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

Form 10-Q

☐ **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the quarterly period ended September 30, 2023

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

FOR THE TRANSITION PERIOD FROM __________ TO __________

Commission File No. 001-37917

Mammoth Energy Services, Inc.

(Exact name of registrant as specified in its charter)

Delaware	**32-0498321**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

14201 Caliber Drive, Suite 300 **Oklahoma City, Oklahoma**	**(405) 608-6007**	**73134**
(Address of principal executive offices)	(Registrant’s telephone number, including area code)	(Zip Code)

Securities registered pursuant to Section 12(b) of The Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock	TUSK	The Nasdaq Stock Market LLC NASDAQ Global Select Market

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☐ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☐ No ☐

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 complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☐

As of November 7, 2023, there were 47,941,652 shares of common stock, $0.01 par value, outstanding.

MAMMOTH ENERGY SERVICES, INC.

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GLOSSARY OF OIL AND NATURAL GAS AND ELECTRICAL INFRASTRUCTURE TERMS

The following is a glossary of certain oil and natural gas and natural sand proppant industry terms used in this Quarterly Report on Form 10-Q (this "report" or "Quarterly Report"):

Acidizing	To pump acid into a wellbore to improve a well's productivity or injectivity.
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 exploration and production 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.
Bottomhole assembly	The lower portion of the drillstring, consisting of (from the bottom up in a vertical well) the bit, bit sub, a mud motor (in certain cases), stabilizers, drill collar, heavy-weight drillpipe, jarring devices ("jars") and crossovers for various threadforms. The bottomhole assembly must provide force for the bit to break the rock (weight on bit), survive a hostile mechanical environment and provide the driller with directional control of the well. Oftentimes the assembly includes a mud motor, directional drilling and measuring equipment, measurements-while-drilling tools, logging-while-drilling tools and other specialized devices.
Cementing	To prepare and pump cement into place in a wellbore.
Coiled tubing	A long, continuous length of pipe wound on a spool. The pipe is straightened prior to pushing into a wellbore and rewound to coil the pipe back onto the transport and storage spool. Depending on the pipe diameter (1 in. to 4 1/2 in.) and the spool size, coiled tubing can range from 2,000 ft. to 23,000 ft. (610 m to 6,096 m) or greater length.
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.
Directional drilling	The intentional deviation of a wellbore from the path it would naturally take. This is accomplished through the use of whipstocks, bottomhole assembly (BHA) configurations, instruments to measure the path of the wellbore in three-dimensional space, data links to communicate measurements taken down-hole to the surface, mud motors and special BHA components and drill bits, including rotary steerable systems, and drill bits. The directional driller also exploits drilling parameters such as weight on bit and rotary speed to deflect the bit away from the axis of the existing wellbore. In some cases, such as drilling steeply dipping formations or unpredictable deviation in conventional drilling operations, directional-drilling techniques may be employed to ensure that the hole is drilled vertically. While many techniques can accomplish this, the general concept is simple: point the bit in the direction that one wants to drill. The most common way is through the use of a bend near the bit in a down-hole steerable mud motor. The bend points the bit in a direction different from the axis of the wellbore when the entire drillstring is not rotating. By pumping mud through the mud motor, the bit turns while the drillstring does not rotate, allowing the bit to drill in the direction it points. When a particular wellbore direction is achieved, that direction may be maintained by rotating the entire drillstring (including the bent section) so that the bit does not drill in a single direction off the wellbore axis, but instead sweeps around and its net direction coincides with the existing wellbore. Rotary steerable tools allow steering while rotating, usually with higher rates of penetration and ultimately smoother boreholes.
Down-hole	Pertaining to or in the wellbore (as opposed to being on the surface).
Down-hole motor	A drilling motor located in the drill string above the drilling bit powered by the flow of drilling mud. Down-hole motors are used to increase the speed and efficiency of the drill bit or can be used to steer the bit in directional drilling operations. Drilling motors have become very popular because of horizontal and directional drilling applications and the day rates for drilling rigs.
Drilling rig	The machine used to drill a wellbore.
Drillpipe or Drill pipe	Tubular steel conduit fitted with special threaded ends called tool joints. The drillpipe connects the rig surface equipment with the bottomhole assembly and the bit, both to pump drilling fluid to the bit and to be able to raise, lower and rotate the bottomhole assembly and bit.
Drillstring or Drill string	The combination of the drillpipe, the bottomhole assembly and any other tools used to make the drill bit turn at the bottom of the wellbore.
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.
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.
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.
Mesh size	The size of the proppant that is determined by sieving the proppant through screens with uniform openings corresponding to the desired size of the proppant. Each type of proppant comes in various sizes, categorized as mesh sizes, and the various mesh sizes are used in different applications in the oil and natural gas industry. The mesh number system is a measure of the number of equally sized openings per square inch of screen through which the proppant is sieved.
Mud motors	A positive displacement drilling motor that uses hydraulic horsepower of the drilling fluid to drive the drill bit. Mud motors are used extensively in directional drilling operations.
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.
Nitrogen pumping unit	A high-pressure pump or compressor unit capable of delivering high-purity nitrogen gas for use in oil or gas wells. Two basic types of units are commonly available: a nitrogen converter unit that pumps liquid nitrogen at high pressure through a heat exchanger or converter to deliver high-pressure gas at ambient temperature, and a nitrogen generator unit that compresses and separates air to provide a supply of high pressure nitrogen gas.
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.
Plug	A down-hole packer assembly used in a well to seal off or isolate a particular formation for testing, acidizing, cementing, etc.; also a type of plug used to seal off a well temporarily while the wellhead is removed.
Pounds per square inch	A unit of pressure. It is the pressure resulting from a one pound force applied to an area of one square inch.
Pressure pumping	Services that include the pumping of liquids under pressure.
Producing formation	An underground rock formation from which oil, natural gas or water is produced. Any porous rock will contain fluids of some sort, and all rocks at considerable distance below the Earth’s surface will initially be under pressure, often related to the hydrostatic column of ground waters above the reservoir. To produce, rocks must also have permeability, or the capacity to permit fluids to flow through them.
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.
Resource play	Accumulation of hydrocarbons known to exist over a large area.
Shale	A fine-grained, fissile, sedimentary rock formed by consolidation of clay- and silt-sized particles into thin, relatively impermeable layers.
Tight oil	Conventional oil that is found within reservoirs with very low permeability. The oil contained within these reservoir rocks typically will not flow to the wellbore at economic rates without assistance from technologically advanced drilling and completion processes. Commonly, horizontal drilling coupled with multistage fracturing is used to access these difficult to produce reservoirs.
Tight sands	A type of unconventional tight reservoir. Tight reservoirs are those which have low permeability, often quantified as less than 0.1 millidarcies.
Tubulars	A generic term pertaining to any type of oilfield pipe, such as drill pipe, drill collars, pup joints, casing, production tubing and pipeline.
Unconventional resource/unconventional well	A term for the different manner by which resources are exploited as compared to the extraction of conventional resources. In unconventional drilling, the wellbore is generally drilled to specific objectives within narrow parameters, often across long, lateral intervals within narrow horizontal formations offering greater contact area with the producing formation. Typically, the well is then hydraulically fractured at multiple stages to optimize production.
Wellbore	The physical conduit from surface into the hydrocarbon reservoir.
Well 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.
Wireline	A general term used to describe well-intervention operations conducted using single-strand or multi-strand wire or cable for intervention in oil or gas wells. Although applied inconsistently, the term commonly is used in association with electric logging and cables incorporating electrical conductors.
Workover	The process of performing major maintenance or remedial treatments on an oil or gas well. In many cases, workover implies the removal and replacement of the production tubing string after the well has been killed and a workover rig has been placed on location. Through-tubing workover operations, using coiled tubing, snubbing or slickline equipment, are routinely conducted to complete treatments or well service activities that avoid a full workover where the tubing is removed. This operation saves considerable time and expense.

The following is a glossary of certain electrical infrastructure industry terms used in this report:

Distribution	The distribution of electricity from the transmission system to individual customers.
Substation	A part of an electrical transmission and distribution system that transforms voltage from high to low, or the reverse.
Transmission	The movement of electrical energy from a generating site, such as a power plant, to an electric substation.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

Various statements contained in this report that express a belief, expectation, or intention, or that are not statements of historical fact, are forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, or the Exchange Act. In particular, the factors discussed in this report and detailed under Part II, Item 1A. Risk Factors in this report and our Annual Report on Form 10–K for the year ended December 31, 2022 could affect our actual results and cause our actual results to differ materially from expectations, estimates or assumptions expressed, forecasted or implied in such forward-looking statements.

Forward-looking statements may include statements about:

- the levels of capital expenditures by our customers and the impact of reduced drilling and completions activity on utilization and pricing for our oilfield services;
- the volatility of oil and natural gas prices and actions by OPEC members and other oil exporting nations, or OPEC+, affecting commodity price and production levels;
- any continuing impacts of the COVID-19 pandemic on Mammoth’s results of operations, financial condition or demand for Mammoth’s services;
- employee retention and increasingly competitive labor market;
- the performance of contracts and supply chain disruptions during or following the COVID-19 pandemic;
- general economic, business or industry conditions and concerns over a potential economic slowdown or recession;
- conditions in the capital, financial and credit markets;
- conditions of U.S. oil and natural gas industry and the effect of U.S. energy, monetary and trade policies;
- U.S. and global economic conditions and political and economic developments, including the energy and environmental policies;
- inflationary pressure on the cost of services, equipment and other goods in our industries and other sectors;
- our ability to obtain capital or financing needed for our operations on favorable terms or at all;
- our ability to comply with the applicable financial covenants and other terms and conditions under our new revolving credit facility and new term loan;
- our ability to execute our business and financial strategies;
- our plans with respect to any stock repurchases under the board of directors' authorized stock repurchase program;
- our ability to continue to grow our infrastructure services segment or recommence certain of our suspended oilfield services;
- any loss of one or more of our significant customers and its impact on our revenue, financial condition and results of operations;
- asset impairments;
- our ability to identify, complete and integrate acquisitions of assets or businesses;
- our ability to receive, or delays in receiving, permits and governmental approvals and/or payments, and to comply with applicable governmental laws and regulations;
- the results of litigation relating to the contracts awarded to our subsidiary Cobra Acquisitions LLC, or Cobra, by the Puerto Rico Electric Power Authority, or PREPA;
- the outcome of our ongoing efforts to collect the amounts that remain unpaid to us by PREPA for electric grid restoration services performed by Cobra in Puerto Rico;
- any future litigation, indemnity or other claims;
- regional supply and demand factors, delays or interruptions of production, and any governmental order, rule or regulation that may impose production limits on our customers;
- shortages, delays in delivery and interruptions in supply of major components, replacement parts, or other equipment, supplies or materials;
- the availability of transportation, pipeline and storage facilities and any increase in related costs;
- extreme weather conditions, wild fires and other natural disasters in areas where we provide well completion, sand proppant, drilling and infrastructure services;
- access to and restrictions on use of sourced or produced water;
- technology;
- civil unrest, war, military conflicts or terrorist attacks;
- cyberattacks and any resulting loss of information;
- competition within the energy services industry;
- availability of equipment, materials or skilled personnel or other labor resources;
- payment of any future dividends;
- future operating results; and

- capital expenditures and other plans, objectives, expectations and intentions.

All of these types of statements, other than statements of historical fact included in this quarterly report, are forward-looking statements. These forward-looking statements may be found in the “Business,” “Risk Factors,” “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” and other sections of this quarterly report. In some cases, you can identify forward-looking statements by terminology such as “may,” “will,” “could,” “should,” “would,” “expect,” “plan,” “project,” “budget,” “intend,” “anticipate,” “believe,” “estimate,” “predict,” “potential,” “pursue,” “target,” “seek,” “objective,” “continue,” “will be,” “will benefit,” or “will continue,” the negative of such terms or other comparable terminology.

The forward-looking statements contained in this report are largely based on our expectations, which reflect estimates and assumptions made by our management. These estimates and assumptions reflect our best judgment based on currently known market conditions and other factors, which are difficult to predict and many of which are beyond our control. Although we believe such estimates and assumptions to be reasonable, they are inherently uncertain and involve a number of risks and uncertainties that are beyond our control. In addition, our management’s assumptions about future events may prove to be inaccurate. Our management cautions all readers that the forward-looking statements contained in this report are not guarantees of future performance, and we cannot assure any reader that such statements will be realized or the forward-looking events and circumstances will occur. Actual results may differ materially from those anticipated or implied in the forward-looking statements due to many factors including those described in our Annual Report on Form 10–K for the year ended December 31, 2022 and Item 2. “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and elsewhere in this report. All forward-looking statements speak only as of the date of this report. We do not intend to publicly update or revise any forward-looking statements as a result of new information, future events or otherwise. These cautionary statements qualify all forward-looking statements attributable to us or persons acting on our behalf.

PART I. FINANCIAL INFORMATION

Item 1. Financial Statements

MAMMOTH ENERGY SERVICES, INC.
CONDENSED CONSOLIDATED BALANCE SHEETS (unaudited)

ASSETS	September 30, 2023	December 31, 2022
	(in thousands)	
CURRENT ASSETS		
Cash and cash equivalents	$ 10,527	$ 17,282
Accounts receivable, net	455,349	456,465
Receivables from related parties, net	266	223
Inventories	11,779	8,883
Prepaid expenses	3,717	13,219
Other current assets	616	620
Total current assets	482,254	496,692
Property, plant and equipment, net	119,151	138,066
Sand reserves	58,778	61,830
Operating lease right-of-use assets	11,147	10,656
Intangible assets, net	1,106	1,782
Goodwill	9,214	11,717
Other non-current assets	4,326	3,935
Total assets	$ 685,976	$ 724,678
LIABILITIES AND EQUITY		
CURRENT LIABILITIES		
Accounts payable	$ 39,304	$ 47,391
Accrued expenses and other current liabilities	30,508	52,297
Current operating lease liability	6,081	5,447
Current portion of long-term debt	—	83,520
Income taxes payable	56,506	48,557
Total current liabilities	132,399	237,212
Long-term debt, net of current portion	69,029	—
Deferred income tax liabilities	401	471
Long-term operating lease liability	4,912	4,913
Asset retirement obligations	4,083	3,981
Other long-term liabilities	9,580	15,485
Total liabilities	220,404	262,062
COMMITMENTS AND CONTINGENCIES (Note 19)		
EQUITY		
Equity:		
Common stock, $0.01 par value, 200,000,000 shares authorized, 47,941,652 and 47,312,270 issued and outstanding at September 30, 2023 and December 31, 2022	479	473
Additional paid in capital	539,340	539,138
Accumulated deficit	(70,361)	(73,154)
Accumulated other comprehensive loss	(3,886)	(3,841)
Total equity	465,572	462,616
Total liabilities and equity	$ 685,976	$ 724,678

The accompanying notes are an integral part of these condensed consolidated financial statements.

MAMMOTH ENERGY SERVICES, INC.

CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE (LOSS) INCOME (unaudited)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
REVENUE	(in thousands, except per share amounts)			
Services revenue	$ 54,025	$ 93,879	$ 221,140	$ 223,005
Services revenue - related parties	252	355	841	1,024
Product revenue	10,682	12,968	34,729	35,149
Total revenue	64,959	107,202	256,710	259,178
COST AND EXPENSES				
Services cost of revenue (exclusive of depreciation, depletion, amortization and accretion of $8,394, $30,426, $12,968, and $43,727, respectively, for the three and nine months ended September 30, 2023 and three and nine months ended September 30, 2022)	45,082	68,821	178,905	173,821
Services cost of revenue - related parties	120	142	360	405
Product cost of revenue (exclusive of depreciation, depletion, amortization and accretion of $2,836, $6,395, $2,863, and $6,711, respectively, for the three and nine months ended September 30, 2023 and three and nine months ended September 30, 2022)	7,615	9,493	22,796	27,496
Selling, general and administrative (Note 12)	10,411	9,685	29,151	26,560
Depreciation, depletion, amortization and accretion	11,233	15,842	36,839	50,485
Gains on disposal of assets, net	(2,450)	(599)	(3,284)	(3,738)
Impairment of goodwill	1,810	—	1,810	—
Total cost and expenses	73,821	103,384	266,577	275,029
Operating (loss) income	(8,862)	3,818	(9,867)	(15,851)
OTHER INCOME (EXPENSE)				
Interest expense, net	(2,876)	(3,262)	(9,385)	(8,270)
Other income, net	14,088	10,989	31,051	30,175
Total other income, net	11,212	7,727	21,666	21,905
Income before income taxes	2,350	11,545	11,799	6,054
Provision for income taxes	3,438	3,819	9,006	11,442
Net (loss) income	$ (1,088)	$ 7,726	$ 2,793	$ (5,388)
OTHER COMPREHENSIVE (LOSS) INCOME				
Foreign currency translation adjustment, net of tax of $0, $0, ($215), and $(215), respectively, for the three and nine months ended September 30, 2023 and three and nine months ended September 30, 2022	(275)	(601)	(45)	(851)
Comprehensive (loss) income	$ (1,363)	$ 7,125	$ 2,748	$ (6,239)
Net (loss) income per share (basic) (Note 15)	$ (0.02)	$ 0.16	$ 0.06	$ (0.11)
Net (loss) income per share (diluted) (Note 15)	$ (0.02)	$ 0.16	$ 0.06	$ (0.11)
Weighted average number of shares outstanding (basic) (Note 15)	47,942	47,312	47,721	47,129
Weighted average number of shares outstanding (diluted) (Note 15)	47,942	47,843	47,973	47,129

The accompanying notes are an integral part of these condensed consolidated financial statements.

MAMMOTH ENERGY SERVICES, INC.

CONDENSED CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY (unaudited)

	Three Months Ended September 30, 2023					
	Common Stock		Accumulated	Additional Paid-In	Accumulated Other Comprehensive	
	Shares	Amount	Deficit	Capital	Loss	Total
	(in thousands)					
Balance at June 30, 2023	47,941	$ 479	$ (69,273)	$ 539,121	$ (3,611)	466,716
Stock based compensation	—	—	—	219	—	219
Net loss	—	—	(1,088)	—	—	(1,088)
Other comprehensive loss	—	—	—	—	(275)	(275)
Balance at September 30, 2023	47,941	$ 479	$ (70,361)	$ 539,340	$ (3,886)	$ 465,572

	Three Months Ended September 30, 2022					
	Common Stock		Accumulated	Additional Paid-In	Accumulated Other Comprehensive	
	Shares	Amount	Deficit	Capital	Loss	Total
	(in thousands)					
Balance at June 30, 2022	47,312	$ 473	$ (85,649)	$ 538,656	$ (3,181)	$ 450,299
Stock based compensation	—	—	—	241	—	241
Net income	—	—	7,726	—	—	7,726
Other comprehensive loss	—	—	—	—	(601)	(601)
Balance at September 30, 2022	47,312	$ 473	$ (77,923)	$ 538,897	$ (3,782)	$ 457,665

	Nine Months Ended September 30, 2023					
	Common Stock		Accumulated	Additional Paid-In	Accumulated Other Comprehensive	
	Shares	Amount	Deficit	Capital	Loss	Total
	(in thousands)					
Balance at December 31, 2022	47,312	$ 473	$ (73,154)	$ 539,138	$ (3,841)	$ 462,616
Stock based compensation	795	8	—	1,119	—	1,127
Shares repurchased	(166)	(2)	—	(917)	—	(919)
Net income	—	—	2,793	—	—	2,793
Other comprehensive loss	—	—	—	—	(45)	(45)
Balance at September 30, 2023	47,941	$ 479	$ (70,361)	$ 539,340	$ (3,886)	$ 465,572

	Nine Months Ended September 30, 2022					
	Common Stock		Accumulated	Additional Paid-In	Accumulated Other Comprehensive	
	Shares	Amount	Deficit	Capital	Loss	Total
	(in thousands)					
Balance at December 31, 2021	46,684	$ 467	$ (72,535)	$ 538,221	$ (2,931)	$ 463,222
Stock based compensation	628	6	—	676	—	682
Net loss	—	—	(5,388)	—	—	(5,388)
Other comprehensive loss	—	—	—	—	(851)	(851)
Balance at September 30, 2022	47,312	$ 473	$ (77,923)	$ 538,897	$ (3,782)	$ 457,665

The accompanying notes are an integral part of these condensed consolidated financial statements.

MAMMOTH ENERGY SERVICES, INC.

CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS (unaudited)

	Nine Months Ended September 30,	
	2023	2022
	(in thousands)	
Cash flows from operating activities:		
Net income (loss)	$ 2,793	$ (5,388)
Adjustments to reconcile net income (loss) to cash provided by (used in) operating activities:		
Stock based compensation	1,127	682
Depreciation, depletion, accretion and amortization	36,839	50,485
Amortization of debt origination costs	565	588
Change in provision for expected credit losses	(414)	(112)
Gains on disposal of assets	(3,284)	(3,738)
Gains from sales of equipment damaged or lost down-hole	(335)	(607)
Impairment of goodwill	1,810	—
Gain on sale of business	(2,080)	—
Deferred income taxes	(70)	8,557
Other	(273)	104
Changes in assets and liabilities:		
Accounts receivable, net	1,489	(55,472)
Receivables from related parties, net	(44)	(298)
Inventories	(2,896)	35
Prepaid expenses and other assets	8,990	7,613
Accounts payable	(7,537)	9,472
Accrued expenses and other liabilities	(19,679)	(20,777)
Income taxes payable	7,950	2,790
Net cash provided by (used in) operating activities	24,951	(6,066)
Cash flows from investing activities:		
Purchases of property and equipment	(15,265)	(9,099)
Business divestitures, net of cash transferred	3,276	—
Proceeds from disposal of property and equipment	4,304	8,659
Net cash used in investing activities	(7,685)	(440)
Cash flows from financing activities:		
Borrowings on long-term debt	168,800	142,475
Repayments of long-term debt	(183,291)	(134,674)
Proceeds from sale leaseback transaction	—	4,589
Payments on sale leaseback transaction	(3,711)	(3,249)
Principal payments on financing leases and equipment financing notes	(4,872)	(1,753)
Other	(919)	—
Net cash (used in) provided by financing activities	(23,993)	7,388
Effect of foreign exchange rate on cash	(28)	(164)
Net change in cash and cash equivalents	(6,755)	718
Cash and cash equivalents at beginning of period	17,282	9,899
Cash and cash equivalents at end of period	$ 10,527	$ 10,617
Supplemental disclosure of cash flow information:		
Cash paid for interest	$ 8,951	$ 6,316
Cash paid for income taxes, net of refunds received	$ 788	$ 97
Supplemental disclosure of non-cash transactions:		
Purchases of property and equipment included in accounts payable and accrued expenses	$ 4,197	$ 3,837
Right-of-use assets obtained for financing lease liabilities	$ 507	$ —

The accompanying notes are an integral part of these condensed consolidated financial statements.

1. Organization and Nature of Business

Mammoth Energy Services, Inc. (“Mammoth Inc.”, “Mammoth” or the “Company”), together with its subsidiaries, is an integrated, growth-oriented company serving both the oil and gas and the electric utility industries in North America and US territories. Mammoth Inc.’s infrastructure division provides engineering, design, construction, upgrade, maintenance and repair services to various public and private owned utilities. Its oilfield services division provides a diversified set of services to the exploration and production industry including well completion, natural sand and proppant and drilling services. Additionally, the Company provides aviation services, equipment rentals, remote accommodation services and equipment manufacturing. The Company was incorporated in Delaware in June 2016.

Operations

The Company’s well completion services include equipment and personnel used in connection with the completion and early production of oil and natural gas wells. The Company’s infrastructure services include engineering, design, construction, upgrade, maintenance and repair services to the electrical infrastructure industry as well as repair and restoration services in response to storms and other disasters. The Company’s natural sand proppant services include the distribution and production of natural sand proppant that is used primarily for hydraulic fracturing in the oil and gas industry. The Company’s drilling services provide drilling rigs and directional tools for both vertical and horizontal drilling of oil and natural gas wells. The Company also provides other services, including aviation, equipment rentals, remote accommodations and equipment manufacturing.

