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

FORM 10-Q

(Mark One)

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

For the quarterly period ended September 30, 2022

or

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

For the transition period from to

Commission file number 001-39729

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)
Registrant's telephone number, including area code	**(440) 262-1410**

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**

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

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

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

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

As of October 25, 2022, there were 282,113,499 shares of the registrant's common stock, $0.01 par value per share, outstanding.

SOTERA HEALTH COMPANY
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CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Quarterly Report on Form 10-Q 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 the 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 or 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 current geopolitical instability arising from U.S., Canadian and European Union relations with Russia and related sanctions;
- adverse changes in industry trends;
- changes in environmental, health and safety regulations or preferences;
- health and safety risks associated with the use, storage, transportation and disposal of potentially hazardous materials such as EO and Co-60;
- liability claims relating to health risks associated with the use of EO;
- current and future legal proceedings;
- adverse judgments against two of our subsidiaries in the EO tort litigation that may require an appellate bond or alternative form of security to appeal, and plaintiff efforts to enforce judgments against us, any one of which may have an adverse impact on our liquidity;
- 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;
- 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;
- business continuity hazards, including supply chain disruptions and other risks associated with our operations;
- the ongoing impact of the COVID-19 pandemic;
- 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;
- the risks of doing business internationally, including global and regional economic and political instability and compliance with numerous laws and regulations in multiple jurisdictions;
- 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;
- the effects of unionization efforts and labor regulations in certain countries in which we operate;
- 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;
- 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 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 Quarterly Report on Form 10-Q, including under Part II, Item 1A, “Risk Factors,” as well as Part I, Item 1A, “Risk Factors” of our Annual Report on Form 10-K for the year ended December 31, 2021 (the “2021 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—FINANCIAL INFORMATION

Item 1. Financial Statements

Sotera Health Company

Consolidated Balance Sheets
(in thousands)

	As of	
	September 30, 2022	**December 31, 2021**
Assets	***(Unaudited)***	
Current assets:		
Cash and cash equivalents	**$ 163,975**	$ 106,917
Restricted cash short-term	**986**	7
Accounts receivable, net of allowance for uncollectible accounts of $1,414 and $1,287, respectively	**111,613**	108,183
Inventories, net	**37,153**	54,288
Prepaid expenses and other current assets	**81,673**	71,923
Income taxes receivable	**25,334**	4,643
Total current assets	**420,734**	345,961
Property, plant, and equipment, net	**704,406**	650,797
Operating lease assets	**27,194**	39,946
Deferred income taxes	**5,087**	5,885
Investment in unconsolidated affiliate	**—**	9,405
Post-retirement assets	**9,856**	5,478
Other assets	**47,131**	12,866
Other intangible assets, net	**503,755**	598,844
Goodwill	**1,092,469**	1,120,320
Total assets	**$ 2,810,632**	$ 2,789,502
Liabilities and equity		
Current liabilities:		
Accounts payable	**$ 60,730**	$ 72,868
Accrued liabilities	**56,762**	61,861
Deferred revenue	**5,347**	8,669
Current portion of finance lease obligations	**1,591**	1,160
Current portion of operating lease obligations	**7,718**	9,289
Current portion of asset retirement obligations	**532**	619
Income taxes payable	**7,351**	6,695
Total current liabilities	**140,031**	161,161
Long-term debt	**1,746,555**	1,743,534
Finance lease obligations, less current portion	**54,935**	40,877
Operating lease obligations, less current portion	**22,174**	33,017
Noncurrent asset retirement obligations	**43,889**	41,833
Deferred lease income	**18,769**	20,745
Post-retirement obligations	**10,485**	11,464
Noncurrent liabilities	**15,345**	16,274
Deferred income taxes	**151,720**	134,501
Total liabilities	**2,203,903**	2,203,406
See Commitments and contingencies note		
Equity:		
Common stock, with $0.01 par value, 1,200,000 shares authorized; 286,037 shares issued at September 30, 2022 and December 31, 2021, respectively	**2,860**	2,860
Preferred stock, with $0.01 par value, 120,000 authorized no shares issued at September 30, 2022 and December 31, 2021, respectively	**—**	—
Treasury stock, at cost (3,924 and 3,052 shares at September 30, 2022 and December 31, 2021, respectively)	**(32,653)**	(33,545)
Additional paid-in capital	**1,186,620**	1,172,593
Retained deficit	**(386,097)**	(472,246)
Accumulated other comprehensive loss	**(164,001)**	(83,566)
Total equity attributable to Sotera Health Company	**606,729**	586,096
Noncontrolling interests	**—**	—
Total equity	**606,729**	586,096
Total liabilities and equity	**$ 2,810,632**	$ 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)
(Unaudited)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2022	**2021**	**2022**	**2021**
Revenues:				
Service	**$ 216,704**	$ 200,499	**$ 644,451**	$ 597,907
Product	**32,000**	25,665	**107,646**	92,322
Total net revenues	**248,704**	226,164	**752,097**	690,229
Cost of revenues:				
Service	**99,772**	88,349	**292,755**	264,776
Product	**12,919**	12,229	**44,058**	40,734
Total cost of revenues	**112,691**	100,578	**336,813**	305,510
Gross profit	**136,013**	125,586	**415,284**	384,719
Operating expenses:				
Selling, general and administrative expenses	**57,091**	44,038	**179,765**	146,331
Amortization of intangible assets	**15,727**	15,877	**47,337**	48,081
Total operating expenses	**72,818**	59,915	**227,102**	194,412
Operating income	**63,195**	65,671	**188,182**	190,307
Interest expense, net	**23,427**	18,140	**47,875**	58,585
Impairment of investment in unconsolidated affiliate	**—**	—	**9,613**	—
Loss on extinguishment of debt	**—**	6,365	**—**	20,677
Foreign exchange (gain) loss	**(535)**	756	**(502)**	1,410
Other income, net	**(1,713)**	(693)	**(4,195)**	(7,347)
Income before income taxes	**42,016**	41,103	**135,391**	116,982
Provision for income taxes	**16,926**	13,659	**49,242**	35,858
Net income	**25,090**	27,444	**86,149**	81,124
Less: Net income attributable to noncontrolling interests	**—**	—	**—**	239
Net income attributable to Sotera Health Company	**25,090**	27,444	**86,149**	80,885
Other comprehensive income (loss) net of tax:				
Pension and post-retirement benefits (net of taxes of $357, $466, $444, and $240, respectively)	**1,065**	1,383	**1,323**	713
Interest rate derivatives (net of taxes of $3,368, $—, $6,718 and $—, respectively)	**9,408**	—	**18,765**	—
Foreign currency translation	**(69,460)**	(29,867)	**(100,523)**	(12,528)
Comprehensive income (loss)	**(33,897)**	(1,040)	**5,714**	69,309
Less: comprehensive income attributable to noncontrolling interests	**—**	—	**—**	534
Comprehensive income (loss) attributable to Sotera Health Company	**$ (33,897)**	$ (1,040)	**$ 5,714**	$ 68,775
Earnings per share:				
Basic	**$ 0.09**	$ 0.10	**$ 0.31**	$ 0.29
Diluted	**0.09**	0.10	**0.31**	0.29
Weighted average number of shares outstanding:				
Basic	**280,142**	279,381	**279,988**	279,097
Diluted	**280,172**	279,560	**280,093**	279,253

See notes to consolidated financial statements.

Sotera Health Company

Consolidated Statements of Cash Flows
(in thousands)
(Unaudited)

	Nine Months Ended September 30,	
	2022	2021
Operating activities:		
Net income	**$ 86,149**	$ 81,124
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation	**47,496**	47,457
Amortization of intangible assets	**61,596**	65,299
Impairment of investment in unconsolidated affiliate	**9,613**	—
Loss on extinguishment of debt	**—**	20,677
Deferred income taxes	**17,153**	8,131
Share-based compensation expense	**14,955**	10,489
Accretion of asset retirement obligations	**1,645**	1,751
Unrealized foreign exchange (gain) loss	**(5,610)**	715
Unrealized gain on derivatives not designated as hedging instruments	**(4,323)**	(424)
Amortization of debt issuance costs	**4,259**	4,789
Other	**(6,109)**	(6,174)
Changes in operating assets and liabilities:		
Accounts receivable	**(8,558)**	(4,901)
Inventories	**13,896**	(3,429)
Other current assets	**(13,066)**	2,225
Accounts payable	**(13,367)**	(291)
Accrued liabilities	**(1,874)**	(7,985)
Income taxes payable / receivable, net	**(25,050)**	(3,620)
Other liabilities	**1,489**	(290)
Other long-term assets	**(4,259)**	(349)
Net cash provided by operating activities	**176,035**	215,194
Investing activities:		
Purchases of property, plant and equipment	**(110,642)**	(60,898)
Purchase of mandatorily redeemable noncontrolling interest in Nelson Laboratories Fairfield, Inc.	**—**	(12,425)
Purchase of BioScience Laboratories, LLC, net of cash acquired	**—**	(13,530)
Adjustment to purchase of Regulatory Compliance Associates Inc.	**450**	—
Other investing activities	**34**	(717)
Net cash used in investing activities	**(110,158)**	(87,570)
Financing activities:		
Purchase of noncontrolling interests in China subsidiaries	**—**	(8,418)
Payments of debt issuance costs and prepayment premium	**(31)**	(6,718)
Payments on debt	**—**	(100,000)
Other financing activities	**(1,452)**	(368)
Net cash used in financing activities	**(1,483)**	(115,504)
Effect of exchange rate changes on cash and cash equivalents	**(6,357)**	345
Net increase in cash and cash equivalents, including restricted cash	**58,037**	12,465
Cash and cash equivalents, including restricted cash, at beginning of period	**106,924**	102,454
Cash and cash equivalents, including restricted cash, at end of period	**$ 164,961**	$ 114,919
Supplemental disclosures of cash flow information:		
Cash paid during the period for interest	**$ 65,045**	$ 53,726
Cash paid during the period for income taxes, net of tax refunds received	**56,474**	31,922
Purchases of property, plant and equipment included in accounts payable	**18,583**	14,527

See notes to consolidated financial statements.

Sotera Health Company

Consolidated Statements of Equity
(in thousands)
(Unaudited)

Three Months Ended September 30, 2022

	Common Stock							
	Shares	Amount	Treasury Stock	Additional Paid-In Capital	Retained Earnings / (Accumulated Deficit)	Accumulated Other Comprehensive (Loss) Income	Noncontrolling Interests	Total Equity
Balance at June 30, 2022	**282,902**	**$ 2,860**	**$ (32,654)**	**$ 1,181,995**	**$ (411,187)**	**$ (105,014)**	**$ —**	**$ 636,000**
Share-based compensation plans	(789)	—	1	4,625	—	—	—	**4,626**
Comprehensive income (loss):								
Pension and post-retirement plan adjustments, net of tax	—	—	—	—	—	1,065	—	**1,065**
Foreign currency translation	—	—	—	—	—	(69,460)	—	**(69,460)**
Interest rate derivatives, net of tax	—	—	—	—	—	9,408	—	**9,408**
Net income	—	—	—	—	25,090	—	—	**25,090**
Balance at September 30, 2022	**282,113**	**$ 2,860**	**$ (32,653)**	**$ 1,186,620**	**$ (386,097)**	**$ (164,001)**	**$ —**	**$ 606,729**

Nine Months Ended September 30, 2022

	Common Stock							
	Shares	Amount	Treasury Stock	Additional Paid-In Capital	Retained Earnings / (Accumulated Deficit)	Accumulated Other Comprehensive (Loss) Income	Noncontrolling Interests	Total Equity
Balance at December 31, 2021	**282,985**	**$ 2,860**	**$ (33,545)**	**$ 1,172,593**	**$ (472,246)**	**$ (83,566)**	**$ —**	**$ 586,096**
Share-based compensation plans	(872)	—	892	14,027	—	—	—	**14,919**
Comprehensive income (loss):								
Pension and post-retirement plan adjustments, net of tax	—	—	—	—	—	1,323	—	**1,323**
Foreign currency translation	—	—	—	—	—	(100,523)	—	**(100,523)**
Interest rate derivatives, net of tax	—	—	—	—	—	18,765	—	**18,765**
Net income	—	—	—	—	86,149	—	—	**86,149**
Balance at September 30, 2022	**282,113**	**$ 2,860**	**$ (32,653)**	**$ 1,186,620**	**$ (386,097)**	**$ (164,001)**	**$ —**	**$ 606,729**

See notes to consolidated financial statements.

Sotera Health Company

Consolidated Statements of Equity (continued)
(in thousands)
(Unaudited)

Three Months Ended September 30, 2021

	Common Stock		Additional Paid-In Capital	Retained Earnings / (Accumulated Deficit)	Accumulated Other Comprehensive (Loss) Income	Noncontrolling Interests	Total Equity
	Shares	Amount					
Balance at June 30, 2021	282,917	$ 2,860	$ 1,167,566	$ (535,687)	$ (77,468)	$ —	$ 523,271
Share-based compensation plans	—	—	3,538	—	—	—	3,538
Comprehensive income (loss):							
Pension and post-retirement plan adjustments, net of tax	—	—	—	—	1,383	—	1,383
Foreign currency translation	—	—	—	—	(29,867)	—	(29,867)
Interest rate derivatives, net of tax	—	—	—	—	—	—	—
Net income	—	—	—	27,444	—	—	27,444
Balance at September 30, 2021	282,917	$ 2,860	$ 1,171,104	$ (508,243)	$ (105,952)	$ —	$ 525,769

Nine Months Ended September 30, 2021

	Common Stock		Additional Paid-In Capital	Retained Earnings / (Accumulated Deficit)	Accumulated Other Comprehensive (Loss) Income	Noncontrolling Interests	Total Equity
	Shares	Amount					
Balance at December 31, 2020	283,248	$ 2,860	$ 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	(378)	—	9,384	—	—	—	9,384
Comprehensive income (loss):							
Pension and post-retirement plan adjustments, net of tax	—	—	—	—	713	—	713
Foreign currency translation	—	—	—	—	(12,823)	295	(12,528)
Interest rate derivatives, net of tax	—	—	—	—	—	—	—
Net income	—	—	—	80,885	—	239	81,124
Balance at September 30, 2021	282,917	$ 2,860	$ 1,171,104	$ (508,243)	$ (105,952)	$ —	$ 525,769

See notes to consolidated financial statements.

1. Basis of Presentation

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.

We operate and report in three segments, Sterigenics, Nordion and Nelson Labs. We describe our reportable segments in Note 18, "Segment Information". All significant intercompany balances and transactions have been eliminated in consolidation.

Noncontrolling interests represent 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 Auralux Enterprises, Ltd ("Auralux") a joint venture to construct an E-beam facility in Alberta, Canada in connection with our acquisition of Iotron Industries Canada, Inc. ("Iotron"). We have 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 three months ended June 30, 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, as of June 30, 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. Generally Accepted Accounting Principles ("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.

Interim Financial Statements – The accompanying consolidated financial statements include the assets, liabilities, operating results, and cash flows of the Company and its wholly owned subsidiaries. These financial statements are prepared in accordance with U.S. GAAP for interim financial information and the instructions to the Quarterly Report on Form 10-Q and Rule 10-01 of Regulation S-X. Accordingly, they do not include all of the information and footnotes required by U.S. GAAP for complete financial statements. In the opinion of management, all adjustments (consisting of normal recurring adjustments) considered necessary for a fair presentation have been included. These unaudited interim financial statements should be read in conjunction with the Company's annual consolidated financial statements and accompanying notes on Form 10-K for the year ended December 31, 2021.

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.

ASUs 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 Contract 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 are currently assessing the effect that ASU 2021-08 will have on our financial position, results of operations, and disclosures.

