Sotera Health

2022 Annual Report

Safeguarding Global Health®

Our Commitment to **Safeguarding Global Health®**

Sotera Health Company (Nasdaq: SHC) is a leading global provider of mission-critical end-to-end sterilization solutions, lab testing and advisory services for the healthcare industry. The name Sotera Health was inspired by Soteria, the Greek goddess of safety, and reflects the Company's unwavering commitment to its mission, **Safeguarding Global Health®.**

5,000+ customers in **50+** countries

90+ years of sterilization and lab services

Network of **65** global facilities

Over **3,000** employees across the globe

Our Three Businesses

STERILIZATION SERVICES
Leader in sterilization services

LAB SERVICES
Leader in lab testing & advisory services

Sterigenics	Nordion	Nelson Labs
Comprehensive sterilization services	**Gamma technologies**	**Expert lab testing and advisory services**
Provider of mission-critical and government-mandated sterilization services	Global leader in supply of Cobalt-60, the key input for gamma sterilization	Provider of mission-critical medical device and pharmaceutical lab testing and advisory services
48 locations **2,000+** customers	**2** locations **40+** customers	**15** locations **3,000+** customers

Living Our Mission Every Day

At Sotera Health, we are steadfast in our commitment to our mission, **Safeguarding Global Health®**. Our work helps to ensure the safety of millions of patients and healthcare workers around the globe, as well as the communities in which we operate and each of our 3,000 global team members. While our high-quality laboratory testing, our safe and reliable sterilization services and our Cobalt-60 supply expertise enables the safety of the global healthcare industry, it is our team's commitment to living our mission every day that makes an extraordinary difference.

Our Values

SAFETY
We are uncompromising in our commitment to health and well-being.

CUSTOMER FOCUS
We are driven to fulfill our customers' needs with the highest quality and care.

PEOPLE
We value our people who are part of a global team that is diverse, respectful, passionate and collaborative.

INTEGRITY
We are honest, reliable and accountable in everything we do.

EXCELLENCE
We exceed the expectations of our stakeholders and continue to improve and innovate in everything we do.

A Letter
From Our CEO

Michael B. Petras, Jr.
Chairman and Chief Executive Officer

Dear Shareholders,

Over the past year, our Sotera Health team has remained focused on the strong execution of our strategic priorities to drive long-term value in the face of continuous global change and economic headwinds. As evidenced by our robust financial performance, the Company demonstrated tremendous resilience in the face of unprecedented inflation, challenging supply chain constraints and unpredictable global unrest.

I am grateful for the steadfast commitment of our over 3,000 Sotera Health employees worldwide and their unwavering commitment to our mission. While continued socioeconomic changes and macroeconomic challenges will undoubtedly test our resilience and agility in the months and years ahead, Sotera Health will continue to play a critical role in global healthcare.

2022 was another year of growth for Sotera Health, and I am proud of what we accomplished. The strong foundation of our Company and our commitment to living our values were reflected in our achievements.

Highlights from 2022 include:

- Delivering 8% revenue and 5% Adjusted EBITDA[1] growth, increasing revenue each year since we began tracking in 2005;
- Enhancing capital investments over 80% to over $180M to grow our Company organically through facility capacity and laboratory expansions as well as Cobalt-60 supply ("Co-60") development;
- Decreasing year-end Net Leverage[1] from 3.5x to 3.2x within our long-term ratio goal;
- Executing on a $500M Term Loan to fund the $408M Illinois ethylene oxide ("EO") litigation settlement, pay down existing borrowings under the Company's revolving credit facility, enhance liquidity, and for other general corporate purposes;
- Upsizing our existing revolving credit facility by $76M to provide the Company with ample liquidity in addition to the strong cash-generating profile of the business;
- Reinforcing the safety of patients, employees and surrounding communities through continued technological and other enhancements at our North American EO facilities;
- Publishing our inaugural Corporate Responsibility Report;
- Implementing ongoing operational excellence and business optimization initiatives across our Company;
- Buttressing our position as a global leader in providing mission-critical end-to-end sterilization solutions, lab testing and advisory services for the healthcare industry; and
- Maintaining a relentless focus on our mission – Safeguarding Global Health®.

Responsibility is at the heart of everything we do and is why our values-driven culture of safety, customer focus, people, integrity and excellence is fundamental to how we operate. Our products and services serve broad human health and well-being needs. Whether providing critical inputs for vaccine production, preventing infection across a broad range of medical and pharmaceutical products, verifying the legitimacy of a product's

[1] Non-GAAP Financial Information: For more information on the adjustments and additional reconciliations of non-GAAP measures, including Adjusted EBITDA and Net Leverage Ratio, to the most directly comparable GAAP financial measures, see the Company's press release of the Fourth-Quarter and Full-Year 2022 Results dated February 28, 2023 on our website at https://investors.soterahealth.com.

I have the utmost confidence in our future, and I know our Sotera Health team lives our mission, Safeguarding Global Health®, every day.

testing, or providing a variety of other critical services, we strive every day to ensure healthy lives and promote well-being for people around the world. Corporate responsibility, which informs our Environmental, Social and Governance ("ESG") initiatives, is integral to our mission.

Some highlights of our ESG initiatives in 2022 include:

- Established consistent Environmental, Health and Safety ("EHS") metrics to track leading and lagging performance indicators across all business units;
- Launched a global EHS policy;
- Invested in new EHS leadership positions;
- Installed best-available emissions control enhancements at several of our EO facilities;
- Established a global sustainability vision to include the implementation of consistent tracking of sustainability metrics, such as energy, emissions, water and waste;
- Completed our global employee engagement survey with 84% employee participation;
- Launched first Sotera Health employee resource group, Sotera Health Women's Network;
- Developed Careers and Responsibility webpages;
- Conducted Time of Understanding conversations as part of the CEO Actions for Diversity and Inclusion pledge;
- Completed our leadership development program, Leading For Our Future, focused on defining future corporate responsibility opportunities;
- Engaged shareholders representing approximately 60% of shares held by our public investors;
- Conducted a formal update of the Company Enterprise Risk Management assessment; and
- Published inaugural Corporate Responsibility Report.

Our Company's achievements underscore the focus of our global team and the strength of our integrated business model. Our customers rely on our ability to provide mission-critical services to the healthcare industry. We will continue to invest in 2023 and beyond to expand our sterilization, lab testing and advisory services while executing on our company-wide focus on operational excellence initiatives to deliver long-term growth.

I am deeply grateful to our employees, customers, shareholders and partners for their steadfast support in 2022. I have the utmost confidence in our future, and I know our Sotera Health team lives our mission, Safeguarding Global Health®, every day.

Michael B. Petras, Jr.
Chairman and Chief Executive Officer

2022 Form 10-K

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

FORM 10-K

(Mark One)

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

For the fiscal year ended December 31, 2022

or

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

Commission file number 001-39729

SOTERA HEALTH COMPANY

(Exact name of registrant as specified in its charter)

Delaware	**47-3531161**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
9100 South Hills Blvd, Suite 300 **Broadview Heights, Ohio**	**44147**
(Address of principal executive offices)	(Zip Code)

(440) 262-1410

(Registrant's telephone number, including area code)

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, $0.01 par value per share	**SHC**	**The Nasdaq Stock Market LLC**

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 Exchange 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, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

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

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

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). ☐

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

The aggregate market value of the voting and non-voting common stock held by non-affiliates of the registrant as of June 30, 2022, based upon the last sale price of such voting and non-voting common stock on that date, was $1,948,207,928.

As of February 21, 2023, there were 282,423,251 shares of the registrant's common stock, $0.01 par value per share, outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Definitive Proxy Statement for the registrant's 2023 Annual Meeting of Stockholders are incorporated by reference in Part III of this Annual Report on Form 10-K. The proxy statement will be filed with the Securities and Exchange Commission within 120 days after the end of the registrant's fiscal year ended December 31, 2022.

Audit Firm PCAOB ID: 42	Auditor Name: Ernst & Young LLP	Auditor Location: Akron, Ohio

SOTERA HEALTH COMPANY
- TABLE OF CONTENTS -

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K includes "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements are often characterized by the use of words such as "believes," "estimates," "expects," "projects," "may," "intends," "plans" or "anticipates," or by discussions of strategy, plans or intentions. Such forward-looking statements involve known and unknown risks, uncertainties and other important factors that could cause our actual results, performance, achievements, or industry results, to differ materially from historical results or any future results, performance or achievements expressed, suggested or implied by such forward-looking statements. Such risks and uncertainties include but are not limited to:

- disruption in the availability of, or increases in the price of, ethylene oxide ("EO"), Cobalt-60 ("Co-60") or our other direct materials, services and supplies, including as a result of geopolitical instability and sanctions arising from United States, Canada, the United Kingdom and European Union relations with Russia;
- changes in environmental, health and safety regulations or preferences, and general economic, social and business conditions;
- health and safety risks associated with the use, storage, transportation and disposal of potentially hazardous materials such as EO and Co-60;
- the impact and outcome of current and future legal proceedings and liability claims;
- adverse judgments in the EO tort litigation that may require an appellate bond or alternative form of security to appeal, and efforts by plaintiffs to enforce large judgments against us, or settlements of such litigation, any one of which may have an adverse impact on our liquidity;
- allegations of our failure to properly perform services and potential product liability claims, recalls, penalties and reputational harm;
- compliance with the extensive regulatory requirements to which we are subject, the related costs, and any failures to receive or maintain, or delays in receiving, required clearance or approvals;
- adverse changes in industry trends;
- competition we face;
- market changes, including inflationary trends, that impact our long-term supply contracts with variable price clauses and increase our cost of revenues;
- business continuity hazards, including supply chain disruptions and other risks associated with our operations;
- the risks of doing business internationally, including global and regional economic and political instability and compliance with numerous laws and regulations in multiple jurisdictions;
- our ability to increase capacity at existing facilities, build new facilities in a timely and cost-effective manner and renew leases for our leased facilities;
- our ability to attract and retain qualified employees;
- severe health events, such as the ongoing impact of the COVID-19 pandemic, or environmental events;
- cyber security breaches, unauthorized data disclosures, and our dependence on information technology systems;
- any inability to pursue strategic transactions, including our ability to find suitable acquisition targets, or our failure to integrate strategic acquisitions successfully into our business;
- our ability to maintain effective internal controls over financial reporting;
- our reliance on intellectual property to maintain our competitive position and the risk of claims from third parties that we infringe or misappropriate their intellectual property rights;
- our ability to comply with rapidly evolving data privacy and security laws and regulations and any ineffective compliance efforts with such laws and regulations;
- our ability to maintain profitability in the future;
- impairment charges on our goodwill and other intangible assets with indefinite lives, as well as other long-lived assets and intangible assets with definite lives;
- the effects of unionization efforts and labor regulations in certain countries in which we operate;
- adverse changes to our tax positions in U.S. or non-U.S. jurisdictions, the interpretation and application of recent U.S. tax legislation or other changes in U.S. or non-U.S. taxation of our operations;
- our significant leverage and how this significant leverage could adversely affect our ability to raise additional capital, limit our ability to react to changes in the economy or our industry, limit our flexibility in operating our business through restrictions contained in our debt agreements and prevent us from meeting our obligations under our existing and future indebtedness; and
- uncertainty around discontinuation of LIBOR and transition to certain other interest "benchmarks."

These statements are based on current plans, estimates and projections, and therefore you should not place undue reliance on them. Forward-looking statements speak only as of the date they are made, and we undertake no obligation to update them publicly in light of new information or future events, except as required by law. The inclusion of this forward-looking information should not be regarded as a representation by us or any other person that the future plans, estimates or expectations contemplated by us will be achieved.

You should carefully consider the above factors, as well as the factors discussed elsewhere in this Annual Report on Form 10-K, including under Item 1A, "Risk Factors" and elsewhere in this Annual Report on Form 10-K. If any of these trends, risks or uncertainties actually occurs or continues, our business, financial condition or operating results could be materially adversely affected, the trading prices of our securities could decline and you could lose all or part of your investment. All forward-looking statements attributable to us or persons acting on our behalf are expressly qualified in their entirety by this cautionary statement.

Unless expressly indicated or the context requires otherwise, the terms "Sotera Health," "Company," "we," "us," and "our" in this document refer to Sotera Health Company, a Delaware corporation, and, where appropriate, its subsidiaries on a consolidated basis.

Part I

Item 1. Business

General Information

We are a leading global provider of mission-critical end-to-end sterilization solutions, lab testing and advisory services for the healthcare industry. We are driven by our mission: Safeguarding Global Health®. We provide end-to-end sterilization as well as microbiological and analytical lab testing and advisory services to help ensure that medical, pharmaceutical and food products are safe for healthcare practitioners, patients and consumers in the United States and around the world. Our customers include more than 40 of the top 50 medical device companies and nine of the top ten global pharmaceutical companies (based on revenue). Our services are an essential aspect of our customers' manufacturing process and supply chains, helping to ensure sterilized medical products reach healthcare practitioners and patients. Most of these services are necessary for our customers to satisfy applicable government requirements. We give our customers confidence that their products meet regulatory, safety and effectiveness requirements. With our industry-recognized scientific and technological expertise, we help to ensure the safety of millions of patients and healthcare practitioners around the world every year. Across our 65 facilities worldwide, we have over 3,000 employees who are dedicated to safety and quality. We are a trusted partner to more than 5,000 customers in over 50 countries.

Sotera Health Company was incorporated in Delaware in November 2017 as the parent company for Sterigenics, Nordion and Nelson Labs. We completed our initial public offering and listed our shares on the Nasdaq Global Select Market ("Nasdaq") in November 2020 under the ticker symbol "SHC".

Our Businesses

Sterilization Services

Our sterilization services business is comprised of Sterigenics and Nordion.

Sterigenics

We are a leading global provider of outsourced terminal sterilization and irradiation services and have provided sterilization services for over 90 years. We offer a globally integrated platform for our customers in the medical device, pharmaceutical, food safety, and advanced applications markets, with facilities strategically located to be convenient to their manufacturing sites or distribution hubs.

Terminal sterilization is the process of sterilizing a product in its final packaging; it is an essential, and often government-mandated, last step in the manufacturing process of healthcare products before they are shipped to end-users. These products include procedure kits and trays, implants, syringes, catheters, wound care products, medical protective barriers, including personal protective equipment ("PPE"), laboratory products and pharmaceuticals.

Sterilization Services

We offer our customers a complete range of terminal sterilization services, primarily using the three major commercial terminal sterilization technologies: gamma irradiation, EO processing and E-beam irradiation. We continue to invest in and develop our capabilities and our current methods of sterilization, as well as explore new alternative modalities and technologies. Our primary terminal sterilization technologies include:

Overview	***Products are exposed to gamma rays emitted by decaying Co-60. Gamma rays have no mass and therefore can penetrate dense materials to kill microbes***	***Gas sterilization process where pallets are loaded into a chamber that is then injected with EO gas to penetrate already-packaged products***	***Products ranging from gemstones to semiconductors are exposed to machine-generated radiation in the form of an electron stream***
Product suitability	• Implants (cardiovascular, orthopedic) • Surgical staplers and gloves • Stents • Cardiac devices • Bandages • Orthopedic implants • Surgical instruments • Alcohol wipes	• Complex kits • Catheters • Drapes • Gowns • Endoscopy instruments • Surgical kits • Vascular catheters • IV tubing	• Homogenous products • Syringes • Labware
Benefits	✓ Quick processing ✓ Penetrates finished products ✓ Precision dosing	✓ Penetrates pallets of finished products ✓ Wide range of compatible materials	✓ Quickest processing times ✓ Good for material modification or enhancement
Considerations	× Cannot treat radiation-sensitive products × Uses radioactive Co-60	× Longer processing times × Uses hazardous gas	× Cannot treat radiation-sensitive products × Limited product penetration

We provide gamma irradiation services at 23 of our facilities, EO processing services at 17 of our facilities and electron beam ("E-beam") irradiation services at eight of our facilities.

In addition to the three major technologies, we invest in alternative modalities to serve our customers. X-ray irradiation is a process in which products such as medical devices and labware are exposed to machine-generated radiation in the form of X-rays for the purpose of sterilization and decontamination. X-rays are similar in performance to gamma rays and are useful for processing certain materials due to the high penetration capabilities of X-ray. We utilize X-ray irradiation at one of our sterilization facilities for bio-hazard reduction for the United States Postal Service, or USPS. In addition, we are also investing in NO2-based sterilization, which has been effective in the sterilization of prefilled syringes, drug-device combination products and custom implants.

Sterilization Applications

Sterigenics primarily provides sterilization services for medical device manufacturers and the pharmaceutical industry. Sterigenics also provides decontamination services for the food industry. Additionally, Sterigenics provides various advanced applications for other organizations and companies including the USPS and semiconductor manufacturers. Our customers select the sterilization method that meets the needs of their products and requirements of regulators and we deliver sterilization services according to their customer-specific protocols. In most cases, customers are serviced from more than one facility.

- Medical device sterilization. Medical device sterilization is a regulatory requirement in many jurisdictions and an important and last step in the manufacturing of healthcare products such as medical protective barriers, including PPE, procedure kits and trays, implants, syringes, catheters and wound care products. A broad range of single-use, prepackaged medical products, as well as certain consumer products, are required by government regulations to be sterile, or meet certain acceptable microbial levels when sold. These products are not manufactured in a "sterile" or "clean" environment and are thereby inhabited by potentially harmful microbes. Products must be treated as part of the production process before shipment to customers, either in-house by the manufacturer or by an outsourced sterilization provider, such as Sterigenics.

  We have developed a consultative approach with medical device manufacturers that expands our service offerings beyond core product sterilization, as we believe they want value-added solutions from their outsourced sterilization partners that reach beyond the traditional scope of sterilization. We offer customers a comprehensive selection of advisory services in design, testing, production and supply chain management for sterile healthcare products before,

during and after the sterilization process to ensure and improve a product's speed to market and compliance with regulatory requirements.

- Pharmaceuticals. We provide comprehensive outsourced terminal sterilization solutions to help our customers in the pharmaceutical industry meet regulatory requirements. Our sterilization expertise covers a variety of pharmaceutical drug products, such as active pharmaceutical ingredients, pre-filled syringes, drug components, excipients and primary packaging and components.

  In addition, pharmaceutical companies are starting to market disposable delivery devices, such as auto-inject devices for epinephrine, which are combined medical device and pharmaceutical products. As these disposable delivery devices are subject to both medical device regulations and pharmaceutical regulations, we believe these companies are looking to leading outsourced sterilization providers like us for our expertise in sterilizing these complex devices. We believe that the complementary capabilities and expertise in our Nelson Labs business make Sterigenics an attractive sterilization partner to customers in the pharmaceutical industry. We can provide a full suite of services to help them throughout key stages in the lifecycle of these complex products.

- Food and agricultural products. We provide microbial reduction and microbial remediation services for food and agricultural products. Generally, in a microbial reduction process, products are exposed to lower levels of treatment than in a sterilization process. This process is not intended to render a product free of viable organisms but rather to reduce their number. In connection with our microbial reduction services, we treat a wide array of products such as spices, herbs, animal feed and food packaging materials to address safety concerns of customers and consumers or to extend shelf life. We currently irradiate a variety of food and food packaging products, ranging from orange juice to steaks, to guard against harmful bacteria, such as listeria, salmonella, E. coli and other pathogens. Microbial reduction and irradiation offer producers and processors a method to safeguard against bacteria from the time of the packaging of their products to the time they reach consumers. We also provide microbial remediation services that stop the progression of damage to products and help make the products safe for distribution.

- Commercial, advanced and specialty applications. We provide a wide range of advanced applications services for industrial materials to customers that use ionizing radiation to modify materials or products. The advanced applications sterilization industry is comprised of a large number of distinct segments that can be addressed using our services for radiation processing. Materials that undergo advanced application processes include products such as power semiconductors, polymers and gemstones. In addition, we utilize our ionizing radiation services to provide bio-security services to the USPS by treating and protecting the mail against unwanted pathogens and biohazards. We believe we are the only provider of this service to the USPS. We also treat commercial products, such as cosmetics, with our microbial reduction services. In Canada and Europe, where recreational cannabis, medical cannabis, or both, are legal, we provide commercial gamma and E-beam irradiation services for decontamination of cannabis.

Sterigenics Customers

Sterigenics serves more than 2,000 customers. We follow extensive validation procedures with our customers to determine the optimal sterilization method for each product, and to validate that the chosen method will achieve the sterility requirement for that product. Once a sterilization process has been validated, we adhere to our customers' process specifications to treat their product.

Sterilization services are an essential element in our customers' manufacturing processes but generally represent a small fraction of the total end-product cost of medical devices. We believe this means that our customers choose our services based on quality and consistency of service rather than solely on the cost. These deep, tenured customer relationships are supported by multi-year contracts with cost pass-through provisions, which have resulted in recurring revenue streams.

For many products, our customers are required to include the specific facility used to validate a product's listing in the Food and Drug Administration ("FDA") (or foreign equivalent) product registration and are typically required to re-register if they switch facilities, making switching locations for a particular product a difficult and expensive process for our customers. This dynamic contributes to low customer churn and long-term relationships within our business.

In addition, Sterigenics has achieved high historical customer retention and renewal rates—Sterigenics has 100% renewal rates of its top ten customers over the last five years, and an average tenure of over a decade with its top 25 customers over the last five years—and minimal customer concentration. We have also introduced innovative, advanced processing systems for outsourced sterilization that are designed to enhance operating efficiencies, improve turnaround times and provide for greater processing flexibility without sacrificing quality, consistency or reliability. More than 90% of our sterilization services revenues for the year ended December 31, 2022 were from customers under multi-year contracts.

Sterigenics Competition

We compete globally with Applied Sterilization Technologies, a segment of STERIS plc, as well as other smaller or regional outsourced sterilization companies. In addition, some manufacturers have invested or are investing in in-house sterilization capabilities. We also face competition from other technologies, such as chemical cross-linking of polymers. Our services generally compete on the basis of the quality of technology and services offered, level of expertise in each of the major sterilization methods, level of expertise in the applicable regulatory requirements and proximity to customers.

Sterigenics Suppliers

Sterigenics primarily purchases its supply of Co-60 sources, the key input into the gamma sterilization process, from Nordion. Our supply of Co-60 sources is at times impacted by the global availability of Co-60. Our supply of EO is sourced from various suppliers around the world. There is more than one supplier of EO in most of the countries in which we operate; however, in the United States, there is a single supplier for EO to our industry. We have not historically experienced any supply disruptions and our U.S. supplier has redundant production facilities to help ensure reliable EO supply. We also have a license in the United States to distribute EO to self-supply should the need arise and we determine the need to make the necessary investments.

Sterigenics Facilities

With 48 facilities in 13 countries, our global network of sterilization facilities represents a significant competitive advantage. We serve many of our sterilization customers at more than one facility, with approximately 80% of Sterigenics' net revenues attributable to customers using more than one of our facilities and more than 50% of Sterigenics' net revenues attributable to customers using five or more of our facilities in 2022. Extensive capital, technical expertise and regulatory knowledge are required to build and maintain facilities like ours. We estimate that one new facility can cost over $40 million to build, on average, and require extensive and complex licensing approval and regulatory compliance processes. We estimate that the cost to replicate the facilities in our network alone could be as high as $1.9 billion or more, in addition to investments required to meet the technical and regulatory requirements.

Our global facility network, built and expanded over several decades, is strategically located convenient to customers' manufacturing sites and distribution hubs or routes. For many of our customers, the location of our facilities is important because transportation and logistics costs can be meaningful. We also employ proprietary technology to provide customers with increased visibility into our processes. Sterigenics GPS™ enables customers to monitor the sterilization process in real-time and better manage their supply chain. These features improve the accuracy and visibility of customer order information and quality data, which in turn provide enhanced transparency to regulatory agencies around the world, further enhancing our reputation as a company with regulatory expertise. We are focused on continuing to leverage advanced technology and service offerings to better serve customers, and we believe our capital and resource commitment in this area drives customer loyalty and retention.

By leveraging a global operating system, we drive operational excellence across our network of facilities in order to achieve high levels of safety, quality, operating efficiency and customer satisfaction to provide a uniform customer experience. All facilities are either ISO 13485 certified, ISO 9001 certified, or both, as well as licensed and registered in all necessary jurisdictions to comply with government required regulations.

Nordion

Nordion is the leading global provider of Co-60 used in the sterilization and irradiation processes for the medical device, pharmaceutical, food safety, and high-performance materials industries, as well as in the treatment of cancer. In addition, Nordion is a leading global provider of gamma irradiation systems. Co-60 is a radioactive isotope that emits gamma radiation that sterilizes items by killing contaminating micro-organisms. Gamma irradiation systems are the units that house the Co-60 sources within a gamma sterilization facility. We estimate that gamma sterilization, which is a critical component of the global infection control supply chain, represents approximately 30% of single-use medical device sterilization worldwide. Nordion's customers include both outsourced contract sterilizers, including Sterigenics, as well as medical device manufacturers that sterilize their products in-house.

We provide our customers with high quality, reliable, safe and secure Co-60 source supply at each stage of the source's life cycle. We support our customers with handling and processing of Co-60, recycling of depleted sources and global logistics enabled by our licensed container fleet. We also provide regulatory and technical service expertise to improve the risk profiles and enhance effectiveness of gamma processing operations. Without this radioactive material, gamma sterilization would not be

possible on the global scale at which it is used today. We are integral to our customers' operations due to highly coordinated and complex installation processes.

Nordion has a long history in gamma technologies. Nordion designs, installs and maintains gamma irradiation systems. Nordion developed the first Co-60 based tele-therapy unit for cancer treatment in 1951 and the first panoramic irradiator in 1964. In addition to selling Co-60 sources for sterilization purposes, Nordion also sells high specific activity Co-60 ("HSA Co-60" or "medical Co-60") used in stereotactic radiosurgery as a radiation source for oncology applications, specifically in the Gamma Knife® and other similar applications. Today, Co-60 is a critical part of treatment for brain and other cancers because it is noninvasive, reliable, effective and safe to use.

Co-60 Production Process

Nordion's primary product is Co-60 sources. Co-60 is a radioactive isotope used in radiation sterilization that decays naturally at a rate of approximately 12% annually. Co-60 is produced by placing cobalt-59 ("Co-59"), the most common form of cobalt, into a nuclear power reactor to be activated.

The Co-60 production process requires high purity Co-59. Co-59 is produced globally, primarily as a byproduct of nickel and copper mining, and is used in a variety of industrial applications. The Co-59 used for sterilization accounts for a small portion of overall Co-59 demand. Co-59 is compressed into "targets," which are pellets and slugs suitable to be activated into Co-60. These targets are then encapsulated and delivered to be installed in nuclear reactors. Depending on the type of reactor and the location of the Co-59 in the reactor, the conversion process can take between 18 months and five years. Once the conversion to Co-60 is complete, the targets are extracted from the nuclear reactor while the reactor is shut down and shipped to Nordion to be processed into Co-60 sources to be sold to customers. See ""Risk Factors"—Risks Related to the Company—Safety risks associated with the use, storage and disposal of potentially hazardous materials, such as EO and Co-60, may result in accidents or liabilities that materially affect our results of operations. "

Nordion Products

Co-60 is sold to customers by its level of radioactivity, measured in curies. Our customers typically buy low specific activity Co-60 ("LSA Co-60") for industrial sterilization use and HSA Co-60 for medical use. At our Ottawa facility, we receive and process the targets to form the final Co-60 source product with the desired amount of radioactivity for each customer order. The Co-60 sources undergo stringent and sophisticated quality assurance testing at our facility. The final product is then placed in specialized containers, which Nordion uses to transport Co-60 to our customers.

We transport the Co-60 sources via proprietary lead and steel containers that are licensed to meet all applicable international shipping requirements. We believe we have the most extensive expertise in Co-60 logistics. There is a significant regulatory burden in the production, management and transportation of fleets of containers of Co-60 sources. Our transportation routes and carriers are highly controlled, and we provide regular and comprehensive training for employees and carriers who are involved in moving the Co-60 globally.

We also design, install and maintain gamma irradiation systems, which include radiation shielding, a series of conveyors and control systems that are designed to expose products to the correct gamma radiation dosage in a safe and efficient manner. A gamma irradiation system is the infrastructure that houses the Co-60 sources and makes up a part of a sterilization and warehousing facility. We have designed and built over 100 of the estimated 290 large scale irradiation systems active globally. Our installation, physics and engineering teams are comprised of highly trained professionals who provide fast and ongoing technical support from source installation to emergency response.

We also offer our customers a for-fee spent Co-60 source return service for depleted Co-60 sources that have reached the end of their useful life, which is often 20 or more years. We also have a source recycling program that extends the useful life of individual slugs from the decayed product up to an additional 20 years, pairing them with new slugs to make new Co-60 sources.

Nuclear Reactor Operators

Given the timeline required to produce Co-60, forecasting supply and working closely with nuclear power reactor operators to manage the amount and timing of shipments represents an important business capability of Nordion.

The amount of Co-60 supply is ultimately determined by the number of nuclear reactors that are capable of producing Co-60 at a given point in time. Our access to Co-60 tends to vary on a quarterly basis, due primarily to the nuclear reactor maintenance schedule, length of time required to convert Co-59 into Co-60, the limited number of facilities that can generate Co-60 in an economically efficient manner, and the timing of the removal of Co-60 from reactors. While short-term variability in Co-60 supplier delivery timing can result in variability in our financial performance in one or more fiscal quarters, we work with multiple reactor sites that operate on consistent and predictable discharge and harvest schedules over the long-term.

Nordion currently has access to Co-60 supply at multiple nuclear reactors pursuant to multi-year contracts with three operators that cover 13 reactors at five generating stations, that extend to dates between 2024 and 2064, with our largest supplier under contract until 2064. See Item 1A, ""Risk Factors"—Risks Related to the Company—We depend on a limited number of counterparties to provide the materials and resources we need to operate our business." The substantial majority of our Co-60 material has historically been produced under multi-year contracts with nuclear reactor operators in Canada and Russia. Nordion provides Co-59 targets to its Canadian and Russian reactor suppliers, manufactured to proprietary specifications customized for each supplier. In addition, we also acquire a portion of our Co-60 supply from reactors that produce Co-60 in Argentina, China and India.

The vertical integration of Nordion and Sterigenics has allowed us to more confidently make meaningful long-term investments to expand Co-60 supply for the medical products sterilization industry. See Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations—Trends and Key Factors Affecting Our Results of Operations." Currently, approximately 9% of nuclear reactors worldwide are the type of reactors that have been capable of producing commercial quantities of Co-60. In December 2018, we acquired patents that may allow us to significantly increase our sourcing options for Co-60 and further expand the market for gamma sterilization. Additionally, in February 2020, we announced a collaboration with Westinghouse Electric Company to further develop the technology to produce Co-60 in Pressurized Water Reactors. We believe this collaboration could further diversify our supply with reliable U.S. domestic partners and encourage the implementation of this patented technology at other reactors around the world.

We continue to evaluate opportunities to increase Co-60 production, including through partnerships with CANDU reactor operators in Canada and Romania that would involve investing in their reactor infrastructure to enable long-term production of Co-60.

Nordion Customers

Nordion supplies products and services to approximately 40 customers, including medical device manufacturers and gamma sterilization service providers. Co-60's consumable nature results in annual natural decay at an approximately 12% annual rate, which creates stable, recurring demand as customers must purchase incremental supply in order to satisfy ongoing needs. We are integral to our customers' operations due to highly coordinated and complex installation and service processes that require expertise in handling and shipping radioactive material as well as our deep knowledge of the relevant regulatory and compliance requirements. Customer relationships are typically governed by multi-year supply agreements.

One of Nordion's customers is Sterigenics, which competes with several of Nordion's other gamma sterilization service customers. When we acquired Nordion in 2014, we established information barriers between Nordion and Sterigenics with regard to certain customer information, which remain in place today, and certain of our agreements with Nordion's customers require that we maintain these barriers. These barriers prohibit us from managing a pricing strategy across our Sterigenics and Nordion segments with regard to customers.

We are a leading global supplier of HSA Co-60 used in oncology-related stereotactic radiosurgery devices, including the Gamma Knife®, which use directed gamma rays for certain oncology applications. We also supply other medical equipment manufacturers and sub-contractors in the industry who require the concentrated radiation dose capabilities of HSA Co-60.

Nordion Competition

Nordion's two main competitors in the industrial LSA Co-60 sources supply market include a Russian Co-60 sources producer, which historically has supplied certain regions in Europe and Asia, and a China-based producer, which supplies the domestic Chinese market. In addition, certain regional competitors have the capability to produce Co-60. These competitors could potentially increase their global competition capabilities in the future. Nordion also competes indirectly with other developing modalities of sterilization, such as X-ray technology, that can sterilize similar products as gamma sterilization, which use electricity to generate radiation and therefore do not require Co-60 sources.

Nordion's main competitors in the HSA Co-60 industry include suppliers in China, Sweden and North America that have capability to produce medical Co-60.

Nordion Facilities

Nordion's operations are supported by a facility in Kanata, Canada dedicated to processing and shipping cobalt, as well as a European distribution facility in Milton, United Kingdom.

Lab Testing and Advisory Services

Nelson Labs

Lab testing and advisory services are necessary across the medical device and pharmaceutical product lifecycles to evaluate and ensure a product's safety and effectiveness. We are a global leader in outsourced microbiological and analytical chemistry testing services for the medical device and pharmaceutical industries. In addition to our testing services, our customers often call upon our experts for technical assistance and our advisory services. We go to market leveraging our global footprint and an extensive range of services under our Nelson Labs brand.

We have established ourselves as a critical partner for our customers through our delivery of high quality services, quick testing turnaround times, responsiveness, high-touch support and easy accessibility to our science and service teams. We have an industry-leading brand recognized for the quality and comprehensiveness of service, both of which can take many years to build. Further, we believe that our testing and advisory services offerings and experience across a broad array of products differentiate us from smaller laboratories, as we are able to provide testing and advisory services across the entire lifecycle of our customers' multitude of products. Our scale combined with our global network enable us to undertake significant and time-sensitive projects for our customers that might typically require them to interface with multiple labs. This allows us to simplify complex issues for our customers and streamline communication and execution. Moreover, the integration across our services and facilities enables us to assist our customers in minimizing their business continuity risk by reducing capacity shortages, turnaround time delays and throughput issues.

Our microbiology and analytical chemistry services include over 900 tests. We also provide for-fee advisory services that position us as thought leaders in the industry and increase the demand for our testing offerings. These can be categorized into three broad categories that address different stages of customers' product lifecycle:

- Product Development and Validation. Prior to a new medical product or alteration to an existing product being submitted for regulatory approval, Nelson Labs provides a variety of tests to customers during the research and development stage. These include tests that assist the client in:
  - Product design
  - Material selection
  - Biological safety evaluation
  - Toxicological risk assessment
  - Sterilization modality selection and sterilization validation
  - Cleaning and disinfection validation (for reusable devices)
  - Package barrier properties
  - Distribution simulation
  - Filtration efficiency and physical functionality of PPE (including surgical facemasks, N95 respirators, gowns, drapes and other PPE)

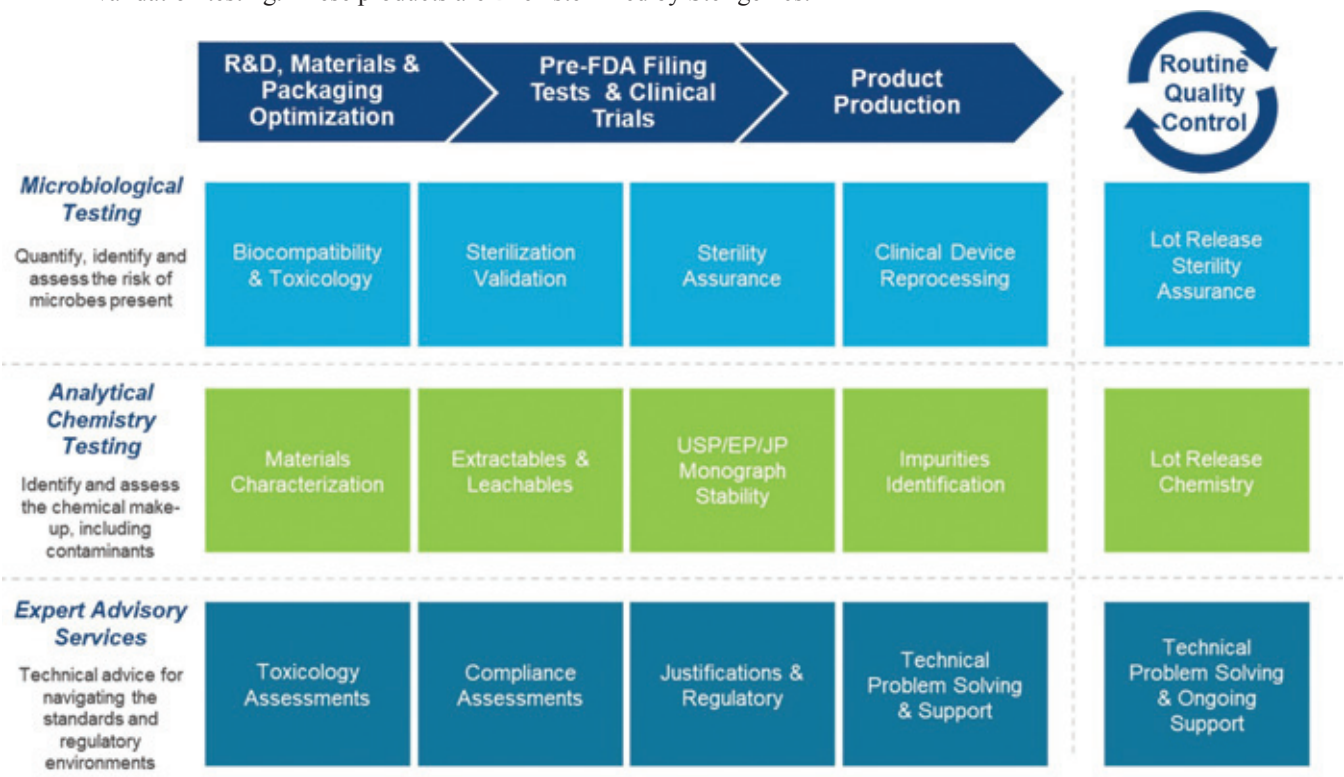
  We provide sterilization modality selection and sterilization validation services for a variety of sterilization modalities, including the three major modalities offered by Sterigenics—gamma irradiation, EO processing and E-beam—allowing us to serve our customers in multiple areas.

- Expert Advisory. Bringing a medical product or drug to market can be a long and complex process, especially in the context of constantly evolving standards in a changing regulatory environment. Nelson Labs provides expert advisory services to aid customers in navigating the appropriate standards and regulatory environments. These services include:
  - Study design
  - Development and justification of acceptance criteria
  - Onsite facility evaluation and validations
  - Technical troubleshooting and scientific problem solving
  - Regulatory compliance related services, including supporting clients through the regulatory submission process

  Our expert advisory services provide additional value and expertise at any stage of the product development life cycle. Nelson Labs offers these services on a standalone basis or as a combined offering with our lab testing services, which

creates opportunities for cross-selling with our existing customers for both services. Our expert advisory services are also complemented by our ongoing education offerings conducted through webinars, seminars, tailored onsite education sessions and our website.

- Routine Sterility and Quality Control Testing. Once a product has received regulatory approval and is in production, Nelson Labs provides ongoing quality control testing, including production batch verification testing and environmental testing of the client's production systems and facilities, the requirements for which vary based on applicable standards. Nelson Labs performs bacterial endotoxin testing or quarterly dose audits for devices sterilized using irradiation, and biological indicator testing for devices sterilized with EO. Nelson also provides testing for producers of non-sterile products to ensure they are free of objectionable organisms. Often, Nelson Labs provides this ongoing routine quality control testing (based on production lot sizes) for the products for which it performed initial validation testing. These products are often sterilized by Sterigenics.



The testing process commences when Nelson Labs receives samples and a testing request from the customer. Samples are triaged and assigned to specific lab departments, where laboratory analysts and study directors verify orders and interface with customers directly to clarify, adjust or enhance testing as needed to ensure compliance with regulatory standards. Once the sample has been tested, the order is closed out and results are verified by the study director and a technical reviewer prior to electronic delivery of the final customer report via a secure online customer portal.

We operate in an industry that requires significant regulatory and specialized scientific expertise. At a minimum, providers must maintain the proper certifications and accreditations from key regulatory and accreditation bodies, as well as obtain qualification by each customer as a "qualified supplier," which is often required at the corporate level and at each of the customer's operating sites. We employ approximately 600 scientists, technicians and service specialists, creating a substantial competitive advantage in terms of expertise. Our experts serve in predominant roles on a number of standards writing organizations, including the United States Pharmacopeia, AAMI, American Society of Testing and Materials and ISO. We have established credibility and trust with regulators and standards writing organizations which helps us educate customers about the continually-changing testing requirements in a complex and evolving regulatory landscape. Our regulatory and scientific expertise in laboratory testing allows us to serve as thought leaders within the industry and provide high-quality service to our customers. We focus on providing highly-differentiated services that our customers can rely upon to ensure compliance of and enhance their products. For example, over the course of 15 years, we have developed a proprietary, world-class compound database with over 8,000 known elements which enables our extractables and leachables testing. This database allows us to provide analytical data that differentiates our capabilities from our competitors.

We provide microbiological and analytical chemistry laboratory tests across the medical device and pharmaceutical industries. Specifically, our medical device lab testing services include microbiology, biocompatibility and toxicology assessments, material characterization, sterilization validation, sterility assurance, packaging validation and distribution simulation, reprocessing validations, facility and process validation and performance validation and verification of PPE barriers and material. Our pharmaceutical lab testing services include microbiology, biocompatibility and toxicology assessments, extractables and leachables evaluations of pharmaceutical containers, sterilization validation, sterility assurance, packaging validation and distribution simulation and facility and process validation.

Nelson Labs benefits from many of the same underlying growth drivers as our sterilization business, including the global utilization of medical devices and pharmaceutical products and the importance of compliance with continuously evolving global regulatory requirements. In particular, recent global regulatory changes, such as the enactment of the European Union Medical Device Regulation 2017/745 (MDR) and the FDA's modernization of the premarket notification process under Section 510(k) of the Federal Food, Drug and Cosmetic Act, have increased the requirements for the testing and sterilization of medical devices. The COVID-19 pandemic also increased testing demand due to new FDA Emergency Use Authorizations (EUAs), which define testing criteria necessary for the direct release of masks and respirators to hospitals and clinics without FDA submission. Because we provide product development and validation testing services to clients launching new products or altering existing products, this business benefits from the ongoing technological advances and increasing complexity of medical and pharmaceutical products.

Nelson Labs Customers

During the year ended December 31, 2022, Nelson Labs served more than 3,000 customers, including many leading medical device manufacturers and pharmaceutical companies. We have recurring and stable customer relationships and benefit from minimal customer concentration. Our services are an essential component in our customers' research and development and ongoing quality control processes but represent a small portion of end-product cost, which allows us to maintain long-term customer relationships and provide services that are integral to the supply chains of our global customers. We support customers through solutions-focused relationship managers, dedicated service centers and a team-wide service ethic. Nelson Labs has developed a proprietary customer portal that provides our customers quick and convenient access to important product information and customer service. The portal allows our customers to see their tests, status of the tests, estimated completion date and final reports and includes a live chat system connected to our customer service team.

Nelson Labs Competition

We primarily compete in the global lab testing services market with a range of providers, from national or international players to other smaller regional or niche laboratories. Our products and services compete on the basis of the quality of services offered, breadth of services, level of expertise in each testing method, delivery time, level of expertise in the applicable regulatory requirements and our reputation with customers and regulators.

Nelson Labs Suppliers

We purchase our lab testing supplies from a number of vendors mainly in the United States and occasionally throughout the world. In many cases we have redundant sources of supplies that minimize our risk of concentration. In addition, some crucial supplies are placed on reserve at specific vendors for our exclusive use.

Nelson Labs Facilities

We operate from a five-building campus in Salt Lake City, Utah, with 85 laboratories including metrology, training, media prep labs, five ISO Class V certified clean rooms and customizable lab spaces. We also have facilities in Fairfield, New Jersey; Itasca, Illinois; Leuven, Belgium; Bozeman, Montana; Pleasant Prairie, Wisconsin; Wiesbaden, Germany, and seven other laboratories embedded in our Sterigenics sterilization facilities in North America, Europe and Asia.

Nelson Labs Recent Acquisitions

On March 8, 2021, we acquired BioScience Laboratories, LLC ("BioScience") with one location in Bozeman, Montana. BioScience is a provider of outsourced topical antimicrobial product testing in the pharmaceutical, medical device, and consumer industries. BioScience's expertise in analytical testing and clinical trial services complements Nelson Labs' existing strengths in antimicrobial and virology testing.

On November 4, 2021 we acquired Regulatory Compliance Associates Inc. ("RCA") headquartered in Pleasant Prairie, Wisconsin. RCA is an industry leader in providing life sciences consulting focused on quality, regulatory, and technical consulting for the pharmaceutical, medical device and combination device industries. RCA expands and further strengthens the technical consulting and expert advisory services capabilities of Nelson Labs.

Intellectual Property

Our businesses rely on certain proprietary technologies. Most of the proprietary technologies used in our businesses are unpatented. Some of our technologies, including certain processes, methods, algorithms and proprietary databases, are maintained by the business as trade secrets, which we seek to protect through a combination of physical and technological security measures and contractual measures, such as nondisclosure and confidentiality agreements. We also have limited proprietary technologies that are covered by issued patents or patent applications, in particular related to potential new Co-60 supply opportunities for our Nordion business.

The name recognition of our businesses is a valuable asset. Many of our business names are the subject of trademark registrations or applications in the United States or certain other jurisdictions, or part of registered domain names.

Human Capital Resources

As of December 31, 2022, we employed over 3,000 employees worldwide. None of our U.S. employees are represented by unions. There are employees outside of the United States who are represented by unions or works councils in Canada, Belgium, Brazil, France, Germany and Mexico. One of our values is People. We value our people who are part of a global team that is diverse, respectful, passionate and collaborative. Our human capital strategy is aligned with our strategy and priorities and focuses on developing and delivering global solutions to attract, develop, engage and retain top talent. On an annual basis, we review our employees to assess performance and leadership potential. We also create succession plans and individual development plans to ensure we have the team needed for the future.

We are committed to providing a safe work environment for our employees and contractors. We have implemented a health and safety program to manage workplace safety hazards and to protect employees. The program encompasses performance, practices and awareness.

We are driven to fulfill our customers' needs with highest quality and care to enable their success.

Governmental Regulation and Environmental Matters

We are subject to environmental, health and safety laws and regulations in the jurisdictions in which we operate, including laws, regulations and permit requirements with respect to our use of Co-60, EO and E-beam. These requirements limit emissions of, and the exposure of workers to, gamma radiation and EO. Nordion's Kanata facility is licensed as a Class 1B nuclear facility in Canada, regulated by the Canadian Nuclear Safety Commission ("CNSC"), and is audited across various dimensions of this license on an annual basis. In addition to the nuclear aspect of our products, many of the products that we process or manufacture are medical devices directed for human use or products used in the manufacture of medical devices that are directed for human use. Our Nuclear Substance Processing Facility Operating License, CNSC Export license and CNSC Device servicing licenses for our Kanata facility were renewed in October 2015 for a 10-year period. Our facilities hold various International Organization for Standardization's ("ISO") certifications including ISO 9002, 9001, 13485 and 17025. We have device, facility, and specific product registrations with North American (Health Canada and the FDA) and European Drug and Device health regulators. These regulators exert oversight through requirements for a product registration and direct audit of our operations.

Additionally, our operations in the United States and the majority of our facilities outside the United States (to the extent we are processing a product in that facility that will end up in the U.S. market) are regulated by the FDA. We are also regulated by other health regulatory authorities in other countries. Specifically, these operations include some of our sterilization and product testing activities that may constitute "manufacturing" activities and are subject to FDA requirements. These requirements include site, contract drug manufacturer and supplier of active pharmaceutical ingredients registration and listing and manufacturing requirements. Regulations issued by the Occupational Safety and Health Administration ("OSHA"), the U.S. Nuclear Regulatory Commission (the "NRC") and other agencies also require that equipment used at our facilities be designed and operated in a manner that is safe and with proper safety precautions and practices when handling, monitoring and storing EO and Co-60.

While we strive to comply with these regulatory requirements, we may not at all times be in full compliance and, as a result, could be subject to significant civil and criminal fines and penalties. To reduce the risk of noncompliance, we employ engineering and procedural controls and pollution control equipment, and undertake internal and external regulatory compliance audits at our facilities. We have a proactive environmental health and safety ("EH&S") program and a culture of safety and quality across all business units, and employ a Senior Vice President of Environmental, Health and Safety who reports directly to the Chief Executive Officer and has a team of more than 30 employees.

For additional information, please see Item 1A, ""Risk Factors"—Risks Related to the Company—We are subject to extensive regulatory requirements and routine regulatory audits in our operations. We must receive permits, licenses and/or regulatory clearance or approval for our operations. Compliance with these regulations is costly, and failure to comply with all laws and regulations or to receive or maintain permits, licenses, clearances or approvals may hurt our revenues, profitability, financial condition or value. We face liability and reputational risks even if we comply with all laws and regulations" and Item 3, "Legal Proceedings."

EO Regulatory Overview

In addition to general environmental laws and regulations, EO plants and the EO sterilization process are subject to specific regulatory requirements under federal laws in the United States as well as the laws of many of the countries in which we operate. Such additional regulations include specific requirements for permissible employee exposure limits, process safety programs, approved EO containers and their transportation, facility security, quality system programs, emission control systems and emission limits and products allowed to be treated with EO. Some state and local governments have additional environmental laws, stricter regulations or other requirements including permitting programs that set forth operational parameters for EO sterilization facilities. In the United States, OSHA regulations limit worker exposure to EO. The use of EO for the reduction of bioburden on or sterilization of an approved list of products, including medical devices, pharmaceutical products, spices, and cosmetics is regulated by the U.S. Environmental Protection Agency ("US EPA") under the Clean Air Act ("CAA") and the Federal Insecticide, Fungicide and Rodenticide Act ("FIFRA"). In addition, FDA regulations dictate the acceptable amount of EO residue on different types of EO-processed products. Most other countries in which we operate have similar EH&S and worker exposure regulations.

Our EO sterilization facilities evacuate EO from the sterilization chambers and aeration rooms. Most countries in which we operate have varying emission control requirements for EO emissions from our facilities. We are investing in additional voluntary controls on EO emissions at our facilities to outperform current and expected future regulatory requirements and further reduce facility emissions. In the United States, our supplier maintains FIFRA registrations for EO as a medical device sterilant for users of EO across the United States. The US EPA is in the process of reviewing EO's FIFRA re-registration eligibility and will likely require enhancements to the processes and equipment for use of EO as a medical device sterilant. There have been other ongoing regulatory developments at US EPA relating to EO emissions. For example, the US EPA is expected in 2023 to propose updated National Emission Standards for Hazardous Air Pollutants ("NESHAP") air emission regulations for EO commercial sterilization facilities with which our sterilization facilities and those of our competitors will be required to comply. In certain U.S. states, including California, additional regulatory requirements and obligations exist, including requirements for the provision of notices regarding the release of or exposure to EO. Regulators in California and other states are considering changes that would impose new requirements for EO commercial sterilization facilities. Bills have been introduced in the U.S. Congress to further regulate EO sterilization activity. Each of our EO sterilization facilities utilizes a variety of control technologies (including wet scrubbers, catalytic oxidizers and dry bed scrubbers) to control emissions, and we are investing in additional control features to further reduce emissions. For 2023, we expect capital expenditures of approximately $33.2 million related to environmental facility enhancements across all facilities within our business, and we anticipate similar investments in subsequent years. We consistently meet and outperform regulatory emissions control requirements, although we have experienced instances of emissions exceeding applicable standards or other non-compliance, none of which we believe were material. We expect to be able to satisfy any changes to applicable regulatory requirements as they evolve and are committed to doing so.

In addition to government regulation, there are standards, guidelines and requirements established by industry organizations and other non-governmental bodies that may impact our operations, such as the ISO's limit on the permissible levels of residual EO on sterilized medical devices.

Gamma Irradiation Regulatory Overview

In the United States, Sterigenics is subject to NRC and state regulations that govern operations involving radioactive materials at gamma irradiation plants. These NRC and state regulations specify the requirements for, among other things, maximum radiation doses, system designs, safety features, alarms, employee and area monitoring, testing and reporting. Each of our U.S. gamma plants has a radioactive materials license from the NRC or the state in which it operates. Nordion also has NRC licenses to distribute radioactive material within the United States, which permit Nordion to install and remove Co-60 sources and provide other services to its customers, as well as a license to export radioactive material from the United States to Canada. The NRC recently implemented new security requirements for our U.S. gamma facilities.

Our Nordion segment operates through our subsidiary Nordion (Canada) Inc. in Canada and REVISS Services in the United Kingdom. Through Nordion, we are subject to additional Canadian regulations, including Transport Canada regulations for the Transportation of Dangerous Goods, CNSC regulations for the General Nuclear Safety and Controls, Health Canada requirements for drugs and devices and CNSC and Canadian Department of Foreign Affairs and International Trade requirements for import and export.

Outside North America, the European Union and other national authorities have developed regulations pertinent to the operation of gamma irradiators that are similar to those of the NRC. While some specific requirements are different in the various other nations as compared to the United States, the fundamental concepts are consistent among the countries, since all are signatories to the International Atomic Energy Agency ("IAEA") conventions and have adopted safety standards from the IAEA and recommendations from the International Commission on Radiological Protection ("ICRP").