The Company’s operations are concentrated in North America. The Company operates its oil and natural gas businesses in the Permian Basin, the Utica Shale, the Eagle Ford Shale, the Marcellus Shale, the Granite Wash, the SCOOP, the STACK, the Cana-Woodford Shale, the Cleveland Sand and the oil sands located in Northern Alberta, Canada. The Company’s oil and natural gas business depends in large part on the conditions in the oil and natural gas industry and, specifically, on the amount of capital spending by its customers. Any prolonged increase or decrease in oil and natural gas prices affects the levels of exploration, development and production activity, as well as the entire health of the oil and natural gas industry. Decreases in the commodity prices for oil and natural gas would have a material adverse effect on the Company’s results of operations and financial condition. During the periods presented in this report, the Company provided its infrastructure services primarily in the northeastern, southwestern, midwestern and western portions of the United States. The Company’s infrastructure business depends on infrastructure spending on maintenance, upgrade, expansion and repair and restoration. Any prolonged decrease in spending by electric utility companies, delays or reductions in government appropriations or the failure of customers to pay their receivables could have a material adverse effect on the Company’s results of operations and financial condition.

2. Basis of Presentation and Significant Accounting Policies

Basis of Presentation

The accompanying unaudited condensed consolidated interim financial statements include the accounts of the Company and its subsidiaries and the variable interest entities (“VIE”) for which the Company is the primary beneficiary. See Note 11. Variable Interest Entity to our unaudited condensed consolidated financial statements included elsewhere in this report for additional information regarding these entities. All material intercompany accounts and transactions have been eliminated.

This report has been prepared in accordance with the rules and regulations of the Securities and Exchange Commission, and reflects all adjustments, which in the opinion of management are necessary for the fair presentation of the results for the interim periods, on a basis consistent with the annual audited consolidated financial statements. All such adjustments are of a normal, recurring nature. Certain information, accounting policies and footnote disclosures normally included in financial statements prepared in accordance with generally accepted accounting principles (“GAAP”) have been omitted pursuant to such rules and regulations, although the Company believes that the disclosures are adequate to make the information presented not misleading. These unaudited condensed consolidated financial statements should be read in conjunction with the consolidated financial statements and the summary of significant accounting policies and notes thereto included in the Company’s most recent annual report on Form 10-K.

Accounts Receivable
Accounts receivable include amounts due from customers for services performed or goods sold. The Company grants credit to customers in the ordinary course of business and generally does not require collateral. Prior to granting credit to customers, the Company analyzes the potential customer's risk profile by utilizing a credit report, analyzing macroeconomic factors and using its knowledge of the industry, among other factors. Most areas in the continental United States in which the Company operates provide for a mechanic's lien against the property on which the service is performed if the lien is filed within the statutorily specified time frame. Customer balances are generally considered delinquent if unpaid by the 30th day following the invoice date and credit privileges may be revoked if balances remain unpaid. Interest on delinquent accounts receivable is recognized in other income when chargeable and collectability is reasonably assured.

During the period October 2017 through March 2019, the Company provided infrastructure services in Puerto Rico under master services agreements entered into by Cobra Acquisitions LLC ("Cobra"), one of the Company's subsidiaries, with the Puerto Rico Electric Power Authority ("PREPA") to perform repairs to PREPA's electrical grid as a result of Hurricane Maria. During the three and nine months ended September 30, 2023 and the three and nine months ended September 30, 2022, the Company charged interest on delinquent accounts receivable pursuant to the terms of its agreements with PREPA totaling $11.4 million, $33.9 million, $10.5 million and $30.5 million, respectively. These amounts are included in "other income, net" on the unaudited condensed consolidated statements of comprehensive (loss) income. Included in "accounts receivable, net" on the unaudited condensed consolidated balance sheets as of September 30, 2023 and December 31, 2022 were interest charges of $186.0 million and $152.0 million, respectively.

The Company regularly reviews receivables and provides for expected losses through an allowance for expected credit losses. In evaluating the level of established reserves, the Company makes judgments regarding its customers' ability to make required payments, economic events and other factors. As the financial condition of customers changes, circumstances develop, or additional information becomes available, adjustments to the allowance for expected credit losses may be required. In the event the Company expects that a customer may not be able to make required payments, the Company would increase the allowance through a charge to income in the period in which that determination is made. If it is determined that previously reserved amounts are collectible, the Company would decrease the allowance through a credit to income in the period in which that determination is made. Uncollectible accounts receivable are periodically charged against the allowance for expected credit losses once a final determination is made regarding their collectability.

Following is a roll forward of the changes in our allowance for expected credit losses for the year ended December 31, 2022 and the nine months ended September 30, 2023 (in thousands):

Balance, January 1, 2022	$	18,085
Change in provision for expected credit losses		3,550
Recoveries of receivables previously charged to credit loss expense		(161)
Write-offs charged against the provision		(17,887)
Balance, December 31, 2022		3,587
Change in provision for expected credit losses		(377)
Recoveries of receivables previously charged to credit loss expense		(37)
Write-offs charged against the provision		(3,018)
Balance, September 30, 2023	$	155

During the nine months ended September 30, 2023 and 2022, the Company has made specific reserves consistent with Company policy which resulted in nominal additions to allowance for expected credit losses. These additions were charged to credit loss expense based on the factors described above.

PREPA

As of September 30, 2023, PREPA owed Cobra approximately $213.4 million for services performed, excluding $186.0 million of interest charged on these delinquent balances. PREPA is currently subject to bankruptcy proceedings, which were filed in July 2017 and are currently pending in the U.S. District Court for the District of Puerto Rico. As a result, PREPA's ability to meet its payment obligations is largely dependent upon funding from the Federal Emergency Management Agency ("FEMA") or other sources. On September 30, 2019, Cobra filed a motion with the U.S. District

Court for the District of Puerto Rico seeking recovery of the amounts owed to Cobra by PREPA, which motion was stayed by the Court. On March 25, 2020, Cobra filed an urgent motion to modify the stay order and allow the recovery of approximately $61.7 million in claims related to a tax gross-up provision contained in the emergency master service agreement, as amended, that was entered into with PREPA on October 19, 2017. This emergency motion was denied on June 3, 2020 and the Court extended the stay of our motion. On December 9, 2020, the Court again extended the stay of our motion and directed PREPA to file a status report by June 7, 2021. On April 6, 2021, Cobra filed a motion to lift the stay order. Following this filing, PREPA initiated discussion with Cobra, which resulted in PREPA and Cobra filing a joint motion to adjourn all deadlines relative to the April 6, 2021 motion until the June 16, 2021 omnibus hearing as a result of PREPA's understanding that FEMA would be releasing a report in the near future relating to the emergency master service agreement between PREPA and Cobra that was executed on October 19, 2017. The joint motion was granted by the Court on April 14, 2021. On May 26, 2021, FEMA issued a Determination Memorandum related to the first contract between Cobra and PREPA in which, among other things, FEMA raised two contract compliance issues and, as a result, concluded that approximately $47 million in costs were not authorized costs under the contract. On June 14, 2021, the Court issued an order adjourning Cobra's motion to lift the stay order to a hearing on August 4, 2021 and directing Cobra and PREPA to meet and confer in good faith concerning, among other things, (i) the May 26, 2021 Determination Memorandum issued by FEMA and (ii) whether and when a second determination memorandum is expected. The parties were further directed to file an additional status report, which was filed on July 20, 2021. On July 23, 2021, with the aid of Mammoth, PREPA filed an appeal of the entire $47 million that FEMA de-obligated in the May 26, 2021 Determination Memorandum. FEMA approved the appeal in part and denied the appeal in part. FEMA found that staffing costs of $24.4 million are eligible for funding. On August 4, 2021, the Court denied Cobra's April 6, 2021 motion to lift the stay order, extended the stay of our motion seeking recovery of amounts owed to Cobra and directed the parties to file an additional joint status report, which was filed on January 22, 2022. On January 26, 2022, the Court extended the stay and directed the parties to file a further status report by July 25, 2022. On June 7, 2022, Cobra filed a motion to lift the stay order. On June 29, 2022 the Court denied Cobra's motion and extended the stay to January 2023. On November 21, 2022, FEMA issued a Determination Memorandum related to the 100% federal funded portion of the second contract between Cobra and PREPA in which FEMA concluded that approximately $5.6 million in costs were not authorized costs under the contract. On December 21, 2022, FEMA issued a Determination Memorandum related to the 90% federal cost share portion of the second contract between Cobra and PREPA in which FEMA concluded that approximately $68.1 million in costs were not authorized costs under the contract. PREPA has filed first-level administrative appeals of the November 21, 2022 and December 21, 2022 Determination Memorandums. On January 7, 2023, Cobra and PREPA filed a joint status report with the Court, in which PREPA requested that the Court continue the stay through July 31, 2023 and Cobra requested that the stay be lifted. On January 18, 2023, the Court entered an order extending the stay and directing the parties to file a further status report addressing (i) the status of any administrative appeals in connection with the November and December determination memorandums regarding the second contract, (ii) the status of the criminal case against the former Cobra president and the FEMA official that concluded in December 2022, and (iii) a summary of the outstanding and unpaid amounts arising from the first and second contracts and whether PREPA disputes Cobra's entitlement to these amounts with the Court by July 31, 2023. On January 20, 2023, Cobra submitted a certified claim for approximately $379 million to FEMA pursuant to the federal Contract Disputes Act. On February 1, 2023, FEMA notified Cobra that it had reviewed the claim and determined that no contract, expressed or implied, exists between FEMA and Cobra. On March 29, 2023, Cobra filed a notice of appeal with the Civilian Board of Contract Appeals related to the certified claim submitted in January 2023. On April 25, 2023, FEMA filed a motion to dismiss Cobra's appeal alleging lack of jurisdiction. On March 27, 2023, Cobra was notified that FEMA had approved $233 million in Cobra invoices related to the December 21, 2022 Determination Memorandum.The 90% federal cost share of this approved amount was $210 million, which was obligated and made available for draw down on March 27, 2023. Of this $210 million, approximately $99 million has been represented by both PREPA and FEMA as intended to pay Cobra for outstanding invoices and the remaining $111 million is a reimbursement to PREPA for payments already made on Cobra invoices. On May 16, 2023, Cobra filed a motion to lift the stay order. In a June 8, 2023 hearing, the Court ordered PREPA to provide Cobra a detailed report on the status of their review of the invoices that make up the aforementioned $99 million. On June 14, 2023, PREPA paid Cobra approximately $10.8 million, all of which was used to reduce outstanding borrowings under the Company's then existing revolving credit facility, as required under the terms thereof. Additionally, on June 14, 2023, PREPA filed a report noting a portion of the approved, but unpaid invoices would be submitted to COR3 within two weeks of the filing and the remainder of the invoices would be submitted to COR3 within four weeks of the filing. Following the passage of the two-week and four-week periods contained in the June 14, 2023 report, Cobra filed an informative motion with the Court regarding the passage of the respective periods and PREPA's failure to meet the deadlines. The Court ordered PREPA to respond to Cobra's informative motion, which PREPA did on July 21, 2023. In this Court ordered response, PREPA informed the Court that an additional $8.4 million of invoices had been submitted for payment and that $72 million in FEMA approved costs were awaiting engineer certification. On August 2, 2023, following submission of a joint status report by Cobra and FEMA on July 31, 2023, in which, among other things, PREPA requested the stay be continued and Cobra requested the stay be lifted, the Court entered an order continuing the stay until October 31, 2023 and requiring another joint status report be filed on October 16, 2023. On August 22, 2023, PREPA paid Cobra approximately $2.0 million, all of which was used to reduce outstanding borrowings under the Company's then existing revolving credit facility. On August 30, 2023, Cobra filed an informative motion with the Court regarding the status of the approved, but unpaid invoices. The Court ordered PREPA to respond to Cobra's informative motion, which PREPA did on September 18, 2023. In this Court ordered response, PREPA informed the Court that the approved, but unpaid invoices were in the process of being entered into PREPA's system for payment. On September 22, 2023 and October 10, 2023, PREPA made payments to Cobra of approximately $0.8 million and $5.7 million, respectively, all of which was used to reduce outstanding borrowings under the Company's then existing revolving credit facility, which the Company refinanced on October 16, 2023. See Note 10. Debt—New Revolving Credit Facility and New Term Credit Facility. On October 16, 2023 and October 25, 2023, PREPA made additional payments to Cobra of approximately $1.7 million and $1.2 million. Also on October 16, 2023, pursuant to Court's prior order, the parties submitted a further joint status report. In the joint status report, PREPA informed the Court that, among other things, it intended to process and submit to COR3 for reimbursement the remaining approximately $81 million in approved, but unpaid invoices. In addition, the parties informed the Court that the parties were engaged in mediation to resolve open disputes with respect to other unpaid invoices. On October 19, 2023, the Court entered an order continuing the stay through the earlier of January 31, 2024, and the termination of the mediation, directing the parties to file a further status report (i) addressing the status of each approved, but unpaid invoice that has not been submitted to COR3 and the reason(s) for the delay in submission of such invoices, (ii) providing any available information concerning the projected timing of payments of the approved, but unpaid invoices and (iii) proposing any litigation schedule that the parties believe to be necessary with respect to the approved, but unpaid invoices with the Court by December 1, 2023, and if the disputes have not been resolved through payment or mediation by January 15, 2024, directed the parties to file a status report addressing (i) the status of any administrative appeals in connection with the November 2022 and December 2022 Determination Memorandums, (ii) a summary of the outstanding unpaid amounts and (iii) whether the parties are actively engaged in mediation to resolve the outstanding issues by January 16, 2024.

The Company believes all amounts charged to PREPA, including interest charged on delinquent accounts receivable, were in accordance with the terms of the contracts. Further, there have been multiple reviews prepared by or on behalf of FEMA that have concluded that the amounts Cobra charged PREPA were reasonable, that PREPA adhered to Puerto Rican legal statutes regarding emergency situations, and that PREPA engaged in a reasonable procurement process. The Company believes these receivables are collectible and no allowance was deemed necessary at September 30, 2023 or December 31, 2022. However, in the event PREPA (i) does not have or does not obtain the funds necessary to satisfy its obligations to Cobra under the contracts, (ii) obtains the necessary funds but refuses to pay the remaining amounts owed to the Company or (iii) otherwise does not pay amounts owed to the Company, the receivable may not be collectible.

Concentrations of Credit Risk and Significant Customers

Financial instruments that potentially subject the Company to concentrations of credit risk consist of cash and cash equivalents in excess of federally insured limits and trade receivables. Following is a summary of our significant customers based on percentages of total accounts receivable balances at September 30, 2023 and December 31, 2022 and percentages of total revenues derived for the three and nine months ended September 30, 2023 and 2022:

	REVENUES				ACCOUNTS RECEIVABLE	
	Three Months Ended September 30,		Nine Months Ended September 30,		At September 30,	At December 31,
	2023	2022	2023	2022	2023	2022
Customer A[(a)]	— %	— %	— %	— %	88 %	83 %
Customer B[(b)]	8 %	9 %	11 %	12 %	— %	— %

a. Customer A is a third-party customer. Revenues and the related accounts receivable balances earned from Customer A were derived from the Company's infrastructure services segment. Accounts receivable for Customer A also includes receivables due for interest charged on delinquent accounts receivable.

b. Customer B is a third-party customer. Revenues and the related accounts receivable balances earned from Customer B were derived from the Company's well completion services segment.

Fair Value of Financial Instruments

The Company's financial instruments consist of cash and cash equivalents, trade receivables, trade payables, amounts receivable or payable to related parties and debt. The carrying amount of cash and cash equivalents, trade receivables, receivables from related parties and trade payables approximates fair value because of the short-term nature of the instruments. The fair value of debt approximates its carrying value because the cost of borrowing fluctuates based upon market conditions.

3. Revenue

The Company’s primary revenue streams include infrastructure services, well completion services, natural sand proppant services, drilling services and other services, which includes aviation, equipment rentals, remote accommodations and equipment manufacturing. See Note 20 for the Company’s revenue disaggregated by type.

Certain of the Company’s customer contracts include provisions entitling the Company to a termination penalty when the customer invokes its contractual right to terminate prior to the contract’s nominal end date. The termination penalties in the customer contracts vary, but are generally considered substantive for accounting purposes and create enforceable rights and obligations throughout the stated duration of the contract. The Company accounts for a contract cancellation as a contract modification in the period in which the customer invokes the termination provision. The determination of the contract termination penalty is based on the terms stated in the related customer agreement. As of the modification date, the Company updates its estimate of the transaction price using the expected value method, subject to constraints, and recognizes the amount over the remaining performance period.

Well Completion Services

Well completion services are typically provided based upon a purchase order, contract or on a spot market basis. Services are provided on a day rate, contracted or hourly basis. Generally, the Company accounts for well completion services as a single performance obligation satisfied over time. In certain circumstances, the Company supplies proppant that is utilized for pressure pumping as part of the agreement with the customer. The Company accounts for these pressure pumping agreements as multiple performance obligations satisfied over time. Jobs for these services are typically short-term in nature and range from a few hours to multiple days. Generally, revenue is recognized over time upon the completion of each segment of work based upon a completed field ticket, which includes the charges for the services performed, mobilization of the equipment to the location and personnel.

Additional revenue is generated through labor charges and the sale of consumable supplies that are incidental to the service being performed. Such amounts are recognized ratably over the period during which the corresponding goods and services are consumed.

Infrastructure Services

Infrastructure services are typically provided pursuant to master service agreements, repair and maintenance contracts or fixed price and non-fixed price installation contracts. Pricing under these contracts may be unit priced, cost-plus/hourly (or time and materials basis) or fixed price (or lump sum basis). Generally, the Company accounts for infrastructure services as a single performance obligation satisfied over time. In certain circumstances, the Company supplies materials that are utilized during the jobs as part of the agreement with the customer. The Company accounts for these infrastructure agreements as multiple performance obligations satisfied over time. Revenue is recognized over time as work progresses based on the days completed or as the contract is completed. Under certain customer contracts in our infrastructure services segment, the Company warranties equipment and labor performed for a specified period following substantial completion of the work.

Natural Sand Proppant Services

The Company sells natural sand proppant through sand supply agreements with its customers. Under these agreements, sand is typically sold at a flat rate per ton or a flat rate per ton with an index-based adjustment. The Company recognizes revenue at the point in time when the customer obtains legal title to the product, which may occur at the production facility, rail origin or at the destination terminal.

Certain of the Company’s sand supply agreements contain a minimum volume commitment related to sand purchases whereby the Company charges a shortfall payment if the customer fails to meet the required minimum volume commitment. These agreements may also contain make-up provisions whereby shortfall payments can be applied in future periods against purchased volumes exceeding the minimum volume commitment. If a make-up right exists, the Company has future performance obligations to deliver excess volumes of product in subsequent months. In accordance with ASC 606, if the customer fails to meet the minimum volume commitment, the Company will assess whether it expects the customer to fulfill its unmet commitment during the contractually specified make-up period based on discussions with the customer and management’s knowledge of the business. If the Company expects the customer will make-up deficient volumes in future periods, revenue related to shortfall payments will be deferred and recognized on the earlier of the date on which the customer utilizes make-up volumes or the likelihood that the customer will exercise its right to make-up deficient volumes becomes remote. If the Company does not expect the customer will make-up deficient volumes in future periods, the breakage model will be applied and revenue related to shortfall payments will be recognized when the model indicates the customer's inability to take delivery of excess volumes. The Company did not recognize any shortfall revenue during the three and nine months ended September 30, 2023 and didnot have any deferred revenue related to shortfall payments. The Company recognized shortfall revenue totaling $0.5 million and $3.1 million during the three and nine months ended September 30, 2022, respectively.

In certain of the Company's sand supply agreements, the customer obtains control of the product when it is loaded into rail cars and the customer reimburses the Company for all freight charges incurred. The Company has elected to account for shipping and handling as activities to fulfill the promise to transfer the sand. If revenue is recognized for the related product before the shipping and handling activities occur, the Company accrues the related costs of those shipping and handling activities.

Drilling Services
Contract drilling services were provided under daywork contracts. Directional drilling services, including motor rentals, are provided on a day rate or hourly basis, and revenue is recognized as work progresses. Performance obligations are satisfied over time as the work progresses based on the measure of output. Mobilization revenue and costs were recognized over the days of actual drilling. As a result of market conditions, the Company temporarily shut down its contract land drilling operations beginning in December 2019 and rig hauling operations beginning in April 2020.

Other Services
The Company also provided aviation, equipment rentals, remote accommodations and equipment manufacturing, which are reported under other services. The Company's other services are typically provided based upon a purchase order, contract or on a spot market basis. Services are provided on a day rate, contracted or hourly basis. Performance obligations for these services are satisfied over time and revenue is recognized as the work progresses based on the measure of output. Jobs for these services are typically short-term in nature and range from a few hours to multiple days.

Practical Expedients
The Company does not disclose the value of unsatisfied performance obligations for (i) contracts with an original expected length ofone year or less and (ii) contracts in which variable consideration is allocated entirely to a wholly unsatisfied performance obligation or to a wholly unsatisfied distinct good or service that forms part of a single performance obligation.

Contract Balances
Following is a rollforward of the Company's contract liabilities (in thousands):

Balance, December 31, 2021	$	3,250
Deduction for recognition of revenue		(3,207)
Deduction for rebate credit recognized		(140)
Increase for deferral of customer prepayments		7,647
Balance, December 31, 2022		7,550
Deduction for recognition of revenue		(7,042)
Deduction for rebate credit recognized		(375)
Increase for deferral of customer prepayments		617
Balance, September 30, 2023	$	750

The Company did not have any contract assets as of September 30, 2023 or December 31, 2022.

Performance Obligations
Revenue recognized in the current period from performance obligations satisfied in previous periods was anominal amount for the three and nine months ended September 30, 2023 and 2022. As of September 30, 2023, the Company had unsatisfied performance obligations totaling $13.4 million, which will be recognized over the next 16 months.

4. Divestitures

On July 13, 2023, the Company sold all of the equity interest in its subsidiary Air Rescue Systems Corporation ("ARS") for $3.3 million in cash plus $0.3 million to be paid one year after closing if certain conditions are met. The Company recognized a gain of $2.1 million on the sale, which is included in “other income, net” on the unaudited condensed consolidated statements of comprehensive (loss) income.

5. Inventories

Inventories consist of raw sand and processed sand available for sale, chemicals and other products sold as a bi-product of completion and production operations and supplies used in performing services. Inventory is stated at the lower of cost or net realizable value on an average cost basis. The Company assesses the valuation of its inventories based upon specific usage, future utility, obsolescence and other factors. A summary of the Company’s inventories is shown below (in thousands):

	September 30, 2023	December 31, 2022
Supplies	$ 5,945	$ 5,167
Raw materials	1,004	974
Work in process	3,748	2,221
Finished goods	1,082	521
Total inventories	$ 11,779	$ 8,883

6. Property, Plant and Equipment

Property, plant and equipment include the following (in thousands):

	Useful Life	September 30, 2023	December 31, 2022
Pressure pumping equipment	3-5 years	$ 251,359	$ 230,760
Drilling rigs and related equipment	3-15 years	110,828	110,724
Machinery and equipment	7-20 years	160,214	162,634
Buildings[a]	15-39 years	40,243	40,316
Vehicles, trucks and trailers	5-10 years	96,421	101,580
Coil tubing equipment	4-10 years	6,884	6,908
Land	N/A	12,393	12,393
Land improvements	15 years or life of lease	10,066	10,053
Rail improvements	10-20 years	13,793	13,793
Other property and equipment[b]	3-12 years	16,652	18,296
		718,853	707,457
Deposits on equipment and equipment in process of assembly[c]		6,039	13,885
		724,892	721,342
Less: accumulated depreciation[d]		605,741	583,276
Total property, plant and equipment, net		$ 119,151	$ 138,066

a. Included in Buildings at each of September 30, 2023 and December 31, 2022 are costs of $ 7.6 million related to assets under operating leases.
b. Included in Other property and equipment are costs of $ 4.4 million and $ 6.0 million at September 30, 2023 and December 31, 2022, respectively, related to assets under operating leases.
c. Deposits on equipment and equipment in process of assembly represents deposits placed with vendors for equipment that is in the process of assembly and purchased equipment that is being outfitted for its intended use. The equipment is not yet placed in service.
d. Includes accumulated depreciation of $ 7.8 million and $ 8.0 million at September 30, 2023 and December 31, 2022, respectively, related to assets under operating leases.

Disposals

Proceeds from customers for horizontal and directional drilling services equipment damaged or lost down-hole are reflected in revenue with the carrying value of the related equipment charged to cost of service revenues and are reported as cash inflows from investing activities in the unaudited condensed consolidated statements of cash flows. For the three and nine months ended September 30, 2023 and 2022, proceeds from the sale of equipment damaged or lost down-hole were $0.4 million, $0.4 million, a nominal amount, and $0.6 million, respectively, and gains from the sale of equipment damaged or lost down-hole were $0.3 million, $0.3 million, $0.1 million, and $0.6 million, respectively.

