on the specified number of shares of common stock covered by RSUs may be paid on a current, deferred or contingent basis, as determined by the Administrator on or following the date of grant.

Bonus stock awards. The Administrator will be authorized to grant common stock as a bonus stock award. The Administrator will determine any terms and conditions applicable to grants of common stock, including performance criteria, if any, associated with a bonus stock award.

Dividend Equivalents. Dividend equivalents entitle a participant to receive cash, common stock, other awards or other property equal in value to dividends paid with respect to a specified number of shares of our common stock, or other periodic payments at the discretion of the Administrator. Dividend equivalents may be granted on a free-standing basis or in connection with another award (other than a restricted stock award or a bonus stock award).

Other Stock-Based Awards. Other stock-based awards are awards denominated or payable in, valued in whole or in part by reference to, or otherwise based on or related to, the value of our common stock.

Cash Awards. Cash awards may be granted on a free-standing basis, as an element of or a supplement to, or in lieu of any other award.

Substitute Awards. Awards may be granted in substitution or exchange for any other award granted under the 2021 Plan or under another equity incentive plan or any other right of an eligible person to receive payment from us. Awards may also be granted under the 2021 Plan in substitution for similar awards held for individuals who become participants as a result of a merger, consolidation or acquisition of another entity by or with the Company or one of our affiliates.

Certain transactions

If any change is made to our capitalization, such as a stock split, stock combination, stock dividend, exchange of shares or other recapitalization, merger or otherwise, which results in an increase or decrease in the number of outstanding shares of common stock, appropriate adjustments will be made by the Administrator in the shares subject to an award under the 2021 Plan. The Administrator will also have the discretion to make certain adjustments to awards in the event of a change in control, such as accelerating the vesting or exercisability of awards, requiring the surrender of an award, with or without consideration, or making any other adjustment or modification to the award that the Administrator determines is appropriate in light of such transaction.

Plan amendment and termination

Our board of directors may amend or terminate the 2021 Plan at any time; however, stockholder approval will be required for any amendment to the extent necessary to comply with applicable law or exchange listing standards. The Administrator will not have the authority, without the approval of stockholders, to amend any outstanding stock option or stock appreciation right to reduce its exercise price per share. The 2021 Plan will remain in effect for a period of ten years (unless earlier terminated by our board of directors).

Clawback

All awards under the 2021 Plan will be subject to any clawback or recapture policy adopted by the Company, as in effect from time to time.

Awards in connection with this offering

At this time, we do not intend to grant any awards under the 2021 plan in connection with this offering. However, the awards, if any, that may be made under the 2021 Plan in connection with this offering or in the future are subject to the discretion of the 2021 Plan Administrator, and therefore, the benefits or number of shares subject to any awards that may be granted in the future to our named executive officers cannot be determined at this time.

Director compensation

No member of our board of directors received compensation for their services to us in respect of the 2020 fiscal year. In connection with this offering, we expect to implement a director compensation program for certain non-employee directors. The program is expected to consist of both cash and equity-based incentive compensation.

Corporate reorganization

ProFrac Holding Corp. was incorporated as a Delaware corporation on August 17, 2021. Following this offering and the related transactions, ProFrac Holding Corp. will be a holding company whose only material asset will consist of membership interests in ProFrac LLC. ProFrac LLC owns, directly or indirectly, all of the outstanding equity interests in the subsidiaries through which we operate our assets. After the consummation of the corporate reorganization, ProFrac Holding Corp. will be the sole managing member of ProFrac LLC and will be responsible for all operational, management and administrative decisions relating to ProFrac LLC's business and will consolidate the financial results of ProFrac LLC and its subsidiaries. The existing limited liability company agreement of ProFrac LLC will be amended and restated as the ProFrac LLC Agreement to, among other things, admit ProFrac Holding Corp. as the sole managing member of ProFrac LLC. On 2021, all of the then-outstanding membership interests in Best Flow and Alpine were contributed to ProFrac LLC in exchange for membership interests in ProFrac LLC. Following the contribution, on , 2021, certain indebtedness with a principal amount of $18.0 million of Best Flow and Alpine held by THRC Holdings, Farris Wilks and Wilks Brothers, LLC was contributed to ProFrac LLC in exchange for equity in ProFrac LLC, and then further contributed to Best Flow and the debt was cancelled.

In connection with the offering:

- all of the membership interests in ProFrac LLC held by the Pre-IPO Owners will be converted into a single class of ProFrac LLC Units;
- the Exchanging Owners will transfer all of their ProFrac LLC Units to ProFrac Holding Corp. in exchange for shares of Class A common stock;
- the ProFrac LLC Unit Holders will continue to hold ProFrac LLC Units and ProFrac Holding Corp. will issue to each ProFrac LLC Unit Holder a number of shares of Class B common stock equal to the number of ProFrac LLC Units held by such ProFrac LLC Unit Holder following this offering in exchange for a cash payment equal to the par value of such shares;
- ProFrac Holding Corp. will issue shares of Class A common stock to purchasers in this offering in exchange for the proceeds of this offering; and
- ProFrac Holding Corp. will contribute the net proceeds of this offering to ProFrac LLC in exchange for a number of ProFrac LLC Units such that ProFrac Holding Corp. holds a total number of ProFrac LLC Units equal to the number of shares of Class A common stock outstanding following this offering.

After giving effect to these transactions and the offering contemplated by this prospectus, ProFrac Holding Corp. will own an approximate % interest in ProFrac LLC (or % if the underwriters' option to purchase additional shares is exercised in full), and the ProFrac LLC Unit Holders will own an approximate % interest in ProFrac LLC (or % if the underwriters' option to purchase additional shares is exercised in full) and all of our Class B common stock. Please see "Security Ownership of Certain Beneficial Owners and Management."

Each share of Class B common stock has no economic rights but entitles its holder to one vote on all matters to be voted on by stockholders generally. Holders of Class A common stock and Class B common stock will vote together as a single class on all matters presented to our stockholders for their vote or approval, except as otherwise required by applicable law or by our amended and restated certificate of incorporation. ProFrac Holding Corp. does not intend to list Class B common stock on any exchange.

Following this offering, under the ProFrac LLC Agreement, each ProFrac LLC Unit Holder will, subject to certain limitations, have the right, pursuant to the Redemption Right, to cause ProFrac LLC to acquire all or a portion of its ProFrac LLC Units for, at ProFrac LLC's election, (i) shares of our Class A common stock at a redemption ratio of one share of Class A common stock for each ProFrac LLC Unit redeemed, subject to conversion rate adjustments for stock splits, stock dividends and reclassifications and other similar transactions, or (ii) an equivalent amount of cash. The independent members of our board of directors will determine whether to pay cash in lieu of the issuance of shares of Class A common stock based on facts in existence at the time of the decision, which we expect would include the relative value of the Class A common stock (including trading prices for the Class A common stock at the time), the cash purchase price, the availability of other sources of liquidity (such as an issuance of stock) to acquire the ProFrac LLC Units and alternative uses for such cash. Alternatively, upon the exercise of the Redemption Right, ProFrac Holding Corp. (instead of ProFrac LLC) will have the right, pursuant to the Call Right, to, for administrative convenience, acquire each tendered ProFrac LLC Unit directly from the redeeming ProFrac LLC Unit Holder for, at its election, (x) one share of Class A common stock, subject to conversion rate adjustments for stock splits, stock dividends and reclassifications and other similar transactions, or (y) an equivalent amount of cash. In addition, ProFrac Holding Corp. will have the right to require, upon the acquisition by ProFrac Holding Corp. of substantially all of the ProFrac LLC Units or upon a change of control of ProFrac Holding Corp., each ProFrac LLC Unit Holder to exercise its Redemption Right with respect to some or all of such unitholder's ProFrac LLC Units. In connection with any redemption of ProFrac LLC Units pursuant to the Redemption Right or acquisition of ProFrac LLC Units pursuant to the Call Right, a corresponding number of shares of Class B common stock held by the relevant ProFrac LLC Unit Holder will be cancelled. See "Certain Relationships and Related Party Transactions—ProFrac LLC Agreement."

Certain of the Pre-IPO Owners will have the right, under certain circumstances, to cause us to register the offer and resale of their shares of Class A common stock. See "Certain Relationships and Related Party Transactions— Registration Rights Agreement."

ProFrac Holding Corp.'s acquisition (or deemed acquisition for U.S. federal income tax purposes) of ProFrac LLC Units in connection with this offering or pursuant to an exercise of the Redemption Right or the Call Right is expected to result in adjustments to the tax basis of the tangible and intangible assets of ProFrac LLC and such adjustments will be allocated to ProFrac Holding Corp. These adjustments would not have been available to ProFrac Holding Corp. absent its acquisition or deemed acquisition of ProFrac LLC Units and are expected to reduce the amount of cash tax that ProFrac Holding Corp. would otherwise be required to pay in the future.

ProFrac Holding Corp. will enter into the Tax Receivable Agreement with the TRA Holders at the closing of this offering. This agreement will generally provide for the payment by ProFrac Holding Corp. to each TRA Holder of 85% of the net cash savings, if any, in U.S. federal, state and local income tax and franchise tax (computed using simplifying assumptions to address the impact of state and local taxes) that ProFrac Holding Corp. actually realizes (or is deemed to realize in certain circumstances) in periods after this offering as a result of (i) certain increases in tax basis that occur as a result of ProFrac Holding Corp.'s acquisition (or deemed acquisition for U.S. federal income tax purposes) of all or a portion of such TRA Holder's ProFrac LLC Units pursuant to the exercise of the Redemption Right or the Call Right, and (ii) imputed interest deemed to be paid by ProFrac Holding Corp. as a result of, and additional tax basis arising from, any payments ProFrac Holding Corp. makes under the Tax Receivable Agreement. ProFrac Holding Corp. will be dependent on ProFrac LLC to make distributions to ProFrac Holding Corp. in an amount sufficient to cover ProFrac Holding Corp.'s obligations under the Tax Receivable Agreement.

We will retain the benefit of the remaining 15% of any actual net cash tax savings.

For additional information regarding the Tax Receivable Agreement, see "Risk Factors—Risks Related to this Offering and Our Class A Common Stock" and "Certain Relationships and Related Party Transactions—Tax Receivable Agreement."

Security ownership of certain beneficial owners and management

The following table sets forth information with respect to the beneficial ownership of our Class A common stock and Class B common stock that, upon the consummation of this offering and the transactions related thereto, and, unless otherwise stated, assuming the underwriters do not exercise their option to purchase additional shares of Class A common stock, will be owned by:

- each person known to us to beneficially own more than 5% of any class of our outstanding voting securities;
- each of our directors;
- our named executive officers; and
- all of our directors and executive officers as a group.

The underwriters have an option to purchase a maximum of additional shares.

All information with respect to beneficial ownership has been furnished by the respective 5% or more stockholders, directors or executive officers, as the case may be. Unless otherwise noted, the mailing address of each listed beneficial owner is c/o ProFrac Holding Corp., 333 Shops Boulevard, Willow Park, Texas 76087.

The following table does not include any shares of Class A common stock that 5% stockholders, directors, director nominees and named executive officers may purchase in this offering through the directed share program described under “Underwriting.”

	Shares of Class A common stock beneficially owned after this offering		Shares of Class B common stock beneficially owned after this offering		Combined voting power after this offering(1)	
Name of Beneficial Owner	**Number**	**%**	**Number**	**%**	**Number**	**%**
5% Stockholders						
THRC Holdings LP(2)						
Farris Wilks						
Directors/Named Executive Officers						
Ladd Wilks						
Brian Uhlmer						
Coy Randle						
Matthew D. Wilks						
All Directors and Executive Officers as a group (persons)						

* Less than 1%.

(1) Represents percentage of voting power of our Class A common stock and Class B common stock voting together as a single class. The ProFrac LLC Unit Holders will hold one share of Class B common stock for each ProFrac LLC Unit.

(2) THRC Holdings is the record holder of the shares of common stock reported herein. THRC Management, LLC (“THRC Management”) is the general partner of THRC Holdings. Dan Wilks is the sole manager of THRC Management. Accordingly, Dan Wilks may be deemed to have or share beneficial ownership of the shares of common stock held directly by THRC Holdings.

Certain relationships and related party transactions

ProFrac LLC agreement

The ProFrac LLC Agreement is filed as an exhibit to the registration statement of which this prospectus forms a part, and the following description of the ProFrac LLC Agreement is qualified in its entirety by reference thereto.

Redemption rights

Following this offering, under the ProFrac LLC Agreement, each ProFrac LLC Unit Holder will, subject to certain limitations, have the right, pursuant to the Redemption Right, to cause ProFrac LLC to acquire all or a portion of its ProFrac LLC Units for, at ProFrac LLC's election, (i) shares of our Class A common stock at a redemption ratio of one share of Class A common stock for each ProFrac LLC Unit redeemed, subject to conversion rate adjustments for stock splits, stock dividends and reclassifications and other similar transactions, or (ii) an equivalent amount of cash. The independent members of our board of directors will determine whether to pay cash in lieu of the issuance of shares of Class A common stock based on facts in existence at the time of the decision, which we expect would include the relative value of the Class A common stock (including trading prices for the Class A common stock at the time), the cash purchase price, the availability of other sources of liquidity (such as an issuance of stock) to acquire the ProFrac LLC Units and alternative uses for such cash. Alternatively, upon the exercise of the Redemption Right, ProFrac Holding Corp. (instead of ProFrac LLC) will have the right, pursuant to the Call Right, to acquire each tendered ProFrac LLC Unit directly from the redeeming ProFrac LLC Unit Holder for, at its election, (x) one share of Class A common stock, subject to conversion rate adjustments for stock splits, stock dividends and reclassifications and other similar transactions, or (y) an equivalent amount of cash. In addition, ProFrac Holding Corp. will have the right to require, upon the acquisition by ProFrac Holding Corp. of substantially all of the ProFrac LLC Units or upon a change of control of ProFrac Holding Corp., each ProFrac LLC Unit Holder to exercise its Redemption Right with respect to some or all of such unitholder's ProFrac LLC Units. In connection with any redemption of ProFrac LLC Units pursuant to the Redemption Right or acquisition of ProFrac LLC Units pursuant to the Call Right, a corresponding number of shares of Class B common stock held by the relevant ProFrac LLC Unit Holder will be cancelled. As the ProFrac LLC Unit Holders cause their ProFrac LLC Units to be redeemed, holding other assumptions constant, ProFrac Holding Corp.'s membership interest in ProFrac LLC will be correspondingly increased, the number of shares of Class A common stock outstanding will be increased and the number of shares of Class B common stock will be decreased.

Distributions and allocations

Under the ProFrac LLC Agreement, subject to the obligations of ProFrac LLC to make tax distributions, we will have the right to determine when distributions will be made to the holders of ProFrac LLC Units and the amount of any such distributions. Following this offering, if we authorize a distribution, such distribution will be made to the holders of ProFrac LLC Units generally on a pro rata basis in accordance with their respective percentage ownership of ProFrac LLC Units.

ProFrac LLC will allocate its net income or net loss for each year to the holders of ProFrac LLC Units pursuant to the terms of the ProFrac LLC Agreement, and the holders of ProFrac LLC Units, including ProFrac Holding Corp., will generally incur U.S. federal, state and local income taxes on their share of any taxable income of ProFrac LLC. Net income and losses of ProFrac LLC generally will be allocated to the holders of ProFrac LLC Units on a pro rata basis in accordance with their respective percentage ownership of ProFrac LLC Units, subject to requirements under U.S. federal income tax law that certain items of income, gain, loss or deduction be allocated disproportionately in certain circumstances. To the extent ProFrac LLC has available cash, and subject to the terms of any current or future debt instruments, we intend to cause ProFrac LLC to make (i) generally pro rata distributions to the holders of ProFrac LLC Units, including ProFrac Holding Corp., in an amount at least sufficient to allow ProFrac Holding Corp. to pay its taxes and to make payments under the Tax Receivable Agreement it will enter into with the TRA Holders and any subsequent tax receivable agreements that it may enter into in connection with future acquisitions and (ii) non-pro rata payments to ProFrac Holding Corp. to reimburse it for its corporate and other overhead expenses.

Issuance of equity

The ProFrac LLC Agreement will provide that at any time ProFrac Holding Corp. issues a share of its Class A common stock or any other equity security, the net proceeds received by ProFrac Holding Corp. with respect to such issuance, if any, shall be concurrently invested in ProFrac LLC, and ProFrac LLC shall issue to ProFrac Holding Corp. one ProFrac LLC Unit or other economically equivalent equity interest. Conversely, if at any time, any shares of ProFrac Holding Corp.'s Class A common stock are redeemed, repurchased or otherwise acquired, ProFrac LLC shall redeem, repurchase or otherwise acquire an equal number of ProFrac LLC Units held by ProFrac Holding Corp., upon the same terms and for the same price, as the shares of our Class A common stock are redeemed, repurchased or otherwise acquired.

Competition

Under the ProFrac LLC Agreement, the members have agreed that the Wilks and their respective affiliates will be permitted to engage in business activities or invest in or acquire businesses which may compete with our business or do business with our customers.

Dissolution

ProFrac LLC will be dissolved only upon the first to occur of (i) the sale of substantially all of its assets or (ii) an election by us to dissolve the company. Upon dissolution, ProFrac LLC will be liquidated and the proceeds from any liquidation will be applied and distributed in the following manner: (a) first, to creditors (including to the extent permitted by law, creditors who are members) in satisfaction of the liabilities of ProFrac LLC, (b) second, to establish cash reserves for contingent or unforeseen liabilities and (c) third, to the members in proportion to the number of ProFrac LLC Units owned by each of them.

Tax Receivable Agreement

As described in "Corporate Reorganization" and "Certain Relationships and Related Party Transactions—ProFrac LLC Agreement—Redemption Rights," the ProFrac LLC Unit Holders may cause their ProFrac LLC Units to be redeemed in the future pursuant to the Redemption Right. ProFrac LLC intends to make for itself (and for each of its direct or indirect subsidiaries that is treated as a partnership for U.S. federal income tax purposes and that it controls) an election under Section 754 of the Code that will be effective for the taxable year of this offering and each taxable year in which a redemption of ProFrac LLC Units occurs. Pursuant to the Section 754 election, ProFrac Holding Corp.'s acquisition (or deemed acquisition for U.S. federal income tax purposes) of ProFrac LLC Units pursuant to the Redemption Right or the Call Right is expected to result in adjustments to the tax basis of the tangible and intangible assets of ProFrac LLC. These adjustments will be allocated to ProFrac Holding Corp. Such adjustments to the tax basis of the tangible and intangible assets of ProFrac LLC would not have been available to ProFrac Holding Corp. absent its acquisition or deemed acquisition of ProFrac LLC Units pursuant to the exercise of the Redemption Right or the Call Right. The anticipated basis adjustments are expected to increase (for tax purposes) ProFrac Holding Corp.'s depreciation and amortization deductions and may also decrease ProFrac Holding Corp.'s gains (or increase its losses) on future dispositions of certain assets to the extent the increase in tax basis is allocated to those assets. Such increased deductions and losses and reduced gains may reduce the amount of tax that ProFrac Holding Corp. would otherwise be required to pay in the future.

ProFrac Holding Corp. will enter into the Tax Receivable Agreement with the TRA Holders at the close of this offering. The Tax Receivable Agreement generally provides for the payment by ProFrac Holding Corp. to such ProFrac LLC Unit Holders of 85% of the net cash savings, if any, in U.S. federal, state and local income and franchise tax that ProFrac Holding Corp. actually realizes (computed using simplifying assumptions to address the impact of state and local taxes) or is deemed to realize in certain circumstances in periods after this offering as a result of, as applicable to each such ProFrac LLC Unit Holder, (i) certain increases in tax basis that occur as a result of ProFrac Holding Corp.'s acquisition (or deemed acquisition for U.S. federal income tax purposes) of all or a portion of such ProFrac LLC Unit Holder's ProFrac LLC Units pursuant to an exercise of the Redemption Right or the Call Right and (ii) imputed interest deemed to be paid by ProFrac Holding Corp. as a result of, and additional tax basis arising from, any payments ProFrac Holding Corp. makes under the Tax Receivable Agreement. We will retain the benefit of the remaining 15% of any actual net cash tax savings. Certain of the TRA Holders' rights (including the right to receive payments) under the Tax Receivable Agreement are transferable in connection with a permitted transfer of ProFrac LLC Units or if the ProFrac LLC Unit Holder no longer holds ProFrac LLC Units.

The payment obligations under the Tax Receivable Agreement are ProFrac Holding Corp.'s obligations and not obligations of ProFrac LLC, and we expect that the payments required to be made under the Tax Receivable Agreement will be substantial. Estimating the amount and timing of payments that may become due under the Tax Receivable Agreement is by its nature imprecise. For purposes of the Tax Receivable Agreement, net cash tax savings generally will be calculated by comparing ProFrac Holding Corp.'s actual tax liability (determined by using the actual applicable U.S. federal income tax rate and an assumed combined state and local income and franchise tax rate) to the amount it would have been required to pay had it not been able to utilize any of the tax benefits subject to the Tax Receivable Agreement. The actual increase in tax basis, as well as the amount and timing of any payments, under the Tax Receivable Agreement will vary depending on a number of factors, including the timing of any redemption of ProFrac LLC Units, the price of ProFrac Holding Corp.'s Class A common stock at the time of each redemption, the extent to which such redemptions are taxable transactions, the amount of the redeeming ProFrac LLC Unit Holder's tax basis in its ProFrac LLC Units at the time of the relevant redemption, the depreciation and amortization periods that apply to the increase in tax basis, the amount and timing of taxable income we generate in the future, the U.S. federal income tax rates then applicable, and the portion of ProFrac Holding Corp.'s payments under the Tax Receivable Agreement that constitute imputed interest or give rise to depreciable or amortizable tax basis.

Assuming no material changes in the relevant tax law, we expect that if we were to experience a change of control or the Tax Receivable Agreement was otherwise terminated immediately after this offering (assuming a $ per share offering price to the public), the estimated termination payments based on the assumptions discussed below would be approximately $ million (calculated using a discount rate equal to (i) the greater of (A) 0.25% and (B) a per annum rate of SOFR, *plus* 150 basis points, applied against an undiscounted liability of approximately $ million based on a 21% U.S. federal corporate income tax rate and estimated applicable state and local income tax rates).

A delay in the timing of redemptions of ProFrac LLC Units, holding other assumptions constant, would be expected to decrease the discounted value of the amounts payable under the Tax Receivable Agreement as the benefit of the depreciation and amortization deductions would be delayed and the estimated increase in tax basis could be reduced as a result of allocations of ProFrac LLC taxable income to the redeeming unit holder prior to the redemption. Stock price increases or decreases at the time of each redemption of ProFrac LLC Units would be expected to result in a corresponding increase or decrease in the undiscounted amounts payable under the Tax Receivable Agreement in an amount equal to 85% of the tax-effected change in price. Increases in the applicable corporate income tax rate and estimated applicable state and local income tax rates would be expected to result in a corresponding increase in the undiscounted amounts payable under the Tax Receivable Agreement as a result of the corresponding increase in net cash savings. The amounts payable under the Tax Receivable Agreement are dependent upon ProFrac Holding Corp. having sufficient future taxable income to utilize the tax benefits on which it is required to make payments under the Tax Receivable Agreement. If ProFrac Holding Corp.'s projected taxable income is significantly reduced, the expected payments would be reduced to the extent such tax benefits do not result in a reduction of ProFrac Holding Corp.'s future income tax liabilities.

The foregoing amounts are merely estimates and the actual payments could differ materially. It is possible that future transactions or events could increase or decrease the actual tax benefits realized and the corresponding Tax Receivable Agreement payments as compared to the foregoing estimates. Moreover, there may be a negative impact on our liquidity if, as a result of timing discrepancies or otherwise, (i) the payments under the Tax Receivable Agreement exceed the actual benefits realized in respect of the tax attributes subject to the Tax Receivable Agreement and/or (ii) distributions to ProFrac Holding Corp. by ProFrac LLC are not sufficient to permit ProFrac Holding Corp. to make payments under the Tax Receivable Agreement after it has paid its taxes and other obligations. Please read "Risk Factors—Risks Related to this Offering and Our Class A Common Stock—In certain cases, payments under the Tax Receivable Agreement may be accelerated and/or significantly exceed the actual benefits, if any, ProFrac Holding Corp. realizes in respect of the tax attributes subject to the Tax Receivable Agreement." The payments under the Tax Receivable Agreement will not be conditioned upon TRA Holder having a continued ownership interest in either ProFrac LLC or ProFrac Holding Corp.

In addition, although we are not aware of any issue that would cause the IRS or other relevant taxing authorities to challenge potential tax basis increases or other tax benefits covered under the Tax Receivable Agreement, the applicable ProFrac LLC Unit Holders will not reimburse us for any payments previously made under the Tax Receivable Agreement if such basis increases or other benefits are subsequently disallowed, except that excess payments made to any such holder will be netted against future payments otherwise required to be made, if any, to such holder after our determination of such excess (which determination may be made a number of years following the initial payment and after future payments have been made). As a result, in such circumstances, we could make payments that are greater than ProFrac Holding Corp.'s actual cash tax savings, if any, and we may not be able to recoup those payments, which could adversely affect our liquidity.

The term of the Tax Receivable Agreement will commence upon the completion of this offering and will continue until all tax benefits that are subject to the Tax Receivable Agreement have been utilized or expired, unless we experience a change of control (as defined in the Tax Receivable Agreement, which includes certain mergers, asset sales, or other forms of business combinations) or the Tax Receivable Agreement otherwise terminates early (at our election or as a result of our breach or the commencement of bankruptcy or similar proceedings by or against us) and ProFrac Holding Corp. makes the termination payments specified in the Tax Receivable Agreement in connection with such change of control or other early termination. In the event that the Tax Receivable Agreement is not terminated, the payments under the Tax Receivable Agreement are anticipated to commence in   and to continue for   years after the date of the last redemption of the ProFrac LLC Units. Accordingly, it is expected that payments will continue to be made under the Tax Receivable Agreement for more than   years. Payments will generally be made under the Tax Receivable Agreement as ProFrac Holding Corp. realizes actual cash tax savings in periods after this offering from the tax benefits covered by the Tax Receivable Agreement. However, if we experience a change of control or the Tax Receivable Agreement otherwise terminates early, ProFrac Holding Corp.'s obligations under the Tax Receivable Agreement would accelerate and ProFrac Holding Corp. would be required to make an immediate payment equal to the present value of the anticipated future payments to be made by it under the Tax Receivable Agreement (determined by applying a discount rate equal to (i) the greater of (A) 0.25% and (B) a per annum rate of SOFR, *plus* 150 basis points) and such payment is expected to be substantial. The calculation of anticipated future payments will be based upon certain assumptions and deemed events set forth in the Tax Receivable Agreement, including (i) that ProFrac Holding Corp. has sufficient taxable income to fully utilize the tax benefits covered by the Tax Receivable Agreement, and (ii) that any ProFrac LLC Units (other than those held by ProFrac Holding Corp.) outstanding on the termination date are deemed to be redeemed on the termination date. Any early termination payment may be made significantly in advance of, and may materially exceed, the actual realization, if any, of the future tax benefits to which the termination payment relates.

The Tax Receivable Agreement provides that in the event that ProFrac Holding Corp. (i) breaches any of its material obligations under the Tax Receivable Agreement, whether (A) as a result of its failure to make any payment when due (including in cases where ProFrac Holding Corp. elects to terminate the Tax Receivable Agreement early, the Tax Receivable Agreement is terminated early due to certain mergers, asset sales, or other forms of business combinations or changes of control or ProFrac Holding Corp. has available cash but fails to make payments when due in circumstances where ProFrac Holding Corp. does not have the right to elect to defer the payment, as described below), (B) as a result of ProFrac Holding Corp.'s failure to honor any other material obligation under the Tax Receivable Agreement, or (C) by operation of law as a result of the rejection of the Tax Receivable Agreement in a case commenced under the U.S. Bankruptcy Code or otherwise, or (ii) commences any proceeding, or has any proceeding commenced against it that is not dismissed or discharged following a period of 60 days, (X) for certain events of bankruptcy, dissolution or liquidation, (Y) seeking an appointment of a receiver or trustee or (Z) making a general assignment for the benefit of creditors, then all of ProFrac Holding Corp.'s payment and other obligations under the Tax Receivable Agreement will be automatically accelerated and become due and payable applying the same assumptions described above.

As a result of either a change of control (as defined in the Tax Receivable Agreement, which includes certain mergers, asset sales, or other forms of business combinations) or another early termination, ProFrac Holding Corp. could be required to make payments under the Tax Receivable Agreement that exceed its actual cash tax savings under the Tax Receivable Agreement. In these situations, ProFrac Holding Corp.'s obligations under the Tax Receivable Agreement could have a substantial negative impact on our liquidity and could have the effect of delaying, deferring or preventing certain mergers, asset sales, or other forms of business combinations or changes of control that could be in the best interests of holders of Class A common stock or alternatively reducing the consideration paid in any such transaction to holders of Class A common stock. There can be no assurance that ProFrac Holding Corp. will be able to finance its obligations under the Tax Receivable Agreement.

Decisions we make in the course of running our business, such as with respect to mergers, asset sales, other forms of business combinations or other changes in control, may influence the timing and amount of payments that are received by the TRA Holders under the Tax Receivable Agreement. For example, the earlier disposition of assets following a redemption of ProFrac LLC Units may accelerate payments under the Tax Receivable Agreement and increase the present value of such payments, and the disposition of assets before a redemption of ProFrac LLC Units may increase the TRA Holders' tax liability without giving rise to any rights of the TRA Holders to receive payments under the Tax Receivable Agreement. Such effects may result in differences or conflicts of interest between the interests of the TRA Holders and other stockholders.

Payments generally are due under the Tax Receivable Agreement within five business days following the finalization of the schedule with respect to which the payment obligation is calculated. However, interest on such payments will begin to accrue from the due date (without extensions) of ProFrac Holding Corp.'s U.S. federal income tax return for the period to which such payments relate until such payment due date at a rate equal to (i) the greater of (A) 0.25% and (B) a per annum rate of SOFR, *plus* 100 basis points. Except in cases where we elect to terminate the Tax Receivable Agreement early or it is otherwise terminated as described above, generally ProFrac Holding Corp. may elect to defer payments due under the Tax Receivable Agreement if we do not have available cash to satisfy ProFrac Holding Corp.'s payment obligations under the Tax Receivable Agreement or if our contractual obligations limit ProFrac Holding Corp.'s ability to make these payments. Any such deferred payments under the Tax Receivable Agreement generally will accrue interest from the due date for such payment until the payment date at a rate of (i) the greater of (A) 0.25% and (B) a per annum rate of SOFR, *plus* 500 basis points. However, interest will accrue from the due date for such payment until the payment date at a rate of (i) the greater of (A) 0.25% and (B) a per annum rate of SOFR, *plus* 100 basis points if we are unable to make such payment as a result of limitations imposed by existing credit agreements. We have no present intention to defer payments under the Tax Receivable Agreement.

Because ProFrac Holding Corp. is a holding company with no operations of its own, its ability to make payments under the Tax Receivable Agreement is dependent on the ability of ProFrac LLC to make distributions to ProFrac Holding Corp. in an amount sufficient to cover ProFrac Holding Corp.'s obligations under the Tax Receivable Agreement. This ability, in turn, may depend on the ability of ProFrac LLC's subsidiaries to make distributions to it. The ability of ProFrac LLC, its subsidiaries and other entities in which it directly or indirectly holds an equity interest to make such distributions will be subject to, among other things, the applicable provisions of Delaware law (or other applicable jurisdiction) that may limit the amount of funds available for distribution and restrictions in relevant debt instruments issued by ProFrac LLC or its subsidiaries and/other entities in which it directly or indirectly holds an equity interest. To the extent that ProFrac Holding Corp. is unable to make payments under the Tax Receivable Agreement for any reason, such payments will be deferred and will accrue interest until paid.

The Tax Receivable Agreement is filed as an exhibit to the registration statement of which this prospectus forms a part, and the foregoing description of the Tax Receivable Agreement is qualified by reference thereto.

Registration rights agreement

In connection with the closing of this offering, we plan to enter into a registration rights agreement with certain of the Pre-IPO Owners. We expect that the agreement will contain provisions by which we agree to register under the federal securities laws the offer and resale of shares of our Class A common stock by such Pre-IPO Owners or certain of their affiliates or permitted transferees under the registration rights agreement. These registration rights will be subject to certain conditions and limitations. 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.

Stockholders' agreement

In connection with the consummation of this offering, we expect to enter into a stockholders' agreement with the Wilks that will address the right to designate nominees for election to our board following this offering.

Master services agreement

Upon the closing of this offering, ProFrac LLC and ProFrac Holding Corp. will enter into a master services agreement with Wilks Brothers (the "Service Provider"), pursuant to which the Service Provider will provide certain administrative and back-office support services to ProFrac LLC and ProFrac Holding Corp., including, among others, information technology, payroll, employee benefits and treasury services. In exchange for such services, ProFrac LLC will pay to the Service Provider on a quarterly basis an aggregate annual retainer fee equal to . The master services agreement shall be effective upon signing and continue in force until December 31, 2022, and shall then be automatically extended each December 31 for an additional one-year term unless the Service Provider provides notice of its desire not to automatically extend the term. ProFrac LLC or the Service Provider may terminate the master services agreement at any time by providing 90-days prior written notice to the other party in the event that the combined ownership of Farris Wilks and THRC Holdings and/or their affiliates drops below 50% of issued and outstanding common stock of ProFrac Holding Corp. The master services agreement may only be assigned by a party with the other party's consent. The Wilks own the Service Provider.

Policies and procedures for review of related party transactions

A "Related Party Transaction" is a transaction, arrangement or relationship in which we or any of our subsidiaries were, are or will be a participant, the amount of which involved exceeds $120,000, and in which any related person had, has or will have a direct or indirect material interest. A "related person" means:

- any person who is, or at any time during the applicable period was, one of our executive officers or one of our directors;
- any person who is known by us to be the beneficial owner of more than 5.0% of our Class A common stock;
- any immediate family member of any of the foregoing persons, which means any child, stepchild, parent, stepparent, spouse, sibling, mother-in-law, father-in-law, son-in-law, daughter-in-law, brother-in-law or sister-in-law of a director, executive officer or a beneficial owner of more than 5.0% of our Class A common stock, and any person (other than a tenant or employee) sharing the household of such director, executive officer or beneficial owner of more than 5.0% of our Class A common stock; and
- any firm, corporation or other entity in which any of the foregoing persons is a partner or principal or in a similar position or in which such person has a 10.0% or greater beneficial ownership interest.

Our board of directors will adopt a code of business conduct and ethics in connection with the completion of this offering that will provide that the board of directors or its authorized committee will review on at least a quarterly basis all transactions with related persons that are required to be disclosed under SEC rules and, when appropriate, initially authorize or ratify all such transactions. In connection with this offering and subject to the rules of Nasdaq, we will establish an audit committee consisting solely of independent directors whose functions will be set forth in the audit committee charter. We anticipate that one of the audit committee's functions will be to review and approve all relationships and transactions in which we and our directors, director nominees and executive officers and their immediate family members, as well as holders of more than 5% of any class of our voting securities and their immediate family members, have a direct or indirect material interest. We anticipate that such policy will be a written policy included as part the audit committee charter that will be implemented by the audit committee and in the Code of Business Conduct and Ethics that our board of directors will adopt prior to the completion of this offering.

The code of business conduct and ethics will provide that, in determining whether or not to recommend the initial approval or ratification of a transaction with a related person, the board of directors or its authorized committee should consider all of the relevant facts and circumstances available, including (if applicable) but not limited to: (i) whether there is an appropriate business justification for the transaction; (ii) the benefits that accrue to us as a result of the transaction; (iii) the terms available to unrelated third parties entering into similar transactions; (iv) the impact of the transaction on a director's independence (in the event the related person is a director, an immediate family member of a director or an entity in which a director or an immediate family member of a director is a partner, shareholder, member or executive officer); (v) the availability of other sources for comparable services; (vi) whether it is a single transaction or a series of ongoing, related transactions; and (vii) whether entering into the transaction would be consistent with the code of business conduct and ethics.

The code of business conduct and ethics described above will be adopted in connection with the completion of this offering and, therefore, the transactions described below were not reviewed under such policy.

Transactions with affiliates

In the normal course of business prior to this offering, we engaged in transactions with various related party entities that are owned by or otherwise affiliated with the Wilks, including:

Entity	Business & manner of relationship with the company
Automatize, LLC ("Automatize")	Logistics technology company that coordinates proppant deliveries with trucking companies on behalf of its customers, including us.
Cisco Logistics, LLC ("Cisco Logistics")	Logistics company that delivers sand and equipment on behalf of its customers, including us.
Equify Risk Services, LLC ("Equify Risk")	Insurance broker that negotiates and secures insurance policies on behalf of its customers, including us.
Equify Financial, LLC ("Equify Financial")	Finance company that provides equipment and other financing to its customers, including us.
Wilks Brothers, LLC ("Wilks Brothers")	Management company which provides administrative support to various businesses within their portfolio. Wilks Brothers and certain entities under its control will at times incur expenses on behalf of us, billing us for these expenses at cost plus a management fee.
Interstate Explorations, LLC ("Interstate")	Exploration and development company for which we perform pressure pumping services, and from which we have a short-term lease for certain office space.
Flying A Pump Services, LLC ("Flying A")	Oilfield services company which provides pump down and acid services, to which we rent equipment.
MC Estates, LLC and the Shops at Willow Park, LLC ("Related Lessors")	Own various industrial parks and office space leased by us.
Wilks Construction Company, LLC ("Wilks Construction")	Construction company that has built and made renovations to several buildings for us.
3 Twenty-Three, LLC ("3 Twenty-Three")	Payroll administrator which performs payroll services on behalf of its customers, including the us.
Carbo Ceramics Inc. ("Carbo Ceramics")	Provider of ceramic media and industrial technologies, which purchased proppant from us.

The following table summarizes expenditures with related parties for the nine months ended September 30, 2021 and 2020:

	Nine months ended September 30, 2021	Nine months ended September 30, 2020
Automatize	$ 56,496	$ 19,399
Wilks Brothers	8,926	9,697
Related Lessors	4,719	3,126
Equify Financial	1,853	2,330
3 Twenty-Three	974	1,668
Carbo	513	131
Cisco Logistics	509	3,059
Interstate	56	21
Equify Risk	3	1,582
Wilks Construction	—	107
Other	81	—
Total	$ 74,130	$ 41,120

The following table summarizes related party accounts payable as of September 30, 2021 and December 31, 2020:

	September 30, 2021	December 31, 2020
Wilks Brothers	$ 8,906	$ 11,993
Automatize	12,636	5,633
Carbo	169	—
Cisco Logistics	85	671
Equify Financial	—	113
Wilks Construction	—	57
Related Lessors	1	21
Other	85	—
Total	$ 21,882	$ 18,488

The following table summarizes revenue from related parties for the nine months ended September 30, 2021 and 2020:

	Nine months ended September 30, 2021	Nine months ended September 30, 2020
Flying A	$ 2,701	$ 110
Carbo	574	187
Interstate	113	11
Wilks Brothers	5	45
Automatize	3	701
Other	32	9
Total	$ 3,428	$ 1,063

The following table summarizes related party accounts receivable as of September 30, 2021 and December 31, 2020:

	September 30, 2021	December 31, 2020
Flying A	$ —	$ 549
Automatize	2	191
Carbo	301	116
Other	1	24
Total	$ 304	$ 880

The amounts above are reported net of an allowance for doubtful accounts related to Flying A, which was $2.8 million as of September 30, 2021.

Additionally, in January and February of 2021, ProFrac LLC executed two agreements with one of ProFrac LLC's members for the sale of certain lots of equipment, in exchange for $8.7 million in cash, an amount that approximates the net book value of the assets. Under these agreements, for any assets subsequently resold by the member, ProFrac LLC will reimburse the member for a certain percentage of the net loss, or conversely be entitled to a certain percentage of the net gain, at rates established in the agreements. As of September 30, 2021, the majority of the assets have been sold by the member, and ProFrac LLC's remaining liability of approximately $0.4 million for assets that have not been resold has been recorded.

Expenditures associated with related parties for the years ended December 31, 2020 and 2019 were as follows:

	Year ended December 31,	
	2020	2019
	($ in thousands)	
Automatize	$26,226	$ 217
Wilks Brothers	16,622	11,047
Related Lessors	6,052	4,378
Cisco Logistics	4,181	28,622
Equify Financial	2,323	3,028
Equify Risk	1,602	2,468
3 Twenty-Three	1,148	1,756
Wilks Construction	107	1,161
Interstate	30	22
Other	—	17

Revenue associated with related parties for the years ended December 31, 2020 and 2019 were as follows:

	Year ended December 31,	
	2020	2019
	($ in thousands)	
Automatize	$701	$ 223
Flying A	294	—
Carbo Ceramics	193	—
Interstate	11	12,262
Other	84	118

Description of capital stock

Upon completion of this offering, the authorized capital stock of ProFrac Holding Corp. will consist of shares of Class A common stock, $0.01 par value per share, of which shares will be issued and outstanding, shares of Class B common stock, $0.01 par value per share, of which shares will be issued and outstanding and shares of preferred stock, $0.01 par value per share, of which no shares will be issued and outstanding.

The following summary of the capital stock and amended and restated certificate of incorporation and bylaws of ProFrac Holding Corp., each of which will be in effect upon the completion of this offering, 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 bylaws, which are filed as exhibits to the registration statement of which this prospectus forms a part.

Class A common stock

Voting Rights. Holders of shares of Class A common stock are entitled to one vote per share held of record on all matters to be voted upon by the stockholders. The holders of Class A common stock do not have cumulative voting rights in the election of directors.

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 the liquidation, dissolution, distribution of assets or other winding up of ProFrac Holding Corp., the holders of Class A common stock are entitled to receive ratably the assets of ProFrac Holding Corp. available for distribution to the stockholders after payment of liabilities and the liquidation preference of any of its 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, including the Class A common stock offered in this offering, are fully paid and non-assessable.

Class B common stock

Generally. In connection with the corporate reorganization and this offering, each ProFrac LLC Unit Holder will receive one share of Class B common stock for each ProFrac LLC Unit that it holds. Accordingly, each ProFrac LLC Unit Holder will have a number of votes in ProFrac Holding Corp. equal to the aggregate number of ProFrac LLC Units that it holds.

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 with respect to the amendment of certain provisions of our amended and restated certificate of incorporation that would alter or change the powers, preferences or special rights of the Class B common stock so as to affect them adversely, which amendments must be by a majority of the votes entitled to be cast by the holders of the shares affected by the amendment, voting as a separate class, or as otherwise required by applicable law.

Dividend Rights. Holders of our Class B common stock do not have any right to receive dividends, unless 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 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.

Liquidation Rights. Holders of our Class B common stock do not have any right to receive a distribution upon a liquidation, dissolution, distribution of assets or other winding up of ProFrac Holding Corp.

Preferred stock

Our amended and restated certificate of incorporation authorizes our board of directors, subject to any limitations prescribed by law, without further shareholder approval, to establish and to issue from time to time one or more classes or series of preferred stock, covering up to an aggregate of shares of preferred stock. Each class or series of preferred stock will cover the number of shares and will have the powers, preferences, rights, qualifications, limitations and restrictions determined by the board of directors, which may include, among others, dividend rights, liquidation preferences, voting rights, conversion rights, preemptive rights and redemption rights. Except as provided by law or in a preferred stock designation, the holders of preferred stock will not be entitled to vote at or receive notice of any meeting of stockholders.

Anti-takeover effects of provisions of our amended and restated certificate of incorporation, our amended and restated bylaws and Delaware law

Some provisions of Delaware law, and our amended and restated certificate of incorporation and our bylaws, as will be in effect upon the closing of this offering and as described below, will contain provisions that could make the following transactions more difficult: acquisitions of us by means of a tender offer, a proxy contest or otherwise; or 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 us 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 an improvement of their terms.

Delaware law

Section 203 of the DGCL prohibits a Delaware corporation, including those whose securities are listed for trading on Nasdaq, from engaging in any business combination (as defined in Section 203) with any interested stockholder (as defined in Section 203) for a period of three years following the date that the stockholder became an interested stockholder, unless:

- the business combination or the transaction which resulted in the shareholder becoming an interested shareholder is approved by the board of directors before the date the interested shareholder attained that status;

- upon consummation of the transaction that resulted in the shareholder becoming an interested shareholder, the interested shareholder 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 shareholders by at least two-thirds of the outstanding voting stock that is not owned by the interested shareholder.

A corporation may elect not to be subject to Section 203 of the DGCL. We have elected to not be subject to the provisions of Section 203 of the DGCL.

Amended and restated certificate of incorporation and bylaws

Provisions of our amended and restated certificate of incorporation and bylaws, which will become effective upon the closing of this offering, 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, upon the completion of this offering, our amended and restated certificate of incorporation and amended and restated bylaws will:

- establish advance notice procedures with regard to shareholder 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 shareholder proposals must be timely given in writing to our corporate secretary prior to the meeting at which the action is 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. Our amended and restated bylaws specify the requirements as to form and content of all stockholders' notices. These requirements may preclude stockholders from bringing matters before the stockholders at an annual or special meeting;
- provide our board of directors the ability to authorize undesignated preferred stock. This ability makes it possible for our board of directors to issue, without shareholder 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 the Company;
- provide that until we cease to be a controlled company, the members of our board of directors designated by the parties to the Stockholders' Agreement will have a majority of the voting power of our board of directors;
- provide that the authorized number of directors may be changed only by resolution of the board of directors, subject to the terms of the Stockholders' Agreement and the rights of the holders of any series of our preferred stock to elect directors under specified circumstances;
- provide that, after we cease to be a controlled company, and subject to the terms of the Stockholders' Agreement, 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, only be filled by the affirmative vote of a majority of directors then in office, even if less than a quorum;
- provide that, after we cease to be a controlled company, 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, after we cease to be a controlled company, our amended and restated certificate of incorporation and amended and restated bylaws may be amended by the affirmative vote of the holders of at least 66 2/3% in voting power of all then outstanding common stock entitled to vote thereon, voting together as a single class;
- provide that, after we cease to be a controlled company, special meetings of our stockholders may only be called by the board of directors, the Chief Executive Officer or the Executive Chairman of the board;
- provide, after we cease to be a controlled company, for our board of directors to be divided into three classes of directors, with each class as nearly equal in number as possible, serving staggered three year terms, other than directors which may be elected by holders of preferred stock, if any. This system of electing and removing directors may tend to discourage a third party from making a tender offer or otherwise attempting to obtain control of us, because it generally makes it more difficult for stockholders to replace a majority of the directors; and
- provide that our amended and restated bylaws can be amended by the board of directors.

No cumulative voting

Under Delaware law, the right to vote cumulatively does not exist unless the certificate of incorporation specifically authorizes cumulative voting. Our amended and restated certificate of incorporation will not authorize cumulative voting. Therefore, stockholders holding a majority in voting power of the shares of our stock entitled to vote generally in the election of directors will be able to elect all our directors.

Forum selection

Our amended and restated certificate of incorporation will provide that unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware, or, if such court does not have subject matter jurisdiction thereof, the federal district court of the State of Delaware, will, to the fullest extent permitted by applicable law, be the sole and exclusive forum for:

- any derivative action, suit or proceeding brought on our behalf;
- any action, suit or proceeding asserting a claim of breach of a fiduciary duty owed by any of our current or former directors, officers, employees or stockholders to us or our stockholders;
- any action, suit or proceeding asserting a claim arising pursuant to any provision of the DGCL, our amended and restated certificate of incorporation or our bylaws (as either may be amended or restated) or as to which the DGCL confers jurisdiction on the Court of Chancery of the State of Delaware; or
- any action, suit or proceeding asserting a claim 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.

Notwithstanding the foregoing, the exclusive forum provision will not apply to actions brought to enforce any liability or duty created by the Exchange Act. Our amended and restated certificate of incorporation will also provide 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 will 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 stockholders. 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 amended and restated certificate of incorporation is inapplicable or unenforceable.

Limitation of liability and indemnification matters

Our amended and restated certificate of incorporation will limit the liability of our directors for monetary damages for breach of their fiduciary duty as directors, except for liability that cannot be eliminated 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 to the extent such exemption from liability or limitation thereof is not permitted under the DGCL as it now exists.

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 certificate of incorporation will also provide that we will indemnify our directors and officers to the fullest extent permitted by Delaware law. Our amended and restated bylaws also will 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 Delaware law would permit indemnification. We intend to enter into indemnification agreements with each of our current and future directors and officers. These agreements will 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 that will be in our amended and restated certificate of incorporation and the indemnification agreements will facilitate our ability to continue to attract and retain qualified individuals to serve as directors and officers.

Registration rights

For a description of registration rights with respect to our Class A common stock, see the information under the heading "Certain Relationships and Related Party Transactions—Registration Rights Agreement."

Dissenters' rights of appraisal and payment

Under the DGCL, with certain exceptions, our stockholders will have appraisal rights in connection with a merger or consolidation. Pursuant to the DGCL, stockholders who properly request and perfect appraisal rights in connection with such merger or consolidation will have the right to receive payment of the fair value of their shares as determined by the Delaware Court of Chancery.

Stockholders' derivative actions

Under the DGCL, any of our stockholders may bring an action in our name to procure a judgment in our favor, also known as a derivative action, provided that the stockholder bringing the action is a holder of our shares at the time of the transaction to which the action relates or such stockholder's stock thereafter devolved by operation of law.

Transfer agent and registrar

The transfer agent and registrar for our Class A common stock is   .

Listing

We have applied to list our Class A common stock on Nasdaq under the symbol "PFHC."

Shares eligible for future sale

Prior to this offering, there has been no public market for our Class A common stock. Future sales of our Class A common stock in the public market, or the availability of such shares for sale in the public market, could adversely affect the market price of our Class A common stock prevailing from time to time. As described below, only a limited number of shares will be available for sale shortly after this offering due to contractual and legal restrictions on resale. Nevertheless, sales of a substantial number of shares of our Class A common stock in the public market after such restrictions lapse, or the perception that those sales may occur, could adversely affect the prevailing market price of our Class A common stock at such time and our ability to raise equity-related capital at a time and price we deem appropriate.

Sales of restricted shares

Upon the closing of this offering, we will have outstanding an aggregate of shares of Class A common stock (or shares of Class A common stock if the underwriters' option to purchase additional shares is exercised). Of these shares, all of the shares of Class A common stock (or shares of Class A common stock if the underwriters' option to purchase additional shares is exercised) to be sold in this offering will be freely tradable without restriction or further registration under the Securities Act, unless the shares are held by any of our "affiliates" as such term is defined in Rule 144 under the Securities Act. All remaining shares of Class A common stock held by the ProFrac LLC Unit Holders and other recipients of Class A common stock in the corporate reorganization in connection with the offering will be deemed "restricted securities" as such term is defined under Rule 144. The restricted securities were issued and sold by us in private transactions and are eligible for public sale only if registered under the Securities Act or if they qualify for an exemption from registration under Rule 144 or Rule 701 under the Securities Act, which rules are summarized below.

Each ProFrac LLC Unit Holder will, subject to certain limitations, have the right, pursuant to the Redemption Right, to cause ProFrac LLC to acquire all or a portion of its ProFrac LLC Units for shares of Class A common stock (on a one-for-one basis, subject to conversion rate adjustments for stock splits, stock dividends and reclassifications and similar transactions). See "Certain Relationships and Related Party Transactions—ProFrac LLC Agreement." The shares of Class A common stock we issue upon such redemptions would be "restricted securities" as defined in Rule 144 described below. However, upon the closing of this offering, we will enter into a registration rights agreement with certain of the Pre-IPO Owners that will require us to register under the Securities Act these shares of Class A common stock. See "Certain Relationships and Related Party Transactions—Registration Rights Agreement."

As a result of the lock-up agreements described below and the provisions of Rule 144 and Rule 701 under the Securities Act, the shares of our Class A common stock (excluding the shares to be sold in this offering) that will be available for sale in the public market are as follows:

- no shares will be eligible for sale on the date of this prospectus or prior to 180 days after the date of this prospectus; and
- shares (assuming redemption of all applicable ProFrac LLC Units) will be eligible for sale upon the expiration of the lock-up agreements, beginning days after the date of this prospectus when permitted under Rule 144 or Rule 701.

Lock-up agreements

We, all of our directors and officers and certain of the Pre-IPO Owners have agreed not to sell any Class A common stock for a period of days from the date of this prospectus, subject to certain exceptions and extensions. See "Underwriting" for a description of these lock-up provisions.

Rule 144

In general, under Rule 144 under the Securities Act as currently in effect, a person (or persons whose shares are aggregated) who is not deemed to have been an affiliate of ours at any time during the three months preceding a sale, and who has beneficially owned restricted securities within the meaning of Rule 144 for at least six months (including any period of consecutive ownership of preceding non-affiliated holders) would be entitled to sell those shares, subject only to the availability of current public information about us. A non-affiliated person (who has been unaffiliated for at least the past three months) who has beneficially owned restricted securities within the meaning of Rule 144 for at least one year would be entitled to sell those shares without regard to the provisions of Rule 144.

A person (or persons whose shares are aggregated) who is deemed to be an affiliate of ours and who has beneficially owned restricted securities within the meaning of Rule 144 for at least six months would be entitled to sell within any three-month period a number of shares that does not exceed the greater of one percent of the then outstanding shares of our Class A common stock or the average weekly trading volume of our Class A common stock reported through the during the four calendar weeks preceding the filing of notice of the sale. Such sales are also subject to certain manner of sale provisions, notice requirements and the availability of current public information about us.

Rule 701

In general, under Rule 701 under the Securities Act, any of our employees, directors, officers, consultants or advisors who purchases shares from us in connection with a compensatory stock or option plan or other written agreement before the effective date of this offering is entitled to sell such shares 90 days after the effective date of this offering in reliance on Rule 144, without having to comply with the holding period requirement of Rule 144 and, in the case of non-affiliates, without having to comply with the public information, volume limitation or notice filing provisions of Rule 144. The SEC has indicated that Rule 701 will apply to typical stock options granted by an issuer before it becomes subject to the reporting requirements of the Exchange Act, along with the shares acquired upon exercise of such options, including exercises after the date of this prospectus.

Stock issued under employee plans

We intend to file a registration statement on Form S-8 under the Securities Act to register stock issuable under our long term incentive plan. This registration statement on Form S-8 is expected to be filed following the effective date of the registration statement of which this prospectus forms a part and will be effective upon filing. Accordingly, shares registered under such registration statement will be available for sale in the open market following the effective date, unless such shares are subject to vesting restrictions with us, Rule 144 restrictions applicable to our affiliates or the lock-up restrictions described above.

Material U.S. federal income tax considerations for Non-U.S. holders

The following is a summary of the material U.S. federal income tax considerations related to the purchase, ownership and disposition of our Class A common stock by a non-U.S. holder (as defined below) that holds our Class A common stock as a “capital asset” within the meaning of Section 1221 of the Internal Revenue Code of 1986, as amended (the “Code”) (generally, property held for investment). This summary is based on the provisions of the Code, U.S. Treasury regulations promulgated thereunder, administrative rulings and judicial decisions, all as in effect on the date hereof, and all of which are subject to change or differing interpretations, possibly with retroactive effect. We cannot assure you that a change in law will not significantly alter the tax considerations that we describe in this summary. We have not sought any ruling from the Internal Revenue Service (“IRS”) with respect to the statements made and the positions and conclusions described in the following summary, and there can be no assurance that the IRS or a court will agree with such statements, positions and conclusions.

This summary does not address all aspects of U.S. federal income taxation that may be relevant to non-U.S. holders in light of their personal circumstances. In addition, this summary does not address the impact of the Medicare surtax on certain net investment income, U.S. federal estate or gift tax laws, any U.S. state or local or non-U.S. tax laws or any tax treaties. This summary also does not address all U.S. federal income tax considerations that may be relevant to particular non-U.S. holders in light of their personal circumstances or that may be relevant to certain categories of investors that may be subject to special rules, such as:

- banks, insurance companies or other financial institutions;
- tax-exempt or governmental organizations;
- tax-qualified retirement plans;
- “qualified foreign pension funds” as defined in Section 897(l)(2) of the Code (or any entities all of the interests of which are held by a qualified foreign pension fund);
- dealers in securities or foreign currencies;
- persons whose functional currency is not the U.S. dollar;
- traders in securities that use the mark-to-market method of accounting for U.S. federal income tax purposes;
- “controlled foreign corporations,” “passive foreign investment companies,” and corporations that accumulate earnings to avoid U.S. federal income tax;
- persons subject to the alternative minimum tax;
- entities or arrangements treated as partnerships or pass-through entities for U.S. federal income tax purposes or holders of interests therein;
- persons deemed to sell our Class A common stock under the constructive sale provisions of the Code;
- persons that acquired our Class A common stock through the exercise of employee stock options or otherwise as compensation or through a tax-qualified retirement plan;
- persons that hold our Class A common stock as part of a straddle, appreciated financial position, synthetic security, hedge, conversion transaction or other integrated investment or risk reduction transaction; and
- certain former citizens or long-term residents of the United States.

PROSPECTIVE INVESTORS SHOULD CONSULT WITH THEIR OWN TAX ADVISORS WITH RESPECT TO THE APPLICATION OF THE U.S. FEDERAL INCOME TAX LAWS (INCLUDING ANY POTENTIAL FUTURE CHANGES THERETO) TO THEIR PARTICULAR SITUATION, AS WELL AS ANY TAX CONSEQUENCES OF THE PURCHASE, OWNERSHIP AND DISPOSITION OF OUR CLASS A COMMON STOCK ARISING UNDER ANY OTHER TAX LAWS, INCLUDING U.S. FEDERAL ESTATE OR GIFT TAX LAWS OR UNDER THE LAWS OF ANY U.S. STATE OR LOCAL OR NON-U.S. TAXING JURISDICTION, OR UNDER ANY APPLICABLE INCOME TAX TREATY.

Non-U.S. holder defined

For purposes of this discussion, a "non-U.S. holder" is a beneficial owner of our Class A common stock that is not for U.S. federal income tax purposes a partnership or any of the following:

- an individual who is a citizen or resident of the United States;
- a corporation (or other entity treated as a corporation for U.S. federal income tax purposes) created or organized in or under the laws of the United States, any state thereof or the District of Columbia;
- an estate the income of which is subject to U.S. federal income tax regardless of its source; or
- a trust (i) the administration of which is subject to the primary supervision of a U.S. court and which has one or more "United States persons" (within the meaning of Section 7701(a)(30) of the Code) who have the authority to control all substantial decisions of the trust or (ii) which has made a valid election under applicable U.S. Treasury regulations to be treated as a United States person.

If a partnership (including an entity or arrangement treated as a partnership for U.S. federal income tax purposes) holds our Class A common stock, the tax treatment of a partner in the partnership generally will depend upon the status of the partner, the activities of the partnership and certain determinations made at the partner level. Accordingly, we urge partners in partnerships (including entities or arrangements treated as partnerships for U.S. federal income tax purposes) considering the purchase of our Class A common stock to consult with their own tax advisors regarding the U.S. federal income tax considerations of the purchase, ownership and disposition of our Class A common stock by such partnership.

Distributions

We do not expect to pay any distributions on our Class A common stock in the foreseeable future. However, in the event we do make distributions of cash or other property on our Class A common stock, such distributions will constitute dividends for U.S. federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. To the extent those distributions exceed our current and accumulated earnings and profits, the distributions will be treated as a non-taxable return of capital to the extent of the non-U.S. holder's tax basis in our Class A common stock (and will reduce tax basis, but not below zero) and thereafter as capital gain from the sale or exchange of such Class A common stock. See "—Gain on Sale or Other Taxable Disposition of Class A Common Stock." Subject to the withholding requirements under FATCA (as defined below) and with respect to effectively connected dividends, each of which is discussed below, any distribution made to a non-U.S. holder on our Class A common stock generally will be subject to U.S. withholding tax at a rate of 30% of the gross amount of the distribution unless an applicable income tax treaty provides for a lower rate. To receive the benefit of a reduced treaty rate, a non-U.S. holder must provide the applicable withholding agent with a properly executed IRS Form W-8BEN or IRS Form W-8BEN-E (or other applicable or successor form) certifying qualification for the reduced rate.

Dividends paid to a non-U.S. holder that are effectively connected with a trade or business conducted by the non-U.S. holder in the United States (and, if required by an applicable income tax treaty, are treated as attributable to a permanent establishment maintained by the non-U.S. holder in the United States) generally will be taxed on a net income basis at the rates and in the manner generally applicable to United States persons. Such effectively connected dividends will not be subject to U.S. withholding tax if the non-U.S. holder satisfies certain certification requirements by providing the applicable withholding agent with a properly executed IRS Form W-8ECI certifying eligibility for exemption. If the non-U.S. holder is a corporation for U.S. federal income tax purposes, it may also be subject to a branch profits tax (at a 30% rate or such lower rate as specified by an applicable income tax treaty) on its effectively connected earnings and profits (as adjusted for certain items), which will include effectively connected dividends.

Gain on sale or other taxable disposition of Class A common stock

Subject to the discussion below under "—Backup Withholding and Information Reporting," a non-U.S. holder generally will not be subject to U.S. federal income or withholding tax on any gain realized upon the sale or other taxable disposition of our Class A common stock unless:

- the non-U.S. holder is an individual who is present in the United States for a period or periods aggregating 183 days or more during the calendar year in which the sale or disposition occurs and certain other conditions are met;
- the gain is effectively connected with a trade or business conducted by the non-U.S. holder in the United States (and, if required by an applicable income tax treaty, is attributable to a permanent establishment maintained by the non-U.S. holder in the United States); or
- our Class A common stock constitutes a United States real property interest by reason of our status as a United States real property holding corporation ("USRPHC") for U.S. federal income tax purposes and as a result such gain is treated as effectively connected with a trade or business conducted by the non-U.S. holder in the United States.

A non-U.S. holder described in the first bullet point above will be subject to U.S. federal income tax at a rate of 30% (or such lower rate as specified by an applicable income tax treaty) on the amount of such gain, which generally may be offset by U.S. source capital losses provided the non-U.S. holder has timely filed U.S. federal income tax returns with respect to such losses.

A non-U.S. holder whose gain is described in the second bullet point above or, subject to the exceptions described in the next paragraph, the third bullet point above, generally will be taxed on a net income basis at the rates and in the manner generally applicable to United States persons. If the non-U.S. holder is a corporation for U.S. federal income tax purposes whose gain is described in the second bullet point above, then such gain would also be included in its effectively connected earnings and profits (as adjusted for certain items), which may be subject to a branch profits tax (at a 30% rate or such lower rate as specified by an applicable income tax treaty).

Generally, a corporation is a USRPHC if the fair market value of its United States real property interests equals or exceeds 50% of the sum of the fair market value of its worldwide real property interests and its other assets used or held for use in a trade or business. We believe that we currently are not a USRPHC for U.S. federal income tax purposes, and we do not expect to become a USRPHC for the foreseeable future. However, in the event that we become a USRPHC, as long as our Class A common stock is or continues to be "regularly traded on an established securities market" (within the meaning of the U.S. Treasury regulations), only a non-U.S. holder that actually or constructively owns, or owned at any time during the shorter of the five-year period ending on the date of the disposition or the non-U.S. holder's holding period for the Class A common stock, more than 5% of our Class A common stock will be treated as disposing of a United States real property interest and will be taxable on gain realized on the disposition of our Class A common stock as a result of our status as a USRPHC. If we were to become a USRPHC and our Class A common stock were not considered to be regularly traded on an established securities market, each non-U.S. holder (regardless of the percentage of stock owned) would be treated as disposing of a United States real property interest and would be subject to U.S. federal income tax on a taxable disposition of our Class A common stock (as described in the preceding paragraph), and a 15% withholding tax would apply to the gross proceeds from such disposition.

Non-U.S. holders should consult with their own tax advisors with respect to the application of the foregoing rules to their ownership and disposition of our Class A common stock, including regarding potentially applicable income tax treaties that may provide for different rules.

Backup withholding and information reporting

Any dividends paid to a non-U.S. holder must be reported annually to the IRS and to the non-U.S. holder. Copies of these information returns may be made available to the tax authorities in the country in which the non-U.S. holder resides or is established. Payments of dividends to a non-U.S. holder generally will not be subject to backup withholding if the non-U.S. holder establishes an exemption by properly certifying its non-U.S. status on an IRS Form W-8BEN or IRS Form W-8BEN-E (or other applicable or successor form).

Payments of the proceeds from a sale or other disposition by a non-U.S. holder of our Class A common stock effected by or through a U.S. office of a broker generally will be subject to information reporting and backup withholding (at the applicable rate) unless the non-U.S. holder establishes an exemption by properly certifying its non-U.S. status on an IRS Form W-8BEN or IRS Form W-8BEN-E (or other applicable or successor form) and certain other conditions are met. Information reporting and backup withholding generally will not apply to any payment of the proceeds from a sale or other disposition of our Class A common stock effected outside the United States by a non-U.S. office of a broker. However, unless such broker has documentary evidence in its records that the non-U.S. holder is not a United States person and certain other conditions are met, or the non-U.S. holder otherwise establishes an exemption, information reporting will apply to a payment of the proceeds of the disposition of our Class A common stock effected outside the United States by such a broker if it has certain relationships within the United States.

Backup withholding is not an additional tax. Rather, the U.S. federal income tax liability (if any) of persons subject to backup withholding will be reduced by the amount of tax withheld. If backup withholding results in an overpayment of taxes, a refund may be obtained, provided that the required information is timely furnished to the IRS.

Additional withholding requirements under FATCA

Sections 1471 through 1474 of the Code, and the U.S. Treasury regulations and administrative guidance issued thereunder (“FATCA”), impose a 30% withholding tax on any dividends on our Class A common stock and, subject to the proposed U.S. Treasury regulations discussed below, on proceeds from sales or other dispositions of shares of our Class A common stock, if paid to a “foreign financial institution” or a “non-financial foreign entity” (each as defined in the Code) (including, in some cases, when such foreign financial institution or non-financial foreign entity is acting as an intermediary), unless (i) in the case of a foreign financial institution, such institution enters into an agreement with the U.S. government to withhold on certain payments and to collect and provide to the U.S. tax authorities substantial information regarding U.S. account holders of such institution (which includes certain equity and debt holders of such institution, as well as certain account holders that are non-U.S. entities with U.S. owners), (ii) in the case of a non-financial foreign entity, such entity certifies that it does not have any “substantial United States owners” (as defined in the Code) or provides the applicable withholding agent with a certification identifying the direct and indirect substantial United States owners of the entity (in either case, generally on an IRS Form W-8BEN-E), or (iii) the foreign financial institution or non-financial foreign entity otherwise qualifies for an exemption from these rules and provides appropriate documentation (such as an IRS Form W-8BEN-E). Foreign financial institutions located in jurisdictions that have an intergovernmental agreement with the United States governing these rules may be subject to different rules. Under certain circumstances, a holder might be eligible for refunds or credits of such taxes. While gross proceeds from a sale or other disposition of our Class A common stock paid after January 1, 2019 would have originally been subject to withholding under FATCA, proposed U.S. Treasury regulations provide that such payments of gross proceeds do not constitute withholdable payments. Taxpayers may generally rely on these proposed U.S. Treasury regulations until they are revoked or final U.S. Treasury regulations are issued. Non-U.S. holders are encouraged to consult with their own tax advisors regarding the effects of FATCA on an investment in our Class A common stock.

INVESTORS CONSIDERING THE PURCHASE OF OUR CLASS A COMMON STOCK SHOULD CONSULT WITH THEIR OWN TAX ADVISORS REGARDING THE APPLICATION OF THE U.S. FEDERAL INCOME TAX LAWS (INCLUDING ANY POTENTIAL FUTURE CHANGES THERETO) TO THEIR PARTICULAR SITUATIONS AND THE APPLICABILITY AND EFFECT OF ANY OTHER TAX LAWS, INCLUDING U.S. FEDERAL ESTATE AND GIFT TAX LAWS AND ANY U.S. STATE OR LOCAL OR NON-U.S. TAX LAWS, AND TAX TREATIES.

Underwriting

The company and the underwriters named below have entered into an underwriting agreement with respect to the shares of Class A common stock being offered. Subject to certain conditions, each underwriter has severally agreed to purchase the number of shares of Class A common stock indicated in the following table. J.P. Morgan Securities LLC, Piper Sandler & Co. and Morgan Stanley & Co. LLC are acting as the representatives of the underwriters.

Underwriter	Number of shares
J.P. Morgan Securities LLC	
Piper Sandler & Co.	
Morgan Stanley & Co. LLC	
Total	

The underwriters are committed to take and pay for all of the shares of Class A common stock being offered, if any are taken, other than the shares covered by the option described below unless and until this option is exercised.

The underwriters have an option to buy up to an additional shares of Class A common stock from the company to cover sales by the underwriters of a greater number of shares than the total number set forth in the table above. They may exercise that option for 30 days. If any shares are purchased pursuant to this option, the underwriters will severally purchase shares in approximately the same proportion as set forth in the table above.

The following table shows the per share and total underwriting discounts and commissions to be paid to the underwriters by the company. Such amounts are shown assuming both no exercise and full exercise of the underwriters' option to purchase additional shares of Class A common stock.

	Per share		Total	
	Without option exercise	With option exercise	Without option exercise	With option exercise
Underwriting Discounts and Commissions paid by us	$	$	$	$

The expenses of this offering that have been paid or are payable by us are estimated to be approximately $ million (excluding underwriting discounts and commissions). We have also agreed to reimburse the underwriters for certain of their expenses in an amount up to $.

Shares sold by the underwriters to the public will initially be offered at the initial public offering price set forth on the cover of this prospectus. Any shares sold by the underwriters to securities dealers may be sold at a discount of up to $ per share from the initial public offering price. After the initial offering of the shares, the representatives may change the offering price and the other selling terms. The offering of the shares by the underwriters is subject to receipt and acceptance and subject to the underwriters' right to reject any order in whole or in part.

The company and its officers, directors, and holders of substantially all of the company's voting common stock have agreed with the underwriters, subject to certain exceptions, not to dispose of or hedge any of their common stock or securities convertible into or exchangeable for shares of common stock during the period from the date of this prospectus continuing through the date days after the date of this prospectus, except with the prior written consent of J.P. Morgan Securities LLC. This agreement does not apply to any existing employee benefit plans. See "Shares Eligible for Future Sale" for a discussion of certain transfer restrictions.

Prior to the offering, there has been no public market for the shares of Class A common stock. The initial public offering price has been negotiated among the company and the representatives. Among the factors to be considered in determining the initial public offering price of the shares of Class A common stock, in addition to prevailing market conditions, will be the company's historical performance, estimates of the business potential and earnings prospects of the company, an assessment of the company's management and the consideration of the above factors in relation to market valuation of companies in related businesses.

We have applied to list our Class A common stock on Nasdaq under the symbol "PFHC." In order to meet one of the requirements for listing the common stock on Nasdaq, the underwriters will undertake to sell round lots of 100 or more shares to a minimum of 400 beneficial holders.

In connection with the offering, the underwriters may purchase and sell shares of Class A common stock in the open market. These transactions may include short sales, stabilizing transactions and purchases to cover positions created by short sales. Short sales involve the sale by the underwriters of a greater number of shares than they are required to purchase in the offering, and a short position represents the amount of such sales that have not been covered by subsequent purchases. A "covered short position" is a short position that is not greater than the amount of additional shares for which the underwriters' option described above may be exercised. The underwriters may cover any covered short position by either exercising their option to purchase additional shares or purchasing shares in the open market. In determining the source of shares to cover the covered short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase additional shares pursuant to the option described above. "Naked" short sales are any short sales that create a short position greater than the amount of additional shares for which the option described above may be exercised. The underwriters must cover any such naked short position by purchasing shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the company's Class A common stock in the open market after pricing that could adversely affect investors who purchase in the offering. Stabilizing transactions consist of various bids for or purchases of common stock made by the underwriters in the open market prior to the completion of the offering.

The underwriters may also impose a penalty bid. This occurs when a particular underwriter repays to the underwriters a portion of the underwriting discount received by it because the representatives have repurchased shares sold by or for the account of such underwriter in stabilizing or short covering transactions.

Purchases to cover a short position and stabilizing transactions, as well as other purchases by the underwriters for their own accounts, may have the effect of preventing or retarding a decline in the market price of the company's Class A common stock, and together with the imposition of the penalty bid, may stabilize, maintain or otherwise affect the market price of the Class A common stock. As a result, the price of the company's Class A common stock may be higher than the price that otherwise might exist in the open market. The underwriters are not required to engage in these activities and may end any of these activities at any time. These transactions may be effected on   , in the over-the-counter market or otherwise.

The company has agreed to indemnify the several underwriters against certain liabilities, including liabilities under the Securities Act.

The underwriters and their respective affiliates are full service financial institutions engaged in various activities, which may include sales and trading, commercial and investment banking, advisory, investment management, investment research, principal investment, hedging, market making, brokerage and other financial and non-financial activities and services. Certain of the underwriters and their respective affiliates have provided, and may in the future provide, a variety of these services to the issuer and to persons and entities with relationships with the issuer, for which they received or will receive customary fees and expenses.

In the ordinary course of their various business activities, the underwriters and their respective affiliates, officers, directors and employees may purchase, sell or hold a broad array of investments and actively trade securities, derivatives, loans, commodities, currencies, credit default swaps and other financial instruments for their own account and for the accounts of their customers, and such investment and trading activities may involve or relate to assets, securities and/or instruments of the issuer (directly, as collateral securing other obligations or otherwise) and/or persons and entities with relationships with the issuer. The underwriters and their respective affiliates may also communicate independent investment recommendations, market color or trading ideas and/or publish or express independent research views in respect of such assets, securities or instruments and may at any time hold, or recommend to clients that they should acquire, long and/or short positions in such assets, securities and instruments.

Directed share program

At our request, the underwriters have reserved for sale at the initial public offering price up to of the shares of Class A common stock offered hereby (approximately %) for officers, directors, employees and certain other persons associated with us. The number of shares of Class A common stock available for sale to the general public will be reduced to the extent such persons purchase such reserved shares. Any reserved shares not so purchased will be offered by the underwriters to the general public on the same basis as the other shares offered hereby. Any participants in this program shall be prohibited from selling, pledging or assigning any shares sold to them pursuant to this program for a period of days after the date of this prospectus.

European economic area

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (each, a “Relative Member State”) an offer to the public of our common shares may not be made in that Relevant Member State, except that an offer to the public in that Relevant Member State of our common shares may be made at any time under the following exemptions under the Prospectus Directive:

- To any legal entity which is a qualified investor as defined in the Prospectus Directive;
- To fewer than 150 natural or legal persons (other than qualified investors as defined in the Prospectus Directive), subject to obtaining the prior consent of the Representatives for any such offer; or
- In any other circumstances falling within Article 3(2) of the Prospectus Directive;

provided that no such offer or shares of our common stock shall result in a requirement for the publication by us or any Brazilian placement agent of a prospectus pursuant to Article 3 of the Prospectus Directive.

For the purposes of this provision, the expression an “offer to public” in relation to our common shares in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and our common shares to be offered so as to enable an investor to decide to purchase our common shares, as the same may be varied in that Member State by any measure implementing the Prospectus Directive in that Member State, the expression “Prospectus Directive” means Directive 2003/71/EC (as amended), including by Directive 2010/73/EU and includes any relevant implementing measure in the Relevant Member State.

This European Economic Area selling restriction is in addition to any other selling restrictions set out below.

United Kingdom

In the United Kingdom, this prospectus is only addressed to and directed as qualified investors who are (i) investment professionals falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial

Promotion) Order 2005 (the Order); or (ii) high net worth entities and other persons to whom it may lawfully be communicated, falling within Article 49(2)(a) to (d) of the Order (all such persons together being referred to as “relevant persons”). Any investment or investment activity to which this prospectus relates is available only to relevant persons and will only be engaged with relevant persons. Any person who is not a relevant person should not act or relay on this prospectus or any of its contents.

Canada

The securities may be sold in Canada only to purchasers purchasing, or deemed to be purchasing, as principal that are accredited investors, as defined in National Instrument 45-106 Prospectus Exemptions or subsection 73.3(1) of the Securities Act (Ontario), and are permitted clients, as defined in National Instrument 31-103 Registration Requirements, Exemptions, and Ongoing Registrant Obligations. Any resale of the securities must be made in accordance with an exemption form, or in a transaction not subject to, the prospectus requirements of applicable securities laws.

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this offering memorandum (including any amendment thereto) contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser’s province or territory. The purchaser should refer to any applicable provisions of the securities legislation of the purchaser’s province or territory of these rights or consult with a legal advisor.

Pursuant to section 3A.3 of National Instrument 33-105 Underwriting Conflicts (NI 33-105), the underwriters are not required to comply with the disclosure requirements of NI 33-105 regarding underwriter conflicts of interest in connection with this offering.

Hong Kong

The shares may not be offered or sold in Hong Kong by means of any document other than (i) in circumstances which do not constitute an offer to the public within the meaning of the Companies (Winding Up and Miscellaneous Provisions) Ordinance (Cap. 32 of the Laws of Hong Kong) (“Companies (Winding Up and Miscellaneous Provisions) Ordinance”) or which do not constitute an invitation to the public within the meaning of the Securities and Futures Ordinance (Cap. 571 of the Laws of Hong Kong) (“Securities and Futures Ordinance”), or (ii) to “professional investors” as defined in the Securities and Futures Ordinance and any rules made thereunder, or (iii) in other circumstances which do not result in the document being a “prospectus” as defined in the Companies (Winding Up and Miscellaneous Provisions) Ordinance, and no advertisement, invitation or document relating to the shares may be issued or may be in the possession of any person for the purpose of issue (in each case whether in Hong Kong or elsewhere), which is directed at, or the contents of which are likely to be accessed or read by, the public in Hong Kong (except if permitted to do so under the securities laws of Hong Kong) other than with respect to shares which are or are intended to be disposed of only to persons outside Hong Kong or only to “professional investors” in Hong Kong as defined in the Securities and Futures Ordinance and any rules made thereunder.

Singapore

This prospectus has not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, this prospectus and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the shares may not be circulated or distributed, nor may the shares be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than (i) to an institutional investor (as defined under Section 4A of the Securities and Futures Act, Chapter 289 of Singapore (the "SFA")) under Section 274 of the SFA, (ii) to a relevant person (as defined in Section 275(2) of the SFA) pursuant to Section 275(1) of the SFA, or any person pursuant to Section 275(1A) of the SFA, and in accordance with the conditions specified in Section 275 of the SFA or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA, in each case subject to conditions set forth in the SFA.

Where the shares are subscribed or purchased under Section 275 of the SFA by a relevant person which is a corporation (which is not an accredited investor (as defined in Section 4A of the SFA)) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor, the securities (as defined in Section 239(1) of the SFA) of that corporation shall not be transferable for six months after that corporation has acquired the shares under Section 275 of the SFA except: (1) to an institutional investor under Section 274 of the SFA or to a relevant person (as defined in Section 275(2) of the SFA), (2) where such transfer arises from an offer in that corporation's securities pursuant to Section 275(1A) of the SFA, (3) where no consideration is or will be given for the transfer, (4) where the transfer is by operation of law, (5) as specified in Section 276(7) of the SFA, or (6) as specified in Regulation 32 of the Securities and Futures (Offers of Investments) (Shares and Debentures) Regulations 2005 of Singapore ("Regulation 32"). Where the shares are subscribed or purchased under Section 275 of the SFA by a relevant person which is a trust (where the trustee is not an accredited investor (as defined in Section 4A of the SFA)) whose sole purpose is to hold investments and each beneficiary of the trust is an accredited investor, the beneficiaries' rights and interest (howsoever described) in that trust shall not be transferable for six months after that trust has acquired the shares under Section 275 of the SFA except: (1) to an institutional investor under Section 274 of the SFA or to a relevant person (as defined in Section 275(2) of the SFA), (2) where such transfer arises from an offer that is made on terms that such rights or interest are acquired at a consideration of not less than $200,000 (or its equivalent in a foreign currency) for each transaction (whether such amount is to be paid for in cash or by exchange of securities or other assets), (3) where no consideration is or will be given for the transfer, (4) where the transfer is by operation of law, (5) as specified in Section 276(7) of the SFA, or (6) as specified in Regulation 32.

Japan

The securities have not been and will not be registered under the Financial Instruments and Exchange Act of Japan (Act No. 25 of 1948, as amended), or the FIEA. The securities may not be offered or sold, directly or indirectly, in Japan or to or for the benefit of any resident of Japan (including any person resident in Japan or any corporation or other entity organized under the laws of Japan) or to others for reoffering or resale, directly or indirectly, in Japan or to or for the benefit of any resident of Japan, except pursuant to an exemption from the registration requirements of the FIEA and otherwise in compliance with any relevant laws and regulations of Japan.

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Legal matters

The validity of the shares of Class A common stock offered by this prospectus will be passed upon for us by Vinson & Elkins L.L.P., Houston, Texas. Certain legal matters in connection with this offering will be passed upon for the underwriters by Latham & Watkins LLP, Austin, Texas.

Experts

The audited financial statements of ProFrac Predecessor included in this prospectus and elsewhere in the registration statement have been so included in reliance upon the report of Grant Thornton LLP, independent registered public accountants, upon the authority of said firm as experts in accounting and auditing.

The audited balance sheet of ProFrac Holding Corp. included in this prospectus and elsewhere in the registration statement has been so included in reliance upon the report of Grant Thornton LLP, independent registered public accountants, upon the authority of said firm as experts in accounting and auditing.

The audited financial statements of FTS International, Inc. included in this prospectus and elsewhere in the registration statement have been so included in reliance upon the report of Grant Thornton LLP, independent registered public accountants, upon the authority of said firm as experts in accounting and auditing.

The information appearing in this prospectus concerning estimates of our proven mineral reserves was derived from the report of John T. Boyd Company, independent mining engineers and geologists, and has been included herein on the authority of John T. Boyd Company as experts with respect to the matters covered by such report and in giving such report.

Where you can find additional information

We have filed with the SEC a registration statement on Form S-1 relating to the shares of Class A common stock offered by this prospectus. This prospectus, which constitutes a part of the registration statement, does not contain all of the information set forth in the registration statement. For further information regarding us and the shares of Class A common stock offered by this prospectus, we refer you to the full registration statement, including its exhibits and schedules, filed under the Securities Act.

The SEC maintains a website at *http://www.sec.gov* that contains reports, information statements and other information regarding issuers that file electronically with the SEC. Our registration statement, of which this prospectus constitutes a part, and the exhibits and schedules thereto can be downloaded from the SEC's website. After the completion of this offering, we will file with or furnish to the SEC periodic reports and other information. These reports and other information may be obtained from the SEC's website as provided above. Following the completion of this offering, our website will be located at *www.profrac.com*. We intend to make our periodic reports and other information filed with or furnished to the SEC available, free of charge, through our website, as soon as reasonably practicable after those reports and other information are electronically filed with or furnished to the SEC. Information on our website or any other website is not incorporated by reference into this prospectus and does not constitute a part of this prospectus.

We intend to furnish or make available to our shareholders annual reports containing our audited financial statements prepared in accordance with GAAP. We also intend to furnish or make available to our shareholders quarterly reports containing our unaudited interim financial information, including the information required by Form 10-Q, for the first three fiscal quarters of each fiscal year.

Glossary of selected terms

Blowout. An uncontrolled flow of reservoir fluids into the wellbore, and sometimes catastrophically to the surface. A blowout may consist of salt water, oil, natural gas or a mixture of these. Blowouts can occur in all types of E&P operations, not just during drilling operations. If reservoir fluids flow into another formation and do not flow to the surface, the result is called an underground blowout. If the well experiencing a blowout has significant open-hole intervals, it is possible that the well will bridge over (or seal itself with rock fragments from collapsing formations) down-hole and intervention efforts will be averted.

Completion. A generic term used to describe the assembly of down-hole tubulars and equipment required to enable safe and efficient production from an oil or gas well. The point at which the completion process begins may depend on the type and design of the well.

DGB. Dynamic gas blending engines.

Drilling rig. The machine used to drill a wellbore.

Dual Fuel Fleet. Fleets capable of operating on either diesel or natural gas.

Electric Fleet. Electric-powered fleets.

Flowback. The process of allowing fluids to flow from the well following a treatment, either in preparation for a subsequent phase of treatment or in preparation for cleanup and returning the well to production.

Frac fleet. The pumping units, truck tractors, data trucks, storage tanks, chemical additive and hydration units, blenders and other equipment necessary to perform hydraulic fracturing services, including back-up pumping unit capacity.

Frac pump. A high-pressure, high volume pump that pumps frac fluid into a formation during the hydraulic fracturing process.

Frac sand. A proppant used in the completion and re-completion of unconventional oil and natural gas wells to stimulate and maintain oil and natural gas production through the process of hydraulic fracturing.

Frac stage. A specified portion of the section of the wellbore that is being stimulated through hydraulic fracturing techniques. The average number of frac stages per horizontal well has increased dramatically as hydraulic fracturing has become standard industry practice and as the lateral lengths of horizontal wells has increased.

Horizontal drilling. A subset of the more general term “directional drilling,” used where the departure of the wellbore from vertical exceeds about 80 degrees. Note that some horizontal wells are designed such that after reaching true 90-degree horizontal, the wellbore may actually start drilling upward. In such cases, the angle past 90 degrees is continued, as in 95 degrees, rather than reporting it as deviation from vertical, which would then be 85 degrees. Because a horizontal well typically penetrates a greater length of the reservoir, it can offer significant production improvement over a vertical well.

Horsepower. A unit of power equal to 550 foot-pounds per second.

Hydraulic fracturing. A stimulation treatment routinely performed on oil and gas wells in low permeability reservoirs. Specially engineered fluids are pumped at high pressure and rate into the reservoir interval to be treated, causing a vertical fracture to open. The wings of the fracture extend away from the wellbore in opposing directions according to the natural stresses within the formation. Proppant, such as grains of sand of a particular size, is mixed with the treatment fluid to keep the fracture open when the treatment is complete. Hydraulic fracturing creates high-conductivity communication with a large area of formation and bypasses any damage that may exist in the near-wellbore area.

Hydrocarbon. A naturally occurring organic compound comprising hydrogen and carbon. Hydrocarbons can be as simple as methane, but many are highly complex molecules, and can occur as gases, liquids or solids. Petroleum is a complex mixture of hydrocarbons. The most common hydrocarbons are natural gas, oil and coal.

Lateral length. The length from the point at which a wellbore enters the target zone to the terminus point of the wellbore.

Natural gas liquids. Components of natural gas that are liquid at surface in field facilities or in gas-processing plants. Natural gas liquids can be classified according to their vapor pressures as low (condensate), intermediate (natural gasoline) and high (liquefied petroleum gas) vapor pressure.

Plugging. The process of permanently closing oil and gas wells no longer capable of producing in economic quantities. Plugging work can be performed with a well servicing rig along with wireline and cementing equipment; however, this service is typically provided by companies that specialize in plugging work.

Pressure pumping. Services that include the pumping of liquids under pressure.

Proppant. Sized particles mixed with fracturing fluid to hold fractures open after a hydraulic fracturing treatment. In addition to naturally occurring sand grains, man-made or specially engineered proppants, such as resin-coated sand or high-strength ceramic materials like sintered bauxite, may also be used. Proppant materials are carefully sorted for size and sphericity to provide an efficient conduit for production of fluid from the reservoir to the wellbore.

Shale. A fine-grained, fissile, sedimentary rock formed by consolidation of clay- and silt-sized particles into thin, relatively impermeable layers.

Simul-frac. Technology to stimulate more stages across multiple wells at the same time, using a single fleet.

Stimulation. A treatment performed to restore or enhance the productivity of a well. Stimulation treatments fall into two main groups, hydraulic fracturing treatments and matrix treatments. Fracturing treatments are performed above the fracture pressure of the reservoir formation and create a highly conductive flow path between the reservoir and the wellbore. Matrix treatments are performed below the reservoir fracture pressure and generally are designed to restore the natural permeability of the reservoir following damage to the near-wellbore area. Stimulation in shale gas reservoirs typically takes the form of hydraulic fracturing treatments.

Unconventional resource. An umbrella term for oil and natural gas that is produced by means that do not meet the criteria for conventional production. What has qualified as “unconventional” at any particular time is a complex function of resource characteristics, the available E&P technologies, the economic environment, and the scale, frequency and duration of production from the resource. Perceptions of these factors inevitably change over time and often differ among users of the term. At present, the term is used in reference to oil and gas resources whose porosity, permeability, fluid trapping mechanism, or other characteristics differ from conventional sandstone and carbonate reservoirs. Coalbed methane, gas hydrates, shale gas, fractured reservoirs and tight gas sands are considered unconventional resources.

Wellbore. The physical conduit from surface into the hydrocarbon reservoir.

Well pad. The surface installation on which one or more wells are located.

Zipper frac. A hydraulic fracturing process where hydraulic fracturing operations are carried out concurrently at two or more parallel horizontal wellbores. In this process, one well holds frac pressure, while the adjacent well is stimulated through hydraulic fracturing. Hydraulic fracturing is alternated between each well, so the fracturing stages are placed opposite each other, resembling the teeth of a zipper.

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Report of independent registered public accounting firm

Board of Directors and Owners
ProFrac Predecessor

Opinion on the financial statements

We have audited the accompanying consolidated and combined balance sheets of the ProFrac Predecessor (comprised of the affiliates described in Note 1 to the financial statements) (the "Company") as of December 31, 2020 and 2019, the related consolidated and combined statements of operations, equity, and cash flows for each of the two years in the period ended December 31, 2020, and the related notes (collectively referred to as the "financial statements"). In our opinion, the consolidated and combined financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2020 and 2019, and the results of its operations and its cash flows for the two years in the period ended December 31, 2020, in conformity with accounting principles generally accepted in the United States of America.

Basis for opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) ("PCAOB") and are required to be independent with respect to the Company in accordance with U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB and in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ GRANT THORNTON LLP

We have served as the Company's auditor since 2018.

Dallas, Texas

September 9, 2021

ProFrac Predecessor
Consolidated and combined balance sheets
Amounts in thousands

	December 31, 2020	December 31, 2019
Assets		
Current assets:		
Cash and equivalents	$ 2,952	$ 17,837
Accounts receivable	72,744	81,014
Accounts receivable—related party	880	7,766
Prepaid expenses	6,516	5,489
Inventories	56,598	55,913
Total current assets	139,690	168,019
Property, plant, and equipment	782,249	766,810
Accumulated depreciation and depletion	(352,565)	(210,704)
Property, plant, and equipment, net	429,684	556,106
Investment in associate	1,260	—
Other assets	6,643	4,468
Total assets	$ 577,277	$ 728,593
Liabilities and equity		
Current liabilities:		
Accounts payable	$ 76,374	$ 94,528
Accounts payable—related party	18,488	14,543
Accrued expenses	29,890	35,670
Current portion of long-term debt	15,484	19,200
Total current liabilities	140,236	163,941
Long-term debt	205,369	221,296
Long-term debt—related party	54,860	58,545
Total liabilities	400,465	443,782
Commitments and contingencies (Note 7)		
Equity	176,812	284,811
Total liabilities and equity	$ 577,277	$ 728,593

See accompanying notes to consolidated and combined financial statements.

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ProFrac Predecessor
Consolidated and combined statements of operations
Amounts in thousands

	Year ended December 31,	
	2020	2019
Revenues	$ 547,679	$ 847,688
Operating costs and expenses:		
Cost of revenues, exclusive of depreciation and depletion	432,570	673,559
Depreciation and depletion	150,662	133,092
Loss on disposal of assets, net	8,447	14,809
Selling, general, and administrative	50,798	38,488
Total operating costs and expenses	642,477	859,948
Operating loss	(94,798)	(12,260)
Other (expense) income:		
Interest expense, net	(23,276)	(26,026)
Other income	108	327
Loss before income tax provision	(117,966)	(37,959)
Income tax provision	(582)	(587)
Net loss	$ (118,548)	$ (38,546)

See accompanying notes to consolidated and combined financial statements.

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ProFrac Predecessor
Consolidated and combined statement of changes in equity
Amounts in thousands

	Total equity
Balance at December 31, 2018	$ 307,255
Net loss	(38,546)
Member contribution	16,102
Balance at December 31, 2019	284,811
Member contribution by debt retirement	10,549
Net loss	(118,548)
Balance at December 31, 2020	**$ 176,812**

See accompanying notes to consolidated and combined financial statements.

ProFrac Predecessor
Consolidated and combined statements of cash flow
Amounts in thousands

	Year ended December 31, 2020	2019
Cash flows from operating activities:		
Net loss	$ (118,548)	$ (38,546)
Adjustments to reconcile net loss to cash provided by operating activities:		
Depreciation and depletion	150,662	133,092
Loss on disposal of assets	8,447	14,809
Amortization of debt issuance costs	1,958	1,804
Bad debt expense	2,778	231
Provision for inventory obsolescence	2,804	1,700
Changes in operating assets and liabilities:		
Accounts receivable	12,378	13,900
Inventories	(3,489)	25,647
Prepaid expenses and other assets	(1,027)	(2,558)
Accounts payable	(5,129)	(4,875)
Accrued expenses and other liabilities	(5,780)	217
Net cash provided by operating activities	45,054	145,421
Cash flows from investing activities:		
Investment in property, plant & equipment	(48,037)	(208,068)
Cash proceeds from sale of assets	4,680	5,693
Investment in associate	(1,260)	—
Net cash used in investing activities	(44,617)	(202,375)
Cash flows from financing activities:		
Proceeds from issuance of long-term debt	187,622	214,007
Repayments of long-term debt	(201,316)	(171,188)
Payment of debt issuance costs	(1,043)	(477)
Other	(585)	—
Capital contribution	—	16,102
Net cash (used in) provided by financing activities	(15,322)	58,444
Net (decrease) increase in cash and cash equivalents	(14,885)	1,490
Cash and cash equivalents, beginning of period	17,837	16,347
Cash and cash equivalents, ending of period	$ 2,952	$ 17,837
Supplemental cash flow information:		
Cash payments during the year for interest	$ 20,952	$ 24,316
Cash payments during the year for taxes	$ 391	$ 401
Non-cash transactions:		
Retirement of long-term debt by member	$ 10,549	$ —

See accompanying notes to consolidated and combined financial statements.

ProFrac Predecessor
Notes to the consolidated and combined financial statements
For the years ending December 31, 2020 and 2019
(amounts in thousands, except as noted)

1. Organization and description of business

ProFrac Predecessor consists of ProFrac Holdings, LLC and its subsidiaries ("ProFrac LLC"), Best Pump & Flow LP ("Best Flow") and Alpine Silica, LLC ("Alpine" and, together with ProFrac LLC and Best Flow, "ProFrac Predecessor" and "we," "us," "our" and the "Company") on a combined basis. Dan and Farris Wilks (or entities they control) (collectively, the "Wilks") hold a controlling interest in ProFrac LLC, Best Flow and Alpine. These financial statements present the historical financial information of ProFrac Predecessor on a consolidated and combined basis for all periods presented because these entities are under common control of the Wilks.

ProFrac Predecessor is a vertically integrated and innovation-driven energy services company providing hydraulic fracturing, completion services and other complementary products and services to leading upstream oil and gas companies engaged in the exploration and production ("E&P") of North American unconventional oil and natural gas resources. The operations of the ProFrac Predecessor are primarily focused in the Appalachian, East Texas/Louisiana and Permian Basins, where it has longstanding customer relationships. The ProFrac Predecessor operates in three business segments: stimulation services, manufacturing and proppant production.

2. Summary of significant accounting policies

Basis of presentation

The consolidated and combined financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America ("U.S. GAAP") and the consolidated and combined financial statements include the accounts of the Company and all majority-owned domestic subsidiaries. All significant intercompany accounts and transactions have been eliminated in consolidation. For all periods presented, comprehensive loss equals net loss.

Use of estimates

The preparation of financial statements in accordance with U.S. GAAP requires management to make estimates and assumptions that affect (1) the reported amounts of assets and liabilities and (2) the reported amounts of revenue and expenses during the reporting period. We base these estimates on historical results and various other assumptions believed to be reasonable, all of which form the basis for making estimates concerning the carrying values of assets and liabilities that are not readily available from other sources. Ultimate results could differ materially from these estimates.

Concentration of credit risk

The Company's assets that are potentially exposed to concentrations of credit risk consist primarily of cash, cash equivalents, and accounts receivable. The financial institutions in which the Company transacts business are "well capitalized" under applicable federal capital adequacy guidelines, thereby reducing, but not eliminating its exposure to credit risks for deposits in excess of federally insured amounts.

The market for the Company's services and products is the oil and gas industry in the United States. Oil and gas companies make capital expenditures on exploration, development and production operations. The level of these expenditures has historically been characterized by significant volatility.

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The majority of the Company's business is conducted with oil and gas E&P companies. For the year ended December 31, 2020, sales to Rockcliff Energy Management, LLC, Alta Resources Development LLC and Sabine Oil & Gas Corporation accounted for 15%, 11% and 10%, respectively, of total revenue. No customer accounted for over 10% of the Company's revenues for the year ended December 31, 2019. The majority of these revenues were related to our Stimulation services segment.

Cash and equivalents

The Company considers all highly liquid investments with an original maturity of three months or less to be cash equivalents.

Accounts receivable and allowance for doubtful accounts

Accounts receivable are recorded at invoiced amounts and generally do not bear interest. We routinely assess the financial strength of our customers and establish an allowance for doubtful accounts based upon various factors including historical collection experience, current aging status of customer accounts, current financial condition, as well as other factors. Losses are charged against the allowance when the customer accounts are determined to be uncollectible. The following table summarizes the rollforward of the allowance for doubtful accounts for the years ended December 31, 2020 and 2019:

	2020	2019
Beginning balance	$ (316)	$(133)
Bad debt expense	(2,778)	(231)
Write-offs and collections of doubtful accounts	1,248	48
Ending balance	$(1,846)	$(316)

Inventories

Inventories, which consist of raw materials, work in process and finished goods, are carried at the lower of cost or net realizable value. Cost represents the purchase price or production cost and includes material, labor, and manufacturing overhead. Fixed manufacturing overhead is allocated to the cost of inventory based on the normal capacity of production facilities. Unallocated overhead during periods of abnormally low production levels is recognized as cost of sales in the period in which it is incurred. Our inventory is recorded using the first-in, first-out method. We regularly review quantities on-hand and reduce the value of inventory for excess or obsolescence based primarily upon historical usage, estimated demand, and technological developments. See Note 3 for additional information related to our inventory.

Property, plant, and equipment

Property, plant, and equipment is stated at cost less accumulated depreciation, which is generally provided by using the straight-line method over the estimated useful lives of the individual assets. We manufacture our hydraulic fracturing units and the cost of this equipment, which includes direct and indirect manufacturing costs, is capitalized, and carried as work-in-progress until it is completed. Expenditures for renewals and betterments that extend the lives of our service equipment, which includes the replacement of significant components of service equipment, are capitalized and depreciated. Other repairs and maintenance costs are expensed as incurred. Mining property costs are amortized using the units-of-production method on estimated measured tons in proved reserves. The impact to revisions to reserve estimates is recognized on a prospective basis. When assets are disposed or retired, the cost and accumulated depreciation are netted against any sale proceeds, and the resulting gains or losses are included in the results of operations.

Impairment of long-lived assets

Recoverability of assets to be held and used is assessed whenever events or circumstances suggest that the fair value of the underlying asset or asset group may have significantly declined. Recoverability is evaluated by comparing the carrying amount of an asset to the estimated undiscounted future cash flows expected to be generated by the asset. If the carrying amount of an asset exceeds its estimated undiscounted future cash flows, an impairment charge is recognized for the amount by which the carrying amount of the asset exceeds the fair value of the asset. During the years ended December 31, 2020 and 2019, no impairments of long-lived assets have been recorded.

Income taxes

The ProFrac Predecessor entities were organized as limited liability companies or a limited partnership and were treated as either a disregarded entity or a partnership for U.S. federal income tax purposes, whereby the ordinary business income or loss and certain deductions were passed-through and reported on the members' income tax returns. As such, the ProFrac Predecessor is not required to provide for U.S. federal income taxes and no provision for U.S. federal income tax expense or deferred tax asset or liability is reflected in the historical financial statements. However, certain states subject the ProFrac Predecessor to entity-level taxation. For the years ended December 31, 2020 and 2019, state tax expense of $0.6 million was recognized.

Revenue recognition

Effective January 1, 2019, the Company adopted the requirements of Accounting Standards Update ("ASU") No. 2014-09, Revenue from Contracts with Customers ("ASC 606"), which defines the criteria required to recognize revenue when a performance obligation is satisfied by transferring control over a product or service to a customer.

The Company's services are sold based upon contracts with customers. The Company recognizes revenue as it satisfies performance obligations by transferring control over a service or product to a customer. Payment terms are specified in each customer agreement and are typically a specific number of days following satisfaction of the performance obligation. The following are descriptions of the principal activities of each reportable segment from which the Company generates its revenue.

Stimulation services. We generate revenue through the provision of hydraulic fracturing services, which involves the injection of water, sand and chemicals under high pressure into formations to optimize hydrocarbon flow paths during the completion phase of wellbores. Our contracts with customers are short term in nature, typically less than four weeks, and have a single performance obligation, which is the contracted total stages, satisfied over time. Once a stage has been completed, a field ticket is created which includes charges for services performed and any inputs consumed during the service. The signing of the field ticket by a customer representative represents their acceptance of the service and agreement to the amounts to which the Company has the right to invoice and recognize as revenue. We believe that recognizing revenue based on actual stages completed, upon receipt of a signed field ticket, appropriately depicts how our hydraulic fracturing services are transferred to our customers over time.

Manufacturing. We generate revenue through sales of equipment used to perform oilfield services. The performance obligation is satisfied and revenues are recognized at the point-in-time that control of goods are transferred to the customer, generally upon shipment from our manufacturing facility. Payment terms are specified in each customer agreement and are typically a specific number of days following satisfaction of the performance obligation.

Proppant production. We generate revenue through the sale of frac sand to oilfield service providers and E&P companies. The performance obligation is satisfied and revenue is recognized at the point-in-time that control of the product is transferred to the customer, generally upon shipment from our facility. We charge our customers on a per-ton basis at current market prices. Payment terms are specified in each customer agreement and are typically a specific number of days following satisfaction of the performance obligation.

Taxes collected from customers and remitted to governmental authorities are accounted for on a net basis and are therefore excluded from revenues in the consolidated and combined statements of operations.

Fair value measurements

Fair value is defined as the price that would be received from selling an asset or paid to transfer a liability in an orderly transaction between market participants at a measurement date. We apply the following fair value hierarchy, which prioritizes the inputs used to measure fair value into three levels and bases of categorization within the hierarchy upon the lowest level input that is available and significant to the fair value measurement:

- Level One: The use of quoted prices in active markets for identical assets or liabilities.
- Level Two: Other than quoted prices included in Level One, inputs that are observable for the asset or liability, either directly or indirectly, for substantially the full term of the asset or liability.
- Level Three: The use of significantly unobservable inputs that typically require the use of management's estimates of assumptions that market participants would use in pricing.

Our current assets and liabilities contain financial instruments, the most significant of which are trade accounts receivable and payable. We believe the carrying value of our current assets and liabilities approximate fair value. Our fair value assessment incorporates a variety of considerations, including: (i) the short-term duration of the instruments and (ii) our historical incurrence of and expectations of future bad debt expense. The book value of our floating rate debt approximates fair value because of its floating rate structure.

Retirement benefits

The Company has a defined contribution 401(k) plan (the "Plan") covering substantially all of its employees. Employees are eligible to participate in the Plan if they are 21 years of age and have completed 90 days of service. Eligible employees may defer up to 100% of their compensation or the maximum allowed by law on a pre-tax or Roth after-tax basis. The Company contributes a Safe Harbor match equal to 100% of an employee's contribution up to 4% of his or her annual compensation. An additional discretionary employer contribution may be made. Employee contributions (both pre-tax and Roth) and the employer Safe Harbor match are 100% vested immediately for all years prior to 2020. Effective January 1, 2020, the employer matching contribution is vested evenly over three years after the first year of employment. Between April 5, 2020 and December 27, 2020, the Company suspended matching contributions as a cost-savings measure. Expense associated with the Plan is charged to current operations. The Company made matching contributions of $0.6 million and $2.0 million during the years ended December 31, 2020 and 2019, respectively. All obligations within the respective years have been fully funded.

Profits interest grants

Class B "profits interest" units of ProFrac LLC ("Class B Units") entitle the holders to their respective percentage share of cash distributions either through ordinary course distributions or in connection with a business sale after all normal capital has been distributed.

On May 28, 2020, ProFrac LLC awarded ten Class B Units (effectively 1%) (the “Grant”) to an executive. Under the terms of the award agreement, after recovery of Class A members’ equity, additional returns are to be available for distribution between profits interest holders and the members in accordance with their respective residual ownership. Four of such Class B Units granted vested immediately and six Class B Units vest in equal annual installments of two Class B Units on the anniversary of the agreement date in 2021, 2022 and 2023. In connection with this offering, all such Class B Units will be forfeited.

Awards of profits interests must be evaluated as either unit-based payment arrangements or profit-sharing plans. The issuance of Class B Units was determined to be akin to a share-based payment arrangement. Accordingly, ProFrac LLC is required to estimate the value of any stock compensation as of the date of the award, and any related value is to be amortized over the vesting period. Due to the timing of the Grant issuance amid uncertainties early in the COVID-19 pandemic along with the then-depressed oil prices, the value of the vested portion of the Grant, which only becomes eligible to receive cash payouts after all Class A members’ interests have been recovered, was determined to be insignificant.

Investment in associated companies

Associated companies are entities in which we do not have a controlling financial interest, but over which we have significant influence, because we hold a voting interest of 20% or greater, but less than 50%. Associated companies are accounted for using the equity method. On December 22, 2020, the Company purchased a 25% stake in EKU, GmbH (“EKU”), an equipment manufacturer based in Germany, for $1.2 million. The results of operations for EKU between December 22 and December 31, 2020 were not material, and are presented in the consolidated and combined statements of operations in “Cost of revenues.” Investment in this associated company is presented on a one-line basis as “Investment in associate” in our consolidated and combined balance sheets. See Note 9—Subsequent Events.

New accounting standards to be adopted

We have not yet implemented Financial Accounting Standards Board (FASB) Accounting Standards Update (ASU) No. 2016-02, Leases (Topic 842). The ASU introduces a new accounting model for leases, which requires recognition of a right-of-use asset and lease liability on the balance sheet for operating leases. Implementation is not expected to have a material impact on our results of operations, however the Company expects to be required to recognize material assets or liabilities associated with the right to use certain leased assets upon adoption. We are required to adopt Topic 842 using the effective date of January 1, 2022, using the modified retrospective method. Under this adoption method, all leases that are in effect and existence as of, and after the transition date, with a cumulative impact to retained earnings in that period, The Company is continuing to evaluate the potential impact of adopting this standard.

We have not yet implemented FASB ASU No. 2016-13, Financial Instruments – Credit Losses. The ASU introduces a new accounting model, the Current Expected Credit Losses model (CECL), which requires earlier recognition of credit losses and additional disclosures related to credit risk. The CECL model utilizes a lifetime expected credit loss measurement objective for the recognition of credit losses for loans and other receivables at the time the financial asset is originated or acquired. The expected credit losses are adjusted each period for changes in expected lifetime credit losses. This model replaces the multiple existing impairment models previously used under U.S. GAAP, which generally require that a loss be incurred before it is recognized. The new standard also applies to financial assets arising from revenue transactions such as contract assets and accounts receivable. Implementation is currently required for fiscal years beginning after December 15, 2022. The Company does not believe implementation will have a material impact on its financial statements.

We have not yet implemented FASB ASU No. 2019-12, Income Taxes (Topic 740) – Simplifying the Accounting for Income Taxes, which removes specific exceptions to the general principles in Topic 740 in GAAP. The new guidance also improves the application of income tax-related guidance and simplifies GAAP for franchise taxes that are partially based on income, transactions with a government that result in a step up in the tax basis of goodwill, separate financial statements of legal entities that are not subject to tax, and enacted changes in tax laws in interim periods. The new guidance will be effective for fiscal years beginning after December 15, 2021, and interim periods within fiscal years beginning after December 15, 2022; however, early adoption is permitted. The Company is currently evaluating the impact of adopting the new guidance on the consolidated and combined financial statements.

3. Inventories

The following table summarizes the components of our inventories as of December 31, 2020 and 2019:

	2020	2019
Raw materials and supplies	$ 10,492	$ 7,743
Work in process	5,104	7,631
Finished products and parts	41,002	40,539
Total	$ 56,598	$ 55,913

4. Property, plant, and equipment

The following table summarizes the components of our property, plant, and equipment, net as of December 31, 2020 and 2019:

	December 31,	
	2020	2019
Machinery and equipment	$ 738,312	$ 706,862
Mining property and mine development	4,809	4,809
Office equipment, software and other	4,820	4,511
Buildings and leasehold improvements	16,695	15,615
Total	764,636	731,797
Less: accumulated depreciation and depletion	(352,565)	(210,704)
Construction in progress	17,613	35,013
Property, plant, and equipment, net	$ 429,684	$ 556,106

Depreciation expense for the years ended December 31, 2020 and 2019 was $150.6 million and $132.9 million, respectively.

Major classifications of property, plant, and equipment and their respective useful lives are as follows:

Machinery and equipment	2 years—10 years
Office equipment, software, and other	3 years—7 years
Buildings and leasehold improvements	2 years—40 years

5. Indebtedness

The following table summarizes the Company's debt as of December 31, 2020 and 2019:

	2020	2019
Asset backed loans	$ 41,000	$ 61,000
Term loan	137,355	159,100
Main Street loan due July 2025	35,000	—
$17.5 million loan due November 2020	—	8,255
$12.5 million loan due April 2021	1,799	7,075
$5.5 million loan due November 2021	2,112	4,290
Best Flow Credit Facility(1)	37,303	36,522
Alpine Credit Facility(1)	21,135	20,799
Other	5,829	8,735
Total gross debt	281,533	305,776
Less: unamortized debt issuance costs	(5,820)	(6,735)
Less: current portion of long-term debt	(15,484)	(19,200)
Total long-term debt	$ 260,229	$ 279,841

(1) Related party debt agreements.

Asset backed loans

On March 14, 2018, ProFrac LLC entered into a senior secured asset-based revolving credit agreement (the "ABL Credit Facility"), with Barclays Bank PLC, as administrative agent and collateral agent (the "ABL Agent"), and the lenders party thereto. The ABL Credit Facility has a maturity date of March 14, 2023.

LIBOR borrowings under the ABL bear interest at the greater of LIBOR or 0.00%, plus a margin of 1.50% to 2.00%, depending on facility utilization. The interest rate was 2.75% as of December 31, 2020. Base rate loans are also available at our option.

The maximum availability of credit under the ABL is limited at any time to $105.0 million or a borrowing base, as defined in the credit agreement. The borrowing base is calculated on percentages of eligible accounts receivable and inventory and is subject to certain reserves. If the amount available under the ABL is less than either 15.0% of our maximum availability or $10.0 million, we will be required to maintain a minimum fixed charge coverage ratio of 1.0 to 1.0. Although we had availability in excess of this threshold, we were in compliance with this covenant as of December 31, 2020. If at any time borrowings and letters of credit issued under the ABL exceed the borrowing base, we will be required to repay an amount equal to such excess.

As of December 31, 2020, the borrowing base was $57.1 million, and the maximum availability therefore under the ABL was $57.1 million. As of December 31, 2020, there were $41.0 million of borrowings outstanding under the ABL, and letters of credit totaling $1.1 million were issued, resulting in $15.0 million of availability under the ABL.

The ABL Credit Facility contains certain customary representations and warranties and affirmative and negative covenants. The negative covenants include, subject to customary exceptions, limitations on indebtedness, dividends, distributions and other restricted payments, investments, acquisitions, prepayments of specified junior indebtedness, amendments of specified junior indebtedness, transactions with affiliates, dispositions, mergers and consolidations, liens, restrictive agreements, sale and leaseback transactions, changes in fiscal periods and changes in line of business.

Term Loan

On September 7, 2018, ProFrac LLC entered into a $180.0 million term loan agreement ("Term Loan"), which matures on September 15, 2023, with a group of lenders with Barclays Bank, PLC as administrative agent. Payments are due in quarterly installments beginning in December 2018, though any cumulative prepayments, including excess cash flow payments, reduce the required amortization. Excess cash flow is calculated quarterly to determine any additional minimum prepayments. The Term Loan required minimum excess cash flow prepayments as follows, each due approximately 55 days after period-end: $1.5 million for the fiscal quarter ended September 30, 2020, $3.5 million for the fiscal quarter ended December 31, 2020, and $2.5 million for the fiscal quarters ended March 31, 2021 through and including December 31, 2021. The minimum quarterly excess cash flow prepayments were modified in June 2021 as part of an expansion of the term loan agreement. See Note 9 – Subsequent Events. Due to prepayments made to date, there will be no required minimum amortization (other than excess cash flow prepayments) before termination of the Term Loan.

On May 29, 2020, one of the members of ProFrac LLC purchased and simultaneously retired a portion of the Term Loan. ProFrac LLC recognized the retirement of these notes, a non-cash transaction for ProFrac LLC, as a contribution of equity and reduction of long-term debt of $10,549, the face value of the notes retired.

LIBOR borrowings under the Term Loan bear interest at the greater of LIBOR or 1.25%, plus a margin of 6.25% to 8.50%, depending on the total net leverage ratio as defined under the Term Loan. The interest rate was 8.75% as of December 31, 2020.

The Term Loan contains certain restrictive covenants, including a financial covenant which requires ProFrac LLC to maintain a total net leverage ratio, as defined in the credit agreement, of no greater than 1.75:1.00 for the fiscal quarters ended March 31, 2019 through and including June 30, 2019, 2.25:1.00 for the fiscal quarters ended September 30, 2019 through and including March 31, 2020, 3.50:1.00 for the fiscal quarters ended June 30, 2020 through and including March 31, 2021, 3.00:1.00 for the fiscal quarter ended June 31, 2021, 2.75:1.00 for the fiscal quarter ended September 30, 2021, 2.50:1.00 for the fiscal quarter ended December 31, 2021, and 2.00:1.00 for the fiscal quarter ended March 31, 2022 and thereafter. ProFrac LLC was in compliance with the required covenant as of December 31, 2020.

The Term Loan contains certain customary representations and warranties and affirmative and negative covenants. The negative covenants include, subject to customary exceptions, limitations on indebtedness, dividends, distributions and other restricted payments, investments, acquisitions, prepayments of specified junior indebtedness, amendments of specified junior indebtedness, transactions with affiliates, dispositions, mergers and consolidations, liens, restrictive agreements, changes in fiscal periods and changes in line of business.

Main Street Loan

On July 22, 2020, ProFrac LLC entered into a $35.0 million loan agreement with First Financial Bank, N.A. which matures on July 22, 2025 ("Main Street Loan"). The interest rate is LIBOR plus 3.00%, floating daily.

The Main Street Loan contains certain restrictive covenants which require ProFrac LLC to maintain a Tangible Net Worth, as defined in the agreement, of at least $200.0 million, a Tangible Debt to Worth Ratio, as defined in the agreement, of no greater than 2.00:1.00, and a Consolidated Debt Service Coverage Ratio, as defined in the agreement, of at least 2.00:1.00. ProFrac LLC was not in compliance with the Tangible Net Worth or Tangible Debt to Worth covenants as of December 31, 2020. In 2021, First Financial Bank provided notice of forbearance and the Main Street Loan was amended to eliminate these covenants and replace them with covenants for which we were in compliance for all periods. See Note 9—Subsequent Events. Additionally, the Main Street Loan restricts the payment of distributions or dividends, other than for the payment of taxes.

$17.5 million loan

On May 9, 2018, ProFrac LLC entered into a $17.5 million loan agreement with First Financial Bank, N.A. which matured on November 9, 2020 (“Tractor Note A”). The interest rate on Tractor Note A was 5.35%.

$12.5 million loan

On May 9, 2018, ProFrac LLC entered into a $12.5 million loan agreement with First Financial Bank, N.A. with a stated maturity date of April 9, 2021 (“Tractor Note B”). The interest rate on Tractor Note B is 5.35%.

Tractor Note B contains certain restrictive covenants which require ProFrac LLC to maintain a Tangible Net Worth, as defined in the agreement, of at least $200.0 million, a Tangible Debt to Worth Ratio, as defined in the agreement, of no greater than 1.50:1.00, and a Consolidated Debt Service Coverage Ratio, as defined in the agreement, of at least 1.50:1.00. ProFrac LLC was not in compliance with the Tangible Net Worth covenant as of December 31, 2020; however, ProFrac LLC resolved this non-compliance by fully paying down Tractor Note B in January 2021. See Note 9—Subsequent Events.

$5.5 million loan

On May 3, 2019, ProFrac LLC entered into a $5.5 million loan agreement with First Financial Bank, N.A. with a stated maturity date of November 3, 2021 (“Tractor Note C”). The interest rate on Tractor Note C is 6.10%.

Tractor Note C contains certain restrictive covenants which require ProFrac LLC to maintain a Tangible Net Worth, as defined in the agreement, of at least $200.0 million, a Tangible Debt to Worth Ratio, as defined in the agreement, of no greater than 2.00:1.00, and a Consolidated Debt Service Coverage Ratio, as defined in the agreement, of at least 1.50:1.00. ProFrac LLC was not in compliance with the Tangible Net Worth covenant as of December 31, 2020; however, ProFrac LLC resolved this non-compliance by fully paying down Tractor Note C in January 2021. See Note 9—Subsequent Events.

Best Flow Credit Facility

On February 4, 2019, Best Flow entered into a revolving loan credit agreement (the “Best Flow Credit Facility”), with Equify Financial, LLC (“Equify Financial”) as lender, Equify Financial is a related party. As of December 31, 2020, the Best Flow Credit Facility provided for a revolving credit facility in an aggregate principal amount at any time outstanding up to $37.5 million, subject to borrowing base availability, with $37.3 million in outstanding borrowings and $0.2 million of remaining availability. The Best Flow Credit Facility has a maturity date of February 4, 2026.

The interest rate under the Best Flow Credit Facility is the lesser of (i) the Prime Rate (as defined in the Best Flow Credit Facility) plus the applicable margin (3.50%) and (ii) the Maximum Rate (as defined in the Best Flow Credit Facility). All accrued but unpaid interest on the outstanding principal balance is due and payable monthly on the first day of each calendar month. The Best Flow Credit Facility is secured by a first lien on substantially all of the assets of Best Flow.

The Best Flow Credit facility is subject to mandatory prepayments of the entire amount of the excess if the unpaid balance of Advances (as defined in the Best Flow Credit Facility) exceeds the borrowing base then in effect. The Best Flow Borrower can voluntarily prepay all or any portion of the Obligations (as defined in the Best Flow Credit Facility).

The Best Flow Credit Facility contains certain customary representations and warranties and affirmative and negative covenants. The negative covenants include, subject to exceptions, limitations on indebtedness, dividends, distributions and other restricted payments, investments, acquisitions, prepayments of indebtedness, transactions with affiliates, dispositions, mergers and consolidations, liens, restrictive agreements, changes in fiscal periods and changes in line of business.

The Best Flow Credit Facility contains certain customary events of default. If an event of default occurs and is continuing, the lenders may declare all loans to be immediately due and payable. Some events of default require an automatic termination of the loans and become immediately due and payable. As of December 31, 2020, we were in compliance with all of our covenants, and there were no existing defaults or events of default, related to the Best Flow Credit Facility.

Alpine Credit Facility

On October 25, 2018, Alpine entered a secured revolving credit agreement with Equify Financial, with a maximum loan availability of $25.25 million (the “Alpine Credit Facility”). The maturity date under the Alpine Credit Facility was November 25, 2020. Interest is paid monthly at a fixed rate of 8.0%. The revolving credit note is secured by a lien on, and security interest in, all of the assets of Alpine. Alpine had outstanding borrowings under the revolving credit note of $21.1 million and $20.8 million at December 31, 2020, and 2019, respectively. As of December 31, 2020, Alpine was not in compliance with the terms of the Alpine Credit Facility. In January 2021, Alpine renegotiated this credit agreement, and entered into a promissory note with Equify Financial with a principal amount of $21.4 million. See Note 9 – Subsequent Events. The Alpine Credit Facility is presented as non-current as we re-financed the obligation on a long-term basis subsequent to December 31, 2020.