E-beam and X-ray Irradiation Regulatory Overview

In the United States, irradiators that use accelerators are regulated by the individual state in which a facility is located. While there is some variability in the content of regulations among states, all are patterned after the general regulations of the NRC. These regulations typically specify the requirements for radiation shielding, system designs, safety features, alarms, employee and area monitoring, testing and reporting. Some E-beam and X-ray facilities require environmental permits too.

Outside of the United States, accelerator regulations are similar among various nations. These regulations are based on the IAEA standards and ICRP recommendations, much like those for gamma irradiators.

Available Information

Our Annual Report, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, are made available free of charge through the Investor Relations page of our internet website at https://investors.soterahealth.com, as soon as reasonably practicable after such documents are electronically filed with, or furnished to, the Securities and Exchange Commission ("SEC"). The SEC maintains an Internet site, www.sec.gov, that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC.

Item 1A. Risk Factors

We describe below certain risks that could adversely affect our business, prospects, financial condition or results of operations. These risk factors may change from time to time and may be amended, supplemented or superseded by updates to the risk factors contained in our future periodic reports on Form 10-Q and reports on other forms we file with the SEC. All forward-looking statements about our future results of operations or other matters made by us in this Annual Report as well as our consolidated financial statements and notes, and in our subsequently filed reports to the SEC, as well as in our press releases and other public communications, are qualified by the risks described below.

Risk Factor Summary

Our business operations are subject to numerous risks, factors and uncertainties, including those outside of our control, that could cause our actual results to be harmed, including risks regarding the following:

- disruption in the availability of, or increases in the price of, EO, Co-60 or our other direct materials, services and supplies, including as a result of geopolitical instability and sanctions arising from U.S., Canadian, U.K., and European Union relations with Russia;

- changes in environmental, health and safety regulations or preferences, and general economic, social and business conditions;
- health and safety risks associated with the use, storage, transportation and disposal of potentially hazardous materials such as EO and Co-60;
- the impact and outcome of current and future legal proceedings and liability claims, including lawsuits alleging personal injury, property devaluation and other injuries by purported exposure to emissions of EO from our former facility in Willowbrook and current facilities in Atlanta and Santa Teresa, and the possibility that other claims will be made in the future relating to these or our other EO facilities, including the possibility that the participation rates or other conditions specified in the binding term sheets for the pending settlement of tort lawsuits in Cook County, Illinois related to our former Willowbrook facility may not be satisfied or waived, in which case an appellate bond would have to be posted to stay the enforceability of a $358.7 million adverse judgement pending appeals, which would reduce our liquidity and might limit our ability to post appellate bonds for subsequent judgments;
- allegations of our failure to properly perform our services and any potential product liability claims, recalls, penalties and reputational harm;
- compliance with the extensive regulatory requirements to which we are subject and the related costs, and any failures to receive or maintain, or delays in receiving, required clearance or approvals;
- adverse changes in industry trends;
- competition we face;
- market changes, including inflationary trends in input costs such as labor, raw materials and energy, that impact our long-term supply contracts with variable price clauses and increase our cost of revenues;
- business continuity hazards, including supply chain disruptions and other risks associated with our operations;
- the risks of doing business internationally, including global and regional economic and political instability, existing and future sanctions and compliance with numerous laws and regulations in multiple jurisdictions;
- our ability to increase capacity at existing facilities, build new facilities in a timely and cost-effective manner and renew leases for our facilities;
- our ability to attract and retain qualified employees;
- severe health events, such as the ongoing impact of the COVID-19 pandemic, or environmental events;
- cyber security breaches, unauthorized data disclosures, and our dependence on information technology systems;
- any inability to pursue strategic transactions, including to find suitable acquisition targets, and our failure to integrate strategic acquisitions successfully into our existing business or realize anticipated cost savings or synergies;
- our ability to maintain effective internal controls over financial reporting;
- our reliance on intellectual property to maintain our competitive position and the risk of claims from third parties that we infringe or misappropriate their intellectual property rights;
- our ability to comply with rapidly evolving data privacy and security laws and regulations and any ineffective compliance efforts with such laws and regulations;
- our history of net operating losses, including net losses for the years ended December 31, 2022 and December 31, 2020, and the risk that we may not maintain profitability in the future;
- the effects of unionization efforts and labor regulations in certain countries in which we operate;
- our significant leverage and how this significant leverage could adversely affect our ability to raise additional capital, limit our ability to react to changes in the economy or our industry, limit our flexibility in operating our business through restrictions contained in our debt agreements and prevent us from meeting our obligations under our existing and future indebtedness;
- impairment charges on our goodwill and other intangible assets with indefinite lives, as well as other long-lived assets and intangible assets with definite lives;
- adverse changes to our tax positions in U.S. or non-U.S. jurisdictions, the interpretation and application of recent U.S. tax legislation or other changes in U.S. or non-U.S. taxation of our operations;

- risks associated with the uncertainty of LIBOR and other interest "benchmarks" which affect our debt finance instruments;
- the substantial control that certain investment funds and entities affiliated with Warburg Pincus and GTCR, which we refer to collectively as the "Sponsors," continue to have over us, which could limit stockholders' ability to influence the outcome of key transactions, including a change of control; and,
- the fact that we are presently considered a "controlled company" within the meaning of the Nasdaq corporate governance standards and qualify for exemptions from certain corporate governance requirements, which means that, if we were to utilize these exemptions, our stockholders may not have the same protections afforded to stockholders of companies that are subject to such requirements.

Risks Related to the Company

We depend on a limited number of counterparties to provide the materials and resources we need to operate our business. Any disruption in the availability of, or increases in the price of, EO, Co-60 or our other direct materials, services and supplies, including as a result of geopolitical instability and sanctions arising from U.S., Canadian, U.K., and European Union relations with Russia, may have a material adverse effect on our operating results.

We purchase certain direct materials, equipment and services necessary for the provision of our specialized products and services from a limited number of suppliers and subcontractors, and, in certain cases, purchase large quantities of product from a sole supplier. If our significant suppliers or service providers were unable to meet their obligations under present arrangements, direct materials or equipment were to become unavailable within the geographic area from which they are now sourced, or supplies were otherwise constrained or disrupted for any reason (including as a result of a natural disaster or other adverse occurrence), we may incur increased costs for our direct materials or equipment and may be unable to accommodate new business or meet our current customer commitments. For example, in the United States there is a single supplier of EO for our sterilization business. Further, our reliance on a single or limited number of suppliers may limit our negotiating power, particularly during times of rising direct material costs.

We source a substantial portion of our Co-60 supply from three nuclear reactor operators and five reactor sites in Canada and Russia under contracts that extend to between 2024 and 2064. See Item 1, "Business—Our Businesses—Nordion—Nuclear Reactor Operators." If there were a decrease in output or disruption at any of these reactors (including as a result of a natural disaster or other adverse occurrence), the counterparties failed to perform under their agreements with us or declined to enter into renewal contracts with us for our future supply needs and we are unable to obtain supply from other sources, or if such sources begin to compete with us in one or more geographies, this could have a material adverse effect on our business. In addition, a number of reactors that have the capacity to generate Co-60 are government owned. Priorities of governments can change. Any repurposing of a government-owned reactor that generates Co-60 for an alternative use has in the past and could in the future lead to a decrease in Co-60 availability, which could have a material adverse effect on our business, prospects, financial condition or results of operations.

We estimate approximately 20% of our long-term supply of Co-60 will be generated by Russian nuclear reactors. Further, over the next few years, we expect that there will be periods when, owing to planned or unplanned outages and variability in supply from individual reactors, the proportion of our supply from Russian reactors may increase to as much as approximately 50% for a given year. The United States, Canada, the United Kingdom and the European Union have imposed and are expected to continue imposing sanctions against Russian industries, Russian officials and certain Russian companies, banks, logistics providers and individuals. Russia has responded and is expected to continue to respond with countermeasures, including limiting the importation of certain goods from the United States and other countries. Expanded sanctions could target government-owned operations, including Russian nuclear reactor operators, Russian government or privately owned banks and Russian logistics providers, and could prevent us from doing business with them. In addition, some international logistics providers have voluntarily ceased doing business involving Russia. The U.S. government has also implemented certain sanctions targeting non-U.S. persons for activities conducted outside the United States that involve specific sanctions targets or certain activities related to sanctioned countries, any of which could prohibit us from conducting routine commercial transactions with Russian entities that are engaged in certain transactions related to sanctioned countries or sanctioned parties. If U.S., Canadian, United Kingdom or European Union sanctions against Russia (whether new sanctions or interpretations of existing sanctions) prevent the importation, or shipment of, or payment for, Russian-sourced Co-60, or if we are unable to identify international logistics providers needed for the supply of Co-60 from Russia, or the Russian supplier does not work with a non-sanctioned bank to receive payment in Russia, or the Russian government responds with further countersanctions, it may make it generally more difficult or impossible to do business with Russian entities. Any sanctions or countermeasures could have a material adverse effect on our business, prospects, financial condition or results of operations.

Any interruptions that we experience with our key suppliers regarding the availability of Co-60 or EO, such as changes in regulatory requirements regarding the use of Co-60 or EO, or unavailability or short-supply of raw materials or services, may disrupt or cause a shutdown of portions of our operations, materially increase our costs or have other adverse effects on our business, prospects, financial condition or results of operations.

Changes in environmental, health and safety regulations or preferences may negatively impact our business.

Federal, state and international authorities regulate all operations within our three business units, including the operation of our gamma irradiation and EO processing plants, as well as the operations of our customers. If the regulators that govern our operations or the operations of our customers were to institute severely restrictive policies or regulations that increase our costs or change the preferences or requirements of our customers, demand for our products and services may be materially affected. Additionally, certain regulators, including the FDA, have started initiatives to encourage development of sterilization alternatives to EO processing. We have taken part in some of these initiatives. We have also made proactive, voluntary investments to enhance the emissions controls and employee protections within our EO facilities. However, new regulations or changes to existing or expected regulations may require additional investments in new emissions control or employee protection technology or otherwise increase the cost of our gamma irradiation or EO processing. See related Risk Factor "—We are subject to extensive regulatory requirements and routine regulatory audits in our operations. We must receive permits, licenses and/or regulatory clearance or approval for our operations. Compliance with these regulations is costly, and failure to comply with all laws and regulations or to receive or maintain permits, licenses, clearances or approvals may negatively impact our revenues, profitability, financial condition or value. We face liability and reputational risks even if we comply with all laws and regulations." Reconfiguring a gamma irradiation or EO processing plant so that it is suitable for a different sterilization technology, in response to changes in demand, regulations or other factors, would require significant capital investment and require us to suspend operations at the affected facility during the conversion. Any of the foregoing could have a material adverse effect on our business, prospects, financial condition or results of operations.

Safety risks associated with the use, storage and disposal of potentially hazardous materials, such as EO and Co-60, may result in accidents or liabilities that materially affect our results of operations.

EO is flammable and potentially explosive. Despite our extensive safety measures, a fire or explosion could occur at a sterilization facility where we use EO, which could interrupt our normal operations and result in the facility closures, workplace injuries, property damage, or otherwise adversely affect our business.

Because Co-60 is radioactive, its containment and proper shielding is important in preventing contamination or improper exposure. If the double-encapsulated Co-60 pencils were to become damaged or corroded, Co-60 sources could develop a source leak, leading to radioactive contamination requiring comprehensive clean-up of the storage pool. Similarly, physical damage to the protective stainless-steel covering during the process of adding or removing Co-60 rods from an irradiator could also result in a source leak and contamination incident. Clean-up and disposal costs for damaged Co-60 rods and radioactive contamination could be significant. If any liability claims are made against us in the future, we could be liable for damages that are alleged to have resulted from such exposure or contamination.

Potentially hazardous materials must be handled and disposed of properly. Accidents involving disposal or handling of these substances, including accidents resulting from employees failing to follow safety protocols, could result in injury to people, property or the environment, as well as possible disruptions, restrictions or delays in production, and have in the past and could in the future result in claims relating to such events. For example, members of our workforce in the past have been injured in our facilities. Any injuries or damage to persons, equipment or property or other disruption in the disposal, production, processing or distribution of products could result in a significant decrease in operating revenue, a significant increase in costs to replace or repair and insure our assets and substantial reputational harm, which could materially adversely affect our business, prospects, financial condition or results of operations, and could have legal consequences that affect our ability to continue to operate the affected facility. Our customers served by an affected facility could choose to switch to an alternative sterilization service provider.

Any incident at or emission from any of our EO, gamma or lab facilities that causes harm to workers or people who live, work, attend school or otherwise spend significant amounts of time near our facilities, or the interruption of normal operations at our facilities, could result in claims against us and, if those claims are successful, substantial liability to us. We are currently the subject of lawsuits alleging that purported EO emissions from certain of our current and former facilities have resulted in toxicological or health-related impacts on the environment and the communities that surround these facilities. We deny these allegations. We have also from time to time been involved with workers' compensation claims relating to potentially hazardous materials. We may be subject to similar claims in the future, and one or more adverse judgments could result in significant

liability for us and have a material adverse effect on our business, financial condition and results of operations. See related Risk Factors "—We are currently defending certain litigation, and we are likely to be subject to additional litigation in the future" and "—Potential health risks associated with the use of EO may subject us to future liability claims and other adverse effects."

Nordion contracts for the activation of Co-59 "targets" (cobalt pellets and slugs) into Co-60 in certain nuclear reactors in Canada and Russia. Our Co-59 targets (and in Canada, our adjuster rods provided to us by a supplier) function as part of the reactors' reactivity control systems. While national laws or international conventions generally channel liability for nuclear incidents exclusively to reactor operators, equipment suppliers could be subject to lawsuits for damage to the nuclear installation or damages allegedly intentionally caused. While we make efforts to protect our interests through contractual provisions, quality assurance programs and the nature of our commercial relationships, there is no assurance that any of these measures will prove effective in shielding us from liability, and any such liability or consequences could have a material adverse impact on our business, results of operation and financial condition.

We currently carry pollution liability insurance for all our facilities and related operations and liability insurance, including from third party bodily injury or property damage allegedly arising from the storage, use, transportation or accident involving Co-60 sources throughout our operations. However, such insurance may not cover all risks associated with the potential hazards of our business and is subject to limitations, including deductibles and maximum liabilities covered. We may incur losses beyond the limits, or outside the coverage, of our insurance policies. Additionally, our insurance for future alleged environmental liabilities excludes coverage for EO claims. Our ability to increase pollution liability insurance limits or replace any policies upon their expiration without exclusions for claims related to alleged EO exposure has been adversely impacted by claims against us, including current claims alleging that purported EO emissions from certain of our facilities have resulted in toxicological or health-related impacts on the environment and the communities that surround these facilities. To the extent any pollution liability is not covered by our insurance or able to be recovered from other parties, our business, financial condition or results of operations could be materially adversely affected.

Potential health risks associated with the use of EO may subject us to future liability claims and associated adverse effects.

Potential health risks associated with exposure to EO subject us to the risk of liability claims being made against us by workers, contractors, employees of our customers and individuals who reside or have resided, work or have worked, attend or attended school or otherwise spend or have spent material amounts of time near our EO sterilization facilities. Assessments of the potential health risks of exposure to EO have evolved over time. For example, although EO is present in the environment from a variety of sources and naturally produced by the human body, the US EPA has identified a potential for increased risk of certain cancers from exposure to EO. In 2016, the US EPA published its Integrated Risk Information System toxicity assessment of EO (the 2016 "IRIS Assessment"), and starting in 2018, the US EPA published updated National Air Toxics Assessments ("NATA"). These updated NATA assessments used the 2016 IRIS Assessment and data collected in prior years to identify EO as a potential cancer concern in several areas across the country, including areas surrounding our former facility in Willowbrook, Illinois and our current facilities in Atlanta, Georgia and Santa Teresa, New Mexico. We and other organizations disagree with the conclusion of the 2016 IRIS Assessment on the carcinogenic potency of EO, but we expect risk assessments related to EO to continue to evolve and that EO facilities, including Sterigenics facilities, will continue to be the subject of future air quality assessments, regulations and other initiatives. We can give no assurance as to the impact of current or future EO risk or air quality assessments on our business, prospects, financial condition, litigation and regulatory risks or results of operations. See related Risk Factor "—We are subject to extensive regulatory requirements and routine regulatory audits in our operations. We must receive permits, licenses and/or regulatory clearance or approval for our operations. Compliance with these regulations is costly, and failure to comply with all laws and regulations or to receive or maintain permits, licenses, clearances or approvals may hurt our revenues, profitability, financial condition or value. We face liability and reputational risks even if we comply with all laws and regulations."

We are currently the subject of tort lawsuits alleging personal injury from purported exposure to emissions and releases of EO from our former facility in Willowbrook, Illinois and current facility in Atlanta, Georgia. Additionally, we are defendants in a lawsuit by certain employees of a contract sterilization customer in Georgia who allege personal injury by purported workplace exposure to EO and in a premises liability lawsuit by a delivery driver who alleges injury by purported exposure to EO while making freight deliveries to our Atlanta facility. We are also defendants in lawsuits alleging that our Atlanta facility has devalued and harmed plaintiffs' use of real properties in Smyrna, Georgia. Additional personal injury and property devaluation claims have been threatened. We are also defendants in a lawsuit brought by the State of New Mexico alleging that emissions of EO from our Santa Teresa facility constitute a public nuisance and have materially contributed to increased health risks suffered by residents in the area. We deny these allegations. See related Risk Factor "—We are currently defending certain litigation, and we are likely to be subject to additional litigation in the future," Item 3, "Legal Proceedings" and Note 20 "Commitments and Contingencies" to our consolidated financial statements. We may be subject to other claims by similar plaintiffs and/or state

or local governments and/or agencies in the future relating to our other current or former facilities. In addition, we have encountered and will likely continue to encounter resistance, protests or other actions in communities where our existing facilities are located or where we seek to establish or expand facilities based on the perceptions of the risks associated with exposure to EO. This publicity may also have other adverse impacts, including damage to our reputation and public pressure against our facilities that may affect our ability to conduct our business.

If we are the subject of other lawsuits related to emissions and releases of EO, that litigation, regardless of the merits of the claims at issue or the ultimate outcome of the case, could result in a substantial cost to us and could have a material adverse effect on our business, prospects, financial condition or results of operations.

We are currently defending certain litigation, and we are likely to be subject to additional litigation in the future.

Our business exposes us to significant potential risk from lawsuits, investigations and other legal proceedings. We are currently pursuing and defending various proceedings and will likely be subject to additional proceedings in the future, including potential litigation regarding the products and services we provide or which we or our predecessors have provided. As detailed in Note 20, "Commitments and Contingencies" to our consolidated financial statements under the heading "Ethylene Oxide Tort Litigation," we are currently the subject of tort lawsuits alleging personal injury from purported exposure to emissions and releases of EO from our former facility in Willowbrook, Illinois and current facility in Atlanta, Georgia. We are also defendants in lawsuits alleging that our Atlanta facility has devalued and harmed plaintiffs' use of real properties they own in Smyrna, Georgia and in a lawsuit brought by the State of New Mexico alleging that emissions of EO from our Santa Teresa facility constitute a public nuisance and have materially contributed to increased health risks suffered by residents in the area.

On January 9, 2023, Sterigenics U.S., LLC and Sotera Health LLC (the "Defendant Subsidiaries") entered into binding term sheets (the "Term Sheets") providing an agreed path to settlement of the lawsuits pertaining to our former facility in Willowbrook. See Part I Item 3, "Legal Proceedings" and Note 20, "Commitments and Contingencies" to our consolidated financial statements. The final settlement of claims contemplated under the Term Sheets may not occur or may not occur in all of the lawsuits for a number of reasons including, but not limited to, a failure to obtain the required opt-in consents or a failure to obtain court approval of the settlement as a good-faith settlement. We deny the allegations in all of these lawsuits. Yet, as further discussed below in connection with the September 2022 adverse judgement against the Defendant Subsidiaries, one or more adverse judgments could result in significant liability for us and have a material adverse effect on our business, financial condition and results of operations.

In such litigation, plaintiffs typically seek various remedies, including declaratory and/or injunctive relief; compensatory or punitive damages; restitution, disgorgement, civil penalties, abatement and attorneys' fees and costs. Settlement demands may seek significant monetary and other remedies, or otherwise be on terms that we do not consider reasonable under the circumstances. Settlement negotiations may result in agreements to settle claims on various terms and conditions adverse to the Company, including significant settlement payments. In some instances, even if we comply with applicable laws and regulations, including those relating to emission standards, an adverse judgment or outcome may occur based on other applicable laws or principles of common law, including negligence and strict liability, and result in significant liability and reputational damage for us. Defense of litigation may result in diversion of management attention from other priorities. We may well be subject to future claims in addition to those described above by or on behalf of similar groups of plaintiffs, including potentially our employees or former employees, relating to any of our current or former facilities or activities. In addition, awards against and settlements by us or our competitors or publicity associated with our current litigation could incentivize parties to bring additional claims against us.

The financial impact of litigation, particularly class action and mass action lawsuits, is difficult to assess or quantify. The outcomes of trials before juries are rarely certain and a judgment entered or settlement reached in one case is not representative of the outcome of other seemingly comparable cases. If we are the subject of future lawsuits, regardless of the merits of the claims at issue or the ultimate outcome of a case, any litigation could be costly to defend, could result in an increase of our insurance premiums, and exhaust any available insurance coverage. Claims against us that result in entry of a judgment or we settle that are not covered or not sufficiently covered by insurance policies, or which fall within retained liability under our policies, could have a material adverse impact on our business, prospects, financial condition or results of operations. Our current environmental liability insurance does not cover future claims related to EO. Even where we have coverage for claims brought against us, our insurance may not be adequate to cover all potential liabilities and losses arising from those claims, and we have significant self-insured retention amounts, which we would have to pay in full before obtaining any insurance proceeds. Additionally, even where a claim should be covered by insurance, an insurer might refuse coverage. To the extent our insurance coverage is inadequate and we are not successful in identifying additional coverage for such claims, we would have to pay any costs or losses in excess of policy limits, including potentially costs to defend such claims, and the amount of any settlement or judgment. For example, while our historical environmental liability insurance covered litigation related to EO, like the litigation pending in Willowbrook, Atlanta and Santa Teresa described above, the policy under which we have received

coverage has limits of $10.0 million per occurrence and $20.0 million in the aggregate. The per occurrence limit related to the Willowbrook litigation is fully utilized and the $10.0 million coverage remaining is currently being utilized for the ongoing legal costs associated with the EO claims related to our facilities in Atlanta and Santa Teresa. As of December 31, 2022, we have utilized approximately $8.9 million of the remaining $10.0 million limit. Any settlement or judgment against us arising out of pending or future EO litigation would likely exceed the remaining insurance recoveries available to us and could have a material adverse effect on our business, prospects, financial condition or results of operations. See Note 20 "Commitments and Contingencies" to our consolidated financial statements for more detail on our pending litigation.

We have received an adverse judgment and may in the future receive other adverse judgments in the EO tort litigation. We face enforcement efforts related to the adverse judgment. In connection with any appeal, we may be required to post an appellate bond or provide an alternative form of security. We have entered and may in the future enter into agreements to settle certain EO tort lawsuits to which we are currently, or may in the future be, subject. Any of these matters may have a negative impact on our financial condition and liquidity in the near and long terms.

As described elsewhere in Note 20, "Commitments and Contingencies" to our consolidated financial statements under the heading "Ethylene Oxide Tort Litigation," we are subject to tort lawsuits alleging injuries caused by low-level environmental exposure to EO emissions and releases from our sterilization facilities. Trials were conducted during 2022 in two individual cases related to the Willowbrook, Illinois facility. The first trial began on August 12, 2022, and on September 19, 2022, resulted in a verdict for plaintiff and a judgment of $358.7 million (including $320 million in punitive damages) against the Defendant Subsidiaries (the "September 2022 adverse judgment"). The Defendant Subsidiaries' Motion for Post Trial Relief was denied on December 18, 2022. On January 9, 2023, the Defendant Subsidiaries filed a Notice of Appeal to the First District Appellate Court in Illinois, appealing the September 2022 adverse judgment. The second trial resulted in a defense verdict entered in favor of the Defendant Subsidiaries on November 18, 2022. On January 9, 2023, the Defendant Subsidiaries entered into binding Term Sheets with the "Plaintiffs' Executive Committee" ("PEC") appointed to act on behalf of the more than 20 law firms ("Plaintiffs' Counsel") representing over 870 claimants consisting of (1) approximately 850 plaintiffs who have filed certain alleged EO exposure claims related to the Willowbrook, Illinois facility (the "Covered Claims") against those subsidiaries and (2) other clients with unfiled Covered Claims (together, the "Eligible Claimants"). The Term Sheets provide an agreed path to final settlement of the claims related to the Willowbrook, Illinois facility, subject to the satisfaction or waiver of various conditions. These conditions include: (1) the entry of a stay of all pending Covered Claims; (2) Plaintiffs' Counsel obtaining opt-in consent from (i) 99% of all Eligible Claimants represented by the PEC law firms, (ii) 95% of all Eligible Claimants represented by law firms not on the PEC and (iii) 100% of all Eligible Claimants within certain specified subgroups, within 30 days of the date each Eligible Claimant receives all disclosure required by applicable state rules along with their individual settlement allocation (the "Participation Requirement"), which may be extended up to 30 additional days with the consent of the Defendant Subsidiaries; (3) the dismissal with prejudice of the Covered Claims of all Eligible Claimants participating in the settlement; and (4) court approval of the settlement as a good faith settlement under the Illinois Joint Contribution Among Tortfeasors Act. Pending the satisfaction or waiver of these conditions, the relevant state and federal courts in Illinois have stayed all proceedings and deadlines and vacated all trial dates related to the Willowbrook facility.

In the event that the conditions to the settlement are not satisfied or waived, or the final settlement otherwise does not occur according to the Term Sheets, the orders staying proceedings will be vacated and proceedings will resume. If proceedings resume, an appellate bond or alternate form of security for the appeal (together, an "appellate bond") will have to be posted to stay the enforceability of the September 2022 adverse judgment during the appeals process. An appellate bond ordinarily must be sufficient to cover the amount of the judgment and costs, plus interest reasonably anticipated to accrue during pendency of the appeal, which typically means that, absent relief, the defendants are required to post an appellate bond in an amount up to 1.5 times the amount of the judgment. Obtaining such an appellate bond may require the posting of liquid collateral, such as letters of credit or cash, for some or all of the bond amount. In addition, before the settlement was reached, the plaintiff in the first trial began enforcement proceedings by issuing citations to discover assets to the Defendant Subsidiaries, Sotera Health Company, certain other subsidiaries and affiliates, and various third parties. Subject to petitions for relief and other potential proceedings, the service of these citations had the effect of creating liens on certain of the Defendant Subsidiaries' and other recipients' assets that could restrict use of those assets and continue to do so if the settlement is not concluded.

If proceedings resume and Defendant Subsidiaries need to obtain an appellate bond to stay the enforceability of the September 2022 adverse judgment during the appeals process, the Defendant Subsidiaries may need to request credit support from Sotera Health Company or its subsidiaries in order to obtain such appellate bond. Although Sotera Health Company has not determined whether it would be willing to provide such credit support, doing so may require it or its other subsidiaries to use their existing capital resources or incur additional indebtedness, if available. If the Defendant Subsidiaries are unable to post an appellate bond for the September 2022 adverse judgment, they may need to pursue other alternatives to stay the enforceability of the judgment order pending the appeals process. In the event the Defendant Subsidiaries' appeal of the September 2022

adverse judgment is unsuccessful, they will be required to pay the judgment, which would reduce the liquidity and harm the financial condition of the Defendant Subsidiaries, and possibly of Sotera Health Company, and may further limit the Defendant Subsidiaries' ability to post an appellate bond for subsequent judgments.

As disclosed elsewhere, a significant number of EO tort cases remain pending against the Defendant Subsidiaries in Georgia. In addition, new EO tort lawsuits could be filed in Illinois, Georgia or other locations where we have facilities, and publicity about judgments, or settlement agreements and payments to resolve EO tort litigation, may increase interest in EO litigation and result in new claims being filed. We do not believe the damage awards in the first trial in Illinois are predictive of potential future damage awards in the other EO tort cases, or that the settlement amount reflected in the Willowbrook Term Sheets is predictive of potential future settlements. However, in the event the Defendant Subsidiaries receive one or more additional adverse judgments in any EO tort case(s), the Defendant Subsidiaries may be required to post additional security to stay those judgments through the appeals process. This would create additional uncertainty about how the Defendant Subsidiaries on their own will post such collateral, or whether Sotera Health Company would be willing to or could provide parent credit support, in order to stay enforcement of any future judgments.

Actions required to secure appellate bonds, including for the September 2022 adverse judgment if the settlement is not consummated, may create a substantial strain on the Defendant Subsidiaries' and our liquidity and financial condition. There is no assurance that the Defendant Subsidiaries or we will meet the requirements to provide an appellate bond(s) for appeal of the September 2022 adverse judgment and appeals of any future adverse judgments. If the Defendant Subsidiaries are unable to meet those requirements and are not able to secure an appellate bond in the form and amount as required by the courts for appeal, the judgment(s) will become enforceable and may exceed their ability to pay in cash. If the Defendant Subsidiaries are unable to pay in cash, the Defendant Subsidiaries or we may be required to seek financing, sell assets or take other measures to address the judgments. There can be no assurance that the Defendant Subsidiaries or we will be able to secure such financing, and any sales of assets or other such actions taken to attempt to satisfy judgments may significantly limit our liquidity, harm our financial condition and increase our leverage.

One or more enforceable judgments in excess of $100.0 million that are not stayed or remain undischarged for a period of sixty consecutive days, would constitute an event of default under our Senior Secured Credit Facilities. Thus, if the Defendant Subsidiaries are unable to meet collateral requirements to post an appellate bond to stay the enforceability of a judgment, absent judicial relief, we may be required to negotiate with our current lenders under our Senior Secured Credit Facilities and the success of such negotiations cannot be assured.

Allegations of our failure to properly perform our services may expose us to potential product liability claims, recalls, penalties and reputational harm or could otherwise cause a material adverse effect on our business.

We face the risk of financial exposure to product and other liability claims alleging that our failure to adequately perform our services resulted in adverse effects, including product recalls or seizures, adverse publicity and safety alerts. In our Sterigenics business, for example, while our customers are generally responsible for determining the cycle parameters (the levels of temperature, humidity and EO concentration to which products are exposed during the sterilization process and the duration of such exposure) or dosage specifications (the amount of gamma or E-beam irradiation to which products are exposed) for their products, we are required to certify that such cycle or dosage parameters were achieved. If we fail to process a customer's product in accordance with the cycle parameters, dosage specifications or testing requirements prescribed by the customer, our standard contract requires us to inform our customer of the nonconformance, to reprocess or retest the product if that is a feasible alternative and to reimburse the customer (subject to a maximum) for the cost of any such product which is damaged as a result of the nonconformance. We could be held liable in the future for personal injury, contractual or other damages that are alleged to result from improper or incorrect processing, cycle parameters or dosage specifications, testing or product damage. Even where processing occurred within cycle parameters, we have faced in the past and may face in the future claims of personal injury resulting from processing. In our Nelson Labs business, if we fail to perform our services in accordance with regulatory requirements for medical products, regulatory authorities may take action against us or our customers. Regulatory authorities may disqualify certain analyses from consideration in connection with marketing authorizations, which could result in our customers not being able to rely on our services in connection with their submissions, may subject our customers to additional studies or testing and delays in the development or authorization process, and may lead our customers to take actions such as terminating their contracts with us. We could also face claims that we performed erroneous or out-of-specification testing or data integrity complaints, any of which could require retesting, and could result in claims of economic or other loss or personal injury.

In our Nelson Labs business, through the acquisition of BioScience in March 2021, we periodically engage in clinical trials or studies and are subject to additional regulatory requirements, including those relating to human subject protection, good clinical

practices and data privacy. Any actual or perceived failure to meet such requirements may result in regulatory authorities taking action against us or our customers, and we may face claims, or be held liable or otherwise subject to unfavorable scrutiny for harm caused to human subjects.

We derive limited revenue from government customers and our government contracts may contain additional requirements that may increase our costs of doing business, subject us to additional government scrutiny and expose us to liability for failure to comply with contractual requirements. In our Nordion business, our processing and sale of medical-grade Co-60 used for radiation therapy involves an inherent risk of exposure to product liability claims, product recalls and product seizures. In addition, our installation of irradiators for our customers could expose us to design defect product liability claims, whether or not such claims are valid. A product liability judgment against us could also result in substantial and unexpected costs, affect customer confidence in our products, damage our reputation and divert management's attention from other responsibilities.

Although we maintain product and professional liability insurance coverage in amounts we believe are customary, there can be no assurance that this level of coverage is adequate or that we will be able to continue to maintain our existing insurance or obtain comparable insurance at a reasonable cost, if at all. In addition, insurance coverage is subject to exclusions, which change from time to time based on industry developments. Our product and professional liability insurance does not cover matters related to EO emissions, for example. A product recall or seizure or a partially or completely uninsured judgment against us could have a material adverse effect on our business, prospects, financial condition or results of operations.

We are subject to extensive regulatory requirements and routine regulatory audits in our operations. We must receive permits, licenses and/or regulatory clearance or approval for our operations. Compliance with these regulations is costly, and failure to comply with all laws and regulations or to receive or maintain permits, licenses, clearances or approvals may hurt our revenues, profitability, financial condition or value. We face liability and reputational risks even if we comply with all laws and regulations.

Our industry is characterized by evolving regulations, and our operations are subject to extensive regulation in the United States and other countries where we do business. We are regulated by national and local agencies with jurisdiction over a number of areas directly or indirectly related to our businesses, including environmental, nuclear safety, homeland or national security, worker safety and health, food, drug and device manufacturing, fire protection, research, and marketing, transportation, drug enforcement (governing the handling of controlled substances), protection against infectious diseases and pathogens and agriculture, fish and wildlife. These laws and regulations regulate our use of potentially hazardous materials, such as EO, Co-60 and E-beam, and can require us to carefully manage, control emissions of and/or limit human exposure to, these materials. For example, OSHA regulations and similar laws in other jurisdictions limit worker exposure to EO. In addition, FDA regulations dictate the acceptable amount of EO residue on different types of sterilized products. In most jurisdictions, we are required to maintain and operate pollution control equipment to minimize emissions and releases of EO. Regulations issued by OSHA, the NRC and other agencies also require that equipment used at our facilities be designed and operated in a manner that is safe. In the United States, the use of EO for medical device sterilization is regulated by the US EPA under the CAA and FIFRA. Our supplier maintains a FIFRA registration for the EO they sell in the United States that is used to sterilize or reduce the viable microorganisms on a listed group of products, including medical devices, pharmaceutical products, cosmetics and spice products. The US EPA is in the process of reviewing EO's FIFRA re-registration eligibility in accordance with the provisions of FIFRA. In November 2020, the US EPA released a draft risk assessment for public comment regarding the re-registration review, stating that additional mitigation measures are necessary to protect the health of workers at facilities that use EO and surrounding communities. The next step in the FIFRA re-registration process will be to issue an addendum to this risk assessment and a proposed interim decision, which we expect will propose risk mitigation requirements to address any potential risks of concern. As a condition of continued registration, the US EPA is likely to require enhancements to the processes and equipment for use of EO used for the listed applications. Conditions required for continued use may impose on us significant additional costs. Any future failure of the US EPA to allow the FIFRA re-registration of EO would have a material adverse effect on our business, prospects, financial condition or results of operations.

There have been ongoing regulatory developments at US EPA relating to EO emissions, which could trigger additional community concerns and litigation regarding EO that could cause us to incur material defense costs, could result in diversion of management resources, and potentially could cause us to incur material liability or settlement costs or have other adverse effects on our business, financial condition, or operations. For example, in 2021 the US EPA Office of the Inspector General ("OIG") published multiple reports critical of the US EPA's communications about risks related to EO facilities, including Sterigenics former and current facilities in Willowbrook and elsewhere, and suggesting that the US EPA should conduct a new residual risk and technology review for EO emitting industrial source categories, which may lead to additional regulatory restrictions and oversight. In addition, in December 2021, the US EPA expanded the scope of reporting requirements to require most EO sterilization facilities in the U.S., including Sterigenics facilities, to report their EO emissions to a US EPA database, starting in

2022, a practice Sterigenics previously followed until 2017. Since the second half of 2022, the US EPA has been conducting community outreach sessions for commercial EO sterilization facilities. Such community outreach sessions have in the past, and may in the future, create community concerns and increased risk of litigation near commercial EO sterilization facilities, including ours, notwithstanding facility compliance with applicable rules and control of emissions beyond the requirements of applicable rules.

In December 2022, the US EPA adopted updated National Emission Standards for Hazardous Air Pollutants ("NESHAP") regulations for EO emissions at miscellaneous organic chemical manufacturing facilities, including EO manufacturers. While the December 2022 NESHAP does not regulate our facilities, it adopted the 2016 IRIS Assessment to regulate EO emissions from facilities subject to the December 2022 NESHAP. The US EPA is expected in a subsequent rulemaking in 2023 to propose new NESHAP regulations based on the 2016 IRIS Assessment for commercial EO sterilization facilities, with which sterilization facilities like ours will be required to comply. The European Union and the State of California are also reviewing their current regulations for the use of EO in EO sterilization facilities, which is expected to result in additional compliance obligations for our facilities located in those areas. We expect to incur capital costs for enhancements to our equipment and to implement process automation and emission control enhancements to comply with these and other changing requirements. If future regulations differ from our current expectation, they may require additional modifications and capital costs beyond what we have budgeted for, which could be material. New US EPA standards based on the 2016 IRIS Assessment for commercial EO sterilization may also make it more difficult and expensive to raise capital for future investments in EO sterilization facilities.

In the United States, our gamma irradiation facilities are heavily regulated, including by the NRC and state regulations. These laws and regulations specify the requirements for, among other things, maximum radiation doses, system designs, safety features and alarms and employee monitoring, testing and reporting. While some specific requirements are different in the various jurisdictions other than the United States, the fundamental concepts are consistent, since all are signatories to the International Atomic Energy Agency ("IAEA") conventions and have adopted safety standards from the IAEA and recommendations from the International Commission on Radiological Protection. The design, construction and operation of sterilization and lab testing facilities are highly regulated and require government licenses, including environmental approvals and permits, and may be subject to the imposition of related conditions that vary by jurisdiction. In some cases, these approvals and permits entail periodic review. We cannot predict whether all licenses required for a new facility will be granted or whether the conditions associated with such licenses will be achievable. Changes in these laws and regulations have the potential to increase our costs.

Additionally, our operations in the United States and the majority of our facilities outside the United States (to the extent we are processing a product in that facility that will end up in the U.S. market) are regulated by the FDA. We are also regulated by other health regulatory authorities in other countries. Specifically, these operations include some of our sterilization and product testing activities that may constitute "manufacturing" activities and are subject to FDA requirements. The FDA may issue Form 483 findings or warning letters or take other administrative or enforcement actions for noncompliance with FDA laws and regulations and the issues raised by such warning letters require significant resources and time to correct. Failure to comply with regulatory requirements could have a material adverse effect on our business.

To the extent Nordion in the future ceases to operate its facility in Kanata, Canada, Nordion will be responsible for the radiological decommissioning of such facility, including in respect of the portion leased by BWX Technologies, Inc. ("BWXT") in connection with its 2018 acquisition of the Medical Isotopes business to the extent any contamination precedes such transaction. In addition, if Sterigenics in the future ceases to operate any of its irradiation facilities, it will be responsible for decommissioning costs in respect of such facilities. We currently provide financial assurance for approximately $54 million of such decommissioning liabilities in the aggregate in the form of letters of credit, surety bonds or other surety. Such potential decommissioning liabilities may be greater than currently estimated if additional irradiation facilities are licensed, unexpected radioactive contamination of those facilities occur, regulatory requirements change, waste volume increases, or decommissioning cost factors such as waste disposal costs increase.

See Item 1, "Business—Governmental Regulation and Environmental Matters" for more information on the regulatory requirements of our businesses. Compliance with these regulations, as well as our own voluntary programs that relate to maintaining the safety of our employees and facilities as well as the environment, and the safety and competitiveness of our equipment, systems and facilities, may be difficult, burdensome or expensive. Any changes in these regulations, the interpretation of such regulations or our customers' perception of such changes will require us to make adaptations that may subject us to additional costs, and ultimate costs and the timing of such costs may be difficult to accurately predict and could be material. Regulatory agencies may refuse to grant approval or clearance or may require the provision of additional data, and regulatory processes may be time consuming and costly, and their outcome may be uncertain in certain of the countries in

which we operate. Failure to secure renewal of permits or tightening of restrictions within our existing permits could have a material adverse effect on our business or cause us to incur material expenses. Regulatory agencies may also change policies, adopt additional regulations or revise existing regulations, each of which could impact our ability to provide our services or increase our costs. Additionally, local regulatory authorities may change the way in which they interpret and apply local regulations in response to negative public pressure about our facilities. For example, officials stopped operations at one of our facilities purportedly to review our fire and building code status and certificate of occupancy and we were required to initiate and prevail in litigation to establish that we were entitled to continue to operate our facility.

Our failure to comply with the regulatory requirements of these agencies and officials may subject us to administratively or judicially imposed sanctions. These sanctions include, among others, warning letters, notices of violation, fines, civil penalties, criminal penalties, injunctions, debarment, product seizure or detention and total or partial suspension of operations, sale and/or promotion. While we strive to comply with these regulatory requirements, we have not always been and may not always be in compliance and, as a result, can be subject to significant civil and criminal fines and penalties, including the shutdown of our operations or the suspension of our licenses, permits or registrations. See Item 3, Legal Proceedings and Note 20, "Commitments and Contingencies" to our consolidated financial statements and related Risk Factor "—Potential health risks associated with the use of EO may subject us to future liability claims and other adverse effects." The failure to receive or maintain, or delays in the receipt of, relevant U.S. or international regulatory qualifications could have a material adverse effect on our business, prospects, financial condition or results of operations.

Safety risks associated with the transportation of potentially hazardous materials, such as EO and Co-60, may result in accidents or liabilities that materially affect our results of operations.

Our products, supplies and by-products are transported through a combination of ground, sea and air transport. Co-60 and EO are radioactive and potentially combustible, respectively, and must be handled carefully and in accordance with applicable laws and regulations. An incident in the transportation of our raw materials, products and by-products or our failure to comply with laws and regulations applicable to the transfer of such products could lead to injuries or significant property damage, regulatory repercussions or could make it difficult to fulfill our obligations to our customers, any of which could have a material adverse effect on our business, prospects, financial condition or results of operations.

Our EO and Co-60 raw materials are potentially hazardous and we are therefore subject to stringent requirements to secure these materials from theft or other unauthorized uses. If our failure to adequately secure these materials leads to their being stolen or materially damaged, our licenses to operate could be suspended resulting in a material adverse effect to our business, prospects, financial condition or results of operations. Any such incident could also have legal consequences, such as fines and penalties for violations of regulatory requirements and/or lawsuits for personal injuries, property damage or diminution or other claims that could result in substantial liability to us. Additionally, loss of control of Co-60 sources by a customer could result in contamination and significant public health consequences.

Industry trends could impact the demand for our products and services and could have a material adverse effect on our business.

Industry trends that affect medical device, pharmaceutical or biotechnology companies could affect our business. The medical device industry is characterized by frequent product development and technological advances, which may reduce demand for our sterilizing and testing services if our existing services no longer meet our customers' requirements. Any significant decrease in life science research and development expenditures by medical device, pharmaceutical and biotechnology companies, including as a result of a general economic slowdown, could in turn impact the volumes of medical products that require sterilization or lab testing services. Future demand for Co-60 or our sterilization services could also be adversely impacted by changes to preferred sterilization modalities. Our ability to adapt our business to meet evolving customer needs depends upon the development and successful commercialization of new services, new or improved technologies and additional applications of our technology for our customers' new products. We can give no assurance that any such new services will be successful or that they will be accepted in the marketplace. Any failure to develop or commercialize new services and technologies and any decrease in demand for our products or services could have a material adverse effect on our business, prospects, financial condition or results of operations.

If changes in healthcare regulations or other developments in the healthcare industry, including concerns around single-use medical devices or the impact of the COVID-19 pandemic, were to lead to a material reduction in medical procedures or use of medical devices, demand for our services could be adversely affected. For example, during the pandemic, there has been an increase in deferred elective procedures, which negatively impacts demand for some of our products and services as a result of a decrease in the need for sterilized single-use medical devices used in these procedures. For more information, see Risk Factor

"— Severe health events, such as the ongoing COVID-19 pandemic, or environmental events, including impacts from climate change, and natural disasters, could have adverse effects on our business, financial condition and results of operations, which could be material." Demand for our products and services may also be affected by changes from time to time in the laws and regulations that govern our operations and industry, including the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act, which in turn may impact industry trends. New regulatory requirements could lead to changes in the medical device industry and the behavior of our customers that are difficult to predict but could have a material adverse effect on our business, prospects, financial condition or results of operations. Further, if any significant disposal restrictions or requirements are imposed that materially increase the cost or administrative burden of the disposal process for single-use medical devices, hospitals and other end-users of such devices might decrease their use of such devices in favor of reusable medical products, which would decrease the demand for our services, which could in turn have a material adverse effect on our business, prospects, financial condition or results of operations.

Our business is highly competitive, and if we fail to compete successfully, our business, prospects, financial condition or results of operations may be adversely affected.

We face competition from other providers of outsourced sterilization and lab services. In addition, some manufacturers have or are developing in-house sterilization and lab testing and related capabilities, and further consolidation within our industry and within our customers' industries could impact our ability to compete. Further, our competitors and potential competitors are attempting to develop alternate technologies, in particular improved x-ray sterilization technology, which would not be reliant on the availability of Co-60. If any of our competitors or manufacturers significantly expand their sterilization or lab testing facility capacity, including as a result of these alternative technologies, it could lead to price fluctuations and competitive pricing pressure, diminish our profitability or lead to changes in our customer relationships across our business segments. We generally compete on the basis of quality, reputation, the cost of sterilization services, the cost of transportation to and from the sterilization facility and processing turnaround time. If our services, supply, support, distribution or cost structure do not enable us to compete successfully, including against alternative technologies, or we are unable to successfully develop and adopt alternative technologies ourselves, our business, prospects, financial condition or results of operations could be materially adversely affected. The expansion of alternative sterilization technologies may require us to build new facilities, which can be time-consuming and costly.

If Co-60 source suppliers in other countries, including China, India, Argentina or Russia, significantly increase their involvement in the global Co-60 sources market, long-term that could have a material adverse effect on our business, prospects, financial condition or results of operations. Several customers of our Nordion business are themselves providers of sterilization services and therefore are competitors of our Sterigenics business. If these customers were to shift to a different source for their supply of Co-60 sources, because they prefer to use a supplier not affiliated with us or for any other reason, it could materially adversely affect our business, prospects, financial condition or results of operations. Further, if a Nordion customer were to lose market share to a competitor using an alternative sterilization provider, we would similarly lose sales volumes, which may have a material adverse effect on our business, prospects, financial condition or results of operations.

Additionally, Nelson Labs faces a wide variety of competitors, including small, specialized niche players, large, broad multinational corporations and internal laboratories that can perform the services that we provide. Shifts in the market that diminish our customers' preference for outsourcing their testing and large, well-funded competitors entering more directly into the specialized lab services that we provide may adversely affect our business.

Certain of our long-term contracts include variable price clauses and are subject to market changes, which could have a material adverse effect on our business.

Our aggregate direct input costs, including labor, raw materials and energy represents a significant portion of our cost of revenues. We have experienced and may continue to experience, volatility and increases in the price of certain of these costs as a result of global market and supply chain disruptions and the broader inflationary environment. For more information, see Risk Factor "—Inflationary trends in the price of our input costs, such as labor, raw materials and energy, could adversely affect our business and financial results." The prices of the direct materials we utilize vary with market conditions and may be highly volatile. Additionally, the cost of energy for some of our facilities is regulated, and we are required to work with the local utility provider, which prevents us from contracting for a lower rate or seeking an alternate supplier. Although we have attempted, and will continue to attempt, to match increases in the prices of direct materials or energy with corresponding increases in prices for our products and services, our ability to pass through increases in our input costs is highly dependent upon market conditions and we may not be able to immediately raise such prices, if at all. Most of our customer contracts for sterilization services allow us to pass through our direct material costs, but we may not be able to immediately or completely implement increases in the prices of our products and services. Specifically, there is a risk that raising prices charged to our customers could result in a loss

of sales volume. Reactions by our customers and competitors to our price increases could cause us to reevaluate and possibly reverse or reduce such price increases. Any increase in the price of labor, raw materials, or energy could have a material adverse effect on our business, prospects, financial condition or results of operations.

Our operations are subject to a variety of business continuity hazards and risks, including supply chain disruptions related to the COVID-19 pandemic, and our reliance on the use and sale of products and services from single locations, any of which could interrupt production or operations or otherwise adversely affect our performance, results or value.

Our operations and our supplier and customers' operations are subject to business continuity hazards and risks that include explosions, fires, earthquakes, inclement weather and other natural disasters; utility, equipment or other mechanical failures; unscheduled downtime; labor difficulties; disruption of communications; security breach or other workplace violence events; changes in regulations, including sanctions, export and import controls and other trade restrictions; changes in the use of government-owned reactors, including repurposing nuclear facilities; other governmental action; and pandemics or other public health crises.

It can be costly to ship products long distances for the purpose of sterilization; therefore, our ability to offer a full range of sterilization services close to our customers' manufacturing and distribution centers worldwide is critical for our business. An adverse occurrence at one of our facilities or the facilities of a supplier or customer could damage our business. While other facilities in our network may have the capacity to service our customers that had been served by an affected facility, we may not be able to transfer all interrupted services. The stringent regulations and requirements to which we are subject regarding the manufacture of our products and provision of services and the complexities involved with processing Co-60 may prevent or delay us from establishing additional or replacement sources for our production facilities. Any event, including those listed above, that results in a prolonged business disruption or shutdown to one or more of our facilities, or the facilities of a supplier or customer, could create conditions that prevent, or significantly and adversely affect, our receiving, processing, manufacturing or shipping products at existing levels, or at all. Such events could adversely affect our sales, increase our expenses, create potential liabilities and/or damage our reputation, any of which could have a material adverse effect on our business, prospects, financial condition or results of operations.

Supply chain disruptions, such as the ones related to the COVID-19 pandemic or a natural disaster, may impair or delay our ability to obtain sufficient quantities of certain materials through our ordinary supply channels and cause us to incur higher costs by procuring raw materials from other sources in order to compensate for such delays or lack of availability. Supply chain disruptions such as these may impair or delay our customers' ability to provide us work or products for processing or affect the availability, quality and pricing of materials used in the operation of our business or our customers' businesses. If we are not able to successfully mitigate such supply chain related risks, we could experience disruptions in production or increased costs, which may result in decrease in our gross margin or reduced sales, and have a material adverse effect on our business, results of operations and financial condition.

Governmental action may disrupt the operations of our facilities that process potentially hazardous materials. For example, in October 2019, county officials precluded operations at our Atlanta facility until a new certificate of occupancy was obtained after a third-party code-compliance review. Our Atlanta facility resumed operations under an April 2020 Temporary Restraining Order prohibiting county officials from interfering with normal operations and the Court ultimately ruled that the code provisions relied on by county officials did not provide legal authority to require a new certificate of occupancy in October 2019, but the Court's ruling may not prevent county officials from seeking to disrupt operations on a different basis in the future. In addition, in June 2021, the court in a lawsuit related to our facility in Santa Teresa, New Mexico, entered an Order Granting Preliminary Injunction prohibiting Sterigenics from allowing any uncontrolled emission or release of EO from that facility. In December 2021, the court further ordered certain protocols to monitor Sterigenics' compliance with that preliminary injunction. Although operations at the Santa Teresa facility comply with these orders, operations there may be negatively impacted if it is unable to comply in the future. The occurrence of any of these or other events might disrupt or shut down operations or otherwise adversely impact the production or profitability of a particular facility or our operations as a whole.

We obtain Co-60 from a limited number of suppliers. If any of the facilities or reactors from which we obtain Co-60 were to be seriously damaged or have their production materially decrease due to a natural disaster or other adverse occurrence, or if we become unable to transact with one of our suppliers of Co-60 due to expanded sanctions, our access to Co-60 would be materially affected and we may be unable to meet all the needs of our customers. See related Risk Factor "—We depend on a limited number of counterparties to provide the materials and resources we need to operate our business."

While we maintain insurance policies covering, among other things, physical damage, premises liability, business interruptions and liability resulting from our services in amounts that we believe are customary for our industries, our insurance coverage may be inadequate or unavailable and we could incur uninsured losses and liabilities arising from such events.

Inflationary trends in the price of our input costs, such as labor, raw materials and energy, could adversely affect our business and financial results.

We have experienced and may continue to experience, volatility and increases in the price of certain input costs, such as labor, raw materials and energy costs, as a result of global market and supply chain disruptions and the broader inflationary environment.

If we are unable to increase the prices to our customers of our products or services to offset inflationary cost trends, or if we are unable to achieve cost savings to offset such cost increases, our profits and operating results could be adversely affected. For more information, see Risk Factor "—Certain of our long-term contracts include variable price clauses and are subject to market changes, which could have a material adverse effect on our business." Our ability to price our services and products competitively to timely reflect higher input costs is critical to maintain and grow our sales. Increases in prices of our services and products to customers may lead to declines in sales volumes. Further, we may not be able to accurately predict the volume impact of price increases, especially if our competitors are able to more successfully adjust to such input cost volatility. Increasing our prices to our customers could result in long-term sales declines or loss of market share if our customers find alternative suppliers or choose to reformulate to rely less on our services or products, which could have an adverse long-term impact on our results of operations.