Proceeds from assets sold or disposed of as well as the carrying value of the related equipment are reflected in "gains on disposal of assets, net" on the unaudited condensed consolidated statements of comprehensive (loss) income. For the three and nine months ended September 30, 2023 and 2022, proceeds from the sale of equipment were $3.1 million, $4.0 million, $0.8 million and $8.0 million, respectively, and gains from the sale or disposal of equipment were $2.4 million, $3.3 million, $0.6 million and $3.7 million, respectively.

Depreciation, depletion, amortization and accretion

A summary of depreciation, depletion, amortization and accretion expense is below (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
Depreciation expense	$ 9,240	$ 14,031	$ 33,097	$ 47,716
Amortization expense	193	195	583	584
Accretion and depletion expense	1,800	1,616	3,159	2,185
Depreciation, depletion, amortization and accretion	$ 11,233	$ 15,842	$ 36,839	$ 50,485

7. Goodwill and Intangible Assets

Goodwill

Changes in the net carrying amount of goodwill by reporting segment (see Note 20) for the nine months ended September 30, 2023 and year ended December 31, 2022 are presented below (in thousands):

	Well Completions	Other	Total
Balance as of January 1, 2022			
Goodwill	$ 86,043	$ 14,830	$ 100,873
Accumulated impairment losses	(76,829)	(12,327)	(89,156)
	9,214	2,503	11,717
Acquisitions	—	—	—
Impairment losses	—	—	—
Balance as of December 31, 2022			
Goodwill	86,043	14,830	100,873
Accumulated impairment losses	(76,829)	(12,327)	(89,156)
	9,214	2,503	11,717
Acquisitions	—	—	—
Impairment losses	—	(1,810)	(1,810)
Dispositions	—	(693)	(693)
Balance as of September 30, 2023			
Goodwill	86,043	14,137	100,180
Accumulated impairment losses	(76,829)	(14,137)	(90,966)
	$ 9,214	$ —	$ 9,214

Impairment of Goodwill

As a result of the ARS sale, we performed an impairment assessment of our goodwill as of September 30, 2023. Under GAAP, the Company has the option to first assess qualitative factors to determine whether the existence of events or circumstances leads to a determination that it is more likely than not that the fair value of one or more of its reporting units is greater than its carrying amount. If, after assessing the totality of events or circumstances, the Company determines it is more likely than not that the fair value of a reporting unit is greater than its carrying amount, there is no need to perform any further testing. However, if the Company concludes otherwise, then it is required to perform a quantitative impairment test by calculating the fair value of the reporting unit and comparing the fair value with the carrying amount of the reporting unit. If the fair value of the reporting unit is less than its carrying value, an impairment loss is recorded based on that difference.

Based on the qualitative assessment, the Company concluded that it was more likely than not that the carrying value of the Aviation reporting unit was greater than its fair value at September 30, 2023. To determine fair value of the Aviation reporting unit at September 30, 2023, the Company used the income approach. The income approach estimates the fair value based on anticipated cash flows that are discounted using a weighted average cost of capital. As a result, the Company impaired goodwill associated with Cobra Aviation, resulting in a $1.8 million impairment charge for the three and nine months ended September 30, 2023.

Intangible Assets

The Company had the following finite lived intangible assets recorded (in thousands):

	September 30, 2023	December 31, 2022
Trade names	7,730	7,850
Less: accumulated amortization - trade names	(6,624)	(6,068)
Intangible assets, net	$ 1,106	$ 1,782

Amortization expense for intangible assets was $0.2 million and $0.6 million for each of the three and nine months ended September 30, 2023 and 2022, respectively. The original life of trade names is 10 years as of September 30, 2023 with a remaining average useful life of 1.9 years.

Aggregated expected amortization expense for the future periods is expected to be as follows (in thousands):

Remainder of 2023	$ 193
2024	704
2025	85
2026	85
2027	39
Thereafter	—
	$ 1,106

8. Equity Method Investment

On December 21, 2018, Cobra Aviation Services LLC (“Cobra Aviation”) and Wexford Partners Investment Co. LLC (“Wexford Investment”), a related party, formed a joint venture under the name of Brim Acquisitions LLC (“Brim Acquisitions”) to acquire all outstanding equity interest in Brim Equipment Leasing, Inc. (“Brim Equipment”) for a total purchase price of approximately $2.0 million. Cobra Aviation owns a 49% economic interest and Wexford Investment owns a 51% economic interest in Brim Acquisitions, and each member contributed its pro rata portion of Brim Acquisitions’ initial capital of $2.0 million. Brim Acquisitions, through Brim Equipment, owns three commercial helicopters and leases five commercial helicopters for operations, which it uses to provide a variety of services, including short haul, aerial ignition, hoist operations, aerial photography, fire suppression, construction services, animal/capture/survey, search and rescue, airborne law enforcement, power line construction, precision long line operations, pipeline construction and survey, mineral and seismic exploration, and aerial seeding and fertilization.

The Company uses the equity method of accounting to account for its investment in Brim Acquisitions, which had a carrying value of approximately $3.8 million and $3.5 million at September 30, 2023 and December 31, 2022, respectively. The investment is included in “other non-current assets” on the unaudited condensed consolidated balance sheets. The Company recorded equity method adjustments to its investment of $0.7 million and $0.3 million for the three and nine months ended September 30, 2023, respectively, and $0.3 million and ($0.1) million for the three and nine months ended September 30, 2022, respectively, which is included in “other income, net” on the unaudited condensed consolidated statements of comprehensive (loss) income.

9. Accrued Expenses and Other Current Liabilities and Other Long-Term Liabilities

Accrued expenses and other current liabilities and other long-term liabilities included the following (in thousands):

	September 30, 2023	December 31, 2022
State and local taxes payable	$ 13,289	$ 13,336
Sale-leaseback liability[(a)]	4,401	4,501
Accrued compensation and benefits	3,889	6,743
Equipment financing note	2,506	2,329
Financing leases	1,863	4,003
Insurance reserves	1,357	1,509
Deferred revenue	750	7,550
Financed insurance premiums[(b)]	402	10,136
Other	2,051	2,190
Total accrued expenses and other current liabilities	$ 30,508	$ 52,297
Other Long-Term Liabilities		
Equipment financing note[(c)]	$ 4,239	$ 6,047
Sale-leaseback liability[(a)]	3,352	6,836
Financing leases	1,989	2,602
Total other long-term liabilities	$ 9,580	$ 15,485

a. On December 30, 2020, the Company entered into an agreement with First National Capital, LLC (“FNC”) whereby the Company agreed to sell certain assets from its infrastructure segment to FNC for aggregate proceeds of $5.0 million. Concurrent with the sale of assets, the Company entered into a 36 month lease agreement whereby the Company agreed to lease back the assets at a monthly rental rate of $0.1 million. On June 1, 2021, the Company entered into another agreement with FNC whereby the Company sold additional assets from its infrastructure segment to FNC for aggregate proceeds of $9.5 million and entered into a 42-month lease agreement whereby the Company agreed to lease back the assets at a monthly rental rate of $0.2 million. On June 1, 2022, the Company entered into another agreement with FNC whereby the Company sold additional assets from its infrastructure segment to FNC for aggregate proceeds of $4.6 million and entered into a 42-month lease agreement whereby the Company agreed to lease back the assets at a monthly rental rate of $0.1 million. Under the agreements, the Company has the option to purchase the assets at the end of the lease terms. The Company recorded liabilities for the proceeds received and will continue to depreciate the assets. The Company has imputed an interest rate so that the carrying amount of the financial liabilities will be the expected repurchase price at the end of the initial lease terms.

b. Financed insurance premiums are due in monthly installments, are unsecured and mature within the twelve-month period following the close of the year. As of September 30, 2023, the applicable interest rates associated with financed insurance premiums ranged from 5.13% to 6.75%. As of December 31, 2022, the applicable interest rates associated with financed insurance premiums ranged from 1.95% to 5.13%.

c. In December 2022, the Company entered into a 42 month financing arrangement with FNC for the purchase of seven new pressure pumping units for an aggregate value of $9.7 million. Under this arrangement, the Company has agreed to make monthly principal and interest payments totaling $0.3 million over the term of the agreement. This note is secured by the seven pressure pumping units and bears interest at an imputed rate of approximately 15.0%.

10. Debt

PNC Revolving Credit Facility

On October 19, 2018, Mammoth Inc. and certain of its direct and indirect subsidiaries, as borrowers, entered into an amended and restated revolving credit and security agreement with the lenders party thereto and PNC Bank, National Association, as a lender and as administrative agent for the lenders, as subsequently further amended (the "existing revolving credit facility").

As of September 30, 2023, the applicable financial covenants under the existing revolving credit facility were as follows:

- the fixed charge coverage ratio was 1.1 to 1.0; and
- the minimum excess availability covenant was $10.0 million.

The Company was in compliance with the applicable financial covenants under its revolving credit facility in effect as of September 30, 2023 and December 31, 2022.

At September 30, 2023, there were outstanding borrowings under the existing revolving credit facility of $69.0 million, the borrowing base was $96.4 million and there was $11.0 million of available borrowing capacity under the facility, after giving effect to $6.4 million of outstanding letters of credit and the requirement to maintain a $10.0 million reserve out of the available borrowing capacity. At December 31, 2022, there were outstanding borrowings under the existing revolving credit facility of $83.5 million, the borrowing base was $119.8 million and there was $19.7 million of borrowing capacity under the facility, after giving effect to $6.5 million of outstanding letters of credit and the requirement to maintain a $10.0 million reserve out of the available borrowing capacity.

New Revolving Credit Facility and New Term Credit Facility

On October 16, 2023, the Company entered into the new revolving credit facility and the new term credit facility (each as defined below), which refinanced in full the Company's indebtedness outstanding under the existing revolving credit facility. On October 16, 2023, the Company, as borrower, and certain of its direct and indirect subsidiaries, as guarantors, entered into a revolving credit agreement with the lenders party thereto and Fifth Third Bank, National Association, as a lender and as administrative agent for the lenders ("Fifth Third"), as may be subsequently amended (the "new revolving credit facility"). The new revolving credit facility provides for revolving commitments in an aggregate amount of up to $75 million. Borrowings under the new revolving credit facility are secured by the Company's assets, inclusive of the subsidiary companies, and are subject to a borrowing base calculation prepared monthly which includes a requirement to maintain certain reserves as specified in the new revolving credit facility. The new revolving credit facility also contains various affirmative and restrictive covenants. Interest under the new revolving credit facility equals the Tranche Rate (as defined in the new revolving credit facility) plus (i) 1.75%, if the Average Excess Availability Percentage (as defined in the new revolving credit facility) is greater than 66 2/3%, (ii) 2.00% if the Average Excess Availability Percentage is greater than 33 1/3% and less than or equal to 66 2/3%, and (iii) 2.25% if the Average Excess Availability Percentage is less than or equal to 33 1/3%.

As of October 16, 2023, the financial covenant under the new revolving credit facility was the fixed coverage ratio of 1.0 to 1.0 which applies only during a Financial Covenant Period (as defined in the new revolving credit facility).

On October 16, 2023, the Company, as borrower, and certain of its direct and indirect subsidiaries, as guarantors, also entered into a loan and security agreement with the lenders party thereto and Wexford Capital LP, an affiliate of the Company, as administrative agent for the lenders ("Wexford"), as may be subsequently amended (the "new term credit facility"). The new term credit was approved by the audit committee of the Company's board of directors, consisting entirely of independent directors, as a transaction with a related party. The new term credit facility provides for term commitments in an aggregate amount equal to $45 million. Borrowings under the new term credit facility are secured by the Company's assets, inclusive of the subsidiary companies. The new term credit facility also contains various affirmative and restrictive covenants. Interest under the new term credit facility equals the SOFR Interest Rate (as defined in the new term credit facility) plus 7.50%, as such margin may be increased pursuant to the terms of the new term credit facility; provided that the Company may elect to pay all or a portion of the accrued interest due with respect to any

Interest Period (as defined in the new term credit facility) ending on or before April 16, 2025, in kind by adding such accrued interest to the principal amount of the outstanding loans thereunder.

In particular, under the new term credit facility, the Company is required, among other things, to mandatorily remit to Wexford up to50% of all amounts that constitute PREPA Claim Proceeds, as such term is defined in the new term credit facility, which will be used to reduce outstanding borrowings under the new term credit facility, as required under the terms thereof.

At October 16, 2023, there were outstanding borrowings under (i) the new revolving credit facility of approximately $28.1 million and the borrowing base was approximately $35.1 million, leaving $7.0 million for future borrowings (after giving effect to the requirement to maintain the reserves specified in the new revolving credit facility out of the available borrowing capacity) and (ii) the new term credit facility of $45 million.

If an event of default occurs under the new revolving credit facility or the new term credit facility, as applicable, and remains uncured, it could have a material adverse effect on the Company's business, financial condition, liquidity and results of operations. The lenders, as applicable, (i) would not be required to lend any additional amounts to the Company, (ii) could elect to increase the interest rate by (x) 200 basis points in connection with an event of default under the new revolving credit facility or (y)300 basis points with respect to an event of default under the new term credit facility, (iii) could elect to declare all outstanding borrowings, together with accrued and unpaid interest and fees, to be due and payable, (iv) may have the ability to require the Company to apply all of its available cash to repay outstanding borrowings, and (v) may foreclose on substantially all of the Company's assets. The new revolving credit facility is currently scheduled to mature on the earlier of (x) July 17, 2028, unless the indebtedness under the new term credit facility is refinanced in accordance with terms of the intercreditor agreement, and (y) October 16, 2028. The new term credit facility is currently scheduled to mature on October 16, 2028.

Aviation Note

On November 6, 2020, Leopard and Cobra Aviation entered into a 39 month promissory note agreement with Bank7 (the "Aviation Note") in an aggregate principal amount of $4.6 million and received net proceeds of $4.5 million. The Aviation Note bore interest at a rate based on the Wall Street Journal Prime Rate plus a margin of1%. The Aviation Note was paid off on September 30, 2022.

11. Variable Interest Entities

Dire Wolf Energy Services LLC ("Dire Wolf") and Predator Aviation LLC ("Predator Aviation"), wholly owned subsidiaries of the Company, are party to Voting Trust Agreements with TVPX Aircraft Solutions Inc. (the "Voting Trustee"). Under the Voting Trust Agreements, Dire Wolf transferred 100% of its membership interest in Cobra Aviation and Predator Aviation transferred 100% of its membership interest in Leopard to the respective Voting Trustees in exchange for Voting Trust Certificates. Dire Wolf and Predator Aviation retained the obligation to absorb all expected returns or losses of Cobra Aviation and Leopard. Prior to the transfer of the membership interest to the Voting Trustee, Cobra Aviation was a wholly owned subsidiary of Dire Wolf and Leopard was a wholly owned subsidiary of Predator Aviation. Cobra Aviation owns two helicopters and support equipment and 49% of the equity interest in Brim Acquisitions. Leopard ownsone helicopter. Dire Wolf and Predator Aviation entered into the Voting Trust Agreements in order to meet certain registration requirements.

Dire Wolf's and Predator Aviation's voting rights are not proportional to their respective obligations to absorb expected returns or losses of Cobra Aviation and Leopard, respectively, and all of Cobra Aviation's and Leopard's activities are conducted on behalf of Dire Wolf and Predator Aviation, which have disproportionately fewer voting rights; therefore, Cobra Aviation and Leopard meet the criteria of a VIE. Cobra Aviation and Leopard's operational activities are directed by Dire Wolf's and Predator Aviation's officers and Dire Wolf and Predator Aviation have the option to terminate the Voting Trust Agreements at any time. Therefore, the Company, through Dire Wolf and Predator Aviation, is considered the primary beneficiary of the VIEs and consolidates Cobra Aviation and Leopard at September 30, 2023.

12. Selling, General and Administrative Expense

Selling, general and administrative ("SG&A") expense includes of the following (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	**2022**	**2023**	**2022**
Cash expenses:				
Compensation and benefits	$ 3,392	$ 3,676	$ 11,665	$ 9,796
Professional services	4,684	3,706	10,889	10,067
Other[(a)]	2,105	2,059	5,884	6,127
Total cash SG&A expense	10,181	9,441	28,438	25,990
Non-cash expenses:				
Change in provision for expected credit losses	11	3	(414)	(112)
Stock based compensation	219	241	1,127	682
Total non-cash SG&A expense	230	244	713	570
Total SG&A expense	$ 10,411	$ 9,685	$ 29,151	$ 26,560

a. Includes travel-related costs, information technology expenses, rent, utilities and other general and administrative-related costs.

13. Income Taxes

The Company recorded income tax expense of $9.0 million for the nine months ended September 30, 2023 compared to income tax expense of $11.4 million for the nine months ended September 30, 2022. The Company's effective tax rates were 76% and 189% for the nine months ended September 30, 2023 and 2022, respectively.

The effective tax rates for the nine months ended September 30, 2023 and 2022 differed from the statutory rate of 21% primarily due to the mix of earnings between the United States and Puerto Rico, changes in the valuation allowance and interest and penalties.

14. Leases

Lessee Accounting

The Company recognizes a lease liability equal to the present value of the lease payments and a right-of-use asset representing its right to use the underlying asset for the lease term for all leases with a term in excess of 12 months. For operating leases, lease expense for lease payments is recognized on a straight-line basis over the lease term, while finance leases include both an operating expense and an interest expense component. For all leases with a term of 12 months or less, the Company has elected the practical expedient to not recognize lease assets and liabilities and recognizes lease expense for these short-term leases on a straight-line basis over the lease term.

The Company's operating leases are primarily for rail cars, real estate, and equipment and its finance leases are primarily for machinery and equipment. Generally, the Company does not include renewal or termination options in its assessment of the leases unless extension or termination of certain assets is deemed to be reasonably certain. The accounting for some of the Company's leases may require significant judgment, which includes determining whether a contract contains a lease, determining the incremental borrowing rates to utilize in the net present value calculation of lease payments for lease agreements which do not provide an implicit rate and assessing the likelihood of renewal or termination options. Lease agreements that contain a lease and non-lease component are generally accounted for as a single lease component.

The rate implicit in the Company's leases is not readily determinable. Therefore, the Company uses its incremental borrowing rate based on information available at the commencement date of its leases in determining the present value of lease payments. The Company's incremental borrowing rate reflects the estimated rate of interest that it would pay to borrow on a collateralized basis over a similar term an amount equal to the lease payments in a similar economic environment.

Lease expense consisted of the following for the three and nine months ended September 30, 2023 and 2022 (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
Operating lease expense	$ 1,928	$ 1,668	$ 5,568	$ 5,189
Short-term lease expense	37	14	476	72
Finance lease expense:				
Amortization of right-of-use assets	445	447	1,579	1,252
Interest on lease liabilities	38	44	135	138
Total lease expense	$ 2,448	$ 2,173	$ 7,758	$ 6,651

Supplemental balance sheet information related to leases as of September 30, 2023 and December 31, 2022 is as follows (in thousands):

	September 30, 2023	December 31, 2022
Operating leases:		
Operating lease right-of-use assets	$ 11,147	$ 10,656
Current operating lease liability	6,081	5,447
Long-term operating lease liability	4,912	4,913
Finance leases:		
Property, plant and equipment, net	$ 4,133	$ 7,267
Accrued expenses and other current liabilities	1,863	4,003
Other liabilities	1,989	2,602

Other supplemental information related to leases for the three and nine months ended September 30, 2023 and 2022 and as of September 30, 2023 and December 31, 2022 is as follows (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
Cash paid for amounts included in the measurement of lease liabilities:				
Operating cash flows from operating leases	$ 1,826	$ 1,416	$ 5,419	$ 5,011
Operating cash flows from finance leases	38	44	135	138
Financing cash flows from finance leases	869	456	3,547	1,365
Right-of-use assets obtained in exchange for lease obligations:				
Operating leases	$ 1,338	$ 339	$ 5,554	$ 3,158
Finance leases	201	—	507	—

	September 30, 2023	December 31, 2022
Weighted-average remaining lease term:		
Operating leases	2.5 years	2.9 years
Finance leases	2.4 years	2.0 years
Weighted-average discount rate:		
Operating leases	8.2 %	4.1 %
Finance leases	4.6 %	4.3 %

Maturities of lease liabilities as of September 30, 2023 are as follows (in thousands):

	Operating Leases	Finance Leases
Remainder of 2023	$ 1,986	$ 880
2024	6,185	1,316
2025	2,725	809
2026	725	1,067
2027	174	—
Thereafter	450	—
Total lease payments	12,245	4,072
Less: Present value discount	1,252	220
Present value of lease payments	$ 10,993	$ 3,852

Lessor Accounting

Certain of the Company's agreements with its customers for drilling services, aviation services and remote accommodation services contain an operating lease component under ASC 842 because (i) there are identified assets, (ii) the customer obtains substantially all of the economic benefits of the identified assets throughout the period of use and (iii) the customer directs the use of the identified assets throughout the period of use. The Company has elected to apply the practical expedient provided to lessors to combine the lease and non-lease components of a contract where the revenue recognition pattern is the same and where the lease component, when accounted for separately, would be considered an operating lease. The practical expedient also allows a lessor to account for the combined lease and non-lease components under ASC 606, Revenue from Contracts with Customers, when the non-lease component is the predominant element of the combined component.

The Company's lease agreements are generally short-term in nature and lease revenue is recognized over time based on a monthly, daily or hourly rate basis. The Company does not provide an option for the lessee to purchase the rented assets at the end of the lease and the lessees do not provide residual value guarantees on the rented assets. The Company recognized lease revenue of $0.8 million and $0.7 million during the three months ended September 30, 2023 and 2022, respectively, and $2.4 million for each of the nine months ended September 30, 2023 and 2022, respectively, which is included in "services revenue" and "services revenue - related parties" on the unaudited condensed consolidated statements of comprehensive (loss) income.

15. (Loss) Earnings Per Share

Reconciliations of the components of basic and diluted net (loss) earnings per common share are presented in the table below (in thousands, except per share data):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
Basic (loss) earnings per share:				
Allocation of (loss) earnings:				
Net (loss) income	$ (1,088)	$ 7,726	$ 2,793	$ (5,388)
Weighted average common shares outstanding	47,942	47,312	47,721	47,129
Basic (loss) earnings per share	$ (0.02)	$ 0.16	$ 0.06	$ (0.11)
Diluted (loss) earnings per share:				
Allocation of (loss) earnings:				
Net (loss) income	$ (1,088)	$ 7,726	$ 2,793	$ (5,388)
Weighted average common shares, including dilutive effect[a]	47,942	47,843	47,973	47,129
Diluted (loss) earnings per share	$ (0.02)	$ 0.16	$ 0.06	$ (0.11)

a. No incremental shares of potentially dilutive restricted stock awards were included for the three months ended September 30, 2023 and nine months ended September 30, 2022 as their effect was antidilutive under the treasury stock method.

16. Equity Based Compensation

Upon formation of certain operating entities by Wexford and Gulfport Energy Corporation, specified members of management (the “Specified Members”) and certain non-employee members (the “Non-Employee Members”) were granted the right to receive distributions from the operating entities after the contribution member’s unreturned capital balance was recovered (referred to as “Payout” provision).

On November 24, 2014, the awards were modified in conjunction with the contribution of the operating entities to Mammoth. These awards were not granted in limited or general partner units. The awards are for interests in the distributable earnings of the members of MEH Sub, Mammoth’s majority equity holder.

On the closing date of Mammoth Inc.’s initial public offering (“IPO”), the unreturned capital balance of Mammoth’s majority equity holder was not fully recovered from its sale of common stock in the IPO. As a result, Payout did not occur and no compensation cost was recorded.

Payout for the remaining awards is expected to occur as the contributing member’s unreturned capital balance is recovered from additional sales by MEH Sub of its shares of the Company’s common stock or from dividend distributions, which is not considered probable until the event occurs. For the Specified Member awards, the unrecognized amount, which represents the fair value of the award as of the modification dates or grant date, was $5.6 million.

For the Company’s Non-Employee Member awards, the unrecognized amount, which represents the fair value of the awards as of the date of adoption of ASU 2018-07 was $18.9 million.

17. Stock Based Compensation

The Mammoth Energy Services, Inc. 2016 Incentive Plan, as amended (the “2016 Plan”), authorizes the Company’s Board of Directors or the compensation committee of the Company’s Board of Directors to grant restricted stock, restricted stock units, stock appreciation rights, stock options and performance awards. There was a maximum of 4.5 million shares of common stock reserved for issuance under the 2016 Plan, of which0.6 million shares of common stock remain available for future grants under the 2016 Plan as of September 30, 2023.

