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

FORM 10-Q

☒ **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the quarterly period ended March 31, 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 No. 001-34220

3D SYSTEMS CORPORATION

(Exact name of Registrant as specified in its Charter)

Delaware	**95-4431352**
(State or Other Jurisdiction of Incorporation or Organization)	(I.R.S. Employer Identification No.)

333 Three D Systems Circle
Rock Hill, South Carolina 29730
(Address of Principal Executive Offices and Zip Code)

(Registrant's Telephone Number, Including Area Code): **(803) 326-3900**

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

Title of each class	Trading Symbol	Name of each exchange on which registered
Common Stock, par value $0.001 per share	DDD	New York Stock Exchange

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 ☒

APPLICABLE ONLY TO CORPORATE ISSUERS:

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date.
Shares of Common Stock, par value $0.001 per share, outstanding as of May 5, 2022: 130,337,955

3D SYSTEMS CORPORATION
Form 10-Q
For the Quarter Ended March 31, 2022

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PART I — FINANCIAL INFORMATION

Item 1. Financial Statements.

3D SYSTEMS CORPORATION
CONDENSED CONSOLIDATED BALANCE SHEETS

(In thousands, except par value)	March 31, 2022 (unaudited)	December 31, 2021
ASSETS		
Current assets:		
Cash and cash equivalents	$ 389,270	$ 789,657
Short-term investments	356,340	—
Accounts receivable, net of reserves — $3,464 and $2,445	100,341	106,540
Inventories	101,647	92,887
Prepaid expenses and other current assets	40,130	42,653
Total current assets	987,728	1,031,737
Property and equipment, net	54,827	57,257
Intangible assets, net	46,205	45,835
Goodwill	340,695	345,588
Right of use assets	44,440	46,356
Deferred income tax asset	4,548	5,054
Other assets	28,120	17,272
Total assets	$ 1,506,563	$ 1,549,099
LIABILITIES AND EQUITY		
Current liabilities:		
Current right of use liabilities	8,299	8,344
Accounts payable	57,347	57,366
Accrued and other liabilities	46,258	76,994
Customer deposits	5,314	7,281
Deferred revenue	33,020	28,027
Total current liabilities	150,238	178,012
Long-term debt, net of deferred financing costs	447,534	446,859
Long-term right of use liabilities	45,283	47,420
Deferred income tax liability	2,181	2,173
Other liabilities	34,451	32,254
Total liabilities	679,687	706,718
Commitments and contingencies (Note 14)		
Stockholders' equity:		
Common stock, $0.001 par value, authorized 220,000 shares; issued 130,365 and 128,375	130	128
Additional paid-in capital	1,519,242	1,501,210
Accumulated deficit	(648,050)	(621,251)
Accumulated other comprehensive loss	(44,446)	(37,706)
Total stockholders' equity	826,876	842,381
Total liabilities and stockholders' equity	$ 1,506,563	$ 1,549,099

See accompanying notes to condensed consolidated financial statements.

3D SYSTEMS CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(Unaudited)

(in thousands, except per share amounts)	Quarter Ended March 31, 2022	Quarter Ended March 31, 2021
Revenue:		
Products	$ 100,551	$ 93,648
Services	32,450	52,468
Total revenue	133,001	146,116
Cost of sales:		
Products	58,472	53,364
Services	20,734	28,512
Total cost of sales	79,206	81,876
Gross profit	53,795	64,240
Operating expenses:		
Selling, general and administrative	55,415	49,600
Research and development	21,612	16,599
Total operating expenses	77,027	66,199
Loss from operations	(23,232)	(1,959)
Interest and other (expense) income , net	(2,283)	38,853
(Loss) income before income taxes	(25,515)	36,894
(Provision) benefit for income taxes	(1,284)	8,334
Net (loss) income	$ (26,799)	$ 45,228
Net (loss) income per common share:		
Basic	$ (0.21)	$ 0.37
Diluted	$ (0.21)	$ 0.36
Weighted average shares outstanding:		
Basic	126,728	121,705
Diluted	126,728	125,070

See accompanying notes to condensed consolidated financial statements.

3D SYSTEMS CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE (LOSS) INCOME
(Unaudited)

(in thousands)	Quarter Ended March 31, 2022	Quarter Ended March 31, 2021
Net (loss) income	$ (26,799)	$ 45,228
Other comprehensive (loss) income , net of taxes:		
Pension adjustments	101	181
Derivative financial instruments	—	721
Foreign currency translation	(3,346)	(25,609)
Unrealized loss on short-term investments	(3,495)	—
Foreign currency translation reclassification - sale of Cimatron	—	6,481
Total other comprehensive (loss), net of taxes	(6,740)	(18,226)
Total comprehensive (loss) income , net of taxes	$ (33,539)	$ 27,002

See accompanying notes to condensed consolidated financial statements.