We may be adversely affected by global and regional economic and political instability.

We may be adversely affected by global and regional economic and political conditions. The uncertainty or deterioration of the global economic and political environment could adversely affect us. Russia's invasion of Ukraine has significantly elevated global geopolitical tensions and has caused and continues to cause instability and volatility in global markets. The United States, Canada, the United Kingdom and European Union have implemented broad sanctions targeting Russia, which have the potential to disrupt our supply of Co-60 from Russia. Any such disruption could have a material adverse effect on our business, prospects, financial condition or results of operations. See related Risk Factor "—We depend on a limited number of counterparties to provide the materials and resources we need to operate our business. Any disruption in the availability of, or increases in the price of, EO, Co-60 or our other direct materials, services and supplies, including as a result of current geopolitical instability arising from U.S., Canadian, U.K, and European Union relations with Russia, may have a material adverse effect on our operating results."

The potential worsening of macro-economic conditions, including slower growth or recession, the inflationary environment, tighter credit, higher interest rates and currency fluctuations, may cause customers to modify, delay or cancel plans to purchase our products and services and suppliers may significantly and rapidly increase their prices or reduce their output because of cash flow problems. Any inability of current or potential customers to purchase or pay for our products due to, such declining economic conditions or changes in spending patterns at medical device, pharmaceutical and biotechnology companies may have a negative impact on our business, prospects, financial condition or results of operations. Overall demand for our products could be reduced as a result of a global economic recession or political unrest, especially in such areas as the medical device, pharmaceutical, food safety and other end markets that we serve.

If we are unable to increase capacity at existing facilities and build new facilities in a timely and cost-effective manner, we may not achieve our expected revenue growth or profitability or such revenue growth and profitability, if any, could be delayed.

Our growth strategy depends on expanding capacity in Europe, the Americas and Asia, which includes building new facilities and maintaining and expanding existing facilities. The construction or expansion of modern and safe sterilization facilities requires significant expenditures. Delay in the review and licensing process for a new facility could impair or delay our ability to develop that facility or increase the cost so substantially that the facility becomes unattractive to us. Any failure to procure and maintain the necessary licenses and equipment would adversely affect ongoing development, construction and continuing operation of our facilities. Additionally, even when we maintain the necessary licenses and equipment and are in compliance with applicable regulations, we may be unable to maintain or expand our operations at existing facilities, or otherwise execute on our growth strategy, due to negative publicity or community resistance. Suspensions and closures of our facilities have in the past and may continue to impact our results of operations, and the effects could be material. Those new facilities that are constructed and begin operations may not meet our return expectations due to schedule delays, diversion of management's

attention, cost overruns or revenue shortfalls, or they may not generate the capacity that we anticipate or result in the receipt of revenue in the originally anticipated time period or at all. We may not maintain revenue growth or profitability, or such growth, if any, could be delayed if we are not successful in continuing to expand capacity. Additionally, if future demand trends warrant capacity in geographic areas that we have not targeted for new growth, we may be unable to capitalize on opportunities in a timely manner.

We depend upon our ability to attract and retain highly skilled employees. If we fail to attract and retain the talent required for our business, our operations could be adversely affected and our business could be materially harmed.

We depend to a significant degree on our ability to hire and retain highly qualified personnel with expertise in our industries. The market for qualified employees in the industries in which we operate is competitive and our ability to operate, compete and grow our business depends on our ability to hire and retain qualified personnel in all areas of our organization. If our recruiting efforts are less successful, or if we cannot retain our key personnel, performance of our operations may suffer and we may be delayed or prevented from achieving our business objectives. If we are unable to attract and retain highly skilled employees, our inability to do so could have a material adverse effect on our business, prospects, financial condition or results of operations.

We occupy many of our facilities under long-term leases, and we may be unable to renew our leases at the end of their terms.

Many of our facilities are located on leased premises. These leases vary in length up through 2042, most with options to renew for specified periods of time. All sterilization facility leases expiring in the next five years have extension options in place. We expect to renew or buyout such leases as they come due. At the end of the lease term and any renewal period for a facility, we may be unable to renew the lease without substantial additional cost, if at all. For example, in September 2019, we were unable to reach an agreement to renew the lease on our EO processing facility in Willowbrook, following community pressure resulting from negative publicity surrounding our Willowbrook facility. If we are unable to renew our facility leases, we may be required to relocate or close a facility. Relocating a facility involves significant expense in connection with the movement and installation of specialized equipment and any necessary recertification or licensing with regulatory authorities. Closing a facility, even briefly to relocate, would reduce the sales that such facility would have contributed to our revenues and could negatively impact our customer relations. Any such relocation or closure could have a material adverse effect on our business, prospects, financial condition or results of operations.

We conduct sales and distribution operations on a worldwide basis and are subject to a variety of risks associated with doing business outside the United States.

We maintain significant international operations, including operations in China, Brazil, Canada, Mexico, Costa Rica and other countries in Europe and Asia. As a result, we are subject to a number of risks and complications associated with international sales, services and other operations, as well as risks associated with U.S. foreign policy. These include:

- difficulties associated with compliance with numerous, potentially conflicting and frequently complex and changing laws in multiple jurisdictions, e.g., with respect to environmental matters, intellectual property, privacy and data protection, corrupt practices, embargoes, trade sanctions, competition, employment and licensing;
- general economic, social and political conditions in countries where we operate, including international and U.S. trade and sanctions policies and currency exchange rate fluctuations;
- tax and other laws that restrict our ability to use tax credits, offset gains or repatriate funds;
- currency restrictions, transfer pricing regulations and adverse tax consequences, which may affect our ability to transfer capital and profits;
- inflation, deflation and stagflation in any country in which we have a manufacturing facility;
- foreign customers with longer payment cycles than customers in the United States; and
- imposition of or increases in customs duties and other tariffs.

We operate in a number of countries throughout the world, including in countries that do not have as strong a commitment to anti-corruption and ethical behavior that is required by U.S. laws or by our corporate policies. Based on the nature of our products, our business activities involve potential interaction with government agencies, public officials or state-owned enterprises. We are subject to the risk that we, our U.S. employees or our employees located in other jurisdictions or any third party that we engage to do work on our behalf may take action determined to be in violation of anti-corruption laws in any jurisdiction in which we conduct business. The U.S. Foreign Corrupt Practices Act (the "FCPA") and the Canadian Corruption

of Foreign Public Officials Act (the "CFPOA") prohibit corruptly providing anything of value to foreign officials for the purposes of obtaining or retaining business or securing any improper business advantage. We may deal with both governments and government-owned business enterprises, the employees of which are considered foreign officials for purposes of the FCPA and other applicable anti-corruption laws. The provisions of the U.K. Bribery Act of 2010 (the "Bribery Act") extend beyond bribery of foreign public officials and are more onerous than the FCPA in a number of other respects. Any violation of the FCPA, the CFPOA, the Bribery Act or any similar anti-corruption law or regulation could result in substantial fines, sanctions or civil and/or criminal penalties, debarment from business dealings with certain governments or government agencies or restrictions on the marketing of our products in certain countries, which could harm our business, financial condition or results of operations. If these anti-corruption laws or our internal policies were to be violated, our reputation and operations could also be substantially harmed. Further, detecting, investigating and resolving actual or alleged violations is expensive and can consume significant time and attention of our senior management.

Compliance with multiple, and potentially conflicting, international laws and regulations, including anti-corruption laws and exchange controls may be difficult, burdensome or expensive. While our employees and agents are required to comply with these laws, our internal policies and procedures may not always prevent violations. Further, in connection with past and future acquisitions by us, there is a risk of successor liability relating to such laws in connection with prior actions or alleged actions of an acquired company. Such matters or allegations related to such matters could adversely affect our reputation and the burden and cost associated with defending or resolving such matters could adversely affect our business, prospects, financial condition or results of operations.

Further, as a result of our global operations, we generate a significant portion of our revenue and incur a significant portion of our expenses in currencies other than the U.S. dollar, including the euro, the Brazilian real, the British pound sterling, the Chinese yuan, the Thai baht, the Mexican peso, the Danish krone, the Costa Rica colon and the Canadian dollar. Our results of operations are impacted by currency exchange rate fluctuations to the extent that we are unable to match net revenues received in foreign currencies with expenses incurred in the same currency. For example, where we have significantly more expenses than net revenues generated in a foreign currency, our profit from operations in that location would be adversely affected in the event that the U.S. dollar depreciates against that foreign currency.

We are subject to significant regulatory oversight of our import and export operations due to the nature of some of our product offerings.

Our products and materials needed to make our products are subject to U.S. and Canadian laws and regulations that may limit, restrict or require a license to import or export (or re-export from other countries). We are also subject to the export and import laws of those other foreign jurisdictions in which we operate, sell our products into and from which we source our materials, including Co-60. In addition, if we introduce new products or would like to participate in new capital investment projects, we may need to obtain licenses or approvals from the United States, Canada and other governments to ship products to or share technology or intellectual property with third parties located in foreign countries. Because of increasing security controls and regulations regarding the shipment of materials including Co-60, it is likely that we may encounter additional regulations affecting the transportation, storage, sale and import/export of radioactive materials. Further, any delay or inability to obtain these permits and licenses could delay or prevent us from fulfilling our obligations to our customers or suppliers, which could harm our business, financial condition or results of operations.

Additionally, the U.S. Department of the Treasury's Office of Foreign Assets Control and other relevant agencies of the U.S. government administer certain laws and regulations that restrict U.S. persons and, in some instances, non-U.S. persons, from conducting activities, transacting business with or making investments in certain countries, or with governments, entities and individuals subject to U.S. economic sanctions. Our international operations subject us to these laws and regulations, which are complex, restrict our business dealings with certain countries, governments, entities and individuals and are constantly changing. Penalties for non-compliance with these complex laws and regulations can be significant and include substantial fines, sanctions or civil and/or criminal penalties and violations can result in adverse publicity, which could harm our business, financial condition or results of operations.

Severe health events, such as the ongoing COVID-19 pandemic, or environmental events, including impacts from climate change, and natural disasters, could have adverse effects on our business, financial condition and results of operations, which could be material.

The COVID-19 pandemic, including periodic spikes in infection rates globally, and related responses continue to present potential risks to our business. The COVID-19 pandemic continues to have effects on our business operations, including secondary and tertiary effects such as increased raw material prices, labor shortages, and supply chain disruptions. The extent of the impact of the COVID-19 pandemic on our business and financial performance will largely depend on future developments

and a range of external factors that are highly uncertain and cannot be accurately predicted, including the emergence of new variants and the duration and severity of any resurgence of COVID-19. Continued weak or worsening economic conditions could negatively impact consumer demand for our products and services. For example, during the COVID-19 pandemic, there has been an increase in deferred elective procedures, which negatively impacts demand for some of our products and services as a result of a decrease in the need for sterilized medical devices used in these procedures. As COVID-19 continues to evolve, or if similarly severe global health crises were to develop, the full extent of the impact and effects on our business, operations, liquidity, financial condition and results of operations are uncertain and could be material.

Severe environmental events, including impacts from climate change, could adversely affect our operating results and financial condition. Climate change has an adverse impact on global temperatures, weather and precipitation patterns, and increases the frequency and severity of significant weather events, such as flooding, hurricanes, wildfires, droughts and water scarcity. We have operations located in regions that have been, and may in the future be, exposed to extreme weather events and other natural disasters, including California, Florida, and Texas. A catastrophic earthquake, fire, flood, tsunami or other weather event, widespread power loss or telecommunications failure, war or other significant event could adversely affect our operations, particularly if such event were to destroy or disrupt any of our facilities. Any significant impact on our ability to conduct normal operations at our facilities could cause significant capacity constraints and, as a result, have a material adverse effect on our business, results of operations and financial condition.

Any severe health or environmental event may also affect our suppliers or customers, which could disrupt our access to raw materials and customer product processing and exacerbate supply-chain related risks. See related Risk Factor "—Our operations are subject to a variety of business continuity hazards and risks, including supply chain disruptions related to the COVID-19 pandemic and our reliance on the use and sale of products and services from single locations, any of which could interrupt production or operations or otherwise adversely affect our performance, results or value."

Our business may be subject to system interruptions, cyber security breaches and unauthorized data disclosures.

We increasingly rely upon technology systems and infrastructure. Our technology systems and infrastructure are potentially vulnerable to breakdowns or other interruptions by fire, power loss, system malfunction, unauthorized access and other events. Likewise, data privacy breaches by employees and others with both permitted and unauthorized access to our systems may pose a risk that sensitive data may be exposed to unauthorized persons or to the public, rendered inaccessible or permanently lost. The increasing use and evolution of technology creates additional opportunities for the unintentional dissemination or intentional destruction of confidential or proprietary information stored in our systems or portable media or storage devices. We could also experience a business interruption, information theft or reputational damage from industrial espionage attacks, ransomware, other malware or other cyber incidents or data breaches, which may compromise our system infrastructure or lead to data breaches, either internally or at our third-party providers or other business partners. Such incidents could compromise our trade secrets or other confidential information and result in such information being disclosed to third parties and becoming less valuable. Additionally, in response to the COVID-19 pandemic, many of our office employees continue to work remotely, which may increase the risk of cyber incidents or data breaches. Breaches in security, system interruptions and unauthorized disclosure of data, whether perceived or actual, could adversely affect our businesses, assets, revenues, brands and reputation and result in fines, litigation, regulatory proceedings and investigations, increased insurance premiums, remediation efforts, indemnification expenditures, lost revenues and other potential liabilities. We have taken steps to protect the security and integrity of the information we collect and have policies and procedures in place dealing with data privacy and security, but there can be no assurance that our efforts will prevent breakdowns, system failures, breaches in our systems or other cyber incidents or otherwise be fully effective. Any such breakdown, breach or incident could adversely affect our business, prospects, financial condition or results of operations, and our cyber insurance may not cover such risks or may be insufficient to compensate us for losses that may occur.

Part of our growth strategy is to pursue strategic transactions, including acquisitions, which subjects us to risks that could harm our business and we may not be able to find suitable acquisition targets or integrate strategic acquisitions successfully into our existing business.

As part of our strategy, we have in the past and may in the future seek to grow our business through acquisitions, and any such acquisition may be significant. Any future growth through acquisitions will depend in part upon the continued availability of suitable acquisition candidates at favorable prices and upon advantageous terms and conditions, which may not be available to us, as well as sufficient funds from our cash on hand, cash flow from operations, existing debt facilities and additional indebtedness to fund these acquisitions.

Not only is the identification of such suitable acquisition candidates difficult and competitive, but these transactions, including the acquisitions completed in recent years also involve numerous risks, including the diversion of management's attention and their ability to:

- successfully integrate acquired facilities, companies, products, systems or personnel into our existing business, especially with respect to businesses or operations that are outside of the United States;
- minimize any potential interruption to our ongoing business;
- successfully enter categories and markets in which we may have limited or no prior experience, and ensure compliance with the regulatory requirements for such categories and markets;
- achieve expected synergies and obtain the desired financial or strategic benefits;
- detect and address any financial or control deficiencies of the acquired company;
- retain key relationships with employees, customers, partners and suppliers of acquired companies as well as our own employees, customers, partners and suppliers; and
- maintain uniform compliance standards, controls, procedures and policies throughout acquired companies.

Companies, businesses or operations acquired or joint ventures created may not be profitable or may not achieve revenue and profitability levels that would justify the investments made. Recent and future acquisitions could also result in the incurrence of indebtedness, subject to the restrictions contained in the documents governing our then-existing indebtedness. See related Risk Factor "—Our significant leverage could adversely affect our ability to raise additional capital to fund our operations, limit our ability to react to changes in the economy or our industry, expose us to interest rate risk to the extent the interest rate on variable rate debt increases and prevent us from meeting our obligations under our existing and future indebtedness."

Recent and future acquisitions could also result in the assumption of contingent liabilities, material expenses related to certain intangible assets, increased operating expenses and compliance issues under international laws and regulations, including antitrust laws, anti-corruption laws, the FCPA and similar anti-bribery laws, which could adversely affect our business, prospects, financial condition or results of operations. In addition, to the extent that the economic benefits associated with any of our acquisitions diminish in the future, we may be required to record additional write-downs of goodwill, intangible assets or other assets associated with such acquisitions, which could adversely affect our business, prospects, financial condition or results of operations.

Certain of the acquisition agreements by which we have acquired companies require the former owners to indemnify us against certain liabilities related to the operation of the company before we acquired it. In most of these agreements, however, the liability of the former owners is limited, and certain former owners may be unable to meet their indemnification responsibilities. We cannot assure you that these indemnification provisions will protect us fully or at all, and as a result we may face unexpected liabilities that adversely affect our business, prospects, financial condition or results of operations. Our ability to realize the benefits we anticipate from our strategic transactions, including acquisition activities, anticipated cost savings and additional sales opportunities, will depend in large part upon whether we are able to integrate such businesses efficiently and effectively. If we are unable to successfully integrate the operations of acquired businesses into our business or on the timeline we expect, we may be unable to realize the sales growth, cost synergies and other anticipated benefits we expect to achieve as a result of such transactions and our business, prospects, financial condition or results of operations could be adversely affected.

Our internal controls over financial reporting may not be effective and our independent registered public accounting firm may not be able to certify as to their effectiveness, which could have a significant and adverse effect on our business and reputation.

Pursuant to the Sarbanes-Oxley Act, we furnished a report by our management on the effectiveness of our internal control over financial reporting as of December 31, 2022. This assessment is required to include disclosure of any material weaknesses identified by our management in our internal control over financial reporting. Our independent registered public accounting firm attested to the effectiveness of our internal controls as of December 31, 2022.

In future periods, if we identify a material weakness in connection with our ongoing assessment and we fail to remediate the identified material weakness within the prescribed period, we will be unable to assert that our internal control over financial reporting is effective. We cannot be assured that there will not be material weaknesses or significant deficiencies in our internal control over financial reporting in the future. Any failure to maintain internal control over financial reporting could severely inhibit our ability to accurately report our financial condition or results of operations. In addition, we may be required to incur costs in improving our internal control system and the hiring of additional personnel. If we are unable to conclude that our

internal control over financial reporting is effective, or if our independent registered public accounting firm determines we have a material weakness in our internal control over financial reporting, we could lose investor confidence in the accuracy and completeness of our financial reports, the market price of shares of our common stock could decline and we could be subject to sanctions or investigations by the Nasdaq, the SEC or other regulatory authorities. Failure to remedy any material weakness in our internal control over financial reporting, or to implement or maintain other effective control systems required of public companies, could also restrict our future access to the capital markets.

We rely on intellectual property rights to maintain our competitive position and third parties may claim that we infringe or misappropriate their intellectual property rights.

We rely on proprietary technology and are dependent on our ability to protect such technology. We rely primarily on trade secrets and non-disclosure and confidentiality arrangements to protect our intellectual property rights, including such rights as related to our Nelson Labs business and its lab testing services. The efforts we have taken to protect our intellectual property and proprietary technology may not be sufficient or effective. Third parties, including current or former employees, consultants, contractors, customers or partners, who have access to our confidential information (including our trade secrets and know-how), may unintentionally or willfully disclose our confidential information to others, and there can be no assurance that our trade secret rights and non-disclosure and confidentiality arrangements will provide meaningful protection of our proprietary technology. There can also be no assurance that others will not independently develop similar or superior technologies or duplicate any technology developed by us. Effective protection of intellectual property rights may not be available in every jurisdiction in which our products and services are made available, and monitoring unauthorized use and disclosures of our proprietary technology or confidential information can be difficult and expensive. Actions to enforce our intellectual property rights could lead to disputes with third parties, including our customers, and could impact our future ability to gain business. Furthermore, legal proceedings to protect or enforce our intellectual property rights could result in narrowing the scope of our intellectual property rights or substantial cost to us, and they may be time consuming and divert resources and the attention of management and key personnel, and the outcomes of such actions may be unpredictable.

Additionally, we cannot be certain that the conduct of our business does not and will not infringe or misappropriate intellectual property rights of others. From time to time, we may become subject to claims, allegations and legal proceedings, including by means of counterclaims, that we infringe or misappropriate intellectual property or other proprietary rights of third parties. Such legal proceedings involving intellectual property rights are highly uncertain, can involve complex legal and scientific questions and may divert resources and the attention of management and key personnel. Our failure to prevail against infringement or misappropriation claims brought against us could also result in judgments awarding substantial damages against us, including possible treble damages and attorneys' fees, and could result in reputational harm. Judgments that result in equitable or injunctive relief could cause us to delay or cease selling or providing certain products or services or otherwise harm our operations. We also may have to seek third party licenses to intellectual property, which may be unavailable, require payment of significant royalties or be available only at commercially unreasonable, unfavorable or otherwise unacceptable terms.

If we are unable to adequately protect, establish, maintain or enforce our intellectual property rights or if we are subject to any infringement or misappropriation claims, our business, prospects, financial condition or results of operations may be adversely affected.

We are subject to complex and rapidly evolving data privacy and security laws and regulations and any ineffective compliance efforts with such laws and regulations may adversely impact our business.

We must comply with laws and regulations of federal and state governments in multiple jurisdictions governing the collection, dissemination, retention, access, use, protection, security and disposal of personal data, which mostly consists of our employees' data. The interpretation and application of many existing or recently enacted privacy and data protection laws and regulations in the United States, the European Union and elsewhere are uncertain and fluid, and it is possible that such laws and regulations may be interpreted or applied in a manner that is inconsistent with our existing practices. Companies are under increased regulatory scrutiny relating to data privacy and security. Any actual or perceived breach of such laws or regulations may subject us to claims and may lead to administrative, civil or criminal liability, as well as reputational harm. Moreover, these laws are evolving and are generally becoming stricter. For example, activities conducted from our EU facilities or related to products and services that we may offer to EU users or customers are subject to the General Data Protection Regulation (Regulation (EU) 2016/679) ("GDPR"), which provides for enhanced data privacy obligations and fines of up to the higher of 4% of annual worldwide revenues or €20 million. The GDPR was transposed into United Kingdom domestic law following the United Kingdom's exit from the EU. This is known as the UK GDPR and it supplements the United Kingdom's Data Protection Act of 2018. The UK GDPR mirrors the compliance requirements and fine structure of the GDPR. Outside of the United States, United Kingdom and the European Union, many jurisdictions have adopted or are adopting new data privacy laws that impose

further onerous compliance requirements, such as data localization, which prohibit companies from storing outside the jurisdiction data relating to resident individuals. The proliferation of such laws may result in conflicting and contradictory requirements and there can be no assurance that the measures we have taken will be sufficient for compliance with such various laws and regulations. Complying with these various laws is an ongoing commitment and could cause us to incur substantial costs or require us to change our business practices in a manner adverse to our business. Privacy-related claims or lawsuits initiated by governmental bodies, employees, customers or third parties, whether meritorious or not, could adversely affect our businesses, assets, revenues, brands and reputation and result in fines, litigation, regulatory proceedings, regulatory investigations, increased insurance premiums, remediation efforts, indemnification expenditures, lost revenues and other potential liabilities. We take steps to comply with applicable data privacy and security laws, regulations and standards and applicable privacy policies, but there can be no assurance that our compliance efforts will be effective. Any such failure to comply could adversely affect our business, prospects, financial condition or results of operations.

We have a history of net losses and may not maintain profitability in the future.

We have a history of net operating losses, including a net loss attributable to Sotera Health Company of $233.6 million and $38.6 million for the years ended December 31, 2022 and 2020, respectively. Although we reported net income attributable to Sotera Health Company of $116.9 million for the year ended December 31, 2021, we may not be able to maintain profitability in future fiscal years. Our ability to maintain profitability depends on a number of factors, including the growth rate of the sterilization and lab services industries, the price of our products and services, the cost to provide our products and services and the competitiveness of our products and services. We may incur significant losses in the future for a number of reasons, including due to principal and interest expense related to our indebtedness and the other risks described herein, and we may encounter unforeseen expenses, difficulties, complications and delays and other unknown events. As a result, our operations may not maintain or increase profitability in the future.

We may incur impairment charges on our goodwill and other intangible assets with indefinite lives as well as other long-lived assets and intangible assets with definite lives, which could negatively impact our business, financial condition or results of operations.

We are subject to Accounting Standards Codification ("ASC") Topic 350, Intangibles—Goodwill and Other, which requires that goodwill and other intangible assets that have an indefinite useful life be evaluated at least annually for impairment. Goodwill and other intangible assets with indefinite lives must also be evaluated for impairment between the annual tests if an event or change in circumstance occurs that would more likely than not reduce the fair value of the asset below its carrying amount. We have substantial goodwill and other intangible assets. If in the future, we determine that there has been an impairment, our financial results for the relevant period would be reduced by the amount of the non-cash impairment charge, net of any income tax effects, which could have an adverse effect on our financial condition or results of operations.

Similarly, pursuant to ASC Topic 360—Property, Plant, and Equipment, long-lived assets, such as property, plant and equipment and intangible assets subject to amortization, must be reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset or asset group may not be recoverable. If in the future, we determine that there has been an impairment of long-lived assets or intangible assets subject to amortization, our financial results for the relevant period would be reduced by the amount of the non-cash impairment charge, net of any income tax effects, which could have an adverse effect on our financial condition or results of operations.

Unionization efforts and labor regulations in certain countries in which we operate could materially increase our costs or limit our flexibility.

Certain of our employees in non-U.S. markets are represented by works councils or labor unions and work under collective bargaining or similar agreements, some of which are subject to periodic renegotiation. Efforts have been made from time to time, including as recently as October 2021, to unionize portions of our workforce in the United States and we may experience similar efforts in the future. Unionization efforts, new collective bargaining agreements or work stoppages could materially increase our costs, reduce our net revenues or limit our flexibility. The collective bargaining agreements applicable to our employees in Brazil and Mexico expire annually. The collective bargaining agreement applicable to Nordion's Canadian employees located in Kanata expires on March 31, 2024. Failure to renew the agreements on similar terms could result in labor disruptions and/or increased labor costs, which could negatively affect our business and operations.

Other legal obligations in the markets where we conduct business require us to contribute amounts to retirement funds and pension plans and restrict our ability to dismiss employees. Future regulations or court interpretations established in the

countries in which we conduct our operations could increase our costs and materially adversely affect our business, financial condition or results of operations.

Our business is subject to a variety of laws involving the cannabis industry, many of which are unsettled and still developing and which could subject us to claims or otherwise harm our business.

We provide bioburden reduction irradiation services for the processing of cannabis, primarily in Canada and certain European countries. The commercial recreational cannabis industry is a relatively new industry in Canada and Canada's Cannabis Regulations have been in effect in its current form since only October 2018. Likewise, laws and regulations governing cannabis in European countries have evolved rapidly over recent years. In the United States, marijuana (all parts of the cannabis plant other than those parts that are exempt) is a Schedule I controlled substance under federal law. In other countries in which the cultivation and use of marijuana is legalized, most notably in Canada, our operations include irradiation services for recreational and medical marijuana. As laws in the United States, Canada, Europe and other jurisdictions evolve, our activities in these spaces may face additional regulations that may be costly or burdensome to be in compliance.

Government or private civil antitrust actions could harm our business, results of operations, financial condition and cash flows.

The antitrust laws prohibit, among other things, any joint conduct among competitors that would lessen competition in the marketplace. We believe that we are in compliance with the legal requirements imposed by the antitrust laws. However, a governmental or private civil action alleging the improper exchange of information, or unlawful participation in price maintenance or other unlawful or anticompetitive activity, even if unfounded, could be costly to defend and could harm our business, prospects, financial condition or results of operations.

We may have greater than anticipated tax liabilities, which could harm our business, revenue and financial results.

We operate in a number of tax jurisdictions globally, including in the United States at the federal, state and local levels, and in many other countries, and we therefore are subject to review and potential audit by tax authorities in these various jurisdictions. Significant judgment is required in determining our worldwide provision for income taxes and other tax liabilities, and tax authorities may disagree with tax positions we take and challenge our tax positions. Successful unilateral or multi-jurisdictional actions by various tax authorities, including in the context of our current or future corporate operating structure and third-party and intercompany arrangements, may increase our worldwide effective tax rate, result in additional taxes or other costs or have other material consequences, which could harm our business, revenue and financial results.

Our effective tax rate may also change from year to year or vary materially from our expectations based on changes or uncertainties in the mix of activities and income allocated or earned among various jurisdictions, changes in tax laws and the applicable tax rates in these jurisdictions (including future tax laws that may become material), tax treaties between countries, our eligibility for benefits under those tax treaties and the valuation of deferred tax assets and liabilities. Such changes could result in an increase in the effective tax rate applicable to all or a portion of our income, impose new limitations on deductions, credits or other tax benefits or make other changes that may adversely affect our business, cash flows or financial performance. For example, if we are unable to fully realize the benefit of interest expense incurred in future periods as a result of recent tax law changes (as discussed below), we may need to recognize a valuation allowance on any related deferred tax assets, which would impact our annual effective income tax rate.

On July 23, 2020, final regulations were published that exempt certain income subject to a high rate of foreign tax from inclusion under GILTI for tax years beginning after December 31, 2017.

In addition, The Inflation Reduction Act of 2022 was signed into law by President Biden on August 16, 2022, which makes significant changes to the U.S. tax law, including the introduction of a corporate alternative minimum tax of 15% of the "adjusted financial statement income" of certain domestic corporations, as well as a 1% excise tax on the fair market value of stock repurchases by certain domestic corporations, effective for tax years beginning in 2023. We currently do not expect the tax-related provision of the Inflation Reduction Act to have a material impact on our financial results.

The cumulative impact of these and other changes in tax law is uncertain and our business and financial condition could be adversely affected.

Risks Related to Our Indebtedness and Liquidity

Our significant leverage could adversely affect our ability to raise additional capital to fund our operations, limit our ability to react to changes in the economy or our industry, expose us to interest rate risk to the extent the interest rate on our variable rate debt increases and prevent us from meeting our obligations under our existing and future indebtedness.

As of December 31, 2022, our total indebtedness was approximately $1,963.6 million, all of which is indebtedness of Sotera Health Holdings, LLC ("SHH") that is guaranteed by the Company and certain of our other subsidiaries. We also had an additional $147.5 million of unutilized capacity under our Revolving Credit Facility (as defined herein) at that date (without giving effect to $66.0 million of letters of credit that were outstanding). On February 23, 2023, SHH entered into the First Lien Credit Agreement (the "2023 Credit Agreement"), which provides for, among other things, a new Term Loan B facility in an aggregate principal amount of $500.0 million and bears interest, at the Company's option, at a per annum rate equal to either (x) the Term Secured Overnight Financing Rate ("SOFR") (as defined in the 2023 Credit Agreement) plus an applicable margin of 3.75% or (y) an alternative base rate ("ABR") plus an applicable margin of 2.75%. The 2023 Credit Agreement is secured on a first priority basis on substantially all of our assets and is guaranteed by us and certain of our subsidiaries. Please refer to Note 10, "Long-Term Debt" and "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations - Liquidity and Capital Resources" for further information.

Our indebtedness is variable interest rate debt. Our estimated debt service obligations for the next 12 months, which are comprised of principal and interest payments, are $120.2 million, based on the London Interbank Offered Rate ("LIBOR") benchmark interest rate and the outstanding principal amount of indebtedness of $1,963.6 million, each as of December 31, 2022. Debt service obligations under the 2023 Credit Agreement will increase our total debt service obligations from and after February 23, 2023. For the year ended December 31, 2022, our cash flow used for debt service totaled $75.8 million, which was comprised solely of interest payments on our debt. There were no other principal payments due on our debt obligations for the year ended December 31, 2022.

Our high degree of leverage could have important consequences, including:

- making it more difficult for us to satisfy our obligations;
- increasing our vulnerability to general economic and industry conditions;
- requiring a substantial portion of cash flow from operations to be used to pay off principal and interest on our indebtedness, thereby reducing our ability to use our cash flow to fund our operations, capital expenditures and future business opportunities;
- exposing us to the risk of increased interest rates as our indebtedness is at variable interest rates;
- restricting us from making strategic acquisitions or causing us to make non-strategic divestitures;
- limiting our ability to obtain additional financing for working capital, capital expenditures, product development, debt service requirements, acquisitions, appellate litigation bonding expenses and general corporate or other purposes;
- limiting our ability to adjust to changing market conditions and placing us at a disadvantage compared to our competitors that are less highly leveraged; and
- causing us to pay higher rates if we need to refinance our indebtedness at a time when prevailing market interest rates are unfavorable.

We and our subsidiaries may obtain substantial additional indebtedness in the future, subject to the restrictions contained in SHH's senior secured credit facilities (the "Senior Secured Credit Facilities"). If new indebtedness is added to our current debt levels, the related risks that we now face could intensify.

Because we are exposed to interest rate risk through our variable-rate borrowings, we have entered into and may, in the future, enter into additional interest rate swaps that involve the exchange of floating for fixed rate interest payments in order to reduce interest rate volatility and interest rate cap agreements. However, we may not maintain interest rate swaps with respect to any of our variable rate indebtedness, and any swaps we enter into may not fully mitigate our interest rate risk. Further, current interest rates are relatively low. If interest rates increase, our debt service obligations on any variable rate indebtedness will increase even if the amount borrowed remains the same, and our earnings and cash flows, including cash available for servicing our indebtedness, will correspondingly decrease. Based on our indebtedness outstanding as of February 28, 2023 and the interest rate under our Term Loans that was in effect on February 28, 2023, a 1% increase in the LIBOR and Term SOFR benchmark interest rates would result in an increase of approximately $12.6 million in total annual interest expense under our outstanding debt obligations. Refer to Note 10, "Long-Term Debt" to our consolidated financial statements.

Our debt agreements contain restrictions that limit our flexibility in operating our business.

The Senior Secured Credit Facilities contain various covenants that limit our ability to engage in specified types of transactions. These covenants limit our ability and our restricted subsidiaries' ability to, among other things:

- incur additional indebtedness or issue certain shares of preferred stock;
- pay dividends on, repurchase or make distributions in respect of our capital stock or make other restricted payments;
- make certain investments and acquisitions;
- sell or transfer assets;
- grant liens on our assets;
- consolidate, merge, sell or otherwise dispose of all or substantially all of our assets; and
- enter into certain transactions with our affiliates.

In addition, under certain circumstances we are required to satisfy and maintain specified financial ratios and other financial condition tests under certain covenants in our Senior Secured Credit Facilities. See Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations - Liquidity and Capital Resources." Our ability to meet those financial ratios and tests can be affected by events beyond our control, including prevailing economic, financial market and industry conditions, and we cannot give assurance that we will be able to satisfy such ratios and tests when required.

A breach of any of these covenants could result in a default under each of our Senior Secured Credit Facilities. Upon the occurrence of an event of default, the lenders could elect to declare all amounts outstanding under the Senior Secured Credit Facilities immediately due and payable and terminate all commitments to extend further credit. If we were unable to repay those amounts, the lenders under the Senior Secured Credit Facilities could foreclose on the collateral granted to them to secure each such indebtedness. We have pledged substantially all of our assets as collateral under the Senior Secured Credit Facilities.

Our cash flows may not be sufficient to service our indebtedness, and if we are unable to satisfy our obligations under our indebtedness, we may be required to seek other financing alternatives, which may not be successful.

Our ability to make timely payments of principal and interest on our debt obligations, including our obligations under the Senior Secured Credit Facilities, depends on our ability to generate positive cash flows from operations, which is subject to general economic conditions, competitive pressures and certain financial, business and other factors beyond our control. If our cash flows and capital resources are insufficient to make these payments, we may be required to seek additional financing sources, reduce or delay capital expenditures, sell assets or operations or refinance our indebtedness. These actions could have a material adverse effect on our business, financial conditions and results of operations. In addition, we may not be able to take any of these actions, and even if successful, these actions may not permit us to meet our scheduled debt service obligations. Our ability to restructure or refinance our existing indebtedness will depend on, among other things, the condition of the capital markets and our financial condition at the time. We may not be able to restructure or refinance any of our indebtedness on commercially reasonable terms or at all. If we cannot make scheduled payments on our debt, we will be in default and the outstanding principal and interest on our debt could be declared to be due and payable, in which case we could be forced into bankruptcy or liquidation or required to substantially restructure or alter our business operations or debt obligations.

A lowering or withdrawal of the ratings assigned to our debt by rating agencies may increase our future borrowing costs and reduce our access to capital.

Any rating assigned to our debt by a rating agency could be lowered or withdrawn entirely if, in that rating agency's judgment, future circumstances relating to the basis of the rating, such as adverse changes to our ability to service our debt obligations or our general financial condition, so warrant. Any future lowering of our ratings likely would make it more difficult or more expensive for us to obtain additional debt financing. Additionally, we enter into various forms of hedging arrangements against currency, interest rates or commodity price fluctuations. Financial strength and credit ratings are also important to the availability and pricing of any hedging activities we decide to undertake, and a downgrade of our credit ratings may make it more costly for us to engage in these activities.

LIBOR and certain other interest "benchmarks" are subject to regulatory guidance and reform that will cause interest rates under our current or future debt agreements to perform differently than in the past or could cause other unanticipated consequences.

Because our Senior Secured Credit Facilities bear interest at variable interest rates, based on the LIBOR and certain other benchmarks, fluctuations in interest rates could have a material effect on our business. We currently utilize, and may in the future utilize, derivative financial instruments such as interest rate swaps or interest rate caps to hedge some of our exposure to interest rate fluctuations, but such instruments may not be effective in reducing our exposure to interest fluctuations, and we may discontinue utilizing them at any time. As a result, we may incur higher interest costs if interest rates increase. These higher interest costs could have a material adverse impact on our financial condition and the levels of cash we maintain for working capital.

In addition, LIBOR and certain other interest "benchmarks" are subject to regulatory guidance and reform that will cause interest rates under our current or future debt agreements to perform differently than in the past or cause other unanticipated consequences. In March 2021, the United Kingdom's Financial Conduct Authority (the "FCA"), which regulates LIBOR, confirmed that publication of all of the LIBOR settings for Euro, Sterling and Swiss Franc and some of the LIBOR settings for Japanese Yen and U.S. dollars would cease beginning January 2022 and the remainder of the LIBOR settings for U.S. dollars will cease in June 2023. To identify a successor rate for LIBOR, financial regulators in various countries, including the United States, the United Kingdom, the European Union and Switzerland, have formed working groups with the aim of recommending alternatives to LIBOR denominated in their local currencies. Some of the financial regulators have identified the SOFR as their preferred alternative rate for LIBOR.

SOFR is observed and backward-looking, which stands in contrast with LIBOR under the current methodology, which is an estimated forward-looking rate and relies, to some degree, on the expert judgment of submitting panel members. Given that SOFR is a secured rate backed by government securities, it will be a rate that does not take into account bank credit risk (as is the case with LIBOR). Although certain financial regulators have indicated their preference for SOFR as the preferred replacement rate for LIBOR, it is unclear if other benchmarks may emerge or if other rates will be adopted.

Even if the financial instruments transition to using SOFR or another alternative benchmark successfully, the new benchmarks are likely to differ from LIBOR, as the alternative benchmark rate will likely be calculated differently. Borrowings under our revolving credit and term loan facilities are at variable interest rates based on LIBOR. Although our Senior Secured Credit Facilities include mechanics to facilitate the adoption by us and our lenders of an alternative benchmark rate in place of LIBOR, no assurance can be made that such alternative rate will perform in a manner similar to LIBOR and may result in interest rates that are higher or lower than those that would have resulted had LIBOR remained in effect.

A change from LIBOR to SOFR or any of the other proposed alternative reference rates could result in interest obligations that are more than or that do not otherwise correlate over time with the payments that would have been made on this debt if U.S. dollar LIBOR had remained available in its prior form. Any of these proposals or consequences could have a material adverse effect on our financing costs. We have elected to apply the optional expedients for the assessment of hedge effectiveness to cash flow hedges affected by reference rate reform pursuant to Accounting Standards Codification ("ASC") Topic 848, Reference Rate Reform. When applying this guidance, the phaseout of LIBOR is not expected to adversely affect our assessment of hedge effectiveness or measurement of ineffectiveness for accounting purposes.

Sotera Health Holdings, LLC is a holding company, and therefore its ability to make any required payment on our credit agreements depends upon the ability of its subsidiaries to pay it dividends or to advance it funds.

SHH, the borrower under our Senior Secured Credit Facilities, has no direct operations and no significant assets other than the equity interests of its subsidiaries. Because it conducts its operations through its operating subsidiaries, SHH depends on those entities to generate the funds necessary to meet its financial obligations, including its required obligations under our Senior Secured Credit Facilities. The ability of our subsidiaries to make transfers and other distributions to SHH will be subject to, among other things, the terms of any debt instruments of such subsidiaries then in effect and applicable law. If transfers or other distributions from our subsidiaries to SHH were eliminated, delayed, reduced or otherwise impaired, our ability to make payments on the obligations under our credit agreements would be substantially impaired.

Risks Related to Ownership of Our Common Stock

The market and trading volume of our common stock may be volatile, and you could lose all or part of your investment.

The market price of our common stock may fluctuate or decline significantly in the future. Some of the factors that could negatively affect our share price or result in fluctuations in the price or trading volume of our common stock include those listed in the related Risk Factor "—Risks Related to the Company," "—Risks Related to Our Indebtedness and Liquidity" and the following, some of which are beyond our control:

- volatility or economic downturns in the markets in which we, our suppliers or our customers are located caused by pandemics, including the COVID-19 pandemic, and related policies and restrictions undertaken to contain the spread of such pandemics or potential pandemics;
- developments in our litigation matters and governmental investigations or additional significant lawsuits or governmental investigations relating to our services or facilities, including our susceptibility as a publicly-traded company to enforcement proceedings and civil litigation alleging that our disclosures have not complied with federal and state securities laws and regulations;
- regulatory or legal developments in the jurisdictions in which we operate;
- adverse publicity about us or the industries in which we participate;
- variations in our quarterly or annual results of operations, or in those of our competitors or of companies in the medical device and pharmaceutical industries;
- the financial projections we may provide to the public, any changes in these projections or our failure to meet these projections;
- sales of our common stock by us or our stockholders in the future or the perception that such sales may occur;
- publication of research reports about the industries in which we participate;
- changes in analysts' estimates, investors' perceptions, recommendations by securities analysts, our failure to achieve analysts' estimates or failure of analysts to maintain coverage of us;
- volatility in the trading prices and trading volumes of companies similar to us;
- changes in operating performance and stock market valuations of companies in our industry;
- changes in accounting principles, policies, guidance, interpretations or standards; and
- general market conditions and other factors unrelated to our operating performance or the operating performance of our competitors.

Certain broad market and industry factors may decrease the market price of our common stock, regardless of our actual operating performance. The stock market in general has from time to time experienced extreme price and volume fluctuations, including in recent months. In addition, in the past, following periods of volatility in the overall market and the market price of a company's securities, securities class action litigation has often been instituted against these companies, and a putative class action of this kind is currently pending against us. See Note 20, "Commitments and Contingencies" to our consolidated financial statements under the heading "Stockholder Lawsuit." Litigation, if instituted against us, could result in substantial costs and a diversion of our management's attention and resources.

The future issuance of additional common stock in connection with our incentive plans, acquisitions or otherwise will dilute all other stockholdings.

As of February 21, 2023, we had an aggregate of 886,109,800 shares of common stock that are not currently reserved for issuance under our 2020 Omnibus Incentive Plan ("2020 Plan"), as well as 3,613,901 treasury shares. We may issue all of these shares of common stock without any action or approval by our stockholders, subject to certain exceptions. We also intend to continue to evaluate acquisition opportunities and may issue common stock in connection with these acquisitions. Any common stock issued in connection with our incentive plans, acquisitions or otherwise would dilute the percentage ownership held by the investors who own our common stock.

Future offerings of debt or equity securities by us may adversely affect the market price of our common stock.

In the future, we may attempt to obtain financing or to further increase our capital resources by issuing additional shares of our common stock or offering debt or other equity securities. Future acquisitions could require substantial additional capital in

excess of cash from operations. We would expect to finance any future acquisitions through a combination of additional issuances of equity, corporate indebtedness, asset-backed acquisition financing and/or cash from operations.

Issuing additional shares of our common stock or other equity securities or securities convertible into equity may dilute the economic and voting rights of our existing stockholders or reduce the market price of our common stock or both. Upon liquidation, holders of such debt securities and preferred shares, if issued, and lenders with respect to other borrowings would receive a distribution of our available assets prior to the holders of our common stock. Debt securities convertible into equity could be subject to adjustments in the conversion ratio pursuant to which certain events may increase the number of equity securities issuable upon conversion. Preferred shares, if issued, could have a preference with respect to liquidating distributions or a preference with respect to dividend payments that could limit our ability to pay dividends to the holders of our common stock. Our decision to issue securities in any future offering will depend on market conditions and other factors beyond our control, which may adversely affect the amount, timing or nature of our future offerings. Thus, holders of our common stock bear the risk that our future offerings may reduce the market price of our common stock and dilute their stockholdings in us.

A sale of a substantial number of shares of our common stock, or the perception that such sales might occur, may cause the price of our common stock to decline.

Future sales of substantial amounts of our common stock in the public market, or the perception that such sales might occur, could cause the trading price of our common stock to decline. These sales, or the possibility that these sales may occur, also might make it more difficult for us to sell equity securities in the future at a time and at a price that we deem appropriate.

In connection with our initial public offering ("IPO"), we entered into a stockholders' agreement with certain holders of our common stock, including investment funds and entities affiliated with either Warburg Pincus or GTCR and members of our management team, which we refer to as the "Stockholders' Agreement." Under the Stockholders' Agreement, individual stockholders who were members of our management before the IPO, and other persons related to these individuals, are subject to contractual restrictions on transfer of shares of our common stock. Those restrictions apply to approximately 26,435,185 shares as of February 21, 2023, but may be waived at any time by a majority of the members of the leadership development and compensation committee of the board of directors.

Further, as of February 21, 2023, the Sponsors own approximately 62.2% of our outstanding common stock and have rights to require us to file registration statements covering their shares. The Sponsors and certain other stockholders could also require us to include their shares in registration statements that we may file for ourselves or our stockholders. Additionally, the Sponsors and our officers and directors may sell shares into the public markets in accordance with the requirements of Rule 144 under the Securities Act.

Any sales of securities by any of our stockholders described above could have a material adverse effect on the market price of our common stock.

In the future, we may also issue securities in connection with investments or acquisitions. In particular, the number of shares of our common stock issued in connection with an investment or acquisition could constitute a material portion of our then-outstanding shares of our common stock. Any such issuance of additional securities in the future may result in additional dilution to you or may adversely impact the price of our common stock.

Although we do not currently rely on the "controlled company" exemption, we are a "controlled company" within the meaning of the Nasdaq corporate governance standards and qualify for exemptions from certain corporate governance requirements.

Because the Sponsors own a majority of our outstanding common stock, we are presently a "controlled company" as that term is set forth in the Nasdaq corporate governance standards. Under these rules, a company of which more than 50% of the voting power is held by another person or group of persons acting together is a "controlled company" and may elect not to comply with certain corporate governance requirements, including:

- the requirement that a majority of our board of directors consist of independent directors;
- the requirement that our director nominations be made, or recommended to the full board of directors, by our independent directors or by a nominations committee that is comprised entirely of independent directors with a written charter addressing the committee's purpose and responsibilities;
- the requirement that our compensation committee be composed entirely of independent directors with a written charter addressing the committee's purpose and responsibilities; and

- the requirement that we conduct an annual performance evaluation of the nominating and corporate governance and compensation committees.

Although we presently qualify as a "controlled company," we are not currently relying on this exemption and intend to continue to comply fully with all corporate governance requirements for non-controlled companies under the Nasdaq corporate governance standards. However, if we were to elect at some point in the future to utilize some or all of these exemptions, our stockholders may not have the same protections afforded to stockholders of companies that are subject to all of the Nasdaq corporate governance requirements and investors' perceptions of our corporate governance could be adversely affected by the Sponsors' significant ownership interest.

If the ownership of our common stock continues to be highly concentrated, it may prevent minority stockholders from influencing significant corporate decisions and may result in conflicts of interest.

As of February 21, 2023, the Sponsors own approximately 62.2% of our outstanding common stock and retain the right to designate over a majority of our directors. As a result, the Sponsors own shares sufficient for the majority vote over all matters requiring a stockholder vote. Our Stockholders' Agreement contains agreements among the parties with respect to certain matters, including the election of directors; mergers, consolidations and acquisitions; the sale of all or substantially all of our assets and other decisions affecting our capital structure; the amendment of our amended and restated certificate of incorporation and our amended and restated bylaws; the termination of our chief executive officer or designation of a new chief executive officer; changes in the composition of committees of our board of directors; entry into or changes to certain compensation agreements; and the issuance of additional shares of our common stock. This concentration of ownership, together with the Sponsors' rights under our Stockholders' Agreement, may delay, deter or prevent acts that would be favored by our other stockholders. The interests of the Sponsors may not always coincide with our interests or the interests of our other stockholders. For example, because the Sponsors purchased their shares at prices substantially below the price at which shares were sold to the public in our IPO and have held their shares for a longer period, they may be more interested in selling our Company to an acquirer than other investors or may want us to pursue strategies that deviate from the interests of other stockholders. In addition, under the Stockholders' Agreement we have agreed, subject to certain exceptions, to indemnify the Sponsors, and various affiliated persons and indirect equity holders of the Sponsors from certain losses arising out of any threatened or actual litigation by reason of the fact that the indemnified persons is or was a holder of our common stock or of equity interests in Sotera Health Company. Public stockholders will not benefit from this indemnification provision.

This concentration of ownership, together with the Sponsors' rights under our Stockholders' Agreement, may also have the effect of delaying, preventing or deterring a change in control. As a result, the market price of our common stock could decline or stockholders might not receive a premium over the then-current market price of our common stock upon a change in control. In addition, this concentration of ownership, together with the Sponsors' rights under our Stockholders' Agreement, may adversely affect the trading price of our common stock because investors may perceive disadvantages in owning shares in a company with significant stockholders with correspondingly significant voting rights.

Certain of our stockholders have the right to engage or invest in the same or similar businesses as us.

The Sponsors have other investments and business activities in addition to their ownership of us. The Sponsors have the right, and have no duty to abstain from exercising such right, to engage or invest in the same or similar businesses as us, do business with any of our customers or suppliers or employ or otherwise engage any of our officers, directors or employees. If the Sponsors or any of their officers, directors or employees acquire knowledge of a potential transaction that could be a corporate opportunity, they have no duty, to the fullest extent permitted by law, to offer such corporate opportunity to us, our stockholders or our affiliates. This right could adversely impact our business, prospects, financial condition or results of operations if attractive business opportunities are procured by the Sponsors or another party for their own benefit rather than for ours.

In the event that any of our directors and officers who is also a director, officer or employee of any Sponsor acquires knowledge of a corporate opportunity or is offered a corporate opportunity, such person is deemed to have fully satisfied such person's fiduciary duties owed to us and is not liable to us, to the fullest extent permitted by law, if such Sponsor pursues or acquires the corporate opportunity or does not present the corporate opportunity to us, provided that this knowledge was not acquired solely in such person's capacity as our director or officer and such person acts in good faith.

Anti-takeover provisions in our amended and restated certificate of incorporation, amended and restated bylaws and our Stockholders' Agreement, as well as Delaware law, could discourage a change in control of our company or a change in our management.

Our amended and restated certificate of incorporation and amended and restated bylaws, our Stockholders' Agreement and Delaware law contain provisions that might discourage, delay or prevent a merger, acquisition, or other change in control that stockholders may consider favorable, including transactions in which our stockholders might otherwise receive a premium for shares of our common stock. These provisions may also prevent or frustrate attempts by our stockholders to replace or remove our management. These provisions include:

- limiting the liability of, and providing indemnification to, our directors and officers;
- establishing a classified board of directors with three-year staggered terms, which could delay the ability of stockholders to change the membership of a majority of our board of directors;
- providing that directors may be removed only for cause by the affirmative vote of the holders of at least 75% of the voting power of our outstanding common stock; provided that so long as investment funds and entities affiliated with either Warburg Pincus or GTCR, collectively, hold at least 50% of the outstanding shares of our common stock, a director designated by investment funds and entities affiliated with either Warburg Pincus or GTCR, respectively, may be removed with or without cause by the affirmative vote of the holders of at least a majority of the votes that all the stockholders would be entitled to cast in any annual election of directors or class of directors and with the consent of Warburg Pincus or GTCR, respectively;
- limiting the determination of the number of directors on our board of directors and the filling of vacancies or newly created seats on the board to our board of directors then in office; provided that for so long as investment funds and entities affiliated with either Warburg Pincus or GTCR have the right to designate at least one director for election to our board of directors, (i) any vacancies will be filled in accordance with the designation provisions set forth in the Stockholders' Agreement and (ii) the number of directors shall not exceed eleven without the consent of Warburg Pincus or GTCR;
- advance notice requirements applicable to stockholders for matters to be brought before a meeting of stockholders and requirements as to the form and content of a stockholders' notice; provided that no advance notice shall be required for nominations of candidates for election to our board of directors pursuant to the Stockholders' Agreement;
- requiring the affirmative vote of at least 66 2/3% of the voting power of our outstanding common stock to amend certain provisions of our amended and restated certificate of incorporation and amended and restated bylaws; provided that so long as investment funds and entities affiliated with either Warburg Pincus or GTCR, collectively, hold at least a majority of our outstanding capital stock, only a majority stockholder vote requirement would apply to such matters;
- providing that for so long as investment funds and entities affiliated with either Warburg Pincus or GTCR have the right (individually) to designate at least three directors for election to our board of directors, certain board approvals, including amendments to our amended and restated certificate of incorporation or amended and restated bylaws and certain specified corporate transactions, including certain acquisitions, mergers, other business combination transactions and dispositions, may be effected only with the affirmative vote of 75% of our board of directors, in addition to any other vote required by applicable law;
- providing that for so long as investment funds and entities affiliated with Warburg Pincus have the right to designate at least one director for election to our board of directors and for so long as investment funds and entities affiliated with GTCR have the right to designate one director for election to our board of directors, in each case, a quorum of our board of directors (and committees of the board of directors on which a director designated by Warburg Pincus or GTCR will serve) will not exist without at least one director designee of each of Warburg Pincus and GTCR present at such meeting; provided that if a meeting of our board of directors (or a committee of the board of directors) fails to achieve a quorum due to the absence of a director designee of Warburg Pincus or GTCR, as applicable, the presence of a director designee of Warburg Pincus or GTCR, as applicable, will not be required in order for a quorum to exist at the next duly noticed meeting of our board of directors (or a committee thereof);
- the right to issue blank check preferred stock without stockholder approval, which could be used to dilute the stock ownership of a potential hostile acquirer or adopt a stockholder rights plan;
- a requirement that our stockholders may only take action at annual or special meetings of our stockholders and may not act by written consent; provided that, for so long as investment funds and entities affiliated with either Warburg Pincus or GTCR, collectively, beneficially own a majority of our outstanding capital stock, a meeting and vote of stockholders may be dispensed with, and the action may be taken without prior notice and without such meeting and

vote if a written consent is signed by the holders of outstanding stock having not less than the minimum number of votes that would be necessary to authorize or take such action at the meeting of stockholders;

- limiting the ability of stockholders to call and bring business before special meetings; provided that for so long as investment funds and entities affiliated with either Warburg Pincus or GTCR, collectively, beneficially own a majority of our outstanding capital stock, special meetings of our stockholders may be called by the affirmative vote of the holders of a majority of our outstanding voting stock; and

- limiting the forum to the Delaware Court of Chancery or Federal Court for certain types of actions and proceedings that may be initiated against us by stockholders.