Restricted Stock Units

The fair value of restricted stock unit awards was determined based on the fair market value of the Company's common stock on the date of the grant. This value is amortized over the vesting period.

A summary of the status and changes of the unvested shares of restricted stock under the 2016 Plan is presented below.

	Number of Unvested Restricted Shares	Weighted Average Grant-Date Fair Value
Unvested shares as of January 1, 2022	1,128,205	$ 1.27
Granted	228,310	2.19
Vested	(628,205)	1.54
Forfeited	—	—
Unvested shares as of December 31, 2022	728,310	1.32
Granted	369,050	5.17
Vested	(794,977)	1.69
Forfeited	—	—
Unvested shares as of September 30, 2023	302,383	$ 5.06

As of September 30, 2023, there was $1.1 million of total unrecognized compensation cost related to the unvested restricted stock. The cost is expected to be recognized over a weighted average period of approximately 1.8 years.

Included in cost of revenue and selling, general and administrative expenses is stock-based compensation expense of $0.2 million and $1.1 million for the three and nine months ended September 30, 2023, respectively, and $0.2 million and $0.7 million for the three and nine months ended September 30, 2022, respectively.

18. Related Party Transactions

Transactions between the subsidiaries of the Company, including Panther Drilling Systems LLC ("Panther Drilling"), Cobra Aviation, ARS and Leopard and the following companies are included in Related Party Transactions: Wexford, El Toro Resources LLC ("El Toro"), Elk City Yard LLC ("Elk City Yard"), Double Barrel Downhole Technologies LLC ("DBDHT"), Caliber Investment Group LLC ("Caliber") and Brim Equipment.

Following is a summary of related party transactions (in thousands):

		Three Months Ended September 30,		Nine Months Ended September 30,		At September 30,	At December 31,
		2023	2022	2023	2022	2023	2022
		REVENUES				ACCOUNTS RECEIVABLE	
Cobra Aviation/ARS/Leopard and Brim Equipment	(a)	$ 93	$ 81	391	234	$ 101	$ 217
Panther and El Toro	(b)	159	274	450	790	159	—
Other Relationships		—	—	—	—	6	6
		$ 252	$ 355	$ 841	$ 1,024	$ 266	$ 223

a. Cobra Aviation, ARS and Leopard lease helicopters to Brim Equipment pursuant to aircraft lease and management agreements.
b. Panther provides directional drilling services for El Toro, an entity controlled by Wexford, pursuant to a master service agreement.

		Three Months Ended September 30, 2023	Three Months Ended September 30, 2022	Nine Months Ended September 30, 2023	Nine Months Ended September 30, 2022	At September 30, 2023	At December 31, 2022
		COST OF REVENUE				ACCOUNTS PAYABLE	
Cobra Aviation/ARS/Leopard and Brim Equipment	(a)	$ —	$ 17	$ 7	$ 57	$ —	$ 3
The Company and Caliber	(b)	93	89	273	268	—	—
Other Relationships		27	36	80	80	—	—
		$ 120	$ 142	$ 360	$ 405	$ —	$ 3

a. Cobra Aviation, ARS and Leopard lease helicopters to Brim Equipment pursuant to aircraft lease and management agreements.
b. Caliber, an entity controlled by Wexford, leases office space to the Company.

On December 21, 2018, Cobra Aviation acquired all outstanding equity interest in ARS and purchased two commercial helicopters, spare parts, support equipment and aircraft documents from Brim Equipment. Following these transactions, and also on December 21, 2018, Cobra Aviation formed a joint venture with Wexford Investments named Brim Acquisitions to acquire all outstanding equity interests in Brim Equipment. Cobra Aviation owns a 49% economic interest and Wexford Investment owns a 51% economic interest in Brim Acquisitions, and each member contributed its pro rata portion of Brim Acquisitions' initial capital of $2.0 million. Wexford Investments is an entity controlled by Wexford, which owns approximately 47% of the Company's outstanding common stock. Leopard leases a helicopter to Brim Equipment and Cobra Aviation leases the two helicopters purchased as part of these transactions to Brim Equipment under the terms of aircraft lease and management agreements. ARS was subsequently sold to a third party in July 2023. See Note 4 for further discussion.

19. Commitments and Contingencies

Commitments

From time to time, the Company may enter into agreements with suppliers that contain minimum purchase obligations and agreements to purchase capital equipment. The Company did not have any unconditional purchase obligations as of September 30, 2023.

Letters of Credit

The Company has various letters of credit that were issued under the Company's revolving credit agreement which is collateralized by substantially all of the assets of the Company. The letters of credit are categorized below (in thousands):

	September 30, 2023	December 31, 2022
Environmental remediation	$ 3,569	$ 3,694
Insurance programs	2,800	2,800
Total letters of credit	$ 6,369	$ 6,494

Insurance

The Company has insurance coverage for physical partial loss to its assets, employer's liability, automobile liability, commercial general liability, workers' compensation and insurance for other specific risks. The Company has also elected in some cases to accept a greater amount of risk through increased deductibles on certain insurance policies. At each of September 30, 2023 and December 31, 2022, the workers' compensation and automobile liability policies require a deductible per occurrence of up to $0.3 million and $0.1 million, respectively. As of September 30, 2023 and December 31, 2022, the workers' compensation and auto liability policies contained an aggregate stop loss of $5.4 million. The Company establishes liabilities for the unpaid deductible portion of claims incurred based on estimates. As of of September 30, 2023 and December 31, 2022, accrued claims were $1.4 million and $1.5 million, respectively.

The Company also has insurance coverage for directors and officers liability. As of September 30, 2023 and December 31, 2022, the directors and officers liability policy had a deductible per occurrence of $1.0 million and an aggregate deductible of $10.0 million. As of September 30, 2023 and December 31, 2022, the Company did not have any accrued claims for directors and officers liability.

The Company also self-insures its employee health insurance. The Company has coverage on its self-insurance program in the form of a stop loss of $0.2 million per participant and an aggregate stop-loss of $5.8 million for the calendar year ending December 31, 2022. As of September 30, 2023 and December 31, 2022, accrued claims were $1.4 million and $1.5 million, respectively. These estimates may change in the near term as actual claims continue to develop.

Warranty Guarantees

Pursuant to certain customer contracts in our infrastructure services segment, the Company warrants equipment and labor performed under the contracts for a specified period following substantial completion of the work. Generally, the warranty is for one year or less. No liabilities were accrued as of September 30, 2023 and December 31, 2022 and no expense was recognized during the nine months ended September 30, 2023 or 2022 related to warranty claims. However, if warranty claims occur, the Company could be required to repair or replace warrantied items, which in most cases are covered by warranties extended from the manufacturer of the equipment. In the event the manufacturer of equipment failed to perform on a warranty obligation or denied a warranty claim made by the Company, the Company could be required to pay for the cost of the repair or replacement.

Bonds

In the ordinary course of business, the Company is required to provide bid bonds to certain customers in the infrastructure services segment as part of the bidding process. These bonds provide a guarantee to the customer that the Company, if awarded the project, will perform under the terms of the contract. Bid bonds are typically provided for a percentage of the total contract value. Additionally, the Company may be required to provide performance and payment bonds for contractual commitments related to projects in process. These bonds provide a guarantee to the customer that the Company will perform under the terms of a contract and that the Company will pay subcontractors and vendors. If the Company fails to perform under a contract or to pay subcontractors and vendors, the customer may demand that the surety make payments or provide services under the bond. The Company must reimburse the surety for expenses or outlays it incurs. As of September 30, 2023 and December 31, 2022, outstanding performance and payment bonds totaled $11.2 million and $8.6 million, respectively. The estimated cost to complete projects secured by the performance and payment bonds totaled $1.7 million as of September 30, 2023. There were $0.6 million in outstanding bid bonds as of September 30, 2023 and no outstanding bid bonds as of December 31, 2022.

Litigation

As of September 30, 2023, PREPA owed the Company approximately $213.4 million for services performed, excluding $186.0 million of interest charged on these delinquent balances as of September 30, 2023. The Company believes these receivables are collectible. PREPA, however, is currently subject to bankruptcy proceedings, which were filed in July 2017 and are currently pending in the U.S. District Court for the District of Puerto Rico. As a result, PREPA’s ability to meet its payment obligations is largely dependent upon funding from FEMA or other sources. On September 30, 2019, Cobra filed a motion with the U.S. District Court for the District of Puerto Rico seeking recovery of the amounts owed to Cobra by PREPA, which motion was stayed by the Court. On March 25, 2020, Cobra filed an urgent motion to modify the stay order and allow the recovery of approximately $61.7 million in claims related to a tax gross-up provision contained in the emergency master service agreement, as amended, that was entered into with PREPA on October 19, 2017. This emergency motion was denied on June 3, 2020 and the Court extended the stay of our motion. On December 9, 2020, the Court again extended the stay of our motion and directed PREPA to file a status motion by June 7, 2021. On April 6, 2021, Cobra filed a motion to lift the stay order. Following this filing, PREPA initiated discussion, which resulted in PREPA and Cobra filing a joint motion to adjourn all deadlines relative to the April 6, 2021 motion until the June 16, 2021 omnibus hearing as a result of PREPA’s understanding that FEMA would release a report in the near future relating to the emergency master service agreement between PREPA and Cobra that was executed on October 19, 2017. The joint motion was granted by the Court on April 14, 2021. On May 26, 2021, FEMA issued a Determination Memorandum related to the first contract between Cobra and PREPA in which, among other things, FEMA raised two contract compliance issues and, as a result, concluded that approximately $47 million in costs were not authorized costs under the contract. On June 14, 2021, the Court issued an order adjourning Cobra’s motion to lift the stay order to a hearing on August 4, 2021 and directing Cobra and PREPA to meet and confer in good faith concerning, among other things, (i) the May 26, 2021 Determination Memorandum issued by FEMA and (ii) whether and when a second determination memorandum is expected. The parties were further directed to file an additional status report, which was filed on July 20, 2021. On July 23, 2021, with the aid of Mammoth, PREPA filed an appeal of the entire $47 million that FEMA de-obligated in the May 26, 2021 Determination Memorandum. FEMA approved the appeal in part and denied the appeal in part. FEMA found that staffing costs of $24.4 million are eligible for funding. On August 4, 2021, the Court extended the stay and directed that an additional status report be filed, which was done on January 22, 2022. On January 26, 2022, the Court extended the stay and directed the parties to file a further status report by July 25, 2022. On June 7, 2022, Cobra filed a motion to lift the stay order. On June 29, 2022 the Court denied Cobra's motion and extended the stay to January 2023. On November 21, 2022, FEMA issued a Determination Memorandum related to the 100% federal funded portion of the second contract between Cobra and PREPA in which FEMA concluded that approximately $5.6 million in costs were not authorized costs under the contract. On December 21, 2022, FEMA issued a Determination Memorandum related to the 90% federal cost share portion of the second contract between Cobra and PREPA in which FEMA concluded that approximately $68.1 million in costs were not authorized costs under the contract. PREPA has filed first-level administrative appeals of the November 21, 2022 and December 21, 2022 Determination Memorandums. On January 7, 2023, Cobra and PREPA filed a joint status report with the Court, in which PREPA requested that the Court continue the stay through July 31, 2023 and Cobra requested that the stay be lifted. On January 18, 2023, the Court entered an order extending the stay and directing the parties to file a further status report addressing (i) the status of any administrative appeals in connection with the November and December determination memorandums regarding the second contract, (ii) the status of the criminal case against the former Cobra president and the FEMA official that concluded in December 2022, and (iii) a summary of the outstanding and unpaid amounts arising from the first and second contracts and whether PREPA disputes Cobra's entitlement to these amounts with the Court by July 31, 2023. On January 20, 2023, Cobra submitted a certified claim for approximately $379 million to FEMA pursuant to the federal Contract Disputes Act. On February 1, 2023, FEMA notified Cobra that it had reviewed the claim and determined that no contract, expressed or implied, exists between FEMA and Cobra. On March 29, 2023, Cobra filed a notice of appeal with the Civilian Board of Contract Appeals related to the certified claim submitted in January 2023. On April 25, 2023, FEMA filed a motion to dismiss Cobra's appeal alleging lack of jurisdiction. In the event PREPA (i) does not have or does not obtain the funds necessary to satisfy its obligations to Cobra under the contracts, (ii) obtains the necessary funds but refuses to pay the amounts owed to the Company or (iii) otherwise does not pay amounts owed to the Company, the receivable may not be collectible. On March 27, 2023, Cobra was notified that FEMA had approved $233 million in Cobra invoices related to the December 21, 2022 Determination Memorandum. The 90% federal cost share of this approved amount was $210 million, which was obligated and made available for draw down on March 27, 2023. Of this $210 million, approximately $99 million has been represented by both PREPA and FEMA as intended to pay Cobra for outstanding invoices and the remaining $111 million is a reimbursement to PREPA for payments already made on Cobra invoices. On May 16, 2023, Cobra filed a motion to lift the stay order. In a June 8, 2023 hearing, the Court ordered PREPA to provide Cobra a detailed report on the status of their review of the invoices that make up the aforementioned $99 million. On June 14, 2023, PREPA paid Cobra approximately $10.8 million, all of which was used to reduce outstanding borrowings under the Company's then existing revolving credit facility, as required under the terms thereof. Additionally, on June 14, 2023, PREPA filed a report noting a portion of the approved, but unpaid invoices would be submitted to COR3 within two weeks of the filing and the remainder of the invoices would be submitted to COR3 within four weeks of the filing. Following the passage of the two-week and four-week periods contained in the June 14, 2023 report, Cobra filed an informative motion with the Court regarding the passage of the respective periods and PREPA's failure to meet the deadlines. The Court ordered PREPA to respond to Cobra's informative motion, which PREPA did on July 21, 2023. In this Court ordered response, PREPA informed the Court that an additional $8.4 million of invoices had been submitted for payment and that $72 million in FEMA approved costs were awaiting engineer certification. On August 2, 2023, following submission of a joint status report by Cobra and FEMA on July 31, 2023, in which, among other things, PREPA requested the stay be continued and Cobra requested the stay be lifted, the Court entered an order continuing the stay until October 31, 2023 and requiring another joint status report be filed on October 16, 2023. On August 22, 2023, PREPA paid Cobra approximately $2.0 million, all of which was used to reduce outstanding borrowings under the Company's then existing revolving credit facility. On August 30, 2023, Cobra filed an informative motion with the Court regard the status of the approved, but unpaid invoices. The Court ordered PREPA to respond to Cobra's informative motion, which PREPA did on September 18, 2023. In this Court ordered response, PREPA informed the Court that the approved, but unpaid invoices were in the process of being entered into PREPA's system for payment. On September 22, 2023 and October 10, 2023, PREPA made payments to Cobra of approximately $0.8 million and $5.7 million, respectively, all of which was used to reduce outstanding borrowings under the Company's then existing revolving credit facility, which the Company refinanced on October 16, 2023. See Note 10. Debt—New Revolving Credit Facility and New Term Credit Facility. On October 16, 2023 and October 25, 2023, PREPA made additional payments to Cobra of approximately $1.7 million and $1.2 million. Also on October 16, 2023, pursuant to Court's prior order, the parties submitted a further join status report. In the joint status report, PREPA informed the Court that, among other things, it intended to process and submit to COR3 for reimbursement the remaining approximately $81 million in approved, but unpaid invoices. In addition, the parties informed the Court that the parties were engaged in mediation to resolve open disputes with respect to other unpaid invoices. On October 19, 2023, the Court entered an order continuing the stay through the earlier of January 31, 2024, and the termination of the mediation, directing the parties to file a further status report (i) addressing the status of each approved, but unpaid invoice that has not been submitted to COR3 and the reason(s) for the delay in submission of such invoices, (ii) providing any available information concerning the projected timing of payments of the approved, but unpaid invoices and (iii) proposing any litigation schedule that the parties believe to be necessary with respect to the approved, but unpaid invoices with the Court by December 1, 2023, and if the disputes have not been resolved through payment or mediation by January 15, 2024, directed the parties to file a status report addressing (i) the status of any administrative appeals in connection with the November 2022 and December 2022 Determination Memorandums, (ii) a summary of the outstanding unpaid amounts and (iii) whether the parties are actively engaged in mediation to resolve the outstanding issues by January 16, 2024.

On May 13, 2021, Foreman Electric Services, Inc. ("Foreman") filed a petition against Mammoth Inc. and Cobra in the Oklahoma County District Court (Oklahoma State Court). The petition asserted claims against the Company and Cobra under federal Racketeer Influenced and Corrupt Organizations Act ("RICO") statutes and certain state-law causes of action. Foreman alleged that it sustained injuries to its business and property in the amount of $250 million due to the Company's and Cobra's alleged wrongful interference by means of inducements to a FEMA official. On May 18, 2021, the Company removed this action to the United States District Court for the Western District of Oklahoma and filed a motion to dismiss on July 8, 2021. On July 29, 2021, Foreman voluntarily dismissed the action without prejudice. On December 14, 2021, Foreman re-filed its petition against Mammoth Inc. and Cobra in the Oklahoma County District Court (Oklahoma State Court). On December 16, 2021, the Company again removed this action to the United States District Court for the Western District of Oklahoma. Foreman filed a motion to remand this action back to Oklahoma County District Court, which was granted on May 5, 2022. On September 28, 2023, the Company moved to dismiss the petition and a hearing is scheduled for January 2024. Additionally, on February 6, 2023, Foreman moved to amend a complaint against the former president of Cobra filed in Florida State Court arising from facts similar to those in the pending Oklahoma action to add, as defendants, Arty Straehla and Mark Layton. On September 15, 2023, Streahla and Layton moved to dismiss the complaint, which is currently pending. In a related matter, on January 12, 2022, a Derivative Complaint on behalf of nominal defendant Machine Learning Integration, LLC ("MLI"), which alleges it would have served as a sub-contractor to Foreman in Puerto Rico, was filed against the Company and Cobra in the U.S. District Court for the District of Puerto Rico alleging essentially the same facts as Foreman's action and asserting violations of federal RICO statutes and certain non-federal claims. MLI alleges it sustained injuries to its business and property in an unspecified amount because the Company's and Cobra's wrongful interference by means of inducements to a FEMA official prevented Foreman from obtaining work, and thereby prevented MLI, as Foreman's subcontractor, from obtaining work. These matters are still in the early stages and at this time, the Company is not able to predict the outcome of these claims or whether they will have a material impact on the Company's business, financial condition, results of operations or cash flows.

The Company is routinely involved in state and local tax audits. During 2015, the State of Ohio assessed taxes on the purchase of equipment the Company believes is exempt under state law. The Company appealed the assessment and a hearing was held in 2017. As a result of the hearing, the Company received a decision from the State of Ohio, which the Company appealed. On February 25, 2022, the Company received an unfavorable decision on the appeal. The Company appealed the decision. On August 2, 2023, the Ohio Supreme court affirmed the ruling in part and reversed the ruling in part. The Company is currently awaiting the final assessment. It is not expected to have a material adverse effect on the Company's business, financial condition, results of operations or cash flows.

Cobra has been served with ten lawsuits from municipalities in Puerto Rico alleging failure to pay construction excise and volume of business taxes. On November 14, 2022, the Court entered judgment against Cobra in connection with one of the lawsuits ordering payment of approximately $9.0 million. On January 9, 2023, Cobra appealed the judgment and, on March 20, 2023, the Court confirmed the imposition of approximately $8.5 million related to construction excise taxes. On April 10, 2023, Cobra appealed this judgment, which was denied on May 5, 2023. Cobra filed a motion for reconsideration on May 15, 2023, which was denied. Cobra filed a second motion for reconsideration on June 22, 2023 and is currently awaiting a decision. To the extent Cobra receives an unfavorable judgment, the Company believes that any such taxes in the judgment that relate to the Emergency Master Service Agreement with PREPA executed on October 19, 2017, would be reimbursable to Cobra. At this time, the Company is not able to predict the outcome of these matters or whether they will have a material impact on the Company's business, financial condition, results of operations or cash flows.

On April 16, 2019, Christopher Williams, a former employee of Higher Power Electrical, LLC, filed a putative class and collective action complaint titled Christopher Williams, individually and on behalf of all others similarly situated v. Higher Power Electrical, LLC, Cobra Acquisitions LLC, and Cobra Energy LLC in the U.S. District Court for the District of Puerto Rico. On June 24, 2019, the complaint was amended to replace Mr. Williams with Matthew Zeisset as the named plaintiff. The plaintiff alleges the defendant failed to pay overtime wages to a class of workers in compliance with the Fair Labor Standards Act and Puerto Rico law. On August 21, 2019, upon request of the parties, the Court stayed proceedings in the lawsuit and administratively closed the case pending completion of individual arbitration proceedings initiated by Mr. Zeisset and opt-in plaintiffs. Other claimants have subsequently initiated additional individual arbitration proceedings asserting similar claims. During the nine months ended September 30, 2023, the Company agreed to settlements in principle with a portion of the claimants. Arbitrations remain pending for the remaining claimants. The Company will continue to vigorously defend the arbitrations. During the nine months ended September 30, 2023, the Company recognized an estimated liability related to these complaints, which is included in “Accounts payable” in the unaudited condensed consolidated balance sheet at September 30, 2023. The amount required to resolve these matters may ultimately increase or decrease from our estimated amount as the matters progress.

On September 10, 2019, the U.S. District Court for the District of Puerto Rico unsealed an indictment that charged the former president of Cobra Acquisitions LLC with conspiracy, wire fraud, false statements and disaster fraud. Two other individuals were also charged in the indictment. The indictment was focused on the interactions between a former FEMA official and the former president of Cobra. Neither the Company nor any of its subsidiaries were charged in the indictment. On May 18, 2022, the former FEMA official and the former president of Cobra each pled guilty to one-count information charging gratuities related to a project that Cobra never bid upon and was never awarded or received any monies for. On December 13, 2022, the Court sentenced the former Cobra president to custody of the Bureau of Prisons for six months and one day, a term of supervised release of six months and one day and a fine of $25,000. The Court sentenced the FEMA official to custody of the Bureau of Prisons for six months and one day, a term of supervised release of six months and a fine of $15,000. The Court also dismissed the indictment against the two defendants. The Company does not expect any additional activity in the criminal proceeding. Given the uncertainty inherent in criminal litigation, however, it is not possible at this time to determine the potential impacts that the sentencings could have on the Company. PREPA has stated in Court filings that it may contend the alleged criminal activity affects Cobra’s entitlement to payment under its contracts with PREPA. It is unclear what PREPA’s position will be going forward. Subsequent to the indictment, Cobra received a civil investigative demand (“CID”) from the United States Department of Justice (“DOJ”), which requests certain documents and answers to specific interrogatories relevant to an ongoing investigation it is conducting. The aforementioned DOJ investigation is in connection with the issues raised in the criminal matter. Cobra is cooperating with the DOJ and is not able to predict the outcome of this investigation or if it will have a material impact on Cobra’s or the Company’s business, financial condition, results of operations or cash flows. With regard to the previously disclosed SEC investigation, on July 6, 2022, the SEC sent a letter saying that it had concluded its investigation as to the Company and that based on information the SEC has as of this date, it does not intend to recommend an enforcement action against the Company.

On September 12, 2019, AL Global Services, LLC (“Alpha Lobo”) filed a second amended third-party petition against the Company in an action styled Jim Jorrie v. Craig Charles, Julian Calderas, Jr., and AL Global Services, LLC v. Jim Jorrie v. Cobra Acquisitions LLC v. ESPADA Logistics & Security Group, LLC, ESPADA Caribbean LLC, Arty Straehla, Ken Kinsey, Jennifer Jorrie, and Mammoth Energy Services, Inc., in the 57th Judicial District in Bexar County, Texas. The petition alleges that the Company should be held vicariously liable under alter ego, agency and respondeat superior theories for Alpha Lobo’s alleged claims against Cobra and Arty Straehla for aiding and abetting, knowing participation in and conspiracy to breach fiduciary duty in connection with Cobra’s execution of an agreement with ESPADA Caribbean, LLC for security services related to Cobra’s work in Puerto Rico. The trial court granted Cobra, Mammoth and Straehla’s motion to compel Alpha Lobo’s claims against them to arbitration. However, Alpha Lobo has not yet brought its claims in arbitration. Instead, on March 22, 2022, Alpha Lobo filed a Petition for Writ of Mandamus in the Fourth Court of Appeals, San Antonio, Texas, seeking to overturn the order compelling arbitration. The appellate court denied the Mandamus on May 4, 2022, without requesting a response. On June 28, 2022, Alpha Lobo filed a Petition for Writ of Mandamus in the Texas Supreme Court, seeking to overturn the order compelling arbitration. The Texas Supreme Court denied the Mandamus on August 5, 2022, without requesting a response. The Company believes these claims are without merit and will vigorously defend the action. However, at this time, the Company is not able to predict the outcome of this lawsuit or whether it will have a material impact on the Company’s business, financial condition, results of operations or cash flows. Additionally, there was a parallel arbitration proceeding in which certain Defendants were seeking a declaratory judgment regarding Cobra’s rights to terminate the Alpha Lobo contract and enter into a new contract with a third-party. On June 24, 2021, the arbitration panel ruled in favor of Cobra.