3. Revenue Recognition

The following table shows disaggregated net revenues from contracts with external customers by timing of revenue and by segment for the three and nine months ended September 30, 2022 and 2021:

(thousands of U.S. dollars)	Three Months Ended September 30, 2022			
	Sterigenics	**Nordion**	**Nelson Labs**	**Consolidated**
Point in time	**$ 157,723**	**$ 33,830**	**$ —**	**$ 191,553**
Over time	**—**	**1,241**	**55,910**	**57,151**
Total	**$ 157,723**	**$ 35,071**	**$ 55,910**	**$ 248,704**

(thousands of U.S. dollars)	Three Months Ended September 30, 2021			
	Sterigenics	**Nordion**	**Nelson Labs**	**Consolidated**
Point in time	$ 145,314	$ 28,768	$ —	$ 174,082
Over time	—	—	52,082	52,082
Total	$ 145,314	$ 28,768	$ 52,082	$ 226,164

(thousands of U.S. dollars)	Nine Months Ended September 30, 2022			
	Sterigenics	**Nordion**	**Nelson Labs**	**Consolidated**
Point in time	**$ 464,977**	**$ 113,501**	**$ —**	**$ 578,478**
Over time	**—**	**6,050**	**167,569**	**173,619**
Total	**$ 464,977**	**$ 119,551**	**$ 167,569**	**$ 752,097**

(thousands of U.S. dollars)	Nine Months Ended September 30, 2021			
	Sterigenics	**Nordion**	**Nelson Labs**	**Consolidated**
Point in time	$ 421,647	$ 102,439	$ —	$ 524,086
Over time	—	1,372	164,771	166,143
Total	$ 421,647	$ 103,811	$ 164,771	$ 690,229

Contract Balances

As of September 30, 2022, and December 31, 2021, contract assets included in "Prepaid expenses and other current assets" on the Consolidated Balance Sheets totaled approximately $22.4 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 $5.3 million and $8.7 million at September 30, 2022 and December 31, 2021, respectively. We recognize deferred revenue after 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 September 30, 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 September 30, 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 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.

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.

5. Inventories

Inventories consisted primarily of the following:

(thousands of U.S. dollars)

	September 30, 2022	December 31, 2021
Raw materials and supplies	**$ 31,449**	$ 41,514
Work-in-process	**389**	3,919
Finished goods	**5,429**	8,979
	37,267	54,412
Reserve for excess and obsolete inventory	**(114)**	(124)
Inventories, net	**$ 37,153**	$ 54,288

6. Prepaid Expenses and Other Current Assets

Prepaid expenses and other current assets consisted primarily of the following:

(thousands of U.S. dollars)

	September 30, 2022	December 31, 2021
Prepaid taxes	**$ 29,735**	$ 24,937
Prepaid business insurance	**1,871**	10,707
Prepaid rent	**1,111**	920
Customer contract assets	**22,387**	15,565
Insurance and indemnification receivables	**4,361**	3,144
Current deposits	**760**	623
Prepaid maintenance contracts	**385**	279
Value added tax receivable	**759**	2,512
Prepaid software licensing	**2,055**	2,055
Stock supplies	**3,597**	3,374
Embedded derivatives	**3,522**	496
Other	**11,130**	7,311
Prepaid expenses and other current assets	**$ 81,673**	$ 71,923

7. Goodwill and Other Intangible Assets

Changes to goodwill during the nine months ended September 30, 2022 were as follows:

(thousands of U.S. dollars)	Sterigenics	Nordion	Nelson Labs	Total
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	(5,982)	(21,748)	(4,766)	(32,496)
Goodwill at September 30, 2022	**$ 654,761**	**$ 267,157**	**$ 170,551**	**$ 1,092,469**

Other intangible assets consisted of the following:

(thousands of U.S. dollars) **As of September 30, 2022**	**Gross Carrying Amount**	**Accumulated Amortization**
Finite-lived intangible assets		
Customer relationships	**$ 644,236**	**$ 402,253**
Proprietary technology	**84,392**	**48,446**
Trade names	**2,550**	**574**
Land-use rights	**8,715**	**1,579**
Sealed source and supply agreements	**201,496**	**88,712**
Other	**4,439**	**1,746**
Total finite-lived intangible assets	**945,828**	**543,310**
Indefinite-lived intangible assets		
Regulatory licenses and other[(a)]	**75,888**	—
Trade names / trademarks	**25,349**	—
Total indefinite-lived intangible assets	**101,237**	—
Total	**$ 1,047,065**	**$ 543,310**

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 other intangible assets was $20.2 million ($4.5 million is included in "Cost of revenues" and $15.7 million in "Selling, general and administrative expenses") and $61.6 million ($14.3 million is included in "Cost of revenues" and $47.3 million in "Selling, general and administrative expenses") in the Consolidated Statements of Operations and Comprehensive Income (Loss) for the three and nine months ended September 30, 2022, respectively.

Amortization expense for other intangible assets was $21.2 million ($5.3 million is included in “Cost of revenues” and $15.9 million in “Selling, general and administrative expenses”) and $65.3 million ($17.2 million is included in “Cost of revenues” and $48.1 million in “Selling, general and administrative expenses”) in the Consolidated Statements of Operations and Comprehensive Income (Loss) for the three and nine months ended September 30, 2021, respectively.

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)	
For the remainder of 2022	**$ 19,779**
2023	**79,485**
2024	**78,709**
2025	**41,907**
2026	**21,872**
Thereafter	**160,766**
Total	**$ 402,518**

The weighted-average remaining useful life of the finite-lived intangible assets was approximately 8.5 years as of September 30, 2022.

8. Accrued Liabilities

Accrued liabilities consisted of the following:

(thousands of U.S. dollars)	September 30, 2022	December 31, 2021
Accrued employee compensation	**$ 28,589**	$ 33,334
Legal reserves	**3,267**	3,259
Accrued interest expense	**993**	10,755
Embedded derivatives	**4,745**	—
Professional fees	**8,196**	4,314
Accrued utilities	**1,885**	1,797
Insurance accrual	**2,220**	2,068
Accrued taxes	**3,196**	2,209
Other	**3,671**	4,125
Accrued liabilities	**$ 56,762**	$ 61,861

9. Long-Term Debt

Long-term debt consisted of the following:

(thousands of U.S. dollars)	September 30, 2022	December 31, 2021
Term loan, due 2026	**$ 1,763,100**	$ 1,763,100
Other long-term debt	**450**	450
Total long-term debt	**1,763,550**	1,763,550
Less current portion	**—**	—
Less unamortized debt issuance costs and debt discounts	**(16,995)**	(20,016)
Total long-term debt, less debt issuance costs and debt discounts	**$ 1,746,555**	$ 1,743,534

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 "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 September 30, 2022 and December 31, 2021, total borrowings under the Term Loan were $1,763.1 million and there were no borrowings outstanding on the Revolving Credit Facility. The weighted average interest rate on borrowings under the Term Loan for the three months ended September 30, 2022 and September 30, 2021 was 4.96% and 3.25%, respectively, and 3.92% and 3.51% for the nine months ended September 30, 2022 and September 30, 2021, respectively.

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).

On March 26, 2021, we amended the Revolving Credit Facility, to (i) decrease the Applicable Rate (as defined in the Credit Agreement) related to any Revolving Loans (as defined in the 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 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 Credit Agreement), to the Adjusted LIBOR (as defined in the 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 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.

As of September 30, 2022 and December 31, 2021, capitalized debt issuance costs totaled $2.3 million and $2.7 million, respectively, and debt discounts totaled $14.7 million and $17.3 million, respectively, related to the Senior Secured Credit Facilities. Such costs are recorded as a reduction of debt on our Consolidated Balance Sheets and amortized as a component of interest expense over the term of the debt agreement.

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 described in Note 16, “Commitments and Contingencies”, on September 20, 2022, our subsidiaries Sterigenics U.S., LLC and Sotera Health LLC received a $358.7 million judgment (including prejudgment interest) in the first trial related to EO tort litigation in Illinois. Post-judgment interest accrues on the compensatory and punitive damages awards from September 20, 2022, the date the court entered the judgment order. As noted in Note 16, we intend to vigorously challenge the judgment through all appropriate post-trial motions and appeals processes. The payment of any judgment in this matter is expected to be stayed pending resolution of the post-trial and appeals process. Accordingly, no event of default has been triggered as a result of this judgment. As of September 30, 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 September 30, 2022, the Company had $67.6 million of letters of credit issued against the Revolving Credit Facility, resulting in total availability under the Revolving Credit Facility of $279.9 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 17, “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 three and nine months ended September 30, 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%.

Aggregate Maturities

Aggregate maturities of the Company's long-term debt, excluding debt discounts, as of September 30, 2022, are as follows:

(thousands of U.S. dollars)	
2022	**$ —**
2023	**450**
2024	**—**
2025	**—**
2026	**1,763,100**
Thereafter	**—**
Total	**$ 1,763,550**

10. Income Taxes

Income tax expense is provided on an interim basis based upon our estimate of the annual effective income tax rate. In determining the estimated annual effective income tax rate, we analyze various factors, including projections of our annual earnings and the taxing jurisdictions where the earnings will occur, the impact of state and local taxes, our ability to utilize tax credits and net operating loss carryforwards and available tax planning alternatives.

Our effective tax rates were 40.3 % and 36.4% for the three and nine months ended September 30, 2022, respectively, compared to 33.2% and 30.7% for the three and nine months ended September 30, 2021, respectively.

Income tax expense for the three months ended September 30, 2022 differed from the statutory rate primarily due to a net increase in the valuation allowance, the impact of the foreign rate differential, and global intangible low-tax income ("GILTI"). The increase in the valuation allowance was attributable to the limitation on the deductibility of interest expense and the impairment of an investment in a joint venture. Income tax expense for the three months ended September 30, 2021 differed from the statutory rate primarily due to the impact of the foreign rate differential, GILTI and a net increase in the interest expense valuation allowance.

Income tax expense for the nine months ended September 30, 2022 differed from the statutory rate primarily due to a net increase in the valuation allowance, the impact of the foreign rate differential, and GILTI. Income tax expense for the nine months ended September 30, 2021 differed from the statutory rate primarily due to the impact of the foreign rate differential, GILTI, a net increase in the interest expense valuation allowance, and a discrete item pertaining to an income tax rate change in the United Kingdom. This was partially offset by an additional discrete item in the first quarter of 2021, which reversed the valuation allowance on deferred tax assets related to certain asset retirement obligations.

11. Employee Benefits

The Company sponsors various post-employment benefit plans including, in certain countries outside the U.S., defined benefit and defined contribution pension 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 plans

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 pension cost for the defined benefit plans for the three and nine months ended September 30, 2022 and 2021 were as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
(thousands of U.S. dollars)	**2022**	**2021**	**2022**	**2021**
Service cost	**$ 242**	$ 300	**$ 738**	$ 905
Interest cost	**1,848**	1,622	**5,640**	4,897
Expected return on plan assets	**(3,595)**	(3,577)	**(10,975)**	(10,799)
Amortization of net actuarial loss	**—**	269	**—**	811
Net periodic benefit	**$ (1,505)**	$ (1,386)	**$ (4,597)**	$ (4,186)

Other benefit plans

Other benefit plans 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. The components of net periodic pension cost for the other benefit plans for the three and nine months ended September 30, 2022 and 2021 were as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
(thousands of U.S. dollars)	**2022**	**2021**	**2022**	**2021**
Service cost	**$ 4**	$ 7	**$ 12**	$ 21
Interest cost	**63**	59	**193**	179
Amortization of net actuarial loss (gain)	**(2)**	9	**(6)**	26
Net periodic benefit cost	**$ 65**	$ 75	**$ 199**	$ 226

We currently expect funding requirements of approximately $3.1 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 September 30, 2022, and December 31, 2021, we had letters of credit outstanding relating to the defined benefit plans totaling $45.2 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.

12. Related Parties

We do business with a number of companies affiliated with Warburg Pincus and GTCR, which we refer to collectively as the "Sponsors." All transactions with these companies have been conducted in the ordinary course of our business and are not material to our operations.

13. 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 – July 1, 2022	**$ (17,323)**	**$ (97,452)**	**$ 9,761**	**$ (105,014)**
Other comprehensive income (loss) before reclassifications	**1,067**	**(69,460)**	**9,408**	**(58,985)**
Amounts reclassified from accumulated other comprehensive income (loss)	**(2)** (a)	**—**	**—**	**(2)**
Net current-period other comprehensive income (loss)	**1,065**	**(69,460)**	**9,408**	**(58,987)**
Ending balance – September 30, 2022	**$ (16,258)**	**$ (166,912)**	**$ 19,169**	**$ (164,001)**
Beginning balance – January 1, 2022	**$ (17,581)**	**$ (66,389)**	**$ 404**	**$ (83,566)**
Other comprehensive income (loss) before reclassifications	**1,329**	**(100,523)**	**18,765**	**(80,429)**
Amounts reclassified from accumulated other comprehensive income (loss)	**(6)** (a)	**—**	**—**	**(6)**
Net current-period other comprehensive income (loss)	**1,323**	**(100,523)**	**18,765**	**(80,435)**
Ending balance – September 30, 2022	**$ (16,258)**	**$ (166,912)**	**$ 19,169**	**$ (164,001)**

(thousands of U.S. dollars)	Defined Benefit Plans	Foreign Currency Translation	Interest Rate Derivatives	Total
Beginning balance – July 1, 2021	$ (44,813)	$ (32,655)	$ —	$ (77,468)
Other comprehensive income (loss) before reclassifications	1,105	(29,867)	—	(28,762)
Amounts reclassified from accumulated other comprehensive income (loss)	278 (a)	—	—	278
Net current-period other comprehensive income (loss)	1,383	(29,867)	—	(28,484)
Ending balance – September 30, 2021	$ (43,430)	$ (62,522)	$ —	$ (105,952)
Beginning balance – January 1, 2021	$ (44,143)	$ (49,699)	$ —	$ (93,842)
Other comprehensive income (loss) before reclassifications	(124)	(12,823)	—	(12,947)
Amounts reclassified from accumulated other comprehensive income (loss)	837 (a)	—	—	837
Net current-period other comprehensive income (loss)	713	(12,823)	—	(12,110)
Ending balance – September 30, 2021	$ (43,430)	$ (62,522)	$ —	$ (105,952)

(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).

14. Share-Based Compensation

Pre-IPO Awards

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 twenty percent, 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 September 30, 2022, these awards remain unvested.

We recognized $0.5 million and $0.7 million of share-based compensation expense related to the pre-IPO Class B-1 awards for the three months ended September 30, 2022 and 2021, and $1.6 million and $2.0 million for the nine months ended September 30, 2022 and 2021, respectively.

A summary of the activity for the nine months ended September 30, 2022 related to the restricted stock awards distributed to Company service providers in respect of the pre-IPO awards (Class B-1 and B-2 Units) is presented below:

	Restricted Stock - Pre-IPO B-1	Restricted Stock - Pre-IPO B-2
Unvested at December 31, 2021	1,206,089	2,023,959
Forfeited	(32,614)	(925,544)
Vested	(345,926)	—
Unvested at September 30, 2022	**827,549**	**1,098,415**

2021 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.

We recognized $4.1 million ($1.5 million for stock options and $2.6 million for RSUs) and $2.9 million ($1.3 million for stock options and $1.6 million for RSUs) of share-based compensation expense for these awards for the three months ended September 30, 2022 and 2021, respectively. We recognized $13.3 million ($5.2 million for stock options and $8.1 million for RSUs) and $8.5 million ($3.9 million for stock options and $4.6 million for RSUs) for the nine months ended September 30, 2022 and 2021, respectively in our Consolidated Statements of Operations and Comprehensive Income (Loss), in "Selling, general and administrative expenses."

Stock Options

Stock options generally vest ratably over a period of three or 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 nine months ended September 30, 2022:

	Number of Shares	Weighted Average Exercise Price
At December 31, 2021	2,423,256	$ 23.02
Granted	1,445,887	19.96
Forfeited	(454,953)	22.08
Exercised	—	—
At September 30, 2022	**3,414,190**	**$ 21.85**

As of September 30, 2022, there were 0.5 million stock options vested or exercisable.

RSUs

RSUs generally vest ratably over a period of one to four years and are valued based on our market price on the date of grant. The following table summarizes our unvested RSUs activity for the nine months ended September 30, 2022:

	Number of Shares	Weighted Average Grant Date Fair Value
Unvested at December 31, 2021	640,122	$ 23.19
Granted	954,685	20.57
Forfeited	(145,656)	21.90
Vested	(89,121)	24.13
Unvested at September 30, 2022	**1,360,030**	**$ 21.43**

15. Earnings Per Share

Basic earnings per share represents the amount of income attributable to each common share outstanding. Diluted earnings per share represents the amount of income 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.