3D SYSTEMS CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(Unaudited)

(in thousands)	Quarter Ended March 31, 2022	Quarter Ended March 31, 2021
Cash flows from operating activities:		
Net (loss) income	$ (26,799)	$ 45,228
Adjustments to reconcile net (loss) income to net cash (used in) provided by operating activities:		
Depreciation and amortization	9,147	9,102
Stock-based compensation	12,658	11,050
Unrealized gain on exchange rate	(439)	—
Provision for inventory obsolescence and revaluation	(517)	—
Loss on hedge accounting de-designation and termination	—	721
Provision for bad debts	1,076	(142)
Loss (Gain) on the disposition of businesses, property, equipment and other assets	137	(39,401)
Provision (benefit) for deferred income taxes and reserve adjustments	466	(8,889)
Asset impairment	40	—
Changes in operating accounts:		
Accounts receivable	3,173	15,941
Inventories	(8,822)	2,699
Prepaid expenses and other current assets	2,225	(2,303)
Accounts payable	277	1,665
Deferred revenue and customer deposits	1,901	1,552
Accrued and other liabilities	(8,679)	(17,491)
All other operating activities	(969)	8,721
Net cash (used in) provided by operating activities	(15,125)	28,453
Cash flows from investing activities:		
Purchases of property and equipment	(4,079)	(3,878)
Purchases of short-term investments	(366,005)	—
Sales and maturities of short-term investments	6,170	—
Proceeds from sale of assets and businesses, net of cash	—	54,747
Acquisitions and other investments, net	(9,335)	—
Other investing activities	40	(306)
Net cash (used in) provided by investing activities	(373,209)	50,563
Cash flows from financing activities:		
Repayment of borrowings/long-term debt	—	(21,392)
Purchase of noncontrolling interest	(2,300)	(4,000)
Payments related to net-share settlement of stock-based compensation	(10,052)	(2,749)
Other financing activities	(166)	(196)
Net cash used in financing activities	(12,518)	(28,337)
Effect of exchange rate changes on cash, cash equivalents and restricted cash	464	(2,434)
Net (decrease) increase in cash, cash equivalents and restricted cash	(400,388)	48,245
Cash, cash equivalents and restricted cash at the beginning of the period[a]	789,970	84,711
Cash, cash equivalents and restricted cash at the end of the period[a]	$ 389,582	$ 132,956

a. The amounts for cash and cash equivalents shown above include restricted cash of $312 and $516 as of March 31, 2022 and 2021, respectively, and $312 as of December 31, 2021. respectively, which were included in prepaid expenses and other assets on the condensed consolidated balance sheet.

See accompanying notes to condensed consolidated financial statements.

3D SYSTEMS CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(Unaudited)

	Quarters Ended March 31, 2022 and 2021					
	Common Stock					
(in thousands, except par value)	Par Value $0.001	Additional Paid In Capital	Treasury Stock	Accumulated Deficit	Accumulated Other Comprehensive Income (Loss)	Total Stockholders' Equity
December 31, 2021	$ 128	$ 1,501,210	$ —	$ (621,251)	$ (37,706)	$ 842,381
Payments related to net-share settlement of stock-based compensation	2	(8,696)	—	—	—	(8,694)
Stock-based compensation expense	—	26,728	—	—	—	26,728
Net loss	—	—	—	(26,799)	—	(26,799)
Pension adjustment	—	—	—	—	101	101
Unrealized loss on short-term investments	—	—	—	—	(3,495)	(3,495)
Foreign currency translation adjustment	—	—	—	—	(3,346)	(3,346)
March 31, 2022	$ 130	$ 1,519,242	$ —	$ (648,050)	$ (44,446)	$ 826,876
December 31, 2020	$ 128	$ 1,404,964	$ (22,590)	$ (943,303)	$ (8,476)	$ 430,723
Payments related to net-share settlement of stock-based compensation	—	(2,749)	—	—	—	(2,749)
Stock-based compensation expense	—	7,157	—	—	—	7,157
Net income	—	—	—	45,228	—	45,228
Pension adjustment	—	—	—	—	181	181
Termination of derivative instrument	—	—	—	—	721	721
Retirement of treasury shares	(2)	(12,096)	12,098	—	—	—
Foreign currency translation adjustment	—	—	—	—	(19,128)	(19,128)
March 31, 2021	$ 126	$ 1,397,276	$ (10,492)	$ (898,075)	$ (26,702)	$ 462,133

See accompanying notes to condensed consolidated financial statements.

3D SYSTEMS CORPORATION
NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

(1) Basis of Presentation

The accompanying unaudited condensed consolidated financial statements include the accounts of 3D Systems Corporation and all majority-owned subsidiaries and entities in which a controlling interest is maintained ("3D Systems" or the "Company" or "we," "our," or "us"). All significant intercompany transactions and balances have been eliminated in consolidation.

The unaudited condensed consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States ("GAAP") and the rules and regulations of the Securities and Exchange Commission ("SEC") applicable to interim reports. Accordingly, they do not include all the information and notes required by GAAP for complete financial statements and should be read in conjunction with the audited financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2021 ("2021 Form 10-K"). Our annual reporting period is the calendar year.

In the opinion of management, the unaudited condensed consolidated financial statements contain all adjustments, consisting of adjustments of a normal recurring nature, necessary to present fairly the financial position, results of operations and cash flows for the periods presented. The results of operations for the quarter ended March 31, 2022 are not necessarily indicative of the results to be expected for the full year. The preparation of financial statements in accordance with GAAP requires management to make estimates and assumptions that affect the amounts reported in the financial statements. Actual results may differ from those estimates and assumptions.