In addition, our amended and restated certificate of incorporation contains a provision that provides us with protections similar to Section 203 of the Delaware General Corporation Law ("DGCL"), and prevents us from engaging in a business combination with a person (excluding the Sponsors and any of their respective direct or indirect transferees and any group as to which such persons are a party) who acquires at least 15% of our common stock for a period of three years from the date such person acquired such common stock, unless board or stockholder approval is obtained prior to the acquisition.

These provisions might discourage, delay or prevent a change in control of our company or a change in our management. For example, because investment funds and entities affiliated with either Warburg Pincus or GTCR together own a majority of the voting power of our common stock, they could prevent a third party from acquiring us, even if the third party's offer may be considered beneficial by many of our stockholders. The existence of these provisions could adversely affect the voting power of holders of common stock and limit the price that investors might be willing to pay in the future for shares of our common stock.

Our amended and restated certificate of incorporation designates specific courts as the exclusive forum for certain litigation that may be initiated by our stockholders, which could limit our stockholders' abilities to obtain a favorable judicial forum for disputes with us or our directors, officers or employees.

Our amended and restated certificate of incorporation provides that, unless we consent in writing to the selection of an alternative forum, the sole and exclusive forum, to the fullest extent permitted by law, for (1) any derivative action or proceeding brought on our behalf, (2) any action asserting a claim of breach of a fiduciary duty owed by any of our current or former directors, officers or other employees or stockholders to us or our stockholders, (3) any action asserting a claim against us or any of our directors or officers or other employees or stockholders arising pursuant to, any action to interpret, apply, enforce any right, obligation or remedy under, any provision of the DGCL our amended and restated certificate of incorporation or amended and restated bylaws, (4) any action asserting a claim that is governed by the internal affairs doctrine, or (5) any other action asserting an "internal corporate claim" under the DGCL shall be the Court of Chancery of the State of Delaware (or any state or federal court located within the State of Delaware if the Court of Chancery does not have jurisdiction) (the "Delaware Forum Provision"). Notwithstanding the foregoing, our amended and restated certificate of incorporation provides that the Delaware Forum Provision will not apply to suits brought to enforce a duty or liability created by the Exchange Act. Section 27 of the Exchange Act creates exclusive federal jurisdiction over all suits brought to enforce any duty or liability created by the Exchange Act or the rules and regulations thereunder. Our amended and restated certificate of incorporation further provides that unless we consent in writing to the selection of an alternative forum, the federal district courts of the United States of America shall, to the fullest extent permitted by law, be the sole and exclusive forum for resolving any complaint asserting a cause of action arising under the Securities Act (the "Federal Forum Provision").

The Delaware Forum Provision and the Federal Forum Provision may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or our directors, officers or other employees, which may discourage lawsuits against us and our directors, officers and other employees. Alternatively, if a court were to find the Delaware Forum Provision or the Federal Forum Provision to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving such action in other jurisdictions, which could harm our business, financial condition or results of operations. Any person or entity purchasing or otherwise acquiring any interest in our shares of capital stock shall be deemed to have notice of and consented to the Delaware Forum Provision and the Federal Forum Provision, but will not be deemed to have waived our compliance with the federal securities laws and the rules and regulations thereunder.

We do not anticipate paying any dividends on our common stock in the foreseeable future, and, consequently, stockholders' ability to achieve a return on their investment will depend on appreciation in the price of our common stock.

We do not expect to declare or pay dividends on our common stock in the foreseeable future. We currently expect to use any cash flow generated by operations to pay for our operations, repay existing indebtedness and grow our business. Any decisions to declare and pay dividends in the future will be made at the discretion of our board of directors and will depend on, among

other things, our results of operations, financial condition, cash requirements, contractual restrictions, restrictions imposed by applicable law and other factors that our board of directors may deem relevant. Our ability to pay dividends on our common stock is limited by the terms of the Senior Secured Credit Facilities. As a result, capital appreciation, if any, of our common stock will be the sole source of potential gain for the foreseeable future, and stockholders will have to sell some or all of their common stock holdings to generate cash flow from their investment.

Item 1B. Unresolved Staff Comments

Not applicable.

Item 2. Properties

Our corporate headquarters is in Broadview Heights, Ohio, our Sterigenics headquarters is in Oakbrook, Illinois, our Nordion headquarters is in Kanata, Ontario and our Nelson Labs headquarters is in Taylorsville, Utah. As of December 31, 2022, we operated 65 facilities in North America, South America, Europe and Asia. The following table identified the number of owned and leased facilities, other than our headquarters listed above. We believe that our facilities are adequate for our current needs and that suitable additional or substitute space will be available as needed to accommodate planned expansion of our operations.

Segment[1]	Owned Facilities	Owned/Leased Facilities[2]	Leased Facilities
Sterigenics	29	3	16
Nelson Labs	5	1	9
Nordion	1	—	1

(1) Seven of our Sterigenics and Nelson Labs facilities are located at the same address but are considered separate facilities because they require separate infrastructure. Two of our Sterigenics facilities are located at the same address but are considered separate facilities because they provide different sterilization modalities and require separate infrastructure.

(2) Owned/leased facilities are comprised of multiple buildings, with some leased and some owned.

Item 3. Legal Proceedings

From time to time, we may be subject to various legal proceedings arising in the ordinary course of our business, including claims relating to personal injury, property damage, workers' compensation, employee safety and our disclosures as a Nasdaq-listed, publicly-traded company. In addition, from time to time, we receive communications from government or regulatory agencies concerning investigations or allegations of noncompliance with laws or regulations in jurisdictions in which we operate. At this time, and except as is noted herein, we are unable to predict the outcome of, and cannot reasonably estimate the impact of, any pending litigation matters, matters concerning allegations of non-compliance with laws or regulations and matters concerning other allegations of other improprieties, or the incidence of any such matters in the future. Information regarding our material legal proceedings is included below.

Legal Proceedings Described in Note 20 "Commitments and Contingencies" of Our Consolidated Financial Statements

Note 20 "Commitments and Contingencies" to our consolidated financial statements for the year ended December 31, 2022 contained in this Annual Report on Form 10-K includes information on legal proceedings that constitute material contingencies for financial reporting purposes that could have a material effect on our financial condition or results of operations. This item should be read in conjunction with Note 20 "Commitments and Contingencies" for information regarding the following legal proceedings, which information is incorporated into this item by reference:

- Ethylene Oxide Tort Litigation – Illinois and Georgia
- Georgia Facility Operations Litigation
- New Mexico Attorney General Litigation; and
- Stockholder Lawsuit

Legal Proceedings That Are Not Described in Note 20 "Commitments and Contingencies" to Our Consolidated Financial Statements

In addition to the matters that are identified in Note 20 "Commitments and Contingencies" to our consolidated financial statements for the year ended December 31, 2022 contained in this Annual Report on Form 10-K, and incorporated into this item by reference, the following matter also constitutes a pending legal proceeding, other than ordinary course litigation incidental to our business, to which we are or any of our subsidiaries is a party.

Zoetermeer, Holland Criminal Proceedings and Criminal Financial Investigation

In 2010, the Dutch Public Prosecution Service started criminal proceedings against our subsidiary DEROSS Holding B.V. ("DEROSS"), in relation to alleged environmental permit violations for EO emissions in the period from 2004 to 2009 at its Zoetermeer processing facility. On the basis of the final indictment issued in April 2017, assuming a rarely applied increasing mechanism is not applied in this case, fines in the amount of €0.8 million (US$0.9 million) may be imposed. We have also agreed to defend and indemnify the two individuals overseeing environmental compliance during the time period of the alleged claims by the Public Prosecutor. Assuming a rarely applied increasing mechanism is not applied in this case, the possible monetary penalties relating to the individuals currently are estimated at a maximum of €0.2 million (US$0.2 million).

In November 2010, the Public Prosecution Service also started a criminal financial investigation against DEROSS to determine whether it obtained illegal advantages by committing the alleged criminal offenses noted above. Any illegally obtained advantage could then be recovered from DEROSS in subsequent confiscation proceedings. The Public Prosecution Service estimates the illegally obtained advantage by DEROSS to be €0.6 million (US$0.6 million).

In February 2018, DEROSS and the two individuals received favorable judgments from the trial court, which did not hold any of them responsible for the alleged criminal offenses. In March 2018, the Public Prosecutor filed an appeal against the favorable judgments. The appeal procedure remains pending and will likely take several years to resolve.

An escrow account was established in 2011 to satisfy indemnity claims for losses related to this matter. The balance of the special escrow as of December 31, 2022, was approximately $1.8 million and additional cash collateral held by ABN Amro to provide security for the claims was approximately €2.4 million (US$2.6 million) as of December 31, 2022. At this time, we believe the indemnification receivable continues to be recoverable and plan to ensure escrow funds remain in place to cover outcomes of an appeal.

While we have received letters from a small number of individuals claiming to live or work in the vicinity of our former Zoetermeer facility, no civil claims have been filed against DEROSS or us. It is possible that these or other individuals living in the vicinity of the Zoetermeer facility may file civil claims at some time in the future. We have not provided for a contingency reserve in connection with any such potential civil claims as we are unable to determine the probability of an unfavorable outcome and no reasonable estimate of a loss or range of losses, if any, can be made.

Item 4. Mine Safety Disclosures

Not applicable.

Part II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Market Information for Common Stock

The Company's common stock is listed on the Nasdaq under the ticker symbol "SHC."

Holders

As of February 23, 2023, we had approximately 84 holders of record of our common stock. This number does not include the beneficial owners of our common stock who hold their shares through banks, brokers or other financial institutions.

Dividends

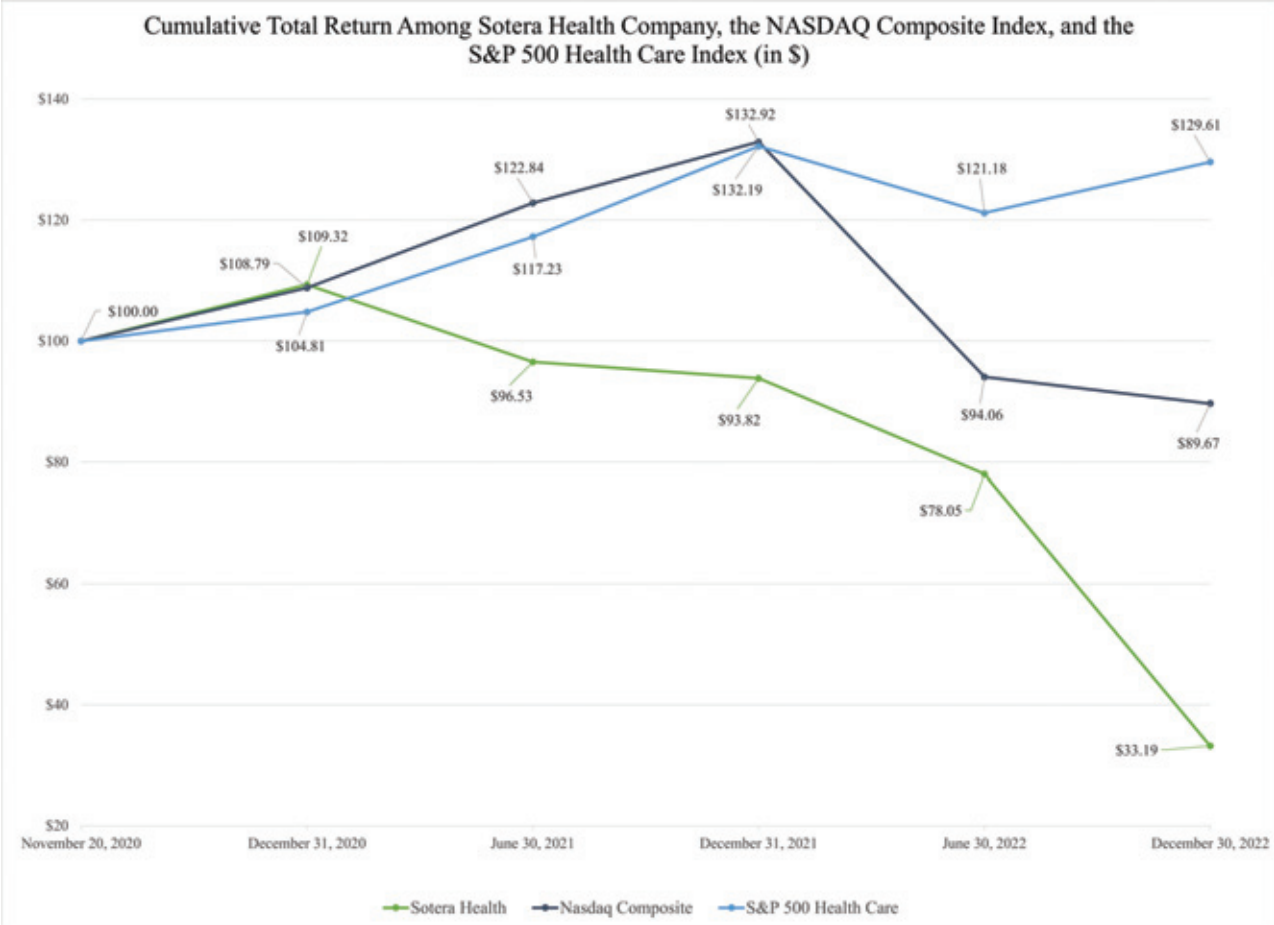
We do not currently expect to pay any dividends on our common stock. Instead, we intend to use any future earnings for the operation and growth of our business and the repayment of indebtedness.

Future cash dividends, if any, will be at the discretion of our board of directors and will depend upon, among other things, our financial condition, earnings, capital requirements, level of indebtedness, statutory and contractual restrictions applicable to the payment of dividends and other considerations that our board of directors deems relevant. The timing and amount of future dividend payments will be at the discretion of our board of directors.

Because we are a holding company and have no direct operations, we will only be able to pay dividends from our available cash on hand and any funds we receive from our subsidiaries. The agreements governing our existing indebtedness contain negative covenants that limit, among other things, our ability to pay cash dividends on our common stock, and the terms of any future loan agreement into which we may enter or any additional debt securities we may issue are likely to contain similar restrictions on the payment of dividends. In addition, Delaware law may impose requirements that may restrict our ability to pay dividends.

Stock Performance Graph

The following graph compares the cumulative total return to stockholders on our common stock relative to the cumulative total returns of the Nasdaq Composite Index and the Standard and Poors ("S&P") 500 Global Health Care Index. An investment of $100 (with reinvestment of all dividends) is assumed to have been made in our common stock and in each index on November 20, 2020, the date our common stock began trading on the Nasdaq, and its relative performance is tracked through December 31, 2022. The returns shown are based on historical results and are not intended to suggest future performance.



The graph and other information furnished under this Part II Item 5 of this annual report on Form 10-K shall not be deemed to be "soliciting material" or to be "filed" with the SEC or subject to Regulation 14A or 14C under, or to the liabilities of Section 18 of, the Exchange Act.

Item 6. [Reserved]

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

You should read the following discussion and analysis in conjunction with our consolidated financial statements and related notes included elsewhere in this Annual Report on Form 10-K. This discussion and analysis contains forward-looking statements that are based on management's current expectations, estimates and projections about our business and operations. Our actual results may differ materially from those currently anticipated and expressed in such forward-looking statements as a result of various factors, including the factors we describe in Item 1A, ""Risk Factors"" and elsewhere in this Annual Report on Form 10-K.

OVERVIEW

We are a leading global provider of mission-critical end-to-end sterilization solutions and lab testing and advisory services for the healthcare industry. We are driven by our mission: Safeguarding Global Health®. We provide end-to-end sterilization as well as microbiological and analytical lab testing and advisory services to help ensure that medical, pharmaceutical and food products are safe for healthcare practitioners, patients and consumers in the United States and around the world. Our customers include more than 40 of the top 50 medical device companies and nine of the top ten global pharmaceutical companies (based on revenue). Our services are an essential aspect of our customers' manufacturing process and supply chains, helping to ensure sterilized medical products reach healthcare practitioners and patients. Most of these services are necessary for our customers to satisfy applicable government requirements. We give our customers confidence that their products meet regulatory, safety and effectiveness requirements. With our industry-recognized scientific and technological expertise, we help to ensure the safety of millions of patients and healthcare practitioners around the world every year. Across our 65 facilities worldwide, we have over

3,000 employees who are dedicated to safety and quality. We are a trusted partner to approximately 5,000 customers in over 50 countries.

We serve our customers throughout their product lifecycles, from product design to manufacturing and delivery, helping to ensure the sterility, effectiveness and safety of their products for the end user. We operate across two core businesses: sterilization services and lab services. Each of our businesses has a longstanding record and is a leader in its respective market, supported and connected by our core capabilities including deep end market, regulatory, technical and logistics expertise. The combination of Sterigenics, our terminal sterilization business, and Nordion, our Co-60 supply business, makes us the only vertically integrated global gamma sterilization provider in the sterilization industry. This provides us with additional insights and allows us to better serve our customers. For financial reporting purposes, our sterilization services business consists of two reportable segments, Sterigenics and Nordion, and our lab services business consists of one reportable segment, Nelson Labs.

For the year ended December 31, 2022, we recorded net revenues of $1,003.7 million, net loss of $233.6 million, Adjusted Net Income of $270.2 million and Adjusted EBITDA of $506.2 million. Adjusted Net Income and Adjusted EBITDA are financial measures not based on any standardized methodology prescribed by U.S. Generally Accepted Accounting Principles ("GAAP"). For the definition of Adjusted Net Income and Adjusted EBITDA and the reconciliation of these non-GAAP measures from net income (loss), please see "Non-GAAP Financial Measures."

TRENDS AND KEY FACTORS AFFECTING OUR RESULTS OF OPERATIONS

We expect that our performance and financial condition will continue to be driven by the key trends impacting our industries, customers and their end markets as outlined in Item 1, "Business". In addition, we believe the following trends and key factors have underpinned our recent operating results and may continue to affect our performance and financial condition in future periods.

- **Business and market conditions.** During the year ended December 31, 2022, Sterigenics and Nordion continued to see sustained demand for sterilization services. Nelson Labs' net revenues increased for the year ended December 31, 2022 compared to the prior year; however, reduced demand for pandemic-related testing coupled with slower than expected growth of certain laboratory testing categories impacted Nelson Labs' growth for the year ended December 31, 2022. The Company as a whole faced ongoing macroeconomic pressures during the year ended December 31, 2022, particularly related to inflation, including higher energy and labor costs, partially offset through pricing and other actions. Our results of operations were also impacted by fluctuations in foreign currency exchange rates, specifically the strengthening of the U.S. dollar against the currencies of other major economies.

  Additionally, a portion of our supply of Co-60 is generated by Russian nuclear reactors. We continue to monitor the potential for disruption in the supply of Co-60 from Russian nuclear reactors but we do not expect a material impact in 2023 on our supply or revenue.

- **Investment initiatives.** We continue to make significant investments in capacity expansions and facility improvements as well as in our efforts to strengthen our Co-60 supply chain. For the year ended December 31, 2022, capital expenditures increased by $80.2 million compared to the year ended December 31, 2021.

- **Disciplined and strategic M&A activity**. We remain committed to our highly disciplined acquisition strategy and continue to seek suitable acquisition targets.

- **Litigation related costs and exit activities**. We are currently the subject of tort lawsuits alleging personal injury by purported exposure to EO emitted by our former facility in Willowbrook, Illinois and current facility in Atlanta, Georgia. In addition, we are defendants in a lawsuit brought by the State of New Mexico Attorney General alleging that emissions of EO from our Santa Teresa facility constitute a public nuisance and materially contributed to increased health risks suffered by residents in the area. The Company maintains that its former Willowbrook, Illinois operations and current Atlanta, Georgia and Santa Teresa, New Mexico operations did not pose and do not pose any safety risk to their surrounding communities. We deny these allegations and are vigorously defending against these claims. See Item 3, "Legal Proceedings" and Note 20 "Commitments and Contingencies" to our consolidated financial statements.

  For the years ended December 31, 2022 and 2021 and 2020, we recorded costs of $72.6 million, $45.7 million and $36.7 million, respectively, representing professional fees related to litigation associated with our EO sterilization facilities and other related professional fees.

  Although the per occurrence limit of our environmental liability insurance was reached for the Willowbrook, Illinois litigation in the second quarter of 2020, we are pursuing insurance coverage for our legal expenses related to the EO tort litigation. In 2021, Sterigenics U.S., LLC filed an insurance coverage lawsuit in the U.S. District Court for the

Northern District of Illinois relating to two commercial general liability policies issued in the 1980s. On August 3, 2022, the Court issued a Memorandum Opinion and Order concluding that the insurance company owes Sterigenics U.S., LLC and another party a duty to defend the Willowbrook, Illinois litigation, which may allow us to recover defense costs related to that litigation.

On January 9, 2023, the Company reached agreements to settle more than 870 pending and threatened EO claims against the Defendant Subsidiaries in the Circuit Court of Cook County, Illinois, and US District Court for the Northern District of Illinois. Under the terms of the binding Term Sheets ("Term Sheets"), the Company will pay $408.0 million to settle the claims, subject to substantially all of the plaintiffs providing opt-in consents to their individual settlement allocations and dismissing their claims with prejudice. As this event provides additional evidence about conditions that existed as of December 31, 2022, we recorded a $408.0 million charge to expense on December 31, 2022. The Term Sheets provide a pathway to comprehensively resolve the claims pending against the Company in Illinois and thereby enable the Company to focus its full attention on operating the business. The Company denies any liability and maintains that its Willowbrook, Illinois operations did not pose a safety risk to the community in which it operated and believes the evidence ultimately would have compelled the rejection of the plaintiffs' claims. See Note 20 "Commitments and Contingencies" to our consolidated financial statements.

We continue to incur certain transitional costs in connection with the exit of our EO sterilization operations in Willowbrook, Illinois including lease costs, payroll and utility expenses. For the years ended December 31, 2022, 2021 and 2020, we recorded costs of $4.7 million, $2.3 million and $2.6 million, respectively, relating to the closure of our Willowbrook facility.

- **Borrowings, financing costs and financial leverage**. During the fourth quarter of 2022, to enhance liquidity in connection with litigation needs, the Company borrowed $200.0 million under its existing Revolving Credit Facility, which was held as cash as of December 31, 2022. On February 23, 2023 the Company successfully closed on a new senior secured Term Loan B facility in an aggregate principal amount of $500.0 million. The Company plans to use proceeds of this debt, along with available cash, to a) fund the $408.0 million EO litigation settlement in Cook County, Illinois, subject to the satisfaction or waiver by the Company of the various conditions for the settlement, b) pay down existing borrowings under the Company's revolving credit facility, c) further enhance liquidity, and d) for other general corporate purposes.

  For the year ended December 31, 2022, we paid $75.8 million of cash for interest on long-term debt compared to $58.8 million for the year ended December 31, 2021. This $17.0 million increase stemmed from the steady rise in the LIBOR benchmark interest rate during the year ended December 31, 2022 combined with the $200.0 million borrowing on the Revolving Credit Facility.

COMPONENTS OF OUR RESULTS OF OPERATIONS

Net Revenues

Service revenues consist of revenue generated from contract sterilization and lab testing and advisory services within our Sterigenics and Nelson Labs segments, respectively. Service revenues also consist of Co-60 installation and disposal revenues and gamma irradiation system refurbishments and installation services within our Nordion segment. Product revenues consist of revenues generated from sales of Co-60 radiation sources and gamma irradiation systems. Provisions for discounts, rebates to customers, and other adjustments are provided for as reductions in net revenues. Refunds, returns, warranties and other related obligations are not material to any of our business units, nor do we incur material incremental costs to secure customer contracts.

Cost of Revenues

Our cost of revenues consists primarily of direct materials, utilities, labor and related benefit costs, and depreciation and amortization. Although the cost of utilities and direct materials can fluctuate, the remaining components of cost of revenues are generally more stable. Direct material costs relating to service revenues primarily includes EO gas, nitrogen gas and Co-60. The physical decay of Co-60 assets is included within depreciation expense as a cost of revenue. Direct material costs relating to product revenues also include the costs associated with acquiring Co-60 in finished or semi-finished form, acquiring Co-59 in a form ready for insertion into reactors for conversion into Co-60, the reactor time and associated services to convert Co-59 into Co-60, and parts and equipment associated with building and maintaining gamma irradiation systems.

Operating Expenses

SG&A Expenses

SG&A primarily consists of compensation and benefits costs and general operating and administrative expenses, including professional service fees (which include finance and legal costs), travel and entertainment expenses, and other general and administrative expenses. Share-based compensation expense is also included in SG&A.

Amortization of Intangible Assets

Amortization of intangible assets primarily consists of expense associated with customer relationship intangibles, the majority of which relate to the fair values attributed to these assets upon the recapitalization of the Company in connection with the acquisition by the Sponsors in 2015. These customer relationship intangibles were initially assigned a weighted average useful life of ten years and have a remaining useful life of approximately three years. These customer relationship intangible assets account for $48.9 million of our current annual amortization expense and are expected to be fully amortized in 2025. Amortization expense fluctuates when we have an acquisition, disposition, impairment charge, or as their useful lives expire. We expect intangible assets related to future acquisitions and the associated amortization expense to increase over time as we execute on our strategy to pursue acquisition targets that are complementary to our businesses.

Impairment

We review tangible and intangible assets for impairment on a regular basis.

Operating Income

Operating income represents gross profit, less SG&A, amortization of intangible assets and impairment charges.

Interest Expense, Net

Interest expense, net, represents interest paid or accruing on our outstanding indebtedness and the amortization of debt discount and debt issuance costs. Interest expense is affected by changes in average outstanding indebtedness (including finance lease obligations) and variable interest rates. We present interest expense net of interest income, which primarily consists of interest earned on cash on hand.

Illinois EO litigation settlement

On January 9, 2023, the Company reached agreements to settle more than 870 pending and threatened EO claims against the Defendant Subsidiaries in the Circuit Court of Cook County, Illinois, and US District Court for the Northern District of Illinois. Under the terms of the agreements, the Company will pay $408.0 million to settle the claims, subject to substantially all of the plaintiffs providing opt-in consents to their individual settlement allocations and dismissing their claims with prejudice.

Impairment of investment in unconsolidated affiliate

During the year ended December 31, 2022, we recorded an impairment charge of $9.6 million related to a joint venture investment, which was acquired as part of the 2020 acquisition of Iotron Industries Canada, Inc. (“Iotron”). Due to a shift in business strategy, the joint venture will not proceed, and our joint venture partner will continue to rely on our other existing operating facilities. Based on these facts and circumstances, we concluded that the investment was impaired.

Other Income, Net

Other income, net primarily consists of changes in the fair value of the embedded derivatives in Nordion’s contracts, the net impact of pension related benefits and income related to deferred income on a lease associated with the 2018 divestiture of the Medical Isotopes business.

Provision (Benefit) for Income Taxes

Provision (benefit) for income taxes consists primarily of income taxes in foreign jurisdictions and U.S. federal and state income taxes.

Net Income (Loss) Attributable to Noncontrolling Interests

We conduct our operations through our subsidiaries. As of December 31, 2022, our consolidated subsidiaries were wholly owned by us. In the second quarter of 2021, we purchased the outstanding noncontrolling interests of 15% and 33% in our two

China subsidiaries. Prior to our acquisition of these noncontrolling interests, we consolidated the results of operations of these subsidiaries with our results of operations and reflected the noncontrolling interests on our Consolidated Statements of Operations and Comprehensive Income (Loss) as net income (loss) attributable to noncontrolling interests.

On March 11, 2021, we purchased the 15% noncontrolling interest that remained from the August 2018 acquisition of Gibraltar Laboratories, Inc. (now known as Nelson Laboratories Fairfield, Inc.) ("Nelson Labs Fairfield"). As the purchase of this noncontrolling interest was mandatorily redeemable, no earnings were allocated to this noncontrolling interest.

In July 2020, we acquired a 60% equity ownership interest in a joint venture to construct an E-beam facility in Alberta, Canada in connection with our acquisition of Iotron. Refer to Note 4, "Acquisitions" of our consolidated financial statements for additional information. We have determined this to be an investment in a variable interest entity ("VIE"). The investment is not consolidated as the Company has concluded that we are not the primary beneficiary of the VIE. The Company accounts for the joint venture using the equity method. The investment is reflected within "Investment in unconsolidated affiliate" on the Consolidated Balance Sheets within our consolidated financial statements. During the year ended December 31, 2022, we recorded an impairment charge of $9.6 million related to this joint venture investment as described in "Consolidated Results of Operations" below.

Constant Currency Sales Growth (Non-GAAP)

"Constant currency" is a non-GAAP financial measure we use to assess performance excluding the impact of foreign currency exchange rate changes. Constant currency sales growth is calculated by translating prior year sales in local currency at the average exchange rates applicable for the current period. The translated results are then used to determine year-over-year percentage increases or decreases. We generally refer to such amounts calculated on a constant currency basis as excluding the impact of foreign currency exchange rates. These results should be considered in addition to, not as a substitute for, results reported in accordance with GAAP. Results on a constant currency basis, as we present them, may not be comparable to similarly titled measures used by other companies and are not measures of performance presented in accordance with U.S. GAAP.

Adjusted Net Income and Adjusted EBITDA (Non-GAAP)

We use Adjusted Net Income and Adjusted EBITDA, non-GAAP financial measures, as the principal measures of our operating performance. Management believes Adjusted Net Income and Adjusted EBITDA are useful because they allow management to more effectively evaluate our operating performance and compare the results of our operations from period to period without the impact of certain non-cash items and non-routine items that we do not expect to continue at the same level in the future and other items that are not core to our operations. We believe that these measures are useful to our investors because they provide a more complete understanding of the factors and trends affecting our business than could be obtained absent this disclosure. In addition, we believe Adjusted Net Income and Adjusted EBITDA will assist investors in making comparisons to our historical operating results and analyzing the underlying performance of our operations for the periods presented. Our management also uses Adjusted Net Income and Adjusted EBITDA in their financial analysis and operational decision-making and Adjusted EBITDA serves as the metric for attainment of our primary annual incentive program. Adjusted Net Income and Adjusted EBITDA may be calculated differently from, and therefore may not be comparable to, a similarly titled measure used by other companies.

For more information regarding our definition and calculation of Adjusted Net Income and Adjusted EBITDA, including information about its limitations as a tool for analysis and reconciliation to the most directly comparable financial measures calculated in accordance with GAAP, please see "Non-GAAP Financial Measures" within this Item.

Segment Income

Segment income is the primary earnings measure we use to evaluate the performance of our reportable segments, as disclosed in Note 22, "Segment and Geographic Information" to our consolidated financial statements. Costs associated with support functions that are not directly associated with one of the three reportable segments, such as corporate operating expenses for executive management, accounting, information technology, legal, human resources, treasury, investor relations, corporate development, tax, purchasing, and marketing, are allocated to the segments based on net revenue. Corporate operating expenses that are directly incurred by a segment are reflected in each segment's income. Segment income excludes certain items which are included in "Income (loss) before taxes" as determined in our Consolidated Statements of Operations and Comprehensive Income (Loss).

CONSOLIDATED RESULTS OF OPERATIONS

The following section summarizes the consolidated results of operations for the years ended December 31, 2022 and 2021. The discussion of the consolidated results of operation for the years ended December 31, 2021 and 2020 are presented within our Annual Report on Form 10-K for the year ended December 31, 2021 under "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations - Consolidated Results of Operations."

Year Ended December 31, 2022 as compared to Year Ended December 31, 2021

The following table sets forth the components of our results of operations for the years ended December 31, 2022 and 2021.

(thousands of U.S. dollars)	2022	2021	$ Change	% Change
Total net revenues	**$ 1,003,687**	$ 931,478	$ 72,209	7.8 %
Total cost of revenues	**446,683**	412,806	33,877	8.2 %
Total operating expenses	**308,654**	261,939	46,715	17.8%
Operating income	**248,350**	256,733	(8,383)	(3.3)%
Net income (loss)	**(233,570)**	117,121	(350,691)	(299.4%)
Adjusted Net Income[(1)]	**270,219**	245,782	24,437	9.9 %
Adjusted EBITDA[(1)]	**506,249**	481,229	25,020	5.2 %

(1) Adjusted Net Income and Adjusted EBITDA are non-GAAP financial measures. For more information regarding our calculation of Adjusted Net Income and Adjusted EBITDA, including information about their limitations as tools for analysis and a reconciliation of net income (loss), the most directly comparable financial measure calculated and presented in accordance with GAAP, to Adjusted Net Income and Adjusted EBITDA, please see the reconciliation included below in "Non-GAAP Financial Measures."

Total Net Revenues

The following table compares our revenues by type for the year ended December 31, 2022 to the year ended December 31, 2021. Results from the BioScience Labs and RCA acquisitions are included in the Nelson Labs segment for the post-acquisition periods beginning March 8, 2021 and November 4, 2021, respectively.

(thousands of U.S. dollars) **Net revenues for the year ended December 31,**	2022	2021	$ Change	% Change
Service	**$ 864,828**	$ 805,501	$ 59,327	7.4 %
Product	**138,859**	125,977	12,882	10.2 %
Total net revenues	**$ 1,003,687**	$ 931,478	$ 72,209	7.8 %

Net revenues were $1,003.7 million in the year ended December 31, 2022, an increase of $72.2 million, or 7.8%, as compared with the prior year. Net revenues in the year ended December 31, 2022 increased approximately 10.2% compared with the same period in 2021 on a constant currency basis.

Service revenues

Service revenues increased $59.3 million, or 7.4%, to $864.8 million in 2022 as compared to $805.5 million in 2021. The increase in net service revenues was driven by volume growth of $35.6 million in the Sterigenics segment and $12.1 million from the incremental contribution of Nelson Labs' recent acquisitions. In addition, service revenue growth stemmed from favorable pricing of $33.0 million and $11.7 million in the Sterigenics and Nelson Labs segments, respectively. Partially offsetting these factors was a $19.8 million unfavorable impact from changes in foreign currency exchange rates across all segments and an overall decline of $11.3 million in revenue related to personal protective equipment testing in the Nelson Labs segment.

Product revenues

Product revenues increased $12.9 million, or 10.2%, to $138.9 million in the year ended December 31, 2022 as compared to $126.0 million in the year ended December 31, 2021. The increase in product revenues was attributable to higher sales volumes of $5.6 million, largely driven by shipments of industrial use Co-60 in our Nordion segment, and the contribution of favorable pricing of $10.7 million. Partially offsetting these increases was an unfavorable change in foreign currency exchange rates of $3.4 million.

Total Cost of Revenues

The following table compares our cost of revenues by type for the year ended December 31, 2022 to the year ended December 31, 2021. Results from the BioScience Labs and RCA acquisitions are included in the Nelson Labs segment for the post-acquisition periods beginning March 8, 2021 and November 4, 2021, respectively.

(thousands of U.S. dollars) **Cost of revenues for the year ended December 31,**	**2022**	**2021**	$ Change	% Change
Service	**$ 390,860**	$ 357,205	$ 33,655	9.4 %
Product	**55,823**	55,601	222	0.4 %
Total cost of revenues	**$ 446,683**	$ 412,806	$ 33,877	8.2 %

Total cost of revenues accounted for approximately 44.5% and 44.3% of our consolidated net revenues for the year ended December 31, 2022 and 2021, respectively.

Cost of service revenues

Cost of service revenues increased $33.7 million for the year ended December 31, 2022 as compared to the prior year. The growth in cost of service revenues was largely driven by increased labor costs of $17.6 million resulting from both the addition of new personnel to support volume growth and higher compensation costs in response to inflationary pressures. Our Nelson Labs' recent acquisitions accounted for $8.9 million of the increase in cost of service revenues. In addition, higher energy and direct material costs of $8.1 million, due mainly to the impacts of inflation, coupled with a $5.5 million increase in depreciation and other miscellaneous direct costs contributed to the increase in cost of revenues. Partially offsetting these factors was a $10.1 million favorable impact from changes in foreign currency exchange rates.

Cost of product revenues

Cost of product revenues increased $0.2 million, or 0.4%, for the year ended December 31, 2022 as compared to the prior year. The increase was primarily driven by a $4.0 million increase in Co-60 supply costs and a $2.1 million increase in cost of revenues related to gamma irradiation systems, due to a combination of higher sales volumes and an unfavorable supplier mix. Partially offsetting this increase was a favorable impact from foreign currency exchange rates of $5.9 million.

Operating Expenses

The following table compares our operating expenses for the year ended December 31, 2022 to the year ended December 31, 2021:

(thousands of U.S. dollars) **Operating expenses for the Year Ended December 31,**	**2022**	**2021**	$ Change	% Change
Selling, general and administrative expenses	**$ 245,714**	$ 198,158	$ 47,556	24.0 %
Amortization of intangible assets	**62,940**	63,781	(841)	(1.3) %
Total operating expenses	**$ 308,654**	$ 261,939	$ 46,715	17.8 %

Operating expenses accounted for approximately 30.8% and 28.1% of our consolidated net revenues for the year ended December 31, 2022 and 2021, respectively.

SG&A

SG&A increased $47.6 million, or 24.0%, for the year ended December 31, 2022 as compared to the prior year. The increase was driven primarily by the following:

- a $27.0 million increase in litigation and other professional services expenses associated with EO sterilization facilities;
- a $7.3 million increase in selling and administrative personnel costs in support of company-wide growth and business enhancement efforts;
- a $7.3 million increase in share-based compensation expense attributable to awards granted under the 2020 Omnibus Incentive Plan; and
- a $3.4 million favorable settlement related to an insurance claim for Nordion in year ended December 31, 2021 that did not recur in the year ended December 31, 2022.

Amortization of intangible assets

Amortization of intangible assets was $62.9 million for the year ended December 31, 2022, a decrease of $0.8 million or 1.3% compared to the year ended December 31, 2021. The change was due mainly to a reduction in amortization expense related to certain intangible assets that were fully amortized by December 31, 2021 combined with changes in foreign currency exchange rates, partially offset by additional amortization expense for intangible assets acquired in connection with the RCA acquisition.

Interest Expense, Net

Interest expense, net increased $6.0 million, or 8.0%, for the year ended December 31, 2022 as compared to the prior year. The increase stemmed from the steady rise in the LIBOR benchmark interest rate during the year ended December 31, 2022 coupled with a $200.0 million draw on the Revolving Credit Facility in the fourth quarter of 2022, which in combination resulted in $18.2 million of additional interest expense. Partially offsetting this increase was a $12.2 million reduction to interest expense attributable to the favorable change in the fair value of interest rate caps not designated as hedging instruments and the related periodic settlement payments. The weighted average interest rate on our outstanding debt was 7.16% and 3.25% at December 31, 2022 and 2021, respectively.

Illinois EO litigation settlement

On January 9, 2023, the Company reached agreements to settle more than 870 pending and threatened EO claims against the Defendant Subsidiaries in the Circuit Court of Cook County, Illinois, and US District Court for the Northern District of Illinois. Under the binding Term Sheets, the Company will pay $408.0 million to settle the claims, subject to substantially all of the plaintiffs providing opt-in consents to their individual settlement allocations and dismissing their claims with prejudice. As this event provides additional evidence of conditions that existed as of December 31, 2022, we recorded a $408.0 million charge to expense on December 31, 2022.

Impairment of investment in unconsolidated affiliate

During the year ended December 31, 2022, we recorded an impairment charge of $9.6 million related to a joint venture investment, which was acquired as part of the 2020 Iotron acquisition. Due to a shift in business strategy, the joint venture will not proceed, and our joint venture partner will continue to rely on our other existing operating facilities. Based on these facts and circumstances, we concluded that the investment was impaired as of June 30, 2022.

Foreign Exchange Loss (Gain)

Foreign exchange loss was $0.1 million for the year ended December 31, 2022 as compared to $1.3 million in the prior year. Beginning in the fourth quarter of 2020, we entered into monthly U.S. dollar-denominated foreign currency forward contracts to manage this foreign currency exchange rate risk. The foreign currency forward contracts expire and renew on a monthly basis. As a result, the majority of our foreign exchange loss recorded in the years ended December 31, 2022 and 2021 related to short-term losses (offset by short-term gains) on sales denominated in currencies other than the functional currency of our operating entities.

Other Income, Net

Other income, net was $6.4 million for the year ended December 31, 2022, a decrease of $8.8 million as compared to the prior year. The fluctuation was primarily driven by two significant events in the year ended December 31, 2021 that did not recur in the year ended December 31, 2022:

- a $5.1 million non-cash gain arising from derecognition of an asset retirement obligation ("ARO") liability no longer attributable to Nordion pursuant to the terms of the sale of the Medical Isotopes business in 2018; and
- a $1.2 million gain on our purchase of the 15% mandatorily redeemable noncontrolling interest of Nelson Labs Fairfield.

Additionally, $2.5 million of the decline in other income was the result of unfavorable changes in the fair value of embedded derivatives in Nordion's purchase contracts.

Provision (Benefit) for Income Taxes

Benefit for income taxes was $9.5 million for the year ended December 31, 2022 as compared to a provision of $58.6 million in the prior year. The change was attributable to a pre-tax loss of $243.1 million (driven by the $408.0 million Illinois EO litigation settlement accrual) in the year ended December 31, 2022 compared to pretax income of $175.7 million for the year ended December 31, 2021.

Provision for income taxes for the year ended December 31, 2022 differed from the statutory rate of 21% primarily due to an increase in the partial valuation allowance against our excess interest expense carryforward balance, $8.0 million of state tax attributes, the impact of the foreign rate differential, partially offset by state taxes (net of federal benefit). The provision for income taxes for the year ended December 31, 2021 differed from the statutory rate of 21% primarily due to an increase in the partial valuation allowance against our excess interest expense carryforward balance, the addition of valuation allowances against certain foreign net operating loss carryforward balances, the impact of the foreign rate differential, and tax on GILTI.

Net Income (Loss), Adjusted Net Income and Adjusted EBITDA

Net loss for the year ended December 31, 2022 was $233.6 million, as compared to net income of $117.1 million for the year ended December 31, 2021 largely driven by the Illinois EO litigation settlement reserve. Adjusted Net Income was $270.2 million for the year ended December 31, 2022, as compared to $245.8 million for the year ended December 31, 2021, due to the factors described above. Adjusted EBITDA was $506.2 million for the year ended December 31, 2022, as compared to $481.2 million for the year ended December 31, 2021, due to the factors described above. Please see "Non-GAAP Financial Measures" below for a reconciliation of Adjusted Net Income and Adjusted EBITDA to their most directly comparable financial measure calculated and presented in accordance with GAAP.

NON-GAAP FINANCIAL MEASURES

To supplement our consolidated financial statements presented in accordance with GAAP, we consider Adjusted Net Income and Adjusted EBITDA, financial measures that are not based on any standardized methodology prescribed by GAAP.

We define Adjusted Net Income as net income (loss) before amortization and certain other adjustments that we do not consider in our evaluation of our ongoing operating performance from period to period as discussed further below. We define Adjusted EBITDA as Adjusted Net Income before interest expense, depreciation (including depreciation of Co-60 used in our operations) and income tax provision applicable to Adjusted Net Income.

We use Adjusted Net Income and Adjusted EBITDA, non-GAAP financial measures, as the principal measures of our operating performance. Management believes Adjusted Net Income and Adjusted EBITDA are useful because they allow management to more effectively evaluate our operating performance and compare the results of our operations from period to period without the impact of certain non-cash items and non-routine items that we do not expect to continue at the same level in the future and other items that are not core to our operations. We believe that these measures are useful to our investors because they provide a more complete understanding of the factors and trends affecting our business than could be obtained absent this disclosure. In addition, we believe Adjusted Net Income and Adjusted EBITDA will assist investors in making comparisons to our historical operating results and analyzing the underlying performance of our operations for the periods presented. Our management also uses Adjusted Net Income and Adjusted EBITDA in their financial analysis and operational decision-making and Adjusted EBITDA serves as the basis for the metric we utilize to determine attainment of our primary annual incentive program.

Adjusted Net Income and Adjusted EBITDA may be calculated differently from, and therefore may not be comparable to, a similarly titled measure used by other companies.

Adjusted Net Income and Adjusted EBITDA should not be considered in isolation from, or as a substitute for, financial information prepared in accordance with GAAP. There are a number of limitations related to the use of Adjusted Net Income and Adjusted EBITDA rather than net income (loss), the nearest GAAP equivalent. For example, Adjusted Net Income and Adjusted EBITDA primarily exclude:

- certain recurring non-cash charges such as depreciation of fixed assets, although these assets may have to be replaced in the future, as well as amortization of acquired intangible assets and asset retirement obligations;
- costs of acquiring and integrating businesses, which will continue to be a part of our growth strategy;
- non-cash gains or losses from fluctuations in foreign currency exchange rates, and the mark-to-fair value of derivatives not designated as hedging instruments, which includes embedded derivatives relating to certain customer and supply contracts at Nordion;
- impairment charges on long-lived assets, intangible assets and investments accounted for under the equity method;
- loss on extinguishment of debt incurred in connection with refinancing or early extinguishment of long-term debt;
- expenses and charges related to the litigation, settlement agreements, and other activities associated with our ethylene oxide sterilization facilities, including those in Willowbrook, Illinois, Atlanta, Georgia and Santa Teresa, New Mexico, even though that litigation remains ongoing;
- in the case of Adjusted EBITDA, interest expense or the cash requirements necessary to service interest or principal payments on our indebtedness; and
- share-based compensation expense, which has been, and will continue to be for the foreseeable future, a significant recurring expense and an important part of our compensation strategy.

In evaluating Adjusted Net Income and Adjusted EBITDA, you should be aware that in the future, we will incur expenses similar to the adjustments in this presentation. Our presentations of Adjusted Net Income and Adjusted EBITDA should not be construed as suggesting that our future results will be unaffected by these expenses or any unusual or non-recurring items. When evaluating our performance, you should consider Adjusted Net Income and Adjusted EBITDA alongside other financial performance measures, including our net income and other GAAP measures.

The following table presents a reconciliation of net income (loss), the most directly comparable financial measure calculated and presented in accordance with GAAP to Adjusted Net Income and Adjusted EBITDA, for each of the periods indicated:

	Year Ended December 31,	
(in thousands)	**2022**	**2021**
Net income (loss)	**$ (233,570)**	$ 117,121
Amortization of intangibles	**81,554**	86,742
Share-based compensation[(a)]	**21,211**	13,870
Loss (gain) on foreign currency and derivatives not designated as hedging instruments, net[(b)]	**3,150**	(58)
Acquisition and divestiture related charges, net[(c)]	**1,398**	(6,018)
Business optimization project expenses[(d)]	**2,226**	948
Plant closure expenses[(e)]	**4,730**	2,327
Impairment of investment in unconsolidated affiliate[(f)]	**9,613**	—
Loss on extinguishment of debt[(g)]	**—**	20,681
Professional services relating to EO sterilization facilities[(h)]	**72,639**	45,656
Illinois EO litigation settlement[(i)]	**408,000**	—
Accretion of asset retirement obligations[(j)]	**2,194**	2,252
COVID-19 expenses[(k)]	**155**	761
Income tax benefit associated with pre-tax adjustments[(l)]	**(103,081)**	(38,500)
Adjusted Net Income	**270,219**	245,782
Interest expense, net[(m)]	**78,490**	74,192
Depreciation[(n)]	**64,000**	64,160
Income tax provision applicable to Adjusted Net Income[(o)]	**93,540**	97,095
Adjusted EBITDA[(p)]	**$ 506,249**	$ 481,229

(a) Represents non-cash share-based compensation expense. See Note 16, “Share-Based Compensation” for further information.

(b) Represents the effects of (i) fluctuations in foreign currency exchange rates, (ii) non-cash mark-to-fair value of embedded derivatives relating to certain customer and supply contracts at Nordion, and (iii) unrealized gains and losses on interest rate caps not designated as hedging instruments.

(c) Represents (i) certain direct and incremental costs related to the acquisitions of RCA, the noncontrolling interests in our China subsidiaries, BioScience Labs in 2021, and the first quarter 2021 gain on the mandatorily redeemable noncontrolling interest in Nelson Labs Fairfield (as described in Note 4, “Acquisitions”), and certain related integration efforts as a result of those acquisitions, (ii) the earnings impact of fair value adjustments (excluding those recognized within amortization expense) resulting from the businesses acquired, (iii) transition services income and non-cash deferred lease income associated with the terms of the divestiture of the Medical Isotopes business in 2018, (iv) a $3.4 million gain recognized in the third quarter of 2021 related to the settlement of an insurance claim for Nordion that existed at the time of our acquisition of the business in 2014, and (v) a $5.1 million non-cash gain recognized in the fourth quarter of 2021 arising from the derecognition of an ARO liability no longer attributable to Nordion pursuant to the terms of the sale of the Medical Isotopes business in 2018.

(d) Represents professional fees, contract termination and exit costs, severance and other payroll costs, and other costs associated with business optimization and cost savings projects relating to the integration of recent acquisitions, operating structure realignment and other process enhancement projects.

(e) Represents decommissioning costs, professional fees, severance and other payroll costs, and other costs including ongoing lease and utility expenses associated with the closure of the Willowbrook, Illinois facility.

(f) Represents an impairment charge on our equity method investment in a joint venture. Refer to Note 1, “Significant Accounting Policies” for further information.

(g) Represents expenses incurred in connection with the repricing of our Term Loan in January 2021 and full redemption of the First Lien Notes in August 2021, including a prepayment premium and accelerated amortization of prior debt issuance and discount costs.

(h) Represents litigation and other professional fees associated with our EO sterilization facilities. See Note 20 “Commitments and Contingencies”.

(i) Represents the cost to settle 870+ pending and threatened EO claims against the Defendant Subsidiaries in Illinois under settlement term sheets entered into on January 9, 2023, subject to substantially all of the plaintiffs providing opt-in consents to their individual settlement allocations and dismissing their claims with prejudice. See Note 20 “Commitments and Contingencies”.

(j) Represents non-cash accretion of asset retirement obligations related to gamma and EO processing facilities, which are based on estimated site remediation costs for any future decommissioning of these facilities (without regard for whether the decommissioning services would be performed by employees of Nordion, instead of by a third party) and are accreted over the life of the asset.

(k) Represents non-recurring costs associated with the COVID-19 pandemic, including incremental costs to implement workplace health and safety measures.

(l) Represents the income tax impact of adjustments calculated based on the tax rate applicable to each item. We eliminate the effect of tax rate changes as applied to tax assets and liabilities, and unusual items from our presentation of adjusted net income.

(m) The year ended December 31, 2022 excludes a $1.7 million net decrease in the fair value of interest rate derivatives not designated as hedging instruments recorded to interest expense.

(n) Includes depreciation of Co-60 held at gamma irradiation sites.

(o) Represents the difference between income tax expense or benefit as determined under U.S. GAAP and the income tax benefit associated with pre-tax adjustments described in footnote (l).

(p) $83.6 million and $85.3 million of the adjustments for the year ended December 31, 2022 and 2021 , respectively, are included in cost of revenues, primarily consisting of amortization of intangible assets, depreciation, and accretion of asset retirement obligations.

SEGMENT RESULTS OF OPERATIONS

We have three reportable segments: Sterigenics, Nordion and Nelson Labs. Our chief operating decision maker evaluates performance and allocates resources within our business based on segment income, which excludes certain items which are

included in income (loss) before tax as determined in our Consolidated Statements of Operations and Comprehensive Income (Loss). The accounting policies for our reportable segments are the same as those for the consolidated Company.

Our Segments

Sterigenics

Our Sterigenics business provides outsourced terminal sterilization and irradiation services for the medical device, pharmaceutical, food safety and advanced applications markets using three major technologies: gamma irradiation, EO processing and E-beam irradiation.