In periods in which the Company has net income, earnings per share is calculated using the two-class method. This method is required as unvested restricted 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. Pursuant to the two-class method, earnings for each period are allocated on a pro-rata basis to common stockholders and unvested pre-IPO Class B-1 and B-2 restricted stock awards. Diluted earnings per share is computed using the more dilutive of (a) the two-class method, or (b) treasury stock method, as applicable, to the potentially dilutive instruments.

Our basic and diluted earnings per common share are calculated as follows:

in thousands of U.S. dollars and share amounts (except per share amounts)	Three Months Ended		Nine Months Ended	
	September 30, 2022	**September 30, 2021**	**September 30, 2022**	**September 30, 2021**
Earnings:				
Net income	**$ 25,090**	$ 27,444	**$ 86,149**	$ 81,124
Less: Net income attributable to noncontrolling interests	**—**	—	**—**	239
Less: Allocation to participating securities	**223**	343	**862**	1,089
Net income attributable to Sotera Health Company common shareholders	**$ 24,867**	$ 27,101	**$ 85,287**	$ 79,796
Weighted Average Common Shares:				
Weighted-average common shares outstanding - basic	**280,142**	279,381	**279,988**	279,097
Dilutive effect of potential common shares	**30**	179	**105**	156
Weighted-average common shares outstanding - diluted	**280,172**	279,560	**280,093**	279,253
Earnings per Common Share:				
Net income per common share attributable to Sotera Health Company common shareholders - basic	**$ 0.09**	$ 0.10	**$ 0.31**	$ 0.29
Net income per common share attributable to Sotera Health Company common shareholders - diluted	**0.09**	0.10	**0.31**	0.29

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

in thousands of share amounts	Three Months Ended		Nine Months Ended	
	September 30, 2022	**September 30, 2021**	**September 30, 2022**	**September 30, 2021**
Stock options	3,526	2,403	3,399	2,399
RSUs	1,121	5	34	7
Total anti-dilutive securities	4,647	2,408	3,433	2,406

16. Commitments and Contingencies

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. No material amounts have been accrued in our consolidated financial statements with respect to any loss contingencies as of September 30, 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. 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 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 830 plaintiffs have filed 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 U.S., LLC's former Willowbrook facility. Additional derivative claims are alleged on behalf of other individuals related to 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"). Plaintiffs are expected to seek compensatory and punitive damages, as permitted by law, in their individual trials. Fact discovery in the Consolidated Case concluded on February 1, 2022. On June 28, 2022 the Court granted summary judgment, dismissing plaintiffs' ultrahazardous activity / strict liability claims and denying the remainder of the motions. Two of the individual cases included in the Consolidated Case are scheduled for trials in 2022, and two are scheduled for trials in 2023. Plaintiffs in those four cases have been granted permission to seek punitive damage awards against subsidiaries of the Company and another party. 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 our subsidiaries Sterigenics U.S., LLC and Sotera Health LLC. Post-judgment interest accrues on the compensatory and punitive damages awards from September 20, 2022, the date the court entered the judgment order. The Company does not believe that the facts and law justify the verdict or damage awards and intends to vigorously challenge them through all appropriate motions for post-trial relief and appeals. The Company expects the enforceability of the judgment order to be stayed pending the resolution of motions for post-trial relief. In order to stay the enforceability of the judgment order during the appeals process under Illinois law, an appellate bond must be posted or an alternative form of security must be provided. Our subsidiaries are exploring options to post the appellate bond or to provide an alternative form of security, which could involve additional credit support from the Company, if the Company so determines, and/or posting cash collateral of the subsidiaries, or other form of security as may be required by the courts, and on which such subsidiaries will incur interest and other associated costs. The bond or other form of security ordinarily must be sufficient to cover the amount of the judgment and costs, plus interest reasonably anticipated to accrue during pendency of the appeal. Given the pendency of motions for post-trial relief requesting that the trial court enter judgment in defendants' favor notwithstanding the verdict, or alternatively that a new trial be granted, or alternatively for reduction of the compensatory and punitive damages awards, as well as the courts' ability to reduce the amount of any bond or other security, the amount of the bond or alternative form of security that will ultimately be required to be posted or provided is uncertain.

On October 26, 2022, Sterigenics U.S., LLC and Sotera Health LLC filed their motion for post-trial relief, requesting that the trial court enter judgment in their favor notwithstanding the verdict, or alternatively that a new trial be granted, and requesting reduction of the compensatory and punitive damages awards, based on the plaintiff's failure of proof on elements of her claims, reversible errors by the trial court regarding evidentiary and other rulings, and excessive damages awards. We are unable to predict the date on which the trial court will decide the motion for post-trial relief. Subject to the nature and extent of the trial court's ruling on post-trial relief, we intend to file Notices of Appeal to the First District Appellate Court in Illinois within 30 days of such ruling.

We have taken into consideration the events that have occurred after the reporting period and before the financial statements were issued. Based on the status of the first individual case, we believe a loss is not probable, but the range of loss for this case could be from $0 to $358.7 million, plus potential post-judgment interest. We have not recorded a reserve with respect to this litigation as a number of factors (including post-trial relief and the appeals processes which are anticipated to take at least eighteen months or longer) could significantly change the assessment of damages and the ultimate outcome of the case.

The Company believes the verdict in the first trial is not predictive of potential future verdicts in the other Illinois EO tort cases. The cases 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.

The second individual trial began in Cook County, IL on October 6, 2022 and is underway. Subsequent individual trials are currently scheduled to begin in January 2023 and April 2023. At a recent hearing, the court indicated that the claims of small groups of plaintiffs should be tried jointly, starting in late May 2023. The parties have been instructed to confer to identify plaintiffs whose claims could be tried jointly because the details of their individual claims are similar. We expect to know more in mid-November about whether joint trials are possible and when they will be scheduled. Even if joint trials proceed, they will remain individual actions, not class actions.

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 and releases of EO from Sterigenics' Atlanta facility. Additional derivative claims are alleged on behalf of other individuals related to some of these personal injury plaintiffs. Our subsidiaries are also defendants in two lawsuits alleging that the Atlanta facility has devalued and harmed plaintiffs' use of real properties they own in Smyrna, Georgia and caused other damages. These personal injury and property devaluation plaintiffs seek various forms of relief including damages. All but one 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 two property devaluation cases are in various stages of pleadings and motions practice and fact discovery.

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 after a third-party code compliance review. 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 has been extended until entry of a final judgment in the case. All parties have filed motions for summary judgment which remain pending. Trial is scheduled to begin on January 24, 2023.

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"). The Order does not require closure of the facility, but prohibits Sterigenics from allowing any uncontrolled emission or release of EO from the facility. On December 20, 2021 the Court entered an order identifying a protocol to monitor Sterigenics' compliance with the Order. 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.

* * *

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 limit is currently being utilized for occurrences related to the EO litigation in Georgia and New Mexico described above. As of September 30, 2022, we have utilized approximately $7.5 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 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 insurer owes Sterigenics U.S., LLC and another insured party a duty to defend the Willowbrook, Illinois litigation, which may allow us to recover defense costs related to that litigation.

17. 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.

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 Secured Overnight Financing Rate ("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%.

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 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 will terminate on December 31, 2022. The amended and new interest rate caps limit our cash flow exposure related to LIBOR under a portion of our variable rate borrowings to 0.5%.

The Company also entered 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 zero as of September 30, 2022 and December 31, 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).

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)	September 30, 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)]	**$ 31,920**	**$ —**	$ 1,000.0	$ 2,322	$ —
Derivatives not designated as hedging instruments:						
Interest rate caps	**$ 1,000.0**	**$ 7,752**	**$ —**	$ 1,500.0	$ 1,654	$ —
Embedded derivatives	**183.6** [(b)]	**3,522**	**4,745**	144.4	496	—
Total	**$ 3,183.6**	**$ 43,194**	**$ 4,745**	$ 2,644.4	$ 4,472	$ —

(a) $1,000.0 million and $1,000.0 million notional amount of interest rate caps designated as hedging instruments have forward start dates beginning on December 31, 2022 and July 31, 2023, respectively.
(b) Represents the total notional amounts for certain of the Company's supply and sales contracts accounted for as embedded derivatives.

Embedded derivative 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 liabilities are included in "Accrued liabilities" on the Consolidated Balance Sheets.

The following tables summarize the activities of our derivative instruments for the periods presented, and the line item they are recorded in the Consolidated Statements of Operations and Comprehensive Income (Loss):

(thousands of U.S. dollars)	Three Months Ended September 30,		Nine Months Ended September 30,	
	2022	2021	2022	2021
Unrealized loss (gain) on interest rate caps recorded in interest expense, net	**$ 3,348**	$ (116)	**$ (6,098)**	$ 267
Unrealized loss (gain) on embedded derivatives recorded in other expense (income), net	**359**	1,189	**1,776**	(424)
Realized gain on interest rate caps recorded in interest expense, net	**(4,473)**	—	**(5,752)**	—
Realized loss (gain) on foreign currency forward contracts recorded in foreign exchange (gain) loss	**4,157**	762	**3,662**	(1,381)

The following table summarizes the net gains on our cash flow hedges recognized in “Other comprehensive income (loss)” during the period:

(thousands of U.S. dollars)	Three Months Ended September 30,		Nine Months Ended September 30,	
	2022	2021	2022	2021
Unrealized gain on interest rate derivatives recorded in other comprehensive income (loss), net of tax	**$ 9,408**	$ —	**$ 18,765**	$ —

We expect to reclassify approximately $22.8 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 September 30, 2022 and December 31, 2021, accounts receivable was net of an allowance for uncollectible accounts of $1.4 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 the fair value of our financial assets and liabilities:

As of September 30, 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	**$ 31,920**	**—**	**$ 31,920**	**—**
Derivatives not designated as hedging instruments[(b)]				
Interest rate caps	**7,752**	**—**	**7,752**	**—**
Embedded derivative assets	**3,522**	**—**	**3,522**	**—**
Embedded derivative liabilities	**4,745**	**—**	**4,745**	**—**
Long-Term Debt[(c)]				
Term loan, due 2026	**1,746,109**	**—**	**1,604,421**	**—**
Other long-term debt	**446**	**—**	**446**	**—**
Finance Lease Obligations (with current portion)[(d)]	**56,526**	**—**	**56,526**	**—**

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[(c)]				
Term loan, due 2026	1,743,090	—	1,754,285	—
Other long-term debt	444	—	444	—
Finance Lease Obligations (with current portion)[(d)]	42,047	—	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). Interest rate caps are valued using pricing models that incorporate observable market inputs including interest rate 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). Interest rate caps are valued using pricing models that incorporate observable market inputs including interest rate and yield curves. Embedded derivatives are valued using internally developed models that rely on observable market inputs including foreign currency forward curves.

(c) 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.”

(d) Fair value approximates carrying value.

18. Segment 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” of our 2021 Form 10-K.

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 three months ended September 30, 2022, three customers reported within the Nordion segment individually represented 10% or more of the segment’s total net revenues. These customers represented 21.0%, 14.7%, and 10.1% of the total segment’s external net revenues for the three months ended September 30, 2022. For the three months ended September 30, 2021, four customers reported within the Nordion segment individually represented 10% or more of the segment’s total net revenues. These customers represented 20.4%, 12.8%, 12.8%, and 10.3% of the total segment’s external net revenues for the three months ended September 30, 2021.

For the nine months ended September 30, 2022, four customers reported within the Nordion segment individually represented 10% or more of the segment’s total net revenues. These customers represented 17.1%, 16.2%, 11.8% , and 11.7% of the total segment’s external net revenues for the nine months ended September 30, 2022. For the nine months ended September 30, 2021, five customers reported within the Nordion segment individually represented 10% or more of the segment’s total net revenues. These customers represented 13.2%, 12.8%, 12.6%, 12.3%, and 10.5% of the total segment's external net revenues for the nine months ended September 30, 2021.

Financial information for each of our segments is presented in the following table:

	Three Months Ended September 30,		Nine Months Ended September 30,	
(thousands of U.S. dollars)	**2022**	**2021**	**2022**	**2021**
Segment revenues[a]				
Sterigenics	**$ 157,723**	$ 145,314	**$ 464,977**	$ 421,647
Nordion	**35,071**	28,768	**119,551**	103,811
Nelson Labs	**55,910**	52,082	**167,569**	164,771
Total net revenues	**$ 248,704**	$ 226,164	**$ 752,097**	$ 690,229
Segment income[b]				
Sterigenics	**$ 85,587**	$ 79,344	**$ 250,088**	$ 227,374
Nordion	**20,294**	16,331	**69,179**	61,285
Nelson Labs	**19,271**	20,999	**57,369**	67,895
Total segment income	**$ 125,152**	$ 116,674	**$ 376,636**	$ 356,554

(a) Revenues are reported net of intersegment sales. Our Nordion segment recognized $7.4 million and $3.7 million in revenues from sales to our Sterigenics segment for the three months ended September 30, 2022 and 2021, and $38.7 million and $21.2 million in revenues from sales to our Sterigenics segment for the nine months ended September 30,

2022 and 2021, respectively, that is not reflected in net revenues in the table above. Intersegment sales for Sterigenics and Nelson Labs are immaterial for these periods.

(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 nine months ended September 30, 2022 and 2021 were as follows:

(thousands of U.S. dollars)	Nine Months Ended September 30, 2022	2021
Sterigenics	**$ 90,444**	$ 48,552
Nordion	**12,045**	7,531
Nelson Labs	**8,153**	4,815
Total capital expenditures	**$ 110,642**	$ 60,898

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 before taxes is as follows:

(thousands of U.S. dollars)	Three Months Ended September 30, 2022	2021	Nine Months Ended September 30, 2022	2021
Segment income	**$ 125,152**	$ 116,674	**$ 376,636**	$ 356,554
Less adjustments:				
Interest expense, net[(a)]	**20,080**	18,140	**53,974**	58,585
Depreciation and amortization[(b)]	**36,104**	37,634	**109,092**	112,756
Share-based compensation[(c)]	**4,616**	3,547	**14,955**	10,489
Gain on foreign currency and derivatives not designated as hedging instruments, net[(d)]	**3,194**	1,881	**(4,788)**	885
Acquisition and divestiture related charges, net[(e)]	**447**	(2,662)	**978**	(2,003)
Business optimization project expenses[(f)]	**1,035**	244	**1,609**	780
Plant closure expenses[(g)]	**2,627**	266	**3,776**	1,564
Impairment of investment in unconsolidated affiliate[(h)]	**—**	—	**9,613**	—
Loss on extinguishment of debt[(i)]	**—**	6,365	**—**	20,677
Professional services relating to EO sterilization facilities[(j)]	**14,501**	9,449	**50,238**	33,492
Accretion of asset retirement obligation[(k)]	**526**	598	**1,644**	1,751
COVID-19 expenses[(l)]	**6**	109	**154**	596
Consolidated income before taxes	**$ 42,016**	$ 41,103	**$ 135,391**	$ 116,982

(a) The three and nine months ended September 30, 2022 excludes $3.3 million of unrealized loss and $6.1 million of unrealized gain, respectively, on interest rate derivatives not designated as hedging instruments.

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

(c) Represents non-cash share-based compensation expense.

(d) 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.

(e) Represents (i) certain direct and incremental costs related to the acquisitions of RCA, the noncontrolling interests in our China subsidiaries, BioScience Labs in 2021, 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, and (iii) transition services income and non-cash deferred lease income associated with the terms of the divestiture of the Medical Isotopes business in 2018, and (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.

(f) 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.

(g) 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.

(h) Represents an impairment charge on our equity method investment in a joint venture. Refer to Note 1, “Basis of Presentation”.

(i) 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.

(j) Represents litigation and other professional fees associated with our EO sterilization facilities. See Note 16, “Commitments and Contingencies”.

(k) 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.