In March 2020, the World Health Organization declared the outbreak of coronavirus ("COVID-19") a global pandemic. The COVID-19 pandemic has negatively impacted the global economy, disrupted global supply chains, and created significant volatility and disruption of financial markets. These factors have resulted in inflationary and cost pressures that have significantly increased, and continue to adversely impact, our production and distribution costs, including costs of spare parts and materials, packaging materials, and freight. We are also experiencing pressure on our supply chain due to shutdowns in China, strained transportation capacity, lack of sufficient labor availability, and manufacturing backlogs. In addition, the invasion of Ukraine by Russia in early 2022 has led to further economic disruption. While we do not operate in Ukraine and while our operations in Russia are not material, the conflict has exacerbated inflationary cost pressures and supply chain constraints which have negatively impacted the global economy and our business.

Due to the COVID-19 pandemic, our affiliates, employees, suppliers, customers and others have been and may continue to be restricted or prevented from conducting normal business activities, including as a result of shutdowns, travel restrictions and other actions that may be requested or mandated by governmental authorities. We have reopened our offices and begun business travel, with safety measures in place and in accordance with local guidance. Additionally, we implemented a hybrid-work program globally, providing more flexibility for employees to work remotely. We continue to monitor local transmission rates and regulatory guidance, and remain committed to protecting our employees, delivering for our customers, and supporting our communities.

While the COVID-19 pandemic and other factors impacting the current economic environment continued to impact our reported results for the years ended December 31, 2021 and 2020, as well as the quarter ended March 30, 2022, we are unable to predict the longer-term impact that these factors may have on our business, results of operations, financial position or cash flows. The extent to which our operations may be impacted will depend largely on future developments, which are highly uncertain and cannot be accurately predicted, including the severity or resurgence of a COVID-19 outbreak, actions by government authorities to contain an outbreak or treat its impact, actions by government authorities to address inflationary and cost pressures, and the severity, length and potential expansion of the conflict in Ukraine. The impacts of these uncertain global economic and geopolitical conditions could result in further supply chain disruptions, including the shortages of critical components, and continued disruptions to, and volatility in, the financial markets. Recent events surrounding the global economy, geopolitics, and the COVID-19 pandemic continue to evolve. Although we believe that we will ultimately emerge from these events well positioned for long-term growth, uncertainties remain and, as such, we cannot reasonably estimate the duration or extent of these adverse factors on our business, results of operations, financial position or cash flows.

Our operations in North America and South America (collectively referred to as ("Americas"), Europe and the Middle East (collectively referred to as "EMEA") and the Asia Pacific and Oceania regions (collectively referred to as "APAC") expose us to risks associated with public health crises and epidemics/pandemics, such as the COVID-19 pandemic. While the COVID-19 pandemic continued to impact our reported results for the quarter ended in March 31, 2022 and 2021, we are unable to predict the longer-term impact that the pandemic may have on our business, results of operations, financial position or cash flows. The extent to which our operations may be impacted by the dynamic nature of the COVID-19 pandemic will depend largely on future developments, which are highly uncertain and cannot be accurately predicted, including the severity or resurgence of the outbreak and actions by government authorities to contain the outbreak or treat its impact. Furthermore, the impacts of uncertain global economic conditions, further supply chain disruptions, including the shortages of critical components, and the continued disruptions to, and volatility in, the financial markets remain unknown.

As of January 1, 2021, we determined the Company has two reportable segments, Healthcare and Industrial. The Company previously only reported its consolidated results in one segment. This change in segment reporting as of January 1, 2021 was the result of changes to how the chief operating decision maker (“CODM”) assesses the financial performance of the Company and in the decision-making process driving future operating performance. As a result of this re-segmentation, the Company performed a quantitative analysis for potential impairment of our goodwill immediately following the re-segmentation. Based on available information and analysis as of January 1, 2021, we determined the fair value of the Healthcare and Industrial reporting units exceeded their carrying values.

Fair value was determined using a combination of an income approach, which estimates fair value based upon projections of future revenues, expenses, and cash flows discounted to its present value, and a market approach. The valuation methodology and underlying financial information included in the Company's determination of fair value required significant judgments by management. The principal assumptions used in the Company's discounted cash flow analysis consisted of (a) the long-term projections of future financial performance and (b) the weighted-average cost of capital of market participants, adjusted for the risk attributable to the Company and the industry in which it operates. Under the market approach, the principal assumption included an estimate for a control premium.

All dollar amounts presented in the accompanying footnotes are presented in thousands, except for per share information. All other amounts are as stated.

During the fourth quarter ended December 31, 2021, we became aware that certain amounts related to the purchase of non-controlling interests previously presented as investing cash outflows should have been reported as financing cash outflows within the statements of cash flows. The error affected the previously issued statements of cash flows for the three, six and nine month periods within the December 31, 2021 and 2020 annual periods as well as the annual periods ended December 31, 2020 and 2019. We note that this change did not impact the as reported net increase (decrease) in cash, cash equivalents and restricted cash within the annual 2020 and 2019 statements of cash flows or the interim statements of cash flows for the years ended December 31, 2021 and 2020. We further note that this reclassification did not affect our balance sheet, statements of operations, statements of comprehensive income (loss) and statements of stockholders' equity. We evaluated the materiality, including both quantitative and qualitative considerations, of this presentation-only error and concluded it was not material to any previously reported quarter or year-end financial statement. The following schedule depicts the effect on our previously reported interim statement of cash flows for the three months ended March 31, 2021.