Other indebtedness

As of December 31, 2020 and 2019, the ProFrac Predecessor had other debt agreements outstanding with unpaid principal balances of $5.8 million and $8.7 million, respectively. These were primarily comprised of various equipment financing agreements. As of December 31, 2020, these agreements have a weighted average interest rate of 9.3% and a weighted average remaining term of 1.7 years.

The following table summarizes the principal maturity schedule for our long-term debt outstanding as of December 31, 2020:

	2021	2022	2023	2024	2025	Thereafter
Asset backed loans	$ —	$ —	$ 41,000	$ —	$ —	$ —
Term loan	3,500	15,000	118,855	—	—	—
Main Street loan due July 2025	3,801	—	4,680	3,978	22,541	—
$12.5 million loan due April 2021	1,799	—	—	—	—	—
$5.5 million loan due November 2021	2,112	—	—	—	—	—
Best Flow Credit Facility	—	3,000	15,000	—	—	19,303
Alpine Credit Facility	1,661	2,542	2,756	2,985	3,293	7,898
Other indebtedness	2,611	2,363	855	—	—	
Total	$ 15,484	$ 22,905	$ 183,146	$ 6,963	$ 25,834	$ 27,201

6. Related party transactions

In the normal course of business, the ProFrac Predecessor has entered into transactions with related parties where the Wilks (or entities they control) hold a controlling financial interest. During the years ended

December 31, 2020 and 2019, the ProFrac Predecessor had related party transactions with the following related party entities:

Automatize, LLC (“Automatize”) is a logistics technology company that coordinates proppant deliveries with trucking companies on behalf of its customers, including the ProFrac Predecessor. Amounts paid to Automatize are recorded in cost of revenues, exclusive of depreciation and depletion on our consolidated and combined statements of operations.

Cisco Logistics, LLC (“Cisco Logistics”) is a logistics company that delivers sand and equipment on behalf of its customers, including the ProFrac Predecessor. Amounts paid to Cisco Logistics are recorded in cost of revenues, exclusive of depreciation and depletion on our consolidated and combined statements of operations.

Equify Risk Services, LLC (“Equify Risk”) is an insurance broker that negotiates and secures insurance policies on behalf of its customers, including the ProFrac Predecessor. Amounts paid to Equify Risk are recorded in selling, general and administrative expenses on our consolidated and combined statements of operations.

Equify Financial, LLC (“Equify Financial”) is a finance company that provides equipment and other financing to its customers, including the ProFrac Predecessor. Amounts paid to Equify Financial are recorded in interest expenses on our combined statements of operations, and repayments of long-term debt on our consolidated and combined statements of cash flows. See Note 5—Indebtedness for additional disclosures related to related party credit agreements.

Wilks Brothers, LLC (“Wilks Brothers”) is a management company which provides administrative support to various businesses within their portfolio. Wilks Brothers and certain entities under its control will at times incur expenses on behalf of the ProFrac Predecessor, billing the ProFrac Predecessor for these expenses at cost as well as certain management fees. Amounts paid to Wilks Brothers are generally recorded in selling, general and administrative expenses on our consolidated and combined statements of operations. See Note 5—Indebtedness for additional disclosures related to related party credit agreements.

Interstate Explorations, LLC (“Interstate”) is an exploration and development company for which ProFrac LLC performs pressure pumping services, and from which the Company has a short-term lease for certain office space.

Flying A Pump Services, LLC (“Flying A”) is an oilfield services company which provides pump down and acid services, to which ProFrac LLC rents equipment.

MC Estates, LLC and the Shops at Willow Park, LLC (“Related Lessors”) own various industrial parks and office space leased by the ProFrac Predecessor. Amounts paid to Related Lessors are recorded in selling, general and administrative expenses on our consolidated and combined statements of operations.

Wilks Construction Company, LLC (“Wilks Construction”) is a construction company that has built and made renovations to several buildings for the Company. Amounts paid to Wilks Construction are recorded in capital expenditures on our consolidated and combined statements of cash flows.

3 Twenty-Three, LLC (“3 Twenty-Three”) is a payroll administrator which performs payroll services on behalf of its customers, including the ProFrac Predecessor. Amounts paid to 3 Twenty-Three are recorded in cost of revenues, exclusive of depreciation and depletion and selling, general and administrative expenses on our consolidated and combined statements of operations.

Carbo Ceramics Inc. (“Carbo”) is a provider of ceramic media and industrial technologies which purchased proppant from the Company.

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The following table summarizes expenditures with related parties for the years ended December 31, 2020 and 2019:

	2020	2019
Automatize	$ 26,226	$ 217
Wilks Brothers	16,622	11,047
Related Lessors	6,052	4,378
Cisco Logistics	4,181	28,622
Equify Financial	2,323	3,028
Equify Risk	1,602	2,468
3 Twenty-Three	1,148	1,756
Wilks Construction	107	1,161
Interstate	30	22
Other	—	17
Total	$ 58,291	$ 52,716

The following table summarizes related party accounts payable as of December 31, 2020 and 2019:

	2020	2019
Wilks Brothers	$ 11,993	$ 8,292
Automatize	5,633	3,302
Cisco Logistics	671	2,114
Equify Financial	113	288
Wilks Construction	57	57
Related Lessors	21	—
Equify Risk	—	490
Total	$ 18,488	$ 14,543

The following table summarizes revenue from related parties for the years ended December 31, 2020 and 2019:

	2020	2019
Automatize	$ 701	$ 223
Flying A	294	—
Carbo	193	—
Interstate	11	12,262
Other	84	118
Total	$ 1,283	$ 12,603

The following table summarizes related party accounts receivable as of December 31, 2020 and 2019:

	2020	2019
Flying A	$549	$ —
Automatize	191	—
Carbo	116	—
Interstate	—	7,685
Other	24	81
	$880	$7,766

7. Commitments and contingencies

Litigation

In the ordinary course of business, we are subject of, or party to a number of pending or threatened legal actions and administrative proceedings arising in the ordinary course of our business. While many of these matters involve inherent uncertainty, we believe that the amount of the liability, if any, ultimately incurred with respect to proceedings or claims will not have a material adverse effect on our consolidated financial position as a whole or on our liquidity, capital resources or future annual results of operations.

When deemed necessary, we establish reserves for certain legal proceedings. The establishment of a reserve is based on an estimation process that includes the advice of legal counsel and subjective judgment of management. While management believes these reserves to be adequate, it is reasonably possible we could incur additional losses with respect to those matters in which reserves have been established. We will continue to evaluate our litigation on a quarterly basis and will establish and adjust any litigation reserves as appropriate to reflect our assessment of the then current status of litigation. As of December 31, 2020, we have recorded an estimated liability of $5.2 million related to separate contract dispute claims with two of our vendors, which is included in accrued expenses in our consolidated and combined balance sheets and in selling, general and administrative expense on our consolidated and combined statements of operations.

Lease commitments

We have non-cancelable operating lease commitments related to our corporate office, several of our field offices and manufacturing facilities. The following table summarizes the future minimum rental payments required under our operating lease arrangements as of December 31, 2020.

2021	$ 5,592
2022	5,704
2023	5,719
2024	5,561
2025	5,109
Thereafter	20,663
Total	$ 48,348

Rent expense under our operating lease arrangements was $6,059 and $5,581 for the years ended December 31, 2020 and 2019, respectively.

8. Segment information

Our reportable segments are determined based upon: our internal organizational structure; the manner in which our operations are managed; the availability of separate financial information; the criteria used by the Wilks, who are our Chief Operating Decision Maker (“CODM”), to evaluate segment performance and make resource allocation decisions. We do not aggregate any operating segments within our segments.

Our business has three reportable segments: Stimulation services, Manufacturing and Proppant production. Our CODM utilizes Adjusted EBITDA as the measure of profitability to evaluate performance of our segments and allocate resources.

We account for intersegment transactions as if the transactions were with third parties, that is, at estimated current market prices. For the years ended December 31, 2020 and 2019, intersegment revenues for the manufacturing segment were 97% and 89%, respectively. For the years ended December 31, 2020 and 2019, intersegment revenues for the proppant production segment were 20% and 8%, respectively.

The performance of our segments is evaluated primarily on Adjusted EBITDA. We define Adjusted EBITDA as our net income (loss), before (i) interest expense, net, (ii) income tax provision, (iii) depreciation and depletion, (iv) loss on disposal of assets and (v) other unusual or non-recurring charges, such as costs related to our initial public offering, non-recurring supply commitment charges, certain bad debt expense and gain on extinguishment of debt.

Segment information as of and for the years ended December 31, 2020, and 2019 is as follows:

	2020	2019
Revenues		
Stimulation services	$ 538,282	$ 824,075
Manufacturing	46,222	65,866
Proppant production	10,215	17,587
Total segments	594,719	907,528
Eliminations	(47,040)	(59,840)
Total	$ 547,679	$ 847,688
Cost of revenues, excluding depreciation and depletion		
Stimulation services	$ 433,122	$ 659,915
Manufacturing	40,424	58,770
Proppant production	6,064	14,714
Total segments	479,610	733,399
Eliminations	(47,040)	(59,840)
Total	$ 432,570	$ 673,559
Adjusted EBITDA		
Stimulation services	$ 68,787	$ 134,246
Manufacturing	1,325	3,033
Proppant production	2,685	(1,080)
Total segments	72,797	136,199
Eliminations	—	—
Total (a)	$ 72,797	$ 136,199
Depreciation and depletion		
Stimulation services	$ 138,122	$ 120,774
Manufacturing	2,796	2,603
Proppant production	9,744	9,715
Total	$ 150,662	$ 133,092
Capital expenditures		
Stimulation services	$ 46,371	$ 195,505
Manufacturing	1,661	2,394
Proppant production	5	10,169
Total	$ 48,037	$ 208,068

	2020	2019
Total assets		
Stimulation services	$ 452,729	$ 589,404
Manufacturing	64,769	69,942
Proppant production	73,918	84,681
Total segment assets	591,416	744,027
Eliminations	(14,139)	(15,434)
Total	$ 577,277	$ 728,593

The following table sets forth the reconciliation of Segment Adjusted EBITDA to net loss in our consolidated and combined statements of operations:

	2020	2019
Stimulation services—Adjusted EBITDA	$ 68,787	$ 134,246
Manufacturing—Adjusted EBITDA	1,325	3,033
Proppant production—Adjusted EBITDA	2,685	(1,080)
Total	$ 72,797	$ 136,199
Interest expense, net	(23,276)	(26,026)
Income tax provision	(582)	(587)
Depreciation and depletion	(150,662)	(133,092)
Loss on disposal of assets, net	(8,447)	(14,809)
Bad debt expense	(2,778)	(231)
Supply commitment charges	(5,600)	—
Net loss	$ (118,548)	$ (38,546)

9. Subsequent events

The ProFrac Predecessor has evaluated events subsequent to December 31, 2020 through September 9, 2021, the date these financial statements were made available to be issued, and report the following events:

a) In January and February of 2021, ProFrac LLC executed two agreements with one of ProFrac LLC's members for the sale of certain lots of equipment, in exchange for $8.7 million in cash, an amount that approximates the net book value of the assets. Under these agreements, for any assets subsequently resold by the member, ProFrac LLC will reimburse the member for a certain percentage of the net loss, or conversely be entitled to a certain percentage of the net gain, at rates established in the agreements. As of August 23, 2021, the majority of the assets have been sold by the member, and ProFrac LLC's liability is $0.4 million. ProFrac LLC does not anticipate that any additional liability will be material.

b) In January 2021, ProFrac LLC made payments of $1.8 million and $2.1 million to fully pay down the outstanding balances of Tractor Note B and Tractor Note C, in advance of the scheduled maturity dates for these loans. These prepayments resolved the covenant non-compliance for these notes discussed at Note 5—Indebtedness. ProFrac LLC did not incur any penalties related to these prepayments.

c) On January 15, 2021, Alpine issued a $21.4 million promissory note with Equify Financial, as holder, bearing interest of 8.0%. Alpine is obligated to make monthly payments of $335,918 starting March 1, 2021 for 7 years under this agreement, ending February 1, 2028. The principal and interest are paid in equal monthly amortizing amounts through maturity. Prepaid amounts are subject to a 0.19% prepayment premium.

d) On January 21, 2021, ProFrac LLC purchased an additional 50% of shares in EKU, GmbH (“EKU”), an equipment manufacturer based in Germany, for $2.6 million. This transaction increased ProFrac LLC’s ownership stake to 75% (a controlling interest). ProFrac LLC’s initial 25% stake was purchased on December 22, 2020 and was accounted for using the equity method of accounting. Going forward, the operating results of EKU will be consolidated in the consolidated and combined financial statements.

e) On January 25, 2021, Best Flow entered into a $15.0 million loan agreement with THRC Holdings and Farris Wilks, who are related parties, bearing interest of 8.0%, with a maturity date of January 25, 2023. This loan agreement is unsecured and is subject to monthly excess cash flow payments (as defined in the loan agreement). Proceeds from this loan agreement were utilized to pay down outstanding balances on the Best Flow Credit Facility. This new loan agreement is unsecured and is subject to monthly excess cash flow payments (as defined in the loan agreement). This new loan agreement is unsecured and is subject to monthly excess cash flow payments (as defined in the loan agreement). This loan agreement restricts the payment of distributions or dividends, other than for the payment of taxes.

f) On January 28, 2021, Best Flow issued a promissory note (the “Best Flow Note”), with Equify Financial, as holder. The Best Flow Note provides for a term loan in an initial aggregate principal amount equal to $13.0 million. Proceeds from the Best Flow Note were utilized to pay down $7.6 million of outstanding balances on the Best Flow Credit Facility and to pay down other equipment financing agreements for $5.4 million. The Best Flow Note matures on February 1, 2026, with a fixed interest rate of 8%. The principal and interest are paid in equal monthly amortizing amounts through maturity. Prepaid amounts are subject to a 0.19% prepayment premium.

g) In April 2021, First Financial Bank, N.A. provided notice of agreement to forbear exercising its rights related to the Main Street Loan covenant noncompliance discussed at Note 5 – Indebtedness. Subsequently, ProFrac LLC and First Financial Bank, N.A. reached an agreement to amend the Main Street Loan. The amendment deleted the covenants for which ProFrac LLC was not in compliance as of December 31, 2020 and replaced them with a covenant to maintain a minimum Fixed Charge Coverage Ratio of 1.00:1.00, and a covenant to maintain a Maximum Leverage Ratio of 3.50:1.00. ProFrac LLC was in compliance with the amended covenants for all periods presented and did not incur any expense related to this modification.

h) On June 1, 2021, Best Flow entered into a $3.0 million credit agreement with Wilks Brothers, who is a related party, bearing interest of 8.0%, with a maturity date of January 31, 2022.

i) On June 24, 2021, ProFrac LLC and its Term Loan lenders reached an agreement to amend the Term Loan. The amendment expanded the facility by $40.0 million, waived minimum excess cash flow prepayments for the remainder of 2021, and increased the minimum excess cash flow prepayments to $5.0 million for each of the quarters ended March 31, 2022 through June 30, 2023.

j) In June 2021, ProFrac LLC entered into an agreement with U.S. Well Services, LLC (“USWS”) to purchase three licenses to manufacture electric frac fleets (one license per fleet) using USWS CleanFleet® technology. The purchase price was $7.5 million per license for a total of $22.5 million. Under the terms of the agreement, ProFrac LLC has the option, but no obligation, to purchase seven additional licenses for $7.5 million each, and ten additional licenses for $9.0 million each thereafter.

ProFrac Predecessor
Consolidated and combined balance sheets (unaudited)
Amounts in thousands

	September 30, 2021	December 31, 2020
Assets		
Current assets:		
Cash and equivalents	$ 16,367	$ 2,952
Accounts receivable	103,660	72,744
Accounts receivable—related party	304	880
Prepaid expenses	9,188	6,516
Inventories	72,317	56,598
Total current assets	201,836	139,690
Property, plant, and equipment	780,218	782,249
Accumulated depreciation and depletion	(439,324)	(352,565)
Property, plant, and equipment, net	340,894	429,684
Investment in associate	—	1,260
Intangible assets	25,633	—
Other assets	10,522	6,643
Total assets	$ 578,885	$ 577,277
Liabilities and equity		
Current liabilities:		
Accounts payable	$ 75,096	$ 76,374
Accounts payable—related party	21,882	18,488
Accrued expenses	41,959	29,890
Deferred revenue	369	—
Current portion of long-term debt	15,617	15,484
Total current liabilities	154,923	140,236
Long-term debt	241,445	205,369
Long-term debt—related party	53,090	54,860
Total liabilities	449,458	400,465
Commitments and contingencies (Note 7)		
Equity	128,303	176,812
Noncontrolling interests	1,083	—
Accumulated other comprehensive income	41	—
Total Equity	129,427	176,812
Total liabilities and equity	$ 578,885	$ 577,277

See accompanying notes to consolidated and combined financial statements.

ProFrac Predecessor
Consolidated and combined statements of operations (unaudited)
Amounts in thousands

	Nine months ended September 30, 2021	Nine months ended September 30, 2020
Revenues	$ 520,336	$ 412,487
Operating costs and expenses:		
Cost of revenues, exclusive of depreciation, depletion and amortization	389,177	326,675
Depreciation, depletion and amortization	105,606	113,772
Loss on disposal of assets, net	7,472	5,382
Selling, general, and administrative	47,919	33,746
Total operating costs and expenses	550,174	479,575
Operating loss	(29,838)	(67,088)
Other (expense) income:		
Interest expense, net	(19,118)	(18,321)
Other income	148	268
Loss before income tax provision	(48,808)	85,141
Income tax benefit (provision)	138	(370)
Net loss	$ (48,670)	$ (85,511)
Net loss attributable to noncontrolling interests	(161)	—
Net loss attributable to ProFrac Predecessor	$ (48,509)	$ (85,511)
Other comprehensive loss	(55)	—
Comprehensive loss	$ (48,564)	$ (85,511)

See accompanying notes to consolidated and combined financial statements.

ProFrac Predecessor
Consolidated and combined statement of changes in equity (unaudited)
Amounts in thousands

January 1, 2020—September 30, 2020	Equity	Accumulated other comprehensive loss	Noncontrolling interests	Total
Balance, January 1, 2020	$284,811	$ —	$ —	$284,811
Net loss	(85,511)	—	—	(85,511)
Member contribution by debt retirement	10,549	—	—	10,549
Balance, September 30, 2020	$209,849	$ —	$ —	$209,849

January 1, 2021—September 30, 2021	Equity	Accumulated other comprehensive income	Noncontrolling interests	Total
Balance, January 1, 2021	$176,812	$ —	$ —	$176,812
Net loss	(48,509)	—	(161)	(48,670)
Currency translation adjustments	—	41	14	55
Noncontrolling interest of acquired business	—	—	1,230	1,230
Balance, September 30, 2021	$128,303	$ 41	$ 1,083	$129,427

See accompanying notes to consolidated and combined financial statements.

ProFrac Predecessor
Consolidated and combined statements of cash flow (unaudited)
Amounts in thousands

	Nine months ended September 30, 2021	Nine months ended September 30, 2020
Cash flows from operating activities:		
Net loss	$ (48,670)	$ (85,511)
Adjustments to reconcile net loss to cash provided by operating activities:		
Depreciation, depletion and amortization	105,606	113,772
Loss on disposal of assets	7,472	5,382
Amortization of debt issuance costs	1,847	1,389
Bad debt expense	2,562	1,243
Provision for inventory obsolescence	—	2,804
Changes in operating assets and liabilities:		
Accounts receivable	(31,396)	11,836
Inventories	(14,525)	(3,781)
Prepaid expenses and other assets	(1,223)	837
Accounts payable	4,823	(1,274)
Accrued expenses and other liabilities	11,511	(2,689)
Deferred revenues	(317)	—
Net cash provided by operating activities	37,690	44,008
Cash flows from investing activities:		
Investment in property, plant & equipment	(70,585)	(40,475)
Cash proceeds from sale of assets	17,487	2,954
Acquisition	(2,430)	—
Net cash used in investing activities	(55,528)	(37,521)
Cash flows from financing activities:		
Proceeds from issuance of long-term debt	189,730	187,622
Repayments of long-term debt	(157,387)	(197,598)
Payment of debt issuance costs	(1,145)	(1,043)
Other	55	—
Net cash (used in) provided by financing activities	31,253	(11,019)
Net (decrease) increase in cash and cash equivalents	13,415	(4,532)
Cash and cash equivalents, beginning of period	2,952	17,837
Cash and cash equivalents, ending of period	$ 16,367	$ 13,305
Supplemental cash flow information:		
Cash payments during the year for interest	$ 17,311	$ 17,694
Cash payments during the year for taxes	$ 110	$ 375
Non-cash transactions:		
Retirement of long-term debt by member	$ —	$ 10,549

See accompanying notes to consolidated and combined financial statements.

ProFrac Predecessor
Notes to the consolidated and combined financial statements
For the nine months ended September 30, 2021 and 2020
(amounts in thousands, except as noted)

1. Organization and description of business

ProFrac Predecessor consists of ProFrac Holdings, LLC and its subsidiaries ("ProFrac LLC"), Best Pump & Flow LP ("Best Flow") and Alpine Silica, LLC ("Alpine" and, together with ProFrac LLC and Best Flow, "ProFrac Predecessor" and "we," "us," "our" and the "Company") on a combined basis. Dan and Farris Wilks (or entities they control) (collectively, the "Wilks") hold a controlling interest in ProFrac LLC, Best Flow and Alpine. These financial statements present the historical financial information of ProFrac Predecessor on a consolidated and combined basis for all periods presented because these entities are under common control of the Wilks.

ProFrac Predecessor is a vertically integrated and innovation-driven energy services company providing hydraulic fracturing, completion services and other complementary products and services to leading upstream oil and gas companies engaged in the exploration and production ("E&P") of North American unconventional oil and natural gas resources. The operations of the ProFrac Predecessor are primarily focused in the Appalachian, East Texas/Louisiana and Permian Basins, where it has longstanding customer relationships. The ProFrac Predecessor operates in three business segments: stimulation services, manufacturing and proppant production.

2. Basis of presentation and summary of significant accounting policies

The accompanying unaudited consolidated and combined financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America ("U.S. GAAP") for interim financial information and Article 10 of Regulation S-X. Accordingly, they do not include all of the information and footnotes required by generally accepted accounting principles for complete financial statements. In our opinion, all adjustments considered necessary for a fair statement have been included in the accompanying unaudited financial statements. The consolidated and combined financial statements include the accounts of the Company and all majority-owned subsidiaries, and all intercompany transactions and balances have been eliminated in consolidation. Operating results for the nine-month period ended September 30, 2021 are not necessarily indicative of the results that may be expected for the full year ending December 31, 2021. The December 31, 2020 balance sheet information has been derived from the 2020 audited financial statements. The consolidated and combined financial statements should be read in conjunction with the audited consolidated financial statements and notes thereto for the year ended December 31, 2020 included in this filing.

Accounts receivable and allowance for doubtful accounts

Accounts receivable are recorded at invoiced amounts and generally do not bear interest. We routinely assess the financial strength of our customers and establish an allowance for doubtful accounts based upon various factors including historical collection experience, current aging status of customer accounts, current financial condition, as well as other factors. Losses are charged against the allowance when the customer accounts are determined to be uncollectible. The following table summarizes the rollforward of the allowance for doubtful accounts for the nine months ended September 30, 2021:

	Nine months ended September 30,	
	2021	2020
Beginning balance	$ (1,846)	$ (316)
Bad debt expense	(2,562)	(1,243)
Write-offs	30	1,243
Ending balance	$(4,378)	(316)

Revenue recognition

Effective January 1, 2019, the Company adopted the requirements of Accounting Standards Update (“ASU”) No. 2014-09, Revenue from Contracts with Customers (“ASC 606”), which defines the criteria required to recognize revenue when a performance obligation is satisfied by transferring control over a product or service to a customer.

The Company’s services are sold based upon contracts with customers. The Company recognizes revenue as it satisfies performance obligations by transferring control over a service or product to a customer. Payment terms are specified in each customer agreement and are typically a specific number of days following satisfaction of the performance obligation. The following are descriptions of the principal activities of each reportable segment from which the Company generates its revenue.

Stimulation services. We generate revenue through the provision of hydraulic fracturing services, which involves the injection of water, sand and chemicals under high pressure into formations to optimize hydrocarbon flow paths during the completion phase of wellbores. Our contracts with customers are short term in nature, typically less than four weeks, and have a single performance obligation, which is the contracted total stages, satisfied over time. Once a stage has been completed, a field ticket is created which includes charges for services performed and any inputs consumed during the service. The signing of the field ticket by a customer representative represents their acceptance of the service and agreement to the amounts to which the Company has the right to invoice and recognize as revenue. We believe that recognizing revenue based on actual stages completed, upon receipt of a signed field ticket, appropriately depicts how our hydraulic fracturing services are transferred to our customers over time.

Manufacturing. We generate revenue through sales of equipment used to perform oilfield services. The performance obligation is satisfied and revenues are recognized at the point-in-time that control of goods are transferred to the customer, generally upon shipment from our manufacturing facility. Payment terms are specified in each customer agreement and are typically a specific number of days following satisfaction of the performance obligation.

Proppant production. We generate revenue through the sale of frac sand to oilfield service providers and E&P companies. The performance obligation is satisfied and revenue is recognized at the point-in-time that control of the product is transferred to the customer, generally upon shipment from our facility. We charge our customers on a per-ton basis at current market prices. Payment terms are specified in each customer agreement and are typically a specific number of days following satisfaction of the performance obligation.

Taxes collected from customers and remitted to governmental authorities are accounted for on a net basis and are therefore excluded from revenues in the consolidated and combined statements of operations.

Profits interest grants

Class B "profits interest" units of ProFrac LLC ("Class B Units") entitle the holders to their respective percentage share of cash distributions either through ordinary course distributions or in connection with a business sale after all normal capital has been distributed.

On May 28, 2020, ProFrac LLC awarded ten Class B Units (effectively 1%) (the "Grant") to an executive. Under the terms of the award agreement, after recovery of Class A members' equity, additional returns are to be available for distribution between profits interest holders and the members in accordance with their respective residual ownership. Four of such Class B Units granted vested immediately and six Class B Units vest in equal annual installments of two Class B Units on the anniversary of the agreement date in 2021, 2022 and 2023. In connection with this offering, all such Class B Units will be forfeited.

Awards of profits interests must be evaluated as either unit-based payment arrangements or profit-sharing plans. The issuance of Class B Units was determined to be akin to a share-based payment arrangement. Accordingly, ProFrac LLC is required to estimate the value of any stock compensation as of the date of the award, and any related value is to be amortized over the vesting period. Due to the timing of the Grant issuance amid uncertainties early in the COVID-19 pandemic along with the then-depressed oil prices, the value of the vested portion of the Grant, which only becomes eligible to receive cash payouts after all Class A members' interests have been recovered, was determined to be insignificant.

Income taxes

The ProFrac Predecessor entities were organized as limited liability companies or a limited partnership and were treated as either a disregarded entity or a partnership for U.S. federal income tax purposes, whereby the ordinary business income or loss and certain deductions were passed-through and reported on the members' income tax returns. As such, the ProFrac Predecessor is not required to provide for U.S. federal income taxes and no provision for U.S. federal income tax expense or deferred tax asset or liability is reflected in the historical financial statements. However, certain states subject the ProFrac Predecessor to entity-level taxation. For the nine months ended September 30, 2021 and 2020, state tax (benefit) expense of $(0.1) million and $0.4 million was recognized. For any deferred tax assets recorded, the Company will assess the available positive and negative evidence to estimate whether sufficient future taxable income will be generated to utilize the existing deferred tax assets, and will record a valuation allowance when it is more likely than not that some portion of the deferred tax assets will not be realized.

Intangible assets

We amortize intangible assets with a finite life on a straight-line basis over the period which the asset is expected to contribute cash flows, ranging from seven years to seventeen years. The components of our intangible assets generally consist of license agreements and technology. See Note 5 – Intangible assets for additional information.

Acquisition

The Company obtained a controlling interest in EKU in January 2021 and performed a Purchase Price Allocation in conjunction with the consolidation of this subsidiary. We recognized net working capital of $2.5 million, property, plant and equipment of $0.4 million, intangible assets of $3.5 million and debt of $1.4 million at estimated fair value. See Note 5 – Intangible assets for additional information related to the recognized intangible assets.

New accounting standards to be adopted

We have not yet implemented Financial Accounting Standards Board (FASB) Accounting Standards Update (ASU) No. 2016-02, Leases (Topic 842). The ASU introduces a new accounting model for leases, which requires recognition of a right-of-use asset and lease liability on the balance sheet for operating leases. Implementation is not expected to have a material impact on our results of operations, however the Company expects to be required to recognize material assets or liabilities associated with the right to use certain leased assets upon adoption. We are required to adopt Topic 842 using the effective date of January 1, 2022, using the modified retrospective method. Under this adoption method, all leases that are in effect and existence as of, and after the transition date, with a cumulative impact to retained earnings in that period, The Company is continuing to evaluate the potential impact of adopting this standard.

We have not yet implemented FASB ASU No. 2016-13, Financial Instruments – Credit Losses. The ASU introduces a new accounting model, the Current Expected Credit Losses model (CECL), which requires earlier recognition of credit losses and additional disclosures related to credit risk. The CECL model utilizes a lifetime expected credit loss measurement objective for the recognition of credit losses for loans and other receivables at the time the financial asset is originated or acquired. The expected credit losses are adjusted each period for changes in expected lifetime credit losses. This model replaces the multiple existing impairment models previously used under U.S. GAAP, which generally require that a loss be incurred before it is recognized. The new standard also applies to financial assets arising from revenue transactions such as contract assets and accounts receivable. Implementation is currently required for fiscal years beginning after December 15, 2022. The Company does not believe implementation will have a material impact on its financial statements.

We have not yet implemented FASB ASU No. 2019-12, Income Taxes (Topic 740) – Simplifying the Accounting for Income Taxes, which removes specific exceptions to the general principles in Topic 740 in GAAP. The new guidance also improves the application of income tax-related guidance and simplifies GAAP for franchise taxes that are partially based on income, transactions with a government that result in a step up in the tax basis of goodwill, separate financial statements of legal entities that are not subject to tax, and enacted changes in tax laws in interim periods. The new guidance will be effective for fiscal years beginning after December 15, 2021, and interim periods within fiscal years beginning after December 15, 2022; however, early adoption is permitted. The Company is currently evaluating the impact of adopting the new guidance on the consolidated and combined financial statements.

3. Inventories

The following table summarizes the components of our inventories as of September 30, 2021 and December 31, 2020:

	September 30, 2021	December 31, 2020
Raw materials and supplies	$ 12,174	$ 10,492
Work in process	5,020	5,104
Finished products and parts	55,123	41,002
Total	$ 72,317	$ 56,598

4. Property, plant, and equipment

The following table summarizes the components of our property, plant, and equipment, net as of September 30, 2021 and December 31, 2020:

	September 30, 2021	December 31, 2020
Machinery and equipment	$ 741,531	$ 738,312
Mining property and mine development	4,809	4,809
Office equipment, software and other	5,487	4,820
Buildings and leasehold improvements	16,885	16,695
Total	768,712	764,636
Less: accumulated depreciation and depletion	(439,324)	(352,565)
Construction in progress	11,506	17,613
Property, plant, and equipment, net	$ 340,894	$ 429,684

Depreciation expense for the nine months ended September 30, 2021 and 2020 was $105.6 million and $113.8 million, respectively.

Major classifications of property, plant, and equipment and their respective useful lives are as follows:

Machinery and equipment	2 years—10 years
Office equipment, software, and other	3 years—7 years
Buildings and leasehold improvements	2 years—40 years

5. Intangible assets

The following table summarizes the components of our intangible assets at September 30, 2021 and December 31, 2020:

	September 30, 2021			December 30, 2020		
	Gross book value	Less: accumulated amortization	Net book value	Gross book value	Less: accumulated amortization	Net book value
Electric frac licenses	$22,500	$ —	$22,500	$ —	$ —	$ —
Technology	3,511	(378)	3,133	—	—	—
Intangible assets, net	$26,011	$ (378)	$25,633	$ —	$ —	$ —

Intangible assets are amortized over the period the Company expects to generate cash flows. As such, we will amortize each electric frac license through the remaining license period, beginning when the initial fleet built under each license is placed into service, a period we estimate to be 17 years. Amortization expense related to intangible assets was $0.4 million for the nine months ended September 30, 2021.

6. Indebtedness

The following table summarizes the components of our debt as of September 30, 2021 and December 31, 2020:

	September 30, 2021	December 31, 2020
Asset backed loans	$ 52,000	$ 41,000
Term loan	171,355	137,355
Main Street loan due July 2025	32,217	35,000
Best Flow notes payable(1)	31,880	—
Tractor notes	—	3,911
Best Flow Credit Facility(1)	8,784	37,303
Alpine Credit Facility(1)	17,374	21,135
Other	1,660	5,829
Total gross debt	315,270	281,533
Less: unamortized debt issuance costs	(5,118)	(5,820)
Less: current portion of long-term debt	(15,617)	(15,484)
Total long-term debt	$ 294,535	$ 260,229

(1) Related party debt agreements.

Asset backed loans

On March 14, 2018, ProFrac LLC entered into a senior secured asset-based revolving credit agreement (the “ABL Credit Facility”), with Barclays Bank PLC, as administrative agent and collateral agent (the “ABL Agent”), and the lenders party thereto. The ABL Credit Facility has a maturity date of March 14, 2023.

LIBOR borrowings under the ABL bear interest at the greater of LIBOR or 0.00%, plus a margin of 1.50% to 2.00%, depending on facility utilization. The interest rate was 2.75% as of September 30, 2021. Base rate loans are also available at our option.

The maximum availability of credit under the ABL is limited at any time to $105.0 million or a borrowing base, as defined in the credit agreement. The borrowing base is calculated on percentages of eligible accounts receivable and inventory and is subject to certain reserves. If the amount available under the ABL is less than either 15.0% of our maximum availability or $10.0 million, we will be required to maintain a minimum fixed charge coverage ratio of 1.0 to 1.0. Although we had availability in excess of this threshold, we were in compliance with this covenant as of December 31, 2020. If at any time borrowings and letters of credit issued under the ABL exceed the borrowing base, we will be required to repay an amount equal to such excess.

As of September 30, 2021, the borrowing base was $85.9 million, and the maximum availability therefore under the ABL was $85.9 million. As of September 30, 2021, there were $52.0 million of borrowings outstanding under the ABL, and letters of credit totaling $3.1 million were issued, resulting in $30.8 million of availability under the ABL.

The ABL Credit Facility contains certain customary representations and warranties and affirmative and negative covenants. The negative covenants include, subject to customary exceptions, limitations on indebtedness, dividends, distributions and other restricted payments, investments, acquisitions, prepayments of specified junior indebtedness, amendments of specified junior indebtedness, transactions with affiliates, dispositions, mergers and consolidations, liens, restrictive agreements, sale and leaseback transactions, changes in fiscal periods and changes in line of business.

Term Loan

On September 7, 2018, ProFrac LLC entered into a $180.0 million term loan agreement (“Term Loan”), which matures on September 15, 2023, with a group of lenders with Barclays Bank, PLC as administrative agent. Principal payments are due in quarterly installments, however due to prepayments made to date, there will be no required minimum amortization (other than excess cash flow prepayments) before termination of the Term Loan. Excess cash flow is calculated quarterly to determine any additional minimum prepayments. On June 24, 2021, ProFrac LLC and its Term Loan lenders reached an agreement to expand the facility by $40.0 million.

The Term Loan, as amended, requires minimum excess cash flow prepayments as follows, each due approximately 55 days after period-end: $0.0 million for the fiscal quarters ended March 31, 2021 through and including December 31, 2021, and $5.0 million for the fiscal quarters ended March 31, 2022 through and including June 30, 2023.

LIBOR borrowings under the Term Loan bear interest at the greater of LIBOR or 1.25%, plus a margin of 6.25% to 8.50%, depending on the total net leverage ratio as defined under the Term Loan. The interest rate was 9.75% as of September 30, 2021.

On May 29, 2020, one of the members of ProFrac LLC purchased and simultaneously retired a portion of the Term Loan. ProFrac LLC recognized the retirement of these notes, a non-cash transaction for ProFrac LLC, as a contribution of equity and reduction of long-term debt of $10,549, the face value of the notes retired.

The Term Loan contains certain restrictive covenants, including a financial covenant which requires ProFrac LLC to maintain a total net leverage ratio, as defined in the credit agreement, of no greater than 2.25:1.00 for the fiscal quarters ended September 30, 2019 through and including March 31, 2020, 3.50:1.00 for the fiscal quarters ended June 30, 2020 through and including March 31, 2021, 3.00:1.00 for the fiscal quarter ended June 31, 2021, 2.75:1.00 for the fiscal quarter ended September 30, 2021, 2.50:1.00 for the fiscal quarter ended December 31, 2021, and 2.00:1.00 for the fiscal quarter ended March 31, 2022 and thereafter. ProFrac LLC was in compliance with all required covenants as of September 30, 2021.

The Term Loan contains certain customary representations and warranties and affirmative and negative covenants. The negative covenants include, subject to customary exceptions, limitations on indebtedness, dividends, distributions and other restricted payments, investments, acquisitions, prepayments of specified junior indebtedness, amendments of specified junior indebtedness, transactions with affiliates, dispositions, mergers and consolidations, liens, restrictive agreements, changes in fiscal periods and changes in line of business.

Main Street Loan

On July 22, 2020, ProFrac LLC entered into a $35.0 million loan agreement with First Financial Bank, N.A. which matures on July 22, 2025 (“Main Street Loan”). The interest rate is LIBOR plus 3.00%, floating daily. In August 2021, the loan agreement was amended to delete the covenants in place prior to the amendment. As amended, the Main Street Loan contains certain restrictive covenants which require ProFrac LLC to maintain a Fixed Charge Coverage Ratio of at least 1.00:1.00, and a Maximum Leverage Ratio of 3.50:1.00. Additionally, the Main Street Loan restricts the payment of distributions or dividends, other than for the payment of taxes.

Best Flow notes payable

In 2021, Best Flow entered into a series of related party notes payable, the proceeds from which were used to pay down the Best Flow Credit Facility.

On January 25, 2021, Best Flow entered into a $15.0 million loan agreement with THRC Holdings and Farris Wilks and Equify Financial as an administrative agent, who are related parties, bearing interest of 8.0%, with a maturity date of January 25, 2023. This loan agreement is unsecured and is subject to monthly excess cash flow payments (as defined in the loan agreement). This new loan agreement is unsecured and is subject to monthly excess cash flow payments (as defined in the loan agreement). This loan agreement restricts the payment of distributions or dividends, other than for the payment of taxes. All amounts outstanding under this facility together with accrued interest were contributed to ProFrac LLC in exchange for equity interests in Pro Frac LLC on , 2021, and such debt was canceled in connection therewith.

On January 28, 2021, Best Flow issued a promissory note (the "Best Flow Note"), with Equify Financial, as holder. Equify Financial is a related party. The Best Flow Note provides for a term loan in an initial aggregate principal amount equal to $13.0 million. Proceeds from the Best Flow Note were utilized to pay down $7.6 million of outstanding balances on the Best Flow Credit Facility and to pay down other equipment financing agreements for $5.4 million. The Best Flow Note matures on February 1, 2026, with a fixed interest rate of 8.0%. The principal and interest are paid in equal monthly amortizing amounts through maturity. Prepaid amounts are subject to a 0.19% prepayment premium.

On June 1, 2021, Best Flow entered into a $3.0 million credit agreement with Wilks Brothers, who is a related party, bearing interest of 8.0%, with a maturity date of January 31, 2022. All amounts outstanding under this facility together with accrued interest were contributed to ProFrac LLC in exchange for equity interests in Pro Frac LLC on , 2021, and such debt was canceled in connection therewith.

Tractor notes

On May 9, 2018, ProFrac LLC entered into a $17.5 million loan agreement with First Financial Bank, N.A. which matured on November 9, 2020 ("Tractor Note A"). The interest rate on Tractor Note A was 5.35%.

On May 9, 2018, ProFrac LLC entered into a $12.5 million loan agreement with First Financial Bank, N.A. with a stated maturity date of April 9, 2021 ("Tractor Note B"). The interest rate on Tractor Note B was 5.35%. Tractor Note B contained certain restrictive covenants which required ProFrac LLC to maintain a Tangible Net Worth, as defined in the agreement, of at least $200.0 million, a Tangible Debt to Worth Ratio, as defined in the agreement, of no greater than 1.50:1.00, and a Consolidated Debt Service Coverage Ratio, as defined in the agreement, of at least 1.50:1.00. ProFrac LLC was not in compliance with the Tangible Net Worth covenant as of December 31, 2020; however, ProFrac LLC resolved this non-compliance by fully paying down Tractor Note B in January 2021.

On May 3, 2019, ProFrac LLC entered into a $5.5 million loan agreement with First Financial Bank, N.A. with a stated maturity date of November 3, 2021 ("Tractor Note C"). The interest rate on Tractor Note C was 6.10%. Tractor Note C contained certain restrictive covenants which required ProFrac LLC to maintain a Tangible Net Worth, as defined in the agreement, of at least $200.0 million, a Tangible Debt to Worth Ratio, as defined in the agreement, of no greater than 2.00:1.00, and a Consolidated Debt Service Coverage Ratio, as defined in the agreement, of at least 1.50:1.00. ProFrac LLC was not in compliance with the Tangible Net Worth covenant as of December 31, 2020; however, ProFrac LLC resolved this non-compliance by fully paying down Tractor Note C in January 2021.

Best Flow Credit Facility

On February 4, 2019, Best Flow entered into a revolving loan credit agreement (the "Best Flow Credit Facility"), with Equify Financial, LLC ("Equify Financial") as lender, Equify Financial is a related party. the Best Flow Credit Facility provided for a revolving credit facility in an aggregate principal amount at any time outstanding up to $9.0 million, subject to borrowing base availability. As of September 30, 2021, the Company had with $8.8 million in outstanding borrowings and $0.2 million of remaining availability. The Best Flow Credit Facility has a maturity date of February 4, 2026.

The interest rate under the Best Flow Credit Facility is the lesser of (i) the Prime Rate (as defined in the Best Flow Credit Facility) plus the applicable margin (3.50%) and (ii) the Maximum Rate (as defined in the Best Flow Credit Facility). All accrued but unpaid interest on the outstanding principal balance is due and payable monthly on the first day of each calendar month. The Best Flow Credit Facility is secured by a first lien on substantially all of the assets of Best Flow.

The Best Flow Credit facility is subject to mandatory prepayments of the entire amount of the excess if the unpaid balance of Advances (as defined in the Best Flow Credit Facility) exceeds the borrowing base then in effect. The Best Flow Borrower can voluntarily prepay all or any portion of the Obligations (as defined in the Best Flow Credit Facility).

The Best Flow Credit Facility contains certain customary representations and warranties and affirmative and negative covenants. The negative covenants include, subject to exceptions, limitations on indebtedness, dividends, distributions and other restricted payments, investments, acquisitions, prepayments of indebtedness, transactions with affiliates, dispositions, mergers and consolidations, liens, restrictive agreements, changes in fiscal periods and changes in line of business. The Best Flow Credit Facility contains certain customary events of default. If an event of default occurs and is continuing, the lenders may declare all loans to be immediately due and payable. Some events of default require an automatic termination of the loans and become immediately due and payable. As of September 30, 2021, we were in compliance with all of our covenants, and there were no existing defaults or events of default, related to the Best Flow Credit Facility.

Alpine Credit Facility

On October 25, 2018, Alpine entered a secured revolving credit agreement with Equify Financial, with a maximum loan availability of $25.3 million (the “Alpine Credit Facility”). The maturity date under the Alpine Credit Facility was November 25, 2020. Interest is paid monthly at a fixed rate of 8.0%. The revolving credit note is secured by a lien on, and security interest in, all of the assets of Alpine. Alpine had outstanding borrowings under the revolving credit note of $17.4 million and $21.1 million at September 30, 2021 and December 31, 2020, respectively. As of December 31, 2020, Alpine was not in compliance with the terms of the Alpine Credit Facility. Alpine renegotiated this credit agreement, and entered into a $21.4 million promissory note with Equify Financial in January 2021. This promissory note amortizes monthly, has an interest rate of 8.0% and matures in February 2027.

Other indebtedness

As of September 30, 2021 and December 31, 2020, the ProFrac Predecessor had other debt agreements outstanding with unpaid principal balances of $1.7 million and $5.8 million, respectively. These were primarily comprised of various equipment financing agreements. As of September 30, 2021, these agreements have a weighted average interest rate of 6.6% and a weighted average remaining term of 1.9 years.

7. Related party transactions

In the normal course of business, the ProFrac Predecessor has entered into transactions with related parties where the Wilks (or entities they control) hold a controlling financial interest. During the nine months ended September 30, 2021 and 2020, the ProFrac Predecessor had related party transactions with the following related party entities:

Automatize, LLC (“Automatize”) is a logistics technology company that coordinates proppant deliveries with trucking companies on behalf of its customers, including the ProFrac Predecessor. Amounts paid to Automatize are recorded in cost of revenues, exclusive of depreciation and depletion on our consolidated and combined statements of operations.

Cisco Logistics, LLC (“Cisco Logistics”) is a logistics company that delivers sand and equipment on behalf of its customers, including the ProFrac Predecessor. Amounts paid to Cisco Logistics are recorded in cost of revenues, exclusive of depreciation and depletion on our consolidated and combined statements of operations.

Equify Risk Services, LLC (“Equify Risk”) is an insurance broker that negotiates and secures insurance policies on behalf of its customers, including the ProFrac Predecessor. Amounts paid to Equify Risk are recorded in selling, general and administrative expenses on our consolidated and combined statements of operations.

Equify Financial, LLC (“Equify Financial”) is a finance company that provides equipment and other financing to its customers, including the ProFrac Predecessor. Amounts paid to Equify Financial are recorded in interest expenses on our combined statements of operations, and repayments of long-term debt on our consolidated and combined statements of cash flows. See Note 6—Indebtedness for additional disclosures related to related party credit agreements.

Wilks Brothers, LLC (“Wilks Brothers”) is a management company which provides administrative support to various businesses within their portfolio. Wilks Brothers and certain entities under its control will at times incur expenses on behalf of the ProFrac Predecessor, billing the ProFrac Predecessor for these expenses at cost as well as certain management fees. Amounts paid to Wilks Brothers are generally recorded in selling, general and administrative expenses on our consolidated and combined statements of operations. See Note 6—Indebtedness for additional disclosures related to related party credit agreements.

Interstate Explorations, LLC (“Interstate”) is an exploration and development company for which ProFrac LLC performs pressure pumping services, and from which the Company has a short-term lease for certain office space.

Flying A Pump Services, LLC (“Flying A”) is an oilfield services company which provides pump down and acid services, to which ProFrac LLC rents equipment.

MC Estates, LLC and the Shops at Willow Park, LLC (“Related Lessors”) own various industrial parks and office space leased by the ProFrac Predecessor. Amounts paid to Related Lessors are recorded in selling, general and administrative expenses on our consolidated and combined statements of operations.

Wilks Construction Company, LLC (“Wilks Construction”) is a construction company that has built and made renovations to several buildings for the Company. Amounts paid to Wilks Construction are recorded in capital expenditures on our consolidated and combined statements of cash flows.

3 Twenty-Three, LLC (“3 Twenty-Three”) is a payroll administrator which performs payroll services on behalf of its customers, including the ProFrac Predecessor. Amounts paid to 3 Twenty-Three are recorded in cost of revenues, exclusive of depreciation and depletion and selling, general and administrative expenses on our consolidated and combined statements of operations.

Carbo Ceramics Inc. (“Carbo”) and its subsidiaries is a provider of ceramic media and industrial technologies which purchased proppant from the Company.

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The following table summarizes expenditures with related parties for the nine months ended September 30, 2021 and 2020:

	Nine months ended September 30, 2021	2020
Automatize	$ 56,496	$ 19,399
Wilks Brothers	8,926	9,697
Related Lessors	4,719	3,126
Equify Financial	1,853	2,330
3 Twenty-Three	974	1,668
Carbo	513	131
Cisco Logistics	509	3,059
Interstate	56	21
Equify Risk	3	1,582
Wilks Construction	—	107
Other	81	—
Total	$ 74,130	$ 41,120

The following table summarizes related party accounts payable as of September 30, 2021 and December 31, 2020:

	September 30, 2021	December 31, 2020
Wilks Brothers	$ 8,906	$ 11,993
Automatize	12,636	5,633
Carbo	169	—
Cisco Logistics	85	671
Equify Financial	—	113
Wilks Construction	—	57
Related Lessors	1	21
Other	85	—
Total	$ 21,882	$ 18,488

The following table summarizes revenue from related parties for the nine months ended September 30, 2021 and 2020:

	Nine months ended September 30, 2021	2020
Flying A	$ 2,701	$ 110
Carbo	574	187
Interstate	113	11
Wilks Brothers	5	45
Automatize	3	701
Other	32	9
Total	$ 3,428	$ 1,063

The following table summarizes related party accounts receivable as of September 30, 2021 and December 31, 2020:

	September 30, 2021	December 31, 2020
Flying A	$ —	$ 549
Automatize	2	191
Carbo	301	116
Other	1	24
Total	$ 304	$ 880

The amounts above are reported net of an allowance for doubtful accounts related to Flying A, which was $2.8 million as of September 30, 2021.

Additionally, In January and February of 2021, ProFrac LLC executed two agreements with one of ProFrac LLC's members for the sale of certain lots of equipment, in exchange for $8.7 million in cash, an amount that approximates the net book value of the assets. Under these agreements, for any assets subsequently resold by the member, ProFrac LLC will reimburse the member for a certain percentage of the net loss, or conversely be entitled to a certain percentage of the net gain, at rates established in the agreements. As of September 30, 2021, the majority of the assets have been sold by the member, and ProFrac LLC's remaining liability of approximately $0.4 million for assets that have not been resold has been recorded.

8. Commitments and contingencies

Litigation

In the ordinary course of business, we are subject of, or party to a number of pending or threatened legal actions and administrative proceedings arising in the ordinary course of our business. While many of these matters involve inherent uncertainty, we believe that the amount of the liability, if any, ultimately incurred with respect to proceedings or claims will not have a material adverse effect on our consolidated financial position as a whole or on our liquidity, capital resources or future annual results of operations.

When deemed necessary, we establish reserves for certain legal proceedings. The establishment of a reserve is based on an estimation process that includes the advice of legal counsel and subjective judgment of management. While management believes these reserves to be adequate, it is reasonably possible we could incur additional losses with respect to those matters in which reserves have been established. We will continue to evaluate our litigation on a quarterly basis and will establish and adjust any litigation reserves as appropriate to reflect our assessment of the then current status of litigation. As of September 30, 2021, we have recorded an estimated liability of $4.0 million related to a contract dispute claim with a vendor, which is included in accrued expenses in our consolidated and combined balance sheets and in selling, general and administrative expense on our consolidated and combined statements of operations.

9. Segment information

Our business has three reportable segments: Stimulation services, Manufacturing and Proppant production. Each reportable segment represents a separate business unit that operated as a standalone company prior to the reorganization of ProFrac Holdings Corp. Following the reorganization, each reportable segment continues to have distinct management and prepares discreet financial information for the segment (consistent with when each operated as a standalone business). The Wilks, who are our Chief Operating Decision Makers ("CODMs"), review the discreet segment financial information, including Adjusted EBITDA as the measure of profitability, to evaluate the performance of our segments and make resource allocation decisions.

We account for intersegment transactions as if the transactions were with third parties, that is, at estimated current market prices. For the nine months ended September 30, 2021 and 2020, intersegment revenues for the manufacturing segment were 88% and 79%, respectively. For the nine months ended September 30, 2021 and 2020, intersegment revenues for the proppant production segment were 40% and 17%, respectively.

The performance of our segments is evaluated primarily on Adjusted EBITDA. We define Adjusted EBITDA as our net income (loss), before (i) interest expense, net, (ii) income tax provision, (iii) depreciation and depletion, (iv) loss on disposal of assets and (v) other unusual or non-recurring charges, such as costs related to our initial public offering, non-recurring supply commitment charges, certain bad debt expense and gain on extinguishment of debt.

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Segment information as of and for the nine months ended September 30, 2021 and 2020 is as follows:

	Nine months ended September 30, 2021	Nine months ended September 30, 2020
Revenues		
Stimulation services	$ 502,932	$ 405,326
Manufacturing	50,741	37,128
Proppant production	19,769	8,170
Total segments	573,442	450,624
Eliminations	(53,106)	(38,137)
Total	$ 520,336	$ 412,487
Cost of revenues, excluding depreciation, depletion and amortization		
Stimulation services	$ 391,302	$ 327,739
Manufacturing	41,091	33,573
Proppant production	9,890	3,500
Total segments	442,283	364,812
Eliminations	(53,106)	(38,137)
Total	$ 389,177	$ 326,675
Adjusted EBITDA		
Stimulation services	$ 75,027	$ 54,107
Manufacturing	3,181	1,809
Proppant production	8,069	3,261
Total segments	86,273	59,177
Eliminations	—	—
Total (a)	$ 86,277	$ 59,177
Depreciation, depletion and amortization		
Stimulation services	$ 96,289	$ 104,290
Manufacturing	2,630	2,080
Proppant production	6,687	7,402
Total	$ 105,606	$ 113,772
Capital expenditures		
Stimulation services	$ 67,539	$ 39,230
Manufacturing	2,128	1,019
Proppant production	918	226
Total	$ 70,585	$ 40,475
Total assets		
Stimulation services	$ 452,161	$ 489,220
Manufacturing	77,079	64,117
Proppant production	70,249	77,673
Total segment assets	599,489	631,010
Eliminations	(20,604)	(15,459)
Total	$ 578,885	$ 615,551

The following table sets forth the reconciliation of net loss to Segment Adjusted EBITDA in our consolidated and combined statements of operations:

	Nine months ended September 30,	
	2021	2020
Stimulation services—Adjusted EBITDA	$ 75,027	$ 54,107
Manufacturing—Adjusted EBITDA	3,181	1,809
Proppant production—Adjusted EBITDA	8,069	3,261
Total	$ 86,277	$ 59,177
Interest expense, net	(19,118)	(18,321)
Income tax benefit (provision)	138	(370)
Depreciation, depletion and amortization	(105,606)	(113,772)
Loss on disposal of assets, net	(7,472)	(5,382)
Bad debt expense	(2,562)	(1,243)
Supply commitment charges	—	(5,600)
Foreign currency translation adjustments	(116)	—
Net loss	$ (48,509)	$ (85,511)

9. Subsequent events

The ProFrac Predecessor has evaluated events subsequent to September 30, 2021 through November 19, 2021, the date these financial statements were made available to be issued, and report the following events:

(a) On October 21, 2021, ProFrac LLC agreed to acquire FTSI for approximately $407.5 million in cash pursuant to an Agreement and Plan of Merger (the “FTSI Merger Agreement”). FTSI is one of the largest providers of hydraulic fracturing services in North America.

The FTSI Merger Agreement includes a 45-day “go-shop” period that expires on December 5, 2021, during which time the FTSI board of directors (the “FTSI Board”) and its advisors are allowed to solicit alternative acquisition proposals from third parties. Following the end of the “go-shop” period, FTSI’s Board and its advisors are no longer allowed to solicit alternative acquisition proposals from third parties, but they are permitted to continue negotiations with parties that commenced negotiations during the “go-shop” period and to entertain proposals from parties received after the “go-shop” period that were not solicited by FTSI’s Board or its advisors. Subject to the terms and conditions in the FTSI Merger Agreement, FTSI’s Board will have the right to change its recommendation of the merger and/or terminate the FTSI Merger Agreement to enter into a superior acquisition proposal. If FTSI terminates the FTSI Merger Agreement to enter into a definitive written agreement with respect to a superior acquisition proposal, FTSI will be obligated to pay ProFrac LLC (i) a one-time fee equal to $7.8 million in cash if terminated prior to the “go-shop” period end date, or (ii) a one-time fee equal to $11.7 million in cash if terminated after the “go-shop” period end date. In addition, if ProFrac LLC terminates the FTSI Merger Agreement because FTSI’s Board withdraws or adversely modifies its recommendation that FTSI’s stockholders vote in favor of adopting the FTSI Merger Agreement, FTSI will be obligated to pay ProFrac LLC a one-time fee equal to $11.7 million in cash.

The consummation of the FTSI Acquisition is subject to the satisfaction or waiver of customary closing conditions, including, among others, approval by both a majority of FTSI’s stockholders as a whole as well as a majority of FTSI’s stockholders, excluding stockholders that are affiliates of ProFrac LLC, and receipt of regulatory approvals.

(b) In November 2021, we agreed to acquire West Munger, an in-basin Permian Basin frac sand resource for an aggregate of $30 million payable at the option of each West Munger seller in the form of cash, or following the closing of the public offering, our Class A common stock.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Board of Directors and Shareholders
ProFrac Holding Corp.

Opinion on the financial statements

We have audited the accompanying balance sheet of ProFrac Holding Corp. (the "Company") as of August 20, 2021, and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of August 20, 2021, in conformity with accounting principles generally accepted in the United States of America.

Basis for opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audit. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) ("PCAOB") and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audit we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audit included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. Our audit also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audit provides a reasonable basis for our opinion.

/s/ GRANT THORNTON LLP

We have served as the Company's auditor since 2021.

Dallas, Texas
September 9, 2021

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ProFrac Holding Corp.
Balance sheet

	August 20, 2021
Assets	
Receivable from stockholder	$ 10
Total assets	$ 10
Stockholder's equity	
Common stock, $0.01 par value; authorized 1,000 shares; 1,000 issued and outstanding	$ 10
Total stockholder's equity	$ 10

See accompanying notes to this balance sheet.

ProFrac Holding Corp.
Notes to the balance sheet

1. Nature of operations

ProFrac Holding Corp. (the "Company") was formed on August 17, 2021, pursuant to the laws of the State of Delaware to become a holding company for ProFrac Holdings, LLC and certain other affiliates.

2. Summary of significant accounting policies

Basis of presentation

This balance sheet has been prepared in accordance with accounting principles generally accepted in the United States of America. Separate statements of operations, statements of changes in stockholder's equity and statements of cash flows have not been presented because the Company has had no business transactions or activities to date.

3. Subsequent events

We have evaluated subsequent events subsequent to August 20, 2021 and through September 9, 2021, the date these financial statements were available to be issued and are not aware of any events that have occurred subsequent to August 20, 2021 that would require recognition or disclosure in these financial statements.

ProFrac Holding Corp.
Pro forma financial statements
(Unaudited)

Introduction

ProFrac Holding Corp., the issuer in this offering (together with its wholly owned subsidiaries, “ProFrac” or the “Company”), is a holding company formed to own an interest in, and act as the sole managing member of, ProFrac Holdings, LLC (“ProFrac LLC”). Our predecessor consists of ProFrac Holdings, LLC (“ProFrac LLC”), Best Pump and Flow, LP (“Best Flow”) and Alpine Silica, LLC (“Alpine” and, together with ProFrac LLC and Best Flow, “ProFrac Predecessor”) on a consolidated and combined basis. On , 2021, all of the then-outstanding membership interests in Best Flow and Alpine were contributed to ProFrac LLC in exchange for membership interests in ProFrac LLC.

The unaudited pro forma financial statements have been prepared in accordance with Article 11 of Regulation S-X, using assumptions set forth in the notes to the unaudited pro forma financial statements. The following unaudited pro forma financial statements of the Company reflect the historical results of ProFrac Predecessor, on a pro forma basis to give effect to the following transactions, which are described in further detail below:

- the corporate reorganization described in note 1 to the Unaudited Pro Forma Financial Statements;
- the initial public offering of shares of Class A common stock and the use of the net proceeds therefrom as described in “Use of Proceeds” (the “Offering”). For purposes of the unaudited pro forma financial statements, the Offering is defined as the planned issuance and sale to the public of shares of Class A common stock of the Company as contemplated by this prospectus, the contribution by the Company of the net proceeds of the Offering to ProFrac LLC and the investment by ProFrac LLC of such net proceeds in U.S. government securities, short-term certificates of deposit, cash equivalents, money market funds or other short-term investments or demand deposit accounts pending their application as described in the next succeeding bullet. The net proceeds from the sale of the Class A Common Stock (based on the initial public offering price of $ per share, the midpoint of the price range presented on the cover of this prospectus) are expected to be $ million, net of underwriting discounts of $ million and other additional offering costs of $ million; and
- (a) the completion of ProFrac LLC’s acquisition of FTSI in respect of which an agreement was signed October 21, 2021, for a purchase price of approximately $407.5 million, and which requires approval from a majority of the FTSI stockholders among other closing conditions, (b) the closing of ProFrac LLC’s new term loan (the “New Term Loan”) and (c) the application by ProFrac LLC of the net proceeds from the Offering together with borrowings under the New Term Loan to complete the FTSI Acquisition and repay and terminate all of the existing indebtedness and credit facilities of ProFrac LLC, Best Flow and Alpine, other than amounts outstanding under ProFrac LLC’s ABL Credit Facility.

This Offering is not conditioned upon the completion of the FTSI Acquisition or any of the related financing transactions described herein, and there can be no assurances that the FTSI Acquisition or any of the related financing transactions described herein will close.

The unaudited pro forma balance sheet of the Company is based on the historical balance sheet of ProFrac Predecessor as of September 30, 2021, and includes pro forma adjustments to give effect to the described transactions as if they had occurred on September 30, 2021. The unaudited pro forma statements of operations of the Company are based on the audited historical statement of operations of ProFrac Predecessor for the year ended December 31, 2020, and the unaudited historical statement of operations for the nine months ended September 30, 2021, as adjusted to give effect to the described transactions as if they occurred on January 1, 2020.

The unaudited pro forma financial statements have been prepared on the basis that the Company will be taxed as a corporation under the Internal Revenue Code of 1986 and, as a result, will be a tax-paying entity subject to U.S. federal and state taxes, and should be read in conjunction with “Corporate Reorganization” and with the audited historical financial statements and related notes of ProFrac Predecessor and the Company, included elsewhere in this prospectus.

ProFrac Holding Corp. will enter into the Tax Receivable Agreement with certain of the ProFrac LLC Unit Holders (each such person or its permitted transferees, a “TRA Holder”, and collectively the “TRA Holders”) at the closing of this offering. This agreement will generally provide for the payment by ProFrac Holding Corp. to each TRA Holder of 85% of the net cash savings, if any, in U.S. federal, state and local income tax and franchise tax (computed using simplifying assumptions to address the impact of state and local taxes) that ProFrac Holding Corp. actually realizes (or is deemed to realize in certain circumstances) in periods after this offering as a result of (i) certain increases in tax basis that occur as a result of ProFrac Holding Corp.’s acquisition (or deemed acquisition for U.S. federal income tax purposes) of all or a portion of such TRA Holder’s ProFrac LLC Units pursuant to the exercise of the Redemption Right or the Call Right and (ii) imputed interest deemed to be paid by ProFrac Holding Corp. as a result of, and additional tax basis arising from, any payments ProFrac Holding Corp. makes under the Tax Receivable Agreement. ProFrac Holding Corp. will be dependent on ProFrac LLC to make distributions to ProFrac Holding Corp. in an amount sufficient to cover ProFrac Holding Corp.’s obligations under the Tax Receivable Agreement. We will retain the benefit of the remaining 15% of any actual net cash tax savings.

The pro forma data presented reflect events directly attributable to the described transactions and certain assumptions the Company believes are reasonable. The pro forma data are not necessarily indicative of financial results that would have been attained had the described transactions occurred on the date indicated or which could be achieved in the future because they necessarily exclude various operating expenses, such as incremental general and administrative expenses associated with being a public company. The adjustments are based on currently available information and certain estimates and assumptions. Therefore, the actual adjustments may differ from the pro forma adjustments. However, management believes that the assumptions provide a reasonable basis for presenting the significant effects of the transactions as contemplated and the pro forma adjustments give appropriate effect to those assumptions and are properly applied in the unaudited pro forma financial statements.

The unaudited pro forma financial statements and related notes are presented for illustrative purposes only. If the Offering and other transactions contemplated herein had occurred in the past, the Company’s operating results might have been materially different from those presented in the unaudited pro forma financial statements. The unaudited pro forma financial statements should not be relied upon as an indication of operating results that the Company would have achieved if the Offering and other transactions contemplated herein had taken place on the specified date. In addition, future results may vary significantly from the results reflected in the unaudited pro forma financial statement of operations and should not be relied upon as an indication of the future results the Company will have after the contemplation of the Offering and the other transactions contemplated by these unaudited pro forma financial statements.

ProFrac Holding Corp.
Pro forma balance sheet

September 30, 2021
(Unaudited)
(Amounts in thousands, except share and per share data)

	ProFrac predecessor historical	Offering and corporate reorganization (Note 2)	ProFrac holding corporation pro Forma	FTSI acquisition (Note 3)	ProFrac holding corporation and FTSI combined pro forma
Assets					
Current assets:					
Cash and equivalents	$ 16,367	$	$	$	$
Accounts receivable	103,660	—	103,660	55,037	158,697
Accounts receivable—related party	304	—	304	—	304
Prepaid expenses	9,188	—	9,188	4,847	14,035
Inventories	72,317	—	72,317	36,405	108,722
Total current assets	201,836				
Property, plant, and equipment, net	340,894	—	340,894	289,556	630,450
Goodwill and intangible assets	25,633	—	25,633	15,100	40,733
Other assets	10,522	—	10,522	1,527	12,049
Total assets	$ 578,885	$	$	$	$
Liabilities and equity					
Current liabilities:					
Accounts payable	$ 75,096	—	$ 75,096	$ 56,983	$ 132,079
Accounts payable—related party	21,882	—	21,882	—	21,882
Accrued expenses	42,328	—	42,328	23,568	65,896
Current portion of long-term debt	15,617	—	15,617		
Other current liabilities	—	—	—	310	310
Total current liabilities	154,923	—	154,923		
Long-term debt	241,445	—	241,445		
Long-term debt—related party	53,090	(18,000)	35,090		
Other liabilities	—	—	—	2,033	2,033
Total liabilities	449,458	(18,000)	431,458		
Commitments and contingencies					
Temporary equity	—				
Equity					
Class A common stock, $0.01 par value; no shares authorized, issued or outstanding (Actual Historical); shares authorized, shares issued and outstanding, As Adjusted)	—			—	
Class B common stock, $0.01 par value; no shares authorized, issued or outstanding (Actual Historical); shares authorized, shares issued and outstanding, As Adjusted)	—			—	
Additional paid-in capital	—			—	
Accumulated deficit	—	—	—		
Equity	128,303		—	—	
Noncontrolling interest	1,083	—	1,083	—	1,083
Accumulated other comprehensive income	41	—	41	—	41
Total equity	129,427				
Total liabilities and equity	$ 578,885	$	$	$	$

The accompanying notes are an integral part of these unaudited pro forma financial statements.

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ProFrac Holding Corp.
Pro forma statement of operations
For year ended December 31, 2020

(Unaudited)
(Amounts in thousands, except per share data)

	ProFrac predecessor historical	Offering and corporate reorganization (Note 2)	ProFrac holding corporation Pro forma	FTSI acquisition (Note 3)	ProFrac holding corporation and FTSI combined pro forma
Revenues	$ 547,679	$ —	$ 547,679	$ 262,929	$ 810,608
Operating costs and expenses:					
Cost of revenues, exclusive of depreciation, depletion and amortization	432,570	—	432,570	221,344	653,914
Depreciation, depletion and amortization	150,662	—	150,662	105,353	256,015
Loss on disposal of assets, net	8,447	—	8,447	57	8,504
Selling, general, and administrative	50,798	—	50,798	61,614	112,412
Impairments and other charges	—	—	—	25,280	25,280
Total operating costs and expenses	642,477	—	642,477	413,648	1,056,125
Operating loss	(94,798)	—	(94,798)	(150,719)	(245,517)
Other (expense) income:					
Gain on extinguishment of debt, net	—	—	—	1,949	1,949
Reorganization items, net	—	—	—	101,199	101,199
Interest expense, net	(23,276)	1,200	(22,076)		
Other income	108	—	108	—	108
Loss before income tax provision	(117,966)	1,200	(116,766)	(76,454)	
Income tax provision	(582)	—	(582)	(214)	(796)
Net (loss) income	(118,548)	1,200	(117,348)	(76,668)	
Net loss attributable to noncontrolling interest	—				
Net (loss) income attributable to ProFrac Holdings Corporation	$(118,548)	$	$	$	$
Loss per share:					
Basic	$	$	$	$	$
Diluted	$	$	$	$	$

The accompanying notes are an integral part of these unaudited pro forma financial statements.

ProFrac Holding Corp.
Pro forma statement of operations
For nine months ended September 30, 2021
(Unaudited)
(Amounts in thousands, except per share data)

	ProFrac predecessor historical	Offering and corporate reorganization (Note 2)	ProFrac holding corporation pro forma	FTSI acquisition (Note 3)	ProFrac holding corporation and FTSI combined pro forma
Revenues	$ 520,336	$ —	$ 520,336	$ 286,608	$ 806,944
Operating costs and expenses:					
Cost of revenues, exclusive of depreciation and depletion	389,177	—	389,177	227,283	616,460
Depreciation and depletion	105,606	—	105,606	65,335	170,941
Loss on disposal of assets, net	7,472	—	7,472	1,587	9,059
Selling, general, and administrative	47,919	—	47,919	35,787	83,706
Total operating costs and expenses	550,174	—	550,174	329,992	880,166
Operating loss	(29,838)	—	(29,838)	(43,384)	(73,222)
Other (expense) income:					
Interest expense, net	(19,118)	980	(18,138)		
Reorganization items, net	—	—	—	(793)	(793)
Other income	148	—	148	—	148
Loss before income tax provision	(48,808)	980	(47,828)		
Income tax provision	138	—	138	191	329
Net loss	$ (48,670)	$ 980	$ (47,690)	$	$
Net loss attributable to noncontrolling interest	(161)				
Net loss attributable to ProFrac Holdings Corporation	$ (48,509)	$	$	$	$
Loss per share:					
Basic	$	$	$	$	$
Diluted	$	$	$	$	$

ProFrac Holding Corp.
Notes to unaudited pro forma financial statements

1. Basis of presentation, the offering and reorganization

The historical financial information is derived from the financial statements of ProFrac Predecessor included elsewhere in this prospectus. For purposes of the unaudited pro forma balance sheet, it is assumed that the transactions had taken place on September 30, 2021. For purposes of the unaudited pro forma statements of operations, it is assumed all transactions had taken place on January 1, 2020.

Upon closing the Offering, the Company expects to incur direct, incremental general and administrative expenses as a result of being publicly traded, including, but not limited to, costs associated with annual and quarterly reports to stockholders, tax return preparation, independent auditor fees, investor relations activities, registrar and transfer agent fees, incremental director and officer liability insurance costs, and independent director compensation. These direct, incremental general and administrative expenditures are not reflected in the historical financial statements or in the unaudited pro forma financial statements.

The Company was incorporated as a Delaware corporation on August 17, 2021. Following this offering, the Company will be a holding company whose sole material assets consist of membership interests in ProFrac LLC, which owns all of our operating assets. Following this offering, the Company will be the sole managing member of ProFrac LLC and will be responsible for all operational, management and administrative decisions relating to ProFrac LLC's business and will consolidate the financial results of ProFrac LLC and its subsidiaries.

Immediately prior to completion of this offering, we will engage in the following additional series of transactions, which, together with the Offering, are collectively referred to in this prospectus as our "corporate reorganization":

- all of the membership interests (including any outstanding profits interests) in ProFrac LLC held by its existing owners of ProFrac LLC (the "Pre-IPO Owners") will be converted into a single class of common units in ProFrac LLC ("ProFrac LLC Units");
- certain of the Pre-IPO Owners (the "Exchanging Owners") will transfer all of their ProFrac LLC Units to ProFrac Holding Corp. in exchange for shares of Class A common stock;
- the remaining Pre-IPO Owners will continue to hold ProFrac LLC Units (such holders, the "ProFrac LLC Unit Holders");
- ProFrac Holding Corp. will issue to each ProFrac LLC Unit Holder a number of shares of Class B common stock equal to the number of ProFrac LLC Units held by such ProFrac LLC Unit Holder following this offering;
- ProFrac Holding Corp. will issue shares of Class A common stock to purchasers in this offering in exchange for the proceeds of this offering; and
- ProFrac Holding Corp. will contribute the net proceeds of this offering to ProFrac LLC in exchange for a number of ProFrac LLC Units such that ProFrac Holding Corp. holds a total number of ProFrac LLC Units equal to the number of shares of Class A common stock outstanding following this offering.

To the extent the underwriters' option to purchase additional shares is exercised in full or in part, the Company will contribute the net proceeds therefrom to ProFrac LLC in exchange for an additional number of ProFrac LLC Units equal to the number of shares of Class A common stock issued pursuant to the underwriters' option.

After giving effect to these transactions and this Offering and assuming the underwriters' option to purchase additional shares is not exercised, the Company will own an approximate % interest in ProFrac LLC (or % if the underwriters' option to purchase additional shares is exercised in full), and the ProFrac LLC Unit Holders will own an approximate % interest in ProFrac LLC (or % if the underwriters' option to purchase additional shares is exercised in full) and all of our Class B common stock.

2. Pro forma adjustments and assumptions related to the offering and corporate reorganization transactions

The following table summarizes the pro forma balance sheet adjustments related to the Offering and the Corporate Reorganization transactions (in thousands):

	ProFrac predecessor historical	Offering and corporate reorganization transactions	ProFrac holding corporation pro forma
Assets			
Current assets:			
Cash and equivalents	$ 16,367	$ (b)	$
Accounts receivable	103,660	—	103,660
Accounts receivable—related party	304	—	304
Prepaid expenses	9,188	—	9,188
Inventories	72,317	—	72,317
Total current assets	201,836		
Property, plant, and equipment, net	340,894	—	340,894
Goodwill and intangible assets	25,633	—	25,633
Other assets	10,522	—	10,522
Total assets	$ 578,885	$	$
Liabilities and equity			
Current liabilities:			
Accounts payable	$ 75,096	—	$ 75,096
Accounts payable—related party	21,882	—	21,882
Accrued expenses	42,328	—	42,328
Current portion of long-term debt	15,617	—	15,617
Total current liabilities	154,923	—	154,923
Long-term debt	241,445	—	241,445
Long-term debt—related party	53,090	(18,000)(a)	35,090
Total liabilities	449,458	(18,000)	431,458
Commitments and contingencies			
Temporary equity	—	(c)	
Equity			
Class A common stock, $0.01 par value; no shares authorized, issued or outstanding (Actual Historical); shares authorized, shares issued and outstanding, As Adjusted)	—	(b)	
Class B common stock, $0.01 par value; no shares authorized, issued or outstanding (Actual Historical); shares authorized, shares issued and outstanding, As Adjusted)	—	(b)	
Additional paid-in capital	—	(b, c)	
Accumulated deficit	—	—	—
Members' Equity	128,303	(a, b, c)	—
Noncontrolling interest	1,083	—	1,083
Accumulated other comprehensive income	41	—	41
Total equity	129,427		
Total liabilities and equity	$ 578,885	$	$

The Company made the following adjustments and assumptions in the preparation of the unaudited pro forma financial statements:

(a) Prior to the Offering, related party debt between THRC Holdings, LP, Farris Wilks and Wilks Brothers, LLC and Best Flow, with a principal amount of $18 million was contributed to ProFrac LLC in exchange for equity in ProFrac LLC. ProFrac LLC further contributed this debt to Best Flow and the debt was cancelled.

(b) Reflects the issuance and sale of shares of Class A Common Stock at the initial public offering price of $ per share, the midpoint of the price range presented on the cover of this prospectus, net of underwriting discounts and commissions of $ million, in the aggregate, and additional estimated expenses related to the Offering of approximately $ million. Reflects the issuance of shares of Class B Common Stock, par value of $0.01 per share, to the ProFrac LLC Unit Holders in exchange for all of the members' equity, non-controlling interest and accumulated earnings.

(c) Reflects the recognition of noncontrolling interest as temporary equity at its fair value at issuance of $ million, and a reclassification of members' equity and accumulated earnings of $ million to additional paid-in capital. Each ProFrac LLC Unit Holder will, subject to certain limitations, have the right to cause ProFrac LLC to acquire all or a portion of its ProFrac LLC Units (together with an equivalent number of shares of our Class B common stock) for, at ProFrac LLC's election, shares of our Class A common stock at a redemption ratio of one share of Class A common stock for each ProFrac LLC Unit redeemed or an equivalent amount of cash. As a result of this cash redemption right, we have presented the associated Class B common stock as temporary equity on our pro forma balance sheet.

ProFrac LLC will use the net proceeds from the Offering for general corporate purposes, including for the repayment of debt and to fund growth capital expenditures and the use of the net proceeds therefrom as follows:

- For purposes of the unaudited pro forma financial statements, the Offering is defined as the planned issuance and sale to the public of shares of Class A common stock of the Company as contemplated by this prospectus, the contribution by the Company of the net proceeds of the Offering to ProFrac LLC and the investment by ProFrac LLC of such net proceeds in U.S. government securities, short-term certificates of deposit, cash equivalents, money market funds or other short-term investments or demand deposit accounts pending their application as described in the next succeeding bullet. The net proceeds from the sale of the Class A Common Stock (based on the initial public offering price of $ per share, the midpoint of the price range presented on the cover of this prospectus) are expected to be $ million, net of underwriting discounts of $ million and other additional offering costs of $ million; and

- (a) the completion of ProFrac LLC's acquisition of FTSI in respect of which a definitive agreement was signed October 21, 2021, for a purchase price of approximately $407.5 million, and which requires approval from a majority of the FTSI stockholders among other closing conditions, (b) the closing of the New Term Loan and (c) the application by ProFrac LLC of the net proceeds from the Offering together with borrowings under the New Term Loan to complete the FTSI Acquisition and repay and terminate all of the existing indebtedness and credit facilities of ProFrac LLC, Best Flow and Alpine, other than amounts outstanding under ProFrac LLC's ABL Credit Facility. This pro forma adjustment is included in Note 3 to the pro forma financial information.

Subsequent to the corporate reorganization, the Company will consolidate the results of ProFrac Predecessor.

Income taxes and tax receivable agreement

The corporate reorganization transactions result in the Company's earnings being subject to federal and state income tax as a subchapter C corporation using a blended statutory rate of approximately 23% for the year ended December 31, 2020 and the nine months ended September 30, 2021. This rate is inclusive of U.S. federal and state taxes. However, we have not recognized our expected net deferred tax assets and no pro forma income tax benefit is presented, as we have concluded that it is more likely than not that we will not be able to realize our net deferred tax assets.

The Company will enter into the Tax Receivable Agreement with certain of the ProFrac LLC Unit Holders (each such person or its permitted transferees, a “TRA Holder”, and collectively the “TRA Holders”) at the closing of this offering. This agreement will generally provide for the payment by the Company to each TRA Holder of 85% of the net cash savings, if any, in U.S. federal, state and local income tax and franchise tax (computed using simplifying assumptions to address the impact of state and local taxes) that the Company actually realizes (or is deemed to realize in certain circumstances) in periods after this offering as a result of (i) certain increases in tax basis that occur as a result of the Company’s acquisition (or deemed acquisition for U.S. federal income tax purposes) of all or a portion of such TRA Holder’s ProFrac LLC Units in connection with this offering or pursuant to the exercise of the Redemption Right or the Call Right and (ii) imputed interest deemed to be paid by the Company as a result of, and additional tax basis arising from, any payments the Company makes under the Tax Receivable Agreement. The Company will be dependent on ProFrac LLC to make distributions to the Company in an amount sufficient to cover the Company’s obligations under the Tax Receivable Agreement. We do not currently anticipate that the Company will acquire (or be deemed to acquire for U.S. federal income tax purposes) any ProFrac LLC Units from TRA Holders in connection with this offering or related transactions. Consequently, we currently anticipate that any Tax Receivable Agreement payment obligations will arise only in connection with any future exercises of the Redemption Right in periods following the offering and related transactions and that no Tax Receivable Agreement payment obligations will arise in connection with the offering or related transactions. As a result, we have not reflected any pro forma adjustments relating to the Tax Receivable Agreement. Even if any acquisition (or deemed acquisition) of ProFrac LLC Units from TRA Holders were to occur in connection with the offering or related transactions, we do not currently believe it is likely that tax benefits relating thereto will result in the realization of actual cash tax savings by the Company or that payments under the Tax Receivable Agreement would be probable and, consequently, do not expect we would reflect any pro forma adjustments relating to the Tax Receivable Agreement in such case.

If we experience a change of control (as defined under the Tax Receivable Agreement) or the Tax Receivable Agreement otherwise terminates early, ProFrac Holding Corp.’s obligations under the Tax Receivable Agreement could have a substantial negative impact on our liquidity and could have the effect of delaying, deferring or preventing certain mergers, asset sales, or other forms of business combinations or changes of control. For example, if we were to experience a change of control or the Tax Receivable Agreement was otherwise terminated immediately after this offering, the estimated termination payments would, in the aggregate, be approximately $ million (calculated using a discount rate equal to (i) the greater of (A) 0.25% and (B) a per annum rate of SOFR, plus (ii) 150 basis points, applied against an undiscounted liability of $ million calculated at the 21% U.S. federal corporate income tax rate and estimated applicable state and local income tax rates). The foregoing amount is merely an estimate and the actual payment could differ materially.

The following table summarizes the pro forma adjustments on our statements of operations related to the Offering and the Corporate Reorganization transactions (in thousands):

	ProFrac predecessor historical	Offering and corporate reorganization transactions	ProFrac holding corporation pro forma
Year ended December 31, 2020			
Interest expense, net	$ (23,276)	1,200(e)	(22,076)
Net loss attributable to noncontrolling interest	—	(f)	
Nine months ended September 30, 2021			
Interest expense, net	(19,118)	980(e)	(18,138)
Net loss attributable to noncontrolling interest	(161)	(f)	

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(e) Reflects the pro forma reduction in interest expense for the retirement of $18 million of debt with a fixed interest rate of 8%.

(f) Reflects the pro forma allocation of net loss to the noncontrolling interest related to the ProFrac LLC Units held outside of ProFrac Holding Corporation.

3. Pro forma adjustments related to the acquisition

On October 21, 2021, ProFrac LLC entered an agreement to acquire FTSI for a purchase price of approximately $407.5 million. The acquisition requires approval from a majority of the FTSI stockholders and other closing conditions, and we expect to complete our acquisition of 100% of the outstanding shares of FTSI in the first quarter of 2022.

We have accounted for the probable acquisition of FTSI in the unaudited pro forma condensed combined financial information using the acquisition method of accounting. We use our best estimates and assumptions to assign fair value to the tangible and intangible assets expected to be acquired and liabilities expected to be assumed at the acquisition date. The determination and preliminary allocation of the purchase consideration used in the unaudited pro forma condensed combined financial information are subject to change during the measurement period (up to one year from the date the acquisition closes) as we finalize the valuations of the net tangible and intangible assets acquired and liabilities assumed. The unaudited pro forma adjustments are not necessarily indicative of or intended to represent the results that would have been achieved had the FTSI Acquisition been consummated as of the dates indicated or that may be achieved in the future. The actual results reported by the Company in periods following the FTSI Acquisition may differ significantly from those reflected in the unaudited pro forma financial statements for a number of reasons, including cost synergies and the effect of the incremental costs incurred to integrate FTSI.

The Company has performed a preliminary valuation analysis of the fair market value of FTSI's assets and liabilities. The following table summarizes the allocation of the preliminary purchase price as of September 30, 2021 (in thousands):

Assets acquired:	
Cash and cash equivalents	$ 87,922
Accounts receivable	55,037
Prepaid expenses and other assets	4,847
Inventories	36,405
Property, plant and equipment	289,556
Goodwill and intangible assets	15,100
Other assets	1,527
Total assets acquired	490,394
Liabilities assumed:	
Accounts payable	56,983
Accrued expenses	23,698
Other current liabilities	310
Other non-current liabilities	1,903
Total liabilities assumed	82,894
Net assets acquired	$ 407,500

The preliminary purchase price allocation has been used to prepare pro forma adjustments in the pro forma balance sheet and statements of operations. The final purchase price allocation will be determined when the Company has completed the detailed valuations and necessary calculations. The final allocation could differ materially from the preliminary allocation used in the pro forma adjustments. The final allocation may include (i) changes in the fair value of property, plant and equipment, (ii) changes to intangible assets and goodwill and (iii) other changes to assets and liabilities.

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The following table reflects the adjustments made to the FTSI consolidated balance sheet as of September 30, 2021, to the adjustments presented in the preparation of our pro forma balance sheet (in thousands):

	As reported FTSI historical	Conforming accounting policy adjustments	Purchase price adjustments	Acquisition financing adjustments	FTSI acquisition
Assets					
Current assets:					
Cash and equivalents	$ 87,922	$ —	$ —	$ (c)	$
Accounts receivable	55,037	—	—	—	55,037
Prepaid expenses	4,847	—	—	—	4,847
Inventories	36,405	—	—	—	36,405
Total current assets	184,211	—	—		
Property, plant, and equipment, net	129,145	—	160,411(b)	—	289,556
Goodwill and intangible assets	6,997	—	8,103(b)	—	15,100
Operating lease right-to-use assets	3,036	(3,036)(a)	—	—	—
Other assets	1,527	—	—	—	1,527
Total assets	$ 324,916	$ (3,036)	$ 168,514	$	$
Liabilities and equity					
Current liabilities:					
Accounts payable	$ 56,983	—	—	—	$ 56,983
Accrued expenses	13,842	626(a)	9,100(b)	—	23,568
Current portion of operating lease liabilities	1,759	(1,759)(a)	—	—	—
Current portion of long term debt	—	—	—	(c)	
Other current liabilities	310	—	—	—	310
Total current liabilities	72,894	(1,133)	9,100		
Long-term debt	—	—	—	(c)	
Long-term debt-Related party	—	—	—	(c)	
Operating lease liabilities	1,903	(1,903)(a)	—	—	—
Other liabilities	2,033	—	—	—	2,033
Total liabilities	76,830	(3,036)	9,100		
Commitments and contingencies					
Temporary Equity	—	—	—	(c)	
Equity					
Preferred stock	—	—	—	—	—
Common stock	141	—	(141)(b)	—	—
Additional paid-in capital	281,836	—	125,664(b)	(c)	—
Accumulated deficit	(33,891)	—	33,891(b)	(c)	
Total equity	248,086	—	159,414(b)		
Total liabilities and equity	$ 324,916	$ (3,036)	$ 168,514	$	$

(a) The ProFrac Predecessor has not implemented Financial Accounting Standards Board (FASB) Accounting Standards Update (ASU) No. 2016-02, Leases (Topic 842). This adjustment adjusts the FTSI balance sheet to conform presentation with the ProFrac Predecessor.

(b) Reflects the preliminary purchase price adjustments as disclosed in our preliminary purchase price allocation.

(c) Reflects (i) the payment of the purchase price of FTSI of approximately $407.5 million, (ii) entry into the New Term Loan (as described below), (iii) repayment and termination all of the existing indebtedness and credit facilities of ProFrac LLC, Best Flow and Alpine, other than ProFrac LLC's ABL Credit Facility, and (iv) and recognition of a $ million loss on debt extinguishment. In connection with the completion of the FTSI Acquisition, we anticipate ProFrac LLC will enter into a new term loan facility with a principal amount of $ million bearing interest at the Secured Overnight Financing Rate ("SOFR"), plus % and debt issuance costs of %. The loss on debt extinguishment is allocated % to the Company and % to the noncontrolling interest presented as temporary equity.

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The following table summarizes the pro forma adjustments on the FTSI statements of operations for the year ended December 31, 2020, related to the acquisition (in thousands):

	FTSI historical	Acquisition adjustments	Reclassification adjustments	Noncontrolling interest	FTSI acquisition
Revenues	$ 262,929	$ —	$ —	$ —	$ 262,929
Operating costs and expenses:					
Cost of revenues, exclusive of depreciation and depletion	221,344	—	—	—	221,344
Depreciation and depletion	73,271	32,082(a)	—	—	105,353
Loss on disposal of assets, net	57	—	—	—	57
Selling, general, and administrative	52,509	—	9,105(c)	—	61,614
Impairments and other charges	34,385	—	(9,105)(c)	—	25,280
Total operating costs and expenses	381,566	32,082	—	—	413,648
Operating loss	(118,637)	(32,082)	—	—	(150,719)
Other (expense) income:					
Gain on debt extinguishment, net	1,949	—	—	—	1,949
Reorganization items, net	101,199	—	—	—	101,199
Interest expense, net	(22,096)	(b)	—	—	
Other income	—	—	—	—	—
Loss before income tax provision	(37,585)		—	—	
Income tax provision	(214)				(214)
Net loss	$ (37,799)	$	$ —	$ —	$
Net loss attributable to noncontrolling interest	—	—	—	(d)	
Net loss attributable to ProFrac Holdings Corporation	$ (37,799)	$	$ —	$	$

(a) Reflects the additional depreciation, depletion and amortization expense related to our preliminary purchase price allocation. The estimated values for identified long-lived assets, including intangibles and goodwill could materially differ in our finalized purchase price allocation.

(b) Reflects (i) the additional interest expense associated with the New Term Loan and (ii) the reduction of interest expense for the repayment and termination all of the existing indebtedness and credit facilities of ProFrac LLC, Best Flow and Alpine, other than ProFrac LLC's ABL Credit Facility. A hypothetical increase or decrease in floating interest rates of 0.125% would increase or decrease our pro forma interest expense by $.

(c) Reflects the reclassification of supply commitment charges to selling, general and administrative expense to reflect presentation of the ProFrac Predecessor.

(d) Reflects the pro forma allocation of net loss to the noncontrolling interest related to the ProFrac LLC Units held outside of ProFrac Holding Corporation.

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The following table summarizes the pro forma adjustments on the FTSI statements of operations for the nine months ended September 30, 2021, related to the acquisition (in thousands):

	FTSI historical	Acquisition adjustments	Reclassification adjustments	Noncontrolling interest	FTSI acquisition
Revenues	$286,608	$ —	$ —	$ —	$ 286,608
Operating costs and expenses:					
Cost of revenues, exclusive of depreciation and depletion	227,283	—	—	—	227,283
Depreciation and depletion	41,273	24,062(a)	—	—	65,335
Loss on disposal of assets, net	1,587	—	—	—	1,587
Selling, general, and administrative	34,726	—	1,061(c)	—	35,787
Impairments and other charges	1,061	—	(1,061)(c)	—	—
Total operating costs and expenses	305,930	24,062	—	—	329,992
Operating loss	(19,322)	(24,062)	—	—	(43,384)
Other (expense) income:					
Interest expense, net	(238)	(b)	—	—	(3,930)
Reorganization items, net	(793)	—	—	—	(793)
Loss before income tax provision	(20,353)		—	—	
Income tax provision	(191)	—	—	—	(191)
Net loss	$ (20,544)	$	$ —	$ —	$
Net loss attributable to noncontrolling interest	—	—	—	(d)	
Net loss attributable to ProFrac Holdings Corporation	$ (20,544)	$	$ —	$	$

(a) Reflects the additional depreciation, depletion and amortization expense related to our preliminary purchase price allocation. The estimated values for identified long-lived assets, including intangibles and goodwill could materially differ in our finalized purchase price allocation.

(b) Reflects (i) the additional interest expense associated with the New Term Loan and (ii) the reduction of interest expense for the repayment and termination all of the existing indebtedness and credit facilities of ProFrac LLC, Best Flow and Alpine, other than ProFrac LLC's ABL Credit Facility. A hypothetical increase in floating interest rates of 0.125% would increase our pro forma interest expense by $.

(c) Reflects the reclassification of transaction costs and other legal fees to selling, general and administrative expense to reflect presentation of the ProFrac Predecessor.

(d) Reflects the pro forma allocation of net loss to the noncontrolling interest related to the ProFrac LLC Units held outside of ProFrac Holding Corporation.

4. Earnings per share

The following table reflects basic and diluted earnings (loss) per common share for the issuance of shares of Class A Common Stock in the corporate reorganization and the Offering as shown below:

	Year ended December 31, 2020	Nine months ended September 30, 2021
BASIC		
Net income (loss) attributable to stockholders	$	$
Shares issued in the corporate reorganization and the Offering		
Basic EPS	$	$
DILUTED		
Numerator:		
Net income (loss) attributable to stockholders	$	$
Effect of dilutive securities		
Diluted net income (loss) attributable to stockholders	$	$
Denominator:		
Basic weighted average shares outstanding		
Effect of dilutive securities		
Diluted weighted average shares outstanding		
Diluted earnings (loss) per share		

Basic earnings per share measures the performance of an entity over the reporting period. Diluted earnings per share measures the performance of an entity over the reporting period while giving effect to all potentially dilutive common shares that were outstanding during the period. The Company uses the “if-converted” method to determine the potential dilutive effect of its Class B common stock. The Company uses the “treasury stock” method to determine the potential dilutive effect of its management incentive units. On a pro forma basis for the year ended December 31, 2020, and the nine months ended September 30, 2021, the Class B common stock and management incentive units were not recognized in dilutive earnings per share calculations as they would have been antidilutive.

Report of independent registered public accounting firm

Board of Directors and Stockholders
FTS International, Inc.

Opinion on the financial statements

We have audited the accompanying consolidated balance sheets of FTS International, Inc. (a Delaware corporation) and subsidiaries (the "Company") as of December 31, 2020 (Successor) and 2019 (Predecessor), the related consolidated statements of operations, cash flows, and stockholders' equity (deficit) for the period from November 20, 2020 through December 31, 2020 (Successor), the period from January 1, 2020 through November 19, 2020 (Predecessor), and each of the two years in the period ended December 31, 2019 (Predecessor), and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2020 (Successor) and 2019 (Predecessor), and the results of its operations and its cash flows for the period November 20, 2020 through December 31, 2020 (Successor), the period from January 1, 2020 through November 19, 2020 (Predecessor), and each of the two years in the period ended December 31, 2019 (Predecessor), in conformity with accounting principles generally accepted in the United States of America.

Emergence from bankruptcy

As discussed in Note 2 to the consolidated financial statements, on November 4, 2020, the United States Bankruptcy Court for the District of Delaware entered an order confirming the plan for reorganization, which became effective on November 19, 2020. Accordingly, the accompanying consolidated financial statements have been prepared in conformity with Financial Accounting Standards Board Accounting Standards Codification® (ASC) 852, *Reorganizations*, for the Successor as a new entity with assets, liabilities and a capital structure having carrying amounts not comparable with Predecessor periods, as described in Note 3.

Basis for opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) ("PCAOB") and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical audit matter

The critical audit matter communicated below is a matter arising from the current period audit of the financial statements that was communicated or required to be communicated to the audit committee and that: (1) relates to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Valuation of intangible assets in association with fresh start accounting

As described further in Note 2 and Note 3 to the consolidated financial statements, the Company emerged from Chapter 11 Bankruptcy on November 19, 2020. In connection with the Company's emergence from bankruptcy and in accordance with ASC 852, Reorganizations, the Company qualified for and adopted fresh start accounting. Management calculated a reorganization value of $266.3 million, which represents the fair value of the Successor Company's assets before considering liabilities and allocated value to its individual assets based on their estimated fair values. We identified the valuation of intangible assets associated with fresh start accounting as a critical audit matter.

The principal considerations for our determination that the valuation of intangible assets associated with fresh start accounting is a critical audit matter are that there is high estimation uncertainty due to the significant management judgments with respect to assumptions used to estimate fair value of intangible assets, including revenue forecasts, relief from royalty rates and discount rates. Such uncertainty requires greater auditor subjectivity in evaluating the appropriateness of those assumptions.

Our audit procedures related to the valuation of intangible assets associated with fresh start accounting included the following, among others.

- We utilized a valuation specialist to assist us in evaluating the methodologies used and whether they were acceptable for the underlying assets and being applied correctly.
- We evaluated the reasonableness of the revenue forecasts and revenue growth rate by comparing them to fleet projections and pricing considerations, including publicly available industry data, and historical operating results.
- We compared royalty data from similar industry transactions to management's royalty rate and evaluated the profit split analysis for reasonableness.
- We evaluated the appropriateness of the discount rate by recalculating the weighted-average cost of capital and evaluating future market conditions.
- We evaluated the qualifications of the third-party valuation specialist engaged by the Company based on their credentials and experience

/s/ GRANT THORNTON LLP

We have served as the Company's auditor since 2015.

Dallas, Texas
March 5, 2021

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FTS INTERNATIONAL, INC.
Consolidated statements of operations

(In millions, except per share amounts)	Successor Period from November 20, through December 31, 2020	Predecessor Period from January 1 through November 19, 2020	Years ended December 31, 2019	Years ended December 31, 2018
Revenue				
Revenue	$ 22.6	$ 239.6	$ 775.7	$1,450.4
Revenue from related parties	—	0.7	0.9	92.9
Total revenue	22.6	240.3	776.6	1,543.3
Operating expenses				
Costs of revenue (excluding depreciation of $4.6, $65.2, $82.5 and $75.9, respectively, included in depreciation and amortization below)	24.1	197.2	573.9	1,033.2
Selling, general and administrative	4.7	47.8	89.1	87.9
Depreciation and amortization	4.8	68.5	90.0	84.7
Impairments and other charges	0.3	34.1	74.6	19.2
Loss (gain) on disposal of assets, net	—	0.1	(1.4)	(0.1)
Total operating expenses	33.9	347.7	826.2	1,224.9
Operating (loss) income	(11.3)	(107.4)	(49.6)	318.4
Interest expense, net	—	(22.1)	(30.7)	(49.3)
Gain (loss) on extinguishment of debt, net	—	2.0	1.2	(9.8)
Equity in net income of joint venture affiliate	—	—	0.6	1.1
Gain on sale of equity interest in joint venture affiliate	—	—	7.0	—
Reorganization items, net	(2.1)	103.3	—	—
(Loss) income before income taxes	(13.4)	(24.2)	(71.5)	260.4
Income tax expense	—	0.2	1.4	2.0
Net (loss) income	$ (13.4)	$ (24.4)	$ (72.9)	$ 258.4
Net (loss) income attributable to common stockholders	$ (13.4)	$ (24.4)	$ (72.9)	$ 681.6
Basic and diluted (loss) earnings per share attributable to common stockholders	$ (0.96)	$ (4.54)	$(13.40)	$ 130.88
Shares used in computing basic and diluted (loss) earnings per share (in thousands)	13,990	5,377	5,440	5,208

The accompanying notes are an integral part of these consolidated financial statements.

FTS INTERNATIONAL, INC.
Consolidated balance sheets

(In millions, except share amounts)	Successor December 31, 2020	Predecessor December 31, 2019
ASSETS		
Current assets		
Cash and cash equivalents	$ 94.0	$ 223.0
Accounts receivable, net	26.9	77.0
Inventories	29.0	45.5
Prepaid expenses and other current assets	19.5	7.0
Total current assets	169.4	352.5
Property, plant, and equipment, net	132.3	227.0
Operating lease right-of-use assets	4.5	26.3
Intangible assets, net	7.4	29.5
Other assets	1.4	4.0
Total assets	$ 315.0	$ 639.3
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities		
Accounts payable	$ 26.9	$ 36.4
Accrued expenses	12.5	22.9
Current portion of operating lease liabilities	3.0	14.3
Other current liabilities	0.3	11.6
Total current liabilities	42.7	85.2
Long-term debt	—	456.9
Operating lease liabilities	3.3	13.9
Other liabilities	2.4	45.6
Total liabilities	48.4	601.6
Commitments and contingencies (Note 13)		
Stockholders' equity		
Successor Preferred stock, $0.01 par value, 5,000,000 shares authorized	—	—
Successor Common stock Class A, $0.01 par value, 49,000,000, authorized, 13,677,664 issued and outstanding at December 31, 2020		
Successor Common stock Class B, $0.01 par value, 1,000,000, authorized, 312,306 issued and outstanding at December 31, 2020	0.1	—
Predecessor Common stock, $0.01 par value, 320,000,000, authorized 5,355,370 shares issued and outstanding at December 31, 2019	—	36.4
Additional paid-in capital	279.9	4,382.0
Accumulated deficit	(13.4)	(4,380.7)
Total stockholders' equity	266.6	37.7
Total liabilities and stockholders' equity	$ 315.0	$ 639.3

The accompanying notes are an integral part of these consolidated financial statements.

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FTS INTERNATIONAL, INC.
Consolidated statements of cash flows

(In millions)	Successor: Period from November 20, through December 31, 2020	Predecessor: Period from January 1 through November 19, 2020	Predecessor: Years ended December 31, 2019	Predecessor: Years ended December 31, 2018
Cash flows from operating activities				
Net (loss) income	$ (13.4)	$ (24.4)	$ (72.9)	$ 258.4
Adjustments to reconcile net (loss) income to net cash provided by (used in) operating activities:				
Depreciation and amortization	4.8	68.5	90.0	84.7
Stock-based compensation	0.4	10.9	15.4	15.2
Amortization of debt discounts and issuance costs	—	2.0	1.8	2.5
Impairment of assets	—	—	9.7	—
Loss (gain) on disposal of assets, net	—	0.1	(1.4)	(0.1)
(Gain) loss on extinguishment of debt, net	—	(2.0)	(1.2)	9.8
Non-cash provision for supply commitment charges	—	9.1	58.5	19.2
Cash paid to settle supply commitment charges	—	(31.3)	(17.6)	(5.3)
Gain sale of equity interest in joint venture affiliate	—	—	(7.0)	—
Inventory write-down	—	5.1	6.4	—
Non-cash reorganization items	—	(118.7)	—	—
Other non-cash items	—	0.9	4.7	(1.6)
Changes in operating assets and liabilities:				
Accounts receivable	3.2	46.0	79.0	72.7
Accounts receivable from related parties	—	—	—	3.0
Inventories	2.2	6.9	14.0	(22.6)
Prepaid expenses and other assets	(0.1)	(3.8)	(1.5)	2.8
Accounts payable	5.5	(13.9)	(47.3)	(41.6)
Accrued expenses and other liabilities	0.3	(1.9)	(6.7)	(12.3)
Net cash provided by (used in) operating activities	2.9	(46.5)	123.9	384.8
Cash flows from investing activities				
Capital expenditures	(1.5)	(19.6)	(54.4)	(100.5)
Proceeds from disposal of assets	—	0.2	3.3	1.9
Proceeds from sale of equity interest in joint venture affiliate	—	—	30.7	—
Net cash used in investing activities	(1.5)	(19.4)	(20.4)	(98.6)
Cash flows from financing activities				
Repayments of long-term debt	—	(20.6)	(46.4)	(625.1)
Payments to secured debtholders	—	(30.7)	—	—
Repurchases of common stock	—	—	(9.9)	—
Taxes paid related to net share settlement of equity awards	—	(0.3)	(2.0)	(1.1)

	Successor	Predecessor		
	Period from November 20, through December 31,	Period from January 1 through November 19,	Years Ended December 31,	
(In millions)	2020	2020	2019	2018
Net proceeds from issuance of common stock	—	—	—	303.0
Payments of revolving credit facility issuance costs	—	(0.2)	—	(2.4)
Net cash used in financing activities	—	(51.8)	(58.3)	(325.6)
Net increase (decrease) in cash, cash equivalents, and restricted cash	1.4	(117.7)	45.2	(39.4)
Cash, cash equivalents, and restricted cash at beginning of period	105.3	223.0	177.8	217.2
Cash, cash equivalents, and restricted cash at end of period	$ 106.7	$ 105.3	$223.0	$ 177.8
Supplemental cash flow information:				
Interest paid	$ —	$ 14.6	$ 31.0	$ 48.1
Income tax payments, net	$ —	$ 0.4	$ 2.5	$ 2.3
Supplemental disclosure of noncash investing activities:				
Capital expenditures included in accounts payable	$ 0.5	$ 0.2	$ 0.9	$ 4.0
Operating lease liabilities incurred from obtaining right-of-use assets	$ 0.1	$ 0.6	$ 11.0	$ —
Operating lease liabilities and right-of-use assets derecognized due to lease terminations	$ —	$ 10.2	$ 3.2	$ —

The accompanying notes are an integral part of these consolidated financial statements.

FTS INTERNATIONAL, INC.
Consolidated statements of stockholders' equity (deficit)

(Dollars in millions and shares in thousands)	Common stock Shares	Common stock Amount	Additional paid-in capital	Accumulated deficit	Total stockholders' equity (deficit)
Balance at January 1, 2018 Predecessor	2,589	$ 35.9	$ 3,712.1	$ (4,566.3)	$ (818.3)
Net income	—	—	—	258.4	258.4
Activity related to stock plans	8	—	14.0	—	14.0
Recapitalization of convertible preferred stock to common stock	1,971	0.4	349.4	—	349.8
Issuance of common stock	904	0.1	302.9	—	303.0
Balance at December 31, 2018 Predecessor	5,472	36.4	4,378.4	(4,307.9)	106.9
Net loss	—	—	—	(72.9)	(72.9)
Cumulative effect of accounting change	—	—	—	0.1	0.1
Activity related to stock plans	31	—	13.5	—	13.5
Repurchases of common stock	(148)	—	(9.9)	—	(9.9)
Balance at December 31, 2019 Predecessor	5,355	36.4	4,382.0	(4,380.7)	37.7
Net loss	—	—	—	(24.4)	(24.4)
Activity related to stock plans	101	—	25.9	—	25.9
Balance at November 19, 2020 Predecessor	5,456	36.4	4,407.9	(4,405.1)	39.2
Cancellation of Predecessor Equity	(5,456)	(36.4)	(4,407.9)	4,405.1	(39.2)
Balance at November 19, 2020 Predecessor	—	$ —	$ —	$ —	$ (0.0)
Issuance of Successor Common Stock	13,990	0.1	279.5	—	279.6
Balance at November 19, 2020 Successor	13,990	0.1	279.5	—	279.6
Net loss	—	—	—	(13.4)	(13.4)
Activity related to stock plans	—	—	0.4	—	0.4
Balance at December 31, 2020 Successor	13,990	$ 0.1	$ 279.9	$ (13.4)	$ 266.6

The accompanying notes are an integral part of these consolidated financial statements.

FTS International, Inc.
Notes to consolidated financial statements

Note 1—Description of business

Throughout the notes to these consolidated financial statements, the terms “the Company,” “we,” “us,” “our” or “ours” refer to FTS International, Inc., together with its consolidated subsidiaries.

Certain prior year financial statements are not comparable to our current year financial statements due to the adoption of fresh start accounting. References to “Successor” or “Successor Company” relate to the financial position and results of operations of the reorganized Company subsequent to November 19, 2020. References to “Predecessor” or “Predecessor Company” relate to the financial position and results of operations of the Company prior to, and including, November 19, 2020.

We are one of the largest providers of hydraulic fracturing services in North America. Our services enhance hydrocarbon flow from oil and natural gas wells drilled by exploration and production (“E&P”), companies in shale and other unconventional resource formations. Our customers include leading E&P companies that specialize in unconventional oil and natural gas resources in North America. We operate in the most active oil and gas basins in the United States. Substantially all of our business activities support our well completion services. We manage our business, allocate resources, and assess our financial performance on a consolidated basis; therefore, we do not have separate operating segments.

In 2014, the Predecessor Company entered into a joint venture agreement with the Sinopec Oilfield Service Corporation (“Sinopec”). This joint venture collaboration offered hydraulic stimulation services in China. The joint venture company, SinoFTS Petroleum Services Ltd. (“SinoFTS”), was owned 55% by Sinopec and 45% by the Company. SinoFTS serves both Sinopec and other E&P companies in China. In August 2019, FTSI closed on the sale of its 45% equity ownership interest in SinoFTS, to Sinopec. In exchange, FTSI, through its affiliate FTS International Netherlands B.V., received consideration of $26.9 million for the sale of its equity interest, and through FTS International Services, LLC, received a royalty fee of $5.8 million for a license for its intellectual property use and for future limited support of the joint venture’s operations. After conducting an analysis of the relative fair values of the equity interest and royalty fee, FTSI allocated $30.7 million of the total consideration received to the sale of its equity interest and $2.0 million to the prepaid royalty fee. FTSI recognized a gain of $7.0 million on the sale of its equity interest. The prepaid royalty fee will be recognized over approximately six years.

Concentrations of risk

Our business activities are concentrated in the well completion services segment of the oilfield services industry in the United States. The market for these services is cyclical, and we depend on the willingness of our customers to make operating and capital expenditures to explore for, develop, and produce oil and natural gas in the United States. The willingness of our customers to undertake these activities depends largely upon prevailing industry conditions that are predominantly influenced by current and expected prices for oil and natural gas. Historically, a low commodity-price environment has caused our customers to significantly reduce their hydraulic fracturing activities and the prices they are willing to pay for those services. During these periods, these customer actions materially adversely affected our business, financial condition and results of operations.

Our customer base has historically been concentrated. Our business, financial condition and results of operations could be materially adversely affected if one or more of our significant customers ceases to engage us for our services on favorable terms, or at all, or fails to pay, or delays in paying, us significant amounts of our outstanding receivables. For the Successor period of November 20, 2020 to December 31, 2020 we had 6 customers make up over 10% of our consolidated revenue. These six customers represented 81% of our consolidated revenue; this level of customer concentration is partially due to the short time period included in the Successor period and may not be representative of customer concentration levels over a longer time period, such as a full fiscal year. For the Predecessor period of January 1, 2020 through November 19, 2020 we had one customer make up over 10% of our consolidated revenue. This customer represented 12% of our consolidated revenue. For the year ended December 31, 2019 we had two customers make up over 10% of our consolidated revenue. These two customers represented 26% of our consolidated revenue. For the year ended December 31, 2018 we had two customers make up over 10% of our consolidated revenue. These two customers represented 24% of our consolidated revenue. The loss of any of our largest existing customers could have a material adverse effect on our results of operations. While we view revenue as an important metric in assessing customer concentration, we also compare and manage our customer portfolio based on the number of fleets we place with each customer.

Related parties

We have historically provided services and sold equipment to Chesapeake Energy Corporation and its affiliates ("Chesapeake"), which beneficially owned approximately 20% of the Predecessor's common stock, and had the right to designate two individuals to serve on our board of directors prior to November 19, 2020. Revenue earned from Chesapeake was $0.7 million, $0.1 million and $92.9 million in Predecessor period of 2020, 2019 and 2018, respectively. At both December 31, 2020 and 2019, we had accounts receivable balances of zero from Chesapeake.

We sold equipment to SinoFTS for zero, $0.9 million and $0.3 million in 2020, 2019 and 2018, respectively. All revenue earned from SinoFTS is based on prevailing market prices. At both December 31, 2020 and 2019, we had accounts receivable balances of zero from this related party.

Note 2—Restructuring

On September 22, 2020, FTS International, Inc., FTS International Services, LLC, and FTS International Manufacturing, LLC filed petitions for voluntary relief (the "Chapter 11 Cases") under Chapter 11 of Title 11 of the United States Code (the "Bankruptcy Code") in the United States Bankruptcy Court for the Southern District of Texas, Houston Division (the "Bankruptcy Court"). On September 22, 2020, FTSI International, Inc., FTS International Services, LLC, and FTS International Manufacturing, LLC filed the Joint Prepackaged Chapter 11 Plan of Reorganization of FTS International, Inc. and its Debtor Affiliates (as amended, modified or supplemented, the "Plan") and the related disclosure statement (the "Disclosure Statement"). On November 4, 2020, the Bankruptcy Court entered an order (the "Confirmation Order") confirming the Plan, as modified by the Confirmation Order, and approving the Disclosure Statement.

On November 19, 2020 (the "Effective Date"), the Plan became effective in accordance with its terms and FTS International, Inc., FTS International Services, LLC and FTS International Manufacturing, LLC emerged from Chapter 11. Pursuant to the Plan, on the Effective Date, all agreements, instruments, and other documents evidencing, relating to or otherwise connection with any of our common stock or other equity interests outstanding prior to the Effective Date (collectively, the "legacy equity interests") were cancelled and such legacy equity interests have no further force or effect after the Effective Date. Holders of our legacy equity interests received (i) a number of shares of Class A common stock equal to their proportionate distribution of approximately 9.4% of our common stock under the Plan (subject to dilution by the warrants issued pursuant to the Plan and the Amended and Restated Equity and Incentive Compensation Plan (the "MIP")), (ii) their proportionate distribution of 1,555,521 Tranche 1 Warrants to acquire Class A common stock and (iii) their proportionate distribution of 3,888,849 Tranche 2 Warrants to acquire Class A common stock.

In addition, pursuant to the Plan, on the Effective Date, all outstanding obligations under the 6.25% senior secured notes due May 1, 2022 (the “Notes”) were cancelled and the indenture governing such obligations was cancelled, and the credit agreement, dated as of April 16, 2014, by and among FTS International, Inc., the lenders party thereto, and Wilmington Savings Fund Society, FSB, as successor administrative agent (the “Term Loan Agreement”), was cancelled, in each case except to the limited extent expressly set forth in the Plan. On the Effective Date, all liens and security interests granted to secure such obligations were automatically terminated and are of no further force and effect. The holders of Notes and holders of the claims under the Term Loan Agreement received their proportionate distribution of approximately 90.1% of our common stock (subject to dilution by the warrants issued pursuant to the Plan and the MIP) plus their pro rata share of $30.7 million cash distribution. The holders of claims in connection with the termination of the supply agreement between the Predecessor and Covia Holding Corporation received, in exchange for their claims, a $12.5 million cash distribution and 0.5% of our common stock (subject to dilution by the warrants issued pursuant to the Plan and the MIP).

Shares of Class A common stock were also issued to a holder of certain termination claims under the Plan.

Note 3—Fresh start accounting

Fresh start accounting

Upon emergence from bankruptcy, we met the criteria and were required to adopt fresh start accounting in accordance with ASC Topic 852, Reorganizations, which on the emergence date resulted in a new entity, the Successor, for financial reporting purposes, with no beginning retained earnings or deficit as of the fresh start reporting date. The criteria requiring fresh start accounting are: (i) the holders of then-existing voting shares of the Predecessor received less than 50 percent of the new voting shares of the Successor outstanding upon emergence from bankruptcy, and (ii) the reorganization value of the Company’s assets immediately prior to confirmation of the Plan was less than the total of all post-petition liabilities and allowed claims.

The Company applied fresh start accounting effective November 19, 2020, the Effective Date. As such, fresh start accounting is reflected in the accompanying consolidated balance sheet as of December 31, 2020 and related fresh start adjustments are included in the accompanying statement of operations for the period from January 1, 2020 through November 19, 2020. As a result of the application of fresh start accounting and the effects of the implementation of the Plan, the financial statements for the period after November 19, 2020 will not be comparable with the financial statements prior to and including November 19, 2020.

Reorganization value

Reorganization value represents the fair value of the Successor’s total assets and is intended to approximate the amount a willing buyer would pay for the assets immediately after restructuring. Under fresh start accounting, the Company allocated the reorganization value to its individual assets based on their estimated fair values.

The Company’s reorganization value is derived from an estimate of enterprise value. Enterprise value represents the estimated fair value of an entity’s long-term debt and other interest-bearing liabilities and stockholders’ equity less unrestricted cash and cash equivalents. The Company estimated the enterprise value of the Successor to be $266 million at the Effective Date, which was in the Bankruptcy Court approved range of $190 million and $290 million. The enterprise value was derived from an independent valuation with the assistance of a third-party valuation advisor. Specific valuation approaches and key assumptions used to arrive at the reorganization value, and the value of discrete assets and liabilities resulting from the application of fresh start accounting, are described below in greater detail within the valuation process.

Although the Company believes the assumptions and estimates used to develop enterprise value and reorganization value are reasonable and appropriate, different assumptions and estimates could materially impact the analysis and resulting conclusions. The assumptions used in estimating these values are inherently uncertain and require judgment. The following table reconciles the Company's enterprise value to the fair value of the Successor's common stock as of the Effective Date.

(In millions)	November 19, 2020
Enterprise value	$ 266.3
Plus: Excess cash(1)	13.3
Fair value of Successor equity	$ 279.6

The following table reconciles the Company's enterprise value to the reorganization value as of the Effective Date:

(In millions)	November 19, 2020
Enterprise value	$ 266.3
Plus: Excess cash(1)	13.3
Plus: Current liabilities	36.4
Plus: Non-interest-bearing non-current liabilities	6.2
Reorganization value of Successor assets	$ 322.2

(1) Excess cash of $13.3 million is calculated by taking the Company's Successor cash and cash equivalents balance of $88.3 million less $75.0 million of minimum cash required to operate the business as determined by management. The minimum cash required to operate the business of $75.0 million was also utilized in the estimation of the range of enterprise values included in the Plan and approved by the Bankruptcy Court.

Valuation process

The fair values of our principal assets, including inventories, land, buildings, and improvements, service equipment, and intangible assets were estimated with the assistance of third-party valuation advisors as of the Effective Date. In addition, we also estimated the fair value of the Company's warrants as of the Effective Date.

Inventories

Inventories include parts, chemicals, and other raw materials. The fair value of the parts inventory was determined using a combination of the cost and income approaches. The cost approach estimates the fair value of an asset based on the cost to reconstruct or replace it with another of similar utility, with adjustments for physical deterioration and identified obsolescence. The income approach was used to quantify the economic support available for the parts inventory based on the enterprise value estimated for the Company. For the chemicals and other materials inventory, the Company determined that the book value as the proxy for fair value.

Property, plant, and equipment

Land, buildings, and improvements

The fair value of land, buildings, and improvements was determined using a combination of the cost and market approaches. To determine the fair value of buildings and site improvements, the cost and market approaches were used. As part of the valuation process, information was obtained describing physical attributes such as land and building size, construction dates, and general improvement details. In applying the cost approach, the replacement cost was determined based on the current cost to construct improvements with similar utility, using modern materials and current standards, design, and layout. To determine the fair value of land and improvements, the market approach was used based on third party databases identifying listings of recent sales and comparable properties within pertinent market areas.

Service equipment and other

The fair value of the service equipment and other was estimated using a combination of the cost, market, and income approaches. The cost approach was primarily utilized, with the application of the market approach for selected assets based upon the specific characteristics being appraised. The cost approach measures the value of an asset based on the cost to reconstruct or replace it with another of similar utility, with adjustments for physical deterioration and identified obsolescence. The market approach measures the value of an asset through an analysis of recent sales or offerings of comparable assets. The income approach was used to quantify the economic support available for the service equipment and other based on the enterprise value estimated for the Company.

Intangible assets

The fair value of intangible assets such as customer relationships, in-house developed software, and tradename was determined using a combination of the cost, market, and income approaches. To determine the fair value of customer relationships, the income approach was used based on the present value of the incremental after-tax cash flows attributable to the existing customer cash flow after deducting the appropriate contributory asset charges. The discount rate utilized to present-value the after-tax cash flows was selected based on consideration of the overall business risks and risks associated with the asset being valued. To determine the fair value of the in-house developed software, the cost replacement method, a form of the cost approach, was used. To determine the fair value of the tradename, the Royalty Savings Method, a variation of the income approach, was used. The estimated royalty rate was determined by observing publicly available royalty rates information for similar companies with similar assets. The forecasted cash flows expected to be generated as a result of the royalty savings were discounted to present value utilizing a discount rate considering overall business risks and risks associated with the asset being valued.

Warrants

The fair value of the warrants issued upon the Effective Date was estimated using the Black-Scholes-Merton option pricing model. The Black-Scholes-Merton model is an option pricing model used to estimate the fair value of options and warrants based on the following input assumptions: stock price, strike price, term, risk-free rate, volatility, and dividend yield. In using the Black-Scholes-Merton option pricing model to fair value the warrants, the following assumptions were used: market observable stock price on the Effective Date; strike prices of $33.04 and $37.14 for Tranche 1 and Tranche 2 warrants, respectively; expected volatility of 65.0%; risk-free rate of 0.22%; and an expected dividend yield of 0.0%. The expected volatility assumption was estimated using market data related to the Company and certain similar publicly traded entities with considerations for differences in size and leverage of the Company versus the publicly traded entities. The strike prices and term assumptions were based on the contractual term of the warrants. The risk-free rate assumption was based on United States Constant Maturity Treasury rates.

Consolidated balance sheet

The following illustrates the effects on the Company's consolidated balance sheet due to the reorganization and fresh start accounting adjustments. The explanatory notes following the table below provide further details on the adjustments, including the assumptions and methods used to determine fair value for its assets, liabilities, and warrants.