Nordion

Our Nordion business is a leading global provider of Co-60 used in the sterilization and irradiation processes for the medical device, pharmaceutical, food safety, and high-performance materials industries, as well as in the treatment of cancer. In addition, Nordion is a leading global provider of gamma irradiation systems.

As a result of the time required to meet regulatory and logistics requirements for delivery of radioactive products, combined with accommodations made to our customers to minimize disruptions to their operations during the installation of Co-60, Nordion sales patterns can often vary significantly from one quarter to the next. However, timing-related impacts on our sales performance tend to be resolved within several quarters, resulting in more consistent performance over longer periods of time. In addition, sales of gamma irradiation systems occur infrequently and tend to be for larger amounts.

Results for our Nordion segment are impacted by Co-60 mix, harvest schedules, as well as customer, product and service mix.

Nelson Labs

Our Nelson Labs business provides outsourced microbiological and analytical chemistry testing and advisory services for the medical device and pharmaceutical industries.

For more information regarding our reportable segments please refer to Item 1. “Business” and Note 22, “Segment and Geographic Information” to our consolidated financial statements.

Segment Results for the Years Ended December 31, 2022 and 2021

The following section summarizes the segment results for the years ended December 31, 2022 and 2021. The discussion of the segment results for the years ended December 31, 2021 and 2020 are presented within our Annual Report on Form 10-K for the year ended December 31, 2021 under "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations - Segment Results for the years ended December 31, 2021 and 2020."

The following tables compare segment net revenue and segment income for the year ended December 31, 2022 to the year ended December 31, 2021:

(in thousands)	Year Ended December 31, 2022	2021	$ Change	% Change
Net Revenues				
Sterigenics	**$ 626,646**	$ 571,829	$ 54,817	9.6%
Nordion	**153,639**	140,507	13,132	9.3%
Nelson Labs	**223,402**	219,142	4,260	1.9%
Segment Income				
Sterigenics	**$ 339,144**	$ 310,470	$ 28,674	9.2%
Nordion	**89,477**	82,673	6,804	8.2%
Nelson Labs	**77,628**	88,086	(10,458)	(11.9%)
Segment Income Margin				
Sterigenics	**54.1 %**	54.3 %		
Nordion	**58.2 %**	58.8 %		
Nelson Labs	**34.7 %**	40.2 %		

Net Revenues

Sterigenics net revenues were $626.6 million for the year ended December 31, 2022, an increase of $54.8 million, or 9.6%, as compared to the prior year. The increase reflects organic volume growth of 6.2%, a favorable impact from pricing of 5.8%, partially offset by unfavorable impacts from changes in foreign currency exchange rates of 2.4%.

Nordion net revenues were $153.6 million for the year ended December 31, 2022, an increase of $13.1 million, or 9.3%, as compared to the prior year. The increase was driven by favorable pricing of 7.7% and higher volume of 4.4%, partially offset by a 2.8% impact from the strengthening of the US dollar compared to the Canadian dollar during 2022.

Nelson Labs net revenues were $223.4 million for the year ended December 31, 2022, an increase of $4.3 million, or 1.9%, as compared to the prior year. The net revenue increase was driven primarily by 5.5% of revenue growth from the 2021 acquisitions and positive impacts from pricing of 5.4%. Partially offsetting these growth factors was a 5.2% decline in revenue related to the testing of personal protective equipment and a 2.5% unfavorable impact from changes in foreign currency exchange rates.

Segment Income

Sterigenics segment income was $339.1 million for the year ended December 31, 2022, an increase of $28.7 million, or 9.2%, as compared to the prior year. The increase in segment income was primarily a result of volume growth and favorable pricing, as referenced above. The slight decline in segment income margin as compared to the prior year was due to timing of pricing actions versus realized inflation.

Nordion segment income was $89.5 million for the year ended December 31, 2022, an increase of $6.8 million, or 8.2%, as compared to the prior year. The increase in segment income was due to the favorable impacts of customer pricing and volume growth, as referenced above. The decrease in segment income margin was due to unfavorable mix partially offset by favorable pricing.

Nelson Labs segment income was $77.6 million for the year ended December 31, 2022, a decrease of $10.5 million, or 11.9%, as compared to the prior year. The decrease in segment income was primarily driven by unfavorable revenue mix driven by a reduction in pandemic-related testing, increased staffing in anticipation of incremental volume, and inflationary pressures, partially offset by favorable pricing as mentioned above. The 5.5% decrease in segment income margin is a result of the aforementioned factors coupled with dilution resulting from the margin profile of recent acquisitions.

LIQUIDITY AND CAPITAL RESOURCES

Sources of Cash

The primary sources of liquidity for our business are cash flows from operations and borrowings under our credit facilities. As of December 31, 2022, we had $396.3 million of cash and cash equivalents. This is an increase of $289.4 million from the balance at December 31, 2021. Our foreign subsidiaries held cash of approximately $158.3 million at December 31, 2022 and $87.9 million at December 31, 2021, to meet their liquidity needs. No material restrictions exist to accessing cash held by our foreign subsidiaries notwithstanding any potential tax consequences.

On February 23, 2023 the Company successfully closed on a new senior secured Term Loan B facility in an aggregate principal amount of $500.0 million. The Company plans to use proceeds of this debt, along with available cash, to a) fund a previously announced $408.0 million EO litigation settlement in Cook County, Illinois, subject to the satisfaction or waiver by the Company of the various conditions for the settlement, b) pay down existing borrowings under the Company's revolving credit facility, c) further enhance liquidity, and d) for general corporate purposes. Refer to "Debt Facilities" below within this Item, Note 10, "Long-Term Debt", and Item 1A, "Risk Factors" - "Risks Related to Our Indebtedness and Liquidity." for additional information.

Uses of Cash

We expect that cash on hand, operating cash flows and amounts available under our credit facilities will provide sufficient working capital to operate our business, meet foreseeable liquidity requirements, inclusive of debt service on our long-term debt, and capital expenditures including investments in fixed assets to build and/or expand existing facilities. As of December 31, 2022, there was $200.0 million outstanding borrowings on the Revolving Credit Facility. Our ability to meet future working capital, capital expenditure and debt service requirements will depend on our future financial performance, which will be affected by a range of macroeconomic, competitive and business factors, including interest rate changes and changes in our industry, many of which are outside of our control. As of December 31, 2022, our interest rate caps limit our cash flow exposure related to LIBOR (or its successor) for the majority of the principal amount outstanding on our variable rate borrowings under the Term Loan. Refer to Note 21, "Financial Instruments and Financial Risk" under the heading "Derivative Instruments" for additional information regarding the interest rate caps used to manage economic risks associated with our variable rate borrowings. Refer to Item 7A., "Quantitative and Qualitative Disclosures About Market Risk" for additional information about changes in interest rate risk.

In addition to our operations, our primary long-term liquidity requirements include servicing our debt, investing in capital expenditures, funding suitable business acquisitions, and making expenditures for other general corporate purposes. Our significant categories of contractual cash obligations required to operate our business that extend beyond December 31, 2022 are described in "Contractual Obligations and Commercial Commitments" below.

Capital Expenditures

Our capital expenditure program is a component of our long-term strategy. This program includes, among other things, investments in new facilities and enhancements in controls and other critical aspects of our existing facilities, business expansion projects, Co-60 used by Sterigenics at its gamma irradiation facilities, Co-60 development projects and information technology enhancements. During the year ended December 31, 2022, our capital expenditures amounted to $182.4 million, compared to $102.2 million in the year ended December 31, 2021. This amount includes approximately $31.6 million related to environmental facility enhancements.

In 2023, we expect to continue to invest in facility expansions, ongoing routine maintenance for existing facilities, and acquisition of Co-60 for use by our Sterigenics segment in its gamma irradiation facilities. In addition, we expect to invest in special projects related to development of new Co-60 supply sources and facility enhancements at our EO sterilization facilities. We currently expect our capital expenditures to be higher in 2023 than in recent years and remain elevated over the next several years as we execute on those special projects in addition to our normal growth and maintenance related investments. For 2023,

considering our typical growth and maintenance projects, along with the special projects, we expect capital expenditures to be in the range of approximately $185.0 million to $215.0 million, of which approximately $33.2 million and $31.6 million relate to environmental facility enhancements and cobalt development projects, respectively. We expect similar investments in environmental facility enhancements and cobalt development projects in subsequent years.

Debt Facilities

Senior Secured Credit Facilities

On December 13, 2019, Sotera Health Holdings, LLC ("SHH"), our wholly owned subsidiary, entered into senior secured first lien credit facilities (the "Senior Secured Credit Facilities"), consisting of both a prepayable senior secured first lien term loan (the "Term Loan") and a senior secured first lien revolving credit facility (the "Revolving Credit Facility") pursuant to a first lien credit agreement (the "2019 Credit Agreement"). The Revolving Credit Facility and Term Loan mature on June 13, 2026, and December 13, 2026, respectively. The total borrowing capacity under the Revolving Credit Facility is $347.5 million. The Senior Secured Credit Facilities also provide SHH the right at any time and under certain conditions to request incremental term loans or incremental revolving credit commitments based on a formula defined in the Senior Secured Credit Facilities. As of December 31, 2022 and 2021, total borrowings under the Term Loan were $1,763.1 million and $1,763.1 million, respectively, As of December 31, 2022 and 2021 total borrowings outstanding on the Revolving Credit Facility were $200.0 million and $0, respectively. The weighted average interest rate on borrowings under the Term Loan for the year ended December 31, 2022 and 2021 was 4.63% and 3.44%, respectively.

On February 23, 2023, we entered into the First Lien Credit Agreement (the "2023 Credit Agreement"), which provides for, among other things, a new Term Loan B facility in an aggregate principal amount of $500.0 million and bears interest, at the Company's option, at a per annum rate equal to either (x) the Term SOFR Rate (as defined in the 2023 Credit Agreement) plus an applicable margin of 3.75% or (y) an alternative base rate ("ABR") plus an applicable margin of 2.75%. The 2023 Credit Agreement is secured on a first priority basis on substantially all of our assets and is guaranteed by certain of our subsidiaries. It is prepayable without penalty at any time six months after the closing date. The principal balance shall be paid at 1% of the total, or $5.0 million per year, with the balance due at the end of 2026.

On January 20, 2021, we closed on an amendment repricing our Term Loan. The interest rate spread over the London Interbank Offered Rate ("LIBOR") on the facility was reduced from 450 basis points to 275 basis points, and the facility's LIBOR floor was reduced from 100 basis points to 50 basis points. The change resulted in an effective reduction in current interest rates of 225 basis points. In connection with this amendment, we wrote off $11.3 million of unamortized debt issuance and discount costs and incurred an additional $2.9 million of expense related to debt issuance costs attributable to the refinancing. These costs were recorded to "Loss on extinguishment of debt" in our Consolidated Statements of Operations and Comprehensive Income (Loss). Subsequent to the IPO, the remaining principal balance matures on December 13, 2026.

Borrowings under the Revolving Credit Facility bear interest at a rate per annum equal to an applicable margin, plus, at our option, either (a) an alternative base rate "ABR" or (b) a LIBOR rate. In addition to paying interest on any outstanding borrowings under the Revolving Credit Facility, SHH is required to pay a commitment fee to the lenders under the Revolving Credit Facility in respect of the unutilized commitments thereunder and customary letter of credit fees. The Revolving Credit Facility contains a maximum senior secured first lien net leverage ratio covenant of 9.00 to 1.00, tested on the last day of each fiscal quarter if, on the last day of such fiscal quarter, the sum of (i) the aggregate principal amount of the revolving loans then outstanding under the Revolving Credit Facility, plus (ii) the aggregate amount of letter of credit disbursements that have not been reimbursed within two business days following the end of the fiscal quarter, exceeds the greater of $139.0 million and 40.0% of the aggregate principal amount of the revolving commitments then in effect.

On March 26, 2021, we amended the Revolving Credit Facility, to (i) decrease the Applicable Rate (as defined in the 2019 Credit Agreement) related to any Revolving Loans (as defined in the 2019 Credit Agreement) from a rate per annum that ranged from an alternative base rate ("ABR") plus 2.50% to ABR plus 3.00% depending on SHH's Senior Secured First Lien Net Leverage Ratio to ABR plus 1.75%; and in the case of Eurodollar Loans (as defined in the 2019 Credit Agreement) from a rate per annum which ranged from the Adjusted LIBOR plus 3.50% to the Adjusted LIBOR plus 4.00% depending on SHH's Senior Secured First Lien Net Leverage Ratio (as defined in the 2019 Credit Agreement), to the Adjusted LIBOR (as defined in the 2019 Credit Agreement) plus 2.75%, and (ii) extend the maturity date of the Revolving Facility from December 13, 2024 to June 13, 2026. The other material terms of the 2019 Credit Agreement are unchanged and the amendment does not change the capacity of our Revolving Credit Facility. No unamortized debt issuance costs associated with the Revolving Credit Facility were written off and direct fees and costs incurred in connection with the amendment were immaterial.

The Senior Secured Credit Facilities contain additional covenants that, among other things, restrict, subject to certain exceptions, our ability and the ability of our restricted subsidiaries to engage in certain activities, such as incur indebtedness or permit to exist any lien on any property or asset now owned or hereafter acquired, as specified in the Senior Secured Credit Facilities. The Senior Secured Credit Facilities also contain certain customary affirmative covenants and events of default, including upon a change of control. An event of default under the Senior Secured Credit Facilities would occur if the Company or certain of its subsidiaries received one or more enforceable judgments for payment in an aggregate amount in excess of $100.0 million, which judgment or judgments are not stayed or remain undischarged for a period of sixty consecutive days or if, in order to enforce such a judgment, a judgment creditor attached or levied upon assets that are material to the business and operations, taken as a whole, of the Company and certain of its subsidiaries. As of December 31, 2022, we were in compliance with all the Senior Secured Credit Facilities covenants.

All of SHH's obligations under the Senior Secured Credit Facilities are unconditionally guaranteed by the Company and each existing and subsequently acquired or organized direct or indirect wholly-owned domestic restricted subsidiary of the Company, with customary exceptions including, among other things, where providing such guarantees is not permitted by law, regulation or contract or would result in material adverse tax consequences. All obligations under the Senior Secured Credit Facilities, and the guarantees of such obligations, are secured by substantially all assets of the borrower and guarantors, subject to permitted liens and other exceptions and exclusions, as outlined in the Senior Secured Credit Facilities.

Outstanding letters of credit are collateralized by encumbrances against the Revolving Credit Facility and the collateral pledged thereunder, or by cash placed on deposit with the issuing bank. As of December 31, 2022, the Company had $66.0 million of letters of credit issued against the Revolving Credit Facility, resulting in total availability under the Revolving Credit Facility of $81.5 million.

Term Loan Interest Rate Risk Management

The Company utilizes interest rate derivatives to reduce the variability of cash flows in the interest payments associated with the Term Loan due to changes in LIBOR (or its successor). For additional information on the derivative instruments described above, refer to Note 21, "Financial Instruments and Financial Risk, Derivatives Instruments."

First Lien Notes

On July 31, 2020, SHH issued $100.0 million aggregate principal amount of senior secured first lien notes due 2026 (the "First Lien Notes"), which were scheduled to mature on December 13, 2026. On August 27, 2021 SHH redeemed in full the $100.0 million aggregate principal amount of the First Lien Notes. In connection with this redemption, the Company paid a $3.0 million early redemption premium, in accordance with the terms of the First Lien Notes Indenture, and wrote off $3.4 million of debt issuance and discount costs. The Company recognized these expenses within "Loss on extinguishment of debt" in our Consolidated Statements of Operations and Comprehensive Income (Loss) for the year ended December 31, 2021.

Prior to the redemption, the First Lien Notes bore interest at a rate equal to LIBOR subject to a 1.00% floor plus 6.00% per annum. Interest was payable on a quarterly basis with no principal due until maturity. The weighted average interest rate on the First Lien Notes during 2021 up to the August 27, 2021 redemption date was 7.00%.

Second Lien Notes

On December 13, 2019, SHH issued $770.0 million of Second Lien Senior Secured Notes (the "Second Lien Notes"), which had a maturity date of December 13, 2027. The Second Lien Notes bore interest at a rate equal to LIBOR subject to a 1.00% floor plus 8.00% per annum. On December 14, 2020, SHH redeemed in full all of the $770.0 million aggregate principal amount of the First Lien Notes (as described below in "2020 Debt Repayments"). The weighted average interest rate on the Second Lien Notes through the redemption date of December 14, 2020 was 9.35%.

SHH was entitled to redeem all or a portion of the Second Lien Notes, at any time and from time to time, subject to certain premiums depending on the date of redemption. Any time prior to December 13, 2020, a customary make-whole premium applied and, thereafter, specified premiums that declined to zero applied (in each case as described in the indenture governing the Second Lien Notes). In addition, under certain circumstances, such as an initial public offering or certain changes of control, SHH had certain additional redemption rights (as described in the indenture governing the First Lien Notes).

2020 Debt Repayments

Almost all of the net proceeds of the Company's IPO were used to redeem all of the outstanding aggregate principal amount of the Second Lien Notes and to repay a portion of the outstanding indebtedness under our Term Loan. In November 2020, the Company repaid $341.0 million aggregate principal amount of the Term Loan. In December 2020, the Company redeemed in full all of the $770.0 million aggregate principal amount of its then outstanding Second Lien Notes. For these two transactions combined, we wrote off $28.9 million of debt issuance and discount costs and recognized $15.4 million in premiums paid in connection with the early extinguishment of the Second Lien Notes. We recognized these costs within "Loss on extinguishment of debt" in our Consolidated Statements of Operations and Comprehensive Income (Loss).

Cash Flow Information

The following section summarizes cash flow information for the years ended December 31, 2022 and 2021. Cash flow information for the years ended December 31, 2021 and 2020 are presented within our Annual Report on Form 10-K for the year ended December 31, 2021 under "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations - Liquidity and Capital Resources."

Year Ended December 31, 2022 compared to the Year Ended December 31, 2021

(thousands of U.S. dollars)	**2022**	2021
Net Cash Provided by (Used in):		
Operating activities	**$ 277,961**	$ 281,545
Investing activities	**(181,896)**	(159,833)
Financing activities	**197,761**	(117,286)
Effect of foreign currency exchange rate changes on cash and cash equivalents	**(4,456)**	44
Net increase in cash and cash equivalents, including restricted cash, during the period	**$ 289,370**	$ 4,470

Operating activities

Cash flows provided by operating activities decreased $3.6 million to net cash provided of $278.0 million in the year ended December 31, 2022 compared to $281.5 million for the prior year. The decrease in cash flows from operating activities in 2022 compared to the prior year was largely driven by a decrease in operating income of $8.4 million.

Investing activities

Cash used in investing activities increased $22.1 million to net cash used of $181.9 million in the year ended December 31, 2022 compared to $159.8 million for the prior year. Capital expenditures increased $80.2 million in the year ended December 31, 2022 compared to the prior year. The year ended December 31, 2021 included cash paid for acquisitions of $57.0 million which did not recur in 2022. In the year ended December 31, 2021, we acquired BioScience Labs for a net purchase price of approximately $13.5 million, completed the acquisition of the remaining 15% ownership of Nelson Labs Fairfield for $12.4 million, and acquired RCA for approximately $31.0 million.

Financing activities

For the year ended December 31, 2022, net cash provided by financing activities was $197.8 million compared to net cash used of $117.3 million for the year ended December 31, 2021. For the year ended December 31, 2022 the primary source of cash was a $200.0 million borrowing on the Revolving Credit Facility. For the year ended December 31, 2021 the principal uses of cash in financing activities were $100.0 million for the full redemption of the First Lien Notes, $8.4 million for the acquisition of the noncontrolling interests in our China subsidiaries and $6.8 million of debt issuance costs and prepayment premium incurred in connection with our refinancing of the Senior Secured Credit Facilities and the early redemption of the First Lien Notes.

CONTRACTUAL OBLIGATIONS AND COMMERCIAL COMMITMENTS

The following table describes our significant contractual cash obligations as of December 31, 2022:

	Payments due by period				
(thousands of U.S. dollars)	**Total**	**Less than 1 Year**	**2-3 Years**	**4-5 Years**	**More than 5 Years**
Long-term debt [(a)]	**$ 2,437,734**	$ 120,156	$ 256,381	$ 2,061,197	$ —
Lease obligations:					
Finance [(b)]	**87,045**	4,850	15,656	8,986	57,553
Operating [(c)]	**34,402**	9,065	10,636	7,195	7,506
Supply and service obligations [(d)]	**1,586,689**	83,812	59,988	103,191	1,339,698
Direct material costs [(e)]	**107,152**	13,483	25,492	26,360	41,817
Illinois EO litigation settlement[(f)]	**408,000**	408,000	—	—	—
Total	**$ 4,661,022**	**$ 639,366**	**$ 368,153**	**$ 2,206,929**	**$ 1,446,574**

(a) Represents principal and interest payments on the Senior Secured Credit Facilities. We have calculated the interest payments on the Senior Secured Credit Facilities using an assumed range of 2.71% to 5.00% based on anticipated forward movements in LIBOR (and SOFR after July 31, 2023). In addition, interest payments include the impact of existing interest rate caps described in Note 21, "Financial Instruments and Financial Risk" in the notes to consolidated financial statements.

(b) Consists of payments under our finance leases for various equipment and facilities.

(c) Represents minimum lease payments under our operating leases for several of our facilities and other property and equipment, net of sublease payments.

(d) Consists of our best estimate of our obligations under various supply and service agreements, primarily Co-60, that are enforceable and legally binding on us.

(e) Consists of our best estimate of our obligations to purchase EO gas under commitments that are enforceable and legally binding on us. We have excluded contracts to purchase energy and other supplies, which generally have terms of one year or less. Our contract to purchase EO gas in the U.S. requires us to purchase all our requirements from our supplier, and our contracts to purchase EO gas outside the U.S. generally require that we purchase a specified percentage of our requirements for our operations in the countries covered by those contracts. Although our EO gas contracts generally do not contain fixed minimum purchase volumes, we have calculated the amounts set forth in the table above based on the percentage of our requirements specified in the contracts and our budgeted purchase volumes for those periods.

(f) Represents the cost to settle 870+ pending and threatened EO claims against the Defendant Subsidiaries in Illinois under settlement term sheets entered into on January 9, 2023, subject to substantially all of the plaintiffs providing opt-in consents to their individual settlement allocations and dismissing their claims with prejudice. See Note 20 "Commitments and Contingencies".

At December 31, 2022 and 2021, we had $101.5 million and $144.7 million, respectively, of standby letters of credit, surety bonds and other bank guarantees outstanding, primarily in favor of local and state licensing authorities for future decommissioning costs, and to support the unfunded portion of our pension obligation. We are obligated to provide financial assurance to local and state licensing authorities for possible future decommissioning costs associated with the various facilities that hold Co-60. At December 31, 2022 and 2021, $54.1 million and $50.5 million, respectively, of the standby letters of credit and surety bonds referenced above were outstanding in favor of the various local and state licensing authorities in the event we defaulted on our decommissioning obligation.

CRITICAL ACCOUNTING POLICIES AND ESTIMATES

The following subsections describe our most critical accounting policies, estimates, and assumptions. Our discussion of critical accounting policies and estimates is intended to supplement, not duplicate, our summary of significant accounting policies so that readers will have greater insight into the uncertainties involved in these areas. Our accounting policies are more fully described in Note 1, "Significant Accounting Policies" to our consolidated financial statements.

The preparation of consolidated financial statements and related disclosures in conformity with accounting principles generally accepted in the United States of America requires management to make judgments, estimates and assumptions at a specific

point in time and in certain circumstances that affect amounts reported in the accompanying consolidated financial statements. In preparing these consolidated financial statements, management has made its best estimates and judgments of certain amounts, giving due consideration to materiality. The application of accounting policies involves the exercise of judgment and use of assumptions as to future uncertainties and, as a result, actual results could differ from these estimates.

Revenue Recognition. The majority of our sales agreements contain performance obligations satisfied at a point in time when control of promised goods or services have transferred to our customers. For agreements with multiple performance obligations, judgment is required to determine whether performance obligations specified in these agreements are distinct and should be accounted for as separate revenue transactions for recognition purposes. In these types of agreements, we generally allocate sales price to each distinct obligation based on the relative price of each item sold in stand-alone transactions. Revenues recognized over time are generally accounted for using an input measure to determine progress completed as of the end of the period.

Refunds, returns, warranties and other related obligations are not material to any of our business units, nor do we incur material incremental costs to secure customer contracts.

The Sterigenics segment provides outsourced terminal sterilization and irradiation services for the medical device, pharmaceutical, food safety and advanced applications markets. We typically have multi-year service contracts with our significant customers, and these sales contracts are primarily based on a customer's purchase order. Given the relatively short turnaround times, performance obligations are generally satisfied at a point-in-time upon the completion of sterilization or irradiation processing once approved by our quality assurance process, at which time the service is complete.

The Nordion segment is a provider of Co-60 and gamma irradiation systems, which are key components to the gamma sterilization process. Revenue from the sale of Co-60 radiation sources is recognized at a point-in-time upon satisfaction of our performance obligations for delivery/installation and disposal of existing sources. Revenue from the sale of gamma irradiation systems in our Nordion segment is recognized over time using an input measure of costs incurred and is immaterial to the overall business.

The Nelson Labs segment provides outsourced microbiological and analytical chemistry testing and advisory services for the medical device and pharmaceutical industries. We provide our customers mission-critical lab testing services, which assess the product quality, effectiveness, patient safety and end-to-end sterility of products. These services are necessary for our customers' regulatory approvals, product releases and ongoing product performance evaluations. Nelson Labs services are generally provided on a fee-for-service or project basis, and we recognize revenues over time using an input measure of time incurred to determine progress completed at the end of the period. Revenue recognized over time in excess of the amount billed to the customer is recorded as a customer contract asset. When we receive consideration from a customer prior to transferring goods or services under the terms of a sales contract, we record deferred revenue, which represents a contract liability. We utilize our customer relationship management system to assess time incurred and the extent of project completion at the end of the period.

We do not capitalize sales commissions as substantially all of our sales commission programs have an amortization period of one year or less. Furthermore, costs to fulfill a contract are not material.

Provisions for discounts, rebates to customers, and other adjustments are provided for as reductions in net revenues in the period the related sale was recorded. Shipping and handling charges billed to customers are included in net revenues, and the related shipping and handling costs are included in cost of net revenues on the Consolidated Statements of Operations and Comprehensive Income (Loss). Taxes assessed by a governmental authority that are both imposed on and concurrent with a specific revenue-producing transaction, that are collected by us from a customer, are excluded from net revenue.

Payment terms vary by the type and location of the customer and the products or services offered. Generally, the time between when revenue is recognized and when payment is due is not significant. We do not evaluate whether the selling price contains a financing component for contracts that have a duration of less than one year.

Long-Lived Assets Other than Goodwill. We review long-lived assets, including finite-lived intangibles for impairment whenever events or circumstances indicate that the carrying amount of the assets may be impaired. Events or circumstances which would result in an impairment assessment include operating losses, a significant change in the use of an asset, or the planned disposal or sale of the asset. When we evaluate assets for impairment, we make certain judgments and estimates, including interpreting current economic indicators and market valuations, evaluating our strategic plans with regards to operations, historical and anticipated performance of operations, and other factors. If we incorrectly anticipate these factors, or

unexpected events occur, our operating results could be materially affected. The asset or asset group would be considered impaired when the future net undiscounted cash flows generated by the asset or asset group are less than its carrying value.

An impairment loss would be recognized based on the amount by which the carrying value of the asset or asset group exceeds its estimated fair value. We provide additional information about our long-lived assets other than goodwill in Notes 7, "Property, Plant and Equipment" and 8, "Goodwill and Other Intangible Assets" to our consolidated financial statements.

Goodwill and Other Indefinite-Lived Intangibles. Assets and liabilities of a business acquired are accounted for at their estimated fair values as of the acquisition date. Any excess of the cost of the acquisition over the fair value of the net tangible and intangible assets acquired is recorded as goodwill. We generally supplement management expertise with valuation specialists in performing appraisals to assist us in determining the fair values of assets acquired and liabilities assumed. These valuations require us to make estimates and assumptions, especially with respect to intangible assets. We generally amortize our intangible assets over their useful lives with the exception of indefinite lived intangible assets. We do not amortize goodwill, but we evaluate it annually for impairment. Therefore, the allocation of the purchase price to intangible assets and goodwill has a significant impact on future operating results.

Goodwill and other indefinite-lived intangible assets, primarily certain regulatory licenses and trade names, are tested for impairment annually as of October 1. If circumstances change during interim periods between annual tests that would indicate that the carrying amount of such assets may not be recoverable, the company would test such assets at an interim date for impairment. Factors which would necessitate an interim impairment assessment include prolonged negative industry or economic trends and significant underperformance relative to historical or projected future operating results.

At December 31, 2021, goodwill and intangible assets totaled $1,593.0 million, or 51.1% of our total assets. We consider the impairment analysis of these assets critical due to their quantitative significance to the Company and our segments.

Goodwill is assigned to our segments at December 31, 2022 as follows:

(thousands of U.S. dollars)	Sterigenics	Nordion	Nelson Labs	Total
Goodwill at December 31, 2022	**$ 657,458**	**$ 270,966**	**$ 173,344**	**$ 1,101,768**

We performed a quantitative assessment of all reporting units (Sterigenics, Nordion and Nelson Labs) as of October 1, 2022. The fair value of each reporting unit was calculated using a discounted cash flow analysis which was dependent on subjective market participant assumptions determined by management. Assumptions used in the analyses included discount rates, revenue growth rates and projected operating cash flows. Estimates of future cash flows are based upon relevant data at a point-in-time, are subject to change, and could vary from actual results. Cash flows are based on recent historical results and are consistent with the Company's near-term financial forecasts and long-term strategic plans. The estimated fair value of Sterigenics, Nordion and Nelson Labs each exceeded its carrying amount (including goodwill) by an adequate margin to support a positive assertion that goodwill is not impaired as of October 1, 2022. No factors were identified that would result in the potential impairment to the indefinite-lived intangible assets. We performed a qualitative update to our annual goodwill impairment assessment in response to the announcement of the Illinois EO litigation settlement on January 9. The updated assessment resulted in no change to our conclusion. There have been no other significant events or circumstances that occurred since the annual assessment date of October 1 that would change the conclusions reached above. We provide additional information about our goodwill and other indefinite-lived intangible assets in Note 8, "Goodwill and Other Intangible Assets" to our consolidated financial statements.

Income Taxes. We use the liability method of accounting for income taxes whereby we recognize deferred tax assets and liabilities for the future tax consequences of temporary differences between the tax bases of assets and liabilities and their reported amounts in the consolidated financial statements. Measurements of deferred taxes requires the use of judgment with respect to the realization of tax basis. We periodically review our deferred tax assets for recoverability and establish a valuation allowance based on historical taxable income, projected future taxable income, expected timing of reversals of existing temporary timing differences and the implementation of tax planning strategies. Deferred tax assets will be reduced by a valuation allowance if, based on management's estimate, it is more likely than not that a portion of the deferred tax assets will not be realized in a future period. The estimates used in the recognition of deferred tax assets are subject to revision in future periods based on new facts and circumstances. At December 31, 2022 and 2021 a valuation allowance of $90.2 million and $44.8 million, respectively, was established against excess interest expense on our long-term debt in the United States as well as $8.0 million against state tax attributes. In addition, at December 31, 2022 and 2021, a valuation allowance was established against foreign net operating loss carryforwards for $3.0 million and $3.2 million, respectively. If we are unable to generate sufficient future taxable income in certain tax jurisdictions, or if there is a material change in the effective income tax rates or

time period within which the underlying temporary differences become taxable or deductible, we could be required to increase our valuation allowance, which would increase our effective income tax rate and could result in an adverse impact on our consolidated financial position or results of operations. Changes in our judgment related to the measurement of deferred tax assets and liabilities could materially impact our results of operations.

We determine whether it is more likely than not that a tax position will be sustained upon examination, including resolution of related appeals or litigation processes, based on the technical merits of the position. In evaluating whether a tax position has met the more likely-than-not recognition threshold, we presume that the position will be examined by the appropriate taxing authority and that the taxing authority will have full knowledge of all relevant information. A tax position that meets the more likely-than-not recognition threshold is measured at the largest amount of benefit that is greater than 50% likely of being realized upon ultimate settlement. Determining what constitutes an individual tax position and whether the more likely-than-not recognition threshold is met for a tax position are matters of judgment based on the individual facts and circumstances of that position evaluated in light of all available evidence. We review and adjust tax estimates periodically because of ongoing examinations by, and settlements with, the various taxing authorities, as well as changes in tax laws, regulations, and precedent. Changes in our judgment related to the assessment of uncertain tax positions could materially impact our results of operations.

We are subject to taxation from federal, state and local, and foreign jurisdictions. Tax positions are settled primarily through the completion of audits within each individual tax jurisdiction or the closing of a statute of limitation. Changes in applicable tax law or other events may also require us to revise past estimates. The United States Internal Revenue Service routinely conducts audits of our federal income tax returns. Additional information regarding income taxes is included in Note 11, “Income Taxes” to our consolidated financial statements.

Commitments and Contingencies. We are, and will likely continue to be, involved in a number of legal proceedings, government investigations and claims, which we believe generally arise in the course of our business, given our size, history, complexity and the nature of our business, products, customers, regulatory environment and industries in which we participate. These legal proceedings, investigations and claims generally involve a variety of legal theories and allegations, including, without limitation, personal injury (e.g., slip and falls, burns, vehicle accidents, mass tort), regulation (e.g., failure to meet specification or failure to comply with regulatory requirements), commercial claims (e.g., breach of contract, economic loss, misrepresentation), financial (e.g., taxes, reporting), employment (e.g., wrongful termination, discrimination, benefits matters) and other claims for damage and relief.

We record a liability for such contingencies to the extent we conclude that their occurrence is both probable and estimable. We consider many factors in making these assessments, including the professional judgment of experienced members of management and our legal counsel. We have made estimates as to the likelihood of unfavorable outcomes and the amounts of such potential losses. In our opinion, the ultimate outcome of these proceedings and claims is not anticipated to have a material adverse effect on our consolidated financial position, results of operations, or cash flows. However, the ultimate outcome of proceedings, government investigations and claims is unpredictable and actual results could be materially different from our estimates. We record gain contingencies when realized, and expected recoveries under applicable insurance contracts when we are assured of recovery. Refer to Note 20 “Commitments and Contingencies” to our consolidated financial statements.

As described in Note 20 “Commitments and Contingencies”, the Company reached agreements to settle more than 870 pending and threatened EO claims against the Defendant Subsidiaries in the Circuit Court of Cook County, Illinois, and US District Court for the Northern District of Illinois on January 9, 2023. Under the binding Term Sheets, the Company will pay $408.0 million to settle the claims, subject to substantially all of the plaintiffs providing opt-in consents to their individual settlement allocations and dismissing their claims with prejudice. Based on our assessment of the facts and circumstances that existed as of December 31, 2022, we concluded that this agreement amount was probable and estimable at December 31, 2022. Accordingly, we recorded a $408.0 million charge to expense for the year ended December 31, 2022.

NEW ACCOUNTING PRONOUNCEMENTS

For a description of recent accounting pronouncements applicable to our business, see Note 2, “Recent Accounting Standards” to our consolidated financial statements.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

We are exposed to market risks, primarily from changes in commodity prices, interest rates and foreign currency exchange, in the ordinary course of business.

Commodity Price Risk

We purchase our supply of EO gas from various suppliers around the world, but in the United States there is a sole supplier for EO gas used for applications relevant to our business. We are exposed to market risk based on fluctuations in the price of EO gas.

We actively seek to manage the risk of fluctuating prices through long-term supply and service contracts. Most of our Sterigenics customer contracts contain provisions that permit us to pass all or a portion of our supply price increases to our customers, though some of our contracts do not contain these provisions. Even for contracts that do contain these provisions, there could be at least a brief lag between when we incur increased costs for supplies and when we can pass through these costs to our customers. In addition, even when we are contractually permitted to pass on price increases, we may decide not to do so to preserve our sales volumes.

Regulatory Risk

We are subject to extensive regulatory requirements and routine regulatory audits, and we must receive permits, licenses, and/or regulatory clearance or approval for our operations. Regulatory agencies may refuse to grant approval or clearance or may require the provision of additional data, and regulatory processes may be time consuming and costly, and their outcome may be uncertain in certain of the countries in which we operate. Regulatory agencies may also change policies, adopt additional regulations or revise existing regulations, each of which could impact our ability to provide our services. Our failure to comply with the regulatory requirements of these agencies may subject us to administratively or judicially imposed sanctions. These sanctions include, among others, warning letters, fines, civil penalties, criminal penalties, injunctions, debarment, product seizure or detention and total or partial suspension of operations. The failure to receive or maintain, or delays in the receipt of, relevant U.S. or international regulatory qualifications could have a material adverse effect on our business, prospects, financial condition or results of operations.

Interest Rate Risk

We are subject to interest rate risk on borrowings that bear interest at floating rates. From time to time, the Company utilizes interest rate derivatives to reduce the variability of cash flows in the interest payments associated with our variable rate borrowings.

In May 2022, we entered into two interest rate cap agreements with a combined notional amount of $1,000.0 million for a total option premium of $4.1 million. The interest rate caps have a forward start date of July 31, 2023 and expire on July 31, 2024. We have designated these interest rate caps as cash flow hedges designed to hedge the variability of cash flows attributable to changes in the benchmark interest rate of our Term Loan. Under the current terms of the loan agreement, the benchmark interest rate index is expected to transition from LIBOR to term SOFR at the earlier of June 30, 2023 or the Company's election to "early opt-in" to SOFR. Accordingly, the interest rate cap agreements hedge the variability of cash flows attributable to changes in SOFR by limiting our cash flow exposure related to the term SOFR under a portion of our variable rate borrowings to 3.5%.

In October 2021, we entered into two interest rate cap agreements with a combined notional amount of $1,000.0 million for a total option premium of $1.8 million. Both interest rate caps have a forward start date beginning on December 31, 2022 and expire on July 31, 2023. These interest rate caps are designated as cash flow hedges and are designed to hedge the variability of cash flows attributable to changes in LIBOR (or its successor), the benchmark interest rate being hedged, by limiting our cash flow exposure related to the LIBOR base rate under a portion of our variable rate borrowings to 1.0%.

In June 2020, we entered into two interest rate cap agreements with notional amounts of $1,000.0 million and $500.0 million, respectively, for a total option premium of $0.3 million. These terminated on August 31, 2021 and February 28, 2022, respectively. The interest rate caps limit our cash flow exposure related to the LIBOR base rate under a portion of our variable rate borrowings to 1.0%. In February 2021, we amended the two interest rate cap agreements referenced above to reduce the strike rate from 1.0% to 0.5%, and extend the termination date of the $1,000.0 million notional cap to September 30, 2021. We also entered into two additional interest rate cap agreements in February 2021 with a combined notional amount of $1,000.0 million, for a total option premium of $0.4 million. These instruments were effective September 30, 2021, and terminated on December 31, 2022. The amended and new interest rate caps limit our cash flow exposure related to the LIBOR base rate under a portion of our variable rate borrowings to 0.5%.

Based on our indebtedness outstanding as of February 28, 2023, the interest rate under our Term Loans that was in effect on February 28, 2023, and after applying the effects of interest rate caps referenced above, a 1.0% increase in the interest rate under our outstanding debt obligations as of February 28, 2023, would increase interest expense by approximately $12.6 million per year.

See Note 21, “Financial Instruments and Financial Risk” to our consolidated financial statements for a summary of the activity of the interest rate caps for the periods presented.

Foreign Currency Risk

We are exposed to market risk from fluctuations in foreign currencies. We present our consolidated financial statements in U.S. dollars. Consequently, increases or decreases in the value of the U.S. dollar relative to the non-U.S. dollar functional currencies of the countries in which we operate may affect the value of these in our consolidated financial statements, even if their value has not changed in their local currency. We translate the financial statements of subsidiaries whose local currency is their functional currency to their U.S. dollar equivalents at end-of-period exchange rates for assets and liabilities and at average exchange rates for revenues and expenses. These translations could significantly affect the comparability of our results between financial periods and/or result in significant changes to the carrying value of our assets and liabilities. Translation adjustments are recorded as a component of accumulated other comprehensive income (loss) within equity.

Our results of operations are impacted by currency exchange rate fluctuations to the extent that we are unable to match net revenues received in foreign currencies with expenses incurred in the same currency. Transaction gains and losses arising from fluctuations in currency exchange rates on transactions denominated in currencies other than the functional currency are recognized in the Consolidated Statements of Operations and Comprehensive Income (Loss) as foreign exchange loss (gain).

Beginning in the fourth quarter of 2020, the Company began entering into monthly U.S. dollar-denominated foreign currency forward contracts to manage foreign currency exchange rate risk of our intercompany loans in certain of our international subsidiaries. The foreign currency forward contracts expire on a monthly basis. The fair value of the outstanding foreign currency forward contracts was $0.3 million and $0 as of December 31, 2022 and 2021.

Approximately 42.3% of our revenues and 43.2% of our consolidated total assets as of December 31, 2022 are derived from operations outside the United States. Holding other variables constant (such as interest rates and debt levels), if the U.S. dollar had appreciated by 10% against the foreign currencies used by our operations in the year ended December 31, 2022, revenues would have been reduced by approximately $42.5 million and gross profit by approximately $22.8 million.

Item 8. Financial Statements and Supplementary Data

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and the Board of Directors of Sotera Health Company

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Sotera Health Company (the Company) as of December 31, 2022 and 2021, the related consolidated statements of operations and comprehensive income (loss), equity and cash flows for each of the three years in the period ended December 31, 2022, and the related notes and financial statement schedule listed in the Index at Item 15(a)(2) (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2022 and 2021, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2022, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2022, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated February 28, 2023 expressed an unqualified opinion thereon.

Basis for Opinion

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

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

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the financial statements that were communicated or required to be communicated to the audit committee and that: (1) relate to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Valuation of Sterigenics Reporting Unit Goodwill

Description of the Matter

As disclosed in Note 8 of the consolidated financial statements, at December 31, 2022, the Company had $1.1 billion of goodwill; of that, $657.5 million related to the Sterigenics reporting unit. As discussed in Note 1 of the consolidated financial statements, management evaluates the carrying amount of goodwill for impairment annually as of October 1, and between annual evaluations when events occur or circumstances change that would more likely than not reduce the fair value of a reporting unit below its carrying amount. Management performed a quantitative impairment test for its annual evaluation of the Sterigenics reporting unit in 2022. As part of the quantitative impairment test, management estimated the fair value of the reporting unit using the discounted cash flow method, a form of the income approach.

Auditing the Company's annual Sterigenics reporting unit goodwill impairment assessment was complex due to the significant estimation required to determine the fair value of the reporting unit. In particular, this fair value estimate was sensitive to assumptions such as the discount rate and terminal period revenue growth rate. Elements of these assumptions are forward-looking and could be affected by future market or economic conditions.

How We Addressed the Matter in Our Audit

We obtained an understanding, evaluated the design and tested the operating effectiveness of controls over the Company's Sterigenics reporting unit goodwill impairment process whereby management develops assumptions that are used as inputs to the annual goodwill impairment test. This included controls over management's review of the valuation model and the assumptions described above.

To test the estimated fair value of the Sterigenics reporting unit, we performed audit procedures that included, among others, assessing the valuation methodology, testing the assumptions discussed above, and testing the completeness and accuracy of the underlying data used by management in its analysis. We compared the terminal period revenue growth rate used by management to industry data and economic trends, and changes to the Company's business model, customer base or product mix, as applicable. In addition, we involved our valuation specialists to assist with our evaluation of the methodology applied by management and the reasonableness of certain assumptions selected by management, including the discount rate. Specifically, we evaluated the components of the discount rate assumptions used by management by performing an independent corroborative calculation with the involvement of our valuation specialists. We performed sensitivity analyses of assumptions to evaluate the changes in the fair value of the reporting unit that would result from changes in the assumptions. We tested management's reconciliation of the fair value of the reporting units to the market capitalization of the Company. We also assessed the appropriateness of the related disclosures in the consolidated financial statements.

Ethylene Oxide Tort Litigation

Description of the Matter

As disclosed in Note 20 of the consolidated financial statements, certain subsidiaries of the Company have been subjected to personal injury and related tort lawsuits alleging various injuries caused by low-level environmental exposure to ethylene oxide (EO) emissions from sterilization facilities. Management establishes reserves for specific liabilities in connection with regulatory and legal actions that it determines to be both probable and reasonably estimable. If a potentially material loss contingency is not probable, but is reasonably possible, or is probable but cannot be estimated, then the nature of the contingent liability, together with an estimate of the range of possible loss if determinable and material, would be disclosed by the Company.

Auditing the Company's accounting for, and disclosure of, these loss contingencies was especially challenging due to the significant judgment required to evaluate management's assessments of the likelihood of a loss, and its determination of when the amount or range of loss is estimable. These judgments were impacted by uncertainties related to the ultimate outcome of the loss contingencies, the status of the litigation or the appeals processes, and the status of any settlement discussions associated with the loss contingencies.

How We Addressed the Matter in Our Audit

We obtained an understanding, evaluated the design and tested the operating effectiveness of controls over the identification and evaluation of these matters, including controls relating to management's assessment of the likelihood that a loss will be realized and its ability to reasonably estimate the potential range of possible losses.

To test the Company's assessment of the probability of incurrence of a loss, whether the loss was reasonably estimable, and the conclusion and disclosure regarding any range of possible losses, including when management determines it cannot be reasonably estimated, we performed audit procedures that included, among others, reading the minutes or a summary of the meetings of the committees of the board of directors, reading verdicts, motions, orders, binding term sheets, or summaries as we deemed appropriate, requesting and receiving internal and external legal counsel confirmation letters, meeting with internal legal counsel to discuss the nature of the various matters, and obtaining representations from management. We also assessed the appropriateness of the related disclosures in the consolidated financial statements.

/s/ Ernst & Young LLP

We have served as the Company’s auditor since 2019.

Akron, Ohio
February 28, 2023

Sotera Health Company

Consolidated Balance Sheets
(in thousands, except per share amounts)

	As of December 31, 2022	2021
Assets		
Current assets:		
Cash and cash equivalents	**$ 395,214**	$ 106,917
Restricted cash short-term	**1,080**	7
Accounts receivable, net of allowance for uncollectible accounts of $1,871 in 2022 and $1,287 in 2021, respectively	**118,482**	108,183
Inventories, net	**37,145**	54,288
Prepaid expenses and other current assets	**80,995**	71,923
Income taxes receivable	**12,094**	4,643
Total current assets	**645,010**	345,961
Property, plant, and equipment, net	**774,527**	650,797
Operating lease assets	**26,481**	39,946
Deferred income taxes	**4,101**	5,885
Investment in unconsolidated affiliate	**—**	9,405
Post-retirement assets	**35,570**	5,478
Other assets	**38,983**	12,866
Other intangible assets, net	**491,265**	598,844
Goodwill	**1,101,768**	1,120,320
Total assets	**$ 3,117,705**	$ 2,789,502
Liabilities and equity		
Current liabilities:		
Accounts payable	**$ 74,139**	$ 72,868
Accrued liabilities	**490,130**	61,861
Deferred revenue	**12,140**	8,669
Current portion of long-term debt	**197,119**	—
Current portion of finance lease obligations	**1,722**	1,160
Current portion of operating lease obligations	**7,554**	9,289
Current portion of asset retirement obligations	**2,896**	619
Income taxes payable	**5,867**	6,695
Total current liabilities	**791,567**	161,161
Long-term debt, less current portion	**1,747,115**	1,743,534
Finance lease obligations, less current portion	**56,955**	40,877
Operating lease obligations, less current portion	**21,577**	33,017
Noncurrent asset retirement obligations	**42,586**	41,833
Deferred lease income	**18,902**	20,745
Post-retirement obligations	**7,910**	11,464
Noncurrent liabilities	**12,831**	16,274
Deferred income taxes	**68,024**	134,501
Total liabilities	**2,767,467**	2,203,406
See Commitments and contingencies note		
Equity:		
Common stock, with $0.01 par value, 1,200,000 shares authorized; 286,037 and 286,037 shares issued at December 31, 2022 and 2021, respectively	**2,860**	2,860
Preferred stock, with $0.01 par value, 120,000 shares authorized; no shares issued at December 31, 2022 and 2021	**—**	—
Treasury stock, at cost (3,616 and 3,052 shares at December 31, 2022 and 2021, respectively)	**(29,775)**	(33,545)
Additional paid-in capital	**1,189,622**	1,172,593
Retained deficit	**(705,816)**	(472,246)
Accumulated other comprehensive loss	**(106,653)**	(83,566)
Total equity attributable to Sotera Health Company	**350,238**	586,096
Noncontrolling interests	**—**	—
Total equity	**350,238**	586,096
Total liabilities and equity	**$ 3,117,705**	$ 2,789,502

See notes to consolidated financial statements.

Sotera Health Company

Consolidated Statements of Operations and Comprehensive Income (Loss)
(in thousands, except per share amounts)

	Year Ended December 31,		
	2022	**2021**	**2020**
Revenues:			
Service	**$ 864,828**	$ 805,501	$ 713,520
Product	**138,859**	125,977	104,638
Total net revenues	**1,003,687**	931,478	818,158
Cost of revenues:			
Service	**390,860**	357,205	333,359
Product	**55,823**	55,601	41,227
Total cost of revenues	**446,683**	412,806	374,586
Gross profit	**557,004**	518,672	443,572
Operating expenses:			
Selling, general and administrative expenses	**245,714**	198,158	178,525
Amortization of intangible assets	**62,940**	63,781	59,029
Total operating expenses	**308,654**	261,939	237,554
Operating income	**248,350**	256,733	206,018
Interest expense, net	**80,144**	74,192	215,259
Illinois EO litigation settlement	**408,000**	—	—
Impairment of investment in unconsolidated affiliate	**9,613**	—	—
Loss on extinguishment of debt	—	20,681	44,262
Foreign exchange loss (gain)	**145**	1,345	(5,230)
Other income, net	**(6,441)**	(15,201)	(9,413)
Income (loss) before income taxes	**(243,111)**	175,716	(38,860)
Provision (benefit) for income taxes	**(9,541)**	58,595	(1,369)
Net income (loss)	**(233,570)**	117,121	(37,491)
Less: Net income attributable to noncontrolling interests	—	239	1,126
Net income (loss) attributable to Sotera Health Company	**$ (233,570)**	$ 116,882	$ (38,617)
Other comprehensive income (loss) net of tax:			
Pension and post-retirement benefits (net of taxes of $7,022, $8,924 and $(5,737), respectively)	**$ 20,790**	$ 26,562	$ (17,030)
Interest rate derivatives (net of taxes of $7,387, $142 and $(63), respectively)	**20,939**	404	(179)
Foreign currency translation	**(64,816)**	(16,395)	17,458
Comprehensive income (loss)	**(256,657)**	127,692	(37,242)
Less: comprehensive income attributable to noncontrolling interests	**—**	534	830
Comprehensive income (loss) attributable to Sotera Health Company	**$ (256,657)**	$ 127,158	$ (38,072)
Earnings (Loss) per share:			
Basic	**$ (0.83)**	$ 0.41	$ (0.16)
Diluted	**(0.83)**	0.41	(0.16)
Weighted average number of shares outstanding:			
Basic	**280,096**	279,228	237,696
Diluted	**280,096**	279,382	237,696

See notes to consolidated financial statements.

Sotera Health Company

Consolidated Statements of Cash Flows
(in thousands)

	Year Ended December 31,		
	2022	2021	2020
Operating activities:			
Net income (loss)	**$ (233,570)**	$ 117,121	$ (37,491)
Adjustments to reconcile net income (loss) to net cash provided by operating activities:			
Depreciation	**64,000**	64,160	63,309
Amortization of intangible assets	**81,554**	86,742	80,254
Impairment of investment in unconsolidated affiliate	**9,613**	—	—
Loss on extinguishment of debt	**—**	20,681	44,262
Deferred income taxes	**(73,960)**	(3,716)	(23,360)
Share-based compensation expense	**21,211**	13,870	10,987
Accretion of asset retirement obligations	**2,194**	2,252	1,997
Unrealized foreign exchange (gain) loss	**(3,984)**	788	(10,596)
Unrealized loss (gain) on derivatives not designated as hedging instruments	**2,977**	(1,195)	(3,073)
Amortization of debt issuance costs	**5,681**	6,161	11,624
Other	**(6,989)**	(12,728)	(5,535)
Changes in operating assets and liabilities:			
Accounts receivable	**(12,555)**	(15,509)	1,942
Inventories	**14,441**	(20,245)	3,784
Other current assets	**(5,816)**	(3,552)	(7,770)
Accounts payable	**1,107**	19,761	(6,022)
Accrued liabilities	**20,595**	1,596	3,248
Illinois EO litigation settlement	**408,000**	—	—
Income taxes payable / receivable	**(12,332)**	10,103	(8,140)
Other liabilities	**383**	(369)	(657)
Other long-term assets	**(4,589)**	(4,376)	1,822
Net cash provided by operating activities	**277,961**	281,545	120,585
Investing activities:			
Purchases of property, plant and equipment	**(182,378)**	(102,162)	(53,507)
Purchase of Iotron Industries Canada, Inc., net of cash acquired	**—**	—	(105,187)
Purchase of BioScience Laboratories, LLC, net of cash acquired	**—**	(13,530)	—
Purchase of mandatorily redeemable noncontrolling interest in Nelson Laboratories Fairfield, Inc.	**—**	(12,425)	—
Purchase of Regulatory Compliance Associates Inc., net of cash acquired	**450**	(31,015)	—
Other investing activities	**32**	(701)	—
Net cash used in investing activities	**(181,896)**	(159,833)	(158,694)
Financing activities:			
Proceeds from revolving credit facility and long-term borrowings	**200,000**	—	150,000
Proceeds from issuance of common stock, net of underwriting discounts and issuance costs	**—**	—	1,155,961
Repurchase of common shares	**—**	—	(34,000)
Purchase of noncontrolling interests in China subsidiaries	—	(8,418)	—
Payments of debt issuance costs and prepayment premium	**(31)**	(6,792)	(19,746)
Payments on revolving credit facility and long-term borrowings	**—**	(100,000)	(1,177,325)
Shares withheld for employee taxes on equity awards	**(393)**	(1,434)	—
Other financing activities	**(1,815)**	(642)	(1,458)
Net cash provided by (used in) financing activities	**197,761**	(117,286)	73,432
Effect of exchange rate changes on cash and cash equivalents	**(4,456)**	44	4,106
Net increase (decrease) in cash and cash equivalents, including restricted cash	**289,370**	4,470	39,429
Cash and cash equivalents, including restricted cash, at beginning of period	**106,924**	102,454	63,025
Cash and cash equivalents, including restricted cash, at end of period	**$ 396,294**	$ 106,924	$ 102,454
Supplemental disclosures of cash flow information:			
Cash paid during the period for interest	**$ 75,849**	$ 58,772	$ 211,276
Cash paid during the period for income taxes, net of tax refunds received	**75,496**	52,007	23,988
Purchases of property, plant and equipment included in accounts payable	**16,413**	14,524	14,288

See notes to consolidated financial statements.