	Three Months Ended March 31, 2021		
	As Reported	Changed	Revised
Net cash provided by operating activities	$ 28,453	$ —	$ 28,453
Net cash provided by investing activities	46,563	4,000	50,563
Net cash (used in) financing activities	(24,337)	(4,000)	(28,337)
Effect of exchange rate changes on cash, cash equivalents and restricted cash	(2,434)	—	(2,434)
Net increase in cash, cash equivalents and restricted cash	$ 48,245	$ —	$ 48,245

Summary of Significant Accounting Policies

In the first quarter of 2022, we invested a portion of our excess cash in short-term investments. Our short-term investment accounting policy is that securities with maturities greater than 90 days at the time of purchase that are available for operations in the next 12 months are classified as short-term investments. The Company's short-term investments primarily consist of investment grade bonds with a remaining maturity of less than twelve months at the date of purchase, certificates of deposit and short maturity bond funds and are classified as available for sale. Interest and dividends on these investments are recorded into income when earned.

All other significant accounting policies described in the Form 10-K for the year ended December 31, 2021 remain unchanged.

Recently Adopted Accounting Standards

In October 2021, the Financial Accounting Standard Board ("FASB") issued ASU 2021-08, "Business Combinations (Topic 805) - Accounting for Contract Assets and Contract Liabilities from Contracts with Customers", which amends ASC 805 to add contract assets and contract liabilities to the list of exceptions to the recognition and measurement principles that apply to business combinations and to "require that an entity (acquirer) recognize and measure contract assets and contract liabilities acquired in a business combination in accordance with Topic 606." While primarily related to contract assets and contract liabilities that were accounted for by the acquiree in accordance with ASC 606, "the amendments also apply to contract assets and contract liabilities from other contracts to which the provisions of Topic 606 apply, such as contract liabilities from the sale of nonfinancial assets within the scope of Subtopic 610-20." For public business entities, the amendments in this Update are effective for fiscal years beginning after December 15, 2022, including interim periods within those fiscal years. Early adoption of the amendments is permitted. The Company early adopted this standard in the first quarter of 2022, and it did not have an impact on the results of operations, cash flows or financial position.

(2) Dispositions and Acquisitions

Dispositions

There have been no dispositions for the quarter ended March 31, 2022.

On September 2021, we completed the sale of the Company's On Demand Manufacturing business ("ODM") for $82,000, excluding certain adjustments. We recorded a gain on the sale of $38,490 included within Interest and other income (expense), net on the accompanying consolidated statements of operations for the year ended December 31, 2021. ODM was primarily included within the Industrial segment. At closing, the Company and the purchaser entered into a supply agreement and a transition services agreement pursuant to which the Company will provide certain information technology, corporate finance, tax, treasury, accounting, human resources and payroll, sales and marketing, operations, facilities and other customary services to support the purchaser in the ongoing operation of ODM for a period of time post-closing.

On August 24, 2021, we completed the sale of 100% of the issued and outstanding equity interests of Simbionix USA Corporation, which owned our global medical simulation business ("Simbionix"), for $305,000, excluding certain closing adjustments and excluding $6,794 of cash transferred to the purchaser. We recorded a gain on the sale of $271,404 included within Interest and other income (expense), net on the accompanying consolidated statements of operations for the year ended December 31, 2021. Additionally, we recognized a gain of $2,431 for accumulated foreign currency translation gain previously included in Accumulated other comprehensive loss ("AOCL"), which is included within Interest and other income (expense), net, for the year ended December 31, 2021. Simbionix was included within the Healthcare segment. .

On January 1, 2021, we completed the sale of 100% of the issued and outstanding equity interests of Cimatron Ltd. ("Cimatron"), the subsidiary that operated the Company's Cimatron integrated CAD/CAM software for tooling business and its GibbsCAM CNC programming software business, for approximately $64,173, after certain adjustments and excluding $9,476 of cash amounts transferred to the purchaser. We recorded a gain on the sale of $32,047 included within Interest and other income (expense), net on the accompanying condensed consolidated statements of operations for the three months ended March 31, 2021. Additionally, at the time of the sale, we recognized a gain of $6,481 for accumulated foreign currency translation gain previously included in AOCL, which is included within Interest and other income (expense), net for the three months ended March 31, 2021. Cimatron would have been included within the Industrial segment.

Acquisitions/Investments

In March 2022, we and the Saudi Arabian Industrial Investments Company ("Dussur") signed an agreement to form a joint venture intended to expand the use of additive manufacturing within the Kingdom of Saudi Arabia and surrounding geographies, including the Middle East and North Africa. The joint venture is to enable the development of Saudi Arabia's domestic additive manufacturing production capabilities, consistent with the Kingdom's 'Vision 2030,' which is focused on diversification of the economy and long-term sustainability. Once the joint venture is formed, 3D Systems will own approximately 49% and is committed to an initial investment of about $6,500. Additional future investments are contingent upon achievement of certain milestones by the joint venture. The expected impacts on the Company's financial position, results of operations and cash flows are not material other than the cash outflow(s) related to the initial and contingent investments.