	As of November 19, 2020 (in millions)					
	Predecessor company	Reorganization adjustments		Fresh start adjustments		Successor company
ASSETS						
Current assets						
Cash and cash equivalents	$ 146.7	$ (58.4)	(a)	$ —		$ 88.3
Accounts receivable, net	30.1	—		—		30.1
Inventories	33.5	—		(2.2)	(k)	31.3
Prepaid expenses and other current assets	19.0	10.1	(b)	(5.3)	(l)	23.8
Total current assets	229.3	(48.3)		(7.5)		173.5
Property, plant, and equipment, net	177.2	—		(42.0)	(m)	135.2
Operating lease right-of-use assets	4.7	—		—		4.7
Intangible assets, net	29.5	—		(22.1)	(n)	7.4
Other assets	1.4	0.2	(c)	(0.2)	(o)	1.4
Total assets	$ 442.1	$ (48.1)		$ (71.8)		$ 322.2
LIABILITIES AND STOCKHOLDERS' (DEFICIT) EQUITY						
Current liabilities						
Accounts payable	$ 20.3	$ 0.8	(d)	$ —		$ 21.1
Accrued expenses	11.6	0.2	(e)	—		11.8
Current portion of operating lease liabilities	3.2	—		—		3.2
Other current liabilities	12.8	(12.5)	(f)	—		0.3
Total current liabilities	47.9	(11.5)		—		36.4
Operating lease liabilities	3.4	—		—		3.4
Other liabilities	2.8	—		—		2.8
Liabilities subject to compromise	488.8	(488.8)	(g)	—		—
Total liabilities	542.9	(500.3)		—		42.6
Stockholders'						
Common stock—Predecessor	36.4	(36.4)	(h)	—		—
Additional paid-in capital—Predecessor	4,392.9	(4,392.9)	(h)	—		—
Common stock—Successor	—	0.1	(i)	—		0.1
Additional paid-in capital—Successor	—	279.5	(i)	—		279.5
Accumulated deficit	(4,530.1)	4,601.9	(j)	(71.8)	(p)	—
Total stockholders' (deficit) equity	(100.8)	452.2		(71.8)		279.6
Total liabilities and stockholders' (deficit) equity	$ 442.1	$ (48.1)		$ (71.8)		$ 322.2

Reorganization adjustments

a) Reflects the net cash activities that occurred on the Effective Date. Of the $9.1 million transferred from cash and cash equivalents to escrow account recorded to prepaid expenses and other current assets, $3.8 million was related to success fees recognized upon emergence. Of the $4.9 million payment of professional and success fees, $1.9 million was related to success fees paid and recognized upon emergence.

(In millions)	November 19, 2020
Transfer of payment for professional fees and success fees to escrow account recorded in prepaid expenses and other current assets	$ (9.1)
Payment of professional and success fees	(4.9)
Payment to secured debtholders	(30.7)
Payment of Covia settlement	(12.5)
Payment of emergence date bonus	(1.0)
Payment of debt issuance costs related to Successor Revolving Credit Facility	(0.2)
Change in cash and cash equivalents	$ (58.4)

b) Reflects adjustment to prepaid expenses and other current assets for the following activities.

(In millions)	November 19, 2020
Transfer of payment for professional fees and success fees from cash and cash equivalent	$ 9.1
Payment of emergence date bonus	1.0
Change in prepaid expenses and other current assets	$ 10.1

c) Reflects an adjustment to debt issuance costs related to the Successor Revolving Credit Facility of $0.2 million.

d) Reflects an adjustment to accounts payable related to success fees of $3.8 million recognized upon emergence offset by a $3.0 million payment for previously accrued professional fees.

e) Reflects an adjustment to accrued expenses related to taxes withheld from holders of Predecessor stock-based compensation upon acceleration and immediate vesting.

f) Reflects a $12.5 million adjustment to other current liabilities related to payment of Covia settlement amount.

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g) On the Effective Date, we settled liabilities subject to compromise per the Plan. The adjustment reflects the removal of the balance from liabilities subject to compromise and the pre-tax gain on the settlement of liabilities subject to compromise as follows.

(In millions)	November 19, 2020
2022 Senior Notes	$ 379.0
Term Loan	67.6
Supply commitment charges	42.2
Total liabilities subject to compromise	488.8
Issuance of New Common Stock to holders of 2022 Senior Notes	(202.0)
Issuance of New Common Stock to Term Loan lenders	(36.1)
Issuance of New Common Stock to unsecured claimholders	(2.2)
Payment to holders of 2022 Senior Notes	(26.0)
Payment to Term Loan lenders	(4.7)
Pre-tax gain on settlement of liabilities subject to compromise	$ 217.8

h) Reflects the cancellation of the Predecessor's common stock and the Predecessor's additionalpaid-in capital, which includes the acceleration of the Predecessor's stock-based compensation of $15.1 million.

i) The following reconciles reorganization adjustments made to the Successor common stock and Successor additionalpaid-in capital:

(In millions)	November 19, 2020
Fair value of New Common Stock issued to holders of the 2022 Senior Notes claims	$ 202.0
Fair value of New Common Stock issued to holders of the Term Loan claims	36.1
Fair value of New Common Stock issued to holders of the unsecured claims	2.2
Fair value of New Common Stock issued to holders of legacy equity interests	24.9
Fair value of warrants issued to legacy equity interests	14.4
Total Successor common stock and additional paid-in capital	279.6
Less: Successor common stock	(0.1)
Successor additional paid-in capital	$ 279.5

j) Reflects the cumulative net impact of the following transactions on Predecessor accumulated deficit:

(In millions)	November 19, 2020
Pre-tax gain on settlement of liabilities subject to compromise as calculated in note f)	$ 217.8
Acceleration of Predecessor stock-based compensation	(15.3)
Cancellation of Predecessor common stock and additional paid-in capital	4,444.4
Success fees recognized on the Effective Date	(5.7)
Issuance of Successor common stock to legacy equity interests	(24.9)
Issuance of warrants to legacy equity interests	(14.4)
Change in accumulated deficit	$ 4,601.9

Fresh start adjustments

k) Reflects the fair value adjustment to parts inventory.

l) Reflects the write-off of prepaid premiums of $5.3 million in connection with the Predecessor's directors & officers insurance.

m) Reflects the fair value adjustments to property, plant, and equipment, as well as the elimination of the historical accumulated depreciation.

n) Reflects the fair value adjustment to intangible assets, net.

o) Reflects the write-off of debt issuance costs of $0.2 million related to the Successor Revolving Credit Facility.

p) Reflects the cumulative effect on accumulated deficit of the fresh start accounting adjustments discussed above.

Reorganization items

Reorganization items represent (i) expenses incurred associated with the Chapter 11 restructuring subsequent to the Petition Date, (ii) gains or losses from liabilities settled, and (iii) fresh start accounting adjustments, recorded in reorganization items in our consolidated statements of operations. Professional service provider charges associated with our restructuring that were incurred before the Petition Date are recorded in selling, general and administrative in our consolidated statements of operations.

(In millions)	Successor Period from November 20, through December 31, 2020	Predecessor Period from January 1, through November 19, 2020
Pre-tax gain on settlement of liabilities subject to compromise	$ —	$ 217.8
Fresh start accounting adjustments	—	(71.8)
Professional service provider fees and other expenses	(1.9)	(9.5)
Success fees for professional service providers	—	(5.7)
Derecognition of unamortized debt discounts and issuance costs	—	(2.5)
Terminated executory contracts	—	(9.7)
Acceleration of Predecessor stock-based compensation expense	—	(15.3)
Other Costs	(0.2)	—
(Loss)/gain on reorganization items, net	$ (2.1)	$ 103.3

Contractual interest expense of $4.4 million from the Petition Date through the Effective Date, associated with our outstanding term loan and senior notes, was not accrued or recorded in the Predecessor consolidated statement of operations as interest expense.

Note 4—Summary of significant accounting policies

Basis of presentation

We prepared the consolidated financial statements in accordance with accounting principles generally accepted in the United States of America ("GAAP"). The consolidated financial statements include the accounts of the Company and all majority-owned domestic and foreign subsidiaries. Investments over which we have the ability to exercise significant influence over operating and financial policies, but do not hold a controlling interest, are accounted for using the equity method of accounting. All significant intercompany accounts and transactions have been eliminated in consolidation. There were no items of other comprehensive income in the periods presented.

Use of estimates

The preparation of financial statements in accordance with GAAP requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities, related revenues and expenses, and the disclosure of gain and loss contingencies at the date of the financial statements and during the periods presented. We base these estimates on historical results and various other assumptions believed to be reasonable, all of which form the basis for making estimates concerning the carrying values of assets and liabilities that are not readily available from other sources. Actual results could differ materially from those estimates.

Fresh start accounting

Upon emergence from bankruptcy the Company adopted fresh start accounting. Refer to Note 3—Fresh Start Accounting for further details.

Cash and cash equivalents

Cash equivalents include only investments with an original maturity of three months or less. We occasionally hold cash deposits in financial institutions that exceed federally insured limits. We monitor the credit ratings and our concentration of risk with these financial institutions on a continuing basis to safeguard our cash deposits.

Accounts receivable and allowance for doubtful accounts

Accounts receivable are recorded at their invoiced amounts or amounts for which we have a right to invoice based on services completed. In June 2016, the FASB issued ASU 2016-13, Financial Instruments—Credit Losses: Measurement of Credit Losses on Financial Instruments. This standard requires companies to measure credit losses utilizing a methodology that reflects expected credit losses and requires a consideration of a broader range of reasonable and supportable information to inform credit loss estimates. The new standard also applies to financial assets arising from revenue transactions such as accounts receivables. We adopted this standard on January 1, 2020, and it had no material effect on our consolidated financial statements.

Inventories

Inventories primarily consist of maintenance parts that are used to service our hydraulic fracturing equipment but will also include proppants and chemicals that are used to provide hydraulic fracturing services. Inventory held as of our emergence date was remeasured to fair value. Subsequent to our emergence, inventories are stated at the lower of cost or net realizable value. The cost basis of our inventories is based on the average cost method and includes in-bound freight costs.

As necessary, we record an adjustment to decrease the value of slow moving and obsolete inventory to its net realizable value. To determine the adjustment amount, we regularly review inventory quantities on hand and compare them to estimates of future product demand, market conditions, production requirements and technological developments.

Restricted cash

The Company had $12.7 million and zero restricted cash at December 31, 2020 and 2019, respectively. At December 31, 2020 the company's restricted cash included unsettled escrow fees related to our bankruptcy emergence and cash used as collateral for other banking products.

Property, plant, and equipment

Property, plant, and equipment held as of our emergence date was remeasured to fair value and depreciated over the estimated remaining useful lives of individual assets.

Property, plant, and equipment purchased subsequent to our emergence date is stated at cost less accumulated depreciation, which is generally provided by using the straight-line method over the estimated useful lives of the individual assets. We manufacture and refurbish equipment used in our hydraulic fracturing operations and the cost of this equipment, which includes direct and indirect manufacturing costs, is capitalized and carried as construction-in-progress until it is completed. Expenditures for renewals and betterments that extend the lives of our service equipment, which includes the replacement of significant components of service equipment, are capitalized and depreciated. Other repairs and maintenance costs are expensed as incurred.

We capitalize qualifying costs related to the acquisition or development of internal-use software. Capitalization of costs begins after the conceptual formulation stage has been completed. Capitalized costs are amortized over the estimated useful life of the software, which ranges between three and five years. The unamortized balance of capitalized software costs at December 31, 2020 and 2019, was $0.2 million and $0.4 million, respectively. Amortization of computer software was $0.3 million for January 1 through November 19, 2020 (Predecessor), zero for November 20 through December 31, 2020 (Successor), and $3.4 million and $4.2 million in 2019 and 2018, respectively.

Leases

We determine if a contract contains a lease at inception. We lease certain administrative offices, sales offices, and operational facilities. We also lease some service equipment and light duty vehicles. These leases have remaining lease terms of 6 years or less. Some leases contain options to extend the leases, and some include options to terminate the leases. We do not include renewal or termination options in our assessment of the lease terms unless extension or termination for certain leases is deemed to be reasonably certain. Lease agreements with lease and non-lease components are generally accounted for as a single lease component.

Operating lease assets and liabilities are recognized at the lease commencement date, which is the date we take possession of the property. Operating lease liabilities represent the present value of lease payments not yet paid. Operating lease assets represent our right to use an underlying asset and are valued based upon the operating lease liabilities adjusted for prepayments or accrued lease payments, initial direct costs, lease incentives, and impairment of operating lease assets. To determine the present value of lease payments not yet paid, we estimate incremental secured borrowing rates corresponding to the lease term including reasonably certain renewal periods. We estimate this rate based on prevailing financial market conditions, credit analysis, and management judgment.

Our leases typically contain rent escalations over the lease term. We recognize expense for these leases on a straight-line basis over the lease term. Additionally, tenant incentives used to fund leasehold improvements are recognized when earned and reduce our right-of-use asset related to the lease. These are amortized through the operating lease asset as reductions of expense over the lease term.

We provide residual value guarantees for our leases of light-duty vehicles and certain service equipment. No amounts related to these residual value guarantees have been deemed probable and included in the lease liabilities on our consolidated balance sheet; however, if the value for all of the vehicles was zero and if we cancelled these leases at December 31, 2020, we would be required to pay a total of $5.6 million in residual value guarantees.

Intangible assets

We have historically acquired indefinite-lived intangible assets related to business acquisitions. Intangible assets with indefinite lives are not amortized. The amount of indefinite-lived intangible assets recorded in our consolidated balance sheets for December 31, 2020, was $7.4 million, of which 6.0 million related to our tradename and $1.4 million related to our developed technology. At December 31, 2019, the amount of indefinite-lived intangible assets recorded in our consolidated balance sheets was $29.5 million which related to our tradename. On November 19, 2020, upon emergence from Chapter 11 bankruptcy our intangible assets were identified and valued at fair value and a finite life was assigned to our developed technology. We amortize this intangible asset with a finite life on a straight-line basis over a period of three years which the asset is expected to contribute to our future cash flows.

Impairment of long-lived assets and intangible assets

Long-lived assets, such as property, plant, equipment are reviewed for impairment when events or changes in circumstances indicate that the carrying value of the asset may not be recoverable. Recoverability is assessed based on the undiscounted future cash flows generated by the asset or asset group. If the carrying amount of an asset or asset group is not recoverable, we recognize an impairment loss equal to the amount by which the carrying amount exceeds fair value. We estimate fair value based on the income, market, or cost valuation techniques.

Intangible assets with indefinite lives are reviewed at least annually for impairment, and in interim periods if certain events occur indicating that the carrying value of intangible assets may be impaired. We estimate fair values utilizing valuation methods such as discounted cash flows and comparable market valuations. We perform our annual impairment tests at the beginning of the fourth quarter.

Equity method investments

Investments in which we have the ability to exercise significant influence, but not control, are accounted for pursuant to the equity method of accounting. We recognize our proportionate share of earnings or losses of our international affiliates three months after they occur. When events and circumstances warrant, investments accounted for under the equity method of accounting are evaluated for impairment. An impairment charge is recorded whenever a decline in value of an investment below its carrying amount is determined to be other-than-temporary.

Income taxes

Income taxes are accounted for using the asset and liability method. Deferred taxes are recognized for the tax consequences of temporary differences by applying enacted statutory tax rates applicable to future years to differences between the financial statement carrying amounts and the tax bases of existing assets and liabilities. The effect on deferred taxes for a change in tax rates is recognized in earnings in the period that includes the enactment date. We recognize future tax benefits to the extent that such benefits are more likely than not to be realized.

We record a valuation allowance to reduce the value of a deferred tax asset if based on the consideration of all available evidence, it is more likely than not that all or some portion of the deferred tax asset will not be realized. Significant weight is given to evidence that can be objectively verified. We evaluate our deferred income taxes quarterly to determine if a valuation allowance is required by considering all available evidence, including historical and projected taxable income and tax planning strategies. We will adjust a previously established valuation allowance if we change our assessment of the amount of deferred income tax asset that is more likely than not to be realized.

We record uncertain tax positions in accordance with ASC 740 on the basis of a two-step process in which (1) we determine whether it is more likely than not that the tax positions will be sustained on the basis of the technical merits of the position and (2) for those tax positions that meet the more-likely-than-not recognition threshold, we recognize the largest amount of tax benefit that is more than 50 percent likely to be realized upon ultimate settlement with the related tax authority.

Revenue recognition

The Company contracts with its customers to perform hydraulic fracturing services on one or more oil or natural gas wells. Under these arrangements, we satisfy our performance obligations as services are rendered, which is generally upon the completion of a fracturing stage. We typically complete one or more stages per day. A stage is considered complete when we have met the specifications set forth by the customer, at which time we have the right to invoice the customer and the customer is obligated to pay us for the services rendered. The price for our services typically includes an equipment charge and product charges for proppant, chemicals and other products consumed during the course of providing our services. Payment terms average approximately two months from the date a stage or well is completed. All consideration owed to us for services performed during a period is fixed and our right to receive it is unconditional.

We also contract with some customers to provide them with the exclusive use of a fracturing fleet for a period of time. Our customers can generally terminate these contracts with less than 90 days' notice. We satisfy our performance obligation as services are rendered, which is based on the passage of time rather than the completion of a stage. Under these arrangements, we have the right to receive consideration from a customer even if circumstances outside of our control prevent us from performing our work. All consideration owed to us for services performed during a period is fixed and our right to receive it is unconditional.

Pricing for our services for all contracts is frequently negotiated with our customers and is based on prevailing market rates during each reporting period. The amounts we invoice our customers for services performed during a period are directly related to the value received by the customers for the period. There is no inherent uncertainty to the amount of consideration we will receive for services performed during a period and no judgment is required to allocate a portion of the transaction price to a future period. Accordingly, we are not required to identify any unsatisfied performance obligations nor attribute any revenue to them.

During the periods presented we acted as a principal, rather than as an agent, for all of the goods and services that we provided to our customers; our customer arrangements did not include obligations for refunds or warranties of our work; our revenue does not include sales taxes collected from our customers; and we did not incur incremental costs to obtain or fulfill contracts with our customers.

To comply with the FASB disclosure objective, we are required to disaggregate our revenue into categories if it will provide an enhanced understanding of how the nature, amount, timing, and uncertainty of our revenue and cash flows are affected by economic factors. To evaluate an appropriate level of disaggregation of revenue, we considered the following aspects of our business:

- We provide a single service to our customers.
- We only generate revenue in the U.S. onshore market.
- We have a homogeneous customer base, which is comprised of large oil and gas exploration companies.
- We provide our service over a short period of time.
- We do not disaggregate our revenue into categories for any external communications or to make resource allocation decisions.
- We do not have separate operating segments.

Based on the above factors, we concluded that no additional disaggregation of revenue was necessary or meaningful to help depict the nature, amount, timing and uncertainty of our revenues and cash flows.

Unconditional purchase obligations

We have historically entered into supply arrangements, primarily for sand, with our vendors that contain unconditional purchase obligations. These represent obligations to transfer funds in the future for fixed or minimum quantities of goods at fixed or minimum prices. We enter into these unconditional purchase obligation arrangements in the normal course of business to ensure that adequate levels of sourced product are available to us. We currently do not have any such supply agreements. To account for these arrangements, we must monitor whether we may be required to make a minimum payment to a vendor in a future period because our projected inventory purchases may not satisfy our minimum commitments.

Stock-based compensation

We measure all employee stock-based compensation awards using a fair value method and record this cost in the consolidated financial statements. Our stock-based compensation relates to restricted stock units issued to our employees. On the date that an equity-classified award is granted, we determine the fair value of the award and recognize the compensation cost over the requisite service period, which typically is the period over which the award vests. For equity-classified awards with graded vesting based solely on the satisfaction of a service condition, we recognize compensation cost as a single award on a straight-line basis. We account for forfeited awards as forfeitures occur, which results in a reversal of stock-based compensation cost previously recognized up to the date of the forfeiture. For stock-based awards with performance conditions that affect vesting, we only recognize compensation cost when it is probable that the performance conditions will be met.

Fair value measurements

Fair value is defined as the price that would be received from selling an asset or paid to transfer a liability in an orderly transaction between market participants at a measurement date. We apply the following fair value hierarchy, which prioritizes the inputs used to measure fair value into three levels and bases the categorization within the hierarchy upon the lowest level of input that is available and significant to the fair value measurement:

- Level One: The use of quoted prices in active markets for identical financial instruments.
- Level Two: The use of quoted prices for similar instruments in active markets or quoted prices for identical or similar instruments in markets that are not active or other inputs that are observable in the market or can be corroborated by observable market data.
- Level Three: The use of significant unobservable inputs that typically require the use of management's estimates of assumptions that market participants would use in pricing.

Money market funds, classified as cash and cash equivalents, are the only financial instruments that are measured and recorded at fair value on the Company's balance sheets. The following table presents money market funds at their level within the fair value hierarchy.

(In millions)	Total	Level 1	Level 2	Level 3
December 31, 2020 (Successor)				
Money market funds	$ 59.6	$ 59.6	$ —	$ —
December 31, 2019 (Predecessor)				
Money market funds	$193.6	$193.6	$ —	$ —

Reclassifications

All inventory write-downs have been reclassified from costs of revenue to impairments and other charges on the statements of operations to conform to current year presentation. This reclassification had no effect on operating income (loss) or net income (loss) as previously reported.

New accounting standards updates

In February 2016, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2016-02, Leases. The FASB subsequently issued a number of additional ASUs to update this guidance. This standard was issued to increase transparency and comparability among organizations by requiring that a right-of-use asset and corresponding lease liability be recorded on the balance sheet for leases with terms longer than 12 months. We elected to use three practical expedients allowed under the guidance. According to these practical expedients we did not reassess whether existing contracts are or contain a lease; we did not reassess whether existing leases are operating or finance leases; and we did not reassess the accounting for initial direct costs for existing leases. Our approach to adopting this new standard included a review of existing leases and other executory contracts that could contain embedded leases and we identified the key terms that were necessary for us to calculate the right-of-use asset and lease liability. These consolidated financial statements have been prepared in accordance with the new ASU utilizing the modified retrospective transition method, which resulted in the recording of operating lease liabilities of approximately $38 million as of January 1, 2019 on our consolidated balance sheet with an immaterial effect on our consolidated statement of stockholders' equity (deficit) and no related effect on our consolidated statement of operations.

In November 2016, the FASB issued ASU 2016-18, Restricted Cash. This standard was issued to change the presentation of amounts generally described as restricted cash and restricted cash equivalents to be included with cash and cash equivalents when reconciling the beginning-of-period and end-of-period total amounts shown on the statement of cash flows. We adopted this standard on January 1, 2018, and the effects of this standard and related required disclosures have been reflected in our condensed consolidated statements of cash flows. The following table provides a reconciliation of cash, cash equivalents, and restricted cash reported within the consolidated statements of cash flows:

(In millions)	Successor December 31, 2020	Predecessor December 31, 2019
Cash and cash equivalents	$ 94.0	$ 223.0
Restricted cash included in prepaid expenses and other current assets	12.7	—
Total cash, cash equivalents, and restricted cash shown in the consolidated statements of cash flows	$ 106.7	$ 223.0

In June 2016, the FASB issued ASU 2016-13, Financial Instruments—Credit Losses: Measurement of Credit Losses on Financial Instruments. This standard requires companies to measure credit losses utilizing a methodology that reflects expected credit losses and requires a consideration of a broader range of reasonable and supportable information to inform credit loss estimates. The new standard will also apply to financial assets arising from revenue transactions such as accounts receivables. We adopted this standard on January 1, 2020, and it had no material effect on our consolidated financial statements.

Note 5—Supplemental balance sheet information

Accounts receivable

The following table summarizes our accounts receivable balance:

(In millions)	Successor December 31, 2020	Predecessor December 31, 2019
Trade accounts receivable	$ 30.6	$ 80.3
Allowance for doubtful accounts	(3.7)	(3.3)
Accounts receivable, net	$ 26.9	$ 77.0

The change in allowance for doubtful accounts is as follows:

	Successor	Predecessor		
(In millions, except per share amounts)	Period from November 20, through December 31, 2020	Period from January 1 through November 19, 2020	Years ended December 31, 2019	2018
Balance at beginning of period	$ 3.7	$ 3.3	$ 0.9	$ 2.1
Provision for bad debts, net included in selling, general, and administrative expense	—	0.8	2.4	—
Uncollectible receivables written off	—	(0.4)	—	(1.2)
Balance at end of period	$ 3.7	$ 3.7	$ 3.3	$ 0.9

Inventories

The following table summarizes our inventories:

(In millions)	Successor December 31, 2020	Predecessor December 31, 2019
Maintenance parts	$ 27.9	$ 43.0
Proppants and chemicals	1.0	2.3
Other	0.1	0.2
Total inventories	$ 29.0	$ 45.5

Prepaid expenses and other current assets

The following table summarizes our prepaid expenses and other current assets:

(In millions)	Successor December 31, 2020	Predecessor December 31, 2019
Restricted cash	$ 12.7	$ —
Prepaid expenses	$ 6.7	$ 4.4
Other	0.1	2.6
Total prepaid expenses and other current assets	$ 19.5	$ 7.0

Property, plant, and equipment, net

The following table summarizes our property, plant, and equipment:

(Dollars in millions)	Successor December 31, 2020	Predecessor December 31, 2019	Estimated useful life (in years)
Service equipment	$ 92.1	$ 797.2	2.5 – 10
Buildings and improvements	21.6	63.3	15 – 39
Office, software, and other equipment	0.5	44.4	3 – 7
Vehicles and transportation equipment	0.3	6.5	5 – 20
Land	8.4	7.0	N/A
Construction-in-process and other	14.1	20.1	N/A
Total property, plant, and equipment	137.0	938.5	
Accumulated depreciation and amortization	(4.7)	(711.5)	
Total property, plant, and equipment, net	$ 132.3	$ 227.0	

Depreciation expense was $68.5 million for January 1 through November 19, 2020 (Predecessor), $4.7 million for November 20 through December 31, 2020 (Successor), and $90.0 million and $84.7 million in 2019 and 2018, respectively.

Accrued expenses

The following table summarizes our accrued expenses:

(In millions)	Successor December 31, 2020	Predecessor December 31, 2019
Sales, use, and property taxes	$ 4.8	$ 7.1
Employee compensation and benefits	5.6	8.0
Interest	—	4.1
Insurance	2.0	3.1
Other	0.1	0.6
Total accrued expenses	$ 12.5	$ 22.9

Other current liabilities

The following table summarizes our other current liabilities:

(In millions)	Successor December 31, 2020	Predecessor December 31, 2019
Accrued supply commitment charges	$ —	$ 11.3
Other	0.3	0.3
Total other current liabilities	$ 0.3	$ 11.6

Other liabilities

The following table summarizes our other liabilities:

(In millions)	Successor December 31, 2020	Predecessor December 31, 2019
Accrued supply commitment charges	$ —	$ 44.0
Other	2.4	1.6
Total other liabilities	$ 2.4	$ 45.6

Note 6—Indebtedness and borrowing facility

The following table summarizes our long-term debt:

(In millions)	Successor December 31, 2020	Predecessor December 31, 2019
Term loan due April 2021	$ —	$ 90.0
Senior notes due May 2022	—	369.9
Total principal amount	—	459.9
Less unamortized discount and debt issuance costs	—	(3.0)
Total long-term debt	$ —	$ 456.9
Estimated fair value of long-term debt	$ —	$ 317.2

Estimated fair values for our term loan and senior notes were determined using recent trading activity and/or bid-ask spreads and are classified as Level 2 in the FASB's fair value hierarchy.

Successor revolving credit facility

On November 19, 2020, The Successor Company entered into a $40 million revolving credit facility, with an initial maturity date of November 19, 2023, with Wells Fargo, N.A.

LIBOR borrowings under the credit facility bear interest at the greater of LIBOR or 0.75% plus a margin of 2.25% to 2.50% per annum, depending on facility utilization. Base rate loans are also available at our option. The credit facility includes a $15 million sub-limit for outstanding letters of credit which would reduce the amount available under the facility. We also pay a commitment fee on the unused amount of the facility of 0.375% per annum, depending on facility utilization.

The obligations under the credit facility are secured by substantially all of our assets, including our working capital and equipment.

The maximum availability of credit under the credit facility is limited at any time to the lesser of $40 million or a borrowing base. The borrowing base is based on percentages of eligible accounts receivable and is subject to certain reserves. In an event of default or if the amount available under the credit facility is less than either 12.5% of our maximum availability or $5.0 million, we will be required to maintain a minimum fixed charge coverage ratio of 1.0 to 1.0. If at any time borrowings and letters of credit issued under the credit facility exceed the borrowing base, we will be required to repay an amount equal to such excess.

The credit facility contains covenants that could, in certain circumstances, limit our ability to issue additional debt, repurchase or pay dividends on our common stock, sell substantially all of our assets, make certain investments, or enter into certain other transactions. We were in compliance with all of the covenants in the credit facility at December 31, 2020.

As of December 31, 2020, the borrowing base was $17.2 million and therefore our maximum availability under the credit facility was $17.2 million. As of December 31, 2020, there were no borrowings outstanding under the credit facility, and letters of credit totaling $4.0 million were issued, resulting in $13.2 million of availability under the credit facility.

Predecessor 2021 term loan

On April 16, 2014, the Predecessor Company entered into a $550 million term loan, which matures on April 16, 2021 ("Term Loan"), with a group of lenders with Wells Fargo Bank, N.A., as administrative agent. The Term Loan bears interest at a three-month London Interbank Offered Rate ("LIBOR") plus a margin of 4.75% per annum, with a 1.00% LIBOR floor. Interest is payable on interest rate reset dates, which is generally monthly.

The Term Loan was issued at a discount of $2.7 million for aggregate consideration of $547.3 million and resulted in net proceeds to the Company of $540.0 million after debt issuance costs of $7.3 million.

In 2020, the Predecessor Company repaid $22.6 million of aggregate principal amount of Term Loan. We recognized a gain on debt extinguishment of $2.0 million. In 2019, we repaid $31.0 million of aggregate principal amount of Term Loan. We recognized a loss on debt extinguishment of $0.2 million.

On November 19, 2020, upon emergence from Chapter 11 bankruptcy, the 2021 Term Loan was cancelled as part of the Plan.

We were in compliance with all of the covenants in the Term Loan for all periods that the loan was outstanding until we filed for bankruptcy on September 22, 2020.

Predecessor 2022 Senior Notes

On April 16, 2014, the Predecessor Company completed an offering of $500 million of 6.25% senior secured notes due May 1, 2022, in a private offering to qualified institutional buyers ("2022 Senior Notes"). The credit facility was amended semiannually, in arrears, on May 1 and November 1. The Company received net proceeds of $489.7 million after debt issuance costs of $10.3 million, which resulted in an effective interest rate of 6.58% for these notes.

In 2020 and 2019, the Predecessor Company repurchased zero and $17.0 million, respectively, of aggregate principal amount of 2022 Senior Notes in the qualified institutional market. In 2019, the Predecessor Company recognized a gain on debt extinguishment of $1.4 million. In 2018, we repurchased $22.1 million of aggregate principal amount of 2022 Senior Notes in the qualified institutional market. We recognized a gain on debt extinguishment of $1.2 million.

On November 19, 2020, upon emergence from Chapter 11 bankruptcy, the 2022 Senior Notes were cancelled as part of the Plan.

We were in compliance with all of the covenants in the indenture governing our 2022 Senior Notes for all periods that these notes were outstanding, until be filed for bankruptcy on September 22, 2020.

Predecessor 2020 senior floating rate notes

On June 1, 2015, we completed an offering of $350 million of senior secured floating rate notes due June 15, 2020, in a private offering to qualified institutional buyers ("2020 Senior Notes"). The 2020 Senior Notes bore interest at a three-month LIBOR plus a margin of 7.5% per annum.

In 2018, we repaid all $290.0 million of the remaining principal amount of 2020 Senior Notes. We recognized a loss on debt extinguishment of $8.3 million.

We were in compliance with all of the covenants in the indenture governing our 2020 Senior Notes for all periods that these notes were outstanding.

Predecessor revolving credit facility

On February 22, 2018, we entered into a $250 million revolving credit facility, with an initial maturity date of February 22, 2023, with a group of lenders with Wells Fargo, N.A., as administrative agent.

As part of the Chapter 11 filing our revolving credit facility was terminated in the third quarter of 2020. Prior to its termination, the maximum availability of credit under our revolving credit facility was limited at any time to the lesser of $100 million or a borrowing base. The credit facility was amended in August 2020, which among other things, reduced the maximum availability under the credit facility from $250 million to $100 million. The borrowing base was based on percentages of eligible accounts receivable and was subject to certain reserves. If at any time borrowings and letters of credit issued under the credit facility exceeded the borrowing base, we would be required to repay an amount equal to such excess. During 2020, the Predecessor Company had no borrowings drawn under the credit facility, and certain letters of credit were issued. At September 30, 2020, we had replaced these letters of credit with cash collateralized letters of credit.

Note 7—Leases

We had no material amount of finance leases or subleases at December 31, 2020. The following table summarizes the components of our lease costs.

	Successor	Predecessor	
(In millions)	Period from November 20, through December 31,	Period from January 1 through November 19,	Years ended December 31, 2019
Operating lease cost	$ 0.3	$ 12.7	$ 21.1
Short-term lease cost	0.4	4.7	5.8
Total lease cost	$ 0.7	$ 17.4	$ 26.9

Short-term lease costs represent costs related to leases with terms of one year or less. We elected the practical expedient to not recognize lease assets and liabilities for these leases. We had no material variable lease costs in 2020 or 2019. Total rental expense under previous lease accounting guidance was $49.9 million in 2018. The following table includes other supplemental information for our operating leases.

	Successor	Predecessor	
(Dollars in millions)	Period from November 20, through December 31,	Period from January 1 through November 19,	Years ended December 31, 2019
Cash paid for amounts included in the measurement of our lease liabilities	$ 0.3	$ 12.9	21.3
Right-of-use assets obtained in exchange for lease liabilities	$ 0.1	$ 0.6	11
Right-of-use assets recognized upon adoption of the leasing standard	$ —	$ —	37.8
Weighted-average remaining lease term	2.9 years	2.9 years	2.3 years
Weighted-average discount rate	4.9%	4.9%	5.0%

The following table summarizes the maturity of our operating leases as of December 31, 2020.

(In millions)	Successor December 31, 2020
2021	$ 3.2
2022	1.3
2023	1.2
2024	1.1
2025	—
2026 and thereafter	—
Total lease payments	6.8
Less imputed interest	(0.5)
Total lease liabilities	$ 6.3

Note 8—Stockholders' equity (deficit)

Common and preferred stock

On November 19, 2020, upon emergence from Chapter 11 bankruptcy, all existing shares of Predecessor common stock were cancelled, and the Successor Company issued approximately 13.7 million shares of Class A common stock and 0.3 million shares of Class B common stock.

On November 19, 2020, upon emergence from Chapter 11 bankruptcy, the Successor Company filed an Amended and Restated Certificate of Incorporation with the Delaware Secretary of State. Pursuant to the Certificate of Incorporation, the authorized capital stock of FTSI consists of 49,000,000 shares of Class A common stock ("New Class A Common Stock") and 1,000,000 shares of Class B common stock ("New Class B Common Stock") and 5,000,000 shares of preferred stock, par value $0.01 per share (the "New Preferred Stock"). The New Class B Common Stock is identical to the New Class A Common Stock, except that such New Class B Common Stock shall not be listed for trading on any national securities exchange or NASDAQ, nor shall it be listed over-the-counter. Upon the written request of a holder of New Class B Common Stock, and in compliance with the provisions of the Certification of Incorporation, the shares of New Class B Common Stock shall be exchangeable into the same number of shares of New Class A Common Stock.

Shares of New Preferred Stock may be issued in one or more classes or series from time to time, with each such class or series to consist of such number of shares and to have such designations, powers, preferences and relative, participating, optional or other rights, if any, and the qualifications, limitations or restrictions thereof, if any, with respect to each such class or series as shall be stated in the resolution or resolutions providing for the issuance of such class or series adopted by the Board.

2020 Reverse stock split

In May 2020, the Predecessor Company's board of directors (our "Board") approved a reverse stock split of the Company's issued and outstanding common stock on a one for twenty basis. The par value of the Predecessor Company's common stock and the number of shares authorized for issuance remained unchanged as a result of the reverse stock split. All common shares and stock awards presented in the consolidated financial statements have been retrospectively adjusted for the reverse stock split. In addition, the Predecessor Company transferred the listing of the Company's common stock from the New York Stock Exchange (the "NYSE") to the NYSE American.

Share repurchase program

In May 2019, the Predecessor Company's board of directors approved an authorization for a total share repurchase of up to $100 million of the Predecessor Company's common stock to be executed through open market or private transactions. The authorization expired on May 14, 2020. In 2019 we repurchased approximately 3.0 million shares of common stock at an average price of $3.34 per share for a total of $9.9 million.

Initial public offering of common stock

The Predecessor Company completed an initial public offering ("IPO") of 22.4 million shares of common stock at a price to the public of $18.00 per share, of which 18.1 million shares were sold by the Company and 4.3 million shares were sold by one of our stockholders, a subsidiary of Chesapeake Energy Corporation. The shares began trading on The New York Stock Exchange on February 2, 2018, under the ticker symbol "FTSI." The Predecessor Company received net proceeds from the offering of $303.0 million, after offering costs. We used the net proceeds from the offering for general corporate purposes, primarily debt repayments. The Predecessor Company did not receive any proceeds from the offering of shares by the selling stockholder.

IPO reverse stock split

In connection with the IPO, the Predecessor Company amended and restated our certificate of incorporation to effect a 69.258777:1 reverse stock split of our common stock.

Convertible preferred stock

In September 2012, the Predecessor Company issued and sold 350,000 shares of Series A convertible preferred stock, par value $0.01 per share (the "Preferred Stock"), to certain of our then existing common stockholders. The Preferred Stock was sold for aggregate consideration of $350 million, and resulted in net proceeds to the Predecessor Company of $349.8 million after the payment of $0.2 million in issuance costs.

Each share of Preferred Stock was convertible into 2,573 shares of our common stock, subject to adjustment upon the occurrence of specified events set forth under terms of the Preferred Stock.

The Preferred Stock was redeemable at the Predecessor Company's option at any time after all of our debt was repaid. The redemption price per share was an amount in cash equal to the original price per share of the Preferred Stock, plus such additional amount as would give the holder an after-tax internal rate of return for investment in the Preferred Stock of 25% per annum (the "Accreted Amount"). At December 31, 2017, the Accreted Amount of the Preferred Stock was estimated to be $1,132.7 million.

The Preferred Stock was mandatorily convertible into shares of our common stock in connection with an initial public offering of our common stock if both of the following conditions were met (a "Qualified IPO"):

- Aggregate proceeds to the Predecessor Company were at least $250 million; and
- The split-adjusted initial offering price to the public was not less than $1.50 per share.

In connection with a Qualified IPO, each share of Preferred Stock would be convertible into the number of shares of common stock that had a market value (based on the initial offering price to the public) equal to the Accreted Amount.

The Preferred Stock was mandatorily redeemable for cash upon a change of control, provided that all of our debt had been repaid. Each share of Preferred Stock would be redeemed for an amount in cash equal to the higher of:

- The Accreted Amount; or

- The original purchase price of the Preferred Stock plus an amount equal to 20% of the then outstanding equity value of the Predecessor Company divided by the number of Preferred Stock shares then outstanding.

The Preferred Stock ranked senior to our common stock with respect to dividend rights and distribution rights in the event of any liquidation, winding-up or dissolution of the Predecessor Company. The amount that each share of Preferred Stock was entitled to in liquidation is equal to the Accreted Amount.

The holders of the Preferred Stock were also common stockholders of the Predecessor Company and, prior to the completion of our initial public offering, collectively appointed 100% of our board of directors. Therefore, the Preferred Stock holders could have directed the Predecessor Company to redeem the Preferred Stock at any time after all of our debt had been repaid; however, we did not consider this to be probable for any of the periods the Preferred Stock was outstanding due to the amount of debt outstanding at that time. Therefore, we did not record any accretion of the Preferred Stock in our consolidated financial statements.

In connection with the IPO, a number of shares of our Preferred Stock converted into common stock at the rate of 155.944841 shares of common stock per each share of Preferred Stock. All remaining shares of Preferred Stock were canceled. We refer to this conversion and the cancelation together as the recapitalization of the Preferred Stock. The conversion rate of the Preferred Stock and shares canceled were calculated so that following the recapitalization, stockholders that did not own Preferred Stock would own 7% of our common stock prior to the IPO. The recapitalization of all outstanding shares of our Preferred Stock resulted in 39.4 million new shares of common stock.

Note 9—Stock-based compensation

Predecessor 2014 long-term incentive plan

In 2014, our stockholders approved the 2014 Long-Term Incentive Plan ("2014 LTIP"). The 2014 LTIP authorized the grant of up to 55 million restricted stock units ("RSUs") to salaried employees of the Company, as determined by the compensation committee of the board of directors. This plan originally was set to expire on March 3, 2024.

In February 2018, we completed an IPO of our common stock. This transaction qualified as the final vesting condition for these RSUs. The compensation expense recognized in 2018 for the stock-settled RSUs was $2.0 million. The compensation expense recognized in 2018 for the cash-settled RSUs was $1.7 million. The Company elected to settle the stock-settled RSUs in cash. The 2014 LTIP was terminated after the payout of the RSUs.

Predecessor 2018 equity and incentive compensation plan

Our board of directors and stockholders adopted the 2018 Equity and Incentive Compensation Plan ("2018 Plan") to attract and retain officers, employees, directors, consultants and other key personnel and to provide those persons incentives and awards for performance. The 2018 Plan originally allocated 2.8 million shares of common stock in the form of incentive stock options, non-qualified stock options, restricted stock, restricted stock units ("RSUs"), stock appreciation rights, or other stock-based awards. In 2019 our board of directors and stockholders amended and restated the 2018 Plan to increase the number of shares available for issuance by 3.6 million shares. Any shares that become available as a result of forfeiture, cancelation, expiration or cash settlement of an award are allowed to be granted again at a future date under the 2018 Plan. This plan originally was set to expire on February 1, 2028, but was terminated upon emergence from bankruptcy on November 19, 2020.

RSUs are generally valued at the market price of a share of our common stock on the date of grant. Awards granted to employees generally vest over a three or four-year period from the date of grant and are expensed on a straight-line basis over that period, which is considered to be the requisite service period.

The following table summarizes the January 1 through November 19, 2020 transactions related to the RSUs granted under the Predecessor Company's 2018 Plan.

	Number of units (in thousands)	Weighted-average grant date fair value
Unvested balance at January 1, 2020	179	$ 209.23
Granted	—	—
Vested	(174)	209.11
Forfeited	(5)	213.74
Unvested balance at November 19, 2020	—	$ —

Stock-based compensation expense for the Predecessor Company from January 1 through November 19, 2020 for these RSUs was $10.9 million and was $15.4 million in 2019. There were no shares granted in 2020. The weighted-average grant-date fair value per share of RSUs granted was $51.22 in 2019. The fair value of RSUs vested was $36.3 million and $15.8 million in 2020 and 2019, respectively. At November 19, 2020, there was zero total unrecognized compensation cost related to unvested RSUs.

The total income tax benefit (expense) for all stock-based compensation was $(0.1) million and $1.2 million in 2020 and 2019 respectively; however, such benefit (expense) was substantially offset by the valuation allowance against our deferred tax assets.

Successor 2020 equity and incentive compensation plan

As part of the Plan, the Successor Company adopted the 2020 Equity and Incentive Compensation Plan ("2020 Plan") to attract and retain officers, employees, directors, consultants and other key personnel and to provide those persons incentives and awards for performance. The 2020 Plan originally allocated 2,160 thousand shares of common stock in the form of incentive stock options, non-qualified stock options, restricted stock, restricted stock units ("RSUs"), stock appreciation rights, or other stock-based awards. As of December 31, 2020, up to approximately 1,080 thousand shares were available for future grants under this plan.

Restricted Stock Units: As part of the Plan, the Successor Company issued 540 thousand shares which had a grant date fair value of $7.6 million. RSUs are valued at the market price of our common stock on the date of grant. Awards granted vest over a four-year period from the date of grant. The following table summarizes the November 20 through December 31, 2020 transactions related to the RSUs granted under the Successor Company's 2020 Plan.

	Number of units (in thousands)	Weighted-average grant date fair value
Unvested balance at November 20, 2020	—	$ —
Granted	540	14.11
Vested	—	—
Forfeited	—	—
Unvested balance at December 31, 2020	540	$ 14.11

Stock-based compensation expense for the Successor Company from November 20 through December 31, 2020 for these RSUs was $0.2 million in 2020. The weighted-average grant-date fair value per share of RSUs granted was $14.11 in 2020. The fair value of RSUs vested was zero in 2020. At December 31, 2020, there was $7.4 million of total unrecognized compensation cost related to unvested RSUs, which is expected to be recognized over a weighted average period of 3.9 years.

The total income tax benefit for all stock-based compensation was $0.1 million in 2020; however, such benefit was substantially offset by the valuation allowance against our deferred tax assets.

Performance-based Restricted Stock Unit:. As part of the Plan, the Successor Company issued 270 thousand performance-based shares which had a grant date fair value of $3.0 million. Vesting of the award is dependent on the achievement of certain market cap hurdles during the performance period; 50% of the award will vest if the Company maintains a 90 trading day volume weighted average stock price that is equal to or greater than the stock price required to meet the market cap hurdle of $350 million and $500 million, respectively The following table summarizes the November 20 through December 31, 2020 transactions related to the performance-based RSUs granted under the Successor Company's 2020 Plan.

	Number of units (in thousands)	Weighted-average grant date fair value
Unvested balance at November 20, 2020	—	$ —
Granted	270	10.91
Vested	—	—
Forfeited	—	—
Unvested balance at December 31, 2020	270	$ —

Stock-based compensation expense for the Successor Company from November 20 through December 31, 2020 for these performance-based RSUs was $0.1 million in 2020. The weighted-average grant-date fair value per share of performance-based RSUs granted was $10.91 in 2020. The fair value of RSUs vested was zero in 2020. At December 31, 2020, there was $2.9 million of total unrecognized compensation cost related to unvested RSUs, which is expected to be recognized over a weighted average period of 3.9 years.

The fair value of the performance-based RSUs was determined using a Monte Carlo simulation method. Assumptions used in calculating the fair value of the performance-based RSUs granted during the year are summarized below:

Valuation assumptions:	2020 Performance-based RSU's granted
Expected dividend yield	0%
Expected equity volatility, including peers	59.04%
Expected term (years)	7 years
Risk-free interest rate	0.62%

Non-qualified stock options: As part of the Plan, the Successor Company issued 270 thousand stock options which had a grant date fair value of $2.1 million. Stock options granted in 2020 have a four-year vesting period. As the stock options vest, the awards can be exercised up to the expiration date of the options, which is the date of the ten year anniversary from the grant date. The following table summarizes the November 20 through December 31, 2020 transactions related to the stock options granted under the Successor Company's 2020 Plan.

	Number of units (in thousands)	Weighted-average grant date fair value
Unvested balance at November 20, 2020	—	$ —
Granted	270	7.85
Vested	—	—
Forfeited	—	—
Unvested balance at December 31, 2020	270	$ —

Stock-based compensation expense for the Successor Company from November 20 through December 31, 2020 for these stock options was $0.1 million in 2020. The weighted-average grant-date fair value per share of performance-based RSUs granted was $7.85 in 2020. The fair value of RSUs vested was zero in 2020. At December 31, 2020, there was $2.0 million of total unrecognized compensation cost related to unvested RSUs, which is expected to be recognized over a weighted average period of 3.9 years.

The fair value of the stock options is determined by applying the Black-Scholes model. Assumptions used in calculating the fair value of the stock options granted during the year are summarized below:

Valuation assumptions:	2020 options granted
Expected dividend yield	0%
Expected equity volatility	60.31%
Expected term (years)	10 years
Risk-free interest rate	0.53%

Note 10—Retirement plan

We offer a 401(k) defined contribution retirement plan ("401(k) Plan"), which allows a participant to defer, by payroll deductions, from 0% to 100% of the participant's annual compensation, limited to certain annual maximums set by the Internal Revenue Code. The 401(k) Plan has historically provided a discretionary matching contribution to each participant's account. Company matching contributions to the 401(k) Plan are made in cash and were $2.5 million, and $4.1 million in 2019 and 2018, respectively. The Company suspended matching contributions in January 2020. As a result, there were zero company matching contributions to the 401(k) Plan in the Predecessor and Successor periods of 2020.

Note 11—Impairments and other charges

The following table summarizes our impairments and other charges:

(In millions)	Successor Period from November 20, through December 31, 2020	Predecessor Period from January 1 through November 19, 2020	Predecessor Years ended December 31, 2019	Predecessor Years ended December 31, 2018
Supply commitment charges	$ —	$ 9.1	$58.5	$19.2
Impairment of assets	—	—	9.7	—
Inventory write-down	—	5.1	6.4	—
Transaction costs	—	18.5	—	—
Employee severance costs	—	1.0	—	—
Loss on contract termination	0.3	0.4	—	—
Total impairments and other charges	$ 0.3	$ 34.1	$74.6	$19.2

Transaction costs

From January 1 through November 19, 2020, in preparation for, and prior to filing our Chapter 11 Cases, the Predecessor Company incurred and paid $7.0 million in legal and professional fees and $11.5 million to certain holders of our Term Loan Agreement and Secured Notes pursuant to the Restructuring Support Agreement.

Supply commitment charges

The Predecessor Company incurred supply commitment charges when our purchases of sand from certain suppliers are less than the minimum purchase commitments in our supply contracts. According to the accounting guidance for firm purchase commitments, future losses that are considered likely are also required to be recorded in the current period.

The Predecessor Company recorded aggregate charges under these supply contracts of $9.1 million from January 1 through November 19, 2020, and $58.5 million and $19.2 million in 2019 and 2018, respectively. These charges relate to actual purchase shortfalls incurred, as well as forecasted losses expected to be incurred and settled in future periods. These purchase shortfalls are largely due to our customers choosing to procure their own sand, often from sand mines closer to their operating areas.

In May 2019, the Predecessor Company restructured and amended our largest sand supply contract to reduce the total remaining commitment through 2024 by approximately $162 million. This reduced our annual commitment from $47.9 million to $21.0 million from 2019 through 2024. Due to the terms of the amended agreement and our estimated future purchases under this contract, we determined that we would not be able to satisfy $11.0 million of the $21.0 million annual commitment with sand purchases for the last five years of the contract. Therefore, in connection with this amendment, we recorded a supply commitment charge of $55.0 million in the first quarter of 2019 to accelerate these purchase shortfalls. After recording the $55.0 million supply commitment charge in the first quarter of 2019, the amount of accrued supply commitment charges for future periods that was recognized on our consolidated balance sheet at March 31, 2019 was $66.0 million. We paid $11.0 million of this amount in the second quarter of 2019 and we expected to pay the remaining $55.0 million in annual installments of $11.0 million from January 2020 through January 2024. The remaining amount of the 2019 charges represent revised estimates of our purchase shortfalls under this contract for 2019.

The Company terminated all sand supply contracts upon emergence from bankruptcy. Any amounts due as outlined in the Plan were paid upon emergence and the Company does not expect any future commitment related to these Predecessor contracts.

Fleet capacity reduction

In the fourth quarter of 2019, the Predecessor Company disposed of certain idle equipment where we believed there was no expectation of future use. The equipment we selected for disposal was comprised primarily of hydraulic fracturing pumps that were substantially depreciated. Certain hydraulic fracturing components, such as engines and transmissions that we believe to have remaining useful lives, will be removed prior to disposing of the equipment and used in our maintenance and repair activities for our remaining fleets. These disposals reduced our capacity of equipment from 34 total fleets to 28 total fleets. The amount of proceeds we received from these disposals was not significant. We recorded an asset impairment of $4.2 million in the third quarter of 2019 in connection with these disposals.

Discontinued wireline operations

In May 2019, the Predecessor Company discontinued our wireline operations due to financial underperformance resulting from market conditions. As a result of this decision, we recorded an asset impairment of $2.8 million and an inventory write-down of $1.4 million in the first quarter of 2019 to adjust these assets to their estimated fair market values and net realizable values, respectively. We sold substantially all of these assets in 2019 and received net proceeds of approximately $3.7 million.

Other impairments

In the second quarter of 2019, the Predecessor Company recorded $2.7 million of impairments for certain land and buildings that we no longer use. We are closely monitoring current industry conditions and future expectations. If industry conditions decline, we may be subject to impairments of long-lived assets or intangible assets in future periods.

Note 12—Income taxes

The following table summarizes the components of income tax expense (benefit):

	Successor	Predecessor		
	Period from November 20, through December 31,	Period from January 1 through November 19,	Years ended December 31,	
(In millions)	2020	2020	2019	2018
Current:				
Federal	$ —	$ —	$ —	$ —
State	—	0.2	0.5	2.0
Foreign	—	—	0.9	—
Total current	—	0.2	1.4	2.0
Total deferred	—	—	—	—
Income tax expense	$ —	$ 0.2	$ 1.4	$ 2.0

Actual income tax expense (benefit) differed from the amount computed by applying the statutory federal income tax rate to income (loss) before income taxes as follows:

	Successor	Predecessor		
	Period from November 20, through December 31,	Period from January 1 through November 19,	Years ended December 31,	
(In millions)	2020	2020	2019	2018
(Loss) income before income taxes	$ (13.4)	$ (24.2)	$ (71.5)	$ 260.4
Statutory federal income tax rate	21.0%	21.0%	21.0%	21.0%
Federal income tax (benefit) expense at statutory rate	(2.8)	(5.1)	(15.0)	54.7
State income tax (benefit) expense, net of federal effect	(0.2)	(1.6)	(0.1)	5.5
Effect of changes in income apportionment amongst states	—	(3.6)	12.0	6.1
Stock-based compensation	—	7.4	2.1	0.3
Reorganization adjustments	0.3	577.1	—	—
Other items, net	0.1	1.0	1.7	(0.1)
Change in valuation allowance	2.6	(575.0)	0.7	(64.5)
Income tax expense	$ 0.0	$ 0.2	$ 1.4	$ 2.0
Effective tax rate	(0.0)%	(0.8)%	(2.0)%	0.8%

Due to the mobile nature of our operations, the apportionment of annual income that we earn in a state can change as the operations of our business adjust to market conditions. States have different income tax rates and therefore the weighted-average state tax rate that we apply to our taxable and deductible temporary differences and net operating loss carryforwards can also change over time. The resulting effects of state apportionment on our deferred tax assets and deferred tax liabilities are recognized to reflect the future impact of these changes and affects our overall effective tax rate; however, these changes are currently offset by corresponding changes in our valuation allowance.

In March 2020, the President of the United States signed into law the Coronavirus Aid, Relief, and Economic Security Act (“CARES Act”). The CARES Act includes several U.S. income tax provisions related to, among other things, net operating loss carrybacks, alternative minimum tax credits, modifications to the net interest deduction limitations, and technical amendments regarding the income tax depreciation of qualified improvement property placed in service after December 31, 2017. The CARES Act is not expected to have a material impact on the Company’s financial results.

The tax effects of temporary differences that give rise to significant portions of the deferred tax assets and deferred tax liabilities are presented below:

(In millions)	Successor December 31, 2020	Predecessor December 31, 2019
Deferred tax assets:		
Goodwill and intangible assets	$ 19.5	$ 257.5
Federal net operating loss carryforwards	65.6	359.3
State net operating loss carryforwards, net of federal benefit	2.6	43.9
Interest carryforward	9.6	0.1
Accrued liabilities	0.8	13.7
Operating lease liability	1.4	6.2
Stock-based compensation	0.1	2.2
Other	0.8	2.2
Gross deferred tax assets	100.4	685.1
Valuation allowance	(99.3)	(671.7)
Total deferred tax assets	1.1	13.4
Deferred tax liabilities:		
Property, plant, and equipment	0.1	7.6
Operating lease right-of-use assets	1.0	5.8
Total deferred tax liabilities	1.1	13.4
Net deferred tax asset	$ —	$ —

Because of our valuation allowance, our net deferred tax assets are zero and no deferred tax assets or liabilities are included in the consolidated balance sheets.

At December 31, 2020, our gross federal net operating loss carryforwards were approximately $312.5 million, of which $40.1 million will expire on various dates between 2032 and 2036 with the remaining losses carried forward indefinitely. Our gross state net operating loss carryforwards were approximately $54.0 million, of which $16.4 million will expire at various dates between 2021-2040 with the remaining carried forward indefinitely.

On August 22, 2020, we entered into a restructuring support agreement with certain of our note holders and lenders (collectively the "consenting creditors"). The restructuring support agreement included a cash premium payable to the consenting creditors. The cash premium was considered a significant modification of the notes and term loan for tax purposes. Under the Internal Revenue Code (IRC), the significant modification created cancellation of debt (COD) income to the Company, part of which is excluded from taxable income due to special rules under IRC Section 108. However, the excluded amount does reduce the Company's NOL.

IRC Section 382 provides an annual limitation with respect to the ability of a corporation to utilize its tax attributes, as well as certain built-in-losses, against future U.S. taxable income in the event of a change in ownership. The Company's emergence from Chapter 11 bankruptcy proceedings is considered a change in ownership for purposes of IRC Section 382. The limitation under the IRC is based on the value of the corporation as of the emergence date. As a result of the Section 382 "ownership change", our pre-Chapter 11 federal NOLs were significantly reduced to approximately $312.5 million, our pre-Chapter 11 state NOLs were significantly reduced to approximately $54.0 million, and the amount of tax amortization we may deduct for federal income tax purposes was reduced to approximately $86 million. This may negatively affect our results of operations for future periods by requiring us to pay U.S. federal and state income taxes that we would not have been required to pay had the pre-Chapter 11 NOLs been available to us.

At each reporting date, we consider all available positive and negative evidence to evaluate whether our deferred tax assets are more likely than not to be realized.

The primary positive evidence we noted was:

- Cumulative income before income taxes for the three years ended December 31, 2020, was $151.3 million.

The primary negative evidence we noted was:

- Our loss before income taxes was $71.5 million in 2019, and $24.2 million and $13.4 million for the Predecessor and Successor periods of 2020, respectively.
- We filed for bankruptcy in 2020.
- The forecasts of our results and the consensus forecasts of the hydraulic fracturing industry have been historically volatile due to the up-and-down cycles experienced by the industry.
- We do not have prudent and feasible tax-planning strategies available to us to realize deferred tax assets.

Notwithstanding the three-year cumulative income, we concluded that a full valuation allowance is still required at December 31, 2020. We based this conclusion on the positive and negative evidence discussed above.

If we generate income before income taxes in future periods and if our forecasts become more accurate due to the cycles of the hydraulic fracturing industry becoming less significant, we may be able to recognize a portion of our net deferred tax assets in future periods. We will adjust the valuation allowance based on our evaluation of new information as it becomes available and new circumstances as they occur.

At December 31, 2020 and 2019, we had no liability for uncertain tax positions. We recognize interest and penalties related to UTBs on the income tax expense line in the accompanying consolidated statement of operations.

FTS International, Inc. and its U.S. subsidiaries join in the filing of a U.S. federal consolidated income tax return. We do not currently have significant operations or undistributed earnings in foreign jurisdictions. Our income tax returns are currently subject to examination in federal and state jurisdictions primarily for tax years from 2016 through 2019.

Note 13—Commitments and contingencies

Purchase obligations

At December 31, 2020, the Successor Company's future minimum purchase commitments is summarized below:

(In millions)	2021	2022	2023	2024	2025	Thereafter
Other purchase obligations	0.3	0.3	0.3	0.1	—	—
Total purchase obligations	$0.3	$0.3	$0.3	$0.1	$ —	$ —

Litigation

In the ordinary course of business, we are subject to various legal proceedings and claims, some of which may not be covered by insurance. Some of these legal proceedings and claims are in early stages, and many of them seek an indeterminate amount of damages. We estimate and provide for potential losses that may arise out of legal proceedings and claims to the extent that such losses are probable and can be reasonably estimated. Significant judgment is required in making these estimates and our final liabilities may ultimately be materially different from these estimates. When preparing our estimates, we consider, among other factors, the progress of each legal proceeding and claim, our experience and the experience of others in similar legal proceedings and claims, and the opinions and views of legal counsel. Legal costs related to litigation contingencies are expensed as incurred.

With respect to the litigation matters below, if there is an adverse outcome individually or collectively, there could be a material adverse effect on the Company's consolidated financial position or results of operations. These litigation matters are subject to inherent uncertainties and management's view of these matters may change in the future. Therefore, there can be no assurance as to the ultimate outcome of these matters. Regardless of the outcome, any such litigation and claims can have an adverse impact on the Company because of defense and settlement costs, diversion of management resources and other factors.

Patterson v. FTS International Manufacturing, LLC and FTS International Services, LLC : On June 24, 2015, Joshua Patterson filed a lawsuit against the Company in the 115th Judicial District Court of Upshur County, Texas, alleging, among other things, that the Company was negligent with respect to an automobile accident in 2013. Mr. Patterson sought monetary relief of more than $1 million. On July 19, 2018, a jury returned a verdict of approximately $100 million, including punitive damages, against the Company. The trial court reduced the judgment on November 12, 2018 to approximately $33 million. The Company's insurance carriers appealed and the Twelfth Court of Appeals reversed the verdict in its entirety on August 26, 2020, remanding the case for a new trial. The Company's insurance carriers are currently appealing one of the appellate findings with the Texas Supreme Court. No new trial date has been set. While the outcome of this case is uncertain, the Company has met its insurance deductible for this matter and we do not expect the ultimate resolution of this case to have a material adverse effect on our consolidated financial statements.

Securities Act Litigation: On February 22, 2019, Carol Glock filed a purported securities class action in the 160th Civil District Court of Dallas County, Texas (Cause No. DC-19-02668) against the Company, certain of our officers, directors and stockholders, and certain of the underwriters of our initial public offering of common stock ("IPO"). The complaint was brought on behalf of an alleged class of persons or entities who purchased our common stock in or traceable to our IPO, and purports to allege claims arising under Sections 11 and 15 of the Securities Act of 1933, as amended. The complaint sought, among other relief, class certification, damages in an amount in excess of $1.0 million, and reasonable costs and expenses, including attorneys' fees. After removing the case from state to federal court in the Southern District of Texas, Defendants filed a motion to dismiss based on deficiencies in the pleadings on September 18, 2020. Prior to a hearing on the motion, the parties settled the case on October 16, 2020. The settlement is on a class-wide basis, and a final hearing is set for April 2021 to conclude the case. We do not expect the ultimate resolution of this case to have a material adverse effect on our consolidated financial statements.

We believe that costs associated with other legal matters will not have a material adverse effect on our consolidated financial statements.

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Note 14—Earnings (loss) per share

The numerators and denominators of the basic and diluted earnings (loss) per share ("EPS") computations for our common stock are calculated as follows:

(In millions, except per share amounts)	Successor	Predecessor		
	Period from November 20, through December 31, 2020	Period from January 1 through November 19, 2020	Years ended December 31, 2019	2018
Numerator:				
Net (loss) income	$ (13.4)	$ (24.4)	$ (72.9)	$ 258.4
Convertible preferred stock accretion	—	—	—	—
Net reversal of convertible preferred stock accretion due to recapitalization of convertible preferred stock to common stock(3)	—	—	—	423.2
Net (loss) income attributable to common stockholders used for basic and diluted EPS computation	$ (13.4)	$ (24.4)	$ (72.9)	$ 681.6
Denominator:				
Weighted average shares used for basic EPS computation(1)	13,990	5,377	5,440	5,208
Effect of dilutive securities:				
Restricted stock units(2)	—	—	—	—
Dilutive potential common shares	—	—	—	—
Number of shares used for diluted EPS computation (in thousands)	13,990	5,377	5,440	5,208
Basic and diluted EPS	$ (0.96)	$ (4.54)	$(13.40)	$130.88

(1) The weighted average shares outstanding has been adjusted to give effect to a 69.258777 : 1 reverse stock split that occurred in February 2018 in connection with the completion of our IPO and the 20 : 1 reverse stock split in May 2020.

(2) The dilutive effect of employee restricted stock units granted under our 2018 LTIP and 2020 LTIP was either immaterial or antidilutive for 2020, 2019 and 2018.

(3) The accreted value of our Preferred Stock was $1,132.7 million at December 31, 2017. In connection with our IPO, the Preferred Stock was recapitalized into 39.4 million shares of common stock. These shares of common stock had a value of $709.5 million at the IPO share price of $18.00, which resulted in a net reversal of $423.2 million of convertible preferred stock accretion previously recognized.

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Note 15—Selected quarterly data (unaudited)

(In millions, except per share amounts)	Three months ended March 31, 2020	Three months ended June 30, 2020	Three months ended September 30, 2020	Predecessor Period from October 1, through November 19, 2020	Successor Period from November 20 through December 31, 2020
Revenue					
Revenue	$ 150.8	$ 29.5	$ 32.1	$ 27.2	$ 22.6
Revenue from related parties	0.7	—	—	—	—
Total revenue	151.5	29.5	32.1	27.2	22.6
Operating expenses					
Costs of revenue	114.6	28.9	30.7	23.0	24.1
Selling, general and administrative	17.7	13.2	11.8	5.1	4.7
Depreciation and amortization	21.4	20.2	17.8	9.1	4.8
Impairments and other charges	4.3	10.3	19.4	0.1	0.3
(Gain) loss on disposal of assets, net	(0.1)	0.2	—	—	—
Total operating expenses	157.9	72.8	79.7	37.3	33.9
Operating loss	(6.4)	(43.3)	(47.6)	(10.1)	(11.3)
Interest expense, net	(7.3)	(7.4)	(7.4)	—	—
Gain on extinguishment of debt, net	2.0	—	—	—	—
Equity in net loss of joint venture affiliate	—	—	—	—	—
Gain on sale of equity interest in joint venture affiliate	—	—	—	—	—
Reorganization items, net	—	—	(13.7)	117.0	(2.1)
Loss before income taxes	(11.7)	(50.7)	(68.7)	106.9	(13.4)
Income tax benefit	—	—	—	0.2	—
Net loss	$ (11.7)	$ (50.7)	$ (68.7)	$ 106.7	$ (13.4)
Basic and diluted loss per share	$ (2.18)	$ (9.43)	$ (12.77)	$ 19.83	$ (0.96)
Shares used in computing basic and diluted loss per share (in thousands)	5,367	5,379	5,381	5,382	13,990

	Predecessor			
	Three months ended			
	March 31, 2019	June 30, 2019	September 30, 2019	December 31, 2019
Revenue				
Revenue	$ 221.6	$ 225.8	$ 186.0	$ 142.3
Revenue from related parties	0.9	—	—	—
Total revenue	222.5	225.8	186.0	142.3
Operating expenses				
Costs of revenue	162.1	164.8	145.5	101.5
Selling, general and administrative	23.6	21.7	21.1	22.7
Depreciation and amortization	22.4	22.8	22.7	22.1
Impairments and other charges(1)	61.8	3.9	6.8	2.1
Loss (gain) on disposal of assets, net	0.3	(1.2)	(0.1)	(0.4)
Total operating expenses	270.2	212.0	196.0	148.0
Operating (loss) income	(47.7)	13.8	(10.0)	(5.7)
Interest expense, net	(8.2)	(7.7)	(7.6)	(7.2)
Gain (loss) on extinguishment of debt, net	0.5	(0.1)	0.8	—
Equity in net income of joint venture affiliate	0.6	—	—	—
Gain on sale of equity interest in joint venture affiliate	—	—	7.0	—
(Loss) income before income taxes	(54.8)	6.0	(9.8)	(12.9)
Income tax expense	0.2	0.1	1.0	0.1
Net (loss) income	$ (55.0)	$ 5.9	$ (10.8)	$ (13.0)
Net (loss) income attributable to common stockholders	$ (55.0)	$ 5.9	$ (10.8)	$ (13.0)
Basic and diluted (loss) earnings per share attributable to common stockholders	$ (10.03)	$ 1.08	$ (1.99)	$ (2.42)
Shares used in computing basic and diluted (loss) earnings per share (in thousands)	5,483	5,484	5,430	5,365

(1) We recorded a supply commitment charge of $55.0 million in the first quarter of 2019 for expected losses from unconditional purchase obligations. See Note 11—"Impairments and Other Charges" for more information.

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FTS International, Inc.
Interim consolidated statements of operations
(Unaudited)

(Dollars in millions, except per share amounts)	Successor Three months ended September 30, 2021	Predecessor Three months ended September 30, 2020	Successor Nine months ended September 30, 2021	Predecessor Nine months ended September 30, 2020
Revenue				
Revenue	$ 90.9	$ 32.1	$ 286.6	$ 212.4
Revenue from related parties	—	—	—	0.7
Total revenue	90.9	32.1	286.6	213.1
Operating expenses				
Costs of revenue (excluding depreciation of $12.6, $16.8, $39.8 and $56.5 respectively, included in depreciation and amortization below)	73.6	30.7	227.3	174.2
Selling, general and administrative	11.7	11.8	34.7	42.7
Depreciation and amortization	13.1	17.8	41.3	59.4
Impairments and other charges	0.5	19.4	1.0	34.0
Loss on disposal of assets, net	1.6	—	1.6	0.1
Total operating expenses	100.5	79.7	305.9	310.4
Operating loss	(9.6)	(47.6)	(19.3)	(97.3)
Interest expense, net	—	(7.4)	(0.2)	(22.1)
Gain on extinguishment of debt, net	—	—	—	2.0
Reorganization items	(0.3)	(13.7)	(0.8)	(13.7)
Loss before income taxes	(9.9)	(68.7)	(20.3)	(131.1)
Income tax expense	0.1	—	0.2	—
Net loss	$ (10.0)	$ (68.7)	$ (20.5)	$ (131.1)
Basic and diluted loss per share	$ (0.71)	$ (12.77)	$ (1.46)	$ (24.39)
Shares used in computing basic and diluted earnings per share (in thousands)	14,062	5,381	14,016	5,376

The accompanying notes are an integral part of these consolidated financial statements.

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FTS International, Inc.
Interim consolidated balance sheets
(Unaudited)

(In millions, except share amounts)	September 30, 2021	December 31, 2020
ASSETS		
Current assets		
Cash and cash equivalents	$ 87.9	$ 94.0
Accounts receivable, net	55.0	26.9
Inventories	36.4	29.0
Prepaid expenses and other current assets	4.9	19.5
Total current assets	184.2	169.4
Property, plant, and equipment, net	129.2	132.3
Operating lease right-of-use assets	3.0	4.5
Intangible assets, net	7.0	7.4
Other assets	1.5	1.4
Total assets	$ 324.9	$ 315.0
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities		
Accounts payable	$ 57.0	$ 26.9
Accrued expenses	13.8	12.5
Current portion of operating lease liabilities	1.8	3.0
Other current liabilities	0.3	0.3
Total current liabilities	72.9	42.7
Operating lease liabilities	1.9	3.3
Other liabilities	2.0	2.4
Total liabilities	76.8	48.4
Commitments and contingencies (Note 10)		
Stockholders' equity		
Preferred stock, $0.01 par value, 5,000,000 shares authorized, none issued and outstanding	—	—
Common stock Class A, $0.01 par value, 49,000,000 authorized, 13,749,337 issued and outstanding at September 30, 2021 and 13,677,664 issued and outstanding at December 31, 2020		
Common stock Class B, $0.01 par value, 1,000,000 authorized, 312,306 issued and outstanding at September 30, 2021 and December 31, 2020	0.1	0.1
Additional paid-in capital	281.9	279.9
Accumulated deficit	(33.9)	(13.4)
Total stockholders' equity	248.1	266.6
Total liabilities and stockholders' equity	$ 324.9	$ 315.0

The accompanying notes are an integral part of these consolidated financial statements.

FTS International, Inc.
Interim consolidated statements of cash flows
(Unaudited)

(In millions)	Successor Nine months ended September 30, 2021	Predecessor Nine months ended September 30, 2020
Cash flows from operating activities		
Net loss	$ (20.5)	$ (131.1)
Adjustments to reconcile net loss to net cash provided by (used in) operating activities:		
Depreciation and amortization	41.3	59.4
Stock-based compensation	3.3	9.4
Amortization of debt discounts and issuance costs	—	2.0
Loss on disposal of assets, net	1.6	0.1
Gain on extinguishment of debt, net	—	(2.0)
Non-cash provision for supply commitment charges	—	9.1
Cash paid to settle supply commitment charges	—	(18.8)
Non-cash reorganization items	—	12.3
Inventory write-down	—	5.1
Other non-cash items	0.1	0.9
Changes in operating assets and liabilities:		
Accounts receivable	(28.2)	47.5
Inventories	(7.4)	4.8
Prepaid expenses and other assets	0.6	(4.3)
Accounts payable	13.4	(20.9)
Accrued expenses and other liabilities	1.0	(4.3)
Net cash provided by (used in) operating activities	5.2	(30.8)
Cash flows from investing activities		
Capital expenditures	(25.8)	(19.3)
Proceeds from disposal of assets	3.1	0.1
Net cash used in investing activities	(22.7)	(19.2)
Cash flows from financing activities		
Repayments of long-term debt	—	(20.6)
Taxes paid related to net share settlement of equity awards	(1.3)	(0.1)
Net cash used in financing activities	(1.3)	(20.7)
Net decrease in cash, cash equivalents, and restricted cash	(18.8)	(70.7)
Cash, cash equivalents, and restricted cash at beginning of period	106.7	223.0
Cash and cash equivalents at end of period	$ 87.9	$ 152.3
Supplemental cash flow information:		
Interest paid	$ —	$ 14.6
Income tax payments	$ 0.2	$ 0.4
Noncash investing and financing activities:		
Capital expenditures included in accounts payable	$ 17.1	$ 0.1
Operating lease liabilities incurred from obtaining right-of-use assets	$ 1.5	$ 0.6
Derecognition of lease liabilities and right-of-use assets due to lease termination	$ 1.1	$ 10.7

The accompanying notes are an integral part of these consolidated financial statements.

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FTS International, Inc.
Interim consolidated statements of stockholders' equity (deficit)
(Unaudited)

(Dollars in millions and shares in thousands)	Common stock Shares	Common stock Amount	Additional paid-in capital	Accumulated deficit	Total stockholders' equity
Balance at January 1, 2021 Successor	13,990	$ 0.1	$ 279.9	$ (13.4)	$ 266.6
Net loss	—	—	—	(7.9)	(7.9)
Activity related to stock plan	—	—	0.9	—	0.9
Balance at March 31, 2021 Successor	13,990	$ 0.1	$ 280.8	$ (21.3)	$ 259.6
Net loss	—	—	—	(2.6)	(2.6)
Activity related to stock plan	72	—	0.4	—	0.4
Balance at June 30, 2021 Successor	14,062	$ 0.1	$ 281.2	$ (23.9)	$ 257.4
Net loss	—	—	—	(10.0)	(10.0)
Activity related to stock plans	—	—	0.7	—	0.7
Balance at September 30, 2021 Successor	14,062	$ 0.1	$ 281.9	$ (33.9)	$ 248.1

(dollars in millions and shares in thousands)	Common stock Shares	Common stock Amount	Additional paid-in capital	Accumulated deficit	Total stockholders' equity (deficit)
Balance at January 1, 2020 Predecessor	5,355	$ 36.4	$ 4,382.0	$ (4,380.7)	$ 37.7
Net loss	—	—	—	(11.7)	(11.7)
Activity related to stock plan	20	—	3.0	—	3.0
Balance at March 31, 2020 Predecessor	5,375	$ 36.4	$ 4,385.0	$ (4,392.4)	$ 29.0
Net loss	—	—	—	(50.7)	(50.7)
Activity related to stock plan	6	—	3.6	—	3.6
Balance at June 30, 2020 Predecessor	5,381	$ 36.4	$ 4,388.6	$ (4,443.1)	$ (18.1)
Net loss	—	—	—	(68.7)	(68.7)
Activity related to stock plan	—	—	2.8	—	2.8
Balance at September 30, 2020 Predecessor	5,381	$ 36.4	$ 4,391.4	$ (4,511.8)	$ (84.0)
Net income	—	—	—	106.7	106.7
Activity related to stock plan	75	—	16.5	—	16.5
Balance at November 19, 2020 Predecessor	5,456	36.4	4,407.9	(4,405.1)	39.2
Cancellation of Predecessor Equity	(5,456)	(36.4)	(4,407.9)	4,405.1	(39.2)
Balance at November 19, 2020 Predecessor	—	$ —	$ —	$ —	$ —
Issuance of Successor Common Stock	13,990	0.1	279.5	—	279.6
Balance at November 19, 2020 Successor	13,990	0.1	279.5	—	279.6
Net loss	—	—	—	(13.4)	(13.4)
Activity related to stock plan	—	—	0.4	—	0.4
Balance at December 31, 2020 Successor	13,990	$ 0.1	$ 279.9	$ (13.4)	$ 266.6

The accompanying notes are an integral part of these consolidated financial statements.

FTS International, Inc.
Notes to interim consolidated financial statements
(Unaudited)

Note 1—Basis of presentation

The unaudited consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America ("GAAP") for interim financial reporting. Accordingly, certain information and disclosures normally included in our annual consolidated financial statements have been condensed or omitted. These unaudited consolidated financial statements should be read in conjunction with our audited consolidated financial statements included in our annual report on Form 10-K for the year ended December 31, 2020. In our opinion, the consolidated financial statements included herein contain all adjustments of a normal, recurring nature considered necessary for a fair presentation of the interim periods. The results of operations of the interim periods are not necessarily indicative of the results of operations to be expected for the full year. There were no items of other comprehensive income in the periods presented.

Emergence from voluntary reorganization under Chapter 11

As described in "Note 1—Description of Business", "Note 2—Restructuring", and "Note 3—Fresh Start Accounting" of our Consolidated Financial Statements from our annual report on Form 10-K for the year ended December 31, 2020, we filed voluntary petitions for bankruptcy on September 22, 2020, then emerged from bankruptcy on November 19, 2020, and adopted fresh-start accounting upon emergence.

References to "Successor" or "Successor Company" relate to the financial position and results of operations of the reorganized Company subsequent to November 19, 2020. References to "Predecessor" or "Predecessor Company" relate to the financial position and results of operations of the Company prior to, and including, November 19, 2020.

Certain prior year financial statements are not comparable to our current year financial statements due to the adoption of fresh start accounting. Therefore, "black-line" financial statements are presented to distinguish between the Predecessor and Successor periods. The Company's financial results for future periods will be different from historical trends and the differences may be material.

Intangibles assets

The amount of intangible assets recorded in our consolidated balance sheets as of September 30, 2021 (Successor) and December 31, 2020 (Successor) was $7.4 million, of which $6.0 million related to our indefinite-lived tradename and $1.4 million related to our developed technology which is being amortized on a straight-line basis over a period of three years. Accumulated amortization of this intangible as of September 30, 2021 (Successor) and December 31, 2020 (Successor) was $0.4 million and $0.1 million, respectively. Amortization expense in the third quarter and first nine months of 2021 (Successor) was $0.2 million and $0.4 million, respectively. In the first nine months of 2020 (Predecessor), amortization expense was zero.

Fair value of financial instruments

Money market funds, classified as cash and cash equivalents, are the only financial instruments that are measured and recorded at fair value on the Company's balance sheets. The following table presents money market funds at their level within the fair value hierarchy.

(In millions)	Principal amount	Total fair value	Level 1	Level 2	Level 3
September 30, 2021					
Money market funds	$ 60.0	$ 60.0	$ 60.0	$ —	$ —
December 31, 2020					
Money market funds	$ 59.6	$ 59.6	$ 59.6	$ —	$ —

New accounting standards update

In December 2019, the FASB issued ASU No. 2019-12, Simplification of Accounting for Income Taxes, which simplifies the accounting for income taxes by providing new guidance to reduce complexity and eliminate certain exceptions to the general approach to the income tax accounting model. The Company adopted this guidance effective January 1, 2021, which did not have a material impact on the accompanying unaudited condensed consolidated financial statements.

Note 2—Restricted cash

Restricted cash

The following table provides a reconciliation of cash, cash equivalents, and restricted cash reported within the consolidated statement of cash flows.

(In millions)	September 30, 2021	December 31, 2020
Cash and cash equivalents	$ 87.9	$ 94.0
Restricted cash included in prepaid expenses and other current assets	—	12.7
Total cash, cash equivalents, and restricted cash shown in the consolidated statements of cash flows	$ 87.9	$ 106.7

As of December 31, 2020 (Successor), restricted cash included unsettled escrow fees related to our bankruptcy emergence and cash used as collateral for other banking products.

Note 3—Current economic environment

Our business activities are concentrated in the well completion services segment of the oilfield services industry in the United States. The market for these services is cyclical, and we depend on the willingness of our customers to make expenditures to explore for, develop, and produce oil and natural gas in the United States. The willingness of our customers to undertake these activities depends largely upon prevailing industry conditions and is predominantly influenced by current and expected future prices for oil and natural gas. Our customer base is also concentrated. Our business, financial condition and results of operations can be materially adversely affected if one or more of our significant customers ceases to engage us for our services on favorable terms, or at all, or fails to pay, or delays in paying us significant amounts of our outstanding receivables.

The prices that we are able to charge for our services is affected by the supply of hydraulic fracturing equipment that is available in the market to meet customer demand. Since the middle of 2018, the supply of hydraulic fracturing equipment has exceeded the demand for equipment, and as a result, the pricing for our services declined during this period. In 2020, the supply of equipment further exceeded demand as the demand for our services dropped significantly due to the pandemic. Pricing has increased in 2021 but still remains below pre-pandemic levels. As a result, we remain disciplined with respect to our number of active fleets, and we remain focused on optimizing our utilization and cash flow.

The third quarter of 2021 was negatively impacted by underutilization driven by customer scheduling changes. We expect these to be non-recurring issues and expect our utilization to improve in the remainder of the year.

We focus on keeping our operational execution at the highest levels, further advancing our technology initiatives, and maintaining our industry leading safety performance. With this strategy, we strive to provide the best service quality for our customers while maintaining a low-cost structure. We believe that these efforts combined with the recent improvements in pricing will generate free cash flow in the future.

Note 4—Indebtedness and borrowing facility

Revolving credit facility

The maximum availability of credit under the Successor Company’s credit facility is limited at any time to the lesser of $40 million or the borrowing base. The borrowing base is based on percentages of eligible accounts receivable and is subject to certain reserves. In an event of default or if the amount available under the credit facility is less than either 12.5% of our maximum availability or $5.0 million, we will be required to maintain a minimum fixed charge coverage ratio of 1.0 to 1.0. If at any time borrowings and letters of credit issued under the credit facility exceed the borrowing base, we will be required to repay an amount equal to such excess.

The credit facility contains covenants that could, in certain circumstances, limit our ability to issue additional debt, repurchase or pay dividends on our common stock, sell substantially all of our assets, make certain investments, or enter into certain other transactions. We were in compliance with all of the covenants in the credit facility at September 30, 2021.

As of September 30, 2021 (Successor), the borrowing base was $36.6 million and therefore our maximum availability under the credit facility was $36.6 million. There were no borrowings outstanding under the credit facility, and letters of credit totaling $4.4 million were issued, resulting in $32.2 million of availability under the credit facility.

Note 5—Revenue

The Company contracts with its customers to perform hydraulic fracturing services on one or more oil or natural gas wells. Under these arrangements, we satisfy our performance obligations as services are rendered, which is generally upon the completion of a fracturing stage or the passage of time. Pricing for our services is frequently negotiated with our customers and is based on prevailing market rates during each reporting period. The amounts we invoice our customers for services performed during a period are directly related to the value received by the customers for the period. There is no inherent uncertainty to the amount of consideration we will receive for services performed during a period and no judgment is required to allocate a portion of the transaction price to a future period. Accordingly, we are not required to identify any unsatisfied performance obligations nor attribute any revenue to them. We have no material contract assets or liabilities with our customers. We do not present disaggregated revenue because we do not believe this information is necessary to understand the nature, amount, timing and uncertainty of our revenues and cash flows.

Note 6—Impairments and other charges

The following table summarizes our impairments and other charges:

(In millions)	Successor Three months ended September 30, 2021	Predecessor Three months ended September 30, 2020	Successor Nine months ended September 30, 2021	Predecessor Nine months ended September 30, 2020
Transaction and strategic initiative costs	$ 0.5	$ 18.5	$ 1.3	$ 18.5
Loss (Gain) on contract termination	—	0.3	(0.3)	0.3
Supply commitment charges	—	—	—	9.1
Inventory write-down	—	0.6	—	5.1
Employee severance costs	—	—	—	1.0
Total impairments and other charges	$ 0.5	$ 19.4	$ 1.0	$ 34.0

Transaction and strategic initiative costs

In the third quarter and first nine months of 2021 (Successor), we incurred $0.5 million and $1.3 million of costs related to strategic initiatives. In the third quarter of 2020 (Predecessor), in preparation for and prior to filing our Chapter 11 Cases, we incurred and paid $7.0 million in legal and professional fees and paid $11.5 million to certain holders of our Term Loan Agreement and Secured Notes pursuant to the Restructuring Support Agreement.

Loss (gain) on contract termination

In the first quarter of 2021 (Successor), we terminated a portion of our operating lease for certain buildings. We recorded a net gain of $0.3 million as a result of this contract termination. In the third quarter of 2020 (Predecessor), we terminated our operating leases for containerized proppant delivery and a sand supply contract. We recorded a net loss of $0.3 million as a result of these contract terminations.

Supply Commitment Charges

The Predecessor Company incurred supply commitment charges when our purchases of sand from certain suppliers were less than the minimum purchase commitments in our supply contracts.

In the third quarter and first nine months of 2020 (Predecessor), we recorded aggregate charges under these supply contracts of zero and $9.1 million, respectively. The purchase shortfalls were largely due to our customers choosing to procure their own sand, often from sand mines closer to their operating areas.

The Company terminated all sand supply contracts upon emergence from bankruptcy. Any amounts due as outlined in the Plan were paid upon emergence and the Company does not expect any future commitment related to these Predecessor contracts.

Inventory write-down

In the third quarter and first nine months of 2020 (Predecessor), we recorded $0.6 million and $5.1 million, respectively, of inventory write-downs to reduce excess, obsolete and slow-moving inventory to its estimated net realizable value.

Employee severance costs

In the third quarter and first nine months of 2020 (Predecessor), we incurred employee severance costs of zero and $1.0 million, respectively, in connection with our cost reduction measures to mitigate losses from the decline in customer activity levels due to the low commodity price environment.

Note 7—Asset disposals

In the third quarter of 2021 (Successor), we received $3.1 million of proceeds and recognized a $1.6 million loss on the sale of various assets; the majority of which is from the sale of our Shreveport facility and related assets.

Note 8—Income taxes

We provide a valuation allowance against our deferred tax assets which we believe are not likely to be realizable. As a result, no income tax benefit was recorded and income tax expense was only recorded for certain states that limit or do not provide for net operating loss deductions.

At each reporting date, we consider all available positive and negative evidence to evaluate whether our deferred tax assets are more likely than not to be realized. A significant piece of negative evidence that we consider is whether we have incurred cumulative losses (generally defined as losses before income taxes) in recent years. Such negative evidence weighs heavily against other more subjective positive evidence such as our projections for future taxable income. Due to the significant fluctuations of our business in recent years, the three year cumulative loss through September 30, 2021 and our losses before income taxes for the most recent periods, we concluded that a full valuation allowance was still required at September 30, 2021.

Upon our emergence from bankruptcy on November 19, 2020, we believe an ownership change under Internal Revenue Code Section (IRC) 382 occurred. An ownership change under IRC Section 382 would substantially reduce our ability to utilize pre-emergence net operating losses and other tax deductions related to built-in loss items. IRC Section 382(l)(5) can avoid the IRC Section 382 limit if certain requirements are met. If the Company were to incur an additional ownership change of more than 50% of their equity within a two (2) year period following emergence from Chapter 11, the Company’s tax attributes (mainly net operating losses) at the time of the second ownership change would be fully limited. In addition, limitations on the ability to deduct built-in loss items would exist for sixty (60) months following the second ownership change. As described in detail in Note 11 and in Management’s Discussion and Analysis of Financial Condition and Results of Operations, the Company has entered into an agreement to be acquired by ProFrac Holdings. If this ProFrac transaction is consummated, it would represent an additional ownership change within two (2) years of emergence from bankruptcy.

Note 9—Earnings per share

The numerators and denominators of the basic and diluted earnings per share (“EPS”) computations for our common stock are calculated as follows:

(Dollars in millions, except per share amounts)	Successor Three months ended September 30, 2021	Predecessor Three months ended September 30, 2020	Successor Nine months ended September 30, 2021	Predecessor Nine months ended September 30, 2020
Numerator:				
Net loss used for basic and diluted EPS computations	$ (10.0)	$ (68.7)	$ (20.5)	$ (131.1)
Denominator:				
Weighted average shares used for basic EPS computation (in thousands)	14,062	5,381	14,016	5,376
Effect of dilutive securities:				
Dilutive potential of equity awards	—	—	—	—
Number of shares used for diluted EPS computation (in thousands)	14,062	5,381	14,016	5,376
Basic and diluted EPS	$ (0.71)	$ (12.77)	$ (1.46)	$ (24.39)

We had 270,000 and 95,000 restricted stock units outstanding as of September 30, 2021 (Successor) and September 30, 2020 (Predecessor), respectively, that were not included in the calculation of diluted EPS for the periods presented because the effect would be antidilutive. These securities would be included in the calculation of diluted EPS in future periods if the Company generates positive net income for purposes of the calculation. The Company also has performance based restricted stock units, stock options, and warrants outstanding that could become potentially dilutive in future periods depending on the company’s market capitalization.

Note 10—Commitments and contingencies

Legal contingencies

In the ordinary course of business, we are subject to various legal proceedings and claims, some of which may not be covered by insurance. Some of these legal proceedings and claims are in early stages, and many of them seek an indeterminate amount of damages. We estimate and provide for potential losses that may arise out of legal proceedings and claims to the extent that such losses are probable and can be reasonably estimated. Significant judgment is required in making these estimates and our final liabilities may ultimately be materially different from these estimates. When preparing our estimates, we consider, among other factors, the progress of each legal proceeding and claim, our experience and the experience of others in similar legal proceedings and claims, and the opinions and views of legal counsel. Legal costs related to litigation contingencies are expensed as incurred.

With respect to the litigation matter below, if there is an adverse outcome individually or collectively, there could be a material adverse effect on the Company’s consolidated financial position or results of operations. Litigation matters are subject to inherent uncertainties and management’s view of these matters may change in the future. Therefore, there can be no assurance as to the ultimate outcome of litigation matters. Regardless of the outcome, any such litigation and claims can have an adverse impact on the Company because of defense and settlement costs, diversion of management resources and other factors.

Patterson v. FTS International Manufacturing, LLC and FTS International Services, LLC: On June 24, 2015, Joshua Patterson filed a lawsuit against the Company in the 115th Judicial District Court of Upshur County, Texas, alleging, among other things, that the Company was negligent with respect to an automobile accident in 2013. Mr. Patterson sought monetary relief of more than $1 million. On July 19, 2018, a jury returned a verdict of approximately $100 million, including punitive damages, against the Company. The trial court reduced the judgment on November 12, 2018, to approximately $33 million. The Company's insurance carriers appealed and the Twelfth Court of Appeals reversed the verdict in its entirety on August 26, 2020, remanding the case for a new trial. The Company's insurance carriers are currently appealing one of the appellate findings with the Texas Supreme Court. No new trial date has been set. While the outcome of this case is uncertain, the Company has met its insurance deductible for this matter and we do not expect the ultimate resolution of this case to have a material adverse effect on our consolidated financial statements.

We believe that costs associated with other legal matters will not have a material adverse effect on our consolidated financial statements or financial condition.

Note 11—Subsequent events

On October 21, 2021, we entered into an agreement and plan of merger to be acquired by ProFrac Holdings, LLC., a leading oilfield services company, in an all-cash transaction that values FTSI at approximately $407.5 million, including payments to holders of outstanding warrants. Under the terms of the agreement, which has been unanimously approved by FTSI's Board of Directors, FTSI stockholders will receive $26.52 per share of FTSI common stock in cash. This represents approximately a 14% premium over the Company's 60-day volume-weighted average closing share price through October 21, 2021.

shares

ProFrac Holding Corp.

Class A common stock

J.P. Morgan | Piper Sandler | Morgan Stanley

Through and including , 2021 (the 25th day after the date of this prospectus), all dealers effecting transactions in these securities, whether or not participating in this offering, may be required to deliver a prospectus. This is in addition to a dealer's obligation to deliver a prospectus when acting as an underwriter and with respect to an unsold allotment or subscription.

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Part II

Information not required in prospectus

Item 13. Other expenses of issuance and distribution

Set forth below are the expenses (other than underwriting discounts and the structuring fee) expected to be incurred in connection with the issuance and distribution of the securities registered hereby. With the exception of the SEC registration fee, the FINRA filing fee and Nasdaq listing fee, the amounts set forth below are estimates.

SEC registration fee	$	*
FINRA filing fee		*
Nasdaq listing fee		*
Printing and engraving expenses		*
Fees and expenses of legal counsel		*
Accounting fees and expenses		*
Transfer agent and registrar fees		*
Miscellaneous		*
Total	$	*

* To be filed by amendment.

Item 14. Indemnification of directors and officers

We are currently organized as a Delaware Corporation.

Our amended and restated certificate of incorporation will provide 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 certificate of incorporation, will be limited to the fullest extent permitted by the amended DGCL. Our amended and restated certificate of incorporation will 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 will also contain indemnification rights for our directors and our officers. Specifically, our amended and restated certificate of incorporation will provide that we shall indemnify our officers and directors to the fullest extent authorized by the DGCL. 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 will enter into written indemnification agreements with our directors and executive officers. Under these proposed 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.

The underwriting agreement provides for indemnification by the underwriters of us and our officers and directors, and by us of the underwriters, for certain liabilities arising under the Securities Act or otherwise in connection with this offering.

Item 15. Recent sales of unregistered securities

In connection with our incorporation on August 17, 2021 under the laws of the State of Delaware, we issued 1,000 shares of our common stock to ProFrac LLC for an aggregate purchase price of $10.00. These securities were offered and sold by us in reliance upon the exemption from the registration requirements provided by Section 4(a)(2) of the Securities Act in a transaction by an issuer not involving any public offering. These shares will be redeemed for nominal value in connection with our reorganization described in "Corporate Reorganization."

Further, pursuant to the terms of certain reorganization transactions that will be completed prior to the closing of this offering, as described in further detail under "Our History and Corporate Reorganization," we will issue shares of Class A common stock to certain Pre-IPO Owners and shares of Class B common stock to certain ProFrac LLC Unit Holders. We believe that each such issuance will be exempt from registration requirements pursuant to Section 4(a)(2) of the Securities Act.

Item 16. Exhibits

(a) Exhibits

The following documents are filed as exhibits to this registration statement:

Exhibit number	Description
*1.1	Form of Underwriting Agreement
2.1	Agreement and Plan of Merger, dated as of October 21, 2021, by and between FTS International, Inc. ("FTSI"), ProFrac Holdings, LLC and ProFrac Acquisitions, Inc.
3.1	Certificate of Incorporation of ProFrac Holding Corp.
3.2	Form of Amended and Restated Certificate of Incorporation of ProFrac Holding Corp.
3.3	Bylaws of ProFrac Holding Corp.
3.4	Form of Amended and Restated Bylaws of ProFrac Holding Corp.
*4.1	Form of Class A Common Stock Certificate
4.2	Form of Registration Rights Agreement
*4.3	Form of Stockholders' Agreement

Exhibit number	Description
5.1	Form of Opinion of Vinson & Elkins L.L.P. as to the legality of the securities being registered
10.1†	Form of ProFrac Holding Corp. 2021 Long Term Incentive Plan
*10.2	Form of Tax Receivable Agreement
*10.3	Form of Third Amended and Restated Limited Liability Company Agreement of ProFrac Holdings, LLC
*10.4	Form of Indemnification Agreement
*10.5	Form of Master Services Agreement
10.6	Patent License Agreement, effective as of June 29, 2021, between U.S. Well Services, LLC and ProFrac Manufacturing, LLC
*10.7	Credit Agreement, dated as of March 14, 2018, between Barclays Bank PLC, as the administrative agent and the collateral agent, ProFrac Holdings, LLC, as holdings, ProFrac Services, LLC, as the borrower, and several lenders from time to time party thereto
*10.8	Term Loan Credit Agreement, dated as of September 7, 2018, among ProFrac Holdings, LLC, as holdings, ProFrac Services, LLC, as the borrower, the several lenders from time to time party thereto and Barclays Bank PLC, as the agent and the collateral agent
*10.9	First Amendment to Term Loan Credit Agreement, dated as of September 7, 2018, among ProFrac Services, LLC, as the borrower, ProFrac Holdings, LLC, ProFrac Manufacturing, LLC and the lenders party thereto
*10.10	Second Amendment to Term Loan Credit Agreement, dated as of May 13, 2019, among ProFrac Services, LLC, as the borrower, ProFrac Holdings, LLC, ProFrac Manufacturing, LLC and the lenders party thereto
*10.11	Third Amendment to Term Loan Credit Agreement, dated as of October 17, 2019, among ProFrac Services, LLC, as the borrower, ProFrac Holdings, LLC, ProFrac Manufacturing, LLC and the lenders party thereto
*10.12	Fourth Amendment to Term Loan Credit Agreement, dated as of June 24, 2021, among ProFrac Services, LLC, as the borrower, ProFrac Holdings, LLC, ProFrac Manufacturing, LLC and the lenders party thereto
*10.13	Fifth Amendment to Term Loan Credit Agreement, dated as of July 14, 2021, among ProFrac Services, LLC, as the borrower, ProFrac Holdings, LLC, ProFrac Manufacturing, LLC and the lenders party thereto
*10.14	Credit Agreement, dated as of February 4, 2019, between Best Flow Line Equipment, L.P., as borrower, and Equify Financial, LLC, as lender
*10.15	First Amendment to Credit Agreement, dated as of August 30, 2019, between Best Flow Line Equipment, L.P., as borrower, and Equify Financial, LLC, as lender
*10.16	Second Amendment to Credit Agreement, dated as of October 16, 2019, between Best Flow Line Equipment, L.P., as borrower, and Equify Financial, LLC, as lender
*10.17	Third Amendment to Credit Agreement, dated as of January 28, 2021, between Best Pump and Flow, LP (f/k/a Best Flow Line Equipment, L.P.), as borrower, and Equify Financial, LLC, as lender

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Exhibit number	Description
*10.18	Fourth Amendment to Credit Agreement, dated as of June 30, 2021, between Best Pump and Flow, LP (f/k/a Best Flow Line Equipment, L.P.), as borrower, and Equify Financial, LLC, as lender
*10.19	Promissory Note, dated as of January 28, 2021, between Best Pump and Flow, LP, as maker, and Equify Financial, LLC, as holder
*10.20	Revolving Credit Note Not Under Chapter 346 (Interest Only), dated as of October 25, 2018, between Alpine Silica, LLC, as maker, and Equify Financial, LLC, as holder
*10.21	Promissory Note, dated as of January 15, 2021, between Alpine Silica, LLC, as maker, and Equify Financial, LLC, as holder
*21.1	List of Subsidiaries of ProFrac Holding Corp.
23.1	Consent of Grant Thornton LLP
23.2	Consent of Grant Thornton LLP
23.3	Consent of Grant Thornton LLP
23.4	Consent of Vinson & Elkins L.L.P. (included in Exhibit 5.1)
23.5	Consent of John T. Boyd Company
23.6	Consent of Director Nominee (Krylov)
23.7	Consent of Director Nominee (Glebocki)
23.8	Consent of Director Nominee (Nieuwoudt)
23.9	Consent of Director Nominee (Haddock)
24.1	Power of Attorney (included on the signature page of this Registration Statement)
99.1	Summary Reserve Report of John T. Boyd Company

* To be filed by amendment.

† Indicates a management contract or compensatory plan or arrangement.

(b) Financial Statement Schedules

See the index to the financial statements included on page F-1 for a list of the financial statements included in this registration statement.

Item 17. Undertakings

The undersigned registrant hereby undertakes to provide to the underwriters at the closing specified in the underwriting agreement certificates in such denominations and registered in such names as required by the underwriters to permit prompt delivery to each purchaser.

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 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 and will be governed by the final adjudication of such issue.

The undersigned registrant hereby undertakes that,

(1) 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.

(2) 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.

(3) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser, each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. 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 first use, 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 date of first use.

(4) 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:

(a) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;

(b) 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;

(c) 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

(d) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

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Signatures

Pursuant to the requirements of the Securities Act of 1933, as amended, the registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Willow Park, State of Texas, on November 19, 2021.

ProFrac Holding Corp.

By: /s/ Matthew D. Wilks
Name: Matthew D. Wilks
Title: Executive Chairman and Director

Each person whose signature appears below appoints Matthew D. Wilks and Brian Uhlmer, and each of them, any of whom may act without the joinder of the other, as his true and lawful attorneys-in-fact and agents, with full power of substitution and re-substitution, for him and in his name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this Registration Statement and any Registration Statement (including any amendment thereto) for this offering that is to be effective upon filing pursuant to Rule 462(b) under the Securities Act of 1933, as amended, and to file the same, with all exhibits thereto, and all other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or any of them, or their or his substitute and substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, as amended this Registration Statement has been signed by the following persons in the capacities indicated on November 19, 2021.

Signature	Title
/s/ Matthew D. Wilks Matthew D. Wilks	Executive Chairman and Director (Principal Executive Officer)
/s/ Brian Uhlmer Brian Uhlmer	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)

Exhibit 2.1

AGREEMENT AND PLAN OF MERGER

dated as of

October 21, 2021

among

FTS INTERNATIONAL, INC.

PROFRAC HOLDINGS, LLC

and

PROFRAC ACQUISITIONS, INC.

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AGREEMENT AND PLAN OF MERGER

AGREEMENT AND PLAN OF MERGER (this "**Agreement**") dated as of October 21, 2021, by and among FTS International, Inc., a Delaware corporation (the "**Company**"), ProFrac Holdings, LLC, a Texas limited liability company ("**Parent**"), and ProFrac Acquisitions, Inc., a Delaware corporation and a wholly-owned subsidiary of Parent ("**Merger Sub**").

W I T N E S S E T H :

WHEREAS, the parties intend that Merger Sub be merged with and into the Company, with the Company surviving that merger on the terms and subject to the conditions set forth herein;

WHEREAS, the Board of Directors of the Company has unanimously (i) determined that this Agreement and the transactions contemplated hereby, including the Merger, are fair to and in the best interests of the Company Stockholders; (ii) approved, adopted and declared advisable this Agreement and the transactions contemplated hereby, including the Merger, in accordance with the requirements of the DGCL; and (iii) resolved, subject to Section 6.03(f), to submit this Agreement to a vote of the Company Stockholders and recommend adoption of this Agreement by the Company Stockholders;

WHEREAS, the respective boards of managers or directors, as applicable, of Parent and Merger Sub have each unanimously (i) determined that this Agreement and the transactions contemplated hereby, including the Merger, are advisable and in the best interests of Parent and Merger Sub, respectively and (ii) adopted and approved this Agreement and the transactions contemplated hereby, including the Merger in accordance with the requirements of the DGCL and Limited Liability Company Act of the State of Delaware;

WHEREAS, in connection with the execution and delivery of this Agreement and as a condition and inducement to the willingness of the Company to enter into this Agreement, THRC Holdings, LP, an Affiliate of Parent (the "**Equity Financing Source**"), has provided the Company a letter (the "**Equity Financing Letter**") committing to provide the funds necessary for Parent and Merger Sub to comply with their obligations hereunder (the "**Equity Financing**");

WHEREAS, as a condition and inducement to the willingness of the Company to enter into this Agreement, concurrently with the execution and delivery of this Agreement, the Equity Financing Source is entering into a voting and support agreement with the Company pursuant to which the Equity Financing Source is agreeing, among other things, to vote all of the Shares beneficially owned by the Equity Financing Source and its Affiliates (as defined herein) in favor of the transactions contemplated by this Agreement, including the Merger (the "**Voting and Support Agreement**"); and

NOW, THEREFORE, in consideration of the foregoing and the mutual representations, warranties, covenants and agreements contained herein, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto, intending to be legally bound, agree as follows:

Article 1
Definitions

Section 1.01. Definitions. (a) As used herein, the following terms have the following meanings:

"**1933 Act**" means the Securities Act of 1933.

"**1934 Act**" means the Securities Exchange Act of 1934.

"**2020 Plan**" means the FTS International, Inc. 2020 Equity and Incentive Compensation Plan, as amended from time to time.

"**Acquisition Proposal**" means, other than the transactions contemplated by this Agreement, any offer or proposal, including any amendments, adjustments, changes, revisions and supplements thereto, from any Third Party, relating to, in a single transaction or a series of related transactions, (i) any acquisition or purchase, direct or indirect, of assets representing 20% or more of the consolidated assets of the Company and its Subsidiaries, or 20% or more of any class of equity or voting securities of the Company or any of its Subsidiaries whose assets, individually or in the aggregate, constitute 20% or more of the consolidated assets of the Company and its Subsidiaries, (ii) any tender offer (including a self-tender offer) or exchange offer that, if consummated, would result in any Third Party beneficially owning 20% or more of any class of equity or voting securities of the Company or any of its Subsidiaries whose assets, individually or in the aggregate, constitute 20% or more of the consolidated assets of the Company and its Subsidiaries or (iii) a merger, consolidation, amalgamation, share exchange, business combination, sale of substantially all of the assets, reorganization, recapitalization, liquidation, dissolution or other similar transaction involving the Company or any of its Subsidiaries whose assets, individually or in the aggregate, constitute 20% or more of the consolidated assets of the Company and its Subsidiaries.

"**Action**" means any action, cause of action, suit, audit, litigation, arbitration, mediation, complaint, citation, claim (including any crossclaim or counterclaim), demand, subpoena, enforcement action or proceeding (including any civil, criminal, administrative, regulatory, appellate or other proceeding), whether at equity or at law, in contract, in tort or otherwise.

"**Affiliate**" means, with respect to any Person, any other Person who directly or indirectly controls, is controlled by or is under common control with such Person; *provided* that for purposes of this Agreement, prior to the Closing, Parent and its Affiliates shall not be deemed to be Affiliates of the Company and its Subsidiaries, and the Company and its Subsidiaries shall not be deemed to be Affiliates of Parent and its Affiliates.

"**Applicable Law**" means, with respect to any Person, any federal, state, local, foreign, international or transnational law (statutory, common or otherwise), constitution, treaty, convention, ordinance, code, rule, regulation, order, permit, injunction, judgment, award, decree, ruling or other similar requirement enacted, adopted, promulgated or applied by a Governmental Authority that is binding on or applicable to such Person.

“**Business Day**” means a day, other than Saturday, Sunday or other day on which commercial banks in New York, New York or Fort Worth, Texas are authorized or required by Applicable Law to close.

“**Class A Common Stock**” means Class A common stock of the Company, par value $0.01 per share.

“**Class B Common Stock**” means Class B common stock of the Company, par value $0.01 per share.

“**COBRA**” means the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended.

“**Code**” means the Internal Revenue Code of 1986.

“**Collective Bargaining Agreement**” means any written agreement, memorandum of understanding or other contractual obligation between the Company or any of its Subsidiaries and any labor organization or other authorized employee representative representing Service Providers.

“**Company 10-Q**” means the Company’s quarterly report on Form 10-Q for the quarterly period ended June 30, 2021.

“**Company Balance Sheet**” means the unaudited consolidated balance sheet of the Company as of the Company Balance Sheet Date and the footnotes thereto set forth in the Company 10-Q.

“**Company Balance Sheet Date**” means June 30, 2021.

“**Company Disclosure Schedule**” means the disclosure schedule dated the date hereof incorporated in and made part of this Agreement that has been provided by the Company to Parent and Merger Sub.

“**Company Employee**” means, as of any time, any employee of the Company or any of its Subsidiaries.

“**Company Material Adverse Effect**” means any event, circumstance, change, occurrence, development or effect that has had or would reasonably be expected to result in a material adverse change in, or material adverse effect on, the financial condition, business, assets, liabilities or results of operations of the Company and its Subsidiaries, taken as a whole; *provided*, *however*, that a “Company Material Adverse Effect” shall not include any event, circumstance, change, occurrence, development or effect to the extent resulting from or arising in connection with (i) conditions generally affecting any industry in which the Company or any of its Subsidiaries operates, (ii) general economic, political or financial or securities market conditions, (iii) natural disasters, acts of war, terrorism, military actions or the escalation thereof, earthquakes, hurricanes, tornadoes or other natural disasters, (iv) changes in GAAP, in the interpretation of GAAP, in the accounting rules and regulations of the SEC, or changes in Applicable Law, (v) the taking of any action (or the omission of any action) by the Company or any Subsidiary of the Company in accordance with the terms of this Agreement to the extent the taking of such action (or omission) is expressly required or contemplated by this Agreement or such action was taken at the written request of, or with the written consent of, Parent or Merger Sub (*provided* that this clause (v) shall not apply to the representations and warranties that, by their terms, speak specifically of the consequences arising out of the execution or performance of this Agreement or the consummation of the transactions contemplated hereby), (vi) the execution, delivery or performance of this Agreement or the announcement or consummation of the transactions contemplated by this Agreement or the identity of or any facts or circumstances relating to Parent or any of its Affiliates, including the impact of any of the foregoing on the relationships, contractual or otherwise, of the Company or any of its Subsidiaries with customers, suppliers, service providers, employees, Governmental Authorities or any other Persons (*provided* that this clause (vi) shall not apply to the representations and warranties that, by their terms, speak specifically of the consequences arising out of the execution or performance of this Agreement or the consummation of the transactions contemplated hereby), (vii) any Action arising out of, resulting from or related to the transactions contemplated herein or any demand, Action, claim or proceeding for appraisal of any Shares pursuant to the DGCL in connection herewith, (viii) any epidemic, pandemic or disease outbreak (including the COVID-19 pandemic) or the evolution of any COVID-19 Measures or other restrictions that relate to, or arise out of, any epidemic, pandemic or disease outbreak (including the COVID-19 pandemic) and any COVID-19 Responses or (ix) any decrease or decline in the market price or trading volume of the Shares or any failure by the Company to meet any projections, forecasts or revenue or earnings predictions of the Company or of any securities analysts (*provided* that, in the case of this clause (ix), the underlying cause of any such decrease, decline, or failure may be taken into account in determining whether a Company Material Adverse Effect has occurred except to the extent otherwise excluded pursuant to another clause in this definition), except, in the case of clauses (i), (ii), (iii), and (iv), to the extent that such event, circumstance, change, occurrence, development or effect disproportionately affects the Company and its Subsidiaries, taken as a whole, relative to other Persons engaged in the same industries in which the Company operates, in which case, to the extent not otherwise excluded pursuant to another clause of this definition, such disproportionate effects and the events and circumstances underlying such disproportionate effects may be taken into account in determining whether a "Company Material Adverse Effect" has occurred.

"**Company Stockholders**" means the holders of Class A Common Stock and Class B Common Stock.

"**Confidentiality Agreement**" means that certain Confidentiality Agreement, by and between the Company and Parent, dated as of February 19, 2021 as amended pursuant to Section 8.08.

"**Continuing Employee**" means each Company Employee employed by the Company or any of its Subsidiaries immediately prior to the Effective Time whose employment with the Surviving Corporation (or Parent or any of its Affiliates) continues after the Effective Time.

"**Contract**" means any contract, binding letter of intent, lease, sublease, occupancy agreement, license, sublicense, indenture, note, bond, loan, mortgage, agreement, deed of trust, concession, franchise, Permit, license or other binding instrument, commitment or undertaking, including any exhibits, annexes, appendices or attachments thereto, and any amendments, modifications, supplements, extension or renewals thereto, excluding sale, purchase and work orders.

"**control**" (including the terms "controlled," "controlled by" and "under common control with") means the possession, directly or indirectly, of the power to direct or cause the direction of the management and policies of a Person, whether through the ownership of voting securities, by contract or otherwise.

"**COVID-19 Measures**" means any quarantine, "shelter in place," "stay at home," workforce reduction, social distancing, shut down, closure, sequester or any other Applicable Law related to COVID-19 (or any other related variance or strain of COVID-19).

"**COVID-19 Responses**" means any reasonable action, taken or omitted to be taken in good faith that is reasonably determined to be necessary or prudent to be taken in response to COVID-19 (or any other related variance or strain of COVID-19) or any of the measures described in the definition of "COVID-19 Measures", including the establishment of any reasonably necessary policy, procedure or protocol.

"**DGCL**" means the General Corporation Law of the State of Delaware.

"**Employee Plan**" means any (i) "employee benefit plan" as defined in Section 3(3) of ERISA (regardless of whether such plan is subject to ERISA), (ii) compensation, employment, consulting, severance, termination protection, change in control, transaction bonus, retention or similar plan, agreement, arrangement, program or policy or (iii) other plan, agreement, arrangement, program or policy providing for compensation, bonuses, profit-sharing, equity or equity-based compensation or other forms of incentive or deferred compensation, vacation benefits, insurance (including any self-insured arrangement), medical, dental, vision, prescription or fringe benefits, life insurance, relocation or expatriate benefits, perquisites, disability or sick leave benefits, employee assistance program, or post-employment or retirement benefits (including compensation, pension, health, medical or insurance benefits), in each case, whether or not written that is sponsored, maintained, administered, contributed to, or required to be contributed to, by the Company or any of its Subsidiaries or with respect to which the Company or any of its Subsidiaries has or would reasonably be expected to have any direct or indirect liability.

"**Environment**" means any air (whether ambient outdoor or indoor), surface water, drinking water, groundwater, land surface, wetland, subsurface strata, soil, sediment, plant or animal life and any other natural resources.

"**Environmental Laws**" means any Applicable Laws (including common law) or any legally binding consent order or decree issued by any Governmental Authority, relating to protection of the Environment, the prevention of pollution, the containment, clean-up, preservation, protection and reclamation of the Environment, health and safety (as it relates to exposure to Hazardous Substances) or to the presence, generation, use, management, transportation, storage, disposal, treatment or release of Hazardous Substances.

"**Environmental Permits**" means all Permits required under Environmental Laws and required for the business of the Company or any of its Subsidiaries as currently conducted.

"**ERISA**" means the Employee Retirement Income Security Act of 1974, as amended.

"**ERISA Affiliate**" of any entity means any other entity that, together with such first entity, would be treated as a single employer under Section 414 of the Code.

"**Excluded Party**" means any Third Party from which the Company received during the Go-Shop Period a definitive written Acquisition Proposal that: (a) remains pending as of, and shall not have been withdrawn on or prior to, the Go-Shop Period End Date (or, for any date on or prior to the Go-Shop Period End Date, such Acquisition Proposal shall not have been withdrawn as of such date) and (b) the Board of Directors reasonably determines in good faith on or prior to the Go-Shop Period End Date, after consultation with the Company's financial and legal advisors, constitutes or is reasonably likely to result in a Superior Proposal (and the Company provides written notice to Parent of such determination promptly of such determination and, in any event, no later than the earlier of (x) two Business Days after such determination or (y) the Go-Shop Period End Date); *provided*, *however*, that a person that is an Excluded Party shall cease to be an Excluded Party (i) upon the withdrawal, termination or expiration of such Acquisition Proposal (as it may be amended, adjusted, changed, revised, extended and supplemented), or (ii) the determination by the Board of Directors that such Third Party's Acquisition Proposal no longer constitutes and is not reasonably likely to result in a Superior Proposal.

"**Financing**" means any issuances of securities or incurrences of indebtedness for borrowed money by Parent and/or any of its Subsidiaries (including, effective as of the Effective Time, the Company) from time to time, in each case, for the purpose of financing the transactions contemplated by this Agreement; *provided* that, the term "Financing" does not include the Equity Financing.

"**Financing Sources**" means the Persons that have committed or may commit to provide or arrange, or otherwise entered into Contracts with Parent and/or any of its Subsidiaries (including, effective as of the Effective Time, the Company) to provide or arrange, any Financing, including the parties (other than Parent and its Affiliates) to the definitive documentation relating to any Financing, together with their respective Affiliates, officers, directors, employees, agents and representatives; *provided* that the term "Financing Sources" does not include the Equity Financing Source.

"**Fraud**" means actual fraud by a Person, which involves a knowing and intentional or willful misrepresentation or omission of a material fact with respect to the making of any representation or warranty set forth in (i) Article 4 or in the corresponding representations or warranties set forth in the Company's certificate to be delivered pursuant to Section 9.02(c) or (ii) Article 5 or in the corresponding representations or warranties set forth in Parent's and Merger Sub's certificate to be delivered pursuant to Section 9.03(c), and, in each case of clauses (i) and (ii), does not include any fraud claim based on negligent misrepresentation, recklessness or any equitable fraud or promissory fraud.

"**GAAP**" means generally accepted accounting principles in the United States.

"**Governmental Authority**" means any transnational, domestic or foreign federal, state, provincial, local or other governmental, regulatory or administrative authority, department, court, agency, commission or official, including any political subdivision thereof, or any other governmental or quasi-governmental (including self-regulatory) authority or instrumentality.

"**Hazardous Substance**" means any pollutant, contaminant, waste or chemical or any toxic, radioactive, ignitable, corrosive, reactive or otherwise hazardous substance, waste or material, or any substance, waste or material having any constituent elements displaying any of the foregoing characteristics, in each case, that is regulated under any Environmental Law, including but not limited to (i) petroleum and petroleum products, including crude oil and any fractions thereof; (ii) natural gas, synthetic gas and any mixtures thereof; (iii) polychlorinated biphenyls; (iv) asbestos or asbestos-containing materials; (v) radioactive materials; (vi) produced waters; and (vii) per- and polyfluoroalkyl substances.

"**HSR Act**" means the Hart-Scott-Rodino Antitrust Improvements Act of 1976.

"**Indebtedness**" means, with respect to any Person, without duplication, all obligations or undertakings by such Person: (a) for borrowed money; (b) evidenced by bonds, debentures, notes or similar instruments; (c) pursuant to securitization or factoring programs or arrangements; (d) pursuant to guarantees of any Indebtedness of any other Person (other than between or among any of the Company and its wholly owned Subsidiaries); (e) net cash payment obligations of such Person under swaps, options, derivatives and other hedging Contracts or arrangements that will be payable upon termination thereof (assuming termination on the date of determination); or (f) letters of credit and bank guarantees entered into by or on behalf of such Person; *provided* that Indebtedness shall not include any trade payables.

"**Intellectual Property**" means any and all intellectual property rights or similar proprietary rights arising from or under the Applicable Laws of the United States or any other jurisdiction including rights in all of the following: (i) trademarks, service marks, trade names, slogans, logos, brand names, certification marks, trade dress, domain names and other indications of origin, the goodwill associated with the foregoing and registrations in any jurisdiction of, and applications in any jurisdiction to register, the foregoing, including any extension, modification or renewal of any such registration or application, (ii) inventions, whether patentable or not, all improvements thereto, utility models, supplementary protection certificates, patents, applications for patents (including divisions, continuations, continuations in part and renewal applications), and any renewals, reexaminations, substitutions, extensions or reissues thereof, in any jurisdiction, (iii) Trade Secrets, (iv) copyrightable writings and other copyrightable works, in any jurisdiction, and any and all copyright rights, whether registered or not, and registrations or applications for registration of copyrights in any jurisdiction, and any renewals or extensions thereof, (v) moral rights, data and database rights, design rights, industrial property rights, publicity rights and privacy rights and (vi) computer software (including source code and object code).

"**IT Assets**" means information technology devices, computers, computer software, firmware, middleware, servers, networks, workstations, routers, hubs, circuits, switches, data communications lines and all other information technology equipment, and all associated documentation, owned by the Company or its Subsidiaries or licensed or leased by the Company or its Subsidiaries.

“**Key Employee**” means Michael Doss, Karen Thornton, Lance Turner, Buddy Petersen, and Jared Vitemb.

“**Knowing and Intentional Breach**” means a material breach of or a material failure to perform any of the covenants or other agreements contained in this Agreement or the Voting and Support Agreement or the Equity Financing Letter, that is a consequence of an act undertaken by the breaching party with the knowledge that the taking of such act, or failure to act, after reasonable inquiry, would, or would be reasonably expected to, result in a breach of this Agreement or the Voting and Support Agreement or the Equity Financing Letter. In the case of any covenant with respect to which a party hereto agrees to cause an Affiliate to take or omit to take an action, the failure of such Affiliate to act as required by such covenant that would be a Knowing and Intentional Breach of such covenant by such Affiliate if it were a party hereto and bound by such covenant will be treated as a Knowing and Intentional Breach by such party hereto.

“**Knowledge**” means, with respect to the Company, the actual knowledge of the individuals listed onSection 1.01(a) of the Company Disclosure Schedule and, with respect to Parent, the actual knowledge of the individuals listed on Section 1.01(b) of the Company Disclosure Schedule.

