



One Source for
Asset Protection
Solutions®



Aerospace & Defense



Data Solutions



Robotics



Oil & Gas | Chemical

2023 Annual Report

MISTRAS GROUP, INC.

KEY FINANCIAL HIGHLIGHTS

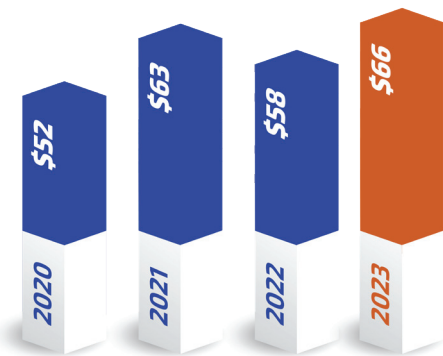
Historical Revenues

(\$ IN MILLIONS)

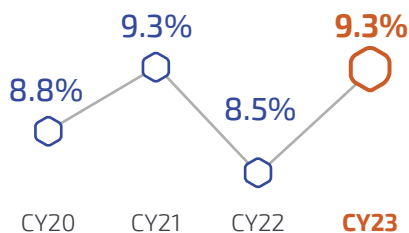


Adjusted EBITDA

(\$ IN MILLIONS)

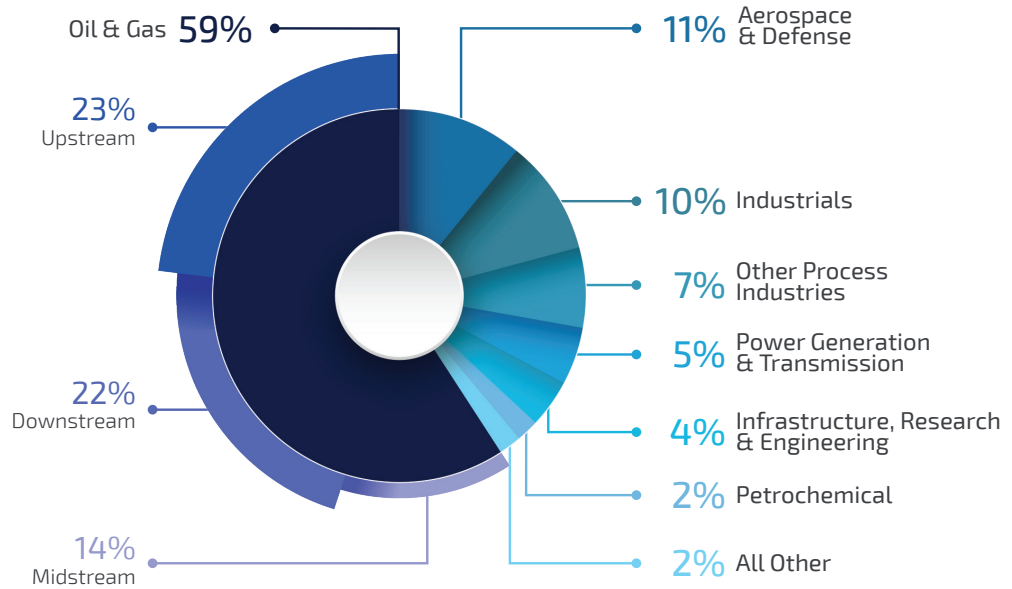


Adjusted EBITDA Margin



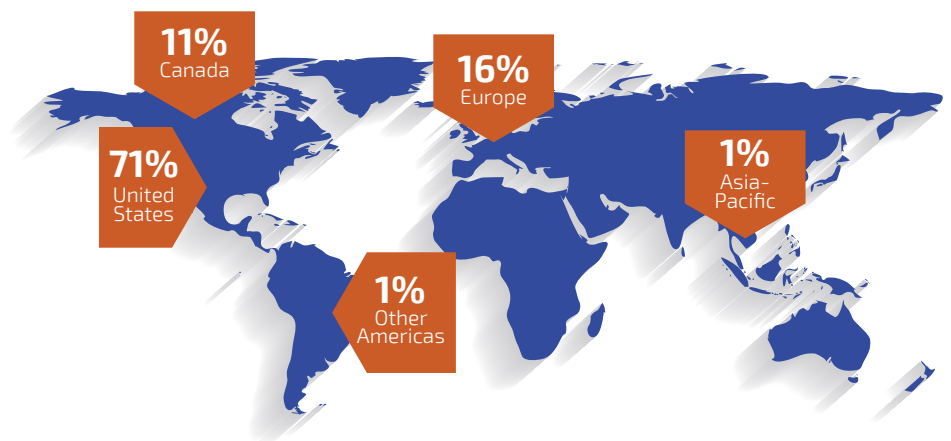
Revenues by End Market

(CY23)



Revenues by Region

(CY23)



*As reported and reconciled in the Company's Form 8-K filed on March 6, 2024

SHAREHOLDER LETTER

Dear Esteemed Shareholders,

As we reflect on the events of 2023, it becomes evident that it was indeed a year of transformation for MISTRAS Group. We embarked on a journey of change aimed at improving shareholder value by rebuilding and unlocking the intrinsic value of our Company, while enhancing our financial performance and competitiveness for the long term. We are making meaningful progress in implementing our various initiatives, and I believe going into 2024 that we have now set the groundwork for future success.

Project Phoenix: Igniting Transformation

Central to our transformation in 2023 was our Project Phoenix initiative, designed to expedite profitable growth by identifying significant margin improvement opportunities and implementing measures for sustained cost savings. The impact of Project Phoenix has been nothing short of transformative, reshaping our organization and laying the foundations for sustainable long-term growth.

Our Project Phoenix initiative was more successful than initially expected, as we anticipate achieving a projected gross annual run rate of adjusted EBITDA improvement of \$47 million by the end of 2025. Moving forward, we will continue to identify new opportunities to improve performance and to improve our business operations.

Financial Highlights of 2023

2023 was a rebuilding year in which we initiated significant changes to improve financial performance over the long term and to unlock our intrinsic value. Although both revenue and adjusted EBITDA fell short of our initial full year 2023 goal, we did finish the year with revenue up 2.6% and adjusted EBITDA up 13.2%. However, our fourth quarter results exceeded expectations, with revenues up over 8% and adjusted EBITDA up nearly 22% from the same quarter a year ago.

In 2023, Project Phoenix attributed nearly \$10M of adjusted EBITDA improvement, and we expect an additional \$20M of incremental adjusted EBITDA improvement in 2024. Management expects fiscal 2024 adjusted EBITDA will be one of our all-time high performances. Our goals for 2024 also include paying down debt and lowering our leverage ratio below 3.0, while continuing to invest in high-margin growth.

Leadership Transitions and Visionary Legacy

We pay tribute to our esteemed founder, Dr. Sotirios J. Vahaviolos, whose retirement as Executive Chairman and transition to Chairman Emeritus marked the end of an era. His visionary leadership over four decades has been instrumental in shaping MISTRAS into what it is today. As Chairman of the Board and Interim CEO, I am committed to upholding Dr. Vahaviolos' legacy of innovation and excellence into the next era of MISTRAS Group's story.

While our engagement with AlixPartners under Project Phoenix concluded in February 2024, the outcomes of this initiative will remain a permanent fixture in our business strategy. Your Board of Directors has approved the creation of a new Chief Transformation Officer ("CTO") position, who will be reporting directly to the CEO. The new CTO position will help the Company remain competitive moving forward by ensuring our business leaders challenge the way they conduct operations and embrace change regularly. The CTO will help the Company improve its operational efficiency and effectiveness, which in turn will lead to greater profits, an improved brand reputation, and higher employee retention rates.

“Management expects fiscal 2024 adjusted EBITDA will be one of our all-time high performances.”

Cultural Reshaping and Operational Enhancements

In tandem with our financial focus, we are actively reshaping our Company culture, emphasizing transparency, process improvements, and accountability. These changes, coupled with a renewed emphasis on revenue growth and profitability, position us to capitalize on our core strengths and achieve attractive growth rates.

In the latter part of 2023, Management and the Board undertook an initiative to revamp the Company's Incentive Compensation Plan over the next two years. Several changes were made to the 2024 plan with a focus on accountability, rewarding outstanding performance, and promoting more cross-collaboration amongst our workforce, that we believe will lead to increased shareholder value.

continued on next page ►

SHAREHOLDER LETTER (CONT.)

Leading the Digital Transformation of Asset Protection

The future of non-destructive testing (NDT) is more exciting today than ever before. In 2024, MISTRAS Group will be expanding its Data Analytical Solutions and our proprietary software systems, which provide MISTRAS customers with strategic insights and actionable intelligence. In turn, this enables them to lower their NDT costs without sacrificing safety and compliance, and at the same time provides the Company with high-margin revenue. Our proprietary data solutions, coupled with our extensive experience in NDT, uniquely position us to lead this digital transformation of asset protection.

Confidence in Momentum for 2024

Project Phoenix and our strong fourth quarter 2023 results are providing good momentum heading into 2024, wherein we expect to realize the majority of the financial benefits from the implementation of the many changes Project Phoenix drove across the Company in 2023.

As part of Project Phoenix, the Board decided to reorganize the Company's marketing efforts and to improve its revenue strategy. This led to the creation of our Chief Commercial Officer position, which thus far has produced extraordinary results and is positioning the Company to achieve its goal of growing revenue back to pre-COVID levels and beyond.

While focusing intently on reshaping the Company, we are also making good headway in identifying the right individual to lead our Company moving forward, and my goal is to finalize this CEO search effort by Q3 of this year.

With nearly six months under my belt as CEO, I can now emphatically state that I am even more optimistic about the future of the Company. I am extremely pleased to be leading the Company at this crucial juncture, supported by an invigorated, highly-skilled, and motivated senior leadership team. Our collective goal is to create long-term value for our shareholders, and I believe we are well on the way to achieving this.

On behalf of the Board of Directors and Management team, I extend our sincerest gratitude for your continued support and trust in MISTRAS Group.



A handwritten signature in black ink that reads "Manuel N. Stamatakis". The signature is written in a cursive, flowing style.

MANUEL N. STAMATAKIS

Chairman of the Board and
Interim President and Chief Executive Officer

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Form 10-K

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

For the fiscal year ended December 31, 2023

or

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

For the transition period from ___ to ___

Commission File Number 001-34481

Mistras Group, Inc.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization)

22-3341267

(I.R.S. Employer Identification Number)

195 Clarksville Road

Princeton Junction, New Jersey 08550

(Address of principal executive offices) (Zip Code)

(609) 716-4000

(Registrant's telephone number, including area code) _____

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

<i>Title of each class</i>	<i>Trading Symbol</i>	<i>Name of each exchange on which registered</i>
Common Stock, par value \$.01 par value	MG	New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act: **None** _____

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes No

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 (§ 232.405 of this chapter) 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 or 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

Non-accelerated filer

Accelerated filer

Smaller reporting company

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report.

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements. Yes No

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to § 240.10D-1(b). Yes No

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

The aggregate market value of the voting and non-voting common stock held by non-affiliates of the registrant, based on the closing price of \$7.72 on June 30, 2023, the last business day of the registrant's most recently completed second fiscal quarter, as reported on the New York Stock Exchange, was approximately \$158.4 million.

As of March 6, 2024, the Registrant had 30,634,785 shares of common stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Information required by Part III (Items 10, 11, 12, 13 and 14) is incorporated by reference to portions of the registrant's definitive proxy statement for its 2024 annual meeting of stockholders (the "Proxy Statement"), which is expected to be filed not later than 120 days after the registrant's fiscal year ended December 31, 2023. Except as expressly incorporated by reference, the Proxy Statement shall not be deemed to be a part of this report on Form 10-K.

Auditor Name: PricewaterhouseCoopers LLP

Auditor Location: Philadelphia, Pennsylvania

Auditor Firm ID: 238

**MISTRAS GROUP, INC.
ANNUAL REPORT ON FORM 10-K
TABLE OF CONTENTS**

PART I

<u>ITEM 1.</u>	<u>BUSINESS</u>	<u>3</u>
<u>ITEM 1A.</u>	<u>RISK FACTORS</u>	<u>21</u>
<u>ITEM 1B.</u>	<u>UNRESOLVED STAFF COMMENTS</u>	<u>29</u>
<u>ITEM 1C.</u>	<u>CYBERSECURITY</u>	<u>29</u>
<u>ITEM 2.</u>	<u>PROPERTIES</u>	<u>31</u>
<u>ITEM 3.</u>	<u>LEGAL PROCEEDINGS</u>	<u>31</u>
<u>ITEM 4.</u>	<u>MINE SAFETY DISCLOSURES</u>	<u>31</u>

PART II

<u>ITEM 5.</u>	<u>MARKET FOR REGISTRANT’S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES</u>	<u>31</u>
<u>ITEM 6.</u>	<u>Reserved</u>	<u>32</u>
<u>ITEM 7.</u>	<u>MANAGEMENT’S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS</u>	<u>33</u>
<u>ITEM 7A.</u>	<u>QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK</u>	<u>45</u>
<u>ITEM 8.</u>	<u>FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA</u>	<u>47</u>
<u>ITEM 9.</u>	<u>CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE</u>	<u>81</u>
<u>ITEM 9A.</u>	<u>CONTROLS AND PROCEDURES</u>	<u>82</u>
<u>ITEM 9B.</u>	<u>OTHER INFORMATION</u>	<u>82</u>
<u>ITEM 9C.</u>	<u>DISCLOSURES REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS</u>	<u>82</u>

PART III

<u>ITEM 10.</u>	<u>DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE</u>	<u>82</u>
<u>ITEM 11.</u>	<u>EXECUTIVE COMPENSATION</u>	<u>82</u>
<u>ITEM 12.</u>	<u>SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS</u>	<u>83</u>
<u>ITEM 13.</u>	<u>CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE</u>	<u>83</u>
<u>ITEM 14.</u>	<u>PRINCIPAL ACCOUNTING FEES AND SERVICES</u>	<u>83</u>

PART IV

<u>ITEM 15.</u>	<u>EXHIBITS AND FINANCIAL STATEMENT SCHEDULES</u>	<u>83</u>
<u>ITEM 16.</u>	<u>FORM 10-K SUMMARY</u>	<u>85</u>

ITEM 1. BUSINESS

FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K (this "Annual Report") contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the "Securities Act"), and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), regarding Mistras Group, Inc. ("Mistras," "MISTRAS," "the Company," "us," "we," "our" and similar expressions) and our business, financial condition, results of operations and prospects. Such forward-looking statements include those that express plans, anticipation, intent, contingency, goals, targets or future development and/or otherwise are not statements of historical fact. These forward-looking statements are based on our current expectations and projections about future events and they are subject to risks and uncertainties known and unknown that could cause actual results and developments to differ materially from those expressed or implied in such statements.

In some cases, you can identify forward-looking statements by terminology, such as "goals," "expects," "anticipates," "intends," "plans," "believes," "seeks," "estimates," "may," "could," "should," "would," "predicts," "appears," "projects," or the negative of such terms or other similar expressions, although the absence of such words does not mean that a statement is not forward-looking. Factors that could cause or contribute to differences in results and outcomes from those in our forward-looking statements include, without limitation, those discussed elsewhere in this Annual Report in Part I, Item 1A. "Risk Factors," Part II, Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations" and in this Item 1. We undertake no obligation to (and expressly disclaim any obligation to) revise or update any forward-looking statements made herein whether as a result of new information, future events or otherwise, except as may be required under applicable securities laws. However, you should consult any further disclosures we may make on these or related topics in our reports on Form 8-K or Form 10-Q filed with the Securities and Exchange Commission ("SEC").

The following discussions should be read in conjunction with the sections of this Annual Report entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Risk Factors."

OUR BUSINESS

Overview

Mistras Group, Inc. is a leading "one source" multinational provider of integrated technology-enabled asset protection solutions, helping to maximize the safety and operational uptime for civilization's most critical industrial and civil assets.

Backed by an innovative, data-driven asset protection portfolio, proprietary technologies, and a decades-long legacy of industry leadership, the Company helps customers with asset-intensive infrastructure in the oil and gas, petrochemical, aerospace and defense, industrials, power generation and transmission (including alternative and renewable energy), other process industries and infrastructure, research and engineering and other industries towards achieving and maintaining operational excellence. By supporting these customers that help fuel our vehicles and power our society; inspecting components that are trusted for commercial, defense, and private space; and building monitoring equipment to help avoid catastrophic incidents, the Company helps the world at large.

The Company enhances value for its customers by providing data driven solutions that digitalize the asset protection process and provide valuable insights to our customers that maximize uptime of the assets monitored. Our data analytical solutions offerings, coupled with the traditional non-destructive testing ("NDT"), provide us a competitive advantage over our competitors. With our ability to integrate asset protection throughout supply chains and centralizing data management, we are able to provide insights and actionable recommendations to our customers through a suite of Industrial Internet of Things ("IoT")-connected digital software and monitoring solutions, including OneSuite™, which serves as an ecosystem platform, pulling together all of the Company's software and data services capabilities, for the benefit of its customers.

The Company's core capabilities also include NDT field inspections enhanced by advanced robotics, laboratory quality control, laboratory materials services, shop laboratory assurance testing, sensing technologies and NDT equipment, asset and mechanical integrity engineering services, and light mechanical maintenance and access services.

Given the role our solutions play in enhancing the safe and efficient operation of our customers' infrastructure, we have historically provided a majority of our solutions to our customers on a regular, recurring basis. We perform these services largely at our customers' facilities, while primarily servicing our aerospace customers at our network of state-of-the-art, in-house laboratories. These solutions typically include NDT and inspection services, and can also include a wide range of

mechanical services, including heat tracing, pre-inspection insulation stripping, coating applications, re-insulation, engineering assessments and long-term condition-monitoring. Our traditional NDT solutions, coupled with our data analytical solutions offerings, allow us to provide accessible and easily understood data to our customers that allows them to identify when an asset may fail, in order to prioritize inspections and repair.

Under our business model, many customers outsource their inspection to us on a “run and maintain” basis. We have established long-term relationships as a critical solutions provider to many of the leading companies with asset-intensive infrastructure in our target markets. These markets include companies in the oil and gas, aerospace and defense, industrials, power generation and transmission (including alternative and renewable energy), other process industries and infrastructure, research and engineering and other industries.

We have focused on providing our advanced asset protection solutions to our customers using proprietary, technology-enabled software and testing instruments, including those developed by our Products and Systems segment. In the past, we have made numerous acquisitions in an effort to grow our base of experienced, certified personnel, expand our service lines and technical capabilities, increase our geographical reach, complement our existing offerings, and leverage our fixed costs. We have increased our capabilities and the size of our customer base through the development of applied technologies and managed support services, organic growth and the integration of acquired companies. These acquisitions have provided us with additional service lines, technologies, resources and customers, which we believe will enhance our advantages over our competition.

We believe long-term growth can be realized in our target markets. Our business and financial results are impacted by world-wide macro- and micro-economic conditions generally, as well as those within our target markets. Among other things, we expect the timing of our oil and gas customers inspection expenditures to be impacted by oil price fluctuations.

We have continued providing our customers with an innovative asset protection software ecosystem through our MISTRAS OneSuite platform. The OneSuite platform offers functions of MISTRAS' software and services brands as integrated applications on a cloud environment. OneSuite serves as a single access portal for customers' data activities and provides access to 90 plus applications being offered on one centralized platform.

We have established long-term relationships as a critical solutions provider to many of the leading companies with asset-intensive infrastructure in our target markets. These markets primarily consist of:

- Oil and Gas (Downstream, Midstream and Upstream)
- Aerospace and Defense
- Industrial
- Power Generation and Transmission
- Infrastructure, Research and Engineering
- Other Process Industries
- Petrochemical

A majority of our revenues are generated by deploying technicians at our customers' locations. A majority of our revenues from aerospace and defense as well as certain manufacturing customers are generated by performing inspections and testing at our various in-house laboratories.

We generated revenues of \$705.5 million, \$687.4 million and \$677.1 million for the years ended December 31, 2023, 2022 and 2021, respectively. We generated net loss of \$17.4 million, a net income of \$6.6 million and net loss of \$3.9 million for the years ended December 31, 2023, 2022, and 2021, respectively. For the years ended December 31, 2023, 2022 and 2021, we generated approximately 82%, 83% and 82%, respectively, of our revenues from our North America segment. Our revenues are diversified, with our top ten customers accounting for approximately 35%, 33% and 33% of our revenues during the years ended December 31, 2023, 2022 and 2021, respectively, with no customer accounting for greater than 10% of our revenues in any such year.

OUR SPECIALIZED SOLUTIONS

As a provider of asset protection solutions, we combine our industry-leading services, products, data management and analytical solutions technologies to provide a unique and custom-tailored solution for each customer's individual asset protection needs, ranging from routine inspections to complex, plant-wide asset integrity management programs.

Field Inspections

Our field inspections portfolio includes traditional and advanced NDT techniques and inline inspection for pipelines. We offer these solutions on an individual basis, or as parts of enterprise inspection and testing programs.

NDT is the examination of an asset without materially impacting its structural integrity. The ability to inspect infrastructure assets and not interfere with their operating performance makes NDT a highly-attractive alternative to many traditional techniques, which may require shutting down an asset or entire facility. Typical issues for which our technicians inspect include potential corrosion, cracking, pitting, leaking, faults and flaws in piping, storage tanks and pressure vessels, as well as a wide range of other industrial assets and public infrastructure.

Our automated data acquisition solutions utilize smart sensing and monitoring, robotic inspection systems, and digitized spot inspections to provide asset integrity data with greater insight into current and potentially future asset conditions.

Field inspection services lend themselves to integration with our other offerings, and as such have often served as the initial entry point to more advanced customer engagements that require additional solutions. After an initial field inspection is performed, we are able to provide multiple supplemental solutions, such as maintenance services, engineering consulting and data analytical solutions services we provide, that further serve to solidify our relationships with our customers and drive additional revenue.

Data Analytical Solutions

The asset protection solutions that we provide throughout our customers' asset lifecycles generate mechanical integrity data that needs to be effectively archived, managed, and analyzed. A common difficulty that our customers face is the ability to easily access and analyze large volumes of data from multiple data collection and input sources. We recognize that this data is most valuable to our customers when it is accessible and integrated (regardless of vendor, tool, or facility), and we have taken significant steps to digitalizing asset protection processes through our data analytical solutions product offerings.

Our data acquisition capabilities capture asset data to help our customers follow regulatory compliance, ensure mechanical integrity, and reduce unplanned outages. We capture data using manned and automated techniques that minimize the impact on our customers' operations. Customers can access our collected data for all facilities, structures, and assets that we manage from one easy to use dashboard, which enables customers to evaluate trending and benchmarking across multiple sites seamlessly.

Customer data is managed in our asset protection software ecosystem, OneSuite. Our OneSuite software platform offers functions of our popular software and services brands as integrated applications in a cloud environment. Our OneSuite software platform serves as a single access portal for customers' data activities and provides access to 90 plus integrated applications being offered in one centralized platform.

Many customers take advantage of our data analytics capabilities that utilize technology to automatically generate insights and actionable recommendations that can be implemented to improve our customers' overall productivity. Our managed services integrate our data capabilities with data analysts, field personnel and engineers to provide a comprehensive solution to our customers that reduces our customers' overall costs.

Our customers within the *oil and gas* and petrochemical industries take advantage of our industry-leading application *Plant Condition Management Software (PCMS®)*. This application is one of the most widely used asset integrity management systems ("AIMS"). We estimate that our PCMS application is currently used by approximately 50% of the U.S. refiners, as well as by leading midstream pipeline energy companies and major oil and gas companies in Canada and Europe. This allows us to provide our customers with industry-leading insights across all their facilities and enables us to provide additional software and solutions to these customers and perform recurring maintenance where necessary.

Our pipeline customers utilize our *Onstream®* services and *New Century®* software platform to capture, manage and analyze pipeline integrity data in the midstream and upstream sectors of the oil and gas industry. We provide among the most comprehensive, data-driven pipeline protection solutions available to the industry. Our proprietary pipeline data analysis solutions enable deep integration of inline inspection ("ILI") big data with real-time risk analytics and business intelligence ("BI") to provide capabilities for supporting pipeline integrity, which we believe provides us with an important competitive advantage.

Our wind, power and infrastructure customers implement our online condition-monitoring solutions that provide real-time reports and analysis of infrastructure to alert facility personnel to damages before critical failures occur, while our flexible, IIoT compatible, cloud-based online monitoring portal centralizes and analyzes all collected monitoring data. These monitoring solutions are often installed in hazardous or hard-to-reach locations, helping to enhance safety by reducing the need to send technicians into unsafe locations.

Laboratory Testing

Our network of in-house laboratories located across North America and Europe offers quality assurance and quality control ("QA/QC") solutions for new and existing metal and alloy components, materials, and composites.

Our in-house laboratories work with our customers to test and measure utilized components throughout their lifetimes, from preparation and production to post-processing and in-service component monitoring. Our laboratory QA/QC solutions help to meet customer needs throughout their manufacturing cycles, with a focus on optimizing production logistics. Our in-house laboratory solutions include:

- Non-destructive evaluation/inspection ("NDE"/"NDI")
- Destructive testing ("DT")
- Metallurgical testing
- Chemical analysis testing
- Mechanical services
- Machining services
- Pre-machining
- Casting repair solutions
- Finishing services

We often inspect and test components prior to assembly to screen for defects and discontinuities introduced in the manufacturing process. We also inspect existing components to ensure they remain fit-for-purpose.

Our laboratories hold a wide variety of certifications, such as: Nadcap (formerly NADCAP, the National Aerospace and Defense Contractors Accreditation Program), AS9100/ISO-9001, Federal Aviation Administration Repair Station, and the International Traffic in Arms Regulations/Export Administration Regulations, that allow us to perform inspections which meet or exceed stringent regulatory and manufacturers' requirements. With these certifications come a comprehensive range of approvals from prime contractors of major projects, militaries and internationally-renowned original equipment manufacturers ("OEMs") from many of our key markets, including the oil and gas, aerospace and defense, power generation and industrial markets.

Maintenance

We perform maintenance and light mechanical services to prepare assets for inspection and to return them to working condition post inspection. These services include corrosion removal, mitigation and prevention; insulation installation and removal; electrical services; heat tracing, industrial cleaning; pipefitting; and welding. Our light mechanical services are often offered as complementary, value-added solutions to inspections, such as removing insulation in order to inspect piping, then re-installing insulation.

Our multi-disciplined technicians offer maintenance and light mechanical services in hard-to-access areas, in combination with rope access or diving strategies.

Mechanical services are still a small part of our business, and we carefully try to avoid providing any such services that conflict with our inspection services.

Engineering Consulting

We provide a broad range of engineering consulting services, primarily for process equipment, technologies and facilities. Our engineering consultations include plant operations and management support, turnaround/shutdown planning, profit improvement, facilities planning studies, engineering design, process safety reviews, energy optimization evaluations, benchmarking/key performance indicator development and technical training.

Our Asset Integrity Management ("AIMS") and Mechanical Integrity ("MI") services help improve asset reliability and regulatory compliance through a systematic, engineering-based approach to ensure the ongoing integrity and safety of equipment and industrial facilities. AIMS/MI services can include conducting an inventory of infrastructure assets; developing, implementing and training personnel in executing inspection and maintenance procedures; and managing MI programs. We help to identify gaps between existing and desired practices and establish quality assurance standards for fabrication, engineering and installation of infrastructure assets.

Access

Much of our work is conducted in hard-to-access locations, including those in at-height, subsea and confined locations. We utilize scaffolding and rope access to access at-height and confined assets; certified divers for subsea inspection and maintenance; and unmanned (drone) aerial, land-based and subsea systems to deliver a wide range of inspection applications, with an emphasis on minimizing at-height access and confined space entry.

Equipment

We design and manufacture portable, handheld, wireless and turnkey NDT equipment, along with corresponding data acquisition sensors and software, for spot inspections and long-term, unattended monitoring applications.

We sell these solutions as individual components, or as complete systems, which include a combination of sensors, amplifiers, signal processing electronics, knowledge-based software and decision and feedback electronics. We also sell integrated service-and-system technology packages, in which our field technicians utilize our proprietary and specialized testing procedures and hardware, advanced pattern recognition, neural network software and databases to compare test results against our prior testing data or industry standards.

We provide a range of acoustic emission ("AE") products and are a leader in the design and manufacture of AE sensors, instruments and turnkey systems used for monitoring and testing materials, pressure components, processes, and structures. We also design and manufacture ultrasonic testing ("UT") equipment.

Most of our hardware products are fabricated, assembled and tested in our ISO-9001-certified facility in Princeton Junction, New Jersey. We also design and manufacture automated ultrasonic systems and scanners in France.

Centers of Excellence

Another differentiator in our business model is our Centers of Excellence ("COEs"), which offer support for asset, technology or industry-specific solutions. Our subject matter experts engage in strategic sales opportunities to offer customers value-added solutions using advanced technologies and methods. The COEs help to standardize our approach to common problems in our key market segments. Our COEs include:

- Acoustic Emission
- American Petroleum Institute ("API") Turnarounds
- AIMS/MI/Engineering
- Automated Ultrasonics
- Fossil Power
- Guided Wave Ultrasonics
- Mechanical Services
- Nuclear Power
- Phased Array
- Rope Access
- Wind
- Tank Inspection
- Tube Inspection
- Unmanned Systems

ASSET PROTECTION INDUSTRY OVERVIEW

Asset protection plays a crucial role in assuring the integrity and reliability of critical infrastructure. As an asset protection solutions provider, we seek to maximize the uptime and safety of critical infrastructure, by helping customers to detect, locate, mitigate, and prevent damages such as corrosion, cracks, leaks, manufacturing flaws and other concerns to operating and structural integrity. In addition to these core utilities, the storage and analysis of collected inspection and MI data is also a key aspect of asset protection.

NDT has historically been a prominent solution in the asset protection industry due to its capacity to detect defects without compromising the structural integrity of the tested materials or equipment. Traditionally, the supply of NDT inspection services has been provided by many relatively small vendors, who provide services in a more localized geographic region. A trend has emerged, however, for customers to increasingly engage a select few vendors capable of providing a wider spectrum of asset protection solutions for global infrastructure, in addition to an increased demand for advanced non-destructive testing ("ANDT") solutions and data acquisition software, both of which require a highly-trained workforce.

Due to these trends, those vendors offering integrated solutions, scalable operations, skilled personnel and a global footprint are expected to have a distinct competitive advantage. Moreover, we believe that vendors that are able to effectively deliver both

advanced solutions and data analytics, by virtue of their access to customers' data, create a significant barrier to entry for competitors, leading to the opportunity to further create significant recurring revenues.

Key Dynamics of the Asset Protection Industry

We believe the following represent key dynamics of the asset protection industry, and that the market available to us will continue to grow as these macro-market trends continue to develop:

Digital Transformation of Asset Protection. Plants in the oil and gas, petrochemical and other process industries are recognizing the need to evolve their traditional, paper-based mechanical integrity programs in favor of digitalized solutions. The rise of big data intelligence, and our data analytical solutions offerings, provide our customers with actionable insights from raw asset integrity data. The growing digitization of asset protection provides opportunities for contractors with a wide range of asset protection expertise and integrated data platforms to provide customers with data analytical solutions to help customers maximize uptime while controlling costs.

Extending the Useful Life of Aging Infrastructure While Increasing Utilization. Due to the prohibitive costs and challenges of building new infrastructure, many companies have chosen to extend the useful life of existing assets through enhancements, rather than replacing these assets. This has resulted in the significant aging and increased utilization of existing infrastructure in our target markets. Because aging infrastructure requires more frequent inspection and maintenance in comparison to new infrastructure, companies and public authorities continue to spend on asset protection to ensure their aging infrastructure assets continue to operate effectively.

Outsourcing of Non-Core Activities and Technical Resource Constraints. Due to the increasing sophistication and automation of NDT programs, a decreasing supply of skilled professionals and increasing governmental regulations, companies are increasingly outsourcing NDT to third-party providers with advanced solution portfolios, engineering expertise and trained workforces.

Increasing Corrosion from Low-Quality Inputs. The increased availability and low cost of crude oil from areas such as shale plays and oil sands resources have led to the use of lower-grade raw materials and feedstock. This leads to higher rates of corrosion, especially in refining processes involving petroleum with higher sulfur content, which increases the need for asset protection solutions to detect and/or proactively prevent corrosion-related issues.

Increasing Use of Advanced Materials. Customers in various target markets - particularly aerospace and defense - are increasingly utilizing advanced materials, such as composites and other unique technologies in their assets. These materials often cannot be tested using traditional NDT techniques. We believe that demand for more advanced testing and assessment solutions will increase as the utilization of these advanced materials increases during the design, manufacturing, operating and quality control phases.

Meeting Safety Regulations. Owners and operators of refineries, pipelines and petrochemical and chemical plants increasingly face strict government regulations and more stringent process safety enforcement standards. This includes the continued implementation of the Occupational Safety and Health Administration's National Emphasis Program. Failure to meet these standards can result in significant financial liabilities, increased scrutiny by government and industry regulators, higher insurance premiums and tarnished corporate brand value. As a result, these owners and operators are seeking highly-reliable asset protection suppliers with a track record of assisting customers in meeting increasingly stringent regulations. Our customers benefit from our extensive engineering consulting base that supports them in devising mechanical integrity programs that both meet regulatory compliance standards and enable enhanced safety and uptime at the customer's facilities.