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

Item 2. 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 in Part I, Item 1 of this Quarterly Report on Form 10-Q, as well as the audited consolidated financial statements and notes and Management's Discussion and Analysis of Financial Condition and Results of Operations contained in our 2021 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 the section entitled Part II, Item 1A, "Risk Factors" in this Quarterly Report on Form 10-Q, as well as Part I, Item 1A, "Risk Factors" in our 2021 Form 10-K.

OVERVIEW

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 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 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. 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. 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 three and nine months ended September 30, 2022, respectively, we recorded net revenues of $248.7 million and $752.1 million, net income of $25.1 million and $86.1 million, Adjusted Net Income of $64.5 million and $200.6 million, and Adjusted EBITDA of $125.2 million and $376.6 million. For the definition of Adjusted Net Income and Adjusted EBITDA and the reconciliation of these non-GAAP measures from net income, please see "Non-GAAP Financial Measures."

STRATEGIC DEVELOPMENTS AND KEY FACTORS AFFECTING OUR RESULTS OF OPERATIONS

The following summarizes strategic developments and key factors that have impacted our operating results for the three and nine months ended September 30, 2022 and may continue to affect our performance and financial condition in future periods.

- **Business and market conditions**. During the three and nine months ended September 30, 2022, Sterigenics and Nordion continued to see sustained demand for sterilization services. Nelson Labs' net revenues increased in the third quarter of 2022 compared to the third quarter of 2021; however, slower than expected growth of certain laboratory testing categories combined with customer driven delays impacted Nelson Labs' growth. Overall, we continue to face ongoing macroeconomic pressures, particularly related to inflation, including energy and labor costs, as well as fluctuations in foreign currency exchange rates. As discussed in more detail in our most recent Form 10-K, 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 and we expect no material impact in 2022 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 nine months ended September 30, 2022, capital expenditures increased by $49.7 million compared to the nine months ended September 30, 2021.
- **Disciplined and strategic M&A activity**. We remain committed to our highly disciplined acquisition strategy and continue to seek suitable acquisition targets. 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 strengthens the technical consulting and expert advisory capabilities of Nelson Labs. On March 8, 2021, we acquired BioScience Laboratories, LLC ("BioScience Labs") based in Bozeman, Montana, bringing expertise in antimicrobial and virology testing to our Nelson Labs segment.

- **Litigation costs**. In connection with ongoing litigation related to our Willowbrook, Illinois, Atlanta, Georgia and Santa Teresa, New Mexico facilities, as described in Note 16, “Commitments and Contingencies”, we recorded costs of $14.5 million and $50.2 million for the three and nine months ended September 30, 2022, respectively. Insurance coverage has been available for some of our ethylene oxide (“EO”) tort litigation claims. As of September 30, 2022 we have approximately $2.5 million of such coverage remaining. 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 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 September 19, 2022 a jury rendered a verdict in favor of the plaintiff in the first EO tort litigation trial in Illinois. We intend to vigorously challenge the judgment through all appropriate post-trial motions and appeal processes. The payment of any damages in this matter is expected to be stayed pending resolution of the post-trial and appeals processes. Refer to Note 16, “Commitments and Contingencies”, and Part II Item 1A. Risk Factors in this report.

CONSOLIDATED RESULTS OF OPERATIONS

Three Months Ended September 30, 2022 as compared to Three Months Ended September 30, 2021

The following table sets forth the components of our results of operations for the three months ended September 30, 2022 and 2021.

(thousands of U.S. dollars)	2022	2021	$ Change	% Change
Total net revenues	**$ 248,704**	$ 226,164	$ 22,540	10.0 %
Total cost of revenues	**112,691**	100,578	12,113	12.0 %
Total operating expenses	**72,818**	59,915	12,903	21.5 %
Operating income	**63,195**	65,671	(2,476)	(3.8)%
Net income	**25,090**	27,444	(2,354)	(8.6)%
Adjusted Net Income[(a)]	**64,508**	58,704	5,804	9.9 %
Adjusted EBITDA[(a)]	**125,152**	116,674	8,478	7.3 %

(a) 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, 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 three months ended September 30, 2022 to the three months ended September 30, 2021.

(thousands of U.S. dollars)

Net revenues for the three months ended September 30,	2022	2021	$ Change	% Change
Service	**$ 216,704**	$ 200,499	$ 16,205	8.1 %
Product	**32,000**	25,665	6,335	24.7 %
Total net revenues	**$ 248,704**	$ 226,164	$ 22,540	10.0 %

Net revenues were $248.7 million in the three months ended September 30, 2022, an increase of $22.5 million, or 10.0%, as compared with the three months ended September 30, 2021. Excluding the impact of foreign currency exchange rates, net revenues in the three months ended September 30, 2022 increased approximately 13.2% compared with the three months ended September 30, 2021.

Service revenues

Service revenues increased $16.2 million, or 8.1%, to $216.7 million in the three months ended September 30, 2022 as compared to $200.5 million in the three months ended September 30, 2021. The increase in net service revenue was driven by favorable pricing of $8.8 million and $3.3 million in the Sterigenics and Nelson Labs segments, respectively, and $8.3 million of sales volume growth in the Sterigenics segment. Our Nelson Labs recent acquisition contributed $3.0 million of service revenue growth to the Nelson Labs segment. Service revenue growth was partially offset by a $6.5 million unfavorable impact from changes in foreign currency exchange rates across all segments.

Product revenues

Product revenues increased $6.3 million, or 24.7%, to $32.0 million in the three months ended September 30, 2022 as compared to $25.7 million in the three months ended September 30, 2021. The increase in product revenues was attributable to volume growth of $5.1 million and favorable pricing of $2.0 million, partially offset by a $0.8 million unfavorable impact from changes in foreign currency exchange rates.

Total Cost of Revenues

The following table compares our cost of revenues by type for the three months ended September 30, 2022 to the three months ended September 30, 2021.

(thousands of U.S. dollars)

Cost of revenues for the three months ended September 30,	**2022**	**2021**	$ Change	% Change
Service	**$ 99,772**	$ 88,349	$ 11,423	12.9 %
Product	**12,919**	12,229	690	5.6 %
Total cost of revenues	**$ 112,691**	$ 100,578	$ 12,113	12.0 %

Total cost of revenues accounted for approximately 45.3% and 44.5% of our consolidated net revenues for the three months ended September 30, 2022 and 2021, respectively.

Cost of service revenues

Cost of service revenues increased $11.4 million, or 12.9%, for the three months ended September 30, 2022 as compared to the three months ended September 30, 2021. The increase was correlated with the expansion in sales volumes growth, predominately in the Sterigenics segment, as well as increased costs arising from inflationary pressures, which were most notable on labor and energy costs. Our Nelson Labs recent acquisition accounted for $2.2 million of the increase. Additionally, increased staffing in anticipation of incremental volume in the Nelson Labs segment contributed to the increase in cost of service revenues. Partially offsetting the increase was a $3.4 million impact from changes in foreign currency exchange rates.

Cost of product revenues

Cost of product revenues increased $0.7 million, or 5.6%, for the three months ended September 30, 2022 as compared to the three months ended September 30, 2021. The increase principally reflects incremental costs due to product mix, offset by impacts from changes in foreign currency exchanges rates.

Operating Expenses

The following table compares our operating expenses for the three months ended September 30, 2022 to the three months ended September 30, 2021:

(thousands of U.S. dollars)

Operating expenses for the three months ended September 30,	**2022**	**2021**	$ Change	% Change
Selling, general and administrative expenses	**$ 57,091**	$ 44,038	$ 13,053	29.6 %
Amortization of intangible assets	**15,727**	15,877	(150)	(0.9)%
Total operating expenses	**$ 72,818**	$ 59,915	$ 12,903	21.5 %

Operating expenses accounted for approximately 29.3% and 26.5% of our consolidated net revenues for the three months ended September 30, 2022 and 2021, respectively.

SG&A

SG&A increased $13.1 million, or 29.6%, for the three months ended September 30, 2022 as compared to the three months ended September 30, 2021. The increase was largely driven by the following:

- $5.1 million increase in litigation and other professional services expense associated with EO sterilization facilities;
- $2.5 million increase in selling and administrative personnel in support of the growth and enhancement of our business; and
- $1.1 million increase in share-based compensation expense related to our 2020 Omnibus Incentive Plan.

In addition, in the three months ended September 30, 2021, we recorded a $3.4 million favorable settlement related to an insurance claim for Nordion which did not recur in 2022.

Amortization of intangible assets

Amortization of intangible assets was $15.7 million for the three months ended September 30, 2022, representing a decrease of 0.9% from the three months ended September 30, 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 $5.3 million, or 29.1%, for the three months ended September 30, 2022 as compared to the three months ended September 30, 2021. Interest expense increased $6.4 million attributable to a higher weighted average interest rate for the three months ended September 30, 2022 as compared to the three months ended September 30, 2021. The weighted average interest rate on our outstanding debt was 5.87% and 3.25% at September 30, 2022 and 2021, respectively. The increase was partially offset by the change in fair value and quarterly settlement of interest rate caps not designated as hedging instruments which totaled $1.1 million in the third quarter of 2022.

Foreign Exchange (Gain) Loss

Foreign exchange gain was $0.5 million for the three months ended September 30, 2022 as compared to a loss of $0.8 million in the three months ended September 30, 2021. The change in foreign exchange (gain) loss in our Consolidated Statements of Operations and Comprehensive Income (Loss) mainly relates to short-term losses (offset by short-term gains) on sales denominated in currencies other than the functional currency of our operating entities. As described in Note 17, “Financial Instruments and Financial Risk” we enter 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.

Other Income, Net

Other income, net was $1.7 million for the three months ended September 30, 2022 compared to $0.7 million for the three months ended September 30, 2021. The fluctuation was mainly driven by changes in the fair value of the embedded derivatives in Nordion’s contracts. We recorded an unrealized loss on embedded derivatives of $0.4 million for the three months ended September 30, 2022 as compared to $1.2 million for the three months ended September 30, 2021.

Provision for Income Taxes

Provision for income tax increased $3.3 million to a net provision of $16.9 million for the three months ended September 30, 2022 as compared to $13.7 million in the three months ended September 30, 2021. The change was partially attributable to pre-tax income of $42.0 million in the three months ended September 30, 2022 compared to pretax income of $41.1 million for the three months ended September 30, 2021 and an increase in the valuation allowance related to the limitation on the deductibility of interest expense and the impairment of an investment in a joint venture. In addition, income tax expense for the three months ended September 30, 2021 was lower due to a discrete item that reversed the valuation allowance on deferred tax assets related to certain asset retirement obligations.

Provision for income taxes for the three months ended September 30, 2022 differed from the statutory rate primarily due to an increase in the valuation allowance, the impact of the foreign rate differential, and income tax on global intangible low-tax income (“GILTI”). Provision for income taxes for the three months ended September 30, 2021 differed from the statutory rate

primarily due to the foreign rate differential, GILTI, and a net increase in the valuation allowance attributable to the limitation on the deductibility of interest expense.

Net Income, Adjusted Net Income and Adjusted EBITDA

Net income for the three months ended September 30, 2022 was $25.1 million, as compared to net income of $27.4 million for the three months ended September 30, 2021. Adjusted Net Income was $64.5 million for the three months ended September 30, 2022, as compared to $58.7 million for the three months ended September 30, 2021, due to the factors described above. Adjusted EBITDA was $125.2 million for the three months ended September 30, 2022, as compared to $116.7 million for the three months ended September 30, 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.

Nine Months Ended September 30, 2022 as compared to Nine Months Ended September 30, 2021

The following table sets forth the components of our results of operations for the nine months ended September 30, 2022 and 2021.

(thousands of U.S. dollars)	2022	2021	$ Change	% Change
Total net revenues	**$ 752,097**	$ 690,229	$ 61,868	9.0 %
Total cost of revenues	**336,813**	305,510	31,303	10.2 %
Total operating expenses	**227,102**	194,412	32,690	16.8 %
Operating income	**188,182**	190,307	(2,125)	(1.1)%
Net income	**86,149**	81,124	5,025	6.2 %
Adjusted Net Income[(a)]	**200,587**	181,882	18,705	10.3 %
Adjusted EBITDA[(a)]	**376,636**	356,554	20,082	5.6 %

(a) 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, 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 nine months ended September 30, 2022 to the nine months ended September 30, 2021.

(thousands of U.S. dollars)

Net revenues for the nine months ended September 30,	2022	2021	$ Change	% Change
Service	**$ 644,451**	$ 597,907	$ 46,544	7.8 %
Product	**107,646**	92,322	15,324	16.6 %
Total net revenues	**$ 752,097**	$ 690,229	$ 61,868	9.0 %

Net revenues were $752.1 million in the nine months ended September 30, 2022, an increase of $61.9 million, or 9.0%, as compared with the nine months ended September 30, 2021. Excluding the impact of foreign currency exchange rates, net revenues in the nine months ended September 30, 2022 increased approximately 11.3% compared with the nine months ended September 30, 2021.

Service revenues

Service revenues increased $46.5 million, or 7.8%, to $644.5 million in the nine months ended September 30, 2022 as compared to $597.9 million in the nine months ended September 30, 2021. The growth in net service revenues was driven by sales volume growth of $28.5 million in the Sterigenics segment and favorable pricing of $24.7 million and $8.8 million in the Sterigenics and Nelson Labs segments, respectively. Our recent Nelson Labs acquisitions contributed $11.0 million to service revenue. Partially offsetting these factors was an overall decline of $10.8 million in pandemic-related testing revenue as well as

a decrease in volumes in other testing categories in the Nelson Labs segment. Service revenue growth was offset by a $14.3 million unfavorable impact from changes in foreign currency exchange rates across all segments.

Product revenues

Product revenues increased $15.3 million, or 16.6%, to $107.6 million in the nine months ended September 30, 2022 as compared to $92.3 million in the nine months ended September 30, 2021. The expansion in product revenues was attributable to sales volume growth of $10.5 million coupled with $6.8 million from favorable pricing in our Nordion segment. Partially offsetting this increase was a $2.0 million unfavorable impact from changes in foreign currency exchange rates.

Total Cost of Revenues

The following table compares our cost of revenues by type for the nine months ended September 30, 2022 to the nine months ended September 30, 2021.

(thousands of U.S. dollars)

Cost of revenues for the nine months ended September 30,	**2022**	**2021**	$ Change	% Change
Service	**$ 292,755**	$ 264,776	$ 27,979	10.6 %
Product	**44,058**	40,734	3,324	8.2 %
Total cost of revenues	**$ 336,813**	$ 305,510	$ 31,303	10.2 %

Total cost of revenues accounted for approximately 44.8% and 44.3% of our consolidated net revenues for the nine months ended September 30, 2022 and 2021, respectively.

Cost of service revenues

Cost of service revenues increased $28.0 million, or 10.6%, for the nine months ended September 30, 2022 as compared to the nine months ended September 30, 2021. The increase was attributable to approximately $21.7 million of increased costs arising from the expansion in sales volumes growth, predominately in the Sterigenics segment, as well as inflationary pressures, most notably on labor and energy costs. Cost of service revenues was also impacted by incremental costs of $8.1 million from our recent Nelson Labs acquisitions and increased staffing in anticipation of incremental volume in the Nelson Labs segment. Partially offsetting this increase was a $6.9 million impact from changes in foreign currency exchange rates.

Cost of product revenues

Cost of product revenues increased $3.3 million, or 8.2%, for the nine months ended September 30, 2022 as compared to the nine months ended September 30, 2021. The increase reflects incremental costs due to product mix, partially offset by a favorable impact from changes in foreign currency exchanges rates.

Operating Expenses

The following table compares our operating expenses for the nine months ended September 30, 2022 to the nine months ended September 30, 2021:

(thousands of U.S. dollars)

Operating expenses for the nine months ended September 30,	**2022**	**2021**	$ Change	% Change
Selling, general and administrative expenses	**$ 179,765**	$ 146,331	$ 33,434	22.8 %
Amortization of intangible assets	**47,337**	48,081	(744)	(1.5)%
Total operating expenses	**$ 227,102**	$ 194,412	$ 32,690	16.8 %

Operating expenses accounted for approximately 30.2% and 28.2% of our consolidated net revenues for the nine months ended September 30, 2022 and 2021, respectively.