The Company is involved in various other legal proceedings in the ordinary course of business. Although the Company cannot predict the outcome of these proceedings, legal matters are subject to inherent uncertainties and there exists the possibility that the ultimate resolution of these matters could have a material impact on the Company’s business, financial condition, results of operations or cash flows.

Defined Contribution Plan
The Company sponsors a 401(k) defined contribution plan for the benefit of substantially all employees at their date of hire. The plan allows eligible employees to contribute up to 92% of their annual compensation, not to exceed annual limits established by the federal government. The Company makes discretionary matching contributions of up to 3% of an employee's compensation and may make additional discretionary contributions for eligible employees. For the nine months ended September 30, 2023 and 2022, the Company paid $1.5 million and $1.4 million, respectively, in contributions to the plan.

20. Reporting Segments

As of September 30, 2023, the Company's revenues, income before income taxes and identifiable assets are primarily attributable to four reportable segments. The Company's Chief Executive Officer and Chief Financial Officer comprise the Company's Chief Operating Decision Maker function ("CODM"). Segment information is prepared on the same basis that the CODM manages the segments, evaluates the segment financial statements and makes key operating and resource utilization decisions. Segment evaluation is determined on a quantitative basis based on a function of operating loss less impairment expense, as well as a qualitative basis, such as nature of the product and service offerings and types of customers.

As of September 30, 2023, the Company's four reportable segments include well completion services ("Well Completion"), infrastructure services ("Infrastructure"), natural sand proppant services ("Sand") and drilling services ("Drilling"). The Well Completion segment provides hydraulic fracturing and water transfer services primarily in the Utica Shale of Eastern Ohio, Marcellus Shale in Pennsylvania and the mid-continent region. The Infrastructure segment provides electric utility infrastructure services to government-funded utilities, private utilities, public investor-owned utilities and co-operative utilities in the northeastern, southwestern, midwestern and western portions of the United States. The Sand segment mines, processes and sells sand for use in hydraulic fracturing. The Sand segment primarily services the Utica Shale, Permian Basin, SCOOP, STACK and Montney Shale in British Columbia and Alberta, Canada. During certain of the periods presented, the Drilling segment provided contract land and directional drilling services primarily in the Permian Basin and mid-continent region.

The Company also provided aviation services, equipment rental services, crude oil hauling services, remote accommodation and equipment manufacturing. The businesses that provide these services are distinct operating segments, which the CODM reviews independently when making key operating and resource utilization decisions. None of these operating segments meet the quantitative thresholds of a reporting segment and do not meet the aggregation criteria set forth in ASC 280 *Segment Reporting.* Therefore, results for these operating segments are included in the column titled "All Other" in the tables below. Additionally, assets for corporate activities, which primarily include cash and cash equivalents, inter-segment accounts receivable, prepaid insurance and certain property and equipment, are included in the All Other column. Although Mammoth Energy Partners LLC, which holds these corporate assets, meets one of the quantitative thresholds of a reporting segment, it does not engage in business activities from which it may earn revenues and its results are not regularly reviewed by the Company's CODM when making key operating and resource utilization decisions. Therefore, the Company does not include it as a reportable segment.

Sales from one segment to another are generally priced at estimated equivalent commercial selling prices. Total revenue and total cost of revenue amounts included in the Eliminations column in the following tables include inter-segment transactions conducted between segments. Receivables due for sales from one segment to another and for corporate allocations to each segment are included in the Eliminations column for total assets in the following tables. All transactions conducted between segments are eliminated in consolidation. Transactions conducted by companies within the same reporting segment are eliminated within each reporting segment. The following tables set forth certain financial information with respect to the Company's reportable segments (in thousands):

Three Months Ended September 30, 2023	Well Completion	Infrastructure	Sand	Drilling	All Other	Eliminations	Total
Revenue from external customers	$ 20,166	$ 26,712	$ 10,633	$ 2,820	$ 4,628	$ —	$ 64,959
Intersegment revenues	161	—	—	2	909	(1,072)	—
Total revenue	20,327	26,712	10,633	2,822	5,537	(1,072)	64,959
Cost of revenue, exclusive of depreciation, depletion, amortization and accretion	17,528	22,042	6,977	2,599	3,671	—	52,817
Intersegment cost of revenues	325	10	—	109	628	(1,072)	—
Total cost of revenue	17,853	22,052	6,977	2,708	4,299	(1,072)	52,817
Selling, general and administrative	1,579	6,495	1,224	389	724	—	10,411
Depreciation, depletion, amortization and accretion	3,971	1,557	2,836	1,222	1,647	—	11,233
(Gains) losses on disposal of assets, net	(2,016)	(311)	—	(138)	15	—	(2,450)
Impairment of goodwill	—	—	—	—	1,810	—	1,810
Operating loss	(1,060)	(3,081)	(404)	(1,359)	(2,958)	—	(8,862)
Interest expense, net	774	1,647	117	151	187	—	2,876
Other income, net	—	(11,348)	(6)	—	(2,734)	—	(14,088)
(Loss) income before income taxes	$ (1,834)	$ 6,620	$ (515)	$ (1,510)	$ (411)	$ —	$ 2,350

Three Months Ended September 30, 2022	Well Completion	Infrastructure	Sand	Drilling	All Other	Eliminations	Total
Revenue from external customers	$ 51,378	$ 33,296	$ 12,910	$ 3,118	$ 6,500	$ —	$ 107,202
Intersegment revenues	154	—	—	—	468	(622)	—
Total revenue	51,532	33,296	12,910	3,118	6,968	(622)	107,202
Cost of revenue, exclusive of depreciation, depletion, amortization and accretion	35,414	26,495	9,206	2,695	4,646	—	78,456
Intersegment cost of revenues	403	17	—	109	93	(622)	—
Total cost of revenue	35,817	26,512	9,206	2,804	4,739	(622)	78,456
Selling, general and administrative	2,390	4,968	1,076	305	946	—	9,685
Depreciation, depletion, amortization and accretion	4,772	3,969	2,865	1,598	2,638	—	15,842
(Gains) losses on disposal of assets, net	(339)	73	—	(286)	(47)	—	(599)
Operating income (loss)	8,892	(2,226)	(237)	(1,303)	(1,308)	—	3,818
Interest expense, net	531	2,047	212	154	318	—	3,262
Other income, net	(345)	(10,304)	(3)	—	(337)	—	(10,989)
Income (loss) before income taxes	$ 8,706	$ 6,031	$ (446)	$ (1,457)	$ (1,289)	$ —	$ 11,545

Nine Months Ended September 30, 2023	Well Completion	Infrastructure	Sand	Drilling	All Other	Eliminations	Total
Revenue from external customers	$ 114,810	$ 83,308	$ 34,643	$ 7,972	$ 15,977	$ —	$ 256,710
Intersegment revenues	400	—	25	9	1,710	(2,144)	—
Total revenue	115,210	83,308	34,668	7,981	17,687	(2,144)	256,710
Cost of revenue, exclusive of depreciation, depletion, amortization and accretion	93,158	67,810	21,905	7,246	11,942	—	202,061
Intersegment cost of revenues	1,029	29	—	326	760	(2,144)	—
Total cost of revenue	94,187	67,839	21,905	7,572	12,702	(2,144)	202,061
Selling, general and administrative	5,847	17,091	2,682	1,039	2,492	—	29,151
Depreciation, depletion, amortization and accretion	13,288	7,366	6,397	3,873	5,915	—	36,839
Gains on disposal of assets, net	(2,016)	(439)	(16)	(138)	(675)	—	(3,284)
Impairment of goodwill	—	—	—	—	1,810	—	1,810
Operating income (loss)	3,904	(8,549)	3,700	(4,365)	(4,557)	—	(9,867)
Interest expense, net	2,527	5,361	422	481	594	—	9,385
Other expense (income), net	1	(28,713)	(12)	—	(2,327)	—	(31,051)
Income (loss) before income taxes	$ 1,376	$ 14,803	$ 3,290	$ (4,846)	$ (2,824)	$ —	$ 11,799

Nine Months Ended September 30, 2022	Well Completion	Infrastructure	Sand	Drilling	All Other	Eliminations	Total
Revenue from external customers	$ 118,580	$ 81,892	$ 35,098	$ 7,922	$ 15,686	$ —	$ 259,178
Intersegment revenues	643	—	2,450	22	1,044	(4,159)	—
Total revenue	119,223	81,892	37,548	7,944	16,730	(4,159)	259,178
Cost of revenue, exclusive of depreciation, depletion, amortization and accretion	88,740	67,190	26,701	7,100	11,991	—	201,722
Intersegment cost of revenues	3,419	49	—	430	265	(4,163)	—
Total cost of revenue	92,159	67,239	26,701	7,530	12,256	(4,163)	201,722
Selling, general and administrative	6,314	14,056	2,774	874	2,542	—	26,560
Depreciation, depletion, amortization and accretion	17,963	12,495	6,717	4,929	8,381	—	50,485
Gains on disposal of assets, net	(547)	(795)	(90)	(286)	(2,020)	—	(3,738)
Operating income (loss)	3,334	(11,103)	1,446	(5,103)	(4,429)	4	(15,851)
Interest expense, net	1,324	5,345	552	379	670	—	8,270
Other (income) expense, net	(345)	(29,948)	(10)	—	128	—	(30,175)
Income (loss) before income taxes	$ 2,355	$ 13,500	$ 904	$ (5,482)	$ (5,227)	$ 4	$ 6,054

	Well Completion	Infrastructure	Sand	Drilling	All Other	Eliminations	Total
As of September 30, 2023:							
Total assets	$ 60,649	$ 461,731	$ 125,608	$ 17,403	$ 90,306	$ (69,721)	$ 685,976
As of December 31, 2022:							
Total assets	$ 82,897	$ 450,841	$ 129,467	$ 21,755	$ 120,164	$ (80,446)	$ 724,678

21. Subsequent Events

Subsequent to September 30, 2023, the Company issued an additional performance and payment bond totaling $2.7 million related to its infrastructure segment.

On October 16, 2023, the Company entered into the new revolving credit facility and the new term credit facility, which refinanced in full its indebtedness outstanding under the existing credit facility and terminated such existing credit facility. See Note 10—Debt—New Revolving Credit Facility and New Term Credit Facility for additional information regarding the new revolving credit facility and the new term loan.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

The following discussion should be read in conjunction with the unaudited condensed consolidated financial statements and related notes thereto presented in this Quarterly Report and the consolidated financial statements and related notes thereto included in our Annual Report on Form 10-K. This discussion contains forward-looking statements reflecting our current expectations, estimates and assumptions concerning events and financial trends that may affect our future operating results or financial position. Actual results and the timing of events may differ materially from those contained in these forward-looking statements due to a number of factors, including those discussed in Item 1A. "Risk Factors" in our Form 10-K for the year ended December 31, 2022, filed with the Securities and Exchange Commission, or the SEC, on February 24, 2023 and the section entitled "Forward-Looking Statements" appearing elsewhere in this Quarterly Report.

Overview

We are an integrated, growth-oriented energy services company focused on providing products and services to enable the exploration and development of North American onshore unconventional oil and natural gas reserve as well as the construction and repair of the electric grid for private utilities, public investor-owned utilities and co-operative utilities through our infrastructure services businesses. Our primary business objective is to grow our operations and create value for stockholders through organic growth opportunities and accretive acquisitions. Our suite of services includes well completion services, infrastructure services, natural sand proppant services, drilling services and other services. Our well completion services division provides hydraulic fracturing, sand hauling and water transfer services. Our infrastructure services division provides engineering, design, construction, upgrade, maintenance and repair services to the electrical infrastructure industry. Our natural sand proppant services division mines, processes and sells natural sand proppant used for hydraulic fracturing. Our drilling services division currently provides rental equipment, such as mud motors and operational tools, for both vertical and horizontal drilling. In addition to these service divisions, we also provide aviation services, equipment rentals, crude oil hauling services, remote accommodations and equipment manufacturing. We believe that the services we offer play a critical role in increasing the ultimate recovery and present value of production streams from unconventional resources as well as in maintaining and improving electrical infrastructure. Our complementary suite of services provides us with the opportunity to cross-sell our services and expand our customer base and geographic positioning.

The growth of our industrial businesses is ongoing. We offer infrastructure engineering services focused on the transmission and distribution industry and also have equipment manufacturing operations and offer fiber optic services. Our equipment manufacturing operations provide us with the ability to repair much of our existing equipment in-house, as well as the option to manufacture certain new equipment we may need in the future. Our fiber optic services include the installation of both aerial and buried fiber. We are continuing to explore other opportunities to expand our industrial business lines.

We continue to address the external challenges in today's economic environment as we remain disciplined with our spending and are focused on continuing to improve our operational efficiencies and cost structure and on enhancing value for our stockholders.

Overview of Our Industries

Oil and Natural Gas Industry

The oil and natural gas industry has traditionally been volatile and is influenced by a combination of long-term, short-term and cyclical trends, including the domestic and international supply and demand for oil and natural gas, current and expected future prices for oil and natural gas and the perceived stability and sustainability of those prices, production depletion rates and the resultant levels of cash flows generated and allocated by exploration and production companies to their drilling, completion and related services and products budgets. The oil and natural gas industry is also impacted by general domestic and international economic conditions, political instability in oil producing countries, government regulations (both in the United States and elsewhere), levels of customer demand, the availability of pipeline capacity, storage capacity, shortages of equipment and materials and other conditions and factors that are beyond our control.

Demand for most of our oil and natural gas products and services depends substantially on the level of expenditures by companies in the oil and natural gas industry. The levels of capital expenditures of our customers are predominantly driven by the prices of oil and natural gas. In March and April 2020, concurrent with the COVID-19 pandemic and quarantine orders in the U.S. and worldwide, oil prices dropped sharply to below zero dollars per barrel for the first time in history due to factors including significantly reduced demand and a shortage of storage facilities. In 2021, U.S. oil production stabilized as commodity prices increased and demand for crude oil rebounded. We saw improvements in the oilfield services industry and in both pricing and utilization of our well completion and drilling services during 2022. Throughout 2023, pricing for crude oil and natural gas declined from levels seen in 2022, which slowed down completion activities for our customers, in particular, in the Utica and Marcellus Shale natural gas plays, and, as a result, reduced demand for our well completion services. We expect these factors to continue through the end of 2023. We are currently operating one of our six pressure pumping fleets. Despite this short-term softness, however, we are seeing indications that activity levels will begin to ramp back up in 2024, creating the opportunity to reactivate additional fleets, if appropriate. The ongoing war in Ukraine and the recent Israel-Hamas war, however, could continue to have an adverse impact on the global energy markets and volatility of commodity prices, which could further adversely impact demand for our well completion services.

In response to market conditions, we temporarily shut down our cementing and acidizing operations and flowback operations beginning in July 2019, our contract drilling operations beginning in December 2019, our rig hauling operations beginning in April 2020, our coil tubing, pressure control and full service transportation operations beginning in July 2020 and our crude oil hauling operations beginning in July 2021. We continue to monitor the market to determine if and when we can recommence these services.

Natural Sand Proppant Industry

In our natural sand proppant services business, we experienced a significant decline in demand for our sand proppant in the second half of 2019 and throughout 2020 as a result of completion activity falling due to lower oil demand and pricing, increased capital discipline by our customers, budget exhaustion and the COVID-19 pandemic. Activity rebounded modestly in 2021 and continued to increase throughout 2022 as we saw an increase in the volume of sand sold. Supply constraints from labor shortages have negatively affected West Texas in-basin mine operations and increased demand for Northern White frac sand for the region in 2022. Demand from oil and gas companies in Western Canada and the Marcellus Shale was also strong in 2022. The increase in activity in 2022 resulted in an increase in demand and pricing for our sand, which continued throughout the first quarter of 2023. Demand for our natural sand proppant was adversely impacted in the second quarter of 2023 by the wildfires in Canada, which hindered our ability to transport sand. Notwithstanding the foregoing, our sand business remained resilient during the second quarter of 2023. As discussed above, pricing for crude oil and natural gas declined from levels seen in 2022, which slowed down completion activities and adversely impacted demand for our sand proppant services in the third quarter of 2023. We expect these factors to continue through at least the end of 2023.

As a result of adverse market conditions, production at our Muskie sand facility in Pierce County, Wisconsin has been temporarily idled since September 2018. Our contracted capacity has provided a baseline of business, which has kept our Taylor and Piranha plants operating and our costs competitive.

Energy Infrastructure Industry

Our infrastructure services business provides engineering, design, construction, upgrade, maintenance and repair services to the electrical infrastructure industry. We offer a broad range of services on electric transmission and distribution, or T&D, networks and substation facilities, which include engineering, design, construction, upgrade, maintenance and repair of high voltage transmission lines, substations and lower voltage overhead and underground distribution systems. Our commercial services include the installation, maintenance and repair of commercial wiring. We also provide storm repair and restoration services in response to storms and other disasters. We provide infrastructure services primarily in the northeast, southwest, midwest and western portions of the United States. We currently have agreements in place with private utilities, public IOUs and Co-Ops.

During 2022, operational improvements combined with increased crew count drove enhanced results in our infrastructure services division. Although our average crew count declined slightly from approximately 93 crews throughout the fourth quarter of 2022 to approximately 85 crews throughout 2023, operational efficiencies drove improved results. Funding for projects in the infrastructure space remains strong with added opportunities expected from the Infrastructure Investment and Jobs Act, which was signed into law on November 15, 2021. We anticipate the federal spending to begin fueling additional projects in this sector and expect bidding activity to ramp up in late 2023 and into 2024. We continue to focus on operational execution and pursue opportunities within this sector as we strategically structure our service offerings for growth, intending to increase our infrastructure services activity and expand both our geographic footprint and depth of projects, especially in fiber maintenance and installation projects.

We work for multiple utilities primarily across the northeastern, southwestern, midwestern and western portions of the United States. We believe that we are well-positioned to compete for new projects due to the experience of our infrastructure management team, combined with our vertically integrated service offerings. We are seeking to leverage this experience and our service offerings to grow our customer base and increase our revenues in the continental United States over the coming years.

Our infrastructure services business has been adversely impacted by the outstanding amounts owed to us by the Puerto Rico Electric Power Authority, or PREPA, for services performed by our subsidiary, Cobra Acquisitions LLC, or Cobra, in Puerto Rico to restore PREPA's electrical grid damaged by Hurricane Maria. As of September 30, 2023, PREPA owed us approximately $213.4 million for services performed excluding approximately $186.0 million of interest charged on these delinquent balances. See Note 2. Basis of Presentation and Significant Accounting Policies—Accounts Receivable of our unaudited condensed consolidated financial statements. PREPA is currently subject to bankruptcy proceedings, which were filed in July 2017 and are currently pending in the U.S. District Court for the District of Puerto Rico. As a result, PREPA's ability to meet its payment obligations under the contracts is largely dependent upon funding from the Federal Emergency Management Agency, or FEMA, or other sources. On September 30, 2019, we filed a motion with the U.S. District Court for the District of Puerto Rico seeking recovery of the amounts owed to us by PREPA, which motion was stayed by the Court. On March 25, 2020, we filed an urgent motion to modify the stay order and allow our recovery of approximately $62 million in claims related to a tax gross-up provision contained in the first contract. This emergency motion was denied on June 3, 2020 and the Court extended the stay of our motion. On December 9, 2020, the Court again extended the stay of our motion and directed PREPA to file a status report by June 7, 2021. On April 6, 2021, we filed a motion to lift the stay order. Following this filing, PREPA initiated discussion with Cobra, which resulted in PREPA and Cobra filing a joint motion to adjourn all deadlines relative to the April 6, 2021 motion until the June 16, 2021 omnibus hearing as a result of PREPA's understanding that FEMA would be releasing a report in the near future relating to the first contract. The joint motion was granted by the Court on April 14, 2021. On May 26, 2021, FEMA issued a Determination Memorandum related to the first contract between Cobra and PREPA in which, among other things, FEMA raised two contract compliance issues and, as a result, concluded that approximately $47 million in costs were not authorized costs under the contract. On June 14, 2021, the Court issued an order adjourning Cobra's motion to lift the stay order to a hearing on August 4, 2021 and directing Cobra and PREPA to meet and confer in good faith concerning, among other things, (i) the May 26, 2021 Determination Memorandum issued by FEMA and (ii) whether and when a second determination memorandum is expected. The parties were further directed to file an additional status report, which was filed on July 20, 2021. On July 23, 2021, with our aid, PREPA filed an appeal of the entire $47 million that FEMA de-obligated in the May 26, 2021 Determination Memorandum. FEMA approved the appeal in part and denied the appeal in part. FEMA found that staffing costs of $24.4 million are eligible for funding. On August 4, 2021, the Court denied Cobra's April 6, 2021 motion to lift the stay order, extended the stay of our motion seeking recovery of amounts owed to Cobra and directed the parties to file an additional joint status report, which was filed on January 22, 2022. On January 26, 2022, the Court extended the stay and directed the parties to file a further status report by July 25, 2022. On June 7, 2022, Cobra filed a motion to lift the stay order. On June 29, 2022 the Court denied Cobra's motion and extended the stay to January 2023. On November 21, 2022, FEMA issued a Determination Memorandum related to the 100% federal funded portion of the second contract between Cobra and PREPA in which FEMA concluded that approximately $5.6 million in costs were not authorized costs under the contract. On December 21, 2022, FEMA issued a Determination Memorandum related to the 90% federal cost share portion of the second contract between Cobra and PREPA in which FEMA concluded that approximately $68.1 million in costs were not authorized costs under the contract. PREPA has filed first-level administrative appeals of the November 21, 2022 and December 21, 2022 Determination Memorandums. On January 7, 2023, Cobra and PREPA filed a joint status report with the Court, in which PREPA requested that the Court continue the stay through July 31, 2023 and Cobra requested that the stay be lifted. On January 18, 2023, the Court entered an order extending the stay and directing the parties to file a further status report addressing (i) the status of any administrative appeals in connection with the November and December determination memorandums regarding the second contract, (ii) the status of the criminal proceedings against the former Cobra president and the FEMA official that concluded in December 2022, and (iii) a summary of the outstanding and unpaid amounts arising from the first and second contracts and whether PREPA disputes Cobra's entitlement to these amounts with the Court by July 31, 2023. On January 20, 2023, Cobra submitted a certified claim for approximately $379 million to FEMA pursuant to the federal Contract Disputes Act. On February 1, 2023, FEMA notified Cobra that it had reviewed the claim and determined that no contract, expressed or implied, exists between FEMA and Cobra. On March 29, 2023, Cobra filed a notice of appeal with the Civilian Board of Contract Appeals related to the certified claim submitted in January 2023. On April 25, 2023, FEMA filed a motion to dismiss Cobra's appeal alleging lack of jurisdiction. On March 27, 2023, Cobra was notified that FEMA had approved $233 million in Cobra invoices related to the December 21, 2022 Determination Memorandum. The 90% federal cost share of this approved amount was $210 million, which was obligated and made available for draw down on March 27, 2023. Of this $210 million, approximately $99 million has been represented by both PREPA and FEMA as intended to pay Cobra for outstanding invoices and the remaining $111 million is a reimbursement to PREPA for payments already made on Cobra invoices. On May 16, 2023, Cobra filed a motion to lift the stay order. In a June 8, 2023 hearing, the Court ordered PREPA to provide Cobra a detailed report on the status of their review of the invoices that make up the aforementioned $99 million. On June 14, 2023, PREPA paid Cobra approximately $10.8 million, all of which was used to reduce outstanding borrowings under our then existing revolving credit facility, as required under the terms thereof. Additionally, on June 14, 2023, PREPA filed a report noting a portion of the approved, but unpaid invoices would be submitted to COR3 within two weeks of the filing and the remainder of the invoices would be submitted to COR3 within four weeks of the filing. Following the passage of the two-week and four-week periods contained in the June 14, 2023 report, Cobra filed an informative motion with the Court regarding the passage of the respective periods and PREPA's failure to meet the deadlines. The Court ordered PREPA to respond to Cobra's informative motion, which PREPA did on July 21, 2023. In this Court ordered response, PREPA informed the Court that an additional $8.4 million of invoices had been submitted for payment and that $72 million in FEMA approved costs were awaiting engineer certification. On August 2, 2023, following submission of a joint status report by Cobra and FEMA on July 31, 2023, in which, among other things, PREPA requested the stay be continued and Cobra requested the stay be lifted, the Court entered an order continuing the stay until October 31, 2023 and requiring another joint status report be filed on October 16, 2023. On August 22, 2023, PREPA paid Cobra approximately $2.0 million, all of which was used to reduce outstanding borrowings under the Company's then existing revolving credit facility. On August 30, 2023, Cobra filed an informative motion with the Court regard the status of the approved, but unpaid invoices. The Court ordered PREPA to respond to Cobra's informative motion, which PREPA did on September 18, 2023. In this Court ordered response, PREPA informed the Court that the approved, but unpaid invoices were in the process of being entered into PREPA's system for payment. On September 22, 2023 and October 10, 2023, PREPA made payments to Cobra of approximately $0.8 million and $5.7 million, respectively, all of which was used to reduce outstanding borrowings under the Company's then existing revolving credit facility, which the Company refinanced on October 16, 2023. See Note 10—Debt—New Revolving Credit Facility and New Term Credit Facility and "—Liquidity and Capital Resources—New Revolving Credit Facility and New Term Credit Facility" included in this report. On October 16, 2023 and October 25, 2023, PREPA made additional payments to Cobra of approximately $1.7 million and $1.2 million. Also on October 16, 2023, pursuant to Court's prior order, the parties submitted a further join status report. In the joint status report, PREPA informed the Court that, among other things, it intended to process and submit to COR3 for reimbursement the remaining approximately $81 million in approved, but unpaid invoices. In addition, the parties informed the Court that the parties were engaged in mediation to resolve open disputes with respect to other unpaid invoices. On October 19, 2023, the Court entered an order continuing the stay through the earlier of January 31, 2024, and the termination of the mediation, directing the parties to file a further status report (i) addressing the status of each approved, but unpaid invoice that has not been submitted to COR3 and the reason(s) for the delay in submission of such invoices, (ii) providing any available information concerning the projected timing of payments of the approved, but unpaid invoices and (iii) proposing any litigation schedule that the parties believe to be necessary with respect to the approved, but unpaid invoices with the Court by December 1, 2023, and if the disputes have not been resolved through payment or mediation by January 15, 2024, directed the parties to file a status report addressing (i) the status of any administrative appeals in connection with the November 2022 and December 2022 Determination Memorandums, (ii) a summary of the outstanding unpaid amounts and (iii) whether the parties are actively engaged in mediation to resolve the outstanding issues by January 16, 2024.