“**Lien**” means, with respect to any property or asset, any mortgage, lien, license, sublicense, pledge, option, hypothecation, adverse right, restriction, charge, security interest, right of first refusal, restriction on transfer and assignment, encumbrance or other adverse claim of any kind or nature whatsoever, whether contingent or absolute, or any agreement, option, right or privilege (whether by Applicable Law, Contract or otherwise) capable of becoming any of the foregoing, in respect of such property or asset. For purposes of this Agreement, a Person shall be deemed to own, subject to a Lien, any property or asset that it has acquired or holds subject to the interest of a vendor or lessor under any conditional sale agreement, capital lease or other title retention agreement relating to such property or asset.

“**NYSE American**” means the NYSE American.

“**Offering**” means any offering of securities by Parent and/or an Affiliate of Parent as to which Parent has requested the Company’s cooperation pursuant to Section 6.05.

“**Officer**” means an individual who is an “officer” of the Company (as defined under Rule16a-1(f) under the 1934 Act).

“**ordinary course of business**” means any action taken by the Company or any of its Subsidiaries in the ordinary course of the Company’s and its Subsidiaries’ business substantially consistent with past practice since the Applicable Date and shall include such actions taken or omitted to be taken by the Company or such Subsidiaries that are reasonable in light of the then current operating conditions and developments with respect to its business, directly or indirectly in response to or in connection with COVID-19, its impact on economic conditions or actions taken by any Governmental Authority in response thereto.

“**Parent Material Adverse Effect**” means any event, circumstance, change, occurrence, development or effect that would or would reasonably be expected to, individually or in the aggregate, materially impair, prevent or materially delay Parent’s or Merger Sub’s ability to consummate the transactions contemplated by this Agreement.

“**Permits**” means each grant, license, franchise, permit, easement, variance, exception, exemption, waiver, consent, certificate, certification, registration, accreditation, approval, order, qualification or other similar authorization of any Governmental Authority.

“**Permitted Liens**” means (a) carriers’, warehousemen’s, mechanics’, materialmen’s, landlords’, laborers’, suppliers’ and vendors’ liens and other similar Liens, if any, arising or incurred in the ordinary course of business that do not, individually or in the aggregate, materially impair or materially interfere with the present use of the assets or otherwise materially impair present business operations; (b) Liens for Taxes not yet delinquent or, if delinquent, that are being contested in good faith by appropriate actions and that are adequately reserved for in the applicable financial statements of the Company in accordance with GAAP; (c) applicable zoning, planning, entitlement, conservation restrictions, land use restrictions, building codes and other governmental rules and regulations imposed by a Governmental Authority having jurisdiction over the real property, none of which would reasonably be expected to have a material and adverse impact on the Company’s conduct of its business; (d) the terms and conditions of the leases, subleases, licenses, sublicenses or other occupancy agreements pursuant to which the Company or any of its Subsidiaries is a tenant, subtenant or occupant (other than in connection with any breach thereof) that do not, and would not be reasonably expected to, materially detract from the use or operation of the property subject thereto as currently used or operated by the Company or any of its Subsidiaries; (e) with respect to real property, Liens, including defects, irregularities or imperfections of title, encroachments, easements or claims of easements, servitudes, permits, covenants, rights of way, flowage rights, restrictions, leases, subleases, licenses, sublicenses, rights of parties in possession, title to any portion of the premises lying within the right of way or boundary of any public road or private road and similar restrictions of record, in each case, that do not materially interfere with the business as presently conducted and would not be reasonably expected to materially detract from the use or operation of the property subject thereto as currently used or operated by the Company or any of its Subsidiaries; (f) licenses to Intellectual Property granted in the ordinary course of business; (g) Liens specifically reflected in the financial statements of the Company; (h) as to a party, Liens resulting from any facts or circumstances relating to the other parties or their respective Affiliates; (i) Liens identified in Section 4.15 of the Company Disclosure Schedule; and (j) Liens that would not materially impair the operation of the business.

“**Person**” means an individual, corporation, partnership, limited liability company, association, trust or other entity or organization, including a Governmental Authority or any “group” within the meaning of Section 13(d) of the 1934 Act.

“**Personal Information**” means information that: (a) identifies or can be used to identify an individual (including, without limitation, names, signatures, addresses, telephone numbers, email addresses, geolocation information and other unique identifiers); or (b) can be used to authenticate an individual, either directly or indirectly (including, without limitation, employee identification numbers, government-issued identification numbers, passwords or PINs, financial account numbers, credit report information, biometric or health data, answers to security questions and other personal identifiers specific to the physical, physiological, genetic, mental, economic, cultural or social identity of an individual). Personal Information shall include any nonpublic personal information regarding any individual that is subject to applicable national, state, regional and/or local laws and regulations governing the privacy, security, confidentiality and protection of nonpublic personal information.

"**Privacy/Data Security Laws**" means, to the extent applicable to the Company or its Subsidiaries, all laws, policies, codes, regulations, and the like governing the receipt, collection, use, storage, handling, processing, sharing, security, use, disclosure, or transfer of Personal Information or the security of Company's IT Assets, including the following to the extent applicable: HIPAA, the Gramm-Leach-Bliley Act, the Fair Credit Reporting Act, the Federal Trade Commission Act, the CAN-SPAM Act, Canada's Anti-Spam Legislation, the Telephone Consumer Protection Act, the Telemarketing and Consumer Fraud and Abuse Prevention Act, Children's Online Privacy Protection Act, California Consumer Privacy Act, and any ancillary rules, binding guidelines, orders, directions, directives, codes of conduct or other instruments made or issued by a Governmental Authority under the foregoing instruments, state data security laws, state data breach notification laws, state consumer protection laws, the General Data Protection Regulation (EU) 2016/679, any applicable laws concerning requirements for website and mobile application privacy policies and practices, call or electronic monitoring or recording or any outbound communications (including outbound calling and text messaging, telemarketing, and e-mail marketing).

"**Related Document**" means each agreement, document, instrument or certificate contemplated by this Agreement or to be executed by any party hereto in connection with the transactions contemplated by this Agreement, including, for the avoidance of doubt, the Equity Financing Letter and the Voting and Support Agreement.

"**Related Person**" has the meaning set forth in Article 9 of the Company Charter.

"**Release**" means any release, emission, leak, discharge, dumping, injection, pumping, deposit, spill, disposal, arranging for disposal (including any abandonment or discarding of barrels, containers or other receptacles containing Hazardous Substances), transport, or arranging for transport.

"**Rights Agreement**" means that certain Rights Agreement, dated as of November 19, 2020, between the Company and American Stock Transfer & Trust Company, LLC, as rights agent, as such agreement may be amended, restated, amended and restated, supplemented or otherwise modified from time to time.

"**Sarbanes-Oxley Act**" means the Sarbanes-Oxley Act of 2002.

"**SEC**" means the U.S. Securities and Exchange Commission.

"**Service Provider**" means any director, officer, employee or individual independent contractor of the Company or any of its Subsidiaries.

"**Share**" means a share of Class A Common Stock or Class B Common Stock.

"**Subsidiary**" means, with respect to any Person, any other Person of which (A) such Person or any of its Subsidiaries is a general partner or holds a majority of the voting interests of a partnership or (B) securities or other ownership interests having ordinary voting power to elect a majority of the board of directors or other Persons performing similar functions (or, if there are no such ownership interests having ordinary voting power, 50% or more of the equity interests of which) are directly or indirectly owned or controlled by such Person.

“**Tax**” means (i) all taxes, assessments, duties, levies, imposts or other similar charges in the nature of a tax imposed by a Governmental Authority (whether payable directly or by withholding and whether or not requiring the filing of a Tax Return), including income, gross receipts, license, payroll, employment, excise, severance, stamp, occupation, premium, windfall profits, environmental, customs duties, capital stock, franchise profits, withholding (including backup withholding), social security, unemployment, disability, real property, personal property, sales, use, transfer, registration, ad valorem, value added, alternative or add-on minimum or estimated tax or any other tax of any kind whatsoever, together with any interest, penalty, addition to tax or additional amount, whether disputed or not, and any liability for any of the foregoing by reason of assumption, transferee or successor liability or operation of Applicable Law, (ii) in the case of the Company or any of its Subsidiaries, liability for the payment of any amount of the type described in clause (i) as a result of being or having been before the Effective Time a member of an affiliated, consolidated, combined or unitary group, or a party to any agreement or arrangement, as a result of which liability of the Company or any of its Subsidiaries is determined or taken into account with reference to the activities of any other Person, and (iii) in the case of the Company or any of its Subsidiaries, liability for the payment of any amount of the type described in clause (i) or (ii) as a result of being party to any Tax Sharing Agreement.

“**Tax Return**” means any report, return, document, claim for refund, information return, declaration or statement or filing with respect to Taxes (and any amendments thereof), including any schedules or documents with respect thereto or accompanying payments of estimated Taxes.

“**Tax Sharing Agreement**” means any agreement or arrangement (whether or not written) binding the Company or any of its Subsidiaries that provides for the allocation, apportionment, sharing, indemnification or assignment of any Tax liability or benefit, or the transfer or assignment of income, revenues, receipts, or gains for the purpose of determining any Person’s Tax liability (other than customary Tax sharing or indemnification provisions contained in any agreement, the primary subject matter of which does not relate to Taxes).

“**Termination Fee**” means an amount equal to $11,700,000, except that if the Termination Fee becomes payable by the Company in connection with termination by the Company prior to the Go-Shop Period End Date pursuant to Section 10.01(d)(i) to accept a Superior Proposal, then the Termination Fee shall be an amount equal to $7,800,000.

“**Third Party**” means any Person other than Parent or any of its Affiliates.

“**Trade Secrets**” means trade secrets and other confidential know-how and confidential information and rights in any jurisdiction, including confidential recipes, formulae, concepts, methods, techniques, procedures, processes, schematics, prototypes, models, designs, customer lists and supplier lists.

“**Tranche 1 Warrant**” means each warrant to purchase Class A Common Stock issued pursuant to the Tranche 1 Warrant Agreement.

"**Tranche 1 Warrant Agreement**" means that certain Warrant Agreement for Tranche 1 Warrants to Purchase Class A Common Stock between the Company and American Stock Transfer & Trust Company, LLC, as warrant agent, dated as of November 19, 2020.

"**Tranche 2 Warrant**" means each warrant to purchase Class A Common Stock issued pursuant to the Tranche 2 Warrant Agreement.

"**Tranche 2 Warrant Agreement**" means that certain Warrant Agreement for Tranche 2 Warrants to Purchase Class A Common Stock between the Company and American Stock Transfer & Trust Company, LLC, as warrant agent, dated as of November 19, 2020.

"**WARN**" means the Worker Adjustment and Retraining Notification Act and any comparable foreign, state or local law.

(b) Each of the following terms is defined in the Section set forth opposite such term:

Term	Section
Acceptable Confidentiality Agreement	6.03(c)(i)
Adverse Recommendation Change	6.03(b)
Agreement	Preamble
Aggregate Merger Consideration	2.03
Antitrust Division	8.01(b)
Applicable Date	4.07(a)
Board of Directors	4.02(b)
Certificates	2.03(a)(i)
Class A Common Stock	Recitals
Class B Common Stock	Recitals
Closing	2.01(b)
Company	Preamble
Company 401(k) Plan	7.03(c)
Company Board Recommendation	4.02(b)
Company Charter	4.01
Company Disclosure Documents	4.09(a)
Company Financial Advisor	4.25
Company Meeting	4.03
Company PRSUs	2.05(c)
Company RSUs	2.05(b)
Company SEC Documents	4.07(a)
Company Securities	4.05(c)
Company Stock Awards	2.05(d)
Continuation Period	7.03(a)
Company Stock Options	2.05(a)
Company Subsidiary Securities	4.06(b)
Consideration Fund	2.03(a)
D&O Insurance	7.02(d)
End Date	10.01(b)(i)

Term	**Section**
Effective Time	2.01(c)
e-mail	11.01
Electronic Delivery	11.11
Equity Financing	Recitals
Equity Financing Letter	Recitals
Equity Financing Source	Recitals
Existing PO	4.22(b)
Finance Lease	4.22(a)(xii)
Go-Shop Period	6.03(a)(i)
Go-Shop Period End Date	6.03(a)(i)
Indemnified Person	7.02(a)
Intervening Event	6.03(c)(ii)
IRS	4.18(c)
Lease	4.15(b)
Majority of the Minority Approval	9.03(d)
Material Contract	4.22(b)
Merger	2.01(a)
Merger Consideration	2.02(a)
Merger Sub	Preamble
Non-Party Affiliates	11.09
Opinion	4.25
Parent	Preamble
Parent 401(k) Plan	7.03(d)
Paying Agent	2.03(a)
Preferred Shares	4.05(a)
Principal Customer	4.21
Principal Supplier	4.21
Proxy Statement	4.03
Representatives	6.02
Requisite Company Vote	4.02(a)
Sanctions	4.12(b)
Shares	Recitals
Solvent	5.07
Stockholder Approval	9.01(d)
Superior Proposal	6.03(g)
Surviving Corporation	2.01(a)
Uncertificated Shares	2.03(a)(ii)
Underwriter	6.05(a)
Voting and Support Agreement	Recitals

Section 1.02. *Other Definitional and Interpretative Provisions*. The words “hereof”, “herein” and “hereunder” and words of like import used in this Agreement shall refer to this Agreement as a whole and not to any particular provision of this Agreement. The captions herein are included for convenience of reference only and shall be ignored in the construction or interpretation hereof. References to Articles, Sections, Exhibits, Annexes and Schedules are to Articles, Sections, Exhibits, Annexes and Schedules of this Agreement unless otherwise specified.

All Exhibits, Annexes and Schedules (including the Company Disclosure Schedule) annexed hereto or referred to herein are hereby incorporated in and made a part of this Agreement as if set forth in full herein. Any capitalized terms used in any Exhibit, Annex or Schedule but not otherwise defined therein shall have the meaning as defined in this Agreement. Any singular term in this Agreement shall be deemed to include the plural, and any plural term the singular. Whenever the words "include", "includes" or "including" are used in this Agreement, they shall be deemed to be followed by the words "without limitation", whether or not they are in fact followed by those words or words of like import. "Writing", "written" and comparable terms refer to printing, typing and other means of reproducing words (including electronic media) in a visible form. References to any Applicable Law shall be deemed to refer to such Applicable Law as amended from time to time and, if applicable, to any rules, regulations or interpretations promulgated thereunder. References to any Contract are to that Contract as amended, modified, supplemented, extended or renewed from time to time in accordance with the terms hereof and thereof; *provided* that with respect to any Contract listed on any schedule hereto, all such amendments, modifications, supplements, extensions or renewals must also be listed in the appropriate schedule or otherwise be filed as part of the Company SEC Documents. References to any Person include the successors and permitted assigns of that Person. References to a "party" or the "parties" means a party or the parties to this Agreement unless the context otherwise requires. References from or through any date mean, unless otherwise specified, from and including or through and including, respectively. Whenever this Agreement requires Merger Sub to take any action, such requirement shall be deemed to include an undertaking on the part of Parent to cause Merger Sub to take such action. The parties hereto have participated jointly in the negotiation and drafting of this Agreement and each has been represented by counsel of its choosing and, in the event of an ambiguity or question of intent or interpretation arises, this Agreement will be construed as if drafted jointly by such parties and no presumption or burden of proof will arise favoring or disfavoring any party due to the authorship of any provision of this Agreement. References to "made available" shall be deemed to include any documents available on the SEC's EDGAR website since the Applicable Date. References to "law", "laws" or to a particular statute or law shall be deemed also to include any Applicable Law. Unless otherwise specifically indicated, all references to "dollars" and "$" will be deemed references to the lawful money of the United States of America.

Article 2
THE MERGER

Section 2.01. *The Merger.*

(a) At the Effective Time, Merger Sub shall merge (the "**Merger**") with and into the Company in accordance with the DGCL, whereupon, the separate existence of Merger Sub shall cease and the Company shall be the surviving corporation as a wholly-owned Subsidiary of Parent (the "**Surviving Corporation**").

(b) Subject to the provisions of Article 9, the closing of the Merger (the "**Closing**") shall take place at the offices of Vinson & Elkins L.L.P., 1001 Fannin Street, Suite 2500, Houston, Texas, 77002 as soon as practicable, but in any event no later than two Business Days after the date the conditions set forth in Article 9 (other than conditions that by their nature are to be satisfied at the Closing, but subject to the satisfaction or, to the extent permissible, waiver of such conditions at the Closing) have been satisfied or, to the extent permissible, waived by the party or parties entitled to the benefit of such conditions, or at such other place (or by means of remote communication), at such other time or on such other date as Parent and the Company may mutually agree.

(c) At the Closing, the Company and Merger Sub shall file a certificate of merger with the Delaware Secretary of State and make all other filings or recordings required by the DGCL in connection with the Merger. The Merger shall become effective at such time (the "**Effective Time**") as the certificate of merger is duly filed with the Delaware Secretary of State (or at such later time as may be specified in the certificate of merger).

(d) From and after the Effective Time, the Surviving Corporation shall possess all the rights, powers, privileges and franchises and be subject to all of the obligations, liabilities, restrictions and disabilities of the Company and Merger Sub, all as provided under the DGCL.

Section 2.02. *Conversion of Shares.* At the Effective Time:

(a) Except as otherwise provided in Section 2.02(b) or Section 2.04, each Share outstanding immediately prior to the Effective Time (other than Shares held by Parent or Merger Sub) shall be converted into the right to receive $ 26.52 per Share in cash, without interest, (the "**Merger Consideration**"). As of the Effective Time, all such Shares shall no longer be outstanding and shall automatically be canceled and retired and shall cease to exist, and shall thereafter represent only the right to receive the Merger Consideration in accordance with Section 2.03, but subject to Section 2.04.

(b) Each Share held by the Company as treasury stock (other than Shares in an Employee Plan of the Company) or by any Subsidiary of the Company immediately prior to the Effective Time shall be canceled, and no payment shall be made with respect thereto.

(c) Each share of common stock of Merger Sub outstanding immediately prior to the Effective Time shall be converted into and become one fully paid and nonassessable share of common stock of the Surviving Corporation with the same rights, powers and privileges as the shares so converted and shall constitute the only outstanding shares of capital stock of the Surviving Corporation.

Section 2.03. *Surrender and Payment*. (a) Prior to the Effective Time, Parent shall appoint a United States bank and trust company reasonably acceptable to the Company as agent (the "**Paying Agent**") for the purpose of exchanging for the Merger Consideration (i) certificates representing Shares (the "**Certificates**") or (ii) uncertificated Shares (the "**Uncertificated Shares**"). The Company and Parent shall enter into a Paying Agent agreement with the Paying Agent which agreement shall set forth the duties, responsibilities and obligations of the Paying Agent consistent with the terms of this Agreement and otherwise reasonably acceptable to the Company and Parent prior to the Effective Time. Immediately prior to the Effective Time, Parent shall deposit with the Paying Agent (or shall cause the Company to deposit with the Paying Agent), cash sufficient to pay the aggregate Merger Consideration (the "**Aggregate Merger Consideration**") to be paid in respect of the Certificates and the Uncertificated Shares (such cash, the "**Consideration Fund**"). In addition, promptly after the Effective Time on the date of the Closing, Parent shall make available (or shall cause the Company to make available) as necessary cash in an amount sufficient for payment of any dividends or distributions declared, but not paid, by the Company prior to the Effective Time in respect of the Shares in accordance with this Agreement. In the event the Consideration Fund shall be insufficient to pay the Merger Consideration (including on account of any Merger Consideration returned to Parent pursuant to Section 2.03(g)), Parent shall promptly deliver, or cause to be delivered (including by causing the Company, following the Effective Time, to deliver), additional funds to the Paying Agent in an amount that is equal to the deficiency required to make such payments. Promptly after the Effective Time (and in any event within three Business Days after the Effective Time), the Company shall send, or shall cause the Paying Agent to send, to each holder of Shares at the Effective Time (other than Parent or any of its applicable Affiliates), a letter of transmittal and instructions in customary form (which shall specify that the delivery shall be effected, and risk of loss and title shall pass, only upon proper delivery of the Certificates or transfer of the Uncertificated Shares to the Paying Agent) for use in such exchange, with the form and substance of such letter of transmittal and instructions to be reasonably agreed to by Parent and the Company and prepared prior to the Effective Time.

(b) Each holder of Shares that have been converted into the right to receive the Merger Consideration shall be entitled to receive, upon (i) surrender to the Paying Agent of a Certificate, together with a properly completed letter of transmittal, or (ii) receipt of an "agent's message" by the Paying Agent (or such other evidence, if any, of transfer as the Paying Agent may reasonably request) in the case of a book-entry transfer of Uncertificated Shares, the Merger Consideration payable for each such Share represented by such Certificate or for each such Uncertificated Share. Until so surrendered or transferred, as the case may be, each such Certificate or Uncertificated Share shall represent after the Effective Time for all purposes only the right to receive the Merger Consideration. No interest shall be paid or shall accrue on the cash payable upon surrender of any such Shares.

(c) If any portion of the Merger Consideration is to be paid to a Person other than the Person in whose name the surrendered Certificate or the transferred Uncertificated Share is registered, it shall be a condition to such payment that (i) either such Certificate shall be properly endorsed or shall otherwise be in proper form for transfer or such Uncertificated Share shall be properly transferred and (ii) the Person requesting such payment shall pay to the Paying Agent any transfer or other Taxes required as a result of such payment to a Person other than the registered holder of such Certificate or Uncertificated Share or establish to the satisfaction of the Paying Agent and Parent that such Tax has been paid or is not payable.

(d) The cash in the Consideration Fund shall be invested by the Paying Agent as directed by Parent;*provided*, *however*, that any such investments shall be in short-term obligations of the United States with maturities of no more than three months or guaranteed by the United States and backed by the full faith and credit of the United States. Earnings on the Consideration Fund in excess of the amounts payable to the former Company Stockholders shall be the sole and exclusive property of the party that made available to the Paying Agent the related cash in the Consideration Fund pursuant to Section 2.03(a) and shall be paid as it directs. No investment of the Consideration Fund shall relieve any Person from promptly making the payments required by this Article 2, and following any losses from any such investment, Parent shall promptly provide (or shall cause the Company to promptly provide following the Effective Time) additional cash funds to the Paying Agent for the benefit of the applicable Company Stockholders in the amount of such losses to the extent the funds in the Consideration Fund are insufficient for such purposes, which additional funds will be deemed to be part of the Consideration Fund.

(e) After the Effective Time, there shall be no further registration of transfers of Shares. If, after the Effective Time, Certificates or Uncertificated Shares are presented to the Surviving Corporation, they shall be canceled and exchanged for the Merger Consideration provided for, and in accordance with the procedures set forth, in this Article 2.

(f) Any portion of the Merger Consideration made available to the Paying Agent pursuant toSection 2.03(a) (and any interest or other income earned thereon) that remains unclaimed by the holders of Shares that have been converted into the right to receive the Merger Consideration one year after the Effective Time, to the extent permitted by Applicable Law, shall be returned to the party that made available to the Paying Agent the related cash in the Consideration Fund pursuant to Section 2.03(a), upon demand, and any such holder who has not exchanged such Shares for the Merger Consideration in accordance with this Section 2.03 prior to that time shall thereafter look only to such party only as general creditors of such party with respect to the Merger Consideration that may be payable upon due surrender of the Certificates or Uncertificated Shares held by them, without interest and subject to any withholding of Taxes required by Applicable Law in accordance with this Section 2.03(f). Notwithstanding the foregoing, neither Parent, the Company nor any of their Affiliates shall be liable to any holder of Shares for any amount paid to a public official pursuant to applicable abandoned property, escheat or similar laws. Any amounts remaining unclaimed by holders of Shares that have been converted into the right to receive the Merger Consideration two years after the Effective Time (or such earlier date immediately prior to such time when the amounts would otherwise escheat to or become property of any Governmental Authority) shall become to the extent permitted by Applicable Law the property of Parent or the Company, as applicable, free and clear of any claims or interest of any Person previously entitled thereto.

(g) Any portion of the Merger Consideration made available to the Paying Agent pursuant toSection 2.03(a) to pay for Shares for which appraisal rights have been perfected shall be returned to the party that made available to the Paying Agent the related cash in the Consideration Fund pursuant to Section 2.03(a), upon demand.

Section 2.04. *Dissenting Shares*. Notwithstanding Section 2.02, Shares outstanding immediately prior to the Effective Time and held by a holder who has not voted in favor of the Merger or consented thereto in writing and who has demanded appraisal for such Shares in accordance with the DGCL shall not be converted into the right to receive the Merger Consideration, but shall be entitled only to such rights as are granted by Section 262 of the DGCL, unless such holder fails to perfect, withdraws or otherwise loses the right to appraisal under Section 262 of the DGCL. If, after the Effective Time, such holder fails to perfect, withdraws or loses the right to appraisal under Section 262 of the DGCL, such Shares shall be treated as if they had been converted pursuant to Section 2.02(a) as of the Effective Time into, and shall represent only, the right to receive the Merger Consideration in accordance with Section 2.03. The Company shall give Parent prompt notice of any demands received by the Company for appraisal of Shares and any withdrawals of any such demands, and to the extent permitted by Applicable Law, Parent shall have the right to participate in and direct all negotiations and proceedings with respect to such demands. The Company shall not, without the prior written consent of Parent, voluntarily make any payment with respect to, offer to settle or settle, any such demands, or agree to do any of the foregoing.

Section 2.05. *Company Stock Awards*. (a) At or immediately prior to the Effective Time, each option (or portion thereof) to acquire Shares granted or issued pursuant to the 2020 Plan that is vested (including those that vest in connection with the transactions contemplated by this Agreement) and outstanding immediately prior to the Effective Time (collectively, the "**Company Stock Options**"), shall be canceled and converted into the right to receive an amount in cash to be paid promptly following the Effective Time and in no event more than five days following the Effective Time, determined by multiplying (i) the excess, if any, of the Merger Consideration over the applicable exercise price of such canceled Company Stock Option by (ii) the number of Shares subject to such Company Stock Option immediately prior to the Effective Time.

(b) At or immediately prior to the Effective Time, each time-based restricted stock unit granted or issued pursuant to the 2020 Plan that is vested (including those that vest in connection with the transactions contemplated by this Agreement) and outstanding immediately prior to the Effective Time (collectively, the "**Company RSUs**") shall be canceled and converted into the right to receive, at or no more than five days after the Effective Time, solely an amount in cash equal to the product of (i) the Merger Consideration and (ii) the total number of Shares subject to such Company RSU.

(c) At or immediately prior to the Effective Time, each performance-based restricted stock unit granted or issued pursuant to the 2020 Plan that is outstanding and unvested immediately prior to the Effective Time (collectively, the "**Company PRSUs**"), shall be deemed to vest (if at all) based on actual performance achieved as of the Effective Time with respect to the applicable performance-based vesting conditions relating to such Company PRSU and such vested number of Company PRSUs (if any) shall be canceled and converted into the right to receive, at or promptly after the Effective Time, an amount in cash equal to the product of (i) the Merger Consideration and (ii) the total number of Shares subject to such Company PRSU that are deemed vested in accordance with the foregoing based on actual performance achieved as of the Effective Time with respect to applicable performance-based vesting conditions.

(d) Prior to the Effective Time, the Company shall take all actions necessary to effectuate the treatment of the Company Stock Options, the Company RSUs and the Company PRSUs (collectively, the "**Company Stock Awards**") Company Stock Awards as contemplated in this Section 2.05.

Section 2.06. *Adjustments*. If, during the period between the date of this Agreement and the Effective Time, the outstanding Shares shall have been changed into a different number of shares or a different class, including by reason of any reclassification, recapitalization, stock split (including reverse stock split) or combination, exchange or readjustment of Shares, or stock dividend thereon with a record date during such period, the Merger Consideration and any other amounts payable pursuant to this Agreement shall be appropriately adjusted. Nothing in this Section 2.06 shall be construed to permit any party to take any action that is otherwise prohibited or restricted by any other provision of this Agreement.

Section 2.07. *Withholding Rights*. Notwithstanding any provision contained herein to the contrary, each of the Paying Agent, Parent, the Company, Merger Sub and the Surviving Corporation shall be entitled to deduct and withhold from the consideration otherwise payable to any Person pursuant to this Agreement such amounts as it reasonably concludes it is required to deduct and withhold with respect to the making of such payment under the Code, under any Tax law or pursuant to any other Applicable Law. If the Paying Agent, Parent, the Company, Merger Sub or the Surviving Corporation, as the case may be, so deducts or withholds amounts, such amounts shall be treated for all purposes of this Agreement as having been paid to such Person in respect of which the Paying Agent, Parent, the Company, Merger Sub or the Surviving Corporation, as the case may be, made such deduction and withholding.

Section 2.08. *Lost Certificates*. If any Certificate shall have been lost, stolen or destroyed, upon the making of an affidavit of that fact by the Person claiming such Certificate to be lost, stolen or destroyed and, if required by the Surviving Corporation, the posting by such Person of a bond, in such reasonable amount as the Surviving Corporation may direct, as indemnity against any claim that may be made against it with respect to such Certificate, the Paying Agent shall pay, in exchange for such lost, stolen or destroyed Certificate, the Merger Consideration to be paid in respect of the Shares represented by such Certificate, as contemplated by this Article 2.

Article 3
THE SURVIVING CORPORATION

Section 3.01. *Certificate of Incorporation*. At the Effective Time, the certificate of incorporation of the Surviving Corporation shall be amended and restated so that it reads in its entirety the same as the certificate of incorporation of Merger Sub as in effect immediately prior to the Effective Time (except that all references therein to Merger Sub shall be automatically amended to become references to the Surviving Corporation), until further amended in accordance with Applicable Law.

Section 3.02. *Bylaws*. The bylaws of Merger Sub in effect at the Effective Time shall be the bylaws of the Surviving Corporation until thereafter amended in accordance with Applicable Law.

Section 3.03. *Directors and Officers*. From and after the Effective Time, until successors are duly elected or appointed and qualified in accordance with Applicable Law, (i) the directors of Merger Sub at the Effective Time shall be the directors of the Surviving Corporation and (ii) the officers of Merger Sub at the Effective Time shall be the officers of the Surviving Corporation.

Article 4
REPRESENTATIONS AND WARRANTIES OF THE COMPANY

Subject to Section 11.05, and except as disclosed in any Company SEC Document filed with or furnished to the SEC and publicly available since the Applicable Date through the Business Day prior to the date of this Agreement (but excluding any general cautionary or forward-looking statements contained in the "risk factors" section or "forward-looking statements" and any other statements that are similarly cautionary, predictive or forward-looking in nature) or as set forth in the Company Disclosure Schedule (subject to Section 11.05), the Company represents and warrants to Parent and Merger Sub that:

Section 4.01. *Corporate Existence and Power*. The Company is a corporation duly incorporated, validly existing and in good standing under the laws of the State of Delaware and has all corporate powers required to own, lease and operate its properties and assets and to carry on its business as now conducted. The Company is duly qualified to do business as a foreign corporation and is in good standing in each jurisdiction where such qualification is necessary, except for those jurisdictions where failure to be so qualified have not had and would not reasonably be expected to have, individually or in the aggregate, a Company Material Adverse Effect. The certificate of incorporation (the "**Company Charter**") and bylaws of the Company and the Tranche 1 Warrant Agreement and the Tranche 2 Warrant Agreement filed as exhibits to the Company SEC Documents are true, correct and complete copies as of the date hereof.

Section 4.02. *Corporate Authorization.*

(a) The Company has all requisite corporate power and authority to execute and deliver this Agreement, to perform its obligations hereunder and to consummate the Merger, except for, in the case of consummation of the Merger, the affirmative vote of holders of a majority of the outstanding shares of the Company's common stock in favor of the adoption of this Agreement (the "**Requisite Company Vote**"). The Requisite Company Vote is the only vote of the holders of any of the Company's capital stock or the capital stock of any of its Subsidiaries necessary in connection with consummation of the Merger. The execution, delivery and performance by the Company of this Agreement and the consummation by the Company of the transactions contemplated hereby have been duly authorized by all necessary corporate action on the part of the Company, subject, in the case of consummation of the Merger, to the receipt of the Requisite Company Vote. The Company has duly executed and delivered this Agreement, and, assuming due authorization, execution and delivery by each of Parent and Merger Sub, this Agreement constitutes a valid and binding obligation of the Company enforceable against the Company in accordance with its terms (subject to applicable bankruptcy, insolvency, fraudulent transfer, reorganization, moratorium and other laws affecting creditors' rights generally and general principles of equity).

(b) At a meeting duly called and held, the board of directors of the Company (the "**Board of Directors**") has unanimously (i) determined that this Agreement and the transactions contemplated hereby, including the Merger, are fair to and in the best interests of the Company and the Company Stockholders, (ii) approved, adopted and declared advisable this Agreement and the transactions contemplated hereby, including the Merger, in accordance with the requirements of the DGCL and (iii) resolved, subject to Section 6.03(f), to submit this Agreement to a vote of the Company Stockholders and recommend adoption of this Agreement by the Company Stockholders (such recommendation, the "**Company Board Recommendation**"). As of the date of this Agreement, the foregoing determinations and resolutions have not been rescinded, modified or withdrawn in any way.

Section 4.03. *Governmental Authorization*. The execution, delivery and performance by the Company of this Agreement and the consummation by the Company of the transactions contemplated hereby require no action by or in respect of, or filing with, any Governmental Authority, other than (i) the filing of a certificate of merger with respect to the Merger with the Delaware Secretary of State and (to the extent applicable) appropriate documents with the relevant authorities of other states in which the Company is qualified to do business, (ii) compliance with any applicable requirements of the HSR Act, (iii) compliance with any applicable requirements of the 1933 Act, the 1934 Act and any other applicable state or federal securities laws, including the filing with the SEC of a proxy statement relating to the matters to be submitted to the Company Stockholders (the **"Proxy Statement**") at a meeting of such holders for the purpose of adopting this Agreement and approving the Merger (including any adjournment or postponement thereof, the "**Company Meeting**") and (iv) any actions or filings the absence of which have not had and would not reasonably be expected to have, individually or in the aggregate, a Company Material Adverse Effect and would not, individually or in the aggregate, reasonably be expected to materially adversely affect the ability of the Company to consummate the transactions contemplated hereby.

Section 4.04. *Non-contravention*. The execution, delivery and performance by the Company of this Agreement and the consummation of the transactions contemplated hereby do not and will not, assuming Stockholder Approval is obtained, (i) contravene, conflict with, or result in any violation or breach of any provision of the Company Charter or bylaws of the Company, (ii) assuming compliance with the matters referred to in Section 4.03, contravene, conflict with or result in a violation or breach of any Applicable Law, (iii) assuming compliance with the matters referred to in Section 4.03, require any consent or other action by any Person under, constitute a breach or default or an event that, with or without notice or lapse of time or both, would constitute a violation or breach of, or give rise to any right of termination, cancellation, acceleration or other change of any rights or obligations of the Company or any of its Subsidiaries, or loss of any benefit to which the Company or any of its Subsidiaries is entitled under, any provision of any Material Contract binding on the Company or any of its Subsidiaries, or by which they or any of their respective properties or assets may be bound or affected or (iv) result in the creation or imposition of any Lien on any asset of the Company or any of its Subsidiaries other than Permitted Liens, except, in the case of each of clauses (ii) through (iv), as have not had and would not reasonably be expected to have, individually or in the aggregate, a Company Material Adverse Effect and would not, individually or in the aggregate, reasonably be expected to materially adversely affect the ability of the Company to consummate the transactions contemplated hereby.

Section 4.05. *Capitalization*.

(a) The authorized capital stock of the Company consists solely of

(i) 49,000,000 shares of Class A Common Stock, (ii) 1,000,000 shares of Class B Common Stock and (iii) 5,000,000 shares of preferred stock, par value $0.01 per share ("**Preferred Shares**"). As of October 15, 2021, there were outstanding 14,062,851 Shares, of which 13,750,545 Shares were Class A Common Stock and 312,306 Shares were Class B Common Stock, and no Preferred Shares. As of October 15, 2021, there were outstanding 1,543,718 Tranche 1 Warrants, and 3,859,340 Tranche 2 Warrants. The maximum number of Shares available for issuance under the 2020 Plan is 2,160,492. As of October 15, 2021, 236,302 Shares were subject to issuance upon exercise of outstanding Company Stock Options, 491,886 Shares were subject to issuance upon vesting of Company RSUs and 122,917 Shares were subject to issuance upon vesting of Company PRSUs (assuming achievement of applicable performance objectives).

(b) All outstanding shares of capital stock of the Company have been, and all shares that may be issued pursuant to any Employee Plan or Company Security will be, when issued in accordance with the respective terms thereof, duly authorized and validly issued, fully paid and non-assessable and free of preemptive rights. Section 4.05(b) of the Company Disclosure Schedule contains a complete and correct list of each outstanding Company Stock Award, including the holder, type of award, and number of Shares subject thereto, and, in the case of Company Stock Options, the exercise price. Each Company Stock Award has been granted in compliance in all material respects with all applicable securities laws or exemptions therefrom and, except as has not had and would not reasonably be expected to have, individually or in the aggregate, a Company Material Adverse Effect, all requirements set forth in the applicable Employee Plan and applicable award agreements. The exercise price of each Company Stock Option is no less than the fair market value of a Share on the date of grant of such Company Stock Option.

(c) There are no outstanding bonds, debentures, notes or other Indebtedness of the Company having the right to vote (or convertible into, or exchangeable or exercisable for, securities having the right to vote) on any matters on which Company Stockholders may vote. Except as set forth in Section 4.05(a) and for changes since December 31, 2020 resulting from the exercise of Company Stock Options outstanding on such date in accordance with the terms thereof on such date, the issuance of Shares pursuant to the settlement of Company RSUs or Company PRSUs or the exercise of Tranche 1 Warrants and Tranche 2 Warrants outstanding on such date in accordance with the terms thereof on such date, there are no issued, reserved for issuance or outstanding (i) shares of capital stock or other voting securities of or ownership interests in the Company, (ii) securities of the Company convertible into or exchangeable or exercisable for shares of capital stock or other voting securities of or ownership interests in the Company, (iii) warrants, calls, options, subscriptions, commitments, Contracts or other rights to acquire from the Company, or other obligation of the Company to issue, any capital stock or other voting securities of, or ownership interests in, or any securities convertible into or exchangeable or exercisable for capital stock or other voting securities or ownership interests in, the Company or (iv) restricted shares, restricted stock units, stock appreciation rights, performance units, contingent value rights, “phantom” stock or similar securities or rights that are derivative of, or provide economic benefits based, directly or indirectly, on the value or price of, any capital stock or voting securities of, or ownership interests in, the Company (the items in clauses (i) through (iv), including, for the avoidance of doubt, the Shares, being referred to collectively as the “**Company Securities**”). There are no outstanding obligations of the Company or any of its Subsidiaries to repurchase, redeem or otherwise acquire any of the Company Securities. Neither the Company nor any of its Subsidiaries is a party to any voting agreement with respect to the voting, registration or transfer of any Company Securities.

(d) None of the (i) Shares or (ii) Company Securities are owned by any Subsidiary of the Company.

Section 4.06. *Subsidiaries*. (a) Each Subsidiary of the Company has been duly organized, is validly existing and (where applicable) in good standing under the laws of its jurisdiction of organization, has all organizational powers required to own, lease and operate its properties and assets and to carry on its business as now conducted. Each such Subsidiary is duly qualified to do business as a foreign entity and is in good standing in each jurisdiction where such qualification is necessary, except for those jurisdictions where failure to be so qualified have not had and would not reasonably be expected to have, individually or in the aggregate, a Company Material Adverse Effect. Section 4.06(a) of the Company Disclosure Schedule identifies each Subsidiary of the Company and indicates its jurisdiction of incorporation.

(b) All of the outstanding capital stock or other voting securities of, or ownership interests in, each Subsidiary of the Company have been duly authorized and validly issued and are fully paid and non-assessable and not subject to any preemptive rights and is owned by the Company, directly or indirectly, free and clear of any Lien and free of any other limitation or restriction (including any restriction on the right to vote, sell or otherwise dispose of such capital stock or other voting securities or ownership interests). There are no issued, reserved for issuance or outstanding (i) securities of the Company or any of its Subsidiaries convertible into, or exchangeable or exercisable for, shares of capital stock or other voting securities of, or ownership interests in, any Subsidiary of the Company, (ii) warrants, calls, options, subscriptions, commitments, Contracts or other rights to acquire from the Company or any of its Subsidiaries, or other obligations of the Company or any of its Subsidiaries to issue, any capital stock or other voting securities of, or ownership interests in, or any securities convertible into, or exchangeable or exercisable for, any capital stock or other voting securities of, or ownership interests in, any Subsidiary of the Company or (iii) restricted shares, restricted stock units, stock appreciation rights, performance units, contingent value rights, "phantom" stock or similar securities or rights that are derivative of, or provide economic benefits based, directly or indirectly, on the value or price of, any capital stock or other voting securities of, or ownership interests in, any Subsidiary of the Company (the items in clauses (i) through (iii) being referred to collectively as the "**Company Subsidiary Securities**"). There are no outstanding obligations of the Company or any of its Subsidiaries to repurchase, redeem or otherwise acquire any of the Company Subsidiary Securities. Except for the capital stock or other voting securities of, or ownership interests in, its Subsidiaries and other than *de minimis* amounts of capital stock or other voting securities or ownership interests, the Company does not own, directly or indirectly, any capital stock or other voting securities of, or ownership interests in, any Person.

Section 4.07. *SEC Filings and the Sarbanes-Oxley Act.*

(a) Since November 19, 2020 (the "**Applicable Date**"), the Company has timely filed with or furnished to the SEC all reports, schedules, forms, statements, prospectuses, registration statements and other documents required to be filed with or furnished to the SEC by the Company (such reports, schedules, forms, statements, prospectuses, registration statements and other documents so filed or furnished since the Applicable Date, collectively, together with any exhibits and schedules thereto and other information incorporated therein, the "**Company SEC Documents**"). No Subsidiary of the Company is, and since the Applicable Date, no Subsidiary of the Company has been, required to file any reports, schedules, forms, statements or other documents with the SEC. As of the date of this Agreement, (i) there are no outstanding or unresolved written comments from the SEC with respect to the Company SEC Documents and (ii) to the Company's Knowledge, none of the Company SEC Documents filed on or prior to the date hereof is the subject of ongoing SEC review.

(b) As of its filing date (and as of the date of any amendment), each Company SEC Document complied as to form in all material respects with the applicable requirements of the NYSE American, the 1933 Act, the 1934 Act and the Sarbanes-Oxley Act and the rules and regulations of the SEC promulgated under the 1933 Act, the 1934 Act and the Sarbanes-Oxley Act.

(c) As of its filing date (or, if amended or superseded by a filing prior to the date hereof, on the date of such filing), each Company SEC Document pursuant to the 1934 Act did not contain any untrue statement of a material fact or omit to state any material fact necessary in order to make the statements made therein, in light of the circumstances under which they were made, not misleading.

(d) Each Company SEC Document that is a registration statement, as amended or supplemented, if applicable, filed pursuant to the 1933 Act, as of the date such registration statement or amendment became effective, did not contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein not misleading.

(e) Since the Applicable Date, the Company and its Subsidiaries have established and maintained disclosure controls and procedures (as such term is defined in Rule 13a-15 under the 1934 Act) as required by Rule 13a-15 under the 1934 Act. Such disclosure controls and procedures are designed to ensure that information required to be disclosed by the Company in the Company SEC Documents that it files or submits pursuant to the 1934 Act is recorded, processed, summarized and reported, within the time periods specified in the SEC's rules and forms.

(f) Since the Applicable Date, the Company and its Subsidiaries have established and maintained a system of internal controls over financial reporting (as defined in Rule 13a-15 under the 1934 Act) sufficient to provide reasonable assurance regarding the reliability of the Company's financial reporting and the preparation of Company financial statements for external purposes in accordance with GAAP. The Company's management has completed an assessment of the effectiveness of the Company's system of internal controls over financial reporting in compliance with the requirements of Section 404 of the Sarbanes-Oxley Act for the fiscal year ended December 31, 2020, and such assessment concluded that those controls were effective. Since the Applicable Date, neither the Company nor, to the Knowledge of the Company, the Company's independent registered accountant has identified or been made aware of: (1) any significant deficiency or material weakness in the design or operation of internal control over financial reporting utilized by the Company which would reasonably be expected to adversely affect the Company's ability to record, process, summarize and report financial information; or (2) any fraud, whether or not material, that involves the management or other employees of the Company who have a significant role in the Company's internal control over financial reporting.

(g) There are no outstanding loans or other extensions of credit made by the Company or any of its Subsidiaries to any executive officer (as defined in Rule 3b-7 under the 1934 Act) or director of the Company. The Company is in compliance in all material respects with the Sarbanes-Oxley Act.

(h) The Company is, and since the Applicable Date, has been, in compliance in all material respects with the applicable listing and corporate governance rules and regulations of the NYSE American.

(i) Since the Applicable Date, each of the principal executive officer and principal financial officer of the Company (or each former principal executive officer and principal financial officer of the Company, as applicable) has made all certifications required by Rule 13a-14 and 15d-14 under the 1934 Act and Sections 302 and 906 of the Sarbanes-Oxley Act and any related rules and regulations promulgated by the SEC and the NYSE American, and the statements contained in any such certifications are complete and correct as of their respective dates.

Section 4.08. *Financial Statements*. The audited consolidated financial statements and unaudited consolidated interim financial statements of the Company included or incorporated by reference in the Company SEC Documents (i) as of their respective dates of filing with the SEC complied as to form in all material respects with the published rules and regulations of the SEC with respect thereto and (ii) fairly present in all material respects, in conformity with GAAP applied on a consistent basis (except as may be indicated in the notes thereto), the consolidated financial position of the Company and its consolidated Subsidiaries as of the dates thereof and their consolidated results of operations and cash flows for the periods then ended (subject to normal year-end audit adjustments and the absence of footnotes in the case of any unaudited interim financial statements which are not material in the aggregate). Since the Applicable Date, the books and records of the Company and its Subsidiaries have been, and are being, maintained in accordance with GAAP in all material respects.

Section 4.09. *Disclosure Documents.*

(a) Each document required to be filed by the Company with the SEC including the Proxy Statement to be filed with the SEC in connection with the Merger, and any amendments or supplements thereto (collectively, the "**Company Disclosure Documents** "), when filed, will comply as to form in all material respects with the applicable requirements of the 1934 Act.

(b) The information included or incorporated by reference in the Company Disclosure Documents, will not, when filed, and in the case of the Proxy Statement (as amended or supplemented) at the time of mailing thereof to the Company Stockholders and at the time of the Company Meeting, contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary in order to make the statements therein, in light of the circumstances under which they were made, not misleading. The representations and warranties contained in this Section 4.09 will not apply to statements or omissions included or incorporated by reference in the Company Disclosure Documents based upon information supplied by Parent, Merger Sub or any of their representatives or advisors specifically for use or incorporation by reference therein.

Section 4.10. *Absence of Certain Changes.* Since the Company Balance Sheet Date through the date hereof, (i) the business of the Company and its Subsidiaries has been conducted in all material respects in the ordinary course of business, (ii) there has not been any event, occurrence, development or state of circumstances or facts that has had or would reasonably be expected to have, individually or in the aggregate, a Company Material Adverse Effect and (iii) none of the Company or any of its Subsidiaries has taken or agreed to take any action that, if taken after the date of this Agreement, would constitute a violation of Section 6.01.

Section 4.11. *No Undisclosed Material Liabilities*. There are no liabilities or obligations of the Company or any of its Subsidiaries of any kind whatsoever, whether accrued, contingent, absolute, known, unknown, determined, determinable, due or to become due or otherwise, which would be required to be reflected on or reserved against a consolidated balance sheet of the Company prepared in accordance with GAAP, other than: (i) liabilities or obligations disclosed or reserved for in the unaudited consolidated balance sheet of the Company and its Subsidiaries as of June 30, 2021 included in the Company 10-Q or in the notes thereto; (ii) liabilities or obligations incurred in the ordinary course of business since June 30, 2021, none of which are material to the Company; (iii) liabilities or obligations arising out of or in connection with this Agreement and the transactions contemplated hereby, (iv) for performance of obligations on the part of the Company or any of its Subsidiaries pursuant to the terms of any Contract (other than liabilities or obligations due to breaches thereunder), and (v) liabilities or obligations that have not had and would not reasonably be expected to have, individually or in the aggregate, a Company Material Adverse Effect.

Section 4.12. *Compliance with Laws, Permits and Court Orders*. (a) The Company and each of its Subsidiaries is, and since the Applicable Date has been, in compliance with, and to the Knowledge of the Company, is not under investigation with respect to, nor been threatened in writing, to be charged with or given notice of any violation of, any Applicable Law, except for failures to comply or violations that have not had and would not reasonably be expected to have, individually or in the aggregate, a Company Material Adverse Effect. There is no judgment, decree, injunction, rule or order of any arbitrator or Governmental Authority outstanding against the Company or any of its Subsidiaries that has had or would reasonably be expected to have, individually or in the aggregate, a Company Material Adverse Effect. Except as would not reasonably be expected to have, individually or in the aggregate, a Company Material Adverse Effect, (i) the Company and each of its Subsidiaries has all Permits necessary to own, lease and operate its properties and assets and to carry on its business as now conducted, (ii) the Company and each of its Subsidiaries is in compliance with the terms and requirements of such Permits, (iii) such Permits are in full force and effect and are not subject to any pending or threatened Action by any Governmental Authority to suspend, cancel, modify, terminate or revoke any such Permit and (iv) since the Applicable Date, there has occurred no violation by the Company or any of its Subsidiaries of, default (with or without notice or lapse of time, or both) that would reasonably be expected to result in any suspension, cancellation, modification, termination or revocation of any such Permit.

(b) The Company, each of its Subsidiaries, and each of their respective directors, officers and, to the Knowledge of the Company, employees (in connection with their activities on behalf of the Company or any of its Subsidiaries), are, and since the Applicable Date have been, in compliance in all material respects with (i) the Foreign Corrupt Practices Act of 1977, as amended, and all other applicable anti-corruption laws, (ii) all economic sanctions administered or enforced by the U.S. Department of Treasury's Office of Foreign Assets Control or the U.S. Department of State (collectively, "**Sanctions**") and (iii) all applicable export controls laws.

(c) None of the Company or any of its Subsidiaries, or any director or officer, or, to the Company's Knowledge, any Affiliate or representative of the Company or any of its Subsidiaries, is a Person that is, or is owned or controlled by Persons that are: (i) the subject of any Sanctions or (ii) located, organized or resident in a country or region that is the subject of Sanctions (currently, Crimea, Cuba, Iran, North Korea, Sudan and Syria).

Section 4.13. *Insurance*. Except as would not reasonably be expected to have, individually or in the aggregate, a Company Material Adverse Effect, (1) all insurance policies of the Company and its Subsidiaries relating to the business, assets and operations of the Company and its Subsidiaries in effect as of the date of this Agreement are in full force and effect and (2) no notice of cancellation or modification has been received by the Company, and there is no existing default or event which, with the giving of notice or lapse of time or both, would constitute a default by any insured under such insurance policies. Section 4.13 of the Company Disclosure Schedule sets forth all material insurance policies held by the Company and its Subsidiaries.

Section 4.14. *Litigation*. There is no Action pending against, threatened in writing against or, to the Knowledge of the Company, otherwise threatened against the Company, any of its Subsidiaries, any of their respective properties or assets, any present or former officer, director or employee of the Company or any of its Subsidiaries or any Person for whom the Company or any of its Subsidiaries may be liable with respect thereto, before (or, in the case of threatened Actions, would be before) or by any Governmental Authority or arbitrator, that would reasonably be expected to be, individually or in the aggregate, material to the Company and its Subsidiaries taken as a whole or would, individually or in the aggregate, reasonably be expected to materially adversely affect the ability of the Company to consummate the transactions contemplated hereby. There has not been since the Applicable Date nor are there currently any internal investigations being conducted by the Company or the Board of Directors (or any committee thereof) concerning any material allegations of fraud or malfeasance relating to financial, accounting or Tax issues that, individually or in the aggregate, would reasonably be expected to be material to the Company and its Subsidiaries taken as a whole.

Section 4.15. *Properties*.

(a) Except as would not reasonably be expected to have, individually or in the aggregate, a Company Material Adverse Effect, the Company and its Subsidiaries have valid title to, or valid leasehold interests in, or otherwise have the right to use pursuant to a valid and enforceable lease, license or similar contractual arrangement, all real property and assets used in the Company's business and reflected on the Company Balance Sheet or acquired after the Company Balance Sheet Date, except as have been disposed of since the Company Balance Sheet Date in the ordinary course of business and in compliance with this Agreement, in each case, free and clear of all Liens other than Permitted Liens. Section 4.15(a) of the Company Disclosure Schedule sets forth a complete and correct list as of the date hereof of all material real property owned in fee by the Company or any of its Subsidiaries (including the address), and there are no outstanding options or rights of first refusal to purchase such owned real property.

(b) Except as would not reasonably be expected to have, individually or in the aggregate, a Company Material Adverse Effect, (i) each lease, sublease or license (each, a "**Lease**") under which the Company or any of its Subsidiaries leases, subleases or licenses any real property is valid and in full force and effect and (ii) neither the Company nor any of its Subsidiaries, nor to the Knowledge of the Company any other party to a Lease, has violated any provision of, or taken or failed to take any act which, with or without notice, lapse of time, or both, would constitute a breach or default under the provisions of such Lease or permit termination, modification or acceleration by any third party thereunder, and to the Knowledge of the Company, neither the Company nor any of its Subsidiaries has received notice that it has breached, violated or defaulted under any Lease, in each case, other than such items, if any, that have been cured. Section 4.15(b) of the Company Disclosure Schedule sets forth a complete and correct list as of the date hereof of the address of each material parcel of real property subject to a Lease to which the Company or any of its Subsidiaries is a party and the identity of the lessor and lessee.

(c) Except as would not reasonably be expected to have, individually or in the aggregate, a Company Material Adverse Effect, (i) the plants, buildings, structures and equipment owned, leased, licensed or otherwise used or held for use by the Company or any of its Subsidiaries have no material defects and have been maintained consistent with standards generally followed in the industry (ordinary wear and tear excepted), (ii) to the Knowledge of the Company, none of the Company or any of its Subsidiaries has received any notice of any pending or threatened condemnation Action with respect to any of the real property it owns, leases, licenses or otherwise occupies and (iii) no Person leases, subleases, licenses or otherwise has the right to use or occupy any of the real property referred to in Section 4.15(a) or Section 4.15(b) other than the Company or any Subsidiary of the Company.

Section 4.16. *Intellectual Property*. Section 4.16 of the Company Disclosure Schedule sets forth a complete and correct list as of the date hereof of all material registrations and applications for registration of any trademarks, patents, copyrights and domain names owned or purported to be owned by the Company or any of its Subsidiaries. Except as have not had and would not reasonably be expected to have, individually or in the aggregate, a Company Material Adverse Effect, (i) the Company and each of its Subsidiaries solely and exclusively own, or has a valid and enforceable license or other right to use (in each case, free and clear of any Liens other than Permitted Liens), all Intellectual Property necessary for the conduct of its business as currently conducted; (ii) all registered Intellectual Property owned or purported to be owned by the Company and its Subsidiaries is subsisting and valid and, to the Knowledge of the Company, is enforceable; (iii) to the Knowledge of the Company, neither the Company nor its Subsidiaries has infringed, misappropriated, diluted or otherwise violated the Intellectual Property rights of any Person; (iv) to the Knowledge of the Company, in the last three years, no Person has challenged, infringed, misappropriated, diluted, tarnished or otherwise violated any Intellectual Property right owned by and/or licensed to the Company or its Subsidiaries; (v) as of the date hereof, to the Knowledge of the Company, neither the Company nor any of its Subsidiaries is subject to any Action with respect to any Intellectual Property owned, used or held for use by the Company or any of its Subsidiaries or alleging that any services provided, processes used or products manufactured, used, imported, offered for sale or sold by the Company or any of its Subsidiaries infringes, misappropriates, dilutes or otherwise violates any Intellectual Property rights of any Person; (vi) the Company and its Subsidiaries have taken commercially reasonable actions to maintain, enforce and protect all Intellectual Property owned by them and none of the Intellectual Property owned by the Company or any of its Subsidiaries has been adjudged invalid or unenforceable in whole or in part; (vii) the Company and its Subsidiaries have taken commercially reasonable steps to maintain the confidentiality of all Trade Secrets owned, used or held for use by the Company or any of its Subsidiaries; (viii) the IT Assets operate and perform in a manner that permits the Company and its Subsidiaries to conduct their respective businesses as currently conducted and, to the Knowledge of the Company, no Person has gained unauthorized access to the IT Assets (or any information or data stored therein or transmitted thereby); (ix) since its inception, there has been no failure, material substandard performance or breach of any IT Assets of the Company, its Subsidiaries or its contractors that has (x) caused any material disruption to the business and has not been resolved or (y) resulted in any unauthorized disclosure of or access to any data owned, collected or controlled by the Company or its Subsidiaries; (x) the Company and its Subsidiaries have implemented commercially reasonable backup and disaster recovery technology; (xi) the Company and its Subsidiaries have since the Applicable Date complied with all Privacy/Data Security Laws in the course of the operations of the Company and its Subsidiaries; (xii) to the Knowledge of the Company, neither the Company nor its Subsidiaries has provided or been legally required to provide any notice to data owners or any Governmental Authority in connection with any unauthorized access, use, or disclosure of Personal Information or the Company's IT Assets; (xiii) to the Knowledge of the Company, the IT Assets (along with any other software developed by the Company or its Subsidiaries) do not contain an open source, copyleft or community source code license in a manner that (a) requires or conditions the use of such software on the disclosure, licensing or distribution of any Intellectual Property owned by the Company or its Subsidiaries, or (b) otherwise imposes any limitation, restriction or condition on the right or ability of the Company or its Subsidiaries to use, distribute or provide access to any Intellectual Property owned by the Company or its Subsidiaries; and (xiv) as of the date hereof, no claims have been asserted or threatened in writing against the Company or any of its Subsidiaries by any Person alleging a violation of such Person's privacy, personal or confidentiality rights under any Privacy/Data Security Laws, policies or procedures.

Section 4.17. *Taxes*.

(a) Except as would not reasonably be expected to have, individually or in the aggregate, a Company Material Adverse Effect:

(i) All Tax Returns required to be filed by Applicable Law by, or on behalf of, the Company or any of its Subsidiaries have been timely filed (taking into account valid extensions of time to file), and all such Tax Returns are true, complete and correct in all respects. The Company and each of its Subsidiaries has timely paid (or has had paid on its behalf) to the appropriate Governmental Authority all Taxes due and payable by it, whether or not shown as due on any Tax Returns.

(ii) Each of the Company and its Subsidiaries has properly and timely withheld or collected and timely paid, or is properly holding for timely payment, all Taxes required to be withheld, collected and paid over by it under Applicable Law, and the Company and each of its Subsidiaries has complied in all respects with all information reporting (and related withholding) and record retention requirements.

(iii) There is no Action now pending or, to the Company's Knowledge, threatened in writing against or with respect to the Company or its Subsidiaries in respect of any Tax or Tax Return.

(iv) No Tax deficiency has been asserted against the Company or any of its Subsidiaries that has not been resolved or paid in full.

(v) There are no Liens on any of the assets of the Company or any of its Subsidiaries attributable to Taxes other than Liens for Taxes not yet delinquent.

(vi) Neither the Company nor any of its Subsidiaries has waived any statute of limitation in respect of Taxes or agreed to any extension of time with respect to an assessment or deficiency for Taxes, which waiver or extension is currently in effect (other than pursuant to extensions of time to file Tax Returns obtained in the ordinary course of business).

(vii) Neither the Company nor any Subsidiary of the Company (i) is, or has been, a member of any affiliated, consolidated, combined or unitary Tax group, other than a group the common parent of which is the Company, or (ii) has any liability for Taxes of any Person (other than the Company or any Subsidiary of the Company) arising from the application of Treasury Regulations Section 1.1502-6 (or any analogous provision of U.S. state or local or non-U.S. Tax law) or as a transferee or successor.

(viii) Neither the Company nor any Subsidiary of the Company will be required to include any item of income in, or to exclude any item of deduction from, taxable income from any taxable period (or portion thereof) ending after the Closing as a result of any

(i) adjustment under either Section 481(a) of the Code (or any corresponding or similar provision of U.S. state or local omon-U.S. Tax law) by reason of a change in method of accounting prior to the Closing for a taxable period (or portion thereof) ending on or prior to the Closing, (ii) "closing agreement," as described in Section 7121 of the Code (or any corresponding or similar provision of U.S. state or local or non -U.S. Tax law), entered into on or prior to the Closing, (iii) intercompany transaction or excess loss account described in Treasury Regulations under Section 1502 of the Code (or any corresponding or similar provision of U.S. state or local or non-U.S. Tax law) entered into or created on or prior to the Closing, (iv) installment sale or open transaction disposition made on or prior to the Closing, or (v) prepaid amount received on or prior to the Closing.

(ix) Section 4.17(a)(ix) of the Company Disclosure Schedule contains a complete and correct list of all jurisdictions (whether U.S. ornon-U.S.) in which the Company or any of its Subsidiaries currently files any material Tax Returns.

(b) Neither the Company nor any of its Subsidiaries has entered into, or participated in, any "listed transaction" within the meaning of Treasury Regulations Section 1.6011-4(b)(2).

(c) Neither the Company nor any of its Subsidiaries has been a "distributing" corporation or a "controlled corporation" (within the meaning of Section 355(a)(1)(A) of the Code) in any distribution of stock during the two-year period ending on the date of this Agreement that was purported or intended to be governed by Section 355 of the Code (or so much of Section 356 of the Code as relates to Section 355 of the Code).

(d) Neither the Company nor any of its Subsidiaries has deferred any obligation to pay Taxes pursuant to the CARES Act, an executive order or any similar provision of any COVID-19 aid.

(e) Neither the Company nor any Subsidiary of the Company is a party to, or is bound by or has any obligation under any Tax Sharing Agreement (other than agreements solely by and among the Company and its Subsidiaries).

Section 4.18. *Employee Benefit Plans*. (a) Section 4.18(a) of the Company Disclosure Schedule contains a true and complete list of each Employee Plan that is material in any respect. All Employee Plans cover Service Providers solely located within the United States.

(b) Neither the Company nor any of its ERISA Affiliates (nor any predecessor of any such entity) sponsors, maintains or contributes to (or has any obligation to contribute to), or has in the past six years—sponsored, maintained or contributed to (or had any obligation to contribute to), or has or is reasonably expected to have any direct or indirect liability with respect to, any plan subject to Title IV of ERISA, including any "multiemployer plan" (within the meaning of Section 3(37) of ERISA).

(c) Each Employee Plan that is intended to be qualified under Section 401(a) of the Code has received a favorable determination or opinion letter from, or such a letter is pending or there is time remaining in which to file an application for such determination from, the Internal Revenue Service (the "**IRS**"), and, to the Knowledge of the Company, no circumstances exist that would reasonably be expected to result in any such letter being revoked or not being issued or reissued.

(d) Each Employee Plan has been maintained, funded and administered in material compliance with its terms and with all Applicable Law, including ERISA, the Patient Protection and Affordable Care Act and the Code; and, except as would not reasonably be expected to result in, individually or in the aggregate, a material liability for the Company, no Action (other than routine claims for benefits) is pending against or involves or, to the Company's Knowledge, is threatened against or threatened to involve, any Employee Plan before any arbitrator or any Governmental Authority, including the IRS and the Department of Labor.

(e) Since the Applicable Date, all returns, reports and disclosure statements required to be made under ERISA and the Code with respect to all Employee Plans have been timely filed or delivered, except as would not reasonably be expected to result in, individually or in the aggregate, a material liability for the Company. Since the Applicable Date, except as would not reasonably be expected to result in material liability for the Company, none of the Company nor any of its directors, officers, employees or agents, nor any fiduciary, trustee or administrator of any Employee Plan or trust created under any Employee Plan, has engaged in or been a party to any "prohibited transaction" as defined in Section 4975 of the Code and Section 406 of ERISA.

(f) Since the Applicable Date, all material contributions, material premiums and material payments that are due have been made for each Employee Plan within the time periods prescribed by the terms of such plan and Applicable Law, and all contributions, premiums and payments for any period ending on or before the Closing that are not due are properly accrued to the extent required to be accrued under applicable accounting principles and have been properly reflected on the Company Balance Sheet or disclosed in the notes thereto.

(g) Neither the Company nor any of its Subsidiaries has any material current or projected liability for, and no Employee Plan provides or promises, any post-retirement health, medical, hospitalization, disability, life or other retiree welfare benefits (whether insured or self-insured) to any current or former Service Provider, other than coverage which may be mandated under Applicable Law, including COBRA.

(h) Neither the execution of this Agreement nor the consummation of the transactions contemplated hereby (either alone or together with any other event) will (i) entitle any current or former Service Provider to any material payment or benefit, including any bonus, retention or severance payment or benefit, (ii) accelerate the time of payment or vesting or trigger any payment or funding (through a grantor trust or otherwise) of compensation or benefits under, or materially increase the amount payable or trigger any other obligation under, any Employee Plan, (iii) limit or restrict the right of the Company or any of its Subsidiaries or, after the Closing, Parent or any of its Affiliates, to merge, materially amend or terminate any Employee Plan or (iv) result in the payment of any amount that would not be deductible by reason of Section 280G of the Code or would be expected to be subject to an excise Tax under Section 4999 of the Code.

(i) Neither the Company nor any of its Subsidiaries has any obligation togross-up, indemnify or otherwise reimburse any current or former Service Provider for any Tax incurred by such Service Provider, including under Section 409A or 4999 of the Code.

Section 4.19. *Labor Matters*. (a) Neither the Company nor any of its Subsidiaries is a party to or subject to, or is currently negotiating in connection with entering into, any Collective Bargaining Agreement and there is no, and there has not been in the past three years any, organizational campaign, petition or other unionization activity pending, or to the Knowledge of the Company, threatened, seeking recognition of a collective bargaining unit relating to any Company Employee.

(b) Except as would not be reasonably likely to result in material liability to the Company, there are no unfair labor practice complaints pending or, to the Knowledge of the Company, threatened against the Company or any of its Subsidiaries before the National Labor Relations Board or any other Governmental Authority. There is no, and there has not been since the Applicable Date, any labor strike, slowdown, stoppage, picketing, material interruption of work or lockout pending or, to the Knowledge of the Company, threatened against or affecting the Company or any of its Subsidiaries.

(c) The Company and its Subsidiaries are, and have been since the Applicable Date, in compliance with all Applicable Laws relating to labor and employment, including (i) those relating to labor management relations, wages, hours, overtime, employee classification, discrimination, sexual harassment, civil rights, affirmative action, work authorization, immigration, safety and health, information privacy and security, wage payment, the payment and withholding of Taxes and workers compensation and (ii) WARN, except in the case of either clause (i) or clause (ii) above, for failures to comply that have not had and would not reasonably be expected to have, individually or in the aggregate, a Company Material Adverse Effect.

Section 4.20. *Environmental Matters.*

(a) Except as would not reasonably be expected to have, individually or in the aggregate, a Company Material Adverse Effect: (i) since the Applicable Date (or earlier if unresolved) no notice, notification, demand, request for information, citation, summons or order has been received, no complaint has been filed, no penalty has been assessed, and no Action is pending or, to the Knowledge of the Company, is threatened by any Person relating to the Company or any of its Subsidiaries under any Environmental Law; (ii) the Company and its Subsidiaries are and since the Applicable Date have been in compliance with all Environmental Laws, and such compliance includes obtaining, maintaining, timely renewing, and complying with the terms of, all Environmental Permits; (iii) there has been no Release of any Hazardous Substance at, from, in, on, under, to or about any property currently or, to the Knowledge of the Company, formerly owned, leased or operated by the Company, and of its Subsidiaries or their respective predecessors; (iv) to the Knowledge of the Company, there are no liabilities or obligations of the Company or any of its Subsidiaries of any kind whatsoever, whether accrued, contingent, absolute, determined, determinable or otherwise, arising under any Environmental Law; and (v) the Company has made available to Parent complete and accurate copies of all environmental assessment and audit reports and studies, in each case, that have been prepared by third parties since the Applicable Date and prior to the date hereof are in the Company's possession, custody or control.

Section 4.21. *Suppliers and Customers*. Section 4.21 of the Company Disclosure Schedule sets forth a complete and accurate list of (i) the 10 largest suppliers of the Company and its Subsidiaries based on the consolidated cost of goods and services paid to such Persons by the Company and its Subsidiaries for the fiscal year ended December 31, 2020 (each, a "**Principal Supplier**") and (ii) the 10 largest customers of the Company and its Subsidiaries based on revenues received from such Persons by the Company and its Subsidiaries for the fiscal year ended December 31, 2020 (each, a "**Principal Customer**").

Section 4.22. *Material Contracts.* (a) As of the date hereof, except as set forth in Section 4.22 of the Company Disclosure Schedule or filed in a Company SEC Document since the Applicable Date, neither the Company nor any of its Subsidiaries is party to or bound by any Contract, which is in effect as of the date hereof:

(i) that would be required to be filed by the Company as a "material contract" pursuant to Item 601(b)(10) of Regulation S-K under the 1933 Act;

(ii) that are employment, independent contractor, consulting, severance or similar agreements under which the Company or any Company Subsidiary is or could become obligated to provide annual compensation or payments in excess of $150,000;

(iii) that (or, together with additional related Contracts with the same Person or its Affiliates) involves the payment or receipt of amounts by the Company or any of its Subsidiaries of more than $500,000 in the calendar year ended December 31, 2021 or any subsequent calendar year and that cannot be cancelled by the Company or its applicable Subsidiary without penalty or further payment on no more than ninety (90) days' notice;

(iv) relating to any partnership, strategic alliance or joint venture that is, in any such case, material to the Company and its Subsidiaries, taken as a whole;

(v) that provides for the acquisition or disposition, directly or indirectly (by merger or otherwise) of assets or capital stock (other than acquisitions or dispositions of inventory and raw materials and supplies in the ordinary course of business) (A) for aggregate consideration under such Contract in excess of $200,000 or (B) pursuant to which the Company or its Subsidiaries has continuing material “earn-out” or other contingent payment obligations or any material indemnification obligations;

(vi) providing for indemnification by the Company or any its Subsidiaries of any officer, director or employee of the Company or any of its Subsidiaries;

(vii) that contains a put, call, right of first refusal or similar right pursuant to which the Company or any of its Subsidiaries could be required to purchase or sell, as applicable, any assets or any equity interests of any Person;

(viii) that restricts or purports to restrict the ability of the Company or any of its Subsidiaries to compete with or to provide services in any line of business or with any Person or in any geographic area or market segment;

(ix) that is a Collective Bargaining Agreement;

(x) containing any swap, cap, floor, collar, futures contract, forward contract, option and any other derivative financial instrument, contract or arrangement, based on any commodity, security, instrument, asset, rate or index of any kind or nature whatsoever;

(xi) with (A) any beneficial owner (as defined in Rule13d-3 under the 1934 Act) of 5% or more of any class of securities of the Company or any Company Subsidiary or (B) any Affiliate or “associate” or any member of the “immediate family” (as such terms are respectively defined in Rules 12b-2 and 16a-1 of the 1934 Act) of any of the foregoing, including any stockholders agreement, investors’ rights agreement, registration rights agreement, tax receivable agreement or similar or related Contracts;

(xii) That (A) evidences Indebtedness of the Company or any Subsidiary of the Company in excess of $500,000, (B) evidences a capitalized lease obligation that is required to be classified as a balance sheet liability of the Company in accordance with GAAP (excluding any lease obligations required to be capitalized in accordance with the Financial Accounting Standards Codification Topic 842) (each such capitalized lease obligation, a “**Finance Lease**”) or an obligation to pay the deferred and unpaid purchase price of property or equipment in excess of $500,000 or (C) restricts the payment of dividends or other distribution of assets by any of the Company or its Subsidiaries;

(xiii) requiring future capital expenditures by the Company or any of its subsidiaries in excess of $750,000 in the aggregate;

(xiv) that is the subject of any Action individually in excess of $250,000 and under which there are outstanding obligations (including settlement agreements) of the Company or any of its Subsidiaries;

(xv) that is material and to which any Principal Supplier or Principal Customer is a party, in each case, that has a term of more than 90 days and that may not be terminated by the Company or any of its Subsidiaries (without penalty) within 90 days after the delivery of a termination notice.

(b) The Company has made available to Parent prior to the date hereof a complete and correct copy (in all material respects) of each Contract listed or required to be listed in Section 4.22(a) of the Company Disclosure Schedule (each, a "**Material Contract**"). Except for breaches, violations or defaults which would not reasonably be expected to have, individually or in the aggregate, a Company Material Adverse Effect, (i) each of the Material Contracts and each purchase or work order pursuant to which the Company is currently performing hydraulic fracturing services for a customer (an "**Existing PO**") is valid, binding and in full force and effect and (ii) since the Applicable Date, neither the Company nor any of its Subsidiaries, nor to the Knowledge of the Company, any other party to a Material Contract or Existing PO, has breached or violated any provision of, or taken or failed to take any act which, with or without notice, lapse of time, or both, would constitute a breach or default under the provisions of such Material Contract or Existing PO, and, to the Knowledge of the Company, neither the Company nor any of its Subsidiaries has received notice that it has breached, violated or defaulted under any Material Contract or Existing PO.

Section 4.23. *Affiliate Transactions*. Neither the Company nor any Subsidiary of the Company is a party to any Contract or other transaction, agreement or binding arrangement or understanding between the Company or its Subsidiaries, on the one hand, and any Affiliates thereof (other than wholly owned Subsidiaries of such Person) on the other hand, in each case, that would be required to be disclosed under Item 404 of Regulation S-K promulgated under the 1934 Act except as have been so disclosed.

Section 4.24. *Finders' Fees*. Other than to the Company Financial Advisor in accordance with the terms of the engagement letters provided to Parent prior to the date hereof, neither the Company nor any of its Subsidiaries is obligated to pay any fee or commission to any financial advisor, broker, finder or other intermediary in connection with the transactions contemplated by this Agreement. The Company has made available to Parent prior to the date hereof a complete and accurate copy of all agreements pursuant to which the Company Financial Advisors are entitled to any fees, expenses or indemnification in connection with any of the transactions contemplated by this Agreement.

Section 4.25. *Opinion of Financial Advisor*. The Board of Directors has received the opinion (the '**Opinion**") of Ducera Securities LLC (the "**Company Financial Advisor**"), to the effect that, as of the date of the Opinion and based on and subject to the various assumptions, qualifications, limitations and other matters set forth therein, the Merger Consideration to be received by the holders of Shares (other than Shares held by Parent or its Affiliates and Shares held by the Company as treasury stock or by any Subsidiary of the Company) is fair, from a financial point of view, to such holders. The Company shall deliver a true and complete written copy of the Opinion to Parent solely for informational purposes after the execution of this Agreement. Parent and Merger Sub acknowledge and agree that the Opinion may not be relied upon by Parent or Merger Sub or any director, officer or employee thereof and that the Opinion may not be distributed by Parent or Merger Sub to any third party without the prior consent of the Company Financial Advisor.

Section 4.26. *Antitakeover Statutes.* Assuming the accuracy of the representations and warranties of Parent and Merger Sub contained in the last two sentences of Section 5.04 (disregarding any Knowledge qualifier therein) and Section 5.08 and compliance by Parent with the covenants contained in Section 7.04(b), no "fair price," "moratorium," "control share acquisition," "business combination" or other similar antitakeover statute or regulation or any antitakeover provision in the Company Charter or the Company's bylaws is applicable to the Company, Parent, Merger Sub, the Shares, this Agreement, the Merger or the other transactions contemplated by this Agreement. Assuming the accuracy of the representations and warranties of Parent and Merger Sub contained in the last two sentences of Section 5.04 (disregarding any Knowledge qualifier therein) and in Section 5.08 and compliance by Parent with the covenants contained in Section 7.04(b), prior to the date of this Agreement, the Board of Directors has taken all action necessary to render the Rights Agreement inapplicable to this Agreement, the Merger and the other transactions contemplated by this Agreement, and no antitakeover provision in the Rights Agreement is applicable to this Agreement, the Merger or the other transactions contemplated by this Agreement. Other than the Rights Agreement and as set forth in the Amended and Restated Certificate of Incorporation of the Company, there is no rights agreement, stockholder rights plan, tax preservation plan, net operating loss preservation plan or "poison pill" antitakeover plan in effect to which the Company or any of its Subsidiaries is subject, party to or otherwise bound. Assuming the accuracy of the representations and warranties of Parent and Merger Sub contained in the last sentence of Section 5.04 and in Section 5. 08 and compliance by Parent with the covenants contained in Section 7.04(b), the Company has taken all action necessary to exempt the Merger, the execution, delivery and performance of this Agreement and the Voting and Support Agreements and the transactions contemplated hereby and thereby from Section 203 of the DGCL and the Rights Agreement.

Section 4.27. *No Other Representations or Warranties.* Except for the representations and warranties expressly contained in this Agreement (or in any certificate delivered by the Company pursuant hereto), each of Parent and Merger Sub acknowledges that neither the Company nor any Person acting on its behalf makes any other express or any implied representations or warranties in this Agreement with respect to (i) the Company or its Subsidiaries, any of their businesses, operations, assets, liabilities, condition (financial or otherwise) or prospects or any other matter relating to the Company or its Subsidiaries or (ii) the accuracy or completeness of any documentation, forecasts or other information provided by the Company or any Person acting on any of their behalf to Parent or Merger Sub, any Affiliate of Parent or any Person acting on any of their behalf and the Company hereby disclaims any such representation or warranty, whether by or on behalf of the Company, and notwithstanding the delivery or disclosure to Parent or Merger Sub, or any of their Representatives or Affiliates of any documentation or other information by the Company or any of its Representatives or Affiliates with respect to any one or more of the foregoing. Each of Parent and Merger Sub also acknowledges and agrees that the Company makes no representation or warranty with respect to any projections, forecasts or other estimates, plans or budgets of future revenues, expenses or expenditures, future results of operations (or any component thereof), future cash flows (or any component thereof) or future financial condition (or any component thereof) of the Company or any of its Subsidiaries or the future business, operations or affairs of the Company or any of its Subsidiaries heretofore or hereafter delivered to or made available to Parent, Merger Sub or their respective Representatives or Affiliates.

Article 5
REPRESENTATIONS AND WARRANTIES OF PARENT AND MERGER SUB

Each of Parent and Merger Sub represents and warrants to the Company that:

Section 5.01. *Corporate Existence and Power*. Each of Parent and Merger Sub is a limited liability company or corporation, as applicable, duly incorporated, validly existing and in good standing under the laws of its jurisdiction of formation or incorporation, as applicable, and has all corporate or limited liability company powers, as applicable, required to own, lease and operate its properties and assets and carry on its business as now conducted. Merger Sub has been formed solely for the purpose of engaging in the transactions contemplated by this Agreement, has not conducted any business prior to the date hereof, and has no, and prior to the Effective Time will have no, assets, liabilities or obligations of any nature other than those incident to its formation or pursuant to this Agreement, the Merger and the other transactions contemplated hereby or in connection with arranging any financing required to consummate the transactions contemplated hereby.

Section 5.02. *Corporate Authorization.* Each of the Company and Merger Sub has all requisite limited liability company or corporate power and authority, as applicable, to perform its obligations hereunder and consummate the Merger, subject to, in the case of the consummation of the Merger, the adoption of this Agreement by Parent as the sole stockholder of Merger Sub. The execution, delivery and performance by Parent and Merger Sub of this Agreement and the consummation by Parent and Merger Sub of the transactions contemplated hereby are within the corporate powers of Parent and Merger Sub and have been duly authorized by all necessary corporate action on the part of Parent and Merger Sub, subject to, in the case of the consummation of the Merger, the adoption of this Agreement by Parent as the sole stockholder of Merger Sub. Each of Parent and Merger Sub has duly executed and delivered this Agreement, and, assuming due authorization, execution and delivery by the Company, this Agreement constitutes a valid and binding obligation of each of Parent and Merger Sub, enforceable against Parent and Merger Sub in accordance with its terms (subject to applicable bankruptcy, insolvency, fraudulent transfer, reorganization, moratorium and other laws affecting creditors' rights generally and general principles of equity).

Section 5.03. *Governmental Authorization.* The execution, delivery and performance by Parent and Merger Sub of this Agreement and the consummation by Parent and Merger Sub of the transactions contemplated hereby require no action by or in respect of, or Permit from or filing by or with respect to Parent or Merger Sub with, any Governmental Authority, other than (i) the filing of a certificate of merger with respect to the Merger with the Delaware Secretary of State (to the extent applicable) and appropriate documents with the relevant authorities of other states in which Parent is qualified to do business, (ii) compliance with any applicable requirements of the HSR Act, (iii) compliance with any applicable requirements of the 1933 Act, the 1934 Act and any other state or federal securities laws, and (iv) any actions or filings the absence of which would not reasonably be expected to have, individually or in the aggregate, a Parent Material Adverse Effect.

Section 5.04. *Non-contravention*. The execution, delivery and performance by Parent and Merger Sub of this Agreement and the consummation by Parent and Merger Sub of the transactions contemplated hereby do not and will not (i) contravene, conflict with, or result in any violation or breach of any provision of the certificate of incorporation or bylaws or the comparable organizational documents of Parent or Merger Sub, (ii) assuming compliance with the matters referred to in Section 5.03, contravene, conflict with, or result in a violation or breach of any Applicable Law, (iii) assuming compliance with the matters referred to in Section 5.03, require any payment or notice to, or consent or other action by any Person under, constitute a breach or default or an event that, with or without notice or lapse of time or both, would constitute a violation or breach of, or give rise to any right of termination, suspension, cancellation, acceleration or any other change of any rights or obligations of Parent or any of its Subsidiaries, or loss of any benefit to which Parent or any of its Subsidiaries is entitled under, any provision of any material Contract binding on Parent or any of its Subsidiaries or by which they or any their respective properties or assets may be bound or affected or (iv) result in the creation or imposition of any Lien on any asset of the Parent or any of its Subsidiaries, except, in the case of each of clauses (ii) through (iv), as would not reasonably be expected to have, individually or in the aggregate, a Parent Material Adverse Effect. Parent and its Affiliates beneficially hold a number of shares that is below the Specified Percentage (as defined in the Rights Agreement). To Parent's Knowledge, Parent is not a Related Person.

Section 5.05. *Disclosure Documents.* The information with respect to Parent and any of its Subsidiaries that Parent supplies to the Company specifically for use in any Company Disclosure Document, at the time of the filing of such Company Disclosure Document or any amendment or supplement thereto and at the time of any distribution or dissemination thereof, and, in the case of the proxy statement, at the time of the Company Meeting, will not contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary in order to make the statements therein, in light of the circumstances under which they were made, not misleading.

Section 5.06. *Finders' Fees*. Other than Piper Sandler & Co., there is no investment banker, broker, finder or other intermediary that has been retained by or is authorized to act on behalf of Parent who might be entitled to any fee or commission in connection with the transactions contemplated by this Agreement.

Section 5.07. *Solvency*. Assuming the accuracy of the representations and warranties set forth inArticle 4 of this Agreement and after giving effect to the transactions contemplated by this Agreement—including the Financing—the Surviving Corporation on a consolidated basis will be Solvent as of the Effective Time and immediately after the consummation of the transactions contemplated hereby. For purposes of this Agreement, "**Solvent**" when used with respect to any Person, means that such Person (a) has property with fair value greater than the total amount of its debts and liabilities, contingent, subordinated or otherwise (it being understood that the amount of contingent liabilities at any time shall be computed as the amount that, in light of all the facts and circumstances existing at such time, can reasonably be expected to become an actual or matured liability), (b) has assets with present fair salable value not less than the amount that will be required to pay its debts as they become absolute and matured, (c) will be able to pay its debts and liabilities, subordinated, contingent or otherwise, as they become absolute and matured and (d) are not engaged in business or a transaction, and are not about to engage in business or a transaction, for which they have unreasonably small capital.

Section 5.08. *Ownership of Common Stock*. As of the date hereof, an affiliate of Parent beneficially owns 2,750,000 shares of Class A Common Stock and is the sole record and beneficial owner of all of such Shares and has, and will have at all times prior to the Closing or the termination of this Agreement, the sole right to vote and direct the vote of, and to dispose of and direct the disposition of such Shares, except as set forth herein or pursuant to any applicable restrictions on transfer under the 1933 Act. Neither Parent nor any of its Affiliates owns beneficially or of record any other securities of the Company.

Section 5.09. *No Other Representations or Warranties*. Except for the representations and warranties expressly contained in this Agreement, the Company acknowledges that neither Parent, Merger Sub nor any Person acting their behalf makes any other express or any implied representations or warranties in this Agreement with respect to (i) Parent or any of the Parent Subsidiaries, any of their businesses, operations, assets, liabilities, condition (financial or otherwise) or prospects or any other matter relating to Parent or the Parent Subsidiaries or (ii) the accuracy or completeness of any documentation, forecasts or other information provided by Parent or any Person acting on its behalf to the Company, any Affiliate of the Company or any Person acting on its behalf and each of Parent and Merger Sub hereby disclaim any such representation or warranty, whether by or on behalf of Parent or Merger Sub, and notwithstanding the delivery or disclosure to the Company or any of its Representatives or Affiliates of any documentation or other information by Parent or Merger Sub or any of their respective Representatives or Affiliates with respect to any one or more of the foregoing.

Article 6
COVENANTS OF THE COMPANY

The Company agrees that:

Section 6.01. *Conduct of the Company*. During the period from the date hereof until the Effective Time, ((v) except as expressly contemplated by this Agreement, (w) with the prior written consent of Parent in each instance (which consent, with respect to clauses (e), (f), (l), (m), (o), (p) or (r) shall not be unreasonably withheld, conditioned or delayed), (x) as may be required by Applicable Law or the extent necessary to comply with any obligation under any Contracts made available to Parent on or prior to the date of this Agreement, (y) as set forth in Section 6.01 of the Company Disclosure Schedule or (z) for any action taken, or omitted to be taken, in order to comply with any COVID-19 Measures or any other COVID-19 Responses, *provided* that prior to taking any actions in reliance on this clause (z), which would otherwise be prohibited by any provision of this Section 6.01, the Company shall use commercially reasonable efforts to provide advance notice to and consult with Parent in good faith with respect thereto), (1) the Company shall, and shall cause each of its Subsidiaries to, conduct its business in the ordinary course of business and, to the extent consistent therewith, use its commercially reasonable efforts to (i) preserve intact its present business organization, (ii) maintain in effect all necessary Permits, (iii) keep available the services of its directors, officers and Key Employees on commercially reasonable terms and (iv) preserve satisfactory business relationships with Governmental Authorities, Principal Customers, Principal Suppliers, and others having material business relationships with it, and (2) the Company shall not, nor shall it permit any of its Subsidiaries to:

(a) amend or otherwise change its certificate of incorporation, bylaws or other similar organizational documents (whether by merger, consolidation or otherwise);

(b) enter into any new line of business outside the existing business of the Company and its Subsidiaries as of the date of this Agreement;

(c) (i) adjust, split, combine, subdivide or reclassify any shares of its capital stock, (ii) declare, authorize, establish a record date for, set aside or pay any dividend or other distribution (whether in cash, stock or property or any combination thereof) in respect of its capital stock (including any Shares), except for dividends by any of its wholly-owned Subsidiaries or (iii) redeem, repurchase or otherwise acquire or offer to redeem, repurchase, or otherwise acquire any shares of its capital stock (including any Shares), Company Securities or any Company Subsidiary Securities or otherwise take any action that results in a reduction in the number of outstanding Shares;

(d) (i) issue, deliver, sell, dispose, encumber, grant, confer, award or authorize the issuance, delivery, sale, disposal, encumbrance, grant, conferral or award of, any shares of any Company Securities (including under the 2020 Plan) or Company Subsidiary Securities, other than the issuance of (A) any Shares upon the exercise of Company Stock Options, that are outstanding on the date of this Agreement in accordance with the terms of those Company Stock Options or purchase rights on the date of this Agreement, (B) any Shares upon the vesting or settlement of any Company RSUs or Company PRSUs or the exercise of any Tranche 1 Warrants or Tranche 2 Warrants, in each case, that are outstanding on the date of this Agreement in accordance with their terms on the date of this Agreement and (C) any Company Subsidiary Securities to the Company or any other wholly-owned Subsidiary of the Company or (ii) amend or otherwise change any term of any Company Security or any Company Subsidiary Security (in each case, whether by merger, consolidation or otherwise);

(e) except in connection with the prompt response to any accident or emergency, incur any capital expenditures or any obligations or liabilities in respect thereof, other than in the ordinary course of business;

(f) make any acquisition of (including by merger, consolidation or acquisition of stock or assets or otherwise) any Person or any division or portion thereof, acquire any assets other than (i) any capital expenditures not prohibited by Section 6.01(e), (ii) other acquisitions that do not exceed $250,000 individually or $500,000 in the aggregate or (iii) inventory, supplies, parts, raw materials and consumables; or otherwise merge, consolidate or amalgamate with any other Person;

(g) adopt a plan of complete or partial liquidation, dissolution, merger, consolidation, restructuring, recapitalization or other reorganization;

(h) sell, lease, license or otherwise transfer, or dispose of, mortgage, sell and lease back or otherwise or create or incur any Lien on, any of the Company's or its Subsidiaries' assets, securities, properties, interests or businesses or other interests therein whether tangible or intangible (including securitizations) (other than Intellectual Property) that is material to the Company and its Subsidiaries, taken as a whole, other than (i) sales of inventory in the ordinary course of business or otherwise or sales of or disposals of obsolete or worthless assets at the end of their scheduled retirement, (ii) pursuant to Contracts in effect on the date hereof, (iii) Permitted Liens and (iv) transfers among the Company and its wholly owned Subsidiaries, or among the wholly owned Subsidiaries of the Company;

(i) sell, assign, license, sublicense, transfer, convey, abandon, incur any Lien other than Permitted Liens on or otherwise dispose of or fail to maintain, enforce or protect any material Intellectual Property owned, used or held for use by the Company or any of its Subsidiaries (except for non-exclusive licenses or sublicenses of Intellectual Property granted by the Company or any of its Subsidiaries in the ordinary course of business);

(j) make any loans, advances or capital contributions to, or investments in, any other Person, other than in a wholly owned Company Subsidiary, investments in short term marketable securities and cash equivalents, and advances to employees in respect of travel or other related business expenses in the ordinary course of business;

(k) create, incur, assume, suffer to exist, provide any guarantee of or otherwise become liable with respect to any, or repay, redeem, repurchase or otherwise retire any Indebtedness or Finance Lease obligation (other than as required by its terms), other than (i) draws under the Company's existing revolving credit facility in the ordinary course of business not in excess of $1,000,000 and repayments of amounts under such facility, (ii) any intercompany Indebtedness and (iii) with respect to letters of credit or bank guarantees in the ordinary course of business;

(l) (i) other than in the ordinary course of business, materially amend or modify or terminate any Material Contract, or any Contract that would constitute a Material Contract if it were in effect on the date of this Agreement, except the expiration or renewal of any Material Contract in accordance with its terms, (ii) renew or enter into any Material Contract described in clauses (a)(ii), (iv), (vi), (vii), (viii), (ix), (x) or (xi) of Section 4. 22(a), or (iii) other than in the ordinary course of business otherwise waive, release, relinquish or assign any material rights, claims or benefits of the Company or any of its Subsidiaries under any Material Contract; *provided* that any action that would be permitted by clauses (k) or (m) of thisSection 6.01 will be permitted under this clause (l) to the extent relating to a Material Contract related thereto;

(m) except as required by the terms of any Employee Plan as in effect on the date hereof or Applicable Law, (i) with respect to any current or former Service Provider, (A) grant or increase any compensation, bonus, severance, retention, change in control, termination pay, welfare or other benefits except for increases in base compensation or wages, per diems, travel pay and similar amounts, in each case, of not more than 10% over levels prior to any adjustment for the COVID-19 pandemic for Service Providers who are not Key Employees, (B) grant any equity or equity-based awards to, or discretionarily accelerate the vesting or payment of any equity or equity-based awards held by, any current or former Service Provider or (C) enter into or materially amend any employment, consulting, severance, retention, change in control, termination pay, retirement, deferred compensation, transaction bonus or similar agreement or arrangement,

(ii) establish, adopt, enter into or materially amend any Employee Plan or Collective Bargaining Agreement, except for any amendment that does not materially increase costs above the amount of costs immediately prior to such amendment, (iii) recognize any new union, works council or similar employee representative with respect to any current or former Service Provider, (iv) establish, adopt or enter into any material plan, agreement or arrangement, or otherwise commit, to gross-up, indemnify or otherwise reimburse any current or former Service Provider for any Tax incurred by such Service Provider, including under Section 409A or Section 4999 of the Code, (v) hire any employees who would be Key Employees other than to fill vacancies as of the date hereof or that arise due to terminations of employment or (vi) terminate the employment of any Key Employee other than for cause;

(n) change the Company's fiscal year or, except as required by concurrent changes in GAAP or in Regulation S-X of the 1934 Act, methods of accounting;

(o) (i) settle, release, waive, discharge or compromise, or offer or propose to settle, release, waive, discharge or compromise, (A) any Action or threatened Action (excluding any Action or threatened Action relating to Taxes) involving or against the Company or any of its Subsidiaries that results in a payment obligation (net of insurance proceeds) of the Company or any of its Subsidiaries in excess of $100,000 individually or $250,000 in the aggregate, or that imposes any material restrictions or limitations upon the operations or business of the Company or any of its Subsidiaries or equitable or injunctive remedies or the admission of any criminal wrongdoing or (B) any Action or threatened Action (excluding any Action or threatened Action relating to Taxes) that relates to the transactions contemplated hereby or (ii) initiate or commence any Action outside the ordinary course of business that would be materially adverse to the Company and its Subsidiaries;

(p) make or change any material Tax election, change any annual Tax accounting period, adopt or change any material method of Tax accounting, amend any Tax Return, file a claim for a material Tax refund, enter into any closing agreement with respect to Taxes, settle or compromise any Action relating to material Taxes, consent to any extension or waiver of the limitation period applicable to any material Tax claim or assessment, or surrender any right to claim a material Tax refund or offset or other material reduction in Tax liability;

(q) (i) take any action that would reasonably be expected to result in the cancellation of existing material insurance policies or insurance coverage of the Company or any of its Subsidiaries or (ii) fail to use commercially reasonable efforts to maintain in full force and effect existing material insurance policies (or substantially similar replacements thereto); *provided* that in the event of a termination, cancellation or lapse of any material insurance policy, the Company shall use commercially reasonable efforts to promptly obtain replacement policies providing substantially comparable insurance coverage with respect to the material assets, operations and activities of the Company and its Subsidiaries as currently in effect as of the date hereof;

(r) grant any refunds, credits, rebates or other allowances to any customer, supplier or vendor other than in the ordinary course of business; or

(s) agree, resolve or commit to do any of the foregoing.

Section 6.02. *Access to Information*. From the date hereof until the Effective Time, and subject to Applicable Law, upon reasonable notice during normal business hours, the Company shall (and shall cause its Subsidiaries to) use commercially reasonable efforts to (i) subject to reasonable logistical restrictions as a result of COVID-19 or any COVID-19 Measures, give Parent, its officers, directors, employees, investment bankers, attorneys, lenders, underwriters, accountants, consultants or other agents, advisors or other representatives ("**Representatives**") reasonable access to the Company's Representatives and its offices, properties, assets, books, records, work papers and other documents (including existing financial and operating data) related to the Company and its Subsidiaries and (ii) furnish to Parent and its Representatives such existing information as such Persons may reasonably request within a reasonable time of such request, including, at Parent's expense, copies of such existing information; *provided*, that neither the Company nor any of its Subsidiaries shall be required to provide access or disclose information where such access or disclosure (x) would, in each case, upon the advice of legal counsel, jeopardize the attorney-client privilege of the Company or any of its Subsidiaries or violate any Applicable Law or Contract, or (y) relates to any Acquisition Proposal (unless such information is required to be disclosed in accordance with Section 6.03). Notwithstanding the foregoing, Parent shall not (A) have access to personnel records of the Company or any of its Subsidiaries relating to individual performance or evaluation records, medical histories or other information which is sensitive or the disclosure of which could subject the Company or any of its Subsidiaries to risk of liability, or (B) conduct or cause to be conducted any sampling, testing or other invasive investigation of the air, soil, soil gas, surface water, groundwater, building materials or other environmental media at any real property or facility owned, leased or operated by the Company or any of its Subsidiaries. Any investigation pursuant to this Section shall be conducted in such manner as not to interfere unreasonably with the conduct of the business of the Company and its Subsidiaries. No information or knowledge obtained in any investigation pursuant to this Section shall affect or be deemed to modify any representation or warranty made by the Company hereunder. Notwithstanding the foregoing, in the case of any information that in the reasonable, good faith judgement of the Company is competitively sensitive, such information shall be provided to Parent pursuant to a "clean room" arrangement agreed between the parties that is intended to permit the sharing of such information in compliance with Applicable Laws. The information provided pursuant to this Section 6.02 shall be kept confidential by the recipient thereof in accordance with the Confidentiality Agreement. The Confidentiality Agreement shall terminate as of the Effective Time.

Section 6.03. *Go-Shop; No Solicitation; Other Offers*.

(a) Go-Shop.

(i) During the period (the "**Go-Shop Period**") commencing on the date of this Agreement and ending at 11:59 p.m. (New York City time) on the day that is 45 days after the date of this Agreement (the "**Go-Shop Period End Date**"), the Company and its Representatives and Subsidiaries shall be permitted to, directly or indirectly, (x) solicit, initiate, propose, encourage and facilitate any inquiry, discussion, offer or request that constitutes, or could reasonably be expected to lead to, an Acquisition Proposal and (y) engage in discussions and negotiations with, and furnish non -public information relating to the Company and its Subsidiaries and afford access to the personnel, business, properties, assets, information, work papers and books and records of the Company and its Subsidiaries to any Third Party in connection with an

Acquisition Proposal or any inquiry, discussion, offer or request that could reasonably be expected to lead to an Acquisition Proposal; *provided* that prior to furnishing such information or affording such access, (I) the Company has entered into an Acceptable Confidentiality Agreement with such Third Party and (II) the Company has previously provided or made available (or substantially concurrently provides or makes available) such information to Parent. Notwithstanding anything in this Section 6.03(a) to the contrary, the Company shall not, and shall not permit its Subsidiaries to, reimburse or agree to reimburse the expenses of any Third Party (other than the Company's Representatives) in connection with an Acquisition Proposal or any inquiry, discussion, offer or request that could reasonably be expected to lead to an Acquisition Proposal.

(ii) On the Go-Shop Period End Date: (A) the Company shall, and shall cause each of its Representatives and Subsidiaries to, immediately cease and cause to be terminated any existing solicitation of, or discussions or negotiations with, any Third Party (other than Excluded Parties) relating to any Acquisition Proposal or any inquiry, discussion, offer or request that could reasonably be expected to lead to an Acquisition Proposal; and (B) the Company shall as promptly as possible request that each Third Party (other than any Excluded Party) that has previously executed a confidentiality or similar agreement in connection with its consideration of an Acquisition Proposal to return to the Company or destroy any non-public information previously furnished or made available to such Third Party or any of its Representatives by or on behalf of the Company or its Representatives in accordance with the terms of the confidentiality agreement in place with such Third Party.

(iii) As promptly as reasonably practicable following the determination by the Board of Directors that a Third Party is an Excluded Party and in any event no later than the earlier of (A) three Business Days after such determination and (B) the Go-Shop Period End Date: the Company shall deliver to Parent a written notice setting forth: (i) the identity of each Excluded Party; and (ii) a reasonably detailed summary of the material terms and conditions of the pending Acquisition Proposal made by such Excluded Party (it being understood that price per share, transaction structure, to the extent part of the Acquisition Proposal, closing conditions, and financing provisions shall be considered material terms of any such pending Acquisition Proposal).

(b) General Prohibitions. From and after the Go -Shop Period End Date until the earlier to occur of the time Stockholder Approval and, unless the Company has waived the condition set forth in Section 9.03(d), the Majority of the Minority Approval are obtained or the date of termination of this Agreement in accordance with Article 10, neither the Company nor any of its Subsidiaries shall, nor shall the Company or any of its Subsidiaries authorize any of its or their Representatives to, directly or indirectly, (i) solicit, initiate or knowingly take any action to facilitate or encourage the submission of any Acquisition Proposal, (ii) enter into, engage in or participate in any discussions or negotiations with, furnish any information relating to the Company or any of its Subsidiaries or afford access to the business, properties, assets, books, records, work papers and other documents related to the Company or any of its Subsidiaries to, otherwise cooperate in any way with, or assist, participate in, knowingly facilitate or knowingly encourage any effort by any Third Party that, to the Company's Knowledge, is seeking to make, or has made, an Acquisition Proposal (other than to state the terms of this Agreement prohibit such discussion), (iii) (A) qualify, withdraw or modify in a manner adverse to Parent or Merger Sub, or propose publicly to qualify, withdraw or modify in a manner adverse to Parent or Merger Sub the Company Board Recommendation, (B) adopt, endorse, approve or recommend, or propose publicly to adopt, endorse, approve or recommend, any Acquisition Proposal, or resolve to take any such action, (C) publicly make any recommendation in connection with a tender offer or exchange offer other than a recommendation against such offer or a temporary “stop, look and listen” communication by the Board of Directors of the type contemplated by Rule 14d-9(f) under the 1934 Act; (D) other than with respect to a tender or exchange offer described in clause (C), following the date any Acquisition Proposal or any material modification thereto is first publicly announced, fail to issue a press release reaffirming the Company Board Recommendation within ten Business Days after a request by Parent to do so or (E) fail to include the Company Board Recommendation in the Proxy Statement when disseminated to the Company Stockholders (any of the foregoing in this clause (iii), an “**Adverse Recommendation Change**”), or (iv) enter into any agreement in principle, letter of intent, indication of interest, term sheet, merger agreement, acquisition agreement, option agreement or other Contract relating to an Acquisition Proposal. It is agreed that any violation of the restrictions on the Company set forth in this Section by any Subsidiary of the Company or any Representative of the Company or any of its Subsidiaries, in the case of Representatives, (x) acting at the direction or (y) to the Knowledge of the Company, *provided* that the Company did not direct such Representatives to cease violating such restrictions reasonably promptly after acquiring such Knowledge, shall be a breach of this Section 6.03(b) by the Company.

(c) Exceptions. Notwithstanding Section 6.03(b) and without limiting Section 6.03(a), at any time prior to obtaining Stockholder Approval and, unless the Company has waived the condition set forth in Section 9.03(d), the Majority of the Minority Approval:

(i) the Company, directly or indirectly through its Representatives, may (A) engage in discussions with (x) any Excluded Party and its Representatives or (y) any Third Party (which may include a Third Party that the Company engaged with during the Go-Shop Period) and its Representatives that, in each case of this clause (y), has made after the Go-Shop Period End Date a written Acquisition Proposal that did not result from a material breach of Section 6.03 if and only to the extent that the Board of Directors determines in good faith, after consultation with outside legal counsel and its independent financial advisor, that such Acquisition Proposal is or is reasonably likely to lead to a Superior Proposal and (B) furnish to any such Excluded Party or Third Party and their Representatives non-public information relating to the Company or any of its Subsidiaries pursuant to a confidentiality agreement (a copy of which shall be provided for informational purposes only to Parent) with such Excluded Party or Third Party and/or such Representatives with terms not materially less favorable to the Company than those contained in the Confidentiality Agreement (an “**Acceptable Confidentiality Agreement**”); *provided* that (i) such confidentiality agreement may contain a less restrictive or no standstill restriction, in which case the Confidentiality Agreement shall be deemed to be amended to contain only such less restrictive provision, or to omit such provision, as applicable, and (ii) all such information (to the extent that such information has not been previously provided or made available to Parent) is provided or made available to Parent, as the case may be, promptly (and in any event within 24 hours) following the time it is provided or made available to such Excluded Party or Third Party and/or such other Representatives;

(ii) subject to compliance with Section 6.03(f), the Board of Directors may make an Adverse Recommendation Change (A) in connection with a Superior Proposal or (B) in response to events, changes or developments in circumstances that are material to the Company and its Subsidiaries, taken as a whole, that were not known to or reasonably foreseeable by the Board of Directors as of or prior to the date hereof and becomes known to the Board of Directors after the date hereof and prior to the time of obtaining Stockholder Approval and, unless the Company has waived the condition set forth in Section 9.03(d), the Majority of the Minority Approval (an "**Intervening Event**"); *provided* that in no event shall any of the following constitute or contribute to an Intervening Event: (x) the Company and its Subsidiaries meeting or exceeding any internal or published budgets, projections, forecasts or predictions of financial performance for any period (however the underlying reasons for such changes may constitute an Intervening Event to the extent such underlying reasons are not excluded from the definition of "Intervening Event" in this Section 6.03(c)(ii)), or (y) changes in the market price or trading volume of the Shares or any change in credit rating, in and of itself (however the underlying reasons for such changes may constitute an Intervening Event to the extent such underlying reasons are not excluded from the definition of "Intervening Event" in this Section 6.03(c)(ii)), or (z) the receipt, existence or terms of any Acquisition Proposal or any inquiry, offer, request or proposal that would reasonably be expected to lead to an Acquisition Proposal; and

(iii) subject to compliance with the procedures set forth in Section 6.03(f) and Section 10.01(d)(i), the Company may terminate this Agreement to enter into a definitive agreement with respect to such Superior Proposal;

in each case, referred to in the foregoing clauses (i), (ii) and (iii) only if the Board of Directors determines in good faith, after consultation with outside legal counsel that the failure to take such action would be inconsistent with its fiduciary duties under Delaware law.

(d) In addition, nothing contained herein shall prevent the Board of Directors from (i) complying with Rule 14e-2(a) or Rule 14d-9 under the 1934 Act or (ii) making any disclosure to the Company Stockholders if the Board of Directors determines in good faith, after consultation with the outside legal counsel, that the failure to make such disclosure would be inconsistent with its fiduciary duties under Delaware law; *provided*, that any such disclosure referred to in clause (i) or (ii) that relates to an Acquisition Proposal shall be deemed to be an Adverse Recommendation Change unless (x) the Board of Directors expressly reaffirms the Company Board Recommendation in or in connection with such disclosure or (y) such disclosure is a "stop, look and listen" communication to the Company Stockholders pursuant to Rule 14d-9(f) promulgated under the 1934 Act; *provided*, *further*, that this Section 6.03(d) shall not be deemed to permit the Board of Directors to make an Adverse Recommendation Change except, in each case, to the extent permitted by Section 6.03(f).

(e) From and after the Go-Shop Period End Date and until the earlier to occur of the time of obtaining Stockholder Approval and, unless the Company has waived the condition set forth in Section 9.03(d), the Majority of the Minority Approval or the date of termination of this Agreement in accordance with Article 10, the Company shall notify Parent promptly (but in no event later than 48 hours) after receipt by the Company (or any of its Representatives) of any Acquisition Proposal or any request for information relating to the Company or any of its Subsidiaries for the purpose of facilitating the submission of an Acquisition Proposal or request for access to the business, properties, assets, books, records, work papers or other documents relating to the Company or any of its Subsidiaries by any Third Party that, to the Company's Knowledge, has made such request for the purpose of facilitating the submission of an Acquisition

Proposal. The Company shall provide such notice orally and in writing and shall identify the Third Party making, and the material terms and conditions of, any such Acquisition Proposal. The Company shall keep Parent reasonably informed, on a reasonably prompt basis upon Parent's request, of the status of any such Acquisition Proposal. Any material amendment to any Acquisition Proposal, as reasonably determined by the Company in good faith, will be deemed to be a new Acquisition Proposal for purposes of the Company's compliance with this Section 6.03(e).

(f) The Board of Directors shall not make an Adverse Recommendation Change or terminate this Agreement pursuant to Section 10.01(d)(i), unless (i) the Company notifies Parent in writing, at least three Business Days before taking that action, of its intention to do so, specifying in reasonable detail the reasons for such Adverse Recommendation Change and/or such termination (which notice shall not constitute an Adverse Recommendation Change or termination), attaching (A) in the case of an Adverse Recommendation Change to be made in connection with a Superior Proposal or a termination of this Agreement pursuant to Section 10.01(d)(i), the most current version of the proposed agreement under which a Superior Proposal is proposed to be consummated and the identity of the third party making the Acquisition Proposal, or (B) in the case of an Adverse Recommendation Change to be made pursuant to an Intervening Event, a reasonably detailed description of the reasons for making such Adverse Recommendation Change, (ii) the Company has negotiated, and has caused its Representatives to negotiate, reasonably and in good faith with Parent during such notice period any revisions to the terms of this Agreement that Parent proposes and has not withdrawn in response to such Superior Proposal and that would be binding on Parent if accepted by the Company and (iii) following the end of such notice period, the Board of Directors shall have determined, in consultation with outside legal counsel and its independent financial advisor, and giving due consideration to such revisions proposed by Parent, that (A) in the case of an Adverse Recommendation Change to be made in connection with a Superior Proposal or a termination of this Agreement pursuant to Section 10.01(d)(i), such Superior Proposal would nevertheless continue to constitute a Superior Proposal (assuming such revisions proposed by Parent and not withdrawn were to be given effect) (it being understood and agreed that any amendment to the financial terms or other material terms of such Superior Proposal shall require a new written notification from the Company; *provided* that for the purposes of such new notification the reference to "three Business Days" in Section 6.03(f)(i) shall be deemed to be "two Business Days") and (B) in the case of an Adverse Recommendation Change to be made pursuant to an Intervening Event, such Intervening Event would nevertheless necessitate the need for such Adverse Recommendation Change (it being understood and agreed that any material change to the facts and circumstances relating to such Intervening Event shall require a new written notification from the Company; *provided* that for the purposes of any such new notification the reference to "three Business Days" in Section 6.03(f)(i) shall be deemed to be "two Business Days"), and in either case, the Board of Directors determines in good faith, after consultation with outside legal counsel, that failure to take such action would be inconsistent with its fiduciary duties under Delaware law.

(g) For purposes of this Agreement, "**Superior Proposal**" means any bona fide and, with respect to any Acquisition Proposal received after the Go-Shop Period, unsolicited written Acquisition Proposal (substituting the term "50%" for the term "20%" in each instance where such term appears therein) that the Board of Directors determines in good faith, after consultation with its financial advisor and outside legal counsel and taking into account all the terms and conditions of the Acquisition Proposal, including any break-up fees, expense reimbursement provisions and legal, financial, regulatory and other aspects of such proposal, including conditions to consummation (including whether such transaction is reasonably likely to be consummated without undue delay relative to the transactions contemplated by this Agreement and whether financing, if a cash transaction (whether in whole or in part), is then fully committed by a reputable financing source or reasonably determined to be available by the Board of Directors), are more favorable to the Company Stockholders than as provided hereunder (taking into account any revisions proposed by Parent and not withdrawn to amend the terms of this Agreement pursuant to Section 6.03(f)).

Section 6.04. (Reserved).

Section 6.05. *Financing Cooperation.*

(a) To assist Parent in its financing efforts, the Company agrees to use its commercially reasonable efforts to cooperate with any Offering as may be reasonably requested by Parent or with the arrangement of the Financing as may be reasonably requested by Parent and is necessary and customary for financings of the type contemplated in connection with the arrangement of the Financing, including, in each case (subject in each case to Section 6.05(b) below), by (i)(A) preparing and providing to Parent, its Financing Sources and the underwriters in connection with the Offering (an "**Underwriter**"), as promptly as reasonably practicable after Parent's written request therefor, customary and reasonably available financial and other information with respect to the Company and each of its Subsidiaries and the transactions contemplated hereby and by the Financing, including (x) audited consolidated annual financial statements of the Company and (y) unaudited interim consolidated financial statements of the Company (which shall have been reviewed by the independent accountants for the Company as provided in Statement on Auditing Standards No. 100) and (B) providing as promptly as reasonably practicable after Parent's written request therefor any information with respect to the Company and its Subsidiaries reasonably necessary to assist Parent with the preparation of customary pro forma financial statements that meet the requirements of Regulation S-X and all other applicable accounting rules and regulations of the SEC promulgated thereunder and required to be included in a Registration Statement on Form S-3 under the 1933 Act or reasonably and customarily required by the Financing Sources or Underwriters to be included in any offering documents; provided, that notwithstanding anything to the contrary in this Section 6.05, nothing will require the Company to provide (or be deemed to require the Company to provide) any (1) pro forma financial statements; (2) description of all or any portion of the Financing, including any "description of notes", and other information customarily provided by financing sources or their counsel; (3) risk factors relating to all or any component of the Financing; (4) "segment" financial information or (5) any Compensation Discussion and Analysis or other information required by Item 402 of Regulation S -K under the 1933 Act or any other information customarily excluded from offering documents for the type of financing contemplated by the Financing, (ii) using commercially reasonable efforts to cause the Company's independent accountants to reasonably cooperate with the Financing Sources or Underwriters in a manner consistent with their customary practice and to participate in customary auditor due diligence calls and provide customary accountants' "comfort letters" (including customary "negative assurances") (it being understood that the comfort letters delivered in connection with the Company's public offerings shall be deemed to be customary for purposes of this Section 6.05) and customary consents to the inclusion of audit reports in connection with the Financing if historical financial statements or other financial information of the Company are included in any offering documents for the Financing, (iii) providing reasonable cooperation with customary syndication or other marketing efforts, or a customary offering, by Parent for all or any portion of the Financing or the Offering, including reasonable access to documents and other information in connection with customary due diligence investigations and causing its management team, with appropriate seniority and expertise, to assist in a reasonable number of meetings and presentations (which, in the Company's discretion, may be in the form of virtual meetings, video calls or conference calls) with Financing Sources or Underwriters and ratings agencies, in each case, on reasonable advance notice during normal business hours, (iv) upon reasonable advance notice and during normal business hours, providing customary and reasonably necessary assistance to Parent (including by causing its management team, with appropriate seniority and expertise), to participate in a reasonable number of meetings and presentations (which, in the Company's discretion, may be in the form of virtual meetings, video calls or conference calls and shall be during normal business hours) in the preparation of offering documents for the Financing or the Offering, (v) furnishing Parent at least four Business Days prior to the date of the Closing with all customary documentation and other information under applicable "know your customer" and anti-money laundering rules and regulations and under the USA Patriot Act of 2001 reasonably required and reasonably requested in writing by the parties acting as lead arrangers for, or lenders under, the Financing or the Underwriters to the Company at least ten days prior to the date of the Closing, (vi) providing reasonable facilitation (through providing and executing customary agreements, documents or certificates) of the pledge and perfection of liens and security interests in connection with the Financing, as may be reasonably requested by Parent (provided that no obligation under any such document or agreement will take effect on or prior to the Closing) and (vii) otherwise providing cooperation that is customary and reasonable in connection with the marketing efforts of Parent, the Financing Sources and any Underwriters.

(b) Notwithstanding the foregoing, nothing in this Section 6.05 shall require the Company or any of its Subsidiaries to: (i) take any action in respect of the Financing or an Offering to the extent that such action would cause any condition to Closing set forth in Article 9 or any condition set forth in Article 9 to fail to be satisfied by the End Date or the Effective Time, as applicable, or otherwise result in a breach of this Agreement by the Company; (ii) take any action in respect of the Financing or an Offering that would conflict with or violate the Company's or any if its Subsidiaries' organizational documents or any Applicable Law, or result in the contravention of, or violation or breach of, or default under, any Contract to which the Company or any of its Subsidiaries is a party; (iii) take any action to the extent such action would (A) unreasonably interfere with the business or operations of the Company or its Subsidiaries or (B) cause significant competitive harm to the Company or its Subsidiaries if the transactions contemplated by this Agreement are not consummated; (iv) execute and deliver any letter, Contract, registration statement, document or certificate in connection with the Financing or take any corporate action that is not contingent on, or that would be effective prior to, the occurrence of the Closing, it being agreed that the foregoing shall not apply to the inclusion of customary acquiree financial and related information in a registration statement or prospectus prior to Closing and cooperation in connection therewith; (v) pay any commitment fee or other fee or payment to obtain consent or incur any liability with respect to or cause or permit any Lien to be placed on any of their respective assets in connection with the Financing prior to the date of the Closing; (vi) provide access to or disclose information where the Company determines that such access or disclosure would reasonably be expected to jeopardize the attorney-client privilege or contravene any Applicable Law or Contract (but shall use commercially reasonable efforts to grant such access or provide such disclosure in a manner which would not jeopardize such privilege or contravene any such Applicable Law or Contract); (vii) subject any of the Company's or its Subsidiaries' respective directors, managers, officers or employees to any actual or potential personal liability; (viii) cause the directors and managers of the Company to adopt resolutions approving the agreements, documents and instruments pursuant to which the Financing is obtained unless such resolutions are contingent upon the occurrence of, or only effective as of, the Closing; (ix) waive or amend any terms of this Agreement or any other Contract to which the Company or its Subsidiaries is party; or (x) take any action that would subject it to actual or potential liability, to bear any cost or expense or to make any other payment or agree to provide any indemnity in connection with any commitment letters or the definitive documents related to the Financing or any information utilized in connection therewith (in each case under this clause (x), except following the Closing). In no event shall the Company be in breach of this Agreement because of the failure to deliver any financial or other information that is not currently readily available to the Company on the date hereof or is not otherwise prepared in the ordinary course of business of the Company at the time requested by Parent or for the failure to obtain any comfort with respect to, or review of, any financial or other information by its accountants. Whether or not the Closing occurs, Parent shall indemnify and hold harmless the Company, each Subsidiary thereof, and each of their respective Representatives and Affiliates from and against any and all liabilities or losses suffered or incurred by them in connection with the arrangement of the Financing or any Offering, any cooperation provided pursuant to this Section 6.05, and any information utilized in connection therewith. Additionally, if this Agreement is terminated by the Company pursuant to Section 10.01(d), Parent shall, promptly upon written request by the Company or any Subsidiary thereof, reimburse such party for all reasonable and documented out-of-pocket costs, fees and expenses (including reasonable attorneys' fees and expenses) incurred by such Persons in connection with any such Person complying with the obligations under this Section 6.05. Notwithstanding anything to the contrary, upon any breach by the Company or its Subsidiaries of their obligations under this Section 6.05, neither the Company nor its Subsidiaries shall be deemed to have breached their respective obligations under this Agreement (including for purposes of the termination right set forth in Section 10.01(c)) or the condition described in Section 9.02(b) unless (i) such breach is a Knowing and Intentional Breach and for this purpose each obligation in this Section 6.05 that is not qualified by a commercially reasonable efforts qualification will be deemed to be so qualified, (ii) Parent provides written notice of such alleged breach and the Company fails to promptly use commercially reasonable efforts to cure any such alleged breach that is a breach and (iii) the failure to obtain the Financing or to complete the Offering is a result of such breach; *provided* that nothing in this sentence will preclude Parent from seeking specific performance in respect thereof in accordance with Section 11.14. Parent and Merger Sub expressly acknowledge and agree that none of the following is a condition to either Parent's or Merger Sub's obligation to consummate the Merger: Parent or Merger Sub obtaining Financing, or Parent or Merger Sub or any Affiliate of Parent completing an Offering.

Section 6.06. *Employee Plans; Census Information*. (a) No later than 15 Business Days following the date hereof, with respect to each material Employee Plan, the Company shall use commercially reasonable efforts to provide to Parent a copy of such plan (or a description, if such plan is not written) and all amendments thereto and, as applicable: (i) all trust agreements, insurance contracts or other funding arrangements and amendments thereto; (ii) the current prospectus or summary plan description and all summaries of material modifications; (iii) the most recent favorable determination or opinion letter from the IRS; (iv) the most recent annual returns/reports (Form 5500) and accompanying schedules and attachments thereto; and (v) the most recently prepared actuarial reports and financial statements.

(b) No later than 7 Business Days following the date hereof, the Company shall use commercially reasonable efforts to provide Parent a true and complete list that sets forth, with respect to each Service Provider, such individual's name, title, department and years of service. No later than 10 Business Days prior to the Closing Date, the Company shall use commercially reasonable efforts to expand such list to set forth, with respect to each current Service Provider, such individual's employer, hire date, location, base salary or wage or commission rate, most recent annual bonus received and current annual bonus or incentive opportunity, status as employee or independent contractor, whether part-time or full-time and whether such individual is in active employment or on leave, and if on leave, the nature of such leave and the date of expected return.