Expanding Addressable End-Markets. The continued emergence of and advances in asset protection technologies and software-based systems are increasing the demand for asset protection solutions in applications where existing techniques were previously ineffective.

Expanding Aerospace and Defense Industry. We believe that increased demand will continue to come over the next several years from the commercial industry due to the approximately decade-long backlog for next-generation commercial aircraft to be built, driving the need for advanced solutions that drive cost and quality efficiencies. Demand continues to be stable in the defense industry while demand in the private space industry is growing.

Crude Oil Prices. Volatility in the energy sector has been profound during the 2015-2022 period with moderation occurring during 2023. The collapse of world oil prices in 2015 and 2016 undermined industry expansion. While energy prices recovered in 2017 and 2018, they once more declined, and subsequently rebounded in the second half of 2021 and the first half of 2022 with near record high prices and crack spreads. This resulted in refineries delaying turnarounds during 2022 until oil prices decreased and stabilized in the second half of 2022. The stabilization continued throughout 2023 without major peaks and fluctuations as seen in prior periods. The on-going war in Ukraine and the conflict in the Middle East between Israel and

Hamas, coupled with continued macroeconomic uncertainty in 2024, are expected to continue to significantly influence oil prices for the foreseeable future.

Expanding Pipeline Integrity Regulations: The United States Pipeline & Hazardous Materials Safety Administration's "Mega Rule" adopted in October 2019, expands pipeline integrity regulations on more than 500,000 miles of pipelines that carry natural gas, oil and other hazardous materials throughout the United States. Some of these requirements will take operators decades to fulfill. These regulations require inspection and integrity data records throughout a pipeline's lifetime to be "reliable, traceable, verifiable, and complete," increasing the demand for integrated inspection, engineering, monitoring, and data management and analysis solutions.

Consolidation of Refineries: Consolidation of refinery ownership will create both pressure on refinery service providers due to increased customer purchasing power and provide an opportunity to those same refinery service providers to become preferred providers to these larger customers.

Our Competitive Strengths

We believe the following competitive strengths contribute to our being a leading provider of asset protection solutions and will allow us to further capitalize on growth opportunities in our industry:

OneSource Provider for Asset Protection Solutions. We believe we have one of the most comprehensive portfolios of integrated asset protection solutions worldwide, which positions us to be a leading single-source provider for our customers' asset protection requirements. This is particularly a competitive strength in regards to turnarounds and shutdowns - during which facilities temporarily cease portions of their operations in order to perform plant-wide inspections, maintenance and repairs - as the services being requested and performed during these work stoppages make up significant portions of refinery, process and power plant maintenance budgets. Demand for our solutions increases during these outages, as facilities seek third-party providers to perform a wide spectrum of asset protection operations while the plant is offline. In addition, as companies are increasingly outsourcing their NDT needs to third-party providers, we believe that the ability to offer a comprehensive package of solutions provides us with a competitive advantage.

Integrated Data Management: Our expertise and proprietary research and development in data analytical solutions throughout the asset protection cycle provides a competitive advantage. With solutions for integrated data acquisition, storage, visualization and analytics, our integrated data analytical solutions well-position us for the oil and gas increasing movement towards digitalizing and centralizing asset protection to fewer, highly-skilled and multi-disciplined vendors. Many of our data analytical solutions are platform-agnostic, allowing us to integrate into customers' existing operations, and thereby expanding the potential customer pool for our solutions. Our expertise and experience also allow us to tailor our offerings to meet specific customer needs, which sets us apart from our competitors. Our presence in our customers' operations throughout their asset lifecycles also ideally positions us to be their primary vendor to centralize their asset integrity data collection, management and analysis, creating mutually-beneficial opportunities to scale our relationships.

Long-Standing Trusted Provider to a Diversified and Growing Customer Base. We have become a trusted partner to a large and growing customer base across numerous global markets through our proven, decades-long track record of successful operations. Our customers include some of the largest and most well-recognized firms in the oil and gas, chemicals, power generation and transmission and aerospace and defense industries, as well as public authorities.

Repository of Customer-Specific Inspection Data. Through our world-class enterprise data management and analysis software, PCMS, we have accumulated extensive, proprietary process data that allows us to provide our customers with value-added services, such as benchmarking, "RBI" and reliability-centered maintenance.

Proprietary Products, Software and Technology Packages. Our deep knowledge base in asset protection services and equipment enables us to offer technology packages, in which our field technicians utilize our proprietary and specialized testing procedures and hardware, advanced pattern recognition, neural network software and databases to compare test results against our prior testing data or national and international structural integrity standards.

Deep Domain Knowledge and Extensive Industry Experience. We have extensive asset protection experience and data, dating back several decades of operations. We have gained this through our industry leadership in developing advanced asset protection solutions, including research and development of advanced NDT technologies and applications, process engineering technologies, online plant asset integrity management with sensor fusion; and enterprise software solutions for plant-wide and fleet-wide inspection data archiving and management.

Technological Research and Development. The NDT industry continues to move towards more advanced, automated solutions, requiring service providers to find safer and more cost-efficient inspection techniques. We believe that we remain ahead of the

technological curve by backing our extensive industry expertise with the investment of resources in research and development. Some of the advanced inspection technologies developed by our internal research and development teams include an automated radiographic testing ("aRT") crawler for corrosion under insulation ("CUI") inspections in above ground pipelines and piping; our Large Structure Inspection ("LSI") scanner, and our real-time radiography ("RTR") crawler for 360° inspections of pipeline girth welds.

Collaborating with Our Customers. We have historically expanded our asset protection solution portfolio in response to our customers' unique performance specifications. Our technology packages have often been developed in close cooperation and partnership with key customers and industry organizations.

Experienced Management Team. Our management team has a track record of asset protection organizational leadership. These individuals also have successfully driven operational growth organically and through acquisitions, which we believe is important to facilitate future growth in the asset protection industry.

Our Growth Strategy

Our growth strategy emphasizes the following key elements:

Continue to Digitalize Asset Protection Data and Processes. We place a data-centric focus on asset protection, enabling our customers to ease some of their biggest areas of concern (particularly the timely and accurate transfer of asset integrity data from the field to their IDMS, as well as the data's visibility and accessibility once uploaded). We expect that the demand for our data analytical solutions which provides big data intelligence and remote data visibility will continue to grow, and we are investing in data analytical solutions that help our customers visualize and generate actionable insight from their asset integrity data, regardless of data input. We are also actively seeking to optimize our customers' asset protection workflows and processes, by creating digital paths between data applications to increase data visibility and reduce manual data entry and human error.

Expand Our Focus in the Aerospace and Defense Industries. We believe that the introduction of next-generation airframes and aircraft engines has created an inherent demand for inspection, testing, machining and mechanical services required for the production of parts. The recent interest in the use of additive manufacturing techniques to create components also necessitates advanced inspection and testing solutions.

Expand Our Focus in the Pipeline Integrity Industry. We intend to continue broadening our solutions for the pipeline market. Recent industry regulations significantly expanded pipeline integrity management regulations, requiring pipeline owner/operators to inspect, document, and assess the risk of operating conditions for existing lines. This provides us with the opportunity to provide asset protection solutions for both the new construction and integrity phases. In 2019, we acquired a company that provides pipeline integrity management software and services to energy transportation companies. We acquired an inline inspection provider in 2018 and have implemented our PCMS software for several pipeline operators to support their integrity data management.

Expanding our Mechanical Services Portfolio. We believe that performing mechanical services to complement inspections, such as removing and reapplying insulation or preparing surfaces for coating or painting, is an important market differentiator for us. This is particularly true, for example, when considering the cost-efficiencies our customers realize when our rope access technicians perform these services at height without the use of scaffolding. Many of our customers already require these services, but utilize multiple vendors to do so, creating an opportunity for us to provide greater value to a customer base that increasingly requires enhanced speed and efficiency.

Continue to Develop Technology-Enabled and Digital Asset Protection Solutions. We intend to maintain and enhance our technological leadership by continuing to invest in developing new technology, applications and data services. The release of our OneSuite ecosystem underscores our dedication to continue deepening synergies between our solutions to provide our customers with uniquely-integrated offerings, which we believe makes us a more attractive vendor for customers seeking to centralize their asset protection. We have actively continued to develop technologies that enhance the flow of data throughout multiple operational phases and facilities, through our integrated pipeline integrity data portfolio, and our cloud-based monitoring data portal.

Expand our Solution Offerings to Existing Customers. We believe that branching into adjacent, complementary services, such as mechanical services, increases our value proposition and our ability to capture additional business. Many of our customers are multinational corporations with asset protection requirements at multiple locations. We believe that expanding our solution offerings and merging and visualizing data across facilities for enterprise data analysis, combined with the trend of customers outsourcing asset protection to service providers with integrated offerings, provides opportunities for significant additional recurring revenues.

Continue to Expand Our Customer Base into New End Markets. We believe we have significant opportunities to expand our customer base in relatively new end markets, including the renewable energy industry, specifically, wind and other alternative energy, natural gas transportation industries, pipeline integrity and additive manufacturing. The expansion of our addressable markets is being driven by the increased recognition and adoption of advanced asset protection technologies (such as unmanned drone inspection devices, robotics, etc.) that are supplanting traditional methods.

Capitalize on Acquisitions. We have completed several acquisitions to supplement and enhance our solutions, add new customers, expand our sales channels and accelerate our expected growth. Due to our current debt levels and restrictions related to the debt covenants in our credit facility, we do not expect to make any acquisitions in 2024 other than small acquisitions with the banks' approval. However, once we reduce our debt, we expect to make selective acquisitions beyond 2024.

Our Segments

We have three operating segments: (i) North America (which we previously referred to as our Services segment), (ii) International and (iii) Products and Systems:

North America provides asset protection solutions with the largest concentration in the United States, followed by Canada, consisting primarily of NDT, inspection, mechanical and engineering services that are used to evaluate the structural integrity and reliability of critical energy, industrial and public infrastructure and commercial aerospace components. Software, digital and data services are included in this segment.

International offers services, products and systems similar to those of the other segments to select markets within Europe, the Middle East, Africa, Asia and South America, but not to customers in China and South Korea, which are served by the Products and Systems segment

Products and Systems designs, manufactures, sells, installs and services the Company's asset protection products and systems, including equipment and instrumentation, predominantly in the United States.

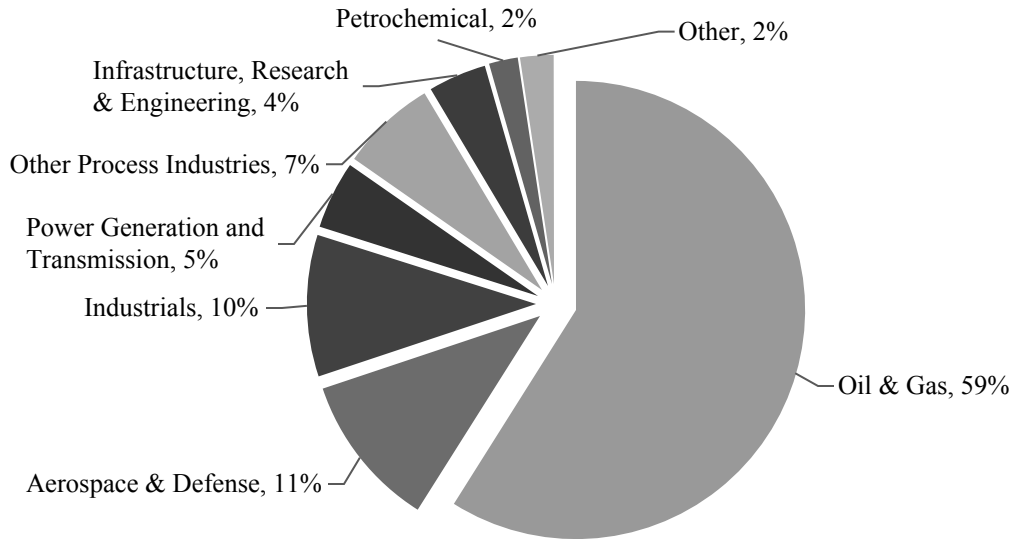
For a discussion of segment revenues, operating results and other financial information, including geographic areas in which we generated revenues, see "Management's Discussion and Analysis of Financial Condition and Results of Operations" in Item 7, as well as Note 2-*Revenue* and Note 19-*Segment Disclosure* in the notes to our audited consolidated financial statements in Item 8 of this Annual Report.

Revenue Overview

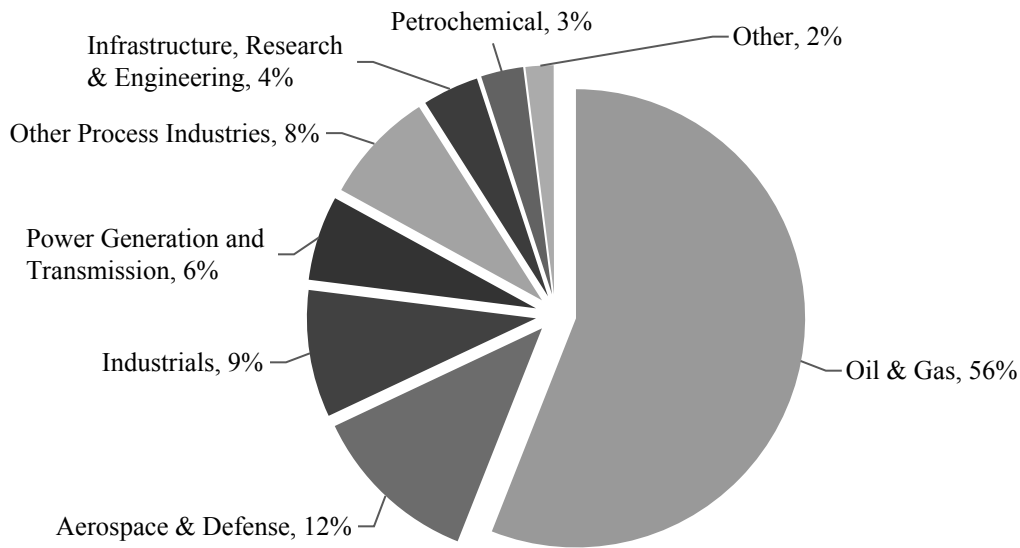
Revenue by Industry

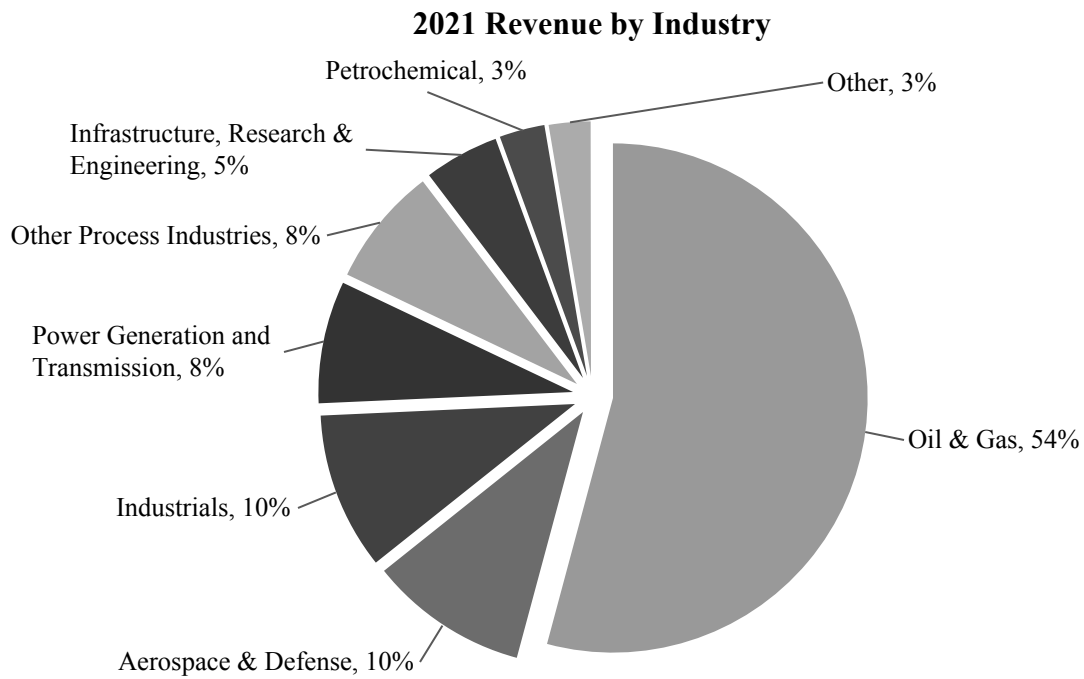
The following charts represent our disaggregated revenue by industry for the years ended December 31, 2023, 2022 and 2021.

2023 Revenue by Industry



2022 Revenue by Industry





Our Target Markets

Overview

We operate in a highly competitive, but fragmented market. Domestically, the market is serviced by several national competitors and many regional and/or local companies. Internationally, our primary competitors are divisions of large companies, with additional competition from small independent local companies which may be limited to a specific product, service or technology and focused on a niche market or geographic region. We focus our strategic sales, marketing and product development efforts on a range of infrastructure-intensive based industries and governmental authorities. We view energy-related infrastructure and commercial aerospace as our largest market opportunities. We perform inspection and mechanical services for customers in both industries.

Our revenues are comprised of services offerings at our laboratories and at customer facilities. Data Analytical Solutions revenues are comprised of revenue derived from data software sales & subscriptions, implementation services and analytics that offer insights and recommendations to improve asset integrity. Data Analytical Solutions revenue is derived from work performed by Mistras employees in our facilities, or at customer locations, using our proprietary portfolio of software applications. Field Services revenues are comprised of revenue derived primarily by technicians performing asset inspections and maintenance services for our customers at locations other than Mistras properties. Shop Laboratory revenues are comprised of quality assurance inspections of components and materials at our Mistras in-house laboratory facilities. Other revenues are comprised of locations that perform both asset inspection services and testing of components and materials at in-house Mistras laboratories.

There are a number of economic factors which drive the aerospace market, including:

- The multi-year backlog for next generation commercial aircraft to be built, including several large and mid-sized aircraft built by Boeing and Airbus, among other manufacturers; and
- The continuing regulatory scrutiny to ensure public safety serves to ensure the continued need for inspection and mechanical services to be performed.

In the energy market, there are various economic indicators that drive our business, especially in the U.S. domestic markets. It is unclear what the short and long term effects of the war between Russia and Ukraine is likely to have on the world economy and certain of our target markets, including particularly the oil and gas market. Excerpted below are forecasts from various Energy Information Administration (EIA) outlook reports, which are subject to change based on these factors:

Electricity generation from coal is projected to fall throughout the mid 2020s and the decrease will be partially offset by an increase in the forecast of combined utility-scale solar and wind generation.

The EIA noted U.S. crude oil production averaged 11.9 million barrels per day (bpd) in 2022 and rose to an average 12.9 million bpd in 2023. The EIA forecasts production to continue to increase to an average 13.3 million bpd in 2024 and further increase to 13.5 million bpd in 2025.

Oil and Gas

We supply oil and gas asset protection solutions to downstream (refining), midstream (transportation and storage) and upstream (exploration and production) operations.

We use our vast solutions portfolio to help identify current and future asset performance, and actively prevent, mitigate or otherwise address potential issues, including corrosion, cracking, leaking and other damages that may lead to safety, productivity or environmental concerns. Our solutions help identify conditions that if not remedied, could lead to potential catastrophic failures in tanks, vessels, valves, buried and above ground pipelines, pumps, motors, compressors and other critical assets found throughout the oil and gas production and delivery supply chain.

We actively seek to evolve our solutions through technological enhancements and research and development to discover new applications. Online monitoring and permanently-mounted sensors, as well as the use of drones and other alternative delivery devices, are all being considered as oil and gas infrastructure owners look to “smart” technologies that reduce human intervention while delivering highly-accurate inspection and integrity data. We also have actively sought to further enhance our integrated approach to asset protection, through the development of our complementary mechanical service portfolio.

In general, the oil and gas market is poised to leverage digital solutions to facilitate process improvements as well as increase plant reliability and improve process and personnel safety. This provides an opportunity for us to synergistically leverage our digital asset protection solutions. Digital transmission of data in various industry sectors, with built-in analytic functions, will allow our customers to better leverage inspection data that is being generated in the field.

While we expect off-stream inspection of critical assets to remain a routine practice, we anticipate an increase in the demand for non-invasive or on-stream inspections. Non-invasive inspections enable companies to minimize the costs associated with shutting down equipment during testing, while enabling the economic and safety advantages of advanced planning and/or predictive maintenance.

Aerospace and Defense

The aerospace industry continued to rebound from COVID-19 throughout 2023 with backlog and production levels approaching and exceeding pre-pandemic levels for certain OEMs for the first time since the pandemic. We serve this rapidly growing target market by providing a full range of inspection, testing, machining, mechanical, finishing, additive manufacturing and equipment solutions, for which we are Nadcap certified. Our state-of-the-art in-house laboratories maintain numerous accreditations from industry organizations, including Nadcap, and some of the largest manufacturers in the world, such as Boeing, Safran, Airbus, Bombardier and Embraer.

Advanced composite materials found in new classes of aircraft require advanced asset protection solutions, including x-ray of critical engine components, ultrasonic fatigue testing of complete aircraft structures and corrosion detection and other critical components. Many OEMs are shifting towards condition-based maintenance utilizing embedded monitoring sensors to track component structural and operational integrity over time as opposed to performing maintenance on time-based intervals. We expect demand for our solutions to increase with the adoption of these new-age materials and distributed online sensor networks. We also expect demand for asset protection solutions to increase with the continued adoption of additive manufacturing techniques.

Industrials

The quality control requirements driven by the need for zero-to-low-defect component tolerance within automated, robotic-intensive industries such as automotive, consumer electronics and medical industries serve as key drivers for increased demand in asset protection, particularly for in-house inspection and testing. We expect that increasingly stringent quality-control requirements and competitive forces will drive the demand for more-costly finishing and polishing which, in turn, creates opportunities for integrated partnerships between us and our customers throughout the production lifecycle.

Power Generation and Transmission

We provide asset protection solutions for customers in the combined cycle, fossil, nuclear, transmission and distribution and wind/alternative energy industries. We believe that in recent years, acceptance of asset protection solutions has grown in this industry due to the aging of critical power generation and transmission infrastructure.

The growing availability of cheap natural gas, along with environmental concerns with coal, has stimulated the construction of new natural gas-fired power plants across North America, creating opportunities for us to provide specialized solutions in multiple phases. These include facility design consultations, NDT services during construction and plant operations and long-term condition monitoring. We anticipate sharp growth in these types of plants as natural gas pricing remains low, and the environmental impacts of coal remain unattractive to the public.

We also offer solutions for inspection, maintenance, monitoring and data services for wind turbines and their components. These include NDT services — often performed through rope and/or drone access — to identify corrosion, cracking, and other defects that can affect the safety and operational effectiveness of wind turbines, along with remedial solutions to repair minor damages identified during inspections.

Other Process Industries

Our asset protection solutions are crucial for process industries, or industries in which raw materials are treated or prepared in a series of stages, including chemicals, pharmaceuticals, food processing, pulp and paper and metals and mining. As the process facilities are increasingly facing aging infrastructure, high utilization, growing capacity constraints and increasing capital costs, we believe asset protection solutions will continue to grow in importance in maintenance planning, quality and cost control and prevention of catastrophic failure.

Infrastructure, Research and Engineering

We believe that high-profile infrastructure catastrophes have caused public authorities to more actively seek ways to prevent similar events from occurring. Public authorities tasked with new construction and maintenance of existing public infrastructure increasingly use asset protection solutions to inspect these assets, including the use of embedded sensors to enable online monitoring throughout the life of the asset.

We have provided testing and structural health monitoring and data analytical solutions on bridges and structures worldwide, including some of the largest and most well-known bridges in the United States and United Kingdom. Our sensors continuously monitor these assets, alerting owner/operators when defects are detected. Our monitoring teams also provide regular reports that include early warnings of suspect areas before an alarm is generated.

Petrochemical

We provide asset protection NDT services for customers within the petrochemical industry, as they transform byproducts into goods which are utilized in many end products such as plastics, soaps, fertilizers, synthetic fibers and rubber. Our solutions help identify conditions that if not remedied, could lead to potential catastrophic failures in tanks, vessels, valves, buried and above ground pipelines, pumps, motors, compressors and other critical assets found throughout the petrochemical production process.

We actively seek to evolve our solutions through technological enhancements and R&D to discover new applications. Online monitoring and permanently-mounted sensors provide real-time data to petrochemical owners and operators and provide an opportunity for us to synergistically leverage our asset protection solutions into our MISTRAS Digital platform, OneSuite. Digital transmission of data in various industry sectors, with built-in analytic functions, will allow our customers to better leverage inspection data that is being generated in the field. We also have actively sought to further enhance our integrated approach to asset protection, through the development of our complementary mechanical service portfolio.

Customers

We provide our asset protection solutions to a global customer base of diverse companies primarily in our target markets. No customer represented 10% or more of our revenue in any of the years ended December 31, 2023, 2022 or 2021.

Geographic Areas

We have operations in 10 countries and occasionally conduct business in a few other countries. Most of our revenues are derived from our U.S., Canadian and European operations and we do not have operations in Russia, and we do not do business in Russia, Ukraine or other areas which are impacted by the Russian invasion of Ukraine. See Note 2-*Revenue* and Note 19-*Segment Disclosure* to our audited consolidated financial statements in this Annual Report for further disclosure of our revenues, long-lived assets and other financial information regarding our international operations.

Sales and Marketing

We sell our asset protection solutions through our direct sales and marketing activities worldwide. In addition, our project and laboratory managers, as well as our management, are trained on our solutions and often are the source of sales leads and customer contacts. Our direct sales and marketing teams work closely with our customers to demonstrate the benefits and capabilities of our asset protection solutions, refine our asset protection solutions based on changing market and customer needs and identify potential opportunities. We divide our sales and marketing efforts into services sales, products and systems sales and marketing and utilize marketing automation and customer relationship management ("CRM") systems to collect, manage and collaborate customer information with our teams globally. Our CRM systems also provide critical data to provide accurate forecasting and reporting.

Manufacturing

Most of our hardware products are manufactured in our Princeton Junction, New Jersey facility. This facility includes the capabilities and personnel to fully produce all of our AE products and NDT Automation Ultrasonic equipment. We also design and manufacture automated ultrasonic systems and scanners in France.

Human Capital

As of December 31, 2023, we had approximately 4,800 employees worldwide, of which 3,200 were located in the United States, 500 in Canada and 1,100 in our other non-U.S. locations. Our employees include full and part time employees throughout our organization. As described below, we value our employees and have established various programs to promote the satisfaction, health and safety of our employees. Less than 0.01% of our employees in the United States are unionized.

Our employees are key to achieving our goals and strategy. We have committed resources throughout our organization to ensure that we are attracting, developing, and retaining talented employees needed to support all aspects of our activities. Our core values and business ethics guide and direct all activities undertaken by us.

The health and safety of our employees is paramount. We have also developed key initiatives and strategies regarding our talent and people initiatives. Below, we describe some of the key initiatives and values around health and safety. Management regularly updates our Board of Directors with regards to our safety and people strategy and how we are performing in these areas. In 2020, our Board established the Environmental, Social and Safety Committee. This Committee, which consists of independent directors, monitors and oversees the strategic direction of our initiatives in support of our core values and our environmental, social and governance initiatives.

Talent, Leadership and Employee Development

Employee development and engagement begins with our senior management team, which has considerable industry experience and expertise. Leveraging this experience and expertise, our senior management team is able to continuously review our organizational structure and provide opportunities for the growth and development for our employees.

As part of our continued commitment to our employees, we have established various programs to promote lifelong learning and development opportunities for our employees. These include a mix of voluntary and mandatory training programs, which are provided in-person, virtually or on the job. We also provide employees the ability to continue to gain additional professional certifications to contribute to their career advancement. We utilize a web-based training center which is available to field technicians for career advancement and includes over 500 web-based classes. In addition, we are committed to ensuring all employees are compensated at a living wage. All local minimum wage requirements are met and where no wage laws are in place, employees are compensated competitively, in accordance with industry standards.

Our human rights policy places a high priority on diversity and equal opportunity and provides our employees with management's expectations related to human rights and labor practices.

Another program we instituted focuses on our connection by a common thread of caring – about one another, our customers, the environment, and the work we do. We seek to foster a culture of togetherness, safety, respect, and contribution which enables each individual member to feel that he or she is a part of something bigger. A community of caring professionals with a genuine passion for helping people and making a difference together – that is the heart of the program we call “Caring Connects.”

Our Safety-Conscious Culture

We consider safety the backbone of our operations. Our asset protection solutions aim to ensure that industrial assets and facilities remain in safe, reliable working condition, which in turn enhances safety for our customers, the public, and the environment. Our laboratory and field personnel are trained to operate according to strict safety and quality standards so that our processes and procedures regarding hazardous materials, worker safety, and accident prevention are sound and effective. Further to this, we are constantly evaluating these processes and procedures to ensure that they remain of high quality and are effective, and we consider changes in the manner in which work is performed or lessons that have been learned from any sources, such as industry data. We work to help ensure that our customers are in full compliance with all federal, state, and local regulations. Our practices, policies and procedures are designed to help ensure we perform our duties through the use of safe, industry-best practices, seeking to minimize risk wherever possible.

We emphasize a “MISTRAS” safety-conscious” culture with the intent that it becomes embedded in the day-to-day work of all our employees. We use various training tools and other practices to instill attitudes, beliefs, perceptions, and values that all employees share in the mandate to create and maintain a safe work environment for all.

We continuously monitor our safety performance through analysis of our company-wide safety statistics, which help us to determine behavioral trends while also instilling a culture of proactivity. For the year ended December 31, 2023, our Total Recordable Incident Rate ("TRIR") was 0.3 while Days Away, Restricted and Transferred Rate was 0.18 and Lost Work Day Rate remained 0.12. For the year ended December 31, 2022, our TRIR was 0.41.

Seasonality

Our business is seasonal. This seasonality relates primarily to our oil and gas target market, and to a lesser extent within our other target markets. U.S. refineries’ non-peak periods are generally in the fall, when they are retooling to produce more heating oil for winter, and in the spring, when they are retooling to produce more gasoline for summer. The peak periods for these customers are the summer and winter months, when they run at peak capacity and are not retooling or performing turnarounds or shut downs. As a result, our revenues in the summer and winter months are typically lower than our revenues in the fall and spring, when demand for our asset protection solutions from the oil and gas as well as the fossil power industries increases during their non-peak production periods. Because we are increasing our work in the fall and spring, our cash flows are lower in those quarters than in the summer and winter, as collections of receivables lag behind revenues. We expect that this seasonality will continue.

Competition

We operate in a highly competitive, but fragmented, market. Our primary competitors include large public and private companies, divisions of large companies and various small companies which generally are limited to a specific product or technology and focused on a niche market or geographic region. We believe that few, if any, of our competitors currently provide the full range of asset protection and NDT products, enterprise software ("PCMS") and the traditional and advanced services solutions that we offer. Our competition with respect to NDT services include Acuren, SGS Group, the Team IHT Segment and APPLUS RTD. Our competition with respect to our PCMS software includes UltraPIPE, Lloyd’s Register Capstone, Inc. and Meridium Systems. In the traditional NDT market, we believe the principal competitive factors include project management, availability of qualified personnel, execution, price, reputation and quality, whereas in the advanced NDT market, reputation, quality and size tend to be the most significant competitive factors. We believe that the NDT market has significant barriers to entry which would make it difficult for new competitors to enter the market. These barriers include: (i) having to acquire or develop advanced NDT services, products and systems technologies, which in our case occurred over many years of customer engagements and at significant internal research and development expense, (ii) complex regulations and safety codes that require significant industry experience, (iii) license requirements and evolved quality and safety programs, (iv) costly and time-consuming certification processes, (v) capital requirements and (vi) emphasis by large customers on size and critical mass, length of relationship and past service record.

Research and Development

Our research and development is principally conducted by engineers and scientists at our Princeton Junction, New Jersey headquarters, and supplemented by other employees in the United States and throughout the world, including Canada, France, Greece the United Kingdom, Brazil and the Netherlands. Our total professional staff includes employees who hold Ph.D.’s and engineers and employees who hold Level III certification, the highest level of certification from the American Society of Non-Destructive Testing (ASNT).

We make strategic research and development investments in our data analytical solutions technologies that support integration with our other solution offerings to enhance cost- and time-efficiencies, maximize uptime and safety and improve the flow of data from field technicians to inspection databases. These strategic investments enable us to enhance our service offerings to customers and provide valuable insights and predictive analysis.

We have also invested significant research and development in pre-machining and advanced testing technologies in a purpose-built facility for an aerospace customer, with the goal of reducing the customer's production cycle logistics and costs.