Sotera Health Company

Consolidated Statements of Equity
(in thousands)

	Shares Common Stock	Amount Common Stock	Amount Treasury Stock	Additional Paid-In Capital	Retained Deficit	Accumulated Other Comprehensive (Loss) Income	Noncontrolling Interests	Total Equity
Balance at January 1, 2020	**232,400**	**$ 2,324**	**$ —**	**$ —**	**$ (550,511)**	**$ (94,387)**	**$ 1,442**	**$(641,132)**
Issuance of shares	53,590	536	—	1,155,425	—	—	—	**1,155,961**
Repurchase of shares	(1,568)	—	(34,000)	—	—	—	—	**(34,000)**
Share-based compensation plans	(1,174)	—	—	10,987	—	—	—	**10,987**
Comprehensive income (loss):								
Pension and post-retirement plan adjustments, net of tax	—	—	—	—	—	(17,030)	—	**(17,030)**
Foreign currency translation	—	—	—	—	—	17,754	(296)	**17,458**
Interest rate derivatives, net of tax	—	—	—	—	—	(179)	—	**(179)**
Net loss	—	—	—	—	(38,617)	—	1,126	**(37,491)**
Balance at December 31, 2020	**283,248**	**2,860**	**$(34,000)**	**1,166,412**	**(589,128)**	**(93,842)**	**2,272**	**454,574**
Acquisition of noncontrolling interests	—	—	—	(5,772)	—	—	(2,806)	**(8,578)**
Issuance of shares	47	—	—	1,080	—	—	—	**1,080**
Share-based compensation plans	(310)	—	455	10,873	—	—	—	**11,328**
Comprehensive income (loss):	—							
Pension and post-retirement plan adjustments, net of tax	—	—	—	—	—	26,562	—	**26,562**
Foreign currency translation	—	—	—	—	—	(16,690)	295	**(16,395)**
Interest rate derivatives, net of tax	—	—	—	—	—	404	—	**404**
Net income	—	—	—	—	116,882	—	239	**117,121**
Balance at December 31, 2021	**282,985**	**2,860**	**$(33,545)**	**1,172,593**	**(472,246)**	**$ (83,566)**	**$ —**	**586,096**
Share-based compensation plans	(564)	—	3,770	17,029	—	—	—	**20,799**
Comprehensive income (loss):								
Pension and post-retirement plan adjustments, net of tax	—	—	—	—	—	20,790	—	**20,790**
Foreign currency translation	—	—	—	—	—	(64,816)	—	**(64,816)**
Interest rate derivatives, net of tax	—	—	—	—	—	20,939	—	**20,939**
Net loss	—	—	—	—	(233,570)	—	—	**(233,570)**
Balance at December 31, 2022	**282,421**	**$ 2,860**	**$(29,775)**	**$ 1,189,622**	**$ (705,816)**	**$ (106,653)**	**$ —**	**$ 350,238**

See notes to consolidated financial statements.

1. Significant Accounting Policies

Principles of Consolidation – Sotera Health Company (also referred to herein as the "Company," "we," "our," "us" or "its"), is a leading global provider of mission-critical end-to-end sterilization solutions, lab testing and advisory services for the healthcare industry with operations primarily in the Americas, Europe and Asia.

The accompanying consolidated financial statements include the assets, liabilities, operating results, and cash flows of the Company and its wholly owned subsidiaries prepared in accordance with U.S. generally accepted accounting principles ("GAAP").

We operate and report in three segments, Sterigenics, Nordion and Nelson Labs. We describe our reportable segments in Note 22, "Segment and Geographic Information". All significant intercompany balances and transactions have been eliminated in consolidation.

Noncontrolling interests represented the noncontrolling stockholders' proportionate share of the total equity in the Company's consolidated subsidiaries. In the second quarter of 2021, we purchased the outstanding noncontrolling interests of 15% and 33% of our two China subsidiaries. Refer to Note 4, "Acquisitions" for additional details. Prior to our acquisition of the noncontrolling interests in our two subsidiaries in China, we consolidated the results of operations of these subsidiaries with our results of operations and reflected the noncontrolling interest on our Consolidated Statements of Operations and Comprehensive Income (Loss) as "Net income attributable to noncontrolling interests."

On March 11, 2021, we purchased the 15% noncontrolling interest that remained from the August 2018 acquisition of Nelson Laboratories Fairfield, Inc. ("Nelson Labs Fairfield"). As the purchase of this noncontrolling interest was mandatorily redeemable, no earnings were allocated to this noncontrolling interest. See Note 4, "Acquisitions" for additional details.

In July 2020, we acquired a 60% equity ownership interest in a joint venture to construct an E-beam facility in Alberta, Canada in connection with our acquisition of Iotron Industries Canada, Inc. ("Iotron"). We determined this to be an investment in a variable interest entity ("VIE"). The investment is not consolidated as the Company concluded that we are not the primary beneficiary of the VIE. This investment is accounted for using the equity method. The investment is reflected within "Investment in unconsolidated affiliates" on the Consolidated Balance Sheets. During the year ended December 31, 2022, we identified certain events and circumstances that indicated a decline in value of our investment in this joint venture that was other-than-temporary. Consequently, in the second quarter of 2022, we wrote down the investment in the joint venture to its fair value of $0, resulting in an impairment charge of approximately $9.6 million.

Use of Estimates – In preparing our consolidated financial statements in conformity with U.S. GAAP, we make estimates and assumptions that affect the amounts reported and the accompanying notes. We regularly evaluate the estimates and assumptions used and revise them as new information becomes available. Actual results may vary from those estimates.

Cash and Cash Equivalents – We consider all highly liquid investments purchased with an original maturity of three months or less from the date of purchase to be cash equivalents. Cash and cash equivalents may include various deposit accounts and money market funds.

Accounts Receivable - Accounts receivable consists of amounts billed and currently due from customers. The amounts due are stated net of the allowance for uncollectible accounts. The Company maintains an allowance for uncollectible receivables to provide for the estimated amount of receivables that will not be collected.

Allowance for Uncollectible Accounts Receivable – We maintain an allowance for uncollectible accounts receivable for estimated losses in the collection of amounts owed to us by customers. We estimate the allowance based on analyzing a number of factors, including amounts written off historically, customer payment practices, customer financial information and credit ratings, current market conditions as well as the expected future economic conditions that may impact the collection of accounts receivable. We also analyze significant customer accounts on a regular basis and record a specific allowance when we become aware of a specific customer's inability to pay. We generally do not charge interest on accounts receivable or require collateral from our customers.

We record write-offs against the allowance for uncollectible accounts receivable when all reasonable efforts for collection have been exhausted. As a result, the related accounts receivable are reduced to an amount that we reasonably believe is collectible. These analyses require judgment. If the financial condition of our customers worsens, or economic conditions change, we may be required to make changes to our allowance for uncollectible accounts receivable.

Inventories – Inventories as of December 31, 2022 and 2021 are held at Nordion. Finished goods and work-in-process include the cost of material, labor, and certain manufacturing overhead such as insurance, repairs and maintenance, and property taxes, and are recorded on a weighted average cost basis at the lower of cost or net realizable value. We review inventory on an ongoing basis, considering factors such as deterioration and obsolescence. We record a reserve for excess and obsolete inventory, which was immaterial at December 31, 2022 and 2021, when the facts and circumstances indicate that particular inventories will not be usable. If future market conditions vary from those projected, and our estimates prove to be inaccurate, we may be required to write-down inventory values and record an adjustment to cost of revenues.

Property, Plant, and Equipment – Property, plant, and equipment is carried at cost, or initially at fair value if acquired in an acquisition, less accumulated depreciation and amortization. Except for Cobalt 60 ("Co-60"), a radioactive isotope used in gamma radiation sterilization, all property, plant, and equipment depreciation is computed using the straight-line method over estimated useful lives. Leasehold improvements are amortized over their estimated useful lives or the term of the related lease, whichever is shorter. Co-60 is amortized using an accelerated method, which relates to the natural radioactive decay of the isotope over its estimated useful life which is approximately twenty years. Amortization of Co-60 is included within depreciation expense as a cost of revenue. Expenditures for major software purchases and software developed for internal use are capitalized and depreciated using the straight-line method over the estimated useful lives of the related assets, which are generally one to five years. For software obtained or developed for internal use, all external direct costs for materials and services and certain personnel costs incurred to develop the software during the application development stage are capitalized. At December 31, 2022 and 2021, we had undepreciated software costs of $3.4 million and $2.8 million, respectively, included in property, plant, and equipment, net. We recognized $2.2 million, $2.6 million and $2.4 million, of depreciation expense related to software costs for the years ending December 31, 2022, 2021 and 2020, respectively.

Depreciation is computed using the assets' estimated useful lives as presented below:

Buildings and building improvements	15–44 years
Machinery and equipment	3–30 years
Leasehold improvements	2–20 years
Furniture and fixtures	3–10 years
Computer hardware and software	1–7 years

From time to time, we build or expand facilities. The cost of construction of these facilities is reflected as construction-in-progress until the asset is ready for its intended use, at which time the costs are reclassified to the appropriate depreciable category of property, plant, and equipment and depreciation commences. Fixed asset projects requiring one or more years to complete construction qualify for capitalization of interest costs in accordance with our policy. Interest related to property, plant and equipment projects with a construction period of less than one year are not capitalized and are immaterial. Repairs and maintenance costs that do not extend the useful life of an asset are expensed as incurred.

Upon sale or retirement of assets, the cost and related accumulated depreciation is removed from the Consolidated Balance Sheets, and the resulting gain or loss is reflected as a component of operating income.

Long-Lived Assets Other than Goodwill – We review long-lived assets, including finite-lived intangibles for impairment whenever events or circumstances indicate that the carrying amount of the asset or asset group may be impaired. Events or circumstances which would result in an impairment assessment include operating losses, a significant change in the use of an asset or asset group, or the planned disposal or sale of the asset or asset group. The asset or asset group would be considered impaired when the future net undiscounted cash flows generated by the asset or asset group are less than its carrying value. An impairment loss would be recognized based on the amount by which the carrying value of the asset or asset group exceeds its estimated fair value.

Amortization of intangible assets is computed using the asset's estimated useful lives as presented below:

Land-use rights	41 years
Customer contracts and related relationships	7–20 years
Proprietary technology	7–20 years
Trade name/trademark	5–8 years
Sealed source and supply agreements	7–20 years

Leases – We determine if an agreement contains a lease and classify our leases as operating or finance at the lease commencement date. Leases with an initial term of twelve months or less are recognized as lease expense on a straight-line basis over the lease term and are not recorded on the Consolidated Balance Sheets. Non-lease components are accounted for separately from the lease components for all asset classes.

Finance leases are those in which we will pay substantially all the underlying asset's fair value or will use the asset for all or a major part of its economic life, including circumstances in which we will ultimately own the asset. Lease assets arising from finance leases are included in "Property, plant and equipment, net" and the liabilities are included in "Finance lease obligations" on the Consolidated Balance Sheets. For finance leases, we recognize interest expense using the effective interest method and we recognize amortization expense on the lease asset over the shorter of the lease term or the useful life of asset. Finance leases are accounted for as if the assets were owned and financed, with associated expense recognized in "Interest expense, net" and "Cost of revenues" or "Selling, general and administrative expenses" within the Consolidated Statements of Operations and Comprehensive Income (Loss) depending on the nature of the underlying asset.

Operating lease assets and liabilities are recognized at the commencement date of the lease based on the present value of lease payments over the lease term. Lease assets represent the right to use an underlying asset for the lease term and lease liabilities represent the obligation to make lease payments arising from the lease. As most leases do not provide an implicit interest rate, we estimate an incremental borrowing rate to determine the present value of lease payments. Our estimated incremental borrowing rate reflects a secured rate based on recent debt issuances, our estimated credit rating, and lease term. We recognize operating lease costs on a straight-line basis over the term of the lease in "Cost of revenues" or "Selling, general and administrative expenses" on the Consolidated Statements of Operations and Comprehensive Income (Loss) depending on the nature of the underlying asset.

Goodwill and Other Indefinite-Lived Intangibles – Goodwill and other indefinite-lived intangible assets, primarily certain regulatory licenses and tradenames, are tested for impairment annually as of October 1. If circumstances change during interim periods between annual tests that would indicate that the carrying amount of such assets may not be recoverable, the Company would test such assets at an interim date for impairment. Factors which would necessitate an interim impairment assessment include prolonged negative industry or economic trends and significant underperformance relative to historical or projected future operating results.

We performed a quantitative assessment of all reporting units (Sterigenics, Nordion and Nelson Labs) as of October 1, 2022. The fair value of each reporting unit was calculated using a discounted cash flow analysis which was dependent on subjective market participant assumptions determined by management. We further corroborated such discounted cash flow analyses utilizing a market approach to determine the estimated enterprise fair value. Assumptions used in the analyses included discount rates, revenue growth rates and projected operating cash flows. Estimates of future cash flows are based upon relevant data at a point-in-time, are subject to change, and could vary from actual results. The estimated fair value of each reporting unit exceeded its carrying amount by a sufficient margin to support a positive assertion that goodwill is not impaired. We performed a qualitative impairment assessment to evaluate any potential impairment to the indefinite-lived intangible assets. We considered significant events and circumstances that could affect the significant inputs used to determine the estimated fair value of the indefinite-lived intangible assets, and determined, after considering the totality of evidence that it is not more likely than not that the indefinite-lived intangible assets are impaired. We performed a qualitative update to our annual goodwill impairment assessment in response to the announcement of the Illinois EO litigation settlement on January 9. The updated assessment resulted in no change to our conclusion. There have been no other significant events or circumstances that occurred since the annual assessment date of October 1 that would change the conclusions reached above.

Derivative Instruments – We may enter into derivative instruments and hedging activities to manage, where possible and economically efficient, commodity price risk, foreign currency exchange rate risk and interest rate risk related to borrowings. We also have identified embedded derivatives in certain supply and customer contracts. Certain interest rate caps are designated as cash flow hedges allowing for changes in fair value to be recorded through "Other comprehensive income (loss)". Amounts in accumulated other comprehensive income (loss) will be reclassified into earnings in the same periods during which the hedged transaction affects earnings and are presented in "Interest expense, net" within the Consolidated Statements of Operations and Comprehensive Income (Loss). Derivatives not designated as hedges are recorded at fair value on the Consolidated Balance Sheets, with any changes in the value being recorded in the Consolidated Statements of Operations and Comprehensive Income (Loss) in the same line item as the corresponding hedged item. We classify cash flows from derivative instruments and hedging activities as cash flows from operating activities in the Consolidated Statements of Cash Flows. To the extent derivative arrangements are with the same counterparty and contractual right of offset exists under applicable master agreements, we offset assets and liabilities for reporting on the Consolidated Balance Sheets.

Pension, Post-Retirement and Other Post-Employment Benefit Plans – We sponsor a defined-contribution retirement plan that covers substantially all U.S. employees. We also sponsor various post-employment benefit plans at our Nordion business in Canada including defined benefit and defined contribution pension plans, retirement compensation arrangements and plans that provide extended health care coverage to retired employees. In addition, we provide other benefit plans at our foreign subsidiaries including a supplemental retirement arrangement, a retirement and termination allowance and post-retirement benefit plans, which include contributory healthcare benefits and contributory life insurance coverage. All non-pension post-employment benefit plans are unfunded.

These costs and obligations are affected by assumptions including the discount rate, expected long-term rate of return on plan assets, the annual rate of change in compensation for eligible employees, estimated changes in costs of healthcare benefits, and other demographic and economic factors. We review the assumptions used on an annual basis.

We recognize the over/under funded status of defined benefit pension and post-retirement benefits plans in our Consolidated Balance Sheets. This amount is measured as the difference between the fair value of plan assets and the projected benefit obligation. Changes in the funded status of the plans are recorded in other comprehensive income (loss) in the year they occur. We measure plan assets and obligations as of the balance sheet date. We provide additional information about our pension and other post-retirement benefits plans in Note 12, "Employee Benefits".

Asset Retirement Obligations ("ARO") – ARO are legal obligations associated with the retirement of long-lived assets or the exit of a leased facility. We recognize a liability for an ARO in the period in which it is incurred if a reasonable estimate of fair value can be made, and the associated asset retirement costs are then capitalized as part of the carrying amount of the long-lived asset. We lease various facilities where sterilization and ionization services are performed. Under the lease agreements, we are required to return the facilities to their original condition and to perform decommissioning activities. In addition, certain of our owned facilities are required to be decommissioned when we vacate the facility. Accretion expense is recognized in cost of revenues in the Consolidated Statements of Operations and Comprehensive Income (Loss) over time as the discounted liability is accreted to its expected settlement value.

Debt Issuance Costs, Premiums and Discounts – We have incurred costs in connection with obtaining financing as well as premiums and discounts associated with our long-term debt. The portion of these fees that are capitalized are recorded as a reduction of debt on the Consolidated Balance Sheets and amortized into interest expense over the term of the debt agreement. Debt issuance costs associated with the Company's revolving credit facilities are classified as assets unless there are outstanding borrowings under such arrangements.

Concentration of Credit Risk, Other Risks and Uncertainties – We maintain cash and cash equivalents in the form of demand deposits in accounts with major financial institutions in the U.S. and in countries where our subsidiaries operate. Deposits in these institutions may exceed amounts of insurance provided on such accounts. We have not experienced any losses on our deposits of cash and cash equivalents.

Our net revenues and accounts receivable are derived from customers located primarily in North America and Europe.

No customer accounted for 10% or more of accounts receivable at December 31, 2022 and 2021, or 10% or more of net revenues for the years ended December 31, 2022, 2021 and 2020.

Income Taxes –We use the liability method of accounting for income taxes whereby we recognize deferred tax assets and liabilities for the future tax consequences of temporary differences between the tax bases of assets and liabilities and their reported amounts in the consolidated financial statements. Deferred tax assets will be reduced by a valuation allowance if, based on management's estimate, it is more likely than not that a portion of the deferred tax assets will not be realized in a future period. The estimates used in the recognition of deferred tax assets are subject to revision in future periods based on new facts and circumstances.

We determine whether it is more likely than not that a tax position will be sustained upon examination, including resolution of related appeals or litigation processes, based on the technical merits of the position. In evaluating whether a tax position has met the more-likely-than-not recognition threshold, we presume that the position will be examined by the appropriate taxing authority and that the taxing authority will have full knowledge of all relevant information. A tax position that meets the more-likely-than-not recognition threshold is measured at the largest amount of benefit that is greater than 50% likely of being realized upon ultimate settlement. Determining what constitutes an individual tax position and whether the more-likely-than-not recognition threshold is met for a tax position are matters of judgment based on the individual facts and circumstances of that position evaluated in light of all available evidence. We review and adjust tax estimates periodically because of ongoing examinations by, and settlements with, the various taxing authorities, as well as changes in tax laws, regulations, and precedent. We are subject to a tax on Global Intangible Low Taxed Income ("GILTI") which we record as a period cost.

Our policy is to recognize interest and penalties related to income tax matters as a component of the provision for income taxes in our Consolidated Statements of Operations and Comprehensive Income (Loss).

Foreign Currency Translation – The functional currency of our foreign subsidiaries is generally the local currency. Accordingly, assets and liabilities are generally translated into U.S. dollars at the current rates of exchange as of the balance sheet date, and revenues and expenses are translated using weighted-average rates prevailing during the period. Adjustments from foreign currency translation are included as a separate component of accumulated other comprehensive income (loss).

Gains or losses arising from foreign currency transactions are recognized in the Consolidated Statements of Operations and Comprehensive Income (Loss) as foreign exchange loss (gain). Beginning in the fourth quarter of 2020, the Company began entering into monthly U.S. dollar-denominated foreign currency forward contracts to manage foreign currency exchange rate risk of our intercompany loans in certain of our international subsidiaries. For the years ended December 31, 2022 and December 31, 2021, foreign exchange loss related primarily to short-term losses (offset by short-term gains) on sales denominated in currencies other than the functional currency of our operating entities. In the year ended December 31, 2020, foreign exchange gain related primarily to U.S. dollar denominated intercompany indebtedness with certain of our European and Canadian subsidiaries.

Revenue Recognition – Revenue is recognized when control of promised goods or services is transferred to customers in an amount that reflects the consideration to which the Company expects to be entitled in exchange for those goods or services. The majority of our sales agreements contain performance obligations satisfied at a point-in-time when control of promised goods or services have transferred to our customers. For agreements with multiple performance obligations, judgment is required to determine whether performance obligations specified in these agreements are distinct and should be accounted for as separate revenue transactions for recognition purposes. In these types of agreements, we generally allocate the sales price to each distinct obligation based on the relative price of each item sold in stand-alone transactions. Sales recognized over time are generally accounted for using an input measure to determine progress completed as of the end of the period.

Refunds, returns, warranties and other related obligations are not material to any of our segments, nor do we incur material incremental costs to secure customer contracts.

Our Sterigenics segment provides outsourced terminal sterilization and irradiation services for the medical device, pharmaceutical, food safety and advanced applications markets. We typically have multiyear service contracts with our significant customers, and these sales contracts are primarily based on a customer's purchase order. Given the relatively short turnaround times, performance obligations are generally satisfied at a point-in-time upon the completion of sterilization or

irradiation processing once approved by our quality assurance process at which time the service is complete. Sterigenics segment revenues are included in service revenues in our Consolidated Statements of Operations and Comprehensive Income (Loss).

Our Nordion segment is a global provider of Co-60 and gamma irradiation systems, which are key components to the gamma sterilization process. Revenue from the sale of Co-60 sources is recognized as product revenue at a point-in-time upon satisfaction of our performance obligations for delivery of existing sources. Revenue from the sale of gamma irradiation systems is recognized as product revenue over time using an input measure of costs incurred and is immaterial to the overall business. Revenues from Co-60 installation and disposal and gamma irradiation systems refurbishments and installations are recognized as service revenue.

Our Nelson Labs segment provides outsourced microbiological and analytical chemistry testing and advisory services for the medical device and pharmaceutical industries. We provide our customers mission-critical lab testing services, which assess the product quality, effectiveness, patient safety and end-to-end sterility of products. These services are necessary for our customers' regulatory approvals, product releases and ongoing product performance evaluations. Nelson Labs services are generally provided on a fee-for-service or project basis, and we recognize revenues over time using an input measure of time incurred to determine progress completed at the end of the period. Nelson Labs segment revenues are included in service revenues in our Consolidated Statements of Operations and Comprehensive Income (Loss).

We do not capitalize sales commissions as substantially all of our sales commission programs have an amortization period of one year or less. Furthermore, costs to fulfill a contract are not material.

Provisions for discounts, rebates to customers, and other adjustments are provided for as reductions in net revenues in the period the related sale is recorded. Shipping and handling charges billed to customers are included in net revenues, and the related shipping and handling costs are included in cost of net revenues on the Consolidated Statements of Operations and Comprehensive Income (Loss). Taxes assessed by a governmental authority that are both imposed on and concurrent with a specific revenue-producing transaction, that are collected by us from a customer, are excluded from net revenue.

Payment terms vary by the type and location of the customer and the products or services offered. Generally, the time between when revenue is recognized and when payment is due is not significant. We do not evaluate whether the selling price contains a financing component for contracts that have a duration of less than one year.

Share-Based Compensation – Equity-based awards issued to employees under the Sotera Health Company 2020 Omnibus Incentive Plan ("2020 Plan") include restricted stock units ("RSUs") and stock options, which vest over time. Prior to our initial public offering (the "IPO" as described in Note 15, "Stockholders' Equity"), equity-based awards were issued to service providers (including employees and directors) in the form of partnership interests in our predecessor, Sotera Health Topco Parent, L.P. ("Topco Parent"), which vested based on either time ("time vesting awards") or the achievement of certain performance and market conditions ("performance awards" and, together with the time vesting awards, the "pre-IPO awards"). In connection with the IPO, Topco Parent made in-kind distributions of restricted shares of our common stock to holders of pre-IPO awards as described in Note 15, "Stockholders' Equity". The restricted shares of our common stock distributed in respect of pre-IPO time vesting awards vest through June 2025; expense related to these unvested awards will be recognized over the remaining vesting period. Expense attributable to the performance awards was recognized in its entirety in the year ended December 31, 2020 as the related performance conditions were considered probable of achievement and the implied service condition was met. Share-based compensation expense is recognized in the Consolidated Statements of Operations and Comprehensive Income (Loss), primarily within "Selling, general and administrative expenses" at the grant date fair value over the requisite service period (one to four years for awards granted under the 2020 Plan and five years for time vesting pre-IPO awards on a straight-line basis). Fair value of the pre-IPO awards was estimated on the date of grant using a simulation-based option valuation model incorporating multiple and variable assumptions over time, including assumptions such as employee forfeitures, unit price volatility and dividend assumptions. We use the Black-Scholes option pricing model to measure the grant date fair value of stock options awarded under the 2020 Plan using certain valuation assumptions. Share-based compensation expense for all awards recognizes forfeitures as they occur.

Earnings (Loss) Per Share – In periods in which the Company has net income, earnings per share information is determined using the two-class method, which includes the weighted-average number of common shares outstanding during the period and

securities that participate in dividends ("participating securities"). Our unvested restricted common stock distributed in respect of pre-IPO Class B-1 and B-2 awards have the right to receive non-forfeitable dividends or dividend equivalents if the Company were to declare dividends on its common stock. Under the two-class method, earnings are allocated to both common stock shares and participating securities based on their respective weighted-average shares outstanding for the period. Diluted earnings (loss) per common share incorporates the dilutive effect of common stock equivalents on an average basis during the period, if dilutive, in which case the dilutive effect of such securities is calculated using the more dilutive of (a) the two-class method, or (b) treasury stock method, as applicable, to the potentially dilutive instruments. Unvested restricted common stock is not included in earnings per share until the period in which the vesting condition is satisfied. In periods in which the Company has a net loss, the two-class method is not applicable because the pre-IPO Class B-1 and B-2 restricted stock awards do not participate in losses. Refer to Note 17, "Earnings (Loss) Per Share" for additional information.

Treasury Stock – The Company records repurchases of its own common stock at cost. Repurchased common stock is presented as a reduction of equity in the Consolidated Balance Sheets. The difference between the repurchase and reissue price of the Company's own stock is added to or deducted from additional paid-in capital. The cost of Treasury Stock reissued is calculated using a weighted average cost method.

Commitments and Contingencies – Certain conditions may exist as of the date of the consolidated financial statements which may result in a loss to the Company but will only be resolved when one or more future events occur or fail to occur. Such liabilities for loss contingencies arising from claims, assessments, litigation, fines, penalties, settlement agreements, and other sources, are recorded when management assesses that it is probable that a future liability has been incurred and the amount can be reasonably estimated. Recoveries of costs from third parties, which management assesses as being probable of realization, are recorded to the extent related contingent liabilities are accrued. Legal costs incurred in connection with matters relating to contingencies are expensed in the period incurred. We record gain contingencies when realized.

2. Recent Accounting Standards

Adoption of Accounting Standard Updates

Effective January 1, 2022, we adopted *Accounting Standards Update ("ASU") 2016-13, Financial Instruments – Credit Losses ("ASU 2016-13"): Measurement of Credit Losses on Financial Instruments*, and the subsequently issued additional guidance that modified ASU 2016-13 which was originally issued by the Financial Accounting Standards Board ("FASB") in June 2016. The standard requires an entity to change its accounting approach in determining impairment of certain financial instruments, including trade receivables, from an "incurred loss" to a "current expected credit loss" model. The adoption of this standard did not have a material impact on our consolidated financial statements and disclosures.

Effective January 1, 2022, we adopted *ASU 2019-12 - Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes* which was issued by the FASB in December 2019. The standard simplifies the accounting for income taxes and makes a number of changes meant to add or clarify guidance on accounting for income taxes. The adoption of this standard did not have a material impact on our consolidated financial statements and disclosures.

ASU's Issued But Not Yet Adopted

In October 2021, the FASB issued *ASU 2021-08 - Business Combinations (Topic 805): Accounting for Contract Assets and Contract Liabilities from Contracts with Customers* ("ASU 2021-08"). The amendments in ASU 2021-08 require that an acquiring entity recognize and measure contract assets and contract liabilities acquired in a business combination in accordance with Accounting Standards Codification ("ASC") Topic 606, Revenue from Contracts with Customers ("ASC Topic 606"). At the acquisition date, an acquirer should account for the related revenue contracts in accordance with ASC Topic 606 as if it had originated the contracts. For public business entities, these amendments are effective for fiscal years beginning after December 15, 2022, including interim periods within those fiscal years. We do not expect this standard to have a material impact on our financial statements.

3. Revenue Recognition

The following table shows disaggregated net revenues from contracts with external customers by timing of revenue and by segment for the years ended December 31, 2022, 2021 and 2020:

	Year Ended December 31, 2022			
	Sterigenics	Nordion	Nelson Labs	Consolidated
Point in time	$ 626,646	$ 147,499	$ —	$ 774,145
Over time	—	6,140	223,402	229,542
Total	**$ 626,646**	**$ 153,639**	**$ 223,402**	**$ 1,003,687**

	Year Ended December 31, 2021			
	Sterigenics	Nordion	Nelson Labs	Consolidated
Point in time	$ 571,829	$ 139,135	$ —	$ 710,964
Over time	—	1,372	219,142	220,514
Total	**$ 571,829**	**$ 140,507**	**$ 219,142**	**$ 931,478**

	Year Ended December 31, 2020			
	Sterigenics	Nordion	Nelson Labs	Consolidated
Point in time	$ 498,773	$ 114,745	$ —	$ 613,518
Over time	—	—	204,640	204,640
Total	**$ 498,773**	**$ 114,745**	**$ 204,640**	**$ 818,158**

Contract Balances

As of December 31, 2022 and 2021, contract assets included in "Prepaid expenses and other current assets" on the Consolidated Balance Sheets totaled approximately $19.8 million and $15.6 million, respectively, resulting from revenue recognized over time in excess of the amount billed to the customer.

When we receive consideration from a customer prior to transferring goods or services under the terms of a sales contract, we record deferred revenue, which represents a contract liability. Deferred revenue totaled $12.1 million and $8.7 million at December 31, 2022 and 2021, respectively. We recognize deferred revenue after we have transferred control of the goods or services to the customer and all revenue recognition criteria are met.

4. Acquisitions

Acquisition of Regulatory Compliance Associates Inc.

On November 4, 2021, we acquired Regulatory Compliance Associates Inc. ("RCA") for approximately $30.6 million, net of $0.6 million of cash acquired. RCA is an industry leader in providing life sciences consulting focused on quality, regulatory, and technical advisory services for the pharmaceutical, medical device and combination device industries. Headquartered in Pleasant Prairie, Wisconsin, RCA expands and further strengthens our technical consulting and expert advisory capabilities within our Nelson Labs segment.

The purchase price of RCA was allocated to the underlying assets acquired and liabilities assumed based upon management's estimated fair values at the date of acquisition. As of December 31, 2022, approximately $25.3 million of goodwill was recorded related to the RCA acquisition, representing the excess of the purchase price over the estimated fair values of all the assets acquired and liabilities assumed. We also recorded $6.4 million of finite-lived intangible assets, primarily related to customer relationships. We funded this acquisition using available cash. The acquisition price and the results of operations for this acquired entity are not material in relation to our consolidated financial statements.

Acquisition of Noncontrolling Interests in China Subsidiaries

On May 18, 2021, we acquired the remaining 15% and 33% noncontrolling interests associated with our two subsidiaries located in China. As a result, both entities are now 100% owned by the Company. The purchase price of the remaining equity interests was approximately $8.6 million, net of the cancellation of an $0.8 million demand note. We paid 90% of the cash consideration on the acquisition date. The remaining amounts were partially settled in post-closing payments in the third quarter of 2021; $0.2 million of the post-closing payment remains outstanding as of December 31, 2022 subject to the terms of the equity transfer agreements. As a result of the transactions, we continue to consolidate both of these subsidiaries, however, as of May 18, 2021, we no longer record noncontrolling interests in the consolidated financial statements as these subsidiaries are fully owned by the Company. The purchases were accounted for as equity transactions. As a result of these transactions, noncontrolling interests were reduced by $2.8 million reflecting the carrying value of the interest with $5.8 million of the difference charged to additional paid-in capital.

Acquisition of BioScience Laboratories, LLC

On March 8, 2021, we acquired BioScience Laboratories, LLC ("BioScience Labs") for approximately $13.5 million, net of $0.2 million of cash acquired plus the contemporaneous repayment of BioScience Labs' outstanding debt of $1.9 million. BioScience Labs is a provider of outsourced topical antimicrobial product testing in the pharmaceutical, medical device, and consumer products industries with one location in Bozeman, Montana. BioScience Labs is included within the Nelson Labs segment.

The purchase price of BioScience Labs was allocated to the underlying assets acquired and liabilities assumed based upon management's estimated fair values at the date of acquisition. Approximately $8.4 million of goodwill was recorded related to the BioScience Labs acquisition, representing the excess of the purchase price over the estimated fair values of all the assets acquired and liabilities assumed. We funded this acquisition using available cash. The acquisition price and the results of operations for this acquired entity are not material in relation to the Company's consolidated financial statements.

Acquisition of Mandatorily Redeemable Noncontrolling Interest - Nelson Labs Fairfield

On March 11, 2021, we completed the acquisition of the remaining 15% ownership of Nelson Labs Fairfield for $12.4 million, resulting in a gain of $1.2 million included in "Other expense (income), net" in the Consolidated Statements of Operations and Comprehensive Income (Loss) relative to the $13.6 million previously accrued. Pursuant to the terms of the acquisition, we initially acquired 85% of the equity interests of Nelson Labs Fairfield in August 2018 and were obligated to acquire the remaining 15% noncontrolling interest within three years from the date of the acquisition.

5. Inventories

Inventories consisted of the following:

(thousands of U.S. dollars)

As of December 31,	2022	2021
Raw materials and supplies	**$ 36,402**	$ 41,514
Work-in-process	**584**	3,919
Finished goods	**276**	8,979
	37,262	54,412
Reserve for excess and obsolete inventory	**(117)**	(124)
Inventories, net	**$ 37,145**	$ 54,288

6. Prepaid Expenses and Other Current Assets

Prepaid expenses and other current assets consisted of the following:

(thousands of U.S. dollars)

As of December 31,	2022	2021
Prepaid taxes	**$ 26,598**	$ 24,937
Prepaid business insurance	**9,964**	10,707
Prepaid rent	**998**	920
Customer contract assets	**19,777**	15,565
Insurance and indemnification receivables	**3,724**	3,144
Current deposits	**660**	623
Prepaid maintenance contracts	**324**	279
Value added tax receivable	**1,640**	2,512
Prepaid software licensing	**1,832**	2,055
Stock supplies	**3,656**	3,374
Embedded derivative assets	**2,721**	496
Other	**9,101**	7,311
Prepaid expenses and other current assets	**$ 80,995**	$ 71,923

7. Property, Plant and Equipment

Property, plant, and equipment, net, consisted of the following:

(thousands of U.S. dollars)

As of December 31,	2022	2021
Land and buildings	**$ 317,930**	$ 295,780
Leasehold improvements	**67,386**	54,200
Machinery, equipment, including Co-60	**577,670**	506,938
Furniture and fixtures	**7,747**	7,489
Computer hardware and software	**44,796**	40,751
Asset retirement costs	**4,255**	4,164
Construction-in-progress	**193,639**	131,869
	1,213,423	1,041,191
Less accumulated depreciation	**(438,896)**	(390,394)
Property, plant and equipment, net	**$ 774,527**	$ 650,797

Depreciation and amortization expense for property, plant, and equipment, including property under finance leases, was $64.3 million, $64.2 million and $63.3 million for the years ended December 31, 2022, 2021 and 2020, respectively. Capitalized interest totaled $3.7 million, $1.1 million and $0.7 million for the years ended December 31, 2022, 2021 and 2020, respectively, and was recorded as a reduction in “Interest expense, net” in the Consolidated Statements of Operations and Comprehensive Income (Loss).

8. Goodwill and Other Intangible Assets

Changes to goodwill during the years ended December 31, 2022 and 2021 were as follows:

(thousands of U.S. dollars)	Sterigenics	Nordion	Nelson Labs	Total
Goodwill at January 1, 2021	$ 683,481	$ 287,932	$ 144,523	$ 1,115,936
Iotron acquisition measurement period adjustments	(19,447)	—	—	(19,447)
BioScience Labs acquisition	—	—	8,354	8,354
RCA acquisition	—	—	20,638	20,638
Changes due to foreign currency exchange rates	(3,291)	973	(2,843)	(5,161)
Goodwill at December 31, 2021	660,743	288,905	170,672	1,120,320
RCA acquisition measurement period adjustments	—	—	4,645	4,645
Changes due to foreign currency exchange rates	(3,285)	(17,939)	(1,973)	(23,197)
Goodwill at December 31, 2022	**$ 657,458**	**$ 270,966**	**$ 173,344**	**$ 1,101,768**

Other intangible assets consisted of the following:

(thousands of U.S. dollars) **As of December 31, 2022**	Gross Carrying Amount	Accumulated Amortization
Finite-lived intangible assets		
Customer relationships	**$ 652,811**	**$ 422,277**
Proprietary technology	**86,054**	**50,952**
Trade names	**2,553**	**701**
Land-use rights	**8,986**	**1,683**
Sealed source and supply agreements	**204,391**	**93,034**
Other	**4,469**	**1,979**
Total finite-lived intangible assets	**959,264**	**570,626**
Indefinite-lived intangible assets		
Regulatory licenses and other[(a)]	**76,978**	—
Trade names / trademarks	**25,649**	—
Total indefinite-lived intangible assets	**102,627**	—
Total	**$ 1,061,891**	**$ 570,626**

As of December 31, 2021	Gross Carrying Amount	Accumulated Amortization
Finite-lived intangible assets		
Customer relationships	$ 668,628	$ 365,935
Proprietary technology	88,826	44,866
Trade names	145	116
Land-use rights	9,744	1,586
Sealed source and supply agreements	241,611	109,838
Other	6,454	2,166
Total finite-lived intangible assets	1,015,408	524,507
Indefinite-lived intangible assets		
Regulatory licenses and other[(a)]	82,110	—
Trade names / trademarks	25,833	—
Total indefinite-lived intangible assets	107,943	—
Total	$ 1,123,351	$ 524,507

(a) Includes certain transportation certifications, a class 1B nuclear license and other intangibles related to obtaining such licensure. These assets are considered indefinite-lived as the decision for renewal by the Canadian Nuclear Safety Commission is highly based on a licensee's previous assessments, reported incidents, and annual compliance and inspection results. New applications for license can take a significant amount of time and cost; whereas an existing licensee with a historical record of compliance and current operating conditions more than likely ensures renewal for another 10 year license period as Nordion has demonstrated over its 75 years of history.

Amounts include the impact of foreign currency translation. Fully amortized amounts are written off.

Amortization expense for finite-lived intangible assets was $81.6 million, $86.8 million, and $80.3 million for the years ended December 31, 2022, 2021 and 2020, respectively. $62.9 million, $63.8 million, and $59.0 million was included in "Selling, general and administrative expenses" in the Consolidated Statements of Operations and Comprehensive Income (Loss) for the years ended December 31, 2022, 2021 and 2020, whereas the remainder was included in "Cost of revenues."

The estimated aggregate amortization expense for finite-lived intangible assets for each of the next five years and thereafter is as follows:

(thousands of U.S. dollars)	
2023	**$ 80,533**
2024	**79,757**
2025	**42,472**
2026	**22,181**
2027	**21,104**
Thereafter	**142,591**
Total	**$ 388,638**

The weighted-average remaining useful life of the finite-lived intangible assets was approximately 8.3 years as of December 31, 2022.

9. Accrued Liabilities

Accrued liabilities consisted of the following:

(thousands of U.S. dollars)

As of December 31,	2022	2021
Accrued employee compensation	**$ 32,936**	$ 33,334
Illinois EO litigation settlement reserve	**408,000**	—
Other legal reserves	**3,776**	3,259
Accrued interest expense	**23,291**	10,755
Embedded derivatives	**3,508**	—
Professional fees	**6,436**	4,314
Accrued utilities	**1,906**	1,797
Insurance accrual	**2,392**	2,068
Accrued taxes	**2,567**	2,209
Other	**5,318**	4,125
Accrued liabilities	**$ 490,130**	$ 61,861

The increase in accrued interest expense relates to an adjustment in the timing of our quarterly scheduled Term Loan interest payments and incremental interest expense on the additional borrowing under the Revolving Credit Facility. Refer to Note 10, "Long-Term Debt".

10. Long-Term Debt

Long-term debt consisted of the following:

(thousands of U.S. dollars)

As of December 31, 2022	Gross Amount	Unamortized Debt Issuance Costs	Unamortized Debt Discount	Net Amount
Term loan, due 2026	**1,763,100**	**(2,140)**	**(13,845)**	1,747,115
Revolving credit facility[(a)]	**200,000**	**(3,328)**	**—**	196,672
Other long-term debt	**450**	**(3)**	**—**	447
	1,963,550	**(5,471)**	**(13,845)**	1,944,234
Less current portion	**200,450**	**(3,331)**	**—**	197,119
Long-term debt	**$ 1,763,100**	**$ (2,140)**	**$ (13,845)**	**$ 1,747,115**

(thousands of U.S. dollars)

As of December 31, 2021	Gross Amount	Unamortized Debt Issuance Costs	Unamortized Debt Discount	Net Amount
Term loan, due 2026	**1,763,100**	**(2,676)**	**(17,334)**	1,743,090
Other long-term debt	**450**	**(6)**	**—**	444
	1,763,550	**(2,682)**	**(17,334)**	1,743,534
Less current portion	**—**	**—**	**—**	—
Long-term debt	**$ 1,763,550**	**$ (2,682)**	**$ (17,334)**	**$ 1,743,534**

(a) Although the contractual maturity of the revolving credit facility is June 13, 2026 (as further described below), the Company expects to pay down the current balance within the next twelve months. Accordingly, the balance is classified as current portion of long-term debt.

Debt Facilities

Senior Secured Credit Facilities

On December 13, 2019, Sotera Health Holdings, LLC ("SHH"), our wholly owned subsidiary, entered into senior secured first lien credit facilities (the "Senior Secured Credit Facilities"), consisting of both a prepayable senior secured first lien term loan (the "Term Loan") and a senior secured first lien revolving credit facility (the "Revolving Credit Facility") pursuant to a first lien credit agreement (the "2019 Credit Agreement"). The Revolving Credit Facility and Term Loan mature on June 13, 2026, and December 13, 2026, respectively. The total borrowing capacity under the Revolving Credit Facility is $347.5 million. The Senior Secured Credit Facilities also provide SHH the right at any time and under certain conditions to request incremental term loans or incremental revolving credit commitments based on a formula defined in the Senior Secured Credit Facilities. As of December 31, 2022 and 2021, total borrowings under the Term Loan were $1,763.1 million. As of December 31, 2022 and 2021 total borrowings outstanding on the Revolving Credit Facility were $200.0 million and $0, respectively. The weighted average interest rate on borrowings under the Term Loan for the year ended December 31, 2022 and 2021 was 4.63% and 3.44%, respectively.

On February 23, 2023, we entered into the First Lien Credit Agreement (the "2023 Credit Agreement"), which provides for, among other things, a new Term Loan B facility in an aggregate principal amount of $500.0 million and bears interest, at the Company's option, at a variable rate per annum equal to either (x) the Term SOFR Rate (as defined in the 2023 Credit Agreement) plus an applicable margin of 3.75% or (y) an alternative base rate ("ABR") plus an applicable margin of 2.75%. The 2023 Credit Agreement is secured on a first priority basis on substantially all of our assets and is guaranteed by certain of our subsidiaries. It is prepayable without premium or penalty at any time six months after the closing date. The principal balance shall be paid at 1% of the aggregate principal amount ($5.0 million) per year, with the balance due at the end of 2026. The Company plans to use proceeds of this debt, along with available cash, to a) fund a previously announced $408.0 million EO litigation settlement in Cook County, Illinois, subject to the satisfaction or waiver by the Company of the various conditions for the settlement, b) pay down existing borrowings under the Company's revolving credit facility, c) further enhance liquidity, and (d) for general corporate purposes.

On January 20, 2021, we closed on an amendment repricing our Term Loan. The interest rate spread over the London Interbank Offered Rate ("LIBOR") on the facility was reduced from 450 basis points to 275 basis points, and the facility's LIBOR floor was reduced from 100 basis points to 50 basis points. The changes resulted in an effective reduction in current interest rates of 225 basis points. In connection with this amendment, we wrote off $11.3 million of unamortized debt issuance and discount costs and incurred an additional $2.9 million of expense related to debt issuance costs attributable to the refinancing. These costs were recorded to "Loss on extinguishment of debt" in our Consolidated Statements of Operations and Comprehensive Income (Loss). Subsequent to the IPO, the remaining principal balance matures on December 13, 2026.

Borrowings under the Revolving Credit Facility bear interest at a rate per annum equal to an applicable margin, plus, at our option, either (a) an ABR or (b) a LIBOR rate. In addition to paying interest on any outstanding borrowings under the Revolving Credit Facility, SHH is required to pay a commitment fee to the lenders under the Revolving Credit Facility in respect of the unutilized commitments thereunder and customary letter of credit fees. The Revolving Credit Facility contains a maximum senior secured first lien net leverage ratio covenant of 9.00 to 1.00, tested on the last day of each fiscal quarter if, on the last day of such fiscal quarter, the sum of (i) the aggregate principal amount of the revolving loans then outstanding under the Revolving Credit Facility, plus (ii) the aggregate amount of letter of credit disbursements that have not been reimbursed within two business days following the end of the fiscal quarter, exceeds the greater of $139.0 million and 40.0% of the aggregate principal amount of the revolving commitments then in effect.

On March 26, 2021, we amended the Revolving Credit Facility, to (i) decrease the Applicable Rate (as defined in the 2019 Credit Agreement) related to any Revolving Loans (as defined in the 2019 Credit Agreement) from a rate per annum that ranged from an alternative base rate ("ABR") plus 2.50% to ABR plus 3.00% depending on SHH's Senior Secured First Lien Net Leverage Ratio to ABR plus 1.75%; and in the case of Eurodollar Loans (as defined in the 2019 Credit Agreement) from a rate per annum which ranged from the Adjusted LIBOR plus 3.50% to the Adjusted LIBOR plus 4.00% depending on SHH's Senior Secured First Lien Net Leverage Ratio (as defined in the 2019 Credit Agreement), to the Adjusted LIBOR (as defined in the 2019 Credit Agreement) plus 2.75%, and (ii) extend the maturity date of the Revolving Facility from December 13, 2024 to June 13, 2026. The other material terms of the 2019 Credit Agreement are unchanged and the amendment does not change the

capacity of our Revolving Credit Facility. No unamortized debt issuance costs associated with the Revolving Credit Facility were written off and direct fees and costs incurred in connection with the amendment were immaterial.

The Senior Secured Credit Facilities contain additional covenants that, among other things, restrict, subject to certain exceptions, our ability and the ability of our restricted subsidiaries to engage in certain activities, such as incur indebtedness or permit to exist any lien on any property or asset now owned or hereafter acquired, as specified in the Senior Secured Credit Facilities. The Senior Secured Credit Facilities also contain certain customary affirmative covenants and events of default, including upon a change of control. An event of default under the Senior Secured Credit Facilities would occur if the Company or certain of its subsidiaries received one or more enforceable judgments for payment in an aggregate amount in excess of $100.0 million, which judgment or judgments are not stayed or remain undischarged for a period of sixty consecutive days or if, in order to enforce such a judgment, a judgment creditor attached or levied upon assets that are material to the business and operations, taken as a whole, of the Company and certain of its subsidiaries. As of December 31, 2022, we were in compliance with all the Senior Secured Credit Facilities covenants.

All of SHH's obligations under the Senior Secured Credit Facilities are unconditionally guaranteed by the Company and each existing and subsequently acquired or organized direct or indirect wholly-owned domestic restricted subsidiary of the Company, with customary exceptions including, among other things, where providing such guarantees is not permitted by law, regulation or contract or would result in material adverse tax consequences. All obligations under the Senior Secured Credit Facilities, and the guarantees of such obligations, are secured by substantially all assets of the borrower and guarantors, subject to permitted liens and other exceptions and exclusions, as outlined in the Senior Secured Credit Facilities.

Outstanding letters of credit are collateralized by encumbrances against the Revolving Credit Facility and the collateral pledged thereunder, or by cash placed on deposit with the issuing bank. As of December 31, 2022, the Company had $66.0 million of letters of credit issued against the Revolving Credit Facility, resulting in total availability under the Revolving Credit Facility of $81.5 million.

Term Loan Interest Rate Risk Management

The Company utilizes interest rate derivatives to reduce the variability of cash flows in the interest payments associated with our variable rate debt due to changes in LIBOR (or its successor). For additional information on the derivative instruments described above, refer to Note 21, "Financial Instruments and Financial Risk", "Derivative Instruments."

Publication of all U.S. LIBOR tenors will cease after June 30, 2023. The most likely replacement benchmark is expected to be the Secured Overnight Financing Rate ("SOFR"), which has been recommended by financial regulators in the United States. We have identified our LIBOR-based exposure in our debt and outstanding interest rate derivative agreements and have addressed the LIBOR transition for those contracts. In accordance with ASC 848 *Reference Rate Reform*, we have elected to apply certain optional expedients for contract modifications and hedging relationships for derivative instruments impacted by the benchmark interest rate transition. The optional expedients remove the requirement to remeasure contract modifications or dedesignate hedging relationships impacted by reference rate reform.

First Lien Notes

On July 31, 2020, SHH issued $100.0 million aggregate principal amount of senior secured first lien notes due 2026 (the "First Lien Notes"), which were scheduled to mature on December 13, 2026. On August 27, 2021 SHH redeemed in full the $100.0 million aggregate principal amount of the First Lien Notes. In connection with this redemption, the Company paid a $3.0 million early redemption premium, in accordance with the terms of the First Lien Notes Indenture, and wrote off $3.4 million of debt issuance and discount costs. The Company recognized these expenses within "Loss on extinguishment of debt" in our Consolidated Statements of Operations and Comprehensive Income (Loss) for the year ended December 31, 2021.

Prior to the redemption, the First Lien Notes bore interest at a rate equal to LIBOR subject to a 1.00% floor plus 6.00% per annum. Interest was payable on a quarterly basis with no principal due until maturity. The weighted average interest rate on the First Lien Notes during 2021 up to the August 27, 2021 redemption date was 7.00%.

Second Lien Notes

On December 13, 2019, SHH issued $770.0 million of Second Lien Senior Secured Notes (the "Second Lien Notes"), which had a maturity date of December 13, 2027. The Second Lien Notes bore interest at a rate equal to LIBOR subject to a 1.00% floor plus 8.00% per annum. On December 14, 2020, SHH redeemed in full all of the $770.0 million aggregate principal amount of the First Lien Notes (as described below in "2020 Debt Repayments"). The weighted average interest rate on the Second Lien Notes through the redemption date of December 14, 2020 was 9.35%.

SHH was entitled to redeem all or a portion of the Second Lien Notes, at any time and from time to time, subject to certain premiums depending on the date of redemption. Any time prior to December 13, 2020, a customary make-whole premium applied and, thereafter, specified premiums that declined to zero applied (in each case as described in the indenture governing the Second Lien Notes). In addition, under certain circumstances, such as an initial public offering or certain changes of control, SHH had certain additional redemption rights (as described in the indenture governing the First Lien Notes).

2020 Debt Repayments

Almost all of the net proceeds of the Company's IPO were used to redeem all of the outstanding aggregate principal amount of the Second Lien Notes and to repay a portion of the outstanding indebtedness under our Term Loan. In November 2020, the Company repaid $341.0 million aggregate principal amount of the Term Loan. In December 2020, the Company redeemed in full all of the $770.0 million aggregate principal amount of its then outstanding Second Lien Notes. For these two transactions combined, we wrote off $28.9 million of debt issuance and discount costs and recognized $15.4 million in premiums paid in connection with the early extinguishment of the Second Lien Notes. We recognized these costs within the "Loss on extinguishment of debt" in our Consolidated Statements of Operations and Comprehensive Income (Loss).