Article 7
COVENANTS OF PARENT

Parent agrees that:

Section 7.01. *Obligations of Merger Sub.* Parent shall take all action necessary to cause Merger Sub to perform its obligations under this Agreement and to consummate the Merger on the terms and conditions set forth in this Agreement. Immediately following the execution on this Agreement, Parent, as the sole stockholder of Merger Sub, will adopt this Agreement.

Section 7.02. *Director and Officer Liability*. Parent shall, and shall cause the Surviving Corporation, and the Surviving Corporation hereby agrees, to do the following:

(a) For six years after the Effective Time, Parent shall, and shall cause the Surviving Corporation to indemnify and hold harmless the present and former officers and directors of the Company (each, an "**Indemnified Person**") in respect of acts or omissions occurring at or prior to the Effective Time to the fullest extent permitted by Delaware law or any other Applicable Law or provided under the Company Charter and bylaws in effect on the date hereof; *provided* that such indemnification shall be subject to any limitation imposed from time to time under Applicable Law. If any Indemnified Person is made party to any claim, action, suit, proceeding or investigation arising out of or relating to matters that would be indemnifiable pursuant to the immediately preceding sentence, Parent shall cause the Company to, advance fees, costs and expenses (including attorneys' fees and disbursements) as incurred by such Indemnified Person in connection with and prior to the final disposition of such claim, action, suit, proceeding or investigation as and to the extent provided under the Company Charter and bylaws in effect on the date hereof.

(b) For six years after the Effective Time, Parent shall cause to be maintained in effect provisions in the Surviving Corporation's certificate of incorporation and bylaws (or in such documents of any successor to the business of the Surviving Corporation) regarding elimination of liability of directors, indemnification of officers, directors and employees and advancement of expenses that are no less advantageous to the intended beneficiaries than the corresponding provisions in existence on the date of this Agreement.

(c) From and after the Effective Time, Parent shall, and shall cause the Surviving Corporation and its Subsidiaries to honor and comply with their respective obligations under any indemnification agreements with any Indemnified Person, and not amend, repeal or otherwise modify any such agreement in any manner that would adversely affect any right of any Indemnified Person thereunder.

(d) Prior to the Effective Time, the Company shall or, if the Company is unable to, Parent shall cause the Surviving Corporation as of the Effective Time to, obtain and fully pay the premium for the non-cancellable extension of the directors' and officers' liability coverage of the Company's existing directors' and officers' insurance policies and the Company's existing fiduciary liability insurance policies (collectively, "**D&O Insurance**"), in each case, for a claims reporting or discovery period of at least six years from and after the Effective Time with respect to any claim related to any period of time at or prior to the Effective Time with terms, conditions, retentions and limits of liability that are no less favorable than the coverage provided under the Company's existing policies with respect to any actual or alleged error, misstatement, misleading statement, act, omission, neglect, breach of duty or any matter claimed against a director or officer of the Company or any of its Subsidiaries by reason of him or her serving in such capacity that existed or occurred at or prior to the Effective Time (including in connection with this Agreement or the transactions or actions contemplated hereby); *provided* that the Company shall give Parent a reasonable opportunity to participate in the selection of such tail policy and the Company shall give reasonable and good faith consideration to any comments made by Parent with respect thereto. If the Company or the Surviving Corporation for any reason fail to obtain such "tail" insurance policies as of the Effective Time, the Surviving Corporation shall continue to maintain in effect, for a period of at least six years from and after the Effective Time, the D&O Insurance in place as of the date hereof with terms, conditions, retentions and limits of liability that are no less favorable than the coverage provided under the Company's existing policies as of the date hereof, or the Surviving Corporation shall purchase from the Company's current insurance carrier or from an insurance carrier with the same or better credit rating as the Company's current insurance carrier with respect to D&O Insurance comparable D&O Insurance for such six-year period with terms, conditions, retentions and limits of liability that are no less favorable than as provided in the Company's existing policies as of the date hereof. Notwithstanding the foregoing, in no event shall Parent or the Surviving Corporation be required to, and in no event shall the Company be permitted to, without Parent's prior written consent, expend for the policies pursuant to this section an aggregate premium amount in excess of 400% of the amount per annum the Company paid in its last full fiscal year, which amount is set forth on Section 7.02(d) of the Company Disclosure Schedule; and *provided further* that if the aggregate premiums of such insurance coverage exceed such amount, the Surviving Corporation shall be obligated to obtain a policy with the greatest coverage available, with respect to matters occurring prior to the Effective Time, for a cost not exceeding such amount.

(e) If the Surviving Corporation or any of its successors or assigns (i) consolidates with or merges into any other Person and shall not be the continuing or surviving corporation or entity of such consolidation or merger, or (ii) transfers or conveys all or substantially all of its properties and assets to any Person, then, and in each such case, to the extent necessary, proper provision shall be made so that the successors and assigns of the Surviving Corporation shall assume the obligations set forth in this Section 7.02.

(f) The rights of each Indemnified Person under this Section 7.02 shall be in addition to any rights such Person may have under the Company Charter or bylaws of the Company or any of its Subsidiaries, under Delaware law or any other Applicable Law or under any agreement of any Indemnified Person with the Company or any of its Subsidiaries. These rights shall survive consummation of the Merger and are intended to benefit, and shall be enforceable by, each Indemnified Person, his or her heirs and his or her representatives.

Section 7.03. *Employee Matters.*

(a) For the period commencing at the Effective Time and ending on the one-year anniversary of the Closing (the "**Continuation Period**"), Parent shall provide, or shall cause its Affiliates (including the Surviving Corporation) to provide, each Continuing Employee with base salary, wage or commission rate, bonus opportunity (including, without limitation, short-term cash incentive compensation opportunities) and other employment benefits (including, without limitation, severance benefits, retirement benefits (other than defined benefit pension benefits or retiree medical benefits) and paid time-off), in each case, that are no less favorable than those provided to (i) such Continuing Employee immediately prior to the Closing for the first 90 days of the Continuation Period and (ii) a similarly situated employee of Parent or its applicable employing Affiliate for the remainder of the Continuation Period; *provided, however*, that notwithstanding anything in this Section 7.03(a) to the contrary, for the entire Continuation Period the severance benefits provided to Continuing Employees shall be consistent with those set forth in Section 7.03(a) of the Company Disclosure Schedule.

(b) Following the Effective Time, Parent shall use commercially reasonable efforts to provide (or cause to be provided) to each Continuing Employee full credit for prior service with the Company and its Subsidiaries for all purposes of vesting, level of benefits and eligibility to participate in employee benefit plans maintained by Parent or its Subsidiaries for which the Continuing Employee is eligible to participate following the Effective Time (but such service credit shall not be provided for benefit accrual purposes, except for vacation and severance) to the same extent as such Continuing Employee was entitled, before the Effective Time, to credit for such service under any analogous Employee Plan; *provided* that the foregoing shall not apply to the extent that it would result in any duplication of benefits for the same period of service. Parent shall, and shall cause its Subsidiaries (including the Surviving Corporation) to (i) waive all limitations as to preexisting conditions, exclusions, actively-at-work requirements and waiting periods with respect to participation and coverage of the Continuing Employees (and any dependents thereof) under any welfare benefit plans in which such Continuing Employees (and any dependents thereof) may be eligible to participate after the Closing to the same extent such preexisting conditions, exclusions and waiting periods are waived under any analogous Employee Plan prior to the Effective Time and (ii) use commercially reasonable efforts to, provide each Continuing Employee with credit for any co-payments and deductibles paid by such Continuing Employee during the calendar year in which the Effective Time occurs under the relevant welfare benefit plans in which such Continuing Employee is eligible to participate from and after the Effective Time to the same extent as such Continuing Employee was entitled, prior the Effective Time, to credit of such co-payments or deductibles under any analogous Employee Plan.

(c) If directed in writing by Parent at least 15 Business Days prior to the Effective Time, the Company shall take all actions that are necessary to cause each Employee Plan specified in writing by Parent to terminate effective as of no later than immediately prior to the Effective Time. In addition, if directed in writing by Parent, at least 15 Business Days prior to the Effective Time, the Company shall take such actions as Parent may reasonably request so as to enable Parent or the Surviving Corporation, as the case may be, to effect such actions relating to the Company's 401(k) Plans (each, a "**Company 401(k) Plan**") as Parent may deem necessary or appropriate, which may include having the Company terminate such plan prior to the Effective Time. All resolutions, notices or other documents issued, adopted or executed in connection with the implementation of this Section 7.03(c) shall be subject to Parent's prior review and approval (which approval shall not be unreasonably withheld, conditioned or delayed).

(d) In connection with any termination of any Company 401(k) Plan pursuant to Section 7.03(c), Parent shall use commercially reasonable efforts to permit, as soon as reasonably practicable following the Effective Time, each Continuing Employee to make rollover contributions of "eligible rollover distributions" (within the meaning of Section 401(a)(31) of the Code) in cash and participant loans in an amount equal to the eligible rollover distribution portion of the account balance distributed to each such Continuing Employee from any Company 401(k) Plan to an "eligible retirement plan" (within the meaning of Section 401(a)(31) of the Code) of Parent or any of its Affiliates (the "**Parent 401(k) Plan**"). Parent shall use commercially reasonable efforts to cause the Parent 401(k) Plan to accept rollovers by Continuing Employees from any Company 401(k) Plan, including participant loans, after the Effective Time.

(e) Without limiting the generality of Section 11.06, nothing in this Section 7.03, express or implied, (i) is intended to or shall confer upon any Person other than the parties hereto, including any current or former Service Provider, Company Employee or Continuing Employee, any right, benefit or remedy of any nature whatsoever under or by reason of this Agreement, (ii) shall establish, or constitute an amendment, termination or modification of, or an undertaking to amend, establish, terminate or modify, any Employee Plan or other benefit plan, program, agreement or arrangement, (iii) shall alter or limit the ability of Parent or any of its Subsidiaries (or, following the Effective Time, the Company or any of its Subsidiaries) to amend, modify or terminate any Employee Plan or any other benefit plan, program, agreement or arrangement at any time assumed, established, sponsored or maintained by any of them or (iv) shall create any obligation on the part of Parent or its Subsidiaries (or, following the Effective Time, the Company or any of its Subsidiaries) to employ or engage any Service Provider for any period following the Effective Time.

(f) To the extent that the Effective Time occurs on or prior to March 1st of the applicable calendar year, no later than the Effective Time, the Company shall or shall cause its applicable Affiliate to pay annual or short-term incentive bonuses for the prior calendar year to the Company Employees employed immediately prior to the Effective Time (to the extent such bonuses have not previously been paid) with such bonuses to be determined based on actual performance (to the extent measurable at the Effective Time) and otherwise deemed achieved at the target level for any performance metrics that are not able to be determined as of the Effective Time, in all cases as determined by the Compensation Committee of the Board of Directors of the Company, with any such payments to be otherwise subject to the terms and conditions of the applicable annual or short-term incentive plan.

(g) No later than the Effective Time, the Company shall or shall cause its applicable Affiliate to paypro-rata annual or short-term incentive bonuses for the calendar year in which the Effective Time occurs to the Company Employees employed immediately prior to the Effective Time based on the number of days from January 1 of such calendar year through the Effective Time and deemed achieved at the target level for any applicable performance metrics.

Section 7.04. *Transfer Restrictions*.

(a) Without limiting any other obligation of Parent or its Affiliates herein, until the earlier of the Closing and the termination of this Agreement pursuant to Section 10.01, Parent agrees that neither it nor any of its Affiliates will directly or indirectly, sell, assign, convey, transfer or otherwise dispose of the beneficial or record ownership of any Shares held by Parent or any of its Affiliates other than transfers between Parent and its Affiliates or between Affiliates of Parent.

(b) From the date hereof until the earlier of the Closing and 10 Business Days after the termination of this Agreement pursuant toSection 10.01, Parent agrees that, except pursuant to the Merger, none of (i) Parent (or any of its officers or directors), (ii) any of Parent's Affiliates, (iii) any officers or directors of any of Parent's Affiliates and (iv) any Persons acting at the direction of Parent or any of its Affiliates, will in any manner, directly or indirectly, (x) effect or seek, offer or propose (whether publicly or otherwise) to effect, agree to effect, or announce any intention to effect or cause or participate in or in any way assist or encourage any other Person to effect or seek, offer or propose (whether publicly or otherwise) to effect or participate in, any acquisition of Shares or any other securities of the Company (or any Beneficial Ownership (as defined in Rule 13d-3 under the Exchange Act) in any such Shares or other securities), in each case, other than transfers between Parent and its Affiliates or between Affiliates of Parent.

(c) Parent agrees to take all actions necessary to cause its Affiliates to comply with thisSection 7.04.

Article 8
COVENANTS OF PARENT AND THE COMPANY

Section 8.01. *All Necessary Steps.*

The parties hereto agree that:

(a) Parent shall, and shall cause each of its Subsidiaries to, take any and all steps necessary to avoid or eliminate as soon as possible each and every impediment under the HSR Act or any other Applicable Law so as to enable the parties to expeditiously consummate the transactions contemplated hereby, including the Merger. In furtherance and not in limitation of the foregoing, Parent shall, and shall cause each of its Subsidiaries to, (i) contest or resist (including through any applicable appeals process) any Action which may be instituted by any Governmental Authority challenging any of the transactions contemplated hereby, (ii) seek to have vacated, lifted, reversed, or overturned any decree, judgment, injunction, or other order relating to any Applicable Law, whether temporary, preliminary or permanent, that is in effect and that prohibits, prevents, or restricts consummation of any of the transactions contemplated hereby, (iii) propose, negotiate, commit to, or agree to effect, by consent decree, hold separate order, or otherwise, the sale, divestiture, or disposition of any assets or businesses of the Company or its Subsidiaries that is required in order to facilitate the expiration or termination of the HSR Act waiting period or to obtain any other clearance, waiver, approval, or authorization required under Applicable Law from any Governmental Authority, and (iv) otherwise take or commit to take actions that after the Closing would limit the freedom of the Company and its Subsidiaries after the Closing, with respect to, or their ability to retain, one or more businesses, product lines, or assets to the extent required in order to facilitate the expiration or termination of the HSR Act waiting period or to obtain any other clearance, waiver, approval, or authorization required under Applicable Law from any Governmental Authority. Notwithstanding anything to the contrary herein, (A) neither the Company, any of its Subsidiaries, nor any of their respective Representatives shall take any of the actions described in the preceding sentence without the prior written consent of Parent (and the Company and its Subsidiaries shall take any of such actions that are requested by Parent in writing so long as taking any such actions (including any actions in furtherance thereof) are subject to and conditioned on the Closing and do not require any fees, costs or expenses to be borne by or otherwise incurred by any holder of Shares (other than Parent and its Affiliates), the Company or any of its Subsidiaries prior to the Closing, other than fees, costs or expenses concurrently reimbursed by Parent) and (B) Parent and its Affiliates shall not be obligated to take, or agree to take, any of such actions with respect to any Person, or the assets properties or business of any Person, other than the Company and its Subsidiaries. For the avoidance of doubt, this Section 8.01 shall not require Parent or its Subsidiaries to propose, negotiate, commit to, or agree to hold separate, or to effect the sale, divestiture, or disposition of, or to otherwise take or commit to take actions limiting the freedom of Parent and its Subsidiaries with respect to, in each case, the assets or businesses of Parent and its Subsidiaries existing prior to the Effective Time. Each of Parent and the Company will not, and will cause their respective Affiliates (or in the case of the Company, controlled Affiliates) not to, take any action that would, or would reasonably be expected to, individually or in the aggregate, prevent, materially delay or materially impede the consummation of the Merger or any of the other transactions contemplated by this Agreement.

(b) In furtherance and not in limitation of the foregoing, each of Parent and the Company shall make or cause to be made an appropriate filing of a Notification and Report Form pursuant to the HSR Act with respect to the transactions contemplated hereby with the FTC and the Antitrust Division of the U.S. Department of Justice (the "**Antitrust Division**") as promptly as practicable and in any event within 10 Business Days after the date hereof. Each of Parent and the Company shall respond as promptly as practicable to any inquiries received from the FTC or the Antitrust Division for additional information and documentary material that may be requested pursuant to the HSR Act or any State Attorney General or other Governmental Authority in connection with antitrust matters. At the request of Parent, the Company shall agree to divest, hold separate or otherwise take or commit to take any action that limits its freedom of action with respect to, or its ability to retain, any of the businesses, services or assets of the Company or any of its Subsidiaries (but, absent such request, the Company shall not take any such action), *provided* that any such action shall be conditioned upon the consummation of the Merger and the other transactions contemplated hereby. Each party hereto shall (1) keep the other apprised of the status of matters relating to the completion of the transaction and the other transactions contemplated by this Agreement and work cooperatively in connection with obtaining all required approvals; (2) promptly notify the other parties of any written communication to that party from the FTC, the Antitrust Division, any State Attorney General or any other Governmental Authority, and, subject to Applicable Law, permit the other parties to review and discuss in advance, and consider in good faith the views of the other party in connection with, any proposed written communication to any of the foregoing; (3) promptly consult with the other party to this Agreement to provide any necessary information with respect to (and, in the case of correspondence, provide the other party (or its counsel) copies of) all filings made by such party with any Governmental Authority and furnish the other party with such necessary information and reasonable assistance as the other party may reasonably request in connection with its preparation of filings or submissions of information to any such Governmental Authority, (4) not agree to participate in any substantive meeting or discussion with any Governmental Authority in respect of any filings, investigation or inquiry concerning any competition or antitrust matters in connection with this Agreement or the Merger and the other transactions contemplated hereby unless it consults with the other parties in advance and, to the extent permitted by such Governmental Authority, gives the other parties the opportunity to attend and participate thereat; and (5) furnish the other parties with copies of all correspondence, filings, and communications (and memoranda setting forth the substance thereof) between them and their Affiliates and their respective Representatives on the one hand, and any Governmental Authority or members or their respective staffs on the other hand, with respect to any competition or antitrust matters in connection with this Agreement.

Section 8.02. *Certain Filings*. The Company and Parent shall reasonably cooperate with one another (i) in connection with the preparation of the Company Disclosure Documents and (ii) in determining whether any action by or in respect of, or filing with, any Governmental Authority is required, or any actions, consents, approvals or waivers are required to be obtained from parties to any material Contracts, in connection with the consummation of the transactions contemplated by this Agreement. In addition, the Company and Parent shall use their respective commercially reasonable efforts to take such actions or make any such filings and furnish information required in connection therewith or with the Company Disclosure Documents, and seek to timely obtain such actions, consents, approvals or waivers from parties under such material Contracts, but subject to Section 8.01, neither party shall be required to expend money or modify, amend or otherwise alter the term or provision of any such Contracts to obtain any such actions, consents, approvals or waivers.

Section 8.03. *Public Announcements.* The initial press release issued by Parent and the Company with respect to the execution of this Agreement shall be reasonably agreed upon by Parent and the Company. Thereafter, and except in connection with actions taken in compliance with Section 6.02, Parent and the Company shall consult with each other before issuing any press release, having any communication with the press (whether or not for attribution) or making any other public statement, or scheduling any press conference or conference call with investors or analysts, with respect to this Agreement or the transactions contemplated hereby and, except in respect of any public statement or press release that is determined by a party, after consultation with outside legal counsel, to be required by Applicable Law or any listing agreement with or rule of any national securities exchange or association (in which case, such disclosing party will endeavor, on a basis reasonable under the circumstances, to provide a meaningful opportunity to the other party to review and comment upon such public statement or press release), shall not issue any such press release or make any such other public statement or schedule any such press conference or conference call before such consultation. Notwithstanding the foregoing, without prior consultation, each party (a) may communicate information that is not confidential information of any other party with financial analysts, investors and media representatives in a manner consistent with its past practice in compliance with Applicable Law and (b) may disseminate the information included in a press release or other document previously approved for external distribution by the other parties.

Section 8.04. *Further Assurances.* At and after the Effective Time, the officers and directors of the Surviving Corporation shall be authorized to execute and deliver, in the name and on behalf of the Company or Merger Sub, any deeds, bills of sale, assignments, assurances or other instruments and to take and do, in the name and on behalf of the Company or Merger Sub, any other actions and things to vest, perfect or confirm of record or otherwise in the Surviving Corporation any and all right, title and interest in, to and under any of the rights, properties or assets of the Company acquired or to be acquired by the Surviving Corporation as a result of, or in connection with, the Merger.

Section 8.05. *Section 16 Matters.* Prior to the Effective Time, each party shall take all such steps as may be required to cause any dispositions of Shares in connection with the transactions contemplated by this Agreement (including derivative securities of such Shares) by each individual who is subject to the reporting requirements of Section 16(a) of the 1934 Act with respect to the Company to be exempt under Rule 16b-3 promulgated under the 1934 Act.

Section 8.06. *Notices of Certain Events*. Each of the Company and Parent shall promptly notify the other of: (a) any communication from any Person alleging that the consent of such Person is or may be required in connection with the transactions contemplated by this Agreement; (b) any material written communication from any Governmental Authority in connection with the transactions contemplated by this Agreement (other than such communications contemplated in Section 8.01, which shall be governed by such Section); or (c) any Actions commenced or, to the Knowledge of the Company, threatened against, relating to or involving or otherwise affecting the Company or any of its Subsidiaries or Parent and any of its Subsidiaries, as the case may be, that relate to the consummation of the transactions contemplated by this Agreement; *provided* that the delivery of any notice pursuant to this Section 8.06 shall not limit or otherwise affect the remedies available hereunder to the party receiving such notice.

Section 8.07. *Takeover Statutes.* If any "control share acquisition," "fair price," "moratorium" or other antitakeover or similar statute, regulation or Company Charter provision shall become applicable to the transactions contemplated by this Agreement, each of the Company, Parent and Merger Sub and the respective members of their boards of directors shall, to the extent permitted by Applicable Law, use commercially reasonable efforts to grant such approvals, if any, and to take such actions as are reasonably necessary so that the transactions contemplated by this Agreement may be consummated as promptly as practicable on the terms contemplated herein and otherwise to take all such other actions as are reasonably necessary to eliminate or minimize the effects of any such statute, regulation or Company Charter provision on the transactions contemplated hereby.

Section 8.08. *Confidentiality Agreement.* The parties hereby agree that the term of the Confidentiality Agreement shall be extended to the date that is the earlier of (i) the date of the Closing and (ii) the date that is 12 months after the termination of this Agreement; *provided* that, in the case of Section 8 thereof the date of termination will be the earlier of (x) the later of the date set forth therein and the date of termination of this Agreement and (y) the date of the Closing.

Section 8.09. *Litigation and Proceedings*. The Company shall control the defense or settlement of any litigation or other legal proceedings against the Company or any of its directors relating to this Agreement, the Merger or the other transactions contemplated by this Agreement; *provided* that the Company shall give Parent reasonable opportunity to participate, at Parent's expense, in such litigation or other legal proceedings; *provided further*, that the Company agrees that it shall not settle any such litigation or other legal proceedings without the prior written consent of Parent, which shall not be unreasonably withheld, delayed or conditioned.

Section 8.10. *Contact with Customers, Suppliers and Other Business Relations*. During the period from the date of this Agreement until the Closing, Parent agrees not to, and shall not permit any of its Affiliates or any of its or their respective Representatives to, contact any employee or other service provider, customer, supplier, distributor or other material business relation of the Company, regarding the Company or the transactions contemplated by this Agreement, without the prior written consent of the Company (which consent will not be unreasonably withheld, conditioned or delayed); *provided* that (i) this Section 8.10 shall not prevent Parent or its Affiliates from making such contact with any of the foregoing parties that is made in the ordinary course of business to the extent such contact is unrelated to the transactions contemplated by this Agreement and (ii) the Company agrees to use commercially reasonable efforts to facilitate meetings (whether telephonic, electronic or otherwise) between Parent or any of its Affiliates or their respective Representatives and the Company's employees, service providers, customers, suppliers, distributors or other Persons with a material business relationship with the Company to the extent reasonably requested by Parent; *provided* that the Company shall attend all such meetings.

Section 8.11. *Non-Solicit*. From the date hereof until the earlier of (i) the Closing, or (ii) six months following the termination of this Agreement pursuant to Section 10.01, Parent and Merger Sub will not and will ensure that their respective Affiliates (and any person acting on behalf of or in concert with Parent and Merger Sub) will not, directly or indirectly, solicit for employment or hire any officer, director, or employee of the Company or any of its Subsidiaries with whom Parent or Merger Sub first had contact in connection with the transactions contemplated by this Agreement; *provided*, *however*, that Parent and Merger Sub will not be prohibited from (i) conducting any general solicitations for employment, directly or through an agent (including placement and recruiting agencies) that is not directed at such persons, or (ii) hiring any such person who first approaches Parent or Merger Sub after such person's employment with the Company terminates.

Section 8.12. *Proxy Statement; Company Meeting.*

(a) Promptly following the date of this Agreement (and no later than 30 days after the date hereof), the Company will prepare (with Parent's reasonable assistance) and the Company will file with the SEC the Proxy Statement. The Company, Parent and Merger Sub shall cooperate with each other in the preparation of the Proxy Statement and furnish all information concerning itself and its Affiliates that is required in connection with the preparation of the Proxy Statement. The Company will use its reasonable best efforts to cause the Proxy Statement to be mailed to the Company Stockholders as promptly as practicable following the clearance of the Proxy Statement by the SEC. No filing of, or amendment or supplement to the Proxy Statement will be made by the Company without providing Parent a reasonable opportunity to review and comment thereon. If at any time prior to the Company Meeting (or any adjournment or postponement thereof) any information relating to the Company or Parent, or any of their respective Affiliates, directors or officers, is discovered by the Company or Parent that should be set forth in an amendment or supplement to the Proxy Statement, so that the Proxy Statement would not include any misstatement of a material fact or omit to state any material fact necessary to make the statements therein, in light of the circumstances under which they were made, not misleading, the party that discovers such information will promptly notify the other party hereto and an appropriate amendment or supplement describing such information will be promptly filed with the SEC and, to the extent required by Applicable Law, disseminated to the Company Stockholders. The Company will notify Parent promptly of the receipt of any comments from the SEC or the staff of the SEC and of any request by the SEC or the staff of the SEC for amendments or supplements to the Proxy Statement or for additional information and the Company will supply Parent with copies of all correspondence between it or any of its Representatives, on the one hand, and the SEC or the staff of the SEC, on the other hand, with respect to the Proxy Statement or the transactions contemplated hereby.

(b) The Company will, as soon as reasonably practicable following the date of this Agreement, establish a record date for, and as soon as reasonably practicable following the clearance of the Proxy Statement by the SEC, duly call, give notice of, convene and hold, the Company Meeting. Subject to Section 6.03, the Company shall effect the Company Board Recommendation. The Proxy Statement shall (subject to Section 6.03) include the Company Board Recommendation. Notwithstanding anything in this Agreement to the contrary, the Company may postpone or adjourn the Company Meeting (i) to solicit additional proxies for the purpose of obtaining Stockholder Approval and/or unless the Company has waived the condition set forth in Section 9.03(d), the Majority of the Minority Approval, (ii) if there are not holders of a sufficient number of shares of Company common stock present or represented by proxy at the Company Meeting to constitute a quorum at the Company Meeting and (iii) to allow reasonable additional time for the filing or mailing of any supplemental or amended disclosure that the Company has determined in good faith, after consultation with outside legal counsel, is necessary under Applicable Law and for such supplemental or amended disclosure to be disseminated and reviewed by the Company Stockholders prior to the Company Meeting.

Article 9
CONDITIONS TO THE MERGER

Section 9.01. *Conditions to the Obligations of Each Party.* The obligations of the Company, Parent and Merger Sub to consummate the Merger are subject to the satisfaction of the following conditions:

(a) no injunction or other order or decree issued by a court of competent jurisdiction in the United States that (i) prohibits or makes illegal consummation of the Merger or (ii) enjoins the Company, Parent or Merger Sub from consummating the Merger shall be in effect;

(b) no Applicable Law shall have been enacted or promulgated after the date of this Agreement by a Governmental Authority (other than any such Applicable Laws relating to antitrust or competition laws) the effect of which is to make illegal or otherwise prohibit the consummation of the Merger;

(c) any applicable waiting period (and any extensions thereof) under the HSR Act shall have expired or been terminated; and

(d) the adoption and approval of this Agreement and the transactions contemplated hereby, including the Merger, by the Requisite Company Vote in accordance with Applicable Law and the Company Charter ("**Stockholder Approval**"), shall have been obtained.

Section 9.02. *Conditions to the Obligations Parent and Merger Sub*. The obligations of Parent and Merger Sub to consummate the Merger are subject to the satisfaction of the following conditions:

(a) (i) the representations and warranties of the Company set forth in Section 4.01 (Corporate Existence and Power), Section 4.02 (Corporate Authorization), Section 4.03 (Governmental Authorization), Section 4.04 (Non-Contravention), the first sentence of Section 4.05(c) (Capitalization), Section 4.24 (Finders' Fees), Section 4.25 (Opinion of Financial Advisor) and Section 4.26 (Antitakeover Statutes) shall be true and correct in all material respects (except to the extent such representations and warranties are qualified by "Company Material Adverse Effect" or "materiality", in which case such representations shall be true and correct in all respects) at and as of the Effective Time as if made at and as of the Effective Time (except to the extent that any such representation or warranty expressly relates to an earlier date or period, in which case as of such date or period); (ii) the representations and warranties of the Company set forth in Section 4.05(a) of this Agreement shall be true and correct in all respects (except for de minimis inaccuracies) at and as of the Effective Time as if made at and as of the Effective Time (except to the extent any such representation or warranty expressly relates to an earlier date or period, in which case as of such date or period); (iii) the representation and warranty of the Company set forth in Section 4.10(ii) (No MAE) shall be true and correct in all respects unless such Company Material Adverse Effect is no longer continuing; and (iv) the representations and warranties of the Company set forth in this Agreement (other than those referred to in clauses (i) through (iii) above) shall be true and correct (disregarding for this purpose all "Company Material Adverse Effect" and "materiality" qualifications contained in such representations and warranties) at and as of the Effective Time as if made on and as of the Effective Time (except to the extent any such representation or warranty expressly relates to an earlier date or period, in which case as of such date or period), except where the failure of such representations and warranties to be so true and correct has not had, and would not reasonably be expected to have, individually or in the aggregate, a Company Material Adverse Effect.

(b) each of the covenants and obligations in this Agreement that the Company is required to comply with or perform at or prior to Closing shall have been complied with or performed in all material respects;

(c) the Company shall have delivered to Parent a certificate signed by an authorized officer of the Company dated as of the date on which the Effective Time occurs certifying that the conditions specified in paragraphs Section 9.02(a) and Section 9.02(b) have been satisfied;

(d) the Company shall have caused the Rights Agreement, to the extent still in force and effect, to be terminated effective immediately prior to the Effective Time, with no continuing liability or obligation of the Company or any of its Subsidiaries or controlled Affiliates to any other Person, except for any indemnification obligations of the Company, or any other obligations to the Rights Agent (as defined in the Rights Agreement) thereunder, under the terms of the Rights Agreement as of the date hereof; and

(e) since the date hereof, there shall not have occurred any event, occurrence, revelation or development of a state of circumstances or facts which, individually or in the aggregate, has had or would reasonably be expected to have a Company Material Adverse Effect.

Section 9.03. *Conditions to the Obligations the Company.* The obligations of the Company to consummate the Merger are subject to the satisfaction of the following conditions:

(a) the representations and warranties of Parent and Merger Sub set forth in this Agreement shall be true and correct (disregarding for this purpose all "Parent Material Adverse Effect" and "materiality" qualifications contained in such representations and warranties) at and as of the Effective Time as if made at and as of the Effective Time (except to the extent any such representation or warranty expressly relates to an earlier date or period, in which case as of such date or period), except where the failure of such representations and warranties to be so true and correct has not had, and would not reasonably be expected to have, individually or in the aggregate, a Parent Material Adverse Effect.

(b) each of the covenants and obligations in this Agreement that Parent and Merger Sub are required to comply with or perform at or prior to Closing shall have been complied with or performed in all material respects; and

(c) Parent and Merger Sub shall have delivered to the Company a certificate signed by an authorized officer of the Company dated as of the date on which the Effective Time occurs certifying that the conditions specified in paragraphs Section 9.03(a) and Section 9.03(b) have been satisfied.

(d) the adoption and approval of this Agreement and the transactions contemplated hereby, including the Merger, shall have been approved by the holders of the majority of the then outstanding Shares other than Shares held by Parent and its Affiliates (the "**Majority of the Minority Approval**").

Article 10
TERMINATION

Section 10.01. *Termination*. This Agreement may be terminated and the Merger may be abandoned at any time prior to the Effective Time (notwithstanding any approval of this Agreement by the Company Shareholders):

(a) by mutual written agreement of the Company and Parent;

(b) by either the Company or Parent, if:

(i) the Effective Time shall not have occurred on or before 11:59 p.m. (New York City time) on October 21, 2022 (such time and date, the "**End Date**"); *provided*, if on the End Date (as may have been previously extended) all of the conditions contained in Article 9 have been satisfied or waived (to the extent waivable) other than the conditions set forth in Section 9.01(a) (solely in connection with an antitrust law) or Section 9.01(c) (other than those conditions that by their terms are to be satisfied at the Closing, each of which is capable of being satisfied at the Closing), then the End Date shall automatically be extended for successive 90 day periods (but in any event shall not be extended beyond January 21, 2023), in which case the End Date shall be deemed for all purposes to be such later date, unless, the Company and Parent mutually agree prior to a given End Date (as may be extended pursuant to this Section 10.01(b)(i)) in writing that the End Date will not be so extended; *provided further*, the right to terminate this Agreement pursuant to this Section 10.01(b)(i) shall not be available to any party whose breach of any provision of this Agreement has proximately caused or resulted in the failure of the Effective Time to occur by such time; or

(ii) any Governmental Authority of competent jurisdiction shall have issued an injunction, order or decree, that (A) prohibits or makes illegal consummation of the Merger or (B) permanently enjoins the Company, Parent or Merger Sub from consummating the Merger and with respect to any injunction, order or decree referenced in clause (A) or (B), such injunction, order or decree shall have become final and nonappealable; *provided* that the right to terminate this Agreement pursuant to this Section 10.01(b)(ii) shall not be available to any party that has materially breached its obligations under Section 8.01 or to any party whose material breach of any representation, covenant or obligation of such party set forth in this Agreement is attributable to such final and nonappealable injunction, order or decree.

(iii) if the Company Meeting has concluded and Stockholder Approval, and, unless the Company has waived the condition set forth in Section 9.03(d), the Majority of the Minority Approval have not been obtained, *provided,* that, that the right to terminate this Agreement pursuant to this Section 10.01(b)(iii) will not be available to any party hereto whose breach of any provision of this Agreement has proximately caused or resulted in the failure to obtain the Stockholder Approval or, unless the Company has waived the condition set forth in Section 9.03(d), the Majority of the Minority Approval at the Company Meeting;

(c) by Parent, if, prior to the Effective Time:

(i) the Board of Directors shall have failed to include the Company Board Recommendation in the Proxy Statement when mailed, or shall have effected an Adverse Recommendation Change prior to receiving Stockholder Approval and, unless the Company has waived the condition set forth in Section 9.03(d), the Majority of the Minority Approval; *provided* that, Parent's right to terminate this Agreement pursuant to this Section 10.01(c)(i) shall expire at 5:00 p.m. (New York City time) on the 60th calendar day following the date on which such failure or Adverse Recommendation Change occurred;

(ii) the Company or any of its Subsidiaries shall have committed a Knowing and Intentional Breach of Section 6.03;

(iii) a breach of any representation or warranty or failure to perform any covenant or agreement on the part of the Company set forth in this Agreement shall have occurred that would cause the conditions set forth in Section 9.02(a) or Section 9.02(b) not to be satisfied and such breach or failure is incapable of being cured by the End Date or, if curable by the End Date, is not cured by the Company within 30 days after receipt by the Company of written notice of such breach or failure; *provided* that, at the time of the delivery of such notice, Parent or Merger Sub shall not be in material breach of its or their obligations under this Agreement; or

(d) by the Company, prior to the Effective Time:

(i) prior to receiving Stockholder Approval and, unless the Company has waived the condition set forth in Section 9.03(d), the Majority of the Minority Approval in order to accept a Superior Proposal and concurrently therewith or immediately thereafter enter into a binding written definitive acquisition agreement providing for the consummation of a transaction for such Superior Proposal; *provided* that (x) the Company and the Board of Directors shall have complied in all material respects with Section 6.03 with respect to such Superior Proposal and

(y) the Company shall have paid the Termination Fee immediately before or simultaneously with and as a condition to such termination;

(ii) if a breach of any representation or warranty or failure to perform any covenant or agreement on the part of Parent or Merger Sub set forth in this Agreement shall have occurred and such breach or failure (i) is incapable of being cured by the End Date or, if curable by the End Date, is not cured by Parent or Merger Sub within 30 days after receipt by Parent of written notice of such breach or failure and (ii) would reasonably be expected to have, individually or in the aggregate, a Parent Material Adverse Effect; *provided* that, at the time of the delivery of such notice, the Company shall not be in material breach of its obligations under this Agreement; or

(iii) if the Company Meeting has concluded and Majority of the Minority Approval has not been obtained or waived by the Company, *provided,* that, that the right to terminate this Agreement pursuant to this Section 10.01(d)(iii) will not be available to the Company if its breach of any provision of this Agreement has proximately caused or resulted in the failure to obtain the Majority of the Minority Approval at the Company Meeting;

The party desiring to terminate this Agreement pursuant to this Section 10.01 (other than pursuant to Section 10.01(a)) shall give written notice of such termination to the other party.

Section 10.02. *Effect of Termination*. If this Agreement is terminated pursuant to Section 10.01, this Agreement shall become void and of no effect without liability of any party (or any stockholder, director, officer, employee, agent, consultant or representative of such party) to the other parties hereto; *provided* that, subject to Section 11.04(b)(iii) , if such termination shall result from (i) the Fraud of any party or (ii) a Knowing and Intentional Breach by any party, such party shall be fully liable for any and all liabilities and damages incurred or suffered by the other parties as a result of such failure; and provided further that (x) the Company shall have the right to pursue damages on behalf of the Company Stockholders (but without duplication of any damages suffered by the Company that are indirectly suffered by the Company Stockholders as a result of their ownership of the Company) in the event of Parent's or Merger Sub's Knowing and Intentional Breach of this Agreement, which right is hereby acknowledged by Parent and Merger Sub and (y) nothing herein will relieve the Equity Financing Source of any liability arising from any Knowing and Intentional Breach of the Equity Financing Letter or the Voting and Support Agreement or the Confidentiality Agreement. The provisions of Section 7.04(b), Section 8.08, Section 8.11, this Section 10.02 and Article 11 (but, in the case of Section 11.14, only to the extent relating to obligations required to be performed after termination) and the Confidentiality Agreement (to the extent provided in Section 8.08) shall survive any termination hereof pursuant to Section 10.01.

<u>Article 11</u>
MISCELLANEOUS

Section 11.01. *Notices*. All notices, requests and other communications to any party hereunder shall be in writing (including facsimile transmission and electronic mail ("**e-mail**") transmission, so long as a receipt of such facsimile transmission or e-mail is requested and received) and shall be given,

if to Parent, Merger Sub or, after the Effective Time, the Company or the Surviving Corporation, to:

ProFrac Holdings, LLC
333 Shops Boulevard, Suite 301
Willow Park, TX 76087
Attention: Robert J. Willette
E-mail: robert.willette@wilksbrothers.com

with a copy (which shall not constitute notice) to:

Vinson & Elkins L.L.P.
1001 Fannin Street, Suite 2500
Houston, TX 77002
Attention: Michael S. Telle
E-mail: mtelle@velaw.com

if to the Company prior to the Effective Time, to:

FTS International, Inc.
777 Main Street, Suite 2900
Fort Worth, Texas 76102
Attention: Jared Vitemb
Email: Jared.Vitemb@ftsi.com

with a copy (which shall not constitute notice) to:

Davis Polk & Wardwell LLP
450 Lexington Avenue
New York, NY 10017
Attention: William L. Taylor
Cheryl Chan
Email: william.taylor@davispolk.com
cheryl.chan@davispolk.com

or to such other address, facsimile number or e-mail address as such party may hereafter specify for the purpose by notice to the other parties hereto. All such notices, requests and other communications shall be deemed received on the date of receipt by the recipient thereof if received prior to 5:00 p.m. on a Business Day in the place of receipt. Otherwise, any such notice, request or communication shall be deemed to have been received on the next succeeding Business Day in the place of receipt.

Section 11.02. *Survival of Representations, Warranties, Covenants and Agreements*. None of the representations, warranties, covenants and agreements in this Agreement shall survive the Effective Time, except for (a) those covenants and agreements contained herein that by their terms apply or are to be performed in whole or in part after the Effective Time and (b) those covenants and agreements set forth in this Article 11 (but, in the case of Section 11.14, only to the extent relating to obligations required to be performed after termination).

Section 11.03. *Amendments and Waivers*. Any provision of this Agreement may be amended or waived prior to the Effective Time if, but only if, such amendment or waiver is in writing and is signed, in the case of an amendment, by each party to this Agreement or, in the case of a waiver, by each party against whom the waiver is to be effective. Notwithstanding the foregoing provisions of this Section 11.03, (a) no amendment or modification to any of this Section 11.03(a), the proviso in Section 11.06(a), Section 11.06(c), the provisions of the second sentence in Section 11.07, the provisions of the last sentence of Section 11.08 and/or Section 11.10 that is materially adverse to the Financing Sources shall become effective without the prior written consent of the materially adversely affected Financing Sources and (b) no amendment or modification to any of this Section 11.03(b) and/or Section 11.09 that is materially adverse to the Equity Financing Source shall become effective without the prior written consent of the Equity Financing Source.

No failure or delay by any party in exercising any right, power or privilege hereunder shall operate as a waiver thereof nor shall any single or partial exercise thereof preclude any other or further exercise thereof or the exercise of any other right, power or privilege. The rights and remedies herein provided shall be cumulative and not exclusive of any rights or remedies provided by Applicable Law.

Section 11.04. *Expenses*.

(a) General. Except as otherwise provided herein, all costs and expenses incurred in connection with this Agreement shall be paid by the party incurring such cost or expense.

(b) Termination Fee. (i) If this Agreement is terminated by Parent pursuant to Section 10.01(c)(i) (Adverse Recommendation Change), Section 10.01(c)(ii) (Breach of Section 6. 03) or by the Company pursuant to Section 10.01(d)(i) (Superior Proposal), then the Company shall pay to Parent in immediately available funds the Termination Fee, in the case of a termination by Parent, within three Business Days after such termination and, in the case of a termination by the Company, substantially concurrent with such termination, and as a condition thereto.

(ii) If (A) this Agreement is terminated (x) by Parent or the Company pursuant to Section 10.01(b)(i) (End Date) (other than in circumstances where the Stockholder Approval, and, unless the Company has waived the condition set forth in Section 9.03(d), the Majority of the Minority Approval, have been obtained) and at such time the conditions set forth in Section 9.01(a) and Section 9.01(c) shall have been satisfied or (y) by Parent pursuant to Section 10.01(c)(iii) (Other Breach), (B) after the date of this Agreement and prior to the Company Meeting, an Acquisition Proposal shall have been publicly announced or otherwise been communicated to the Board of Directors, and (C) within 12 months following the date of such termination, the Company or any of its Subsidiaries shall have entered into a definitive agreement with respect to or recommended to the Company Stockholders an Acquisition Proposal that is, in either such event, later consummated or an Acquisition Proposal shall have been consummated (*provided* that for purposes of this clause (C), each reference to "20%" in the definition of Acquisition Proposal shall be deemed to be a reference to "50%"), then the Company shall pay to Parent in immediately available funds, prior to or concurrently with such consummation, the Termination Fee.

(iii) Each of Parent and Merger Sub agrees that in the event that the Termination Fee is paid to Parent pursuant to this Section 11.04, then subject to Section 11.04(c), (A) the payment of such Termination Fee shall, in the absence of Fraud, be the sole and exclusive remedy of Parent and Merger Sub and their respective Non-Party Affiliates against the Company or any of its Non-Party Affiliates for, and (B) in no event, other than Fraud, will Parent or Merger Sub or any of their respective Non-Party Affiliates be entitled to recover any other money damages or any other remedy based on a claim in law or equity with respect to, (1) any loss suffered as a result of the failure of the Merger to be consummated, (2) the termination of this Agreement, (3) any liabilities or obligations arising under this Agreement, or (4) any claims or actions arising out of or relating to any breach, termination or failure of or under this Agreement, and upon payment to Parent of the Termination Fee in accordance with Section 11.04, in the absence of Fraud, neither the Company nor any of its Non-Party Affiliates shall have any further liability or obligation to the Parent or Merger Sub or any of their respectiveNon-Party Affiliates relating to or arising out of this Agreement or the transactions contemplated hereby and such Non-Party Affiliates of the Company shall be third party beneficiaries of this Section 11.04(b)(iii). For the avoidance of doubt, nothing in this Section 11.04(b)(iii) limits the Company's rights and remedies under Section 11.14 prior to termination of this Agreement by the Company.

(c) Other Costs and Expenses. The Company acknowledges that the agreements contained in this Section 11.04 are an integral part of the transactions contemplated by this Agreement and that, without these agreements, Parent and Merger Sub would not enter into this Agreement. Accordingly, if the Company fails promptly to pay any amount due to Parent pursuant to this Section 11.04, it shall also pay any costs and expenses incurred by Parent or Merger Sub in connection with a legal action to enforce this Agreement that results in a judgment against the Company for such amount, together with interest on the amount of any unpaid fee, cost or expense at the publicly announced prime rate of Citibank, N.A. from the date such fee, cost or expense was required to be paid to (but excluding) the payment date. In no event shall the Company be required to pay more than one Termination Fee.

Section 11.05. *Disclosure Schedule References.* No exception, qualification, limitation, document or disclosure set forth in a particular section of the Company Disclosure Schedule shall be deemed to be an exception, qualification, limitation, document or disclosure with respect to any other section of the Company Disclosure Schedule or any other Section of this Agreement unless the relevance of such exception, qualification, limitation or disclosure as an exception, qualification, limitation, document or disclosure to such other section is reasonably apparent on its face. The inclusion of any item in the Company Disclosure Schedule shall not be deemed to be an admission or evidence of materiality of such item, nor shall it establish any standard of materiality for any purpose whatsoever.

Section 11.06. *Binding Effect; Benefit; Assignment.* (a) The provisions of this Agreement shall be binding on and, except as provided inSection 7.02, shall inure to the benefit of the parties hereto and their respective successors and assigns. Except (i) if the Effective Time occurs, the right of the Company Shareholders to receive the Merger Consideration in accordance with Article 2 and (ii) as provided in Section 7.02, Section 11.04(b)(iii) and Section 11.09, no provision of this Agreement is intended to confer any rights, benefits, remedies, obligations or liabilities hereunder upon any Person other than the parties hereto and their respective successors and assigns; *provided* that the provisions of the second sentence inSection 11.03, this proviso of this Section 11.06(a) Section 11.06(a), Section 11.06(c), the provisions of the second sentence inSection 11.07, Section 11.08 and Section 11.10, in each case, pertaining to the Financing Sources, are intended to be for the benefit of, and shall be enforceable by, the Financing Sources.

(b) No party may assign, delegate or otherwise transfer any of its rights or obligations under this Agreement without the prior written consent of each other party hereto, except that Parent or Merger Sub may transfer or assign its rights and obligations under this Agreement to a wholly owned Subsidiary of Parent (which will remain a wholly owned Subsidiary of Parent prior to Closing) without the consent of the Company; *provided* that (i) such transfer or assignment would not reasonably be expected to delay in any material respect or impair the consummation of the transactions contemplated hereby, (ii) Parent or Merger Sub, as the case may be, shall remain liable for all of its obligations under this Agreement and (iii) the assignee will be deemed to have made the same representations and warranties as are set forth in Article 5 and any reference in this Agreement to any such representation or warranty in Article 5 will be deemed to include the representations and warranties of the assignee.

(c) No Financing Source will have any liability to the Company, any former, current or future stockholders, equity holders, controlling persons, directors, officers, employees, general or limited partners, members, managers, agents or Affiliates of the Company (in each case, in their capacities as such), or any former, current or future stockholders, equity holders, controlling persons, directors, officers, employees, general or limited partners, members, managers, agents or Affiliates of any of the foregoing (in each case, in their capacities as such) relating to or arising out of this Agreement, any Financing or otherwise, whether at law, or equity, in contract, in tort or otherwise, and Company will not have any rights or claims against any Financing Source or be entitled to seek the remedy of specific performance of this Agreement against any Financing Source (such Financing Sources being express third party beneficiaries of this sentence).

Section 11.07. *Governing Law*. This Agreement shall be governed by and construed in accordance with the laws of the State of Delaware, without regard to the conflicts of law rules of such state. Notwithstanding anything herein to the contrary, the parties hereto acknowledge and irrevocably agree that any claim, suit, action or proceeding, whether in law or in equity, whether in contract or in tort or otherwise, against the Financing Sources (in their capacities as such) arising out of, or relating to, the transactions contemplated hereby, the Financing or the performance of services thereunder or related thereto shall, except as expressly provided otherwise in the definitive documentation pertaining to such Financing, be governed by, and construed in accordance with, the laws of the State of New York, without regard to the conflicts of law rules of such State that would result in the application of the laws of any other State.

Section 11.08. *Jurisdiction*. The parties hereto agree that any suit, Action or proceeding seeking to enforce any provision of, or based on any matter arising out of or in connection with, this Agreement or the transactions contemplated hereby (whether brought by any party or any of its Affiliates or against any party or any of its Affiliates) shall be brought in the Delaware Chancery Court located in New Castle County, Delaware or, if such court shall not have jurisdiction, any federal court located in the State of Delaware or other Delaware state court, and each of the parties hereby irrevocably consents to the exclusive jurisdiction of such courts (and of the appropriate appellate courts therefrom) in any such suit, Action or proceeding and irrevocably waives, to the fullest extent permitted by law, any objection that it may now or hereafter have to the laying of the venue of any such suit, Action or proceeding in any such court or that any such suit, Action or proceeding brought in any such court has been brought in an inconvenient forum. Process in any such suit, Action or proceeding may be served on any party anywhere in the world, whether within or without the jurisdiction of any such court. Without limiting the foregoing, each party agrees that service of process on such party as provided in Section 11.01 shall be deemed effective service of process on such party. Notwithstanding anything herein to the contrary, any suit, action or proceeding against any Financing Sources in any way relating to this Agreement, the Financing or the transactions contemplated hereby or thereby shall be heard and determined exclusively in the United States District Court for the Southern District of New York. The parties hereto hereby (i) submit to the exclusive jurisdiction of the United States District Court for the Southern District of New York for the purpose of any suit, action or proceeding against the Financing Sources in any way relating to this Agreement, the Financing or the transactions contemplated hereby or thereby brought by any party hereto and (ii) irrevocably waive, and agree not to assert by way of motion, defense or otherwise, in any such action, any claim that it is not subject personally to the jurisdiction of the above- named court, that its property is exempt or immune from attachment or execution, that the action or proceeding is brought in an inconvenient forum, that the venue of the action or proceeding is improper or that this Agreement or the Financing or the transactions contemplated hereby or thereby may not be enforced in or by the above-named court.

Section 11.09. *No Recourse Against Non-Parties*. Except in respect of Fraud against the Person that committed Fraud and subject to the second following sentence, (a) all Actions that may be based upon, arise out of or relate to this Agreement or any Related Document, or the negotiation, execution or performance of this Agreement or any Related Document (including any representation or warranty made in or in connection with this Agreement or as an inducement to enter into this Agreement or any Related Document), may be made only against (and subject to the terms and conditions thereof) the respective entities that are expressly identified as, in the case of this Agreement, the parties hereto, and in the case of any Related Document, the parties to such Related Document, and (b) no Person who is not a named party to this Agreement or any Related Document, including any past, present or future director, officer, employee, incorporator, member, manager, partner, equityholder, Affiliate, agent, attorney or other Representative of any named party to this Agreement or any Related Document, or any of their respective successors or permitted assignees (any such not named parties, "**Non-Party Affiliates**"), shall have any liability (whether in contract or in tort, in law or in equity, or based upon any theory that seeks to impose liability of an entity party against its owners or Affiliates) for any obligations or liabilities arising under, in connection with or related to this Agreement (including the Equity Financing Source) or any Related Document, respectively (including any representation or warranty made in or in connection with this Agreement or any Related Document, respectively, or as an inducement to enter into this Agreement or any Related Document, respectively) or for any claim based on, in respect of, or by reason of this Agreement or any Related Document, respectively, or its negotiation or execution, and each party hereto waives and releases all such liabilities, claims and obligations against any such Non-Party Affiliates with respect to this Agreement or the Related Documents, respectively. Non- Party Affiliates are expressly intended as third-party beneficiaries of this Section 11.09. For the avoidance of doubt, nothing in this Section 11.09 shall be construed to impair the Company's rights to enforce (including the right to sue for damages under) the Equity Financing Letter or the Voting and Support Agreement against the Equity Financing Source in accordance with the terms thereof or the Company's rights to enforce (including the right to sue for damage under) (x) this Agreement against Parent or Merger Sub in accordance with the terms hereof or (y) the Confidentiality Agreement against Parent in accordance with the terms thereof.

Section 11.10. *WAIVER OF JURY TRIAL*. EACH OF THE PARTIES HERETO HEREBY IRREVOCABLY WAIVES ANY AND ALL RIGHT TO TRIAL BY JURY IN ANY LEGAL PROCEEDING ARISING OUT OF OR RELATED TO THIS AGREEMENT, THE FINANCING OR THE TRANSACTIONS CONTEMPLATED HEREBY OR THEREBY (INCLUDING ANY LEGAL PROCEEDING AGAINST ANY FINANCING SOURCE).

Section 11.11. *Counterparts; Effectiveness*. This Agreement may be signed in any number of counterparts, each of which shall be an original, with the same effect as if the signatures thereto and hereto were upon the same instrument, it being understood that the parties need not sign the same counterpart. Any such counterpart, to the extent delivered by fax or .pdf, ..tif, .gif, .jpg or similar attachment to electronic mail (any such delivery, an "**Electronic Delivery**"), will be treated in all manner and respects as an original executed counterpart and will be considered to have the same binding legal effect as if it were the original signed version thereof delivered in person. This Agreement shall become effective when each party hereto shall have received a counterpart hereof signed (including by electronic signature) by all of the other parties hereto. Until and unless each party has received a counterpart hereof signed (including by electronic signature) by the other party hereto, this Agreement shall have no effect and no party shall have any right or obligation hereunder (whether by virtue of any other oral or written agreement or other communication). No party may raise the use of an Electronic Delivery to deliver a signature, or the fact that any signature or agreement or instrument was transmitted or communicated through the use of an Electronic Delivery, as a defense to the formation of a contract, and each party forever waives any such defense, except to the extent such defense relates to lack of authenticity.

Section 11.12. *Entire Agreement.* This Agreement (including the Company Disclosure Schedule) and the Confidentiality Agreement constitute the entire agreement between the parties with respect to the subject matter of this Agreement and supersedes all prior agreements and understandings, both oral and written, between the parties with respect to the subject matter of this Agreement.

Section 11.13. *Severability*. If any term, provision, covenant or restriction of this Agreement is held by a court of competent jurisdiction or other Governmental Authority to be invalid, void or unenforceable, the remainder of the terms, provisions, covenants and restrictions of this Agreement shall remain in full force and effect and shall in no way be affected, impaired or invalidated so long as the economic or legal substance of the transactions contemplated hereby, taken as a whole, are not affected in any manner materially adverse to any party. Upon such a determination, the parties shall negotiate in good faith to modify this Agreement so as to effect the original intent of the parties as closely as possible in an acceptable manner in order that the transactions contemplated hereby be consummated as originally contemplated to the fullest extent possible.

Section 11.14. *Specific Performance*. The parties hereto agree that irreparable damage would occur if any provision of this Agreement were not performed in accordance with the terms hereof for which money damages, even if available, would not be an adequate remedy, and that the parties shall be entitled to an injunction or injunctions to prevent breaches of this Agreement or to enforce specifically the performance of the terms and provisions hereof in the courts referred to in Section 11. 08, in addition to any other remedy to which such party may be entitled under this Agreement. The parties further agree to waive any requirement for the securing or posting of any bond in connection with such remedy, and that such remedy shall be in addition to any other remedy to which a party is entitled at law or in equity. To the extent any party hereto brings an Action to enforce specifically the performance of the terms and provisions of this Agreement (other than an Action to enforce specifically any provision that expressly survives termination of this Agreement), the End Date shall automatically be extended to (i) the 20th Business Day following the resolution of such Action (if the End Date would otherwise occur on or prior to such date) or (ii) such other time period established by the court presiding over such Action.

[The remainder of this page has been intentionally left blank; the next page is the signature page.]

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed by their respective authorized officers as of the date set forth on the cover page of this Agreement.

FTS INTERNATIONAL, INC.

By: /s/ Eugene Davis
Name: Eugene Davis
Title: Chairman of the Board of Directors

PROFRAC HOLDINGS, LLC

By: /s/ Dan Wilks
Name: Dan Wilks
Title: Manager

PROFRAC HOLDINGS, LLC

By: /s/ Farris Wilks
Name: Farris Wilks
Title: Manager

PROFRAC ACQUISITIONS, INC.

By: /s/ Matthew Wilks
Name: Matthew Wilks
Title: Director

CERTIFICATE OF INCORPORATION
OF
PROFRAC HOLDING CORP.

AUGUST 17, 2021

FIRST: The name of the corporation is ProFrac Holding Corp. (the "***Corporation***").

SECOND: The address of the Corporation's registered office in the State of Delaware is 1209 Orange Street, Wilmington, New Castle County, Delaware 19801. The name of the Corporation's registered agent at such address is The Corporation Trust Company.

THIRD: The purpose of the Corporation is to engage in any lawful act or activity for which corporations may be organized under the General Corporation Law of the State of Delaware (the "***DGCL***"). The Corporation shall have all power necessary or convenient to the conduct, promotion or attainment of such acts and activities.

FOURTH: The total number of shares of all classes of capital stock that the Corporation shall have authority to issue is 1,000 shares of common stock, par value of One Cent ($0.01) per share.

FIFTH: The name of the incorporator is Layton Suchma and his mailing address is 1001 Fannin, Suite 2500, Houston, TX 77002.

SIXTH: In furtherance of, and not in limitation of, the powers conferred by the General Corporation Law of the State of Delaware, the Board of Directors is expressly authorized and empowered to adopt, amend or repeal the bylaws of the Corporation or adopt new bylaws without any action on part of the stockholders; provided that any bylaw adopted or amended by the Board of Directors, and any powers thereby conferred, may be amended, altered or repealed by the stockholders.

SEVENTH: The number of directors of the Corporation shall be as specified, or determined in the manner provided, in the bylaws of the Corporation. Unless and except to the extent that the bylaws of the Corporation so provide, the election of directors need not be by written ballot. Except as otherwise provided in this Certificate of Incorporation, each director of the Corporation shall be entitled to one vote on all matters voted or acted upon by the Board of Directors of the Corporation.

EIGHTH: The business and affairs of the Corporation shall be managed by or under the direction of the Board of Directors of the Corporation.

NINTH: No director of the Corporation shall be 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) under Section 174 of the DGCL or (iv) for any transaction from which the director derived an improper personal benefit. Any repeal or modification of this Article NINTH shall be prospective only and shall not adversely affect any right or protection, or limitation of the liability, of a director of the Corporation existing at, or arising out of facts or incidents occurring prior to, the effective date of such repeal or modification.

TENTH: The Corporation reserves the right at any time, and from time to time, to amend, change or repeal any provision contained in this certificate of incorporation, and other provisions authorized by the laws of the State of Delaware at the time in force may be added or inserted, in the manner now or hereafter prescribed by law; and all rights, preferences and privileges of any nature conferred upon directors, stockholders or any other persons by and pursuant to this certificate of incorporation in its present form or as hereafter amended are granted subject to the rights reserved in this Article TENTH.

[*Remainder of Page Intentionally Left Blank*]

I, the undersigned, being the incorporator hereinbefore named, for the purpose of forming a corporation pursuant to the DGCL, do make this certificate, hereby declaring that this is my act and deed and that the facts herein stated are true, and accordingly have hereunto set my hand on the date first set forth above.

/s/ Layton Suchma
Layton Suchma
Incorporator

SIGNATURE PAGE TO
CERTIFICATE OF INCORPORATION OF
PROFRAC HOLDING CORP.

Exhibit 3.2

**AMENDED AND RESTATED
CERTIFICATE OF INCORPORATION
OF
PROFRAC HOLDING CORP.**

ProFrac Holding Corp. (the "**Corporation**"), a corporation organized and existing under the General Corporation Law of the State of Delaware as set forth in Title 8 of the Delaware Code (the "**DGCL**"), hereby certifies as follows:

1. The original Certificate of Incorporation of the Corporation (the "**Original Certificate of Incorporation**") was filed with the Secretary of State of the State of Delaware on August 17, 2021.

2. This Amended and Restated Certificate of Incorporation (this "**Amended and Restated Certificate of Incorporation**"), which restates and amends the Original Certificate of Incorporation, has been declared advisable and duly adopted by the board of directors of the Corporation (the "**Board**") and the stockholders of the Corporation in accordance with Sections 228, 242 and 245 of the DGCL.

3. The Original Certificate of Incorporation is hereby amended and restated in its entirety to read as follows:

FIRST: The name of the Corporation is ProFrac Holding Corp.

SECOND: The address of its registered office in the State of Delaware is The Corporation Trust Center, 1209 Orange Street, Wilmington, Delaware 19801 in New Castle County, Delaware. The name of its registered agent at such address is The Corporation Trust Company.

THIRD: The nature of the business or purposes to be conducted or promoted by the Corporation is to engage in any lawful act or activity for which corporations may be organized under the DGCL as it currently exists or may hereafter be amended.

FOURTH: The total number of shares of stock that the Corporation shall have the authority to issue is [•] shares of stock, classified as (i) [•] shares of preferred stock, par value $0.01 per share ("**Preferred Stock**"), (ii) [•] shares of Class A common stock, par value $0.01 per share ("**Class A Common Stock**"), and (iii) [•] shares of Class B common stock, par value $0.01 per share ("**Class B Common Stock**" and, together with the Class A Common Stock, the "**Common Stock**").

1. Provisions Relating to Preferred Stock

(a) Preferred Stock may be issued from time to time in one or more classes or series, the shares of each series to have such designations and powers, preferences and rights, and qualifications, limitations and restrictions thereof, as are stated and expressed herein and in the resolution or resolutions providing for the issue of such series adopted by the Board as hereafter prescribed (a "**Preferred Stock Designation**").

(b) Subject to any limitations prescribed by law and the rights of any series of Preferred Stock then outstanding, if any, authority is hereby expressly granted to and vested in the Board to authorize the issuance of Preferred Stock from time to time in one or more classes or series, and with respect to each series of Preferred Stock, to fix and state by the Preferred Stock Designation the powers, preferences, rights, qualifications, limitations and restrictions relating to each series of Preferred Stock, including, but not limited to, the following:

(i) whether or not the series is to have voting rights, full, special or limited, or is to be without voting rights, and whether or not such series is to be entitled to vote as a separate class either alone or together with the holders of one or more other classes or series of stock;

(ii) the number of shares to constitute the series and the designations thereof;

(iii) the preferences, and relative, participating, optional or other special rights, if any, and the qualifications, limitations or restrictions thereof, if any, with respect to any series;

(iv) whether or not the shares of any series shall be redeemable at the option of the Corporation or the holders thereof or upon the happening of any specified event, and, if redeemable, the redemption price or prices (which may be payable in the form of cash, notes, securities or other property), and the time or times at which, and the terms and conditions upon which, such shares shall be redeemable and the manner of redemption;

(v) whether or not the shares of a series shall be subject to the operation of retirement or sinking funds to be applied to the purchase or redemption of such shares for retirement, and, if such retirement or sinking fund or funds are to be established, the annual amount thereof, and the terms and provisions relative to the operation thereof;

(vi) the dividend rate, whether dividends are payable in cash, stock of the Corporation or other property, the conditions upon which and the times when such dividends are payable, the preference to or the relation to the payment of dividends payable on any other class or classes or series of stock, whether or not such dividends shall be cumulative or noncumulative, and if cumulative, the date or dates from which such dividends shall accumulate;

(vii) the preferences, if any, and the amounts thereof which the holders of any series thereof shall be entitled to receive upon the voluntary or involuntary liquidation, dissolution or winding up of, or upon any distribution of the assets of, the Corporation;

(viii) whether or not the shares of any series, at the option of the Corporation or the holder thereof or upon the happening of any specified event, shall be convertible into or exchangeable or redeemable for, the shares of any other class or classes or of any other series of the same or any other class or classes of stock, securities or other property of the Corporation and the conversion price or prices or ratio or ratios or the rate or rates at which such exchange or redemption may be made, with such adjustments, if any, as shall be stated and expressed or provided for in such resolution or resolutions; and

(ix) such other powers, preferences, rights, qualifications, limitations and restrictions with respect to any series as may to the Board seem advisable.

(c) The shares of each series of Preferred Stock may vary from the shares of any other series thereof in any or all of the foregoing respects.

2. <u>Provisions Relating to Common Stock</u>

(a) Except as may otherwise be provided in this Amended and Restated Certificate of Incorporation, each share of Common Stock shall have identical rights and privileges in every respect. Common Stock shall be subject to the express terms of Preferred Stock and any series thereof. Except as may otherwise be provided in this Amended and Restated Certificate of Incorporation, in a Preferred Stock Designation or by applicable law, the holders of shares of Common Stock shall be entitled to one vote for each such share on all matters to which stockholders are entitled to vote, the holders of shares of Common Stock shall have the exclusive right to vote for the election of directors and on all other matters upon which stockholders are entitled to vote, and the holders of Preferred Stock shall not be entitled to vote at or receive notice of any meeting of stockholders, other than as provided in any Preferred Stock Designation. Each holder of Common Stock shall be entitled to notice of any stockholders' meeting in accordance with the bylaws of the Corporation (as in effect at the time in question) and applicable law on all matters put to a vote of the stockholders of the Corporation. Except as otherwise required in this Amended and Restated Certificate of Incorporation or by applicable law, the holders of Common Stock shall vote together as a single class on all matters (or, if any holders of Preferred Stock are entitled to vote together with the holders of Common Stock, the holders of Common Stock and the Preferred Stock shall vote together as a single class).

(b) Notwithstanding the foregoing, except as otherwise required by applicable law, holders of Common Stock, as such, shall not be entitled to vote on any amendment to this Amended and Restated Certificate of Incorporation (including any Preferred Stock Designation) that relates solely to the terms of one or more outstanding series of Preferred Stock if the holders of such affected series are entitled, either separately or together with the holders of one or more other such series, to vote thereon pursuant to this Amended and Restated Certificate of Incorporation (including any Preferred Stock Designation) or pursuant to the DGCL.

(c) Subject to the prior rights and preferences, if any, applicable to shares of Preferred Stock or any series thereof, the holders of shares of Class A Common Stock shall be entitled to receive ratably in proportion to the number of shares of Class A Common Stock held by them such dividends and distributions (payable in cash, stock or otherwise), if any, as may be declared thereon by the Board at any time and from time to time out of any funds of the Corporation legally available therefor. Dividends and other distributions shall not be declared or paid on the Class B Common Stock unless (i) the dividend consists of shares of Class B Common Stock or of rights, options, warrants or other securities convertible into or exercisable, exchangeable or redeemable for, shares of Class B Common Stock paid proportionally with respect to each outstanding share of 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 into or exercisable, exchangeable or redeemable for, shares of Class A Common Stock on equivalent terms is simultaneously paid to the holders of Class A Common Stock. If dividends are declared on the Class A Common Stock or the Class B Common Stock that are payable in shares of Common Stock, or securities convertible into, or exercisable, exchangeable or redeemable for, Common Stock, the dividends payable to the holders of Class A Common Stock shall be paid only in shares of Class A Common Stock (or securities convertible into, or exercisable, exchangeable or redeemable for, Class A Common Stock), the dividends payable to the holders of Class B Common Stock shall be paid only in shares of Class B Common Stock (or securities convertible into, or exercisable, exchangeable or redeemable for, Class B Common Stock), and such dividends shall be paid in the same number of shares (or fraction thereof) on a per share basis of the Class A Common Stock and Class B Common Stock, respectively (or securities convertible into, or exercisable, exchangeable or redeemable for, the same number of shares (or fraction thereof) on a per share basis of the Class A Common Stock and Class B Common Stock, respectively). In no event shall the shares of either Class A Common Stock or Class B Common Stock be split, divided, or combined unless the outstanding shares of the other class shall be proportionately split, divided or combined.

(d) In the event of any voluntary or involuntary liquidation, dissolution or winding-up of the Corporation, after distribution in full of the preferential amounts, if any, to be distributed to the holders of shares of Preferred Stock or any series thereof, the holders of shares of Class A Common Stock shall be entitled to receive all of the remaining assets of the Corporation available for distribution to its stockholders, ratably in proportion to the number of shares of Class A Common Stock held by them. The holders of shares of Class B Common Stock, as such, shall not be entitled to receive any assets of the Corporation in the event of any voluntary or involuntary liquidation, dissolution or winding up of the affairs of the Corporation. A dissolution, liquidation or winding-up of the Corporation, as such terms are used in this paragraph (d), shall not be deemed to be occasioned by or to include any consolidation or merger of the Corporation with or into any other corporation or corporations or other entity or a sale, lease, exchange or conveyance of all or a part of the assets of the Corporation.

(e) Shares of Class B Common Stock may be issued or transferred only in connection with the simultaneous issuance or transfer of an identical number of Units. Any purported issuance or transfer of shares of Class B Common Stock not accompanied by an issuance or transfer of the identical number of Units shall be null and void and of no force or effect, and the shares of Class B Common Stock so issued or transferred shall automatically and without further action on the part of the Corporation or any holder of Class B Common Stock be transferred to the Corporation and cancelled for no consideration and thereupon shall be retired. For this purpose "**Unit**" means a membership interest of ProFrac Holdings, LLC, a Delaware limited liability company, or any successor entity, that constitutes a "Unit" as defined in the Third Amended and Restated Limited Liability Company Agreement of ProFrac Holdings, LLC, dated as of [•], 2021, or the limited liability company agreement or other similar document of such successor entity, as the relevant agreement may be further amended, restated, supplemented and otherwise modified from time to time (the "**LLC Agreement**").

(f) The Corporation will at all times reserve and keep available out of its authorized but unissued shares of Class A Common Stock, such number of shares of Class A Common Stock that shall from time to time be sufficient to effect the redemption of all outstanding Units that are subject to the Redemption Right (as defined in the LLC Agreement) for shares of Class A Common Stock; provided that nothing contained herein shall be construed to preclude the Corporation from satisfying its obligations in respect of any such redemption by delivery of cash in lieu of shares of Class A Common Stock in the amount permitted by and provided in the LLC Agreement or shares of Class A Common Stock which are held in the treasury of the Corporation. All shares of Class A Common Stock that shall be issued upon any such redemption will, upon issuance in accordance with the LLC Agreement, be validly issued, fully paid and non-assessable.

(g) No stockholder shall, by reason of the holding of shares of any class or series of capital stock of the Corporation, have any preemptive or preferential right to acquire or subscribe for any shares or securities of any class, whether now or hereafter authorized, which may at any time be issued, sold or offered for sale by the Corporation, unless specifically provided for in the terms of a series of Preferred Stock.

3. The number of authorized shares of Class A Common Stock, Class B Common Stock or Preferred Stock may be increased or decreased (but not below the number of shares thereof then outstanding) by the affirmative vote of the holders of a majority in voting power of the outstanding shares of stock of the Corporation entitled to vote thereon, and no vote of the holders of Class A Common Stock, Class B Common Stock or Preferred Stock, or of any series thereof, voting separately as a class shall be required therefor, irrespective of the provisions of Section 242(b)(2) of the DGCL (or any successor provision thereto).

FIFTH: The business and affairs of the Corporation shall be managed by or under the direction of the Board. Until the first date on which the Principal Stockholders (as such term is defined in the Stockholders' Agreement among the Corporation and the Principal Stockholders, dated as of [•], 2021, as it may be amended, restated, supplemented and otherwise modified from time to time (the "**Stockholders' Agreement**")) no longer individually or collectively beneficially own (or otherwise have the right to vote or direct the vote of) more than 50% of the outstanding shares of Common Stock (the "**Trigger Date**"), the directors, other than those who may be elected by the holders of any series of Preferred Stock specified in the related Preferred Stock Designation, shall consist of a single class, with the initial term of office to expire at the[•] annual meeting of stockholders, and each director shall hold office until his or her successor shall have been duly elected and qualified, subject, however, to such director's earlier death, resignation, disqualification or removal. For purposes of this Amended and Restated Certificate of Incorporation, beneficial ownership of shares shall be determined in accordance with Rule 13d-3 promulgated under the Securities Exchange Act of 1934, as amended. Prior to the Trigger Date, at each annual meeting of stockholders, directors elected to succeed those directors whose terms then expire shall be elected for a term of office to expire at the next succeeding annual meeting of stockholders after their election, with each director to hold office until his or her successor shall have been duly elected and qualified, subject, however, to such director's earlier death, resignation, disqualification or removal.

On and after the Trigger Date, the directors, other than those who may be elected by the holders of any series of Preferred Stock specified in the related Preferred Stock Designation, shall be divided, with respect to the time for which they severally hold office, into three classes, as nearly equal in number as is reasonably possible, with the initial term of office of the first class to expire at the first annual meeting of stockholders following the Trigger Date, the initial term of office of the second class to expire at the second annual meeting of stockholders following the Trigger Date, and the initial term of office of the third class to expire at the third annual meeting of stockholders following the Trigger Date, with each director to hold office until his or her successor shall have been duly elected and qualified, subject, however, to such director's earlier death, resignation, disqualification or removal, and the Board shall be authorized to assign members of the Board, other than those directors who may be elected by the holders of any series of Preferred Stock, to such classes at the time such classification is to become effective. At each annual meeting of stockholders following the Trigger Date, directors elected to succeed those directors whose terms then expire shall be elected for a term of office to expire at the third succeeding annual meeting of stockholders after their election, with each director to hold office until his or her successor shall have been duly elected and qualified, subject, however, to such director's earlier death, resignation, disqualification or removal.

Subject to applicable law, the rights of the holders of any series of Preferred Stock then outstanding and the then-applicable terms of the Stockholders' Agreement, any newly created directorship that results from an increase in the number of directors or any vacancy on the Board that results from the death, resignation, disqualification or removal of any director or from any other cause shall, unless otherwise required by law, be filled (A) prior to the Trigger Date, by the affirmative vote of a majority of the total number of directors then in office, even if less than a quorum, or by a sole remaining director, or by the affirmative vote of the holders of a majority of the voting power of the outstanding shares of stock of the Corporation entitled to vote generally for the election of directors, voting together as a single class and acting at a meeting of the stockholders or by written consent (if permitted) in accordance with the DGCL, this Amended and Restated Certificate of Incorporation and the bylaws of the Corporation, and (B) on or after the Trigger Date, solely by the affirmative vote of a majority of the total number of directors then in office, even if less than a quorum, or by a sole remaining director, and shall not be filled by the stockholders. Any director elected to fill a vacancy not resulting from an increase in the number of directors shall hold office for the remaining term of his or her predecessor. No decrease in the number of authorized directors constituting the Board shall shorten the term of any incumbent director.

Prior to the Trigger Date, subject to the rights of the holders of shares of any series of Preferred Stock, if any, to elect directors pursuant to this Amended and Restated Certificate of Incorporation (including any Preferred Stock Designation thereunder) and the then-applicable terms of the Stockholders' Agreement, any director may be removed at any time, either for or without cause, upon the affirmative vote of the holders of a majority of the voting power of the outstanding shares of stock of the Corporation entitled to vote generally for the election of directors, voting together as a single class and acting at a meeting of the stockholders or by written consent (if permitted) in accordance with the DGCL, this Amended and Restated Certificate of Incorporation and the bylaws of the Corporation. Notwithstanding the foregoing, in the event that a stockholder party to the Stockholders' Agreement provides notice to the Corporation to remove a director designated by such stockholder pursuant to the terms of the Stockholders' Agreement, the Corporation may take all necessary action to cause such removal, to the extent permitted by applicable law.

On and after the Trigger Date, subject to the rights of the holders of shares of any series of Preferred Stock, if any, to elect directors pursuant to this Amended and Restated Certificate of Incorporation (including any Preferred Stock Designation thereunder) and the then-applicable terms of the Stockholders' Agreement, any director may be removed only for cause, upon the affirmative vote of the holders of at least 66 2/3% of the outstanding shares of stock of the Corporation entitled to vote generally for the election of directors, voting together as a single class and acting at a meeting of the stockholders or by written consent (if permitted) in accordance with the DGCL, this Amended and Restated Certificate of Incorporation and the bylaws of the Corporation.

Subject to applicable law, the Stockholders' Agreement and the rights of the holders of any series of Preferred Stock to elect directors under specified circumstances, if any, the number of directors shall be fixed from time to time exclusively pursuant to a resolution adopted by a majority of the Board, provided that the initial number of directors shall be five (5). Unless and except to the extent that the bylaws of the Corporation so provide, the election of directors need not be by written ballot. There shall be no cumulative voting in the election of directors.

Prior to the Trigger Date, on any matter to be voted on or consented to by the Board (i) each director other than any Farris Director and any THRC Director (as such terms are defined in the Stockholders' Agreement and, collectively, the "**Wilks Directors**") (the "**Non-Wilks Directors**") shall be entitled to cast one (1) vote, (ii) the Wilks Directors shall collectively be entitled to cast an aggregate number of votes equal to (x) the total number of directors constituting the entire Board, *minus* (y) the total number of Wilks Directors then serving on the Board, *plus* (z) one (1) (such aggregate number of votes, the "**Aggregate Wilks Director Voting Power**"), such that, at any time, the Wilks Directors in office at such time shall collectively be entitled to cast a majority of the votes that may be cast by the directors, and (iii) each Wilks Director voting on a matter or participating in a consent shall be entitled to cast a number of votes with respect to such matter (including any fractions thereof) equal to the quotient of (A) the Aggregate Wilks Director Voting Power, divided by (B) the number of Wilks Directors voting on such matter or participating in such consent. Any Wilks Director who attends a Board meeting but elects to abstain from voting, or otherwise elects not to participate in a vote or consent, on a matter shall, upon such election, be deemed to have no voting or consent rights solely for purposes of the vote or consent being taken on such matter, with the Aggregate Wilks Director Voting Power being thereby vested in the other Wilks Director for the vote being taken on such matter. Prior to the Trigger Date, unless otherwise waived by any Wilks Director not attending a Board meeting, or in the event that a Wilks Director is incapacitated, each of the Wilks Directors must be present in order to establish a quorum for the transaction of business by the Board.

Prior to the Trigger Date, on any matter to be voted on or consented to by any committee or subcommittee of the Board (i) each Non-Wilks Director serving on such committee or subcommittee shall be entitled to cast one (1) vote, (ii) the Wilks Directors serving on such committee or subcommittee shall collectively be entitled to cast an aggregate number of votes equal to (x) the total number of directors constituting such entire committee or subcommittee, *minus* (y) the total number of Wilks Directors then serving on such committee or subcommittee, *plus* (z) one (1) (such aggregate number of votes with respect to any committee or subcommittee, the "**Aggregate Wilks Director Committee Voting Power**"), such that, at any time, the Wilks Directors shall collectively be entitled to cast a majority of the votes that may be cast by the directors serving on such committee or subcommittee, and (iii) each Wilks Director serving on such committee or subcommittee voting on a matter or participating in a consent shall be entitled to cast a number of votes with respect to such matter (including any fractions thereof) equal to the quotient of (A) the Aggregate Wilks Director Committee Voting Power, divided by (B) the number of Wilks Directors voting on such matter or participating in such consent. Any Wilks Director who attends a committee or subcommittee meeting but elects to abstain from voting, or otherwise elects not to participate in a vote or consent, on a matter shall, upon such election, be deemed to have no voting or consent rights solely for purposes of the vote or consent being taken on such matter, with the Aggregate Wilks Director Committee Voting Power being thereby vested in the other Wilks Director for the vote being taken on such matter. Prior to the Trigger Date, unless otherwise waived by any Wilks Director not attending a committee or subcommittee meeting, or in the event that a Wilks Director is incapacitated, each of the Wilks Directors who is a member of such committee or subcommittee must be present in order to establish a quorum for the transaction of business by any such committee or subcommittee.

Prior to the Trigger Date, any reference in this Amended and Restated Certificate of Incorporation or in the bylaws of the Corporation or in the Stockholders' Agreement to a majority or other proportion of the directors shall refer to a majority or other proportion of the votes of the directors.

The directors present at a duly organized meeting of the Board, or of any committee or subcommittee of the Board, may continue to transact business until adjournment, notwithstanding the withdrawal of enough directors to leave less than a quorum.

On and after the Trigger Date, each director, including the Wilks Directors, if any, shall be entitled to cast one (1) vote on all matters to be voted on or consented to by the Board, or by any committee or subcommittee of the Board.

SIXTH: Prior to the Trigger Date, any action required or permitted to be taken at any annual meeting or special meeting of the stockholders of the Corporation may be taken without a meeting, without prior notice and without a vote of stockholders, if a consent or consents, setting forth the action so taken, is or are signed by the holders of outstanding stock having not less than the minimum number of votes that would be necessary to authorize or take such action at a meeting at which all shares entitled to vote thereon were present and voted. On and after the Trigger Date, subject to the rights of holders of any series of Preferred Stock with respect to such series of Preferred Stock, any action required or permitted to be taken by the stockholders of the Corporation must be taken at a duly held annual or special meeting of stockholders and may not be taken by any consent of such stockholders.

SEVENTH: Special meetings of stockholders of the Corporation may be called only by the Executive Chairman, the Chief Executive Officer or, pursuant to a resolution adopted by a majority of the total number of directors that the Corporation would have if there were no vacancies, by the Board; *provided, however*, that prior to the Trigger Date, special meetings of the stockholders of the Corporation shall also be called by the Secretary of the Corporation at the request of the holders of record of more than 50% of the outstanding shares of Common Stock. The authorized person(s) calling a special meeting may fix the date, time and place, if any, of such meeting; *provided, however*, that if the Secretary of the Corporation is calling a special meeting at the request of the holders of record of more than 50% of the outstanding shares of Common Stock, such stockholders may fix the date, time and place, if any, of such meeting. On and after the Trigger Date, except as otherwise required by law and subject to the rights of the holders of any series of Preferred Stock, the stockholders of the Corporation do not have the power to call a special meeting of stockholders of the Corporation. The Board may postpone, reschedule or cancel any special meeting of the stockholders previously scheduled by the Board. Holders of record of more than 50% of the outstanding shares of Common Stock requesting a special meeting may postpone, reschedule or cancel any special meeting of the stockholders previously scheduled by or on behalf of such stockholders.

EIGHTH: In furtherance of, and not in limitation of, the powers conferred by the laws of the State of Delaware, the Board is expressly authorized to adopt, amend or repeal the bylaws of the Corporation without any action on the part of the stockholders of the Corporation; *provided, however*, that, in addition to any vote of the holders of any class or series of stock of the Corporation required by law or by this Amended and Restated Certificate of Incorporation, any bylaw adopted or amended by the Board, and any powers thereby conferred, may be amended, altered or repealed (A) prior to the Trigger Date, by the affirmative vote of holders of not less than 50% in voting power of the then-outstanding shares of stock entitled to vote thereon, voting together as a single class, and (B) on and after the Trigger Date, by the affirmative vote of holders of not less than 66 2/3% in voting power of the then-outstanding shares of stock entitled to vote thereon, voting together as a single class. No bylaws hereafter made or adopted, nor any repeal of or amendment thereto, shall invalidate any prior act of the Board that was valid at the time it was taken.

NINTH:

(a) No director of the Corporation shall be personally liable to the Corporation or its stockholders for monetary damages for breach of fiduciary duty as a director, except to the extent such exemption from liability or limitation thereof is not permitted under the DGCL as it now exists. In addition to the circumstances in which a director of the Corporation is not personally liable as set forth in the preceding sentence, a director of the Corporation shall not be liable to the fullest extent permitted by any amendment to the DGCL hereafter enacted that further limits the liability of a director. No amendment to or repeal or modification of this Article Ninth shall apply to or have any effect on the liability or alleged liability of any director of the Corporation for or with respect to any acts or omissions of such director occurring prior to such amendment, repeal or modification.

(b) The Corporation may, to the fullest extent permitted by Section 145 of the DGCL, as it currently exists or may hereafter be amended, indemnify any and all persons whom it shall have power to indemnify under said section from and against any and all of the expenses, liabilities or other matters referred to in or covered by said section, and the indemnification provided for herein shall not be deemed exclusive of any other rights to which a person indemnified may be entitled under the bylaws of the Corporation or any agreement, vote of stockholders or disinterested directors or otherwise, both as to action in his or her official capacity and as to action in another capacity while holding such office, and shall continue as to a person who has ceased to be a director, officer, employee or agent and shall inure to the benefit of the heirs, executors and administrators of such a person.

TENTH: To the fullest extent permitted by applicable law, the Corporation, on behalf of itself and its subsidiaries, renounces any interest or expectancy of the Corporation and its subsidiaries in, or in being offered an opportunity to participate in, any business opportunities that are from time to time presented to any of the Principal Stockholders or any of their respective affiliates or any of their respective agents, shareholders, members, partners, directors, officers, employees, affiliates or subsidiaries (other than the Corporation and its subsidiaries), including any director or officer of the Corporation who is also an agent, shareholder, member, partner, director, officer, employee, affiliate or subsidiary of any Principal Stockholder (each, a "**Business Opportunities Exempt Party**"), even if the business opportunity is one that the Corporation or its subsidiaries might reasonably be deemed to have pursued or had the ability or desire to pursue if granted the opportunity to do so, and no Business Opportunities Exempt Party shall have any duty to communicate or offer any such business opportunity to the Corporation or be liable to the Corporation or any of its subsidiaries or any stockholder, including for breach of any fiduciary or other duty, as a director or officer or controlling stockholder or otherwise, and the Corporation shall indemnify each Business Opportunities Exempt Party against any claim that such person is liable to the Corporation or its stockholders for breach of any fiduciary duty, by reason of the fact that such person (i) participates in, pursues or acquires any such business opportunity, (ii) directs any such business opportunity to another person or (iii) fails to present any such business opportunity, or information regarding any such business opportunity, to the Corporation or its subsidiaries, unless, in the case of a person who is a director or officer of the Corporation, such business opportunity is expressly offered to such director or officer in writing solely in his or her capacity as a director or officer of the Corporation.

Neither the amendment nor repeal of this Article Tenth, nor the adoption of any provision of this Amended and Restated Certificate of Incorporation or the bylaws of the Corporation, nor, to the fullest extent permitted by Delaware law, any modification of law, shall eliminate, reduce or otherwise adversely affect any right or protection of any person granted pursuant hereto existing at, or arising out of or related to any event, act or omission that occurred prior to, the time of such amendment, repeal, adoption or modification (regardless of when any proceeding (or part thereof) relating to such event, act or omission arises or is first threatened, commenced or completed).

If any provision or provisions of this Article Tenth shall be held to be invalid, illegal or unenforceable as applied to any circumstance for any reason whatsoever, (a) the validity, legality and enforceability of such provisions in any other circumstance and of the remaining provisions of this Article Tenth (including, without limitation, each portion of any paragraph of this Article Tenth containing any such provision held to be invalid, illegal or unenforceable that is not itself held to be invalid, illegal or unenforceable) shall not in any way be affected or impaired thereby and (b) to the fullest extent possible, the provisions of this Article Tenth (including, without limitation, each such portion of any paragraph of this Article Tenth containing any such provision held to be invalid, illegal or unenforceable) shall be construed so as to permit the Corporation to protect its directors, officers, employees and agents from personal liability in respect of their good faith service to or for the benefit of the Corporation to the fullest extent permitted by applicable law.

This Article Tenth shall not limit any protections or defenses available to, or indemnification or advancement rights of, any director or officer of the Corporation under this Amended and Restated Certificate of Incorporation, the bylaws of the Corporation, applicable law, or otherwise. To the fullest extent permitted by law, any person or entity purchasing or otherwise acquiring any interest in any securities of the Corporation shall be deemed to have notice of and to have consented to the provisions of this Article Tenth.

ELEVENTH: The Corporation shall not be governed by or subject to the provisions of Section 203 of the DGCL as now in effect or hereafter amended, or any successor statute thereto.

TWELFTH: The Corporation shall have the right, subject to any express provisions or restrictions contained in this Amended and Restated Certificate of Incorporation or the bylaws of the Corporation, from time to time, to amend this Amended and Restated Certificate of Incorporation or any provision hereof in any manner now or hereafter provided by applicable law, and all rights and powers of any kind conferred upon a director or stockholder of the Corporation by this Amended and Restated Certificate of Incorporation or any amendment hereof are subject to such right of the Corporation.

THIRTEENTH: Notwithstanding any other provision of this Amended and Restated Certificate of Incorporation or the bylaws of the Corporation (and in addition to any other vote that may be required by applicable law or this Amended and Restated Certificate of Incorporation), (i) prior to the Trigger Date, the affirmative vote of the holders of a majority in voting power of the outstanding shares of stock of the Corporation entitled to vote thereon, voting together as a single class, shall be required to amend, alter or repeal any provision of this Amended and Restated Certificate of Incorporation, and (ii) on and after the Trigger Date, the affirmative vote of the holders of at least 66 2/3% in voting power of the outstanding shares of stock of the Corporation entitled to vote thereon, voting together as a single class, shall be required to amend, alter or repeal any provision of this Amended and Restated Certificate of Incorporation.

FOURTEENTH: Unless the Corporation consents in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware, or, if such court does not have subject matter jurisdiction thereof, the federal district court of the State of Delaware, shall, to the fullest extent permitted by applicable law, be the sole and exclusive forum for (i) any derivative action or proceeding brought on behalf of the Corporation, (ii) any action asserting a claim of breach of a fiduciary duty owed by any current or former director, officer, employee or stockholder of the Corporation to the Corporation or the Corporation’s stockholders, (iii) any action asserting a claim arising pursuant to any provision of the DGCL, this Amended and Restated Certificate of Incorporation or the Corporation’s bylaws (as either may be amended or restated) or as to which the DGCL confers jurisdiction on the Court of Chancery of the State of Delaware, or (iv) any action asserting a claim governed by the internal affairs doctrine, in each such case subject to said Court of Chancery having personal jurisdiction over the indispensable parties named as defendants therein. The federal district courts of the United States shall be the exclusive forum for the resolution of any complaint asserting a cause of action arising under the Securities Act of 1933, as amended. To the fullest extent permitted by law, any person or entity purchasing or otherwise acquiring any interest in shares of capital stock of the Corporation shall be deemed to have notice of and consented to the provisions of this Article Fourteenth.

If any provision or provisions of this Article Fourteenth shall be held to be invalid, illegal or unenforceable as applied to any person or entity or circumstance for any reason whatsoever, then, to the fullest extent permitted by law, the validity, legality and enforceability of such provisions in any other circumstance and of the remaining provisions of this Article Fourteenth (including, without limitation, each portion of any sentence of this Article Fourteenth containing any such provision held to be invalid, illegal or unenforceable that is not itself held to be invalid, illegal or unenforceable) and the application of such provision to other persons or entities and circumstances shall not in any way be affected or impaired thereby. The provisions of this Article Fourteenth shall not apply to actions brought to enforce any liability or duty created by the Securities Exchange Act of 1934, as amended.

To the fullest extent permitted by law, if any action the subject matter of which is within the scope of the first paragraph of this Article Fourteenth is filed in a court other than a court located within the State of Delaware (a “**Foreign Action**”) in the name of any stockholder, such stockholder shall be deemed to have consented to (A) the personal jurisdiction of the state and federal courts located within the State of Delaware in connection with any action brought in any such court to enforce the first paragraph of this Article Fourteenth (an “**FSC Enforcement Action**”) and (B) having service of process made upon such stockholder in any such FSC Enforcement Action by service upon such stockholder’s counsel in the Foreign Action as agent for such stockholder.

FIFTEENTH: For as long as the Stockholders' Agreement remains in effect, to the fullest extent permitted by law, in the event of any conflict between the terms and provisions of this Amended and Restated Certificate of Incorporation and those contained in the Stockholder's' Agreement, the terms and provisions of the Stockholders' Agreement shall govern and control except as provided otherwise by mandatory provisions of the DGCL.

[*remainder of page intentionally left blank*]

IN WITNESS WHEREOF, the undersigned has executed this Amended and Restated Certificate of Incorporation as of this [•] day of [•], 2021.

PROFRAC HOLDING CORP.

By: ______________________________
Name: ______________________________
Title: ______________________________

[*Signature Page to ProFrac Holding Corp. Amended and Restated Certificate of Incorporation*]

Exhibit 3.3

BYLAWS

OF

PROFRAC HOLDING CORP.

A Delaware Corporation

Date of Adoption:

August 31, 2021

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ARTICLE I
OFFICES

Section 1. Registered Office. The registered office of ProFrac Holding Corp.(the "***Corporation***") required by the General Corporation Law of the State of Delaware (the "***DGCL***") to be maintained in the State of Delaware, shall be the registered office named in the original Certificate of Incorporation of the Corporation (as the same may be amended and restated from time to time, the "***Certificate of Incorporation***"), or such other office as may be designated from time to time by the Board of Directors of the Corporation (the "***Board of Directors***") in the manner provided by law. Should the Corporation maintain a principal office within the State of Delaware, such registered office need not be identical to such principal office of the Corporation.

Section 2. Other Offices. The Corporation may have offices at such other places both within and without the State of Delaware as the Board of Directors may from time to time determine or as the business of the Corporation may require.

ARTICLE II
STOCKHOLDERS

Section 1. Place of Meetings. All meetings of the stockholders shall be held at the principal office of the Corporation, or at such other place within or without the State of Delaware as shall be specified or fixed in the notices or waivers of notice thereof.

Section 2. Quorum; Adjournment of Meetings. Unless otherwise required by law or provided in the Certificate of Incorporation or these bylaws, the holders of shares of stock with a majority of the voting power entitled to vote thereat, present in person or represented by proxy, shall constitute a quorum at any meeting of stockholders for the transaction of business and the act of the holders of a majority of the voting power of such stock so represented at any meeting of stockholders at which a quorum is present shall constitute the act of the meeting of stockholders. The stockholders present at a duly organized meeting may continue to transact business until adjournment, notwithstanding the withdrawal of enough stockholders to leave less than a quorum.

Notwithstanding the other provisions of the Certificate of Incorporation or these bylaws, the chairman of the meeting or the holders of shares of stock with a majority of the voting power present in person or represented by proxy at any meeting of stockholders, whether or not a quorum is present, shall have the power to adjourn such meeting from time to time, without any notice other than announcement at the meeting of the time and place of the holding of the adjourned meeting; provided, however, if the adjournment is for more than thirty (30) days, or if after the adjournment a new record date is fixed for the adjourned meeting, a notice of the adjourned meeting shall be given to each stockholder of record entitled to vote at such meeting. At any such adjourned meeting at which a quorum shall be present or represented any business may be transacted which might have been transacted at the meeting as originally called.

Section 3. Annual Meetings. An annual meeting of the stockholders, for the election of directors to succeed those whose terms expire and for the transaction of such other business as may properly come before the meeting, shall be held at such place, within or without the State of Delaware, on such date, and at such time as the Board of Directors shall fix and set forth in the notice of the meeting.

Section 4. Special Meetings. Unless otherwise provided in the Certificate of Incorporation, special meetings of the stockholders for any purpose or purposes may be called at any time by the Chairman of the Board (if any), by the Chief Executive Officer or by a majority of the Board of Directors and shall be called by the Chairman of the Board (if any), by the Chief Executive Officer or the Secretary.

Section 5. Record Date. For the purpose of determining stockholders entitled to notice of or to vote at any meeting of stockholders, or any adjournment thereof, or entitled to express consent to corporate action in writing without a meeting, or entitled to receive payment of any dividend or other distribution or allotment of any rights, or entitled to exercise any rights in respect of any change, conversion or exchange of stock or for the purpose of any other lawful action, the Board of Directors may fix, in advance, a date as the record date for any such determination of stockholders, which date shall not be more than sixty (60) days nor less than ten (10) days before the date of such meeting, nor more than sixty (60) days prior to any other action.

If the Board of Directors does not fix a record date for any meeting of the stockholders, the record date for determining stockholders entitled to notice of or to vote at such meeting shall be at the close of business on the day next preceding the day on which notice is given, or, if in accordance with ARTICLE VIII Section 3 of these bylaws, notice is waived, at the close of business on the day next preceding the day on which the meeting is held. If, in accordance with Section 12 of this ARTICLE II, corporate action without a meeting of stockholders is to be taken, the record date for determining stockholders entitled to express consent to such corporate action in writing, when no prior action by the Board of Directors is necessary, shall be the day on which the first written consent is expressed. The record date for determining stockholders for any other purpose shall be at the close of business on the day on which the Board of Directors adopts the resolution relating thereto.

A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; provided, however, that the Board of Directors may fix a new record date for the adjourned meeting.

Section 6. Notice of Meetings. Written notice of the place, date and hour of all meetings, and, in case of a special meeting, the purpose or purposes for which the meeting is called, shall be given by or at the direction of the Chairman of the Board (if any) or the Chief Executive Officer, the Secretary or the other person(s) calling the meeting to each stockholder entitled to vote thereat and shall be delivered not less than ten (10) nor more than sixty (60) days before the date of the meeting, personally, by electronic transmission or by mail. If mailed, notice is given when deposited in the United States mail, postage prepaid, directed to the stockholder at his or her address as it appears on the records of the Corporation. The Corporation may provide stockholders with notice of a meeting by electronic transmission provided such stockholders have consented to receiving electronic notice.

Section 7. Stock List. A complete list of stockholders entitled to vote at any meeting of stockholders, arranged in alphabetical order for each class of stock and showing the address of each such stockholder and the number of shares registered in the name of such stockholder, shall be open to the examination of any stockholder, for any purpose germane to the meeting, during ordinary business hours, for a period of at least ten (10) days prior to the meeting, either on a reasonably accessible electronic network, provided that the information required to gain access to the list is provided with the notice of the meeting, or during ordinary business hours, at the principal place of business of the Corporation. The stockholder list shall also be produced and kept at the time and place of the meeting during the whole time thereof, and may be inspected by any stockholder who is present. If the meeting is to be held solely by means of remote communication, then the list shall also be open to the examination of any stockholder during the whole time of the meeting on a reasonably accessible electronic network, and the information required to access such list shall be provided with the notice of the meeting.

Section 8. Proxies. Each stockholder entitled to vote at a meeting of stockholders or to express consent or dissent to a corporate action in writing without a meeting may authorize another person or persons to act for him by proxy. Proxies for use at any meeting of stockholders shall be filed with the Secretary, or such other officer as the Board of Directors may from time to time determine by resolution, before or at the time of the meeting. All proxies shall be received and taken charge of and all ballots shall be received and canvassed by the secretary of the meeting who shall decide all questions touching upon the qualification of voters, the validity of the proxies, and the acceptance or rejection of votes, unless an inspector or inspectors shall have been appointed by the chairman of the meeting, in which event such inspector or inspectors shall decide all such questions.

No proxy shall be valid after three (3) years from its date, unless the proxy provides for a longer period. Each proxy shall be revocable unless expressly provided therein to be irrevocable and coupled with an interest sufficient in law to support an irrevocable power.

Should a proxy designate two (2) or more persons to act as proxies, unless such instrument shall provide the contrary, a majority of such persons present at any meeting at which their powers thereunder are to be exercised shall have and may exercise all the powers of voting or giving consents thereby conferred, or if only one be present, then such powers may be exercised by that one; or, if an even number attend and a majority do not agree on any particular issue, each proxy so attending shall be entitled to exercise such powers in respect of the same portion of the shares as he or she is of the proxies representing such shares.

Section 9. Voting; Elections; Inspectors. Unless otherwise required by law or provided in the Certificate of Incorporation, each stockholder shall have one vote for each share of stock entitled to vote which is registered in his or her name on the record date for the meeting. Shares registered in the name of another corporation, domestic or foreign, may be voted by such officer, agent or proxy as the bylaw (or comparable instrument) of such corporation may prescribe, or in the absence of such provision, as the Board of Directors (or comparable body) of such corporation may determine. Shares registered in the name of a deceased person may be voted by his or her executor or administrator, either in person or by proxy.

All voting, except as required by the Certificate of Incorporation or where otherwise required by law, may be by a voice vote; provided, however, that upon demand therefor by stockholders holding shares of stock representing a majority of the voting power present in person or by proxy at any meeting a written ballot vote shall be taken. Unless otherwise provided in the Certificate of Incorporation or these bylaws, directors shall be elected by a plurality of the votes cast by the holders of shares of stock entitled to vote in the election of directors at a meeting of stockholders at which a quorum is present. All other elections and questions presented to the stockholders at a meeting at which a quorum is present shall, unless otherwise provided by the Certificate of Incorporation, these bylaws, the rules or regulations of any stock exchange applicable to the Corporation or applicable law or pursuant to any regulation applicable to the Corporation or its securities, be decided by the affirmative vote of the holders of a majority in voting power of the shares of stock of the Corporation which are present in person or by proxy and entitled to vote thereon. Every stock vote shall be taken by written ballots, each of which shall state the name of the stockholder or proxy voting and such other information as may be required under the procedure established for the meeting.

At any meeting at which a vote is taken by ballots, the chairman of the meeting may appoint one or more inspectors, each of whom shall subscribe an oath or affirmation to execute faithfully the duties of inspector at such meeting with strict impartiality and according to the best of his or her ability. Such inspector shall ascertain the number of shares of capital stock of the Corporation outstanding and the voting power of each such share, determine the shares of capital stock of the Corporation represented at the meeting and the validity of proxies and ballots, count all votes and ballots, determine and retain for a reasonable period a record of the disposition of any challenges made to any determination by the inspectors and certify their determination of the number of shares of capital stock of the Corporation represented at the meeting and such inspectors' count of all votes and ballots. Such certification and report shall specify such other information as may be required by law. In determining the validity and counting of proxies and ballots cast at any meeting of stockholders of the Corporation, the inspectors may consider such information as is permitted by applicable law. The chairman of the meeting may appoint any person to serve as inspector, except no candidate for the office of director shall be appointed as an inspector.

Unless otherwise provided in the Certificate of Incorporation, cumulative voting for the election of directors shall be prohibited.

Section 10. Conduct of Meetings. The meetings of the stockholders shall be presided over by the Chairman of the Board (if any), or if he or she is not present, by the Chief Executive Officer, or if neither the Chairman of the Board (if any), nor Chief Executive Officer is present, by a chairman elected at the meeting. The Secretary of the Corporation, if present, shall act as secretary of such meetings, or if he or she is not present, an Assistant Secretary shall so act; if neither the Secretary nor an Assistant Secretary is present, then a secretary shall be appointed by the chairman of the meeting. The chairman of any meeting of stockholders shall determine the order of business and the procedure at the meeting, including such regulation of the manner of voting and the conduct of discussion as seem to him in order. Unless the chairman of the meeting of stockholders shall otherwise determine, the order of business shall be as follows:

(a) Calling of meeting to order.

(b) Election of a chairman and the appointment of a secretary if necessary.

(c) Presentation of proof of the due calling of the meeting.

(d) Presentation and examination of proxies and determination of a quorum.

(e) Reading and settlement of the minutes of the previous meeting.

(f) Reports of officers and committees.

(g) The election of directors if an annual meeting, or a meeting called for that purpose.

(h) Unfinished business.

(i) New business.

(j) Adjournment.

Section 11. Treasury Stock. The Corporation shall not vote, directly or indirectly, shares of its own stock owned by it or any other corporation, if a majority of shares entitled to vote in the election of directors of such other corporation is held, directly or indirectly, by the Corporation and such shares shall not be counted for quorum purposes.

Section 12. Action Without Meeting. Unless otherwise provided in the Certificate of Incorporation, any action permitted or required by law, the Certificate of Incorporation or these bylaws to be taken at a meeting of stockholders, may be taken without a meeting, without prior notice and without a vote, if a consent in writing, setting forth the action so taken, shall be signed by the holders of outstanding stock having not less than the minimum number of votes that would be necessary to authorize or take such action at a meeting at which all shares entitled to vote thereon were present and voted. Prompt notice of the taking of the corporate action without a meeting by less than a unanimous written consent shall be given by the Secretary to those stockholders who have not consented in writing.

ARTICLE III
BOARD OF DIRECTORS

Section 1. Power; Number; Term of Office. The business and affairs of the Corporation shall be managed by or under the direction of the Board of Directors, and subject to the restrictions imposed by law or the Certificate of Incorporation, they may exercise all the powers of the Corporation.

The number of directors of the Corporation shall be determined from time to time by resolution of the Board of Directors, unless the Certificate of Incorporation fixes the number of directors, in which case a change in the number of directors shall be made only by amendment of the Certificate of Incorporation. Each director shall hold office for the term for which he or she is elected, and until his or her successor shall have been elected and qualified or until his or her earlier death, resignation or removal.

Unless otherwise provided in the Certificate of Incorporation, directors need not be stockholders or residents of the State of Delaware.

Section 2. Quorum. Unless otherwise provided in the Certificate of Incorporation, a majority of the total number of directors shall constitute a quorum for the transaction of business of the Board of Directors and the vote of a majority of the directors present at a meeting at which a quorum is present shall be the act of the Board of Directors.

Section 3. Place of Meetings; Order of Business. The directors may hold their meetings and may have an office and keep the books of the Corporation, except as otherwise provided by law, in such place or places, within or without the State of Delaware, as the Board of Directors may from time to time determine by resolution. At all meetings of the Board of Directors, business shall be transacted in such order as shall from time to time be determined by the Chairman of the Board (if any), or in his or her absence by the Chief Executive Officer, or by resolution of the Board of Directors.

Section 4. First Meeting. Each newly elected Board of Directors may hold its first meeting for the purpose of organization and the transaction of business, if a quorum is present, immediately after and at the same place as the annual meeting of the stockholders. Notice of such meeting shall not be required.

Section 5. Regular Meetings. Regular meetings of the Board of Directors shall be held at such times and places as shall be designated from time to time by resolution of the Board of Directors. Notice of such regular meetings shall not be required.

Section 6. Special Meetings. Special meetings of the Board of Directors may be called by the Chairman of the Board (if any), the Chief Executive Officer or, on the written request of any two (2) directors, by the Secretary, in each case on at least twenty-four (24) hours personal or written notice or on at least twenty-four (24) hours' notice by electronic transmission to each director. Such notice, or any waiver thereof pursuant to ARTICLE VIII Section 3 hereof, need not state the purpose or purposes of such meeting, except as may otherwise be required by law or provided for in the Certificate of Incorporation or these bylaws.

Section 7. Removal. Any director or the entire Board of Directors may be removed, with or without cause, by the holders of a majority of the shares then entitled to vote at an election of directors; provided that, unless the Certificate of Incorporation otherwise provides, if the Board of Directors is classified, then the stockholders may effect such removal only for cause; and provided further that, if the Certificate of Incorporation expressly grants to stockholders the right to cumulate votes for the election of directors and if less than the entire Board of Directors is to be removed, no director may be removed without cause if the votes cast against his or her removal would be sufficient to elect him or her if then cumulatively voted at an election of the entire Board of Directors, or, if there be classes of directors, at an election of the class of directors of which such director is a part.

Section 8. Vacancies; Increases in the Number of Directors. Unless otherwise provided in the Certificate of Incorporation, vacancies and newly created directorships resulting from any increase in the authorized number of directors may be filled by a majority of the directors then in office, although less than a quorum, or a sole remaining director; and any director so chosen shall hold office until the next annual election and until his or her successor shall be duly elected and shall qualify, unless sooner displaced.

If the directors of the Corporation are divided into classes, any directors elected to fill vacancies or newly created directorships shall hold office until the next election of the class for which such directors shall have been chosen, and until their successors shall be duly elected and shall qualify.

Section 9. Compensation. Unless otherwise restricted by the Certificate of Incorporation, the Board of Directors shall have the authority to fix the compensation of directors.

Section 10. Action Without a Meeting; Telephone Conference Meeting. Unless otherwise restricted by the Certificate of Incorporation, any action required or permitted to be taken at any meeting of the Board of Directors, or any committee designated by the Board of Directors, may be taken without a meeting if all members of the Board of Directors or committee, as the case may be, consent thereto in writing or by electronic transmission, and the writing or writings or electronic transmission or transmissions are filed with the minutes of proceedings of the Board of Directors or committee. Such consent shall have the same force and effect as a unanimous vote at a meeting, and may be stated as such in any document or instrument filed with the Secretary of State of Delaware.

Unless otherwise restricted by the Certificate of Incorporation, subject to the requirement for notice of meetings, members of the Board of Directors, or members of any committee designated by the Board of Directors, may participate in a meeting of such Board of Directors or committee, as the case may be, by means of a conference telephone or other communications equipment by means of which all persons participating in the meeting can hear each other, and participation in such a meeting shall constitute presence in person at such meeting, except where a person participates in the meeting for the express purpose of objecting to the transaction of any business on the ground that the meeting is not lawfully called or convened.

Section 11. Approval or Ratification of Acts or Contracts by Stockholders. The Board of Directors in its discretion may submit any act or contract for approval or ratification at any annual meeting of the stockholders, or at any special meeting of the stockholders called for the purpose of considering any such act or contract, and any act or contract that shall be approved or be ratified by the vote of the holders of shares of stock representing a majority of the voting power entitled to vote and present in person or by proxy at such meeting (provided that a quorum is present), shall be as valid and as binding upon the Corporation and upon all the stockholders as if it has been approved or ratified by every stockholder of the Corporation. In addition, any such act or contract may be approved or ratified by the written consent of the holders of shares of stock representing a majority of the voting power entitled to vote and such consent shall be as valid and as binding upon the Corporation and upon all the stockholders as if it had been approved or ratified by every stockholder of the Corporation.

ARTICLE IV
COMMITTEES

Section 1. Designation; Powers. The Board of Directors may, by resolution passed by a majority of the whole board, designate one or more committees, including, if they shall so determine, an executive committee, each such committee to consist of one or more of the directors of the Corporation. Any such designated committee shall have and may exercise such of the powers and authority of the Board of Directors in the management of the business and affairs of the Corporation as may be provided in such resolution, except that no such committee shall have the power or authority of the Board of Directors in reference to amending the Certificate of Incorporation, adopting an agreement of merger or consolidation, recommending to the stockholders an agreement of merger, recommending to the stockholders the sale, lease or exchange of all or substantially all of the Corporation's property and assets, recommending to the stockholders a dissolution of the Corporation or a revocation of a dissolution of the Corporation or amending, altering or repealing the bylaws or adopting new bylaws for the Corporation and, unless such resolution or the Certificate of Incorporation expressly so provides, no such committee shall have the power or authority to declare a dividend or to authorize the issuance of stock. Any such designated committee may authorize the seal of the Corporation to be affixed to all papers which may require it. In addition to the above, such committee or committees shall have such other powers and limitations of authority as may be determined from time to time by resolution adopted by the Board of Directors.

Section 2. Procedure; Meetings; Quorum. Any committee designated pursuant to Section 1 of this ARTICLE IV shall choose its own chairman, shall keep regular minutes of its proceedings and report the same to the Board of Directors when requested, shall fix its own rules or procedures and shall meet at such times and at such place or places as may be provided by such rules, or by resolution of such committee or resolution of the Board of Directors. At every meeting of any such committee, the presence of a majority of all the members thereof shall constitute a quorum and the affirmative vote of a majority of the members present shall be necessary for the adoption by it of any resolution.

Section 3. Substitution of Members. The Board of Directors may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of such committee. In the absence or disqualification of a member of a committee, the member or members present at any meeting and not disqualified from voting, whether or not constituting a quorum, may unanimously appoint another member of the Board of Directors to act at the meeting in the place of the absent or disqualified member.

ARTICLE V
OFFICERS

Section 1. Number, Titles and Term of Office. The officers of the Corporation shall be a Chief Executive Officer and a Secretary and, if the Board of Directors so elects, a Chairman of the Board, one or more Vice Presidents (any one or more of whom may be designated Executive Vice President or Senior Vice President), a Treasurer and such other officers as the Board of Directors may from time to time elect or appoint. Each officer shall hold office until his or her successor shall be duly elected and shall qualify or until his or her death or until he or she shall resign or shall have been removed in the manner hereinafter provided. Any number of offices may be held by the same person, unless the Certificate of Incorporation provides otherwise. Except for the Chairman of the Board, if any, no officer need be a director.

Section 2. Salaries. The salaries or other compensation of the officers and agents of the Corporation shall be fixed from time to time by the Board of Directors.

Section 3. Removal. Any officer or agent elected or appointed by the Board of Directors may be removed, either with or without cause, by the vote of a majority of the whole Board of Directors at a special meeting called for the purpose, or at any regular meeting of the Board of Directors. Election or appointment of an officer or agent shall not of itself create contract rights.

Section 4. Vacancies. Any vacancy occurring in any office of the Corporation may be filled by the Board of Directors.

Section 5. Powers and Duties of the Chief Executive Officer. Subject to the control of the Board of Directors and the executive committee (if any), the Chief Executive Officer shall have general executive charge, management and control of the properties, business and operations of the Corporation with all such powers as may be reasonably incident to such responsibilities; he or she may agree upon and execute all leases, contracts, evidences of indebtedness and other obligations in the name of the Corporation and may sign all certificates for shares of capital stock of the Corporation; and shall have such other powers and duties as designated in accordance with these bylaws and as from time to time may be assigned to him by the Board of Directors.

Section 6. Powers and Duties of the Chairman of the Board. If elected, the Chairman of the Board shall preside at all meetings of the stockholders and of the Board of Directors and shall have such other powers and duties as designated in these bylaws and as from time to time may be assigned to him by the Board of Directors.

Section 7. Vice Presidents. In the absence of the Chief Executive Officer, or in the event of his or her inability or refusal to act, a Vice President designated by the Board of Directors shall perform the duties of the Chief Executive Officer, and when so acting shall have all the powers of and be subject to all the restrictions upon the Chief Executive Officer. In the absence of a designation by the Board of Directors of a Vice President to perform the duties of the Chief Executive Officer, or in the event of his or her absence or inability or refusal to act, the Vice President who is present and who is senior in terms of time as a Vice President of the Corporation shall so act. The Vice Presidents shall perform such other duties and have such other powers as the Board of Directors may from time to time prescribe.

Section 8. Treasurer. The Treasurer, if any, shall have responsibility for the custody and control of all the funds and securities of the Corporation, and he or she shall have such other powers and duties as designated in these bylaws and as from time to time may be assigned to him or her by the Board of Directors. He or she shall perform all acts incident to the position of Treasurer, subject to the control of the Chief Executive Officer and the Board of Directors; and he or she shall, if required by the Board of Directors, give such bond for the faithful discharge of his or her duties in such form as the Board of Directors may require.

Section 9. Assistant Treasurers. Each Assistant Treasurer, if any, shall have the usual powers and duties pertaining to his or her office, together with such other powers and duties as designated in these bylaws and as from time to time may be assigned to him or her by the Chief Executive Officer or the Board of Directors. The Assistant Treasurers shall exercise the powers of the Treasurer during that officer's absence or inability or refusal to act.

Section 10. Secretary. The Secretary shall keep the minutes of all meetings of the Board of Directors, committees of directors and the stockholders, in books provided for that purpose; he or she shall attend to the giving and serving of all notices; he or she may in the name of the Corporation affix the seal of the Corporation to all contracts of the Corporation and attest the affixation of the seal of the Corporation thereto; he or she may sign with the other appointed officers all certificates for shares of capital stock of the Corporation; he or she shall have charge of the certificate books, transfer books and stock ledgers, and such other books and papers as the Board of Directors may direct, all of which shall at all reasonable times be open to inspection of any director upon application at the office of the Corporation during business hours; he or she shall have such other powers and duties as designated in these bylaws and as from time to time may be assigned to him or her by the Board of Directors or the Chief Executive Officer; and he or she shall in general perform all acts incident to the office of Secretary, subject to the control of the Chief Executive Officer and the Board of Directors.

Section 11. Assistant Secretaries. Each Assistant Secretary, if any, shall have the usual powers and duties pertaining to his or her office, together with such other powers and duties as designated in these bylaws and as from time to time may be assigned to him or her by the Chief Executive Officer or the Board of Directors. The Assistant Secretaries shall exercise the powers of the Secretary during that officer's absence or inability or refusal to act.

Section 12. Action with Respect to Securities of Other Corporations. Unless otherwise directed by the Board of Directors, the Chief Executive Officer shall have power to vote and otherwise act on behalf of the Corporation, in person or by proxy, at any meeting of security holders of or with respect to any action of security holders of any other corporation in which the Corporation may hold securities and to otherwise exercise any and all rights and powers which this Corporation may possess by reason of its ownership of securities in such other corporation.

ARTICLE VI
INDEMNIFICATION OF DIRECTORS, OFFICERS, EMPLOYEES AND AGENTS

Section 1. Right to Indemnification. Each person who was or is made a party or is threatened to be made a party to or is involved in any action, suit or proceeding, whether civil, criminal, administrative or investigative (hereinafter a "***proceeding***"), by reason of the fact that he or she or a person of whom he or she is the legal representative, is or was or has agreed to become a director or officer of the Corporation or is or was serving or has agreed to serve at the request of the Corporation as a director, officer, employee or agent of another corporation or of a partnership, joint venture, trust or other enterprise, including service with respect to employee benefit plans, whether the basis of such proceeding is alleged action in an official capacity as a director or officer or in any other capacity while serving or having agreed to serve as a director or officer, shall be indemnified and held harmless by the Corporation to the fullest extent authorized by the DGCL, as the same exists or may hereafter be amended, (but, in the case of any such amendment, only to the extent that such amendment permits the Corporation to provide broader indemnification rights than said law permitted the Corporation to provide prior to such amendment) against all expense, liability and loss (including without limitation, attorneys' fees, judgments, fines, ERISA excise taxes or penalties and amounts paid or to be paid in settlement) reasonably incurred or suffered by such person in connection therewith and such indemnification shall continue as to a person who has ceased to serve in the capacity which initially entitled such person to indemnity hereunder and shall inure to the benefit of his or her heirs, executors and administrators; provided, however, that the Corporation shall indemnify any such person seeking indemnification in connection with a proceeding (or part thereof), other than a proceeding (or part thereof) brought under Section 3 of this ARTICLE VI, initiated by such person or his or her heirs, executors and administrators only if such proceeding (or part thereof) was authorized by the Board of Directors of the Corporation. The right to indemnification conferred in this ARTICLE VI shall be a contract right and shall include the right to be paid by the Corporation the expenses incurred in defending any such proceeding in advance of its final disposition; provided, however, that, if the DGCL requires, the payment of such expenses incurred by a current, former or proposed director or officer in his or her capacity as a director or officer or proposed director or officer (and not in any other capacity in which service was or is or has been agreed to be rendered by such person while a director or officer, including, without limitation, service to an employee benefit plan) in advance of the final disposition of a proceeding, shall be made only upon delivery to the Corporation of an undertaking, by or on behalf of such indemnified person, to repay all amounts so advanced if it shall ultimately be determined that such indemnified person is not entitled to be indemnified under this Section or otherwise.

Section 2. Indemnification of Employees and Agents. The Corporation may, by action of its Board of Directors, provide indemnification to employees and agents of the Corporation, individually or as a group, with the same scope and effect as the indemnification of directors and officers provided for in this ARTICLE VI.

Section 3. Right of Claimant to Bring Suit. If a written claim received by the Corporation from or on behalf of an indemnified party under this ARTICLE VI is not paid in full by the Corporation within ninety (90) days after such receipt, the claimant may at any time thereafter bring suit against the Corporation to recover the unpaid amount of the claim and, if successful in whole or in part, the claimant shall be entitled to be paid also the expense of prosecuting such claim. It shall be a defense to any such action (other than an action brought to enforce a claim for expenses incurred in defending any proceeding in advance of its final disposition where the required undertaking, if any is required, has been tendered to the Corporation) that the claimant has not met the standards of conduct which make it permissible under the DGCL for the Corporation to indemnify the claimant for the amount claimed, but the burden of proving such defense shall be on the Corporation. Neither the failure of the Corporation (including its Board of Directors, independent legal counsel, or its stockholders) to have made a determination prior to the commencement of such action that indemnification of the claimant is proper in the circumstances because he or she has met the applicable standard of conduct set forth in the DGCL, nor an actual determination by the Corporation (including its Board of Directors, independent legal counsel, or its stockholders) that the claimant has not met such applicable standard of conduct, shall be a defense to the action or create a presumption that the claimant has not met the applicable standard of conduct.