SG&A

SG&A increased $33.4 million, or 22.8%, for the nine months ended September 30, 2022 as compared to the nine months ended September 30, 2021. The increase was driven primarily by the following:

- $16.7 million increase in litigation and other professional services expense associated with EO sterilization facilities;
- $6.5 million increase in selling and administrative personnel in support of the growth and enhancement of our business; and
- $4.5 million increase in share-based compensation expense related to our 2020 Omnibus Incentive Plan.

In addition, during the nine months ended September 30, 2021, we recorded a $3.4 million favorable settlement related to an insurance claim for Nordion, which did not recur in 2022.

Amortization of intangible assets

Amortization of intangible assets was $47.3 million for the nine months ended September 30, 2022, or 1.5% below the nine months ended September 30, 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 decreased $10.7 million, or 18.3%, for the nine months ended September 30, 2022 as compared to the nine months ended September 30, 2021. The decrease was driven by an $11.9 million reduction to interest expense attributable to the favorable change in fair value and quarterly settlement of interest rate caps not designated as hedging instruments. Offsetting this decline was a $1.1 million net increase in interest expense on our outstanding borrowings due to the steady rise in the LIBOR benchmark interest rate for the nine months ended September 30, 2022. The weighted average interest rate on our outstanding debt was 5.87% and 3.25% at September 30, 2022 and 2021, respectively.

Impairment of Investment in Unconsolidated Affiliate

During the nine months ended September 30, 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 (Gain) Loss

Foreign exchange gain was $0.5 million for the nine months ended September 30, 2022 as compared to a loss of $1.4 million in the nine months ended September 30, 2021. The change in foreign exchange (gain) loss in our Consolidated Statements of Operations and Comprehensive Income (Loss) mainly relates to short-term losses (offset by short-term gains) on sales denominated in currencies other than the functional currency of our operating entities. As described in Note 17, “Financial Instruments and Financial Risk” we enter 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.

Other Income, Net

Other income, net decreased $3.2 million, or 42.9%, for the nine months ended September 30, 2022 compared to the nine months ended September 30, 2021. The fluctuation was mainly driven by an unfavorable change in the fair value of the embedded derivatives in Nordion’s purchase contracts. We recorded an unrealized loss on embedded derivatives of $1.8 million for the nine months ended September 30, 2022 compared to a $0.4 million gain for the nine months ended September 30, 2021. In addition, we recorded $1.2 million of other income related to the gain on our purchase of the 15% mandatorily redeemable noncontrolling interest of Nelson Labs Fairfield in the second quarter of 2021 as compared to the amount previously accrued.

Provision for Income Taxes

Provision for income tax increased $13.4 million to a net provision of $49.2 million for the nine months ended September 30, 2022 as compared to $35.9 million for the nine months ended September 30, 2021. The change was attributable to pre-tax income of $135.4 million in the nine months ended September 30, 2022 compared to pretax income of $117.0 million for the nine months ended September 30, 2021 and an increase in the valuation allowance related to the limitation on the deductibility of interest expense and the impairment of an investment in a joint venture.

Provision for income taxes for the nine months ended September 30, 2022 differed from the statutory rate primarily due to a net increase in the valuation allowance, the impact of the foreign rate differential and GILTI. Income tax expense for the nine months ended September 30, 2021 differed from the statutory rate primarily due to the impact of the foreign rate differential, GILTI, a net increase in the interest expense valuation allowance, and a discrete item pertaining to an income tax rate change in the United Kingdom. This was partially offset by a discrete item that reversed the valuation allowance on deferred tax assets related to certain asset retirement obligations.

Net Income, Adjusted Net Income and Adjusted EBITDA

Net income for the nine months ended September 30, 2022 was $86.1 million, as compared to net income of $81.1 million for the nine months ended September 30, 2021. Adjusted Net Income was $200.6 million for the nine months ended September 30, 2022, as compared to $181.9 million for the nine months ended September 30, 2021, due to the factors described above. Adjusted EBITDA was $376.6 million for the nine months ended September 30, 2022, as compared to $356.6 million for the nine months ended September 30, 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 U.S. Generally Accepted Accounting Principles ("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 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, the nearest GAAP equivalent. For example, Adjusted Net Income and Adjusted EBITDA 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 the 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 and other activities associated with our EO sterilization facilities, including those related to 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 the table below. 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, 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:

	Three Months Ended September 30,		Nine Months Ended September 30,	
(thousands of U.S. dollars)	**2022**	**2021**	**2022**	**2021**
Net income	**$ 25,090**	$ 27,444	**$ 86,149**	$ 81,124
Amortization of intangibles	**20,219**	21,239	**61,596**	65,299
Share-based compensation[(a)]	**4,616**	3,547	**14,955**	10,489
(Gain) loss on foreign currency and embedded derivatives[(b)]	**3,194**	1,881	**(4,788)**	885
Acquisition and divestiture related charges, net[(c)]	**447**	(2,662)	**978**	(2,003)
Business optimization project expenses[(d)]	**1,035**	244	**1,609**	780
Plant closure expenses[(e)]	**2,627**	266	**3,776**	1,564
Impairment of investment in unconsolidated affiliate[(f)]	**—**	—	**9,613**	—
Loss on extinguishment of debt[(g)]	**—**	6,365	**—**	20,677
Professional services relating to EO sterilization facilities[(h)]	**14,501**	9,449	**50,238**	33,492
Accretion of asset retirement obligations[(i)]	**526**	598	**1,644**	1,751
COVID-19 expenses[(j)]	**6**	109	**154**	596
Income tax benefit associated with pre-tax adjustments[(k)]	**(7,753)**	(9,776)	**(25,337)**	(32,772)
Adjusted Net Income	**64,508**	58,704	**200,587**	181,882
Interest expense, net[(l)]	**20,080**	18,140	**53,974**	58,585
Depreciation[(m)]	**15,885**	16,395	**47,496**	47,457
Income tax provision applicable to Adjusted Net Income[(n)]	**24,679**	23,435	**74,579**	68,630
Adjusted EBITDA[(o)]	**$ 125,152**	$ 116,674	**$ 376,636**	$ 356,554

(a) Represents non-cash share-based compensation expense.

(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, 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, and (iii) transition services income and non-cash deferred lease income associated with the terms of the divestiture of the Medical Isotopes business in 2018, and (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.

(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, “Basis of Presentation”.

(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 16, “Commitments and Contingencies”.

(i) 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.

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

(k) 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.

(l) The three and nine months ended September 30, 2022 excludes $3.3 million of unrealized loss and $6.1 million of unrealized gain, respectively, on interest rate derivatives not designated as hedging instruments.

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

(n) Represents the difference between the income tax provision as determined under U.S. GAAP and the income tax benefit associated with pre-tax adjustments described in footnote (k).

(o) $22.1 million and $20.8 million of the adjustments for the three months ended September 30, 2022 and 2021, respectively, and $62.8 million and $63.3 million of the adjustments for the nine months ended September 30, 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 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

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.

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 also impacted by Co-60 supplier mix, harvest schedules and product and service mix.

Nelson Labs

Nelson Labs 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 Note 18, “Segment Information” to our consolidated financial statements.

Segment Results for the Three Months Ended September 30, 2022 and 2021

The following tables compare segment net revenue and segment income for the three months ended September 30, 2022 to the three months ended September 30, 2021:

(thousands of U.S. dollars)	Three Months Ended September 30, 2022	2021	$ Change	% Change
Net Revenues				
Sterigenics	**$ 157,723**	$ 145,314	$ 12,409	8.5 %
Nordion	**35,071**	28,768	6,303	21.9 %
Nelson Labs	**55,910**	52,082	3,828	7.3 %
Segment Income				
Sterigenics	**$ 85,587**	$ 79,344	$ 6,243	7.9 %
Nordion	**20,294**	16,331	3,963	24.3 %
Nelson Labs	**19,271**	20,999	(1,728)	(8.2)%
Segment Income margin				
Sterigenics	**54.3 %**	54.6 %		
Nordion	**57.9 %**	56.8 %		
Nelson Labs	**34.5 %**	40.3 %		

Net Revenues by Segment

Sterigenics net revenues were $157.7 million for the three months ended September 30, 2022, an increase of $12.4 million, or 8.5%, as compared to the three months ended September 30, 2021. The increase is attributable to a 6.0% favorable impact from pricing and volume growth of 5.8%, partially offset by a 3.3% unfavorable impact from changes in foreign currency exchange rates.

Nordion net revenues were $35.1 million for the three months ended September 30, 2022, an increase of $6.3 million, or 21.9%, as compared to the three months ended September 30, 2021. The increase was primarily attributable to volume growth of 17.7% and favorable pricing of 7.0% partially offset by a 2.8% unfavorable impact from changes in foreign currency exchange rates.

Nelson Labs net revenues were $55.9 million for the three months ended September 30, 2022, an increase of $3.8 million, or 7.3%, as compared to the three months ended September 30, 2021. The increase was driven by favorable pricing of 6.3% and 5.8% from our recent acquisition. This was partially offset by changes in foreign currency exchange rates totaling 3.5%.

Segment Income

Sterigenics segment income was $85.6 million for the three months ended September 30, 2022, an increase of $6.2 million, or 7.9%, as compared to the three months ended September 30, 2021. The increase in segment income was primarily a result of favorable customer pricing and sales volume growth, as referenced above.

Nordion segment income was $20.3 million for the three months ended September 30, 2022, an increase of $4.0 million, or 24.3%, as compared to the three months ended September 30, 2021. The increase in segment income was due to an increase in sales volume, largely of industrial use Co-60, and favorable pricing, partially offset by changes in foreign currency exchange rates.

Nelson Labs segment income was $19.3 million for the three months ended September 30, 2022, a decrease of $1.7 million, or 8.2%, as compared to the three months ended September 30, 2021. The decrease in segment income was primarily driven by increased staffing in anticipation of incremental volume, unfavorable revenue mix and an unfavorable impact from foreign currency exchange rates, partially offset by favorable pricing as mentioned above. The decrease in segment income margin is a result of the aforementioned factors coupled with dilution resulting from the margin profile of the 2021 Nelson Labs acquisitions.

Segment Results for the Nine Months Ended September 30, 2022 and 2021

The following tables compare segment net revenue and segment income for the nine months ended September 30, 2022 to the nine months ended September 30, 2021:

(thousands of U.S. dollars)	Nine Months Ended September 30, 2022	2021	$ Change	% Change
Net Revenues				
Sterigenics	**$ 464,977**	$ 421,647	$ 43,330	10.3 %
Nordion	**119,551**	103,811	15,740	15.2 %
Nelson Labs	**167,569**	164,771	2,798	1.7 %
Segment Income				
Sterigenics	**$ 250,088**	$ 227,374	$ 22,714	10.0 %
Nordion	**69,179**	61,285	7,894	12.9 %
Nelson Labs	**57,369**	67,895	(10,526)	(15.5)%
Segment Income margin				
Sterigenics	**53.8 %**	53.9 %		
Nordion	**57.9 %**	59.0 %		
Nelson Labs	**34.2 %**	41.2 %		

Net Revenues by Segment

Sterigenics net revenues were $465.0 million for the nine months ended September 30, 2022, an increase of $43.3 million, or 10.3%, as compared to the nine months ended September 30, 2021. The increase reflects volume growth of 6.8% and a 5.9% favorable impact from pricing, partially offset by unfavorable impacts from changes in foreign currency exchange rates of 2.4%.

Nordion net revenues were $119.6 million for the nine months ended September 30, 2022, an increase of $15.7 million, or 15.2%, as compared to the nine months ended September 30, 2021. The increase reflects volume growth of 11.0% and a 6.5% favorable impact from pricing, partially offset by unfavorable impacts from changes in foreign currency exchange rates of 2.3%.

Nelson Labs net revenues were $167.6 million for the nine months ended September 30, 2022, an increase of $2.8 million, or 1.7%, as compared to the nine months ended September 30, 2021. The increase was mainly attributable to revenue growth from the 2021 acquisitions of 6.7% and a favorable impact from pricing of 5.3%. Partially offsetting this increase was a 6.5% decline in revenue from reduced demand for pandemic-related testing coupled with a decrease in volumes across other testing categories. Revenue growth was also negatively impacted by 2.5% due to changes in foreign currency exchange rates.

Segment Income

Sterigenics segment income was $250.1 million for the nine months ended September 30, 2022, an increase of $22.7 million, or 10.0%, as compared to the nine months ended September 30, 2021. The increase in segment income was primarily a result of volume growth and favorable customer pricing, as referenced above.

Nordion segment income was $69.2 million for the nine months ended September 30, 2022, an increase of $7.9 million, or 12.9%, as compared to the nine months ended September 30, 2021. The increase in segment income was due to favorable impacts of volume growth and customer pricing, as referenced above. The decrease in segment income margin was due to an unfavorable product mix.

Nelson Labs segment income was $57.4 million for the nine months ended September 30, 2022, a decrease of $10.5 million, or 15.5%, as compared to the nine months ended September 30, 2021, primarily attributable to a decline in pandemic-related testing. This decrease was partially offset by the incremental contribution of our 2021 acquisitions and favorable customer pricing. The 7.0% decrease in segment income margin was driven by unfavorable mix associated with reduced demand for pandemic-related testing, supply chain and labor market pressures, increased staffing in anticipation of incremental volume, and dilution resulting from the margin profile of the 2021 Nelson Labs acquisitions.

LIQUIDITY AND CAPITAL RESOURCES

As of September 30, 2022, we had $165.0 million of cash and cash equivalents. This is an increase of $58.0 million from the balance at December 31, 2021. Our foreign subsidiaries held cash of approximately $122.6 million at September 30, 2022 and $87.9 million at December 31, 2021. No material restrictions exist to accessing cash held by our foreign subsidiaries notwithstanding any potential tax consequences.

Our capital expenditure program is a component of our long-term strategy. This program includes, among other things, investments in new and existing facilities, business expansion projects, Co-60 used by Sterigenics at its gamma irradiation facilities, cobalt development projects and information technology enhancements. For the nine months ended September 30, 2022, our capital expenditures amounted to $110.6 million, compared to $60.9 million for the nine months ended September 30, 2021.

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, including debt service on our long-term debt, expected capital expenditures including investments in fixed assets to build and/or expand existing facilities, and meet litigation defense costs for at least the next twelve months. As of September 30, 2022, there were no 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 September 30, 2022, our interest rate caps limit our cash flow exposure related to LIBOR for the majority of the principal amount outstanding on our variable rate borrowings under the Term Loan. Refer to Note 17, “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 3. “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, supporting ongoing EO litigation defense costs, funding suitable business acquisitions, and making expenditures for other general corporate purposes. Any liability determined to be attributable to the Company or its subsidiaries arising from the ongoing EO tort litigation may have a material adverse effect on the Company’s results of operations, liquidity, or financial condition for the annual or interim period during which such liability is recorded. As described in Note 16, “Commitments and Contingencies”, on September 20, 2022, the court returned an adverse judgment against our subsidiaries Sterigenics U.S., LLC and Sotera Health LLC in the amount of $358.7 million in a personal injury jury trial in Illinois. As noted in Note 16, we intend to vigorously challenge the judgment through all appropriate post-trial motions and appeals processes. Based on the status of the first individual case, we believe a loss is not probable, but the range of loss for this case could be from $0 to $358.7 million, plus potential post-judgment interest. We have not recorded a reserve with respect to this litigation as a number of factors (including post-trial relief and the appeals processes which are anticipated to take at least eighteen months or longer) could significantly change the assessment of damages and the ultimate outcome of the case. The plaintiff began enforcement proceedings by issuing citations to discover assets to Sterigenics U.S., LLC and Sotera Health LLC, the Company and other subsidiaries, which may have the effect of creating liens on certain of our assets. These enforcement proceedings were stayed by the filing of post-trial motions.