We believe all amounts charged to PREPA were in accordance with the terms of the contracts. Further, we believe these receivables are collectible. However, in the event PREPA (i) does not have or does not obtain the funds necessary to satisfy its obligations to Cobra under the contracts, (ii) obtains the necessary funds but refuses to pay the amounts owed to us or (iii) otherwise does not pay amounts owed to us, the receivable may not be collected and our financial condition, results of operations and cash flows would be materially and adversely affected. In addition, government contracts are subject to various uncertainties, restrictions and regulations, including oversight audits and compliance reviews by government agencies and representatives. In this regard, on September 10, 2019, the U.S. District Court for the District of Puerto Rico unsealed an indictment that charged the former president of Cobra with conspiracy, wire fraud, false statements and disaster fraud. Two other individuals were also charged in the indictment. The indictment focused on the interactions between a former FEMA official and the former President of Cobra. Neither we nor any of our subsidiaries were charged in the indictment. On May 18, 2022, the former FEMA official and the former president of Cobra each pled guilty to one-count information charging gratuities related to a project that Cobra never bid upon and was never awarded or received any monies for. On December 13, 2022, the Court sentenced the former Cobra president to custody of the Bureau of Prisons for six months and one day, a term of supervised release of six months and a fine of $25,000. The Court sentenced the FEMA official to custody of the Bureau of Prisons for six months and one day, a term of supervised release of six months and a fine of $15,000. The Court also dismissed the indictment against the two defendants. We do not expect any additional activity in the criminal proceeding. Given the uncertainty inherent in the criminal litigation, however, it is not possible at this time to determine the potential impacts that the sentencings could have on us. PREPA has stated in Court filings that it may contend the alleged criminal activity affects Cobra's entitlement to payment under its contracts with PREPA. It is unclear what PREPA's position will be going forward. See Note 19. Commitments and Contingencies to our unaudited condensed consolidated financial statements included elsewhere in this report for additional information regarding these investigations and proceedings. Further, as noted above, our contracts with PREPA have concluded and we have not obtained, and there can be no assurance that we will be able to obtain, one or more contracts with other customers to replace the level of services that we provided to PREPA.

Third Quarter 2023 Financial Overview and Other Recent Developments

- Revenue for the third quarter of 2023 decreased by $42.2 million, or 39%, to $65.0 million from $107.2 million for the third quarter of 2022. The decrease in total revenue is primarily attributable to declines in well completions and infrastructure services revenues.

- Net loss for the third quarter of 2023 was $1.1 million, or $0.02 loss per diluted share, as compared to net income of $7.7 million, or $0.16 income per diluted share, for the third quarter of 2022. The decrease in net income is primarily attributable to declines in utilization for our well completion and infrastructure services.

- Adjusted EBITDA (as defined and reconciled below) for the third quarter of 2023 decreased by $16.4 million, or 55%, to $13.4 million from $29.8 million for the third quarter of 2022. See "Non-GAAP Financial Measures" below for a reconciliation of net income to Adjusted EBITDA.

- On October 16, 2023, we entered into the new revolving credit facility and the new term credit facility, in each case maturing on the specified date in 2028, subject to the terms and conditions thereof, which facilities refinanced in full our indebtedness outstanding under the then existing credit facility. See "—Liquidity and Capital Resources—New Revolving Credit Facility and New Term Credit Facility" for additional information regarding the new revolving credit facility and the new term loan.

Results of Operations

Three Months Ended September 30, 2023 Compared to Three Months Ended September 30, 2022

	Three Months Ended	
	September 30, 2023	**September 30, 2022**
	(in thousands)	
Revenue:		
Well completion services	$ 20,327	$ 51,532
Infrastructure services	26,712	33,296
Natural sand proppant services	10,633	12,910
Drilling services	2,822	3,118
Other services	5,537	6,968
Eliminations	(1,072)	(622)
Total revenue	64,959	107,202
Cost of revenue:		
Well completion services (exclusive of depreciation and amortization of $3,970 and $4,767, respectively, for the three months ended September 30, 2023 and 2022)	17,853	35,817
Infrastructure services (exclusive of depreciation and amortization of $1,555 and $3,966, respectively, for the three months ended September 30, 2023 and 2022)	22,052	26,512
Natural sand proppant services (exclusive of depreciation, depletion and accretion of $2,836 and $2,863, respectively, for the three months ended September 30, 2023 and 2022)	6,977	9,206
Drilling services (exclusive of depreciation and amortization of $1,222 and $1,597, respectively, for the three months ended September 30, 2023 and 2022)	2,708	2,804
Other services (exclusive of depreciation and amortization of $1,647 and $2,638, respectively, for the three months ended September 30, 2023 and 2022)	4,299	4,739
Eliminations	(1,072)	(622)
Total cost of revenue	52,817	78,456
Selling, general and administrative expenses	10,411	9,685
Depreciation, depletion, amortization and accretion	11,233	15,842
Gains on disposal of assets, net	(2,450)	(599)
Impairment of goodwill	1,810	—
Operating (loss) income	(8,862)	3,818
Interest expense, net	(2,876)	(3,262)
Other income, net	14,088	10,989
Income before income taxes	2,350	11,545
Provision for income taxes	3,438	3,819
Net (loss) income	$ (1,088)	$ 7,726

Revenue. Revenue for the three months ended September 30, 2023 decreased $42.2 million, or 39%, to $65.0 million from $107.2 million for the three months ended September 30, 2022. The decrease in total revenue is primarily attributable to a declines in well completions and infrastructure services revenue during the three months ended September 30, 2023. Revenue by operating division was as follows:

Well Completion Services. Well completion services division revenuedecreased $31.2 million, or 61%, to $20.3 million for the three months ended September 30, 2023 from $51.5 million for the three months ended September 30, 2022. The decrease in our well completion services revenue was primarily driven by a 70% decrease in the number of stages completed from 1,897 for the three months ended September 30, 2022 to 577 for the three months ended September 30, 2023 as well as a 62% decrease in sand and chemical materials revenue. An average of 1.2 of our fleets were active for the three months ended September 30, 2023 as compared to an average of 3.5 fleets for the three months ended September 30, 2022.

Infrastructure Services. Infrastructure services division revenue decreased $6.6 million, or 20%, to $26.7 million for the three months ended September 30, 2023 from $33.3 million for the three months ended September 30, 2022. The decrease in revenue was primarily due to a decline in average crew count from 96 crews for the three months ended September 30, 2022 to 81 crews for the three months ended September 30, 2023.

Natural Sand Proppant Services. Natural sand proppant services division revenue decreased $2.3 million, or 18%, to $10.6 million for the three months ended September 30, 2023, from $12.9 million for the three months ended September 30, 2022 primarily due to declines in freight and shortfall revenue. This decrease was partially offset by a 1% increase in the average price per ton of sand sold from $29.95 per ton during the three months ended September 30, 2022 to $30.18 per ton during the three months ended September 30, 2023, and a 3% increase in tons of sand sold from 341,272 tons for the three months ended September 30, 2022 to 352,276 tons for the three months ended September 30, 2023.

Drilling Services. Drilling services division revenue decreased $0.3 million, or 10%, to $2.8 million for the three months ended September 30, 2023 as compared to $3.1 million for the three months ended September 30, 2022. The decrease is primarily due to decreased utilization for our directional drilling business from 46% for the three months ended September 30, 2022 to 37% for the three months ended September 30, 2023.

Other Services. Other services revenue, consisting of revenue derived from our aviation, equipment rental, remote accommodation and equipment manufacturing businesses, decreased approximately $1.5 million, or 21%, to $5.5 million for the three months ended September 30, 2023, from $7.0 million for the three months ended September 30, 2022. Inter-segment revenue, consisting primarily of equipment manufacturing revenue derived from our well completion segment, was $0.9 million and $0.5 million for the three months ended September 30, 2023 and 2022, respectively.

An average of 210 pieces of equipment were rented to customers during the three months ended September 30, 2023, a decrease from an average of 255 pieces of equipment rented to customers during the three months ended September 30, 2022. Additionally, utilization for remote accommodations business declined.

Cost of Revenue (exclusive of depreciation, depletion, amortization and accretion expense). Cost of revenue, exclusive of depreciation, depletion, amortization and accretion expense, decreased $25.7 million from $78.5 million, or 73% of total revenue, for the three months ended September 30, 2022 to $52.8 million, or 81% of total revenue, for the three months ended September 30, 2023. The decrease is primarily due to a decline in activity in our well completions and infrastructure services divisions. Cost of revenue by operating division was as follows:

Well Completion Services. Well completion services division cost of revenue, exclusive of depreciation and amortization expense, decreased $17.9 million, or 50%, to $17.9 million for the three months ended September 30, 2023 from $35.8 million for the three months ended September 30, 2022, primarily due to a decrease in utilization of our fleets. As a percentage of revenue, our well completion services division cost of revenue, exclusive of depreciation and amortization expense of $4.0 million and $4.8 million for the three months ended September 30, 2023 and 2022, respectively, was 88% and 70% for the three months ended September 30, 2023 and 2022, respectively. The increase as a percentage of revenue is primarily due to a decrease in utilization of our pressure pumping services, resulting in a higher ratio of fixed costs to variable costs.

Infrastructure Services. Infrastructure services division cost of revenue, exclusive of depreciation and amortization expense, decreased $4.4 million, or 17%, to $22.1 million for the three months ended September 30, 2023 from $26.5 million for the three months ended September 30, 2022, primarily due to a decrease in activity. As a percentage of revenue, cost of revenue, exclusive of depreciation and amortization expense of $1.6 million and $4.0 million for the three months ended September 30, 2023 and 2022, respectively, was 83% and 80% for the three months ended September 30, 2023 and 2022, respectively. The increase as a percentage of revenue is primarily due to an increase in labor costs as a percentage of revenue.

Natural Sand Proppant Services. Natural sand proppant services division cost of revenue, exclusive of depreciation, depletion and accretion expense, decreased $2.2 million, to $7.0 million for the three months ended September 30, 2023 from $9.2 million for the three months ended September 30, 2022. As a percentage of revenue, cost of revenue, exclusive of depreciation, depletion and accretion expense of $2.8 million and $2.9 million for the three months ended September 30, 2023 and 2022, respectively, was 66% and 71% for the three months ended September 30, 2023 and 2022, respectively. The decrease as a percentage of revenue is primarily due to a decline in rail expense.

Drilling Services. Drilling services division cost of revenue, exclusive of depreciation and amortization expense, decreased $0.1 million, or 4%, to $2.7 million for the three months ended September 30, 2023 from $2.8 million for the three months ended September 30, 2022. As a percentage of revenue, our drilling services division cost of revenue, exclusive of depreciation and amortization expense of $1.2 million and $1.6 million for the three months ended September 30, 2023 and 2022, respectively, was 96% and 90% for the three months ended September 30, 2023 and 2022, respectively. The increase is primarily due to a decrease in utilization of our directional drilling services, resulting in a higher ratio of fixed costs to variable costs.

Other Services. Other services division cost of revenue, exclusive of depreciation and amortization expense, decreased $0.4 million, or 9%, to $4.3 million for the three months ended September 30, 2023 from $4.7 million for the three months ended September 30, 2022 primarily due to decreased activity. As a percentage of revenue, cost of revenue, exclusive of depreciation and amortization expense of $1.6 million and $2.6 million for the three months ended September 30, 2023 and 2022, respectively, was 78% and 68% for the three months ended September 30, 2023 and 2022, respectively. The increase is primarily due to a decrease in utilization, resulting in a higher ratio of fixed costs to variable costs.

Selling, General and Administrative Expenses. Selling, general and administrative, or SG&A, expenses represent the costs associated with managing and supporting our operations. SG&A expense increased $0.7 million, or 7%, to $10.4 million for the three months ended September 30, 2023 from $9.7 million for the three months ended September 30, 2022 primarily due to an increase in professional fees. The table below presents a breakdown of SG&A expenses for the periods indicated (in thousands):

	Three Months Ended	
	September 30, 2023	September 30, 2022
Cash expenses:		
Compensation and benefits	$ 3,392	$ 3,676
Professional services	4,684	3,706
Other[(a)]	2,105	2,059
Total cash SG&A expense	10,181	9,441
Non-cash expenses:		
Change in provision for expected credit losses	11	3
Stock based compensation	219	241
Total non-cash SG&A expense	230	244
Total SG&A expense	$ 10,411	$ 9,685

a. Includes travel-related costs, IT expenses, rent, utilities and other general and administrative-related costs.

Depreciation, Depletion, Amortization and Accretion. Depreciation, depletion, amortization and accretion decreased $4.6 million, or 29%, to $11.2 million for the three months ended September 30, 2023 from $15.8 million for the three months ended September 30, 2022. The decrease is primarily attributable to a decline in property and equipment depreciation expense as a result of existing assets being fully depreciated.

Gains on Disposal of Assets, Net. Gains on the disposal of assets were $2.4 million and $0.6 million for the three months ended September 30, 2023 and 2022, respectively.

Impairment of Goodwill. As a result of the sale of ARS, we performed an impairment assessment of our goodwill as of September 30, 2023. We determined that the carrying value of goodwill for our Aviation reporting unit exceeded the fair value at September 30, 2023, resulting in impairment expense of $1.8 million for the three months ended September 30, 2023.

Operating Loss. We reported operating loss of $8.9 million for the three months ended September 30, 2023 compared to operating income of $3.8 million for the three months ended September 30, 2022. The increase in operating loss is primarily due to a decline in activity for our well completions division.

Interest Expense, Net. Interest expense, net decreased $0.4 million, or 12%, to $2.9 million for the three months ended September 30, 2023 from $3.3 million for the three months ended September 30, 2022. The decline is primarily due to a decrease in average borrowings outstanding under our revolving credit facility, which was partially offset by an increase in the interest rate under our revolving credit facility.

Other Income, Net. Other income increased $3.1 million to $14.1 million for the three months ended September 30, 2023 compared to $11.0 million for the three months ended September 30, 2022. We recognized interest on trade accounts receivable of $11.4 million for the three months ended September 30, 2023 compared to $10.5 million for the three months ended September 30, 2022. Additionally, on July 13, 2023, we sold all of our equity interests in ARS resulting in a $2.1 million gain on sale.

Income Taxes. We recorded income tax expense of $3.4 million on pre-tax income of $2.4 million for the three months ended September 30, 2023 compared to $3.8 million on pre-tax income of $11.5 million for the three months ended September 30, 2022. Our effective tax rates were 146% and 33% for the three months ended September 30, 2023 and 2022, respectively. The effective tax rates for the three months ended September 30, 2023 and 2022 differed from the statutory rate of 21% primarily due to the mix of earnings between the United States and Puerto Rico, changes in the valuation allowance and goodwill impairment.

Nine Months Ended September 30, 2023 Compared to Nine Months Ended September 30, 2022

	Nine Months Ended	
	September 30, 2023	September 30, 2022
	(in thousands)	
Revenue:		
Well completion services	$ 115,210	$ 119,223
Infrastructure services	83,308	81,892
Natural sand proppant services	34,668	37,548
Drilling services	7,981	7,944
Other services	17,687	16,730
Eliminations	(2,144)	(4,159)
Total revenue	256,710	259,178
Cost of revenue:		
Well completion services (exclusive of depreciation and amortization of $13,281 and $17,944, respectively, for the nine months ended September 30, 2023 and 2022)	94,187	92,159
Infrastructure services (exclusive of depreciation and amortization of $7,359 and $12,477, respectively, for the nine months ended September 30, 2023 and 2022)	67,839	67,239
Natural sand proppant services (exclusive of depreciation, depletion and accretion of $6,395 and $6,711, respectively, for the nine months ended September 30, 2023 and 2022)	21,905	26,701
Drilling services (exclusive of depreciation of $3,873 and $4,928, respectively, for the nine months ended September 30, 2023 and 2022)	7,572	7,530
Other services (exclusive of depreciation and amortization of $5,913 and $8,378, respectively, for the nine months ended September 30, 2023 and 2022)	12,702	12,256
Eliminations	(2,144)	(4,163)
Total cost of revenue	202,061	201,722
Selling, general and administrative expenses	29,151	26,560
Depreciation, depletion, amortization and accretion	36,839	50,485
Gains on disposal of assets, net	(3,284)	(3,738)
Impairment of goodwill	1,810	—
Operating loss	(9,867)	(15,851)
Interest expense, net	(9,385)	(8,270)
Other income, net	31,051	30,175
Income before income taxes	11,799	6,054
Provision for income taxes	9,006	11,442
Net income (loss)	$ 2,793	$ (5,388)

Revenue. Revenue for the nine months ended September 30, 2023 decreased $2.5 million, or 1%, to $256.7 million from $259.2 million for the nine months ended September 30, 2022. The decrease in total revenue is primarily attributable to decreases in well completion services and natural sand proppant services revenue, partially offset by increases in infrastructure and other services revenue. Revenue by operating division was as follows:

Well Completion Services. Well completion services division revenue decreased $4.0 million, or 3%, to $115.2 million for the nine months ended September 30, 2023 from $119.2 million for the nine months ended September 30, 2022. Inter-segment revenues, consisting primarily of revenue derived from our sand segment, was $0.4 million and $0.6 million for the nine months ended September 30, 2023 and 2022, respectively.

The decrease in our well completion services revenue was primarily driven by a decrease in pressure pumping services utilization. The number of stages completed decreased 18% to 3,551 for the nine months ended September 30, 2023 from 4,312 for the nine months ended September 30, 2022. Additionally, sand and chemical materials revenue decreased 17% during the nine months ended September 30, 2023. An average of 2.1 of our six fleets were active for the nine months ended September 30, 2023 as compared to an average of 2.9 fleets for the nine months ended September 30, 2022.

Infrastructure Services. Infrastructure services division revenue increased $1.4 million, or 2%, to $83.3 million for the nine months ended September 30, 2023 from $81.9 million for the nine months ended September 30, 2022. The increase in revenue was primarily due to an increase in storm restoration activity and an increase in engineering revenue as a result of increased activity. Average crew count was 85 crews for the nine months ended September 30, 2023 as compared to 90 crews for the nine months ended September 30, 2022.

Natural Sand Proppant Services. Natural sand proppant services division revenue decreased $2.8 million, or 7%, to $34.7 million for the nine months ended September 30, 2023, from $37.5 million for the nine months ended September 30, 2022. Inter-segment revenue, consisting primarily of revenue derived from our pressure pumping segment, was a nominal amount for the nine months ended September 30, 2023 and $2.4 million, or 7% of total sand revenue, for the nine months ended September 30, 2022.

The decrease in our natural sand proppant services revenue was primarily due to declines in freight and shortfall revenue, which was partially offset by a 16% increase in the average sales price per ton of sand sold from $26.15 per ton during the nine months ended September 30, 2022 to $30.44 per ton during the nine months ended September 30, 2023 and an 11% increase in tons of sand sold from approximately 1,019,740 tons for the nine months ended September 30, 2022 to approximately 1,127,556 tons for the nine months ended September 30, 2023.

Drilling Services. Drilling services division revenue increased $0.1 million, or 1%, to $8.0 million for the nine months ended September 30, 2023 from $7.9 million for the nine months ended September 30, 2022. The increase in our drilling services revenue was primarily attributable to increased pricing, which was offset by a decrease in utilization for our directional drilling business from 43% during the nine months ended September 30, 2022 to 42% during the nine months ended September 30, 2023.

Other Services. Other services revenue, consisting of revenue derived from our aviation, equipment rental, crude oil hauling, remote accommodation and equipment manufacturing businesses, increased $1.0 million, or 6%, to $17.7 million for the nine months ended September 30, 2023 from $16.7 million for the nine months ended September 30, 2022. Inter-segment revenue, consisting primarily of revenue derived from our infrastructure and well completion segments, totaled $1.7 million and $1.0 million for the nine months ended September 30, 2023 and 2022, respectively.

The increase in our other services revenue was primarily due to an increase in utilization for our equipment rental business. An average of 250 pieces of equipment was rented to customers during the nine months ended September 30, 2023, an increase of 4% from an average of 240 pieces of equipment rented to customers during the nine months ended September 30, 2022. Additionally, utilization for remote accommodations business increased.

Cost of Revenue (exclusive of depreciation, depletion, amortization and accretion expense). Cost of revenue, exclusive of depreciation, depletion, amortization and accretion expense, increased $0.4 million from $201.7 million, or 78% of total revenue, for the nine months ended September 30, 2022 to $202.1 million, or 79% of total revenue, for the nine months ended September 30, 2023. Cost of revenue by operating division was as follows:

Well Completion Services. Well completion services division cost of revenue, exclusive of depreciation and amortization expense, increased $2.0 million, or 2%, to $94.2 million for the nine months ended September 30, 2023 from $92.2 million for the nine months ended September 30, 2022. As a percentage of revenue, our well completion services division cost of revenue, exclusive of depreciation and amortization expense of $13.3 million and $18.0 million for the nine months ended September 30, 2023 and 2022, respectively, was 82% and 77% for the nine months ended September 30, 2023 and 2022, respectively. The increase as a percentage of revenue is primarily due to increases in labor and maintenance costs.

Infrastructure Services. Infrastructure services division cost of revenue, exclusive of depreciation and amortization expense, increased $0.6 million, or 1%, to $67.8 million for the nine months ended September 30, 2023 from $67.2 million for the nine months ended September 30, 2022. As a percentage of revenue, cost of revenue, exclusive of depreciation and amortization expense of $7.4 million and $12.5 million, respectively, for the nine months ended September 30, 2023 and 2022 was 81% and 82% for the nine months ended September 30, 2023 and 2022, respectively. The decrease as a percentage of revenue is primarily due to an increase in storm restoration activity, which produces higher margins compared to distribution work.