Section 4. Nonexclusivity of Rights. The right to indemnification and the advancement and payment of expenses conferred in this ARTICLE VI shall not be exclusive of any other right which any person may have or hereafter acquire under any law (common or statutory), provision of the Certificate of Incorporation of the Corporation, bylaw, agreement, vote of stockholders or disinterested directors or otherwise.

Section 5. Insurance. The Corporation may maintain insurance, at its expense, to protect itself and any person who is or was serving as a director, officer, employee or agent of the Corporation or is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against any expense, liability or loss, whether or not the Corporation would have the power to indemnify such person against such expense, liability or loss under the DGCL.

Section 6. Savings Clause. If this ARTICLE VI or any portion hereof shall be invalidated on any ground by any court of competent jurisdiction, then the Corporation shall nevertheless indemnify and hold harmless each director and officer of the Corporation, as to costs, charges and expenses (including attorneys' fees), judgments, fines, and amounts paid in settlement with respect to any action, suit or proceeding, whether civil, criminal, administrative, or investigative to the full extent permitted by any applicable portion of this ARTICLE VI that shall not have been invalidated and to the fullest extent permitted by applicable law. Any repeal or modification of the foregoing provisions of this ARTICLE VI shall not adversely affect any right or protection hereunder of any covered person in respect of any act or omission occurring prior to the time of such repeal or modification.

Section 7. Definitions. For purposes of this ARTICLE VI, reference to the "Corporation" shall include, in addition to the Corporation, any constituent corporation (including any constituent of a constituent) absorbed in a consolidation or merger prior to (or, in the case of an entity specifically designated in a resolution of the Board of Directors, after) the adoption hereof and which, if its separate existence had continued, would have had the power and authority to indemnify its directors, officers, employees or agents, so that any person who is or was a director, officer, employee or agent of such constituent corporation, or is or was serving at the request of such constituent corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, shall stand in the same position under the provisions of this ARTICLE VI with respect to the resulting or surviving corporation as he or she would have with respect to such constituent corporation if its separate existence had continued.

ARTICLE VII
CAPITAL STOCK

Section 1. Certificates of Stock. Except as provided in this Section 1 of ARTICLE VII, the certificates for shares of the capital stock of the Corporation shall be in such form, not inconsistent with that required by law and the Certificate of Incorporation, as shall be approved by the Board of Directors. The Chairman of the Board (if any), Chief Executive Officer or a Vice President shall cause to be issued to each stockholder one or more certificates, under the seal of the Corporation or a facsimile thereof if the Board of Directors shall have provided for such seal, and signed by the Chairman of the Board (if any), Chief Executive Officer or a Vice President and the Secretary or an Assistant Secretary or the Treasurer or an Assistant Treasurer certifying the number of shares (and, if the stock of the Corporation shall be divided into classes or series, the class and series of such shares) owned by such stockholder in the Corporation; provided, however, that any of or all the signatures on the certificate may be facsimile. The stock record books and the blank stock certificate books shall be kept by the Secretary, or at the office of such transfer agent or transfer agents as the Board of Directors may from time to time by resolution determine. In case any officer, transfer agent or registrar who shall have signed or whose facsimile signature or signatures shall have been placed upon any such certificate or certificates shall have ceased to be such officer, transfer agent or registrar before such certificate is issued by the Corporation, such certificate may nevertheless be issued by the Corporation with the same effect as if such person were such officer, transfer agent or registrar at the date of issue. The stock certificates shall be consecutively numbered and shall be entered in the books of the Corporation as they are issued and shall exhibit the holder's name and number of shares. The Board of Directors may deem that any outstanding shares of the Corporation will be uncertificated and registered in such form on the stock books of the Corporation.

Section 2. Transfer of Shares. Subject to the provisions of the Certificate of Incorporation and any other applicable agreements regarding the transfer of stock, the shares of stock of the Corporation shall be transferable only on the books of the Corporation by the holders thereof in person or by their duly authorized attorneys or legal representatives upon surrender and cancellation of certificates for a like number of shares. Subject to the provisions of the Certificate of Incorporation and any other applicable agreements regarding the transfer of stock, upon surrender to the Corporation or a transfer agent of the Corporation of a certificate for shares duly endorsed or accompanied by proper evidence of succession, assignment or authority to transfer, it shall be the duty of the Corporation to issue a new certificate to the person entitled thereto, cancel the old certificate and record the transaction upon its books.

Section 3. Ownership of Shares. The Corporation shall be entitled to treat the holder of record of any share or shares of capital stock of the Corporation as the holder in fact thereof and, accordingly, shall not be bound to recognize any equitable or other claim to or interest in such share or shares on the part of any other person, whether or not it shall have express or other notice thereof, except as otherwise provided by the laws of the State of Delaware.

Section 4. Regulations Regarding Certificates. The Board of Directors shall have the power and authority to make all such rules and regulations as they may deem expedient concerning the issue, transfer and registration or the replacement of certificates for shares of capital stock of the Corporation.

Section 5. Lost or Destroyed Certificates. The Board of Directors may determine the conditions upon which a new certificate of stock may be issued in place of a certificate which is alleged to have been lost, stolen or destroyed; and may, in their discretion, require the owner of such certificate or his or her legal representative to give bond, with sufficient surety, to indemnify the Corporation and each transfer agent and registrar against any and all losses or claims which may arise by reason of the issue of a new certificate in the place of the one so lost, stolen or destroyed.

ARTICLE VIII
MISCELLANEOUS PROVISIONS

Section 1. Fiscal Year. The fiscal year of the Corporation shall be such as established from time to time by the Board of Directors.

Section 2. Corporate Seal. The Board of Directors may provide a suitable seal containing the name of the Corporation. The Secretary shall have charge of the seal (if any). If and when so directed by the Board of Directors or a committee thereof, duplicates of the seal may be kept and used by the Treasurer or by the Assistant Secretary or Assistant Treasurer.

Section 3. Notice and Waiver of Notice. Whenever any notice is required to be given by law, the Certificate of Incorporation or under the provisions of these bylaws, said notice shall be deemed to be sufficient if given by electronic transmission or by deposit of the same in a post office box in a sealed prepaid wrapper addressed to the person entitled thereto at his or her post office address, as it appears on the records of the Corporation, and such notice shall be deemed to have been given on the day of such transmission or mailing, as the case may be.

Whenever notice is required to be given by law, the Certificate of Incorporation or under any of the provisions of these bylaws, a written waiver thereof, signed by the person entitled to notice, or a waiver by electronic transmission by the person entitled to notice, whether before or after the time stated therein, shall be deemed equivalent to notice. Attendance of a person at a meeting shall constitute a waiver of notice of such meeting, except when the person attends a meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business on the grounds that the meeting is not lawfully called or convened. Neither the business to be transacted at, nor the purpose of, any regular or special meeting of the stockholders, directors or members of a committee of directors need be specified in any written waiver of notice unless so required by the Certificate of Incorporation or these bylaws.

Section 4. Resignations. Any director, member of a committee or officer may resign at any time. Such resignation shall be made in writing or by electronic transmission and shall take effect at the time specified therein, or if no time be specified, at the time of its receipt by the Chief Executive Officer or Secretary. The acceptance of a resignation shall not be necessary to make it effective, unless expressly so provided in the resignation.

Section 5. Facsimile Signatures. In addition to the provisions for the use of facsimile signatures elsewhere specifically authorized in these bylaws, facsimile signatures of any officer or officers of the Corporation may be used whenever and as authorized by the Board of Directors.

Section 6. Reliance upon Books, Reports and Records. Each director and each member of any committee designated by the Board of Directors shall, in the performance of his or her duties, be fully protected in relying in good faith upon the books of account or reports made to the Corporation by any of its officers, or by an independent certified public accountant, or by an appraiser selected with reasonable care by the Board of Directors or by any such committee, or in relying in good faith upon other records of the Corporation.

Section 7. Form of Records. Any records maintained by the Corporation in the regular course of its business, including its stock ledger, books of account, and minute books, may be kept on, or by means of or be in the form of, any information storage device or method, provided that the records so kept can be converted into clearly legible paper form within a reasonable time.

ARTICLE IX
AMENDMENTS

Section 1. Amendments. If provided in the Certificate of Incorporation of the Corporation, the Board of Directors shall have the power to adopt, amend and repeal from time to time bylaws of the Corporation, subject to the right of the stockholders entitled to vote with respect thereto to amend or repeal such bylaws as adopted or amended by the Board of Directors.

Exhibit 3.4

**AMENDED AND RESTATED BYLAWS
OF
PROFRAC HOLDING CORP.**

**Incorporated under the Laws of the State of Delaware
Date of Adoption: [•], 2021**

ARTICLE I
OFFICES AND RECORDS

Section 1.1 **Registered Office**. The registered office of ProFrac Holding Corp. (the "**Corporation**") in the State of Delaware shall be as set forth in the Amended and Restated Certificate of Incorporation of the Corporation, as it may be amended, restated, supplemented and otherwise modified from time to time (the "**Certificate of Incorporation**"), and the name of the Corporation's registered agent at such address is as set forth in the Certificate of Incorporation. The registered office and registered agent of the Corporation may be changed from time to time by the board of directors of the Corporation (the "**Board**") in the manner provided by applicable law.

Section 1.2 **Other Offices**. The Corporation may have such other offices, either within or without the State of Delaware, as the Board may designate or as the business of the Corporation may from time to time require.

Section 1.3 **Books and Records**. The books and records of the Corporation may be kept outside the State of Delaware at such place or places as may from time to time be designated by the Board.

ARTICLE II
STOCKHOLDERS

Section 2.1 **Annual Meeting**. If required by applicable law, an annual meeting of the stockholders of the Corporation shall be held at such date, time and place, if any, either within or without the State of Delaware, as may be fixed by resolution of the Board. Any proper business may be transacted at the annual meeting. The Board may, at any time prior to the holding of an annual meeting of stockholders, and for any reason, postpone, reschedule or cancel any annual meeting of stockholders previously scheduled by the Board.

Section 2.2 **Special Meeting**. Special meetings of stockholders of the Corporation may be called only by the Executive Chairman, the Chief Executive Officer or, pursuant to a resolution adopted by a majority of the total number of directors that the Corporation would have if there were no vacancies, by the Board; *provided, however*, that prior to the first date on which the Principal Stockholders (as defined in the Certificate of Incorporation) no longer individually or collectively beneficially own (or otherwise have the right to vote or direct the vote of) more than 50% of the outstanding aggregate shares of the Corporation's Class A common stock, par value $0.01 per share (the "**Class A Common Stock**"), and Class B common stock, par value $0.01 per share (the "**Class B Common Stock**" and, together with the Class A Common Stock, the "**Common Stock**") (the "**Trigger Date**"), special meetings of the stockholders of the Corporation shall also be called by the Secretary of the Corporation at the request of the holders of record of more than 50% of the outstanding shares of Common Stock. For purposes of these bylaws (the "**Bylaws**"), beneficial ownership of shares shall be determined in accordance with Rule 13d-3 promulgated under the Securities Exchange Act of 1934, as amended (the "**Exchange Act**") and the rules and regulations thereunder. The authorized person(s) calling a special meeting may fix the date, time and place, if any, within or outside of the State of Delaware, of such meeting. On and after the Trigger Date, except as otherwise required by law and subject to the rights of the holders of any series of preferred stock of the Corporation ("**Preferred Stock**"), the stockholders of the Corporation do not have the power to call a special meeting of stockholders of the Corporation.

Section 2.3 **Record Date**.

(A) In order that the Corporation may determine the stockholders entitled to notice of any meeting of stockholders or any adjournment or recess thereof, the Board may fix a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted by the Board, and which record date shall, unless otherwise required by applicable law, not be more than sixty (60) nor less than ten (10) days before the date of such meeting. If the Board so fixes a date, such date shall also be the record date for determining the stockholders entitled to vote at such meeting unless the Board determines, at the time it fixes such record date, that a later date on or before the date of the meeting shall be the date for making such determination. If no record date is fixed by the Board, the record date for determining stockholders entitled to notice of or to vote at a meeting of stockholders shall be at the close of business on the day next preceding the day on which notice is given, or, if notice is waived, at the close of business on the day next preceding the day on which the meeting is held. A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment or recess of the meeting; provided, however, that the Board may fix a new record date for determination of stockholders entitled to vote at the adjourned or recessed meeting, and in such case shall also fix as the record date for stockholders entitled to notice of such adjourned or recessed meeting the same or an earlier date as that fixed for determination of stockholders entitled to vote in accordance herewith at the adjourned or recessed meeting.

(B) In order that the Corporation may determine the stockholders entitled to receive payment of any dividend or other distribution or allotment of any rights, or entitled to exercise any rights in respect of any change, conversion, exchange or redemption of stock, or for the purpose of any other lawful action, the Board may fix a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted, and which record date shall not be more than sixty (60) days prior to such action. If no such record date is fixed, the record date for determining stockholders for any such purpose shall be at the close of business on the day on which the Board adopts the resolution relating thereto.

(C) Unless otherwise restricted by the Certificate of Incorporation, in order that the Corporation may determine the stockholders entitled to express consent to corporate action without a meeting, the Board may fix a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted by the Board, and which record date shall not be more than ten (10) days after the date upon which the resolution fixing the record date is adopted by the Board. If no record date for determining stockholders entitled to express consent to corporate action without a meeting is fixed by the Board, (i) when no prior action of the Board is required by applicable law, the record date for such purpose shall be the first date on which a signed consent setting forth the action taken or proposed to be taken is delivered to the Corporation in accordance with applicable law, and (ii) if prior action by the Board is required by applicable law, the record date for such purpose shall be at the close of business on the day on which the Board adopts the resolution taking such prior action.

Section 2.4 **Stockholder List**. The Corporation shall prepare and make, at least ten (10) days before every meeting of stockholders, a complete list of stockholders entitled to vote at any meeting of stockholders (provided, however, if the record date for determining the stockholders entitled to vote is less than ten (10) days before the date of the meeting, the list shall reflect the stockholders entitled to vote as of the 10th day before the meeting date), arranged in alphabetical order and showing the address of each such stockholder and the number of shares registered in the name of such stockholder. Such list shall be open to the examination of any stockholder, for any purpose germane to the meeting, during ordinary business hours, for a period of at least ten (10) days prior to the meeting, either on a reasonably accessible electronic network (provided that the information required to gain access to the list is provided with the notice of the meeting) or during ordinary business hours at the principal place of business of the Corporation. The stock list shall also be produced and kept at the time and place of the meeting during the whole time thereof, and may be inspected by any stockholder who is present. If the meeting is to be held solely by means of remote communication, then the list shall also be open to the examination of any stockholder during the whole time of the meeting on a reasonably accessible electronic network, and the information required to access such list shall be provided with the notice of the meeting. Except as otherwise provided by applicable law, the stock ledger of the Corporation shall be the only evidence as to who are the stockholders entitled by this section to examine the list required by this section or to vote in person or by proxy at any meeting of the stockholders.

Section 2.5 **Place of Meeting**. The Board, the Executive Chairman or the Chief Executive Officer, as the case may be, may designate the place of meeting for any annual meeting or for any special meeting of the stockholders; *provided, however*, that in the case of a special meeting of the stockholders held at the request of the holders of record of more than 50% of the outstanding shares of Common Stock, the place of meeting shall be designated as provided in the Certificate of Incorporation. If no designation is so made, the place of meeting shall be the principal executive offices of the Corporation. The Board, acting in its sole discretion, may establish guidelines and procedures in accordance with applicable provisions of the Delaware General Corporation Law (the "**DGCL**") and any other applicable law for the participation by stockholders and proxyholders in a meeting of stockholders by means of remote communications, and may determine that any meeting of stockholders will not be held at any place but will be held solely by means of remote communication. Stockholders and proxyholders complying with such procedures and guidelines and otherwise entitled to vote at a meeting of stockholders shall be deemed present in person and entitled to vote at a meeting of stockholders, whether such meeting is to be held at a designated place or solely by means of remote communication.

Section 2.6 **Notice of Meeting**. Notice, stating the place, if any, day and hour of the meeting and the purpose or purposes for which the meeting is called, shall be given not less than ten (10) days nor more than sixty (60) days before the date of the meeting, in a manner pursuant to Section 7.7 hereof, to each stockholder of record entitled to vote at such meeting. The notice shall specify (i) 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), (ii) the place, if any, date and time of such meeting, (iii) the means of remote communications, if any, by which stockholders and proxyholders may be deemed to be present in person and vote at such meeting, in the case of a special meeting, the purpose or purposes for which such meeting is called and (v) such other information as may be required by applicable law or as may be deemed appropriate by the Board, the Executive Chairman or the Chief Executive Officer or the Secretary of the Corporation. If the stockholder list referred to in Section 2.4 of these Bylaws is made accessible on an electronic network, the notice of meeting must indicate how the stockholder list can be accessed. If the meeting of stockholders is to be held solely by means of electronic communications, the notice of meeting must provide the information required to access such stockholder list during the meeting. If mailed, such notice shall be deemed to be delivered when deposited in the United States mail with postage thereon prepaid, addressed to the stockholder at his or her address as it appears on the stock transfer books of the Corporation. The Corporation may provide stockholders with notice of a meeting by electronic transmission provided such stockholders have consented to receiving electronic notice in accordance with the DGCL. Such further notice shall be given as may be required by applicable law. Only such business shall be conducted at a special meeting of stockholders as shall have been brought before the meeting pursuant to the notice of meeting. Meetings may be held without notice if all stockholders entitled to vote are present, or if notice is waived by those not present in accordance with Section 7.4 of these Bylaws.

Section 2.7 **<u>Quorum and Adjournment of Meetings</u>**.

(A) Except as otherwise provided by applicable law or by the Certificate of Incorporation, the holders of a majority in voting power of the outstanding shares of stock of the Corporation entitled to vote at the meeting (the "**<u>Voting Stock</u>**"), represented in person or by proxy, shall constitute a quorum at a meeting of stockholders, except that when specified business is to be voted on by a class or series of stock voting as a class or series, the holders of a majority in voting power of the shares of such class or series, represented in person or by proxy, shall constitute a quorum of such class or series for the transaction of such business. For the avoidance of doubt, abstentions and broker non-votes shall be treated as present for purposes of determining the presence or absence of a quorum. The presiding person at the meeting or a majority of the shares so represented may adjourn or recess the meeting at any time and for any reason, whether or not there is such a quorum. The stockholders present at a duly called meeting at which a quorum is present may continue to transact business until the meeting is adjourned or recessed, notwithstanding the withdrawal of enough stockholders to leave less than a quorum.

(B) Any meeting of stockholders, annual or special, may adjourn or recess from time to time to reconvene at the same or some other place, and notice need not be given of any such adjourned or recessed meeting if the time and place, if any, thereof, and the means of remote communications, if any, by which stockholders and proxy holders may be deemed to be present in person and vote at such adjourned or recessed meeting are announced at the meeting at which the adjournment or recess is taken; provided, however, that if the adjournment or recess is for more than thirty (30) days, a notice of the adjourned or recessed meeting shall be given to each stockholder of record entitled to vote at the meeting. If after the adjournment a new record date for determination of stockholders entitled to vote is fixed for the adjourned meeting, the Board of Directors shall fix as the record date for determining stockholders entitled to notice of such adjourned meeting the same or an earlier date as that fixed for determination of stockholders entitled to vote at the adjourned meeting, and shall give notice of the adjourned meeting to each stockholder of record as of the record date so fixed for notice of such adjourned meeting. At the adjourned or recessed meeting, the Corporation may transact any business that might have been transacted at the original meeting.

Section 2.8 **<u>Proxies</u>**. At all meetings of stockholders, a stockholder may vote by proxy. The authorization of a person to act as proxy may be documented, signed and delivered in accordance with Section 116 of the DGCL provided that such authorization shall set forth, or be delivered with, information enabling the corporation to determine the identity of the stockholder granting such authorization. Any copy, facsimile transmission or other reliable reproduction of the writing or transmission created pursuant to this section may be substituted or used in lieu of the original writing or transmission for any and all purposes for which the original writing or transmission could be used, provided that such copy, facsimile transmission or other reproduction shall be a complete reproduction of the entire original writing or transmission. No proxy may be voted or acted upon after the expiration of three (3) years from the date of such proxy, unless such proxy provides for a longer period. Every proxy is revocable at the pleasure of the stockholder executing it unless the proxy states that it is irrevocable and applicable law makes it irrevocable. A stockholder may revoke any proxy that is not irrevocable by attending the meeting and voting in person or by filing an instrument in writing revoking the proxy or by filing another duly executed proxy bearing a later date with the Secretary of the Corporation.

Section 2.9 **Notice of Stockholder Business and Nominations**.

(A) **Annual Meetings of Stockholders**.

(1) Nominations of persons for election to the Board and the proposal of other business to be considered by the stockholders at an annual meeting of stockholders may be made only (a) pursuant to the Corporation's notice of meeting (or any supplement thereto), (b) by or at the direction of the Board or any authorized committee thereof or (c) by any stockholder of the Corporation who (i) was a stockholder of record at the time of giving of notice provided for in these Bylaws and at the time of the annual meeting, (ii) is entitled to vote at the meeting and (iii) complies with the notice procedures and other requirements set forth in these Bylaws and applicable law. Section 2.9(A)(1)(c) of these Bylaws shall be the exclusive means for a stockholder to make nominations or submit other business (other than matters properly brought under Rule 14a-8 under the Exchange Act and included in the Corporation's notice of meeting) before an annual meeting of the stockholders. In addition, if the proposal is made on behalf of a beneficial owner other than the stockholder of record, such beneficial owner must be the beneficial owner of stock of the Corporation both at the time of giving notice provided for in this Section 2.9(A)(1) and at the time of the annual meeting.

(2) For any nominations or any other business to be properly brought before an annual meeting by a stockholder pursuant to Section 2.9(A)(1)(c) of these Bylaws, (x) the stockholder must have given timely notice thereof in writing to the Secretary of the Corporation, (y) such other business must otherwise be a proper matter for stockholder action under the DGCL and (z) the record stockholder and the beneficial owner, if any, on whose behalf any such proposal or nomination is made, must have acted in accordance with the representations set forth in the Solicitation Statement (as defined below) required by these Bylaws. To be timely, a stockholder's notice must be received by the Secretary of the Corporation at the principal executive offices of the Corporation not earlier than the close of business on the 120th day and not later than the close of business on the 90th day prior to the first anniversary of the preceding year's annual meeting (which date shall, for purposes of the Corporation's first annual meeting of stockholders after its shares of Class A Common Stock (as defined in the Certificate of Incorporation) are first publicly traded, be deemed to have occurred on [•]); *provided*, *however*, that subject to the following sentence, in the event that the date of the annual meeting is scheduled for a date that is more than 30 days before or more than 60 days after such anniversary date, notice by the stockholder to be timely must be so received not later than the 10th day following the day on which public announcement of the date of such meeting is first made by the Corporation. In no event shall any adjournment, recess or postponement of an annual meeting or the announcement thereof commence a new time period for the giving of a stockholder's notice as described above.

To be in proper form, a stockholder's notice (whether given pursuant to thisSection 2.9(A)(2) or Section 2.9(B)) to the Secretary of the Corporation must:

(a) set forth, as to the stockholder giving the notice and the beneficial owner, if any, on whose behalf the nomination or proposal is made (i) the name and address of such stockholder, as they appear on the Corporation's books, and of such stockholder's Stockholder Associated Person (as defined in Section 2.9(C)(2)), if any, (ii) (A) the class or series and number of shares of the Corporation that are, directly or indirectly, owned beneficially and of record by such stockholder and such Stockholder Associated Person, (B) any option, warrant, convertible security, stock appreciation right, or similar right with an exercise or conversion privilege or a settlement payment or mechanism at a price related to any class or series of shares of the Corporation or with a value derived in whole or in part from the value of any class or series of shares of the Corporation, whether or not such instrument or right shall be subject to settlement in the underlying class or series of stock of the Corporation or otherwise (a "**Derivative Instrument**"), directly or indirectly owned beneficially by such stockholder or by any Stockholder Associated Person and any other direct or indirect opportunity to profit or share in any profit derived from any increase or decrease in the value of shares of the Corporation held by such stockholder or by any Stockholder Associated Person, (C) a complete and accurate description of any agreement, arrangement or understanding between or among such stockholder and such stockholder's Stockholder Associated Person and any other person or persons in connection with such stockholder's director nomination and the name and address of any other person(s) or entity or entities known to the stockholder to support such nomination, including any agreements, arrangements or understandings relating to any compensation or payments to be paid to any such proposed nominee(s), pertaining to the nomination(s) or other business proposed to be brought before the meeting of stockholders (which description shall identify the name of each other person who is party to such an agreement, arrangement or understanding), (D) a description of any proxy, contract, arrangement, understanding or relationship pursuant to which such stockholder or any Stockholder Associated Person has a right to vote, directly or indirectly, any shares of any security of the Corporation, (E) any short interest in any security of the Corporation held by such stockholder or any Stockholder Associated Person (for purposes of these Bylaws, a person shall be deemed to have a "short interest" in a security if such person directly or indirectly, through any contract, arrangement, understanding, relationship or otherwise, has the opportunity to profit or share in any profit derived from any decrease in the value of the subject security), (F) any rights to dividends on the shares of the Corporation owned beneficially by such stockholder or by any Stockholder Associated Person that are separated or separable from the underlying shares of the Corporation, (G) any proportionate interest in shares of the Corporation or Derivative Instruments held, directly or indirectly, by a general or limited partnership in which such stockholder or any Stockholder Associated Person is a general partner or, directly or indirectly, beneficially owns an interest in a general partner and (H) any performance-related fees (other than an asset-based fee) that such stockholder or any Stockholder Associated Person is entitled to based on any increase or decrease in the value of shares of the Corporation or Derivative Instruments, if any, as of the date of such notice, including, without limitation, any such interests held by members of such stockholder's or any Stockholder Associated Person's immediate family sharing the same household, (iii) any other information relating to such stockholder and any Stockholder Associated Person, if any, that would be required to be disclosed in a proxy statement or other filing required to be made in connection with solicitations of proxies for, as applicable, the proposal or for the election of directors in a contested election pursuant to Section 14 of the Exchange Act and the rules and regulations promulgated thereunder, (iv) a representation that the stockholder is a holder of record of stock of the Corporation entitled to vote at such meeting and intends to appear in person or by proxy at the meeting to bring such nomination or other business before the meeting, (v) a representation as to whether or not such stockholder or any Stockholder Associated Person will deliver a proxy statement or form of proxy to holders of at least the percentage of the voting power of the Corporation's outstanding stock required to approve or adopt the proposal or, in the case of a nomination or nominations, at least the percentage of the voting power of the Corporation's outstanding stock reasonably believed by the stockholder or Stockholder Associated Person, as the case may be, to be sufficient to elect such nominee or nominees (such representation, a "**Solicitation Statement**"), (vi) any proxy (other than a revocable proxy given in response to a public proxy solicitation made pursuant to, and in accordance with, the Exchange Act), agreement, arrangement, understanding or relationship pursuant to which such stockholder or beneficial owner has or shares a right to, directly or indirectly, vote any shares of any class or series of capital stock of the Corporation, (vii) any rights to dividends or other distributions on the shares of any class or series of capital stock of the Corporation, directly or indirectly, owned beneficially by such stockholder or beneficial owner that are separated or separable from the underlying shares of the Corporation, and (viii) any performance-related fees (other than an asset based fee) that such stockholder or beneficial owner, directly or indirectly, is entitled to based on any increase or decrease in the value of shares of any class or series of capital stock of the Corporation or any Derivative Instruments; and (d) the names and addresses of other stockholders (including beneficial owners) known by any of the stockholders giving the notice to support such nominations or other business proposal(s), and to the extent known the class and number of all shares of the Corporation's capital stock owned beneficially or of record by such other stockholder(s) or other beneficial owner(s);

(b) if the notice relates to any business other than a nomination of a director or directors that the stockholder proposes to bring before the meeting, set forth (i) a brief description of the business desired to be brought before the meeting, the reasons for conducting such business at the meeting and any material interest of such stockholder and Stockholder Associated Person, if any, in such business, (ii) the text of the proposal or business (including the text of any resolutions proposed for consideration and in the event that such business includes a proposal to amend the Bylaws, the language of the proposed amendment) and (iii) a complete and accurate description of all agreements, arrangements and understandings between or among such stockholder and such stockholder's Stockholder Associated Person, if any, and the name and address of any other person(s) or entity or entities in connection with the proposal of such business by such stockholder;

(c) set forth, as to each person, if any, whom the stockholder proposes to nominate for election or reelection to the Board (i) all information relating to such person that would be required to be disclosed in a proxy statement or other filing required to be made in connection with solicitations of proxies for election of directors in a contested election pursuant to Section 14 of the Exchange Act and the rules and regulations promulgated thereunder (including such person's written consent to being named in the proxy statement as a nominee and to serving as a director if elected), (ii) a description of all direct and indirect compensation and other material monetary agreements, arrangements and understandings during the past three years, and any other material relationships, between or among such stockholder and Stockholder Associated Person, if any, and their respective affiliates and associates, or others acting in concert therewith, on the one hand, and each proposed nominee, and his or her respective affiliates and associates, or others acting in concert therewith, on the other hand, including, without limitation, all information that would be required to be disclosed pursuant to Rule 404 promulgated under Regulation S-K if the stockholder making the nomination and any beneficial owner on whose behalf the nomination is made, if any, or any affiliate or associate thereof or person acting in concert therewith, were the "registrant" for purposes of such rule and the nominee were a director or executive officer of such registrant, and (iii) a representation that such person intends to serve a full term, if elected as director; and

(d) with respect to each nominee for election or reelection to the Board, include (i) a completed and signed questionnaire, representation and agreement in a form provided by the Corporation, which form the stockholder must request from the Secretary of the Corporation in writing with no less than 7 days' advance notice, and (ii) a written representation and agreement (in the form provided by the Secretary of the Corporation upon written request) that such person (A) is not and will not become a party to (1) any agreement, arrangement or understanding (whether written or oral) with, and has not given any commitment or assurance to, any person or entity as to how such person, if elected as a director of the Corporation, will act or vote on any issue or question (a "**Voting Commitment**") that has not been disclosed to the Corporation or (2) any Voting Commitment that could limit or interfere with such person's ability to comply, if elected as a director of the Corporation, with such person's fiduciary duties under applicable law, (B) is not and will not become a party to any agreement, arrangement or understanding (whether written or oral) with any person or entity other than the Corporation with respect to any direct or indirect compensation, reimbursement or indemnification in connection with service or action as a director that has not been disclosed therein, and (C) in such person's individual capacity and on behalf of any person or entity on whose behalf the nomination is being made, would be in compliance, if elected as a director of the Corporation, and will comply with all applicable publicly disclosed corporate governance, conflict of interest, confidentiality and stock ownership and trading policies and guidelines of the Corporation. The Corporation may require any proposed nominee to furnish such other information as may reasonably be required by the Corporation to determine the eligibility of such proposed nominee to serve as an independent director of the Corporation or that could be material to a reasonable stockholder's understanding of the independence, or lack thereof, of such nominee.

(3) A stockholder providing notice of a nomination or proposal of other business to be brought before a meeting shall further update and supplement such notice, so that the information provided or required to be provided in such notice shall be true and correct (a) as of the record date for the meeting and (b) as of the date that is ten (10) business days prior to the meeting or any adjournment, recess, cancellation, rescheduling or postponement thereof, and such update and supplement shall be delivered to, or mailed and received by, the Secretary of the Corporation at the principal executive offices of the Corporation not later than five (5) business days after the record date for the meeting (in the case of the update and supplement required to be made as of the record date) and not later than seven (7) business days prior to the date for the meeting or any postponement or adjournment thereof, if practicable (or, if not practicable, on the first practicable date prior to any adjournment, recess or postponement thereof (in the case of the update and supplement required to be made as of ten (10) business days prior to the meeting or any adjournment, recess or postponement thereof)).

(B) **Special Meetings of Stockholders.**

Only such business shall be conducted at a special meeting of stockholders as shall have been brought before the meeting pursuant to the Corporation's notice of meeting. Nominations of persons for election to the Board may be made at a special meeting of stockholders at which directors are to be elected pursuant to a notice of meeting (1) by or at the direction of the Board or any committee thereof (or stockholders if permitted pursuant to Article Seventh of the Certificate of Incorporation and Section 2.2 of these Bylaws prior to the Trigger Date) or (2) if the Board (or stockholders if permitted pursuant to Article Seventh of the Certificate of Incorporation and Section 2.2 of these Bylaws prior to the Trigger Date) has determined that directors shall be elected at such meeting, by any stockholder of the Corporation who (a) is a stockholder of record at the time of giving of notice provided for in these Bylaws and at the time of the special meeting, (b) is entitled to vote at the meeting, and (c) complies with the notice procedures set forth in these Bylaws and applicable law. In the event a special meeting of stockholders is called pursuant to Article Seventh of the Certificate of Incorporation or Section 2.2 of these Bylaws for the purpose of electing one or more directors to the Board, any stockholder of record among such requesting stockholders may nominate a person or persons (as the case may be), for election to such position(s) as specified in the Corporation's notice of meeting, if such stockholder delivers notice with the information required by Section 2.9(A)(2)(a) and Section 2.9(A)(2)(c) (with the updates required by Section 2.9(A)(3)) of these Bylaws with respect to any nomination (including the completed and signed questionnaire, representation and agreement required by Section 2.9(A)(2)(d) of these Bylaws). Such notice shall be delivered to the Secretary of the Corporation at the principal executive offices of the Corporation not earlier than the close of business on the 120th day prior to such special meeting and not later than the close of business on the later of the 90th day prior to such special meeting or the 10th day following the day on which public announcement is first made of the date of the special meeting and of the nominees proposed by the Board to be elected at such meeting. In no event shall any adjournment, recess or postponement or the announcement thereof of a special meeting commence a new time period for the giving of a stockholder's notice as described above.

(C) **General**.

(1) Only such persons who are nominated in accordance with the procedures set forth in these Bylaws and applicable law shall be eligible to serve as directors, and only such business shall be conducted at a meeting of stockholders as has been brought before the meeting in accordance with the procedures set forth in these Bylaws and applicable law. Except as otherwise provided by applicable law, the Certificate of Incorporation or these Bylaws, the presiding person at the meeting shall have the power and duty to determine whether a nomination or any business proposed to be brought before the meeting was made or proposed, as the case may be, in accordance with the procedures set forth in these Bylaws and applicable law and, if any proposed nomination or business is not in compliance with these Bylaws and applicable law, to declare that such defective proposal or nomination shall be disregarded.

(2) For purposes of these Bylaws, "**public announcement**" shall mean disclosure in a press release reported by Dow Jones News Service, the Associated Press, or any other national news service or in a document publicly filed by the Corporation with the Securities and Exchange Commission pursuant to Section 13, 14 or 15(d) of the Exchange Act and the rules and regulations promulgated thereunder, and "**Stockholder Associated Person**" shall mean, for any stockholder, (a) any person or entity controlling, directly or indirectly, or acting in concert with, such stockholder, (b) any beneficial owner of shares of stock of the Corporation owned of record or beneficially by such stockholder or (c) any person or entity controlling, controlled by or under common control with any person or entity referred to in the preceding clauses (a) or (b).

(3) Notwithstanding the foregoing provisions of these Bylaws, a stockholder shall also comply with all applicable requirements of the Exchange Act and the rules and regulations promulgated thereunder with respect to the matters set forth in these Bylaws; *provided*, *however*, that any references in these Bylaws to the Exchange Act or the rules and regulations promulgated thereunder are not intended to and shall not limit the requirements applicable to nominations or proposals as to any other business to be considered pursuant to Section 2.9(A) or Section 2.9(B) of these Bylaws. Nothing in these Bylaws shall be deemed to affect any rights (a) of stockholders to request inclusion of proposals in the Corporation's proxy statement pursuant to Rule 14a-8 under the Exchange Act or (b) of the holders of any series of Preferred Stock to elect directors if and to the extent provided for under applicable law, the Certificate of Incorporation or these Bylaws.

(4) Unless otherwise required by law, if the stockholder (or a qualified representative of the stockholder) making a nomination or proposal under this Section 2.9 does not appear at a meeting of stockholders to present such nomination or proposal, the nomination shall be disregarded and the proposed business shall not be transacted, as the case may be, notwithstanding that proxies in favor thereof may have been received by the Corporation. For purposes of this Section 2.9, to be considered a qualified representative of the stockholder, a person must be a duly authorized officer, manager or partner of such stockholder or must be authorized by a writing executed by such stockholder or an electronic transmission delivered by such stockholder to act for such stockholder as proxy at the meeting of stockholders and such person must produce such writing or electronic transmission, or a reliable reproduction of the writing or electronic transmission, at the meeting of stockholders.

(5) Notwithstanding anything to the contrary contained in this Section 2.9, for so long as the Stockholders' Agreement (as defined in the Certificate of Incorporation) remains in effect with respect to any Principal Stockholder, such Principal Stockholder (so long as such Principal Stockholder has the right to designate one or more nominees for election to the Board pursuant to the Stockholders' Agreement) shall not be subject to this Section 2.9 with respect to any annual or special meeting of stockholders.

Section 2.10 **Conduct of Business**. The date and time of the opening and the closing of the polls for each matter upon which the stockholders will vote at a meeting shall be announced at the meeting by the person presiding over the meeting. The Board may adopt by resolution such rules and regulations for the conduct of a meeting of stockholders as it shall deem appropriate in its sole discretion. The Executive Chairman or, in the Executive Chairman's absence or if one shall not have been elected, the Chief Executive Officer or, in the Chief Executive Officer's absence or if one shall not have been elected, the director or officer designated by the majority of the Board, shall preside at all meetings of the stockholders. Except to the extent inconsistent with such rules and regulations as adopted by the Board, the person presiding over any meeting of stockholders shall have the right and authority to convene and for any or no reason to recess and/or adjourn the meeting, to prescribe such rules, regulations and procedures and to do all such acts as, in the judgment of such presiding person, are appropriate for the proper conduct of the meeting. Such rules, regulations or procedures, whether adopted by the Board or prescribed by the presiding person at the meeting, may include, without limitation, the following: (i) the establishment of an agenda or order of business for the meeting; (ii) rules and procedures for maintaining order at the meeting and the safety of those present; (iii) limitations on attendance at or participation in the meeting to stockholders entitled to vote at the meeting, their duly authorized and constituted proxies or such other persons as the presiding person at the meeting shall determine; (iv) restrictions on entry to the meeting after the time fixed for the commencement thereof; (v) limitations on the time allotted to questions or comments by participants; and (vi) restrictions on the use of audio or visual recording devices at the meeting. The presiding person at a meeting of stockholders, in addition to making any other determinations that may be appropriate to the conduct of the meeting, shall, if the facts warrant, determine and declare to the meeting that a matter or business was not properly brought before the meeting and if such presiding person should so determine, such presiding person shall so declare to the meeting and any such matter or business not properly brought before the meeting shall not be transacted or considered. Unless and to the extent determined by the Board or the person presiding at the meeting, meetings of stockholders shall not be required to be held in accordance with the rules of parliamentary procedure.

Section 2.11 **Required Vote**. Subject to the rights of the holders of any series of Preferred Stock to elect directors under specified circumstances, at any meeting at which directors are to be elected, so long as a quorum is present, the directors shall be elected by a plurality of votes cast by the holders of shares entitled to vote in the election. Unless otherwise provided in the Certificate of Incorporation, cumulative voting for the election of directors shall be prohibited. Except as otherwise provided by applicable law, the rules and regulations of any stock exchange applicable to the Corporation, the Certificate of Incorporation, or these Bylaws, in all matters other than the election of directors and certain non-binding advisory votes described below, the affirmative vote of a majority of the shares present in person or represented by proxy at the meeting and entitled to vote on the matter shall be the act of the stockholders. In non-binding advisory matters with more than two possible vote choices, the affirmative vote of a plurality of the votes cast by the holders of shares, in person or represented by proxy, at the meeting and entitled to vote on the matter shall be the recommendation of the stockholders.

Section 2.12 **Treasury Stock**. The Corporation shall not vote, directly or indirectly, shares of its own stock owned by it, any other corporation, if a majority of shares entitled to vote in the election of directors of such corporation is held, directly or indirectly by the Corporation, or any other entity, if a majority of the voting power of such other entity is held, directly or indirectly, by the Corporation or if such other entity is otherwise controlled, directly or indirectly, by the Corporation and such shares will not be counted for quorum purposes; provided, however, that the foregoing shall not limit the right of the Corporation or such other corporation, to vote stock of the Corporation held in a fiduciary capacity.

Section 2.13 **Inspectors of Elections; Opening and Closing the Polls**. At any meeting at which a vote is taken by ballots, the Board by resolution may, and when required by applicable law, shall, appoint one or more inspectors, which inspector or inspectors may include individuals who serve the Corporation in other capacities, including, without limitation, as officers, employees, agents or representatives, to act at the meetings of stockholders and make a written report thereof. One or more persons may be designated as alternate inspectors to replace any inspector who fails to act. If no inspector or alternate has been appointed to act or is able to act at a meeting of stockholders and the appointment of an inspector is required by applicable law, the presiding person at the meeting shall appoint one or more inspectors to act at the meeting. Each inspector, before discharging his or her duties, shall take and sign an oath to faithfully execute the duties of inspector with strict impartiality and according to the best of his or her ability. The inspectors shall have the duties prescribed by applicable law.

Section 2.14 **Stockholder Action by Consent**.

(A) Prior to the Trigger Date, any action required or permitted to be taken at any annual meeting or special meeting of the stockholders of the Corporation may be taken without a meeting, without prior notice and without a vote of stockholders, if a consent or consents in writing or by electronic transmission, setting forth the action so taken, is or are signed by the holders of outstanding stock having not less than the minimum number of votes that would be necessary to authorize or take such action at a meeting at which all shares entitled to vote thereon were present and voted.

(B) On and after the Trigger Date, subject to the rights of holders of any series of Preferred Stock with respect to such series of Preferred Stock, any action required or permitted to be taken by the stockholders of the Corporation must be taken at a duly held annual or special meeting of stockholders and may not be taken by any consent of such stockholders.

ARTICLE III
BOARD OF DIRECTORS

Section 3.1 **General Powers**. The business and affairs of the Corporation shall be managed by or under the direction of the Board elected in accordance with these Bylaws and, as applicable, the Certificate of Incorporation and the Stockholders' Agreement. In addition to the powers and authorities by these Bylaws expressly conferred upon them, the Board may exercise all such powers of the Corporation and do all such lawful acts and things as are not by statute or by the Certificate of Incorporation or by these Bylaws required to be exercised or done by the stockholders. The directors shall act only as a Board or a committee thereof, and the individual directors shall have no power as such.

Section 3.2 **Number, Election, Tenure and Voting Power**. Subject to applicable law, the Stockholders' Agreement and the rights of the holders of any series of Preferred Stock to elect directors under specified circumstances, if any, the number of directors shall be fixed from time to time exclusively pursuant to a resolution adopted by a majority of the Board, provided that the initial number of directors shall be five (5). The election, term and voting power of directors shall be as set forth in the Certificate of Incorporation.

Section 3.3 **Regular Meetings**. Subject to Section 3.5, regular meetings of the Board shall be held on such dates, and at such times and places, as are determined from time to time by resolution of the Board.

Section 3.4 **Special Meetings**. Special meetings of the Board shall be called at the request of the Executive Chairman, the Chief Executive Officer or a majority of the Board then in office. The person or persons authorized to call special meetings of the Board may fix the place, if any, date and time of the meetings. Any business may be conducted at a special meeting of the Board.

Section 3.5 **Notice**. Notice of any meeting of directors shall be given to each director at his or her business or residence in writing by hand delivery, first-class or overnight mail, courier service or facsimile or electronic transmission or orally by telephone. If mailed by first-class mail, such notice shall be deemed adequately delivered when deposited in the United States mails so addressed, with postage thereon prepaid, at least five (5) days before such meeting. If by overnight mail or courier service, such notice shall be deemed adequately delivered when the notice is delivered to the overnight mail or courier service company at least 24 hours before such meeting. If by facsimile or electronic transmission, such notice shall be deemed adequately delivered when the notice is transmitted at least 24 hours before such meeting. If by telephone or by hand delivery, the notice shall be given at least 24 hours prior to the time set for the meeting and shall be confirmed by facsimile or electronic transmission that is sent promptly thereafter. Neither the business to be transacted at, nor the purpose of, any regular or special meeting of the Board need be specified in the notice of such meeting, except for amendments to these Bylaws, as provided under Section 8.1. A meeting may be held at any time without notice if all the directors are present or if those not present waive notice of the meeting in accordance with Section 7.4 of these Bylaws.

Section 3.6 **Conference Telephone Meetings**. Members of the Board or any committee thereof may participate in a meeting of the Board or such committee by means of conference telephone or other communications equipment by means of which all persons participating in the meeting can hear each other, and such participation in a meeting shall constitute presence in person at such meeting, except where such person participates in the meeting for the express purpose of objecting to the transaction of any business on the ground that the meeting is not lawfully called or convened.

Section 3.7 **Quorum; Action of the Board**. Subject to Section 3.9, a whole number of directors equal to at least a majority of the votes entitled to be cast by the Board shall constitute a quorum for the transaction of business, but if at any meeting of the Board there shall be less than a quorum present, a majority of the votes entitled to be cast by the directors present may adjourn the meeting from time to time without further notice unless (i) the date, time and place, if any, of the adjourned meeting are not announced at the time of adjournment, in which case notice conforming to the requirements of Section 3.5 of these Bylaws shall be given to each director, or (ii) the meeting is adjourned for more than 24 hours, in which case notice conforming to the requirements of Section 3.5 of these Bylaws shall be given to those directors not present at the announcement of the date, time and place of the adjourned meeting. The act of the majority of the votes entitled to be cast by the directors present at a meeting at which a quorum is present shall be the act of the Board. The directors present at a duly organized meeting may continue to transact business until adjournment, notwithstanding the withdrawal of enough directors to leave less than a quorum. Notwithstanding anything to the contrary in this Section 3.7 or otherwise and subject to the Certificate of Incorporation, prior to the Trigger Date, unless otherwise waived by any Wilks Director (as such term is defined in the Certificate of Incorporation) not attending a Board meeting, or in the event that a Wilks Director is incapacitated, each of the Wilks Directors must be present in order to establish a quorum for the transaction of business by the Board.

Section 3.8 **Action Without a Meeting**. Any action required or permitted to be taken at any meeting of the Board or of any committee thereof may be taken without a meeting if all members of the Board or committee, as the case may be, consent thereto in writing, including by electronic transmission, and the writing or writings or electronic transmissions are filed with the minutes of proceedings of the Board or committee. Such written consent shall have the same force and effect as a unanimous vote at a meeting, and may be stated as such in any document or instrument filed with the Secretary of State of the State of Delaware.

Section 3.9 **Vacancies**. Subject to applicable law, the rights of holders of any series of Preferred Stock then outstanding, and the then-applicable terms of the Stockholders' Agreement, any newly created directorship that results from an increase in the number of directors or any vacancy on the Board that results from the death, disability, resignation, disqualification or removal of any director or from any other cause shall be filled in accordance with the Certificate of Incorporation.

Section 3.10 **Removal**. Directors of the Corporation may be removed in the manner provided in the Certificate of Incorporation and applicable law.

Section 3.11 **Records**. The Board shall cause to be kept a record containing the minutes of the proceedings of the meetings of the Board and of the stockholders, appropriate stock books and registers and such books of records and accounts as may be necessary for the proper conduct of the business of the Corporation.

Section 3.12 **Compensation**. Unless otherwise restricted by the Certificate of Incorporation or these Bylaws, the Board shall have authority to fix the compensation of directors, including fees and reimbursement of expenses. The Corporation will cause each non-employee director serving on the Board to be reimbursed for all reasonable out-of-pocket costs and expenses incurred by him or her in connection with such service.

Section 3.13 **Regulations**. To the extent consistent with applicable law, the Certificate of Incorporation and these Bylaws, the Board may adopt such rules and regulations for the conduct of meetings of the Board and for the management of the affairs and business of the Corporation as the Board may deem appropriate.

Section 3.14 **Certificate of Incorporation; Special Voting Power**. Notwithstanding anything herein to the contrary, the provisions of this Article III shall be subject to the Certificate of Incorporation, including without limitation the provisions therein regarding the Aggregate Wilks Director Voting Power.

ARTICLE IV
COMMITTEES

Section 4.1 **Designation; Powers**. The Board may designate one or more committees, each committee to consist of one or more of the directors of the Corporation. Any such committee, to the extent permitted by applicable law and to the extent provided in a resolution(s) of the Board, shall have and may exercise all the powers and authority of the Board in the management of the business and affairs of the Corporation, and may authorize the seal of the Corporation to be affixed to all papers which may require it. Any such committee shall have such name as may be determined from time to time by the Board.

Section 4.2 **Procedure; Meetings; Quorum**. Any committee designated pursuant to Section 4.1 shall choose its own chairperson, in the event the chairperson has not been selected by the Board. The act of the majority of the votes entitled to be cast by the directors present at a meeting at which a quorum is present shall be the act of any committee. A committee may create one or more subcommittees, each subcommittee to consist of one or more members of the committee, and delegate to such subcommittee any or all of the powers of the committee. The Board shall adopt a charter for each committee for which a charter is required by applicable laws, regulations or stock exchange rules, may adopt a charter for any other committee, and may adopt other rules and regulations for the governance of any committee not inconsistent with the provisions of the Certificate of Incorporation, these Bylaws or any such charter. Unless the Certificate of Incorporation, these Bylaws or the Board otherwise provide, any such committee or subcommittee may make rules for the conduct of its business, but unless otherwise provided by the Board or such rules, its meetings shall be called, notice given or waived, its business conducted or its action taken as nearly as may be in the same manner as is provided in these Bylaws with respect to meetings or for the conduct of business or the taking of actions by the Board. The Board shall have power at any time to fill vacancies in, change the membership of, or discharge any such committee at any time. The Secretary of the Corporation shall act as Secretary of any committee or subcommittee, unless otherwise provided by the Board or such committee or subcommittee. The directors present at a duly organized meeting of any committee or subcommittee may continue to transact business until adjournment, notwithstanding the withdrawal of enough directors to leave less than a quorum. Prior to the Trigger Date, unless otherwise waived by any Wilks Director not attending a committee or subcommittee meeting, or in the event that a Wilks Director is incapacitated, each of the Wilks Directors who is a member of such committee or subcommittee must be present in order to establish a quorum for the transaction of business by any such committee or subcommittee.

Section 4.3 **Substitution of Members**. The Board may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of such committee. In the absence or disqualification of a member of a committee, the member or members present at any meeting and not disqualified from voting, whether or not constituting a quorum, may unanimously appoint another member of the Board to act at the meeting in the place of the absent or disqualified member.

Section 4.4 **Certificate of Incorporation; Special Voting Power**. Notwithstanding anything herein to the contrary, the provisions of this Article IV shall be subject to the Certificate of Incorporation, including without limitation the provisions therein regarding the Aggregate Wilks Director Committee Voting Power.

ARTICLE V OFFICERS

Section 5.1 **Officers**. The officers of the Corporation shall be an Executive Chairman, a Chief Executive Officer, a Secretary, a Treasurer and such other officers as the Board from time to time may deem proper. The Executive Chairman must be a member of the Board. All officers elected by the Board shall have such powers and duties as generally pertain to their respective offices, subject to the specific provisions of this Article V. Such officers shall also have such powers and duties as from time to time may be conferred by the Board or by any committee thereof. The Board or any committee thereof may from time to time elect, or the Executive Chairman or Chief Executive Officer may appoint, such other officers (including one or more Vice Presidents, Assistant Secretaries and Assistant Treasurers) and such agents, as may be necessary or desirable for the conduct of the business of the Corporation. Such other officers and agents shall have such duties and shall hold their offices for such terms as shall be provided in these Bylaws or as may be prescribed by the Board or such committee thereof or by the Executive Chairman or Chief Executive Officer, as the case may be.

Section 5.2 **Election and Term of Office**. The officers of the Corporation shall be elected or appointed from time to time by the Board, subject to the Stockholders' Agreement. Each officer shall hold office until his or her successor shall have been duly elected or appointed and shall have qualified or until his or her death or until he or she shall resign, but any officer may be removed from office at any time by the affirmative vote of a majority of the Board or, except in the case of an officer or agent elected by the Board, by the Executive Chairman or Chief Executive Officer. Such removal shall be without prejudice to the contractual rights, if any, of the person so removed. No elected officer shall have any contractual rights against the Corporation for compensation by virtue of such election beyond the date of the election of his or her successor, or his or her death, resignation or removal, whichever event shall first occur, except as otherwise provided in an employment contract or under an employee deferred compensation plan.

Section 5.3 **Executive Chairman**. The Executive Chairman shall preside at all meetings of the Board and, subject to Section 2.10 of these Bylaws, at all meetings of the stockholders of the Corporation. The Executive Chairman shall act in a general executive capacity, shall be responsible for the overall strategic direction of the Corporation and the general management of the affairs of the Corporation, and shall have general supervision over and direction of all of the officers and agents of the Corporation. The Executive Chairman shall perform all duties incidental to his or her office that may be required by law and all such other duties as are properly required of him or her by the Board. The Executive Chairman may also serve as Chief Executive Officer, if so elected by the Board. The Executive Chairman shall have the authority to sign, in the name and on behalf of the Corporation, checks, orders, contracts, leases, notes, drafts and all other documents and instruments in connection with the business of the Corporation.

Section 5.4 **Chief Executive Officer**. The Chief Executive Officer shall act in a general executive capacity and shall assist the Executive Chairman in the administration and operation of the Corporation's business and general supervision of its policies and affairs. If the Chief Executive Officer is also a director, the Chief Executive Officer shall, in the absence of or because of the inability to act of the Executive Chairman, perform all duties of the Executive Chairman. The Chief Executive Officer shall have the authority to sign, in the name and on behalf of the Corporation, checks, orders, contracts, leases, notes, drafts and all other documents and instruments in connection with the business of the Corporation.

Section 5.5 **President**. The President, if any, shall have such powers and shall perform such duties as shall be assigned to him or her by the Board. In the absence (or inability or refusal to act) of the Executive Chairman and Chief Executive Officer, the President (if any and if he or she shall be a director) shall preside when present at all meetings of the Board.

Section 5.6 **Senior Vice Presidents and Vice Presidents**. Each Senior Vice President and Vice President, if any, shall have such powers and shall perform such duties as shall be assigned to him or her by the Board.

Section 5.7 **Treasurer**. The Treasurer shall exercise general supervision over the receipt, custody and disbursement of corporate funds. The Treasurer shall cause the funds of the Corporation to be deposited in such banks as may be authorized by the Board, or in such banks as may be designated as depositaries in the manner provided by resolution of the Board. He or she shall have such further powers and duties and shall be subject to such directions as may be granted or imposed upon him or her from time to time by the Board, the Executive Chairman or the Chief Executive Officer.

Section 5.8 **Secretary**. The Secretary shall keep or cause to be kept in one or more books provided for that purpose, the minutes of all meetings of the Board, the committees of the Board and the stockholders; he or she shall see that all notices are duly given in accordance with the provisions of these Bylaws and as required by applicable law; he or she shall be custodian of the records and the seal of the Corporation, if any, and affix and attest the seal to all stock certificates of the Corporation (unless the seal of the Corporation on such certificates shall be a facsimile, as hereinafter provided) and affix and attest the seal to all other documents to be executed on behalf of the Corporation under its seal; and he or she shall see that the books, reports, statements, certificates and other documents and records required by law to be kept and filed are properly kept and filed; and in general, he or she shall perform all the duties incident to the office of Secretary and such other duties as from time to time may be assigned to him or her by the Board, the Executive Chairman or the Chief Executive Officer.

Section 5.9 **Vacancies**. A newly created elected office and a vacancy in any elected office because of death, resignation, or removal, may, subject to the Stockholders' Agreement, be filled by the Board for the unexpired portion of the term at any meeting of the Board. Any vacancy in an office appointed by the Executive Chairman or the Chief Executive Officer because of death, resignation, or removal may be filled by the Executive Chairman or the Chief Executive Officer.

Section 5.10 **Action with Respect to Securities of Other Corporations**. Unless otherwise directed by the Board, the Executive Chairman shall have power to vote and otherwise act on behalf of the Corporation, in person or by proxy, at any meeting of security holders of or with respect to any action of security holders of any other corporation in which the Corporation may hold securities and otherwise to exercise any and all rights and powers that the Corporation may possess by reason of its ownership of securities in such other corporation.

ARTICLE VI
STOCK CERTIFICATES AND TRANSFERS

Section 6.1 **Stock Certificates and Transfers**. The interest of each stockholder of the Corporation evidenced by certificates for shares of stock shall be in such form as the appropriate officers of the Corporation may from time to time prescribe, provided that the Board may provide by resolution or resolutions that some or all of any or all classes or series of its stock may be uncertificated shares. The shares of the stock of the Corporation shall be entered in the books of the Corporation as they are issued and shall exhibit the holder's name and number of shares. Subject to the provisions of the Certificate of Incorporation, the shares of the stock of the Corporation shall be transferred on the books of the Corporation, which may be maintained by a third-party registrar or transfer agent, by the holder thereof in person or by his or her attorney, upon surrender for cancellation of certificates for at least the same number of shares, with an assignment and power of transfer endorsed thereon or attached thereto, duly executed, with such proof of the authenticity of the signature as the Corporation or its agents may reasonably require or upon receipt of proper transfer instructions from the registered holder of uncertificated shares and upon compliance with appropriate procedures for transferring shares in uncertificated form, at which time the Corporation shall issue a new certificate to the person entitled thereto (if the stock is then represented by certificates), cancel the old certificate and record the transaction upon its books.

Any share of stock that is certificated shall be signed, countersigned and registered in such manner as the Board may by resolution prescribe, which resolution may permit all or any of the signatures on such certificates to be in facsimile. In case any officer, transfer agent or registrar who has signed or whose facsimile signature has been placed upon a certificate has ceased to be such officer, transfer agent or registrar before such certificate is issued, it may be issued by the Corporation with the same effect as if he or she were such officer, transfer agent or registrar at the date of issue.

Section 6.2 **Lost, Stolen or Destroyed Certificates**. No certificate for shares or uncertificated shares of stock in the Corporation shall be issued in place of any certificate alleged to have been lost, destroyed or stolen, except on production of such evidence of such loss, destruction or theft and on delivery to the Corporation of a bond of indemnity in such amount, upon such terms and secured by such surety, as the Board or any financial officer may in its or his or her discretion require.

Section 6.3 **Ownership of Shares**. The Corporation shall be entitled to treat the holder of record of any share or shares of stock of the Corporation as the holder in fact thereof and, accordingly, shall not be bound to recognize any equitable or other claim to or interest in such share or shares on the part of any other person, whether or not it shall have express or other notice thereof, except as otherwise provided by the laws of the State of Delaware.

Section 6.4 **Regulations Regarding Certificates**. The Board shall have the power and authority to make all such rules and regulations as they may deem expedient concerning the issue, transfer and registration or the replacement of certificates for shares of stock of the Corporation. The Corporation may enter into additional agreements with stockholders to restrict the transfer of stock of the Corporation in any manner not prohibited by the DGCL.

ARTICLE VII MISCELLANEOUS PROVISIONS

Section 7.1 **Fiscal Year**. The fiscal year of the Corporation shall begin on the first day of January and end on the thirty-first day of December of each year.

Section 7.2 **Dividends**. Except as otherwise provided by law or the Certificate of Incorporation, the Board may from time to time declare, and the Corporation may pay, out of funds legally available therefor, dividends on its outstanding shares of stock, which dividends may be paid in either cash, property or shares of stock of the Corporation. A member of the Board, or a member of any committee designated by the Board, shall be fully protected in relying in good faith upon the records of the Corporation and upon such information, opinions, reports or statements presented to the Corporation by any of its officers or employees, or committees of the Board, or by any other person as to matters the director reasonably believes are within such other person's professional or expert competence and who has been selected with reasonable care by or on behalf of the Corporation, as to the value and amount of the assets, liabilities or net profits of the Corporation, or any other facts pertinent to the existence and amount of surplus or other funds from which dividends might properly be declared and paid.

Section 7.3 **Seal**. The Corporation may adopt a corporate seal, which shall be adopted and which may be altered by the Board. The Corporation may use the corporate seal by causing it or a facsimile thereof to be impressed or affixed or in any other manner reproduced.

Section 7.4 **Waiver of Notice**. Whenever any notice is required to be given to any stockholder or director of the Corporation under the provisions of the DGCL, the Certificate of Incorporation or these Bylaws, a waiver thereof in writing, including by electronic transmission, signed by the person or persons entitled to such notice, whether before or after the time stated therein, shall be deemed equivalent to the giving of such notice. Subject to Section 8.1 of these Bylaws, neither the business to be transacted at, nor the purpose of, any annual or special meeting of the stockholders or the Board or committee thereof need be specified in any waiver of notice of such meeting. Attendance of a person at a meeting shall constitute a waiver of notice of such meeting, except when the person attends a meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened.

Section 7.5 **Resignations**. Any director or any officer, whether elected or appointed, may resign at any time by giving written notice, including by electronic transmission, of such resignation to the Executive Chairman, the Chief Executive Officer, the President or the Secretary, and such resignation shall be deemed to be effective as of the close of business on the date said notice is received by the Executive Chairman, the Chief Executive Officer, the President or the Secretary, or at such later time as is specified therein. No formal action shall be required of the Board or the stockholders to make any such resignation effective.

Section 7.6 **Indemnification and Advancement of Expenses**

(A) The Corporation shall indemnify and hold harmless, to the fullest extent permitted by applicable law as it presently exists or may hereafter be amended, any person who was or is made a party to or is threatened to be made a party to or is otherwise involved in any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (a "**proceeding**") by reason of the fact that he or she, or a person for whom he or she is the legal representative, is or was a director or officer of the Corporation or, while serving as a director or officer of the Corporation, is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation or of a partnership, joint venture, trust, other enterprise or non-profit entity, including service with respect to an employee benefit plan (a '**Covered Person**"), whether the basis of such proceeding is alleged action in an official capacity as a director, officer, employee or agent, or in any other capacity while serving as a director, officer, employee or agent, against all expenses, liability and loss (including, without limitation, attorneys' fees, judgments, fines, ERISA excise taxes and penalties and amounts paid in settlement) reasonably incurred or suffered by such Covered Person in connection with such proceeding.

(B) The Corporation shall, to the fullest extent not prohibited by applicable law as it presently exists or may hereafter be amended, pay the expenses (including attorneys' fees) incurred by a Covered Person in defending any proceeding in advance of its final disposition; provided, however, that to the extent required by applicable law, such payment of expenses in advance of the final disposition of the proceeding shall be made only upon receipt of an undertaking by the Covered Person to repay all amounts advanced if it should be ultimately determined by final judicial decision from which there is no further right to appeal (a "**final adjudication**") that the Covered Person is not entitled to be indemnified under this Section 7.6 or otherwise.

(C) The rights to indemnification and advancement of expenses under this Section 7.6 shall be contract rights and such rights shall continue as to a Covered Person who has ceased to be a director, officer, employee or agent and shall inure to the benefit of his or her estate, heirs, executors and administrators. Notwithstanding the foregoing provisions of this Section 7.6, except for proceedings to enforce rights to indemnification and advancement of expenses, the Corporation shall indemnify and advance expenses to a Covered Person in connection with a proceeding (or part thereof) initiated by such Covered Person only if such proceeding (or part thereof) was authorized by the Board.

(D) If a claim for indemnification under this Section 7.6 (following the final disposition of such proceeding) is not paid in full within sixty (60) days after the Corporation has received a claim therefor by the Covered Person, or if a claim for any advancement of expenses under this Section 7.6 is not paid in full within thirty (30) days after the Corporation has received a statement or statements requesting such amounts to be advanced, the Covered Person shall thereupon (but not before) be entitled to file suit to recover the unpaid amount of such claim. If successful in whole or in part, the Covered Person shall be entitled to be paid the expense of prosecuting such claim, or a claim brought by the Corporation to recover an advancement of expenses pursuant to the terms of an undertaking, to the fullest extent permitted by applicable law. In any such action, the Corporation shall have the burden of proving that the Covered Person is not entitled to the requested indemnification or advancement of expenses under applicable law. In (1) any suit brought by a Covered Person to enforce a right to indemnification hereunder (but not in a suit brought by a Covered Person to enforce a right to an advancement of expenses) it shall be a defense that, and (2) in any suit brought by the Corporation to recover an advancement of expenses pursuant to the terms of an undertaking, the Corporation shall be entitled to recover such expenses upon a final adjudication that, the Covered Person has not met any applicable standard for indemnification set forth in the DGCL. Neither the failure of the Corporation (including its directors who are not parties to such action, a committee of such directors, independent legal counsel or its stockholders) to have made a determination prior to the commencement of such suit that indemnification of the Covered Person is proper in the circumstances because the Covered Person has met the applicable standard of conduct set forth in the DGCL, nor an actual determination by the Corporation (including its directors who are not parties to such action, a committee of such directors, independent legal counsel or its stockholders) that the Covered Person has not met such applicable standard of conduct, shall create a presumption that the Covered Person has not met the applicable standard of conduct or, in the case of such a suit brought by the Covered Person, be a defense to such suit. In any suit brought by the Covered Person to enforce a right to indemnification or to an advancement of expenses hereunder, or brought by the Corporation to recover an advancement of expenses pursuant to the terms of an undertaking, the burden of proving that the Covered Person is not entitled to be indemnified, or to such advancement of expenses, under this Section 7.6 or otherwise shall be on the Corporation.

(E) The rights conferred on any Covered Person by this Section 7.6 shall not be exclusive of any other rights that such Covered Person may have or hereafter acquire under any statute, any provision of the Certificate of Incorporation, these Bylaws, any agreement or vote of stockholders or disinterested directors or otherwise.

(F) This Section 7.6 shall not limit the right of the Corporation, to the extent and in the manner permitted by applicable law, to indemnify and to advance expenses to persons other than Covered Persons when and as authorized by appropriate corporate action.

(G) Any Covered Person entitled to indemnification and/or advancement of expenses, in each case pursuant to this Section 7.6, may have certain rights to indemnification, advancement and/or insurance provided by one or more persons with whom or which such Covered Person may be associated. The Corporation hereby acknowledges and agrees that (1) the Corporation shall be the indemnitor of first resort with respect to any proceeding, expense, liability or matter that is the subject of this Section 7.6, (2) the Corporation shall be primarily liable for all such obligations and any indemnification afforded to a Covered Person in respect of a proceeding, expense, liability or matter that is the subject of this Section 7.6, whether created by law, organizational or constituent documents, contract or otherwise, (3) any obligation of any persons with whom or which a Covered Person may be associated to indemnify such Covered Person and/or advance expenses or liabilities to such Covered Person in respect of any proceeding shall be secondary to the obligations of the Corporation hereunder, (4) the Corporation shall be required to indemnify each Covered Person and advance expenses to each Covered Person hereunder to the fullest extent provided herein without regard to any rights such Covered Person may have against any other person with whom or which such Covered Person may be associated or insurer of any such person, and (5) the Corporation irrevocably waives, relinquishes and releases any other person with whom or which a Covered Person may be associated from any claim of contribution, subrogation or any other recovery of any kind in respect of amounts paid by the Corporation hereunder.

(H) The Corporation's obligation, if any, to indemnify or to advance expenses to any Covered Person who was or is serving at its request as a director, officer, employee or agent of another corporation, partnership, joint venture, trust, other enterprise or non-profit entity, including service with respect to an employee benefit plan, shall be reduced by any amount such Covered Person may collect as indemnification or advancement of expenses from such other corporation, partnership, joint venture, trust, other enterprise, non-profit entity or employee benefit plan.

(I) The Corporation may maintain insurance, at its expense, to protect itself and any person who is or was serving as a director, officer, employee or agent of the Corporation, or is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise or non-profit entity, including service with respect to an employee benefit plan, against any expense, liability or loss (including, without limitation, attorneys' fees, judgments, fines, ERISA excise taxes and penalties and amounts paid in settlement), whether or not the Corporation would have the power to indemnify such person against any such expense, liability or loss under the DGCL.

(J) Any repeal or modification of the provisions of this Section 7.6 shall not adversely affect any right or protection hereunder of any Covered Person in respect of any proceeding (regardless of when such proceeding is first threatened, commenced or completed) arising out of, or related to, any act or omission occurring prior to the time of such repeal or modification.

Section 7.7 **Notices**. Except as otherwise specifically provided herein or required by applicable law, all notices required to be given to any stockholder, director, officer, employee or agent shall be in writing and may in every instance be effectively given by hand delivery to the recipient thereof, by depositing such notice in the mails, postage paid, or by sending such notice by commercial courier service, or by facsimile or other electronic transmission, provided that notice to stockholders by electronic transmission shall be given in the manner provided in Section 232 of the DGCL. Any such notice shall be addressed to such stockholder, director, officer, employee or agent at his or her last known address as the same appears on the books of the Corporation. Without limiting the manner by which notice otherwise may be given effectively, notice to any stockholder shall be deemed given: (1) if by facsimile, when directed to a number at which the stockholder has consented to receive notice; (2) if by electronic mail, when directed to an electronic mail address at which the stockholder has consented to receive notice; (3) if by posting on an electronic network together with separate notice to the stockholder of such specific posting, upon the later of (A) such posting and (B) the giving of such separate notice; (4) if by any other form of electronic transmission, when directed to the stockholder; and (5) if by mail, when deposited in the mail, postage prepaid, directed to the stockholder at such stockholder's address as it appears on the records of the Corporation.

Section 7.8 **Facsimile and Electronic Signatures**. In addition to the provisions for use of facsimile or electronic signatures elsewhere specifically authorized in these Bylaws, facsimile or electronic signatures of any officer or officers of the Corporation may be used whenever and as authorized by the Board or a committee thereof or by the Executive Chairman or the Chief Executive Officer.

Section 7.9 **Time Periods**. Except as otherwise explicitly set forth in these Bylaws, in applying any provision of these Bylaws that require that an act be done or not done a specified number of days prior to an event or that an act be done during a period of a specified number of days prior to an event, calendar days shall be used, the day of the doing of the act shall be excluded, and the day of the event shall be included.

Section 7.10 **Reliance Upon Books, Reports and Records**. Each member of the Board and each member of any committee designated by the Board shall, in the performance of his or her duties, be fully protected in relying in good faith upon the records of the Corporation and upon information, opinions, reports or statements presented to the Corporation by any of the Corporation's officers or employees, or committees designated by the Board, or by any other person as to the matters the member reasonably believes are within such other person's professional or expert competence and who has been selected with reasonable care by or on behalf of the Corporation.

Section 7.11 **Severability**. Whenever possible, each provision or portion of any provision of these Bylaws will be interpreted in such manner as to be effective and valid under applicable law, but if any provision or portion of any provision of these Bylaws is held to be invalid, illegal or unenforceable in any respect under any applicable law or rule in any jurisdiction, such provision or portion of any provision shall be severable and the invalidity, illegality or unenforceability will not affect any other provision or portion of any provision in such jurisdiction, and these Bylaws will be reformed, construed and enforced in such jurisdiction as if such invalid, illegal or unenforceable provision or portion of any provision had never been contained herein.

ARTICLE VIII
AMENDMENTS

Section 8.1 **Amendments**. Subject to the provisions of the Certificate of Incorporation, these Bylaws may be amended, altered or repealed by resolution adopted by a majority of the directors present at any special or regular meeting of the Board at which a quorum is present if, in the case of such special meeting only, notice of such amendment, alteration or repeal is contained in the notice or waiver of notice of such meeting. Stockholders shall also have the power to adopt, amend or repeal these Bylaws; *provided, however*, that, in addition to any vote of the holders of any class or series of stock of the Corporation required by law or by the Certificate of Incorporation, these Bylaws may be adopted, altered, amended or repealed by the stockholders of the Corporation only (A) prior to the Trigger Date, by the affirmative vote of holders of not less than 50% in voting power of the Voting Stock, voting together as a single class, or (B) on and after the Trigger Date, by the affirmative vote of holders of not less than 66 2/3% in voting power of the Voting Stock, voting together as a single class. No Bylaws hereafter made or adopted, nor any repeal of or amendment thereto, shall invalidate any prior act of the Board that was valid at the time it was taken. So long as the Stockholders' Agreement remains in effect, the Board shall not approve any amendment, alteration or repeal of any provision of these Bylaws, or the adoption of any new Bylaw, that would be contrary to or inconsistent with the then-applicable terms of the Stockholders' Agreement.

Exhibit 4.2

REGISTRATION RIGHTS AGREEMENT

This Registration Rights Agreement (this "***Agreement***"), dated as of , 2021, is entered into by and among ProFrac Holding Corp., a Delaware corporation (the "***Company***"), and each of the other parties listed on the signature pages hereto (the "***Initial Holders***" and, together with the Company, the "***Parties***").

WHEREAS, the Initial Holders, certain other parties thereto and the Company have entered into that certain Master Reorganization Agreement, dated as of , 2021 (the "***MRA***"), pursuant to which each of the Initial Holders received, as consideration for the transactions contemplated by the MRA, units in ProFrac Holdings, LLC ("***OpCo Units***") and shares of Class B common stock, par value $0.01 per share, of the Company ("***Class B Common Stock***"); and

WHEREAS, as a condition precedent to the execution, delivery and performance of the MRA, and in connection with, and effective upon, the completion of the underwritten initial public offering (the "***IPO***") of shares of Class A common stock, par value $0.01 per share, of the Company ("***Class A Common Stock***", and together with the Class B Common stock, the "***Common Stock***"), the Initial Holders have requested, and the Company has agreed to provide, certain registration rights with respect to the Registrable Securities (as herein after defined) as set forth in this Agreement.

NOW THEREFORE, in consideration of the mutual covenants and agreements set forth herein and for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged by each party hereto, the Parties hereby agree as follows:

1. Definitions. As used in this Agreement, the following terms have the meanings indicated:

"***Affiliate***" means, with respect to any specified Person, a Person that, directly or indirectly, Controls or is Controlled by, or is under common Control with, such specified Person.

"***Automatic Shelf Registration Statement***" means an "automatic shelf registration statement" as defined under Rule 405.

"***Board***" means the board of directors of the Company.

"***Business Day***" means any day other than a Saturday, Sunday, any federal holiday or any other day on which banking institutions in the State of Texas or the State of New York are authorized or required to be closed by law or governmental action.

"***Commission***" means the Securities and Exchange Commission or any other federal agency then administering the Securities Act or Exchange Act.

"***Company Securities***" means any equity interest of any class or series in the Company.

"***Controls***," "***Controlled by***" and "***under common Control with***" mean the possession, direct or indirect, of the power to (a) direct or cause the direction of the management and policies of a Person, whether through the ownership of voting securities, by contract or otherwise.

"***Effective Date***" means the time and date that a Registration Statement is first declared effective by the Commission or otherwise becomes effective.

"***Equify Financial***" means Equify Financial, LLC, a Texas limited liability company.

"***Exchange Act***" means the Securities Exchange Act of 1934, as amended.

"***FINRA***" means the Financial Industry Regulatory Authority.

"***Holder***" means (a) each Initial Holder, unless and until such Initial Holder ceases to hold any Registrable Securities; and (b) any holder of Registrable Securities to whom registration rights conferred by this Agreement have been transferred in compliance with Section 8(e) hereof; *provided*, that any Person referenced in clause (b) of this definition shall be a Holder only if such Person agrees in writing to be bound by and subject to the terms and conditions set forth in this Agreement.

"***Initiating Holder***" means the Holder delivering the Demand Notice or the Underwritten Offering Notice, as applicable.

"***Lock-Up Period***" has the meaning set forth in the underwriting agreement entered into by the Company in connection with the IPO.

"***Material Adverse Change***" means (a) any general suspension of trading in, or limitation on prices for, securities on any national securities exchange or in the over-the-counter market in the United States; (b) the declaration of a banking moratorium or any suspension of payments in respect of banks in the United States; (c) a material outbreak or escalation of armed hostilities or other international or national calamity involving the United States or the declaration by the United States of a national emergency or war or a change in national or international financial, political or economic conditions; or (d) any event, change, circumstance or effect that is or is reasonably likely to be materially adverse to the business, properties, assets, liabilities, condition (financial or otherwise), operations, results of operations or prospects of the Company and its subsidiaries taken as a whole.

"***Person***" means an individual, corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited partnership, limited liability company, joint stock company, estate, trust, government (or an agency or subdivision thereof) or other entity of any kind.

"***Proceeding***" means any action, claim, suit, proceeding or investigation (including a preliminary investigation or partial proceeding, such as a deposition) pending or, to the knowledge of the Company, threatened.

"***Prospectus***" means the prospectus included in a Registration Statement (including a prospectus that includes any information previously omitted from a prospectus filed as part of an effective Registration Statement in reliance upon Rule 430A, Rule 430B or Rule 430C promulgated under the Securities Act), as amended or supplemented by any prospectus supplement, with respect to the terms of the offering of any portion of the Registrable Securities covered by such Registration Statement and all other amendments and supplements to such Prospectus, including post-effective amendments, and all material incorporated by reference or deemed to be incorporated by reference in such Prospectus.

"***Registrable Securities***" means the Shares; *provided*, *however*, that Registrable Securities shall not include: (a) any Shares that have been registered under the Securities Act and disposed of pursuant to an effective Registration Statement or otherwise transferred to a Person who is not entitled to the registration rights and other rights hereunder; (b) any Shares that have been sold or transferred by the Holder thereof pursuant to Rule 144 (or any similar provision then in force under the Securities Act) and the transferee thereof does not receive "restricted securities" as defined in Rule 144, as a result of which the legend on any certificate or book-entry notation, as the case may be, representing such Registrable Security restricting transfer of such Registrable Security has been removed; (c) any Shares that are eligible for resale without restriction (including any limitation thereunder on volume or manner of sale) and without the need for current public information pursuant to any provision of Rule 144 (or any similar provision then in effect) under the Securities Act, unless such Shares are held by a Holder that beneficially owns Shares representing 5% or more of the aggregate voting power of the Company's common stock eligible to vote in the election of directors of the Company; and (d) any Shares that cease to be outstanding (whether as a result of repurchase and cancellation, conversion or otherwise).

"***Registration Statement***" means a registration statement of the Company in the form required to register under the Securities Act and other applicable law for the resale of the Registrable Securities in accordance with the intended plan of distribution of each Holder included therein, and including any Prospectus, amendments and supplements to each such registration statement or Prospectus, including pre- and post-effective amendments, all exhibits thereto, and all material incorporated by reference or deemed to be incorporated by reference in such registration statement.

"***Rule 144***" means Rule 144 promulgated by the Commission pursuant to the Securities Act.

"***Rule 405***" means Rule 405 promulgated by the Commission pursuant to the Securities Act.

"***Rule 415***" means Rule 415 promulgated by the Commission pursuant to the Securities Act.

"***Rule 424***" means Rule 424 promulgated by the Commission pursuant to the Securities Act.

"***Rule 430A***" means Rule 430A promulgated by the Commission pursuant to the Securities Act.

"***Rule 430B***" means Rule 430B promulgated by the Commission pursuant to the Securities Act.

"***Rule 430C***" means Rule 430C promulgated by the Commission pursuant to the Securities Act.

"***Securities Act***" means the Securities Act of 1933, as amended.

"***Selling Expenses***" means all underwriting discounts, selling commissions and stock transfer taxes applicable to the sale of Registrable Securities and fees and disbursements of counsel for any Holder in connection with such sale (except as set forth in Section 5).

"***Shares***" means the shares of Class A Common Stock now held or hereafter acquired by the Holders, including any shares of Class A Common Stock issued or issuable upon exchange of OpCo Units and shares of Class B Common Stock held by the Holders as of the date hereof, and any other equity interests of the Company or equity interests in any successor of the Company issued in respect of such shares by reason of or in connection with any stock dividend, stock split, combination, reorganization, recapitalization, conversion to another type of entity or similar event involving a change in the capital structure of the Company.

"***Shelf Registration Statement***" means a Registration Statement filed with the Commission on Form S-3 (or any successor form or other appropriate form under the Securities Act) for an offering to be made on a continuous or delayed basis pursuant to Rule 415 (or any similar rule that may be adopted by the Commission) or, if the Company is not then eligible to file on Form S-3, on Form S-1 or any other appropriate form under the Securities Act, or any successor rule that may be adopted by the Commission, and all amendments and supplements to such Registration Statement (including post-effective amendments), covering the Registrable Securities, as applicable.

"***THRC***" means THRC Holdings, LP, a Texas limited partnership.

"***Trading Market***" means the principal national securities exchange on which Registrable Securities are listed.

"***Underwritten Offering***" means an underwritten offering of Class A Common Stock for cash (whether a Requested Underwritten Offering or in connection with a public offering of Class A Common Stock by the Company, stockholders or both), excluding an offering relating solely to an employee benefit plan, an offering relating to a transaction on Form S-4 or Form S-8 or an offering on any registration statement form that does not permit secondary sales.

"***VWAP***" means, as of a specified date and in respect of Registrable Securities, the volume weighted average price for such security on the Trading Market for the five trading days immediately preceding, but excluding, such date.

"***WKSI***" means a "well known seasoned issuer" as defined under Rule 405.

Unless the context requires otherwise: (a) any pronoun used in this Agreement shall include the corresponding masculine, feminine or neuter forms; (b) references to Sections refer to sections of this Agreement; (c) the terms "include," "includes," "including" and words of like import shall be deemed to be followed by the words "without limitation"; (d) the terms "hereof," "hereto," "herein" or "hereunder" refer to this Agreement as a whole and not to any particular provision of this Agreement; (e) the term "or" is not exclusive and shall have the inclusive meaning of "and/or"; (f) defined terms herein will apply equally to both the singular and plural forms and derivative forms of defined terms will have correlative meanings; (g) references to any law or statute shall include all rules and regulations promulgated thereunder, and references to any law or statute shall be construed as including any legal and statutory provisions consolidating, amending, succeeding or replacing the applicable law or statute; (h) references to any Person include such Person's successors and permitted assigns; and (i) references to "days" are to calendar days unless otherwise indicated.

2. Registration.

(a) Demand Registration.

(i) At any time after the expiration of the Lock-Up Period, any Holder shall have the option and right, exercisable by delivering a written notice to the Company (a "***Demand Notice***"), to require the Company to, pursuant to the terms of and subject to the limitations contained in this Agreement, prepare and file with the Commission a Registration Statement registering the offering and sale of the number and type of Registrable Securities on the terms and conditions specified in the Demand Notice, which may include sales on a delayed or continuous basis pursuant to Rule 415 on a Shelf Registration Statement (a "***Demand Registration***"). The Demand Notice must set forth the number of Registrable Securities that the Initiating Holder intends to include in such Demand Registration and the intended timing and method of disposition thereof. Notwithstanding anything to the contrary herein, in no event shall the Company be required to effectuate a Demand Registration unless the Registrable Securities of the Holders to be included therein after compliance with Section 2(a)(ii) (A) represent at least [3]% of the total outstanding shares of Common Stock or (B) have an aggregate value of at least $[50] million based on the VWAP (the "***Minimum Amount***") as of the date of the Demand Notice.

(ii) Within five Business Days (or if the Registration Statement will be a Shelf Registration Statement, within two Business Days) after the receipt of the Demand Notice, the Company shall give written notice of such Demand Notice to all Holders and, within 30 days after receipt of the Demand Notice (except if the Company is not then eligible to register for offer and resale the Registrable Securities on Form S-3, in which case, within 90 days thereof), shall, subject to the limitations of this Section 2(a), file a Registration Statement in accordance with the terms and conditions of, and the intended timing and method of disposition described in, the Demand Notice, which Registration Statement shall cover all of the Registrable Securities that the Holders shall in writing request to be included in the Demand Registration (such request to be given to the Company within three Business Days after receipt of notice of the Demand Notice given by the Company pursuant to this Section 2(a)(ii)). The Company shall use reasonable best efforts to cause such Registration Statement to become, as soon as reasonably practicable after the filing thereof, and remain continuously, effective under the Securities Act until the earlier of (A) 180 days (or three years if a Shelf Registration Statement is requested) after the Effective Date of such Registration Statement or (B) the date on which all Registrable Securities covered by such Registration Statement have been sold or otherwise disposed of or such Shares are no longer Registrable Securities (the "***Effectiveness Period***"); *provided*, *however*, that such period shall be extended for a period of time equal to the period the Holders refrain from selling any securities included in such Registration Statement at the request of an underwriter of the Company or the Company pursuant to this Agreement.

(iii) Subject to the other limitations contained in this Agreement, the Company is not obligated hereunder to effect (A) a Demand Registration within 90 days after the closing of any Requested Underwritten Offering, (B) more than a total of [four] Demand Registrations for which THRC (or any transferee thereof in accordance with Section 8(e)) is the Initiating Holder, (C) more than a total of [four] Demand Registrations for which Equify Financial (or any transferee thereof in accordance with Section 8(e)) is the Initiating Holder, (D) more than a total of [four] Demand Registrations for which Mr. Farris Wilks (or any transferee thereof in accordance with Section 8(e)) is the Initiating Holder, and (E) a subsequent Demand Registration pursuant to a Demand Notice if a Registration Statement covering all of the Registrable Securities held by the Initiating Holder shall have become and remains effective under the Securities Act and is sufficient to permit offers and sales of the number and type of Registrable Securities on the terms and conditions specified in the Demand Notice in accordance with the intended timing and method of disposition thereof specified in the Demand Notice; *provided*, that a demand for a Shelf Registration Statement shall not count against the number of allowable Demand Registrations for (B), (C) and (D) of this paragraph. No Demand Registration shall be deemed to have occurred for purposes of this Section 2(a)(iii) if the Registration Statement relating thereto does not become effective or is not maintained effective for its entire Effectiveness Period, in which case the Initiating Holder shall be entitled to an additional Demand Registration in lieu thereof. Further, a Demand Registration shall not constitute a Demand Registration of the Initiating Holder for purposes of this Section 2(a)(iii) if, as a result of Section 2(a)(vi), there is included in the Demand Registration less than the lesser of (x) Registrable Securities of the Initiating Holder having a VWAP measured on the Effective Date of the applicable Registration Statement of $[50] million and (y) [two-thirds] of the number of Registrable Securities the Initiating Holder set forth in the applicable Demand Notice.

(iv) A Holder may withdraw all or any portion of its Registrable Securities included in a Demand Registration from such Demand Registration at any time prior to the effectiveness of the applicable Registration Statement. Upon receipt of a notice from the Initiating Holder that the Initiating Holder is withdrawing all of its Registrable Securities from the Demand Registration or a notice from a Holder to the effect that the Holder is withdrawing an amount of its Registrable Securities such that the remaining amount of Registrable Securities to be included in the Demand Registration is below the Minimum Amount, the Company shall cease all efforts to secure effectiveness of the applicable Registration Statement. Such registration nonetheless shall be deemed a Demand Registration with respect to the Initiating Holder for purposes of Section 2(a)(iii) unless (A) the Initiating Holder shall have paid or reimbursed the Company for its pro rata share of all reasonable and documented out-of-pocket fees and expenses incurred by the Company in connection with the withdrawn registration of such Registrable Securities (based on the number of securities the Initiating Holder sought to register, as compared to the total number of securities included in such Demand Registration) or (B) the withdrawal is made following the occurrence of a Material Adverse Change or pursuant to the Company's request for suspension pursuant to Section 3(o).

(v) The Company may include in any such Demand Registration other Company Securities for sale for its own account or for the account of any other Person, subject to Section 2(a)(vi) and Section 2(d)(iii).

(vi) In the case of a Demand Registration not being underwritten, if the Initiating Holder advises the Company that in its reasonable opinion the aggregate number of securities requested to be included in such registration exceeds the number that can be included without being likely to have a significant adverse effect on the price, timing or distribution of the securities offered or the market for the securities offered, the Company shall include in such Demand Registration only that number of securities that, in the reasonable opinion of the Initiating Holder, will not have such adverse effect, with such number to be allocated as follows: (A) first, pro-rata among all Holders (including the Initiating Holder) that have requested to participate in such Demand Registration based on the relative number of Registrable Securities then held by each such Holder, (B) second, if there remains availability for additional securities to be included in such Demand Registration, to the Company, and (C) third, if there remains availability for additional securities to be included in such Demand Registration following the allocation provided in clauses (A) and (B) above, to any other holders of Company Securities entitled to participate in such Demand Registration, if applicable, based on the relative number of Company Securities such holder is entitled to include in such Demand Registration.

(vii) Subject to the limitations contained in this Agreement, the Company shall effect any Demand Registration on such appropriate registration form of the Commission (A) as shall be selected by the Company and (B) as shall permit the disposition of the Registrable Securities in accordance with the intended method of disposition specified in the Demand Notice; *provided*, that if the Company becomes, and is at the time of its receipt of a Demand Notice, a WKSI, the Demand Registration for any offering and selling of Registrable Securities shall be effected pursuant to an Automatic Shelf Registration Statement, which shall be on Form S-3 (if available to the Company. If at any time a Registration Statement on Form S-3 is effective and a Holder provides written notice to the Company that it intends to effect an offering of all or part of the Registrable Securities included on such Registration Statement, the Company shall amend or supplement such Registration Statement as may be necessary in order to enable such offering to take place.

(viii) Without limiting Section 3, in connection with any Demand Registration pursuant to and in accordance with this Section 2(a), the Company shall (A) promptly prepare and file or cause to be prepared and filed (1) such additional forms, amendments, supplements, Prospectuses, certificates, letters, opinions and other documents as may be necessary or advisable to register or qualify the Registrable Securities subject to such Demand Registration, including under the securities laws of such jurisdictions as the Holders shall reasonably request; *provided*, *however*, that no such qualification shall be required in any jurisdiction where, as a result thereof, the Company would become subject to general service of process or to taxation or qualification to do business in such jurisdiction solely as a result of such registration and (2) such forms, amendments, supplements, Prospectuses, certificates, letters, opinions and other documents as may be necessary to apply for listing or to list the Registrable Securities subject to such Demand Registration on the Trading Market and (B) do any and all other acts and things that may be reasonably necessary or appropriate or reasonably requested by the Holders to enable the Holders to consummate a public sale of such Registrable Securities in accordance with the intended timing and method of distribution thereof.

(ix) In the event a Holder transfers Registrable Securities included on a Registration Statement and such Registrable Securities remain Registrable Securities following such transfer, at the request of such Holder, the Company shall amend or supplement such Registration Statement as may be necessary in order to enable the transferee of such Registrable Securities to offer and sell such Registrable Securities pursuant to such Registration Statement; *provided*, that in no event shall the Company be required to file a post-effective amendment to the Registration Statement unless (A) such Registration Statement includes only Registrable Securities held by the Holder, Affiliates of the Holder or transferees of the Holder or (B) the Company has received written consent therefor from each other Holder for whom Registrable Securities have been registered on (but not yet sold under) such Registration Statement, other than the Holder, Affiliates of the Holder or transferees of the Holder.

(b) Requested Underwritten Offering. Any Holder then able to effectuate a Demand Registration pursuant to the terms of Section 2(a) (or who has previously effectuated a Demand Registration pursuant to Section 2(a) but has not engaged in an Underwritten Offering in respect of such Demand Registration) shall have the option and right, exercisable by delivering written notice to the Company of its intention to distribute Registrable Securities by means of an Underwritten Offering (an "***Underwritten Offering Notice***"), to require the Company, pursuant to the terms of and subject to the limitations of this Agreement, to effectuate a distribution of any or all of its Registrable Securities by means of an Underwritten Offering pursuant to a new Demand Registration or pursuant to an effective Registration Statement covering such Registrable Securities (a "***Requested Underwritten Offering***"); *provided*, that if the Requested Underwritten Offering is pursuant to a new Demand Registration, then the Registrable Securities of such Initiating Holder requested to be included in such Requested

Underwritten Offering have an aggregate value of at least equal to the Minimum Amount as of the date of such Underwritten Offering Notice, and if the Requested Underwritten Offering is pursuant to an effective Demand Registration, then the Registrable Securities of such Initiating Holder requested to be included in such Requested Underwritten Offering have an aggregate value at least equal to $25 million based on the VWAP as of the date of such Underwritten Offering Notice. The Underwritten Offering Notice must set forth the number of Registrable Securities that the Initiating Holder intends to include in such Requested Underwritten Offering. The Company shall propose three or more nationally prominent firms of investment bankers reasonably acceptable to the Initiating Holder to act as the managing underwriter or managing underwriters in connection with such Underwritten Offering from which the Initiating Holder shall select the managing underwriter or managing underwriters. The Initiating Holder, in connection with any other Holder participating in such Underwritten Offering, shall determine the pricing of the Registrable Securities offered pursuant to any Requested Underwritten Offering and the applicable underwriting discounts and commissions and determine the timing of any such Requested Underwritten Offering. Notwithstanding the foregoing, the Company is not obligated to effect a Requested Underwritten Offering within [90] days after the closing of an Underwritten Offering. Any Requested Underwritten Offering (other than the first Requested Underwritten Offering made in respect of a prior Demand Registration) shall constitute a Demand Registration of the Initiating Holder for purposes of Section 2(a)(iii) (it being understood that if requested concurrently with a Demand Registration then, together, such Demand Registration and Requested Underwritten Offering shall count as one Demand Registration); *provided*, *however*, that a Requested Underwritten Offering shall not constitute a Demand Registration of the Initiating Holder for purposes of Section 2(a)(iii) if, as a result of Section 2(d)(iii)(A), the Requested Underwritten Offering includes less than the lesser of (i) Registrable Securities of the Initiating Holder having a VWAP measured on the effective date of the related Registration Statement of $[50] million and (ii) [two-thirds] of the number of Registrable Securities the Initiating Holder set forth in the applicable Underwritten Offering Notice.

(c) Block Trades. Notwithstanding anything contained in this Section 2, in the event a sale of Registrable Securities is an underwritten transaction requiring the involvement of the Company but not involving (i) any "road show" or (ii) a lock-up agreement of more than [45] days to which the Company is a party, and which is commonly known as a "block trade" (a "***Block Trade***"), (1) the requesting Holder shall (A) give at least [four] Business Days prior notice in writing of such transaction to (i) the Company and (ii) any holder of Registrable Securities that is a Party and (x) holds more than 5% of the Class A Common Stock if able to be identified through public filings or (y) is identified by the Company as an Affiliate of the Company and (B) with respect to any Block Trade, identify the potential underwriter in such notice with contact information for such underwriter; and (2) the Company shall cooperate with such requesting Holder to the extent it is reasonably able and shall not be required to give notice thereof to other Holders or permit their participation therein unless reasonably practicable. Any Block Trade shall be for at least $[5] million in expected gross proceeds. The Company shall not be required to effectuate more than [three] Block Trades in any 90-day period. For the avoidance of doubt, a Block Trade shall not constitute a Requested Underwritten Offering.

(d) Piggyback Registration and Piggyback Underwritten Offering.

(i) If the Company shall, at any time, propose to file a registration statement under the Securities Act with respect to an offering of Class A Common Stock (other than a registration statement on Form S-4 or Form S-8 filed solely in connection with an exchange offer or any employee benefit or dividend reinvestment plan and other than a Demand Registration), whether or not for its own account, then the Company shall promptly notify all Holders of such proposal reasonably in advance of (and in any event at least five Business Days, except if the registration statement will be a Shelf Registration Statement, at least two Business Days, before) the anticipated filing date (the "***Piggyback Registration Notice***"). The Piggyback Registration Notice shall offer Holders the opportunity to include for registration in such registration statement the number of Registrable Securities as they may request in writing (a "***Piggyback Registration***"). The Company shall use commercially reasonable efforts to include in each such Piggyback Registration such Registrable Securities for which the Company has received written requests for inclusion therein within three Business Days after sending the Piggyback Registration Notice. Each Holder shall be permitted to withdraw all or part of such Holder's Registrable Securities from a Piggyback Registration by giving written notice to the Company of its request to withdraw; *provided*, that (A) such request must be made in writing and delivered prior to the effectiveness of such Registration Statement and (B) such withdrawal shall be irrevocable and, after making such withdrawal, a Holder shall no longer have any right to include Registrable Securities in the Piggyback Registration as to which such withdrawal was made. Any withdrawing Holder shall continue to have the right to include any Registrable Securities in any subsequent Registration Statement as may be filed by the Company with respect to offerings of Class A Common Stock, all upon the terms and conditions set forth herein.

(ii) If the Company shall, at any time, propose to conduct an Underwritten Offering (including a Requested Underwritten Offering), whether or not for its own account, then the Company shall promptly notify all Holders of such proposal reasonably in advance of (and in any event at least five Business Days, except if the Underwritten Offering will be made pursuant to a Shelf Registration Statement, at least two Business Days, before) the commencement of such Underwritten Offering, which notice shall set forth the principal terms and conditions of the issuance, including the proposed offering price or range of offering prices (if known), the anticipated filing date of the related Registration Statement (if applicable) and the number of shares of Class A Common Stock that are proposed to be registered (the "***Underwritten Offering Piggyback Notice***"). Receipt of any Underwritten Offering Piggyback Notice required to be provided in this Section 2(d)(ii) to Holders shall be kept confidential by the Holder until such proposed Underwritten Offering is (A) publicly announced or (B) such Holder receives notice that such proposed Underwritten Offering has been abandoned, which such notice shall be provided as reasonably practicable by the Company to each Holder. The Underwritten Offering Piggyback Notice shall offer Holders the opportunity to include in such Underwritten Offering (and any related registration of Company

Securities, if applicable) the number of Registrable Securities as they may request in writing (an "***Underwritten Piggyback Offering***"); *provided*, *however*, that in the event that the Company proposes to effectuate the subject Underwritten Offering pursuant to an effective Shelf Registration Statement other than an Automatic Shelf Registration Statement, only Registrable Securities of Holders that are subject to an effective Shelf Registration Statement may be included in such Underwritten Piggyback Offering, unless the Company is then able to file an Automatic Shelf Registration Statement and, in the reasonable judgment of the Company, the filing of the Automatic Shelf Registration Statement including Registrable Securities of Holders that are not otherwise included in an effective Shelf Registration Statement would not have any material adverse effect on the price, timing or distribution of the Class A Common Stock in such Underwritten Piggyback Offering. The Company shall use commercially reasonable efforts to include in each such Underwritten Piggyback Offering such Registrable Securities for which the Company has received written requests for inclusion therein within three Business Days after sending the Underwritten Offering Piggyback Notice. Each Holder shall be permitted to withdraw all or part of such Holder's Registrable Securities from an Underwritten Piggyback Offering at any time prior to the effectiveness of the applicable Registration Statement, and such Holder shall continue to have the right to include any Registrable Securities in any subsequent Underwritten Offerings, all upon the terms and conditions set forth herein.

(iii) If the managing underwriter or managing underwriters of an Underwritten Offering advise the Company and the Holders that, in their reasonable opinion, the inclusion of all of the Holders' Registrable Securities requested for inclusion in the subject Underwritten Offering (and any related registration, if applicable) (and any other Class A Common Stock proposed to be included in such Underwritten Offering) exceeds the number of shares of Class A Common Stock that can be included without being likely to have a significant adverse effect on the price, timing or distribution of the Company Securities offered or the market for the Company Securities offered, the Company shall include in such Underwritten Offering (and any related registration, if applicable) only that number of shares of Class A Common Stock proposed to be included in such Underwritten Offering (and any related registration, if applicable) that, in the reasonable opinion of the managing underwriter or managing underwriters, will not have such significant adverse effect, with such number of shares of Class A Common Stock to be allocated as follows: (A) in the case of a Requested Underwritten Offering, (1) first, pro-rata among all Holders (including the Initiating Holder) that have requested to include Registrable Securities in such Underwritten Offering based on the relative number of Registrable Securities then held by each such Holder, (2) second, if there remains availability for additional shares of Class A Common Stock to be included in such Underwritten Offering, to the Company, and (3) third, if there remains availability for additional shares of Class A Common Stock to be included in such Underwritten Offering, to any other holders of Class A Common Stock entitled to participate in such Underwritten Offering, if applicable, based on the relative number of shares of Class A Common Stock then held by each such holder; and (B) in the case of any other Underwritten Offerings, (x) first, to the Company, (y) second, if there remains availability for additional shares of Class A Common Stock to be included in such Underwritten Offering, pro-rata among all Holders desiring to include Registrable

Securities in such Underwritten Offering based on the relative number of Registrable Securities then held by each such Holder, and (z) third, if there remains availability for additional shares of Class A Common Stock to be included in such registration, pro-rata among any other holders of Class A Common Stock entitled to participate in such Underwritten Offering, if applicable, based on the relative number of Class A Common Stock then held by each such holder. If any Holder disapproves of the terms of any such Underwritten Offering, such Holder may elect to withdraw therefrom by written notice to the Company and the managing underwriter(s) delivered on or prior to the time of the commencement of such Underwritten Offering. Any Registrable Securities withdrawn from such Underwritten Offering shall be excluded and withdrawn from the registration, and such Holder shall continue to have the right to include any Registrable Securities in any subsequent Underwritten Offerings, all upon the terms and conditions set forth herein.

(iv) The Company shall have the right to terminate or withdraw any registration initiated by it under this Section 2(d) at any time in its sole discretion whether or not any Holder has elected to include Registrable Securities in such Registration Statement. The Registration Expenses of such withdrawn registration shall be borne by the Company in accordance with Section 5.

3. Registration and Underwritten Offering Procedures. The procedures to be followed by the Company and each Holder electing to sell Registrable Securities in a Registration Statement pursuant to this Agreement, and the respective rights and obligations of the Company and such Holders, with respect to the preparation, filing and effectiveness of such Registration Statement and the effectuation of any Underwritten Offering, are as follows:

(a) In connection with a Demand Registration, the Company will, at least three Business Days prior to the anticipated filing of the Registration Statement and any related Prospectus or any amendment or supplement thereto (other than, after effectiveness of the Registration Statement, any filing made under the Exchange Act that is incorporated by reference into the Registration Statement) (for purposes of this subsection, supplements and amendments shall not be deemed to include any filing that the Company is required to make pursuant to the Exchange Act or any amendments and supplements that do not materially alter the previous disclosure or do nothing more than name Holders and provide information with respect thereto), (i) furnish to such Holders and representatives of such Holders copies of all such documents prior to filing and (ii) provide each Holder and its representatives the opportunity to (A) review and comment on such documents and (B) object to any information pertaining to such Holder and its plan of distribution that is contained therein, and, in either such case, the Company shall use commercially reasonable efforts to make any changes reasonably requested by the Holders prior to the filing of the Registration Statement.

(b) In connection with a Piggyback Registration, Underwritten Piggyback Offering or a Requested Underwritten Offering, the Company will, at least three Business Days prior to the anticipated filing of any initial Registration Statement that identifies the Holders and any related Prospectus or any amendment or supplement thereto (other than amendments and supplements that do not materially alter the previous disclosure or do nothing more than name Holders and provide information with respect thereto), as applicable, furnish to such Holders copies of any such Registration Statement or related Prospectus or amendment or supplement thereto that identify the Holders and any related Prospectus or any amendment or supplement thereto (other than amendments and supplements that do not materially alter the previous disclosure or do nothing more than name Holders and provide information with respect thereto). The Company will also use commercially reasonable efforts to address in each such document when so filed with the Commission such comments as such Holders reasonably shall propose prior to the filing thereof.

(c) The Company will use commercially reasonable efforts to, as promptly as reasonably practicable, (i) prepare and file with the Commission such amendments, including post-effective amendments, and supplements to each Registration Statement as may be necessary under applicable law to keep such Registration Statement continuously effective with respect to the disposition of all Registrable Securities covered thereby for its Effectiveness Period and, subject to the limitations contained in this Agreement, prepare and file with the Commission such additional Registration Statements in order to register for resale under the Securities Act all of the Registrable Securities held by the Holders; (ii) cause the related Prospectus to be amended or supplemented by any required prospectus supplement and, as so supplemented or amended, to be filed pursuant to Rule 424; (iii) respond to any comments received from the Commission with respect to each Registration Statement and, as promptly as reasonably practicable, provide such Holders true and complete copies of all correspondence from and to the Commission relating to such Registration Statement that pertains to such Holders as selling stockholders but not any comments that would result in the disclosure to such Holders of material and non-public information concerning the Company; and (iv) cause such Registrable Securities to be registered with or approved by such other governmental agencies or authorities as may be necessary to enable to the Holders of such Registrable Securities to consummate the disposition of such Registrable Securities in accordance with their intended method of distribution thereof.

(d) The Company will comply in all material respects with the provisions of the Securities Act and the Exchange Act with respect to the Registration Statement and the disposition of all Registrable Securities covered by a Registration Statement.

(e) The Company will notify such Holders who are included in a Registration Statement as promptly as reasonably practicable: (i)(A) when a Prospectus or any prospectus supplement or post-effective amendment to a Registration Statement in which such Holder is included has been filed; (B) when the Commission notifies the Company whether there will be a "review" of the applicable Registration Statement and when the Commission comments in writing on such Registration Statement (in which case the Company shall provide true and complete copies thereof and all written responses thereto to each of such Holders that pertain to such Holders as selling stockholders); and (C) with respect to each applicable Registration Statement or any post-effective amendment thereto, when the same has been declared effective; (ii) of any request by the Commission or any other federal or state governmental authority for amendments or supplements to such Registration Statement or Prospectus or for additional information that pertains to such Holders as sellers of Registrable Securities; (iii) of the issuance by the Commission of any stop order suspending the effectiveness of such Registration Statement covering any or all of the Registrable Securities or the initiation of any Proceedings for that purpose; (iv) of the receipt by the Company of any notification with respect to the suspension of the qualification or exemption from qualification of any of the Registrable

Securities for sale in any jurisdiction, or the initiation or threatening of any Proceeding for such purpose; and (v) of the occurrence (but not the details) of any event or passage of time that makes any statement made in such Registration Statement or Prospectus or any document incorporated or deemed to be incorporated therein by reference untrue in any material respect or that requires any revisions to such Registration Statement, Prospectus or other documents so that, in the case of such Registration Statement or the Prospectus, as the case may be, it will not contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading; *provided*, *however*, that no notice by the Company shall be required pursuant to this clause (v) in the event that the Company either promptly files a prospectus supplement to update the Prospectus or a Form 8-K or other appropriate Exchange Act report that is incorporated by reference into the Registration Statement, which, in either case, contains the requisite information that results in such Registration Statement no longer containing any untrue statement of material fact or omitting to state a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading.

(f) The Company will use commercially reasonable efforts to avoid the issuance of or, if issued, obtain the withdrawal of (i) any order suspending the effectiveness of a Registration Statement, or (ii) any suspension of the qualification (or exemption from qualification) of any of the Registrable Securities for sale in any jurisdiction, as promptly as reasonably practicable, or if any such order or suspension is made effective during any Blackout Period or Suspension Period, as promptly as reasonably practicable after such Blackout Period or Suspension Period ends.

(g) During the Effectiveness Period, the Company will furnish to each such Holder, without charge, at least one conformed copy of each Registration Statement and each amendment thereto and all exhibits to the extent requested by such Holder (including those incorporated by reference) as promptly as reasonably practical after the filing of such documents with the Commission; *provided*, that the Company will not have any obligation to provide any document pursuant to this clause that is available on the Commission's EDGAR system.

(h) The Company will as promptly as reasonably practical deliver to each Holder, without charge, as many copies of each Prospectus (including each form of prospectus) authorized by the Company for use and each amendment or supplement thereto as such Holder may reasonably request during the Effectiveness Period. Subject to the terms of this Agreement, including Section 8(b), the Company consents to the use of such Prospectus and each amendment or supplement thereto by each of the selling Holders in connection with the offering and sale of the Registrable Securities covered by such Prospectus and any amendment or supplement thereto.

(i) The Company will cooperate with such Holders to facilitate the timely preparation and delivery of certificates (or book-entry shares) representing Registrable Securities to be delivered to a transferee pursuant to a Registration Statement, which certificates (or book-entry shares) shall be free of all restrictive legends indicating that the Registrable Securities are unregistered or unqualified for resale under the Securities Act, Exchange Act or other applicable securities laws, and to enable such Registrable Securities to be in such denominations and registered in such names as any such Holder may request in writing. In connection therewith, if required by the Company's transfer agent, the Company will promptly, after the Effective Date of the Registration Statement, cause an opinion of counsel as to the effectiveness of the Registration Statement to be delivered to, and maintained with, its transfer agent, together with any other authorizations, certificates and directions required by the transfer agent that authorize and direct the transfer agent to issue such Registrable Securities without any such legend upon sale by the Holder of such Registrable Securities under the Registration Statement.

(j) Upon the occurrence of any event contemplated by Section 3(e)(v), as promptly as reasonably practicable, the Company will prepare a supplement or amendment, including a post-effective amendment, if required by applicable law, to the affected Registration Statement or a supplement to the related Prospectus or any document incorporated or deemed to be incorporated therein by reference, and file any other required document so that, as thereafter delivered, no Registration Statement nor any Prospectus will contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading.

(k) With respect to Underwritten Offerings, subject to the right of a Holder to withdraw such Holder's Registrable Securities from an Underwritten Offering in accordance with the terms of this Agreement, (i) the right of any Holder to include such Holder's Registrable Securities in an Underwritten Offering shall be conditioned upon such Holder's participation in such underwriting and the inclusion of such Holder's Registrable Securities in the underwriting to the extent provided herein, (ii) each Holder participating in such Underwritten Offering severally agrees to enter into and execute an underwriting agreement in customary form and sell such Holder's Registrable Securities on the basis provided in any underwriting arrangement approved by the Persons entitled to select the managing underwriter hereunder and (iii) each Holder participating in such Underwritten Offering severally agrees to complete and execute all questionnaires, powers of attorney, indemnities, and other documents customarily and reasonably required under the terms of such underwriting arrangement. Any such underwriting agreement to be entered into among the Company, managing underwriter of such offering and each Holder participating in such Underwritten Offering shall contain representations and warranties by such Holders and such other terms and provisions as are customarily contained in underwriting agreements with respect to secondary distributions on the part of selling stockholders. All of the representations and warranties by, and the other agreements on the part of, the Company to, and for the benefit of, the underwriter of such offering, included in each such underwriting agreement shall also be made to, and for the benefit of, such Holder participating in such Underwritten Offering, and any or all of the conditions precedent to the obligations of such underwriter under such underwriting agreement shall be conditions precedent to the obligations of such Holders. No Holder shall be required in any such underwriting agreement to make any representations or warranties to, or agreements with, the Company or the underwriter other than representations, warranties or agreements regarding such Holder, such Holder's Registrable Securities, such Holder's intended method of distribution and any other representations required by applicable law or reasonably required by the underwriter or the Company. The Company hereby agrees with each Holder that, in connection with any Underwritten Offering in accordance with the terms hereof, it will negotiate in good faith and execute all indemnities, underwriting agreements and other documents reasonably required under the terms of such underwriting arrangement, including using commercially reasonable efforts to procure customary legal opinions, auditor "comfort" letters and reports of the independent mining engineers and geologists of the Company relating to the oil and gas reserves of the Company included in the Registration Statement if the Company has had its reserves prepared, audited or reviewed by an independent mining engineer and geologist.

(l) For a reasonable period of time prior to the filing of any Registration Statement and throughout the Effectiveness Period, the Company will make available, upon reasonable notice at the Company's principal place of business or such other reasonable place as determined by the Company in its discretion, for inspection during normal business hours by a representative of the selling Holders, the managing underwriter and any attorneys or accountants retained by such selling Holders or managing underwriter, all such financial and other information and books and records of the Company, and cause the officers, employees, counsel and independent certified public accountants of the Company to respond to such inquiries, as shall be reasonably necessary (and in the case of counsel, not violate an attorney-client privilege in such counsel's reasonable belief) to conduct a reasonable investigation within the meaning of Section 11 of the Securities Act; *provided*, *however*, that any information that is not generally publicly available at the time of delivery of such information shall be kept confidential by such Persons unless disclosure of such information is required by court or administrative order or, in the opinion of counsel to such Person, applicable law, in which case, such Person shall be required to give the Company written notice of the proposed disclosure prior to such disclosure and, if requested by the Company, assist the Company in seeking to prevent or limit the proposed disclosure.

(m) In connection with any Requested Underwritten Offering, the Company will use commercially reasonable efforts to cause appropriate officers and employees to be available, on a customary basis and upon reasonable notice, to meet with prospective investors in presentations, meetings and road shows.

(n) Each Holder agrees to furnish to the Company any other information regarding the Holder and the distribution of such securities as the Company reasonably determines is required to be included in any Registration Statement or any Prospectus or prospectus supplement relating to an Underwritten Offering.

(o) Notwithstanding any other provision of this Agreement, the Company shall not be required to file a Registration Statement (or any amendment thereto) or effect a Requested Underwritten Offering (or, if the Company has filed a Shelf Registration Statement and has included Registrable Securities therein, the Company shall be entitled to suspend the offer and sale of Registrable Securities pursuant to such Registration Statement) for a period of up to [60] days if (i) the Board determines that a postponement is in the best interest of the Company and its stockholders generally due to a pending transaction involving the Company (including a pending securities offering by the Company), (ii) the Board determines such registration would render the Company unable to comply with applicable securities laws or (iii) the Board determines such registration would require disclosure of material information that the Company has a bona fide business purpose for preserving as confidential (any such period, a "***Blackout Period***"); *provided*, *however*, that in no event shall any Blackout Period together with any Suspension Period exceed an aggregate of 120 days in any 12-month period. In effecting a Blackout Period, the Company shall not disclose any material non-public information that is the basis for such Blackout Period to a Holder without the consent of the Holder.

(p) In connection with an Underwritten Offering, the Company shall use commercially reasonable efforts to provide to each Holder named as a selling stockholder in any Registration Statement a copy of any auditor "comfort" letters, customary legal opinions or reports of the independent mining engineers and geologists of the Company relating to the oil and gas reserves of the Company, in each case that have been provided to the managing underwriter in connection with the Underwritten Offering, not later than the Business Day prior to the effective date of such Registration Statement.

(q) In connection with any Underwritten Offering made pursuant to a Registration Statement filed pursuant to Section 2, if requested by the managing underwriter in an Underwritten Offering, each Holder shall execute a customary "lock-up" agreement with the underwriters of such Underwritten Offering containing a lock-up period equal to the shorter of (i) the shortest number of days that a director of the Company or "executive officer" (as defined under Section 16 of the Exchange Act) of the Company contractually agrees with the underwriters of such Underwritten Offering not to sell any Company Securities following such Underwritten Offering and (ii) [90] days from the date of the execution of the underwriting agreement with respect to such Underwritten Offering. Notwithstanding the foregoing, any discretionary waiver or termination of this lock-up provision by the Company or the underwriters with respect to any of the Holders shall apply to the other Holders as well, pro rata based upon the number of shares subject to such obligations.

(r) Notwithstanding anything to the contrary in this Agreement, any Holder may make a written election (an "***Opt-Out Election***") to no longer receive from the Company any Demand Notice, Piggyback Registration Notice or Underwritten Offering Piggyback Notice (each, a "***Covered Notice***"), and, following receipt of such Opt-Out Election, the Company shall not be required to, and shall not, deliver any such Covered Notice to such Holder from the date of receipt of such Opt-Out Election and such Holder shall have no right to participate in any Registration Statement or Underwritten Offering as to which such Covered Notices pertain. An Opt-Out Election shall remain in effect until it has been revoked in writing and received by the Company. A Holder who previously has given the Company an Opt-Out Election may revoke such election at any time in writing, and there shall be no limit on the ability of a Holder to issue and revoke subsequent Opt-Out Elections.

4. No Inconsistent Agreements; Additional Rights**.** The Company shall not hereafter enter into, and is not currently a party to, any agreement with respect to its securities that is inconsistent in any material respect with the rights granted to the Holders by this Agreement. The Company shall not, prior to the termination of this Agreement, grant any registration rights that are superior to, conflict with, or would otherwise prevent the Company from performing, the rights granted to the Holders hereby.

5. Registration Expenses. All Registration Expenses incident to the Parties' performance of or compliance with their respective obligations under this Agreement or otherwise in connection with any Demand Registration, Requested Underwritten Offering, Piggyback Registration or Underwritten Piggyback Offering (in each case, excluding any Selling Expenses) shall be borne by the Company, whether or not any Registrable Securities are sold pursuant to a Registration Statement or whether or not a Registration Statement is filed or becomes effective. "***Registration Expenses***" means all expenses incurred in connection with registrations, filings or qualifications pursuant to Section 2 and Section 3, (i) registration and filing fees (including fees and expenses (A) with respect to filings required to be made with the Trading Market, (B) in compliance with applicable state securities or "Blue Sky" laws and (C) with respect to filings with FINRA), (ii) printing expenses (including expenses of printing certificates for Company Securities and of printing Prospectuses if the printing of Prospectuses is reasonably requested by a Holder of Registrable Securities included in the Registration Statement), (iii) messenger, telephone and delivery expenses, (iv) fees and disbursements of counsel, auditors, accountants and independent mining engineers and geologists for the Company, (v) Securities Act liability insurance, if the Company so desires such insurance, (vi) fees and expenses of all other Persons retained by the Company in connection with the consummation of the transactions contemplated by this Agreement, (vii) all expenses relating to marketing the sale of the Registrable Securities, including expenses related to conducting a "road show" and (viii) reasonable fees and expenses of one counsel to the Holders reasonably acceptable to the Company and selected by the Holders that hold a majority of the Registrable Securities to be included in such filing in connection with the filing or amendment of any Registration Statement or Prospectus hereunder. In addition, the Company shall be responsible for all of its expenses incurred in connection with the consummation of the transactions contemplated by this Agreement (including expenses payable to third parties and all salaries and expenses of their officers and employees performing legal or accounting duties), the expense of any annual audit and the fees and expenses incurred in connection with the listing of the Registrable Securities on the Trading Market.

6. Indemnification.

(a) The Company shall indemnify and hold harmless each Holder, its Affiliates and each of their respective officers and directors and any agent thereof (collectively, "***Holder Indemnified Persons***"), to the fullest extent permitted by applicable law, from and against any and all losses, claims, damages, liabilities, joint or several, costs (including reasonable costs of preparation and reasonable attorneys' fees) and expenses, judgments, fines, penalties, interest, settlements or other amounts arising from any and all claims, demands, actions, suits or proceedings, whether civil, criminal, administrative or investigative, in which any Holder Indemnified Person may be involved, or is threatened to be involved, as a party or otherwise, under the Securities Act or otherwise (collectively, "***Losses***"), as incurred, arising out of or relating to any untrue or alleged untrue statement of a material fact contained in any Registration Statement under which any Registrable Securities were registered, in any preliminary prospectus (if the Company authorized the use of such preliminary prospectus prior to the Effective Date of such Registration Statement), or in any summary or final prospectus or free writing prospectus (if such free writing prospectus was authorized for use by the Company) or in any amendment or supplement thereto (if used during the period the Company is required to keep the Registration Statement current), or arising out of, based upon or resulting from the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements made therein, in the light of the circumstances in which they were made, not misleading; *provided*, *however*, that the Company shall not be liable to any Holder Indemnified Person to the extent that any such claim arises out of, is based upon or results from an untrue or alleged untrue statement or omission or alleged omission made in such Registration Statement, such preliminary, summary or final prospectus or free writing prospectus or such amendment or supplement, in reliance upon and in conformity with written information furnished to the Company by or on behalf of such Holder Indemnified Person, in its capacity as such, or any underwriter specifically for use in the preparation thereof. The Company shall notify the Holders promptly of the institution, threat or assertion of any Proceeding of which the Company is aware in connection with the transactions contemplated by this Agreement. This indemnity shall be in addition to any liability the Company may otherwise have and shall remain in full force and effect regardless of any investigation made by or on behalf of such Holder Indemnified Person or any Indemnified Party and shall survive the transfer of such securities by such Holder. Notwithstanding anything to the contrary herein, this Section 6 shall survive any termination or expiration of this Agreement indefinitely.