In order to stay the enforceability of the judgment order during the appeals process, an appellate bond must be posted or an alternative form of security must be provided. Our subsidiaries are exploring options to post the appellate bond or alternative form of security, which could involve additional credit support from the Company, if the Company so determines, and/or posting cash collateral of the subsidiaries, or other form of security as may be required by the courts, and on which such subsidiaries will incur interest and other associated costs. The bond or other form of security ordinarily must be sufficient to cover the amount of the judgment and costs, plus interest reasonably anticipated to accrue during pendency of the appeal. Given the pendency of motions for post-trial relief requesting that the trial court enter judgment in defendants’ favor notwithstanding the verdict, or alternatively that a new trial be granted, or alternatively for reduction of the compensatory and punitive damages awards, as well as the courts’ ability to reduce the amount of any bond or other security, the amount of the bond or other security that will ultimately be required to be posted is uncertain.

Refer to Note 16, “Commitments and Contingencies” under the heading “Ethylene Oxide Tort Litigation” for additional information regarding the current status of the Company’s legal proceedings. Refer also to Part II Item 1A, “Risk Factors” in this report, including “—We have received and may in the future receive an adverse judgment 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. Any of these matters may have a negative impact on our liquidity in the near and long terms."

Cash Flow Information

Nine Months Ended September 30, 2022 compared to the Nine Months Ended September 30, 2021

(thousands of U.S. dollars)	2022	2021
Net Cash Provided by (Used in):		
Operating activities	**$ 176,035**	$ 215,194
Investing activities	**(110,158)**	(87,570)
Financing activities	**(1,483)**	(115,504)
Effect of foreign currency exchange rate changes on cash and cash equivalents	**(6,357)**	345
Net increase in cash and cash equivalents, including restricted cash, during the period	**$ 58,037**	$ 12,465

Operating activities

Cash flows provided by operating activities decreased $39.2 million to net cash provided of $176.0 million in the nine months ended September 30, 2022 compared to $215.2 million for the nine months ended September 30, 2021. Lower cash flows from operating activities in the nine months ended September 30, 2022 compared to the nine months ended September 30, 2021 were driven by an increase in cash paid for income taxes and interest of $24.6 million and $11.3 million, respectively.

Investing activities

Cash used in investing activities increased $22.6 million to net cash used of $110.2 million in the nine months ended September 30, 2022 compared to $87.6 million for the nine months ended September 30, 2021. Capital expenditures increased $49.7 million in the nine months ended September 30, 2022 compared to the nine months ended September 30, 2021. The nine months ended September 30, 2021 included cash paid for acquisitions of $25.9 million which did not recur in 2022. In the nine months ended September 30, 2021, we acquired BioScience Labs for a net purchase price of approximately $13.5 million and we completed the acquisition of the remaining 15% ownership of Nelson Labs Fairfield for $12.4 million.

Financing activities

For the nine months ended September 30, 2022, net cash used in financing activities was $1.5 million compared to net cash used by financing activities of $115.5 million for the nine months ended September 30, 2021. For the nine months ended September 30, 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 $6.7 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, respectively. Cash used for financing activities was insignificant for the nine months ended September 30, 2022.

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 "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 September 30, 2022 and December 31, 2021, total borrowings under the Term Loan were $1,763.1 million and there were no borrowings outstanding on the Revolving Credit Facility. The weighted average interest rate on borrowings under the Term Loan for the three months ended September 30, 2022 and September 30, 2021 was 4.96% and 3.25%, respectively, and 3.92% and 3.51% for the nine months ended September 30, 2022 and September 30, 2021, respectively.

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).
On March 26, 2021, we amended the Revolving Credit Facility, to (i) decrease the Applicable Rate (as defined in the Credit Agreement) related to any Revolving Loans (as defined in the 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 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 Credit Agreement), to the Adjusted LIBOR (as defined in the 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 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.

As of September 30, 2022 and December 31, 2021, capitalized debt issuance costs totaled $2.3 million and $2.7 million, respectively, and debt discounts totaled $14.7 million and $17.3 million, respectively, related to the Senior Secured Credit Facilities. Such costs are recorded as a reduction of debt on our Consolidated Balance Sheets and amortized as a component of interest expense over the term of the debt agreement.

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 described in Note 16, “Commitments and Contingencies”, on September 20, 2022, our subsidiaries Sterigenics U.S., LLC and Sotera Health LLC received a $358.7 million judgment (including prejudgment interest) in the first trial related to EO tort litigation in Illinois. Post-judgment interest accrues on the compensatory and punitive damages awards from September 20, 2022, the date the court entered the judgment order. As noted in Note 16, we intend to vigorously challenge the judgment through all appropriate post-trial motions and appeals processes. The payment of any judgment in this matter is expected to be stayed pending resolution of the post-trial and appeals process. Accordingly, no event of default has been triggered as a result of this judgment. As of September 30, 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 September 30, 2022, the Company had $67.6 million of letters of credit issued against the Revolving Credit Facility, resulting in total availability under the Revolving Credit Facility of $279.9 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 17, “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 three and nine months ended September 30, 2022.

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%.

CRITICAL ACCOUNTING POLICIES AND ESTIMATES

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.

A comprehensive discussion of the Company's critical accounting policies and management estimates made in connection with the preparation of the financial statements is included in Item 7 of our Annual Report on Form 10-K for the year ended December 31, 2021. There have been no significant changes in critical accounting policies, management estimates or accounting policies since the year ended December 31, 2021.

NEW ACCOUNTING PRONOUNCEMENTS

For a description of recent accounting pronouncements applicable to our business, see Note 2, "Recent Accounting Standards".

Item 3. Quantitative and Qualitative Disclosures About Market Risk

Market risks are described within "Quantitative and Qualitative Disclosures About Market Risk" in Part II, Item 7A of our Annual Report on Form 10-K for the year ended December 31, 2021.

As noted in Part II, Item 7A of the 2021 Form 10-K, we are subject to interest rate risk on borrowings that bear interest at floating rates. During the nine months ended September 30, 2022, benchmark interest rates, including LIBOR, have materially increased compared to the same period in the prior year, primarily in response to monetary policies implemented throughout the United States and Europe aimed at curbing inflation. Because our Senior Secured Credit Facilities bear interest at variable interest rates based on LIBOR, we may incur higher interest costs as interest rates are expected to increase in future periods. We currently utilize, and may in the future utilize, interest rate hedges to mitigate our exposure to interest rate fluctuations as described in Note 17, "Financial Instruments and Financial Risk". After applying the effects of interest rate caps referenced above, a 1.0% increase in the interest rate under our outstanding obligations as of September 30, 2022, of $1,763.1 million, would increase interest expense by approximately $7.6 million for the fiscal year ending December 31, 2023.

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer ("CEO") and Chief Financial Officer ("CFO"), 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 CEO and CFO concluded that, as of the end of the period covered by this Quarterly Report on Form 10-Q, 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.

Changes in Internal Control

During the three and nine months ended September 30, 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.

Part II—OTHER INFORMATION

Item 1. 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 and employee safety. 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 legal proceedings is included below. Updates on our EO tort litigation can be found from time to time on the Investor Relations section of the Company's website.

Legal Proceedings Described in Note 16, **"Commitments and Contingencies" of Our Consolidated Financial Statements**

Note 16, "Commitments and Contingencies" to our consolidated financial statements for the three and nine months ended September 30, 2022 contained in this Quarterly Report on Form 10-Q 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 16, "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; and
- New Mexico Attorney General Litigation

Legal Proceedings That Are Not Described in Note 16, "Commitments and Contingencies" to Our Consolidated Financial Statements

In addition to the matters that are identified in Note 16, "Commitments and Contingencies" to our consolidated financial statements for the three and nine months ended September 30, 2022 contained in this Quarterly Report on Form 10-Q, and incorporated into this item by reference, the following matter also constitutes a material 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 early 2010, the Dutch Public Prosecution Service started criminal proceedings against DEROSS Holding B.V. ("DEROSS"), formerly known as Sterigenics Holland B.V., 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$0.8 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 in the amount of €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 is still pending.

An escrow account was established in 2011 to satisfy indemnity claims for losses related to this matter. The balance of the special escrow at September 30, 2022 was approximately US$1.8 million and the cash collateral held by ABN Amro to provide security for the claims was approximately €2.4 million (US$2.4 million) as of September 30, 2022. These amounts are available to satisfy claims relating to the ongoing matter through its anticipated resolution. At this time, we expect that the appeal of this matter will likely take several years to resolve, however, we believe the indemnification receivable continues to be recoverable and plan to ensure escrow funds remain in place to cover outcomes of an appeal.

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

Item 1A. Risk Factors.

Other than the risk factors listed below, there have been no material changes from the risk factors previously described under Item 1A of our 2021 Form 10-K.

Risks Related to the Company

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. We are currently the subject of tort lawsuits alleging personal injury by purported exposure to emissions and releases of EO from our facilities in Willowbrook and Atlanta. The first jury trial in the individual lawsuits related to our facility in Willowbrook 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 prejudgment interest in the amount of $2.6 million against our subsidiaries Sterigenics, US LLC and Sotera Health LLC. Post-judgment interest accrues on the compensatory and punitive damages awards from September 20, 2022, the date the court entered the judgment order. The Company expects the enforceability of the judgment order to be stayed pending the resolution of motions for post-trial relief and any subsequent appeals. See related Risk Factor "—We have received and may in the future receive an adverse judgment 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. Any of these matters may have a negative impact on our liquidity in the near and long terms." On October 26, 2022, Sterigenics U.S., LLC and Sotera Health LLC filed their motion for post-trial relief, requesting that the trial court enter judgment in defendants' favor notwithstanding the verdict, or alternatively that a new trial be granted, or alternatively for reduction of the compensatory and punitive damages awards, based on the plaintiff's failure of proof on elements of her claims, reversible error by the trial court regarding evidentiary and other rulings, and excessive damages awards. While the Company does not believe that the facts and law justify the verdict or damage awards and intends to vigorously challenge them through all appropriate motions for post-trial relief and appeals, this verdict and damage awards and future verdict and damage awards to which we may be subject could have a material adverse effect on our business, prospects, financial condition or results of operations.

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. 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 caused other damages. Additional property devaluation claims have been threatened and additional personal injury claims may be filed. We are also defendants in a lawsuit brought by the State of New Mexico, ex rel. Hector Balderas, Attorney General 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. In June 2021, the Court in that lawsuit entered an Order Granting Preliminary Injunction prohibiting Sterigenics from allowing any uncontrolled emission or release of EO from the facility. In December 2021 the Court in that lawsuit further ordered certain protocols to monitor Sterigenics' compliance with the injunction. We deny the allegations in these claims and are vigorously defending against them. However, 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 addition, we are involved in litigation in Georgia against local officials to allow us to resume operations at our Atlanta facility that had been suspended while we installed enhancements to our EO emissions control systems. See Part II Item 1, "Legal Proceedings" and Note 16, "Commitments and Contingencies" to our consolidated financial statements for more detail on our pending litigation.

In litigation, including those described above, plaintiffs may seek various remedies, including without limitation declaratory and/or injunctive relief; compensatory or punitive damages; restitution, disgorgement, civil penalties, abatement, attorneys' fees, costs and/or other relief. Settlement demands may seek significant monetary and other remedies, or otherwise be on terms that we do not consider reasonable under the circumstances. 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. It is

likely that we will be subject to other claims in addition to those described above by or on behalf of similar groups of plaintiffs in the future relating to any of our current or former facilities or activities. In addition, awards against and settlements by 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. 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 did cover 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 September 30, 2022, we have utilized approximately $7.5 million of the remaining $10.0 million limit. Any settlement or judgment against us arising out of the litigation pending in Willowbrook, Atlanta or Santa Teresa 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 16, “Commitments and Contingencies” to our consolidated financial statements for more detail on our pending litigation.

We have received and may in the future receive an adverse judgment 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. Any of these matters may have a negative impact on our liquidity in the near and long terms.

As described elsewhere in Note 16, “Commitments and Contingencies” under the heading “Ethylene Oxide Tort Litigation,” our subsidiaries Sterigenics U.S., LLC and Sotera Health, LLC (the “Defendant Subsidiaries”) received an adverse verdict on September 19, 2022 in the amount of $358.7 million in the first EO tort case related to our Willowbrook facility, which was entered as a judgment order on September 20, 2022 (the “September 2022 adverse judgment”).

While we intend to vigorously challenge the judgment through all appropriate post-trial motions and appeal processes, under Illinois law, in order to stay the enforceability of a judgment order during the appeals process, an appellate bond or other form of security (together, an “appellate bond”) must be posted. 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 the defendants, absent judicial relief reducing the appellate bond amount, are required to post an appellate bond in an amount up to 1.5 times the amount of the judgment. Obtaining such appellate bond may require the posting of liquid collateral, such as letters of credit or cash, for some or all of the bond amount should the bond be called in the future. The Defendant Subsidiaries have filed post-trial motions that have the effect of staying enforcement proceedings. Before the post-trial motions were filed, however, the plaintiff 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 may have the effect of creating liens on certain of the Defendant Subsidiaries’ and other recipients’ assets that could restrict use of those assets.

It may be necessary for the Defendant Subsidiaries to request credit support from Sotera Health Company 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 incur additional indebtedness, if available. Doing so may also require negotiation with current lenders under our Senior Secured Credit Facilities, the success of which cannot be assured.

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 addition to the risks presented by the September 2022 adverse judgment, as disclosed elsewhere, there are a large number of EO tort cases pending against the Defendant Subsidiaries. The second trial in Illinois began on October 6, 2022 and is expected to result in a verdict by mid-November 2022, and additional trials are scheduled to begin in early 2023. While we believe the damage awards in the

first trial are not predictive of potential future damage awards in the other Illinois EO tort cases, in the event the Defendant Subsidiaries receive one or more additional adverse judgments in any of the remaining cases, 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. In the event that the Defendant Subsidiaries' appeal of the September 2022 adverse judgment is unsuccessful, they will be required to pay the judgment, which would reduce liquidity 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.

Actions required to secure appellate bonds, including for the September 2022 adverse judgment, may create a substantial strain on the Defendant Subsidiaries' and our liquidity. There is no assurance that the Defendant Subsidiaries or we will meet the requirements needed to provide an appellate bond for appeal of the September 2022 adverse judgment or 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, that judgment 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 or make such sales on acceptable terms or at all, and any such actions taken to address the judgments may significantly limit our liquidity and increase our leverage in the future.

One or more enforceable judgments in excess of $100.0 million, which judgment or judgments 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.

Item 6. Exhibits.

The exhibits listed in the following Exhibit Index are filed, furnished, or incorporated by reference as part of this Quarterly Report on Form 10-Q.

		Incorporated by Reference				
Exhibit No	**Description of Exhibits**	**Form**	**File No.**	**Exhibit**	**Filing Date**	**Furnished/Filed Herewith**
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					*
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					**
10.32	Separation Agreement made as of August 31, 2022 between Terry Hammons and Sotera Health Company					*
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

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 F. Biehl
Name:	Michael F. Biehl
Title:	Interim Chief Financial Officer
	(Principal Financial Officer)

Date: November 2, 2022

Execution Version

SEPARATION & RELEASE AGREEMENT

This Separation Agreement ("Agreement") is hereby made as of August 31, 2022 between Terry Hammons ("Executive") and Sotera Health Company (the "Company").

WHEREAS, in connection with Executive's separation of employment with the Company, Executive and the Company desire to enter into this Agreement;

WHEREAS, Executive acknowledges that he knowingly and voluntarily is entering into this Agreement and, that by signing this Agreement, he is receiving payment and/or other consideration from the Company to which he otherwise was not or would not be entitled; and

WHEREAS, the Company, as a part of this Agreement between the parties, does not admit, and specifically denies, any violation of law or any liability to Executive or to anyone else as a result of or growing out of Executive's relationship and/or employment and/or the separation of employment with the Company.