Natural Sand Proppant Services. Natural sand proppant services division cost of revenue, exclusive of depreciation, depletion and accretion expense, decreased $4.8 million, or 18%, from $26.7 million for the nine months ended September 30, 2022 to $21.9 million for the nine months ended September 30, 2023. As a percentage of revenue, cost of revenue, exclusive of depreciation, depletion and accretion expense of $6.4 million and $6.7 million for the nine months ended September 30, 2023 and 2022, respectively, was 63% and 71% for the nine months ended September 30, 2023 and 2022, respectively. The decrease in cost as a percentage of revenue is primarily due to a 16% increase in average sales price.

Drilling Services. Drilling services division cost of revenue, exclusive of depreciation and amortization expense, increased $0.1 million, or 1%, from $7.5 million for the nine months ended September 30, 2022 to $7.6 million for the nine months ended September 30, 2023. As a percentage of revenue, our drilling services division cost of revenue, exclusive of depreciation and amortization expense of $3.9 million and $4.9 million, for the nine months ended September 30, 2023 and 2022, respectively, was 95% for each of the nine months ended September 30, 2023 and 2022.

Other Services. Other services division cost of revenue, exclusive of depreciation and amortization expense, increased $0.4 million, or 3%, from $12.3 million for the nine months ended September 30, 2022 to $12.7 million for the nine months ended September 30, 2023. As a percentage of revenue, cost of revenue, exclusive of depreciation and amortization expense of $5.9 million and $8.4 million for the nine months ended September 30, 2023 and 2022, respectively, was 72% and 73% for the nine months ended September 30, 2023 and 2022, respectively. The decrease as a percentage of revenue is primarily due to an increase in utilization for our equipment rental and accommodations businesses, resulting in a lower ratio of fixed costs to variable costs.

Selling, General and Administrative Expenses. Selling, general and administrative expenses represent the costs associated with managing and supporting our operations. SG&A expense increased $2.6 million, or 10%, to $29.2 million for the nine months ended September 30, 2023 from $26.6 million for the nine months ended September 30, 2022 primarily due to an increase in compensation expenses. The table below presents a breakdown of SG&A expenses for the periods indicated (in thousands):

	Nine Months Ended	
	September 30, 2023	September 30, 2022
Cash expenses:		
Compensation and benefits	$ 11,665	$ 9,796
Professional services	10,889	10,067
Other[(a)]	5,884	6,127
Total cash SG&A expenses	28,438	25,990
Non-cash expenses:		
Change in provision for expected credit losses	(414)	(112)
Stock based compensation	1,127	682
Total non-cash SG&A expenses	713	570
Total SG&A expenses	$ 29,151	$ 26,560

a. Includes travel-related costs, IT expenses, rent, utilities and other general and administrative-related costs.

Depreciation, Depletion, Amortization and Accretion. Depreciation, depletion, amortization and accretion decreased $13.7 million to $36.8 million for the nine months ended September 30, 2023 from $50.5 million for the nine months ended September 30, 2022. The decrease is primarily attributable to a decline in property and equipment depreciation expense as a result of lower capital expenditures and existing assets being fully depreciated.

Gains on Disposal of Assets, Net. Gains on the disposal of assets were $3.3 million and $3.7 million for the nine months ended September 30, 2023 and 2022, respectively.

Impairment of Goodwill. As a result of the sale of ARS, we performed an impairment assessment of our goodwill as of September 30, 2023. We determined that the carrying value of goodwill for our Aviation reporting unit exceeded the fair value at September 30, 2023, resulting in impairment expense of $1.8 million for the nine months ended September 30, 2023.

Operating Loss. We reported an operating loss of $9.9 million for the nine months ended September 30, 2023 compared to $15.9 million for the nine months ended September 30, 2022. The reduced operating loss was primarily due to a decline in depreciation, depletion, amortization and accretion expense.

Interest Expense, Net. Interest expense, net increased $1.1 million, or 13%, to $9.4 million for the nine months ended September 30, 2023 from $8.3 million for the nine months ended September 30, 2022 primarily due to an increase in the interest rate under our revolving credit facility, which was partially offset by a decrease in average borrowings outstanding under our revolving credit facility.

Other Income, Net. We recognized other income, net of $31.1 million during the nine months ended September 30, 2023 compared to other income, net of $30.2 million for the nine months ended September 30, 2022. We recognized interest on trade accounts receivable of $33.9 million for the nine months ended September 30, 2023 compared to $30.5 million for nine months ended September 30, 2022. Additionally, on July 13, 2023, we sold all of our equity interests in ARS resulting in a $2.1 million gain on the sale.

Income Taxes. We recorded income tax expense of $9.0 million on pre-tax income of $11.8 million for the nine months ended September 30, 2023 compared to an income tax expense of $11.4 million on pre-tax losses of $6.1 million for the nine months ended September 30, 2022. Our effective tax rate was 76% for the nine months ended September 30, 2023 compared to 189% for the nine months ended September 30, 2022. The effective tax rates for the nine months ended September 30, 2023 and 2022 differed from the statutory rate of 21% primarily due to the mix of earnings between the United States and Puerto Rico, changes in the valuation allowance and interest and penalties.

Non-GAAP Financial Measures

Adjusted EBITDA

Adjusted EBITDA is a supplemental non-GAAP financial measure that is used by management and external users of our financial statements, such as industry analysts, investors, lenders and rating agencies. We define Adjusted EBITDA as net (loss) income before depreciation, depletion, amortization and accretion, gains (losses) on disposal of assets, impairment of goodwill, stock based compensation, interest expense, net, other income (expense), net (which is comprised of interest on trade accounts receivable and certain legal expenses) and provision for income taxes, further adjusted to add back interest on trade accounts receivable. We exclude the items listed above from net (loss) income in arriving at Adjusted EBITDA because these amounts can vary substantially from company to company within our industries depending upon accounting methods and book values of assets, capital structures and the method by which the assets were acquired. Adjusted EBITDA should not be considered as an alternative to, or more meaningful than, net loss or cash flows from operating activities as determined in accordance with GAAP or as an indicator of our operating performance or liquidity. Certain items excluded from Adjusted EBITDA are significant components in understanding and assessing a company’s financial performance, such as a company’s cost of capital and tax structure, as well as the historic costs of depreciable assets, none of which are components of Adjusted EBITDA. Our computations of Adjusted EBITDA may not be comparable to other similarly titled measures of other companies. We believe that Adjusted EBITDA is a widely followed measure of operating performance and may also be used by investors to measure our ability to meet debt service requirements.

The following tables provide a reconciliation of Adjusted EBITDA to the GAAP financial measure of net income or (loss) for each of our operating segments for the specified periods (in thousands).

Consolidated

	Three Months Ended September 30,		Nine Months Ended September 30,	
Reconciliation of net (loss) income to Adjusted EBITDA:	**2023**	**2022**	**2023**	**2022**
Net (loss) income	$ (1,088)	$ 7,726	$ 2,793	$ (5,388)
Depreciation, depletion, amortization and accretion expense	11,233	15,842	36,839	50,485
Gains on disposal of assets, net	(2,450)	(599)	(3,284)	(3,738)
Impairment of goodwill	1,810	—	1,810	—
Stock based compensation	219	241	1,127	682
Interest expense, net	2,876	3,262	9,385	8,270
Other income, net	(14,088)	(10,989)	(31,051)	(30,174)
Provision for income taxes	3,438	3,819	9,006	11,442
Interest on trade accounts receivable	11,443	10,468	33,897	30,490
Adjusted EBITDA	$ 13,393	$ 29,770	$ 60,522	$ 62,069

Well Completion Services

	Three Months Ended September 30,		Nine Months Ended September 30,	
Reconciliation of net (loss) income to Adjusted EBITDA:	**2023**	**2022**	**2023**	**2022**
Net (loss) income	$ (1,834)	$ 8,706	$ 1,376	$ 2,357
Depreciation and amortization expense	3,971	4,772	13,288	17,963
Gains on disposal of assets, net	(2,016)	(339)	(2,016)	(547)
Stock based compensation	64	104	451	275
Interest expense	774	531	2,527	1,324
Other (income) expense, net	—	(345)	1	(345)
Adjusted EBITDA	$ 959	$ 13,429	$ 15,627	$ 21,027

Infrastructure Services

	Three Months Ended September 30,		Nine Months Ended September 30,	
Reconciliation of net income to Adjusted EBITDA:	**2023**	**2022**	**2023**	**2022**
Net income	$ 3,239	$ 2,630	$ 6,392	$ 3,323
Depreciation and amortization expense	1,557	3,969	7,366	12,495
(Gains) losses on disposal of assets	(311)	73	(439)	(795)
Stock based compensation	99	89	436	261
Interest expense	1,647	2,047	5,361	5,345
Other income, net	(11,348)	(10,304)	(28,713)	(29,948)
Provision for income taxes	3,381	3,402	8,411	10,178
Interest on trade accounts receivable	11,443	10,468	33,897	30,490
Adjusted EBITDA	$ 9,707	$ 12,374	$ 32,711	$ 31,349

Natural Sand Proppant Services

Reconciliation of net (loss) income to Adjusted EBITDA:	Three Months Ended September 30, 2023	Three Months Ended September 30, 2022	Nine Months Ended September 30, 2023	Nine Months Ended September 30, 2022
Net (loss) income	$ (515)	$ (446)	$ 3,290	$ 904
Depreciation, depletion, amortization and accretion expense	2,836	2,865	6,397	6,717
Gains on disposal of assets	—	—	(16)	(90)
Stock based compensation	37	30	149	90
Interest expense	117	212	422	552
Other income, net	(6)	(3)	(12)	(10)
Adjusted EBITDA	$ 2,469	$ 2,658	$ 10,230	$ 8,163

Drilling Services

Reconciliation of net loss to Adjusted EBITDA:	Three Months Ended September 30, 2023	Three Months Ended September 30, 2022	Nine Months Ended September 30, 2023	Nine Months Ended September 30, 2022
Net loss	$ (1,510)	$ (1,457)	$ (4,846)	$ (5,482)
Depreciation expense	1,222	1,598	3,873	4,929
Gains on disposal of assets	(138)	(286)	(138)	(286)
Stock based compensation	6	4	25	13
Interest expense	151	154	481	379
Adjusted EBITDA	$ (269)	$ 13	$ (605)	$ (447)

Other Services[a]

Reconciliation of net loss to Adjusted EBITDA:	Three Months Ended September 30, 2023	Three Months Ended September 30, 2022	Nine Months Ended September 30, 2023	Nine Months Ended September 30, 2022
Net loss	$ (468)	$ (1,707)	$ (3,419)	$ (6,492)
Depreciation, amortization and accretion expense	1,647	2,638	5,915	8,381
Losses (gains) on disposal of assets, net	15	(47)	(675)	(2,020)
Impairment of goodwill	1,810	—	1,810	—
Stock based compensation	13	14	66	43
Interest expense, net	187	318	594	670
Other (income) expense, net	(2,734)	(337)	(2,327)	128
Provision for income taxes	57	417	595	1,264
Adjusted EBITDA	$ 527	$ 1,296	$ 2,559	$ 1,974

a. Includes results for our aviation, equipment rentals, remote accommodations and equipment manufacturing and corporate related activities. Our corporate related activities do not generate revenue.

Liquidity and Capital Resources

We require capital to fund ongoing operations including maintenance expenditures on our existing fleet of equipment, organic growth initiatives, investments and acquisitions, and the litigation settlement obligations described in Note 19 “Commitments and Contingencies” of the Notes to the Unaudited Condensed Consolidated Financial Statements and under “Capital Requirements and Sources of Liquidity” below. Our primary sources of liquidity have been cash on hand, borrowings under our revolving credit facility and cash flows from operations. Our primary uses of capital have been for investing in property and equipment used to provide our services and to acquire complementary businesses.

Liquidity

The following table summarizes our liquidity as of the dates indicated (in thousands):

	September 30, 2023	December 31, 2022
Cash and cash equivalents	$ 10,527	$ 17,282
Revolving credit facility borrowing base	96,430	119,756
Less current and long-term debt	(69,029)	(83,520)
Less available borrowing capacity reserve	(10,000)	(10,000)
Less letter of credit facilities (insurance programs)	(2,800)	(2,800)
Less letter of credit facilities (environmental remediation)	(3,569)	(3,694)
Net working capital (less cash and current portion of long-term debt)[(a)]	339,328	325,719
Total	$ 360,887	$ 362,743

a. Net working capital (less cash) is a non-GAAP measure and, as of September 30, 2023, is calculated by subtracting total current liabilities of $132.4 million and cash and cash equivalents of $10.5 million from total current assets of $482.3 million. As of December 31, 2022, net working capital (less cash and current portion of long-term debt) is calculated by subtracting total current liabilities of $237.2 million and cash and cash equivalents of $17.3 million from total current assets of $496.7 million, further adjusted to add current portion of long-term debt of $83.5 million. Amounts include receivables due from PREPA of $399.4 million at September 30, 2023 and $379.0 million at December 31, 2022 and corresponding liabilities of $56.0 million at September 30, 2023 and $47.6 million at December 31, 2022. See "Capital Requirements and Sources of Liquidity" section below.

As of November 7, 2023, we had cash on hand of $9.7 million and outstanding borrowings under our new revolving credit facility of $28.2 million and a borrowing base of $35.1 million, leaving an aggregate of $6.9 million of available borrowing capacity under this facility, after giving effect to the requirement to maintain the reserves specified in the new revolving credit facility out of the available borrowing capacity. As of November 7, 2023, we had total liquidity of $16.6 million consisting of cash on hand and available borrowing capacity under our new revolving credit facility.

Cash Flows

The following table sets forth our cash flows at the dates indicated (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
Net cash (used in) provided by operating activities	$ (7,657)	$ (5,430)	$ 24,951	$ (6,066)
Net cash provided by (used in) investing activities	2,048	(3,918)	(7,685)	(440)
Net cash provided by (used in) financing activities	7,330	7,331	(23,993)	7,388
Effect of foreign exchange rate on cash	(44)	(96)	(28)	(164)
Net change in cash	$ 1,677	$ (2,113)	$ (6,755)	$ 718

Operating Activities

Net cash used in operating activities was $7.7 million for the three months ended September 30, 2023, compared to $5.4 million for the three months ended September 30, 2022. Net cash provided by operating activities was $25.0 million for the nine months ended September 30, 2023, compared to net cash used in operating activities of $6.1 million for the nine months ended September 30, 2022. The increase in operating cash flows was primarily attributable to increased receipts on accounts receivable, including the receipt of $13.6 million from PREPA.

Investing Activities

Net cash provided by investing activities was $2.0 million for the three months ended September 30, 2023, compared to net cash used in investing activities of $3.9 million for the three months ended September 30, 2022. Net cash used in investing activities was $7.7 million for the nine months ended September 30, 2023, compared to $0.4 million for the nine months ended September 30, 2022. Cash (used in) provided by investing activities is primarily comprised of purchases of property and equipment and proceeds from the disposal of property and equipment and business divestitures.

The following table summarizes our capital expenditures by operating division for the periods indicated (in thousands):

	Three Months Ended September 30, 2023	Three Months Ended September 30, 2022	Nine Months Ended September 30, 2023	Nine Months Ended September 30, 2022
Well completion services[(a)]	$ 4,651	$ 4,747	14,762	8,048
Infrastructure services[(b)]	69	225	$ 344	$ 823
Natural sand proppant services[(c)]	—	34	—	34
Drilling services[(c)]	105	33	111	47
Other[(d)]	65	53	68	275
Eliminations	(165)	38	(20)	(128)
Total capital expenditures	$ 4,725	$ 5,130	$ 15,265	$ 9,099

a. Capital expenditures primarily for upgrades to our pressure pumping fleet to reduce greenhouse gas emissions and maintenance for the three and nine months ended September 30, 2023 and 2022.
b. Capital expenditures primarily for tooling and other equipment for the three and nine months ended September 30, 2023 and 2022.
c. Capital expenditures primarily for maintenance for the three and nine months ended September 30, 2022.
d. Capital expenditures primarily for equipment for our rental business for the three and nine months ended September 30, 2022.

Financing Activities

Net cash provided by financing activities was $7.3 million for each of the three months ended September 30, 2023, and 2022, respectively. Net cash provided by financing activities for the three months ended September 30, 2023 was primarily attributable to net borrowings on our revolving credit facility of $9.7 million, partially offset by payments on sale leaseback transactions of $1.3 million and principal payments on financing leases and equipment financing notes totaling $1.1 million. Net cash provided by financing activities for the three months ended September 30, 2022 was primarily attributable to net borrowings on long-term debt of $9.0 million, partially offset by payments on sale leaseback transactions of $1.2 million and principal payments on financing leases and equipment financing notes totaling $0.6 million.

Net cash used in financing activities was $24.0 million for the nine months ended September 30, 2023, compared to net cash provided by financing activities of $7.4 million for the nine months ended September 30, 2022. Net cash used in financing activities for the nine months ended September 30, 2023 was primarily attributable to net payments on our revolving credit facility of $14.5 million, principal payment on financing leases and equipment financing notes of $4.9 million, principal payments on sale leaseback arrangements of $3.7 million and share repurchases used to satisfy tax withholding obligations of $0.9 million in connection with the vesting and settlement of certain executive restricted stock unit awards. Net cash provided by financing activities for the nine months ended September 30, 2022 was primarily attributable to net borrowings on long-term debt of $7.8 million.

Effect of Foreign Exchange Rate on Cash

The effect of foreign exchange rate on cash was a nominal amount and ($0.1) million for the nine months ended September 30, 2023 and 2022. The change was driven primarily by a favorable (unfavorable) shift in the weakness (strength) of the Canadian dollar relative to the U.S. dollar for the cash held in Canadian accounts.

Working Capital

Our working capital totaled $349.9 million and $259.5 million at September 30, 2023 and December 31, 2022, respectively, including receivables due from PREPA of $399.4 million at September 30, 2023 and $379.0 million at December 31, 2022 and corresponding liabilities of $56.0 million at September 30, 2023 and $47.6 million at December 31, 2022. Our cash balances were $10.5 million and $17.3 million at September 30, 2023 and December 31, 2022, respectively.

New Revolving Credit Facility and New Term Credit Facility

On October 16, 2023, we entered into the new revolving credit facility and the new term credit facility (each as defined below), which refinanced in full our indebtedness outstanding under, and terminated, the amended and restated revolving credit facility, dated as of October 19, 2018, as amended (the “existing revolving credit facility”), with us and certain of our direct and indirect subsidiaries, as borrowers, the lenders party thereto from time to time, and PNC Bank, National Association, as a lender and as administrative agent for the lenders.

On October 16, 2023, we, as borrower, and certain of our direct and indirect subsidiaries, as guarantors, entered into a revolving credit agreement with the lenders party thereto and Fifth Third Bank, National Association, as a lender and as administrative agent for the lenders ("Fifth Third"), as may be subsequently amended (the "new revolving credit facility"). The new revolving credit facility provides for revolving commitments in an aggregate amount of up to $75 million. Borrowings under the new revolving credit facility are secured by our assets, inclusive of the subsidiary companies, and are subject to a borrowing base calculation prepared monthly which includes a requirement to maintain certain reserves as specified in the new revolving credit facility. The new revolving credit facility also contains various affirmative and restrictive covenants. Interest under the new revolving credit facility equals the Tranche Rate (as defined in the new revolving credit facility) plus (i) 1.75%, if the Average Excess Availability Percentage (as defined in the new revolving credit facility) is greater than 66 2/3%, (ii) 2.00% if the Average Excess Availability Percentage is greater than 33 1/3% and less than or equal to 66 2/3%, and (iii) 2.25% if the Average Excess Availability Percentage is less than or equal to 33 1/3%.

As of October 16, 2023, the financial covenant under the new revolving credit facility was the fixed charge coverage ratio of 1.0 to 1.0 which applies only during a Financing Covenant Period (as defined in the new revolving credit facility).

On October 16, 2023, we, as borrower, and certain of our direct and indirect subsidiaries, as guarantors, also entered into a loan and security agreement with the lenders party thereto and Wexford Capital LP, an affiliate of the Company, as administrative agent for the lenders "Wexford"), as may be subsequently amended (the "new term credit facility"). The new term credit facility was approved by the audit committee of our board of directors, consisting entirely of independent directors, as a transaction with a related party.

The new term credit facility provides for term commitments in an aggregate amount equal to $45 million. Borrowings under the new term credit facility are secured by our assets, inclusive of the subsidiary companies. The new term credit facility also contains various affirmative and restrictive covenants. Interest under the new term credit facility equals the SOFR Interest Rate (as defined in the new term credit facility) plus 7.50%, as such margin may be increased pursuant to the terms of the new term credit facility; provided that we may elect to pay all or a portion of the accrued interest due with respect to any Interest Period (as defined in the new term credit facility) ending on or before April 16, 2025, in kind by adding such accrued interest to the principal amount of the outstanding loans thereunder.

In particular, under the new term credit facility, we are required, among other things, to mandatorily remit to Wexford up to 50% of all amounts that constitute PREPA Claim Proceeds, as such term is defined in the new term credit facility, which will be used to reduce outstanding borrowings under the new term credit facility, as required under the terms thereof.

October 16, 2023, there were outstanding borrowings under (i) the new revolving credit facility of approximately $28.1 million and the borrowing base was approximately $35.1 million, leaving $7.0 million for future borrowings (after giving effect to the requirement to maintain the reserves out of the available borrowing capacity specified in the new revolving credit facility) and (ii) the new term credit facility of $45 million.

If an event of default occurs under the new revolving credit facility or the new term credit facility, as applicable, and remains uncured, it could have a material adverse effect on our business, financial condition, liquidity and results of operations. The lenders, as applicable, (i) would not be required to lend any additional amounts to us under the new revolving credit facility, (ii) could elect to increase the interest rate by (x) 200 basis points in connection with an event of default under the new revolving credit facility or (y) 300 basis points with respect to an event of default under the new term credit facility, (iii) could elect to declare all outstanding borrowings, together with accrued and unpaid interest and fees, to be due and payable, (iv) may have the ability to require us to apply all of our available cash to repay outstanding borrowings, and (v) may foreclose on substantially all of our assets. The exercise of remedies under the new revolving credit facility and the new term credit facility are subject to the terms of an intercreditor agreement (the "intercreditor agreement") between Fifth Third and Wexford and acknowledged by us and certain of our subsidiaries. The new revolving credit facility is currently scheduled to mature on the earlier of (x) July 17, 2028, unless the indebtedness under the new term credit facility is refinanced in accordance with terms of the intercreditor agreement, and (y) October 16, 2028. The new term credit facility is currently scheduled to mature on October 16, 2028.

We were in compliance with the applicable financial covenants under the existing revolving credit facility in effect as of September 30, 2023.

As of November 7, 2023, our borrowing base was $35.1 million and our outstanding borrowings under our new revolving credit facility were $28.2 million, leaving an aggregate of $6.9 million of available borrowing capacity, after giving effect to the requirement to maintain the reserves specified in the new revolving credit facility out of the available borrowing capacity. As of November 7, 2023 we had $45 million in outstanding borrowings under the new term credit facility.

Repurchase Program Authorization

On August 10, 2023, our board of directors approved a stock repurchase program pursuant to which we would be authorized to repurchase up to the lesser of $55 million or 10 million shares of its common stock, subject to the factors discussed below. Following the completion of the refinancing transactions discussed in this report, any stock repurchases under this program may be made opportunistically from time to time in open market or privately negotiated transactions in compliance with Rule 10b-18 under the Securities Act of 1934, as amended, including any 10b5-1 plan, and will be subject to market conditions, applicable legal and contractual restrictions, liquidity requirements and other factors. The repurchase program has no time limit, does not require us to repurchase any specific number of shares and may be suspended from time to time, modified or discontinued by our board of directors at any time. Any common stock repurchased as part of such stock repurchase program will be cancelled and retired.