We also work with customers to develop new products or applications for our technology, including:

- Testing of new composites
- Detecting crack propagation
- Wireless and communications technologies
- Development of permanently embedded inspection systems to provide continuous, online, in-service monitoring of critical structural components

Research and development expenses are reflected in our Consolidated Statements of Income (Loss) as research and engineering expenses. Our company-sponsored research and engineering expenses were approximately \$1.7 million, \$2.0 million and \$2.5 million for the years ended December 31, 2023, 2022 and 2021, respectively. While we have historically funded most of our research and development expenditures, from time to time we also receive customer-sponsored research and development funding. Most of the projects are in our target markets, however, a few of the projects could lead to other future market opportunities.

Intellectual Property

Our success depends, in part, on our ability to maintain and protect our proprietary technology and to conduct our business without infringing on the proprietary rights of others. We utilize a combination of intellectual property safeguards, including patents, copyrights, trademarks and trade secrets, as well as employee and third-party confidentiality agreements, to protect our intellectual property.

As of December 31, 2023, we held 12 U.S. patents by direct ownership and 5 patent applications pending in the United States. All the patent applications pending have been filed since 2018. While we do not rely on these patents or licenses to provide a majority of our proprietary asset protection solutions, certain of these patents do provide us with a competitive advantage and we believe they will be an asset to our growth strategy. Our trademarks and service marks provide us and our solutions with a certain amount of brand recognition in our markets. We do not consider any single patent, trademark or service mark material to our financial condition or results of operations.

As of December 31, 2023, the primary trademarks and service marks that we held in the United States included MISTRAS[®], our stylized globe design and our tag line "One Source for Asset Protection Solutions". Other key trademarks or service marks that we utilize in localized markets or product advertising include:

- Onstream[®] (word and logo)
- PCMS[®] (word and logo)
- Ropeworks[®]
- MISTRAS Digital[®]
- OneSuite[™]
- Sensoria[™]
- OneSource[™]
- CALIPERAY[™] (word and logo)
- Physical Acoustics PAC logo
- Streamview[™]
- Sensor Highway[™]
- TankPAC[®]
- VPAC[™]
- Transformer Clinic[™]
- FieldCal[™]
- UTwin[®]
- AEWin[®]
- Pocket AE[®]
- Pocket UT[®]

Many elements of our asset protection solutions involve proprietary know-how, technology or data that are not covered by patents or patent applications because they are not patentable or would be difficult to enforce, including technical processes, algorithms and procedures. We believe that this proprietary know-how, technology and data is the most important component of our intellectual property used in our asset protection solutions and is a primary differentiator of our solutions from those of our competitors. We rely on various trade secret protection techniques and agreements with our customers, service providers and vendors to protect these assets. All of our employees are subject to confidentiality requirements through our employee handbook. In addition, many of our employees have entered into confidentiality and proprietary information agreements with us. Our employee handbook and these agreements require our employees not to use or disclose our confidential information and to assign to us all the inventions, designs and technologies they develop during the course of employment with us, as well as addressing other intellectual property protection issues. We also seek confidentiality agreements from our customers and business partners before we disclose any sensitive aspects of our technologies or business strategies. We are not currently involved in any material intellectual property claims.

Governmental Regulations

We are subject to numerous environmental, legal and regulatory requirements related to our operations worldwide. In the United States, these laws and regulations include, among others: the Comprehensive Environmental Response, Compensation, and Liability Act, the Resources Conservation and Recovery Act, the Clean Air Act, the Federal Water Pollution Control Act, the Toxic Substances Control Act, the Atomic Energy Act, the Energy Reorganization Act of 1974, and applicable regulations. In addition to the federal laws and regulations, states and other countries where we do business often have numerous environmental, legal and regulatory requirements by which we must abide. We evaluate and address the environmental impact of our operations by assessing properties in order to avoid future liabilities and comply with environmental, legal and regulatory requirements.

Executive Officers

The following were our executive officers for the year ended December 31, 2023 and their background and experience.

Name	Age	Position
Manuel N. Stamatakis	76	Chairman of the Board and Interim President and Chief Executive Officer
Edward J. Prajzner	57	Senior Executive Vice President and Chief Financial Officer
Gennaro D'Alterio	52	Executive Vice President, Chief Commercial Officer
Michael C. Keefe	67	Executive Vice President, General Counsel and Secretary
Michael J. Lange	63	Senior Group Executive Vice President
John A. Smith	54	Executive Vice President and President of Services

Manuel "Manny" N. Stamatakis joined Mistras Board of Directors in 2002, became the Chair of the Governance Committee as well as a member of the Audit Committee and Compensation Committee in 2009 and Lead Director in 2010. On October 9, 2023, Mr. Stamatakis became the Chairman of the Board, and on the same day became our Interim President Chief Executive Officer to replace our prior President and Chief Executive Officer, Dennis Bertolotti. At that same time, Mr. Stamatakis resigned from all the committees of the Board and as our lead director. Mr. Stamatakis currently chairs the Project Phoenix Steering Committee, an initiative for which he is both the chief architect and driving force.

An accomplished entrepreneur for over 30 years, Mr. Stamatakis is an executive officer of Capital Management Enterprises, Inc., a financial services and employee benefits consulting firm based in Pennsylvania. Mr. Stamatakis has held multiple board and chairmanship positions over the years, including Chairman of the Delaware River Port Authority, The Drexel College of Medicine, the Pennsylvania Supreme Court Investment Advisory Board, and the Philadelphia Shipyard Development Corporation which was the catalyst to bringing shipbuilding back to the Philadelphia region. He earned a B.S. in Industrial Engineering from Pennsylvania State University and received an honorary Doctor of Business Administration from Drexel University.

Edward J. Prajzner joined Mistras in January 2018 as our Senior Vice President, Chief Financial Officer and Treasurer, was subsequently promoted to Executive Vice President and on March 26, 2023, was promoted to become our Senior Executive Vice President and Chief Financial Officer. Prior to joining Mistras, Mr. Prajzner worked at CECO Environmental Corp., a global service provider to environmental, energy and filtration industries, and served as Chief Financial Officer and Secretary from 2014 to 2017, Vice President of Finance and Chief Accounting Officer from 2013 until his appointment as Chief Financial Officer in 2014, and Corporate Controller and Chief Accounting Officer from 2012 to 2013. Mr. Prajzner also served in senior finance roles at CDI Corporation (now AE Industrial Partners) and American Infrastructure (now Allan Myers). Mr. Prajzner began his career in public accounting at Ernst & Young, received his B.S. in accountancy from Villanova University, his MBA in finance from Temple University and is a certified public accountant.

Gennaro "Jerry" D'Alterio joined Mistras on September 11, 2023, as Executive Vice President and Chief Commercial Officer. Prior to joining Mistras, Mr. D'Alterio most recently served as the Vice President of Product Management and Director, Global Business Development at CECO Environmental Corporation's Fluid Handling & Filtration segment, where he also held the positions of President and Global President. With over 20 years of proven executive leadership and demonstrated ability to drive both revenue growth and profitability, across a wide range of industries, Mr. D'Alterio excels at driving best-in-class commercial operating models and transformations while fostering success-oriented, winning cultures. Mr. D'Alterio holds an MBA and a Bachelor of Science in Mechanical Engineering from Villanova University. He is certified in LEAN enterprise and manufacturing, is member of the Hydraulic Institute and the International Desalination Association, and serves on the Board of the Aquatic Animal Life Support Operators organization.

Michael C. Keefe joined Mistras in December 2009. Prior to joining Mistras, Mr. Keefe worked at International Fight League, a then publicly-traded sports promotion company, from 2007 until 2009, in various executive positions. From 1990 until 2006, Mr. Keefe served in various legal roles with Lucent Technologies and AT&T, the last four years of which he served as Vice President, Corporate and Securities Law and Assistant Secretary. Mr. Keefe received a BS in Business Administration (Accounting) from Seton Hall University and a J.D. from Seton Hall University School of Law.

Michael J. Lange joined Mistras when we acquired Quality Services Laboratories in November 2000, and was elected a Director in 2003. Mr. Lange has held various executive level positions with Mistras, becoming Senior Executive Vice President, effective June 1, 2016. Mr. Lange is a well-recognized authority in Radiography and has held an ASNT Level III Certificate for almost 20 years. Mr. Lange received an Associate of Science degree in NDT from the Spartan School of Aeronautics.

John A. Smith joined Mistras in 2008 and has held various positions, including Vice President of Operations, then became Senior Vice President of Operations in 2018 before becoming Executive Vice President and President of Services on October 1, 2023. Mr. Smith began his career as a non-destructive testing (NDT) technician with CONAM Inspection and Engineering Services before launching his own business, Elite Inspection Services Company. He owned and operated Elite for 16 years, until Mistras acquired the company in 2008. During his NDT career, Mr. Smith held multiple certifications from the American Society for Nondestructive Testing (ASNT).

Our executive officers are appointed by, and serve at the discretion of, our board of directors. There are no family relationships among any of our directors or executive officers.

Our Website and Available Information

Our website address is www.mistrasgroup.com. We file reports with the SEC, including Quarterly Reports on Form 10-Q, Annual Reports on Form 10-K, Current Reports on Form 8-K and Proxy Statements. All of the materials we file with or furnish to the SEC are available free of charge on our website at <http://investors.mistrasgroup.com/sec.cfm>, as soon as reasonably practicable after having been electronically submitted to the SEC. Information contained on or connected to our website is not incorporated by reference into this Annual Report and should not be considered part of this Annual Report or any other filing with the SEC. All of our SEC filings are also available at the SEC's website at www.sec.gov. In addition, materials we file with the SEC may be read and copied at the SEC's Public Reference Room at 100 F Street, NE, Washington, DC 20549. The public may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330.

ITEM 1A. RISK FACTORS

This section describes the major risks to us, our business and our common stock. You should carefully read and consider the risks described below, together with the other information contained in this Annual Report, including our financial statements and the notes thereto and “Management’s Discussion and Analysis of Financial Condition and Results of Operations” before making an investment decision. The statements contained in this section constitute cautionary statements under the Private Securities Litigation Reform Act of 1995. If any of these risks occur, our business, financial condition, results of operations and future growth prospects may be adversely affected. As a result, the trading price of our common stock would likely decline, and you may lose all or part of your investment. You should understand that it is not possible to predict or identify all risk factors that could impact us. For example, the COVID-19 pandemic has had a dramatic negative impact on the health of citizens of many countries, and resulted in major disruptions in economies and markets around the world, including our key markets. In addition, it is unclear what effects the on-going war between Russia and Ukraine and the conflict in the Middle East between Israel and Hamas are likely to have on the world economy and certain of our target markets, including particularly the oil and gas market, in the near and long term. In addition, macroeconomic factors such as inflation, unemployment, and interest rates, amongst others, will impact our business. Accordingly, you should not consider the following to be a complete discussion of all risks and uncertainties pertaining to us and our common stock.

Risks Related to Our Business

Due to our dependency on customers in the oil and gas industry, we are susceptible to prolonged negative trends relating to this industry that could adversely affect our operating results.

Our customers in the oil and gas industry have accounted for a substantial portion of our historical revenues. Specifically, they accounted for approximately 59%, 56%, and 54% of our revenues for the years ended December 31, 2023, 2022 and 2021, respectively. Although we have expanded our customer base into industries other than the oil and gas industry, we still receive a majority of our revenues from this industry. Our services are vital to the operators of plants, refineries, and pipelines, and we have expanded our services offerings, such as expanding our mechanical and in-line inspection services capabilities. However, economic slowdowns or low oil prices have, and could continue to, result in cutbacks in contracts for our services. In addition, low oil prices could depress the level of new exploration and construction, which would adversely affect our market opportunities. If the price of oil were to decrease, our revenues, profits and cash flows may be reduced. If the price of oil reaches record, or near record levels as it did in 2022, we may experience delays or deferrals in performing inspection services to customers in the oil and gas industry.

While we continue to expand our market presence in the aerospace, power generation and transmission, and the chemical processing industries, among others, these markets are also cyclical in nature and as such, are subject to economic downturns. In addition, it is unclear what the continued effects the war between Russia and Ukraine and the conflict in the Middle East between Israel and Hamas are likely to have on the world economy and certain of our target markets, including particularly the oil and gas market, in the near and long term. However, during 2022, we experienced unfavorable foreign currency exchange impacts as it relates to our European operations. Additionally, the Russian-Ukrainian war continues to create disruptions in the oil and gas market and the supply chain in general, which is resulting in some disruption to our business operations. Our European operations are currently experiencing increased costs associated with higher energy costs, among others, due in part to the Russian-Ukrainian war.

We may be affected by climate change and market or regulatory responses to climate change

Climate change could have a material adverse effect on our results of operations, financial condition, and liquidity. Restrictions on emissions, including those that have already been adopted and others that are expected to be adopted in the future, could affect our customers that (i) use commodities to produce energy, (ii) use significant amounts of fossil fuel to produce or deliver commodities, or (iii) manufacture or produce goods that consume significant amounts of fossil fuels or burn fossil fuels. Significant cost increases, government regulation, or changes of consumer preferences for goods or services relating to alternative sources of energy or emissions reductions could materially affect the markets we serve (including the oil and gas industry), which in turn could have a material adverse effect on our results of operations, financial condition and liquidity. Government incentives encouraging the use of alternative sources of energy also could affect certain of our customers and the markets we serve in an unpredictable manner. Any of these factors, individually or with one or more of the other factors, or other unforeseen impacts of climate change could have a material adverse effect on our results of operations, financial condition and liquidity.

In addition, changes in international, federal, state and local legislation and regulation based on concerns about climate change and increasing climate-related disclosures, including the rules proposed by the SEC, could result in increased compliance and data collection costs if, and when, such laws and regulations become effective.

Our international operations are subject to risks relating to non-U.S. operations.

For the years ended December 31, 2023, 2022 and 2021, we generated approximately 29%, 29%, and 30% of our revenues outside the United States, respectively. In addition, our international operations as a percentage of our business may increase over time. Our primary operations outside the United States are in Canada, Germany, France, the United Kingdom, the Netherlands and Brazil. We also have operations in Belgium, Greece and India. There are numerous risks inherent in doing business in international markets, including:

- fluctuations in currency exchange rates and interest rates;
- regional micro and macro-economic pressures, inflationary costs, energy costs and geopolitical factors;
- compliance with applicable foreign regulations and licensing requirements, and U.S. laws and regulation with respect to conducting business in other countries, including export controls, sanctions, anti-terrorist and anti-bribery laws;
- the cost and uncertainty of obtaining data and creating solutions that are relevant to particular geographic markets;
- the need to provide sufficient levels of technical support in different locations;
- the complexity of maintaining effective policies and procedures in locations around the world;
- political instability, war or conflicts and civil unrest;
- increased risk of hacking, malware or security breaches of our data and databases;
- restrictions or limitations on outsourcing contracts or services abroad;
- restrictions or limitations on the repatriation of funds, or tax consequences on the non-repatriation of overseas operationally generated funds; and
- other potentially adverse tax consequences.

Our operating results could be adversely affected by a reduction in business with our significant customers.

We derive a significant amount of revenues from a few customers. Taken as a group, our top ten customers were responsible for approximately 35%, 33%, and 33% of our revenues for the years ended December 31, 2023, 2022 and 2021, respectively. This concentration pertains almost exclusively to our North America segment, which accounted for 82%, 83% and 82% of our revenues for the years ended December 31, 2023, 2022 and 2021, respectively. These customers are primarily in the oil and gas sector. Generally, our customers do not have an obligation to make purchases from us and may stop ordering our products and services or may terminate existing orders or contracts at any time with little or no financial penalty. The loss of any of our significant customers, any substantial decline in sales to these customers or any significant change in the timing or volume of purchases by our significant customers could result in lower revenues and could harm our business, financial condition or results of operations.

Our business, and the industries we currently serve, are currently subject to governmental regulation, and may become subject to modified or new government regulation that may negatively impact our ability to market our asset protection solutions.

We are required to comply with various government regulations and licensing requirements. For example, the transportation and overnight storage of radioactive materials used in providing certain of our asset protection solutions such as radiography are subject to regulation under federal and state laws and licensing requirements. Our North America segment is currently licensed to handle radioactive materials by the U.S. Nuclear Regulatory Commission, more than 30 state regulatory agencies and the Canadian Nuclear Safety Commission. If we allegedly fail to comply with these regulations, we may be investigated and incur significant legal expenses associated with such investigations, and if we are found to have violated these regulations, we may be fined or lose one or more of our licenses or permits, which would prevent or restrict our ability to provide radiography services. In addition, while we are being investigated, we may be required to suspend work on the projects associated with our alleged noncompliance, resulting in loss of profits or customers, and damage to our reputation. Many of our customers have strict requirements concerning safety or loss time occurrences and if we are unable to meet these requirements it could result in lost

revenues. In the future, governmental agencies may seek to change current regulations or impose additional regulations on our business. Any modified or new government regulation applicable to our current or future asset protection solutions may negatively impact the marketing and provision of those solutions and increase our costs of providing these solutions and have a corresponding adverse effect on our margins.

Additionally, greenhouse gases that result from human activities, including burning of fossil fuels, have been the focus of increased scientific and political scrutiny and are being subjected to various legal requirements. International agreements, national laws, state laws and various regulatory schemes limit or otherwise regulate emissions of greenhouse gases, and additional restrictions are under consideration by different governmental entities. We derive a significant amount of revenues and profits from such industries, including oil and gas, power generation and transmission, and chemicals processing. Such regulations could negatively impact our customers, which could negatively impact the market for the services and products we provide. This could materially adversely affect our business, financial condition, results of operations and cash flows.

We rely on certification of our NDT solutions by industry standards-setting bodies. We and/or our subsidiaries currently have International Organization for Standardization (ISO) 9001:2008 certification, ISO 14001:2004 certification and OHSAS 18001:2007 certification. In addition, we currently have Nadcap (formerly National Aerospace and Defense Contractors Accreditation Program) and similar certifications for certain of our locations. We continually review our NDT solutions for compliance with the requirements of industry specification standards and the Nadcap special processes quality requirements. However, if we fail to maintain our ISO, Nadcap or other certifications, our business may be harmed because our customers generally require that we have these certifications before they purchase our NDT solutions.

An accident or incident involving our asset protection solutions could expose us to claims, harm our reputation and adversely affect our ability to compete for business and, as a result, harm our operating performance.

We could be exposed to liabilities arising out of the solutions we provide. For instance, we furnish the results of our testing and inspections for use by our customers in their assessment of their assets, facilities, plants and other structures. If such results were to be incorrect or incomplete, as a result of, for instance, poorly designed inspections, malfunctioning testing equipment or our employees' failure to adequately test or properly record data, we could be subject to claims. Further, if an accident or incident involving a structure we tested occurs and causes personal injuries or property damage, such as the collapse of a bridge or an explosion in a facility, and particularly if these injuries or damages could have been prevented by our customers had we provided them with correct or complete results, we would likely face significant claims relating to personal injury, property damage or other losses. Even if our results are correct and complete, we may face claims for such injuries or damage simply because we tested the structure or facility in question. In addition, during the course of a single engagement, such as the inspection of a pipeline, we often perform tests on thousands of welds. Even if the accuracy of only a small number of these test results are questioned, a customer may attempt to refuse payment for the entire project. While we do have insurance, our insurance coverage does not cover non-payment by customers and may not be adequate to cover the damages from any of the prior referenced claims, forcing us to bear these uninsured damages directly, which could harm our operating results and may result in additional expenses and possible loss of revenues. An accident or incident for which we are found partially or fully responsible, even if fully insured, or even an incident at a customer or site for which we provide services although we were found not to be responsible, may also result in negative publicity, which would harm our reputation among our customers and the public, cause us to lose existing and future contracts or make it more difficult for us to compete effectively, thereby significantly harming our operating performance. In addition, the occurrence of an accident or incident might also make it more expensive or extremely difficult for us to insure against similar events in the future.

Many of the sites at which we work are inherently dangerous workplaces. If we fail to maintain a safe work environment, we may incur losses and lose business.

Many of our customers, particularly in the oil and gas and chemical industries, require their inspectors and other contractors working at their facilities to have good safety records because of the inherent danger at these sites. If our employees are injured at the work place, we could incur costs for the injuries and lost productivity. In addition, safety records are impacted by the number and amount of workplace incidents involving a contractor's employees. If our safety record is not within the levels required by our customers, or compares unfavorably to our competitors, we could lose business, be prevented from working at certain facilities or suffer other adverse consequences, all of which could negatively impact our business, revenues, reputation and profitability.

If our software or system produces inaccurate information or are incompatible with the systems used by our customers and make us unable to successfully provide our solutions, it could lead to a loss of revenues and customers.

Our software and systems are complex and, accordingly, may contain undetected errors or failures. Software or system defects or inaccurate data may cause incorrect recording, reporting or display of information related to our asset protection solutions. Any such failures, defects and inaccurate data may prevent us from successfully providing our asset protection solutions, which could result in lost revenues. Software or system defects or inaccurate data may lead to customer dissatisfaction and could cause our customers to seek to hold us liable for any damages incurred. As a result, we could lose customers, our reputation may be harmed and our financial condition and results of operations could be materially adversely affected.

We currently serve a commercial, and industrial customer base that uses a wide variety of constantly changing hardware, software solutions and operating systems. Our asset protection solutions need to interface with these systems in order to gather and assess data. Our business depends on the following factors, among others:

- our ability to integrate our technology with new and existing hardware and software systems, of either Mistras or a customer;
- our ability to anticipate and support new standards, especially internet-based standards; and
- our ability to integrate additional software modules under development by either us or a customer, with our existing technology and operational processes.

If we are unable to adequately address any of these factors, our results of operations and prospects for growth and profitability would be adversely impacted.

If we are unable to attract and retain a sufficient number of trained certified technicians, engineers and scientists at competitive wages, changes in laws and other labor issues could materially affect our financial performance.

We believe that our success depends, in part, upon our ability to attract, develop and retain a sufficient number of trained certified technicians, engineers and scientists at competitive wages. The demand for such employees fluctuates as the demand for NDT and inspection services fluctuates. When the demand for qualified technicians increases, we will often experience increased labor costs, which we may not recover in the amounts we can charge our customers. The markets for our products and services require us to use personnel trained and certified in accordance with standards set by domestic or international standard-setting bodies, such as the American Society of Non-Destructive Testing or the API. Because of the limited supply of these certified technicians, we expend substantial resources maintaining in-house training and certification programs. If we fail to attract sufficient new personnel or fail to motivate and retain our current personnel, our ability to perform under existing contracts and orders or to pursue new business may be harmed, preventing us from growing our business or causing us to lose customers and revenues, and the costs of performing such contracts and orders may increase, which would likely reduce our margins.

In addition, if our costs of labor or related costs increase for other reasons or if new or revised labor laws, rules or regulations or healthcare laws are adopted or implemented that further increase our labor costs, our financial performance could be materially adversely affected.

Our initiatives to improve our financial performance may not achieve results within expected time frames, or at expected levels.

We have undertaken strategies to transform our business so that we may operate more effectively, streamline and rationalize our cost structures, and look for strategic opportunities to expand our revenue and become more profitable. The extent of our future success depends on how successful we are in these endeavors.

In 2023, we commenced a broad review of our operations, which we refer to as "Project Phoenix". Through Project Phoenix, we have been exploring ways to improve profitability and Adjusted EBITDA, through meaningful margin improvement and sustained cost savings. We have completed most phases of the project, wherein efficiency and profitability opportunities were identified, actionable initiatives were validated, and many of these actions have been implemented prospectively. Project Phoenix has resulted in significant cost reductions, primarily through headcount reductions, more efficient workflows, and streamlining of processes, and also led to developing and initiating action plans to increase revenue.

We believe our Project Phoenix initiatives will benefit the Company and our stockholders in the long run. However, we cannot be certain that some of the cost reductions could result in problems with our operations, lost opportunities, weakening of controls and procedures or other adverse effects if we misjudged the impact of the headcount reductions and other changes that we have implemented and are currently implementing. In addition, headcount reductions can result in lower employee morale and result in employees deciding to leave the Company, which would further adversely impact our businesses.

We operate in competitive markets and if we are unable to compete successfully, we could lose market share and revenues and our margins could decline.

We face strong competition from NDT and a variety of niche asset protection providers, both larger and smaller than we are. Some of our competitors have greater financial resources than we do and could focus their substantial financial resources to develop a competing business model or develop products or services that are more attractive to potential customers than what we offer. Some of our competitors are business units of companies substantially larger than us and could attempt to combine asset protection solutions into an integrated offering to customers who already purchase other types of products or services from them. Our competitors may offer asset protection solutions at lower prices than ours in order to attempt to gain market share. Smaller niche competitors with small customer bases could be aggressive in their pricing in order to retain customers. These competitive factors could reduce our market share, revenues and profits.

The success of our businesses depends, in part, on our ability to develop new asset protection solutions, increase the functionality of our current offerings and meet the needs and demands of our customers.

The market for asset protection solutions is impacted by technological change, uncertain product lifecycles, shifts in customer demands and evolving industry standards and regulations. If we fail to execute effective business strategies, or fail to successfully develop and market new asset protection solutions that comply with present or emerging industry regulations and technology standards, our competitive standing and results could suffer. Also, new regulations or technology standards could increase our cost of doing business.

From time to time, our customers have requested greater value and functionality in our solutions. As part of our strategy to enhance our asset protection solutions and grow our business, we continue to make investments in the research and development of new technologies, inspection tools and methodologies. We believe our future success will depend, in part, on our ability to continue to design new, competitive and broader asset protection solutions, enhance our current solutions and provide new, value-added services. Many traditional NDT and inspection services are subject to price competition by our customers. Accordingly, the need to demonstrate our value-added services is becoming more important. Developing new solutions will require continued investment, and we may experience unforeseen technological or operational challenges. In addition, our asset protection software is complex and can be expensive to develop, and new software and software enhancements can require long development and testing periods. If we are unable to develop new asset protection solutions or enhancements that meet market demands on a timely basis, including against possible alternative products developed and marketed by our competitors, we may experience a loss of customers or otherwise be likely to lose opportunities to earn revenues and to gain customers or access to markets, and our business and results of operations will be adversely affected.

Even if we develop new solutions, if our customers, or potential customers, do not see the value our solutions have over competing products and services, our operating results could be adversely impacted. In addition, because the asset protection solutions industry is evolving, we could lose insight into trends that may be emerging, which would further harm our competitive position by making it difficult to predict and respond to customer needs. If the market for our asset protection solutions does not continue to develop, our ability to grow our business would be limited and we might not be able to maintain profitability. If we cannot convince our customers of the advantages and value of our advanced NDT services, we could lose large contracts or suffer lower profit margin.

The seasonal nature of our business reduces our revenues and profitability in the winter and summer and related cash flows.

Our business is seasonal. The fall and spring revenues are typically higher than our revenues in the winter and summer because demand for our asset protection solutions from the oil and gas as well as the fossil and nuclear power industries increases during their non-peak production periods. For instance, U.S. refineries' non-peak periods are generally in the fall, when they are retooling to produce more heating oil for winter, and in the spring, when they are retooling to produce more gasoline for summer. As a result of these trends, we generally have reduced cash flows in the fall and spring, as collections of receivables lag behind revenues, normally requiring us to increase our borrowings under our credit agreement. In addition, most of our operating expenses, such as employee compensation and property rental expense, are relatively fixed over the short term. Moreover, our spending levels are based in part on our expectations regarding future revenues. As a result, if revenues for a particular quarter are below expectations, we may not be able to proportionately reduce operating expenses for that quarter. We expect that the impact of seasonality will continue.

Our credit agreement contains financial and operating restrictions that may limit our access to credit. If we fail to comply with financial or other covenants in our credit agreement, we may be required to repay indebtedness to our existing lenders, which may harm our liquidity.

Our credit agreement contains financial covenants that require us to maintain compliance with specified financial ratios. If we fail to comply with these covenants, the lenders could prevent us from borrowing under our credit agreement, require us to pay all amounts outstanding, require that we cash collateralize letters of credit issued under the credit agreement and restrict us from making acquisitions. If the maturity of our indebtedness is accelerated, we then may not have sufficient funds available for repayment or the ability to borrow or obtain sufficient funds to replace the accelerated indebtedness on terms acceptable to us, or at all. We believe that it is probable, based on the New Credit Agreement (as defined herein), that we will be able to comply with the financial covenants in our existing credit agreement and that sufficient credit remains available under the credit agreement to meet our liquidity needs. However, due to the uncertainties being caused by the significant volatility in oil prices and volatility in the aerospace production, such matters cannot be predicted with certainty.

Our current credit agreement also imposes restrictions on our ability to engage in certain activities, such as creating liens, making certain investments, incurring more debt, disposing of certain property, paying dividends and making distributions and entering into a new line of business. While these restrictions have not impeded our business operations to date, if our plans change, these restrictions could be burdensome or require that we pay fees to have the restrictions waived. In addition, due to our current debt levels and restrictions related to the debt covenants in our credit facility, we do not expect to make any acquisitions in 2024 other than small acquisitions with the banks' approval.

We face risks regarding our information technology and security.

Significant disruptions of our information technology systems or breaches of information security could adversely affect our business. We rely upon information technology systems to operate many parts of our business. We routinely collect, store and transmit large amounts of sensitive or confidential information, including data from the results of our testing and inspections. We deploy and operate various technical and procedural controls to maintain the confidentiality and integrity of such sensitive or confidential information. Furthermore, as we automate more of our inspection process and procedures, including through the use of MISTRAS Digital, we become more vulnerable to security breaches and other system disruptions. In addition, we rely on third parties for significant elements of our information technology infrastructure and, as a result, we are managing many independent vendor relationships with third parties who may or could have access to our confidential information. The size and complexity of our information technology and information security systems, and those of our third-party vendors with whom we contract (and the large amounts of confidential information that is present on them), make such systems potentially vulnerable to service interruptions or to security breaches from inadvertent or intentional actions by our employees or vendors, or from attacks by malicious third parties. Such attacks are of ever-increasing levels of sophistication and expertise, including organized criminal groups, "hacktivists" and others. Due to the nature of some of these attacks, there is a risk that they may remain undetected for a period of time. While we have invested in the protection of data and information technology, there can be no assurance that our efforts will prevent service interruptions or security breaches. Any such interruption or breach of our systems could adversely affect our business operations and/or result in the loss of critical or sensitive confidential information, and could result in financial, legal, business and reputational harm to us. We maintain cyber liability insurance. However, this insurance may not be sufficient to cover the financial, legal, business or reputational losses that may result from an interruption or breach of our systems. The occurrence or perception of security breaches in connection with our asset protection solutions or our customers' concerns about internet security or the security of our solutions, whether warranted or not, would likely harm our reputation and business, inhibit market acceptance of our asset protection solutions and cause us to lose customers, any of which would harm our financial condition and results of operations.

In addition, much of our computer and communications hardware is located at a single facility. We have a back-up data-center and storage in a different geographic area. Should a natural disaster or some other event occur that damages our primary data center or significantly disrupts its operation, such as human error, fire, flood, power loss, telecommunications failure, break-ins, terrorist attacks, acts of war and similar events, we could suffer temporary interruption of key functions and capabilities before the back-up facility is fully operational.

Events such as natural disasters, industrial accidents, epidemics, pandemics, war and acts of terrorism, and adverse weather conditions could disrupt our business or the business of our customers, which could significantly harm our operations, financial results and cash flow.

Our operations and those of our customers are susceptible to the occurrence of catastrophic events outside our control, which may include events like epidemics, pandemics and other health crises, severe weather conditions, industrial accidents, and acts of war and terrorism, to name a few. We continue to actively monitor the conflict in the Middle East between Israel and Hamas, and the war between Russia and Ukraine and the sanctions imposed upon Russia in order to assess impacts to our customers and our operations. At this time, we do not believe there is a material impact on our operations, however the future impact of the conflict, and additional sanctions imposed, are uncertain.

Any such events could cause a serious business disruption that reduces our customers' need or interest in purchasing our asset protection solutions. In the past, such events have resulted in order cancellations and delays because customer equipment, facilities or operations have been damaged, or are not then operational or available. A large portion of our customer base has operations in the Gulf of Mexico, which is subject to hurricanes and tropical storms. Hurricane-related disruptions to our customers' operations have adversely affected our revenues in the past. Such events in the future may result in substantial delays in the provision of solutions to our customers and the loss of valuable equipment. In addition, our results can be adversely impacted by severe winter weather conditions, which can result in lost workdays and temporary closures of customer facilities or outdoor projects.

In addition, these events could disrupt commodity prices or financial markets or have other negative macroeconomic impacts, such as the conflict in the Middle East between Hamas and Israel and the on-going war between Ukraine and Russia, which could harm our business.

Risks Related to Our Common Stock

A significant stockholder has significant influence over the direction of our business. The concentrated ownership of our common stock may prevent other stockholders from influencing significant corporate decisions.

Dr. Sotirios J. Vahaviolos, our founder and Chairman Emeritus, owns approximately 6% of our outstanding common stock, his three adult children own an additional 6%, in the aggregate, and a grantor retained annuity trust he created, for which his daughter is the sole trustee, owns approximately 22%. As a result, Dr. Vahaviolos and his family have significant control over the Company and they have the ability to exert substantial influence over all matters requiring approval by our stockholders, including the election and removal of directors, amendments to our certificate of incorporation, and any proposed merger, consolidation or sale of all or substantially all of our assets and other corporate transactions. This concentration of ownership could be disadvantageous to other stockholders with differing interests from Dr. Vahaviolos and his family.