(b) In connection with any Registration Statement in which a Holder participates, such Holder, solely in its capacity as such, shall, severally and not jointly, indemnify and hold harmless the Company, its Affiliates and each of their respective officers, directors and any agent thereof, to the fullest extent permitted by applicable law, from and against any and all Losses as incurred, arising out of or relating to any untrue or alleged untrue statement of a material fact contained in any such Registration Statement, in any preliminary prospectus (if used prior to the Effective Date of such Registration Statement), or in any summary or final prospectus or free writing prospectus or in any amendment or supplement thereto (if used during the period the Company is required to keep the Registration Statement current), or arising out of, based upon or resulting from the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements made therein, in the light of the circumstances in which they were made, not misleading, but only to the extent that the same are made in reliance and in conformity with information relating to the Holder furnished in writing to the Company by such Holder, solely in its capacity as such, expressly for use therein; *provided*, *however*, that this Section 6(b) shall not apply to any information furnished in writing by such Holder to the Company that corrected or made not misleading information previously furnished to the Company, if such information was furnished prior to the filing of any such Registration Statement, preliminary prospectus, summary or final prospectus, or free writing prospectus, or in any amendment or supplement thereto, and the Company failed to include such information therein. This indemnity shall be in addition to any liability such Holder may otherwise have and shall remain in full force and effect regardless of any investigation made by or on behalf of the Company or any Indemnified Party. In no event shall the liability of any selling Holder hereunder be greater in amount than the dollar amount of the net proceeds received by such Holder from the sale of the Registrable Securities giving rise to such indemnification obligation.

(c) Any Person entitled to indemnification hereunder (each, an "***Indemnified Party***") shall (i) give prompt written notice to the indemnifying party of any claim with respect to which it seeks indemnification and (ii) unless in such Indemnified Party's reasonable judgment a conflict of interest between such Indemnified Party and indemnifying party may exist with respect to such claim or there may be reasonable defenses available to the Indemnified Party that are different from, or additional to, those available to the indemnifying party, permit such indemnifying party to assume the defense of such claim with counsel reasonably satisfactory to the Indemnified Party. If such defense is assumed, the indemnifying party shall not be subject to any liability for any settlement made by the Indemnified Party without its consent (but such consent may not be unreasonably withheld, delayed or conditioned). An indemnifying party who is not entitled to, or elects not to, assume the defense of a claim shall not be obligated to pay the fees and expenses of more than one counsel (in addition to any local counsel) for all parties indemnified by such indemnifying party with respect to such claim, unless, in the reasonable judgment of any Indemnified Party, there may be one or more legal or equitable defenses available to such Indemnified Party that are in addition to, or may conflict with, those available to another Indemnified Party with respect to such claim. Failure to give prompt written notice as provided in clause (i) above shall not release the indemnifying party from its obligations hereunder.

(d) If the indemnification provided for in this Section 6 is held by a court of competent jurisdiction to be unavailable to an Indemnified Party with respect to any Losses referred to herein, the indemnifying party, in lieu of indemnifying such Indemnified Party thereunder, shall, to the extent permitted by applicable law, contribute to the amount paid or payable by such Indemnified Party as a result of such Losses in such proportion as is appropriate to reflect the relative fault of the indemnifying party, on the one hand, and of the Indemnified Party, on the other hand, in connection with the untrue or alleged untrue statement of a material fact or the omission or alleged omission to state a material fact that resulted in such Losses, as well as any other relevant equitable considerations. The relative fault of the indemnifying party and of the Indemnified Party shall be determined by a court of law by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission or alleged omission to state a material fact relates to information supplied by the indemnifying party or by the Indemnified Party and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such statement or alleged statement or omission or alleged omission; *provided*, that in no event shall any contribution by a Holder hereunder exceed the net proceeds from the offering received by such Holder.

7. Facilitation of Sales Pursuant to Rule 144. To the extent is shall be required to do so under the Exchange Act, the Company shall timely file the reports required to be filed by it under the Exchange Act or the Securities Act (including the reports under Sections 13 and 15(d) of the Exchange Act referred to in subparagraph (c)(1) of Rule 144) and shall take such further action as any Holder may reasonably request, all to the extent required from time to time to enable the Holders to sell Registrable Securities without registration under the Securities Act within the limitations of the exemption provided by Rule 144. Upon the request of any Holder in connection with such Holder's sale pursuant to Rule 144, the Company shall deliver to such Holder a written statement as to whether it has complied with such requirements.

8. Miscellaneous.

(a) Remedies. In the event of actual or potential breach by the Company of any of its obligations under this Agreement, each Holder, in addition to being entitled to exercise all rights granted by applicable law and under this Agreement, including recovery of damages, will be entitled to specific performance of its rights under this Agreement. The Company agrees that monetary damages would not provide adequate compensation for any losses incurred by reason of a breach by it of any of the provisions of this Agreement and further agrees that, in the event of any action for specific performance in respect of such breach, it shall waive the defense that a remedy at law would be adequate.

(b) Discontinued Disposition. Each Holder agrees that, upon receipt of a notice from the Company of the occurrence of any event of the kind described in clauses (ii) through (v) of Section 3(e) (provided that the Company shall not disclose any material non-public information that is the basis for such notice to the Holder without the consent of the Holder), such Holder will forthwith discontinue disposition of such Registrable Securities under the applicable Registration Statement until such Holder's receipt of the copies of the supplemental Prospectus or amended Registration Statement as contemplated by Section 3(j) or until it is advised in writing by the Company that the use of the applicable Prospectus may be resumed, and, in either case, has received copies of any additional or supplemental filings that are incorporated or deemed to be incorporated by reference in such Prospectus or Registration Statement (a "***Suspension Period***"). The Company may provide appropriate stop orders to enforce the provisions of this Section 8(b).

(c) Amendments and Waivers. No provision of this Agreement may be waived or amended except in a written instrument signed by the Company and Holders that hold a majority of the Registrable Securities as of the date of such waiver or amendment; *provided*, that any waiver or amendment that would have a disproportionate adverse effect on a Holder relative to the other Holders shall require the consent of such Holder. The Company shall provide prior notice to all Holders of any proposed waiver or amendment. No waiver of any default with respect to any provision, condition or requirement of this Agreement shall be deemed to be a continuing waiver in the future or a waiver of any subsequent default or a waiver of any other provision, condition or requirement hereof, nor shall any delay or omission of any Party to exercise any right hereunder in any manner impair the exercise of any such right.

(d) Notices. Any and all notices or other communications or deliveries required or permitted to be provided hereunder shall be in writing and shall be deemed given and effective on the earliest of (i) the date of transmission, if such notice or communication is delivered via facsimile or electronic mail as specified in this Section 8(d) prior to 5:00 p.m. in the time zone of the receiving party on a Business Day, (ii) the Business Day after the date of transmission, if such notice or communication is delivered via facsimile or electronic mail as specified in this Agreement later than 5:00 p.m. in the time zone of the receiving party on any date and earlier than 11:59 p.m. in the time zone of the receiving party on such date, (iii) the Business Day following the date of mailing, if sent by nationally recognized overnight courier service or (iv) upon actual receipt by the Party to whom such notice is required to be given. The address for such notices and communications shall be as follows:

If to the Company:	ProFrac Holding Corp. 333 Shops Boulevard, Suite 301 Willow Park, Texas 76087 Attention: [•] E-mail: [•]

With copy to:

Vinson & Elkins L.L.P.
Attention: Mike Telle, Scott Rubinsky
1001 Fannin Street, Suite 2500
Houston, Texas 77002
E-mail: mtelle@velaw.com; srubinsky@velaw.com

If to any Person who is then the registered Holder: To the address of such Holder as indicated on the signature page of this Agreement or, if different, as it appears in the applicable register for the Registrable Securities or as may be designated in writing by such Holder in accordance with this Section 8(d).

(e) Successors and Assigns. This Agreement shall be binding upon and inure to the benefit of each of the Parties and their respective heirs, executors, administrators, successors, legal representatives and permitted assigns. Except as provided in this Section 8(e), this Agreement, and any rights or obligations hereunder, may not be assigned without the prior written consent of the Company (acting through the Board) and the Holders. Notwithstanding anything in the foregoing to the contrary, the rights of a Holder pursuant to this Agreement with respect to all or any portion of its Registrable Securities may be assigned without such consent (but only with all related obligations) with respect to such Registrable Securities (and any Registrable Securities issued as a dividend or other distribution with respect to, in exchange for or in replacement of such Registrable Securities) by such Holder to a transferee of such Registrable Securities; *provided*, that (i) the Company is, within a reasonable time after such transfer, furnished with written notice of the name and address of such transferee or assignee and the Registrable Securities with respect to which such registration rights are being assigned and (ii) such transferee or assignee agrees in writing to be bound by and subject to the terms set forth in this Agreement. The Company may not assign its rights or obligations hereunder without the prior written consent of the Holders.

(f) No Third Party Beneficiaries. Nothing in this Agreement, whether express or implied, shall be construed to give any Person, other than the Parties or their respective successors and permitted assigns and any Indemnified Party, any legal or equitable right, remedy, claim or benefit under or in respect of this Agreement.

(g) Execution and Counterparts. This Agreement may be executed in any number of counterparts, each of which when so executed shall be deemed to be an original and all of which taken together shall constitute one and the same Agreement. In the event that any signature is delivered by facsimile or electronic mail transmission, such signature shall create a valid binding obligation of the Party executing (or on whose behalf such signature is executed) the same with the same force and effect as if such signature delivered by facsimile or electronic mail transmission were the original thereof.

(h) Governing Law; Consent to Jurisdiction; Waiver of Jury Trial. THIS AGREEMENT SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH, THE LAWS OF THE STATE OF [DELAWARE] (WITHOUT GIVING EFFECT TO CONFLICT OF LAW RULES OR PROVISIONS (WHETHER OF THE STATE OF [DELAWARE] OR ANY OTHER JURISDICTION) THAT WOULD CAUSE THE APPLICATION OF THE LAWS OF ANY JURISDICTION OTHER THAN THE STATE OF [DELAWARE]). With respect to any Proceeding arising out of or relating to this Agreement, each of the Parties hereby irrevocably (a) submits to the exclusive jurisdiction of the [Court of Chancery of the State of Delaware] and the [United States District Court for the District of Delaware] and the appellate courts therefrom (the "***Selected Courts***") and waives any objection to venue being laid in the Selected Courts whether based on the grounds of forum non conveniens or otherwise and hereby agrees not to commence any such Proceeding other than before one of the Selected Courts; *provided*, *however*, that a Party may commence any Proceeding in a court other than a Selected Court solely for the purpose of enforcing an order or judgment issued by one of the Selected Courts; (b) consents to service of process in any Proceeding by the mailing of copies thereof by registered or certified mail, postage prepaid, or by recognized international express carrier or delivery service, to their respective addresses referred to in Section 8(d) hereof; *provided*, *however*, that nothing herein shall affect the right of any Party hereto to serve process in any other manner permitted by law; and (c) TO THE FULLEST EXTENT PERMITTED BY LAW, WAIVES ANY AND ALL RIGHT TO TRIAL BY JURY IN ANY LEGAL PROCEEDING ARISING OUT OF OR RELATED TO THIS AGREEMENT OR THE TRANSACTIONS CONTEMPLATED HEREBY.

(i) Cumulative Remedies. The remedies provided herein are cumulative and not exclusive of any remedies provided by law.

(j) Severability. If any term, provision, covenant or restriction of this Agreement is held by a court of competent jurisdiction to be invalid, illegal, void or unenforceable, the remainder of the terms, provisions, covenants and restrictions set forth herein shall remain in full force and effect and shall in no way be affected, impaired or invalidated, and the Parties shall use their reasonable efforts to find and employ an alternative means to achieve the same or substantially the same result as that contemplated by such term, provision, covenant or restriction. It is hereby stipulated and declared to be the intention of the Parties that they would have executed the remaining terms, provisions, covenants and restrictions without including any of such that may be hereafter declared invalid, illegal, void or unenforceable.

(k) Entire Agreement. This Agreement constitutes the entire agreement among the Parties with respect to the subject matter hereof and supersedes all prior contracts or agreements with respect to the subject matter hereof and the matters addressed or governed hereby, whether oral or written.

(l) Termination. Except for Section 6, this Agreement shall terminate as to any Holder when all Registrable Securities held by such Holder no longer constitute Registrable Securities.

[Signature page follows.]

IN WITNESS WHEREOF, the Parties have executed this Agreement as of the date first written above.

COMPANY:

PROFRAC HOLDING CORP.

By: ________________________________
Name:
Title:

HOLDERS:

By: ________________________________
Name:
Title:

Address for notice:

[•]

By: ________________________________
Name:
Title:

Address for notice:

[•]

Signature Page to Registration Rights Agreement

Vinson&Elkins

[•], 2021

ProFrac Holding Corp.
333 Shops Boulevard, Suite 301
Willow Park, Texas 76087

Re: Registration Statement on Form S-1

Ladies and Gentlemen:

We have acted as counsel for ProFrac Holding Corp., a Delaware corporation (the "***Company***"), in connection with the proposed offer and sale (the "***Offering***") by the Company, pursuant to a prospectus forming a part of a Registration Statement on Form S-1, Registration No. 333-[•], originally filed with the Securities and Exchange Commission on [•], 2021 (such Registration Statement, as amended at the effective date thereof, being referred to herein as the "***Registration Statement***"), of up to [•] shares of Class A common stock of the Company, par value $0.01 per share (the "***Subject Shares***").

In connection with the Offering, the Company will effect an internal reorganization (the "***Reorganization***"), as further described in the Registration Statement and the prospectus relating thereto.

In connection with this opinion, we have assumed that (i) the Registration Statement, and any amendments thereto (including post-effective amendments), will have become effective, (ii) the Amended and Restated Certificate of Incorporation of the Company, in the form filed as an exhibit to the Registration Statement, will have become effective, (iii) the Third Amended and Restated Limited Liability Company Agreement of ProFrac Holdings, LLC, in the form filed as an exhibit to the Registration Statement, will have become effective, (iv) the Subject Shares will be issued and sold in the manner described in the Registration Statement and the prospectus relating thereto, (v) the Reorganization will have been consummated in the manner described in the Registration Statement and the prospectus relating thereto, and (vi) a definitive underwriting agreement, in the form filed as an exhibit to the Registration Statement, with respect to the sale of the Subject Shares will have been duly authorized and validly executed and delivered by the Company and the other parties thereto.

In connection with the opinion expressed herein, we have examined, among other things, (i) the form of Amended and Restated Certificate of Incorporation of the Company filed as an exhibit to the Registration Statement, the form of Amended and Restated Bylaws of the Company filed as an exhibit to the Registration Statement, and the form of Third Amended and Restated Limited Liability Company

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

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Houston, TX 77002-6760
Tel +1.713.758.2222 **Fax** +1.713.758.2346 velaw.com

Agreement of ProFrac Holdings, LLC, (ii) the records of corporate proceedings that have occurred prior to the date hereof with respect to the Offering, (iii) the Registration Statement and (iv) the form of underwriting agreement filed as an exhibit 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 opinion 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. In making such examination and rendering the opinions set forth below, we have assumed without verification the genuineness of all signatures, the authenticity of all documents submitted to us as originals, the conformity to originals of all documents submitted to us as copies and the legal capacity of all individuals executing any of the foregoing documents.

Based upon the foregoing, and subject to the qualifications and limitations stated herein, we are of the opinion that, when the Subject Shares have been issued and delivered in accordance with a definitive underwriting agreement approved by the Board of Directors of the Company and upon payment of the consideration therefor provided for therein (not less than the par value of the Subject Shares), such Subject Shares will be duly authorized, validly issued, fully paid and nonassessable.

The foregoing opinions are limited in all respects to the General Corporation Law of the State of Delaware (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 do not express any opinions as to the laws of any other jurisdiction. This opinion is being furnished in connection with the requirements of Item 601(b)(5) of Regulation S-K under the Securities Act of 1933, as amended, and the foregoing opinions are limited to the matters expressly stated herein, and no opinion is to be inferred or implied beyond the opinions expressly set forth herein. We undertake no, and hereby disclaim any, obligation to make any inquiry after the date hereof or to advise you of any changes in any matter set forth herein, whether based on a change in the law, a change in any fact relating to the Company or any other person or any other circumstance.

We hereby consent to the statements with respect to us under the heading “Legal Matters” in the prospectus forming a part of the Registration Statement and to the filing of this opinion as an exhibit to the Registration Statement. 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 of 1933, as amended, and the rules and regulations thereunder.

Very truly yours,

Exhibit 10.1

PROFRAC HOLDING CORP.

2021 LONG TERM INCENTIVE PLAN

1. **Purpose**. The purpose of the ProFrac Holding Corp. 2021 Long Term Incentive Plan (as amended from time to time, the "***Plan***") is to provide a means through which (a) ProFrac Holding Corp., a Delaware corporation (together with any successor thereto, the "***Company***"), and the Affiliates may attract, retain and motivate qualified persons as employees, directors and consultants, thereby enhancing the profitable growth of the Company and the Affiliates and (b) persons upon whom the responsibilities of the successful administration and management of the Company and the Affiliates rest, and whose present and potential contributions to the Company and the Affiliates are of importance, can acquire and maintain stock ownership or awards the value of which is tied to the performance of the Company, thereby strengthening their concern for the Company and the Affiliates. Accordingly, the Plan provides for the grant of Options, SARs, Restricted Stock, Restricted Stock Units, Stock Awards, Dividend Equivalents, Other Stock-Based Awards, Cash Awards, Substitute Awards, or any combination of the foregoing, as determined by the Committee in its sole discretion.

2. **Definitions**. For purposes of the Plan, the following terms shall be defined as set forth below:

(a) "***Affiliate***" means any Person that, directly or indirectly, controls, is controlled by, or is under common control with, the Company. For purposes of the preceding sentence, "control" (including, with correlative meanings, the terms "controlled by" and "under common control with"), as used with respect to any Person, shall mean the possession, directly or indirectly, of the power (i) to vote more than 50% of the securities having ordinary voting power for the election of directors of the controlled Person or (ii) to direct or cause the direction of the management and policies of the controlled Person, whether through the ownership of voting securities, by contract, or otherwise.

(b) "***ASC Topic 718***" means the Financial Accounting Standards Board Accounting Standards Codification Topic 718, *Compensation – Stock Compensation*, as amended or any successor accounting standard.

(c) "***Award***" means any Option, SAR, Restricted Stock, Restricted Stock Unit, Stock Award, Dividend Equivalent, Other Stock-Based Award, Cash Award, or Substitute Award, together with any other right or interest, granted under the Plan.

(d) "***Award Agreement***" means any written instrument (including any employment, severance or change in control agreement) that sets forth the terms, conditions, restrictions and/or limitations applicable to an Award, in addition to those set forth under the Plan.

(e) "***Board***" means the Board of Directors of the Company.

(f) "***Cash Award***" means an Award denominated in cash granted under Section 6(i).

(g) "***Change in Control***" means, except as otherwise provided in an Award Agreement, the consummation of any of the following events after the Effective Date:

(i) any Person or any group of Persons acting together which would constitute a "group" for purposes of Section 13(d) of the Exchange Act (excluding a corporation or other entity owned, directly or indirectly, by the stockholders of the Company in substantially the same proportions as their ownership of stock of the Company) is or becomes the "beneficial owner," as defined in Rule 13d-3 under the Exchange Act, directly or indirectly, of securities of the Company representing more than 50% of the combined voting power of the Company's then outstanding voting securities;

(ii) individuals who constitute the Incumbent Board cease for any reason to constitute at least a majority of the Board;

(iii) there is consummated a merger or consolidation of the Company with any other corporation or other entity, and, immediately after the consummation of such merger or consolidation, the voting securities of the Company immediately prior to such merger or consolidation do not continue to represent or are not converted into more than 50% of the combined voting power of the then-outstanding voting securities of the Person resulting from such merger or consolidation or, if the surviving company is a subsidiary, the ultimate parent thereof; or

(iv) the stockholders of the Company approve a plan of complete liquidation or dissolution of the Company or there is consummated an agreement or series of related agreements for the sale or other disposition, directly or indirectly, by the Company of all or substantially all of the Company's assets, other than such sale or other disposition by the Company of all or substantially all of the Company's assets to an entity, at least 50% of the combined voting power of the voting securities of which are owned by stockholders of the Company in substantially the same proportions as their ownership of the Company immediately prior to such sale, provided that, in all such cases, the transactions contemplated by the provisions above are ultimately consummated.

Notwithstanding the foregoing, except with respect to clause (ii) above, a "Change in Control" shall not be deemed to have occurred by virtue of the consummation of any transaction or series of integrated transactions immediately following which the record holders of the shares of the Company immediately prior to such transaction or series of transactions continue to have substantially the same proportionate ownership in, and own substantially all of the shares of, an entity which owns, either directly or through a subsidiary, all or substantially all of the assets of the Company immediately following such transaction or series of transactions. Further notwithstanding the foregoing, with respect to an Award that provides for a deferral of compensation under the Nonqualified Deferred Compensation Rules and with respect to which a Change in Control would trigger settlement or payment of such Award, "Change in Control" shall mean an event that qualifies both as a "Change in Control" (as defined in this Section 2(g)) as well as a "change in control event" as defined in the Nonqualified Deferred Compensation Rules.

(h) “***Change in Control Price***” means the amount determined in the following clause (i), (ii), (iii), (iv) or (v), whichever the Committee determines is applicable, as follows: (i) the price per share offered to holders of Stock in any merger or consolidation, (ii) the per share Fair Market Value of the Stock immediately before the Change in Control without regard to assets sold in the Change in Control and assuming the Company has received the consideration paid for the assets in the case of a sale of the assets, (iii) the amount distributed per share of Stock in a dissolution transaction, (iv) the price per share offered to holders of Stock in any tender offer or exchange offer whereby a Change in Control takes place, or (v) if such Change in Control occurs other than pursuant to a transaction described in clauses (i), (ii), (iii), or (iv) of this Section 2(h), the value per share of the Stock that may otherwise be obtained with respect to such Awards or to which such Awards track, as determined by the Committee as of the date determined by the Committee to be the date of cancellation and surrender of such Awards. In the event that the consideration offered to stockholders of the Company in any transaction described in this Section 2(h) or in Section 8(e) consists of anything other than cash, the Committee shall determine the fair market value of the portion of the consideration offered which is other than cash and such determination by the Committee shall be final, conclusive and binding on all affected Participants to the extent applicable to Awards held by such Participants.

(i) “***Code***” means the Internal Revenue Code of 1986, as amended from time to time, including the guidance and regulations promulgated thereunder and successor provisions, guidance and regulations thereto.

(j) “***Committee***” means the Compensation Committee of the Board, unless no such Compensation Committee exists, in which case, a committee of two or more directors designated by the Board to administer the Plan; provided, however, that, unless otherwise determined by the Board, the Committee shall consist solely of two or more Qualified Members.

(k) “***Dividend Equivalent***” means a right, granted to an Eligible Person under Section 6(g), to receive cash, Stock, other Awards or other property equal in value to dividends paid with respect to a specified number of shares of Stock, or other periodic payments.

(l) “***Effective Date***” means , 2021.

(m) “***Eligible Person***” means any individual who, as of the date of grant of an Award, is an officer or employee of the Company or of any of the Affiliates, and any other person who provides services to the Company or any of the Affiliates, including directors of the Company; provided, however, that, any such individual must be an “employee” of the Company or any of its parents or subsidiaries within the meaning of General Instruction A.1(a) to Form S-8 if such individual is granted an Award that may result in such individual receiving Stock. An employee on leave of absence may be an Eligible Person.

(n) “***Exchange Act***” means the Securities Exchange Act of 1934, as amended from time to time, including the guidance, rules and regulations promulgated thereunder and successor provisions, guidance, rules and regulations thereto.

(o) “***Fair Market Value***” of a share of Stock means, as of any specified date, (i) if the Stock is listed on a national securities exchange, the closing sales price of the Stock, as reported on the stock exchange composite tape on that date (or if no sales occur on such date, on the last preceding date on which such sales of the Stock are so reported); (ii) if the Stock is not traded on a national securities exchange but is traded over the counter on such date, the average between the reported high and low bid and asked prices of Stock on the most recent date on which Stock was publicly traded on or preceding the specified date; or (iii) in the event Stock is not publicly traded at the time a determination of its value is required to be made under the Plan, the amount determined by the Committee in its discretion in such manner as it deems appropriate, taking into account all factors the Committee deems appropriate, including the Nonqualified Deferred Compensation Rules. Notwithstanding this definition of Fair Market Value, with respect to one or more Award types, or for any other purpose for which the Committee must determine the Fair Market Value under the Plan, the Committee may elect to choose a different measurement date or methodology for determining Fair Market Value so long as the determination is consistent with the Nonqualified Deferred Compensation Rules and all other applicable laws and regulations.

(p) ***"Incumbent Board"*** means the portion of the Board constituted of the individuals who are members of the Board as of the Effective Date and any other individual who becomes a director of the Company after the Effective Date and whose election or appointment by the Board or nomination for election by the Company's stockholders was approved by a vote of at least two-thirds of the directors then comprising the Incumbent Board, but excluding, for this purpose, any such individual whose initial assumption of office occurs as a result of an actual or threatened election contest with respect to the election or removal of directors or other actual or threatened solicitation of proxies or consents by or on behalf of a Person other than the Incumbent Board.

(q) "***ISO***" means an Option intended to be and designated as an "incentive stock option" within the meaning of Section 422 of the Code.

(r) "***Nonqualified Deferred Compensation Rules***" means the limitations or requirements of Section 409A of the Code, as amended from time to time, including the guidance and regulations promulgated thereunder and successor provisions, guidance and regulations thereto.

(s) "***Nonstatutory Option***" means an Option that is not an ISO.

(t) "***Option***" means a right, granted to an Eligible Person under Section 6(b), to purchase Stock at a specified price during specified time periods, which may either be an ISO or a Nonstatutory Option.

(u) "***Other Stock-Based Award***" means an Award granted to an Eligible Person under Section 6(h).

(v) "***Participant***" means a person who has been granted an Award under the Plan that remains outstanding, including a person who is no longer an Eligible Person.

(w) "***Person***" means any natural person, corporation, limited partnership, general partnership, limited liability company, join stock company, joint venture, association, company, estate, trust, bank trust company, land trust, business trust or other organization, whether or not a legal entity, custodian, trustee, executor, administrator, and nominee or entity in a representative capacity.

(x) “***Qualified Member***” means a member of the Board who is (i) a “non-employee director” within the meaning of Rule 16b-3(b)(3), and (ii) “independent” under the listing standards or rules of the securities exchange upon which the Stock is traded, but only to the extent such independence is required in order to take the action at issue pursuant to such standards or rules.

(y) “***Restricted Stock***” means Stock granted to an Eligible Person under Section 6(d) that is subject to certain restrictions and to a risk of forfeiture.

(z) “***Restricted Stock Unit***” means a right, granted to an Eligible Person under Section 6(e), to receive Stock, cash or a combination thereof at the end of a specified period or upon the occurrence of an event (which may or may not be coterminous with the vesting schedule of the Award).

(aa) “***Rule 16b-3***” means Rule 16b-3, promulgated by the SEC under Section 16 of the Exchange Act.

(bb) “***SAR***” means a stock appreciation right granted to an Eligible Person under Section 6(c).

(cc) “***SEC***” means the Securities and Exchange Commission.

(dd) “***Securities Act***” means the Securities Act of 1933, as amended from time to time, including the guidance, rules and regulations promulgated thereunder and successor provisions, guidance, rules and regulations thereto.

(ee) “***Stock***” means the Company’s Common Stock, par value $0.01 per share, and such other securities as may be substituted (or re-substituted) for Stock pursuant to Section 8.

(ff) “***Stock Award***” means unrestricted shares of Stock granted to an Eligible Person under Section 6(f).

(gg) “***Substitute Award***” means an Award granted under Section 6(j).

3. **Administration**.

(a) Authority of the Committee. The Plan shall be administered by the Committee except to the extent the Board elects to administer the Plan, in which case references herein to the “Committee” shall be deemed to include references to the “Board.” Subject to the express provisions of the Plan, Rule 16b-3 and other applicable laws, the Committee shall have the authority, in its sole and absolute discretion, to:

(i) designate Eligible Persons as Participants;

(ii) determine the type or types of Awards to be granted to an Eligible Person;

(iii) determine the number of shares of Stock or amount of cash to be covered by Awards;

(iv) determine the terms and conditions of any Award, including whether, to what extent and under what circumstances Awards may be vested, settled, exercised, cancelled or forfeited (including conditions based on continued employment or service requirements or the achievement of one or more performance goals);

(v) modify, waive or adjust any term or condition of an Award that has been granted, which may include the acceleration of vesting, waiver of forfeiture restrictions, modification of the form of settlement of the Award (for example, from cash to Stock or vice versa), early termination of a performance period, or modification of any other condition or limitation regarding an Award;

(vi) determine the treatment of an Award upon a termination of employment or other service relationship;

(vii) impose a holding period with respect to an Award or the shares of Stock received in connection with an Award;

(viii) interpret and administer the Plan and any Award Agreement;

(ix) correct any defect, supply any omission or reconcile any inconsistency in the Plan, in any Award, or in any Award Agreement; and

(x) make any other determination and take any other action that the Committee deems necessary or desirable for the administration of the Plan.

The express grant of any specific power to the Committee, and the taking of any action by the Committee, shall not be construed as limiting any power or authority of the Committee. Any action of the Committee shall be final, conclusive and binding on all Persons, including the Company, the Affiliates, stockholders, Participants, beneficiaries, and permitted transferees under Section 7(a) or other Persons claiming rights from or through a Participant. Notwithstanding anything to the contrary herein, the Board may, in its sole discretion, at any time and from time to time, exercise any and all rights, duties and responsibilities of the Committee under the Plan, including establishing procedures to be followed by the Committee, but excluding matters that under any applicable law, regulation or rule are required to be determined in the sole discretion of the Committee.

(b) Exercise of Committee Authority. At any time that a member of the Committee is not a Qualified Member, any action of the Committee relating to an Award granted or to be granted to an Eligible Person who is then subject to Section 16 of the Exchange Act in respect of the Company where such action is not taken by the full Board may be taken either (i) by a subcommittee, designated by the Committee, composed solely of two or more Qualified Members, or (ii) by the Committee but with each such member who is not a Qualified Member abstaining or recusing himself or herself from such action; provided, however, that upon such abstention or recusal, the Committee remains composed solely of two or more Qualified Members. Such action, authorized by such a subcommittee or by the Committee upon the abstention or recusal of such non-Qualified Member(s), shall be the action of the Committee for purposes of the Plan. For the avoidance of doubt, the full Board may take any action relating to an Award granted or to be granted to an Eligible Person who is then subject to Section 16 of the Exchange Act in respect of the Company.

(c) Delegation of Authority. The Committee may delegate any or all of its powers and duties under the Plan to a subcommittee of directors or to any officer of the Company, including the power to perform administrative functions and grant Awards; provided, however, that such delegation does not (i) violate applicable law, or (ii) result in the loss of an exemption under Rule 16b-3(d)(1) for Awards granted to Participants subject to Section 16 of the Exchange Act in respect of the Company. Upon any such delegation, all references in the Plan to the "Committee," other than in Section 8, shall be deemed to include any subcommittee or officer of the Company to whom such powers have been properly delegated by the Committee. Any such delegation shall not limit the right of such subcommittee members or such an officer to receive Awards; provided, however, that such subcommittee members and any such officer may not grant Awards to himself or herself, a member of the Board, or any executive officer of the Company or an Affiliate, or take any action with respect to any Award previously granted to himself or herself, a member of the Board, or any executive officer of the Company or an Affiliate. Any such delegation may be revoked by the Committee at any time. The Committee may also appoint agents who are not executive officers of the Company or members of the Board to assist in administering the Plan, provided, however, that such individuals may not be delegated the authority to grant or modify any Awards that will, or may, be settled in Stock.

(d) Limitation of Liability. The Committee and each member thereof shall be entitled to, in good faith, rely or act upon any report or other information furnished to him or her by any officer or employee of the Company or any of the Affiliates, the Company's legal counsel, independent auditors, consultants or any other agents assisting in the administration of the Plan. Members of the Committee and any officer or employee of the Company or any of the Affiliates acting at the direction or on behalf of the Committee shall not be personally liable for any action or determination taken or made in good faith with respect to the Plan, and shall, to the fullest extent permitted by law, be indemnified and held harmless by the Company with respect to any such action or determination.

(e) Participants in Non-U.S. Jurisdictions. Notwithstanding any provision of the Plan to the contrary, to comply with applicable laws in countries other than the United States in which the Company or any of the Affiliates operates or has employees, directors or other service providers from time to time, or to ensure that the Company complies with any applicable requirements of foreign securities exchanges, the Committee, in its sole discretion, shall have the power and authority to: (i) determine which of the Affiliates will be covered by the Plan; (ii) determine which Eligible Persons outside the United States are eligible to participate in the Plan; (iii) modify the terms and conditions of any Award granted to Eligible Persons outside the United States to comply with applicable foreign laws or listing requirements of any foreign exchange; (iv) establish sub-plans and modify exercise procedures and other terms and procedures, to the extent such actions may be necessary or advisable (any such sub-plans and/or modifications shall be attached to the Plan as appendices), provided, however, that no such sub-plans and/or modifications shall increase the share limitations contained in Section 4(a); and (v) take any action, before or after an Award is granted, that it deems advisable to comply with any applicable governmental regulatory exemptions or approval or listing requirements of any such foreign securities exchange. For purposes of the Plan, all references to foreign laws, rules, regulations or taxes shall be references to the laws, rules, regulations and taxes of any applicable jurisdiction other than the United States or a political subdivision thereof.

4. **Stock Subject to the Plan**.

(a) Number of Shares Available for Delivery. Subject to adjustment in a manner consistent with Section 8, shares of Stock are reserved and available for delivery with respect to Awards, and such total number of shares of Stock shall be available for issuance upon the exercise of ISOs.

(b) Application of Limitation to Grants of Awards. No Award may be granted if the number of shares of Stock that must be delivered in connection with such Award exceeds the number of shares of Stock remaining available under the Plan minus the number of shares of Stock issuable in settlement of or relating to then-outstanding Awards. The Committee may adopt reasonable counting procedures to ensure appropriate counting, avoid double counting (as, for example, in the case of tandem or Substitute Awards) and make adjustments if the number of shares of Stock actually delivered differs from the number of shares previously counted in connection with an Award.

(c) Availability of Shares Not Delivered under Awards. If all or any portion of an Award expires or is cancelled, forfeited, exchanged, settled in cash or otherwise terminated, the shares of Stock subject to such Award (including (i) shares forfeited with respect to Restricted Stock, (ii) the number of shares withheld or surrendered to the Company in payment of any exercise or purchase price of an Award or taxes relating to Awards, and (iii) shares that were subject to an Option or SAR but were not issued or delivered as a result of net settlement or net exercise of such Option or SAR) shall not be considered "delivered shares" under the Plan, shall be available for delivery with respect to Awards, and shall no longer be considered issuable or related to outstanding Awards for purposes of Section 4(b). If an Award may be settled only in cash, such Award need not be counted against any share limit under this Section 4.

(d) Shares Available Following Certain Transactions. Substitute Awards granted in accordance with applicable stock exchange requirements and in substitution or exchange for awards previously granted by a company acquired by the Company or any subsidiary or with which the Company or any subsidiary combines shall not reduce the shares authorized for issuance under the Plan or the limitations on grants to non-employee members of the Board under Section 5(b), nor shall shares subject to such Substitute Awards be added to the shares available for issuance under the Plan (whether or not such Substitute Awards are later cancelled, forfeited or otherwise terminated). Additionally, in the event that a company acquired by the Company or any subsidiary or with which the Company or any subsidiary combines has shares available under a pre-existing plan approved by stockholders and not adopted in contemplation of such acquisition or combination, the shares available for grant pursuant to the terms of such pre-existing plan (as adjusted, to the extent appropriate, using the exchange ratio or other adjustment or valuation ratio or formula used in such acquisition or combination to determine the consideration payable to the holders of common stock of the entities party to such acquisition or combination) may, if and to the extent determined by the Board and subject to compliance with applicable stock exchange requirements, be used for Awards under the Plan and shall not reduce the shares authorized for issuance under the Plan (and shares subject to such Awards shall not be added to the shares available for issuance under the Plan as provided above); provided that Awards using such available shares shall not be made after the date awards or grants could have been made under the terms of the pre-existing plan, absent the acquisition or combination, and shall only be made to individuals who were not, prior to such acquisition or combination, employed by (and who were not non-employee directors or consultants of) the Company or any of its subsidiaries immediately prior to such acquisition or combination.

(e) Stock Offered. The shares of Stock to be delivered under the Plan shall be made available from (i) authorized but unissued shares of Stock, (ii) Stock held in the treasury of the Company, or (iii) previously issued shares of Stock reacquired by the Company, including shares purchased on the open market.

5. **Eligibility; Award Limitations for Non-Employee Members of the Board**.

(a) Awards may be granted under the Plan only to Eligible Persons.

(b) In each calendar year during any part of which the Plan is in effect, anon-employee member of the Board may not be granted Awards having a value (determined, if applicable, pursuant to ASC Topic 718) on the date of grant in excess of $1,000,000; provided, that, for the calendar year in which a non-employee member of the Board first commences service on the Board only, the foregoing limitation shall be $2,000,000; provided, further that, the limitation set forth in this Section 5(b) shall be without regard to grants of Awards, if any, made to anon-employee member of the Board during any period in which such individual was an employee of the Company or of any of its Affiliates or was otherwise providing services to the Company or to any of its Affiliates other than in the capacity as a director of the Company.

6. **Specific Terms of Awards**.

(a) General.

(i) Awards may be granted on the terms and conditions set forth in this Section 6. Awards granted under the Plan may, in the discretion of the Committee, be granted either alone, in addition to, or in tandem with any other Award. In addition, the Committee may impose on any Award or the exercise thereof, at the date of grant or thereafter (subject to Section 10), such additional terms, conditions and restrictions, not inconsistent with the provisions of the Plan, as the Committee shall determine in its sole discretion.

(ii) Without limiting the scope of Section 6(a)(i), with respect to any performance-based conditions, (i) the Committee may use one or more business criteria or other measures of performance as it may deem appropriate in establishing any performance goals applicable to an Award, (ii) any such performance goals may relate to the performance of the Participant, the Company (on a consolidated basis), or to specified subsidiaries, business or geographical units or operating areas of the Company, (iii) the performance period or periods over which performance goals will be measured shall be established by the Committee, and (iv) any such performance goals and performance periods may differ among Awards granted to any one Participant or to different Participants. Except as otherwise provided in an Award Agreement, the Committee may exercise its discretion to reduce or increase the amounts payable under any Award.

(b) Options. The Committee is authorized to grant Options, which may be designated as either ISOs or Nonstatutory Options, to Eligible Persons on the following terms and conditions and such additional terms, conditions and restrictions, not inconsistent with the provisions of the Plan, as the Committee shall determine in its sole discretion:

(i) Exercise Price. Each Award Agreement evidencing an Option shall state the exercise price per share of Stock (the "***Exercise Price***") established by the Committee; provided, however, that except as provided in Section 6(j) or in Section 8, the Exercise Price of an Option shall not be less than the greater of (A) the par value per share of the Stock or (B) 100% of the Fair Market Value per share of the Stock as of the date of grant of the Option (or in the case of an ISO granted to an individual who owns stock possessing more than 10% of the total combined voting power of all classes of stock of the Company or its parent or any of its subsidiaries, 110% of the Fair Market Value per share of the Stock on the date of grant). Notwithstanding the foregoing, the Exercise Price of a Nonstatutory Option may be less than 100% of the Fair Market Value per share of Stock as of the date of grant of the Option if the Option (1) does not provide for a deferral of compensation by reason of satisfying the short-term deferral exception set forth in the Nonqualified Deferred Compensation Rules or (2) provides for a deferral of compensation and is compliant with the Nonqualified Deferred Compensation Rules.

(ii) Time and Method of Exercise; Other Terms. The Committee shall determine the methods by which the Exercise Price may be paid or deemed to be paid, the form of such payment, including cash or cash equivalents, Stock (including previously owned shares or through a cashless exercise, i.e., "net settlement", a broker-assisted exercise, or other reduction of the amount of shares otherwise issuable pursuant to the Option), other Awards or awards granted under other plans of the Company or any Affiliate, other property, or any other legal consideration the Committee deems appropriate (including notes or other contractual obligations of Participants to make payment on a deferred basis), the methods by or forms in which Stock will be delivered or deemed to be delivered to Participants, including the delivery of Restricted Stock subject to Section 6(d), and any other terms and conditions of any Option. In the case of an exercise whereby the Exercise Price is paid with Stock, such Stock shall be valued based on the Stock's Fair Market Value as of the date of exercise. No Option may be exercisable for a period of more than ten years following the date of grant of the Option (or in the case of an ISO granted to an individual who owns stock possessing more than 10% of the total combined voting power of all classes of stock of the Company or its parent or any of its subsidiaries, for a period of more than five years following the date of grant of the ISO); provided, that if the period to exercise the Option (other than in the case of an ISO) would expire at a time when trading in the shares of Stock is prohibited by applicable law, then the period to exercise the Option shall be automatically extended until the 30th day following the expiration of such prohibition.

(iii) ISOs. The terms of any ISO granted under the Plan shall comply in all respects with the provisions of Section 422 of the Code. ISOs may only be granted to Eligible Persons who are employees of the Company or employees of a parent or any subsidiary corporation of the Company (within the meaning of Sections 424(e) and (f) of the Code). Except as otherwise provided in Section 8, no term of the Plan relating to ISOs (including any SAR in tandem therewith) shall be interpreted, amended or altered, nor shall any discretion or authority granted under the Plan be exercised, so as to disqualify either the Plan or any ISO under Section 422 of the Code, unless notice has been provided to the Participant that such change will result in disqualification. ISOs shall not be granted more than ten years after the earlier of the adoption of the Plan or the approval of the Plan by the Company's stockholders. Notwithstanding the foregoing, to the extent that the aggregate Fair Market Value of shares of Stock subject to an ISO and the aggregate Fair Market Value of shares of stock of any parent or subsidiary corporation (within the meaning of Sections 424(e) and (f) of the Code) subject to any other incentive stock options of the Company or a parent or subsidiary corporation (within the meaning of Sections 424(e) and (f) of the Code) that are exercisable for the first time by a Participant during any calendar year exceeds $100,000, or such other amount as may be prescribed under Section 422 of the Code, such excess shall be treated as Nonstatutory Options in accordance with the Code. As used in the previous sentence, Fair Market Value shall be determined as of the date the ISO is granted. If a Participant shall make any disposition of shares of Stock issued pursuant to an ISO under the circumstances described in Section 421(b) of the Code (relating to disqualifying dispositions), the Participant shall notify the Company of such disposition within the time provided to do so in the applicable Award Agreement.

(c) SARs. The Committee is authorized to grant SARs to Eligible Persons on the following terms and conditions and such additional terms, conditions and restrictions, not inconsistent with the provisions of the Plan, as the Committee shall determine in its sole discretion:

(i) Right to Payment. An SAR is a right to receive, upon exercise thereof, the excess of (A) the Fair Market Value of one share of Stock on the date of exercise over (B) the grant price of the SAR as determined by the Committee.

(ii) Grant Price. Each Award Agreement evidencing an SAR shall state the grant price per share of Stock established by the Committee; provided, however, that except as provided in Section 6(j) or in Section 8, the grant price per share of Stock subject to an SAR shall not be less than the greater of (A) the par value per share of the Stock or (B) 100% of the Fair Market Value per share of the Stock as of the date of grant of the SAR. Notwithstanding the foregoing, the grant price of an SAR may be less than 100% of the Fair Market Value per share of Stock subject to an SAR as of the date of grant of the SAR if the SAR (1) does not provide for a deferral of compensation by reason of satisfying the short-term deferral exception set forth in the Nonqualified Deferred Compensation Rules or (2) provides for a deferral of compensation and is compliant with the Nonqualified Deferred Compensation Rules.

(iii) Method of Exercise and Settlement; Other Terms. The Committee shall determine the form of consideration payable upon settlement, the method by or forms in which Stock (if any) will be delivered or deemed to be delivered to Participants, and any other terms and conditions of any SAR. SARs may be either free-standing or granted in tandem with other Awards. No SAR may be exercisable for a period of more than ten years following the date of grant of the SAR; provided, that if the period to exercise the SAR would expire at a time when trading in the shares of Stock is prohibited by any applicable law, then the period to exercise the SAR shall be automatically extended until the 30th day following the expiration of such prohibition.

(iv) Rights Related to Options. An SAR granted in connection with an Option shall entitle a Participant, upon exercise, to surrender that Option or any portion thereof, to the extent unexercised, and to receive payment of an amount determined by multiplying (A) the difference obtained by subtracting the Exercise Price with respect to a share of Stock specified in the related Option from the Fair Market Value of a share of Stock on the date of exercise of the SAR, by (B) the number of shares as to which that SAR has been exercised. The Option shall then cease to be exercisable to the extent surrendered. SARs granted in connection with an Option shall be subject to the terms and conditions of the Award Agreement governing the Option, which shall provide that the SAR is exercisable only at such time or times and only to the extent that the related Option is exercisable and shall not be transferable except to the extent that the related Option is transferrable.

(d) Restricted Stock. The Committee is authorized to grant Restricted Stock to Eligible Persons on the following terms and conditions and such additional terms, conditions and restrictions, not inconsistent with the provisions of the Plan, as the Committee shall determine in its sole discretion:

(i) Restrictions. Restricted Stock shall be subject to such restrictions on transferability, risk of forfeiture and other restrictions, if any, as the Committee may impose. Except as provided in Section 7(a)(iii) and Section 7(a)(iv), during the restricted period applicable to the Restricted Stock, the Restricted Stock may not be sold, transferred, pledged, hedged, hypothecated, margined or otherwise encumbered by the Participant.

(ii) Dividends and Splits. As a condition to the grant of an Award of Restricted Stock, the Committee may allow a Participant to elect, or may require, that any cash dividends paid on a share of Restricted Stock be automatically reinvested in additional shares of Restricted Stock, applied to the purchase of additional Awards or deferred without interest to the date of vesting of the associated Award of Restricted Stock. Stock distributed in connection with a Stock split or a Stock dividend, and other property (other than cash) distributed as a dividend, in each case, shall be subject to restrictions and a risk of forfeiture to the same extent as the Restricted Stock with respect to which such Stock or other property has been distributed.

(e) Restricted Stock Units. The Committee is authorized to grant Restricted Stock Units to Eligible Persons on the following terms and conditions and such additional terms, conditions and restrictions, not inconsistent with the provisions of the Plan, as the Committee shall determine in its sole discretion:

(i) Award and Restrictions. Restricted Stock Units shall be subject to such restrictions (which may include a risk of forfeiture) as the Committee may impose.

(ii) Settlement. Settlement of vested Restricted Stock Units shall occur upon vesting or upon expiration of the deferral period specified for such Restricted Stock Units by the Committee (or, if permitted by the Committee, as elected by the Participant). Restricted Stock Units shall be settled by delivery of (A) a number of shares of Stock equal to the number of Restricted Stock Units for which settlement is due, or (B) cash in an amount equal to the Fair Market Value of the specified number of shares of Stock equal to the number of Restricted Stock Units for which settlement is due, or a combination thereof, as determined by the Committee at the date of grant or thereafter.

(f) Stock Awards. The Committee is authorized to grant Stock Awards to Eligible Persons as a bonus, as additional compensation, or in lieu of cash compensation any such Eligible Person is otherwise entitled to receive, in such amounts and subject to such other terms and conditions, not inconsistent with the provisions of the Plan, as the Committee in its discretion determines to be appropriate.

(g) Dividend Equivalents. The Committee is authorized to grant Dividend Equivalents to Eligible Persons, entitling any such Eligible Person to receive cash, Stock, other Awards, or other property equal in value to dividends or other distributions paid with respect to a specified number of shares of Stock on such terms, conditions and restrictions, not inconsistent with the provisions of the Plan, as the Committee shall determine in its sole discretion. Dividend Equivalents may be awarded on a free-standing basis or in connection with another Award (other than an Award of Restricted Stock or a Stock Award). The Committee may provide that Dividend Equivalents that are granted on a free-standing basis shall be paid or distributed when accrued or at a later specified date and, if distributed at a later date, may be deemed to have been reinvested in additional Stock, Awards, or other investment vehicles or accrued in a bookkeeping account without interest, and subject to such restrictions on transferability and risks of forfeiture, as the Committee may specify. Dividend Equivalents granted in connection with another Award shall be subject to the same restrictions and risk of forfeiture as the Award with respect to which the dividends accrue and shall not be paid unless and until such Award has vested and been earned.

(h) Other Stock-Based Awards. The Committee is authorized, subject to limitations under applicable law, to grant to Eligible Persons such other Awards that may be denominated or payable in, valued in whole or in part by reference to, or otherwise based on, or related to, Stock, as deemed by the Committee to be consistent with the purposes of the Plan, including convertible or exchangeable debt securities, other rights convertible or exchangeable into Stock, purchase rights for Stock, Awards with value and payment contingent upon performance of the Company or any other factors designated by the Committee, and Awards valued by reference to the book value of Stock or the value of securities of, or the performance of, specified Affiliates. The Committee shall determine the terms, conditions and restrictions of such Other Stock-Based Awards, not inconsistent with the provisions of the Plan, as the Committee shall determine in its sole discretion. Stock delivered pursuant to an Other Stock-Based Award in the nature of a purchase right granted under this Section 6(h) shall be purchased for such consideration, paid for at such times, by such methods, and in such forms, including cash, Stock, other Awards, or other property, as the Committee shall determine.

(i) Cash Awards. The Committee is authorized to grant Cash Awards, on a free-standing basis or as an element of, a supplement to, or in lieu of any other Award under the Plan to Eligible Persons in such amounts and subject to such other terms, conditions and restrictions, not inconsistent with the provisions of the Plan, as the Committee in its discretion determines to be appropriate, including for purposes of any annual or short-term incentive or other bonus program.

(j) Substitute Awards. Awards may be granted in substitution or exchange for any other Award granted under the Plan or under another plan of the Company or an Affiliate or any other right of an Eligible Person to receive payment from the Company or an Affiliate. Awards may also be granted under the Plan in substitution for awards held by individuals who become Eligible Persons as a result of a merger, consolidation or acquisition of another entity or the assets of another entity by or with the Company or an Affiliate. Such Substitute Awards referred to in the immediately preceding sentence that are Options or SARs may have an exercise price that is less than the Fair Market Value of a share of Stock on the date of the substitution if such substitution complies with the Nonqualified Deferred Compensation Rules and other applicable laws and exchange rules.

(k) No Repricing. Except as provided in Section 6(j) or in Section 8, without the approval of the stockholders of the Company, the terms of outstanding Awards may not be amended to (i) reduce the Exercise Price or grant price of an outstanding Option or SAR, (ii) grant a new Option, SAR or other Award in substitution for, or upon the cancellation of, any previously granted Option or SAR that has the effect of reducing the Exercise Price or grant price thereof, (iii) exchange any Option or SAR for Stock, cash or other consideration when the Exercise Price or grant price per share of Stock under such Option or SAR equals or exceeds the Fair Market Value of a share of Stock or (iv) take any other action that would be considered a "repricing" of an Option or SAR under the applicable listing standards of the national securities exchange on which the Stock is listed (if any).

7. **Certain Provisions Applicable to Awards**.

(a) Limit on Transfer of Awards.

(i) Except as provided in Sections 7(a)(iii) and (iv), each Option and SAR shall be exercisable only by the Participant during the Participant's lifetime, or by the Person to whom the Participant's rights shall pass by will or the laws of descent and distribution. Notwithstanding anything to the contrary in this Section 7(a), an ISO shall not be transferable other than by will or the laws of descent and distribution.

(ii) Except as provided in Sections 7(a)(i), (iii) and (iv), no Award, other than a Stock Award, and no right under any such Award, may be assigned, alienated, pledged, attached, sold or otherwise transferred or encumbered by a Participant and any such purported assignment, alienation, pledge, attachment, sale, transfer or encumbrance shall be void and unenforceable against the Company or any Affiliate.

(iii) To the extent specifically provided by the Committee and permitted pursuant to Form S-8 and the instructions thereto, an Award may be transferred by a Participant on such terms and conditions as the Committee may from time to time establish; provided, however, that no Award (other than a Stock Award, which is a fully vested share of Stock at the time of grant) may be transferred to a third-party financial institution for value.

(iv) An Award may be transferred pursuant to a domestic relations order entered or approved by a court of competent jurisdiction upon delivery to the Company of a written request for such transfer and a certified copy of such order.

(b) Form and Timing of Payment under Awards; Deferrals. Subject to the terms of the Plan and any applicable Award Agreement, payments to be made by the Company or any of the Affiliates upon the exercise or settlement of an Award may be made in such forms as the Committee shall determine in its discretion, including cash, Stock, other Awards or other property, and may be made in a single payment or transfer, in installments, or on a deferred basis (which may be required by the Committee or permitted at the election of the Participant on terms and conditions established by the Committee); provided, however, that any such deferred or installment payments will be set forth in the Award Agreement. Payments may include, without limitation, provisions for the payment or crediting of reasonable interest on installment or deferred payments or the grant or crediting of Dividend Equivalents or other amounts in respect of installment or deferred payments denominated in Stock.

(c) Evidencing Stock. The Stock or other securities of the Company delivered pursuant to an Award may be evidenced in any manner deemed appropriate by the Committee in its sole discretion, including in the form of a certificate issued in the name of the Participant or by book entry, electronic or otherwise, and shall be subject to such stop transfer orders and other restrictions as the Committee may deem advisable under the Plan or the rules, regulations, and other requirements of the SEC, any stock exchange upon which such Stock or other securities are then listed, and any applicable laws, and the Committee may cause a legend or legends to be inscribed on any such certificates to make appropriate reference to such restrictions. Further, if certificates representing Restricted Stock are registered in the name of the Participant, the Company may retain physical possession of the certificates and may require that the Participant deliver a stock power to the Company, endorsed in blank, related to the Restricted Stock.

(d) Consideration for Grants. Awards may be granted for such consideration, including services, as the Committee shall determine, but shall not be granted for less than the minimum lawful consideration.

(e) Additional Agreements. Each Eligible Person to whom an Award is granted under the Plan may be required to agree in writing, as a condition to the grant of such Award or otherwise, to subject an Award that is exercised or settled following such Eligible Person’s termination of employment or service to a general release of claims and/or a noncompetition or other restrictive covenant agreement in favor of the Company and the Affiliates, with the terms and conditions of such agreement(s) to be determined in good faith by the Committee.

8. **Subdivision or Consolidation; Recapitalization; Change in Control; Reorganization**.

(a) Existence of Plans and Awards. The existence of the Plan and the Awards granted hereunder shall not affect in any way the right or power of the Company, the Board or the stockholders of the Company to make or authorize any adjustment, recapitalization, reorganization or other change in the Company’s capital structure or its business, any merger or consolidation of the Company, any issue of debt or equity securities ahead of or affecting Stock or the rights thereof, the dissolution or liquidation of the Company or any sale, lease, exchange or other disposition of all or any part of its assets or business or any other corporate act or proceeding.

(b) Additional Issuances. Except as expressly provided herein, the issuance by the Company of shares of stock of any class, including upon conversion of shares or obligations of the Company convertible into such shares or other securities, and in any case whether or not for fair value, shall not affect, and no adjustment by reason thereof shall be made with respect to, the number of shares of Stock subject to Awards theretofore granted or the purchase price per share of Stock, if applicable.

(c) Subdivision or Consolidation of Shares. The terms of an Award and the share limitations under the Plan shall be subject to adjustment by the Committee from time to time, in accordance with the following provisions:

(i) If at any time, or from time to time, the Company shall subdivide as a whole (by reclassification, by a Stock split, by the issuance of a distribution on Stock payable in Stock, or otherwise) the number of shares of Stock then outstanding into a greater number of shares of Stock or in the event the Company distributes an extraordinary cash dividend, then, as appropriate (A) the maximum number of shares of Stock available for delivery with respect to Awards and applicable limitations with respect to Awards provided in Section 4(a) and Section 5(b) (other than cash limits) shall be increased proportionately, and the kind of shares or other securities available for the Plan shall be appropriately adjusted, (B) the number of shares of Stock (or other kind of shares or securities) that may be acquired under any then outstanding Award shall be increased proportionately, and (C) the price (including the Exercise Price or grant price) for each share of Stock (or other kind of shares or securities) subject to then outstanding Awards shall be reduced proportionately, without changing the aggregate purchase price or value as to which outstanding Awards remain exercisable or subject to restrictions; provided, however, that in the case of an extraordinary cash dividend that is not an Adjustment Event, the adjustment to the number of shares of Stock and the Exercise Price or grant price, as applicable, with respect to an outstanding Option or SAR may be made in such other manner as the Committee may determine that is permitted pursuant to applicable tax and other laws, rules and regulations.

(ii) If at any time, or from time to time, the Company shall consolidate as a whole (by reclassification, by reverse Stock split, or otherwise) the number of shares of Stock then outstanding into a lesser number of shares of Stock, then, as appropriate (A) the maximum number of shares of Stock available for delivery with respect to Awards and applicable limitations with respect to Awards provided in Section 4(a) and Section 5(b) (other than cash limits) shall be decreased proportionately, and the kind of shares or other securities available for the Plan shall be appropriately adjusted, (B) the number of shares of Stock (or other kind of shares or securities) that may be acquired under any then outstanding Award shall be decreased proportionately, and (C) the price (including the Exercise Price or grant price) for each share of Stock (or other kind of shares or securities) subject to then outstanding Awards shall be increased proportionately, without changing the aggregate purchase price or value as to which outstanding Awards remain exercisable or subject to restrictions.

(d) Recapitalization. In the event of any change in the capital structure or business of the Company or other corporate transaction or event that would be considered an "equity restructuring" within the meaning of ASC Topic 718 and, in each case, that would result in an additional compensation expense to the Company pursuant to the provisions of ASC Topic 718, if adjustments to Awards with respect to such event were discretionary or otherwise not required (each such an event, an "***Adjustment Event***"), then the Committee shall equitably adjust (i) the aggregate number or kind of shares that thereafter may be delivered under the Plan, (ii) the number or kind of shares or other property (including cash) subject to an Award, (iii) the terms and conditions of Awards, including the purchase price, grant price or Exercise Price of Awards and performance goals, as applicable, and (iv) the applicable limitations with respect to Awards provided in Section 4(a) and Section 5(b) (other than cash limits) to equitably reflect such Adjustment Event ("***Equitable Adjustments***"). In the event of any change in the capital structure or business of the Company or other corporate transaction or event that would not be considered an Adjustment Event, and is not otherwise addressed in this Section 8, the Committee shall have complete discretion to make Equitable Adjustments (if any) in such manner as it deems appropriate with respect to such other event.

(e) Change in Control and Other Events. Except to the extent otherwise provided in any applicable Award Agreement, vesting of any Award shall not occur solely upon the occurrence of a Change in Control and, in the event of a Change in Control or other changes in the Company or the outstanding Stock by reason of a recapitalization, reorganization, merger, consolidation, combination, exchange or other relevant change occurring after the date of the grant of any Award, the Committee, acting in its sole discretion without the consent or approval of any holder, may exercise any power enumerated in Section 3 (including the power to accelerate vesting, waive any forfeiture conditions or otherwise modify or adjust any other condition or limitation regarding an Award) and may also effect one or more of the following alternatives, which may vary among individual holders and which may vary among Awards held by any individual holder:

(i) accelerate the time of exercisability of an Award so that such Award may be exercised in full or in part for a limited period of time on or before a date specified by the Committee, after which specified date all unexercised Awards and all rights of holders thereunder shall terminate;

(ii) redeem in whole or in part outstanding Awards by requiring the mandatory surrender to the Company by selected holders of some or all of the outstanding Awards held by such holders (irrespective of whether such Awards are then vested or exercisable) as of a date, specified by the Committee, in which event the Committee shall thereupon cancel such Awards and pay to each holder an amount of cash or other consideration per Award (other than a Dividend Equivalent or Cash Award, which the Committee may separately require to be surrendered in exchange for cash or other consideration determined by the Committee in its discretion) equal to the Change in Control Price, less the Exercise Price with respect to an Option and less the grant price with respect to a SAR, as applicable to such Awards; provided, however, that to the extent the Exercise Price of an Option or the grant price of an SAR exceeds the Change in Control Price, such Award may be cancelled for no consideration;

(iii) cancel Awards that remain subject to a restricted period as of the date of a Change in Control or other such event without payment of any consideration to the Participant for such Awards; or

(iv) make such adjustments to Awards then outstanding as the Committee deems appropriate to reflect such Change in Control or other such event (including the substitution, assumption, or continuation of Awards by the successor company or a parent or subsidiary thereof).

provided, however, that so long as the event is not an Adjustment Event, the Committee may determine in its sole discretion that no adjustment is necessary to Awards then outstanding. If an Adjustment Event occurs, this Section 8(e) shall only apply to the extent it is not in conflict with Section 8(d).

9. **General Provisions**.

(a) Tax Withholding. The Company and any of the Affiliates are authorized to withhold from any Award granted, or any payment relating to an Award, including from a distribution of Stock, taxes due or potentially payable in connection with any transaction involving an Award, and to take such other action as the Committee may deem advisable to enable the Company, the Affiliates and Participants to satisfy the payment of withholding taxes and other tax obligations relating to any Award in such amounts as may be determined by the Committee. The Committee shall determine, in its sole discretion, the form of payment acceptable for such tax withholding obligations, including the delivery of cash or cash equivalents, Stock (including previously owned shares, net settlement, a broker-assisted sale, or other cashless withholding or reduction of the amount of shares otherwise issuable or delivered pursuant to the Award), other property, or any other legal consideration the Committee deems appropriate. Any determination made by the Committee to allow a Participant who is subject to Rule 16b-3 to pay taxes with shares of Stock through net settlement or previously owned shares shall be approved by either a committee made up of solely two or more Qualified Members or the full Board. If such tax withholding amounts are satisfied through net settlement or previously owned shares, the maximum number of shares of Stock that may be so withheld or surrendered shall be the number of shares of Stock that have an aggregate Fair Market Value on the date of withholding or surrender equal to the aggregate amount of such tax liabilities determined based on the greatest withholding rates for federal, state, foreign and/or local tax purposes, including payroll taxes, that may be utilized without creating adverse accounting treatment for the Company with respect to such Award, as determined by the Committee.

(b) Limitation on Rights Conferred under Plan. Neither the Plan nor any action taken hereunder shall be construed as (i) giving any Eligible Person or Participant the right to continue as an Eligible Person or Participant or in the employ or service of the Company or any of the Affiliates, (ii) interfering in any way with the right of the Company or any of the Affiliates to terminate any Eligible Person's or Participant's employment or service relationship at any time, (iii) giving an Eligible Person or Participant any claim to be granted any Award under the Plan or to be treated uniformly with other Participants and/or employees and/or other service providers, or (iv) conferring on a Participant any of the rights of a stockholder of the Company unless and until the Participant is duly issued or transferred shares of Stock in accordance with the terms of an Award.

(c) Relationship to Other Benefits. No Award or payment under the Plan shall be taken into account in determining any benefits under any pension, retirement, profit sharing, group insurance or other benefit plan of the Company or any Affiliate except as otherwise specifically provided in such other plan or as required by applicable law.

(d) Governing Law; Submission to Jurisdiction. All questions arising with respect to the provisions of the Plan and Awards shall be determined by application of the laws of the State of Delaware, without giving effect to any conflict of law provisions thereof, except to the extent Delaware law is preempted by federal law. The obligation of the Company to sell and deliver Stock hereunder is subject to applicable laws and to the approval of any governmental authority required in connection with the authorization, issuance, sale, or delivery of such Stock. With respect to any claim or dispute related to or arising under the Plan, the Company and each Participant who accepts an Award hereby consent to the exclusive jurisdiction, forum and venue of the state and federal courts located in Tarrant County, Texas in the Fort Worth Division. EACH PARTICIPANT WHO ACCEPTS AN AWARD IRREVOCABLY WAIVES ALL RIGHT TO A TRIAL BY JURY IN ANY SUIT, ACTION, OR OTHER PROCEEDING INSTITUTED BY OR AGAINST SUCH PARTICIPANT IN RESPECT OF THE PARTICIPANT'S RIGHTS OR OBLIGATIONS HEREUNDER.

(e) Severability and Reformation. If any provision of the Plan or any Award is or becomes or is deemed to be invalid, illegal, or unenforceable in any jurisdiction or as to any Person or Award, or would disqualify the Plan or any Award under any law deemed applicable by the Committee, such provision shall be construed or deemed amended to conform to the applicable law or, if it cannot be construed or deemed amended without, in the determination of the Committee, materially altering the intent of the Plan or the Award, such provision shall be stricken as to such jurisdiction, Person or Award and the remainder of the Plan and any such Award shall remain in full force and effect. If any of the terms or provisions of the Plan or any Award Agreement conflict with the requirements of Rule 16b-3 (as those terms or provisions are applied to Eligible Persons who are subject to Section 16 of the Exchange Act) or Section 422 of the Code (with respect to ISOs), then those conflicting terms or provisions shall be deemed inoperative to the extent they so conflict with the requirements of Rule 16b-3 (unless the Board or the Committee, as appropriate, has expressly determined that the Plan or such Award should not comply with Rule 16b-3) or Section 422 of the Code, in each case, only to the extent Rule 16b-3 and such sections of the Code are applicable. With respect to ISOs, if the Plan does not contain any provision required to be included herein under Section 422 of the Code, that provision shall be deemed to be incorporated herein with the same force and effect as if that provision had been set out at length herein; provided, further, that, to the extent any Option that is intended to qualify as an ISO cannot so qualify, that Option (to that extent) shall be deemed a Nonstatutory Option for all purposes of the Plan.

(f) Unfunded Status of Awards; No Trust or Fund Created. The Plan is intended to constitute an "unfunded" plan for certain incentive awards. Neither the Plan nor any Award shall create or be construed to create a trust or separate fund of any kind or a fiduciary relationship between the Company or any Affiliate and a Participant or any other Person. To the extent that any Person acquires a right to receive payments from the Company or any Affiliate pursuant to an Award, such right shall be no greater than the right of any general unsecured creditor of the Company or such Affiliate.

(g) Nonexclusivity of the Plan. Neither the adoption of the Plan by the Board nor its submission to the stockholders of the Company for approval shall be construed as creating any limitations on the power of the Board or a committee thereof to adopt such other incentive arrangements as it may deem desirable. Nothing contained in the Plan shall be construed to prevent the Company or any of the Affiliates from taking any corporate action which is deemed by the Company or such Affiliate to be appropriate or in its best interest, whether or not such action would have an adverse effect on the Plan or any Award made under the Plan. No employee, beneficiary or other Person shall have any claim against the Company or any of the Affiliates as a result of any such action.

(h) Fractional Shares. No fractional shares of Stock shall be issued or delivered pursuant to the Plan or any Award, and the Committee shall determine in its sole discretion whether cash, other securities, or other property shall be paid or transferred in lieu of any fractional shares of Stock or whether such fractional shares of Stock or any rights thereto shall be cancelled, terminated, or otherwise eliminated with or without consideration.

(i) Interpretation. Headings are given to the Sections and subsections of the Plan solely as a convenience to facilitate reference. Such headings shall not be deemed in any way material or relevant to the construction or interpretation of the Plan or any provision thereof. Words in the masculine gender shall include the feminine gender, and, where appropriate, the plural shall include the singular and the singular shall include the plural. In the event of any conflict between the terms and conditions of an Award Agreement and the Plan, the provisions of the Plan shall control. The use herein of the word “including” following any general statement, term or matter shall not be construed to limit such statement, term or matter to the specific items or matters set forth immediately following such word or to similar items or matters, whether or not non-limiting language (such as “without limitation”, “but not limited to”, or words of similar import) is used with reference thereto, but rather shall be deemed to refer to all other items or matters that could reasonably fall within the broadest possible scope of such general statement, term or matter. References herein to any agreement, instrument or other document means such agreement, instrument or other document as amended, supplemented and modified from time to time to the extent permitted by the provisions thereof and not prohibited by the Plan.

(j) Facility of Payment. Any amounts payable hereunder to any individual under legal disability or who, in the judgment of the Committee, is unable to manage properly his financial affairs, may be paid to the legal representative of such individual, or may be applied for the benefit of such individual in any manner that the Committee may select, and the Company shall be relieved of any further liability for payment of such amounts.

(k) Conditions to Delivery of Stock. Nothing herein or in any Award Agreement shall require the Company to issue any shares with respect to any Award if that issuance would, in the opinion of counsel for the Company (if the Company has requested such an opinion), constitute a violation of the Securities Act, any other applicable statute or regulation, or the rules of any applicable securities exchange or securities association, as then in effect. In addition, each Participant who receives an Award under the Plan shall not sell or otherwise dispose of Stock that is acquired upon grant, exercise or vesting of an Award in any manner that would constitute a violation of any applicable federal or state securities laws, the Plan or the rules, regulations or other requirements of the SEC or any stock exchange upon which the Stock is then listed. At the time of any exercise of an Option or SAR, or at the time of any grant of any other Award, the Company may, as a condition precedent to the exercise of such Option or SAR or settlement of any other Award, require from the Participant (or in the event of his or her death, his or her legal representatives, heirs, legatees, or distributees) such written representations, if any, concerning the holder's intentions with regard to the retention or disposition of the shares of Stock being acquired pursuant to the Award and such written covenants and agreements, if any, as to the manner of disposal of such shares as, in the opinion of counsel to the Company (if the Company has requested such an opinion), may be necessary to ensure that any disposition by that holder (or in the event of the holder's death, his or her legal representatives, heirs, legatees, or distributees) will not involve a violation of the Securities Act, any other applicable state or federal statute or regulation, or any rule of any applicable securities exchange or securities association, as then in effect. Stock or other securities shall not be delivered pursuant to any Award until payment in full of any amount required to be paid pursuant to the Plan or the applicable Award Agreement (including any Exercise Price, grant price, or tax withholding) is received by the Company.

(l) Section 409A of the Code. It is the general intention, but not the obligation, of the Committee to design Awards to comply with or to be exempt from the Nonqualified Deferred Compensation Rules, and Awards will be operated and construed accordingly. Neither this Section 9(l) nor any other provision of the Plan is or contains a representation to any Participant regarding the tax consequences of the grant, vesting, exercise, settlement, or sale of any Award (or the Stock underlying such Award) granted hereunder, and should not be interpreted as such. In no event shall the Company be liable for all or any portion of any taxes, penalties, interest or other expenses that may be incurred by the Participant on account of non-compliance with the Nonqualified Deferred Compensation Rules. Notwithstanding any provision in the Plan or an Award Agreement to the contrary, in the event that a "specified employee" (as defined under the Nonqualified Deferred Compensation Rules) becomes entitled to a payment under an Award that would be subject to additional taxes and interest under the Nonqualified Deferred Compensation Rules if the Participant's receipt of such payment or benefits is not delayed until the earlier of (i) the date of the Participant's death, or (ii) the date that is six months after the Participant's "separation from service," as defined under the Nonqualified Deferred Compensation Rules (such date, the "***Section 409A Payment Date***"), then such payment or benefit shall not be provided to the Participant until the Section 409A Payment Date. Any amounts subject to the preceding sentence that would otherwise be payable prior to the Section 409A Payment Date will be aggregated and paid in a lump sum without interest on the Section 409A Payment Date. The applicable provisions of the Nonqualified Deferred Compensation Rules are hereby incorporated by reference and shall control over any Plan or Award Agreement provision in conflict therewith.

(m) Clawback. The Plan and all Awards granted hereunder are subject to any written clawback policies that the Company, with the approval of the Board or an authorized committee thereof, may adopt either prior to or following the Effective Date, including any policy adopted to conform to the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 and rules promulgated thereunder by the SEC and that the Company determines should apply to Awards. Any such policy may subject a Participant's Awards and amounts paid or realized with respect to Awards to reduction, cancelation, forfeiture or recoupment if certain specified events or wrongful conduct occur, including an accounting restatement due to the Company's material noncompliance with financial reporting regulations or other events or wrongful conduct specified in any such clawback policy.

(n) Status under ERISA. The Plan shall not constitute an "employee benefit plan" for purposes of Section 3(3) of the Employee Retirement Income Security Act of 1974, as amended.

(o) Plan Effective Date and Term. The Plan was adopted by the Board to be effective on the Effective Date. No Awards may be granted under the Plan on and after the tenth anniversary of the Effective Date. However, any Award granted prior to such termination (or any earlier termination pursuant to Section 10), and the authority of the Board or Committee to amend, alter, adjust, suspend, discontinue, or terminate any such Award or to waive any conditions or rights under such Award in accordance with the terms of the Plan, shall extend beyond such termination until the final disposition of such Award.

10. **Amendments to the Plan and Awards.** The Committee may (a) amend, alter, suspend, discontinue or terminate any Award or Award Agreement or (b) amend or alter the Plan. The Board may (i) amend, alter, suspend, discontinue or terminate the Committee's authority to grant Awards or otherwise administer the Plan or (ii) amend, alter, suspend, discontinue or terminate the Plan and any Award or Award Agreement. Actions by the Committee and the Board described in this Section 10 may be taken without the consent of stockholders or Participants; provided, however, that (i) stockholder approval will be obtained as required by any applicable law or regulation or the rules of any stock exchange or automated quotation system on which the Stock may then be listed or quoted and (ii) Participant consent must be obtained prior to any action that would materially and adversely affect the rights of such Participant under any previously granted and outstanding Award. For purposes of clarity, any adjustments made to Awards pursuant to Section 8 will be deemed not to materially and adversely affect the rights of any Participant under any previously granted and outstanding Award and therefore may be made without the consent of affected Participants.

PATENT LICENSE AGREEMENT

THIS AGREEMENT is entered into as of the Effective Date (as defined below) by and between **U.S. WELL SERVICES, LLC**, a Delaware limited liability company ("**Licensor**"), having its principal place of business at 1360 Post Oak Blvd, Suite 1800 Houston, Texas 77056 on the one hand;

AND

PROFRAC MANUFACTURING, LLC, a Texas, limited liability company ("**Licensee**"), on the other hand.

RECITALS

WHEREAS Licensor owns all substantial rights in the Licensed Patents, as defined below;

WHEREAS Licensee and Licensor seek to enter into an agreement whereby Licensee will be allowed to license and build up to twenty (20) hydraulic fracturing fleets upon terms and conditions contained herein.

WHEREAS the Parties represent that the following agreement is their true and just intention.

NOW THEREFORE, for and in consideration of the payments to be made by Licensee hereunder and the other covenants herein contained and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, it is covenanted and agreed by and between the Parties (as defined below) hereto that:

1. DEFINITIONS

The following terms, whenever used herein shall unless the context otherwise requires, have the following meanings:

1.1 **"Affiliate"** of a Party shall mean any person or entity that directly or indirectly controls, is directly or indirectly controlled by, or under direct or indirect common control with such Party. For purposes of this definition, "control" (including, with correlative meanings, "controlled by" and "under direct or indirect common control with") means the possession, directly or indirectly, of the power to direct or cause the direction of the management and policies of an entity, whether through ownership, ownership or control of voting securities, by contract, or otherwise.

1.2 **"Agreement"** means this Patent License Agreement and any appendices.

1.3 “**Double Pumper Electric Pump**” means a dual or double Electric Pump.

1.4 **“Effective Date”** means the date on which Licensor and Licensee execute this Agreement, or, to the extent the Parties do not execute this Agreement on the same date, the latest date that any such Party executes the Agreement.

1.5 **“Electric Pump”** means a pump powered by an electric motor.

1.6 **“Fleet”** means equipment used by an end-user for hydraulic fracturing operations which comprises (i) at least one Electric Pump but not more than twenty-four (24) Electric Pumps and/or at least one but no more than twelve (12) Double Pumper Electric Pumps and (ii) no more than one centralized monitoring and control system, and which is configured to deliver total fracturing power of no more than 72,000 hydraulic horsepower. For clarity, hydraulic fracturing equipment which (i) comprises more than twenty-four (24) Electric Pumps or more than twelve (12) Double Pumper Electric Pumps, (ii) comprises more than one centralized monitoring and control system, or (iii) is configured to deliver more than 72,000 hydraulic horsepower shall be considered to be more than one Fleet, even if said equipment were sold or leased in a single transaction to a single third-party customer.

1.7 **“Licensed Patents”** means (i) United States Patent Nos. 8,789,601; 9,410,410; 9,611,728; 9,650,871; 9,650,879; 9,970,278; 9,745,840; 10,337,308; 10,408,030; 9,587,649; 10,655,435; 10,408,031; 10,648,311; 10,280,724; 10,526,882, (ii) any foreign counterparts, continuations, continuations-in-part, divisionals, reissues, or reexaminations of the patents in (i), (iii) any other patents or patent applications to which any of the patents in (i) directly or indirectly claim priority, and (iv) any other patents or patent applications sharing a common priority with the patents in (i).

1.8 **“Licensed Product”** means a system that is leased to an end-user for ultimate use in hydraulic fracturing operations in an oil or gas well covered by any of the Licensed Patents, including all equipment of a Fleet, and including, without limitation, all ancillary equipment relative to a Fleet (e.g., data van control systems, monitoring systems, blender, and other backside equipment). A Licensed Product shall not be sold or offered for sale.

1.9 A **“Party”** to this Agreement means Licensor or Licensee, as the case may be, and ‘**Parties”** shall be construed accordingly.

1.10 **“Term”** means the term described in Section 5 of this Agreement.

1.11 **“Territory”** means and is limited to the United States.

2. LICENSOR'S GRANT OF LICENSE; COVENANT; MUTUAL RELEASES; DISMISSAL

2.1 **Licensor License to Licensee**. Subject to the terms and conditions of this Agreement, Licensor hereby grants to Licensee, a limited, non-transferable (except as permitted in this Agreement), and non-exclusive license to make, offer to lease, and lease Licensed Products under the Licensed Patents, solely during the Term and solely for use in a number of Fleets equal to the Total Fleet Count (as defined in Section 4.1) then in effect. For clarity, the license granted herein specifically excludes any right to make, any sale or offer for sale, or any lease or offer to lease, of Licensed Products for uses that do not meet the limitations of a Fleet, including the number of Electric Pumps or Double Pumper Electric Pumps in a Fleet.

3. LIMITATIONS TO LICENSOR'S LICENSE AND COVENANT TO LICENSEE

3.1 Except as explicitly provided in Section 12 of this Agreement, Licensee shall not be entitled to assign or otherwise transfer any of its rights under this Agreement. Except to the extent as may be necessary to build, construct, manufacture, and assemble the Licensed Products, Licensee shall not be entitled to sublicense its rights under this Agreement.

3.2 Licensed Products that are subject to a lease shall remain a "leased" Licensed Product until the lease expires and/or is terminated, and the Licensed Products are returned to the physical possession of Licensee. Should Licensee anticipate leasing more than twenty (20) Fleets of Licensed Products in the Territory in the future, the Parties agree to negotiate in good faith for a license with respect to any such additional Fleet(s).

3.3 The license and other rights granted to Licensee herein are subject to all restrictions and limitations set out in the present Agreement. All rights not expressly granted to Licensee are hereby expressly reserved.

3.4 Nothing in this Agreement shall be construed as conveying to Licensee or a third-party, including purchaser or lessee of Licensed Products from Licensee, any right, whether explicitly, by principles of implied license, or otherwise, to combine a Licensed Product with any other product(s) other than in a Fleet.

4. CONSIDERATION FOR LICENSOR'S LICENSE AND COVENANT TO LICENSEE; ACCOUNTING

4.1 **Payments for Licensed Products.** Licensee shall purchase one license for each Licensed Product. Upon the Effective Date and in consideration for the conversion of that certain Convertible Senior Secured (Third Lien) PIK Note dated June 24, 2021 by U.S. Well Services, Inc., a Delaware corporation and parent company of Licensor (the "**Note**"), Licensee hereby purchases three (3) licenses ("**Initial Licenses**"), each for a Licensed Product applicable to a Fleet. During the five (5) year period beginning on the Effective Date, Licensee shall be permitted to purchase (a) up to seven (7) additional licenses ("**Section 4.1(a) Licenses**") and (b) after purchasing the Section 4.1(a) Licenses, up to ten (10) additional licenses ("**Section 4.1(b) Licenses**" and, together with the Section 4.1(a) Licenses, the "**Additional Licenses**"), each for an additional Licensed Product applicable to a Fleet under and in accordance with this Agreement. The purchase Price for each Section 4.1(a) License shall be Seven Million Five Hundred Thousand & 00/100 ($7,500,000.00), and the purchase price for each Section 4.1(b) License shall be Nine Million & 00/100 ($9,000,000.00) (as applicable, the "**License Fee**"), except as modified by Section 4.2. Each License Fee is non-refundable. Each license covers one Licensed Product only and neither the Initial Licenses or the Additional Licenses are transferable from one Licensed Product to another. The total number of licenses purchased under the terms hereof is referred to as the "**Total Fleet Count**."

4.2 Excluding any license granted (a) to any Affiliate of Licensor, (b) in connection with a joint venture, technology collaboration arrangement or strategic partnerships entered into by Licensor or any of its Affiliates or (c) in connection with the settlement or other resolution of a dispute or claim related to the Licensed Products or any licensed patents, if Licensor grants the same or equivalent license for a Licensed Product as provided under the terms hereof to any other licensee for a purchase price that is less than the applicable License Fee as then in effect for Licensee to acquire an Additional License under the terms of Section 4.1, from and after the effective date of such license, the License Fee for any Additional License purchased thereafter shall be the same as the lesser fee paid by the other licensee.

4.3 **Timing of Payments.** Full payment for the Initial Licenses shall occur immediately upon conversion of the Note under the terms thereof. Payment for each Additional License shall be made within no less than ten (10) business days after Licensee's election to acquire an Additional License under the terms of Section 4.1, provided that the applicable license shall only be granted and in effect upon and after receipt of such payment.

4.4 **Method of Making Payments.** All payments that Licensee is required to make to Licensor shall be made by wire transfer in U.S. dollars and in immediately available funds to Licensor's bank account, as provided in Appendix A. Licensor may at its sole discretion change the banking information for the wire transfer provided in Appendix A by providing notice of the new banking information to Licensee pursuant to Section 10.

5. TERM

5.1 This Agreement shall not be binding on the Parties until it has been signed below by all Parties, at which time it shall be deemed effective as of its Effective Date.

5.2 Subject to earlier termination in accordance with Section 6, the license granted under Section 2.1 of this Agreement is effective as of the Effective Date and continues in full force through the expiration or invalidation of the last surviving Licensed Patent, such period being the "**Term**" of this Agreement.

6. TERMINATION

6.1 Licensor may, without prejudice to any and all rights and remedies available to Licensor under this Agreement and at law, terminate the license under Section 2.1 for any of the following:

6.1.1 Licensee fails to perform any payment obligations under Section 4.1, or Licensee otherwise breaches a material term of this Agreement and fails to cure within thirty (30) business days after receipt of written notice specifying the nature of such failure;

6.1.2 Licensee makes a general assignment for the benefit of creditors or enters into liquidation; or

6.1.3 a receiver, trustee in bankruptcy or similar office of all or substantially all of the property of Licensee is appointed and not removed within ninety (90) days.

6.2 Licensee may, without prejudice to any and all rights and remedies available to Licensee under this Agreement and at law, terminate this Agreement if each and all of the Licensed Patents become invalid or unenforceable as determined by either the United States Patent and Trademark Office or a court of competent jurisdiction, after all appeals have been exhausted or rights of appeal have lapsed.

6.3 In the event of such termination, the license and any other rights received by Licensee under this Agreement shall terminate, and Licensee shall have no rights with respect to the Licensed Patents.

6.4 Termination shall not excuse either Party from any of their obligations incurred hereunder prior to the date of termination. In addition, any expiration or termination of the Agreement in accordance with the terms of this Section shall not relieve Licensee of its obligation to account for and make payments pursuant to the terms of the Agreement for all Licensed Products leased. Notwithstanding any other provision in this Agreement to the contrary, each Party shall also be entitled to recover its costs and attorney's fees incurred in connection with any action to recover any unpaid amounts and interest.

7. MARKING

Consistent with 35 U.S.C. §287, Licensee shall mark any and all Licensed Products made and leased by Licensee in the United States with an appropriate patent marking, either virtual or physical, identifying, to the extent informed by Licensor, the pendency of any U.S. patent application and/or any issued U.S. patent forming any part of the Licensed Patent rights. It shall be the responsibility of Licensor to inform Licensee of any change required for any patent marking updates, including maintaining and updating any virtual patent marking website controlled by Licensor.

8. MAINTENANCE AND SUPPORT

During the Term of this Agreement, upon Licensee's request, Licensor shall provide or cause to be provided to Licensee manuals, procedures, methods, instructions, and support services reasonably requested in connection with the Fleets, the Licensed Patents, or the Licensed Products. Also, upon Licensee's request, Licensor shall provide or cause to be provided any maintenance and support services reasonably necessary to construct or assemble three (3) operable Fleets. Licensor's maintenance and support services are limited to forty (40) hours requiring an engineer or equivalent and no more than sixty (60) hours total. Any additional maintenance and support services provided thereafter shall be made available upon reasonable advance request by Licensee and may be charged at reasonably allocated costs on fair and reasonable terms to be mutually agreed upon by the Parties.

9. WARRANTIES AND INDEMNIFICATION

9.1 Each Party represents, covenants, and warrants that it has the authority and right to convey the rights or accept the obligations created hereunder.

9.2 LICENSOR MAKES NO REPRESENTATION AND NO WARRANTY WHATSOEVER THAT THE MAKING, USING OR SELLING OF LICENSED PRODUCTS OR PROVIDING SERVICES COVERED BY THE CLAIMS OF THE LICENSED PATENTS WILL NOT USE OR INFRINGE, DIRECTLY, CONTRIBUTORILY, OR BY INDUCEMENT UNDER THE LAWS OF ANY COUNTRY, ANY PATENT, COPYRIGHT OR OTHER INTELLECTUAL PROPERTY RIGHT OWNED BY ANY ENTITY OTHER THAN LICENSOR AS OF THE EFFECTIVE DATE.

9.3 Each Party further represents and warrants that in executing this Agreement, it does not rely on any promises, inducements or representations made by any person, whether a Party to this Agreement or otherwise, with respect to this Agreement or any other business dealing with any person, whether or not a Party to this Agreement, now or in the future.

9.4 Nothing contained in this Agreement shall be construed as a warranty or representation by Licensor as to the validity or scope of any Licensed Products. Furthermore, nothing in this Agreement shall be construed as an obligation by Licensor to maintain any one or more of such Licensed in force.

9.5 THE LICENSED PATENTS ARE LICENSED "AS IS" AND ANY AND ALL OTHER WARRANTIES OR CONDITIONS OF ANY KIND WHATSOEVER, EXPRESS OR IMPLIED, STATUTORY OR OTHERWISE, INCLUDING THOSE OF MERCHANTABILITY, NON-INFRINGEMENT AND/OR FITNESS FOR A PARTICULAR PURPOSE, ARE EXPRESSLY EXCLUDED.

9.6 IN NO EVENT SHALL LICENSOR BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, INDIRECT, SPECIAL OR PUNITIVE DAMAGES (INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFITS, FOR BUSINESS INTERRUPTION, FOR FAILURE TO MEET ANY DUTY OF GOOD FAITH OR OF REASONABLE CARE, FOR NEGLIGENCE, OR FOR ANY OTHER PECUNIARY LOSS OR OTHER LOSS WHATSOEVER) ARISING OUT OF OR IN ANY WAY RELATED TO THE USE OF OR INABILITY TO USE THE LICENSED PATENTS OR OTHERWISE UNDER OR IN CONNECTION WITH ANY PROVISION OF THIS AGREEMENT EVEN IF A REPRESENTATIVE OF A PARTY HAS BEEN ADVISED OF THE POSSIBILITY THEREOF. FOR PURPOSE OF CLARITY, NOTHING IN THIS SECTION DIMINISHES OR OTHERWISE EXCUSES LICENSEE'S OBLIGATION TO PAY THE AMOUNTS REQUIRED UNDER SECTION 4.1.

9.7 NOTWITHSTANDING ANY DAMAGES THAT LICENSEE MIGHT INCUR FOR ANY REASON WHATSOEVER (INCLUDING, WITHOUT LIMITATION, ALL DAMAGES REFERENCED HEREIN), THE ENTIRE AGGREGATE CUMULATIVE LIABILITY OF LICENSOR TO LICENSEE UNDER THIS AGREEMENT SHALL BE LIMITED TO THE AMOUNTS PAID OR PAYABLE BY LICENSEE TO LICENSOR UNDER SECTION 4.1.

9.8 THE PARTIES AGREE THAT THIS LICENSE HAS BEEN VOLUNTARILY AND MUTUALLY AGREED UPON AFTER INTENSIVE NEGOTIATIONS AND ON THE BASIS OF THE PARTY'S UNDERSTANDING, THE PARTIES AGREED TO NEGOTIATE AND ENTER INTO THIS AGREEMENT WITHOUT SUBMITTING THE DETERMINATION OF LICENSE TERMS TO A COURT OR OTHER TRIBUNAL.

9.9 THE TERMS OF THIS SECTION 9 SHALL APPLY TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, EVEN IF THIS AGREEMENT OR ANY REMEDY FAILS ITS ESSENTIAL PURPOSE.

9.10 Nothing contained in this Agreement shall be construed as conferring by implication or otherwise upon either Party hereunder any license or right except the licenses and rights expressly granted hereunder to a Party hereto.

10. CONFIDENTIALITY

10.1 Except to the extent necessary to enforce the terms of this Agreement, each Party will hold the terms, but not the existence, of this Agreement in confidence and shall not publicize or disclose it in any manner whatsoever. Notwithstanding the foregoing, the Parties may disclose this Agreement (i) as required by applicable law or government agency, (ii) in response to a subpoena or during discovery in litigation provided that any such disclosure is protected pursuant to a protective order (or other court sanctioned Court procedure) and that written notice is provided to the Parties at least five (5) business days before production, (iii) in confidence to a Court or Tribunal (or otherwise as directed by law, including pursuant to a Court order), and (iv) to the Parties' respective attorneys, accountants, auditors, tax preparers, financial advisors and other agents who have a need to know the content of this Agreement and who are subject to a legally binding professional obligation of confidentiality. Licensee may also disclose the scope of the licenses and releases granted in Section 2 to a third party to the extent that Licensee reasonably believes necessary to respond to an inquiry from such third party as to whether products are licensed and/or released and therefore not subject to a claim of infringement. Furthermore, the Parties hereby agree that any Party may disclose solely the fact that a license has been granted to Licensee, without disclosing the terms thereof, including in any required regulatory filing.

11. NOTICES

11.1 Any notice or other communication to be given hereunder by any Party to any other Party shall be in writing and delivered by personal delivery, nationally recognized overnight courier, or by certified or registered mail, postage prepaid, return receipt requested. Notice shall be deemed communicated on receipt in case of personal delivery, upon the earlier of (i) receipt or (ii) three (3) business days from dispatch in the case of overnight courier, and five (5) business days after mailing in the case of mailed notice. All such notices or other communications shall be addressed as set forth below, but any Party may change its address by notice or other communication given in accordance with the provisions of this paragraph, but such change of address shall be effective only upon receipt. In addition to the foregoing, a Party shall provide a courtesy notice by email to any email address provided for the other Party. Such courtesy notice shall not relieve a Party of providing notice as otherwise provided in this Section.

Licensor: **U.S. WELL SERVICES, LLC**

Attention : Joel N. Broussard
1360 Post Oak Blvd, Suite 1800
Houston, Texas 77056
Emailjoelb@uswellservices.com and
With email copy to: bbellaire@uswellservices.com

Licensee: **PROFRAC MANUFACTURING, LLC**

Attention : Matt Wilks
333 Shops Blvd., Ste 301Willow Park, TX 76087
With email copy to: legal@profrac.commail

12. ASSIGNABILITY

12.1 Licensee may assign this Agreement in connection with a corporate reorganization, including a reorganization by merger, consolidation, conversion or conveyance, involving solely one or more of Licensee's controlled Affiliates; provided that if any such assignee ceases to be a controlled Affiliate of Licensee, then prior to such change, this Agreement shall be assigned to Licensee. Licensee shall not otherwise assign this Agreement or any right hereunder, either in whole or in part, by operation of law or otherwise, including by merger, consolidation, conversion or conveyance, without the prior written consent of Licensor, and such consent shall not be unreasonably withheld. For clarity, issuances of equity by Licensee, sales of equity by security holders of Licensee and/or the combination of Licensee with another Person via merger shall not be deemed an assignment of this Agreement by Licensee for the purposes hereof.

12.2 Licensor shall not assign its rights or obligations under this Agreement unless the assignee of such rights or obligations agrees in writing to be bound by all terms of this Agreement.

13. CHOICE OF LAW AND DISPUTE RESOLUTION

13.1 This Agreement shall be governed by, interpreted, and construed in accordance with the laws of Texas, without reference to conflicts of laws principles. Any legal action or other legal proceeding relating to the interpretation or enforcement of any provision of this Agreement must be brought or otherwise commenced in a federal or state court in Harris County, Texas. For limited purposes of this Agreement only, each Party expressly waives and will not assert any objection to the jurisdiction of such state and federal courts in Harris County, Texas in connection with any such legal proceeding.

14. MISCELLANEOUS

14.1 In the event that any provision of this Agreement shall be unenforceable or invalid under any applicable law or be so held by applicable court decision, such unenforceability or invalidity shall not render this Agreement unenforceable or invalid as a whole, and the unenforceable or invalid provision shall be amended to achieve as closely as possible the spirit of the original provision.

14.2 Subject to Section 11, this Agreement shall inure to the benefit of and bind the successors and assigns of the Parties hereto.

14.3 Words importing the singular shall include the plural and *vice versa*.

14.4 The Parties hereto are independent contractors, and nothing herein shall be construed as creating a joint venture, partnership, franchise, or other agency between the Parties.

14.5 Any Appendices form part of this Agreement and will have full force and effect as if expressly set out in the body of the Agreement.

14.6 This Agreement and any Appendices constitute the entire agreement between the Parties and supersedes all prior written and oral agreements with respect to the subject matter hereof.

14.7 Except as set forth with respect to the change in banking information as provided in Section 4.4 and as provided in Section 10 regarding the change of addresses for Notices, this Agreement may not be amended except by a written agreement of the Parties.

14.8 Licensee acknowledges having carefully read this Agreement, having obtained adequate explanations on the nature of its provisions, and understanding the latter.

14.9 If any Party is prevented from performing any portion of the Agreement (except the payment of money) by causes beyond its control, including labor disputes, civil commotion, war, casualty, inability to obtain materials or services or acts of God, such defaulting Party will be excused from performance for the period of the delay and for a reasonable time thereafter.

14.10 The Parties hereto have requested that this Agreement be drafted in English.

14.11 This Agreement may be executed simultaneously in two (2) or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. An executed facsimile or scanned copy shall have the same force and effect as an executed original.

14.12 No term or provision hereof shall be deemed waived, and no breach excused, unless such waiver or consent is given in writing and signed by the Party claimed to have waived or consented. Any consent by either Party to, or waiver of, a breach by the other Party, whether express or implied, shall not constitute consent to, waiver of, or excuse for any other different or subsequent breach.

14.13 No delay on the part of the Licensor or Licensee in exercising any right, power or privilege hereunder shall operate as a waiver thereof, nor shall any waiver on the part of the Licensor or Licensee of any right, power or privilege hereunder, nor any single or partial exercise of any right, power or privilege hereunder, preclude any other exercise thereof hereunder.

(Signatures on the next page)

EXECUTED on this 28th day of June, 2021.

U.S. WELL SERVICES, LLC

Signature: /s/ Joel Broussard
Name: Joel Broussard
Title: President & CEO

EXECUTED on this 29th day of June, 2021.

PROFRAC MANUFACTURING, LLC

Signature: /s/ Matt Wilks
Name: Matt Wilks
Title: President & CFO

APPENDIX A

WIRING INSTRUCTIONS FOR PAYMENTS TO LICENSOR

For Domestic Wires (U.S.) only

Bank Name:

Bank Address:
Routing Number:

Beneficiary Account Name:
Beneficiary Account Number:
Further Credit to:
Attention:
Reference:

For International Wires only

Bank Name:

Bank Address:

Routing Number:

Beneficiary Account Name:
Beneficiary Account Number:
COMERICA SWIFT CODE:

Reference:

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We have issued our report dated September 9, 2021, with respect to the consolidated and combined financial statements of ProFrac Predecessor contained in the Registration Statement and Prospectus. We consent to the use of the aforementioned report in the Registration Statement and Prospectus, and to the use of our name as it appears under the caption “Experts.”

/s/ GRANT THORNTON LLP

Dallas, Texas
November 19, 2021

Exhibit 23.2

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We have issued our report dated September 9, 2021, with respect to the financial statements of ProFrac Holding Corp. contained in the Registration Statement and Prospectus. We consent to the use of the aforementioned report in the Registration Statement and Prospectus, and to the use of our name as it appears under the caption “Experts.”

/s/ GRANT THORNTON LLP

Dallas, Texas
November 19, 2021

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We have issued our report dated March 5, 2021 with respect to the consolidated financial statements of FTS International, Inc. for the year ended December 31, 2020, which are included in this Registration Statement and Prospectus of ProFrac Holding Corp. We consent to the inclusion of the aforementioned report 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
November 19, 2021

Exhibit 23.5

CONSENT TO BE NAMED IN REGISTRATION STATEMENT

November 19, 2021

Ladies and Gentlemen,

The undersigned hereby consents to the references to our firm in the form and context in which they appear in this Registration Statement on Form S-1 of ProFrac Holding Corp. and the related prospectus that is a part thereof (the "Registration Statement"). We hereby further consent to (i) the use in such Registration Statement of information contained in our reports setting forth the estimates of reserves of ProFrac Holding Corp. as of September 24, 2021 and (ii) the reference to us under the heading "Experts" in such Registration Statement.

Respectfully submitted,
JOHN T. BOYD COMPANY

By: /s/ John T. Boyd II
Name: John T. Boyd II
Title: President

Exhibit 23.6

Consent to be Named as a Director Nominee

In connection with the filing by ProFrac Holding Corp. of the Registration Statement on FormS-1 with the Securities and Exchange Commission under the Securities Act of 1933, as amended (the “Securities Act”), I hereby consent, pursuant to Rule 438 under the Securities Act, to being named as a nominee to the board of directors of ProFrac Holding Corp. in the Registration Statement and any and all amendments and supplements thereto. I also consent to the filing of this consent as an exhibit to such Registration Statement and any amendments thereto.

Dated: November 15, 2021

/s/ Sergei Krylov

Sergei Krylov

Exhibit 23.7

Consent to be Named as a Director Nominee

In connection with the filing by ProFrac Holding Corp. of the Registration Statement on FormS-1 with the Securities and Exchange Commission under the Securities Act of 1933, as amended (the “Securities Act”), I hereby consent, pursuant to Rule 438 under the Securities Act, to being named as a nominee to the board of directors of ProFrac Holding Corp. in the Registration Statement and any and all amendments and supplements thereto. I also consent to the filing of this consent as an exhibit to such Registration Statement and any amendments thereto.

Dated: November 15, 2021

/s/ Terry Glebocki

Terry Glebocki

Exhibit 23.8

Consent to be Named as a Director Nominee

In connection with the filing by ProFrac Holding Corp. of the Registration Statement on FormS-1 with the Securities and Exchange Commission under the Securities Act of 1933, as amended (the "Securities Act"), I hereby consent, pursuant to Rule 438 under the Securities Act, to being named as a nominee to the board of directors of ProFrac Holding Corp. in the Registration Statement and any and all amendments and supplements thereto. I also consent to the filing of this consent as an exhibit to such Registration Statement and any amendments thereto.

Dated: November 15, 2021

/s/ Stacy Nieuwoudt

Stacy Nieuwoudt

Exhibit 23.9

Consent to be Named as a Director Nominee

In connection with the filing by ProFrac Holding Corp. of the Registration Statement on FormS-1 with the Securities and Exchange Commission under the Securities Act of 1933, as amended (the "Securities Act"), I hereby consent, pursuant to Rule 438 under the Securities Act, to being named as a nominee to the board of directors of ProFrac Holding Corp. in the Registration Statement and any and all amendments and supplements thereto. I also consent to the filing of this consent as an exhibit to such Registration Statement and any amendments thereto.

Dated: November 15, 2021

/s/ Gerald Haddock

Gerald Haddock

Exhibit 99.1

TECHNICAL REPORT SUMMARY
FRAC SAND RESOURCES AND RESERVES
ALPINE SILICA, LLC – KERMIT MINE
Winkler County, Texas

Prepared For
WILKS BROTHERS, LLC

By
John T. Boyd Company
Mining and Geological Consultants
Pittsburgh, Pennsylvania, USA

Report No. 3976.001
SEPTEMBER 2021

John T. Boyd Company
Mining and Geological Consultants

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jtboydcol@jtboyd.com

www.jtboyd.com

September 24, 2021
File: 3976.001

Wilks Brothers, LLC
301 East 18th Street
Cisco, TX 76437

Attention: Mr. Ian Shaw
Vice President of Accounting and Finance

Subject: Technical Report Summary
Frac Sand Resources and Reserves
Alpine Silica, LLC – Kermit Mine
Winkler County, Texas

Dear Sirs:

This SK-1300-compliant technical report summary provides the results of John T. Boyd Company's (BOYD) independent estimate of the frac (proppant) sand resources and reserves for Alpine Silica LLC's (Alpine) Kermit Mine as of December 31, 2020.

We wish to acknowledge the cooperation of Alpine's management and staff for providing the technical, financial, and legal information used in completing this project. Our findings are based on BOYD's extensive experience in preparing frac sand resource and reserve estimates used in US Securities and Exchange Commission (SEC) filings, and our knowledge of frac sand mining in Texas and throughout North America.

Respectfully submitted,
JOHN T. BOYD COMPANY
By:

John T. Boyd II
President and CEO

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GLOSSARY OF ABBREVIATIONS AND DEFINITIONS

$	:	US dollar(s)
%	:	Percent or percentage
Alpine	:	Alpine Sand, LLC
API	:	American Petroleum Institute
B&B	:	Bruce and Bar Ltd
BOYD	:	John T. Boyd Company
CapEx	:	Capital expenditures
COGS	:	Cost of goods sold
Constant Dollar	:	A monetary measure that is not influenced by inflation and used to compare time periods. Sometimes referred to as “real dollars”.
CY	:	Cubic yards
DCF	:	Discounted Cash Flow
Discount Rate	:	A rate of return used to discount future cash flows based on the return investors expect to receive from their investment.
DUC	:	Drilled but uncompleted gas or oil well.
FOB	:	Free-on-Board
Frac Sand	:	Frac sand is a naturally occurring, high silica content quartz sand, with grains that are generally well rounded and exhibit high compressive strength characteristics relative to other silica sand. It is utilized as a prop or “proppant” in unconventional shale frac well completions.
Frac Sand Resource	:	Frac sand resource is a concentration or occurrence of sand material of economic interest in or on the Earth’s crust in such form, grade or quality, and quantity that there are reasonable prospects for economic extraction. A mineral resource is a reasonable estimate of mineralization, taking into account relevant factors such as quality specifications, likely mining dimensions, location or continuity, that, with the assumed and justifiable technical and economic conditions, is likely to, in whole or in part, become economically extractable. It is not merely an inventory of all mineralization drilled or sampled.

Frac Sand Reserve	:	Frac sand reserve is an estimate of tonnage and grade or quality of mineral resources that, in the opinion of the qualified person, can be the basis of an economically viable project. More specifically, it is the economically mineable part of a mineral resource, which includes diluting materials and allowances for losses that may occur when the material is mined or extracted.
Indicated Sand Resource	:	An Indicated Sand Resource is that part of a Sand Resource for which quantity, grade or quality, densities, shape, and physical characteristics are estimated with sufficient confidence to allow the application of Modifying Factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit. Geological evidence is derived from adequately detailed and reliable exploration, sampling and testing, and is sufficient to assume geological and grade or quality continuity between points of observation. An Indicated Sand Resource has a lower level of confidence than that applying to a Measured Sand Resource and may only be converted to a Probable Sand Reserve.
IRR	:	Internal rate-of-return
ISO	:	International Organization for Standardization
lb	:	Pound
LOM	:	Life-of-Mine
Measured Sand Resource	:	A Measured Sand Resource is that part of a Sand Resource for which quantity, grade or quality, densities, shape, and physical characteristics are estimated with confidence sufficient to allow the application of Modifying Factors to support detailed mine planning and final evaluation of the economic viability of the deposit. Geological evidence is derived from detailed and reliable exploration, sampling, and testing and is sufficient to confirm geological and grade or quality continuity between points of observation. A Measured Sand Resource has a higher level of confidence than that applying to either an Indicated Sand Resource or an Inferred Sand Resource. It may be converted to a Proven Sand Reserve or to a Probable Sand Reserve.
Mesh	:	A measurement of particle size often used in determining the size distribution of granular material.
Mineral Reserve	:	*See "Frac Sand Reserve"*
Mineral Resource	:	*See "Frac Sand Resource"*
Modifying Factors	:	The factors that a qualified person must apply to indicated and measured sand resources and then evaluate to establish the economic viability of sand reserves. A qualified person must apply and evaluate modifying factors to convert measured and indicated resources to proven and probable reserves. These factors include,

		but are not restricted to: mining; processing; metallurgical; infrastructure; economic; marketing; legal; environmental compliance; plans, negotiations, or agreements with local individuals or groups; and governmental factors. The number, type and specific characteristics of the modifying factors applied will necessarily be a function of and depend upon the mineral, mine, property, or project.
MSHA	:	Mine Safety and Health Administration. A division of the U.S. Department of Labor.
NOAA	:	National Oceanic and Atmospheric Administration
NSR	:	New Source Review
NTU	:	Nephelometric turbidity units
NPV	:	Net Present Value
Permian Basin	:	A large sedimentary shale basin in the southwestern part of the United States in mainly Texas and New Mexico. The basin produces approximately 4 million barrels per day of oil and holds some of the largest oil and gas reserves in the world.
Probable Sand Reserve	:	A Probable Sand Reserve is the economically mineable part of an Indicated and, in some circumstances, a Measured Sand Resource. The confidence in the Modifying Factors applying to a Probable Sand Reserve is lower than that applying to a Proven Sand Reserve.
Proppant Sand	:	See “Frac Sand”
Proven Sand Reserve	:	A Proven Mineral Reserve is the economically mineable part of a Measured Sand Resource. A Proven Sand Reserve implies a high degree of confidence in the Modifying Factors.
PSI	:	Pounds per square inch
ROM	:	Run-of-Mine. The as-mined including in-seam clay partings mired with the sand, and out-of-seam dilution.
Rotosonic Drilling	:	A type of core drilling combining rotary drilling with ultrasonic frequency to drill through loosely consolidated soil and rock.
SEC	:	U.S. Securities and Exchange Commission
S-K 1300	:	Subpart 1300 and Item 601(b)(96) of the U.S. Securities and Exchange Commission’s Regulation S-K

Surficial	:	Relating to the earths surface or the geology that is on the surface.
TDEQ	:	Texas Commission on Environmental Quality
Ton	:	Short Ton. A unit of weight equal to 2,000 pounds
tph	:	Tons per Hour
WTI	:	West Texas Intermediate

1.0 EXECUTIVE SUMMARY

1.1 Introduction

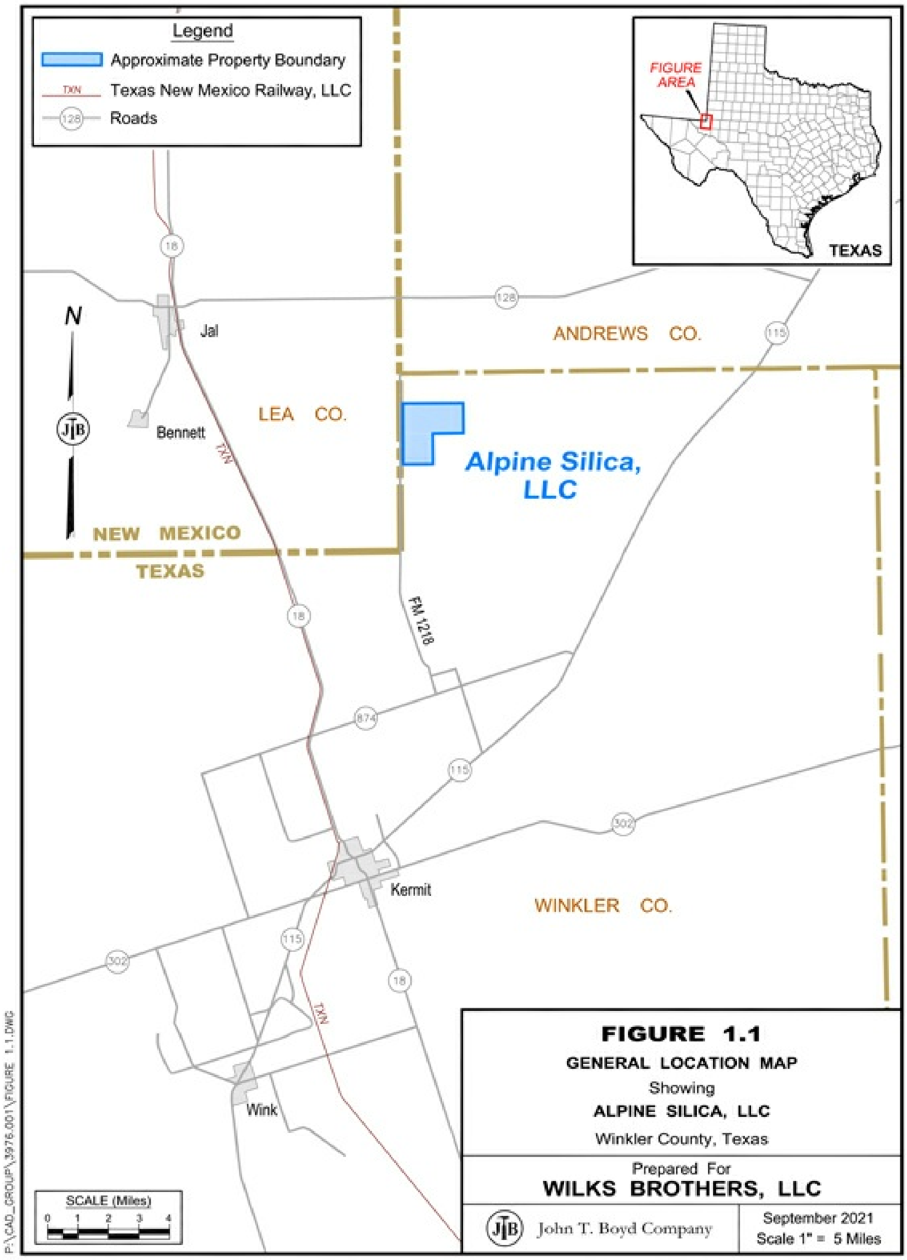
BOYD was retained by Alpine to complete an independent technical audit of mineral resource and mineral reserve estimates—hereafter referred to as frac sand resource and frac sand reserve estimates—for their active mining operation located in Kermit, Texas (the “Kermit Mine”). This report summarizes the results of our audit and satisfies the requirements for Alpine’s disclosure of frac sand resources and reserves set forth in Subpart 1300 and Item 601(b)(96) of the SEC’s Regulation S-K (S-K 1300). This is the first technical report summary filed by Alpine for the Kermit Mine.

BOYD’s findings are based on our detailed examination of the supporting geologic, technical, and economic information obtained from: (1) Alpine’s provided files, (2) discussions with Alpine personnel, (3) records on file with regulatory agencies, (4) public sources, and (5) nonconfidential BOYD files. Our investigation was performed to obtain reasonable assurance that Alpine’s frac sand resource and reserve statements are free from material misstatement. This report provides an independent estimate of the frac sand resources and reserves underlying the Kermit, Texas properties The basis for these estimates is BOYD’s previous technical report (BOYD Report No. 3976.000) issued in August 2021.

This chapter provides a summary of primary information contained within this technical report summary and is supported by remaining portions of this report including text, figures, and tables. Weights and measurements are expressed in US customary units. Unless noted, the effective date of the information, including estimates of frac sand reserves, is January 1, 2021.

1.2 Property Description

Alpine’s Kermit Mine is a surface mining operation located in Winkler County, Texas. Frac sand is extracted from surficial sheet and dune sand deposits that have accumulated in the area. Alpine controls approximately 1,271 contiguous acres of mining rights, by ownership or lease, immediately around their Kermit frac sand operation. The general location of this property (the “Kermit Property”) is provided in Figure 1.1, following this page.



Legend
Approximate Property Boundary
Texas New Mexico Railway, LLC
Roads
FIGURE AREA
TEXAS
N
Jal
Bennett
LEA CO.
ANDREWS CO.
Alpine Silica, LLC
NEW MEXICO
TEXAS
FM 1218
Kermit
WINKLER CO.
Wink
TXN
18
128
115
874
302
SCALE (Miles)
0 1 2 3 4
P:\CAD_GROUP\3976.001\FIGURE 1.1.DWG
FIGURE 1.1
GENERAL LOCATION MAP
Showing
ALPINE SILICA, LLC
Winkler County, Texas
Prepared For
WILKS BROTHERS, LLC
John T. Boyd Company
September 2021
Scale 1" = 5 Miles

Extensive mining of the surficial sheet and dune sand deposits has been conducted in recent years in the western Texas area. The first “in-basin” frac sand mine within the Permian Basin began mining operations in August 2017. Alpine commenced mining operations and production at their Kermit Mine shortly thereafter in September 2017.

1.3 Geology

The Kermit Mine is located in an area of west Texas where the High Plains and Trans-Pecos desert regions converge. Surficial features of the High Plains region typically consist of thin clay and soil intervals covering caliche, with mesquite, juniper, and scrub grass cover. The Trans-Pecos region has numerous landform types ranging from the rising slopes of the Guadalupe Mountain Range to the desert dune deposits of the Sand Hills areas. Surficial geologic units overlying the area are predominantly Quaternary age unconsolidated deposits, ranging from windblown sheet sands and dunes to unconsolidated alluvial deposition of sands, silts, clays, and caliche. The Caprock Escarpment marks the eastern-most extent of the surficial sand deposits. Winds transporting particles into the area are thought to have collided with the escarpment, slowing and dropping particles out which accumulated over time. Winnowing processes further caused some degree of particle sorting to occur. Due to the mechanisms and long distances of particle transport, sand grains were abraded and well rounded off as they reached their current locations.

Alpine’s Kermit Property contains no discernable overburden (i.e., overlying waste) materials, with the exception of sparse areas of vegetation and roots, which are easily removed during processing. Quaternary unconsolidated deposition covers nearly all of the subject property, with the surficial deposits noted as generally ranging from 60-ft to over 300-ft in thickness. The surface sheet and dune sands here are generally mineable from the surface to the total defined depths of the deposit. As the target formation is located on or at the surface, there are no geologic features which would materially impact mineability of the sands.

Frac sand is a naturally occurring, high silica content quartz sand, with grains that are generally well rounded. The main difference between frac sand and other types of sands is that the individual grains comprising frac sands are relatively pure in composition, consisting almost entirely of quartz; other sands have numerous impurities that may be cemented to the quartz grains. The pure quartz composition of frac sand grains, along with being well rounded and spherical in shape, gives these sands the characteristics (crush strength, high acid solubility, low turbidity) that are sought after by oil and gas producers for use in developing wells. The relatively uniform nature of the sand deposit underlying Alpine’s Kermit Property, combined with laboratory testing results, indicate that this operation will produce a high-quality split of 40/70-mesh and 100-mesh proppant sand products that meet the customer specifications for regional proppant sand within the Permian Basin.

1.4 Exploration

In developing the subject property, Alpine completed two geologic exploration campaigns in 2017 and 2019. Records for 35 holes completed during these campaigns comprise the primary data used in the evaluation of the frac sand resources. Of the 35 holes, 27 were utilized for frac resource estimation. Eight of the drill holes were twinned as to verify the results of the earlier drilling campaign. A summary of the drill holes follows:

Table 1.1: Alpine Silica Kermit Mine Exploration Drilling Campaign Summary

	Drill Hole Type			
Year	Rotosonic	Rotary	Geo-Probe	Total
2017	—	4	20	24
2019	11	—	—	11
Total	11	4	20	35

The sampling methodology for both exploration programs generally consisted of collecting composite samples of the recovered core along the entire length of the drill run. Sometimes a run was broken into smaller intervals to be analyzed (i.e., rotosonic drilling was completed on 10 ft runs, with 2.5 ft composite samples). Gathered sample material was placed into plastic sampling bags, clearly labeled with drill hole name, top depth, and bottom depth of each sample, and secured closed with zip ties. Core photos of the sampled intervals were not provided to BOYD, however archival sample splits for each drill hole are kept in secure storage on the Kermit Property and were made available for inspection to BOYD during our site visit.

BOYD's review of the reported sampling methodology and procedures indicate the exploration data obtained by Alpine for the Kermit Property were carefully and professionally collected, prepared, and documented, in conformance with generally accepted industry standards, and are appropriate for use of evaluating and estimating frac sand resources and reserves.

1.5 Frac Sand Reserves

This technical report summary provides an estimate of frac sand reserves for Alpine's Kermit Mine in accordance with the requirements set forth in S-K 1300. These estimates were independently prepared by BOYD and previously issued to Alpine in August 2021 (BOYD Report No. 3976.000). The August 2021 report includes a thorough geologic investigation of the property, appropriate modeling of the deposit, development of life-of-mine (LOM) plans, and consideration of the relevant processing, economic (including independent estimates of capital, revenue, and cost), marketing, legal, environmental, socio-economic, and regulatory factors.

BOYD's estimate of frac sand reserves for the Kermit Mine as of January 1, 2021, are 49.5 million saleable product (i.e., greater than 200-mesh and less than 40-mesh in size) tons.

The following table presents the estimated frac sand reserves by product mesh size, reserve classification, and mineral ownership status for the Kermit Mine:

Table 1.2: Alpine Silica Kermit Property Reserves (as of January 1, 2021)

	Tons (000) By Classification and Mesh Size						Total		
	Proven			Probable			By Mesh Size		Grand
Control	40/70	70/200	Total	40/70	70/200	Total	40/70	70/200	Total
Owned	13,163	15,862	29,025	384	512	896	13,547	16,374	29,921
Leased	6,456	6,831	13,287	3,073	3,215	6,288	9,529	10,046	19,575
Total	19,619	22,693	42,312	3,457	3,727	7,184	23,076	26,420	49,496

It is BOYD's opinion that extraction of the reported frac sand reserves is technically achievable and economically viable after the consideration of potentially material modifying factors.

Projecting the historic sales volume of between 1.0 million tons per year and 1.2 million tons per year, the operation has an expected LOM of between 41 and 50 years.

API/ISO testing was performed by two separate third-party laboratories—PropTester and Stim-Lab—on select composite samples representing the total mineable interval. Alpine also conducted in-house crush testing on samples obtained from their plant feed stream. Analytical results from the independent laboratories were generally similar, while Alpine's internal laboratory's crush strength results were approximately 1,000 psi lower than those reported by each third-party laboratory. Testing was performed on various product (mesh) sizes; however, for purposes of this report only the 40/70-mesh and 100-mesh results are included. Average sample results are summarized in the following table for each product size analyzed from the Kermit Mine:

Table 1.3: Average ISO/API Test Results by Product Size

	40/70-mesh		70/140-mesh*
Test	Result	Recommended Specification	Result
Sphericity	0.7	$\geq$ 0.6	0.7
Roundness	0.6	$\geq$ 0.6	0.6
Acid Solubility (%)	2.7	$\leq$ 3.0	3.4
Turbidity (NTU)	n/a	$\leq$ 250	n/a
K-Value (000 psi)	7	—	10

* 100-mesh proppant sand material currently does not have an ISO/API specification.

The composited samples from Kermit Mine meet minimum API/ISO recommended testing characteristics (where applicable) for the specified product sizes.

1.6 Operations

1.6.1 Mining

Once any overburden material has been stripped (if required), a Caterpillar 390 excavator is used to remove the top or upper 15 ft bench of reddish colored sand. Typically, three 45-ton articulated trucks are utilized to haul the excavated sand to the wet plant feed hopper, where it is fed through a grizzly hopper/feeder to remove any remaining vegetation or lumpy material. Once the upper bench of sand is removed, the lower bench of white-colored sand can be excavated. Thickness of the lower bench averages 16 ft, but can reach 20 ft. The overall mining thickness is generally 31 ft, up to 35 ft. The upper bench is removed well in advance of the second (lower) bench. The second bench is more cohesive, with a higher clay and moisture content, and is allowed to drain/dry before excavating to improve handling and minimize “balling” of the material. A conceptual mine plan with sequencing is illustrated in Chapter 7 of this report.