Sale Leaseback Transactions

On December 30, 2020, we entered into an agreement with First National Capital, LLC, or FNC, whereby we agreed to sell certain assets from our infrastructure segment to FNC for aggregate proceeds of $5.0 million. Concurrent with the sale of assets, we entered into a 36 month lease agreement whereby we lease back the assets at a monthly rental rate of $0.1 million. On June 1, 2021, we entered into another agreement with FNC whereby we sold additional assets from our infrastructure segment to FNC for aggregate proceeds of $9.5 million and entered into a 42-month lease agreement whereby we lease back the assets at a monthly rental rate of $0.2 million. On June 1, 2022, we entered into another agreement with FNC whereby we sold additional assets from our infrastructure segment to FNC for aggregate proceeds of $4.6 million and entered into a 42-month lease agreement whereby we lease back the assets at a monthly rental rate of $0.1 million. Under the agreements, we have the option to purchase the assets at the end of the lease term. We recorded a liability for the proceeds received and will continue to depreciate the assets. We imputed an interest rate so that the carrying amount of the financial liabilities will be the expected repurchase price at the end of the initial lease terms.

Equipment Financing Note

In December 2022, we entered into a 42 month financing arrangement with FNC for the purchase of seven new pressure pumping units for an aggregate value of $9.7 million. Under this arrangement, we have agreed to make monthly principal and interest payments totaling $0.3 million over the term of the agreement. This note is secured by the seven pressure pumping units and bears interest at an imputed rate of approximately 15.0%.

Capital Requirements and Sources of Liquidity

As we pursue our business and financial strategy, we regularly consider which capital resources are available to meet our future financial obligations and liquidity requirement. We believe that our cash on hand, operating cash flow and available borrowings under our new revolving credit facility will be sufficient to meet our short-term and long-term funding requirements, including funding our current operations, planned capital expenditures, debt service obligations and known contingencies.

However, our liquidity and future cash flows are subject to a number of variables, including receipt of payments from our customers, including PREPA. During the nine months ended September 30, 2023, PREPA paid our subsidiary Cobra approximately $13.6 million, all of which was used to reduce outstanding borrowings under our then existing revolving credit facility, as required under the terms thereof. As of September 30, 2023, PREPA owed Cobra approximately $399.4 million for services performed, including $186.0 million of interest charges. In October 2023, PREPA made additional payments to Cobra totaling $8.6 million. Throughout 2021, we released significant data that we obtained through Freedom of Information Act requests that affirm the work performed by Cobra in Puerto Rico. We believe these documents in conjunction with the current Administration's focus on the recovery of Puerto Rico and our enhanced lobbying efforts will aid in collecting the outstanding amounts owed to us by PREPA. However, in the event PREPA (i) does not have or does not obtain the funds necessary to satisfy its obligations to Cobra under the contracts, (ii) obtains the necessary funds but refuses to pay the amounts owed to Cobra or (iii) otherwise does not pay amounts owed to Cobra, the receivable may not be collectible, which may adversely impact our liquidity.

Our 2023 capital expenditures budget is $18.0 million. Throughout 2023, pricing for crude oil and natural gas declined from levels seen in 2022, which slowed down completion activities for our customers, in particular, in the Utica and Marcellus Shale natural gas plays, and, as a result, reduced demand for our well completion services. Capital expenditures will ultimately be dependent upon industry conditions and our financial results. These capital expenditures include $17 million for our well completions segment and $1 million for our other businesses. During the nine months ended September 30, 2023, our capital expenditures totaled $15.3 million.

Also, as noted above in this report, in response to market conditions we have (i) temporarily shut down certain of our oilfield service offerings, including coil tubing, pressure control, flowback, crude oil hauling, cementing, acidizing and land drilling services, (ii) idled certain facilities, including our sand processing plant in Pierce County, Wisconsin and (iii) reduced our workforce across all of our operations. We continue to monitor market conditions to determine if and when we will recommence these services and operations and increase our workforce. Any such recommencement and expansion will further increase our liquidity requirements in advance of revenue generation.

In addition, while we regularly evaluate acquisition opportunities, we do not have a specific acquisition budget for 2023. We intend to continue to evaluate acquisition opportunities, including those in the renewable energy sector as well as transactions involving entities controlled by Wexford. Our acquisitions may be undertaken with cash, our common stock or a combination of cash, common stock and/or other consideration. In the event we make one or more acquisitions and the amount of capital required is greater than the amount we have available for acquisitions at that time, we could be required to reduce the expected level of capital expenditures and/or seek additional capital.

If we seek additional capital for any of the above or other reasons, we may do so through borrowings under a revolving credit facility, joint venture partnerships, sale-leaseback transactions, asset sales, including potential sales of accounts receivable, offerings of debt or equity securities or other means. Although we expect that our sources of capital will be adequate to fund our short-term and long-term liquidity requirements, we cannot assure you that this additional capital will be available on acceptable terms or at all. If we are unable to obtain funds we need, our ability to conduct operations, make capital expenditures, satisfy debt services obligations, pay litigation settlement obligations, fund contingencies and/or complete acquisitions that may be favorable to us will be impaired, which would have a material adverse effect on our business, financial condition, results of operations and cash flows.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

The demand, pricing and terms for our products and services are largely dependent upon the level of activity for the U.S. oil and natural gas industry, energy infrastructure industry and natural sand proppant industry. Industry conditions are influenced by numerous factors over which we have no control, including, but not limited to: the supply of and demand for oil and natural gas services, energy infrastructure services and natural sand proppant; demand for repair and construction of transmission lines, substations and distribution networks in the energy infrastructure industry and the level of expenditures of utility companies; the level of prices of, and expectations about future prices for, oil and natural gas and natural sand proppant, as well as energy infrastructure services; the cost of exploring for, developing, producing and delivering oil and natural gas; the expected rates of declining current production; the discovery rates of new oil and natural gas reserves and frac sand reserves meeting industry specifications and consisting of the mesh size in demand; access to pipeline, transloading and other transportation facilities and their capacity; weather conditions; domestic and worldwide economic conditions; political instability in oil-producing countries; environmental regulations; technical advances affecting energy consumption; the price and availability of alternative fuels; the ability of oil and natural gas producers and other users of our services to raise equity capital and debt financing; and merger and divestiture activity in industries in which we operate.

In March and April 2020, concurrent with the COVID-19 pandemic and quarantine orders in the U.S. and worldwide, oil prices dropped sharply to below zero dollars per barrel for the first time in history due to factors including significantly reduced demand and a shortage of storage facilities. In 2021, U.S. oil production stabilized as commodity prices increased and demand for crude oil rebounded, many exploration and production companies set their operating budgets based on the prevailing prices for oil and natural gas at the time. Despite improvement in the U.S. and global economic activity, easing of the COVID-19 pandemic and related restrictions, rising energy use and improved commodity prices, the budgets for the publicly traded exploration and production companies remained relatively flat throughout 2021, with any excess cash flows used for debt repayment and shareholder returns, rather than to increase production. We saw improvements in the oilfield services industry and in both pricing and utilization of our well completion and drilling services throughout 2022. Throughout 2023, pricing for crude oil and natural gas declined from levels seen in 2022, which slowed down completion activities for our customers, in particular, in the Utica and Marcellus Shale natural gas plays, and, as a result, reduced demand for our well completion services. Further, the ongoing war in Ukraine and the recent Israel-Hamas war could continue to have an adverse effect on the global supply chain and volatility of commodity prices.

Although the levels of activity in the U.S. oil and natural gas exploration and production, energy infrastructure and natural sand proppant industries improved throughout 2022 and the first quarter of 2023, they have historically been and continue to be volatile. We are unable to predict the ultimate impact of the COVID-19 pandemic, the volatility in commodity prices, any changes in the near-term or long-term outlook for our industries or overall macroeconomic conditions on our business, financial condition, results of operations, cash flows and stock price.

Interest Rate Risk

We had a cash and cash equivalents balance of $10.5 million at September 30, 2023. We do not enter into investments for trading or speculative purposes.

At September 30, 2023, interest under the then existing revolving credit facility (which we subsequently refinanced and terminated—See Note 10—Debt) was payable at a base rate, which can fluctuate based on multiple facts, including rates set by the U.S. Federal Reserve (which increased its benchmark interest rate by an aggregate of 4.75 percentage points throughout 2022 and 2023, and may continue to increase interest rates in an effort to counter the persistent inflation), the supply and demand for credit and general economic conditions, plus an applicable margin. The applicable margin was set at 4.0%. At September 30, 2023, we had outstanding borrowings under our then existing revolving credit facility of $69.0 million with a weighted average interest rate of 12.0%. A 1% increase or decrease in the interest rate at that time would increase or decrease our interest expense by approximately $0.7 million per year. We did not hedge our interest rate exposure under such facility and do not currently hedge our interest rate exposure under the new revolving credit facility or the new term loan.

Foreign Currency Risk

Our remote accommodation business, which is included in our other services division, generates revenue and incurs expenses that are denominated in the Canadian dollar. These transactions could be materially affected by currency fluctuations. Changes in currency exchange rates could adversely affect our consolidated results of operations or financial position. We also maintain cash balances denominated in the Canadian dollar. At September 30, 2023, we had $2.2 million of cash, in Canadian dollars, in Canadian accounts. A 10% increase in the strength of the Canadian dollar versus the U.S. dollar would have resulted in an increase in pre-tax income of approximately $0.1 million as of September 30, 2023. Conversely, a corresponding decrease in the strength of the Canadian dollar would have resulted in a comparable decrease in pre-tax income. We have not hedged our exposure to changes in foreign currency exchange rates and, as a result, could incur unanticipated translation gains and losses.

Customer Credit Risk

We are also subject to credit risk due to concentration of our receivables from several significant customers. We generally do not require our customers to post collateral. The inability, delay or failure of our customers to meet their obligations to us due to customer liquidity issues or their insolvency or liquidation may adversely affect our business, financial condition, results of operations and cash flows. This risk may be further enhanced by the COVID-19 pandemic, the volatility in commodity prices, the reduction in demand for our services and challenging macroeconomic conditions.

Specifically, we had receivables due from PREPA totaling $399.4 million, including $186.0 million of interest charges, as of September 30, 2023. PREPA is currently subject to bankruptcy proceedings pending in the U.S. District Court for the District of Puerto Rico. As a result, PREPA's ability to meet its payment obligations under the contracts is largely dependent upon funding from the FEMA or other sources. See Note 2. Basis of Presentation and Significant Accounting Policies—Accounts Receivable and —Concentrations of Credit Risk and Significant Customers and Note 19. Commitments and Contingencies—Litigation of our unaudited condensed consolidated financial statements.

Seasonality

We provide infrastructure services in the northeastern, southwestern, midwestern and western portions of the United States. We provide well completion and drilling services primarily in the Utica, Permian Basin, Eagle Ford, Marcellus, Granite Wash, Cana Woodford and Cleveland sand resource plays located in the continental U.S. We provide remote accommodation services in the oil sands in Alberta, Canada. We serve these markets through our facilities and service centers that are strategically located to serve our customers in Ohio, Texas, Oklahoma, Wisconsin, Kentucky, Colorado, California, Indiana and Alberta, Canada. A portion of our revenues are generated in Ohio, Wisconsin, Minnesota, Pennsylvania, West Virginia and Canada where weather conditions may be severe. As a result, our operations may be limited or disrupted, particularly during winter and spring months, in these geographic regions, which would have a material adverse effect on our financial condition and results of operations. Our operations in Oklahoma and Texas are generally not affected by seasonal weather conditions.

Inflation

Although the impact of inflation has been insignificant on our operations in prior years, inflation in the U.S. has been at some of the highest levels in over 40 years, creating inflationary pressure on the cost of services, equipment and other goods in our industries and other sectors and contributing to labor and materials shortages across the supply-chain. Throughout 2022 and early 2023, the Federal Reserve increased its benchmark interest rates by an aggregate of 4.75 percentage points, and may continue increasing benchmark interest rates in the future. If the efforts to control inflation are not successful and inflationary pressures persist, our business, results of operations and financial condition may be adversely affected.

Item 4. Controls and Procedures

Evaluation of Disclosure Control and Procedures

Under the direction of our Chief Executive Officer and Chief Financial Officer, we have established disclosure controls and procedures, as defined in Rule 13a-15(e) and 15d-15(e) under the Exchange Act, that are designed to ensure that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms. The disclosure controls and procedures are also intended to ensure that such information is accumulated and communicated to management, including our Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosures. In designing and evaluating the disclosure controls and procedures, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives. In addition, the design of disclosure controls and procedures must reflect the fact that there are resource constraints and that management is required to apply judgment in evaluating the benefits of possible controls and procedures relative to their costs.

As of September 30, 2023, an evaluation was performed under the supervision and with the participation of management, including our Chief Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures pursuant to Rule 13a-15(b) under the Exchange Act. Based upon our evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that as of September 30, 2023, our disclosure controls and procedures are effective.

Changes in Internal Control Over Financial Reporting

There was no change in our internal control over financial reporting (as defined in Rules 13a-15(d) and 15d-15(d) under the Exchange Act) that occurred during the quarter ended September 30, 2023 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II. OTHER INFORMATION

Item 1. Legal Proceedings

Due to the nature of our business, we are, from time to time, involved in litigation or subject to disputes or claims related to our business activities, including breaches of contractual obligations, workers' compensation claims, employment related disputes, arbitrations, class actions and other litigation. We are also involved, from time to time, in reviews, investigations, subpoenas and other proceedings (both formal and informal) by governmental agencies regarding our business (collectively, "regulatory matters"), which regulatory matters, if determined adversely to us, could subject us to significant fines, penalties, obligations to change our business practices or other requirements resulting in increased expenses, diminished income and damage to our reputation. In the opinion of our management, none of the pending litigation, disputes or claims against us is expected to have a material adverse effect on our financial condition, cash flows or results of operations, except as disclosed in Note 18 "Commitments and Contingencies," of the Notes to Unaudited Condensed Consolidated Financial Statements.

Item 1A. Risk Factors

As of the date of this filing, our Company and operations continue to be subject to the risk factors previously disclosed in Item 1A. Risk Factors in our Annual Report on Form 10-K filed with the SEC on February 24, 2023. For a discussion of the recent trends and uncertainties impacting our business, see also "Management's Discussion and Analysis of Financial Condition and Results of Operations—Recent Developments—Overview of Our Services and Industry Conditions"

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

Not applicable.

Item 4. Mine Safety Disclosures

Our operations are subject to the Federal Mine Safety and Health Act of 1977, as amended by the Mine Improvement and New Emergency Response Act of 2006, which imposes stringent health and safety standards on numerous aspects of mineral extraction and processing operations, including the training of personnel, operating procedures, operating equipment and other matters. Our failure to comply with such standards, or changes in such standards or the interpretation or enforcement thereof, could have a material adverse effect on our business and financial condition or otherwise impose significant restrictions on our ability to conduct mineral extraction and processing operations. Following passage of The Mine Improvement and New Emergency Response Act of 2006, MSHA significantly increased the numbers of citations and orders charged against mining operations. The dollar penalties assessed for citations issued has also increased in recent years. Information concerning mine safety violations or other regulatory matters required by Section 1503(a) of the Dodd-Frank Wall Street Reform and Consumer Protection Act and Item 104 of Regulation S-K (17 CFR 229.104) is included in Exhibit 95.1 to this Report.

Item 5. Other Information

None of our directors or officers adopted or terminated a Rule 10b5-1 trading arrangement or a non-Rule 10b5-1 trading arrangement during the third quarter ended September 30, 2023.

Item 6. Exhibits

The following exhibits are filed as a part of this report:

Exhibit Number	Exhibit Description	Incorporated By Reference				Filed Herewith	Furnished Herewith
		Form	Commission File No.	Filing Date	Exhibit No.		
3.1	Amended and Restated Certificate of Incorporation of the Company	8-K	001-37917	11/15/2016	3.1		
3.2	Amended and Restated Bylaws of the Company	8-K	001-37917	11/15/2016	3.2		
3.3	First Amendment to Amended and Restated Bylaws of the Company	8-K	001-37917	6/9/2020	3.1		
4.1	Specimen Certificate for shares of common stock, par value $0.01 per share, of the Company	S-1/A	333-213504	10/3/2016	4.1		
4.2	Registration Rights Agreement, dated October 12, 2016, by and between the Company and Mammoth Energy Holdings, LLC	8-K	001-37917	11/15/2016	4.1		
10.1	Revolving Credit Agreement, dated as of October 16, 2023, by and among the Company, as borrower, the other loan parties from time to time party thereto, the lenders from time to time party thereto, and Fifth Third Bank, National Association, as sole lead arranger, sole bookrunner, agent, letters of credit issuer and swing line lender.	8-K	001-37917	10/19/2023	10.1		
10.2	Loan and Security Agreement, dated as of October 16, 2023, by and among, the Company, as borrower, the other loan parties party thereto, the lenders from time to time party thereto, as lenders, and Wexford Capital LP, as the agent.	8-K	001-37917	10/19/2023	10.2		
31.1	Certification of Chief Executive Officer pursuant to Rule 13(a)-14 and 15(d)-14 under the Securities Exchange Act of 1934.					X	
31.2	Certification of Chief Financial Officer pursuant to Rule 13(a)-14 and 15(d)-14 under the Securities Exchange Act of 1934.					X	
32.1	Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.					X	
32.2	Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.					X	
95.1	Mine Safety Disclosure Exhibit					X	
101.INS	XBRL Instance Document - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.					X	
101.SCH	XBRL Taxonomy Extension Schema Document.					X	
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document.					X	
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document.					X	
101.LAB	XBRL Taxonomy Extension Labels Linkbase Document.					X	
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document.					X	
104	Cover Page Interactive Data File - the cover page interactive data file does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.					X	

Signatures

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

			MAMMOTH ENERGY SERVICES, INC.
Date:	November 9, 2023	By:	/s/ Arty Straehla
			Arty Straehla
			Chief Executive Officer
Date:	November 9, 2023	By:	/s/ Mark Layton
			Mark Layton
			Chief Financial Officer

EXHIBIT 31.1

CERTIFICATIONS

I, Arty Straehla, Chief Executive Officer, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Mammoth Energy Services, Inc. (the "registrant");
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rule 13a-15(f) and 15d-15(f) for the registrant and have:
    a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
    b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
    c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
    d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
    a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
    b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

MAMMOTH ENERGY SERVICES, INC.

By: /s/ Arty Straehla

Arty Straehla

Chief Executive Officer

November 9, 2023

EXHIBIT 31.2

CERTIFICATIONS

I, Mark Layton, Chief Financial Officer, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Mammoth Energy Services, Inc. (the “registrant”);
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant’s other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rule 13a-15(f) and 15d-15(f) for the registrant and have:
   a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
   b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
   c. Evaluated the effectiveness of the registrant’s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
   d. Disclosed in this report any change in the registrant’s internal control over financial reporting that occurred during the registrant’s most recent fiscal quarter (the registrant’s fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant’s internal control over financial reporting; and
5. The registrant’s other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant’s auditors and the audit committee of the registrant’s board of directors (or persons performing the equivalent functions):
   a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant’s ability to record, process, summarize and report financial information; and
   b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant’s internal control over financial reporting.

MAMMOTH ENERGY SERVICES, INC.

By: /s/ Mark Layton

Mark Layton
Chief Financial Officer
November 9, 2023

EXHIBIT 32.1

**CERTIFICATION OF THE CHIEF EXECUTIVE OFFICER PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Quarterly Report on Form 10-Q of Mammoth Energy Services, Inc. (the "Company") for the quarter ended September 30, 2023 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Arty Straehla, as Chief Executive Officer of the Company, hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to the best of my knowledge:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"); and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

MAMMOTH ENERGY SERVICES, INC.

By: /s/ Arty Straehla

Arty Straehla
Chief Executive Officer
November 9, 2023

This certification accompanies the Report pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 and shall not be deemed filed by the Company for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, or otherwise subject to liability under that section. This certification shall not be deemed incorporated by reference in any filing under the Securities Act of 1933, as amended or the Exchange Act, except to the extent that the Company specifically incorporates it by reference.

EXHIBIT 32.2

**CERTIFICATION OF THE CHIEF FINANCIAL OFFICER PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Quarterly Report on Form 10-Q of Mammoth Energy Services, Inc. (the "Company") for the quarter ended September 30, 2023 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Mark Layton, as Chief Financial Officer of the Company, hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to the best of my knowledge:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"); and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

	MAMMOTH ENERGY SERVICES, INC.
By:	/s/ Mark Layton
	Mark Layton
	Chief Financial Officer
	November 9, 2023

This certification accompanies the Report pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 and shall not be deemed filed by the Company for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, or otherwise subject to liability under that section. This certification shall not be deemed incorporated by reference in any filing under the Securities Act of 1933, as amended or the Exchange Act, except to the extent that the Company specifically incorporates it by reference.

EXHIBIT 95.1

Mine Safety Disclosure

The following disclosures are provided pursuant to the Dodd-Frank Wall Street Reform and Consumer Protection Act (the "Act") and Item 104 of Regulation S-K, which requires certain disclosures by companies required to file periodic reports under the Securities Exchange Act of 1934, as amended, that operate mines regulated under the Federal Mine Safety and Health Act of 1977 (the "Mine Act").

Mine Safety Information. Whenever the Federal Mine Safety and Health Administration ("MSHA") believes a violation of the Mine Act, any health or safety standard or any regulation has occurred, it may issue a citation which describes the alleged violation and fixes a time within which the U.S. mining operator must abate the alleged violation. In some situations, such as when MSHA believes that conditions pose a hazard to miners, MSHA may issue an order removing miners from the area of the mine affected by the condition until the alleged hazards are corrected. When MSHA issues a citation or order, it generally proposes a civil penalty, or fine, as a result of the alleged violation, that the operator is ordered to pay. Citations and orders can be contested and appealed, and as part of that process, are often reduced in severity and amount, and are sometimes dismissed. The number of citations, orders and proposed assessments vary depending on the size and type (underground or surface) of the mine as well as by the MSHA inspector(s) assigned.

Mine Safety Data. The following provides additional information about references used in the table below to describe the categories of violations, orders or citations issued by MSHA under the Mine Act:

- Section 104 S&S Citations: Citations received from MSHA under section 104 of the Mine Act for violations of mandatory health or safety standards that could significantly and substantially contribute to the cause and effect of a mine safety or health hazard.
- Section 104(b) Orders: Orders issued by MSHA under section 104(b) of the Mine Act, which represents a failure to abate a citation under section 104(a) within the period of time prescribed by MSHA. This results in an order of immediate withdrawal from the area of the mine affected by the condition until MSHA determines that the violation has been abated.
- Section 104(d) Citations and Orders: Citations and orders issued by MSHA under section 104(d) of the Mine Act for unwarrantable failure to comply with mandatory health or safety standards.
- Section 110(b)(2) Violations: Flagrant violations issued by MSHA under section 110(b)(2) of the Mine Act.
- Section 107(a) Orders: Orders issued by MSHA under section 107(a) of the Mine Act for situations in which MSHA determined an "imminent danger" (as defined by MSHA) existed.

The following table details the violations, citations and orders issued to us by MSHA during the quarter ended September 30, 2023:

Mine[(a)]	Section 104 S&S Citations(#)	Section104(b)Orders (#)	Section104(d)Citations and Orders(#)	Section 110(b)(2) Violations(#)	Section107(a)Orders (#)	Proposed Assessments[(b)]($, amounts in dollars)	Mining Related Fatalities (#)
Taylor, WI	—	—	—	—	—	$ —	—
Menomonie, WI	—	—	—	—	—	$ —	—
New Auburn, WI	—	—	—	—	—	$ —	—

a. The definition of mine under section 3 of the Mine Act includes the mine, as well as other items used in, or to be used in, or resulting from, the work of extracting minerals, such as land, structures, facilities, equipment, machines, tools and minerals preparation facilities. Unless otherwise indicated, any of these other items associated with a single mine have been aggregated in the totals for that mine. MSHA assigns an identification number to each mine and may or may not assign separate identification numbers to related facilities such as preparation facilities. We are providing the information in the table by mine rather than MSHA identification number because that is how we manage and operate our mining business and we believe this presentation will be more useful to investors than providing information based on MSHA identification numbers.

b. Represents the total dollar value of proposed assessments from MSHA under the Mine Act relating to any type of citation or order issued during the quarter ended September 30, 2023.

Pattern or Potential Pattern of Violations. During the quarter ended September 30, 2023, none of the mines operated by us received written notice from MSHA of (a) a pattern of violations of mandatory health or safety standards that are of such nature as could have significantly and substantially contributed to the cause and effect of mine health or safety hazards under section

104(e) of the Mine Act or (b) the potential to have such a pattern.

Pending Legal Actions. There were no legal actions pending before the Federal Mine Safety and Health Review Commission (the Commission) as of September 30, 2023. The Commission is an independent adjudicative agency established by the Mine Act that provides administrative trial and appellate review of legal disputes arising under the Mine Act.