We currently have no plans to pay dividends on our common stock.

We have not declared or paid any cash dividends on our common stock to date, and we do not anticipate declaring or paying any dividends on our common stock in the foreseeable future. To the extent we do not pay dividends on our common stock, investors must look solely to stock appreciation for a return on their investment.

Shares eligible for future sale may cause the market price for our common stock to decline even if our business is doing well.

Future sales by us or by our existing stockholders of substantial amounts of our common stock in the public market, or the perception that these sales may occur, could cause the market price of our common stock to decline. This could also impair our ability to raise additional capital in the future through the sale of our equity securities. We cannot predict the size of future issuances of our common stock or the effect, if any, that future sales and issuances of shares of our common stock, or the perception of such sales or issuances, would have on the market price of our common stock. We currently have approximately 170 million shares of common stock available for issuance.

Provisions of our certificate of incorporation, bylaws and of Delaware law could discourage, delay or prevent a change of control of our company, which may adversely affect the market price of our common stock.

Certain provisions of our certificate of incorporation and bylaws could discourage, delay or prevent a merger, acquisition, or other change of control that stockholders may consider favorable, including transactions in which our stockholders might otherwise receive a premium for their shares. These provisions also could limit the price that investors might be willing to pay in the future for shares of our common stock, thereby depressing the market price of our common stock. Stockholders who wish to participate in these transactions may not have the opportunity to do so. Furthermore, these provisions could prevent or frustrate attempts by our stockholders to replace or remove our management. These provisions:

- allow the authorized number of directors to be changed only by resolution of our board of directors;
- require that vacancies on the board of directors, including newly created directorships, be filled only by a majority vote of directors then in office;

- authorize our board of directors to issue, without stockholder approval, preferred stock that, if issued, could operate as a “poison pill” to dilute the stock ownership of a potential hostile acquirer to prevent an acquisition that is not approved by our board of directors;
- require that stockholder actions must be effected at a duly called stockholder meeting by prohibiting stockholder action by written consent;
- prohibit cumulative voting in the election of directors, which may otherwise allow holders of less than a majority of stock to elect some directors; and
- establish advance notice requirements for stockholder nominations to our board of directors or for stockholder proposals that can be acted on at stockholder meetings and limit the right to call special meetings of stockholders to the Chairman of our board, our Chief Executive Officer, our board of directors acting pursuant to a resolution adopted by a majority of directors or our Secretary upon the written request of stockholders entitled to cast not less than 35% of all the votes entitled to be cast at such meeting.

In addition, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law, which may, unless certain criteria are met, prohibit large stockholders, in particular those owning 15% or more of our outstanding voting stock, from merging or combining with us for a prescribed period of time.

General Risk Factors

Our stock price could fluctuate for numerous reasons, including variations in our results.

Our quarterly operating results have fluctuated in the past and may do so in the future. Accordingly, we believe that period-to-period comparisons of our results of operations may be the best indicators of our business. You should not rely upon the results of one quarter as an indication of future performance. Our revenues and operating results may fall below the expectations of securities analysts or investors in any future period. Our failure to meet these expectations may cause the market price of our common stock to decline, perhaps substantially. Our quarterly revenues and operating results may vary depending on a number of factors, including those listed previously under “—Risks Related to Our Business.” In addition, the price of our common stock is subject to general economic, market, industry, and competitive conditions, the risk factors discussed herein and numerous other conditions outside of our control.

Deteriorations in economic conditions in certain markets or other factors may cause us to recognize additional impairment charges for our goodwill.

During the year ended December 31, 2023, we recognized goodwill impairment charges of \$13.8 million within the International reporting units. Future deterioration in industry or economic conditions in which we operate, including increased inflationary costs, energy costs, labor costs, social pressures and disruptions in Europe, the Middle East or elsewhere as a result of the war between Russia and Ukraine and the conflict between Israel and Hamas, disruptions to our business, not effectively integrating acquired businesses, macroeconomic factors or other factors, may cause impairment charges to our goodwill in future periods.

We are subject to privacy and data security/protection laws in the jurisdictions in which we operate and may be exposed to substantial costs and liabilities associated with such laws and regulations.

The regulatory environment surrounding information security and privacy is increasingly demanding, with frequent imposition of new and changing requirements. The European Union's General Data Protection Regulation (“GDPR”), which became effective in May 2018, imposed significant new requirements on how companies process and transfer personal data, as well as significant fines for non-compliance. In addition to GDPR, many states in the U.S. and provinces in Canada have enacted, or are considering, data privacy requirements similar to GDPR, and thus we will need to ensure our procedures comply with these various state and provincial laws. Compliance with changes in privacy and information security laws and standards may result in significant expense due to increased investment in technology and the development of new operational processes, which could have a material adverse effect on our financial condition and results of operations. In addition, the payment of potentially significant fines or penalties in the event of a breach of privacy and information security laws, as well as the negative publicity associated with such a breach, could damage our reputation and adversely impact product demand and customer relationships.

If we lose key members of our senior management team upon whom we are dependent, we may be less effective in managing our operations and may have more difficulty achieving our strategic objectives.

Our future success depends to a considerable degree upon the availability, contributions, vision, skills, experience and effort of our senior management team. We have in place various compensation programs, such as an annual cash incentive program, equity incentive program and a severance policy, each designed to incentivize and retain our key senior managers. At this time, we do not have any reason to believe that we may lose the services of any of these key persons in the foreseeable future and we believe our compensation programs will help us retain these individuals. However, an unplanned loss or interruption of the service of numerous key members of our senior management team could harm our business, financial condition and results of operations and could significantly reduce our ability to manage our operations and implement our strategy.

Intellectual property may impact our business and results of operations.

Our ability to compete effectively depends in part upon the maintenance and protection of the intellectual property related to our asset protection solutions. Patent protection is unavailable for certain aspects of the technology and operational processes important to our business and any patent or patent applications, trademarks or copyrights held by us or to be issued to us, may not adequately protect us. To date, we have relied principally on copyright, trademark and trade secrecy laws, as well as confidentiality agreements and licensing arrangements, and more recently, patent protection, to establish and protect our intellectual property. However, we have not obtained confidentiality agreements from all our customers. Although we obligate our employees to confidentiality, we cannot be certain that these obligations will be honored or enforceable in all circumstances.

We may require additional capital to support business growth, which might not be available.

We intend to continue making investments to support our business growth and may require additional funds to respond to business challenges or opportunities, including the need to develop new, or enhance our current, asset protection solutions, enhance our operating infrastructure or acquire businesses and technologies. Accordingly, we may need to engage in equity or debt financings to secure additional funds. If we raise additional funds through further issuances of equity or convertible debt securities, our current stockholders could suffer significant dilution, and any new equity securities we issue could have rights, preferences and privileges superior to those of holders of our common stock. Our current credit facility meets our current needs, except that due to our current debt levels, the facility limits our ability to make acquisitions without the banks' approval until our debt ratio improves. If we were to secure other debt financing in the future, it could involve restrictive covenants relating to our capital-raising activities and other financial and operational matters, which may make it more difficult for us to obtain additional capital and to pursue business opportunities, including potential acquisitions. In addition, no assurance can be given that adequate or acceptable financing will be available to us, in which case we may not be able to grow our business, including through acquisitions, or respond to business challenges.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 1C. CYBERSECURITY

We prioritize the protection of our data assets, the private data of our employees, customers, and vendors, and personal information. To assess, identify, and manage the risks of cybersecurity threats to our information systems and the associated costs, we maintain a robust cybersecurity program that is integrated into the Company's overall Enterprise Risk Management strategy. We understand that threats from hackers and other cyber criminals continues to adapt and become more sophisticated, and so must our response to these threats.

Governance

Our Board of Directors ("the Board") is responsible for oversight of our information security program. The Audit Committee, Enterprise Risk Committee, and the Information Technology Leadership Team support the Board in the oversight of our information security program and are focused on cybersecurity and data privacy risk, including compliance with all applicable laws and regulations, incident response planning, timely identification and assessment of incidents, incident recovery and business continuity considerations.

The Divisional Vice President of IT has a biannual meeting with the Audit Committee and other senior executives to provide an update of our current cyber security posture, IT Risk assessment, and compliance with multiple applicable regulations, frameworks, and other privacy initiatives. The Divisional Vice President of IT, along with the Information Technology Leadership Team, also meet with other senior executives every other week throughout the year to discuss on-going cyber security and governance initiatives and risk mitigations. The Divisional Vice President of IT has fifteen years of cybersecurity

experience, including ten years with Mistras Group, and the Information Technology Leadership Team has a combined fifteen years of cybersecurity experience, including a combined ten years with Mistras Group. The Divisional Vice President of IT and members of the Information Technology Leadership Team maintain industry recognized credentials relevant to their roles.

The Divisional Vice President of IT manages both an Information Security team and an IT Risk team within the Department of Information Technology. The IT Risk team is responsible for governance and compliance related to regulations and frameworks for data classification, data privacy, handling of private data and CUI, and internal policies and procedures. The Cyber Security team is responsible for identifying and implementing technologies to mitigate IT risk, enhance data security, and identify and defend against attacks. Both teams work closely together to establish the cybersecurity policies for the Company, evaluate the current risk profile, and to prevent, investigate, mitigate, and remediate any cyber-attacks on the Company.

Risk Management and Strategy

The IT Risk team uses an asset-based risk approach for evaluating cybersecurity risks and appropriate risk mitigation. All IT assets are reviewed against a broad range of risks twice a year and are evaluated for likelihood of occurrence and impact should they occur. These risks are then mapped to our global inventory of systems and the type of data as well as the number of systems to which a risk applies are evaluated. These factors are used to determine a risk score for each of the reviewed risks, and mitigations are subsequently applied to reduce those risk scores to determine the areas of focus for increasing mitigations. This exercise is logged biannually to monitor improvement.

We have several physical, automated, and administrative controls in place to mitigate the success and extent of any cyber breaches. Our controls are designed to require review of tasks which may occur in the normal course of business but are also common vectors of attack. Automated controls are implemented in all cases where one is feasible, and in other cases standard procedures or documented instructions are in place to ensure that actions are proper and approved before they occur.

Policies related to cybersecurity risks are documented, reviewed annually, and published internally, which define the correct processes for identifying, containing, remediating, and responding to cybersecurity incidents. Our data protection policies define the establishment of the classification of types of data. Based upon this data classification, we determine an incident's materiality and establish the appropriate response, the incident management team, and the communications required to be distributed to third parties. Incident management policies are in place to establish the proper communication channels and responsible parties for different levels of materiality of an incident. We practice these policies and procedures in a tabletop or simulated fashion multiple times annually.

Each employee plays a role in safeguarding our data assets, and the protection of our data is ingrained in every employee's day to day activities. Employees must participate in annual Cyber Security training. Simulated testing occurs multiple times throughout the year, including drop testing and SPAM / PHISHING campaigns, and the results are tracked for compliance and we address any weaknesses identified in such trainings and testings as necessary.

The Information Security team performs internal threat hunting, vulnerability scanning, log aggregation, and identity monitoring on an on-going basis. Web site, code, and configuration vulnerability scans are performed as necessary to ensure that changes do not introduce vulnerabilities into our systems. Information Security and IT Risk personnel receive regular training to ensure up-to-date expert knowledge.

To supplement our cybersecurity risk assessment, identification, management, and mitigation efforts, we engage third party cyber security experts. Cyber security assessments are performed at least annually, results are documented and reviewed, and mitigation plans are put in place to reduce any threats identified. The classification of data processed by any system is considered when implementing mitigations.

We recognize the importance of overseeing and identifying material risks from cybersecurity threats associated with our use of third-party vendors. We perform a thorough review of the cyber security measures in place, including any documented third-party audits, for any partners who process our data. Sign-off is required by the Information Security team before agreements can be put in place.

We believe that our current preventative actions and response activities provide adequate measures of protection against security breaches and generally reduce our cybersecurity risks. However, cybersecurity threats are constantly evolving, are becoming more frequent and more sophisticated and are being made by groups of individuals with a wide range of expertise and motives, which increases the difficulty of detecting and successfully defending against them. While we have implemented measures to safeguard our operational and technology systems and have established a culture of continuous learning, monitoring and improvement, the evolving nature of cybersecurity attacks and vulnerabilities means that these protections may

not always be effective. However, as of the date of this Annual Report, management has determined that none of the cybersecurity attacks that we have experienced has resulted in a material impact on our financial condition, results of operations or business strategy. In addition, as of the date of this Annual Report, we are not aware of any risks from cybersecurity threats that have materially affected or are reasonably likely to materially affect us, including our business strategy, results of operations and financial condition.

For additional information regarding how cybersecurity threats have affected or are reasonably likely to materially affect our business strategy, results of operations or financial condition, see Part I, Item 1A, “Risk Factors—Risks Related to Our Business—We face risks regarding our information technology and security”.

ITEM 2. PROPERTIES

As of December 31, 2023, we operated approximately 110 facilities in 11 countries, with our corporate headquarters located in Princeton Junction, New Jersey. Our headquarters in Princeton Junction is our primary location, where most of our manufacturing and research and development is conducted. While we lease most of our facilities, as of December 31, 2023, we owned properties located in Monroe, North Carolina; Trainer, Pennsylvania; LaPorte, Texas; Burlington, Washington; Evanston, Wyoming; and Jonquiere, Quebec, Canada. Our North America segment utilizes approximately 70 facilities throughout North America (including Canada and Mexico). Our Products and Systems segment’s primary location is in our Princeton Junction, New Jersey facility. Our International segment has approximately 35 facilities including locations in Belgium, Brazil, France, Germany, Greece, India, the Netherlands and the United Kingdom. We believe that all of our facilities are well maintained and are suitable and adequate for the foreseeable future.

ITEM 3. LEGAL PROCEEDINGS

We are subject to periodic legal proceedings, investigations and claims that arise in the ordinary course of business. See “Legal Proceedings and Government Investigations - Litigation and Commercial Claims” in Note 18-Commitments and Contingencies to our audited consolidated financial statements contained in Item 8 of this Annual Report for a description of legal proceedings involving us and our business, which is incorporated herein by reference.

ITEM 4. MINE SAFETY DISCLOSURES

None.

ITEM 5. MARKET FOR REGISTRANT’S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASE OF EQUITY SECURITIES

Market for Common Stock

Our common stock currently trades on the New York Stock Exchange under the ticker symbol “MG.”

Holders of Record

As of March 6, 2024, there were 10 holders of record of our common stock. The number of record holders was determined from the records of our transfer agent and does not include beneficial owners of common stock whose shares are held in the names of various security brokers, dealers, and registered clearing agencies. The transfer agent of our common stock is American Stock Transfer & Trust Company, 6201 15th Avenue, Brooklyn, New York 11219.

Dividends

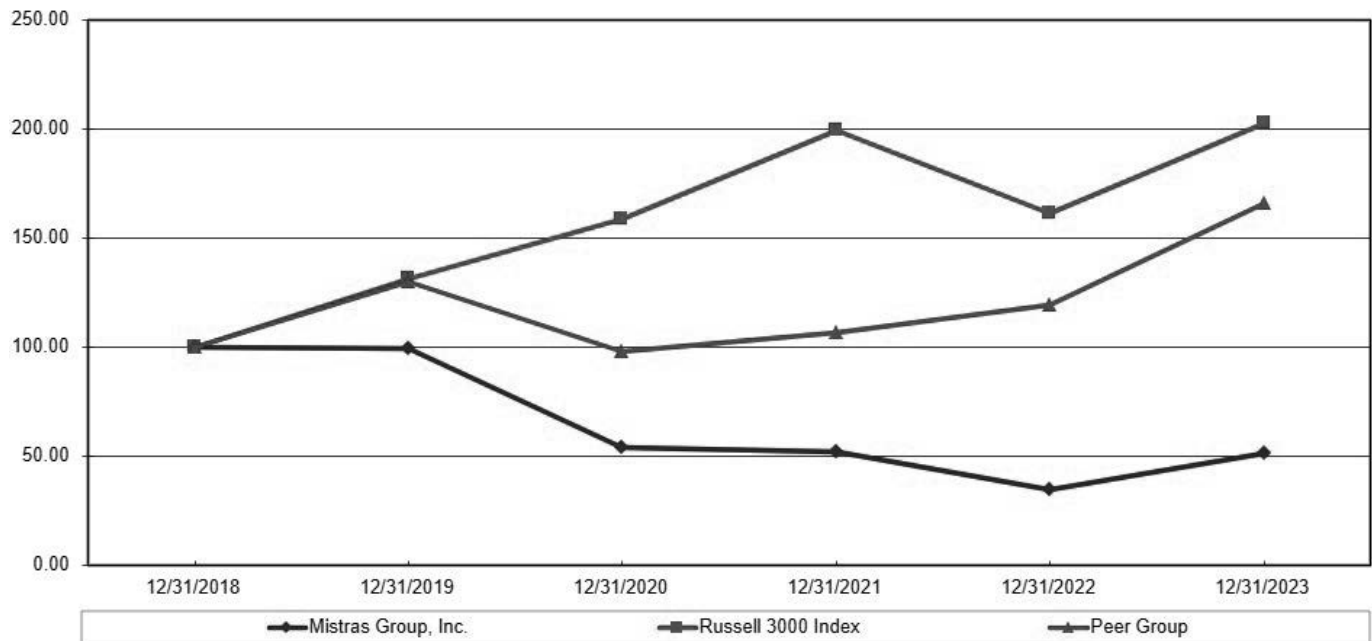
No cash dividends have been paid on our Common Stock to date. We currently intend to retain our future earnings, if any, to finance the expansion of our business and do not expect to pay any cash dividends in the foreseeable future.

Recent Sale of Unregistered Securities

None.

Stock Performance

The line graph below compares the cumulative total shareholder value return of our common shares with the cumulative total returns of an overall stock market index, the Russell 3000, and our peer group index. This graph assumes an investment of \$100 in our common shares and each index (with all dividends reinvested) on December 31, 2018.



Purchases of Equity Securities

The following table sets forth the shares of our common stock we acquired during the fourth quarter of 2023. All purchases were effected pursuant to the surrender of shares by employees to satisfy minimum tax withholding obligations in connection with the vesting of restricted stock units.

Month Ending	Total Number of Shares (or Units) Purchased	Average Price Paid per Share (or Unit)
October 31, 2023	27,352	\$ 5.42
November 30, 2023	108	\$ 6.71
December 31, 2023	118,102	\$ 6.95

ITEM 6. [RESERVED]

ITEM 7. MANAGEMENT’S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following Management’s Discussion and Analysis (this “MD&A”) provides a discussion of our results of operations and financial position for the year ended December 31, 2023. This section generally discusses 2023 and 2022 items and year-to-year comparisons between 2023 and 2022. Discussions of 2021 items and year-to-year comparisons between 2022 and 2021 are included in Part II–Item 7, Management’s Discussion and Analysis of Financial Condition and Results of Operations of our Annual Report on Form 10-K for the fiscal year ended December 31, 2022 filed with the SEC on March 15, 2023, which discussion is incorporated herein by reference. This MD&A should be read together with our audited consolidated financial statements and related notes included in Item 8 in this Annual Report. Unless otherwise specified or the context otherwise requires, “Mistras,” “MISTRAS,” the “Company,” “we,” “us” and “our” refer to Mistras Group, Inc. and its consolidated subsidiaries. This MD&A includes the following sections:

- Forward-Looking Statements
- COVID-19 and Other Updates
- Overview
- Note about Non-GAAP Measures
- Consolidated Results of Operations
- Liquidity and Capital Resources
- Critical Accounting Estimates
- Recent Accounting Pronouncements

Forward-Looking Statements

This Annual Report on Form 10-K, including this MD&A, contains forward-looking statements within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act. Such forward-looking statements include those that express plans, anticipation, intent, contingency, goals, targets or future development and/or otherwise are not statements of historical fact. These forward-looking statements are based on our current expectations and projections about future events and they are subject to risks and uncertainties known and unknown that could cause actual results and developments to differ materially from those expressed or implied in such statements. See “Forward-Looking Statements” at the beginning of Item 1 of this Annual Report.

COVID-19 and Other Updates

While our business and operations were negatively impacted the past several years by the COVID-19 pandemic, at the time of this Annual Report, the effects of the COVID-19 pandemic have subsided and our operations have normalized to pre-pandemic levels.

We are currently unable to predict with certainty the effects that inflationary pressures and the Russian-Ukrainian war may have on our business, results of operations or liquidity or in other ways which we cannot yet determine. To date, our European operations have experienced increased costs associated with higher energy costs, among others, due in part to the on-going war between Russia & Ukraine. We will continue to monitor market conditions and respond accordingly.

Overview

We are a leading "one source" multinational provider of integrated technology-enabled asset protection solutions, helping to maximize the safety and operational uptime for civilization’s most critical industrial and civil assets.

Backed by an innovative, data-driven asset protection portfolio, proprietary technologies, strong commitment to Environmental, Social, and Governance ("ESG") initiatives, and a decades-long legacy of industry leadership, MISTRAS leads customers in the oil and gas, petrochemical, aerospace and defense, renewable and nonrenewable power, civil infrastructure, and manufacturing industries towards achieving operational and environmental excellence. By supporting these customers that help fuel our vehicles and power our society; inspecting components that are trusted for commercial, defense, and space craft; building real-time monitoring equipment to enable safe travel across bridges; and helping to propel sustainability, MISTRAS helps the world at large.

The Company enhances value for its customers by integrating asset protection throughout supply chains and centralizing integrity data through a suite of Industrial IoT-connected digital software and monitoring solutions. The Company’s core

capabilities also include non-destructive testing ("NDT") field and in-line inspections enhanced by advanced robotics, laboratory quality control and assurance testing, sensing technologies and NDT equipment, asset and mechanical integrity engineering services, and light mechanical maintenance and access services.

Our operations consist of three reportable segments: North America (which we previously referred to as our Services segment), International, and Products and Systems.

- *North America* provides asset protection solutions with the largest concentration in the United States, followed by Canada, consisting primarily of NDT, inspection, mechanical and engineering services that are used to evaluate the structural integrity and reliability of critical energy, industrial and public infrastructure and commercial aerospace components. A majority of data analytical solutions revenues are generated by this segment.
- *International* offers services, products and systems similar to those of the other segments to select markets within Europe, the Middle East, Africa, Asia and South America, but not to customers in China and South Korea, which are served by the Products and Systems segment.
- *Products and Systems* designs, manufactures, sells, installs and services the Company's asset protection products and systems, including equipment and instrumentation, predominantly in the United States.

Given the role our solutions play in enhancing the safe and efficient operation of infrastructure, we have historically provided a majority of our solutions to our customers on a regular, recurring basis. We perform these services largely at our customers' facilities, while primarily servicing our aerospace customers at our network of state-of-the-art, in-house laboratories. These solutions typically include NDT and inspection services, and can also include a wide range of mechanical services, including heat tracing, pre-inspection insulation stripping, coating applications, re-insulation, engineering assessments and long-term condition-monitoring. Under this business model, many customers outsource their inspection to us on a "run and maintain" basis. We have established long-term relationships as a critical solutions provider to many of the leading companies with asset-intensive infrastructure in our target markets. These markets include companies in the oil and gas, aerospace and defense, industrials, power generation and transmission (including alternative and renewable energy), other process industries and infrastructure, research and engineering and other industries.

We have focused on providing our advanced asset protection solutions to our customers using proprietary, technology-enabled software and testing instruments, including those developed by our Products and Systems segment. We have made numerous acquisitions in the past in an effort to grow our base of experienced, certified personnel, expand our service lines and technical capabilities, increase our geographical reach, complement our existing offerings, and leverage our fixed costs. We have increased our capabilities and the size of our customer base through the development of applied technologies and managed support services, organic growth and the integration of acquired companies. These acquisitions have provided us with additional service lines, technologies, resources and customers which we believe enhance our advantages over our competition.

We believe long-term growth can be realized in our target markets. Our level of business and financial results are impacted by world-wide macro- and micro-economic conditions generally, as well as those within our target markets. Among other things, we expect the timing of our oil and gas customers' inspection expenditures to be impacted by oil price fluctuations.

We have continued providing our customers with an innovative asset protection software ecosystem through our MISTRAS OneSuite platform. The software platform offers functions of MISTRAS' software and services brands as integrated apps on a cloud environment. OneSuite serves as a single access portal for customers' data activities and provides access to 90 plus applications being offered on one centralized platform.

2023 Developments

The Russian-Ukrainian war and the conflict in the Middle East between Israel and Hamas continue to create disruptions in the oil and gas market and the supply chain in general, which is resulting in some disruption to our business operations primarily in Europe due to increased energy costs in connection with the Russian-Ukrainian war.

In 2022, the Company eliminated substantially all of the COVID related cost reduction initiatives undertaken in 2020, including re-installment of the savings plan employer match and increasing wages back to pre-pandemic amounts. At the time of this Annual Report, the effects of the COVID-19 pandemic have subsided, and our operations are continuing to normalize to pre-pandemic levels.

Our cash position and liquidity remain strong. As of December 31, 2023, our cash and cash equivalents balance was approximately \$17.6 million and our Credit Agreement provides us with significant liquidity.

In April 2021, the Biden Administration announced aggressive initiatives to battle climate change, which includes potential plans for a significant reduction in the use of fossil fuels and a transition to electric vehicles and increased use of alternative energy. Any legislation or regulations that may be adopted to implement these measures may negatively impact our customers in the oil and gas market over the long-term, which presently is our largest market, although this initiative will likely benefit the alternative energy market, such as wind energy, for which we provide products and services. At this time, it is difficult to determine the magnitude and timing of the impact that climate change initiatives and legislation, if any, will have on these markets and the resulting impact on our business and operational results.

The Company is currently unable to predict with certainty the overall impact that the factors discussed above and the effect of inflationary pressures may have on its business, results of operations or liquidity or in other ways which the Company cannot yet determine. During the third quarter of 2023, a triggering event was identified within the Company's reporting units within the International segment due to decreased gross margin in the current period as a result of inflationary pressures and rising energy costs. This resulted in goodwill impairment charges of \$13.8 million within the International reporting units during the third quarter of 2023. The Company will continue to monitor market conditions and respond accordingly. Refer to Item 1A. Risk Factors in Part I of our 2023 Annual Report.

Note about Non-GAAP Measures

The Company prepares its consolidated financial statements in accordance with U.S. GAAP. In this MD&A under the heading "Income (loss) from Operations", the non-GAAP financial performance measure "Income (loss) from operations before special items" is used for each of our three operating segments, the Corporate segment and the "Total Company", with tables reconciling the measure to a financial measure under GAAP. This presentation excludes from "Income (loss) from Operations" (a) transaction expenses related to acquisitions, such as professional fees and due diligence costs, (b) the net changes in the fair value of acquisition-related contingent consideration liabilities, (c) impairment charges, (d) reorganization and other costs, which includes items such as severance, labor relations matters and asset and lease termination costs and (e) other special items. These adjustments have been excluded from the GAAP measure because these expenses and credits are not related to our or any individual segment's core business operations. The acquisition related costs and special items can be a net expense or credit in any given period. Our management uses this non-GAAP measure as a measure of operating performance and liquidity to assist in comparing performance from period to period on a consistent basis, as a measure for planning and forecasting overall expectations and for evaluating actual results against such expectations. We believe investors and other users of our financial statements benefit from the presentation of this non-GAAP measure in evaluating our performance. Income (loss) before special items excludes the identified adjustments, which provides additional tools to compare our core business operating performance on a consistent basis and measure underlying trends and results in our business. Income (loss) before special items is not used to determine incentive compensation for executives or employees, nor is it a replacement for the reported GAAP financial performance and/or necessarily comparable to the non-GAAP financial measures of other companies. Any measure that eliminates the foregoing items has material limitations as a performance or liquidity measure and should not be considered alternatives to net income (loss) or any other measures derived in accordance with GAAP. Because Income (loss) from operations before special items may not be calculated in the same manner by all companies, this measure may not be comparable to other similarly titled measures used by other companies.

Consolidated Results of Operations

Year ended December 31, 2023 vs. Year ended December 31, 2022

The following table summarizes our Consolidated Statements of Income (Loss) for the years ended December 31, 2023 and 2022:

	For the year ended December 31,	
	2023	2022
	(\$ in thousands)	
Revenue	\$ 705,473	\$ 687,373
Gross profit	203,807	198,173
<i>Gross profit as a % of Revenue</i>	28.9%	28.8%
Income (loss) from operations	(1,904)	19,799
<i>Income from operations as a % of Revenue</i>	(0.3)%	2.9 %
Income (loss) before provision for income taxes	(18,665)	9,294
Net income (loss)	(17,445)	6,574
Net income (loss) attributable to Mistras Group, Inc.	\$ (17,453)	\$ 6,499

Revenues

Revenues by segment for the years ended December 31, 2023 and 2022 were as follows:

	For the year ended December 31,	
	2023	2022
	(\$ in thousands)	
Revenue		
North America	\$ 579,330	\$ 573,336
International	124,414	112,425
Products and Systems	12,986	12,727
Corporate and eliminations	(11,257)	(11,115)
	<u>\$ 705,473</u>	<u>\$ 687,373</u>

Revenue was \$705.5 million for the year ended December 31, 2023, an increase of \$18.1 million, or 2.6%, compared with the year ended December 31, 2022. The increase was driven by the North America segment, which experienced a revenue increase of \$6.0 million, or 1.0%, driven by single-digit organic growth in certain end markets. The International segment revenues increased by \$12.0 million, or 10.7%, due predominantly to low single-digit favorable impact of foreign exchange rates and by mid single-digit organic growth. The Products and Systems segment increased by \$0.3 million, or 2.0%, driven by higher sales volume.

Oil and gas customer revenue comprised approximately 59% and 56% of total revenue for the years ended December 31, 2023 and 2022, respectively. Aerospace and defense customer revenue comprised approximately 11% and 12% of total revenue for the years ended December 31, 2023 and 2022, respectively. Our top ten customers comprised approximately 35% of total revenue for the years ended December 31, 2023 and 2022, with no customer accounting for 10% or more of total revenue in either period.

	For the year ended December 31,	
	2023	2022
	(\$ in thousands)	
Oil and Gas Revenue by sub-category		
Upstream	\$ 157,828	\$ 146,056
Midstream	101,278	97,005
Downstream	156,889	144,691
Total	<u>\$ 415,995</u>	<u>\$ 387,752</u>

Oil and gas upstream customer revenue increased approximately \$11.8 million, or 8%, for the year ended December 31, 2023 compared to the year ended December 31, 2022, due to continued market share gains and expanded exploration operations, as compared to the prior year period.

Midstream customer revenues increased approximately \$4.3 million, or 4%, for the year ended December 31, 2023 compared to the year ended December 31, 2022, due to increased pipe inspection services.

Downstream customer revenue increased \$12.2 million, or 8%, for the year ended December 31, 2023 compared to the year ended December 31, 2022, due to increased sales volume at customer refineries and increased customer turnarounds.

The following table presents revenue by type, explained directly below the table.

	For the year ended December 31,	
	2023	2022
	(\$ in thousands)	
Revenue by type		
Field Services	\$ 470,433	\$ 455,051
Shop Laboratories	58,188	48,809
Data Analytical Solutions	72,458	62,410
Other	104,394	121,103
Total	<u>\$ 705,473</u>	<u>\$ 687,373</u>

In presenting the allocation of revenues by type in the table above, management makes certain assumptions in its allocation of revenues from laboratories that provide more than one type of service. The allocation methodology and assumptions made are consistent for the years presented.

Field Services revenues are comprised of revenue derived primarily by technicians performing asset inspections and maintenance services for our customers at locations other than Mistras properties. Field Services revenue increased \$15.4 million, or 3.4%, for the twelve months ended December 31, 2023 as compared to the twelve months ended December 31, 2022. The increase was due to increased sales volume in our oil and gas end market for our North America and International segments.

Shop Laboratory revenues are comprised of quality assurance inspections of components and materials at our Mistras in-house laboratory facilities. Shop revenues increased \$9.4 million, or 19.2%, for the twelve months ended December 31, 2023 as compared to the twelve months ended December 31, 2022. The increase was due to increased sales volume related to our commercial aerospace and industrials end markets.

Data Analytical Solutions revenues are comprised of revenue derived from data software sales & subscriptions, implementation services and analytics that offer insights and recommendations to improve asset integrity. Data Analytical Solutions revenue is derived from work performed by Mistras employees in our facilities, or at customer locations, using our proprietary portfolio of software applications. Data Analytical Solutions revenue increased \$10.0 million, or 16.1%, for the twelve months ended December 31, 2023 as compared to the twelve months ended December 31, 2022. The increase was due primarily to increased sales volume within PCMS, Onstream and other Data Analytical Solutions offerings within our North America segment.

Other revenues are comprised of locations that perform both asset inspection services and testing of components and materials at in-house Mistras laboratories. Other revenues decreased \$16.7 million, or 13.8%, for the twelve months ended December 31, 2023 as compared to the twelve months ended December 31, 2022. Other revenues in 2023 decreased primarily due to decreased sales within the aerospace and defense sector and due to declines in our other end markets within the North America and International segments as compared to the prior year period.