In March 2022, we made a $10,000 investment for an approximate 26.6% ownership in Enhatch Inc. ("Enhatch") the developer of the Intelligent Surgery Ecosystem and simultaneously entered into a collaboration and supply agreement with Enhatch. We also obtained warrants to purchase additional shares of Enhatch and the right to purchase, in the future, the remaining shares of Enhatch that 3D Systems does not own if certain revenue targets are achieved. Enhatch's Intelligent Surgery Ecosystem provides technologies which streamline and scale the design and delivery of patient-specific medical devices by automating the process. Incorporating these capabilities into 3D Systems' workflow for patient-specific solutions—which includes advanced software, expert treatment planning services, custom implants and instrumentation design, and industry-leading production processes—will help more efficiently meet the growing demand for personalized medical devices. The expected impacts on the Company's financial position, results of operations and cash flows are not material. The investment, including the call option and warrants, is recorded in Other Assets on the consolidated balance sheet and the fair value of each in total approximates the initial investment value. The fair value is considered level 3 based on the fair value hierarchy.

In May 2021, we purchased Allevi, Inc. to expand regenerative medicine initiatives into medical and pharmaceutical research and development laboratories. Additionally, in June 2021, we closed the acquisition of a German software firm, Additive Works GmbH ("Additive"). Additive expands the simulation capabilities for rapid optimization of industrial-scale 3D printing processes. The purchase price for both acquisitions, individually and combined, and the impacts to the Company's financial position, results of operations and cash flows were not material.

In November 1, 2021, we acquired Oqton, Inc. ("Oqton"), for $187,482, excluding customary closing adjustments, of which $106,785 was paid in cash and the remainder was paid via the issuance of 2,553 shares of the Company's common stock having a fair value at the date of issuance of $80,697. The acquisition's near term impact on the Company's results of operations and cash flows are expected to be dilutive. Oqton's operating results are reported in the Industrial segment. We incurred approximately $1,780 of acquisition related expenses.

Oqton is a software company that creates an intelligent, cloud-based Manufacturing Operating System (MOS) platform tailored for flexible production environments that increasingly utilize a range of advanced manufacturing and automation technologies, including additive manufacturing solutions, in their production workflows. The cloud-based solution leverages the Industrial Internet of Things, artificial intelligence, and machine learning technologies to deliver a solution for customers to automate their digital manufacturing workflows, scale their operations and enhance their competitive position. The Oqton acquisition will allow the Company to expand its existing additive manufacturing software suite to the entire additive industry.

We accounted for the acquisition of Oqton using the acquisition method as prescribed by Accounting Standards Codification ("ASC") 805, "Business Combinations". In accordance with valuation methodologies described in ASC 820, "Fair Value Measurement", the acquired assets and assumed liabilities were recorded at their estimated fair values as of the date of the Oqton acquisition.

Shown below is an updated preliminary purchase price allocation, which summarizes the fair value of the assets and liabilities assumed, at the date of acquisition:

(in thousands)				
Current assets, including cash acquired of $3,454			$	8,344
Intangible assets:				
Product technology	$	12,600		
Trade name		7,300		
Total intangible assets				19,900
Goodwill				165,611
Other assets				760
Liabilities:				
Accounts payable and accrued liabilities	$	6,643		
Deferred revenue		490		
Total liabilities				7,133
Net assets acquired			$	187,482

On December 1, 2021, we acquired Volumetric Biotechnologies, Inc. ("Volumetric"), for $40,172 of which $24,814 was paid in cash and the remainder was paid via the issuance of 720 shares of the Company's common stock having a fair value on the date of issuance of $15,358. Additional payments of up to $355,000 are possible upon the attainment of seven non-financial milestones through December 31, 2030 and 2035 and the continued employment of certain key individuals from Volumetric. Any additional payments made will be paid approximately half in cash and half in shares of the Company's common stock. The additional payments are considered compensation expense which will be recorded ratably from the time a milestone is deemed probable of achievement to the estimated time of achievement. Any compensation expense recorded will be reversed if the milestone is no longer probable of achievement. Per reassessment as of March 31, 2022, one of the seven milestones is considered probable of achievement for which $1,990 of expense was recorded in the three months ended March 31, 2022. Volumetric is part of the Healthcare reporting unit and segment. The acquisition's near-term impact on the Company's results of operations and cash flows are expected to be dilutive. The impact of potential share issuance related to the achievement of milestones is not included in dilutive shares until the milestone is met. We incurred approximately $1,306 of acquisition related expenses.

Volumetric's mission is to develop the ability to manufacture human organs using bioprinting methods and the underlying technologies required to create these highly complex biological structures. With this acquisition, 3D Systems seeks to expand our capabilities and capacity in 3D printing related to bio-printing and regenerative medicine. Combining 3D Systems regenerative medicine group with Volumetric's highly complementary skill sets of biological expertise and cellular engineering is expected to accelerate our core regenerative medicine strategies which include the bio-printing of human organs, additional non-organ applications and bio-printing technologies for research labs.