Aggregate Maturities

Aggregate maturities of the Company's long-term debt, excluding debt discounts, as of December 31, 2022, are as follows:

(thousands of U.S. dollars)	
2023	**$ 450**
2024	**—**
2025	**—**
2026	**1,963,100**
2027	**—**
Thereafter	—
Total	**$ 1,963,550**

11. Income Taxes

The geographic sources of income (loss) before income taxes were as follows:

(thousands of U.S. dollars)			
Year ended December 31,	**2022**	**2021**	**2020**
U.S.	**$ (418,308)**	$ 5,092	$ (168,943)
Foreign	**175,197**	170,624	130,083
Income (loss) before income taxes	**$ (243,111)**	$ 175,716	$ (38,860)

Provision (benefit) for income taxes consisted of the following:

(thousands of U.S. dollars)

Year ended December 31,	2022	2021	2020
Current			
Federal U.S.	**$ 12,841**	$ 13,915	$ (10,560)
State U.S.	**5,082**	3,220	166
Foreign	**46,496**	45,176	32,385
Total current provision	**64,419**	62,311	21,991
Deferred			
Federal U.S.	**(52,382)**	(2,422)	(4,336)
State U.S.	**(17,919)**	391	(5,334)
Foreign	**(3,659)**	(1,685)	(13,690)
Total deferred benefit	**(73,960)**	(3,716)	(23,360)
Total provision (benefit) for income taxes	**$ (9,541)**	$ 58,595	$ (1,369)

The provision (benefit) for income taxes is reconciled with the U.S. federal statutory rate as follows:

(thousands of U.S. dollars)

Year ended December 31,	2022	2021	2020
Provision (benefit) computed at federal statutory rate	**$ (51,053)**	$ 36,872	$ (8,181)
Increase (decrease) in taxes as a result of:			
State taxes, net of federal benefit	**(20,359)**	1,013	(5,876)
Valuation allowance	**53,860**	8,455	19,170
Global intangible low-tax income (“GILTI”)	**1,427**	2,103	2,577
Nondeductible share-based compensation	**2,510**	1,512	2,046
Foreign tax rate differential	**8,335**	8,005	6,405
Impact of rate changes on deferred tax balances	**(1,184)**	2,612	(1,906)
Tax holiday	**(605)**	(706)	(616)
Audit settlement	**276**	276	47
Impact of CARES Act and final 951A regulations	**—**	—	(16,720)
Tax credits	**(172)**	(248)	(1,965)
Other	**(2,576)**	(1,299)	3,650
Total provision (benefit) for income taxes	**$ (9,541)**	$ 58,595	$ (1,369)

The components of the tax effects of temporary differences and carryforwards that gave rise to significant portions of the deferred tax assets and liabilities are as follows:

(thousands of U.S. dollars)		
As of December 31,	**2022**	**2021**
Net operating loss carryforwards	**$ 9,286**	$ 11,262
Net capital loss carryforwards	**4,666**	4,128
Reserves and accruals	**121,685**	14,968
Employee benefits and compensation	**6,610**	5,145
Asset retirement obligations	**10,649**	9,949
Lease liability	**9,506**	11,107
Disallowed interest carryforward	**89,682**	76,386
Other	**6,561**	7,099
Deferred tax assets before valuation allowance	**258,645**	140,044
Valuation allowance	**(105,600)**	(52,080)
Net deferred tax assets	**153,045**	87,964
Depreciation and amortization	**(199,670)**	(214,884)
Other	**(17,298)**	(1,696)
Total deferred tax liabilities	**(216,968)**	(216,580)
Net deferred tax liabilities	**$ (63,923)**	$ (128,616)
Noncurrent net deferred tax assets	**$ 4,101**	$ 5,885
Noncurrent net deferred tax liabilities	**(68,024)**	(134,501)
Noncurrent net deferred tax liabilities	**$ (63,923)**	$ (128,616)

At December 31, 2022 and 2021, the Company had available state net operating loss carryforwards of $28.3 million and $46.4 million, respectively, of which $0.9 million have no expiration date, and foreign net operating loss carryforwards of approximately $29.3 million and $31.6 million, respectively, the majority of which have no expiration date. At December 31, 2022 and 2021, a valuation allowance was established against foreign net operating loss carryforwards for $3.0 million and $3.2 million, respectively. At December 31, 2022 we also established a valuation allowance against state net operating loss carryforwards for $1.9 million. Based on management's assessment, it is not more likely than not that these deferred tax assets will be realized through future taxable income.

At December 31, 2022 and 2021, no deferred tax liability has been recorded for repatriation of earnings for purposes of the Company's consolidated financial statements as these earnings are deemed to be indefinitely reinvested. Determining the amount of unrecognized deferred tax liability related to any remaining undistributed foreign earnings not subject to the transition tax and additional outside basis difference in these entities (i.e., basis difference in excess of that subject to the one-time transition tax) is not practicable.

As of December 31, 2022 and 2021, the gross reserve for uncertain tax positions, excluding accrued interest and penalties, was $0 and less than $1.0 million, respectively, as noted in the following reconciliation.

The Company's unrecognized income tax benefits were as follows:

(thousands of U.S. dollars) For the period from January 1 – December 31,	2022	2021
Gross unrecognized tax benefits, beginning of year	**$ 116**	$ 300
Additions related to current year	**—**	116
Reductions related to prior years	**(116)**	—
Settlements	**—**	(300)
Gross unrecognized tax benefits, end of period	**$ —**	$ 116

The Company recognizes interest and penalties as part of the provision for income taxes. For the years ended December 31, 2022, 2021 and 2020 interest and penalties related to uncertain income tax positions that were recognized in the Consolidated Statements of Operations and Comprehensive Income (Loss) were not material.

The Company, which represents all of its subsidiaries, files income tax returns in the U.S. federal jurisdiction and various states and foreign jurisdictions. The Company is no longer subject to U.S. federal, state, and local tax examinations before 2015, and non-U.S. income tax examinations by tax authorities for years before 2011. Tax years through December 31, 2018 have been audited by the Internal Revenue Service ("IRS") and are effectively closed for U.S. federal income tax purposes and no other fiscal years are currently under audit. For Nordion's Canadian tax, all tax years through October 31, 2017 have been closed through audit or statute, and no other fiscal years are currently under audit.

A portion of the Company's foreign operations benefit from a tax holiday, which is set to expire in 2030. This tax holiday may be terminated early if certain conditions are not met. The tax benefit attributable to this holiday was $0.6 million and $0.7 million for the fiscal years ended December 31, 2022 and 2021, respectively.

12. Employee Benefits

Employee Retirement Benefits in the U.S.

We have a defined-contribution retirement plan that covers all U.S. employees upon date of hire. Contributions are directed by each participant into various investment options. Under this plan, we match participants' contributions based on plan provisions. The Company's contributions, which are expensed as incurred, were $5.0 million, $4.3 million, and $4.2 million for the years ended December 31, 2022, 2021 and 2020, respectively, and are recorded in the same line as the respective employee's wages. Administrative expenses related to the plan are paid by the Company and are not material.

Employee Retirement Benefits Outside the U.S.

The Company participates in qualified supplemental retirement and savings plans in various countries outside the U.S. where we operate. Under these defined-contribution plans, funding and costs are generally based upon a predetermined percentage of employee compensation. The Company's contributions, which are expensed as incurred and recorded in the same line as the respective employee's wages, were $1.2 million, $1.4 million and $1.2 million for the years ended December 31, 2022, 2021 and 2020, respectively.

Defined Benefit Pension Plans

The Company also sponsors various post-employment benefit plans including, in certain countries outside the U.S., defined benefit and defined contribution plans, retirement compensation arrangements, and plans that provide extended health care coverage to retired employees, the majority of which relate to Nordion.

Defined Benefit Pension Plan

The following defined benefit pension plan disclosure relates to Nordion. All other foreign defined benefit pension plans are immaterial. The interest cost, expected return on plan assets and amortization of net actuarial loss are recorded in "Other income, net" and the service cost component is included in the same financial statement line item as the applicable employee's

wages in the Consolidated Statements of Operations and Comprehensive Income (Loss). The components of net periodic benefit cost for the defined benefit plans were as follows:

Year ended December 31, *(thousands of U.S. dollars)*	2022	2021	2020
Service cost	**$ 969**	$ 1,204	$ 1,104
Interest cost	**7,411**	6,516	8,034
Expected return on plan assets	**(14,421)**	(14,370)	(14,407)
Amortization of net actuarial loss	**—**	1,079	791
Net periodic benefit	**$ (6,041)**	$ (5,571)	$ (4,478)

The following weighted average assumptions were used in the determination of the projected benefit obligation and the net periodic benefit:

Year ended December 31,	2022	2021
Projected benefit obligation		
Discount rate	**5.19 %**	3.01 %
Rate of compensation increase	**3.00 %**	3.00 %
Periodic benefit		
Discount rate	**3.01 %**	2.53 %
Expected return on plan assets	**5.00 %**	5.00 %
Rate of compensation increase	**3.00 %**	3.00 %

The changes in the projected benefit obligation, fair value of plan assets, and the funded status of the plans are as follows:

(thousands of U.S. dollars) As of December 31,	2022	2021
Change in projected benefit obligation:		
Projected benefit obligation, as of beginning of the year	**$ 296,712**	$ 323,515
Service cost	**1,118**	1,382
Interest cost	**7,411**	6,516
Benefits paid	**(12,207)**	(12,330)
Actuarial gain	**(59,378)**	(23,831)
Foreign currency exchange rate changes	**(16,074)**	1,460
Projected benefit obligation, end of year	**$ 217,582**	$ 296,712
Change in fair value of plan assets:		
Fair value of plan assets as of the beginning of the year	**$ 302,190**	$ 288,539
Actual return on plan assets	**(20,038)**	24,251
Benefits paid	**(12,207)**	(12,330)
Employer contributions	**693**	733
Employee contributions	**149**	178
Foreign currency exchange rate changes	**(17,657)**	819
Fair value of plan assets, end of year	**$ 253,130**	$ 302,190
Funded status at end of year	**$ 35,548**	$ 5,478
Accumulated benefit obligation, end of year	**$ 215,001**	$ 291,818

All defined benefit pension plans are overfunded as of December 31, 2022 and December 31, 2021.

The funded status, measured as the difference between the fair value of the plan assets and the projected benefit obligation, are included in "Post-retirement assets" for overfunded plans and "Post-retirement obligations" for underfunded plans in the Consolidated Balance Sheets.

A reconciliation of the funded status to amounts recognized in the Consolidated Balance Sheets is as follows:

(thousands of U.S. dollars)

As of December 31,	2022	2021
Projected benefit obligation	**$ 217,582**	$ 296,712
Fair value of plan assets	**253,130**	302,190
Plan assets greater than (less than) projected benefit obligation	**35,548**	5,478
Unrecognized net actuarial (gain) loss	**(1,649)**	23,779
Net amount recognized at year end	**$ 33,899**	$ 29,257
Noncurrent assets	**$ 35,548**	$ 5,478
Accumulated other comprehensive (income) loss	**(1,649)**	23,779
Net amount recognized at year end	**$ 33,899**	$ 29,257

The following table illustrates the amounts in accumulated other comprehensive (income) loss that have not yet been recognized as components of pension expense:

(thousands of U.S. dollars)

As of December 31,	2022	2021
Net actuarial (gain) loss	**$ (1,649)**	$ 23,779
Deferred income taxes	**370**	(6,025)
Accumulated other comprehensive loss – net of tax	**$ (1,279)**	$ 17,754

We do not expect to reclassify any of the net actuarial loss in accumulated other comprehensive income to net periodic pension cost in the next twelve months.

The weighted average asset allocation of the Company's pension plans was as follows:

Asset Category	Target	2022	2021
Cash	0.0 %	**0.4 %**	0.9 %
Fixed income	46.0 %	**43.1 %**	46.6 %
Equities	35.0 %	**33.4 %**	34.2 %
Real assets and alternatives	19.0 %	**23.1 %**	18.3 %
Total	100.0 %	**100.0 %**	100.0 %

The Company maintains target allocation percentages among various asset classes based on investment policies established for the pension plans, which are designed to maximize the total rate of return (income and appreciation) after inflation, within the limits of prudent risk taking, while providing for adequate near-term liquidity for benefit payments. Such investment strategies have adopted an equity-based philosophy in order to achieve their long-term investment goals by investing in assets that often have uncertain returns, such as Canadian and other foreign equities, and non-government bonds. However, the Company also attempts to reduce its overall level of risk by diversifying the asset classes and further diversifying within each individual asset class.

The Company's expected return on asset assumptions are derived from studies conducted by actuaries and investment advisors. The studies include a review of anticipated future long-term performance of individual asset classes and consideration of the appropriate asset allocation strategy given the anticipated requirements of the plans to determine the average rate of earnings expected on the funds invested to provide for the pension plans benefits. While the study considers recent fund performance and historical returns, the assumption is primarily a long-term, prospective rate.

The following table provides a basis of fair value measurement for plan assets held by the Company's pension plans that are measured at fair value on a recurring basis. Refer to the discussion of fair value hierarchy in Note 21, "Financial Instruments and Financial Risk".

(thousands of U.S. dollars)

Year Ended December 31,	**Level 1**	**Level 2**	**Total**
Cash and cash equivalents	**$ 963**	**$ —**	**$ 963**
Fixed income securities	**—**	**109,232**	**109,232**
Equity securities	**—**	**84,513**	**84,513**
Real assets and alternatives	**—**	**58,422**	**58,422**
Total	**$ 963**	**$ 252,167**	**$ 253,130**

As of December 31, 2021	Level 1	Level 2	Total
Cash and cash equivalents	$ 2,660	$ —	$ 2,660
Fixed income securities	—	140,842	140,842
Equity securities	—	103,506	103,506
Hedge funds	—	55,182	55,182
Total	$ 2,660	$ 299,530	$ 302,190

Expected future benefit payments from plan assets are as follows:

(thousands of U.S. dollars)

Year Ended December 31,	
2023	**$ 13,221**
2024	**13,462**
2025	**13,712**
2026	**13,969**
2027	**14,084**
2028 - 2032	**71,888**
	$ 140,336

Other benefit plans

Other benefit plans disclosed below relate to Nordion and include a supplemental retirement arrangement, a retirement and termination allowance, and post-retirement benefit plans, which include contributory health and dental care benefits and contributory life insurance coverage. All but one, non-pension post-employment benefit plans are unfunded. All other non-pension post-employment benefit plans are immaterial.

The interest cost and amortization of net actuarial (gain) loss are recorded in "Other income, net" and the service cost component is included in the same financial statement line item as the applicable employee's wages in the Consolidated Statements of Operations and Comprehensive Income (Loss). The components of net periodic benefit cost for the other benefit plans were as follows:

(thousands of U.S. dollars)

Year Ended December 31,	**2022**	**2021**	**2020**
Service cost	**$ 16**	$ 28	$ 29
Interest cost	**284**	268	324
Amortization of net actuarial (gain) loss	**(171)**	(34)	7
Net periodic benefit cost	**$ 129**	$ 262	$ 360

The weighted average assumptions used to determine the projected benefit obligation and net periodic pension cost for these plans were as follows:

Year Ended December 31,	2022	2021
Projected benefit obligation:		
Discount rate	**5.19 %**	3.01 %
Rate of compensation increase	**3.00 %**	3.00 %
Initial health care cost trend rate	**7.00 %**	7.00 %
Ultimate health care cost trend rate	**4.00 %**	4.00 %
Years until ultimate trend rate is reached	**18**	11
Benefit cost:		
Discount rate	**3.01 %**	2.53 %
Rate of compensation increase	**3.00 %**	3.00 %

Assumed health care cost trend rates have a significant effect on the amounts reported for the health care plans. A one-percentage point change in assumed health care cost trend rates would have had the following impact on our consolidated financial statements in 2022:

(thousands of U.S. dollars)	1% Increase	1% Decrease
Change in net periodic benefit cost	**$ 20**	**$ (17)**
Change in projected benefit obligation	**508**	**(428)**

The changes in the projected benefit obligation and the funded status of the other post-retirement plans were as follows:

(thousands of U.S. dollars) As of December 31,	2022	2021
Change in projected benefit obligation:		
Projected benefit obligation	**$ 11,942**	$ 13,684
Service cost	**16**	28
Interest cost	**284**	268
Benefits paid	**(590)**	(922)
Actuarial gain	**(2,775)**	(1,389)
Plan participant contributions	**146**	203
Foreign currency exchange rate changes	**(632)**	70
Projected benefit obligation, end of year	**$ 8,391**	$ 11,942
Change in fair value of plan assets:		
Fair value of plan assets as of the beginning of the year	**$ 478**	$ 437
Benefits paid	**(181)**	(181)
Employer contributions	**216**	221
Foreign currency exchange rate changes	**(32)**	1
Fair value of plan assets, end of year	**$ 481**	$ 478
Underfunded status at end of year	**$ (7,910)**	$ (11,464)
Accumulated benefit obligation, end of year	**$ 8,381**	$ 11,900

All other post-retirement benefit pension plans are underfunded as of December 31, 2022 and 2021.

A reconciliation of the funded status to the net plan liabilities recognized in the Consolidated Balance Sheets is as follows:

(thousands of U.S. dollars)

As of December 31,	2022	2021
Projected benefit obligation	**$ (8,391)**	$ (11,942)
Fair value of plan assets	**481**	478
Plan assets less than projected benefit obligation	**(7,910)**	(11,464)
Unrecognized actuarial gains (losses)	**(2,732)**	(245)
Net amount recognized at year end	**$ (10,642)**	$ (11,709)
Noncurrent liabilities	**$ (7,910)**	$ (11,464)
Accumulative other comprehensive income (loss)	**(2,732)**	(245)
Net amount recognized at year end	**$ (10,642)**	$ (11,709)

The other benefit plan liabilities are presented on the Consolidated Balance Sheets as “Post retirement obligations.”

The following table illustrates the amounts in accumulated other comprehensive income (loss) that have not yet been recognized as components of other benefit plan expense:

(thousands of U.S. dollars)

As of December 31,	2022	2021
Net actuarial loss	**$ (2,732)**	$ (245)
Deferred income taxes	**699**	72
Accumulated other comprehensive income (loss) – net of tax	**$ (2,033)**	$ (173)

Based on the actuarial assumptions used to develop the Company’s benefit obligations as of December 31, 2022, the following benefit payments are expected to be made to plan participants:

(thousands of U.S. dollars)

Years ended December 31	
2023	**$ 585**
2024	**538**
2025	**530**
2026	**529**
2027	**556**
2028 - 2032	**2,528**
Total	**$ 5,266**

We currently expect funding requirements of approximately $0.3 million in each of the next five years to fund the regulatory solvency deficit, as defined by Canadian federal regulation, which require solvency testing on defined benefit pension plans.

The Company may obtain a qualifying letter of credit for solvency payments, up to 15% of the market value of solvency liabilities as determined on the valuation date, instead of paying cash into the pension fund. As of December 31, 2022 and 2021, we had letters of credit outstanding relating to the defined benefit plans totaling $44.1 million and $46.2 million, respectively. The actual funding requirements over the five-year period will be dependent on subsequent annual actuarial valuations. These amounts are estimates, which may change with actual investment performance, changes in interest rates, any pertinent changes in Canadian government regulations and any voluntary contributions.

13. Related Parties

We do business with a number of companies affiliated with Warburg Pincus and GTCR, which we refer to collectively as the "Sponsors." For the year ended December 31, 2022, the Company recorded sales of $3.7 million to Curia Global ("Curia"), an affiliate of GTCR. Amounts due from Curia as of December 31, 2022 were $0.8 million. All other transactions with companies affiliated with Warburg Pincus and GTCR were not in excess of $0.12 million during the year ended December 31, 2022. For the years ended December 31, 2021 and 2020, the Company had not engaged in any related party transactions in excess of $0.12 million.

14. Other Comprehensive Income (Loss)

Amounts in accumulated other comprehensive income (loss) are presented net of the related tax. Foreign currency translation is not adjusted for income taxes.

Changes in our accumulated other comprehensive income (loss) balances, net of applicable tax, were as follows:

(thousands of U.S. dollars)	Defined Benefit Plans		Foreign Currency Translation	Interest Rate Derivatives		Total
Beginning balance – January 1, 2020	$ (27,113)		$ (67,453)	$ 179		$ (94,387)
Other comprehensive income (loss) before reclassifications	(17,828)		17,754	(5,234)		(5,308)
Amounts reclassified from accumulated other comprehensive income (loss)	798	(a)	—	5,055	(b)	5,853
Net current-period other comprehensive income (loss)	(17,030)		17,754	(179)		545
Ending balance – December 31, 2020	$ (44,143)		$ (49,699)	$ —		$ (93,842)
Beginning balance – January 1, 2021	$ (44,143)		$ (49,699)	$ —		$ (93,842)
Other comprehensive income (loss) before reclassifications	25,517		(16,690)	404		9,231
Amounts reclassified from accumulated other comprehensive income (loss)	1,045	(a)	—	—		1,045
Net current-period other comprehensive income (loss)	26,562		(16,690)	404		10,276
Ending balance – December 31, 2021	$ (17,581)		$ (66,389)	$ 404		$ (83,566)
Beginning balance – January 1, 2022	**$ (17,581)**		**$ (66,389)**	**$ 404**		**$ (83,566)**
Other comprehensive income (loss) before reclassifications	**20,803**		**(64,816)**	**20,939**		**(23,074)**
Amounts reclassified from accumulated other comprehensive income (loss)	**(13)**	(a)	—	—		**(13)**
Net current-period other comprehensive income (loss)	**20,790**		**(64,816)**	**20,939**		**(23,087)**
Ending balance – December 31, 2022	**$ 3,209**		**$ (131,205)**	**$ 21,343**		**$ (106,653)**

(a) For defined benefit pension plans, amounts reclassified from accumulated other comprehensive income (loss) are recorded to "Other income, net" within the Consolidated Statements of Operations and Comprehensive Income (Loss).

(b) For interest rate derivatives, amounts reclassified from accumulated other comprehensive income (loss) are recorded to "Interest expense, net" within the Consolidated Statements of Operations and Comprehensive Income (Loss).

15. Stockholders' Equity

Common Stock

The Company completed its IPO in the fourth quarter of 2020 and shares began trading on Nasdaq on November 20, 2020. Prior to the completion of the IPO, the Company amended and restated its certificate of incorporation to authorize 1,200,000,000 shares of common stock, par value $0.01 per share, and reclassify all 3,000 shares of its common stock then outstanding as 232,400,200 shares. Upon completion of the IPO, 284,421,755 shares of common stock were outstanding.

Voting Rights. Holders of common stock are entitled to one vote for each share held on all matters submitted to a vote of stockholders, subject to certain restrictions described in the certificate of incorporation.

Dividends. Subject to preferences that may be applicable to any then outstanding preferred stock, holders of our common stock are entitled to receive ratably those dividends, if any, as may be declared by the board of directors out of legally available funds.

Liquidation, Dissolution, and Winding Up. In the event of liquidation, dissolution or winding up, the holders of the Company's common stock will be entitled to share equally and ratably in the net assets legally available for distribution to stockholders after the payment of all of debts and other liabilities, subject to the prior rights of any preferred stock then outstanding.

Preferred Stock

In addition, prior to the completion of the IPO, the Company's amended and restated certificate of incorporation authorized 120,000,000 shares of preferred stock, par value $0.01 per share. The board of directors may issue preferred stock, without stockholder approval, in such series and with such designations, preferences, conversion or other rights, voting powers and qualifications, limitations or restrictions thereof, as the board of directors deems appropriate.

Corporate Reorganization prior to the IPO

Sotera Health Company was incorporated in November 2017 as the parent company for Sterigenics, Nordion and Nelson Labs under the name Sotera Health Topco, Inc. On October 23, 2020, the Company changed its name from Sotera Health Topco, Inc. to Sotera Health Company. Prior to the IPO, the Company was a direct wholly owned subsidiary of Sotera Health Topco Parent, L.P. ("Topco Parent"). Under the terms of the corporate reorganization completed prior to the IPO, Topco Parent distributed the shares of Sotera Health Company common stock to its partners in accordance with the limited partnership agreement of Topco Parent.

Ownership of Topco Parent and Related Distributions

Prior to the IPO, Topco Parent had four outstanding classes of partnership units: (1) Class A Units; (2) Class B-1 Units, which were subject to time-based vesting; (3) Class B-2 Units, which were subject to performance-based vesting; and (4) Class D Units. Each class of units was subject to the terms of the limited partnership agreement of Topco Parent. The Class A Units, Class B Units and Class D Units are referred to collectively as the "Units."

Pursuant to the terms of the corporate reorganization, Topco Parent made an in-kind distribution of the 232,400,200 shares of the Company's common stock then outstanding to its limited partners in accordance with the terms of its limited partnership agreement, net of any previously unrecouped tax distributions. The value of a share of common stock was measured by the initial public offering price. All shares of the Company's common stock held by Topco Parent were distributed to the holders of the Units.

With respect to shares of common stock distributed in respect of any Class B-1 Units that were unvested as of the distribution and all of the Class B-2 Units (as none of the Class B-2 Units were vested as of the distribution), such shares are subject to the same vesting and forfeiture restrictions that applied to such unvested Class B-1 and Class B-2 Units prior to the distribution as described in Note 16, "Share-Based Compensation". Following the distribution of the shares of the Company's common stock, Topco Parent entered into dissolution.

Following the Corporate reorganization, the Company completed its IPO of 53,590,000 shares of its common stock at a public offering price of $23.00 per share, for proceeds of approximately $1,156.0 million, net of underwriting discounts and issuance costs.

In addition, we entered into agreements with certain executive officers to repurchase shares of our common stock beneficially owned by them in private transactions at a purchase price per share equal to the initial public offering price per share of our common stock less the underwriting discounts and commissions payable thereon. The total number of shares repurchased from certain executive officers in the fourth quarter of 2020 was 1,568,445.

On March 22, 2021, we closed an underwritten secondary offering of our common stock, at a price to the public of $27.00 per share, in which all 25,000,000 shares were offered by selling stockholders, including Warburg Pincus and GTCR, as well as certain current and former members of our management. In addition, the selling stockholders granted the underwriters a 30-day option to purchase up to an additional 3,750,000 shares of common stock. The Company did not offer any shares in the offering and did not receive any of the proceeds from the offering.

16. Share-Based Compensation

Pre-IPO Awards

Prior to our IPO, the Company's equity-based awards issued to service providers (including directors and employees) included partnership interests in Topco Parent (Class B-1 or B-2 Units) which vested based on either time or the achievement of certain performance and market conditions (the "pre-IPO awards"). These equity-based awards represented an interest in our former parent and were granted in respect of services provided to the Company and its subsidiaries. In connection with the IPO, our former parent made in-kind distributions of shares of our common stock to its limited partners as described in Note 15, "Stockholders' Equity". At the time of the IPO, there were fewer than 60 individuals who received shares in the in-kind distribution and while this represented a modification to the existing awards, there was no change in compensation expense associated with these awards since the fair value of the distributed shares immediately before and after the distribution was the same.

Restricted stock distributed in respect of pre-IPO Class B-1 time vesting units vests on a daily basis pro rata over a five-year vesting period (20% per year) beginning on the original vesting commencement date of the corresponding Class B-1 time vesting units, subject to the grantee's continued services through each vesting date. Upon the occurrence of a change in control of the Company, all then outstanding unvested shares of our common stock distributed in respect of Class B-1 Units will become vested as of the date of consummation of such change in control, subject to the grantee's continued services through the consummation of the change in control.

Restricted stock distributed in respect of pre-IPO Class B-2 Units (which were considered performance vesting units) are scheduled to vest only upon satisfaction of certain thresholds. These units generally vest as of the first date on which (i) our Sponsors have received actual cash proceeds in an amount equal to or in excess of at least two and one-half times their invested capital in Sotera Health Topco Parent, L.P. (of which the Company was a direct wholly-owned subsidiary prior to the IPO) and (ii) the Sponsors' internal rate of return exceeds 20%, subject to such grantee's continued services through such date. In the event of a change in control of the Company, any outstanding shares of our common stock distributed in respect of Class B-2 Units that remain unvested immediately following the consummation of such a change in control of the Company shall be immediately canceled and forfeited without compensation. Stock based compensation expense attributed to the pre-IPO Class B-2 awards was recorded in the fourth quarter of 2020 as the related performance conditions were considered probable of achievement and the implied service conditions were met. As of December 31, 2022, these awards remain unvested.

We recognized $2.1 million and $2.6 million of share-based compensation expense related to pre-IPO Class B-1 Units for the years ended December 31, 2022 and 2021, respectively. We recognized $9.7 million of share-based compensation expense ($4.9 million related to pre-IPO Class B-2 Units and $4.8 million related to pre-IPO Class B-1 Units) for the years ended December 31, 2020.

The assumptions used to calculate the fair value of the pre-IPO awards were as follows:

	2020
Risk-free interest rate	1.6 %
Expected volatility	50 %
Expected dividends	None
Expected time until exercise (years)	0.6

These awards were no longer issued after the IPO in November 2020.

A summary of the activity for the years ended December 31, 2022, 2021 and 2020 related to the restricted stock distributed to the Company service providers in respect of the pre-IPO awards (Class B-1 and B-2) is presented below:

	Restricted Stock - Pre-IPO B-1	Restricted Stock - Pre-IPO B-2
At January 1, 2020	**14,450,263**	**15,011,256**
Granted	11,450,000	—
Forfeited	(84,390)	(407,381)
Vested	(11,049,597)	—
At IPO November 20, 2020	14,766,276	14,603,875
Converted at IPO [(1)]	2,309,348	3,497,138
Forfeited	—	(1,173,805)
Vested	(108,109)	—
At December 31, 2020	2,201,239	2,323,333
Forfeited	(72,467)	(299,374)
Vested	(922,683)	—
At December 31, 2021	**1,206,089**	**2,023,959**
Forfeited	**(54,333)**	**(925,544)**
Vested	**(435,665)**	**—**
At December 31, 2022	**716,091**	**1,098,415**

(1) Holders of pre-IPO awards received a distribution of shares of the Company as further described in Note 15, "Stockholders' Equity". Thus, the pre-IPO B-1 Units represented 2,309,348 shares of the Company at IPO and the B-2 Units represented 3,497,138 shares of the Company at IPO.

The following table provides a summary of the weighted average unit grant date fair value, weighted average remaining contractual term, total compensation cost and unrecognized compensation cost for the pre-IPO awards:

December 31, 2022 ***(dollars in millions, except per award values)***	Restricted Stock - Pre-IPO B-1	Restricted Stock - Pre-IPO B-2	All Awards
Weighted average grant date fair value per unit of unvested units[(a)]	**$ 5.36**	**$ 1.76**	**$ 3.18**
Weighted average remaining contractual term	**2.2 years**	**N/A**	**N/A**
Total compensation cost recognized during 2022	**$ 2.1**	**$ —**	**$ 2.1**
Unrecognized compensation expense at December 31, 2022	**$ 4.2**	**$ —**	**$ 4.2**

(a) Due to the in-kind distribution of shares of our common stock in connection with our IPO described above, the weighted average grant date fair value per unit is not comparable to the IPO share price.

N/A – not applicable

2020 Omnibus Incentive Plan

We maintain a long-term incentive plan (the "2020 Omnibus Incentive Plan" or the "2020 Plan") that allows for grants of incentive stock options to employees (including employees of any of our subsidiaries), nonstatutory stock options, restricted stock awards ("RSAs"), restricted stock units ("RSUs") and other cash-based, equity-based or equity-related awards to employees, directors, and consultants, including employees or consultants of our subsidiaries. The maximum number of shares of our common stock that may be issued under the 2020 Plan is 27.9 million. At December 31, 2022, 19.1 million shares are available for future issuance. The Company plans to issue shares available under the 2020 Plan or shares from treasury to satisfy requirements of awards paid with shares.

We recognize share-based compensation expense at grant date fair value over the requisite service period on a straight-line basis in our Consolidated Statements of Operations and Comprehensive Income (Loss), in "Selling, general and administrative expenses". We recognized $19.1 million ($7.8 million for stock options and $11.3 million for RSAs and RSUs), $11.3 million ($5.1 million for stock options and $6.2 million for RSUs) and $1.2 million ($0.5 million for stock options and $0.7 million for RSUs) of share-based compensation expense for these awards for the years ending December 31, 2022, 2021 and 2020, respectively.

Stock Options

We use a Black-Scholes option pricing model to estimate the fair value of stock options. Since we are a newly public company, the expected volatility is based on the volatility of similar publicly traded businesses within the same or similar industry as the Company and we used the simplified method to estimate the expected term. The risk-free rate is based on the U.S. Treasury yield in effect at the time of the grant.

Weighted-average grant-date fair values of stock options and the assumptions used in estimating the fair values are as follows:

For the year ended December 31,	2022	2021	2020
Weighted average grant date fair value per share	$ 4.86	$ 9.08	$ 8.54
Expected term (years)	5.8 years	6.3 years	6.3 years
Risk-free interest rate	3.4 %	1.2 %	0.5 %
Expected volatility	45.7 %	37.5 %	37.5 %

Stock options generally vest ratably over a period of two to four years. They have an exercise price equal to the fair market value of a share of common stock on the date of grant, and a contractual term of 10 years. The following table summarizes our stock option activity for the year ended December 31, 2022:

	Number of Shares	Weighted-average Exercise Price	Remaining Contractual Life	Aggregate Intrinsic Value (*millions of U.S. dollars*)
Outstanding at the beginning of the year	2,423,256	$ 23.02		
Granted	4,161,145	11.09		
Forfeited	(593,931)	21.93		
Exercised	—	—		
Outstanding at the end of the year	**5,990,470**	**$ 14.84**	9.0 years	$ 5.3
Exercisable at the end of the year	**1,011,670**	**$ 23.01**	7.9 years	$ —
Unvested at the end of the year	**4,978,800**	**$ 13.18**	9.3 years	$ 5.3

At December 31, 2022 the total unrecognized compensation expense related to stock options expected to be recognized over the weighted-average period of approximately 2.0 years is $23.3 million. The total fair value of stock options vested during the year ended December 31, 2022 was $4.4 million.

RSUs

RSUs generally vest ratably over a period of one to four years and are valued based on the market price on the date of grant. The following table summarizes our unvested RSUs activity for the year ended December 31, 2022:

	Number of Shares	Weighted-average Grant Date Fair Value
Unvested at the beginning of the year	640,122	$ 23.19
Granted	2,319,762	12.23
Forfeited	(234,172)	21.38
Vested	(243,277)	23.41
Unvested at the end of the year	**2,482,435**	**$ 13.09**

As of December 31, 2022, total unrecognized compensation expense related to RSUs expected to be recognized over the weighted-average period of approximately 2.2 years is $25.1 million.

17. Earnings (Loss) Per Share

Basic earnings (loss) per share represents the amount of income (loss) attributable to each common share outstanding. Diluted earnings (loss) per share represents the amount of income (loss) attributable to each common share outstanding adjusted for the effects of potentially dilutive common shares. Potentially dilutive common shares include stock options and other stock-based awards. In the periods where the effect would be antidilutive, potentially dilutive common shares are excluded from the calculation of diluted earnings per share.

Our basic and diluted earnings (loss) per Common Share are calculated as follows:

	Year Ended December 31,		
in thousands of U.S. dollars and share amounts (except per share amounts)	**2022**	**2021**	**2020**
Earnings (loss):			
Net income (loss)	**$ (233,570)**	$ 117,121	$ (37,491)
Less: Net income attributable to noncontrolling interests	**—**	239	1,126
Less: Allocation to participating securities	**—**	1,524	—
Net income (loss) attributable to Sotera Health Company common stockholders	**$ (233,570)**	$ 115,358	$ (38,617)
Weighted Average Common Shares:			
Weighted-average common shares outstanding - basic	**280,096**	279,228	237,696
Dilutive effect of potential common shares[(a)]	**—**	154	—
Weighted-average common shares outstanding - diluted	**280,096**	279,382	237,696
Earnings (loss) per Common Share:			
Net income (loss) per common share attributable to Sotera Health Company common stockholders - basic	**$ (0.83)**	$ 0.41	$ (0.16)
Net income (loss) per common share attributable to Sotera Health Company common stockholders - diluted	**(0.83)**	0.41	(0.16)

(a) As the Company reported a net loss for the years ended December 31, 2022 and 2020, the calculation of diluted weighted average common shares outstanding is not applicable because the effect of including the potential common shares would be anti-dilutive.

Diluted earnings per shares does not consider the following potential common shares as the effect would be anti-dilutive:

	Year Ended December 31,		
in thousands of share amounts	**2022**	**2021**	**2020**
RSUs	2,467	4	771
Stock options	5,990	2,403	2,201
Total anti-dilutive securities	**8,457**	**2,407**	**2,972**

18. Leases

We lease certain facilities and equipment under various non-cancelable leases. Most of our real property leases provide for renewal periods and rent escalations and stipulate that we pay taxes, maintenance, and certain other operating expenses applicable to the leased premises.

The components of lease expense were as follows:

	Year Ended December 31,		
(thousands of U.S. dollars)	**2022**	**2021**	**2020**
Operating lease costs [(a)]	**$ 15,122**	$ 15,433	$ 14,403
Finance lease costs:			
Amortization of right of use assets	**6,368**	3,018	2,617
Interest on lease liabilities	**3,454**	2,506	1,967
Total finance lease costs	**9,822**	5,524	4,584
Total lease costs	**$ 24,944**	$ 20,957	$ 18,987

(a) Includes $1.3 million, $0.9 million, and $1.0 million of short-term lease costs in the year ended December 31, 2022, 2021, and 2020, respectively.

Lease terms and discount rates were as follows:

	Year Ended December 31,	
	2022	**2021**
Weighted average remaining lease term:		
Operating leases	**4.5 years**	6.3 years
Finance leases	**14.0 years**	15.6 years
Weighted average discount rate:		
Operating leases	**5.88 %**	6.09 %
Finance leases	**5.48 %**	5.91 %

Supplemental cash flow information related to leases was as follows:

	Year Ended December 31,		
(thousands of U.S. dollars)	**2022**	**2021**	**2020**
Cash paid for amounts included in the measurement of lease liabilities:			
Operating cash flows for operating leases	**$ 11,112**	$ 12,494	$ 12,732
Operating cash flow for finance leases	**2,932**	2,042	2,118
Finance cash flows for finance leases	**1,066**	901	1,498

Maturities of lease liabilities as of December 31, 2022 are as follows:

(thousands of U.S. dollars)	Operating Leases	Finance Leases	Total
2023	**$ 9,065**	**$ 4,850**	**$ 13,915**
2024	**6,222**	**11,149**	**17,371**
2025	**4,414**	**4,507**	**8,921**
2026	**4,035**	**4,436**	**8,471**
2027	**3,160**	**4,550**	**7,710**
2028 and Thereafter	**7,506**	**57,553**	**65,059**
Total lease payments	**34,402**	**87,045**	**121,447**
Less imputed interest	**(5,271)**	**(28,368)**	**(33,639)**
Total lease liabilities	**$ 29,131**	**$ 58,677**	**$ 87,808**

19. Asset Retirement Obligations ("ARO")

Our ARO represent the present value of future remediation costs and an increase in the carrying amounts of the related assets in property, plant and equipment in the Consolidated Balance Sheets. The capitalized future site remediation costs are depreciated and the ARO are accreted over the life of the related assets which is included in depreciation and amortization expense, respectively.

The fair value of the ARO is determined based on estimates requiring management judgment. Key assumptions include the timing and estimated decommissioning costs of the remediation activities and credit adjusted risk free interest rates. Changes in the assumptions based on future information may result in adjustments to the estimated obligations over time. No market risk premium has been included in the calculation for the ARO since no reliable estimate can be made by the Company. Any difference between costs incurred upon settlement of an ARO and the liability recognized for the estimated cost of asset retirements will be recognized as a gain or loss in our current period operating results.

Each year, we review decommissioning costs and consider changes in marketplace rates. The following table describes changes to our ARO liability during the years presented:

(thousands of U.S. dollars) **For the Year Ended**	2022	2021
ARO – beginning of period	**$ 42,452**	$ 45,633
Liabilities settled[(a)]	**(497)**	(5,651)
Changes in estimates	**2,593**	183
Accretion expense	**2,194**	2,252
Foreign currency exchange and other	**(1,260)**	35
ARO – end of period	**45,482**	42,452
Less current portion of ARO	**2,896**	619
Noncurrent ARO – end of period	**$ 42,586**	$ 41,833

(a) For the year ended December 31, 2021, includes a $5.1 million non-cash gain arising from derecognition of an ARO liability no longer attributable to Nordion pursuant to the terms of the sale of the Medical Isotopes business in 2018. As of December 31, 2021, Nordion is no longer legally responsible for future decommissioning of the medical isotope assets sold to BWXT.

We recorded depreciation expense on the ARO of $0.3 million, $0.4 million and $0.2 million, for the years ended December 31, 2022, 2021, and 2020 respectively.

We are obligated to provide financial assurance to local and state licensing authorities for possible future decommissioning costs associated with the various facilities that hold Co-60. At December 31, 2022 and 2021, $54.1 million and $50.5 million, respectively, of the standby letters of credit referenced above and surety bonds were outstanding in favor of the various local and state licensing authorities in the event we defaulted on our decommissioning obligation.

20. Commitments and Contingencies

We depend on a limited number of suppliers and our agreements with these suppliers account for material portions of our supply and direct material costs. These costs include obligations under various supply agreements in our Nordion segment for Co-60 that are enforceable and legally binding on us. As of December 31, 2022, we had minimum purchase commitments primarily with domestic and international suppliers of raw materials for the Nordion business totaling $1,586.7 million. The terms of these long-term supply or service arrangements range from 1 to 42 years. In addition, our Sterigenics segment has obligations to purchase ethylene oxide ("EO") gas. Our contract to purchase EO gas in the U.S. requires us to purchase all of our requirements from one supplier, and our contracts to purchase EO gas outside the U.S. generally require that we purchase a specified percentage of our requirements for our operations in the countries covered by those contracts. Although our EO gas contracts generally do not contain fixed minimum purchase volumes, we estimate the amounts based on the percentage of our requirements specified in the contracts and our budgeted purchase volumes for future periods covered under the contracts to be $107.2 million as of December 31, 2022. We expect to utilize the Co-60 and EO gas encompassed by these agreements in the normal course of our business and therefore our commitments under these agreements are not recognized on the consolidated balance sheets as a liability.

From time to time, we may be subject to various lawsuits and other claims, as well as gain contingencies, in the ordinary course of our business. In addition, from time to time, we receive communications from government or regulatory agencies concerning investigations or allegations of noncompliance with laws or regulations in jurisdictions in which we operate.

We establish reserves for specific liabilities in connection with regulatory and legal actions that we determine to be both probable and reasonably estimable. Except for the accrual for the Ethylene Oxide Tort Litigation settlement in Illinois discussed below, no material amounts have been accrued in our consolidated financial statements with respect to any loss contingencies as of December 31, 2022. If a potentially material loss contingency is not probable, but is reasonably possible, or is probable but cannot be estimated, then the nature of the contingent liability, together with an estimate of the range of possible loss if determinable and material, would be disclosed. In certain of the matters described below, we are not able to make a reasonable estimate of any liability because of the uncertainties related to the outcome and/or the amount or range of loss. While it is not possible to determine the ultimate disposition of each of these matters, a potential liability ultimately determined to be attributable to the Company may result in a material impact on the Company's results of operations, liquidity or financial condition for the annual or interim period during which such liability is accrued and/or paid. The Company may also incur material defense and settlement costs, diversion of management resources and other adverse effects on our business, financial condition, or results of operations.

Ethylene Oxide Tort Litigation

Sterigenics U.S., LLC and other medical supply sterilization companies have been subjected to personal injury and related tort lawsuits alleging various injuries caused by low-level environmental exposure to EO emissions from sterilization facilities. Those lawsuits, as detailed further below, are individual claims, as opposed to class actions.

Illinois

Approximately 850 plaintiffs have filed lawsuits, and approximately 25 individuals have threatened to file lawsuits, against subsidiaries of the Company and other parties, alleging personal injuries including cancer and other diseases, or wrongful death, resulting from purported emissions and releases of EO from Sterigenics' former Willowbrook facility. Additional derivative claims are alleged on behalf of relatives of some of these personal injury plaintiffs. Each plaintiff seeks damages in an amount to be determined by the trier of fact. The lawsuits were consolidated for pre-trial purposes by the Cook County Circuit Court, Illinois (the "Consolidated Case"). Jury trials were conducted during 2022 in two of the individual cases included in the Consolidated Case, and twelve individual cases were scheduled for trials in 2023. The first trial began on August 12, 2022, and on September 19, 2022, the jury rendered a verdict in favor of the plaintiff and awarded damages in the amount of $358.7

million, including $36.1 million of compensatory damages, $320.0 million of punitive damages and $2.6 million of prejudgment interest against Sterigenics U.S., LLC and Sotera Health, LLC (the "Defendant Subsidiaries"). Post-judgment interest accrues on the compensatory and punitive damages awards from September 20, 2022, the date of the judgment order. The Defendant Subsidiaries filed a Motion for Post Trial Relief which was denied on December 19, 2022. On January 9, 2023 the Defendant Subsidiaries filed a Notice of Appeal to the First District Appellate Court in Illinois, appealing the September 20, 2022 adverse judgment. The deadline for posting an appellate bond or providing an alternate form of security for the appeal was extended to February 8, 2023. The second individual trial began on October 6, 2022, and on November 18, 2022 the jury returned a defense verdict on all counts. On January 4, 2023, the plaintiff in the second trial filed a motion for post-trial relief seeking an order reversing and/or vacating the verdict, granting a new trial, and/or entering judgment in the plaintiff's favor notwithstanding the verdict.

On November 1, 2022 certain plaintiffs in the Consolidated Case filed a lawsuit in the Circuit Court of Cook County, Illinois against the Company and certain affiliates, subsidiaries and current and former officers, alleging that certain transfers of assets occurring after December 2016 were intended to make assets unavailable to satisfy judgments the plaintiffs might win in future trials in their individual personal injury cases included in the Consolidated Case (the "Asset Transfer Case"). On November 10, 2022, the Asset Transfer Case was removed to the United States District Court for the Northern District of Illinois and all defendants filed answers and affirmative defenses.

On January 9, 2023, the Defendant Subsidiaries (the "Settling Defendants") entered into binding term sheets (the "Term Sheets") with the "Plaintiffs' Executive Committee" (the "PEC") appointed to act on behalf of the more than 20 law firms ("Plaintiffs' Counsel") representing the plaintiffs in the Consolidated Case, the Asset Transfer Case, and other clients with personal injury claims that have not yet been filed (together, the "Eligible Claimants").

The Term Sheets provide a pathway to comprehensively resolve the claims pending against the Settling Defendants in Illinois and thereby enable the Company to focus its full attention on operating the business. The Company denies any liability and maintains that its Willowbrook, Illinois operations did not pose a safety risk to the community in which it operated, and believes the evidence and science ultimately would have compelled the rejection of the plaintiffs' claims. However, years of biased media coverage in the greater Chicago area, the significant costs of posting a large bond in support of the appeal of the first trial verdict and the time and expense that would have been required to continue to contest hundreds of additional lawsuits through a multi-year process in the Illinois court system led the Company to conclude that resolving the pending Illinois EO cases would be in the best interest of the Company and its stakeholders.

The Term Sheets provide an agreed path to final settlement of the Eligible Claimants' claims, subject to the satisfaction or waiver of the conditions described below. The scope of the settlement includes all claims that have been alleged or could have been alleged by Eligible Claimants related to or arising from alleged emissions of EO from Sterigenics' operations in or around Willowbrook, Illinois and related claims that have been or could have been alleged by Eligible Claimants seeking to challenge any transfer of assets to or from the Company, its subsidiaries and certain affiliates to any other entity or person (the "Covered Claims"). The Settling Defendants deny any liability for the Covered Claims and, per their express terms, the Term Sheets are not to be construed as an admission of liability or that the Company engaged in any wrongful, tortious, or unlawful activity or that use and/or emissions of EO from Sterigenics' operations in or around Willowbrook, Illinois posed any safety hazard to the surrounding communities.

If the conditions to the Term Sheets are satisfied or waived, among other things, (1) by or on May 1, 2023 Sterigenics will contribute $408.0 million to a settlement fund that will be used to pay all settlement fees and expenses and cash payments to the Eligible Claimants participating in the settlement and (2) the Eligible Claimants participating in the settlement will release the Company, its subsidiaries and certain affiliates from all Covered Claims and dismiss with prejudice all pending lawsuits and appeals relating to or arising from any Covered Claims. The parties to the Term Sheets have agreed to work in good faith to draft and execute full settlement agreements in accordance with the Term Sheets, but a failure to execute full settlement agreements would not impact the binding effect of the Term Sheets. Upon entering into the Term Sheets, and based on our assessment of the likelihood that the conditions to the Term Sheets will be satisfied or waived, we concluded that the Settlement was probable and reasonably estimable. Accordingly, the Company recorded a charge of $408.0 million for the year ended December 31, 2022. Under the Term Sheets, final settlement is conditioned, among other things, on (1) the entry of a stay of all pending Covered Claims, (2) Plaintiffs' Counsel obtaining opt-in consent from (i) 99% of all Eligible Claimants represented by the PEC law firms, (ii) 95% of all Eligible Claimants represented by law firms not on the PEC and (iii) 100% of all Eligible

Claimants within certain specified subgroups, within 30 days of the date each Eligible Claimant receives all disclosure required by applicable state rules along with their individual settlement allocation (the "Participation Requirement"), which may be extended up to 30 days with the consent of the Settling Defendants, (3) the dismissal with prejudice of the Covered Claims of all Eligible Claimants participating in the settlement, and (4) court approval of the settlement as a good faith settlement under the Illinois Joint Contribution Among Tortfeasors Act. In addition, the Settling Defendants will have the right to elect not to proceed with final settlement of the Covered Claims if it is determined that 40 or more Eligible Claimants do not have valid claims or more than 5 new lawsuits are filed by Plaintiffs' Counsel. The Settling Defendants have the right to waive the Participation Requirement and elect to proceed with final settlement, in which case the settlement will be binding only on Eligible Claimants participating in the settlement and providing opt-in consent. The PEC has agreed, subject to the exercise of their independent professional judgment, to recommend to their clients that they participate in the settlement.

On January 11, 2023 and January 13, 2023, the Circuit Court of Cook County, Illinois entered orders staying all proceedings and deadlines and vacating all trial dates in the Consolidated Case, and staying all enforcement proceedings relating to the September 20, 2022 adverse judgment. On January 16, 2023 the United States District Court for the Northern District of Illinois entered an order staying all proceedings in the Asset Transfer Case. On January 23, 2023 the First District Appellate Court in Illinois entered an order staying the Settling Defendants' appeal of the September 20, 2022 adverse judgment.

The final settlement of claims contemplated under the Term Sheets may not occur or may not occur for all Eligible Claimants for a number of reasons including, but not limited to, a failure to satisfy the Participation Requirement. If the final settlement occurs, the settlement will not cover unfiled claims of claimants who are represented by lawyers other than Plaintiffs' Counsel, claims of Eligible Claimants who elect and are permitted by the Participation Requirements to opt out of the settlement, claims for illnesses diagnosed in the future that claimants allege were caused by emissions from Sterigenics' operations in or around Willowbrook, Illinois, or lawsuits alleging injuries from emissions of EO from operations other than those in or around Willowbrook, Illinois, including the previously disclosed lawsuits in Georgia and New Mexico. The Company denies these allegations, intends to defend itself vigorously in all such litigation, and does not believe that the facts and law justify the September 20, 2022 adverse judgment in the first trial in Illinois or, as detailed further below, that the verdict and damage awards in that case is predictive of future EO tort cases in Illinois or other jurisdictions.

On February 23, 2023 the Company successfully closed on a new senior secured Term Loan B facility in an aggregate principal amount of $500.0 million. The Company plans to use proceeds of this debt financing, along with cash on hand, to fund the $408.0 million settlement described above. Refer to Note 10, "Long-Term Debt" for additional information.

Georgia

Since August 17, 2020, approximately 300 plaintiffs have filed lawsuits against subsidiaries of the Company and other parties in the State Court of Cobb County, Georgia and the State Court of Gwinnett County, Georgia alleging that they suffered personal injuries resulting from emissions of EO from Sterigenics' Atlanta facility. Additional derivative claims are alleged on behalf of relatives of some of these personal injury plaintiffs. Our subsidiaries are also defendants in six lawsuits alleging that the Atlanta facility has devalued and harmed plaintiffs' use of real properties they own in the Atlanta, Georgia area and caused other damages. These personal injury and property devaluation plaintiffs seek various forms of relief including damages. All but two of the personal injury lawsuits pending in Cobb County have been consolidated for pretrial purposes. The Court has entered a phased case management schedule for a "pool" of ten of the consolidated cases by which threshold general causation issues will be decided in Phase 1, followed by specific causation issues in Phase 2 as to any of the pooled cases that survive Phase 1. The Court has stayed the remainder of the consolidated personal injury cases pending in Cobb County and an immediate appeal of a discrete procedural issue is being pursued by the defendants. One personal injury case is pending in Gwinnett County and is scheduled for trial in October 2023. The remaining personal injury case and six property devaluation cases are in various stages of motions practice and fact discovery.

In January 2023 a personal injury and premises liability case was filed in Cobb County, Illinois by a delivery driver alleging injuries from purported exposure to EO emissions and releases while making deliveries to our Atlanta facility. That case has not been consolidated with the other personal injury cases and is not stayed. The court has not yet entered an initial case management order or schedule.