Gross Profit (Loss)

Gross profit (loss) by segment for the years ended December 31, 2023 and 2022 were as follows:

	For the year ended December 31,	
	2023	2022
(\$ in thousands)		
Gross profit (loss)		
North America	\$ 163,960	\$ 159,049
<i>% of segment revenue</i>	28.3 %	27.7 %
International	33,610	33,591
<i>% of segment revenue</i>	27.0 %	29.9 %
Products and Systems	6,457	5,490
<i>% of segment revenue</i>	49.7 %	43.1 %
Corporate and eliminations	(220)	43
	<u>\$ 203,807</u>	<u>\$ 198,173</u>
<i>% of total revenue</i>	28.9 %	28.8 %

Gross profit increased \$5.6 million, or 2.8%, for the year ended December 31, 2023 compared to the year ended December 31, 2022, with a sales increase of \$18.1 million, or 2.6%. Gross profit margin was 28.9% and 28.8% for the years ended December 31, 2023 and 2022, respectively, due to favorable sales mix. North America segment gross profit margins had a year-on-year increase of 60 basis points to 28.3% for the year ended December 31, 2023, due primarily to favorable sales mix. International segment gross margins had a year-on-year decrease of 290 basis points to 27.0% for the year ended December 31, 2023, due primarily to increased inflationary pressures. Products and Systems segment gross margins increased by 660 basis points for the year ended December 31, 2023 to 49.7%, driven by favorable sales mix.

Operating Expenses

Operating expenses for the years ended December 31, 2023 and 2022 was as follows:

	For the year ended December 31,	
	2023	2022
(\$ in thousands)		
Operating Expenses		
Selling, general and administrative expenses	\$ 166,749	\$ 166,400
Goodwill Impairment charges	13,799	—
Bad debt provision for troubled customers, net of recoveries	—	42
Reorganization and other costs	12,269	195
Research and engineering	1,723	1,994
Depreciation and amortization	10,104	10,661
Acquisition-related expense, net	9	76
Legal settlement and litigation charges (benefit), net	1,058	(994)
	<u>\$ 205,711</u>	<u>\$ 178,374</u>
<i>% of total revenue</i>	29.2 %	26.0 %

Operating expenses increased \$27.3 million, or 15.3%, for the year ended December 31, 2023 compared to the year ended December 31, 2022 due primarily to impairment charges and reorganization charges recorded in the current period that were not

in the prior period. Selling, general and administrative expenses increased \$0.3 million, or 0.2% for the year ended December 31, 2023 compared to the year ended December 31, 2022 primarily due to unfavorable foreign currency exchange.

Income (Loss) from Operations

The following table shows a reconciliation of segment income (loss) from operations to income (loss) before special items (unaudited) for the years ended December 31, 2023 and 2022:

	For the year ended December 31,	
	2023	2022
	(\$ in thousands)	
North America:		
Income from operations (GAAP)	\$ 55,170	\$ 49,616
Bad debt provision for troubled customers, net of recoveries	—	42
Reorganization and other costs	960	99
Legal settlement and insurance (recoveries) charges, net	1,058	(841)
Acquisition-related expense, net	—	45
Income before special items (non-GAAP)	<u>\$ 57,188</u>	<u>\$ 48,961</u>
International:		
Income (loss) from operations (GAAP)	\$ (12,229)	\$ 3,566
Goodwill Impairment charges	13,799	—
Reorganization and other costs	351	(43)
Income before special items (non-GAAP)	<u>\$ 1,921</u>	<u>\$ 3,523</u>
Products and Systems:		
Income (loss) from operations (GAAP)	\$ 267	\$ (992)
Reorganization and other costs	382	—
Income (loss) before special items (non-GAAP)	<u>\$ 649</u>	<u>\$ (992)</u>
Corporate and Eliminations:		
Loss from operations (GAAP)	\$ (45,112)	\$ (32,391)
Legal settlement and insurance (recoveries) charges, net	—	(153)
Loss on debt modification	—	693
Reorganization and other costs	10,576	139
Acquisition-related expense, net	9	31
Loss before special items (non-GAAP)	<u>\$ (34,527)</u>	<u>\$ (31,681)</u>
Total Company:		
Income (loss) from operations (GAAP)	\$ (1,904)	\$ 19,799
Goodwill Impairment charges	13,799	—
Bad debt provision for troubled customers, net of recoveries	—	42
Legal settlement and insurance (recoveries) charges, net	1,058	(994)
Loss on debt modification	—	693
Reorganization and other costs	12,269	195
Acquisition-related expense, net	9	76
Income before special items (non-GAAP)	<u>\$ 25,231</u>	<u>\$ 19,811</u>

See "Note about Non-GAAP Measures" in this Annual Report for an explanation of our use of non-GAAP measures.

Total Company income from operations (GAAP) decreased by \$21.7 million, or 109.6% compared to the year ended December 31, 2022. Total company income before special items (non-GAAP) increased by \$5.4 million or 27.4% compared with the year ended December 31, 2022. Operating expenses, excluding special items (non-GAAP), as a percentage of revenue, was 25.3% for the year ended December 31, 2023 compared to 25.9% for the year ended December 31, 2022. The primary driver for the increase in total company income before special items was increased sales in 2023 compared to 2022. Income before special items as a percentage of revenue increased by 70 basis points to 3.6% for the year ended December 31, 2023 from 2.9% for the year ended December 31, 2022. Our discussion below is qualified by the unknown impact that the Russia - Ukraine war will continue to have on our business and the economy in general, including the resulting economic disruption. Refer to Item 1A. Risk Factors in Part I of this Annual Report for further discussion.

Interest Expense

Interest expense was \$16.8 million and \$10.5 million for the years ended December 31, 2023 and December 31, 2022, respectively. The increase was due to increased interest rates in the current period.

Income Taxes

Our effective income tax rate was approximately 6.5% for the year ended December 31, 2023, compared to 29.3% for the year ended December 31, 2022. The decrease in effective tax rate was primarily driven by a \$1.7 million US R&D tax credit benefit in 2022, partially offset by the recording of a \$1.1 million valuation allowance recorded in 2022 which was related to certain Canadian entities.

On December 27, 2020, the United States enacted the Consolidated Appropriations Act, 2021, (the "Appropriations Act") an additional stimulus package providing financial relief for individuals and small business. The Appropriations Act contains a variety of tax provisions, including full expensing of business meals in 2021 and 2022, and expansion of the employee retention tax credit. We are currently evaluating the impact of this guidance on our consolidated financial position, results of operations, and cash flows, but does not expect it to have a material impact.

Further in response to the COVID-19 pandemic, the American Rescue Plan Act was signed into law on March 11, 2021. This act, among other things, provides economic relief provisions to individuals and funding to certain businesses and programs. The Company does not expect this act to have a material impact.

On August 19, 2022, the United States enacted the Inflation Reduction Act, (the "Inflation Act"), a package intended to reduce inflation. The Inflation Act contains a variety of tax provisions, including a 15% corporate minimum tax, a tax on stock repurchases, and various tax credit opportunities. We evaluated the impact of this guidance on our consolidated financial position, results of operations, and cash flows, and do not expect it to have a material impact.

Income tax expense varies as a function of pre-tax income and the level of non-deductible expenses, such as certain amounts of meals and entertainment expense, valuation allowances, and other permanent differences. It is also affected by discrete items that may occur in any given year but are not consistent from year to year. Our effective income tax rate may fluctuate over the next few years due to many variables including the amount and future geographic distribution of our pre-tax income, changes resulting from our acquisition strategy, and increases or decreases in our permanent differences.

Liquidity and Capital Resources

Overview

We have funded our operations from cash provided from operations, bank borrowings and lease financings. Management believes that our existing cash and cash equivalents, anticipated cash flows from operating activities, and available borrowings under our New Credit Agreement will be more than sufficient to meet anticipated cash needs over the next 12 months and for the foreseeable future. We generated operating cash flows of \$26.7 million and \$26.4 million for the years ended December 31, 2023 and 2022, respectively. Capital expenditures for the purchase of property, plant and equipment and of intangible assets was \$23.6 million and \$13.4 million for the years ended December 31, 2023 and 2022, respectively.

Cash Flows Table

The following table summarizes our cash flows for the years ended December 31, 2023 and 2022:

(\$ in thousands)	For the year ended December 31,	
	2023	2022
Net cash provided by (used in):		
Operating activities	\$ 26,748	\$ 26,406
Investing activities	(22,133)	(12,238)
Financing activities	(7,706)	(16,323)
Effect of exchange rate changes on cash and cash equivalents	249	(1,467)
Net change in cash and cash equivalents	\$ (2,842)	\$ (3,622)

Cash Flows from Operating Activities

Cash provided by operating activities for the year ended December 31, 2023 was \$26.7 million, an increase of \$0.3 million from the prior year period. The increase was mainly attributable to movements in working capital driven primarily by an increase in net accounts receivable collections, an increase in accrued expenses and other liabilities, and an increase in accounts payable in the current year as compared to the prior year.

Cash Flows from Investing Activities

Net cash used in investing activities for the year ended December 31, 2023 was \$22.1 million, an increase of \$9.9 million used in investing activities from the prior year period. The Company used \$10.2 million more cash for purchases of property, plant and equipment and intangible assets in 2023 compared to 2022.

Cash Flows from Financing Activities

Net cash used in financing activities for the year ended December 31, 2023 was \$7.7 million, compared to \$16.3 million for the year ended December 31, 2022. During the year ended December 31, 2022, we entered into the New Credit Agreement which replaced our prior credit agreement, as detailed more in Note *11-Long-Term Debt*. As part of the New Credit Agreement, the prior revolving credit facility and term loan were repaid in full. Net repayment of debt and revolver was approximately \$9.6 million higher compared to 2022. In addition, for the year ended December 31, 2023, we incurred approximately \$0.6 million more taxes paid related to net share settlement of share-based awards.

Effect of Exchange Rate Changes on Cash and Cash Equivalents

The effect of exchange rate changes on our cash and cash equivalents was a decrease of \$0.2 million for the year ended December 31, 2023, compared to a decrease of \$1.5 million for the year ended December 31, 2022. The primary driver of the change was foreign currency fluctuations during the year related to the Euro and the US Dollar.

Cash Balance and Credit Facility Borrowings

The terms of our New Credit Agreement are described in Note *11-Long-Term Debt* of the Notes to Consolidated Financial Statements in this Annual Report, under the heading "Senior Credit Facility", the provisions of which are incorporated herein.

As of December 31, 2023, we had cash and cash equivalents totaling \$17.6 million and available borrowing capacity of up to \$116.0 million under our New Credit Agreement. Borrowings of \$186.4 million and letters of credit of \$2.9 million were outstanding under the New Credit Agreement at December 31, 2023. We finance our operations primarily through our existing cash balances, cash collected from operations, bank borrowings and lease financing. We believe these sources are sufficient to fund our operations for the foreseeable future. As of December 31, 2023, we were in compliance with the terms of the New Credit Agreement and will continuously monitor our compliance with the covenants contained in the New Credit Agreement. See Note *11-Long-Term Debt* of the notes to the consolidated financial statements for additional information.

Liquidity and Capital Resources Outlook

Future Sources of Cash

We expect our future sources of cash to include cash flow generated from our operating activities and borrowings under our New Credit Agreement. Our revolving credit facility is available for cash advances required for working capital and for letters of credit to support our operations. Acquisitions, if any, are funded through available cash and borrowings under the New Credit Agreement.

Future Uses of Cash

We expect our future uses of cash will primarily be for repayment of debt, purchases or manufacture of field-testing equipment to support growth, additional investments in technology and software products and the replacement of existing assets and equipment used in our operations. We often make purchases to support new sources of revenues, particularly in our North America segment. In addition, we annually fund a certain amount of replacement equipment, including a portion of our fleet vehicles. We historically spend approximately 2% to 3% of our total revenues on capital expenditures, excluding acquisitions, and expect to fund these expenditures through a combination of cash and lease financing. Our cash capital expenditures, excluding acquisitions, for each of the years ended December 31, 2023 and 2022 were approximately 3.4% and 2.0% of revenues, respectively. We continue to take steps to reduce spending and preserve cash.

Our New Credit Agreement does not limit the Company's ability to acquire other businesses or companies except for certain provisions as described within Note *11-Long-Term Debt*. Our future capital spending may increase as we pursue growth opportunities and acquire additional equipment to meet or pursue business opportunities. Other investments in infrastructure, training and software may also be required to match our growth, but we plan to continue using a disciplined approach to building our business. In addition, we will use cash to fund our operating leases, finance leases, long-term debt repayments and various other obligations as they arise as noted within Note *11-Long-Term Debt* and Note *17- Leases*.

We also expect to use cash to support our working capital requirements for our operations, particularly in the event of further growth and due to the impacts of seasonality on our business. Our future working capital requirements will depend on many factors, including the rate of our revenue growth, our introduction of new solutions and enhancements to existing solutions and our expansion of sales and marketing and product development activities. To the extent that our cash and cash equivalents and future cash flows from operating activities are insufficient to fund our future activities, we may need to raise additional funds through bank credit arrangements, or public or private equity, or debt financings. We also may need to raise additional funds in the event we determine in the future to effect one or more acquisitions of businesses, technologies or products that will complement our existing operations. In the event additional funding is required, we may not be able to obtain bank credit arrangements or effect an equity or debt financing on acceptable terms.

Off-Balance Sheet Arrangements

During the years ended December 31, 2023 and 2022, we did not have any relationships with unconsolidated entities or financial partnerships, such as entities often referred to as structured finance or special purpose entities, which would have been established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes.

Critical Accounting Policies and Estimates

The preparation of financial statements in accordance with U.S. GAAP requires that we make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of financial statements and the reported amounts of revenues and expenses during the reporting period. We have established policies and control procedures intended to ensure that estimation methods, including any judgments made as part of such methods, are well-controlled, independently reviewed and applied consistently from period to period. The accounting policies that we believe require more significant estimates and assumptions include revenue recognition, acquisitions, long-lived assets and goodwill. We base our estimates and assumptions on historical experience, known or expected trends and various other assumptions that we believe to be reasonable. As future events and their effects cannot be determined with precision, actual results could differ significantly from these estimates, which may cause our future results to be significantly affected.

We believe that the following critical accounting policies comprise the more significant estimates and assumptions used in the preparation of our consolidated financial statements.

Revenue Recognition

The majority of our revenues are derived from providing services on a time and material basis and are short-term in nature. We account for revenue in accordance with Accounting Standards Codification ("ASC") Topic 606, *Revenue from Contracts with Customers*.

Performance Obligations

A performance obligation is a promise in a contract to transfer a distinct good or service to the customer, and is the unit of account in ASC Topic 606. A contract's transaction price is allocated to each distinct performance obligation and recognized as revenue when, or as, the performance obligation is satisfied. The majority of our contracts have a single performance obligation as the promise to transfer the individual goods or services is not separately identifiable from other promises in the contracts and is, therefore, not distinct. We provide highly integrated and bundled inspection services to our customers. Some of our contracts have multiple performance obligations, most commonly due to the contract providing both goods and services. For contracts with multiple performance obligations, we allocate the contract's transaction price to each performance obligation using our best estimate of the standalone selling price of each distinct good or service in the contract. The primary method used to estimate standalone selling price is a relative selling price based on price lists.

Contract modifications are not routine in the performance of our contracts. Generally, when contracts are modified, the modification is to account for changes in scope to the goods and services that are provided. In most instances, contract modifications are for goods or services that are distinct, and, therefore, are accounted for as a separate contract.

Our performance obligations are satisfied over time as work progresses or at a point in time. The majority of our revenue recognized over time as work progresses is related to our service deliverables, which includes providing testing, inspection and mechanical services to our customers. Revenue is recognized over time based on time and material incurred to date which best portrays the transfer of control to the customer. We also utilize an available practical expedient that provides for revenue to be recognized in an amount that corresponds directly with the value to the customer of the entity's performance completed to date. Fixed fee arrangements are determined based on expected labor, material and overhead to be consumed on fulfillment of such services. Revenue is recognized on a cost-to-cost method tracked on an input basis.

The majority of our revenue recognized at a point in time is related to product sales when the customer obtains control of the asset, which is generally upon shipment to the customer. Contract costs include labor, material and overhead.

We expect any significant remaining performance obligations to be satisfied within one year.

Contract Estimates

The majority of our revenues are short-term in nature. We have many Master Service Agreements ("MSAs") that specify an overall framework and contract terms, where we and our customers agree upon services or products to be provided. The actual contracting to provide services or furnish products are triggered by a work order, purchase order, or some similar document issued pursuant to an MSA which sets forth the scope of services and/or identifies the products to be provided. From time to time, we may enter into long-term contracts, which can range from several months to several years. Revenue on such long-term contracts is recognized as work is performed based on total costs incurred to date in relation to the total estimated costs for the performance of the contract at completion. This includes contract estimates of costs to be incurred for the performance of the contract. Cost estimation is based upon the professional knowledge and experience of our project managers, engineers and financial professionals. Factors that are considered in estimating the work to be completed include the availability of materials, the effect of any delays in our project performance and the recoverability of any claims. Whenever revisions of estimates, contract costs and/or contract values indicate that the contract costs will exceed estimated revenues, thus creating a loss, a provision for the total estimated loss is recorded in that period.

Long-Lived Assets

We perform a review of long-lived assets (or asset groups) for impairment when events or changes in circumstances indicate the carrying value of such assets may not be recoverable. If an indication of impairment is present, we compare the estimated undiscounted future net cash flows to be generated by the asset (or asset group) to its carrying amount. If the undiscounted future net cash flows are less than the carrying amount of the asset (or asset group), we record an impairment loss equal to the excess of the asset's carrying amount over its fair value. We estimate fair value based on valuation techniques such as a discounted cash flow analysis or a comparison to fair values of similar assets. As of December 31, 2023 and December 31, 2022, we had \$81.0 million and \$77.6 million in net property, plant and equipment, respectively, and \$44.0 million and \$49.0 million in intangible assets, net, respectively.

Goodwill

Goodwill represents the excess purchase price of acquired businesses over the fair values attributed to underlying net tangible assets and identifiable intangible assets. We test goodwill for impairment at a “reporting unit” level (which for us is represented by (i) our North America segment, (ii) our Products and Systems segment, (iii) the European component of our International segment and (iv) the Brazilian component of our International segment). Our annual impairment test is conducted on the first day of our fourth quarter, which is October 1. Goodwill is also tested for impairment whenever an event occurs or circumstances change that would more likely than not reduce the fair value of a reporting unit below its carrying amount.

In testing for goodwill impairment, we have the option to first assess qualitative factors to determine whether the existence of events or circumstances lead to a determination that it is more likely than not that the fair value of a reporting unit is less than its carrying amount. If, after assessing the totality of events and circumstances, we conclude that it is not more likely than not that the fair value of a reporting unit is less than its carrying amount, then performing a quantitative impairment test is not necessary. If we conclude otherwise, we are required to perform a quantitative impairment test.

An impairment will be recorded in the amount that the fair value is less than the carrying value. We consider the income and market approaches to estimating the fair value of our reporting units, which requires significant judgment in evaluation of economic and industry trends, estimated future cash flows, discount rates and other factors. Sustained declines in our stock price and related market capitalization could impact key assumptions in the overall estimated fair values of our reporting units and could result in non-cash impairment charges that could be material to our consolidated balance sheet or results of operations.

During the third quarter of 2023, a triggering event was identified within the Company's reporting units within the International segment due to decreased gross margin in the current period as a result of inflationary pressures and rising energy costs impacting the International reporting units' operations. As a result, the Company performed an interim quantitative goodwill impairment test.

In performing the interim quantitative goodwill impairment test and consistent with prior practice, the Company determined the fair value of each of the reporting units using a combination of the income approach and the market approach by assessing each of these valuation methodologies based upon availability and relevance of comparable company data and determining the appropriate weighting.

Under the income approach, the fair value for each of the reporting units was determined based on the present value of estimated future cash flows, discounted at an appropriate risk-adjusted rate. The Company used internal forecasts, updated for recent events, to estimate future cash flows estimated using a terminal value calculation, which incorporates historical and forecasted trends, including an estimate of long-term future growth rates, based on the Company's most recent views of the long-term outlook for each reporting unit. The internal forecasts include assumptions about future profitability, including the expected demand for the Company's goods and services. Due to the inherent uncertainties involved in making estimates and assumptions, actual results may differ from those assumed in the forecasts. The Company derived the discount rates using a capital asset pricing model and analyzing published rates for industries relevant to the reporting units to estimate the cost of equity financing. The Company used discount rates that are commensurate with the risks and uncertainties inherent in the respective businesses and in the internally developed forecasts, updated for recent events. Increased interest rates in the current period increased the discount rate associated with the reporting units which contributed in an unfavorable decrease in the reporting units value.

The market approach valuation was derived from metrics of publicly traded companies or historically completed transactions of comparable businesses. The selection of comparable businesses was based on the markets in which the reporting units operate, considering risk profiles, size, geography, and diversity of products and services.

Based upon the results of the interim quantitative goodwill impairment test, the Company recorded an impairment charge of \$13.8 million within the International reporting units. The impairment was calculated based on the difference between the estimated fair value and the carrying value of the reporting units and is included in Goodwill impairment charges on the condensed consolidated statements of income (loss) for the three and nine months ended September 30, 2023. Any significant adverse changes in future periods to the Company's internal forecasts or the external market conditions, if any, could reasonably be expected to negatively affect its key assumptions and may result in future goodwill impairment charges which could be material.

We elected to perform a quantitative assessment of goodwill on October 1, 2023. Our quantitative assessment considered relevant events and circumstances occurring since our interim quantitative goodwill impairment test performed as of September

30, 2023. Specifically, we considered changes in macroeconomic conditions, industry and market conditions, our internal forecasts of future revenue and expenses, our stock price, any significant events affecting the Company and actual changes in the carrying values of our net assets. After considering all positive and negative evidence for the assessment as of September 30, 2023, we concluded that it was not more likely than not that our carrying values exceeded fair values and as such, no additional impairment was indicated.

Additionally, as of December 31, 2023, there are no indicators of an impairment. See Note 8-*Goodwill* of the notes to the consolidated financial statements for additional information.

Acquisitions

We allocate the purchase price of acquired businesses to their identifiable tangible assets and liabilities as well as identifiable intangible assets, such as customer relationships, technology, non-compete agreements and trade names. Allocations are based on estimated fair values of assets and liabilities, which reflects assumptions that would be made by typical market participants if they were to buy or sell each asset on an individual asset basis. Certain estimates and judgments are required in the application of the fair value techniques, including estimates of the respective acquisitions' future performance and related cash flows, selection of a discount rate and economic lives, and use of Level 3 measurements as defined in ASC 820 *Fair Value Measurements and Disclosure*. Deferred taxes are recorded for any differences between the assigned values and tax bases of assets and liabilities. We typically engage third-party valuation experts to assist in determining the fair values for both identifiable tangible and intangible assets. The judgments made in determining the estimated fair value assigned to each class of assets acquired and liabilities assumed, as well as asset lives, could materially impact our results of operations. See Note 7-*Acquisitions* to the consolidated financial statements for additional information.

Recent Accounting Pronouncements

For information about recent accounting pronouncements, see Note 1-*Summary of Significant Accounting Policies and Practices* of the notes to the consolidated financial statements.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Interest Rate Sensitivity

Our investment portfolio primarily includes cash equivalents for which the market values are not significantly affected by changes in interest rates. Our interest rate risk results primarily from our variable rate indebtedness under our credit facility, which is influenced by movements in short-term rates. Borrowings under our \$190 million revolving credit facility as well as our \$125 million term loan bear interest at SOFR, plus a credit spread adjustment and applicable SOFR margin, ranging from 1.25% to 2.75%, based upon our Total Consolidated Debt Leverage Ratio. Based on the amount of our variable rate debt of \$186.4 million at December 31, 2023, an increase in interest rates by one hundred basis points from our current rate would increase annual interest expense by approximately \$1.9 million.

Foreign Currency Risk

We have foreign currency exposure related to our operations in foreign locations. This foreign currency exposure, particularly the Euro, British Pound Sterling, Brazilian Real, Canadian Dollar and the Indian Rupee, arises primarily from the translation of our foreign subsidiaries' financial statements into U.S. Dollars. Gains and losses relating to nonfunctional currency transactions, are reported in the Consolidated Statements of Income (Loss). For example, a portion of our annual sales and operating costs are denominated in British Pound Sterling and we have exposure related to sales and operating costs increasing or decreasing based on changes in currency exchange rates. If the U.S. Dollar increases in value against these foreign currencies, the value in U.S. Dollars of the assets and liabilities originally recorded in these foreign currencies will decrease. Conversely, if the U.S. Dollar decreases in value against these foreign currencies, the value in U.S. Dollars of the assets and liabilities originally recorded in these foreign currencies will increase. Thus, increases and decreases in the value of the U.S. Dollar relative to these foreign currencies have a direct impact on the value in U.S. Dollars of our foreign currency denominated assets and liabilities, even if the value of these items has not changed in their original currency. Translation adjustments for these movements are recorded as a separate component of Accumulated Other Comprehensive Income (Loss) in Stockholder Equity. For the year ended December 31, 2023, a 10% movement, favorable or unfavorable, in the average U.S. Dollar exchange rates would cause a change in adjusted operating income of approximately \$1.5 million. We do not currently enter into forward exchange contracts to hedge exposures denominated in foreign currencies. We may consider entering into hedging or forward exchange contracts in the future, as sales in international currencies increase due to growth in our International segment.

Fair Value of Financial Instruments

We do not have material exposure to market risk with respect to investments, as our investments consist primarily of highly liquid investments purchased with a remaining maturity of three months or less. We do not use derivative financial instruments for speculative or trading purposes; however, this does not preclude our adoption of specific hedging strategies in the future.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of Mistras Group, Inc.

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheet of Mistras Group, Inc. and its subsidiaries (the “Company”) as of December 31, 2023, and the related consolidated statements of income (loss), of comprehensive income (loss), of equity and of cash flows for the year then ended, including the related notes (collectively referred to as the “consolidated financial statements”). We also have audited the Company's internal control over financial reporting as of December 31, 2023, based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2023, and the results of its operations and its cash flows for the year then ended in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2023, based on criteria established in Internal Control - Integrated Framework (2013) issued by the COSO.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Report on Internal Control Over Financial Reporting appearing under Item 9A. Our responsibility is to express opinions on the Company's consolidated financial statements and on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB. We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audit of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audit also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinions.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed 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. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Critical Audit Matters

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that (i) relates to accounts or disclosures that are material to the consolidated financial statements and (ii) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Goodwill Impairment Assessment - North America Reporting Unit

As described in Notes 1 and 8 to the consolidated financial statements, the Company's goodwill balance was \$187.4 million as of December 31, 2023, which related to the North America reporting unit. Management tests goodwill for impairment at a reporting unit level, which is represented by its North America segment. Management reviews goodwill for impairment on October 1 of each year and whenever events or changes in circumstances indicate the carrying value of goodwill may not be recoverable. Management considers the income and market approaches to estimate the fair value of the reporting unit, which requires significant judgments and assumptions related to revenue growth rates, gross margins, EBIT margins, and market multiples.

The principal considerations for our determination that performing procedures relating to the goodwill impairment assessment of the North America reporting unit is a critical audit matter are (i) the significant judgment by management when developing the fair value estimate of the North America reporting unit; (ii) a high degree of auditor judgment, subjectivity, and effort in performing procedures and evaluating management's significant assumptions related to revenue growth rates, gross margins, and market multiples; and (iii) the audit effort involved the use of professionals with specialized skill and knowledge.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to management's goodwill impairment assessment, including controls over the valuation of the North America reporting unit. These procedures also included, among others (i) testing management's process for developing the fair value estimate of the North America reporting unit; (ii) evaluating the appropriateness of the income and market approaches used by management; (iii) testing the completeness and accuracy of underlying data used in the income and market approaches; and (iv) evaluating the reasonableness of the significant assumptions used by management related to revenue growth rates, gross margins, and market multiples. Evaluating management's assumptions related to revenue growth rates and gross margins involved evaluating whether the assumptions used by management were reasonable considering (i) the current and past performance of the North America reporting unit; (ii) the consistency with external market and industry data; and (iii) whether the assumptions were consistent with evidence obtained in other areas of the audit. Professionals with specialized skill and knowledge were used to assist in evaluating (i) the appropriateness of the income and market approaches and (ii) the reasonableness of the market multiples assumption.

/s/ PricewaterhouseCoopers LLP

Philadelphia, Pennsylvania

March 11, 2024

We have served as the Company's auditor since 2023.

Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors Mistras Group, Inc.:

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheet of Mistras Group, Inc. and subsidiaries (the Company) as of December 31, 2022, the related consolidated statements of income (loss), comprehensive income (loss), equity, and cash flows for each of the years in the two-year period ended December 31, 2022, and the related notes (collectively, the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2022, and the results of its operations and its cash flows for each of the years in the two-year period ended December 31, 2022, in conformity with U.S. generally accepted accounting principles.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ KPMG LLP

We served as the Company's auditor from 2013 to 2023.