The quarry operates 7 days per week and 12 hours per day. There are five hourly personnel involved in excavating the sand. The quarry generally excavates 7,500 tons per 12-hour day or 625 tons per hour (tph).

1.6.2 Processing

The Alpine process plant has three major process components which are typical in the frac sand industry. These components include:

- Wet Process Plant- The greater than 40-mesh and less than 200-mesh sand and silt material is removed from the run-of-mine (ROM) material excavated from the quarry.
- Dry Process Plant- The wet 40 x 200-mesh material produced by the wet process plant is dried and screened (sized) into finished products.
- Storage and Loadout- Finished products are stored in silos and gravity loaded from under the silos into highway trucks for transport to the customer.

The wet process plant has a nameplate capacity of 600 tph and currently averages 500 tph of ROM sand feed. The plant is essentially two 300-tph parallel wash circuits which are similar. The plant does not crush the material, but predominantly scrubs (i.e., washes) and classifies (i.e., sizes) the sand. Basically, a screen removes the large plus 40-mesh size and cyclones deslime and remove the minus 200-mesh material. Attrition scrubbers clean the sand and dewatering screens remove excess moisture. The resultant 40 x 200-mesh material is stockpiled as feed for the dry plant. The wet process plant has a closed loop process water circuit that allows for efficient use of water, the majority of which is collected and recycled in the process. Water conservation is a high priority at the operation. The wet process plant operates 7 days per week, 24 hours per day.

The dry process plant consists of two Louisville rotary dryers, each rated at approximately 200 tph at 4% to 6% moisture sand feed. The dry classification will take place in the screening building where Rotex dry screens will classify the material into predominantly two product size fractions consisting of:

- 40/70-mesh.
- 70/200-mesh (commonly referred to as “100-mesh”).

Following the classification of the sand into either 40/70-mesh or 70/200-mesh product, the resulting product is stored in one of eight product storage silos. Each silo has a capacity of 3,000 tons for a total combined product storage of 24,000 tons at the plant site. There are six truck drive under-silo loadout lanes, equipped with scales, at the plant which operate 24/7 throughout the year.

1.6.3 Infrastructure

The Kermit Mine is serviced by three phase power that is routed along Farm-to-Market Road (FM) 1218, which runs parallel to the western property line. The pipeline providing natural gas supply for the dryers is also routed along this corridor. Plant process water is supplied by 12 wells installed around the periphery of the property. Additionally, water is recycled from the wash process water after fines are removed via settling with a flocculent in a series of constructed ponds. As the mine progresses, silt ponds are constructed in mined-out pits. Wastewater disposal from offices and other buildings are collected via holding tanks and serviced on a regular basis. Potable water is provided by off-site sources (bottled water), although a public water system permit application has been filed.

On-site facilities include a scale house, office, shop, camp, and a quality laboratory located in the dry process plant. The operation employs approximately 52 people and staffing varies based on production demand. Seven of the 52 positions are salaried employees. Approximately 50% of the workforce resides on-site in either trailers or company-supplied modular housing. The camp can accommodate approximately 40 people.

1.7 Financial Analysis

1.7.1 Market Analysis

Permit submissions for horizontal oil and gas wells in the Permian Basin indicate a continuation of strong drilling ahead. According to InfillThinking, the number of permits filed per working rig this summer is tracking at multi-year highs as evidenced in the chart below.

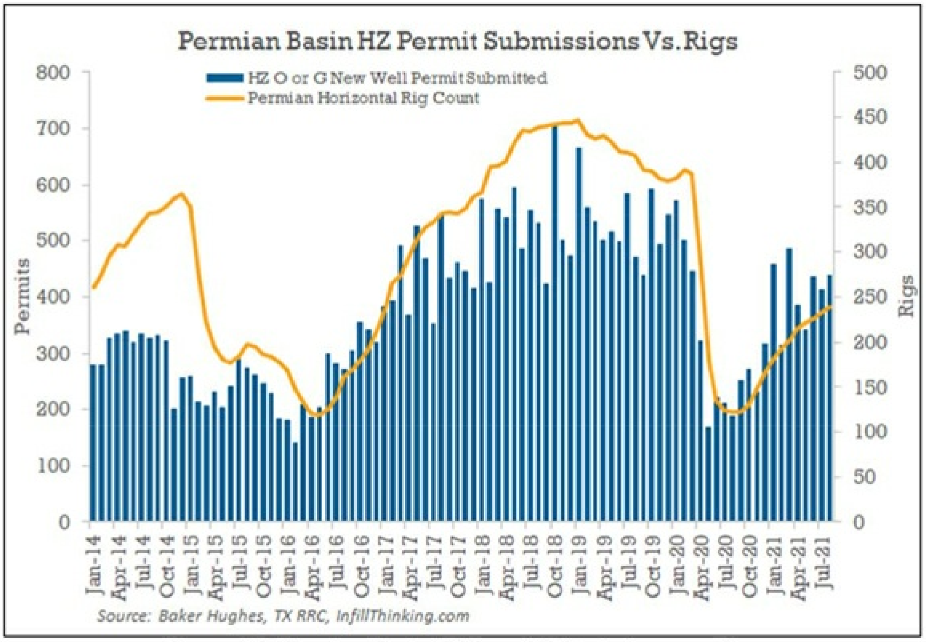


Figure 1.2: Permian Basin HZ Permit Submissions vs. Rigs

Over the previous 52 weeks, rig counts in the Permian Basin are up approximately 111%. This has led to increased production for both crude oil and natural gas. Over the same time-period, crude oil production (barrels per day) and natural gas production (thousand cubic feet per day) in the Permian Basin are up 10% and 9%, respectively. Permian Basin daily crude oil production is nearing its pre-pandemic impacted peak, while daily natural gas production in the basin continues to make new records and now stands at 18.6 billion cubic feet per day.

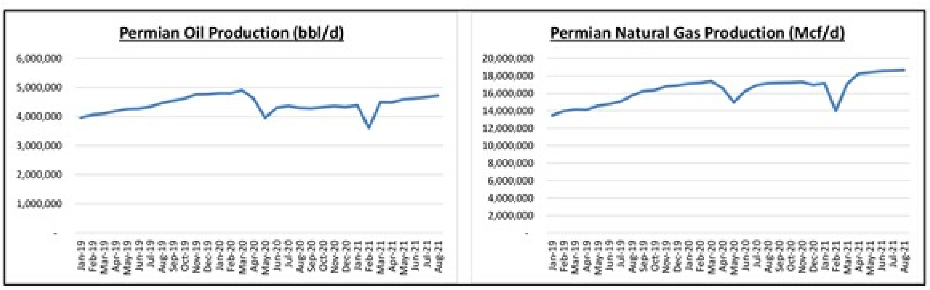


Figure 1.3: Permian Oil Production and Natural Gas Production

Consequently, with increases in production and well completions, activity at frac sand mines in the region have increased. Per the Mine Safety and Health Administration (MSHA), operating hours for the second quarter of 2021 for Permian Basin frac sand mines were up 20% sequentially. In fact, only two mines saw a material decrease in operating hours from Q1 2021 to Q2 2021 while several had increases of more than 80% sequentially.

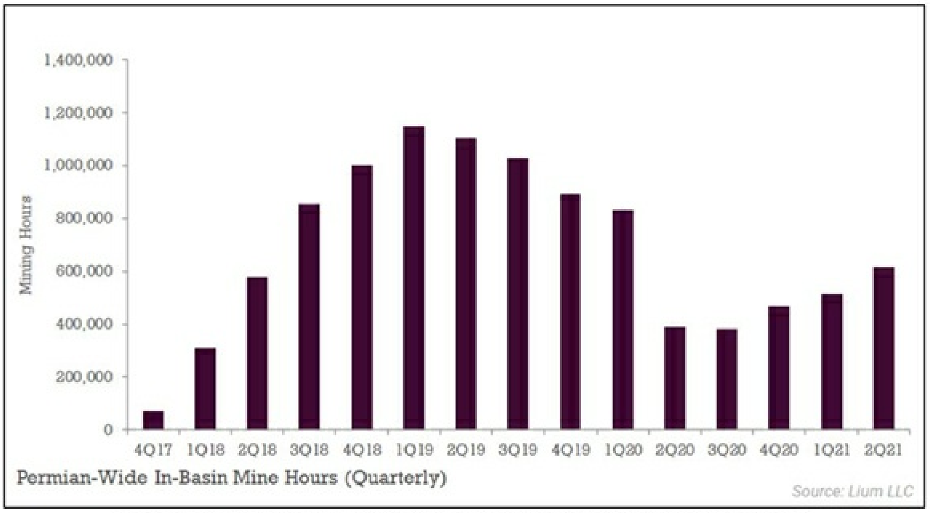


Figure 1.4: Permian Wide In-Basin Mine Operating Hours (Quarterly)

According to Lium LLC, all but one frac sand mine in the Permian Basin is currently fully operational. However, total in-basin mine operating hours are still about 45% below their historical peak. Generally, mine operating hours correlated well with crude oil and natural gas production and drilling and uncompleted (DUC) well data. Current frac sand production in the Permian Basin is estimated to be nearing prior peak production of about 70 million leading to stable pricing in the basin. BOYD anticipates stable frac sand pricing with a slight upside bias due to potential supply chain disruptions and high commodity input costs.

1.7.2 Capital and Operating Costs

BOYD estimated capital expenditures (CapEx) for the period pre-2018 to 2020, based on changes to fixed asset accounts presented on the balance sheets and cash flow statements provided for our review. Table 1.4 presents the annual capital expenditures, based on the financial statements, from startup of operations pre-2018 through 2020.

Table 1.4: Annual CapEx

CapEx ($000)	
Pre-2018	60,420
Year 2018	27,778
Year 2019	9,250
Year 2020	34
Total	97,482

Approximately 90% of the cumulative CapEx was incurred by the end of 2018, as would be expected for a start-up frac sand operation. BOYD has estimated $1.50 per sales ton sustaining capital on an ongoing basis.

Based on three years of historical financial information, BOYD has projected future operating costs as follows:

Table 1.5: Annual Cash Cost Projections

	Year 2021	Year 2022	Year 2023	Year 2024	Year 2025
Summary Cash Cost of Goods Sold ($ per ton sold):					
Cash Operating Costs:					
Employee Wages and Benefits	4.15	4.15	4.15	4.15	4.15
Repairs and Maintenance	0.72	0.72	0.72	0.72	0.72
Utilities and Propane/Gas	1.69	1.69	1.69	1.69	1.69
Fuel (Diesel and Gasoline)	0.46	0.46	0.46	0.46	0.46
Lease and Equipment Rental	0.10	0.10	0.10	0.10	0.10
Other Operating	2.59	2.59	2.59	2.59	2.59
Subtotal Cash Operating Expense	9.71	9.71	9.71	9.71	9.71
SG&A	1.82	1.82	1.82	1.82	1.82
Bruce and Bar Ltd. Lease Expense	—	—	—	—	—
Final Reclamation Escrow	0.10	0.10	0.10	0.10	0.10
Total Cash Cost of Goods Sold	11.63	11.63	11.63	11.63	11.63

1.7.3 Production and Sales

Table 1.6 presents BOYD's production and sales projections for the period 2021 through 2025. The sales price forecast is constant dollar, by product, and is based on current second quarter average prices, and reflects a rebound from 2020 prices. We opine that these are reasonable price projections.

Table 1.6: Production and Sales Projections

	Year 2021	Year 2022	Year 2023	Year 2024	Year 2025
ROM Production (000)	1,461	1,461	1,461	1,461	1,461
Processing Recovery (%)	82.1	82.1	82.1	82.1	82.1
Dry Plant Product (000)	1,200	1,200	1,200	1,200	1,200
Tons Sold (000)	1,200	1,200	1,200	1,200	1,200
40/70-Mesh	559	559	559	559	559
100-Mesh	641	641	641	641	641
Revenues ($000)	22,936	22,936	22,936	22,936	22,936
Product Pricing ($ per ton sold)					
Weighted Average Price	19.11	19.11	19.11	19.11	19.11
40/70-Mesh	21.25	21.25	21.25	21.25	21.25
100-Mesh	17.25	17.25	17.25	17.25	17.25

1.7.4 Economic Analysis

BOYD independently evaluated the economics of the Kermit Mine over the forecasted life of the project. The results of our indicative economic analysis for the 49-year period (2021 to 2070) shows a pre-tax net present value (NPV) of $62.5 million and a post-tax NPV of $56 million for the expected case at a 12% discount rate. Table 1.7 summarizes the LOM cash flows and Table 1.8 illustrates discount rate sensitivity.

Table 1.7: Summary Cash Flow Statement

	Summary Cash Flow Statement ($ 000; unless otherwise noted)					
Rounding Errors	2021 to 2030	2031 to 2040	2041 to 2050	2051 to 2060	2061 to 2070	Total
Total Tons Sold (000)	12,000	12,000	12,000	12,000	1,496	49,496
Revenues	229,360	229,360	229,360	229,360	28,594	946,034
COGS	139,612	139,612	141,940	144,198	21,646	587,008
CapEx	18,000	18,000	18,000	18,000	900	72,900
Net Pre-Tax Cash Flow	71,748	71,748	69,420	67,162	6,048	286,126
Federal Income and State Franchise Taxes	4,468	16,434	16,079	15,824	1,644	54,450
After-Tax Net Cash Flow	67,280	55,314	53,342	51,337	4,404	231,676

Table 1.8: DCF-NPV

	DCF-NPV ($ 000)		
	10%	12%	15%
Pre-Tax	73,377	62,462	51,036
After-Tax	64,851	55,941	46,472

The NPV estimate was made for purposes of confirming the economic viability of the reported frac sand reserves and not for purposes of valuing Alpine or its assets. Internal rate-of-return (IRR) and project payback were not calculated, as there was no initial investment considered in the financial model.

1.8 Regulation and Liabilities

The Kermit Mine is predominantly regulated by the Texas Commission on Environmental Quality (TDEQ) for environmental compliance. The predominant permitting requirement is an active New Source Review (NSR) permit for air pollution control. The Kermit Mine's current NSR permit is renewable in 2028. Other permits held for the Kermit Mine include: Stormwater, Above Ground Storage Tank, Aggregate Production Operation, and a Public Water System application (pending). There are no formal state or federal reclamation plans or permits required for the operation.

Although the property is not considered a high-quality habitat, Alpine has voluntarily enrolled those portions of the property for which it owns the surface rights in the Candidate Conservation Agreement with Assurances for the Dune Sagebrush Lizard.

1.9 Conclusions

It is BOYD's overall conclusion, that Alpine's frac sand reserves, as reported herein: (1) were prepared in conformance with accepted industry standards and practices, and (2) are reasonably and appropriately supported by technical evaluations, which consider all relevant modifying factors. We do not believe there is other relevant data or information material to the Kermit Property that would render this technical report summary misleading. Our conclusions represent only informed professional judgment.

Given the operating history and actual performance of Alpine through the COVID-19 pandemic and volatile energy market conditions, we consider the going concern to be viable under the current and foreseeable operating environment. A general assessment of risk is presented in the relevant sections of this report.

The ability of Alpine, or any mine operator, to recover all of the reported frac sand reserves is dependent on numerous factors that are beyond the control of, and cannot be anticipated by, BOYD. These factors include mining and geologic conditions, the capabilities of management and employees, the securing of required approvals and permits in a timely manner, future sand prices, etc. Unforeseen changes in regulations could also impact performance. Opinions presented in this report apply to the site conditions and features as they existed at the time of BOYD's investigations and those reasonably foreseeable.

2.0 INTRODUCTION

2.1 Registrant and Purpose

This technical report summary was prepared for Alpine in support of their disclosure of frac sand reserves for the Kermit Mine in accordance with S-K 1300 Regulations.

Alpine is a private, US-based mining company headquartered in Kermit, Texas. Alpine commenced operations at the Kermit Mine in 2017 and provides in-basin frac sand to the surrounding energy drilling market. All of Alpine's products are trucked to the surrounding New Mexico and Texas energy markets. Alpine's website is found at www.alpinesilica.com.

2.2 Terms of Reference

Alpine retained BOYD to complete an independent technical report which was issued in August 2021 (BOYD Report No. 3976.000). Subsequently, Alpine retained BOYD to prepare a SEC-compliant technical report summary to support their disclosure of frac sand reserves following S-K 1300 requirements. Our objective was to incorporate the results of the existing technical report along with additional information that we reviewed into a compliant technical report summary.

The results of our review, presented in report form herein, were prepared in accordance with the disclosure requirements set forth in Subpart 1300 and Item 601(b)(96) of the SEC's Regulation S-K. The purpose of this report is threefold: (1) to summarize available information for the subject mining property, (2) to provide the conclusions of our technical audit, and (3) to provide a statement of frac sand resources and reserves for the Kermit Mine. This is the first technical report summary filed by Alpine for the Kermit Mine.

BOYD's findings are based on our detailed examination of the supporting geologic, technical, and economic information provided by Alpine in formulating the estimates of frac sand resources and reserves disclosed in this report. We independently estimated the frac sand resources and reserves from first principles based on third-party exploration information provided to BOYD.

We used standard engineering and geoscience methods, or a combination of methods, that we considered to be appropriate and necessary to establish the conclusions set forth herein. As in all aspects of mining property evaluation, there are uncertainties inherent in the interpretation of engineering and geoscience data; therefore, our conclusions necessarily represent only informed professional judgment.

The ability of Alpine, or any mine operator, to recover all of the estimated frac sand reserves presented in this report is dependent on numerous factors that are beyond the control of, and cannot be anticipated by, BOYD. These factors include mining and geologic conditions, the capabilities of management and employees, the securing of required approvals and permits in a timely manner, future sand prices, etc. Unforeseen changes in regulations could also impact performance. Opinions presented in this report apply to the site conditions and features as they existed at the time of BOYD's investigations and those reasonably foreseeable.

This report is intended for use by Alpine subject to the terms and conditions of its engagement agreement with BOYD. The agreement permits Alpine to file this report as a technical report summary with the SEC pursuant to Subpart 1300 and Item 601(b)(96) of Regulation S-K. Except for the purposes legislated under US securities law, any other uses of or reliance on this report by any third party is at that party's sole risk. The responsibility for this disclosure remains with Alpine. The user of this document should ensure that this is the most recent disclosure of frac sand resources and reserves for the Kermit Mine as it is no longer valid if more recent estimates have been issued.

2.3 Expert Qualifications

BOYD is an independent consulting firm specializing in mining-related engineering and financial consulting services. Since 1943, BOYD has completed over 4,000 projects in the United States and more than 90 other countries. Our full-time staff comprises mining experts in: civil, environmental, geotechnical, and mining engineering; geology; mineral economics; and market analysis. Our extensive experience in frac sand resources/reserve estimation and our knowledge of the subject property, provides BOYD an informed basis on which to opine on the frac sand reserves available at the Kermit Mine. An overview of BOYD can be found on our website at www.jtboyd.com.

The individuals primarily responsible for this audit and the preparation of this report are by virtue of their education, experience, and professional association considered qualified persons as defined in Subpart 1300 of Regulation S-K.

Neither BOYD nor its staff employed in the preparation of this report have any beneficial interest in Alpine, and are not insiders, associates, or affiliates of Alpine. The results of our resource/reserve estimate and subsequent audit were not dependent upon any prior agreements concerning the conclusions to be reached, nor were there any undisclosed understandings concerning any future business dealings between Alpine and BOYD. This report was prepared in return for fees based upon agreed commercial rates, and the payment for our services was not contingent upon our opinions regarding the project or approval of our work by Alpine and its representatives.

2.4 Principal Sources of Information

Information used in this assignment was obtained from: (1) Alpine files, (2) discussions with Alpine personnel, (3) records on file with regulatory agencies, (4) public sources, and (5) nonconfidential BOYD files. The basis for this report is the previously compiled BOYD technical report (BOYD Report No. 3976.000 issued in August 2021) which provided an independent estimate of frac sand reserves for the Kermit Mine as of December 31,2020.

Additional information was provided by Alpine including:

- Financial forecasting models.
- Historical information, including:
  - Production reports and reconciliation statements.
  - Financial statements.
  - Product sales and pricing.

The data and work papers used in the preparation of this report are on file in our offices.

2.4.1 Site Visits

A personal inspection of the Alpine operation was made by two of BOYD's senior geology and mining staff—both qualified persons and co-authors of this report—on July 22, 2021. The site visit included: (1) observation of the active mining operations, (2) a tour of the mine site's surface infrastructure, and (3) a tour of the process plant and truck loadouts. BOYD's representatives were accompanied by Alpine's General Manager who openly and cooperatively answered questions regarding, but not limited to: site geology, mining conditions and operations, equipment usage, labor relations, operating and capital costs, current and proposed processing operations, and frac sand marketing.

2.4.2 Reliance on Information Provided by the Registrant

In the preparation of this report we have relied, without independent verification, upon information furnished by Alpine with respect to: property interests; exploration results; current and historical production from such properties; current and historical costs of operation and production; and agreements relating to current and future operations and sale of production.

BOYD exercised due care in reviewing the information provided by Alpine within the scope of our expertise and experience (which is in technical and financial mining issues) and concluded the data are valid and appropriate considering the status of the subject property and the purpose for which this report was prepared. BOYD is not qualified to provide findings of a legal or accounting nature. We have no reason to believe that any material facts have been withheld, or that further analysis may reveal additional material information. However, the accuracy of the results and conclusions of this report are reliant on the accuracy of the information provided by Alpine.

While we are not responsible for any material omissions in the information provided for use in this report, we do not disclaim responsibility for the disclosure of information contained herein which is within the realm of our expertise.

2.5 Effective Date

The frac sand reserves presented in this technical report summary are effective as of January 1, 2021. The report effective date is January 1, 2021.

2.6 Units of Measure

The US customary measurement system has been used throughout this report. Tons are dry short tons of 2,000 pounds-mass. Unless otherwise stated, all currency is expressed in constant 2020 US Dollars ($).

3.0 PROPERTY OVERVIEW

3.1 Description and Location

Alpine's Kermit Mine is a surface frac sand mining operation, located on a contiguous block of mineral rights (the "Kermit Property") controlled by Alpine, in Winkler County, Texas. The subject property is located approximately 14 miles north of the town of Kermit, on FM 1218, and approximately 58 miles west of the Midland-Odessa area. The Texas-New Mexico border forms the western boundary of the property.

Geographically, the Kermit Mine frac sand processing plant is located at approximately 32° 3' 20.55" N latitude and 103° 2' 56.96" W longitude. Figures 1.1 and 3.1 illustrate the location and general layout of the Kermit Property and Mine.

3.2 History

Extensive surface mining of frac sand has been conducted in the West Texas region since the first "in-basin" mine began selling frac sand into the Permian Basin oil and gas industry, in August 2017. Since then, numerous frac sand mines have been opened in the area, generally to the southeast of Alpine's Kermit Mine.

In September 2017, Alpine received a MSHA identification number for the Kermit Mine, at which time construction of the wet and dry frac sand processing plants, storage silos, and truck loadouts began. Alpine's first frac sand production occurred in November 2017.

3.3 Property Control

The Kermit Property comprises approximately 1,271 acres of mineral and/or surface rights controlled by Alpine. Mineral rights for the subject property are held through a combination of 641 acres owned in fee, and 630 acres of leased property. The leased property agreement, held between Alpine and Bruce and Barr Ltd. (BBL), is valid until the year 2052 with a stipulated production start deadline of January 1, 2032, and a royalty rate of 2% of gross sales revenue. Ownership data including maps, deeds, lease agreements, and royalty rates furnished to us have been accepted as being true and accurate for the purpose of this report.

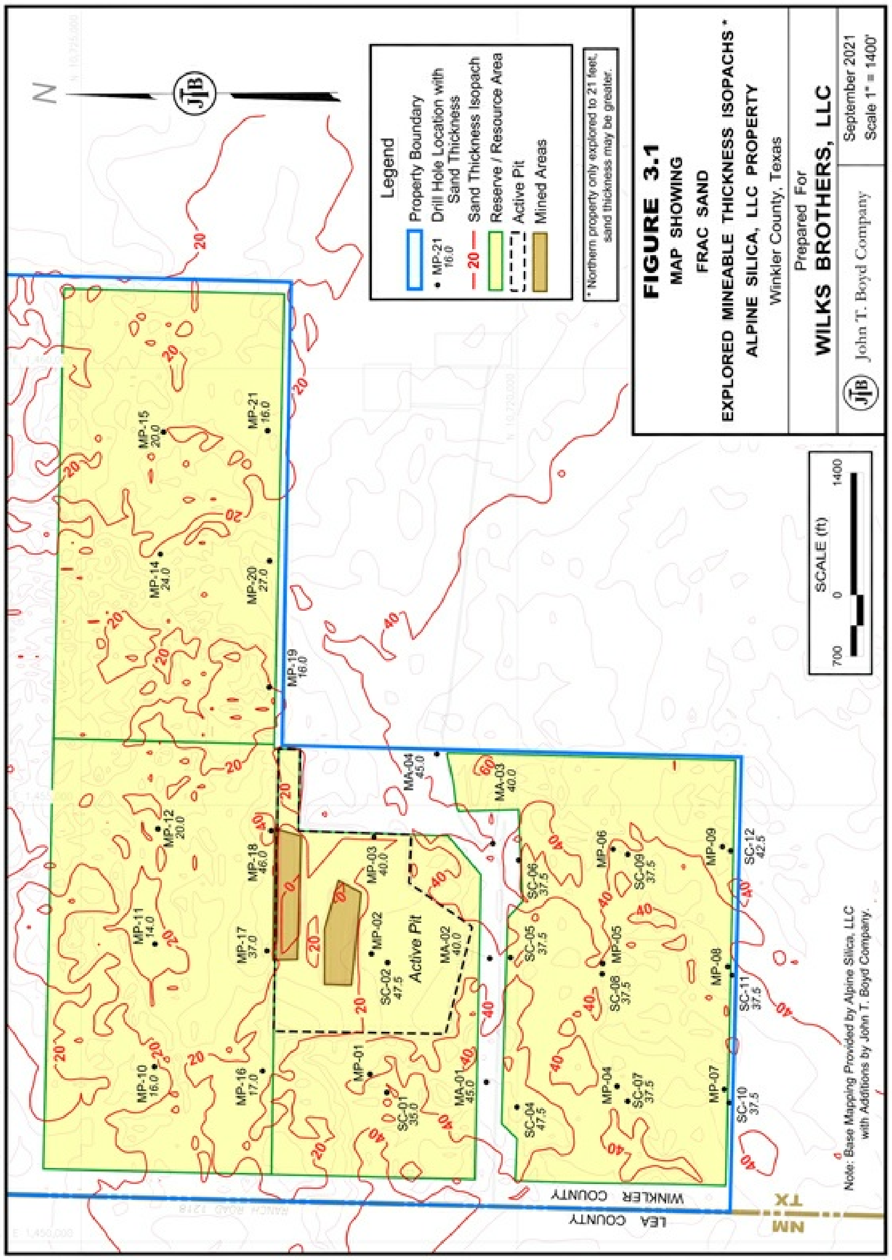


FIGURE 3.1
MAP SHOWING
FRAC SAND
EXPLORED MINEABLE THICKNESS ISOPACHS *
ALPINE SILICA, LLC PROPERTY
Winkler County, Texas
Prepared For
WILKS BROTHERS, LLC
John T. Boyd Company
September 2021
Scale 1" = 1400'
Legend
Property Boundary
MP-21 16.0 Drill Hole Location with Sand Thickness
20 Sand Thickness Isopach
Reserve / Resource Area
Active Pit
Mined Areas
* Northern property only explored to 21 feet, sand thickness may be greater.
SCALE (ft)
700 0 1400
Active Pit
WINKLER COUNTY
LEA COUNTY
NM
TX
Note: Base Mapping Provided by Alpine Silica, LLC with Additions by John T. Boyd Company.

3.3.1 Mineral Ownership

Alpine maintains mineral rights to the entire subject property. The estimated mineable area is approximately 1,096 acres, or 86% of the total property, after observing setbacks, right of ways, processing areas, end wall pit slope angles of 3:1, and other non-mining acreage. Reportedly, Alpine holds an option with BBL to expand the mineral rights areas by leasing 650 or more acres located directly north of the current leases. A summary of currently controlled acres and mineable mineral acres is shown in Table 3.1 below.

Table 3.1: Summary of Mineral and Land Control

	All Tracts		Mineable Area	
	Acres	%	Acres	%
Owned	641	50.4	503	45.9
Leased	630	49.6	593	54.1
Total	1,271	100.0	1,096	100.0

3.3.2 Surface Ownership

Alpine purchased the currently controlled 641 acres from BBL in 2017. This property contains the Kermit Mine's processing facilities, offices, and the currently active mining area.

3.4 Adjacent Properties

As illustrated in Figure 3.1, the region has seen extensive mining of the surficial sand deposits for purposes of producing frac sand. All currently existing frac sand mining operations are generally located to the southeast of the Kermit Mine. By virtue of the Kermit Mine's location, Alpine maintains a position as being the nearest operating frac sand producer to the neighboring New Mexico oil and gas fields.

3.5 Regulation and Liabilities

Mining and related activities for the Alpine operation are predominantly regulated by the Texas Commission on Environmental Quality. The Kermit Mine's current New Source Review air pollution control permit is renewable in 2028. Other permits include: Stormwater, Above Ground Storage Tank, Aggregate Production Operation, and a Public Water System application (pending).

Although the property is not considered high-quality habitat, Alpine has also voluntarily enrolled its owned surface rights in the Candidate Conservation Agreement with Assurances for the Dune Sagebrush Lizard.

3.6 Accessibility, Local Resources, and Infrastructure

Alpine's Kermit Mine is located near a handful of small rural towns in western Texas and southeastern New Mexico. The surrounding region has a well-established history of oil and gas production, being located within the center of the Permian Basin. The surrounding counties have a combined population of over 200,000 people, according to 2020 population estimates by the Texas Demographic Center.

General access to the Kermit Mine is via a well-developed network of primary and secondary roads serviced by state and local governments. These roads offer direct access to the mine and processing facilities and are generally open year-round. Primary vehicular access to the property is via FM 1218, running north-south, following the Texas-New Mexico border. Various state highways (302, 115, 18, 128) surround the subject property, and provide primary access to various portions of the oil and gas fields.

Several regional airports are located between 10 to 35 miles of the Kermit Property.

Sources of three phase electrical power, natural gas, and other miscellaneous materials are readily available. Water is currently supplied by a series of 12 wells installed around the periphery of the property, and by recycling wash process water from on-site ponds; a public water system permit application has been filed for the subject property.

3.7 Physiography

The Kermit Mine lies within the Texas Great Plains physiographic province, a region encompassing much of north-western and western Texas. The surrounding areas generally consist of desert valleys covered with windblown sheet and dune sands, high plains covered with thick alluvium (the Llano Estacado or Staked Plains), or plateaus consisting of thin carbonate-based soils (the Caprock Escarpment). The plateau areas, typically covered by a weathering-resistant caliche (a hardened natural cement of calcium carbonate that binds other materials—such as gravel, sand, clay, and silt), may abruptly stand up to 1,000 ft above the plains. Much of the region may be covered by various types of desert scrub grasses, sages, yuccas, junipers, shin oaks, and mesquites.

3.8 Climate

Climate in west Texas is typical for the region: generally arid with mild winters and hot summers. Average daily high temperatures are well above freezing 12 months of the year, while daily low temperatures may drop below freezing roughly 6 months out of the year. Annual precipitation in the region is roughly 12 in. to 14 in. but may vary widely from year to year.

Table 3.2 provides National Oceanic and Atmospheric Administration (NOAA) monthly average climate data from 2020, collected in Kent, Texas, which is located approximately 95 miles southwest of the Kermit Mine. A closer NOAA weather station is located in Midland, Texas, however this station had no records for precipitation.

Table 3.2: 2020 Monthly Average Climate Data, Kent, TX

Average	Unit	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
High Temp	°F	73	74	89	94	99	103	105	104	96	92	88	74
Low Temp	°F	23	18	34	32	46	56	64	65	41	35	31	23
Precipitation	inches	2.6	5.9	1.0	—	0.3	0.2	0.3	0.1	3.6	0.2	0.1	9.9
	days	3	5	6	—	3	3	4	3	6	1	1	2
Snowfall	inches	2.1	4.9	—	—	—	—	—	—	—	—	—	9.0
	days	1	2	—	—	—	—	—	—	—	—	—	1

Source: National Oceanic and Atmospheric Administration

4.0 GEOLOGY

4.1 Regional Geology

Alpine's Kermit Mine is in an area of west Texas where the High Plains and Trans-Pecos desert regions converge. Surficial features of the High Plains region typically consist of thin clay and soil intervals covering caliche, with mesquite, juniper, and scrub grass cover. The Trans-Pecos region has numerous landform types ranging from the rising slopes of the Guadalupe Mountain Range, to the desert dune deposits of the Sand Hills areas. Just to the east of the study area, the Caprock Escarpment, a towering landform consisting of caliche capstone, abruptly stands hundreds of feet above the desert floor.

The location of the subject property is also near the center of the Permian Basin, which is well known for its long-producing petroleum and natural gas fields. While the subject of this report concentrates on the surficial geology (sand deposits) of west Texas, the operation currently sells its proppant sand product exclusively to the oil and gas producers working in the Permian Basin.

4.2 Local Stratigraphy

Surficial geologic units overlying the area are predominantly Quaternary age unconsolidated deposits, ranging from windblown sheet sands and dunes to alluvial sands, silts, clays, and caliche. Origins of these deposits are believed to be a combination of eroded bedrock material from the southern Rocky Mountains, and locally eroded Ogallala Formation sandstone. As portions of the southern Rockies were eroded via weathering, particles were carried to the Pecos River. Ancient flooding events of the Pecos River resulted in the suspended particles being deposited into flood plains. Once flood waters receded, winds took over, drying and further transporting these particles into the western Texas region.

The Caprock Escarpment marks the eastern-most extent of the surficial sand deposits. Winds transporting particles into the area are thought to have collided with the escarpment, slowing and dropping particles out to where they accumulated over time. Winnowing processes caused some degree of particle sorting to occur. Due to the mechanisms and long distances of particle transport, sand grains were abraded and rounded as they reached their current locations.

Alpine's Kermit Property contains no discernable overburden materials with the exception of sparse areas of vegetation and roots, which are easily removed during processing. The surface sheet and dune sands here are generally mineable from the surface down to the total defined depths of the deposit. As the target formation is located at the surface, there are no geologic features which would materially impact mineability of the surface sands.

Quaternary unconsolidated deposition covers nearly all of the subject property, with the surficial deposits noted as generally ranging from 60-ft to over 300-ft in thickness. A generalized stratigraphic chart of the geologic units in Winkler County, Texas is presented in Figure 4.1.

System	Series	Geologic Unit
Quaternary	Pleistocene / Holocene	Sheet and Dune Sand Loess
	Pleistocene	Unconsolidated Alluvium
Neogene	Pliocene	Ogallala Formation

Figure 4.1: Generalized Stratigraphic Chart, Surficial Deposits of Winkler County, TX

4.2.1 Quaternary Sheet and Dune Sands

Most of the subject property is uniformly covered by Quaternary sheet and dune sands generally consisting of fine- to medium-grained quartz sand grains mixed with varying degrees of silts, calcareous sands, and caliche nodules. Surficial sand deposition in the study area may range in thickness from less than 10-ft of windblown sheet sands, to hundreds of feet of dune sands. Unconsolidated alluvial deposits consisting of pebble- to cobble-sized limestone and chert nodules overlain by silts are found to the east of the property.

4.2.2 Ogallala Formation

The Ogallala Formation is predominantly comprised of weakly cemented to unconsolidated fine- to medium-grained sands, which may be silty and calcareous in places. A caliche caprock is frequently exhibited, which resists weathering and forms ledges. Thickness of this formation has been recorded up to 550-ft.

4.3 Frac Sand Geology

Frac sand is a naturally occurring, high silica content quartz sand, with grains that are generally well-rounded. The main difference between frac sand and other sands is that frac sand grains are relatively pure in composition, consisting almost entirely of quartz; other sands have numerous impurities that may be cemented to the quartz grains. The pure quartz composition of frac sand grains, along with being well-rounded and spherical in shape, gives these sands the characteristics (crush strength, high acid solubility, low turbidity) that are sought after by oil and gas producers for use in developing wells.

5.0 EXPLORATION DATA

5.1 Background

In-basin frac sand mines, such as Alpine's Kermit Mine in west Texas, are a relatively new extension of the frac sand mining industry. The first in-basin frac sand mines in the United States opened in the Permian Basin of Texas in late-2017. As these operations began fulfilling contracts to in-basin oil and gas exploration and production companies, producers noted favorable results using the locally sourced proppants. Since in-basin mining and sales began in the Permian Basin, nearly every other energy basin has since gone through a period of frenzied exploration to locate suitable local sources of frac sands. Many E&Ps have also shifted their approach from requiring only premium branded frac sands, such as Northern White Sand, to using higher quantities of locally sourced and lower-priced frac sands, with positive results.

In developing the subject property, Alpine has completed two separate geologic exploration campaigns. Provided records from these campaigns comprise the primary data used in the evaluation of the frac sand resources. The results of 24 drill holes—totaling roughly 1,600 ft of drilling—distributed across the Kermit Property have been complied into a database. Maps illustrating the extents of the sand deposit along with electronic copies of drilling and sampling logs, as well as laboratory testing summaries, were provided for our review.

Alpine provided a brief account outlining the drilling and sampling methodologies utilized in the exploration campaigns at the Kermit Property. The equipment utilized, and the sampling, logging, and field work performed are noted as being appropriate for use in delineating a frac sand deposit. BOYD opines that the work done by Alpine is thorough and complete for purposes of evaluating and estimating frac sand resources and reserves on the subject property.

5.2 Exploration Procedures

5.2.1 Drilling and Sampling

Alpine has completed two separate exploration campaigns on the subject property to date. Detailed exploration reports were provided to BOYD for the initial campaign; however, an exploration report for the second campaign was never completed for budgetary reasons.

In March of 2017, Talon LP was contracted by Alpine to perform a preliminary exploratory drilling and sampling campaign, consisting of 24 completed drill holes over the entirety of the Kermit Property. Four drill holes were completed along the main access road of the property utilizing a truck-mounted air-rotary drilling rig, with samples being gathered by catching drill cuttings throughout every 5 ft of drilling advancement. As it was not possible to drive the truck mounted rig into the sand dunes covering the remainder of the property, a track-mounted Geo-Probe was brought in, which utilizes direct push sampling techniques, and 20 additional drill holes were completed over the remaining areas of the property. The Geo-Probe provided a 1-in. diameter core sample tube for every 4 ft that the rig was able to advance the core barrel into the ground. It is important to note that while this method of exploration is acceptable, the Geo-Probe has a limited drilling depth, and was not able to penetrate the total thickness of the mineable sand interval.

In March 2019, Alpine contracted Boart Longyear to perform a second exploratory drilling and sampling program on the subject property. A total of 11 rotosonic drill holes were completed on the southern (owned) parcel during this campaign. The objectives of this program were to verify the original exploration data, to define the total depth of the mineable deposit (as the depth explored in the initial program was limited by the abilities of the Geo-Probe rig), and to aid in the development of mining plans for the site. Samples from the rotosonic drill rig were retrieved in 10-ft intervals and extruded into sample casings that were laid out on core trays and logged. Each recovered 10-ft core was sampled in 2.5-ft intervals, which were bagged and labeled for laboratory analyses.

A group of chip trays were also created from the 2.5-ft sample intervals and used for reference during mine planning.

Figure 5.1: 2.5 ft Interval Chip Trays from Various Rotosonic Drill Holes

A summary of drilling completed to date is shown in the Table 5.1 below.

Table 5.1: Alpine Silica Kermit Mine Exploration Drilling Campaign Summary

	Drill Hole Type			
Year	Rotosonic	Rotary	Geo-Probe	Total
2017	—	4	20	24
2019	11	—	—	11
Total	11	4	20	35

The sampling methodology for both exploration campaigns generally consisted of collecting composite samples of the recovered core along the entire length of the drill run. Sometimes a run was broken into smaller intervals to be tested (i.e., rotosonic drilling was done on 10-ft runs, with 2.5-ft composite samples). Gathered sample material was placed into plastic sampling bags, clearly labeled with drill hole name, top depth, and bottom depth of each sample, and secured closed with zip ties. Core photos of the sampled intervals were not provided to BOYD, however archival sample splits for each drill hole are kept in secure storage on the Kermit Property and were made available for inspection to BOYD during our site visit.

All samples from the two drilling campaigns were geologically logged and sampled by Alpine personnel. Samples were secured through the duration of drilling until being delivered to Alpine's in-house laboratory. As such, Alpine maintained control of the samples throughout the entirety of each drilling campaign.

BOYD's review of the reported sampling methodology and procedures indicate the data obtained by Alpine for the Kermit Property were carefully and professionally collected, prepared, and documented in conformance with generally accepted industry standards, and are appropriate for use of evaluating and estimating frac sand resources and reserves.

5.2.2 Frac Sand Quality Testing

Samples obtained from the exploration campaigns were taken to Alpine's in-house laboratory, where they were prepared and analyzed for fines content and particle size distribution.

Initial preparation of each sample generally consisted of drying the raw sample material to remove moisture. Once dried, a 600-1,200-gram sample is gathered. The weighed sample is placed in a blender for three minutes to break up the material as much as possible. The blended sample is then placed on a 200-mesh wash screen, and thoroughly washed to remove any fine materials. The remaining greater than 200-mesh (+200-mesh) material is then dried and weighed again to determine the mass of fines that were washed out. After weighing the cleaned sample, the material is placed into a sieve stack of different mesh sizes and agitated for a period of 20 minutes to determine the particle size distribution of the clean sand. These results are repeated for every sampled interval from every drill hole.

After preparing the individual samples, composite samples of anticipated frac sand product sizes were then created and tested for crush strength at Alpine's labs. To maintain quality testing transparency, composite samples were also sent to PropTester Inc. and Stim-Lab, Inc. for third-party API RP 19C/ISO 13503-2 proppant sand characteristics testing.

Results from the various testing performed on the Kermit Property samples is presented in Section 5.3.

5.2.3 Other Exploration Methods

No other methods of exploration (such as airborne or ground geophysical surveys) are reported for the Kermit Property.

5.3 Laboratory Testing Results

The relatively uniform nature of the sand deposit underlying the Kermit Property, combined with the results of independent laboratory testing, indicate the subject property deposit is capable of producing 40/70-mesh and 70/200-mesh frac sand products that meet Permian Basin customer specifications for in-basin frac sand.

5.3.1 Grain Size Distribution

Grain size distribution was analyzed according to API RP 19C/ISO 13503-2, Section 6. A table of weighted average grain size distribution of the in situ sand deposit, based on laboratory testing results, is shown in Table 5.2 below.

Table 5.2: Weighted Average Particle Size Distribution

Approximate In-Place Product Distribution					
% Retained By Mesh Size				% Product	
>40	40/70	70/200	<200	40/70	70/200
1	41	44	14	48	52

The preceding table highlights the relative fineness of the sand found within the Kermit Property, indicating most of the sand particles are concentrated between the "passing 40 mesh" and "retained 200 mesh" size fraction. Accordingly, the predominant marketable product consists of the 40/200-mesh sands.

Grain size distribution is reviewed in the following section of this report and is also illustrated on the product (40/70-mesh and 70/200-mesh) isopleth maps in Figures 5.2 and 5.3.

5.3.2 Grain Shape (Sphericity and Roundness)

Grain shape was analyzed according to ISO 13503-2/API RP19C, Section 7. Under this standard, recommended sphericity and roundness values for proppants are 0.6 or greater. As part of the grain shape analysis, the presence of grain clusters (weakly cemented grain aggregates) and their approximate proportion in the sample were reported.

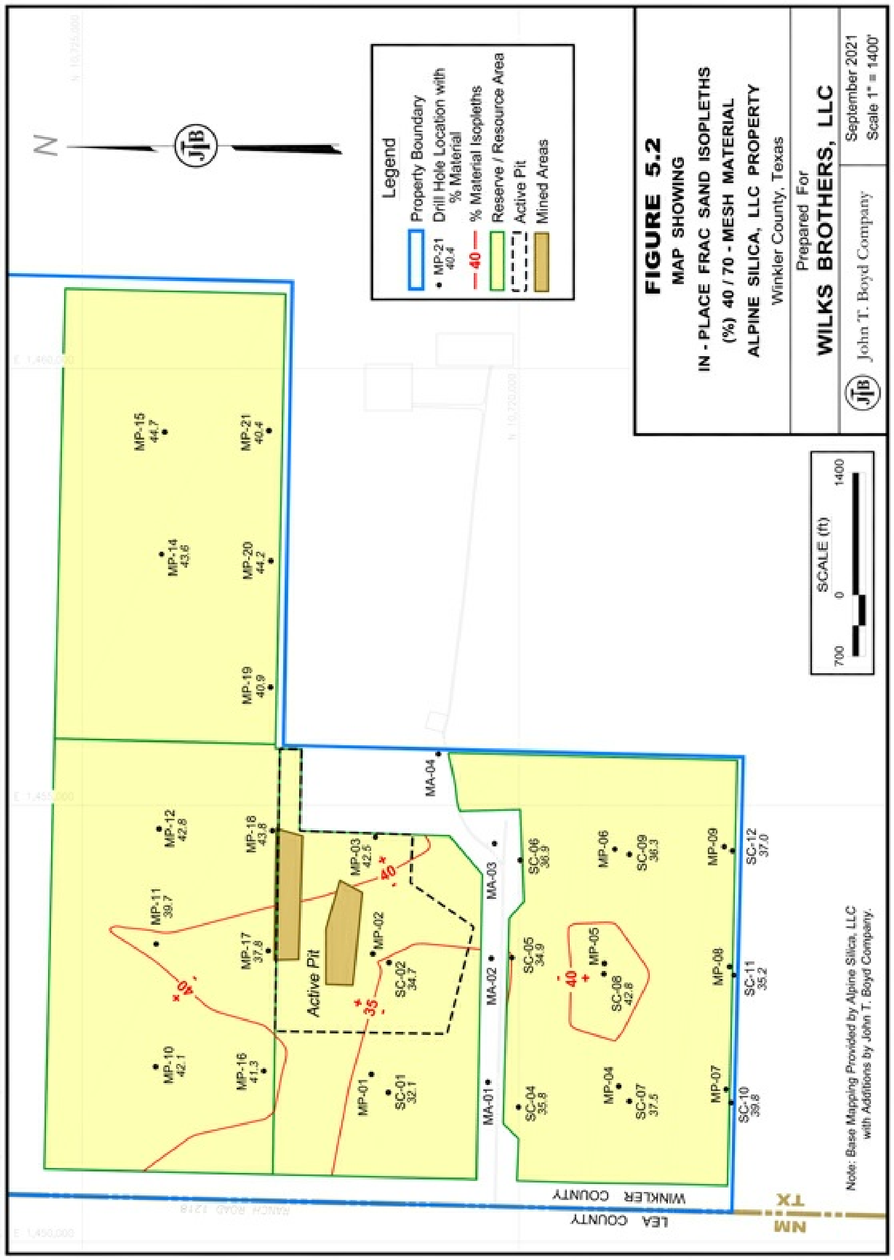


FIGURE 5.2
MAP SHOWING
IN - PLACE FRAC SAND ISOPLETHS
(%) 40 / 70 - MESH MATERIAL
ALPINE SILICA, LLC PROPERTY
Winkler County, Texas
Prepared For
WILKS BROTHERS, LLC
John T. Boyd Company
September 2021
Scale 1" = 1400'
Legend
Property Boundary
Drill Hole Location with % Material
% Material Isopleths
Reserve / Resource Area
Active Pit
Mined Areas
SCALE (ft)
700
0
1400
Active Pit
WINKLER COUNTY
LEA COUNTY
NM
TX
Note: Base Mapping Provided by Alpine Silica, LLC with Additions by John T. Boyd Company.
MP-15 44.7
MP-21 40.4
MP-14 43.6
MP-20 44.2
MP-19 40.9
MP-12 42.8
MP-18 43.8
MP-11 39.7
MP-17 37.8
MP-10 42.1
MP-16 41.3
MP-03 42.5
MP-02
SC-02 34.7
MP-01
SC-01 32.1
MA-04
MA-03
MA-02
MA-01
SC-06 36.9
SC-05 34.9
SC-04 35.8
MP-06
SC-09 36.3
MP-05
SC-08 42.8
MP-04
SC-07 37.5
MP-09
SC-12 37.0
MP-08
SC-11 35.2
MP-07
SC-10 39.8

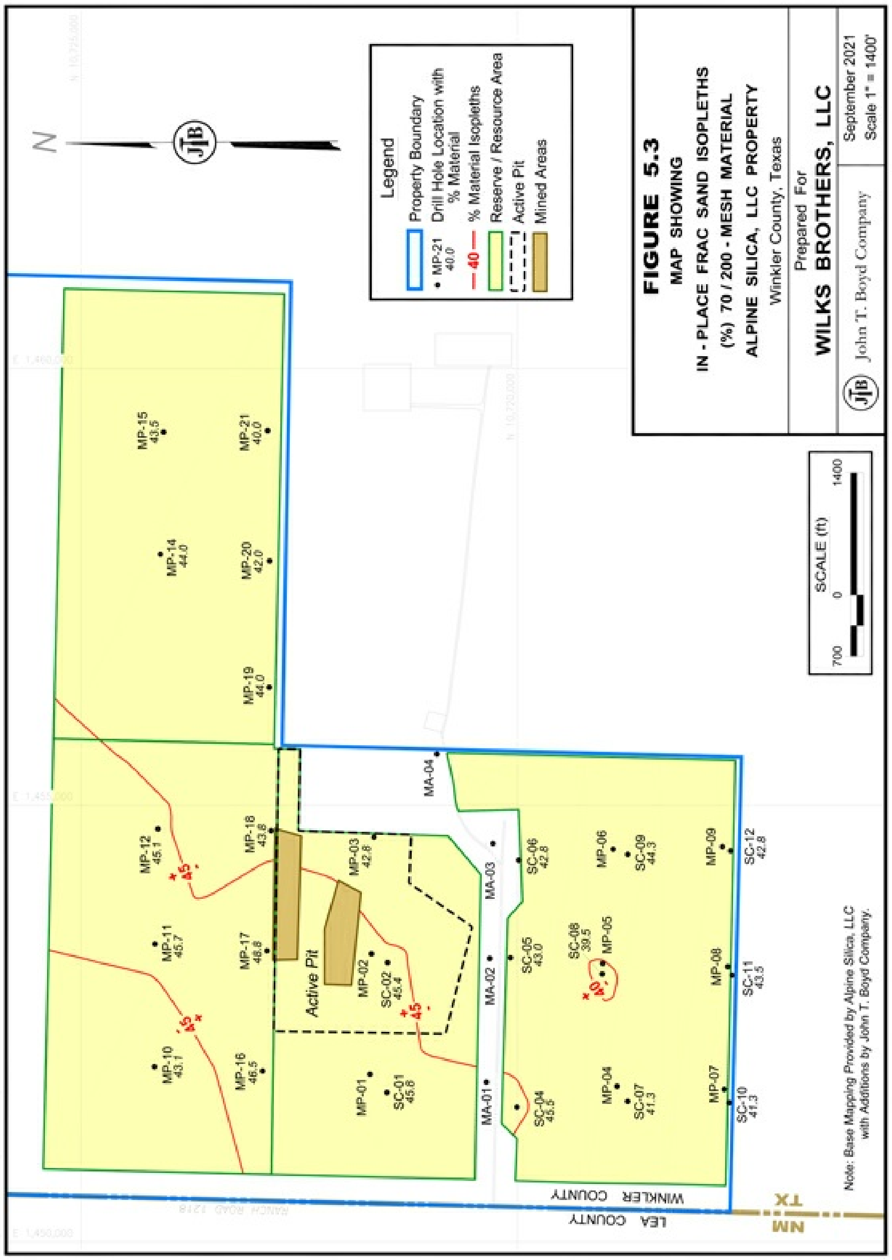


FIGURE 5.3
MAP SHOWING
IN - PLACE FRAC SAND ISOPLETHS
(%) 70 / 200 - MESH MATERIAL
ALPINE SILICA, LLC PROPERTY
Winkler County, Texas
Prepared For
WILKS BROTHERS, LLC
John T. Boyd Company
September 2021
Scale 1" = 1400'
Legend
Property Boundary
Drill Hole Location with % Material
% Material Isopleths
Reserve / Resource Area
Active Pit
Mined Areas
SCALE (ft)
Active Pit
WINKLER COUNTY
LEA COUNTY
NM
TX
Note: Base Mapping Provided by Alpine Silica, LLC with Additions by John T. Boyd Company.

5.3.3 Crush Resistance

Crush resistance is a key test that determines the amount of pressure a sand grain can withstand under laboratory conditions for a two-minute duration. It is analyzed according to ISO 13503-2/API RP19C, Section 11. Under this standard, the highest stress level (pounds per square inch, or psi) in which the proppant produces no more than 10% crushed fine material is rounded down to the nearest 1,000 psi and reported as the "K-value" of the material.

5.3.4 Acid Solubility

Acid solubility was analyzed according to ISO 13503-2/API RP19C, Section 8. Under this standard, 5 grams of sand is treated with 100 milliliters of 12:3 hydrochloric acid to hydrofluoric acid at 150oF for 30 minutes. The recommended maximum acid solubility for proppants in the 40/70 size range and finer is 3.0%.

5.3.5 Turbidity

Turbidity was analyzed according to ISO 13503-2/API RP19C, Section 9. Under this standard, the suggested maximum frac sand turbidity should be equal to or less than 250 nephelometric turbidity units (NTU).

5.3.6 Quality Summary

Samples gathered during exploration were used to create 3 composite product samples that were tested by two separate third-party laboratories (PropTester and Stim-Lab) for API RP 19C/ISO 13503-2 proppant sand characteristics. Alpine also conducted in-house crush testing on samples obtained from their plant feed stream. Both of the independent laboratories showed similar results overall, with Alpine's internal laboratory testing on crush strength showing roughly 1,000 psi lower than each third-party laboratory. Testing was performed on various product sizes; however, for purposes of this report and estimate, we are only discussing the 40/70 mesh and 70/200 mesh samples.

Averaged third-party test results are shown in Table 5.3.

Table 5.3: Kermit Property Average API/ISO Test Results

	Average API/ISO Test Results By Product Size		
	40/70 mesh		70/200 mesh
Test	Result	Recommended Specification	Result
Sphericity	0.7	³ 0.6	0.7
Roundness	0.6	³ 0.6	0.6
Acid Solubility (%)	2.7	£ 3.0	3.4
Turbidity (NTU)	n/a	£ 250	n/a
K-Value (000 psi)	7	—	10

* 100-mesh proppant sand material currently does not have an API/ISO specification.

The composited sample testing suggests the Kermit Mine is capable of producing frac sands which meet minimum API/ISO recommended testing characteristics.

The relatively dense drill hole coverage, combined with the frequency of sample intervals taken during exploration, provides a sufficiently detailed understanding of the extent and quality of the frac sand deposit underlying the Kermit Property to support the estimates of reserves reported herein.

5.4 Data Verification

For purposes of this report, BOYD did not verify historic drill hole data by conducting independent drilling in areas already explored. It is customary in preparing proppant sand resource and reserve estimates to accept basic drilling and quality testing data as provided by the client, subject to the reported results being judged representative and reasonable.

BOYD's efforts to judge the appropriateness and reasonability of the source exploration data included reviewing provided drilling logs, sampling procedures, frac sand quality testing results, examining archival sample intervals, and discussing aspects of developing the Kermit Property with Alpine personnel during our site visit.

6.0 FRAC SAND RESOURCES AND RESERVES

6.1 Applicable Standards and Definitions

Unless otherwise stated, frac sand resource and frac sand reserve estimates disclosed herein are completed in accordance with the standards and definitions provided by S-K 1300. It should be noted that BOYD considers the terms “mineral” and “frac sand” to be generally interchangeable within the relevant sections of S-K 1300.

Estimates of any mineral resources and reserves are always subject to a degree of uncertainty. The level of confidence that can be applied to a particular estimate is a function of, among other things: the amount, quality, and completeness of exploration data; the geological complexity of the deposit; and economic, legal, social, and environmental factors associated with mining the resource/reserve. By assignment, BOYD used the definitions provided in S-K 1300 to describe the degree of uncertainty associated with the estimates reported herein.

The definition of mineral (frac sand) resource provided by S-K 1300 is:

> *Mineral resource is a concentration or occurrence of material of economic interest in or on the Earth’s crust in such form, grade or quality, and quantity that there are reasonable prospects for economic extraction. A mineral resource is a reasonable estimate of mineralization, taking into account relevant factors such as cut-off grade, likely mining dimensions, location or continuity, that, with the assumed and justifiable technical and economic conditions, is likely to, in whole or in part, become economically extractable. It is not merely an inventory of all mineralization drilled or sampled.*

Estimates of frac sand resources are subdivided to reflect different levels of geological confidence into measured (highest geologic assurance), indicated, and inferred (lowest geologic assurance)

The definition of mineral (frac sand) reserve provided by S-K 1300 is:

> *Mineral reserve is an estimate of tonnage and grade or quality of indicated and measured mineral resources that, in the opinion of the qualified person, can be the basis of an economically viable project. More specifically, it is the economically mineable part of a measured or indicated mineral resource, which includes diluting materials and allowances for losses that may occur when the material is mined or extracted.*

Estimates of frac sand reserves are subdivided to reflect geologic confidence, and potential uncertainties in the modifying factors, into proven (highest assurance) and probable.

Figure 6.1 shows the relationship between frac sand resources and frac sand reserves.

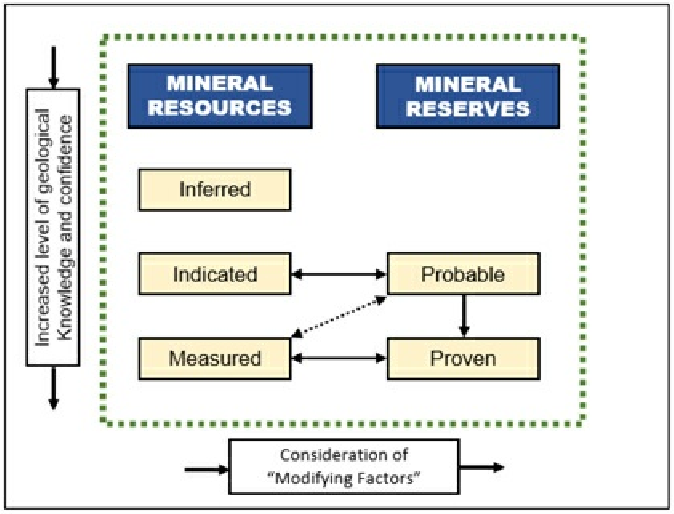


Figure 6.1: Relationship Between Frac Sand Resources and Frac Sand Reserves

In this report, the term "frac sand reserves" represent the tonnage of frac sand products that meets customer specifications and will be available for sale after processing of the ROM sand.

6.2 Frac Sand Resources

6.2.1 Methodology

BOYD independently prepared estimates of in-place frac sand for the Kermit Property by performing the following tasks:

1. Available drilling logs and laboratory testing results were compiled and reviewed to check for accuracy and to support development of the geologic model. The geologic database utilized for modeling and estimation consists of results from 27 of the 35 holes as 8 holes from the first campaign were twinned by the second campaign for verification purposes. The geologic data were imported into Carlson Software, a geologic modeling and mine planning software suite that is widely used and accepted by the mining industry.

2. A geologic model of the deposit was created in Carlson Software using industry-standard grid modeling methods well-suited for simple stratigraphic deposits. The geologic model delineates the top and bottom of the mineable sand horizon and the distribution of the product size fractions across the deposit. The top and bottom of the mineable frac sand interval were established thusly:

    a. As there is minimal overburden material across the property, the top of the mineable sand interval was defined as the current ground surface as provided by an aerial topographic survey conducted on July 1, 2021.

    b. The bottom of the mineable sand interval was established by either the bottom of the drill hole, or where present by the top of excessively silty intervals commonly found near the bottom of the deposit.

3. After reviewing the continuity and variability of the deposit, suitable resources classification criteria were developed and applied as per the discussion in Section 6.2.2.

4. BOYD then reviewed the proposed mining regions identified by Alpine management. Estimation of the of the in-place frac sand resources for the Kermit Property assumes mining operations using standard surface excavation equipment, which is widely utilized for mining of similar deposit types. As such, the estimates were subject to the following setbacks and slope requirements:

    a. 50 ft inside of property lines.

    b. 300 ft from pipeline easements.

    c. 50 ft around the wet and dry process plant areas, housing camp area, and main access road/right of way.

    d. An overall pit wall slope of 3:1 (approximately 19 degrees).

5. In-place volumes for each of the proposed mining blocks were calculated from the geologic model within Carlson Software. A dry, in-place, bulk density of 100 pounds per cubic foot was used to calculate the in-place tonnage of frac sand

At the request of Alpine, BOYD utilized provided January – June 2021 production volumes to estimate the in-place frac sand resources for the Kermit Mine as of January 1, 2021.

6.2.2 Classification

Geologic assuredness is established by the availability of both structural (thickness and elevation) and quality (size fraction) information for the deposit. Resource classification is generally based on the concentration or spacing of exploration data which can be used to demonstrate the geologic continuity of the deposit. When material variations in thickness, depth, and/or sand quality occur between drill holes, the allowable spacing distance between drill holes is reduced. The following drill hole spacing criteria were established by the Qualified Person after review of the available exploration data and geologic models and used to classify the frac sand resources of the Kermit Mine:

Table 6.1: Kermit Property Drill Hole Spacing Parameters

Resource Classification	Spacing Requirement (ft) (Nominal Maximum)
Measured	1,500
Indicated	2,500
Inferred	5,000

The Qualified Person has determined that nearly all of the estimated frac sand resources within the Kermit Property are classified as either a Measured or Indicated.

BOYD is of the opinion that there is a low degree of uncertainty associated with each of the resource classifications.

6.2.3 Frac Sand Resource Estimate

There are no reportable frac sand resources excluding those converted to frac sand reserves for the Kermit Mine. Quantities of frac sand controlled by Alpine within the defined boundaries of the Kermit Property which are not reported as frac sand reserves are not considered to have potential economic viability; as such, they are not reportable as frac sand resources.

6.2.4 Validation

BOYD independently estimated in-place frac sand resources for the Kermit Mine based on the provided drilling, sampling, and testing data obtained by Alpine. Utilizing industry-standard grid modeling techniques we have estimated volumes of frac sand indicated by such data. Based on our review of Alpine's well-documented geologic exploration and sampling methods, we are of the opinion that the data provided are reasonable and appropriate. Furthermore, it is our opinion that the estimation methods employed are both appropriate and reasonable for the deposit type and proposed extraction methods.

6.3 Frac Sand Reserves

6.3.1 Methodology

Estimates of frac sand reserves for the Kermit Mine were derived contemporaneously with estimates of frac sand resources. To derive an estimate of saleable product tons (proven and probable frac sand reserves), the following modifying factors were applied to the in-place measured and indicated frac sand resources underlying the respective mine plan areas:

- A 95% mining recovery factor which assumes that 5% of the mineable (in-place) frac sand resource will not be recovered for various reasons. Applying this recovery factor to the in-place resource results in the estimated ROM sand tonnage that will be delivered to the wet process plant.
- An overall 82.1% processing recovery derived from reported annual plant production statistics supplied by Alpine. This recovery factor accounts for removal of out-sized (i.e., larger than 40-mesh and smaller than 200-mesh) sand and losses in the wet and dry processing plants due to minor inefficiencies.

The overall product yield (after mining and processing losses) for the Kermit Mine is estimated at 78%. That is, for every 100 tons of in-place frac sand resources mined, approximately 78 tons will be recovered and sold as product.

At the request of Alpine, BOYD utilized provided January – June 2021 production volumes to estimate the frac sand reserves for the Kermit Mine as of January 1, 2021.

6.3.2 Classification

Proven and probable frac sand reserves are derived from measured and indicated frac sand resources, respectively, in accordance with S-K 1300. BOYD is satisfied that the frac sand reserve classification reflects the outcome of technical and economic studies. Figure 6.2 illustrates the reserve classification of the Kermit Property frac sand deposit.

6.3.3 Frac Sand Reserve Estimate

Alpine's estimated surface mineable frac sand reserves for the Kermit Property total 49.5 million saleable product tons, as of January 1, 2021.

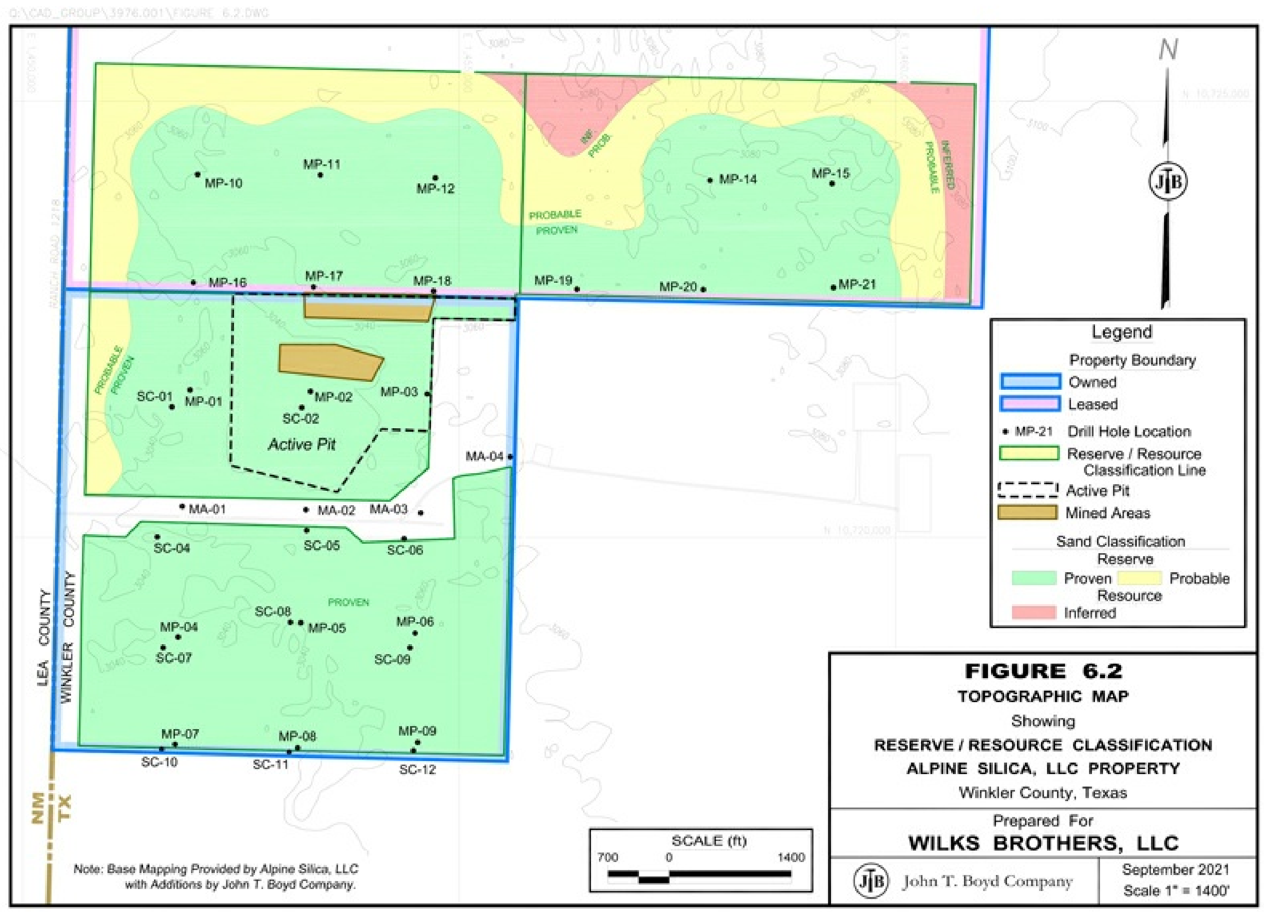


FIGURE 6.2
TOPOGRAPHIC MAP
Showing
RESERVE / RESOURCE CLASSIFICATION
ALPINE SILICA, LLC PROPERTY
Winkler County, Texas
Prepared For
WILKS BROTHERS, LLC
John T. Boyd Company
September 2021
Scale 1" = 1400'
Legend
Property Boundary
Owned
Leased
MP-21 Drill Hole Location
Reserve / Resource Classification Line
Active Pit
Mined Areas
Sand Classification
Reserve
Proven
Probable
Resource
Inferred
SCALE (ft)
700
0
1400
Note: Base Mapping Provided by Alpine Silica, LLC with Additions by John T. Boyd Company.
N
LEA COUNTY
WINKLER COUNTY
NM
TX
Active Pit
PROVEN
PROBABLE
INFERRED
INF
PROB
MP-01
MP-02
MP-03
MP-04
MP-05
MP-06
MP-07
MP-08
MP-09
MP-10
MP-11
MP-12
MP-14
MP-15
MP-16
MP-17
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MP-19
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MP-21
SC-01
SC-02
SC-04
SC-05
SC-06
SC-07
SC-08
SC-09
SC-10
SC-11
SC-12
MA-01
MA-02
MA-03
MA-04

The following table presents the estimated Reserve tons by product (size), that are anticipated to be produced at Alpine's Kermit Property.

Table 6.2: Reserves as of January 1, 2021

	Alpine Silica Kermit Property Reserves (As of January 1, 2021)								
	Tons (000) By Classification and Mesh Size						Total		
	Proven			Probable			By Mesh Size		Grand
Control	40/70	70/200	Total	40/70	70/200	Total	40/70	70/200	Total
Owned	13,163	15,862	29,025	384	512	896	13,547	16,374	29,921
Leased	6,456	6,831	13,287	3,073	3,215	6,288	9,529	10,046	19,575
Total	19,619	22,693	42,312	3,457	3,727	7,184	23,076	26,420	49,496

The reported reserves include only frac sand which is reportedly leased or owned as of December 31, 2020. Alpine owns approximately 29.9 million product tons, or 60% of the frac sand reserves, with the remainder held under lease agreements.

The frac sand reserves of the Kermit Mine are well-explored and defined. It is our conclusion that over 85% of the stated reserves can be classified on the proven reliability category (the highest level of assurance) with the reminder classified as probable.

The estimated product distribution of the frac sand reserves is based on a combination of available laboratory gradation test data and actual production yields provided by Alpine. Grain size distribution and overall yields may vary based on the depth and location at which mining occurs.

The Kermit Property, and other frac sand operations in the area, have a well-established history of mining and selling frac sand products into the local Permian Basin energy fields. BOYD has assessed that sufficient studies have been undertaken to enable the frac sand resources to be converted to frac sand reserves based on current and proposed operating methods and practices. Changes in the factors and assumptions employed in these studies may materially affect the frac sand reserve estimate.

The extent to which the frac sand reserves may be affected by any known geological, operational, environmental, permitting, legal, title, variation, socio-economic, marketing, political, or other relevant issues has been reviewed as warranted. It is the opinion of BOYD that Alpine has appropriately mitigated, or has the operational acumen to mitigate, the risks associated with these factors. BOYD is not aware of any additional risks that could materially affect the development of the frac sand reserves.

Based on our independent estimate and operations review, we have a high degree of confidence that the estimates shown in this report accurately represent the available frac sand reserves controlled by Alpine, as of January 1, 2021.

7.0 MINING OPERATIONS

7.1 Mining Method

The Kermit Mine is an existing mining operation utilizing medium-sized earthmoving equipment and conventional surface mining techniques.

Overburden, including topsoil, clay, caliche, and vegetation, is stripped from the surface of the sand deposit utilizing bulldozers, scrapers, loaders, excavators, and haul trucks, as well as any other mobile equipment deemed necessary. The overburden is stockpiled away from the sand dunes in berms or stockpiles which will be planted (vegetated) to minimize erosion of the material after completion. Most of the mineable area has minimal overburden and vegetation; as such, sand excavation normally begins at the surface throughout most of the mine plan area.

Once the overburden has been stripped (if required), a Caterpillar 390 excavator is used to remove the top or upper bench which consists of approximately 15 ft of reddish colored sand. Generally, three 45-ton articulated trucks are utilized to haul the excavated sand to the wet process plant feed hopper, where it is fed through a grizzly hopper/feeder to remove any remaining vegetation or lumps.

Figure 7.1: Top Bench of Sand Being Removed by Cat 390 Excavator

Once the upper bench of sand is excavated, the lower bench, which is white in color, is mined. Thickness of the lower bench averages 16 ft, but can reach 20 ft. The overall mining thickness is generally 31 ft, up to 35 ft. The first (upper) bench is removed well in advance of the second (lower) bench. The second bench is more cohesive, with a higher clay and moisture content, and is allowed to drain/dry before excavating to improve handling and minimize "balling" of the material. The leased northern property was explored to only a depth of 21 ft and this is the average depth utilized for the reserve estimate. However, the actual depth will most likely be similar to the 35 ft encountered on the owned property and the associated two bench mining extraction method will be similar. A conceptual mine plan with sequencing is illustrated in Figure 7.2.

7.2 Mine Schedule, Equipment, and Staffing

The quarry pit operates 7 days per week and 12 hours per day. Generally, there are five hourly personnel involved with excavating the sand. The pit generally excavates 7,500 tons per 12-hour day or 625 tph. This production can be increased, or another shift added, depending on market demand. The downturn in energy prices and the COVID-19 pandemic have resulted in reduced operating hours and production during 2020 and into 2021.

The primary mobile equipment involved in sand excavation includes:

- Caterpillar 390 Excavator.
- Four 45-ton class articulated trucks.
- Cat 988 Wheel Loader.
- Dozer.
- Water Truck and other ancillary equipment.

7.3 Mine Production

7.3.1 Historical Mine Production

Alpine produces 40/70-mesh and 70/200-mesh (100-mesh) frac sand products for sale into the Permian Basin. A significant portion of the products are transported into New Mexico since the state border adjoins the western limit of the Kermit Property. All of the products are trucked to their final destination.

The sand is mined, processed, stored, and shipped from the Kermit Mine. Production from the operation commenced in late 2017. Historic sales are as follows:

Table 7.1: Historic Frac Sand Sales

Year	Finished Tons (000)
2018	1,062
2019	1,016
2020*	737

7.3.2 Forecasted Production

Forecasted ROM sand production is estimated as follows:

Table 7.2: Forecasted ROM Production Tons

	Year 2021	Year 2022	Year 2023	Year 2024	Year 2025
ROM Production tons (000)	1,461	1,461	1,461	1,461	1,461

The average process yield is reported to be 82.1%; as such, 1.46 million ROM tons are expected to produce approximately 1.2 million tons of finished product.

7.3.3 Expected Mine Life

As of January 1, 2021, the reserve estimate for Alpine is estimated at 49.5 million saleable tons. Projecting the historic sales volume of between 1.0 and 1.2 million tons per year, the operation has a LOM of between 41 and 50 years.

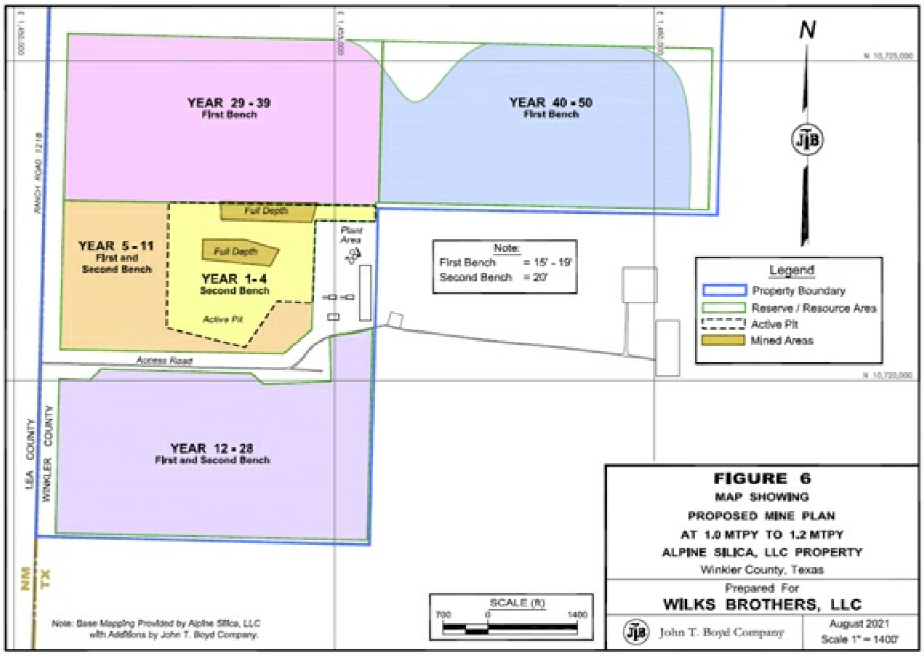

Figure 7.2: Map Showing Proposed Mine Plan

The illustration above depicts the proposed LOM plan for the Kermit Mine. The LOM plan assumes a steady-state sales volume of 1.0 million product tons per year for approximately 50 years. Future mine plan production, and hence the longevity of the mine, is directly related to energy market demand for proppant sand. Actual yearly production volumes may, and are likely to, fluctuate significantly based on this demand.

7.3.4 Mining Risk

Surface mines face two primary types of operational risks. The first category of risk includes those daily variations in physical mining conditions, mechanical failures, and operational activities that can temporarily disrupt production activities. Several examples are as follows:

- Water accumulations/soft floor conditions.
- Process water shortages.
- Power curtailments.
- Variations in grain size consistency.
- Encountering excessive clay and other waste material.
- Failures or breakdowns of operating equipment and supporting infrastructure.
- Weather disruptions (power outages, dust storms, excessive heat etc.).

The above conditions/circumstances can adversely affect production on any given day, but are not regarded as “risk issues” relative to the long-term operation of a mining entity. Instead, these are considered “nuisance items” that, while undesirable, are encountered on a periodic basis at many mining operations. BOYD does not regard the issues listed above as being material to the Kermit Mine operations or otherwise compromising its forecasted performance.

The second type of risk is categorized as “event risk.” Items in this category are rare, but significant occurrences that are confined to an individual mine, and ultimately have a pronounced impact on production activities and corresponding financial outcomes. Examples of event risks are major fires or explosions, floods, or unforeseen geological anomalies that disrupt extensive areas of proposed or operating mine workings and require alterations of mining plans. Such an event can result in the cessation of production activities for an undefined but extended period (measured in months, and perhaps years) and/or result in the sterilization of frac sand reserves. This type of risk is minimal in a relatively simple surface sand mining operation.

8.0 PROCESSING OPERATIONS

8.1 Overview

The Alpine process plant has three major process components which are typical in the frac sand industry. These components include:

- Wet Process Plant- ROM material from the pit is dumped into the wet plant and the greater than 40-mesh and less than 200-mesh sand and silt material is removed.
- Dry Process Plant- The wet 40 x 200-mesh material produced by the wet process plant is dried and screened into finished products.
- Storage and Loadout- Finished products are stored in silos and gravity loaded from under the silos into highway trucks for transport to the customer.

8.2 Wet Process Plant

The ROM material is delivered to the wet plant via articulated trucks where it is dumped into a stockpile located near the raw sand feed scalping screen and sump. A front-end loader loads the ROM sand into the scalping screen feed hopper. The oversize (greater than 40-mesh) is screened out and the remaining sand is mixed with water to be pumped through the plant. As the quarry pit progresses, and haul distances become longer, an overland conveyor or in-pit scalping/slurry hopper may be installed to reduce or eliminate truck haulage. Currently, there are no definitive plans for this project.

Figure 8.1: Two 300-tph Wet Process Plants in Parallel

The wet process plant has a nameplate capacity of 600 tph and has historically averaged 500 tph of raw sand feed. The plant is essentially two similar 300-tph wash circuits in parallel. This arrangement offers a degree of flexibility as one plant circuit can be idled for maintenance, while the other is operating. Figure 8.1 shows the wet process plant at the Kermit Mine.

The wet process plant does not crush the material, but predominantly scrubs (i.e., washes) and classifies (i.e., sizes) the sand. Basically, a screen removes the 40-mesh top size and cyclones deslime and remove the minus 200-mesh material. Attrition scrubbers clean the sand and dewatering screens remove excess moisture. The resultant 40 x 200-mesh material is stockpiled as a feed for the dry plant. The Work-In-Progress stockpile has a water decant system below the stockpile that generally reduced the sand to a 4% to 5% moisture content. The waste wash/process water is directed to a thickener and then to a series of settling ponds. The existing plant has a series of plate presses installed that have been idled and will eventually be removed. The plate presses were high maintenance and never performed well for dune sand dewatering. Chemical flocculant is added as the water is discharged into the retention ponds to aid with particle settling. Water for the wet process is recycled as it is sourced from a lined retention pond. Figure 8.2 provides a simplified flow sheet for the wet process plant in operation at the Kermit Mine.

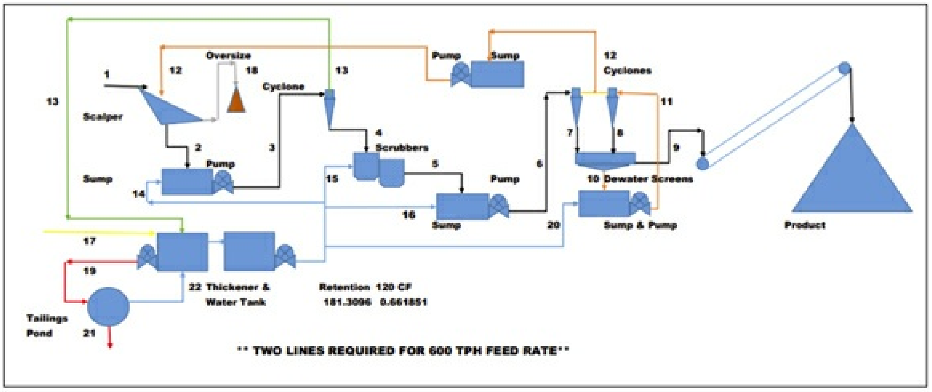

Figure 8.2: Simplified Wet Process Plant Flow Sheet

The closed loop process water circuit should allow for efficient use of water as the majority is collected and recycled in the process. Water conservation is a high priority at the operation. The wet process plant operates 7 days per week, 24 hours per day.

8.3 Dry Process Plant

The dry process plant consists of two Louisville rotary dryers, each rated at approximately 200 tph at 4% to 6% moisture sand feed.

Figure 8.3: Dry Process Plant with Storage Silos

As shown in Figure 8.3, the dry classification takes place in the screening building where Rotex dry screens will classify the material into predominantly two product size fractions consisting of:

- 40/70-mesh.
- 70/200-mesh (100-mesh).

8.4 Storage and Loadout

Following the classification of the sand into 40/70-mesh and 70/200-mesh products, the resulting products are stored in one of eight product storage silos. Each silo has a capacity of 3,000 tons for a total combined product storage of 24,000 tons at the plant site. There is 12,000 tons of storage for 70/200-mesh product and 12,000 tons of storage for 40/70-mesh product.

Figure 8.4: Product Loadout Silos with Scales

There are six truck drive under-silo loadout lanes, equipped with scales, at the plant which operate 24/7 throughout the year.

8.5 Future Operations

The Kermit Mine plans to produce on average 1.2 million tons per year of finished product. Table 8.1 summarizes the near-term (2021 to 2025) planned ROM production to the process plant and the resultant finished product breakdown. The actual ROM production and finished product volumes will be predominantly dependent on market demand and may fluctuate substantially.

Table 8.1: Production and Sales Projections

	Year 2021	Year 2022	Year 2023	Year 2024	Year 2025
ROM Production (000 Tons)	1,461	1,461	1,461	1,461	1,461
Processing Recovery (%)	82.1	82.1	82.1	82.1	82.1
Dry Plant Product (000 Tons)	1,200	1,200	1,200	1,200	1,200
Product Sales (000 Tons)	1,200	1,200	1,200	1,200	1,200
40/70-Mesh	559	559	559	559	559
70/200-Mesh	641	641	641	641	641

8.6 Conclusion

Based on our review of the Kermit Mine processing plant, it is BOYD's opinion that the processing methods and existing equipment at the plant will be sufficient for the planned production of frac sand.

9.0 MINE INFRASTRUCTURE

The Kermit Mine is serviced by three phase power that is routed along FM 1218, which runs parallel to the western property line. The pipeline providing natural gas supply for the drying equipment is also routed along this corridor. Plant process water is supplied by 12 wells installed around the periphery of the property. Additionally, the wash process water is recycled after fines are removed via settling with a flocculent in a series of constructed ponds. As the mine progresses, silt ponds are constructed in mined-out areas. Wastewater from offices and other buildings are collected via holding tanks and disposed of on a regular basis. Potable water is provided by off-site sources (e.g., bottled water), although a public water system permit application has been filed but not yet approved.

On-site facilities include a scale house, office, shop, camp, and a quality laboratory located in the dry process plant. The operation employs approximately 52 people and staffing varies based on production demand. Seven of the 52 positions are salary employees. Approximately 50% of the workforce resides on-site in either trailers or company-supplied modular housing. The camp can accommodate approximately 40 people.

The surface facilities currently located at the mine are well constructed and have the necessary capacity/capabilities to support the Kermit Mine's near-term operating plans. Operational preference may constitute the upgrading of some existing facilities if the operation expands in the future.

10.0 MARKET ANALYSIS

The Permian Basin's (Permian) frac sand market is driven by unconventional horizontal drilling in the oil and gas industry. In the late 1990s, rapid advances in horizontal drilling and hydraulic fracturing (fracking) in North America ushered in large-scale commercial oil and gas production. This fracking technique has been increasingly successful and modified over time to extract oil and gas held in dense layers of shale rocks, whose low permeability had previously prevented the flow of hydrocarbons.

Hydraulic fracturing uses a mixture of water, chemicals, and proppant (natural sand or man-made sand-like substances) to fracture shale rock and release hydrocarbons such as oil, natural gas and natural gas liquids. The proppant acts to keep the fractures open (prop) while the pressurized fluids flow back up the well piping. Wells have become more productive with the addition of horizontal drilling capabilities, longer lateral lengths, and multi-stage fracks.

North America's shale oil industry's growing competitiveness gained through continuous technology improvement and falling production costs have had major implications on the global energy market. Oilfield service companies, including frac sand producers, made significant cuts in 2020 to survive lower commodity prices because of the COVID-19 pandemic. Figure 10.1 illustrates the CME Group's West Texas Intermediate (WTI) Crude Oil Annual Average Futures Price. We estimate breakeven pricing for unconventional oil wells in the Permian to be in the $30 to $40 per barrel range, with some areas in the mid $20s per barrel. 2021 WTI futures pricing showed a strong recovery following the 2020 COVID-19 impact.

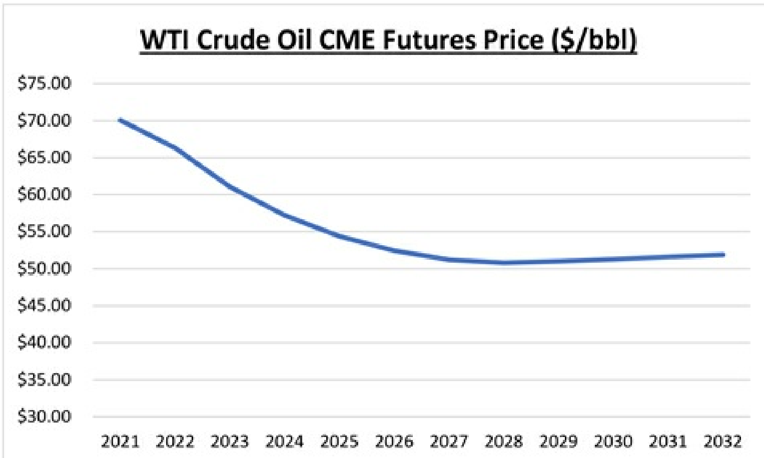

Figure 10.1: WTI Crude Oil CME Futures Price

Permit submissions for horizontal oil and gas wells in the Permian indicate a continuation of strong drilling ahead. According to InfillThinking, the number of permits filed per working rig this summer is tracking at multi-year highs as evidenced in Figure 10.2 below.

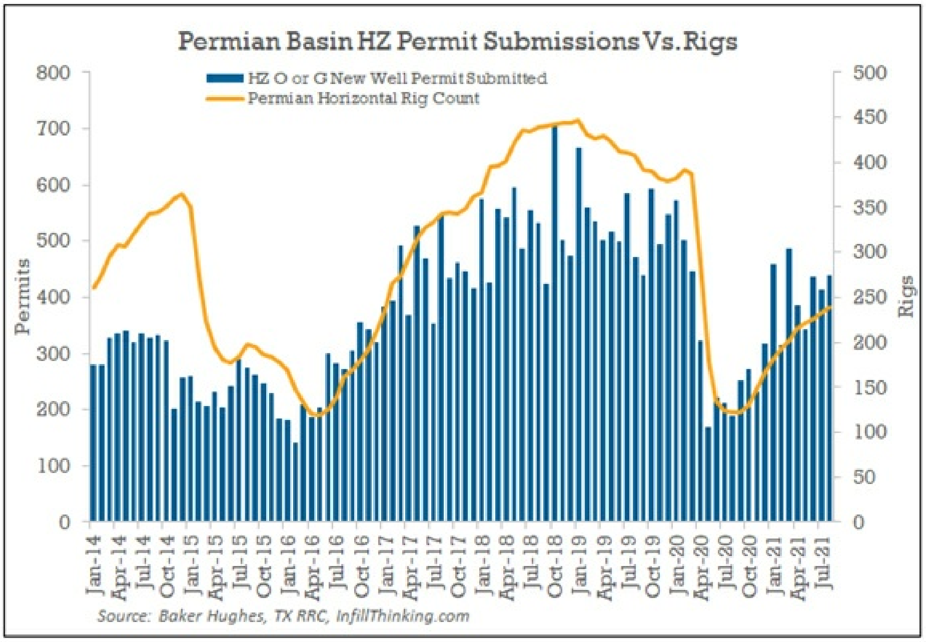

Figure 10.2: Permian Basin HZ Permit Submissions vs. Rigs

Over the previous 52 weeks, rig counts in the Permian are up approximately 111%. This has led to increased production for both crude oil and natural gas. For the same time period, crude oil (barrels per day) and natural gas production (thousand cubic feet per day) in the Permian are up 10% and 9%, respectively. As Figure 10.3 illustrates, Permian daily crude oil production is nearing its pre-pandemic impacted peak, while daily natural gas production in the Permian continues to make new records and now stands at 18.6 billion cubic feet per day.

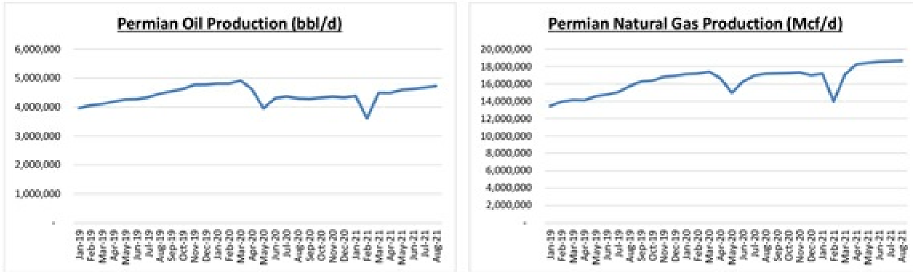

Figure 10.3: Permian Oil Production and Natural Gas Production

According to U.S. Energy Information Administration Drilling Productivity Report, drilled but uncompleted wells (DUCs) in the Permian Basin have declined 43% since peaking in July 2020 (refer to Figure 10.4). These data dovetail with increased crude oil and natural gas production in the basin.

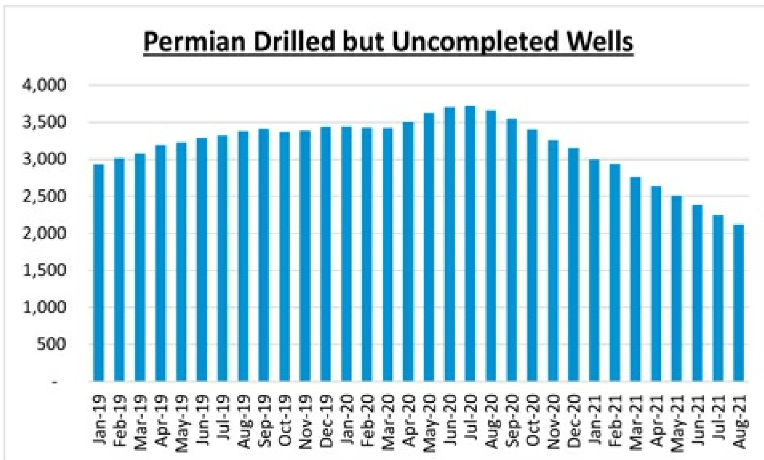

Figure 10.4: Permian Drilled but Uncompleted Wells

Consequently, with increases in production and well completions, activity at frac sand mines in the Permian Basin have increased. Per MSHA, operating hours for the second quarter of 2021 for Permian Basin frac sand mines were up 20% sequentially. In fact, only two mines saw a material decrease in hours from Q1 2021 to Q2 2021 while several had increases of more than 80% sequentially.

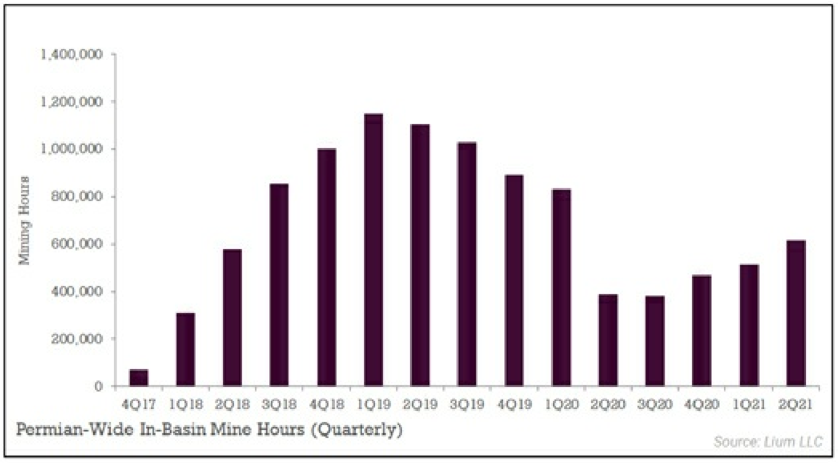

Figure 10.5: Permian Wide In-Basin Mine Hours (Quarterly)

According to Lium LLC, all but one frac sand mine in the Permian Basin is fully operational. However, total in-basin mine hours are still about 45% below peak. Mine hours serve as a directional indicator which dovetails with previous crude oil and natural gas production and DUC data. Current frac sand production in the Permian Basin is estimated to be nearing its prior peak production of about 70 million tons per year leading to stable pricing in the basin. BOYD anticipates stable frac sand pricing with a slight upside bias due to potential supply chain disruptions and high commodity input costs.

11.0 CAPITAL AND OPERATING COSTS

11.1 Introduction

Alpine commenced mining and processing operations at the Kermit Mine in September 2017. As such, BOYD presents data based on the first three full years of operations, 2018, 2019, and 2020. Alpine provided BOYD with financial data for the years 2018, 2019, 2020, and through June 2021.

We remind the reader of the significant effect the COVID-19 pandemic had on drilling and fracking activities in the Permian Basin and the oil & gas industry in 2020. As such, this should be considered when reviewing Year 2020 data.

11.2 Historical Capital Expenditures

BOYD estimated CapEx for the period pre-2018 to 2020, based on changes to fixed asset accounts presented on the balance sheets and on a cash flow statement provided by Alpine. Table 11.1 presents the annual capital expenditures, based on the financial statements, from startup of operations pre-2018 through 2020.

Table 11.1: Historical Capital Expenditures

	CapEx ($000)
Pre-2018	60,420
Year 2018	27,778
Year 2019	9,250
Year 2020	34
Total	97,482

Figure 11.1 presents annual and cumulative CapEx over the same period.

Approximately 90% of the cumulative CapEx was incurred by the end of 2018, as would be expected for a start-up frac sand mining operation.

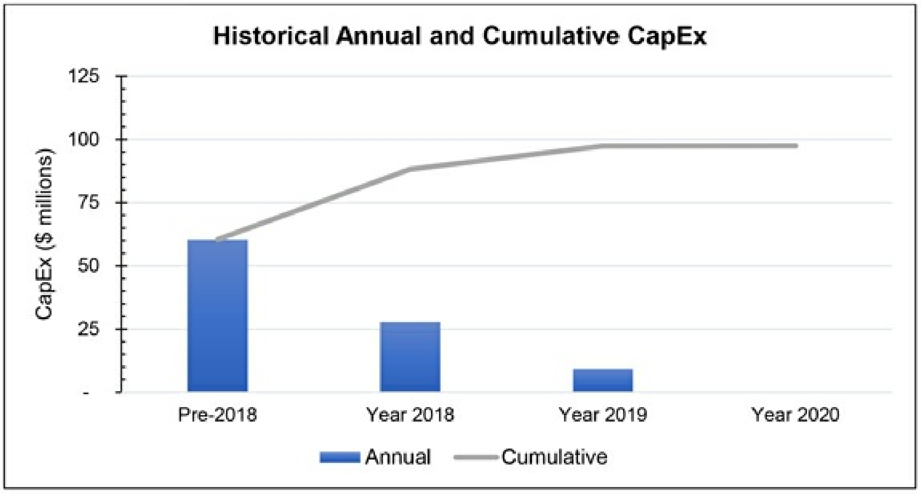

Figure 11.1: Annual and Cumulative CapEx

11.3 Historical Operating Costs and Revenues

Table 11.2 presents Alpine's historical financials for the period 2018[1] through 2020.

Table 11.2: Historical Financials[2]

	Year 2018	Year 2019	Year 2020	Year 2018	Year 2019	Year 2020
Tons Sold (000)	1,062	1,016	737	1,062	1,016	737
40/70-Mesh	258	239	160	258	239	160
70/200-Mesh	804	777	577	804	777	577
		$(000)			$ per ton sold	
Total Revenues	64,817	17,587	10,215	61.04	17.32	13.87
40/70-Mesh	14,166	5,274	3,227	54.97	22.09	20.19
70/200-Mesh	42,583	12,314	6,988	52.95	15.85	12.11
Other	8,068	—	—	7.60	—	—
Expenses:						
Cash Operating Costs:						
Employee Wages and Benefits	8,787	7,513	3,344	8.27	7.40	4.54
Repairs and Maintenance	3,262	1,743	541	3.07	1.72	0.73
Utilities and Propane/Gas	2,294	1,527	1,140	2.16	1.50	1.55
Fuel (Diesel and Gasoline)	716	570	263	0.67	0.56	0.36
Lease and Equipment Rental	730	231	31	0.69	0.23	0.04
Other Operating	10,463	3,545	1,910	9.85	3.49	2.59
Subtotal Cash Operating Costs	26,252	15,130	7,230	24.72	14.90	9.81
SG&A	454	4,292	1,937	0.43	4.23	2.63
Total Cash Cost of Goods Sold	26,706	19,422	9,167	25.15	19.12	12.44
DDA	7,558	9,428	9,478	7.12	9.28	12.86
Total Cost of Goods Sold	34,264	28,849	18,644	32.27	28.40	25.30
Other Income (Expense)	(5,575)	(3,332)	(1,992)	(5.25)	(3.28)	(2.70)
Net Income	24,978	(14,594)	(10,421)	23.52	(14.36)	(14.14)

Operating costs represent the costs incurred associated with the mining, ongoing reclamation, wet processing, dry processing, product loadout, and other related costs.

Based on the statistics presented above for the three-year period:

- Average realization declined from $53.44 per ton sold in 2018 to $13.87 per ton sold in 2020.
- Total cash cost of goods sold declined from $25.15 per ton sold in 2018 to $12.44 per ton sold in 2020.

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1 In Years 2018 and 2019, there were three expense accounts that were reported in Direct and Indirect Cost of Revenues, however, in 2020 and 2021, these same three accounts are now reported in Other Income & Expense. As such, BOYD reclassed the 2018 & 2019 respective costs to Other Income & Expense to properly compare all years based on current cost classifications.

2 Cash operating costs include Direct and Indirect Cost of Revenues. Both Cash operating costs and SGA exclude DDA; their respective DDA expense is reported on the DDA line.

As previously noted, the COVID-19 pandemic had a significant negative effect on the operation.

11.4 Projected Production, Sales, and Costs

BOYD prepared production, sales, and cost projections for the Alpine operation based on current year data and historical financial data (presented above), as well as our knowledge of the frac sand market. Forecasted financial data, product pricing, and costs are in 2021 constant dollars. BOYD opines that the production and financial projections are reasonable and are likely to be within ± 20% accuracy level.

11.4.1 Production and Sales Projections

Table 11.3 below, presents BOYD's frac sand production and sales projections for the period 2021 through 2025.

Table 11.3: Production and Sales Projections

	Year 2021	Year 2022	Year 2023	Year 2024	Year 2025
ROM Production (000 Tons)	1,461	1,461	1,461	1,461	1,461
Processing Recovery (%)	82.1	82.1	82.1	82.1	82.1
Dry Plant Product (000 Tons)	1,200	1,200	1,200	1,200	1,200
Product Sales (000 Tons)	1,200	1,200	1,200	1,200	1,200
40/70-Mesh	559	559	559	559	559
70/200-Mesh	641	641	641	641	641
Revenues ($000)	22,936	22,936	22,936	22,936	22,936
Product Pricing ($ per ton sold)					
Weighted Average Price	19.11	19.11	19.11	19.11	19.11
40/70-Mesh	21.25	21.25	21.25	21.25	21.25
70/200-Mesh	17.25	17.25	17.25	17.25	17.25

BOYD's annual forecasted ROM production is based on the dry plant producing 1.2 million tons per year of saleable product after a processing (wet and dry processing plant) loss of approximately 18%, as discussed in Chapter 6. Forecasted dry processing plant production is within historical and current year volumes and remains within the operation's current infrastructure capacities and capabilities.

The projected dry processing plant product split of approximately 47% for 40/70-mesh product and approximately 53% for 70/200-mesh product is based on the product tons by mesh size for the combined owned and leased frac sand reserves discussed in Chapter 6.

The sales price forecasts, by product, are based on current second quarter average prices, and reflect a rebound from 2020 prices. We opine that these are reasonable price projections.

11.4.2 Operating Cost Projections

Table 11.4 below, presents BOYD's cash cost projections for the period 2021 through 2025. These projections were based on a review of prior year and current year detailed cost direct, indirect cost of revenue, and SG&A data provided to BOYD by Alpine, as well as other information and our experience with such operations.

Table 11.4: Annual Cash Cost Projections

	Year 2021	Year 2022	Year 2023	Year 2024	Year 2025
Summary Cash Cost of Goods Sold ($000):					
Cash Operating Costs:					
Employee Wages and Benefits	4,978	4,978	4,978	4,978	4,978
Repairs and Maintenance	864	864	864	864	864
Utilities and Propane/Gas	2,028	2,028	2,028	2,028	2,028
Fuel (Diesel and Gasoline)	552	552	552	552	552
Lease and Equipment Rental	122	122	122	122	122
Other Operating	3,108	3,108	3,108	3,108	3,108
Subtotal Cash Operating Expense	11,652	11,652	11,652	11,652	11,652
SG&A	2,188	2,188	2,188	2,188	2,188
Bruce and Bar Ltd. Lease Expense	—	—	—	—	—
Final Reclamation Escrow	121	121	121	121	121
Total Cash Cost of Goods Sold	13,961	13,961	13,961	13,961	13,961

BOYD notes that there is no Bruce and Bar Ltd (B&B) lease expense in the first five years. The B&B lease expense will be incurred when mining operations commence on the leased property, which we project to be in Year 2045 in our financial projections.

BOYD added a reclamation escrow for the final reclamation of the property at the end of the operation's life. We used a rate of $0.10 per ton sold to accrue the estimated expense. Over the life of the operation, approximately $5 million, before interest, will be escrowed.

Table 11.5 below, presents the above table's cost projections on a cost per ton sold basis for the period 2021 through 2025.

Table 11.5 – Annual $ per Ton Sold Cash Cost Projections

	Year 2021	Year 2022	Year 2023	Year 2024	Year 2025
Summary Cash Cost of Goods Sold ($ per ton sold):					
Cash Operating Costs:					
Employee Wages and Benefits	4.15	4.15	4.15	4.15	4.15
Repairs and Maintenance	0.72	0.72	0.72	0.72	0.72
Utilities and Propane/Gas	1.69	1.69	1.69	1.69	1.69
Fuel (Diesel and Gasoline)	0.46	0.46	0.46	0.46	0.46
Lease and Equipment Rental	0.10	0.10	0.10	0.10	0.10
Other Operating	2.59	2.59	2.59	2.59	2.59
Subtotal Cash Operating Expense	9.71	9.71	9.71	9.71	9.71
SG&A	1.82	1.82	1.82	1.82	1.82
Bruce and Bar Ltd. Lease Expense	—	—	—	—	—
Final Reclamation Escrow	0.10	0.10	0.10	0.10	0.10
Total Cash Cost of Goods Sold	11.63	11.63	11.63	11.63	11.63

11.4.3 Projected Capital Expenditures

BOYD projected sustaining CapEx, which includes maintenance of production equipment as well as other items, for the operation to be $1.50 per ton sold. This is based on our judgment and experience with similar operations.

12.0 ECONOMIC ANALYSIS

12.1 Introduction

BOYD prepared an economic analysis of the Kermit Mine using the production, sales, and financial projections presented in this report. Our analysis confirms that the operation generates positive cash flows (based on a 12% discount rate), on a pre-tax and after-tax basis, that supports the statement of frac sand reserves herein.

A cash flow projection has been generated from the proposed LOM production schedule and revenue, cost of goods sold (COGS), and CapEx estimates. A summary of the key assumptions is provided below.

- LOM ROM frac sand tons and product tons sold were based on the total frac sand reserve estimates discussed in Chapter 6 of this report and are estimated to be depleted in Year 2062.
- Revenues are forecasted at the Kermit Mine on-site loadout (mine gate).
  - Based upon sales of both 40/70 and 70/200-mesh size products delivered by truck to various sites in the Permian Basin.
- Operating and Other Costs (as discussed in Chapter 11) include:
  - Employee wages and benefits.
  - Repair and maintenance.
  - Utilities and Propane/Gas.
  - Fuel (Diesel and Gasoline).
  - Lease and Equipment Rental.
  - Other Operating.
  - B&B Lease
  - Selling, General and Administrative.
- Capital Expenditures (as discussed in Chapter 11) include:
  - Sustaining/Maintenance.
- Reclamation costs include:
  - Final reclamation cost.
- Taxes are based on:
  - Federal Business Income Tax Rate of 21%.
  - State Franchise Tax Rate of 0.75% of revenues.
- Adjustments used to determine After-Tax cash flows:
  - Fixed assets are depreciated based on a 10-year life.
  - Operating losses are carried forward in the tax computation.

12.2 Cash Flow Analysis

Table 12.1 below presents the pre-tax and after-tax cash flow projections based on the proposed LOM production schedule and revenue, cost of goods sold, and CapEx and other estimates discussed above for the Kermit Mine.

Table 12.1: Summary Cash Flow Statement

	Summary Cash Flow Statement ($ 000; unless otherwise noted)					
	2021 to 2030	2031 to 2040	2041 to 2050	2051 to 2060	2061 to 2070	Total
Total Tons Sold (000)	12,000	12,000	12,000	12,000	1,496	49,496
Revenues	229,360	229,360	229,360	229,360	28,594	946,034
COGS	139,612	139,612	141,940	144,198	21,646	587,008
CapEx	18,000	18,000	18,000	18,000	900	72,900
Net Pre-Tax Cash Flow	71,748	71,748	69,420	67,162	6,048	286,126
Federal Income and State Franchise Taxe	4,468	16,434	16,079	15,824	1,644	54,450
After-Tax Net Cash Flow	67,280	55,314	53,342	51,337	4,404	231,676

Discounted Cash Flow-Net Present Values (DCF-NPV) on a pre-tax and after-tax basis, using discount rates of 10%, 12%, and 15%, were calculated utilizing the cash flows above. The DCF-NPV values used mid-year discounting and all cash flows were on a constant dollar basis.

The pre-tax DCF-NPV ranges from approximately $51.0 million to $73.4 million. The after-tax DCF-NPV ranges from approximately $46.5 million to $64.9 million. Table 12.2 summarizes the results of the pre-tax and after-tax analyses:

Table 12.2: DCF-NPV

	DCF-NPV ($ 000)		
	10%	12%	15%
Pre-Tax	73,377	62,462	51,036
After-Tax	64,851	55,941	46,472

Refer to Table 12.10 at the end of this chapter for the detailed LOM cash flow analysis and corresponding pre-tax and after-tax DCF-NPV analyses at a 12% discount rate.

The NPV estimate was made for purposes of confirming the economic viability of the reported frac sand reserves and not for purposes of valuing Alpine or its assets. Internal rate-of-return (IRR) and project payback were not calculated, as there was no initial investment considered in the financial model. Risk is subjective and each reader should evaluate the project based on their own investment criteria.

12.3 Sensitivity Analysis

Sensitivity analyses for the pre-tax and after-tax cash flows considering changes to revenues and COGS/CapEx were prepared using discount rates of 10%, 12%, and 15%. Revenues were adjusted in increments of 2.5% and range from minus 10% to plus 10% base revenues; the corresponding weighted average sales price would range from

$17.20 per ton sold to $21.02 per ton sold as noted in Table 12.3 below. Costs were adjusted in increments of 2.5% and range from minus 10% to plus 10% base costs. BOYD notes that although the B&B lease expense is in COGS, it changes with revenues as it is a function of revenue.

Table 12.3: Sensitivity Analysis – Weighted Average Sales Prices

	Weighted Average Sales Price $ per ton sold							
-10.0%	-7.5%	-5.0%	-2.5%	0.0%	2.5%	5.0%	7.5%	10.0%
17.20	17.68	18.15	18.63	19.11	19.59	20.07	20.54	21.02

12.3.1 Pre-Tax Sensitivity Analyses

The following three tables (Tables 12.4–12.6) are summarized pre-tax sensitivity analyses based on 10%, 12% and 15% discount rates and incorporate the changes in revenue and COGS/CapEx discussed above:

Table 12.4: Pre-Tax DCF-NPV at 10%

Table 12.4: Pre-Tax DCF-NPV at 10%

Pre-Tax DCF-NPV @ 10% (US$ millions)									
COGS and CapEx \ Revenues	-10.0%	-7.5%	-5.0%	-2.5%	0.0%	2.5%	5.0%	7.5%	10.0%
-10.0%	66.0	71.9	77.8	83.7	89.6	95.5	101.4	107.2	113.1
-7.5%	62.0	67.9	73.8	79.6	85.5	91.4	97.3	103.2	109.1
-5.0%	57.9	63.8	69.7	75.6	81.5	87.4	93.3	99.1	105.0
-2.5%	53.9	59.8	65.7	71.5	77.4	83.3	89.2	95.1	101.0
0.0%	49.8	55.7	61.6	67.5	73.4	79.3	85.2	91.0	96.9
2.5%	45.8	51.7	57.6	63.4	69.3	75.2	81.1	87.0	92.9
5.0%	41.7	47.6	53.5	59.4	65.3	71.2	77.0	82.9	88.8
7.5%	37.7	43.6	49.4	55.3	61.2	67.1	73.0	78.9	84.8
10.0%	33.6	39.5	45.4	51.3	57.2	63.1	68.9	74.8	80.7

Table 12.5: Pre-Tax DCF-NPV at 12%

Pre-Tax DCF-NPV @ 12% (US$ millions)									
	Revenues								
COGS and CapEx	-10.0%	-7.5%	-5.0%	-2.5%	0.0%	2.5%	5.0%	7.5%	10.0%
-10.0%	56.2	61.2	66.2	71.2	76.2	81.2	86.2	91.2	96.3
-7.5%	52.8	57.8	62.8	67.8	72.8	77.8	82.8	87.8	92.8
-5.0%	49.3	54.3	59.3	64.3	69.3	74.4	79.4	84.4	89.4
-2.5%	45.9	50.9	55.9	60.9	65.9	70.9	75.9	80.9	85.9
0.0%	42.4	47.4	52.5	57.5	62.5	67.5	72.5	77.5	82.5
2.5%	39.0	44.0	49.0	54.0	59.0	64.0	69.0	74.0	79.0
5.0%	35.6	40.6	45.6	50.6	55.6	60.6	65.6	70.6	75.6
7.5%	32.1	37.1	42.1	47.1	52.1	57.1	62.1	67.1	72.2
10.0%	28.7	33.7	38.7	43.7	48.7	53.7	58.7	63.7	68.7

Table 12.6: Pre-Tax DCF-NPV at 15%

Pre-Tax DCF-NPV @ 15% (US$ millions)									
	Revenues								
COGS and CapEx	-10.0%	-7.5%	-5.0%	-2.5%	0.0%	2.5%	5.0%	7.5%	10.0%
-10.0%	45.9	50.0	54.1	58.2	62.3	66.4	70.4	74.5	78.6
-7.5%	43.1	47.2	51.3	55.4	59.5	63.5	67.6	71.7	75.8
-5.0%	40.3	44.4	48.5	52.6	56.7	60.7	64.8	68.9	73.0
-2.5%	37.5	41.6	45.7	49.8	53.8	57.9	62.0	66.1	70.2
0.0%	34.7	38.8	42.9	47.0	51.0	55.1	59.2	63.3	67.4
2.5%	31.9	36.0	40.1	44.1	48.2	52.3	56.4	60.5	64.6
5.0%	29.1	33.2	37.3	41.3	45.4	49.5	53.6	57.7	61.8
7.5%	26.3	30.4	34.4	38.5	42.6	46.7	50.8	54.9	58.9
10.0%	23.5	27.5	31.6	35.7	39.8	43.9	48.0	52.1	56.1

12.3.2 After-Tax Sensitivity Analyses

The following three tables (Tables 12.7–12.9) summarize the results of after-tax sensitivity analyses based on 10%, 12%, and 15% discount rates and incorporate the changes in revenues and COGS/CapEx discussed above:

Table 12.7: After-Tax DCF-NPV at 10%

After-Tax DCF-NPV @ 10% (US$ millions)										
		Revenues								
		-10.0%	-7.5%	-5.0%	-2.5%	0.0%	2.5%	5.0%	7.5%	10.0%
COGS and CapEx	-10.0%	59.0	63.9	68.7	73.3	77.9	82.5	87.1	91.7	96.3
	-7.5%	55.6	60.5	65.3	70.0	74.7	79.3	83.9	88.5	93.1
	-5.0%	52.1	57.1	61.9	66.8	71.4	76.0	80.7	85.3	89.9
	-2.5%	48.7	53.6	58.5	63.4	68.2	72.8	77.4	82.0	86.6
	0.0%	45.2	50.2	55.1	60.0	64.9	69.6	74.2	78.8	83.4
	2.5%	41.7	46.7	51.7	56.6	61.5	66.3	70.9	75.6	80.2
	5.0%	38.2	43.2	48.2	53.2	58.1	62.9	67.7	72.3	76.9
	7.5%	34.6	39.7	44.8	49.7	54.7	59.5	64.4	69.1	73.7
	10.0%	31.0	36.1	41.2	46.3	51.2	56.1	61.0	65.8	70.5

Table 12.8: After-Tax DCF-NPV at 12%

After-Tax DCF-NPV @ 12% (US$ millions)										
		Revenues								
		-10.0%	-7.5%	-5.0%	-2.5%	0.0%	2.5%	5.0%	7.5%	10.0%
COGS and CapEx	-10.0%	50.9	55.1	59.2	63.2	67.1	71.0	74.9	78.8	82.7
	-7.5%	47.9	52.2	56.3	60.4	64.3	68.2	72.2	76.1	80.0
	-5.0%	45.0	49.2	53.4	57.6	61.6	65.5	69.4	73.3	77.2
	-2.5%	42.0	46.3	50.5	54.7	58.8	62.7	66.6	70.6	74.5
	0.0%	39.0	43.3	47.5	51.8	55.9	60.0	63.9	67.8	71.7
	2.5%	35.9	40.3	44.6	48.8	53.0	57.2	61.1	65.1	69.0
	5.0%	32.9	37.3	41.6	45.9	50.1	54.3	58.4	62.3	66.2
	7.5%	29.8	34.2	38.6	42.9	47.2	51.4	55.5	59.5	63.5
	10.0%	26.6	31.1	35.6	39.9	44.2	48.4	52.6	56.8	60.7

Table 12.9: After-Tax DCF-NPV at 15%

After-Tax DCF-NPV @ 15% (US$ millions)										
		Revenues								
		-10.0%	-7.5%	-5.0%	-2.5%	0.0%	2.5%	5.0%	7.5%	10.0%
COGS and CapEx	-10.0%	42.3	45.7	49.2	52.4	55.6	58.8	62.0	65.2	68.4
	-7.5%	39.8	43.3	46.8	50.1	53.3	56.5	59.7	62.9	66.1
	-5.0%	37.3	40.9	44.4	47.8	51.1	54.3	57.5	60.7	63.9
	-2.5%	34.8	38.4	41.9	45.4	48.8	52.0	55.2	58.4	61.6
	0.0%	32.3	35.9	39.5	43.0	46.5	49.8	53.0	56.2	59.4
	2.5%	29.8	33.4	37.0	40.5	44.0	47.5	50.7	53.9	57.1
	5.0%	27.2	30.9	34.5	38.1	41.6	45.1	48.5	51.7	54.9
	7.5%	24.6	28.4	32.0	35.6	39.2	42.7	46.1	49.4	52.6
	10.0%	22.0	25.8	29.5	33.1	36.7	40.2	43.7	47.1	50.4

13.0 PERMITTING AND COMPLIANCE

13.1 Permitting

The Kermit Mine's operations are predominantly regulated by the Texas Commission on Environmental Quality (TDEQ) with respect to environmental compliance. The predominant permitting requirement is an active NSR permit for air pollution control. The Kermit Mine's current NSR permit is renewable in 2028. Other permits held for the Kermit Mine include: Stormwater, Above Ground Storage Tank, Aggregate Production Operation, and a Public Water System application (pending). There are no formal state or federal reclamation plans or permits required for the operation.

Although the property is not considered a high-quality habitat, Alpine has voluntarily enrolled those portions of the property for which it owns the surface rights in the Candidate Conservation Agreement with Assurances for the Dune Sagebrush Lizard.

13.2 Compliance

The Kermit Mine is regulated by TDEQ on matters involving air and water pollution and inspected periodically by the state if issues arise.

Mine safety is regulated by the federal government by MSHA as are all surface mining operations. MSHA inspects the facilities a minimum of twice yearly. Alpine's safety record compares favorably with its regional peers. MSHA data indicates that during the mine's operational life (2017 through 2020), Operator Non-Fatal Lost Days injury rates have been on the decline. Alpine's incident rate has trended below average in comparison with other west Texas regional frac sand mining operations during the past two years (2019-2020).

Based on our review of information provided by Alpine and available public information, it is BOYD's opinion that Alpine's record of compliance with applicable mining, water quality, and environmental regulations is generally typical for the industry. BOYD is not aware of any regulatory violation or compliance issue which would materially impact the frac sand reserve estimate.

14.0 INTERPRETATION AND CONCLUSIONS

14.1 Findings

Based on our independent technical review and geoscientific study of the Kermit Mine, BOYD concludes:

- Sufficient data have been obtained through the site exploration and sampling program and mining operations to support the geological interpretations of seam thickness, grain size distribution and API quality for the portions of the sand underlying the controlled property. The data are of sufficient quantity and reliability to reasonably support the sand resource and sand reserve estimates in this technical report summary.
- Estimates of proppant sand reserves reported herein are reasonably and appropriately supported by technical studies, which consider mining plans, revenue, and operating and capital cost estimates.
- The 49.5 million product tons of frac sand reserves (as of January 1, 2021) identified on the property are economically extractable under reasonable expectations of market volumes and pricing for proppant sand products, estimated operation costs, and capital expenditures.
- There is no other relevant data or information material to the Kermit Mine that is necessary to make this technical report summary not misleading.

14.2 Significant Risks and Uncertainties

As with any mining project there are certain inherent risks associated with the overall operation of a facility. Alpine has sufficiently mitigated operational risk through obtaining sufficient geologic sampling information and analysis. Additionally, Alpine has engineered the processing plant to include parallel duplicate process circuits which significantly increases plant availability. However, it should be noted that frac sand is generally marketed exclusively to the energy industry which has historically been a volatile industry.