Georgia Facility Operations Litigation

In October 2019, while Sterigenics had voluntarily suspended the facility's operations to install emissions reduction enhancements at its Atlanta facility, Cobb County, Georgia officials asserted that the facility had an incorrect "certificate of occupancy" and could not resume operations without obtaining a new certificate of occupancy. On March 30, 2020 Sterigenics filed suit against Cobb County, Georgia and certain of its officials for wrongfully interfering with operations of the facility. On April 1, 2020 Sterigenics won a Temporary Restraining Order prohibiting Cobb County officials from interfering with the facility's normal operations, which relief was extended until entry of a final judgment in the case. On February 16, 2023 the court granted judgment in Sterigenics' favor on one of its claims for declaratory relief, finding that because Sterigenics' installation of control enhancements at the facility did not constitute a "substantial renovation," the code provisions relied on by the county officials did not provide legal authority to require Sterigenics to acquire a new certificate of occupancy in October 2019. The court dismissed Sterigenics' other claims without prejudice, and terminated the case.

New Mexico Attorney General Litigation

On December 22, 2020, the New Mexico Attorney General filed a lawsuit in the Third Judicial District Court, Doña Ana County, New Mexico against the Company and certain subsidiaries alleging that emissions of EO from Sterigenics' sterilization facility in Santa Teresa, New Mexico have deteriorated the air quality in Santa Teresa and surrounding communities and materially contributed to increased health risks suffered by residents of those communities. The Complaint asserts claims for public nuisance, negligence, strict liability, violations of New Mexico's Public Nuisance Statute and Unfair Practices Act and seeks various forms of relief including a temporary restraining order and preliminary injunctive relief and damages. On June 29, 2021, the Court entered an Order Granting Preliminary Injunction (the "Order") prohibiting Sterigenics from allowing any uncontrolled emission or release of EO from the facility. On December 20, 2021 the Court entered an order establishing a protocol to monitor Sterigenics' compliance with the Order. Operations at the facility continue in compliance with the June 2021 and December 2021 orders. A motion challenging the Court's jurisdiction over Sotera Health Company and another defendant is pending and all other motions to dismiss have been denied. A Scheduling Order was entered on September 13, 2022, including a June 3, 2024 trial date.

The Company believes that neither the verdict in the first trial in Illinois nor the settlement agreement in Cook County is predictive of potential future verdicts in other EO tort cases in Illinois or other jurisdictions. The Company intends to defend itself vigorously in all such litigation, which will be presided over by different judges, tried by different counsel presenting different evidence and fact and expert witness testimony at trial, and decided by different juries. Each plaintiff's claim involves unique facts and evidence including but not limited to, the circumstances of plaintiff's alleged exposure, the type and severity of the plaintiff's disease and the plaintiff's medical history and course of treatment. As a result, we believe that loss in such subsequent cases is not probable and it is not possible to estimate the range of loss. Due to the uncertainties associated with the amount of any such liability and/or the nature of any other remedy which may be imposed in such litigation, any potential liability determined to be attributable to the Company arising out of such litigation may have a material adverse effect on the Company's results of operations, liquidity or financial condition. An estimate of the potential impact on the Company's results of operations, liquidity or financial condition cannot be made due to the aforementioned uncertainties.

* * *

Our insurance for litigation related to alleged environmental liabilities, like the litigation pending in Illinois, Georgia and New Mexico described above has limits of $10.0 million per occurrence and $20.0 million in the aggregate. The per occurrence limit related to the Willowbrook, Illinois litigation was fully utilized by June 30, 2020. The remaining $10.0 million is currently being utilized for occurrences related to the EO litigation in Georgia and New Mexico described above. As of December 31, 2022, we have utilized approximately $8.9 million of the remaining $10.0 million limit. Our insurance for future alleged environmental liabilities excludes coverage for EO claims.

In addition, we are pursuing other insurance coverage for our legal expenses related to the EO tort litigation. In 2021, Sterigenics filed an insurance coverage lawsuit in the U.S. District Court for the Northern District of Illinois relating to two commercial general liability policies issued in the 1980s. On August 3, 2022, the Court issued a Memorandum Opinion and Order concluding that the insurer owes Sterigenics and another insured party a duty to defend the Willowbrook, Illinois litigation, which may allow us to recover defense costs related to that litigation.

Stockholder Lawsuit

On January 24, 2023, the Oakland County Employees' Retirement System and Oakland County Voluntary Employees' Beneficiary Association filed a putative stockholder class action under the federal securities laws in the U.S. District Court for the Northern District of Ohio against the Company, its directors, certain senior executives, the Company's private equity stockholders and the underwriters of the Company's initial public offering ("IPO") in November 2020 and the Company's secondary public offering ("SPO") in March 2021. On behalf of a proposed class of stockholders who acquired shares of the Company in connection with our IPO or SPO or between November 20, 2020 and September 19, 2022, plaintiffs allege that statements made regarding the safety of the Company's use of ethylene oxide and/or the litigation and other risks of its operations utilizing ethylene oxide made in the registration statements for the IPO and SPO violated Sections 11, 12(a)(2) and 15 of the Securities Act of 1933 and that various statements made in subsequent securities filings and other contexts regarding the safety of the Company's use of ethylene oxide and/or the litigation and other risks of its operations utilizing ethylene oxide violated Sections 10(b), Section 20(a) and Rule 10b-5 of the Securities Exchange Act of 1934. Plaintiffs seek damages and other relief. The Company believes that these claims are without merit and plans to mount a vigorous defense.

21. Financial Instruments and Financial Risk

Derivative Instruments

We do not use derivatives for trading or speculative purposes and are not a party to leveraged derivatives.

Derivatives Designated in Hedge Relationships

From time to time, the Company utilizes interest rate derivatives designated in hedge relationships to manage interest rate risk associated with our variable rate borrowings. These instruments are measured at fair value with changes in fair value recorded as a component of "Accumulated other comprehensive income (loss)" on our Consolidated Balance Sheets. Additional information is provided in Note 1, "Significant Accounting Policies".

In May 2022, we entered into two interest rate cap agreements with a combined notional amount of $1,000.0 million for a total option premium of $4.1 million. The interest rate caps have a forward start date of July 31, 2023 and expire on July 31, 2024. We have designated these interest rate caps as cash flow hedges designed to hedge the variability of cash flows attributable to changes in the benchmark interest rate of our Term Loan. Under the current terms of the loan agreement, the benchmark interest rate index is expected to transition from LIBOR to the term SOFR at the earlier of June 30, 2023 or the Company's election to "early opt-in" to SOFR. Accordingly, the interest rate cap agreements hedge the variability of cash flows attributable to changes in SOFR by limiting our cash flow exposure related to the term SOFR under a portion of our variable rate borrowings to 3.5%.

In October 2021, we entered into two interest rate cap agreements with a combined notional amount of $1,000.0 million for a total option premium of $1.8 million. Both interest rate caps have a forward start date of December 31, 2022 and expire on July 31, 2023. These interest rate caps are designated as cash flow hedges and are designed to hedge the variability of cash flows attributable to changes in LIBOR (or its successor), the benchmark interest rate being hedged, by limiting our cash flow exposure related to the LIBOR base rate under a portion of our variable rate borrowings to 1.0%.

During the third quarter of 2019, we entered into two interest rate swap agreements to hedge our exposure to interest rate movements and to manage interest expense related to our outstanding variable-rate debt. The notional amount of the interest rate swap agreements totaled $1,000.0 million. These swaps were designated as cash flow hedges and were designed to hedge the variability of cash flows attributable to changes in LIBOR, the benchmark interest rate being hedged. We received interest at one-month LIBOR and paid a fixed interest rate under the terms of the swap agreement. The termination date of the swap agreements was August 31, 2020.

Derivatives Not Designated in Hedge Relationships

Additionally, from time to time, the Company enters into interest rate derivatives to manage economic risks associated with our variable rate borrowings that are not designated in hedge relationships. These instruments are recorded at fair value on the Consolidated Balance Sheets, with any changes in the value being recorded in "Interest expense, net" in the Consolidated Statements of Operations and Comprehensive Income (Loss).

In June 2020, SHH entered into two interest rate cap agreements with notional amounts of $1,000.0 million and $500.0 million, respectively, for a total option premium of $0.3 million. These instruments were initially scheduled to terminate on August 31, 2021 and February 28, 2022, respectively. The interest rate caps limit our cash flow exposure related to the LIBOR base rate under a portion of our variable rate borrowings to 1.0%. In February 2021, we amended the two interest rate cap agreements referenced above to reduce the strike rate from 1.0% to 0.5%. Premiums paid to amend the interest rate caps were immaterial.

We also entered into two additional interest rate cap agreements in February 2021 with a combined notional amount of $1,000.0 million, for a total option premium of $0.4 million. These instruments were effective September 30, 2021, and terminated on December 31, 2022. The interest rate caps limited our cash flow exposure related to LIBOR under a portion of our variable rate borrowings to 0.5%.

The Company also routinely enters into foreign currency forward contracts to manage foreign currency exchange rate risk of our intercompany loans in certain of our international subsidiaries. The foreign currency forward contracts expire on a monthly basis. The fair value of the outstanding foreign currency forward contracts was $0.3 million and $0 as of December 31, 2022 and 2021, respectively.

Embedded Derivatives

We have embedded derivatives in certain of our customer and supply contracts as a result of the currency of the contract being different from the functional currency of the parties involved. Changes in the fair value of the embedded derivatives are recognized in "Other income, net" in the Consolidated Statements of Operations and Comprehensive Income (Loss).

Fair Values and Volume of Activity Related to Derivative Instruments

The following table provides a summary of the notional and fair values of our derivative instruments:

(in U.S. dollars; notional in millions, fair value in thousands)	December 31, 2022			December 31, 2021		
		Fair Value			Fair Value	
	Notional Amount	Derivative Assets	Derivative Liabilities	Notional Amount	Derivative Assets	Derivative Liabilities
Derivatives designated as hedging instruments						
Interest rate caps	**$ 2,000.0** [(a)]	**$ 34,764**	**$ —**	$ 1,000.0	$ 2,322	$ —
Derivatives not designated as hedging instruments						
Interest rate caps	**—**	**—**	**—**	1,500.0	1,654	—
Foreign currency forward contracts	**151.5**	**—**	**272**	—	—	—
Embedded derivatives	**179.9** [(b)]	**2,721**	**3,508**	144.4	496.0	—
Total	**$ 2,331.4**	**$ 37,485**	**$ 3,780**	$ 2,644.4	$ 4,472	$ —

(a) $1,000.0 million notional amount of interest rate caps designated as hedging instruments have a forward start date beginning on July 31, 2023.
(b) Represents the total notional amounts for certain of the Company's supply and sales contracts accounted for as embedded derivatives.

Embedded derivatives assets and interest rate caps are included in "Prepaid expenses and other current assets" and "Other assets", respectively, on the Consolidated Balance Sheets depending upon their respective maturity dates. Embedded derivative and foreign currency forward contracts are liabilities are included in "Accrued liabilities" on the Consolidated Balance Sheets.

The following tables summarize the activities of our derivative instruments not designated as hedging instruments for the periods presented, and the amounts recorded in the related line item in the Consolidated Statements of Operations and Comprehensive Income (Loss):

(thousands of U.S. dollars)

Year Ended December 31,	2022	2021	2020
Unrealized loss (gain) on interest rate caps recorded in interest expense, net	**$ —**	$ (1,185)	$ 250
Unrealized loss (gain) on embedded derivatives recorded in other income, net	**1,324**	(1,195)	(3,073)
Realized gain on interest rate cap recorded in interest expense	**(12,226)**	—	—
Realized loss (gain) on foreign currency forward contracts recorded in foreign exchange loss (gain)	**3,931**	(1,900)	2,751

The following table summarizes the net gains (losses) on our cash flow hedges recognized in "Other comprehensive income (loss)" during the period and net gains (losses) reclassified from "Accumulated other comprehensive income" into income.

(thousands of U.S. dollars)

Year Ended December 31,	2022	2021	2020
Unrealized gain (loss) on interest rate derivatives recorded in other comprehensive income (loss), net of tax	**$ 20,939**	$ 404	$ (5,234)
Amounts reclassified from accumulated other comprehensive income (loss) to interest expense, net	**—**	—	5,055

We expect to reclassify approximately $28.0 million of after-tax net gains on derivative instruments from accumulated other comprehensive income (loss) to income during the next 12 months associated with our cash flow hedges.

Credit Risk

Certain of our financial assets, including cash and cash equivalents, are exposed to credit risk.

We are also exposed, in our normal course of business, to credit risk from our customers. As of December 31, 2022 and 2021, accounts receivable was net of an allowance for uncollectible accounts of $1.9 million and $1.3 million, respectively.

Credit risk on financial instruments arises from the potential for counterparties to default on their contractual obligations to us. We are exposed to credit risk in the event of non-performance, but do not anticipate non-performance by any of the counterparties to our financial instruments. We limit our credit risk by dealing with counterparties that are considered to be of high credit quality. In the event of non-performance by counterparties, the carrying value of our financial instruments represents the maximum amount of loss that would be incurred.

Our credit team evaluates and regularly monitors changes in the credit risk of our customers. We routinely assess the collectability of accounts receivable and maintain an adequate allowance for uncollectible accounts to address potential credit losses. The process includes a review of customer financial information and credit ratings, current market conditions as well as the expected future economic conditions that may impact the collection of trade receivables. We regularly review our customers' past due amounts through an analysis of aged accounts receivables, specific customer past due aging amounts, and the history of trade receivables written off. Upon concluding that a receivable balance is not collectible, the balance is written off against the allowance for uncollectible accounts.

Fair Value Hierarchy

The fair value of our financial instruments is 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. The valuation techniques we would use to determine such fair values are described as follows: Level 1—fair values determined by inputs utilizing quoted prices in active markets for identical assets or liabilities; Level 2—fair values based on observable inputs other than quoted prices included in Level 1, such as quoted prices for similar assets and liabilities in active markets, quoted prices for identical or similar assets and liabilities in

markets that are not active, or other inputs that are observable; Level 3—fair values determined by unobservable inputs reflecting our own assumptions, consistent with reasonably available assumptions made by other market participants.

The following table discloses our financial assets and liabilities measured at fair value:

As of December 31, 2022		Fair Value		
(thousands of U.S. dollars)	**Carrying Amount**	**Level 1**	**Level 2**	**Level 3**
Derivatives designated as hedging instruments[(a)]				
Interest rate caps	**$ 34,764**	**$ —**	**$ 34,764**	**$ —**
Derivatives not designated as hedging instruments[(b)]				
Foreign currency forward contracts	**272**	**—**	**272**	**—**
Embedded derivative assets	**2,721**	**—**	**2,721**	**—**
Embedded derivative liabilities	**3,508**	**—**	**3,508**	**—**
Current portion of long-term debt[(c)]				
Revolving credit facility	**196,672**	**—**	**196,672**	**—**
Other long-term debt	**447**	**—**	**447**	**—**
Long-Term Debt[(d)]				
Term loan, due 2026	**1,747,115**	**—**	**1,626,460**	**—**
Finance Lease Obligations (with current portion)[(e)]	**58,677**	**—**	**58,677**	**—**

As of December 31, 2021		Fair Value		
(thousands of U.S. dollars)	**Carrying Amount**	**Level 1**	**Level 2**	**Level 3**
Derivatives designated as hedging instruments[(a)]				
Interest rate caps	$ 2,322	—	2,322	—
Derivatives not designated as hedging instruments[(b)]				
Interest rate caps	1,654	$ —	$ 1,654	$ —
Embedded derivative liabilities	496	—	496	—
Long-Term Debt[(d)]				
Term loan, due 2026	1,743,090	—	1,754,285	—
Other long-term debt	444	—	444	—
Finance Lease Obligations (with current portion)[(e)]	42,037	—	42,037	—

(a) Derivatives designated as hedging instruments are measured at fair value with changes in fair value recorded as a component of accumulated other comprehensive income (loss). Additional information is provided in Note 1, "Significant Accounting Policies". Interest rate caps are valued using pricing models that incorporate observable market inputs including interest rate curves and yield curves.

(b) Derivatives that are not designated as hedging instruments are measured at fair value with gains or losses recognized immediately in the Consolidated Statements of Operations and Comprehensive Income (Loss). Refer also to Note 1, "Significant Accounting Policies". Interest rate caps are valued using pricing models that incorporate observable market inputs including interest rate and yield curves. Embedded derivatives and foreign currency forward contracts are valued using internally developed models that rely on observable market inputs including foreign currency forward curves.

(c) Carrying value of current portion of long-term debt approximates fair value.

(d) Carrying amounts of long-term debt instruments are reported net of discounts and debt issuance costs. The estimated fair value of these instruments is based upon quoted prices for the Term Loan due 2026 in inactive markets as provided by an independent fixed income security pricing service. Fair value approximates carrying value for "Other long-term debt."

(e) Refer to Note 18, "Leases". Fair value approximates carrying value.

22. Segment and Geographic Information

We identify our operating segments based on the way we manage, evaluate and internally report our business activities for purposes of allocating resources and assessing performance. We have three reportable segments: Sterigenics, Nordion and Nelson Labs. We have determined our reportable segments based upon an assessment of organizational structure, service types, and internally prepared financial statements. Our chief operating decision maker evaluates performance and allocates resources based on net revenues and segment income after the elimination of intercompany activities. The accounting policies of our reportable segments are the same as those described in Note 1, "Significant Accounting Policies".

Sterigenics

Sterigenics provides outsourced terminal sterilization and irradiation services for the medical device, pharmaceutical, food safety and advanced applications markets using three major technologies: gamma irradiation, EO processing and E-beam irradiation.

Nordion

Nordion is a leading global provider of Co-60 used in the sterilization and irradiation processes for the medical device, pharmaceutical, food safety, and high-performance materials industries, as well as in the treatment of cancer. In addition, Nordion is a leading global provider of gamma irradiation systems.

Nelson Labs

Nelson Labs provides outsourced microbiological and analytical chemistry testing and advisory services for the medical device and pharmaceutical industries.

For the year ended December 31, 2022, five customers reported within the Nordion segment individually represented 10% or more of the segment's total net revenues. These customers represented 17.7%, 13.6%, 11.2%, 10.2%, and 10.7% of the total segment's external net revenues for the year ended December 31, 2022. For the year ended December 31, 2021, four customers reported within the Nordion segment individually represented 10% or more of the segment's total net revenues. These customers represented 15.1%, 12.7%, 11.5% and 11.1% of the total segment's external net revenues for the year ended December 31, 2021. For the year ended December 31, 2020, three customers reported within the Nordion segment individually represented 10% or more of the segment's total net revenues. These customers represented 15.4%, 13.8%, and 13.3% of the total segment's external net revenues for the year ended December 31, 2020.

Financial information for each of our segments is presented in the following table:

	Year Ended December 31,		
(thousands of U.S. dollars)	**2022**	**2021**	**2020**
Segment revenues[(a)]			
Sterigenics	**$ 626,646**	$ 571,829	$ 498,773
Nordion	**153,639**	140,507	114,745
Nelson Labs	**223,402**	219,142	204,640
Total net revenues	**$ 1,003,687**	$ 931,478	$ 818,158
Segment income[(b)]			
Sterigenics	**$ 339,144**	$ 310,470	$ 266,639
Nordion	**89,477**	82,673	66,803
Nelson Labs	**77,628**	88,086	86,417
Total segment income	**$ 506,249**	$ 481,229	$ 419,859

(a) Revenues are reported net of intersegment sales. Our Nordion segment recognized $52.4 million, $34.1 million and $38.6 million in revenues from sales to our Sterigenics segment for the year ended December 31, 2022, 2021 and 2020, respectively, that is not reflected in net revenues in the table above. Intersegment sales for Sterigenics and Nelson Labs are immaterial for all periods presented.

(b) Segment income is only provided on a net basis to the chief operating decision maker and is reported net of intersegment profits.

Corporate operating expenses for executive management, accounting, information technology, legal, human resources, treasury, investor relations, corporate development, tax, purchasing, and marketing not directly incurred by a segment are allocated to the segments based on total net revenue. Corporate operating expenses that are directly incurred by a segment are reflected in each segment's income.

Capital expenditures by segment for the years ended December 31, 2022, 2021 and 2020 were as follows:

	Year Ended December 31,		
(thousands of U.S. dollars)	**2022**	**2021**	**2020**
Sterigenics	**$ 144,027**	$ 73,753	$ 42,164
Nordion	**26,575**	21,292	4,655
Nelson Labs	**11,776**	7,117	6,688
Total capital expenditures	**$ 182,378**	$ 102,162	$ 53,507

Total assets and depreciation and amortization expense by segment are not readily available and are not reported separately to the chief operating decision maker.

A reconciliation of segment income to consolidated income (loss) before taxes is as follows:

(thousands of U.S. dollars) Year Ended December 31,	2022	2021	2020
Segment income	**$ 506,249**	$ 481,229	$ 419,859
Less adjustments:			
Interest expense, net[(a)]	**78,490**	74,192	215,259
Depreciation and amortization[(b)]	**145,554**	150,902	143,564
Share-based compensation[(c)]	**21,211**	13,870	10,987
Capital restructuring bonuses[(d)]	**—**	—	2,702
Loss (gain) on foreign currency and derivatives not designated as hedging instruments, net[(e)]	**3,150**	(58)	(8,454)
Acquisition and divestiture related charges, net[(f)]	**1,398**	(6,018)	3,932
Business optimization project expenses[(g)]	**2,226**	948	2,524
Plant closure expenses[(h)]	**4,730**	2,327	2,649
Impairment of investment in unconsolidated affiliate[(i)]	**9,613**	—	—
Loss on extinguishment of debt[(j)]	**—**	20,681	44,262
Professional services relating to EO sterilization facilities[(k)]	**72,639**	45,656	36,671
Illinois EO litigation settlement[(l)]	**408,000**	—	—
Accretion of asset retirement obligation[(m)]	**2,194**	2,252	1,946
COVID-19 expenses[(n)]	**155**	761	2,677
Consolidated income (loss) before taxes	**$ (243,111)**	$ 175,716	$ (38,860)

(a) The year ended December 31, 2022 excludes a $1.7 million net decrease in the fair value of interest rate derivatives not designated as hedging instruments recorded to interest expense.

(b) Includes depreciation of Co-60 held at gamma irradiation sites.

(c) Represents non-cash share-based compensation expense. See Note 16, "Share-Based Compensation" for further information.

(d) Represents cash bonuses for members of management relating to the IPO.

(e) Represents the effects of (i) fluctuations in foreign currency exchange rates, (ii) non-cash mark-to-fair value of embedded derivatives relating to certain customer and supply contracts at Nordion, and (iii) unrealized gains and losses on interest rate caps not designated as hedging instruments.

(f) Represents (i) certain direct and incremental costs related to the acquisitions of RCA, the noncontrolling interests in our China subsidiaries, BioScience Labs in 2021, Iotron in July 2020, the first quarter 2021 gain on the mandatorily redeemable noncontrolling interest in Nelson Labs Fairfield (as described in Note 4, "Acquisitions"), and certain related integration efforts as a result of those acquisitions, (ii) the earnings impact of fair value adjustments (excluding those recognized within amortization expense) resulting from the businesses acquired, (iii) transition services income and non-cash deferred lease income associated with the terms of the divestiture of the Medical Isotopes business in 2018, (iv) a $3.4 million gain recognized in the third quarter of 2021 related to the settlement of an insurance claim for Nordion that existed at the time of our acquisition of the business in 2014, and (v) a $5.1 million non-cash gain recognized in the fourth quarter of 2021 arising from the derecognition of an ARO liability no longer attributable to Nordion pursuant to the terms of the sale of the Medical Isotopes business in 2018.

(g) Represents professional fees, contract termination and exit costs, severance and other payroll costs, and other costs associated with business optimization and cost savings projects relating to the integration of recent acquisitions, operating structure realignment and other process enhancement projects.

(h) Represents decommissioning costs, professional fees, severance and other payroll costs, and other costs including ongoing lease and utility expenses associated with the closure of the Willowbrook, Illinois facility.

(i) Represents an impairment charge on our equity method investment in a joint venture. Refer to Note 1, "Significant Accounting Policies" for further information.

(j) Represents expenses incurred in connection with the repricing of our Term Loan in January 2021, full redemption of the First Lien Notes in August 2021, and paydown of debt following the November 2020 IPO, including a prepayment premium and accelerated amortization of prior debt issuance and discount costs.

(k) Represents litigation and other professional fees associated with our EO sterilization facilities. See Note 20 "Commitments and Contingencies".

(l) Represents the cost to settle 870+ pending and threatened EO claims against the Defendant Subsidiaries in Illinois under settlement term sheets entered into on January 9, 2023, subject to substantially all of the plaintiffs providing opt-in consents to their individual settlement allocations and dismissing their claims with prejudice. See Note 20 "Commitments and Contingencies".

(m) Represents non-cash accretion of asset retirement obligations related to gamma and EO processing facilities, which are based on estimated site remediation costs for any future decommissioning of these facilities (without regard for whether the decommissioning services would be performed by employees of Nordion, instead of by a third party) and are accreted over the life of the asset.

(n) Represents non-recurring costs associated with the COVID-19 pandemic, including incremental costs to implement workplace health and safety measures. For the year ended December 31, 2020, costs also included donations to related charitable causes and special bonuses for front-line personnel working on-site during lockdown periods.

Geographic Information

Net revenues for geographic area are reported by the country's origin of the revenues.

(thousands of U.S. dollars)

Year Ended December 31,	2022	2021	2020
United States	**$ 579,018**	$ 527,907	$ 490,498
Canada	**188,741**	177,875	135,938
Europe	**166,025**	161,810	135,720
Other	**69,903**	63,886	56,002
Total	**$ 1,003,687**	$ 931,478	$ 818,158

The 'Other' category above is primarily comprised of net revenues from Asian and Latin American countries that individually represent 2% or less of our total net revenues.

Long-lived assets are based on physical locations and are comprised of the net book value of property, plant, and equipment.

(thousands of U.S. dollars)

As of December 31,	2022	2021
United States	**$ 413,887**	$ 323,528
Europe	**143,809**	135,025
Canada	**140,761**	128,538
Other	**76,070**	63,706
Total	**$ 774,527**	$ 650,797

The 'Other' category above is primarily comprised of long-lived assets in Asian and Latin American countries that individually represent 5% or less of our total long-lived assets.

Sotera Health Company

Schedule II – Valuation and Qualifying Accounts

(in thousands)

Description	Balance at Beginning of Period	Charges (credits) to costs and expense	Deductions[1]	Translation Adjustments[2]	Balance at End of Period
Year Ended December 31, 2022					
Deducted from asset accounts:					
Allowance for uncollectible accounts receivable	$ 1,287	$ 1,009	$ (419)	$ (6)	$ 1,871
Deferred tax asset valuation allowance	52,080	53,945	—	(425)	105,600
Year Ended December 31, 2021					
Deducted from asset accounts:					
Allowance for uncollectible accounts receivable	$ 708	$ 1,132	$ (408)	$ (145)	$ 1,287
Deferred tax asset valuation allowance	43,765	8,455	—	(140)	52,080
Year Ended December 31, 2020					
Deducted from asset accounts:					
Allowance for uncollectible accounts receivable	$ 787	$ 270	$ (389)	$ 40	$ 708
Deferred tax asset valuation allowance	22,962	30,667	(10,881)	1,017	43,765

(1) Uncollectible accounts written off, net of recoveries

(2) Change in foreign currency exchange rates

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

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of the Company's "disclosure controls and procedures" (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (Exchange Act)). Based upon their evaluation, the Chief Executive Officer and Chief Financial Officer concluded that, as of the end of the period covered by this Annual Report on Form 10-K, our disclosure controls and procedures are effective to provide reasonable assurance that information we are required to disclose in reports that we file or submit under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in the rules and forms of the Securities and Exchange Commission (SEC), and that such information is accumulated and communicated to our management, including our CEO and CFO, as appropriate, to allow timely decisions regarding required disclosure.

Management's Annual Report on Internal Control over Financial Reporting

The management of Sotera Health Company is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Exchange Act Rule 13a-15(f). Using criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) ("COSO") in Internal Control-Integrated Framework, Sotera Health Company's management assessed the effectiveness of the Company's internal control over financial reporting as of December 31, 2022. Based on this assessment, management concluded that the Company's internal control over financial reporting was effective as of December 31, 2022.

The effectiveness of the Company's internal control over financial reporting as of December 31, 2022 has been audited by Ernst & Young LLP, an independent registered public accounting firm, as stated in their report, which is included in this Annual Report on Form 10-K and is included in this Item 9A. of this Form 10-K below.

Changes in Internal Control

During the fourth quarter of 2022, there were no changes in our internal control over financial reporting that materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and the Board of Directors of Sotera Health Company

Opinion on Internal Control Over Financial Reporting

We have audited Sotera Health Company's internal control over financial reporting as of December 31, 2022, based on criteria established in Internal Control — Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). In our opinion, Sotera Health Company (the Company) maintained, in all material respects, effective internal control over financial reporting as of December 31, 2022, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the 2022 consolidated financial statements of the Company and our report dated February 28, 2023 expressed an unqualified opinion thereon.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Annual Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the 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 effective internal control over financial reporting was maintained in all material respects.

Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

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 (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) 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 (3) 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.

/s/ Ernst & Young LLP

Akron, Ohio

February 28, 2023

Item 9B. Other Information

None.

Item 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections

Not Applicable.

Part III

Item 10. Directors, Executive Officers and Corporate Governance

The information required by this item is incorporated by reference to the sections entitled "Board Composition, Nominations Process and Director Qualifications" and "Corporate Governance" that will be included in our Definitive Proxy Statement for the 2023 Annual Meeting of Stockholders, which will be filed with the SEC within 120 days after the fiscal year ended December 31, 2022.

The following table sets forth information about our executive officers as of February 14, 2023:

Name	Age	Position
Michael B. Petras, Jr.	55	Chairman and Chief Executive Officer
Michael F. Biehl	67	Interim Chief Financial Officer
Michael (Mike) P. Rutz	51	President of Sterigenics
Alexander (Alex) Dimitrief	64	Senior Vice President, General Counsel and Secretary

Set forth below is a brief description of the business experience of our executive officers.

Michael B. Petras, Jr. has served as our Chief Executive Officer since June 2016 and as the Chairman of our board of directors since October 2020, and served as the Chairman of the board of managers of Sotera Health Topco, L.P. ("Topco Parent") from January 2019 and as a member of Topco Parent's board of managers from June 2016 until the completion of the IPO. Prior to joining Sotera Health, Mr. Petras served as chief executive officer of Post-Acute Solutions at Cardinal Health, Inc., a multinational healthcare services company, from 2015 to 2016 and chief executive officer of Cardinal Health at-Home at Cardinal Health, Inc. from 2013 to 2015. From 2011 to 2013, he was the chief executive officer for AssuraMed Holdings, Inc., a medical products supplier owned by the Clayton, Dubilier & Rice and Goldman Sachs private equity firms, which was sold to Cardinal Health, Inc. in 2013. From 2008 to 2011, Mr. Petras was president and chief executive officer at GE Lighting, a General Electric Company ("GE") business unit. During his over 20 year career at GE, he held several management positions in multiple disciplines. Mr. Petras holds a B.S.B.A. in finance from John Carroll University and an M.B.A. in marketing from Case Western Reserve University. He was selected to serve on our board of directors because of his perspective as our Chief Executive Officer as well as his extensive commercial, financial and general management experience across many global industries.

Michael F. Biehl has served as our Interim Chief Financial Officer since July 2022. Prior to joining Sotera Health, Mr. Biehl served as Executive Vice President of Covia Holding Corporation, which acquired Fairmont Santrol, from June 2019 to March 2020. Mr. Biehl served as Executive Vice President and Chief Financial Officer for Fairmont Santrol, a producer of sand and sand-based products for oil and gas exploration and other industrial applications, from May 2016 to May 2018. Mr. Biehl also served as Chief Financial Officer of Chart Industries, a global manufacturer of equipment for the industrial gas, energy and biomedical industries, from July 2001 to April 2016. From 1992 to 2001, he was the Vice President of Finance and Treasurer for Oglebay Norton Company, a mining and industrial minerals company. From 1978 to 1992, he held various positions within the assurance services group at Ernst & Young LLP. Mr. Biehl holds a B.B.A. in accounting from Ohio University and an M.B.A. from Northwestern University Kellogg School of Management. He also has been a licensed C.P.A. in the State of Ohio since 1981.

Michael (Mike) P. Rutz has served as President of Sterigenics since October 2020. Prior to that, Mr. Rutz was Chief Operating Officer of Sterigenics from May 2020 to October 2020. Prior to joining Sotera Health, he was senior vice president and general manager of the Semiconductor Business Unit at Littlefuse, Inc., a multinational electronic manufacturing company, where he was responsible for leading sales, marketing, product development, operations and business development for power and protection based semiconductor products. Mr. Rutz joined Littlefuse in 2014 as senior vice president of global operations, overseeing the company's manufacturing, procurement, planning, quality, and operational excellence initiatives. Prior to joining Littlefuse, Mr. Rutz served as senior vice president global supply chain at WMS Gaming, a Chicago-based manufacturer of equipment and software for the gaming industry. Mr. Rutz also spent 16 years with Motorola in the paging, cellular and networking groups, most recently as vice president, networks supply chain. Mr. Rutz holds a Bachelor's degree in mechanical engineering from the University of Michigan and Master's degrees in mechanical engineering and management from the Massachusetts Institute of Technology.

Alexander (Alex) Dimitrief has served as our Senior Vice President, General Counsel and Secretary since November 2022. Prior to joining Sotera Health, from February 2020 to October 2022, he was a partner at Zeughauser Group, a legal management consulting firm, where he remains as an advisor. Mr. Dimitrief was a senior fellow and distinguished adjunct professor at New York Law School from August 2020 to December 2022 and a lecturer on law at Harvard Law School from September 2019 to December 2022. Mr. Dimitrief previously served in a variety of leadership roles at General Electric. Mr. Dimitrief was president and CEO of GE's Global Growth Organization from 2018 until his retirement from GE in January 2019. He previously served as GE's senior vice president and general counsel from 2015 to 2018 and held other senior legal roles at GE beginning in 2007. Mr. Dimitrief came to GE from Kirkland & Ellis LLP, where he practiced law for twenty years. Mr. Dimitrief holds a B.A. in economics and political science from Yale College and a J.D. from Harvard Law School. He also serves as an independent director of two Nasdaq-listed companies - Eos Energy Enterprises and SmileDirectClub - and on the Advisory Board of Cresset.

Item 11. Executive Compensation

The information required by this item is incorporated by reference to the information that will be included in our Definitive Proxy Statement for the 2023 Annual Meeting of Shareholders, which will be filed with the SEC within 120 days after the fiscal year ended December 31, 2022, except as to information required pursuant to Item 402(v) of SEC Regulation S-K relating to pay versus performance.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

The information required by this item is incorporated by reference to the information that will be included in our Definitive Proxy Statement for the 2023 Annual Meeting of Shareholders, which will be filed with the SEC within 120 days after the fiscal year ended December 31, 2022.

Item 13. Certain Relationships and Related Transactions, and Director Independence

The information required by this item is incorporated by reference to the information that will be included in our Definitive Proxy Statement for the 2023 Annual Meeting of Shareholders, which will be filed with the SEC within 120 days after the fiscal year ended December 31, 2022.

Item 14. Principal Accountant Fees and Services

The information required by this item is incorporated by reference to the information that will be included in our Definitive Proxy Statement for the 2023 Annual Meeting of Shareholders, which will be filed with the SEC within 120 days after the fiscal year ended December 31, 2022.

Part IV

Item 15. Exhibits and Financial Statement Schedules

(a) Documents Filed with Report

(1) Consolidated Financial Statements

The consolidated financial statements are filed as part of this Annual Report on Form 10-K under Item 8, "Financial Statements and Supplementary Data

(2) Financial Statement Schedules

Schedule II - Valuation and Qualifying Accounts for the years ended December 31, 2022, 2021 and 2020

All other schedules for which provision is made in the applicable accounting regulation of the Securities and Exchange Commission are not required under the related instructions or are inapplicable, and therefore, have been omitted.

(3) Exhibits

The exhibits listed in the following Exhibit Index are filed, furnished, or incorporated by reference as part of this Annual Report on Form 10-K.

			Incorporated by Reference			
Exhibit No	Description of Exhibits	Filed/ Furnished Herewith	Form	File No.	Exhibit	Filing Date
3.1	Amended and Restated Certificate of Incorporation of the Registrant		10-K	001-39729	3.1	2021-03-09
3.2	Amended and Restated Bylaws of the Registrant		10-K	001-39729	3.2	2021-03-09
4.1	Description of our Common Stock		10-K	001-39729	4.1	2021-03-09
4.2	Amended and Restated Registration Rights Agreement		10-K	001-39729	4.2	2021-03-09
10.1+	Employment Agreement by and between Sotera Health Company and Michael B. Petras, Jr., dated as of November 10, 2020		S-1/A	333-249648	10.1	2020-11-12
10.2+	Employment Agreement by and between Sotera Health Company and Scott J. Leffler, dated as of November 10, 2020		S-1/A	333-249648	10.2	2020-11-12
10.3+	Executed Employment Offer by Sotera Health Company and Terrence G. Hammons, Jr., dated as of August 20, 2021		10-K	001-39729	10.3	2022-03-01
10.4+	Executed Restrictive Covenants Agreement by and between Sotera Health Company and Terrence G. Hammons, Jr., dated as of November 1, 2021		10-K	001-39729	10.4	2022-03-01
10.5+	Executed Employment Offer by Sotera Health Company and Michael F. Biehl dated as of July 18, 2022	*				
10.6+	Executed Restrictive Covenants Agreement by and between Sotera Health Company and Michael F. Biehl dated as of July 20, 2022	*				
10.7+	Executed Employment Offer by Sotera Health Company and Alex Dimitrief dated as of October 28, 2022	*				

Exhibit No	Description of Exhibits	Filed/ Furnished Herewith	Incorporated by Reference			
			Form	File No.	Exhibit	Filing Date
10.8+	Executed Restrictive Covenants Agreement by and between Sotera Health Company and Alex Dimitrief, dated as of November 1, 2022	*				
10.9+	Cash Retention Bonus Agreement by and between Michael Rutz and Sotera Health Company dated as of November 7, 2022	*				
10.10+	Sotera Health Company Supplemental Retirement Benefit Plan, effective as of January 1, 2018		S-1/A	333-249648	10.4	2020-11-12
10.11+	Sotera Health Company 2020 Omnibus Incentive Plan		S-1/A	333-249648	10.5	2020-11-12
10.12	Form of Sotera Health Company 2020 Omnibus Incentive Plan Restricted Stock Unit Grant Notice and Agreement		S-1/A	333-249648	10.6	2020-11-12
10.13	Form of Sotera Health Company 2020 Omnibus Incentive Plan Stock Option Grant Notice and Agreement		S-1/A	333-249648	10.7	2020-11-12
10.14	Form of Indemnification Agreement entered into between the Registrant and each director and executive officer		S-1/A	333-249648	10.8	2020-11-02
10.15	Stockholders' Agreement		10-K	001-39729	10.9	2021-03-09
10.16	2019 Credit Agreement, dated as of December 13, 2019, among the Registrant, Sotera Health Holdings, LLC, the lenders and issuing banks party thereto and Jefferies Finance LLC, as first lien administrative agent and first lien collateral agent		S-1	333-249648	10.10	2020-10-23
10.17	Guarantee Agreement, dated as of December 13, 2019, among the Registrant, Sotera Health Holdings, LLC, the other guarantors party thereto and Jefferies Finance LLC, as first lien collateral agent		S-1	333-249648	10.11	2020-10-23
10.18	Collateral Agreement, dated as of December 13, 2019, among the Registrant, Sotera Health Holdings, LLC, the other guarantors party thereto and Jefferies Finance LLC, as first lien collateral agent		S-1	333-249648	10.12	2020-10-23
10.19	Patent Security Agreement, dated as of December 13, 2019, between Sterigenics U.S., LLC and Jefferies Finance LLC, as collateral agent		S-1	333-249648	10.13	2020-10-23
10.20	Trademark Security Agreement, dated as of December 13, 2019, between Sterigenics U.S., LLC and Jefferies Finance LLC, as collateral agent		S-1	333-249648	10.14	2020-10-23
10.21	Trademark Security Agreement, dated as of December 13, 2019, between Nelson Laboratories, LLC and Jefferies Finance LLC, as collateral agent		S-1	333-249648	10.15	2020-10-23

Exhibit No	Description of Exhibits	Filed/ Furnished Herewith	Incorporated by Reference			
			Form	File No.	Exhibit	Filing Date
10.22	Trademark Security Agreement, dated as of December 13, 2019, between Sotera Health LLC and Jefferies Finance LLC, as collateral agent		S-1	333-249648	10.16	2020-10-23
10.23	Copyright Security Agreement, dated as of December 13, 2019, among Jefferies Finance LLC and Nelson Laboratories, LLC, as collateral agent		S-1	333-249648	10.17	2020-10-23
10.24	First Lien Pari Passu Intercreditor Agreement, dated as of July 31, 2020, among Sotera Health Holdings, LLC, the Registrant, Jefferies Finance LLC as Collateral Agent and Authorized Representative, and Wilmington Trust, National Association as Additional First Lien Collateral Agent and Initial Authorized Representative		S-1	333-249648	10.25	2020-10-23
10.25	First Lien Collateral Agreement, dated as of July 31, 2020, among the Registrant, Sotera Health Holdings, LLC, the other grantors party thereto and Wilmington Trust, National Association, as first lien notes collateral agent		S-1	333-249648	10.26	2020-10-23
10.26	Patent Security Agreement, dated as of July 31, 2020, between Sterigenics U.S., LLC and Wilmington Trust, National Association, as first lien notes collateral agent		S-1	333-249648	10.27	2020-10-23
10.27	Trademark Security Agreement, dated as of July 31, 2020, between Sotera Health Holdings LLC and Wilmington Trust, National Association, as first lien notes collateral agent		S-1	333-249648	10.28	2020-10-23
10.28	Copyright Security Agreement, dated as of July 31, 2020, between Nelson Laboratories, LLC and Wilmington Trust, National Association, as first lien notes collateral agent		S-1	333-249648	10.29	2020-10-23
10.29†	Restated Supply Agreement, dated as of October 6, 2020, between Balchem Corporation and Sterigenics U.S., LLC, Sterigenics S. De R.L. De C.V., Sterigenics Costa Rica S.R.L. and Sterigenics EO Canada, Inc.		S-1/A	333-249648	10.30	2020-11-18
10.30+	Form of Restricted Stock Agreement and Acknowledgement		S-1/A	333-249648	10.31	2020-11-12
10.31+	Non-Employee Director Compensation Policy		S-1/A	333-249648	10.32	2020-11-12
10.32+	Employment Agreement by and between Sotera Health LLC and Michael P. Rutz, dated as of May 21, 2020		10-K	001-39729	10.26	2021-03-09

Exhibit No	Description of Exhibits	Filed/ Furnished Herewith	Incorporated by Reference			
			Form	File No.	Exhibit	Filing Date
10.33	Incremental Facility Amendment to the 2019 Credit Agreement, dated as of December 17, 2020, among Sotera Health Company, Sotera Health Holdings, LLC, the Incremental Amendment Revolving Lends party thereto, Jefferies Finance LLC, as First Lien Administrative Agent, each Issuing Bank and the Other Loan Parties		10-K	001-39729	10.27	2021-03-09
10.34	Refinancing Amendment to the First Lien 2019 Credit Agreement, dated as of January 20, 2021, among Sotera Health Company, Sotera Health Holdings, LLC, the Refinancing Lenders Party thereto, the Revolving Lenders party to the First Lien Credit Agreement and Jefferies Finance LLC, as First Lien Administrative Agent and First Lien Collateral Agent		10-K	001-39729	10.28	2021-03-09
10.35	Revolving Facilities Amendment to the 2019 Credit Agreement, dated as of March 26, 2021, among Sotera Health Company, Sotera Health Holdings, LLC, the Refinancing Lenders Party thereto, the Revolving Lenders party to the First Lien Credit Agreement and Jefferies Finance LLC, as First Lien Administrative Agent and First Lien Collateral Agent		10-Q	001-39729	10.2	2021-05-13
10.36	Amendment to First Lien 2019 Credit Agreement, dated as of December 23, 2021 by and among Sotera Health Company, Sotera Health Holdings, LLC, and JPMorgan Chase Bank, N.A. as First Lien Administrative Agent and First Lien Collateral Agent		10-K	001-39729	10.31	2022-03-01
10.37	Amendment to First Lien 2019 Credit Agreement, dated as of March 24, 2022, by and among Sotera Health Company, Sotera Health Holdings, LLC, and JPMorgan Chase Bank, N.A. as First Lien Administrative Agent	*				
10.38	2023 Credit Agreement dated as of February 23, 2023 among the Registrant, Sotera Health Holdings, LLC, the Lenders party thereto and JPMorgan Chase Bank, N.A., as First Lien Administrative Agent and First Lien Collateral Agent	*				
10.39	First Lien Guarantee Agreement dated as of February 23, 2023, among the Registrant, Sotera Health Holdings, LLC, the other guarantors party thereto and JPMorgan Chase Bank, N.A., as First Lien Collateral Agent	*				
10.40	First Lien Collateral Agreement dated as of February 23, 2023, among the Registrant, Sotera Health Holdings, LLC, the other grantors party thereto and JPMorgan Chase Bank, N.A., as First Lien Collateral Agent	*				

Exhibit No	Description of Exhibits	Filed/ Furnished Herewith	Incorporated by Reference			
			Form	File No.	Exhibit	Filing Date
10.41	First Lien Pari Passu Intercreditor Agreement dated as of February 23, 2023, among Sotera Health Holdings, LLC, the Registrant, the other grantors party thereto and JPMorgan Chase Bank, N.A.	*				
10.42	Copyright Security Agreement, dated as of February 23, 2023, among Nelson Laboratories, LLC and JPMorgan Chase Bank, N.A., as collateral agent	*				
10.43	Trademark Security Agreement, dated as of February 23, 2023, among Nelson Laboratories Bozeman, LLC and JPMorgan Chase Bank, N.A., as collateral agent	*				
10.44	Trademark Security Agreement, dated as of February 23, 2023, among Regulatory Compliance Associates Inc. and JPMorgan Chase Bank, N.A., as collateral agent	*				
10.45	Trademark Security Agreement, dated as of February 23, 2023, among Sotera Health Holdings, LLC and JPMorgan Chase Bank, N.A., as collateral agent	*				
10.46‡	Willowbrook Group Settlement Term Sheet	*				
10.47‡	Willowbrook Trial Plaintiffs Settlement Term Sheet	*				
10.48+	Form of Sotera Health Company 2020 Omnibus Incentive Plan Restricted Stock Unit Grant Notice (As Amended) and Agreement	*				
10.49+	Form of Sotera Health Company 2020 Omnibus Incentive Plan Stock Option Grant Notice (As Amended) and Agreement	*				
10.50+	Separation Agreement made as of August 31, 2022 between Terry Hammons and Sotera Health Company		10-Q	001-39729	10.32	2022-11-02
21.1	List of Subsidiaries	*				
23.1	Consent of Ernst & Young LLP, Independent Registered Public Accounting Firm	*				
31.1	Certification of Principal Executive Officer pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002	*				
31.2	Certification of Principal Financial Officer pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002	*				

Exhibit No	Description of Exhibits	Filed/ Furnished Herewith	Incorporated by Reference			
			Form	File No.	Exhibit	Filing Date
32.1	Certifications of Principal Executive Officer and Principal Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002	**				
101.INS	Inline XBRL Instance Document - The XBRL Instance Document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document	*				
101.SCH	Inline XBRL Taxonomy Extension Schema Document	*				
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document	*				
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document	*				
101.LAB	Inline XBRL Taxonomy Label Linkbase Document	*				
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document	*				
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)	*				

* Filed Herewith

** Furnished Herewith

\+ Denotes management contract or compensatory plan or arrangement.

† Certain confidential portions of this exhibit have been redacted pursuant to Item 601(b)(10)(iv) of Regulation S-K. The omitted information is (i) not material, and (ii) would likely cause us competitive harm if publicly disclosed. We agree to furnish supplementally an unredacted copy of the exhibit to the Securities and Exchange Commission on its request.

‡ Certain confidential portions of this exhibit have been redacted pursuant to Item 601(b)(10)(iv) of Regulation S-K. The omitted information is (i) not material, and (ii) the type of information that the registrant treats as private and confidential. We agree to furnish supplementally an unredacted copy of the exhibit to the Securities and Exchange Commission on its request.

Item 16. Form 10-K Summary

None.

SIGNATURES

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

SOTERA HEALTH COMPANY

By: /s/ Michael B. Petras, Jr.
Name: Michael B. Petras, Jr.
Title: Chairman and Chief Executive Officer

Date: February 28, 2023

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.

Name	Title	Date
/s/ Michael B. Petras, Jr. Michael B. Petras, Jr.	Chairman and Chief Executive Officer (Principal Executive Officer)	February 28, 2023
/s/ Michael F. Biehl Michael F. Biehl	Interim Chief Financial Officer (Principal Financial and Accounting Officer)	February 28, 2023
/s/ Ruoxi Chen Ruoxi Chen	Director	February 28, 2023
/s/ Sean L. Cunningham Sean L. Cunningham	Director	February 28, 2023
/s/ David A. Donnini David A. Donnini	Director	February 28, 2023
/s/ Ann R. Klee Ann R. Klee	Director	February 28, 2023
/s/ Robert B. Knauss Robert B. Knauss	Director	February 28, 2023
/s/ Constantine S. Mihas Constantine S. Mihas	Director	February 28, 2023
/s/ James C. Neary James C. Neary	Director	February 28, 2023
/s/ Vincent K. Petrella Vincent K. Petrella	Director	February 28, 2023
/s/ David E. Wheadon David E. Wheadon	Director	February 28, 2023

Board of Directors

Back row left to right: **James C. Neary**, Managing Director, Warburg Pincus; **Robert B. Knauss**, Managing Director, Warburg Pincus; **Sean L. Cunningham**, Managing Director, GTCR; **Michael B. Petras, Jr.**, Chairman and Chief Executive Officer, Sotera Health; **Vincent K. Petrella**, Former Executive Vice President, Chief Financial Officer and Treasurer, Lincoln Electric Holdings; **Ann R. Klee**, Former Executive Vice President of Business Development & External Affairs, Suffolk Construction; **David A. Donnini**, Managing Director, GTCR

Seated left to right: **David E. Wheadon, M.D.**, Former Senior Vice President, Global Regulatory Affairs, Patient Safety and Quality Assurance, Astrazeneca PLC; **Ruoxi Chen**, Managing Director, Warburg Pincus; **Constantine S. Mihas**, Managing Director, GTCR

Executive Management

Michael B. Petras, Jr.
Chairman and Chief Executive Officer, Sotera Health

Michael F. Biehl
Interim Chief Financial Officer, Sotera Health

Riaz Bandali
President, Nordion

Michael P. Rutz
President, Sterigenics

Joseph A. Shrawder
President, Nelson Labs

Kristin A. Gibbs
Chief Marketing Officer, Sotera Health

Alex Dimitrief
Senior Vice President, General Counsel and Secretary, Sotera Health

Robert G. Hauzie
Chief Information Officer, Sotera Health

Kathleen A. Hoffman
Senior Vice President, Global Environmental, Health & Safety, Sotera Health

William (BJ) O. Lehmann
Senior Vice President, Corporate Development & Strategy, Sotera Health

Sally R. Turner
Chief Human Resources Officer, Sotera Health

Shareholder Information

PRINCIPAL OFFICE
9100 South Hills Boulevard, Suite 300
Broadview Heights, Ohio 44147

2023 ANNUAL MEETING OF SHAREHOLDERS
Thursday, May 25, 2023
9:00 a.m. Eastern Time
Meeting will be held virtually at:
www.virtualshareholdermeeting.com/SHC2023

All shareholders as of March 31, 2023, and their duly appointed proxies are invited to attend.

2022 ANNUAL REPORT ON FORM 10-K
Sotera Health Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2022, is included in this Annual Report in its entirety, with the exception of certain exhibits.

The Form 10-K, complete with all of its exhibits, is available on our website at:
https://investors.soterahealth.com/sec-filings.com

COMMUNICATE WITH THE BOARD
Shareholders and other interested parties can communicate with our Board of Directors by email at: board@soterahealth.com.

The Secretary reviews all communications sent to the Board. Inquiries that relate to the functions of the Board or a Board Committee will be relayed to the Board, Board Committee or to individual directors, as appropriate.

STOCK LISTING
Listed on Nasdaq Global Select Market
Stock Symbol: SHC

INVESTOR RELATIONS CONTACT
Email: IR@soterahealth.com
Phone: 833.561.1310
Investor Relations website:
www.investors.soterahealth.com

TRANSFER AGENT
Computershare Trust Company, N.A.
118 Fernwood Avenue
Edison, New Jersey 08837

INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM
Ernst & Young LLP

This Annual Report contains forward-looking statements. The reader is cautioned not to rely on these statements, which are based on current expectations of future events. For important information about these statements, including the risks, uncertainties and other factors that could cause actual results to vary materially from the assumptions, expectations and projections expressed in any forward-looking statements, the reader should review the enclosed Annual Report on Form 10-K for the fiscal year ended December 31, 2022, including in the sections captioned "Cautionary Note Regarding Forward-Looking Statements" and "Item 1A. Risk Factors." Sotera Health Company does not undertake to update any forward-looking statement as a result of new information or future events or developments.

Sotera Health Company
9100 South Hills Blvd, Suite 300
Broadview Heights, OH 44147
440.262.1410
Nasdaq: SHC

soterahealth.com