Short Hills, New Jersey

March 15, 2023

Mistras Group, Inc. and Subsidiaries
Consolidated Balance Sheets
(in thousands, except share and per share data)

	December 31,	
	2023	2022
ASSETS		
Current Assets		
Cash and cash equivalents	\$ 17,646	\$ 20,488
Accounts receivable, net	132,847	123,657
Inventories	15,283	13,556
Prepaid expenses and other current assets	14,580	10,181
Total current assets	180,356	167,882
Property, plant and equipment, net	80,972	77,561
Intangible assets, net	43,994	49,015
Goodwill	187,354	199,635
Deferred income taxes	2,316	779
Other assets	39,784	40,032
Total Assets	<u>\$ 534,776</u>	<u>\$ 534,904</u>
LIABILITIES AND EQUITY		
Current Liabilities		
Accounts payable	\$ 17,032	\$ 12,532
Accrued expenses and other current liabilities	84,331	77,844
Current portion of long-term debt	8,900	7,425
Current portion of finance lease obligations	5,159	4,201
Income taxes payable	1,101	1,726
Total current liabilities	116,523	103,728
Long-term debt, net of current portion	181,499	183,826
Obligations under finance leases, net of current portion	11,261	10,045
Deferred income taxes	2,552	6,283
Other long-term liabilities	32,438	32,273
Total Liabilities	<u>\$ 344,273</u>	<u>\$ 336,155</u>
Commitments and contingencies		
Equity		
Preferred stock, 10,000,000 shares authorized	—	—
Common stock, \$0.01 par value, 200,000,000 shares authorized, 30,597,633 and 29,895,487 shares issued	305	298
Additional paid-in capital	247,165	243,031
Accumulated Deficit	(28,942)	(11,489)
Accumulated other comprehensive loss	(28,336)	(33,390)
Total Mistras Group, Inc. stockholders' equity	190,192	198,450
Non-controlling interests	311	299
Total Equity	190,503	198,749
Total Liabilities and Equity	<u>\$ 534,776</u>	<u>\$ 534,904</u>

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

Mistras Group, Inc. and Subsidiaries
Consolidated Statements of Income (Loss)
(in thousands, except per share data)

	For the year ended December 31,		
	2023	2022	2021
Revenue	\$ 705,473	\$ 687,373	\$ 677,131
Cost of revenue	477,671	466,567	457,013
Depreciation	23,995	22,633	22,971
Gross profit	203,807	198,173	197,147
Selling, general and administrative expenses	166,749	166,400	161,334
Bad debt provision for troubled customers, net of recoveries	—	42	—
Reorganization and other costs	12,269	195	—
Goodwill Impairment charges	13,799	—	—
Legal settlement and litigation charges (benefit), net	1,058	(994)	2,042
Research and engineering	1,723	1,994	2,518
Depreciation and amortization	10,104	10,661	11,950
Acquisition-related expense, net	9	76	1,133
Income (loss) from operations	(1,904)	19,799	18,170
Interest expense	16,761	10,505	10,882
Income (loss) before provision (benefit) for income taxes	(18,665)	9,294	7,288
Provision (benefit) for income taxes	(1,220)	2,720	3,395
Net income (loss)	(17,445)	6,574	3,893
Less: net income attributable to noncontrolling interests, net of taxes	8	75	33
Net income (loss) attributable to Mistras Group, Inc.	<u>\$ (17,453)</u>	<u>\$ 6,499</u>	<u>\$ 3,860</u>
Earnings (loss) per common share			
Basic	\$ (0.58)	\$ 0.22	\$ 0.13
Diluted	\$ (0.58)	\$ 0.21	\$ 0.13
Weighted average common shares outstanding:			
Basic	30,330	29,901	29,572
Diluted	30,330	30,229	30,130

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

Mistras Group, Inc. and Subsidiaries
Consolidated Statements of Comprehensive Income (Loss)
(in thousands)

	<u>For the year ended December 31,</u>		
	<u>2023</u>	<u>2022</u>	<u>2021</u>
Net income (loss)	\$ (17,445)	\$ 6,574	\$ 3,893
Other comprehensive income (loss):			
Foreign currency translation adjustments	5,058	(13,084)	(4,252)
Comprehensive loss	(12,387)	(6,510)	(359)
Less: net income attributable to noncontrolling interests, net of taxes	8	75	33
Less: Foreign currency translation adjustments attributable to noncontrolling interests	4	(5)	(2)
Comprehensive loss attributable to Mistras Group, Inc.	<u>\$ (12,399)</u>	<u>\$ (6,580)</u>	<u>\$ (390)</u>

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

Mistras Group, Inc. and Subsidiaries
Consolidated Statements of Equity
(in thousands)

	Common Stock		Additional paid-in capital	Retained earnings (deficit)	Accumulated other comprehensive income (loss)	Total Mistras Group, Inc. Stockholders' Equity	Noncontrolling Interest	Total Equity
	Shares	Amount						
Balance at December 31, 2020	29,234	\$ 292	\$ 234,638	\$ (21,848)	\$ (16,061)	\$ 197,021	\$ 198	\$ 197,219
Net loss	—	—	—	3,860	—	3,860	33	3,893
Other comprehensive income, net of tax	—	—	—	—	(4,250)	(4,250)	(2)	(4,252)
Share-based compensation	—	—	5,421	—	—	5,421	—	5,421
Net settlement on vesting of restricted stock units	312	3	(1,372)	—	—	(1,369)	—	(1,369)
Balance at December 31, 2021	29,546	\$ 295	\$ 238,687	\$ (17,988)	\$ (20,311)	\$ 200,683	\$ 229	\$ 200,912
Net income	—	—	—	6,499	—	6,499	75	6,574
Other comprehensive loss, net of tax	—	—	—	—	(13,079)	(13,079)	(5)	(13,084)
Share-based compensation	—	—	5,335	—	—	5,335	—	5,335
Net settlement of restricted stock units	349	3	(991)	—	—	(988)	—	(988)
Balance at December 31, 2022	29,895	\$ 298	\$ 243,031	\$ (11,489)	\$ (33,390)	\$ 198,450	\$ 299	\$ 198,749
Net income (loss)	—	—	—	(17,453)	—	(17,453)	8	(17,445)
Other comprehensive loss, net of tax	—	—	—	—	5,054	5,054	4	5,058
Share-based compensation	—	—	5,712	—	—	5,712	—	5,712
Net settlement of restricted stock units	703	7	(1,578)	—	—	(1,571)	—	(1,571)
Balance at December 31, 2023	<u>30,598</u>	<u>\$ 305</u>	<u>\$ 247,165</u>	<u>\$ (28,942)</u>	<u>\$ (28,336)</u>	<u>\$ 190,192</u>	<u>\$ 311</u>	<u>\$ 190,503</u>

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

Mistras Group, Inc. and Subsidiaries
Consolidated Statements of Cash Flows
(in thousands)

	For the year ended December 31,		
	2023	2022	2021
Cash flows from operating activities			
Net income (loss)	\$ (17,445)	\$ 6,574	\$ 3,893
Adjustments to reconcile net income (loss) to net cash provided by operating activities			
Depreciation and amortization	34,099	33,294	34,921
Deferred income taxes	(5,281)	(517)	87
Share-based compensation expense	5,712	5,335	5,421
Impairment charges	13,799	—	—
Bad debt provision for troubled customers, net of recoveries	—	42	—
Change in provision for doubtful accounts	346	—	—
Foreign currency (gain) loss	1,030	(208)	417
Payment of finance costs	—	(400)	—
Fair value adjustments to contingent consideration	—	45	949
Other	(437)	786	119
Changes in operating assets and liabilities, net of effect of acquisitions and dispositions			
Accounts receivable	(8,026)	(17,225)	(3,979)
Inventories	(1,867)	(1,283)	278
Prepaid expenses and other assets	(1,852)	5,959	943
Accounts payable	4,177	(93)	(1,139)
Accrued expenses and other liabilities	4,010	(6,454)	2,268
Income taxes payable	(580)	1,084	(1,917)
Payment of contingent consideration in excess of initial estimate	(937)	(533)	—
Net cash provided by operating activities	26,748	26,406	42,261
Cash flows from investing activities			
Purchase of property, plant and equipment	(20,854)	(12,591)	(18,161)
Purchase of intangible assets	(2,795)	(825)	(1,115)
Acquisition of businesses, net of cash acquired	—	—	(440)
Proceeds from sale of equipment	1,516	1,178	1,165
Net cash used in investing activities	(22,133)	(12,238)	(18,551)
Cash flows from financing activities			
Repayment of finance lease obligations	(5,047)	(4,140)	(4,060)
Proceeds from borrowings of long-term debt	611	125,000	—
Repayment of long-term debt	(7,598)	(81,405)	(16,262)
Proceeds from revolver	83,000	192,501	89,000
Repayments of revolver	(77,100)	(246,750)	(89,065)
Payments of financing costs	—	(147)	(550)
Payment of contingent consideration for business acquisitions	—	(405)	(938)
Taxes paid related to net share settlement of share-based awards	(1,572)	(977)	(1,370)
Net cash used in financing activities	(7,706)	(16,323)	(23,245)
Effect of exchange rate changes on cash and cash equivalents	249	(1,467)	(2,115)
Net change in cash and cash equivalents	(2,842)	(3,622)	(1,650)
Cash and cash equivalents:			
Beginning of period	20,488	24,110	25,760
End of period	\$ 17,646	\$ 20,488	\$ 24,110
Supplemental disclosure of cash paid			
Interest, net	\$ 17,078	\$ 8,603	\$ 10,078
Income taxes, net	\$ 6,901	\$ (3,069)	\$ 4,707
Noncash investing and financing			
Equipment acquired through finance lease obligations	\$ 7,125	\$ 5,076	\$ 2,923

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

Mistras Group, Inc. and Subsidiaries
Notes to Consolidated Financial Statements
(tabular dollars in thousands, except per share data)

1. Summary of Significant Accounting Policies and Practices

Description of Business

Mistras Group, Inc., together with its subsidiaries (the "Company"), is a leading "one source" multinational provider of integrated technology-enabled asset protection solutions helping to maximize the safety and operational uptime for civilization's most critical industrial and civil assets.

Backed by an innovative, data-driven asset protection portfolio, proprietary technologies and decades-long legacy of industry leadership, the Company helps customers with asset-intensive infrastructure in the oil and gas, aerospace and defense, industrials, power generation and transmission (including alternative and renewable energy), other process industries and infrastructure, research and engineering and other industries towards achieving and maintaining operational excellence. By supporting these organizations that help fuel our vehicles and power our society; inspecting components that are trusted for commercial, defense, and space craft; and building real-time monitoring systems to help avoid catastrophic incidents, the Company helps the world at large.

The Company enhances value for its customers by integrating asset protection throughout supply chains and centralizing integrity data through a suite of Industrial Internet of Things ("IoT")-connected digital software and monitoring solutions, including OneSuite™, which serves as an ecosystem platform, pulling together all of the Company's software and data services capabilities, for the benefit of its customers.

The Company's core capabilities also include non-destructive testing ("NDT") field inspections enhanced by advanced robotics, laboratory quality control, laboratory materials services, shop laboratory assurance testing, sensing technologies and NDT equipment, asset and mechanical integrity engineering services, and light mechanical maintenance and access services.

The Company has three operating segments. During the first quarter of 2023, the Company renamed the Services segment to the North America segment to more closely align to the geographical area in which the Services segment operates. We did not recast the corresponding financial information for the historical periods presented, as there was no change in the manner which our chief operating decision maker reviews the financial results of each segment and allocates resources. Our Segments, with the updated naming convention, are as follows:

- *North America (Referred to as "Services" in prior filings).* This segment provides asset protection solutions predominantly in North America, with the largest concentration in the United States, followed by Canada, consisting primarily of NDT, inspection, mechanical and engineering services that are used to evaluate the safety, structural integrity and reliability of critical energy, industrial and public infrastructure and commercial aerospace components. Software, digital and data services are included in this segment.
- *International.* This segment offers services, products and systems similar to those of the other segments to select markets within Europe, the Middle East, Africa, Asia and South America, but not to customers in China and South Korea, which are served by the Products and Systems segment.
- *Products and Systems.* This segment designs, manufactures, sells, installs and services the Company's asset protection products and systems, including equipment and instrumentation, predominantly in the United States.

Recent Developments

During the third quarter of 2023, a triggering event was identified within the Company's reporting units within the International segment due to decreased gross margin in the current period as a result of inflationary pressures and rising energy costs which resulted in impairment charges within the International reporting units of \$13.8 million. Refer to Note 8-*Goodwill*.

During 2022, the Company experienced unfavorable foreign currency exchange impacts as it relates to the Company's European operations. Additionally, the Russian-Ukrainian war and the conflict in the Middle East between Israel and Hamas continues to create disruptions in the oil and gas market and the supply chain in general, which is resulting in some disruption to our business operations. The Company's European operations are currently experiencing increased costs associated with higher energy costs, among others, due in part to the Russian-Ukrainian war.

In 2022, the Company eliminated substantially all of the COVID related cost reduction initiatives undertaken in 2020, including re-instatement of the savings plan employer match and increasing wages back to pre-pandemic amounts.

The Company is currently unable to predict with certainty the overall impact that the factors discussed above and the effect of inflationary pressures may have on its business, results of operations or liquidity or in other ways which the Company cannot yet determine. The Company will continue to monitor market conditions and respond accordingly.

Principles of Consolidation

The Company follows guidance on the consolidation of variable interest entities ("VIEs") that requires companies to utilize a qualitative approach to determine whether it is the primary beneficiary of a VIE. The process for identifying the primary beneficiary of a VIE requires consideration of the factors that indicate a party has the power to direct the activities that most significantly impact the VIE's economic performance, including powers granted to the VIE's program manager, powers contained in the VIE governing board and, to a certain extent, a company's economic interest in the VIE. The Company analyzes its joint ventures and classifies them as either:

- a VIE that must be consolidated because the Company is the primary beneficiary, or the joint venture is not a VIE and the Company holds the majority voting interest with no significant participative rights available to the other partners; or
- a VIE that does not require consolidation and is treated as an equity method investment because the Company is not the primary beneficiary or the joint venture is not a VIE and the Company does not hold the majority voting interest.

As part of the above analysis, if it is determined that the Company has the power to direct the activities that most significantly impact the joint venture's economic performance, the Company considers whether or not it has the obligation to absorb losses or rights to receive benefits of the VIE that could potentially be significant to the VIE.

The Company became the primary beneficiary in July 2020 of a VIE in which the Company has a 49% interest in a limited partnership, and a 49% stockholder in the corporate general partner of the limited partnership. The Company consolidated the financial statements of the VIE with the financial statements of the Company. As of and for the year ended December 31, 2023, the VIE had immaterial assets and had approximately \$3.0 million of revenue. The Company is the primary sub-contractor of the VIE.

The accompanying audited consolidated financial statements include the accounts of Mistras Group, Inc. as well as its wholly-owned subsidiaries, majority-owned subsidiaries and consolidated VIE. For subsidiaries in which the Company's ownership interest is less than 100%, the non-controlling interests are reported in stockholders' equity in the accompanying Consolidated Balance Sheets. The non-controlling interests in net results, net of tax, is classified separately in the accompanying Consolidated Statements of Income (Loss). All significant intercompany accounts and transactions have been eliminated in consolidation. The results of operations of companies acquired are included from the date of acquisition.

Reclassifications

Certain amounts in prior periods have been reclassified to conform to the current year presentation. Such reclassifications did not have a material effect on the Company's financial condition or results of operations as previously reported.

Use of Estimates

The preparation of financial statements in accordance with U.S. generally accepted accounting principles ("U.S. GAAP") requires that the Company make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue and expenses and disclosure of contingent assets and liabilities at the date of the financial statements. The Company bases its estimates and assumptions on historical experience, known or expected trends and various other assumptions that it believes to be reasonable. As future events and their effects cannot be determined with precision, actual results could differ significantly from these estimates, which may cause the Company's future results to be significantly affected.

Cash and Cash Equivalents

The Company considers all highly liquid investments purchased with an original maturity of three months or less to be cash equivalents.

Accounts Receivable and Allowance for Credit Losses

The Company maintains an allowance for credit losses on its accounts receivable balances, which represents its best estimate of current expected credit losses over the contractual life of the accounts receivable. When evaluating the adequacy of its allowance for credit losses each reporting period, the Company analyzes accounts receivable balances with similar risk characteristics on a collective basis, considering factors such as the aging of receivable balances, payment terms (primarily with 30 day terms), geographic location, historical loss experience, current information and future expectations (generally considered one year which is consistent with expected collectability of the Company's trade receivables).

The Company monitors and considers whether historical loss rates are consistent with expectation of supportable forward-looking estimates for its trade receivables noting any current or future economic considerations that would require adjusting the Company's historical loss experience. Each reporting period, the Company reassesses whether any accounts receivable no longer share similar risk characteristics and should instead be evaluated as part of another pool or on an individual basis. Changes to the allowance for credit losses are adjusted through credit loss expense, which is presented within Selling, general and administrative expenses in the Consolidated Statements of Income (Loss).

Concentration of Credit Risk

For each of the years ended December 31, 2023 and 2022, no customer represented 10% or more of the Company's revenue.

Financial instruments that potentially subject the Company to concentrations of credit risk consist principally of cash and cash equivalents and accounts receivable. At times, cash deposits may exceed the limits insured by the Federal Deposit Insurance Corporation. The Company believes it is not exposed to any significant credit risk or risk of nonperformance of financial institutions.

Inventories

Inventories are stated at the lower of cost or net realizable value, as determined by using the first-in, first-out method, or market. Work in process and finished goods inventory include material, direct labor, variable costs and overhead.

Purchased and Internal-Use Software

The Company capitalizes certain costs that are incurred to purchase or to create and implement internal-use software, which includes software coding, installation and testing. Capitalized costs are amortized on a straight-line basis over three years, the estimated useful life of the software.

Property, Plant and Equipment

Property, plant and equipment are recorded at cost. Depreciation of property, plant and equipment is computed utilizing the straight-line method over the estimated useful lives of the assets. Amortization of leasehold improvements is computed utilizing the straight-line method over the shorter of the remaining lease term or estimated useful life. Repairs and maintenance costs are expensed as incurred.

Goodwill

Goodwill represents the excess purchase price of acquired businesses over the fair values attributed to underlying net tangible assets and identifiable intangible assets. The Company tests goodwill for impairment at a "reporting unit" level (which for the Company is represented by (i) its North America segment, (ii) its Products and Systems segment, (iii) the European component of its International segment and (iv) the Brazilian component of its International segment). The Company's annual impairment test is conducted on the first day of the Company's fourth quarter, which is October 1. Goodwill is also tested for impairment whenever an event occurs or circumstances change that would more likely than not reduce the fair value of a reporting unit below its carrying amount.

In testing for goodwill impairment, the Company has the option to first assess qualitative factors to determine whether the existence of events or circumstances lead to a determination that it is more likely than not that the fair value of a reporting unit is less than its carrying amount. If, after assessing the totality of events and circumstances, the Company concludes that it is not more likely than not that the fair value of a reporting unit is less than its carrying amount, then performing a quantitative

impairment test is not necessary. If the Company concludes otherwise, the Company is required to perform a quantitative impairment test.

If the fair value of a reporting unit is less than its carrying value, this is an indicator that the goodwill assigned to that reporting unit may be impaired. An impairment will be recorded in the amount that the fair value is less than the carrying value. The Company considers the income and market approaches to estimate the fair value of its reporting units, which requires significant judgment and assumptions related to revenue growth rates, gross margins, EBIT margins, and market multiples.

See Note 8-*Goodwill* for additional information related to the Company's goodwill impairment test during 2023.

Impairment of Long-lived Assets

The Company reviews the recoverability of its long-lived assets (or asset groups) whenever events or changes in circumstances indicate that the carrying amount of the long-lived asset (group) might not be recoverable. The assessment for potential impairment is based primarily on the Company's ability to recover the carrying value of its long-lived assets from expected future undiscounted cash flows. If the total expected future undiscounted cash flows are less than the carrying amount of the assets, a loss is recognized for the difference between fair value (computed based upon the expected future discounted cash flows) and the carrying value of the assets.

Acquisitions

The Company allocates the purchase price of acquired businesses to their identifiable tangible assets and liabilities as well as identifiable intangible assets, such as customer relationships, technology, non-compete agreements and trade names. Certain estimates and judgments are required in the application of the fair value techniques, including estimates of the respective acquisition's future performance and related cash flows, selection of a discount rate and economic lives, and use of Level 3 measurements as defined in ASC No. 820, *Fair Value Measurements and Disclosure*. Deferred taxes are recorded for any differences between the assigned values and tax bases of assets and liabilities.

Research and Engineering

Research and product development costs are expensed as incurred.

Advertising, Promotions and Marketing

The costs for advertising, promotion and marketing programs are expensed as incurred and are included in selling, general and administrative expenses. Advertising expense was approximately \$1.4 million, \$2.0 million and \$1.0 million for the years ended December 31, 2023, 2022 and 2021, respectively.

Fair Value of Financial Instruments

The carrying amounts of cash and cash equivalents, accounts receivable, accounts payable and other financial current assets and liabilities approximate fair value based on the short-term nature of the items.

Foreign Currency Translation

The financial position and results of operations of the Company's foreign subsidiaries are measured using their functional currencies, which are their local currencies. Assets and liabilities of foreign subsidiaries are translated into the U.S. Dollar at the exchange rates in effect at the balance sheet date. Income and expenses are translated at the average exchange rate during the period. Translation gains and losses are reported as a component of other comprehensive income (loss) for the period and included in accumulated other comprehensive income (loss) within stockholders' equity.

Foreign currency (gains) losses arising from transactions denominated in currencies other than the functional currency are included in net income, reported in selling, general and administrative expenses, and were approximately \$1.3 million, \$(0.2) million, and \$0.4 million for the years ended December 31, 2023, 2022 and 2021, respectively.

Self-Insurance

The Company is self-insured for certain losses relating to workers' compensation and health benefit claims. The Company maintains third-party excess insurance coverage for all workers' compensation and health benefit claims in excess of

approximately \$0.3 million per occurrence to reduce its exposure from such claims. Self-insured losses are accrued when it is probable that an uninsured claim has been incurred but not reported and the amount of the loss can be reasonably estimated at the balance sheet date.

Share-based Compensation

The value of services received from employees and directors in exchange for an award of an equity instrument is measured based on the grant-date fair value of the award. Such value is recognized as a non-cash expense on a straight-line basis over the minimum period the individual provides services, which is typically the vesting period of the award with the exception of awards with graded vesting that contain an internal performance measure where each tranche is recognized on a straight-line basis over its vesting period subject to the probability of meeting the performance requirements and adjusted for the number of shares expected to be earned. Awards to certain employees eligible for retirement prior to the award becoming fully vested are amortized to expense over the period through the date that the employee first becomes eligible to retire and is no longer required to provide service to earn the award. As share-based compensation expense is based on awards ultimately expected to vest, the amount of expense is reduced for estimated forfeitures. The cost of these awards is recorded in selling, general and administrative expenses in the Company's Consolidated Statements of Income (Loss).

Income Taxes

Income taxes are accounted for under the asset and liability method. We recognize deferred tax assets and liabilities at enacted income tax rates for the temporary differences between the financial reporting bases and the tax bases of our assets and liabilities. Any effects of changes in income tax rates or tax laws are included in the provision for income taxes in the period of enactment. Our net deferred tax assets primarily consist of net operating loss carry forwards, or NOLs. A valuation allowance is provided if it is more likely than not that some or all of a deferred income tax asset will not be realized. A current tax liability or asset is recognized for the estimated taxes payable or refundable on tax returns for the current and prior years.

We recognize the tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained on examination by the taxing authorities, based on the technical merits of the position. The tax benefits recognized in the financial statements from such a position are measured based on the largest benefit that has a greater than 50% likelihood of being realized upon ultimate resolution.

Recent Accounting Pronouncements

In March 2020 and updated in January 2021, the FASB issued Accounting Standards Update ("ASU") 2020-04 and 2021-01, "Reference Rate Reform (Topic 848): Facilitation of the Effects of Reference Rate Reform on Financial Reporting." The amendments provide optional guidance for a limited period of time to ease the potential burden in accounting for (or recognizing the effects of) reference rate reform on financial reporting. The guidance provides optional expedients and exceptions for applying U.S. GAAP to contract modifications and hedging relationships, subject to meeting certain criteria, that reference LIBOR or another rate that is expected to be discontinued. The amendments in ASU 2020-04 are effective for all entities as of March 12, 2020 through December 31, 2024. The Company is currently evaluating applicable contracts and the available expedients provided by the new guidance.

2. Revenue

The Company derives the majority of its revenue by providing services on a time and material basis that are short-term in nature. The Company accounts for revenue in accordance with ASC Topic 606, Revenue from Contracts with Customers.

Performance Obligations

The Company provides highly integrated and bundled inspection services to its customers. The majority of the Company's contracts have a single performance obligation as the promise to transfer the individual goods or services is not separately identifiable from other promises in the contracts and is, therefore, not distinct. For contracts with multiple performance obligations, the Company allocates the contract's transaction price to each performance obligation using the Company's best estimate of the standalone selling price of each distinct good or service in the contract. The primary method used to estimate standalone selling price is a relative selling price based on price lists.

Contract modifications are not routine in the performance of the Company's contracts. Generally, when contracts are modified, the modification is to account for changes in scope to the goods and services that are provided. In most instances, contract modifications are for goods or services that are distinct, and, therefore, are accounted for as a separate contract.

The Company's performance obligations are satisfied over time as work progresses or at a point in time. The majority of the Company's revenue is recognized over time as work progresses for the Company's service deliverables, which includes providing testing, inspection and mechanical services to our customers. Revenue is recognized over time, based on time and material incurred to date which best portrays the transfer of control to the customer. The Company also utilizes an available practical expedient that provides for revenue to be recognized in an amount that corresponds directly with the value to the customer of the entity's performance completed to date. Fixed fee arrangements are determined based on expected labor, material, and overhead to be consumed on fulfillment of such services. For these arrangements, revenue is recognized on a cost-to-cost method tracked on an input basis.

The majority of our revenue recognized at a point in time is related to product sales when the customer obtains control of the asset, which is generally upon shipment to the customer. Contract costs include labor, material and overhead.

The Company expects any significant remaining performance obligations to be satisfied within one year.

Contract Estimates

The majority of the Company's revenues are short-term in nature. The Company enters into master service agreements ("MSAs") with customers that specify an overall framework and contract terms. The actual contracting to provide services or furnish products are triggered by a work order, purchase order, or some similar document issued pursuant to an MSA which sets forth the scope of services and/or identifies the products to be provided. From time-to-time, the Company may enter into longer-term contracts, which can range from several months to several years. Revenue on certain contracts is recognized as work is performed based on total costs incurred to date in relation to the total estimated costs for the performance of the contract at completion. This includes contract estimates of costs to be incurred for the performance of the contract. Cost estimation is based upon the professional knowledge and experience of the Company's project managers, engineers and financial professionals. Factors that are considered in estimating the work to be completed include the availability of materials, the effect of any delays in the Company's project performance and the recoverability of any claims. Whenever revisions of estimates, contract costs and/or contract values indicate that the contract costs will exceed estimated revenues, thus creating a loss, a provision for the total estimated loss is recorded in that period.

Revenue by Category

The following series of tables present the Company's disaggregated revenue:

Revenue by industry was as follows (in thousands):

Year ended December 31, 2023	North America	International	Products	Corp/Elim	Total
Oil & Gas	\$ 379,221	\$ 36,615	\$ 159	\$ —	\$ 415,995
Aerospace & Defense	56,000	20,711	286	—	76,997
Industrials	42,518	26,292	1,773	—	70,583
Power Generation and Transmission	23,598	6,609	3,767	—	33,974
Other Process Industries	33,035	14,456	112	—	47,603
Infrastructure, Research & Engineering	16,620	9,320	3,168	—	29,108
Petrochemical	13,216	1,216	—	—	14,432
Other	15,122	9,195	3,721	(11,257)	16,781
Total	\$ 579,330	\$ 124,414	\$ 12,986	\$ (11,257)	\$ 705,473

Table of Contents

Year ended December 31, 2022	North America	International	Products	Corp/Elim	Total
Oil & Gas	\$ 356,763	\$ 30,654	\$ 335	\$ —	\$ 387,752
Aerospace & Defense	61,475	18,763	314	—	80,552
Industrials	38,197	23,703	2,083	—	63,983
Power Generation and Transmission	31,197	8,304	2,603	—	42,104
Other Process Industries	40,778	14,021	28	—	54,827
Infrastructure, Research & Engineering	15,283	7,946	3,994	—	27,223
Petrochemical	15,360	536	—	—	15,896
Other	14,283	8,498	3,370	(11,115)	15,036
Total	\$ 573,336	\$ 112,425	\$ 12,727	\$ (11,115)	\$ 687,373

Year ended December 31, 2021	North America	International	Products	Corp/Elim	Total
Oil & Gas	\$ 330,880	\$ 35,232	\$ 808	\$ —	\$ 366,920
Aerospace & Defense	51,593	16,513	286	—	68,392
Industrials	41,873	24,000	1,842	—	67,715
Power Generation and Transmission	39,966	9,927	2,853	—	52,746
Other Process Industries	38,742	12,593	64	—	51,399
Infrastructure, Research & Engineering	16,809	11,496	3,985	—	32,290
Petrochemical	19,378	227	—	—	19,605
Other	16,146	7,257	3,993	(9,332)	18,064
Total	\$ 555,387	\$ 117,245	\$ 13,831	\$ (9,332)	\$ 677,131

Revenue per key geographic location was as follows (in thousands):

Year ended December 31, 2023	North America	International	Products	Corp/Elim	Total
United States	\$ 495,764	\$ 934	\$ 5,956	\$ (2,372)	\$ 500,282
Other Americas	77,880	12,906	850	(4,697)	86,939
Europe	3,655	105,934	1,927	(3,381)	108,135
Asia-Pacific	2,031	4,640	4,253	(807)	10,117
Total	\$ 579,330	\$ 124,414	\$ 12,986	\$ (11,257)	\$ 705,473

Year ended December 31, 2022	North America	International	Products	Corp/Elim	Total
United States	\$ 485,551	\$ 910	\$ 6,495	\$ (3,083)	\$ 489,873
Other Americas	83,877	9,076	406	(4,105)	89,254
Europe	2,811	99,714	1,896	(3,502)	100,919
Asia-Pacific	1,097	2,725	3,930	(425)	7,327
Total	\$ 573,336	\$ 112,425	\$ 12,727	\$ (11,115)	\$ 687,373

Year ended December 31, 2021	North America	International	Products	Corp/Elim	Total
United States	\$ 472,125	\$ 912	\$ 6,469	\$ (4,284)	\$ 475,222
Other Americas	80,013	5,003	395	(1,768)	83,643
Europe	1,841	108,411	2,174	(2,812)	109,614
Asia-Pacific	1,408	2,919	4,793	(468)	8,652
Total	\$ 555,387	\$ 117,245	\$ 13,831	\$ (9,332)	\$ 677,131

Contract Balances

The timing of revenue recognition, billings and cash collections results in billed accounts receivable, unbilled receivables (contract assets), and customer advances and deposits (contract liabilities) on the Consolidated Balance Sheets. Amounts are generally billed as work progresses in accordance with agreed-upon contractual terms, generally at periodic intervals (e.g., weekly, bi-weekly or monthly). Generally, billing occurs subsequent to revenue recognition, resulting in contract assets. However, the Company sometimes receives advances or deposits from its customers before revenue is recognized, resulting in contract liabilities. These assets and liabilities are aggregated on an individual contract basis and reported on the Consolidated Balance Sheets at the end of each reporting period within accounts receivable, net or accrued expenses and other current liabilities.

Revenue recognized for 2023 and 2022, that was included in the contract liability balance at the beginning of the year was \$6.3 million and \$4.7 million, respectively. Changes in the contract asset and liability balances during the years ended December 31, 2023 and 2022, were not impacted by any other factors. The Company applies the practical expedient to expense incremental costs incurred related to obtaining a contract when the amortization period of the asset that the Company otherwise would have recognized is one year or less.

3. Earnings per Share

Basic earnings (loss) per share is computed by dividing net income (loss) by the weighted-average number of shares outstanding during the period. Diluted earnings per share is computed by dividing net income (loss) by the sum of (1) the weighted-average number of shares of common stock outstanding during the period, and (2) the dilutive effect of assumed conversion of equity awards using the treasury stock method. With respect to the number of weighted-average shares outstanding (denominator), diluted shares reflects: (i) the exercise of options to acquire common stock to the extent that the options' exercise prices are less than the average market price of common stock during the period and (ii) the pro forma vesting of restricted stock units.

The following table sets forth the computations of basic and diluted earnings (loss) per share (in thousands except share data):

	For the year ended December 31,		
	2023	2022	2021
Basic earnings (loss) per share:			
Numerator:			
Net income (loss) attributable to Mistras Group, Inc.	\$ (17,453)	\$ 6,499	\$ 3,860
Denominator			
Weighted average common shares outstanding	30,330	29,901	29,572
Basic earnings (loss) per share	\$ (0.58)	\$ 0.22	\$ 0.13
Diluted earnings (loss) per share:			
Numerator:			
Net income (loss) attributable to Mistras Group, Inc.	\$ (17,453)	\$ 6,499	\$ 3,860
Denominator			
Weighted average common shares outstanding	30,330	29,901	29,572
Dilutive effect of stock options outstanding	—	—	558
Dilutive effect of restricted stock units outstanding	—	328	—
	30,330	30,229	30,130
Diluted earnings (loss) per share	\$ (0.58)	\$ 0.21	\$ 0.13

The following potential shares of common stock were excluded from the computation of diluted earnings per share, as the effect would have been anti-dilutive:

	For the year ended December 31,		
	2023	2022	2021
Potential shares of common stock attributable to restricted stock units (RSUs) and performance stock units (PSUs) outstanding ⁽¹⁾	547	1,005	109
Potential shares of common stock attributable to stock options outstanding	—	1	5
Total	547	1,006	114

⁽¹⁾ For the year ended December 31, 2023, 1,014,527 shares of common stock related to restricted stock and 250,000 stock options, were excluded from the calculation of diluted EPS due to the net loss for the period.

4. Accounts Receivable

Accounts receivable consist of the following (in thousands):

	December 31,	
	2023	2022
Trade accounts receivable	\$ 134,495	\$ 127,767
Allowance for credit losses	(1,648)	(4,110)
Accounts receivable, net	<u>\$ 132,847</u>	<u>\$ 123,657</u>

The Company had \$18.5 million and \$13.5 million of unbilled revenues accrued as of December 31, 2023 and December 31, 2022, respectively, which is included within the trade accounts receivable balance above. Unbilled revenue is generally billed in the subsequent quarter to their revenue recognition. The Company considers unbilled receivables as short-term in nature as they are normally converted to trade receivables within 90 days, thus future changes in economic conditions will not have a significant effect on the credit loss estimate.

The Company was contracted to perform inspections of welds on various pipeline projects in Texas for a customer. As of December 31, 2019, approximately \$1.4 million of past due receivables were outstanding from this customer. The Company received notice from the customer in December 2019, alleging that the work performed was not in compliance with the contract. The Company filed a lawsuit to recover the \$1.4 million and other amounts due to the Company and the customer filed a counterclaim, alleging breach of contract and seeking damages. The Company recorded a full reserve for this receivable during 2019. The parties agreed to a settlement in the quarter ending June 30, 2023, with releases executed in July 2023, whereby the Company released its claim for the \$1.4 million of outstanding receivables. Accordingly, the receivable has been written off. See Note 18-Commitments and Contingencies for additional details.

5. Inventories

Inventories consist of the following (in thousands):

	December 31,	
	2023	2022
Raw materials	\$ 6,099	\$ 5,351
Work in progress	839	336
Finished goods	5,740	5,475
Consumable supplies	2,605	2,394
Inventories	<u>\$ 15,283</u>	<u>\$ 13,556</u>

6. Property, Plant and Equipment

Property, plant and equipment consist of the following:

	Useful Life (Years)	December 31,	
		2023	2022
		(in thousands)	
Land		\$ 2,453	\$ 2,529
Building and improvements	30-40	26,663	24,800
Office furniture and equipment	5-8	21,334	18,057
Machinery and equipment	5-7	269,306	251,282
		<u>319,756</u>	<u>296,668</u>
Accumulated depreciation and amortization		(238,784)	(219,107)
Property, plant and equipment, net		<u>\$ 80,972</u>	<u>\$ 77,561</u>

Depreciation expense was approximately \$25.6 million, \$24.1 million, and \$25.2 million for the years ended December 31, 2023, 2022 and 2021, respectively.

7. Acquisitions

Acquisition-Related expense

In the course of its acquisition activities, the Company incurs costs in connection with due diligence, such as professional fees, and other expenses. Additionally, the Company adjusts the fair value of acquisition-related contingent consideration liabilities on a quarterly basis. These amounts are recorded as acquisition-related expense, net, on the Consolidated Statements of Income (Loss) and were as follows for the years ended December 31, 2023, 2022 and 2021 (in thousands):

	For the year ended December 31,		
	2023	2022	2021
Due diligence, professional fees and other transaction costs	\$ 9	\$ 31	\$ 5
Adjustments to fair value of contingent consideration liabilities	—	45	1,128
Acquisition-related expense, net	<u>\$ 9</u>	<u>\$ 76</u>	<u>\$ 1,133</u>

8. Goodwill

The changes in the carrying amount of goodwill by segment is shown below (in thousands):

	North America	International	Products and Systems	Total
Balance at December 31, 2021	\$ 190,656	\$ 14,783	\$ —	\$ 205,439
Foreign currency translation	(4,946)	(858)	—	(5,804)
Balance at December 31, 2022	<u>\$ 185,710</u>	<u>\$ 13,925</u>	<u>\$ —</u>	<u>\$ 199,635</u>
Impairment charges	—	(13,799)	—	(13,799)
Foreign currency translation	1,644	(126)	—	1,518
Balance at December 31, 2023	<u>\$ 187,354</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 187,354</u>

The Company reviews goodwill for impairment on a reporting unit basis on October 1 of each year and whenever events or changes in circumstances indicate the carrying value of goodwill may not be recoverable.