We accounted for the acquisition of Volumetric, using the acquisition method as prescribed by ASC 805. In accordance with valuation methodologies described in ASC 820, the acquired assets and assumed liabilities were recorded at their estimated fair values as of the date of acquisition.

Shown below is the updated preliminary purchase price allocation, which summarizes the fair value of the assets and liabilities assumed, as of the date of the Volumetric acquisition:

(in thousands)				
Current assets, including cash acquired of $389			$	3,143
Intangible assets:				
Developed Technology	$	1,100		
Distributor Relationship		500		
Total intangible assets				1,600
Goodwill				37,659
Other assets				1,194
Liabilities:				
Accounts payable and accrued liabilities		3,424		
Total liabilities				3,424
Net assets acquired			$	40,172

As of March 31, 2022, the purchase price allocations for both Oqton and Volumetric are preliminary. The Company has performed a valuation of the fair market value of acquired assets and liabilities of both Oqton and Volumetric and continues to review and adjust the values. The Company is also reviewing the final closing balance sheets and may adjust the assets and liabilities based on its final review. The Company is also in the process of completing the final 2021 tax returns for both companies in order to determine the final tax positions, including net operating losses and any required valuation allowance. The final purchase price allocations will be completed when the Company has finished and reviewed the valuations, the acquired balance sheets and the pre-acquisition tax returns. The final allocations could differ materially from the updated preliminary allocations. The final allocations may include changes in allocations to acquired intangible assets, changes to assets and liabilities including but not limited to tax assets and liabilities, including deferred taxes, as well as goodwill. The estimated useful lives of acquired intangible assets are also preliminary.

Acquisitions of Noncontrolling Interests

As of December 31, 2018, the Company owned approximately 70% of the capital and voting rights of Easyway, a service bureau and distributor of 3D printing and scanning products in China. Approximately 65% of the capital and voting rights of Easyway were acquired on April 2, 2015, and an additional 5% of the capital and voting rights of Easyway were acquired on July 19, 2017 for $2,300. The remaining 30% of the capital and voting rights of Easyway were acquired on January 21, 2019 for $13,500 to be paid in installments over four years for which $2,300 and $4,000 were paid in the first three months of 2022 and 2021, respectively.

(3) Revenue

We account for revenue in accordance with ASC Topic 606, "*Revenue from Contracts with Customers*."

Performance Obligations

A performance obligation is a promise in a contract to transfer a distinct good or service to the customer and is the unit of account in ASC Topic 606. A contract's transaction price is allocated to each distinct performance obligation and recognized as revenue when, or as, the performance obligation is satisfied.

At March 31, 2022, we had $154,297 of outstanding performance obligations, comprised of deferred revenue, customer order backlog and customer deposits. We expect to recognize approximately 88.0% of deferred revenue as revenue within the next twelve months, an additional 9% by the end of 2023 and the remaining balance thereafter.

Revenue Recognition

Revenue is recognized when control of the promised products or services is transferred to customers in an amount that reflects the consideration we expect to receive in exchange for those products or services. We enter into contracts that can include various combinations of products and services, which are generally capable of being distinct and accounted for as separate performance obligations. Many of our contracts with customers include multiple performance obligations. For such arrangements, we allocate revenue to each performance obligation based on its relative stand-alone selling price ("SSP"). Revenue is recognized net of allowances for returns and any taxes collected from customers, which are subsequently remitted to governmental authorities. The amount of consideration received and revenue recognized may vary based on changes in marketing incentive programs offered to our customers. Our marketing incentive programs take many forms, including volume discounts, trade-in allowances, rebates and other discounts.

A majority of our revenue is recognized at the point in time when products are shipped or services are delivered to customers. Please see below for further discussion.

Hardware and Materials

Revenue from hardware and material sales is recognized when control has transferred to the customer, which typically occurs when the goods have been shipped to the customer, risk of loss has transferred to the customer and we have a present right to payment. In limited circumstances, when printer or other hardware sales include substantive customer acceptance provisions, revenue is recognized either when customer acceptance has been obtained, customer acceptance provisions have lapsed, or we have objective evidence that the criteria specified in the customer acceptance provisions have been satisfied.

Printers and certain other products include a warranty under which we provide maintenance for periods up to one year. For these initial product warranties, estimated costs are accrued at the time of the sale of the product. These cost estimates are established using historical information on the nature, frequency and average cost of claims for each type of printer or other product as well as assumptions about future activity and events. Revisions to expense accruals are made as necessary based on changes in these historical and future factors.

Software

We also market and sell software tools that enable our customers to capture and customize content using our printers, design optimization and simulation software, and reverse engineering and inspection software. Software does not require significant modification or customization and the license provides the customer with a right to use the software as it exists when made available. Revenue from these software licenses is recognized either upon delivery of the product or upon delivery of a key code which allows the customer to download the software. Customers may purchase post-sale support. Generally, the first year of post-sale support is included as part of the initial software sale but subsequent years are optional. This optional support is considered a separate obligation from the software and is deferred at the time of sale and subsequently recognized ratably over future periods.