NOW, THEREFORE, in consideration of the mutual covenants and other good and valuable consideration contained herein, the receipt and sufficiency of which are hereby acknowledged, the parties hereby agree as follows:

1. **Separation.** Executive's employment with the Company and any of its Subsidiaries or Affiliates will end effective October 1, 2022 (the "Date of Separation"). Effective as of the Date of Separation, unless otherwise determined by the Company's Chief Executive Officer, Executive shall be deemed to have resigned from any and all positions, titles, duties, authorities and responsibilities with, arising out of or relating to Executive's employment with the Company and any of its Subsidiaries or Affiliates, and Executive agrees to execute all documents reasonably requested by the Company to effectuate such resignations. For the period commencing on the date of this Agreement and ending on the Date of Separation (the "Transition Period"), Executive shall remain an employee of the Company and shall assist the Company in transitioning his duties and responsibilities. Notwithstanding the foregoing, the Company may during the Transition Period, in its sole and complete discretion, direct Executive to cease reporting to work and/or performing duties and Executive shall continue to receive Executive's current compensation and benefits through the remainder of the Transition Period.

2. **Severance Benefits**.

(a) Subject to Executive's (a) continued employment with the Company through the Date of Separation, (b) proper and timely execution and delivery of the release agreement attached hereto as Exhibit A (the "Release") on or after the Date of Separation and such release being in full force and effect and having not been timely revoked in accordance with its terms (the "Release Requirement") and (c) continued compliance with the restrictive covenants set forth in the Restrictive Covenants Agreement entered into by and between Executive and the Company dated as of November 1, 2021 (the "Restrictive Covenant Agreement"), during the 12 month period following the Date of Separation, the Company shall continue to pay to Executive his annual base salary in effect on the Date of Separation, payable in accordance with the Company's normal payroll practices as in effect on the Date of Separation the ("Separation Payments"). Payment of the Separation Payments shall commence on the sixtieth (60th) day following the Date of Separation (the "Release Date") and the portion of the Separation Payments which would otherwise have been paid during the period between the Date of Separation and the Release Date

shall instead be paid as soon as reasonably practicable following the Release Date. For the avoidance of doubt, Executive shall be entitled to receive the Separation Payments only so long as Executive has satisfied the Release Requirement prior to the Release Date and has not breached any of the provisions of the Release or the Restrictive Covenant Agreement.

(b) Except (i) as specifically set forth in this Agreement and (ii) for accrued benefits earned and vested as of Executive's Date of Separation under an employee benefit plan maintained by the Company and governed by the Employee Retirement Income Security Act, including any claim to continued health coverage under COBRA, Executive covenants and agrees that Executive shall not be entitled to any other form of severance or termination payments or benefits from the Company or any of its Subsidiaries or Affiliates, including, without limitation, payments or benefits otherwise payable under any severance plan, program, policies, practices or arrangements of the Company or any of its Subsidiaries or Affiliates.

3. **Long-Term Incentive Plan**. Executive acknowledges and agrees that (i) Executive is a participant in the Company's 2020 Omnibus Incentive Plan (the "Omnibus Plan") and (ii) that the Restricted Stock Units and Stock Options (each as defined in the Omnibus Plan and together the "Equity Awards") granted to Executive pursuant to the Omnibus Plan on November 11, 2021 and on March 2, 2022 shall be governed by the terms and conditions of the Omnibus Plan and the Award Agreements (as defined in the Omnibus Plan) executed by Executive in connection with such grants, including the terms relating to a termination of Executive's employment with the Company. For the avoidance of doubt, (i) Executive shall be treated as having been terminated by the Company without "Cause" (as defined in the Offer Letter) for the purposes of determining the treatment of the Equity Awards following the Date of Separation pursuant to the terms of the Omnibus Plan and the Equity Awards and (ii) Executive's Continuous Service Status (as defined in the Omnibus Plan) shall be deemed to have been terminated effective as of the Date of Separation.

4. **Pay-Back Provision**. For the avoidance of doubt, Executive shall be treated as having been terminated by the Company without "Cause" for the purposes of the Pay-Back Provision of the Offer Letter.

5. **Consulting Role**.

(a) Consulting Role. From the Date of Separation through December 31, 2022, unless terminated earlier in accordance with the terms of this Agreement (such period, the "Consulting Period"), the Company wishes to retain Executive, and Executive hereby agrees, to provide consulting services to the Company. Executive may not engage any person in connection with the performance of the Consulting Services other than Executive.

(b) Consulting Services. During the Consulting Period, Executive shall remain available to provide consulting and transition services that may be reasonably requested by the Company in the areas of Executive's experience and expertise (the "Consulting Services"). It is expected by the parties that Executive will perform the Consulting Services at a level that permanently decreases Executive's bona fide services to no more than twenty percent (20%) of the average level of bona fide services performed by Executive during the period of his employment with the Company, such that Executive will incur a separation from service (within the meaning of Code Section 409A) on the Date of Separation. During the Consulting Period, Executive may engage in any other business, profession or occupation for compensation or otherwise that does not (x) interfere with his duties to the Company pursuant to the terms of this Agreement or (y) result in a breach of any of the restrictive covenants to which Executive is subject.

(c) Location. During the Consulting Period, Executive shall be reasonably available in person, by telephone, video conference, and/or e-mail, as required to perform the Consulting Services and

such Consulting Services shall be performed at such times and at such locations as may be mutually acceptable to the Company and Executive.

(d) Consulting Fee. In consideration of the Consulting Services rendered by Executive under this Agreement, during the Consulting Period, the Company shall pay to Executive a monthly fee (the "Consulting Fee") in the amount of thirteen thousand five hundred dollars ($13,500), payable no more than one month in arrears. In addition, the Company agrees to reimburse Executive for reasonable and appropriately documented out-of-pocket expenses actually incurred and paid by Executive but only to the extent (a) directly related to Executive's performance of the Consulting Services, (b) incurred in accordance with the Company's expense reimbursement policies and (c) approved in writing in advance by the Company.

(e) Termination of Consulting Period. The Company or Executive may terminate the Consulting Period at any time with or without reason, pursuant to delivery of written notice to the other party (a "Termination Notice"). Any termination of the Consulting Period, other than a termination on account of Executive's death shall be communicated by a Termination Notice setting forth the date of termination of the Consulting Period (the "Consulting Termination Date"), which must be at least seven (7) days following the date of delivery of the Termination Notice, provided that the Company may accelerate the Consulting Termination Date to any date following delivery of the Termination Notice by Executive and that the parties may otherwise agree on a different date.

(f) Effect of Termination. Upon termination of the Consulting Period, within thirty (30) days after the Consulting Termination Date, the Company shall pay Executive any unpaid portions of the Consulting Fee accrued prior to the Consulting Termination Date and business expense reimbursements as of the Consulting Termination Date, following which the Company's obligations to pay the Consulting Fee shall immediately cease. Notwithstanding the foregoing, in the event the Company terminates the Consulting Period for any reason other than for Cause, Executive shall be paid the difference between forty thousand five hundred dollars ($40,500) and any portion of the Consulting Fee paid prior to the Consulting Termination Date as soon as reasonably practicable following the Consulting Termination Date.

(g) Independent Contractor Relationship; Limitation on Authority. During the Consulting Period, Executive shall be an independent contractor of the Company, and this Agreement shall not be construed to create any association, partnership, joint venture, employee or agency relationship between Executive and the Company (or any of its Affiliates) for any purpose. Except to the extent specifically authorized in advance by the Company in writing, Executive (a) shall have no authority (and shall not hold itself out as having authority) to represent, bind or act on behalf or in the name of the Company or any of its Affiliates, and (b) shall not make any agreements or representations on behalf of the Company or any of its Affiliates. For the avoidance of doubt, except for any claim to continued health coverage under COBRA, during the Consulting Period, Executive will not be eligible to participate in any vacation, group medical or life insurance, disability, profit sharing or retirement benefits or any other fringe benefits or benefit plans offered by the Company or any of its Affiliates to its employees. Neither the Company nor any of its Affiliates shall be responsible for withholding or paying any income, payroll, Social Security or other federal, state or local taxes on behalf of Executive with respect to the Consulting Fee, or making any insurance contributions, including unemployment or disability, or obtaining worker's compensation insurance on behalf of Executive during the Consulting Period. Executive shall be responsible for, and shall indemnify the Company against, all such taxes or contributions, including penalties and interest.

(h) Taxes and Withholding. Except as otherwise required by applicable law, the Company will not make any withholdings or deductions, and will issue Executive an IRS Form 1099, with

respect to any Consulting Fee and Executive will be responsible for all taxes with respect to the Consulting Fee. Except as otherwise provided herein, the Company shall be entitled to set-off against and deduct from any amount payable to Executive hereunder any amount which it in good faith considers to be due to the Company or any of its Affiliates under the terms of this Agreement or any other agreement involving the parties or their respective Affiliates.

6. **Miscellaneous**.

(a) Tax Withholding. The Company and its Affiliates shall be entitled to deduct or withhold from any amounts owing from the Company or any of its Affiliates to Executive any federal, state, local or foreign withholding taxes, excise taxes, or employment taxes imposed with respect to any payments to Executive from the Company or any of its Affiliates or Executive's ownership interest in the Company.

(b) Code Section 409A.

(i) The intent of the parties is that payments and benefits under this Agreement comply with or are exempt from Section 409A of the Internal Revenue Code of 1986, as amended (the "Code") and the regulations and guidance promulgated thereunder (collectively "Section 409A") and, accordingly, to the maximum extent permitted, this Agreement shall be interpreted to be in compliance therewith. In no event whatsoever shall the Company be liable for any additional tax, interest or penalty that may be imposed on Executive by Section 409A or damages for failing to comply with Section 409A. For purposes of compliance with Section 409A, (i) all expenses or other reimbursements hereunder shall be made on or prior to the last day of the taxable year following the taxable year in which such expenses were incurred by Executive, (ii) any right to reimbursement or in kind benefits is not subject to liquidation or exchange for another benefit, (iii) no such reimbursement, expenses eligible for reimbursement, or in kind benefits provided in any taxable year shall in any way affect the expenses eligible for reimbursement, or in kind benefits to be provided, in any other taxable year and (iv) Executive's right to receive any installment payments pursuant to this Agreement shall be treated as a right to receive a series of separate and distinct payments.

(ii) Notwithstanding anything in this Agreement to the contrary, payments under Section 2 of this Agreement shall be paid or provided only at the time of a termination of Executive's employment that constitutes a "separation from service" within the meaning of Section 409A.

(iii) Notwithstanding any provision herein to the contrary, if Executive is deemed by the Company at the time of the Date of Separation to be a "specified employee" for purposes of Section 409A(a)(2)(B)(i) of the Code, to the extent delayed commencement of any portion of the benefits to which Executive is entitled under this Agreement is required in order to avoid a prohibited distribution under Section 409A(a)(2)(B)(i) of the Code, such portion of Executive's benefits shall not be provided to Executive prior to the earlier of (i) the expiration of the six-month period measured from the Date of Separation or (ii) the date of Executive's death. Upon the first business day following the expiration of the applicable Code Section 409A(a)(2)(B)(i) period, all payments deferred pursuant to the preceding sentence shall be paid in a lump sum to Executive (or Executive's estate or beneficiaries), and any remaining payments due under this Agreement shall be paid as otherwise provided herein.

(iv) Executive's right to receive any installment payments under this Agreement shall be treated as a right to receive a series of separate payments and, accordingly, each such installment payment shall at all times be considered a separate and distinct payment as permitted under Treasury Regulation Section 1.409A-2(b)(2)(iii).

(c) Executive's Cooperation. Following the Date of Separation, Executive shall cooperate with the Company and its Affiliates in any disputes with third parties, internal investigation or administrative, regulatory or judicial proceeding as reasonably requested by the Company (including,
without limitation, Executive being available to the Company upon reasonable notice for interviews and factual investigations, appearing at the Company's request to give testimony without requiring service of a subpoena or other legal process, volunteering to the Company all pertinent information and turning over to the Company all relevant documents which are or may come into Executive's possession, all at times and on schedules that are reasonably consistent with Executive's other permitted activities and commitments). Executive's availability shall be subject to his other employment and/or business obligations and the Company shall reimburse Executive for reasonable travel and other out of pocket expenses (including lodging and meals, upon submission of receipts) and shall compensate Executive at an hourly rate consistent with his annual base salary in effect on the Date of Separation.

(d) Complete Agreement. The terms contained in this Agreement, the Restrictive Covenant Agreement and the Release constitute the entire agreement between the parties with respect to the subject matter hereof and supersede and preempt any prior understandings, agreements or representations by or among the parties, written or oral, which may have related to the subject matter hereof in any way, including, but not limited to, the Offer Letter entered into by and between Executive and the Company dated August 18, 2021 (the "Offer Letter") and any employment, severance, bonus or similar agreements with the Company or any of its Subsidiaries or Affiliates.

(e) No Strict Construction. The language used in this Agreement shall be deemed to be the language chosen by the parties hereto to express their mutual intent, and no rule of strict construction shall be applied against any party.

(f) Counterparts. This Agreement may be executed in separate counterparts (including by means of facsimile), each of which is deemed to be an original and all of which taken together constitute one and the same agreement.

(g) Choice of Law. The laws of the State of Delaware will govern all questions concerning the construction, validity and interpretation of this Agreement and the exhibits hereto, without giving effect to any choice of law or conflict of law provision or rule (whether of the State of Delaware or any other jurisdiction) that would cause the application of the laws of any jurisdiction other than the State of Delaware.

(h) Arbitration. Any dispute, claim or controversy arising under or in connection with this Agreement or the termination of Executive's employment shall be settled exclusively by arbitration as provided in Section 8(H) of the Restrictive Covenant Agreement.

(i) Counterparts. This Agreement may be executed in separate counterparts (including by means of facsimile), each of which is deemed to be an original and all of which taken together constitute one and the same agreement.

(j) Amendment; Successors and Assigns. This Agreement shall bind and inure to the benefit of and be enforceable by the Company and Executive and their respective successors and assigns. Neither the Company nor the Executive may assign their rights or obligations under this Agreement to any third party without the prior written consent of the other party; provided, however, that the Company may assign this Agreement without the prior written consent of Executive in connection with a corporate reorganization, restructuring, sale, merger or other similar event. The provisions of this Agreement may be amended and waived only with the prior written consent of the Company and Executive.

(k) Representations and Acknowledgements.

(i) Executive represents and warrants that (A) he has read and understands the Agreement, is fully aware of its legal effect, has not acted in reliance upon any representations or promises made by the Company other than those contained in writing herein or in the other agreements referred to herein, and has entered into this Agreement freely based on his own judgment, (B) the execution, delivery and performance of this Agreement does not violate any law, regulation, order, judgment or decree applicable to Executive and by which he is bound, and upon the execution and delivery of this Agreement by the parties, this Agreement shall be a valid and binding obligation of Executive, enforceable in accordance with its terms, except to the extent that enforceability may be limited by applicable bankruptcy, insolvency or similar laws affecting the enforcement of creditors' rights generally and (C) the execution, delivery and performance of this Agreement by Executive does not and shall not conflict with, breach, violate or cause a default under any contract, agreement, instrument, order, judgment or decree to which he is a party or by which he is bound.

(ii) The Company represents and warrants that (A) the Company is fully authorized to enter into this Agreement and to discharge the obligations set forth in it, (B) the execution, delivery and performance of this Agreement does not violate any law, regulation, order, judgment or decree applicable to the Company and by which it is bound and (C) upon the execution and delivery of this Agreement by the parties, this Agreement shall be a valid and binding obligation, enforceable in accordance with its terms, except to the extent that enforceability may be limited by applicable bankruptcy, insolvency or similar laws affecting the enforcement of creditors' rights generally.

(l) Definitions.

(i) "Affiliate" means with respect to any particular Person, any Person controlling, controlled by or under common control with such Person or an Affiliate of such Person.

(ii) "Person" means an individual, a partnership, a limited liability company, a corporation, an association, a joint stock company, a trust, a joint venture, an unincorporated organization, investment fund, any other business entity and a governmental entity or any department, agency or political subdivision thereof.