During the third quarter of 2023, a triggering event was identified within the Company's reporting units within the International segment due to decreased gross margin in the current period as a result of inflationary pressures and rising energy costs impacting the International reporting units' operations. As a result, the Company performed an interim quantitative goodwill impairment test.

In performing the interim quantitative goodwill impairment test and consistent with prior practice, the Company determined the fair value of each of the reporting units using a combination of the income approach and the market approach by assessing each of these valuation methodologies based upon availability and relevance of comparable Company data and determining the appropriate weighting.

Under the income approach, the fair value for each of the reporting units was determined based on the present value of estimated future cash flows, discounted at an appropriate risk-adjusted rate. The Company used internal forecasts, updated for recent events, to estimate future cash flows using a terminal value calculation, which incorporates historical and forecasted trends, including an estimate of long-term future growth rates, based on the Company's most recent views of the long-term outlook for each reporting unit. The Company's internal forecasts include assumptions about future profitability, including the expected demand for the Company's goods and services. Due to the inherent uncertainties involved in making estimates and assumptions, actual results may differ from those assumed in the forecasts. The Company derived the discount rates using a capital asset pricing model and analyzing published rates for industries relevant to the reporting units to estimate the cost of equity financing. The Company used discount rates that are commensurate with the risks and uncertainties inherent in the respective businesses and in the Company's internally developed forecasts and which are updated for recent events. Increased interest rates in the current period increased the discount rate associated with the reporting units which contributed to an unfavorable decrease in the reporting units value.

The market approach valuation was derived from metrics of publicly traded companies or historically completed transactions of comparable businesses. The selection of comparable businesses was based on the markets in which the reporting units operate, considering risk profiles, size, geography, and diversity of products and services.

Based upon the results of the interim quantitative goodwill impairment test, the Company recorded an impairment charge of \$13.8 million within the International reporting units. The impairment was calculated based on the difference between the estimated fair value and the carrying value of the reporting units and is included in Goodwill impairment charges on the condensed consolidated statements of income (loss) for the year ended December 31, 2023. Any significant adverse changes in future periods to the Company's internal forecasts or the external market conditions, if any, could reasonably be expected to negatively affect its key assumptions and may result in future goodwill impairment charges which could be material.

The Company's cumulative goodwill impairment as of December 31, 2023 was \$114.0 million, of which \$57.2 million related to the North America segment, \$43.6 million related to the International segment and \$13.2 million related to the Products and Systems segment.

9. Intangible Assets

The gross carrying amount and accumulated amortization of intangible assets were as follows (in thousands):

	Useful Life (Years)	December 31,					
		2023			2022		
		Gross Amount	Accumulated Amortization	Net Carrying Amount	Gross Amount	Accumulated Amortization	Net Carrying Amount
Customer relationships	5-18	\$ 110,780	\$ (90,506)	\$ 20,274	\$ 109,683	\$ (84,130)	\$ 25,553
Software/Technology	3-15	55,053	(32,230)	22,823	51,028	(28,669)	22,359
Covenants not to compete	2-5	12,536	(12,488)	48	12,488	(12,416)	72
Other	2-12	10,466	(9,617)	849	10,389	(9,358)	1,031
Total		\$ 188,835	\$ (144,841)	\$ 43,994	\$ 183,588	\$ (134,573)	\$ 49,015

Amortization expense for the years ended December 31, 2023, 2022 and 2021, was approximately \$8.5 million, \$9.1 million, and \$9.7 million, respectively, including amortization of software/technology for these periods of \$2.9 million, \$2.9 million, and \$3.0 million, respectively.

Amortization expense in each of the five years and thereafter subsequent to December 31, 2023 related to the Company's intangible assets is expected to be as follows (in thousands):

	Expected Amortization Expense
2024	\$ 9,054
2025	6,829
2026	6,120
2027	4,752
2028	4,620
Thereafter	12,619
Total	<u>\$ 43,994</u>

10. Accrued Expenses and Other Current Liabilities

Accrued expenses and other current liabilities consist of the following (in thousands):

	December 31,	
	2023	2022
Accrued salaries, wages and related employee benefits	\$ 27,372	\$ 26,684
Contingent consideration	—	937
Accrued workers' compensation and health benefits	4,385	3,660
Deferred revenue	7,136	7,521
Right-of-use liability - Operating	10,686	10,376
Pension accrual	2,458	2,519
Other accrued expenses	32,294	26,147
Total accrued expenses and other current liabilities	<u>\$ 84,331</u>	<u>\$ 77,844</u>

11. Long-Term Debt

Long-term debt consisted of the following (in thousands):

	December 31,	
	2023	2022
Senior credit facility	\$ 71,150	\$ 65,250
Senior secured term loan, net of unamortized debt issuance costs of \$0.4 million and \$0.5 million	115,253	121,399
Other	3,996	4,602
Total debt	190,399	191,251
Less: Current portion	(8,900)	(7,425)
Long-term debt, net of current portion	<u>\$ 181,499</u>	<u>\$ 183,826</u>

Senior Credit Facility

Prior to entering into the New Credit Agreement (defined and described below), the Company had a credit agreement with its banking group (the "Credit Agreement") which provided the Company with a \$150 million revolving credit facility and a \$100 million term loan. The Credit Agreement was most recently amended on May 19, 2021 and had a maturity date of December 12, 2023.

On August 1, 2022, the Company entered into a new credit agreement (the "New Credit Agreement") which replaced the prior Credit Agreement and provides the Company with a \$190 million, 5-year committed revolving credit facility and a \$125 million term loan with a balance of \$115.3 million as of December 31, 2023. The New Credit Agreement permits the Company to borrow up to \$100 million in non-US dollar currencies and to use up to \$20 million of the credit limit for the issuance of letters of credit. Both the revolving line of credit and the term loan under the New Credit Agreement have a maturity date of July 30, 2027.

The New Credit Agreement has the following key terms, conditions and financial covenants:

- Borrowings bear interest at Secured Overnight Financing Rate ("SOFR") plus a credit spread adjustment and applicable SOFR margin ranging from 1.25% to 2.75%, based upon our Total Consolidated Debt Leverage Ratio (defined below); under the Credit Agreement, the margin was based upon the LIBOR margin.
 - Total Consolidated Debt Leverage Ratio means the ratio of (a) Total Consolidated Debt to (b) EBITDA (as defined in the New Credit Agreement) for the trailing four consecutive fiscal quarters.
 - Total Consolidated Debt means all indebtedness (including subordinated debt) of the Company on a consolidated basis.
- The Company has the benefit of the lowest SOFR margin if its Total Consolidated Debt Leverage Ratio is equal to or less than 1.25 to 1.0, and the margin increases as the ratio increases, to the maximum margin if the ratio is greater than 3.75 to 1.0. The New Credit Agreement is secured by liens on substantially all of the assets of the Company and certain of its U.S subsidiaries and is guaranteed by those U.S subsidiaries.
- The Company has to maintain a Total Consolidated Debt Leverage Ratio of no more than 4.0 to 1.0 at the end of each quarter through June 30, 2023 and stepping down to a maximum permitted ratio of no more than 3.75 to 1.0 for the remainder of the term.
- As of December 31, 2023, the Fixed Charge Coverage Ratio was modified from a ratio of 1.25 to 1.0 to a ratio of 1.1 to 1.0 for the duration of the New Credit Agreement, as defined in the New Credit Agreement. Refer to Note 21 - *Subsequent Events* for further information.
- The New Credit Agreement limits the Company's ability to, among other things, create liens, make investments, incur more indebtedness, merge or consolidate, make dispositions of property, pay dividends, make distributions to stockholders or repurchase our stock, enter into a new line of business, enter into transactions with affiliates and enter into burdensome agreements.
- The New Credit Agreement does not limit the Company's ability to acquire other businesses or companies except that the acquired business or company must be in the Company's line of business, the Company must be in compliance with the financial covenants on a pro forma basis after taking into account the acquisition, and the Company must provide written notice at least five business days prior to the date of an acquisition of \$10 million or more.
- Quarterly payments on the term loan of \$1.56 million through June 30, 2024, then increasing to \$2.34 million through June 30, 2025, and to \$3.12 million for each quarterly payment thereafter through maturity.

The New Credit Agreement was accounted for as a modification, and the Company expensed \$0.8 million in unamortized capitalized debt issuance costs and fees during the three months ended September 30, 2022, which was included in selling, general and administrative expenses on the Consolidated Statements of Income (Loss). The Company incurred \$1.6 million in financing costs for the New Credit Agreement, of which \$0.2 million of third party costs were expensed and included in selling, general and administrative expenses on the Consolidated Statements of Income (Loss).

As of December 31, 2023, the Company had borrowings of \$186.4 million and a total of \$2.9 million of letters of credit outstanding under the New Credit Agreement. The Company has capitalized costs associated with debt modifications of \$1.2 million as of December 31, 2023, which is included in Other assets on the Consolidated Balance Sheet and will be amortized into interest expense over the remaining term of the Credit Agreement through July 30, 2027.

As of December 31, 2023, the Company was in compliance with the terms of the New Credit Agreement. The Company continuously monitors compliance with the covenants contained in the New Credit Agreement. The Company believes that it is probable that the Company will be able to comply with the financial covenants in the New Credit Agreement and that sufficient credit remains available under the New Credit Agreement to meet the Company's liquidity needs. However, such matters cannot be predicted with certainty.

Other Debt

The Company's other debt includes bank financing provided at the local subsidiary level used to support working capital requirements and fund capital expenditures. At December 31, 2023, there was an aggregate of approximately \$4.0 million

outstanding, payable at various times through 2030. Monthly payments range from \$1 thousand to \$19 thousand and interest rates range from 0.4% to 3.5%.

Scheduled principal payments due under all borrowing agreements in each of the five years and thereafter subsequent to December 31, 2023 are as follows (in thousands):

2024	\$ 9,208
2025	11,968
2026	12,875
2027	155,524
2028	824
Thereafter	—
Total	<u>\$ 190,399</u>

12. Fair Value Measurements

The Company performs fair value measurements in accordance with the guidance provided by ASC 820, *Fair Value Measurements and Disclosures*. ASC 820 defines fair value as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. It also establishes a three-level hierarchy that prioritizes the inputs used to measure fair value. The three levels of the hierarchy are defined as follows:

Level 1 — Inputs are unadjusted quoted prices in active markets for identical assets or liabilities that the Company has the ability to access at the measurement date.

Level 2 — Observable inputs other than quoted prices included in Level 1, including quoted prices for similar assets or liabilities in active markets, quoted prices for identical assets or liabilities in inactive markets, inputs other than quoted prices that are observable for the asset or liability and inputs derived principally from or corroborated by observable market data.

Level 3 — Unobservable inputs reflecting the Company’s own assumptions about inputs that market participants would use in pricing the asset or liability based on the best information available.

Financial instruments measured at fair value on a recurring basis

The fair value of contingent consideration liabilities was estimated using a discounted cash flow technique with significant inputs that are not observable in the market and thus represents a Level 3 fair value measurement as defined in ASC 820. The significant inputs in the Level 3 measurement not supported by market activity include the probability assessments of expected future cash flows related to the acquisitions, appropriately discounted considering the uncertainties associated with the obligation, and as calculated in accordance with the terms of the applicable acquisition agreements.

The following table represents the changes in the fair value of Level 3 contingent consideration (in thousands):

	December 31,	
	2023	2022
Balance at the beginning of the period:	\$ 937	\$ 1,830
Acquisitions	—	—
Payments	(937)	(938)
Accretion of liability	—	—
Revaluation	—	45
Foreign currency translation	—	—
Balance at the end of the period:	<u>\$ —</u>	<u>\$ 937</u>

Financial instruments not measured at fair value on a recurring basis

The Company has evaluated current market conditions and borrower credit quality and has determined that the carrying value of its long-term debt approximates fair value. The fair value of the Company’s notes payable and finance lease obligations

approximates their carrying amounts based on anticipated interest rates which management believes would currently be available to the Company for similar issuances of debt.

13. Share-Based Compensation

The Company grants share-based incentive awards to its eligible employees and non-employee directors under two equity incentive plans: (i) the 2009 Long-Term Incentive Plan (the "2009 Plan") and (ii) the 2016 Long-Term Incentive Plan (the "2016 Plan"). No awards have been granted under the 2009 Plan since the 2016 Plan was approved by stockholders in 2016, and the remaining option award granted under the 2009 Plan expired during the three months ended March 31, 2022. Awards granted under the 2016 Plan may be in the form of stock options, restricted stock units, restricted stock and other forms of share-based incentives, including performance-based restricted stock units, stock appreciation rights and deferred stock rights. At the annual stockholders meeting on May 23, 2022, the Company's stockholders approved an amendment to increase the total number of shares that may be issued under the 2016 Plan by 1.2 million, for a total of 4.9 million shares that are authorized for issuance under the 2016 plan, of which approximately 1,400,000 shares were available for future grants as of December 31, 2023.

Stock Options

On October 11, 2023, Mr. Stamatakis was granted an award of stock options to purchase 250,000 shares of common stock of the Company, with an exercise price of \$5.36, the closing price of the Company's common stock as quoted on the New York Stock Exchange on the grant date (the "Options"). The Options were granted as an inducement for Mr. Stamatakis to accept the position of Interim President and CEO of Mistras and were therefore granted outside the 2016 Plan, as permitted by NYSE Rules. The Options can be exercised any time after the grant date until its expiration date, which is the earlier of 10 years from the grant date or one year following the date Mr. Stamatakis is no longer serving as an officer, director or in any other capacity of the Company. During the three months ended December 31, 2023, the Company recorded \$0.8 million share-based compensation expenses related to the Options.

For each of the years ended December 31, 2022 and 2021, the Company did not recognize any share-based compensation expense related to stock option awards, as the one outstanding stock option award was already fully vested. No unrecognized compensation costs remained related to the stock option awards. In addition, there were no stock options exercised during the years ended December 31, 2023, 2022 and 2021.

The following table sets forth a summary of the stock option activity, weighted-average exercise prices and options outstanding as of December 31, 2023, 2022 and 2021 as follows (in thousands, except per share amounts and years):

	For the years ended December 31,					
	2023		2022		2021	
	Common Stock Options	Weighted Average Exercise Price	Common Stock Options	Weighted Average Exercise Price	Common Stock Options	Weighted Average Exercise Price
Outstanding at beginning of year:	—	\$ —	5	\$ 22.35	5	\$ 22.35
Granted	250	\$ 5.36	—	\$ —	—	\$ —
Exercised	—	\$ —	—	\$ —	—	\$ —
Expired or forfeited	—	\$ —	(5)	\$ 22.35	—	\$ —
Outstanding at end of year:	250	\$ 5.36	—	\$ —	5	\$ 22.35

Stock Issuances to Non-Employee Directors

As part of its compensation program for non-employee directors, the Company makes semi-annual issuances of fully-vested common stock to its non-employee directors. A summary of the fully-vested common stock the Company issued to its non-employee directors, in connection with its non-employee director compensation, is as follows (in thousands):

	For the year ended December 31,		
	2023	2022	2021
Awards issued	133	70	51
Grant date fair value of awards issued	\$ 750	\$ 450	\$ 525

Restricted Stock Unit Awards

Restricted Stock Units generally vest ratably on each of the first four anniversary dates of issuance. The Company recognized approximately \$4.9 million, \$3.7 million and \$3.5 million of share-based compensation for the years ended December 31, 2023, 2022 and 2021, respectively, related to restricted stock unit awards. As of December 31, 2023, there was approximately \$6.9 million of unrecognized compensation costs, net of estimated forfeitures, related to restricted stock unit awards, which are expected to be recognized over a remaining weighted average period of 2.5 years. Upon vesting, restricted stock units are generally net share-settled to cover the required minimum withholding tax and the remaining amount is converted into an equivalent number of shares of common stock.

A summary of the vesting activity of restricted stock unit awards, with the respective fair value of the awards, is as follows (in thousands):

	For the year ended December 31,		
	2023	2022	2021
Awards issued	683	401	317
Grand date fair value of awards issued	\$ 4,269	\$ 2,524	\$ 3,434

A summary of the Company's outstanding, non-vested restricted share units is as follows (in thousands, except per share amounts and years):

	For the year ended December 31,					
	2023		2022		2021	
	Units	Weighted Average Grant-Date Fair Value	Units	Weighted Average Grant-Date Fair Value	Units	Weighted Average Grant-Date Fair Value
Outstanding at beginning of period:	1,415	\$ 6.66	1,208	\$ 7.96	1,076	\$ 7.41
Granted	606	\$ 8.30	687	\$ 7.59	528	\$ 10.07
Released	(683)	\$ 6.25	(401)	\$ 6.63	(317)	\$ 10.77
Forfeited	(154)	\$ 8.00	(79)	\$ 14.23	(79)	\$ 8.82
Outstanding at end of period:	<u>1,184</u>	<u>\$ 8.07</u>	<u>1,415</u>	<u>\$ 6.66</u>	<u>1,208</u>	<u>\$ 7.96</u>

Performance Restricted Stock Units

The Company maintains Performance Restricted Stock Units ("PRSUs") that have been granted to select executives and senior officers whose ultimate payouts may vary between zero and 200% of the target award, based on the Company's performance over a one-year period based on specific metrics approved by the Compensation Committee of the Board of Directors of the Company.

For 2022, the Compensation Committee of the Board of Directors utilized the same performance metrics for the Company's PRSUs awarded in 2022 as it utilized for the 2021 PRSUs. The three metrics were:

1. *Free Cash Flow* defined as net cash provided by operating activities less purchases of property, plant, equipment and intangible assets and is subject to adjustments approved by the Compensation Committee.
2. *Adjusted EBITDA* defined as net income attributable to the Company plus: interest expense, provision for income taxes, depreciation and amortization, share-based compensation expense and certain acquisition related costs

(including transaction due diligence costs and adjustments to the fair value of contingent consideration), foreign exchange (gain) loss and, if applicable, certain special items which are noted.

3. *Total Shareholder Return ("TSR")* measures the total return to shareholders of the Company during 2021 versus the total return to the shareholders of a predefined peer group of companies that provide inspection, testing, certification or similar industrial services. The return will be measured by the year over year percent change in share price. The share prices used to calculate the return are the average share price during the 20-trading day period ending on the initial measurement date (the last 20 trading days of 2021), compared to the average share price during the 20-trading day period ending on the final measurement date (the last 20 trading days of 2022). Any cash dividends or distributions paid in 2022 were added to calculate the return to shareholders during the year. TSR is considered a market condition for which the fair value of PRSUs with this condition is determined using a Monte Carlo valuation model. Key assumptions in the Monte Carlo valuation model included:
 - a. *Expected Volatility.* Expected volatility of the Company's common stock at the date of grant was estimated based on a historical average volatility rate for the approximate 1-year performance period.
 - b. *Dividend Yield.* The dividend yield assumption was based on historical and anticipated dividend payouts (assumed at zero).
 - c. *Risk-Free Interest Rate.* The risk-free interest rate assumption was based on observed interest rates consistent with the approximate 1-year performance measurement period.

For 2023, the Compensation Committee of the Board of Directors used different performance metrics for PRSUs approved in that year. The three metrics are:

1. *Free Cash Flow* defined as net cash provided by operating activities less purchases of property, plant, equipment and intangible assets and is subject to adjustments approved by the Compensation Committee.
2. *Adjusted EBITDA* defined as net income attributable to the Company plus: interest expense, provision for income taxes, depreciation and amortization, share-based compensation expense and certain acquisition related costs (including transaction due diligence costs and adjustments to the fair value of contingent consideration), foreign exchange (gain) loss and, if applicable, certain special items which are noted.
3. *Revenue*

PRSUs are equity-classified and compensation costs related to PRSUs with performance conditions are initially measured using the fair value of the underlying stock at the date of grant. Compensation costs related to the PRSUs with performance conditions are subsequently adjusted for changes in the expected outcomes of the performance conditions. Compensation cost related to the PRSUs with a market condition is not reversed if the market condition is not achieved, provided the employee requisite service has been rendered. Earned PRSUs generally vest ratably on each of the first four anniversary dates following completion of the performance period, for a total requisite service period of up to five years and have no dividend rights.

A summary of the Company's PRSU activity is presented as follows (in thousands, except per share amounts and years):

	For the year ended December 31,					
	2023		2022		2021	
	Units	Weighted Average Grant-Date Fair Value	Units	Weighted Average Grant-Date Fair Value	Units	Weighted Average Grant-Date Fair Value
Outstanding at beginning of period:	371	\$ 9.96	388	\$ 10.07	333	\$ 8.84
Granted	282	\$ 8.50	341	\$ 6.55	189	\$ 12.59
Performance condition adjustments, net	(305)	\$ 8.34	(285)	\$ 7.71	(56)	\$ 9.27
Released	(204)	\$ 6.59	(73)	\$ 5.17	(78)	\$ 8.15
Forfeited	(84)	\$ 6.95	—	\$ —	—	\$ —
Outstanding at end of period:	<u>60</u>	<u>\$ 9.33</u>	<u>371</u>	<u>\$ 9.96</u>	<u>388</u>	<u>\$ 10.07</u>

For the year ended December 31, 2023, 282,000 PRSUs were granted. There was a 305,000 net unit reduction to these awards, which represents Company performance below target, during the year ended December 31, 2023.

For the year ended December 31, 2022, 341,000 PRSUs were granted. There was a 285,000 net unit reduction to these awards, which represents Company performance below target, during the year ended December 31, 2022.

For the year ended December 31, 2021, 189,000 PRSUs were granted. There was a 56,000 unit reduction to these awards, which represents Company performance against target, during the year ended December 31, 2021.

Compensation expense related to all PRSUs described above was \$0.7 million, \$1.2 million, and \$1.4 million for the years ended December 31, 2023, 2022 and 2021, respectively. At December 31, 2023, there was \$0.2 million of total unrecognized compensation costs related to approximately 60,000 unvested performance restricted stock units. These costs are expected to be recognized over a weighted-average period of approximately 1.5 years.

For the years ended December 31, 2023, 2022 and 2021, the income tax benefit recognized on all share based compensation arrangements referenced above was approximately \$0.8 million, \$1.6 million, and \$1.4 million, respectively.

14. Income Taxes

Income (loss) before provision (benefit) for income taxes is as follows (in thousands):

	For the year ended December 31,		
	2023	2022	2021
Income (loss) before provision (benefit) for income taxes from:			
U.S. operations	\$ (6,900)	\$ 439	\$ 1,527
Foreign operations	(11,765)	8,855	5,761
Income (loss) before provision (benefit) for income taxes	<u>\$ (18,665)</u>	<u>\$ 9,294</u>	<u>\$ 7,288</u>

The provision (benefit) for income taxes consists of the following (in thousands):

	For the year ended December 31,		
	2023	2022	2021
Current			
Federal	\$ 1,372	\$ (644)	\$ (182)
States and local	705	464	246
Foreign	2,063	3,251	3,641
Reserve for uncertain tax positions	16	136	(186)
Total current provision (benefit)	<u>\$ 4,156</u>	<u>\$ 3,207</u>	<u>\$ 3,519</u>
Deferred			
Federal	\$ (2,005)	\$ (435)	\$ (309)
States and local	(122)	242	(138)
Foreign	(1,439)	(1,614)	(1,884)
Reserve for uncertain tax positions	—	—	155
Total deferred benefit	<u>(3,566)</u>	<u>(1,807)</u>	<u>(2,176)</u>
Net change in valuation allowance	<u>(1,810)</u>	<u>1,320</u>	<u>2,052</u>
Net deferred benefit	<u>(5,376)</u>	<u>(487)</u>	<u>(124)</u>
Total provision (benefit) for income taxes	<u>\$ (1,220)</u>	<u>\$ 2,720</u>	<u>\$ 3,395</u>

The provision (benefit) for income taxes differs from the amount computed by applying the statutory federal tax rate to income tax as follows (in thousands):

	For the years ended December 31,					
	2023		2022		2021	
Federal tax at statutory rate	\$ (3,920)	21.0 %	\$ 1,952	21.0 %	\$ 1,527	21.0 %
State taxes, net of federal benefit	611	(3.3)%	622	6.7 %	75	1.0 %
Foreign tax	274	(1.5)%	218	2.3 %	380	5.2 %
Goodwill impairment	2,901	(15.5)%	—	— %	—	— %
Nondeductible compensation	716	(3.8)%	—	— %	119	1.6 %
US taxation of foreign earnings	98	(0.5)%	100	1.1 %	(1,041)	(14.3)%
Permanent differences	485	(2.6)%	363	3.9 %	373	5.1 %
Research & Development Credit	(602)	3.2 %	(1,716)	(18.5)%	(214)	(2.9)%
Change in valuation allowance	(1,810)	9.7 %	1,320	14.2 %	2,052	28.2 %
Impact of foreign tax rate changes		— %	(246)	(2.6)%	49	0.7 %
Other	27	(0.1)%	107	1.2 %	75	1.0 %
Total provision (benefit) for income taxes	\$ (1,220)	6.5 %	\$ 2,720	29.3 %	\$ 3,395	46.6 %

The permanent differences identified above include normal recurring differences, such as meals, entertainment, and parking fringe benefits as well as a portion of the goodwill impairment charge.

On June 28, 2019, the Canadian province of Alberta enacted the Job Creation Tax Cut which reduced the Alberta corporate income tax rate from 12% to 11% starting in 2019 with further annual reductions to 10% in 2020, 9% in 2021, and 8% in 2022.

On March 27, 2020, the United States enacted the Coronavirus Aid, Relief, and Economic Security Act (CARES Act). The CARES Act is an approximately \$2 trillion emergency economic stimulus package in response to the Coronavirus outbreak, which among other things contains numerous income tax provisions. Some of these tax provisions are effective retroactively for years ending before the date of enactment. The CARES Act provides a five-year carryback of net operating losses generated in years 2018 through 2020. As the statutory federal income tax rate applicable to certain years within the carryback period is 35%, carryback to those years of our estimated 2020 annual federal tax loss provides a tax benefit in excess of the current federal statutory rate of 21%, resulting in an increased income tax benefit of \$1.9 million. The income tax effects of the CARES Act resulted in a cash refund of approximately \$4.9 million in 2021 of taxes paid in prior years.

On December 27, 2020, the United States enacted the Consolidated Appropriations Act, 2021, (the "Appropriations Act") an additional stimulus package providing financial relief for individuals and small business. The Appropriations Act contains a variety of tax provisions, including full expensing of business meals in 2021 and 2022, and expansion of the employee retention tax credit. The Appropriations Act did not have a material impact on our consolidated financial position, results of operations, and cash flows.

In response to the COVID-19 pandemic, the American Rescue Plan Act was signed into law on March 11, 2021. This act, among other things, provides economic relief provisions to individuals and funding to certain businesses and programs. This guidance did not have a material impact on our consolidated financial position, results of operations, and cash flows.

In August 2022 the United States enacted the Inflation Reduction Act ("IRA") of 2022 (Public Law No. 117-169), which includes a 15% book minimum tax on corporations with financial accounting profits over 1 billion US dollars (USD) and a 1% excise tax on certain stock buybacks. The IRA also contains numerous clean energy tax incentives related to electricity production, carbon sequestration, alternative vehicles and fuels, and residential and commercial energy efficiency. The company does not expect this act to have a material impact.

Deferred income tax attributes resulting from differences between financial accounting amounts and income tax basis of assets and liabilities are as follows (in thousands):

	December 31,	
	2023	2022
Deferred income tax assets		
Allowance for doubtful accounts	\$ 298	\$ 826
Inventory	1,201	806
Intangible assets	1,036	1,178
Accrued expenses	4,085	4,365
Net operating loss carryforward	5,329	4,985
Finance lease obligations	275	463
Stock Options	187	—
Deferred stock based compensation	723	1,152
Interest carryforward	4,174	1,501
Right-of-use liability	8,984	9,886
R&D Expense	5,091	2,836
Credits	87	490
Other	1,694	1,495
Deferred income tax assets	<u>33,164</u>	<u>29,983</u>
Valuation allowance	(6,029)	(7,787)
Net deferred income tax assets	<u>\$ 27,135</u>	<u>\$ 22,196</u>
Deferred income tax liabilities		
Property and equipment	\$ (6,472)	\$ (6,493)
Goodwill	(9,132)	(7,645)
Intangible assets	(2,822)	(3,601)
Right-of-use asset	(8,944)	(9,841)
Other	(2)	(122)
Deferred income tax liabilities	<u>(27,372)</u>	<u>(27,702)</u>
Net deferred income taxes	<u>\$ (237)</u>	<u>\$ (5,506)</u>

As of December 31, 2023, the Company had no federal net operating loss carry forwards (NOLs). In addition, as of December 31, 2023, the Company had state and foreign NOLs of \$10.4 million and \$15.0 million, respectively. Approximately \$4.6 million of the state NOLs expire at various times from 2031 to 2040, while the remainder of the Company's state NOLs do not expire. Approximately \$2.8 million of the foreign NOLs expire at various times from 2023 to 2041, while the remainder of the Company's foreign NOLs do not expire.

In assessing the ability to realize deferred tax assets, management considers whether it is more likely than not that some portion or all of the deferred tax assets will be realized. Valuation allowances are provided when management believes the Company's deferred tax assets are not recoverable based on future reversals of existing taxable temporary differences, taxable income in prior carryback year(s) if carryback is permitted under the tax law, and an assessment of estimated future taxable income, exclusive of reversing temporary differences and carryforwards, that incorporates ongoing, prudent and feasible tax planning strategies. At December 31, 2023 and December 31, 2022, the Company has a valuation allowance of approximately \$6.0 million and \$7.8 million, respectively, primarily against certain state and foreign NOLs and other specific deferred tax assets. The net increase in the valuation allowance of approximately \$1.8 million is primarily attributable to state and foreign net operating losses and changes in foreign exchange rates, offset by a reduction of expiring losses. Except for those deferred tax assets subject to the valuation allowance, management believes that it will realize all deferred tax assets as a result of sufficient future taxable income in each tax jurisdiction in which the Company has deferred tax assets.

The following table summarizes the changes in the Company’s gross unrecognized tax benefits, excluding interest and penalties (in thousands):

	For the year ended December 31,	
	2023	2022
Balance at beginning of period	\$ 258	\$ 300
Additions for tax positions related to the current fiscal period	—	—
Additions for tax positions related to prior years	—	1
Reductions related to the expiration of statutes of limitations	—	(43)
Balance at end of period	<u>\$ 258</u>	<u>\$ 258</u>

The Company has recorded the unrecognized tax benefits in other long-term liabilities in the consolidated balance sheets. As of December 31, 2023 and December 31, 2022, there were approximately \$0.3 million and \$0.3 million of unrecognized tax benefits, respectively, including penalties and interest. If the Company recognized these unrecognized tax benefits, approximately \$0.3 million and \$0.3 million would favorably affect the effective tax rate for both December 31, 2023 and December 31, 2022, respectively. Interest and penalties related to unrecognized tax benefits are recorded in income tax expense and are not significant for the years ended December 31, 2023, 2022 and 2021. The Company anticipates a decrease to its unrecognized tax benefits of \$0.1 million excluding interest and penalties within the next 12 months.

The Company is subject to taxation in the United States and various states and foreign jurisdictions. The Company is no longer subject to U.S. federal income tax examinations for years ending before December 31, 2017 and generally is no longer subject to state, local or foreign income tax examinations by tax authorities for years ending before December 31, 2019. Currently the Company is undergoing a federal tax audit for years ending December 31, 2018 through December 31, 2020.

As previously noted, the Tax Act made significant changes to the taxation of undistributed earnings, requiring that all previously untaxed earnings and profits of the Company's controlled foreign operations be subjected to the transition tax. Since these earnings have now been subjected to U.S. federal tax, they would only be potentially subject to limited other taxes, including foreign withholding and certain state taxes. As of December 31, 2023, the Company has not recognized a deferred tax liability for foreign withholdings and state taxes on its undistributed international earnings or losses of its foreign subsidiaries since it intends to indefinitely reinvest the earnings outside the United States. The Company has estimated \$73.3 million of unremitted international earnings which provides an unrecorded deferred tax liability related to undistributed international earnings is approximately \$1.5 million.

15. Employee Benefit Plans

The Company provides a 401(k) savings plan for eligible U.S. based employees. Employee contributions are discretionary up to the IRS limits each year and catch up contributions are allowed for employees 50 years of age or older. Under the 401(k) plan, employees become eligible to participate on the first day of the month after three months of continuous service. Under this plan, the Company matches 50% of the employee’s contributions up to 6% of the employee’s annual compensation, as defined by the plan. There is a five-year vesting schedule for the Company match.