Collaboration and Licensing Agreements

We enter into collaboration and licensing agreements with third parties. The nature of the activities to be performed and the consideration exchanged under the agreements varies on a contract-by-contract basis. We evaluate these agreements to determine whether they meet the definition of a customer relationship for which revenue is recorded. These contracts may contain multiple performance obligations and may contain fees for licensing, research and development services, contingent milestone payments upon the achievement of developmental contractual criteria and/or royalty fees based on the licensees' product revenue. We determine the revenue to be recognized for these agreements based on an evaluation of the distinct performance obligations, the identification and evaluation of material rights, the estimation of variable consideration and the determination of the pattern on transfer of control for each distinct performance obligation. The Company recognized $2,432 and $1,807 related to collaboration arrangements with customers for the quarters ended March 31, 2022 and 2021, respectively.

Services

We offer training, installation and non-contract maintenance services for our products. Additionally, we offer maintenance contracts customers can purchase at their option. For maintenance contracts, revenue is deferred at the time of sale based on the stand-alone selling prices of these services and costs are expensed as incurred. Deferred revenue is recognized ratably over the term of the maintenance period on a straight-line basis. Revenue from training, installation and non-contract maintenance services is recognized at the time of performance of the service.

We have also recently commenced selling software as a service whereby the customer has the right to access the software. Revenue is recognized ratably over the related subscription period as our performance obligation to provide access to the software is progressively fulfilled over the stated term of the contract.

ODM and healthcare service sales are included within services revenue and revenue is recognized upon shipment or delivery of the parts or performance of the service, based on the terms of the arrangement. We sold ODM in the third quarter of 2021. See Note 2.

Terms of Sale

Shipping and handling activities are treated as fulfillment costs rather than as an additional promised service. We accrue the costs of shipping and handling when the related revenue is recognized. Our incurred costs associated with shipping and handling are included in product cost of sales.

Credit is extended, and creditworthiness is determined, based on an evaluation of each customer's financial condition. New customers are generally required to complete a credit application and provide references and bank information to facilitate an analysis of creditworthiness. Customers with a favorable profile may receive credit terms that differ from our general credit terms. Creditworthiness is considered, among other things, in evaluating our relationship with customers with past due balances.

Our terms of sale generally provide payment terms that are customary in the countries where we transact business. To reduce credit risk in connection with certain sales, we may, depending upon the circumstances, require significant deposits, letters of credit or payment in full prior to shipment. For maintenance services, we either bill customers on a time-and-materials basis or sell maintenance contracts that provide for payment in advance on either an annual or other periodic basis.

Significant Judgments

Our contracts with customers often include promises to transfer multiple products and services to a customer. For such arrangements, we allocate revenues to each performance obligation based on its relative SSP.

Judgment is required to determine the SSP for each distinct performance obligation in a contract. For the majority of items, we estimate SSP using historical transaction data. We use a range of amounts to estimate SSP when we sell each of the products and services separately and need to determine whether there is a discount to be allocated based on the relative SSP of the various products and services. In instances where SSP is not directly observable, such as when the product or service is not sold separately, we determine the SSP using information that may include market conditions and other observable inputs.

In some circumstances, we have more than one SSP for individual products and services due to the stratification of those products and services by customers, geographic region or other factors. In these instances, we may use information such as the size of the customer and geographic region in determining the SSP.

The determination of SSP is a regular process and information is reviewed regularly in order to ensure SSP reflects the most current information or trends.

The nature of our marketing incentives may lead to consideration that is variable. Judgment is exercised at contract inception to determine the most likely outcome of the contract and resulting transaction price. Ongoing assessments are performed to determine if updates are needed to the original estimates.

Contract Balances

The timing of revenue recognition, billings and cash collections results in billed accounts receivable, unbilled receivables (contract assets), customer deposits and deferred revenues (contract liabilities) on the condensed consolidated balance sheets. Timing of revenue recognition may differ from the timing of invoicing to customers. We record a receivable when revenue is recognized at the time of invoicing, or unbilled receivables when revenue is recognized prior to invoicing. For most of our contracts, customers are invoiced when products are shipped or when services are performed resulting in billed accounts receivables for the remainder of the owed contract price. Unbilled receivables generally result from items being shipped or services being performed where the customer has not been charged, but for which revenue had been recognized. We typically bill in advance for installation, training and maintenance contracts as well as extended warranties, resulting in deferred revenue. Changes in contract asset and liability balances were not materially impacted by any other factors for the three months ended March 31, 2022.

For the three months ended March 31, 2022, we recognized revenue of $11,895 related to our contract liabilities at December 31, 2021. For the three months ended March 31, 2021, we recognized revenue of $14,473 related to our contract liabilities at December 31, 2020.

Practical Expedients and Exemptions

We generally expense sales commissions when incurred because the amortization period would be one year or less. These costs are recorded within selling, general and administrative expenses.

(4) Segment Information

Effective January 1, 2021, we identified two operating segments, Healthcare and Industrial.

This change in reportable segments was necessitated as a result of changes to our enterprise wide financial reporting to reflect the re-organization of the business into the Healthcare and Industrial verticals that were launched January 1, 2021 at the request of our CODM. These changes resulted in revisions to the financial information provided to the CODM on a recurring basis in his evaluation of financial performance of the Company and in the decision-making process driving future operating performance.