(iii) "Subsidiary" means, with respect to any Person, any corporation, limited liability company, partnership, association, or business entity of which (i) if a corporation, a majority of the total voting power of shares of stock entitled (without regard to the occurrence of any contingency) to vote in the election of directors, managers, or trustees thereof is at the time owned or controlled, directly or indirectly, by that Person or one or more of the other Subsidiaries of that Person or a combination thereof, or (ii) if a limited liability company, partnership, association, or other business entity (other than a corporation), a majority of partnership or other similar ownership interest thereof is at the time owned or controlled, directly or indirectly, by that Person or one or more Subsidiaries of that Person or a combination thereof. For purposes hereof, a Person or Persons shall be deemed to have a majority ownership interest in a limited liability company, partnership, association, or other business entity (other than a corporation) if such Person or Persons shall be allocated a majority of limited liability company, partnership, association, or other business entity gains or losses or shall be or control any managing director or general partner of such limited liability company, partnership, association, or other business entity. For purposes hereof, references to a "Subsidiary" of any Person shall be given effect only at such times that such Person has one or more Subsidiaries, and, unless otherwise indicated, the term "Subsidiary" refers to a Subsidiary of the Company.

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AGREED TO AND ACCEPTED BY:
Executive
/s/ Terry Hammons

Date: September 1, 2022

SOTERA HEALTH COMPANY
/s/ Michael B. Petras, Jr.

Name: Michael B. Petras, Jr.
Title: Chairman and Chief Executive Officer

EXHIBIT A

GENERAL RELEASE

I, Terry Hammons, in consideration of and subject to the performance by Sotera Health Company (together with its Subsidiaries (as defined in the Agreement), the "Company"), of its obligations under the Separation and Release Agreement dated as of August 31, (the "Agreement"), do hereby release and forever discharge as of the date hereof the Company and each its respective Affiliates (as defined in the Agreement), and all present and former directors, officers, agents, representatives, employees, successors and assigns of the Company and each of its respective Affiliates and the Company's direct and indirect owners (collectively, the "Released Parties") to the extent provided below.

1. I understand that any payments or benefits paid or granted to me under Section 2 of the Agreement represent, in part, consideration for signing this General Release and are not salary, wages or benefits to which I was already entitled. I understand and agree that I will not receive the payments and benefits specified in Section 2 of the Agreement unless I execute this General Release and do not revoke this General Release within the time period permitted hereafter or breach this General Release. I also acknowledge and represent that I have received all payments and benefits that I am entitled to receive (as of the date hereof) by virtue of my employment with the Company.

2. I acknowledge and agree that pursuant to the terms of the Company's 2020 Omnibus Incentive Plan (the "Omnibus Plan") and the award agreements granting Restricted Stock Units and Stock Options (each as defined in the Omnibus Plan) to me on November 11, 2021 and on March 2, 2022, on the Date of Separation (as defined in the Agreement) I shall forfeit and have no further right to 31,257 Restricted Stock Units and 95,147 Stock Options.

3. Except as provided in Section 5 below and except for the provisions of the Agreement which expressly survive the termination of my employment with the Company, I knowingly and voluntarily (for myself, my heirs, beneficiaries, personal representatives, executors, administrators, successors and assigns) release, waive and forever discharge the Company and the other Released Parties from any and all claims, suits, rights, controversies, actions, causes of action, cross-claims, counter-claims, demands, debts, compensatory damages, liquidated damages, punitive or exemplary damages, other damages, claims for costs and attorneys' fees, or liabilities of any nature whatsoever in law and in equity, both past and present (through the date this General Release becomes effective and enforceable) and whether known or unknown, suspected, or claimed against the Company or any of the Released Parties which I, my spouse, or any of my heirs, beneficiaries, personal representatives, executors, administrators, successors or assigns, may have, which arise out of or are connected with my employment with, or my separation or termination from, the Company (including, but not limited to, any allegation, claim or violation, arising under: Title VII of the Civil Rights Act of 1964, as amended; the Civil Rights Act of 1991; the Age Discrimination in Employment Act of 1967, as amended (including the Older Workers Benefit Protection Act); the Equal Pay Act of 1963, as amended; the Americans with Disabilities Act of 1990; the Rehabilitation Act of 1973; the Consolidated Omnibus Budget Reconciliation Act (COBRA); the Family and Medical Leave Act of 1993; the False Claims Act; the Worker Adjustment Retraining and Notification Act; the Employee Retirement Income Security Act of 1974; the National Labor Relations Act; the Labor Management Relations Act; the Labor Management Reporting and Disclosure Act; any applicable Executive Order Programs; the Fair Labor Standards Act; all amendments to such Acts or their state or local counterparts; or under any other federal, state or local civil or human rights law, or under any other local, state, or federal law, regulation or ordinance; or under any public policy, contract or tort, or under common law; or arising under any policies, practices or procedures of the Company; or any

claim for constructive or wrongfuldischarge, breach of contract, infliction of emotional distress, defamation; or any claim for costs, debts, sums of money, wages, salary, severance pay, vacation pay, sick pay, losses, penalties, damages, including damages for pain and suffering and emotional harm, fees, or other expenses, including attorneys' fees incurred in these matters) (all of the foregoing are collectively referred to herein as the "Claims"). I acknowledge that I am releasing claims based on age, race, color, sex, sexual orientation or preference, marital status, religion, national origin, citizenship, veteran status, disability and any other legally protected categories. I further acknowledge and agree that the existence of this Agreement shall be a valid, lawful, nondiscriminatory and non-retaliatory basis for the rejection of any future application by me to work for or render services to the Company or any of its Affiliates.

4. I represent that I have made no assignment or transfer of any right, claim, demand, cause of action or other matter covered by Section 3 above. I further represent and warrant to the Company that I shall not encourage or solicit or voluntarily assist or participate in any way in the filing, reporting or prosecution by me or any third party of a proceeding or Claim against the Company based upon or relating to any Claim released by me in this Agreement, unless expressly allowed by Section 5. If any court has or assumes jurisdiction of any action against the Company or any of its affiliates on my behalf, I will request that court to withdraw from or dismiss the matter with prejudice.

5. I agree that this General Release does not waive or release any Claims (i) challenging that my waiver of any and all claims under the Age Discrimination in Employment Act of 1967 pursuant to this General Release is a knowing and voluntary waiver, (ii) to bring to the attention of the Equal Employment Opportunity Commission claims of discrimination; provided, however, that I do release my right to secure any damages for alleged discriminatory treatment, (iii) for accrued benefits earned and vested as of my separation from employment under an employee benefit plan maintained by any Released Party and governed by the Employee Retirement Income Security Act, including any claim to continued health coverage under COBRA and (iv) that cannot be released as a matter of law.

6. In signing this General Release, I acknowledge and intend that it shall be effective as a bar to each and every one of the Claims hereinabove mentioned or implied. I expressly consent that this General Release shall be given full force and effect according to each and all of its express terms and provisions, including those relating to unknown and unsuspected Claims (notwithstanding any state statute that expressly limits the effectiveness of a general release of unknown, unsuspected and unanticipated Claims), if any, as well as those relating to any other Claims hereinabove mentioned or implied. I acknowledge and agree that this waiver is an essential and material term of this General Release and that without such waiver the Company would not have agreed to the terms of the Agreement. I further agree that in the event I should bring a Claim seeking damages against the Company, or in the event I should seek to recover against the Company in any Claim brought by a governmental agency on my behalf, this General Release shall serve as a complete defense to such Claims. I further agree that I am not aware of any pending charge or complaint of the type described in Section 3 above as of the execution of this General Release and that I have not filed, directly or indirectly, caused or permitted to be filed any pending proceeding (nor have I lodged a complaint with any governmental or quasi-governmental authority) against the Company in any forum, nor have I agreed to do any of the foregoing. I further represent and warrant that I am not aware of or have already fully disclosed in writing to a member of the Company's legal department (other than the Company's General Counsel) any information that could give rise to a claim or cause of action by me or any other person or entity against the Company and the other Released Parties, including without limitation any knowledge of fraud or suspected fraud, overpayments or suspected overpayments, false or misleading statements or suspected false or misleading statements, improper or erroneous financial

reporting, violations or suspected violations of any law or regulation, or other irregularities, or any violations of Company policies, procedures, or the Company's Global Code of Conduct.

7. I agree that neither this General Release, nor the furnishing of the consideration for this General Release, shall be deemed or construed at any time to be an admission by the Company, any Released Party or myself of any improper or unlawful conduct. Neither this Agreement nor any of its terms shall be used as an admission or introduced as evidence as to any issue of law or fact in any proceeding, suit or action, other than an action to enforce this Agreement.

8. Except as prohibited by applicable law, I agree that I will forfeit all amounts payable by the Company pursuant to the Agreement if I challenge the validity of this General Release. I also agree that if I violate this General Release by suing the Company or the other Released Parties, I will pay all costs and expenses of defending against the suit incurred by the Released Parties, including reasonable attorneys' fees, and return all payments received by me pursuant to the Agreement.

9. I agree that this General Release is confidential and agree not to disclose any information regarding the terms of this General Release, except to my immediate family and any tax, legal or other counsel I have consulted regarding the meaning or effect hereof or as required by law, and I will instruct each of the foregoing not to disclose the same to anyone.

10. Notwithstanding anything herein to the contrary, nothing in this General Release shall (i) prohibit me from making reports of possible violations of federal law or regulation to any governmental agency or entity in accordance with the provisions of and rules promulgated under Section 21F of the Securities Exchange Act of 1934, as amended, or Section 806 of the Sarbanes-Oxley Act of 2002, or of any other whistleblower protection provisions of federal or state law or regulation, or (ii) require notification or prior approval by the Company of any reporting described in provision (i). I am not authorized to disclose communications with counsel that were made for the purpose of receiving legal advice or that contain legal advice or that are protected by the attorney work product or similar privilege. Furthermore, I shall not be held criminally or civilly liable under any federal or state trade secret law for the disclosure of a trade secret that is made (1) in confidence to a federal, state or local government official, either directly or indirectly, or to an attorney, in each case, solely for the purpose of reporting or investigating a suspected violation of law or (2) in a complaint or other document filed in a lawsuit or proceeding, if such filings are made under seal.

11. Notwithstanding anything herein to the contrary, nothing in this General Release shall preclude me from filing a charge or participating in any manner in an investigation, hearing or proceeding before any federal, state, or local government agency or assisting or having assisted others in doing so but I hereby waive, to the extent permitted by law, any and all rights to recover under, or by virtue of, any such investigation, hearing or proceeding filed by me or by anyone else on my behalf.

12. Any non-disclosure provision in this General Release does not prohibit or restrict me (or my attorney) from responding to any inquiry about this General Release or its underlying facts and circumstances by the Securities and Exchange Commission (SEC), the National Association of Securities Dealers, Inc. (NASD) or any other self-regulatory organization, or any governmental entity.

13. I agree that as of the date hereof, I have returned to the Company any and all property, tangible or intangible, relating to its business, which I possessed or had control over at any time (including, but not limited to, company-provided credit cards, building or office access cards, keys, computer equipment, manuals, files, documents, records, software, customer data base and other data) and that I

shall not retain any copies, compilations, extracts, excerpts, summaries or other notes of any such manuals, files, documents, records, software, customer data base or other data.

14. Notwithstanding anything in this General Release to the contrary, this General Release shall not relinquish, diminish, or in any way affect any rights or claims arising out of any breach by the Company or by any Released Party of the Agreement after the date hereof.

15. I agree and acknowledge that this General Release shall be governed by Delaware law. Whenever possible, each provision of this General Release shall be interpreted in, such manner as to be effective and valid under applicable law, but if any provision of this General Release is held to be invalid, illegal or unenforceable in any respect under any applicable law or rule in any jurisdiction, such invalidity, illegality or unenforceability shall not affect any other provision or its validity and enforceability in any other jurisdiction, but this General Release shall be reformed, construed and enforced in such jurisdiction as if such invalid, illegal or unenforceable provision had never been contained herein

BY SIGNING THIS GENERAL RELEASE, I REPRESENT AND AGREE THAT:

(i) I HAVE READ IT CAREFULLY;

(ii) I UNDERSTAND ALL OF ITS TERMS AND KNOW THAT I AM GIVING UP IMPORTANT RIGHTS, INCLUDING BUT NOT LIMITED TO, RIGHTS UNDER THE AGE DISCRIMINATION IN EMPLOYMENT ACT OF 1967, AS AMENDED, TITLE VII OF THE CIVIL RIGHTS ACT OF 1964, AS AMENDED; THE EQUAL PAY ACT OF 1963, THE AMERICANS WITH DISABILITIES ACT OF 1990; AND THE EMPLOYEE RETIREMENT INCOME SECURITY ACT OF 1974, AS AMENDED;

(iii) I VOLUNTARILY CONSENT TO EVERYTHING IN IT;

(iv) I HAVE BEEN ADVISED TO CONSULT WITH AN ATTORNEY BEFORE EXECUTING IT AND I HAVE DONE SO OR, AFTER CAREFUL READING AND CONSIDERATION, I HAVE CHOSEN NOT TO DO SO OF MY OWN VOLITION;

(v) I HAVE HAD AT LEAST 21 DAYS FROM THE DATE OF MY RECEIPT OF THIS RELEASE SUBSTANTIALLY IN ITS FINAL FORM ON _____, _____TO CONSIDER IT, AND THE CHANGES MADE SINCE THE _____, _____ VERSION OF THIS RELEASE ARE NOT MATERIAL AND WILL NOT RESTART THE REQUIRED 21-DAY PERIOD;

(vi) THE CHANGES TO THE AGREEMENT SINCE _____, ____ EITHER ARE NOT MATERIAL OR WERE MADE AT MY REQUEST.

(vii) I UNDERSTAND THAT I HAVE SEVEN DAYS AFTER THE EXECUTION OF THIS RELEASE TO REVOKE IT AND THAT THIS RELEASE SHALL NOT BECOME EFFECTIVE OR ENFORCEABLE UNTIL THE REVOCATION PERIOD HAS EXPIRED;

(viii) I HAVE SIGNED THIS GENERAL RELEASE KNOWINGLY AND VOLUNTARILY AND WITH THE ADVICE OF ANY COUNSEL RETAINED TO ADVISE ME WITH RESPECT TO IT; AND

(ix) I AGREE THAT THE PROVISIONS OF THIS GENERAL RELEASE MAY NOT BE AMENDED, WAIVED, CHANGED OR MODIFIED EXCEPT BY AN INSTRUMENT IN WRITING SIGNED BY AN AUTHORIZED REPRESENTATIVE OF THE COMPANY AND BY ME.

Date: October 1, 2022

/s/ Terry Hammons

Terry Hammons

Exhibit 31.1

CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER

PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Michael B. Petras, Jr., certify that:

1. I have reviewed this quarterly report on Form 10-Q of Sotera Health Company;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

    (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

    (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

    (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

    (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

    (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

    (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: November 2, 2022

/s/ Michael B. Petras, Jr.

Michael B. Petras, Jr.

Chairman and Chief Executive Officer

(Principal Executive Officer)

Exhibit 31.2

CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER

PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Michael F. Biehl, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Sotera Health Company;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

    (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

    (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

    (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

    (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):

    (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

    (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: November 2, 2022

/s/ Michael F. Biehl

Michael F. Biehl

Interim Chief Financial Officer

(Principal Financial Officer)

Exhibit 32.1

CERTIFICATIONS OF PRINCIPAL EXECUTIVE OFFICER AND PRINCIPAL FINANCIAL OFFICER

PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

Pursuant to section 906 of the Sarbanes-Oxley Act of 2002 (subsections (a) and (b) of Section 1350, Chapter 63 of Title 18, United States Code), each of the undersigned officers of Sotera Health Company (the "Company"), do hereby certify, to each such officer's knowledge, that the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2022 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and information contained in the Form 10-Q fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: November 2, 2022

/s/ Michael B. Petras, Jr.
Michael B. Petras, Jr.
Title: Chairman and Chief Executive Officer
(Principal Executive Officer)

Dated: November 2, 2022

/s/ Michael F. Biehl
Michael F. Biehl
Title: Interim Chief Financial Officer
(Principal Financial Officer)

The foregoing certifications are furnished and are not deemed filed with the Securities and Exchange Commission for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (Exchange Act), and are not deemed to be incorporated by reference into any filing of Sotera Health Company under the Securities Act of 1933, as amended, or the Exchange Act, except to the extent that Sotera Health Company specifically incorporates them by reference.