During the third quarter of 2021, the Company re-installed the employer match which was previously suspended as part of the Company's cost reduction initiatives undertaken in 2020 due to the COVID-19 pandemic. The Company’s contribution to the plan was \$3.9 million, \$3.0 million, and \$1.2 million for the years ended December 31, 2023, 2022 and 2021, respectively.

The Company's subsidiary participated with other employers in contributing to the Boilermaker-Blacksmith National Pension Trust (EIN 48-6168020) (“Boilermakers”) and Plumbers and Pipefitters National Pension Fund (EIN 52-6152779) (“Pipefitters”), multi-employer defined benefit pension plans, which cover certain U.S. based union employees. The plans provide pension benefits with contribution rates that are collectively bargained between participating employers and their affiliated Boilermakers and Pipefitters local unions. Both the Boilermakers and Pipefitters plans are approximately 80 percent funded as of the latest Form 5500 filed, respectively. The Company did not make any contributions to the Boilermakers plan during the years ended December 31, 2023 and 2022 while making de minimis contributions to the Pipefitters plan during the same periods. See Note 18-Commitments and Contingencies, Pension Related Contingencies, for additional detail.

The Company has other benefit plans covering certain employees throughout the Company. Amounts charged to expense under these plans were not significant in any year.

16. Related Party Transactions

The Company leases its headquarters under an operating lease from a stockholder and director of the Company. On August 1, 2014, the Company extended its lease at its headquarters requiring monthly payments through October 2024. Total rent payments made during the year ended December 31, 2023 were approximately \$1.0 million. See Note 17-Leases for further detail.

The Company receives benefits consulting services from Capital Management Enterprise (“CME”). Manuel N. Stamatakis, Chairman of our Board of Directors and our interim President and Chief Executive Officer, is the Chief Executive Officer of CME. The Company does not pay any fees to CME and any compensation CME receives related to work for the Company is received by commissions paid by the third-party benefit providers.

17. Leases

The Company leases certain office and operating facilities, machinery, equipment, and vehicles. Concurrent with the adoption of ASC 842, the Company recognized a right-of-use (ROU) asset and lease liability based on the present value of the future lease payments over the lease term for each lease agreement. The Company elected not to recognize a ROU asset and lease liability for leases with terms of 12 months or less and will continue to recognize lease expense for these leases on a straight-line basis over the lease term. The Company has leases with both lease components and non-lease components, such as common area maintenance, utilities, or other repairs and maintenance. For all asset classes, the Company decided to utilize the practical expedient to include both fixed lease components and fixed non-lease components in calculating the ROU asset and lease liability. The Company identified variable lease payments, such as maintenance payments based on actual activities performed or costs incurred, at lease commencement by assessing the nature of the payment provisions, including whether the payments are subject to a minimum charge. Many of the Company's leases include one or more options to renew. When it is reasonably certain that the Company will exercise the option, the Company will include the impact of the option in the lease term for purposes of determining future lease payments. As the Company is unable to determine the discount rate implicit in its lease agreements, the Company uses its incremental borrowing rate on the commencement date to calculate the present value of future payments.

The Company's Consolidated Balance Sheets include the following related to operating leases as of December 31, 2023 and 2022 (in thousands):

Leases	Classification	2023	2022
Assets:			
ROU assets	Other Assets	\$ 37,512	\$ 36,946
Liabilities:			
ROU liability - current	Accrued expenses and other current liabilities	\$ 10,686	\$ 10,376
ROU liability - long-term	Other long-term liabilities	28,219	28,066
Total ROU liabilities		<u>\$ 38,905</u>	<u>\$ 38,442</u>

Included within the balance of operating leases is a lease for the Company's headquarters which is with a related party. The ROU liability for this facility is approximately \$0.8 million as of December 31, 2023 and \$1.8 million as of December 31, 2022. Total rent payments for this facility were approximately \$1.0 million and \$1.0 million during the years ended December 31, 2023 and 2022. An agreement was reached with the related party to reduce rental payments by 12.5% for the lease of the Company's headquarters, effective February 2022 as part of a voluntary reduction.

As of December 31, 2023 and 2022, the total ROU assets attributable to finance leases are approximately \$14.5 million and \$13.0 million, respectively, which is included in Property, plant, and equipment, net on the Consolidated Balance Sheets.

The components of lease costs for the year ended December 31, 2023 and 2022 are as follows (in thousands):

	<u>Classification</u>	<u>2023</u>	<u>2022</u>
Finance lease expense:			
Amortization of ROU	Depreciation and amortization	\$ 5,152	\$ 4,068
Interest on lease liabilities	Interest expense	917	624
Operating lease expense	Cost of revenue; Selling, general & administrative expenses	13,234	12,783
Short-term lease expense	Cost of revenue; Selling, general & administrative expenses	179	77
Variable lease expense	Cost of revenue; Selling, general & administrative expenses	2,034	2,141
Total		<u>\$ 21,516</u>	<u>\$ 19,693</u>

Additional information related to leases as of December 31, 2023 and 2022 is as follows:

	<u>2023</u>	<u>2022</u>
Cash paid for amounts included in the measurement of lease liabilities for finance and operating leases (in thousands):		
Finance - financing cash flows	\$ 5,047	\$ 4,140
Finance - operating cash flows	917	624
Operating - operating cash flows	13,208	12,502
ROU assets obtained in the exchange for lease liabilities:		
Finance leases	\$ 7,125	\$ 5,076
Operating leases	10,598	6,067

Weighted-average remaining lease term (in years):

Finance leases	4.7	5.1
Operating leases	4.4	4.7
Weighted-average discount rate:		
Finance leases	6.5 %	5.5 %
Operating leases	6.1 %	5.6 %

Maturities of lease liabilities as of December 31, 2023 is as follows (in thousands):

	<u>Finance</u>	<u>Operating</u>
2024	\$ 5,955	\$ 12,485
2025	4,520	9,978
2026	3,787	7,426
2027	2,832	5,851
2028	1,168	4,230
Thereafter	128	3,914
Total	<u>18,390</u>	<u>43,884</u>
Less: Present value discount	1,970	4,979
Lease liability	<u>\$ 16,420</u>	<u>\$ 38,905</u>

18. Commitments and Contingencies

Legal Proceedings and Government Investigations

The Company is periodically involved in lawsuits, investigations and claims that arise in the ordinary course of business. The Company cannot predict with certainty the ultimate resolution of lawsuits, investigations and claims asserted against it. Except

for possible losses from the matters described below, the Company does not believe that any currently pending or threatened legal proceeding to which the Company is or is likely to become a party will have a material adverse effect on its business, results of operations, cash flows or financial condition. The costs incurred by the Company to defend lawsuits, investigations and claims and amounts the Company pays to other parties because of these matters may be covered by insurance in some circumstances.

Litigation and Commercial Claims

The Company was contracted to perform inspections of welds on various pipeline projects in Texas for a customer. The customer provided the Company with notice in December 2019, alleging that the Company's inspection of 66 welds (out of approximately 16,000 welds inspected) were not in compliance with the contract, claimed approximately \$7.6 million in damages, and requested that the Company pay these damages and any other damages incurred. The Company filed a lawsuit in the District Court of Bexar County, Texas, 37th Judicial District, on December 17, 2019, in an action captioned *Mistras Group, Inc. v. Epic Y-Grade Pipeline LP*, to recover the \$1.4 million and other amounts due to the Company. The customer filed a counterclaim on March 6, 2020, alleging breach of contract and seeking recovery of its alleged damages. On April 25, 2023, the parties agreed to settle all claims, and in July 2023, the parties executed a settlement agreement. As part of the settlement, the Company paid \$0.3 million in July 2023 (which the Company estimates is significantly less than the cost of going to trial) and released its claim of \$1.4 million for associated past due receivables, which were fully reserved for in prior periods. In the year ended December 31, 2022, the Company recorded a charge of \$0.1 million for a potential loss from this matter. The Company recorded a reserve in the amount of \$1.4 million during the twelve months ended December 31, 2019 for these past due receivables.

Two proceedings were filed in California Superior Court for the County of Los Angeles regarding alleged violations of the California Labor Code. Both cases were captioned *Justin Price v. Mistras Group, Inc.*, one being a purported class action lawsuit on behalf of current and former Mistras employees in California, filed on June 10, 2020, and the other was filed on September 18, 2020, on behalf of the State of California under the California Private Attorney General Act on the basis of the same alleged violations. The two cases were consolidated and payment was demanded for all damages, including unpaid wages, and various fines and penalties available under California law. On May 4, 2021, the Company agreed to a settlement of all claims in the cases, which was more formally documented pursuant to a settlement agreement completed October 5, 2021, as amended as of May 3, 2022. Pursuant to the settlement, the Company agreed to pay \$2.3 million to resolve the allegations in these proceedings and to be responsible for the employer portion of payroll taxes on the amount of the settlement allocated to wages. The settlement as agreed upon by the parties received final court approval on September 26, 2022, and the Company paid the settlement proceeds and related payroll taxes to the claims administrator in the fourth quarter of 2022. The Company recorded expense of approximately \$1.6 million during the three months ended March 31, 2021 related to this settlement, which is in addition to expense of \$0.8 million the Company recorded during the three months ended December 31, 2020.

Pension Related Contingencies

Certain of Company's subsidiaries had significant reductions in their unionized workers in 2018. The collective bargaining agreements for the employees of this subsidiary required contributions for these employees to two national multi-employer pension funds. The reduction in employees resulted in the subsidiary incurring a complete withdrawal to one of the pension funds under the Employee Retirement Income Security Act of 1974 ("ERISA"), which was fully satisfied in 2019. The Company has determined that the subsidiary is likely to incur partial or complete withdrawal liability to the other pension fund. The balance of the estimated total amount of this potential liability as of December 31, 2023 is approximately \$2.5 million, which was incurred in 2018 and 2019.

Acquisition and disposition related contingencies

During 2018, the Company sold a subsidiary in the Products and Systems segment. As part of the sale, the Company entered into a three-year agreement to purchase products from the buyer, with a cumulative commitment of \$2.3 million. On August 3, 2021, the parties amended the agreement and extended the period by 12 months. As of December 31, 2022, the commitment was fully satisfied.

19. Segment Disclosure

The Company's three operating segments are:

- *North America.* This segment provides asset protection solutions with the largest concentration in the United States, followed by Canada, consisting primarily of NDT, inspection, mechanical and engineering services that are used to evaluate the safety, structural integrity and reliability of critical energy, industrial and public infrastructure and commercial aerospace components. Software, digital and data services are included in this segment.
- *International.* This segment offers services, products and systems similar to those of the other segments to select markets within Europe, the Middle East, Africa, Asia and South America, but not to customers in China and South Korea, which are served by the Products and Systems segment.
- *Products and Systems.* This segment designs, manufactures, sells, installs and services the Company’s asset protection products and systems, including equipment and instrumentation, predominantly in the United States.

Costs incurred for general corporate services, including finance, legal, and certain other costs that are provided to the segments are reported within Corporate and eliminations. Sales to the International segment from the Products and Systems segment and subsequent sales by the International segment of the same items are recorded and reflected in the operating performance of both segments. Additionally, engineering charges and royalty fees charged to the North America and International segments by the Products and Systems segment are reflected in the operating performance of each segment.

The accounting policies of the reportable segments are the same as those described in Note 1-*Summary of Significant Accounting Policies and Practices*. Segment income from operations is one of the primary performance measures used by the chief operating decision maker, to assess the performance of each segment and make resource allocation decisions. Certain general and administrative costs such as human resources, information technology and training are allocated to the segments. Segment income from operations excludes interest and other financial charges and income taxes. Corporate and other assets are comprised principally of cash, deposits, property, plant and equipment, domestic deferred taxes, deferred charges and other assets. Corporate loss from operations consists of administrative charges related to corporate personnel and other charges that cannot be readily identified for allocation to a particular segment.

Selected consolidated financial information by segment for the periods shown was as follows (with intercompany transactions eliminated in Corporate and eliminations):

	For the year ended December 31,		
	2023	2022	2021
Revenue			
North America	\$ 579,330	\$ 573,336	\$ 555,387
International	124,414	112,425	117,245
Products and Systems	12,986	12,727	13,831
Corporate and eliminations	(11,257)	(11,115)	(9,332)
	<u>\$ 705,473</u>	<u>\$ 687,373</u>	<u>\$ 677,131</u>
	For the year ended December 31,		
	2023	2022	2021
Gross profit			
North America	\$ 163,960	\$ 159,049	\$ 155,384
International	33,610	33,591	34,282
Products and Systems	6,457	5,490	7,001
Corporate and eliminations	(220)	43	480
	<u>\$ 203,807</u>	<u>\$ 198,173</u>	<u>\$ 197,147</u>

Income (loss) from operations by operating segment includes intercompany transactions, which are eliminated in Corporate and eliminations.

	For the year ended December 31,		
	2023	2022	2021
Income (loss) from operations			
North America	\$ 55,170	\$ 49,616	\$ 48,458
International	(12,229)	3,566	1,839
Products and Systems	267	(992)	(117)
Corporate and eliminations	(45,112)	(32,391)	(32,010)
	<u>\$ (1,904)</u>	<u>\$ 19,799</u>	<u>\$ 18,170</u>

	For the year ended December 31,		
	2023	2022	2021
Depreciation and amortization			
North America	\$ 25,774	\$ 25,103	\$ 25,259
International	7,580	7,648	8,791
Products and Systems	712	810	928
Corporate and eliminations	33	(267)	(57)
	<u>\$ 34,099</u>	<u>\$ 33,294</u>	<u>\$ 34,921</u>

	December 31,	
	2023	2022
Intangible assets, net		
North America	\$ 37,622	\$ 43,260
International	2,998	4,422
Products and Systems	1,168	1,208
Corporate and eliminations	2,206	125
	<u>\$ 43,994</u>	<u>\$ 49,015</u>

	December 31,	
	2023	2022
Total assets		
North America	\$ 402,782	\$ 407,779
International	99,398	104,531
Products and Systems	13,259	12,408
Corporate and eliminations	19,337	10,186
	<u>\$ 534,776</u>	<u>\$ 534,904</u>

	December 31,	
	2023	2022
Long-lived assets		
United States	\$ 177,412	\$ 176,237
Other Americas	107,356	108,582
Europe	27,552	41,392
	<u>\$ 312,320</u>	<u>\$ 326,211</u>

Refer to Note 2-*Revenue*, for revenue by segment and by geographic area for the years ended December 31, 2023, 2022, and 2021.

20. Selected Quarterly Financial Information (unaudited)

Table of Contents

The following is a summary of the quarterly results of operations for calendar years 2023, 2022, and 2021 (in thousands).

Quarter ended	December 31, 2023	September 30, 2023	June 30, 2023	March 31, 2023
Revenue	\$ 182,073	\$ 179,354	\$ 176,030	\$ 168,016
Gross Profit	53,627	54,382	49,722	46,077
Income (loss) from operations	706	(4,682)	3,893	(1,830)
Net income (loss) attributable to Mistras Group, Inc.	\$ (2,514)	\$ (10,298)	\$ 337	\$ (4,986)
Earnings (loss) per common share:				
Basic	\$ (0.08)	\$ (0.34)	\$ 0.01	\$ (0.17)
Diluted	\$ (0.08)	\$ (0.34)	\$ 0.01	\$ (0.17)

Quarter ended	December 31, 2022	September 30, 2022	June 30, 2022	March 31, 2022
Revenue	\$ 168,218	\$ 178,462	\$ 179,031	\$ 161,662
Gross Profit	50,939	53,784	53,558	39,892
Income (loss) from operations	5,802	9,114	9,576	(4,698)
Net income (loss) attributable to Mistras Group, Inc.	\$ 2,842	\$ 4,373	\$ 4,643	\$ (5,363)
Earnings (loss) per common share:				
Basic	\$ 0.09	\$ 0.15	\$ 0.15	\$ (0.18)
Diluted	\$ 0.09	\$ 0.14	\$ 0.15	\$ (0.18)

Quarter ended	December 31, 2021	September 30, 2021	June 30, 2021	March 31, 2021
Revenue	\$ 171,163	\$ 174,556	\$ 177,677	\$ 153,735
Gross Profit	49,594	52,216	55,336	40,001
Income (loss) from operations	2,306	9,236	11,374	(4,746)
Net income (loss) attributable to Mistras Group, Inc.	\$ (94)	\$ 3,380	\$ 5,937	\$ (5,362)
Earnings (loss) per common share:				
Basic	\$ —	\$ 0.11	\$ 0.20	\$ (0.18)
Diluted	\$ —	\$ 0.11	\$ 0.20	\$ (0.18)

21. Subsequent Events

On February 27, 2024, the Company entered into the First Amendment (the “Amendment”) to its New Credit Agreement, dated August 1, 2022, with JPMorgan Chase Bank N.A., as administrative agent for the lenders and a lender and the other lenders under the New Credit Agreement.

The First Amendment was filed as Exhibit 10.1 to the Company’s Form 8-K filed with the SEC on March 1, 2024.

The Amendment increases the amount of non-recurring cash charges (as defined in the New Credit Agreement) allowed to be added back for any period of four consecutive quarters for purposes of defining EBITDA under Section 1.01 of the New Credit Agreement from \$10 million to \$15 million for the periods ended December 31, 2023 to December 31, 2024. The allowable non-recurring cash charge addback reverts to \$10 million starting January 1, 2025.

Additionally, the minimum Consolidated Fixed Charge Coverage Ratio was reduced from 1.25 to 1, to 1.10 to 1, for the fiscal quarters ended December 31, 2023 and March 31, 2024. For the period ending June 30, 2024 to maturity, the Fixed Charge Coverage Ratio is 1.25 to 1 as stated in the New Credit Agreement.

Item 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

Item 9A. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

Pursuant to Rule 13a-15(b) under the Exchange Act, our management carried out an evaluation, under the supervision and with the participation of our Interim President and Chief Executive Officer and our Senior Executive Vice President and Chief Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rule 13a-15(e) under the Exchange Act). Based upon that evaluation, our Interim President and Chief Executive Officer and our Senior Executive Vice President and Chief Financial Officer concluded that, as of December 31, 2023, our disclosure controls and procedures were effective.

Management's Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act. Our internal control over financial reporting is a process designed by, or under the supervision of, our Chairman and Interim President and Chief Executive Officer and our Senior Executive Vice President and Chief Financial Officer, and effected by our board of directors, management and other personnel 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.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with policies or procedures may deteriorate.

Our management assessed the effectiveness of our internal control over financial reporting as of December 31, 2023. In making this assessment, management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in the updated *Internal Control — Integrated Framework* issued in 2013. Based on that assessment, our management concluded that, as of December 31, 2023, our internal control over financial reporting was effective.

The effectiveness of our internal control over financial reporting as of December 31, 2023, has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report which appears herein.

Changes in Internal Control over Financial Reporting

There has been no change in our internal control over financial reporting during the quarter ended December 31, 2023, that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. OTHER INFORMATION

During the three months ended December 31, 2023, none of the Company's directors or officers (as defined in Rule 16a-1(f) of the Exchange Act) adopted, terminated or modified a Rule 10b5-1 trading arrangement or non-Rule 10b5-1 trading arrangement (as such terms are defined in Item 408 of Regulation S-K of the Securities Act). During the three months ended December 31, 2023, the Company did not adopt, terminate or modify a Rule 10b5-1 trading arrangement.

Item 9C. DISCLOSURE REGARDING FOREIGN JURISDICTION THAT PREVENT INSPECTIONS

Not applicable.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Certain of the information concerning our executive officers required by this Item 10 is provided under the caption "Executive Officers" in Part I of this Annual Report. The remaining information required by Item 10 is incorporated herein by reference to the relevant information to be included in our definitive proxy statement related to our 2024 annual meeting of stockholders.

ITEM 11. EXECUTIVE COMPENSATION

The information required by Item 11 is incorporated by reference to the relevant information to be included in our definitive proxy statement related to the 2024 annual meeting of stockholders.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The information required by Item 12 is incorporated by reference to the relevant information to be included in our definitive proxy statement related to the 2024 annual meeting of stockholders.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information required by Item 13 is incorporated by reference to the relevant information to be included in our definitive proxy statement related to the 2024 annual meeting of stockholders.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The information required by Item 14 is incorporated by reference to the information to be included in our definitive proxy statement related to the 2024 annual meeting of stockholders.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(1) The following financial statements are filed herewith in Item 8 of Part II above:

	<u>Page</u>
<u>Report of independent registered public accounting firm - PricewaterhouseCoopers LLP</u>	47
<u>Report of independent registered public accounting firm - KPMG LLP</u>	50
<u>Consolidated Balance sheets as of December 31, 2023 and December 31, 2022</u>	50
<u>Consolidated Statements of income (loss) for the years ended December 31, 2023, 2022 and 2021</u>	51
<u>Consolidated Statements of comprehensive income (loss) for the years ended December 31, 2023, 2022 and 2021</u>	52
<u>Consolidated Statements of equity for the years ended December 31, 2023, 2022 and 2021</u>	53
<u>Consolidated Statements of cash flows for the years ended December 31, 2023, 2022 and 2021</u>	54
<u>Notes to consolidated financial statements</u>	55

(2) Financial Statement Schedules

All other schedules are omitted because of the absence of conditions under which they are required or because the required information is given in the financial statements or notes thereto.

(3) Exhibits

Exhibit No.	Description
3.1	<u>Second Amended and Restated Certificate of Incorporation (filed as exhibit 3.1 to Registration Statement on Form S-1 (Amendment No. 4) filed on September 21, 2009 (Registration No. 333-151559) and incorporated herein by reference)</u>
3.2	<u>Certificate of Amendment to the Second Amended and Restated Certificate of Incorporation (filed as exhibit 3.1 to the Quarterly Report on Form 10-Q filed on January 11, 2017 and incorporated herein by reference)</u>
3.3	<u>Amended and Restated Bylaws, effective July 20, 2016 (filed as exhibit 3.1 to the Quarterly Report on Form 10-Q filed on October 7, 2016 and incorporated herein by reference)</u>
4.1	<u>Description of Securities Registered Under Section 12 of the Securities Exchange Act of 1934 (filed as Exhibit 4.2 to the Annual Report on Form 10-K filed March 27, 2020 and incorporated herein by reference)</u>

Table of Contents

10.1	<u>Credit Agreement, dated August 1, 2022 (filed as Exhibit 10.1 to the Annual Report on Form 10-K filed March 15, 2023 and incorporated herein by reference).</u>
10.2	<u>First Amendment, dated February 27, 2024, to the Credit Agreement, dated August 1, 2022</u>
10.3	<u>Form of Indemnification Agreement for directors and officers (filed as exhibit 10.1 to the Registration Statement on Form S-1 (Amendment No. 4) filed on September 21, 2009 (Registration No. 333-151559) and incorporated herein by reference)</u>
10.4	<u>Mistras Group, Inc. 2016 Long-Term Incentive Plan (filed as exhibit B to the Definitive Proxy Statement dated September 7, 2016 and incorporated herein by reference)</u>
10.5	<u>Amendment No. 1, dated May 19, 2020, to the 2016 Long-Term Incentive Plan (filed as exhibit 10.2 to the Quarterly Report Form 10-Q filed on August 7, 2020 and incorporated herein by reference)</u>
10.6	<u>Amendment No. 2, dated December 1, 2020, to the 2016 Long-Term Incentive Plan (filed as exhibit 10.10 to the Annual Report on Form 10-K filed March 16, 2021).</u>
10.7	<u>Amendment No. 3 dated May 23, 2022 to the 2016 Long-Term Incentive Plan (filed as exhibit 10.2 to the Quarterly Report on Form 10-Q filed on August 5, 2022)</u>
10.8	<u>Form of Restricted Stock Unit Certificate for awards under the 2016 Long-Term Incentive Plan (filed as exhibit 10.16 to the Transition Report on Form 10-K filed on March 20, 2017 and incorporated herein by reference)</u>
10.9	<u>Form of Restricted Stock Unit Certificate for awards to senior officers under the 2016 Long-Term Incentive Plan (filed as exhibit 10.2 to the Quarterly Report Form 10-Q filed on May 19, 2020 and incorporated herein by reference)</u>
10.10*	<u>Mistras Group, Inc. Executive Severance Plan</u>
10.11	<u>Employment Agreement between the Company and Sotirios J. Vahaviolos, dated February 28, 2018 (filed as exhibit 10.1 to the Quarterly Report on Form 10-Q filed May 8, 2018 and incorporated by reference herein)</u>
10.12	<u>Employment Agreement between the Company and Dennis Bertolotti, dated March 13, 2018 (filed as exhibit 10.2 to the Quarterly Report on Form 10-Q filed May 8, 2018 and incorporated by reference herein)</u>
10.13	<u>Description of Compensation for Non-Employee Directors effective January 1, 2023 (filed as exhibit 10.2 to Quarterly Report on Form 10-Q filed on May 5, 2023, and incorporated herein by reference).</u>
10.14	<u>Separation Agreement and Release between Jonathan Wolk and Registrant (filed as exhibit 10.1 to Current Report on Form 8-K filed on March 8, 2023 and incorporated herein by reference).</u>
10.15	<u>Employment Agreement between the Company and Gennaro A. D'Alterio dated September 11, 2023 (filed as exhibit 10.1 to the Quarterly Report on Form 10-Q filed November 6, 2023 and incorporated by reference herein).</u>
10.16*	<u>Employment Agreement between the Company and John A. Smith dated October 1, 2023</u>
10.17	<u>Letter Agreement dated October 9, 2023, between the Company and Manuel N. Stamatakis (filed as exhibit 10.1 to Current Report on Form 8-K filed on October 10, 2023 and incorporated herein by reference).</u>
10.18*	<u>Inducement Award between the Company and Manuel N. Stamatakis dated October 11, 2023</u>
10.19	<u>Separation Agreement (and a General Release of Claims attached thereto) between the Company and Dennis Bertolotti effective December 6, 2023 (filed as exhibited 10.1 to Current Report on Form 8-K filed December 8, 2023, and incorporated herein by reference).</u>
19.1*	<u>Insider Trading Compliance Policy</u>
21.1*	<u>Subsidiaries of the Registrant</u>
23.1*	<u>Consent of PricewaterhouseCoopers LLP</u>
23.2*	<u>Consent of KPMG LLP</u>
24.1*	<u>Power of Attorney (included as part of the signature page to this report)</u>
31.1*	<u>Certification of Chief Executive Officer pursuant to Rule 13a-14(a) under the Securities Exchange Act of 1934</u>
31.2*	<u>Certification of Chief Financial Officer pursuant to Rule 13a-14(a) under the Securities Exchange Act of 1934</u>
32.1**	<u>Certification pursuant to Section 906 of the Sarbanes-Oxley Act of 2002</u>
32.2**	<u>Certification pursuant to Section 906 of the Sarbanes-Oxley Act of 2002</u>

Table of Contents

97.1*	<u>Incentive Compensation Recoupment Policy</u>
101.INS	XBRL Instance Document
101.SCH	XBRL Schema Document
101.CAL	XBRL Calculation Linkbase Document
101.LAB	XBRL Labels Linkbase Document
101.PRE	XBRL Presentation Linkbase Document
101.DEF	XBRL Definition Linkbase Document

Exhibits 10.3 to 10.19 are management contracts or compensatory plans, contracts, or arrangements.

* Filed herewith.

** Furnished herewith.

ITEM 16. FORM 10-K SUMMARY

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) 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.

MISTRAS GROUP, INC.

By: /s/ Manuel N. Stamatakis

Manuel N. Stamatakis

Chairman and Interim President and Chief Executive Officer

Date: March 11, 2024

We, the undersigned directors and officers of Mistras Group, Inc., hereby severally constitute Manuel N. Stamatakis, Edward J. Prajzner and Michael C. Keefe, and each of them singly, as our true and lawful attorneys with full power to each of them to sign for us, in our names in the capacities indicated below, any and all amendments to this Annual Report on Form 10-K filed with the Securities and Exchange Commission.

This power of attorney may only be revoked by a written document executed by the undersigned that expressly revokes this power by referring to the date and subject hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Signature	Title	Date
<u>/s/ Manuel N. Stamatakis</u> Manuel N. Stamatakis	Chairman, Interim President, Chief Executive Officer, and Director (<i>Principal Executive Officer</i>)	March 11, 2024
<u>/s/ Edward J. Prajzner</u> Edward J. Prajzner	Senior Executive Vice President, and Chief Financial Officer (<i>Principal Financial Officer and Principal Accounting Officer</i>)	March 11, 2024
<u>/s/ Dr. Sotirios J. Vahaviolos</u> Sotirios J. Vahaviolos	Chairman Emeritus	March 11, 2024
<u>/s/ Nicholas DeBenedictis</u> Nicholas DeBenedictis	Director	March 11, 2024
<u>/s/ James J. Forese</u> James J. Forese	Director	March 11, 2024
<u>/s/ Richard H. Glanton</u> Richard H. Glanton	Director	March 11, 2024
<u>/s/ Michelle J. Lohmeier</u> Michelle J. Lohmeier	Director	March 11, 2024
<u>/s/ Charles P. Pizzi</u> Charles P. Pizzi	Director	March 11, 2024

THIS PAGE INTENTIONALLY LEFT BLANK



THIS PAGE INTENTIONALLY LEFT BLANK

THIS PAGE INTENTIONALLY LEFT BLANK



THIS PAGE INTENTIONALLY LEFT BLANK

THIS PAGE INTENTIONALLY LEFT BLANK



THIS PAGE INTENTIONALLY LEFT BLANK

COMPANY & SHAREHOLDER INFORMATION

Leadership Team

Manuel N. Stamatakis
Chairman of the Board and
Interim President and Chief Executive Officer

Edward J. Prajzner
Senior Executive Vice President,
Chief Financial Officer

Gennaro D'Alterio
Executive Vice President,
Chief Commercial Officer

Michael C. Keefe
Executive Vice President,
General Counsel and Secretary

Michael J. Lange
Senior Group Executive Vice President

John A. Smith
Executive Vice President and
President of MISTRAS Services

Nestor S. Makarigakis
Group Vice President,
Marketing and Communications

Julie Marini
Group Vice President, Human Resources

Chris Smith
Group Vice President, Corporate Compliance

Stock Listing

The Company's common stock is listed and traded on the New York Stock Exchange under the symbol "MG".

Investor Relations

Security analysts, investors, stockbrokers, portfolio managers and other investors seeking additional information about MISTRAS Group should contact Edward J. Prajzner, Senior Executive Vice President, Chief Financial Officer at Corporate Headquarters.

Board of Directors

Manuel N. Stamatakis
Chairman of the Board and
Interim President and Chief Executive Officer

Dr. Sotirios J. Vahaviolos
Founder and Chairman Emeritus

Nicholas DeBenedictis
Chairman Emeritus of Aqua America, Inc.

James J. Forese
Retired Operating Partner and
Chief Operating Officer of HCI Equity Partners

Richard H. Glanton
Founder, Chairman and Chief Executive Officer
of ElectedFace, Inc.

Michelle J. Lohmeier
Consultant and Retired Senior Advisor to
the CEO and Sr. Vice President of Spirit
AeroStructures

Charles P. Pizzi
Retired President and Chief Executive Officer
of Tasty Baking Company

Shareholder Communication

Any interested party wishing to communicate directly with our Board of Directors should write to Michael C. Keefe, Executive Vice President, General Counsel and Secretary, at Corporate Headquarters.

Form 10-K

The Form 10-K report included in this 2023 annual report has been filed with the Securities and Exchange Commission (SEC). Additional copies of the Form 10-K as filed with the SEC may be obtained by request from the Company or through the Company's website.

Transfer Agent and Registrar

Equiniti Trust Company, LLC.
48 Wall Street, Floor 23
New York, NY 10005
Tel: 1(866) 796-3419
www.equiniti.com/us/ast-access/individuals/helpAST@equiniti.com

Annual Meeting



Location:
Will be held virtually



Time:
11:00 a.m. EST



Date:
May 14, 2024

Corporate Headquarters

195 Clarksville Road
Princeton Junction, NJ 08550
www.mistrasgroup.com
Tel: 1(609) 716-4000
Fax: 1(609) 716-0706

Media Relations

Members of the news media requesting information about MISTRAS Group should visit our online Press Room at mistrasgroup.com/news. For additional information about MISTRAS Group, contact: Nestor S. Makarigakis, Group Vice President, Marketing and Communications, at Corporate Headquarters.

WebSite

www.mistrasgroup.com
MISTRAS Group's website offers financial information and facts about the Company and its products, systems and services. Website content is available for informational purposes only. It should not be relied upon for investment purposes, nor is it incorporated by reference into this annual report.

Customers

For assistance with MISTRAS Group products, systems and services, call 1(609) 716-4000, or visit the MISTRAS Group website at www.mistrasgroup.com. Additional contact information is listed on our website at mistrasgroup.com/locations.



Infrastructure



Risk-Based Inspection



Inline Pipeline Inspection



NDT Inspection

A leading, "one source" multinational provider of integrated technology-enabled asset protection solutions, helping to maximize the safety and operational uptime for civilization's most critical industrial and civil assets.

mistrasgroup.com



Scan code with mobile phone for MG Investor Information.

MG
LISTED
NYSE