The following tables set forth our operating results by segment:

	Three Months Ended March 31,					
	2022			2021		
	Healthcare	Industrial	Consolidated	Healthcare	Industrial	Consolidated
(in thousands)						
Revenue[a]	$ 64,345	$ 68,656	$ 133,001	$ 72,521	$ 73,595	$ 146,116
Cost of sales	39,632	39,574	79,206	38,658	43,218	81,876
Gross profit	24,713	29,082	$ 53,795	33,863	30,377	64,240
Less:						
Segment operating expenses	17,010	22,796	39,806	14,070	17,755	31,825
Segment operating income	$ 7,703	$ 6,286	13,989	$ 19,793	$ 12,622	32,415
General corporate expense, net[b]			37,221			34,374
Operating (loss)			$ (23,232)			$ (1,959)

a. Approximately 44.6% and 43.8% of sales for the quarters ended March 31, 2022 and 2021, respectively, were located outside of the U.S.

b. General corporate expense, net includes expenses not specifically attributable to our segments for functions such as corporate human resources, finance, and legal, including salaries, benefits, and other related costs, incentive compensation and stock-compensation.

(5) Leases

We have various lease agreements for our facilities, equipment and vehicles with remaining lease terms ranging from one to sixteen years. We determine if an arrangement contains a lease at inception. Some leases include the options to purchase, terminate or extend for one or more years; these options are included in the right-of-use ("ROU") asset and liability lease term when it is reasonably certain an option will be exercised. Our leases do not contain any material residual value guarantees or material restrictive covenants.

Most of our leases do not provide an implicit rate; therefore, we use our incremental borrowing rate based on the information available at the commencement date to determine the present value of the future lease payments.

Certain of our leases include variable costs. Variable costs include non-lease components that were incurred based upon actual terms rather than contractually fixed amounts. In addition, incremental lease payments that are indexed to a change in rate or index are considered variable costs. Because the ROU asset and lease liability recorded on the balance sheet was determined based upon factors considered at the commencement date, subsequent changes in the rate or index that were not contemplated, result in variable expenses being incurred when actual payments differ from estimated payments.

On February 25, 2021, the Company entered into an agreement to amend its lease for its corporate office and extended the term. As part of this agreement, the Company sold land owned adjacent to our corporate office for $389 and entered into a lease with the buyer of the land for a new building, containing approximately 80,000 to 100,000 rentable square feet, to be constructed and funded by the lessor up to a certain amount. The lease terms, as amended, for both the existing building and the expansion site extend through August 2037. The lease for the new building will not commence until construction is substantially complete and the total estimated lease payments are $16,875 which are not included in the lease information below as the lease has not commenced. Additionally, we entered into a lease for a new building in Littleton, CO containing approximately 50,000 rentable square feet to be constructed and funded by the lessor up to a certain amount. The lease term is for ten years upon commencement which is when construction is substantially complete. The total estimated lease payments are $14,233 which are not included in the lease information below as the lease has not commenced.

Components of lease cost (income) are as follows:

	Quarter Ended March 31,	
(in thousands)	**2022**	**2021**
Operating lease cost	$ 2,378	$ 2,695
Finance lease cost - amortization expense	161	207
Finance lease cost - interest expense	53	124
Short-term lease cost	109	54
Variable lease cost	1,174	280
Sublease income	(172)	(156)
Total	$ 3,703	$ 3,204

Balance sheet classifications at March 31, 2022 and December 31, 2021 are summarized below:

	March 31, 2022			December 31, 2021		
(in thousands)	Right of use assets	Current right of use liabilities	Long-term right of use liabilities	Right of use assets	Current right of use liabilities	Long-term right of use liabilities
Operating Leases	$ 40,707	$ 7,651	$ 41,378	$ 42,502	$ 7,711	$ 43,359
Finance Leases	3,733	648	3,905	3,854	633	4,061
Total	$ 44,440	$ 8,299	$ 45,283	$ 46,356	$ 8,344	$ 47,420

Our future minimum lease payments as of March 31, 2022 under operating lease and finance leases, with initial or remaining lease terms in excess of one year, are as follows:

	March 31, 2022	
(in thousands)	Operating Leases	Finance Leases
Remainder of 2022	$ 7,695	$ 633
2023	$ 9,242	$ 818
2024	$ 7,604	$ 769
2025	$ 5,667	$ 721
2026	$ 5,028	$ 647
Thereafter	$ 26,452	$ 1,731
Total lease payments	$ 61,688	$ 5,319
Less: imputed interest	$ (12,659)	$ (766)
Present value of lease liabilities	$ 49,029	$ 4,553

Supplemental cash flow information related to our leases for the three months ending March 31, 2022 and March 31, 2021 were as follows:

(in thousands)	March 31, 2022	March 31, 2021
Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash outflow from operating leases	$ 2,634	$ 2,560
Operating cash outflow from finance leases	$ 53	$ 97
Financing cash outflow from finance leases	$ 166	$ 196

Weighted-average remaining lease terms and discount rate for our leases as of March 31, 2022, were as follows:

	March 31, 2022	
	Operating	Financing
Weighted-average remaining lease term (in years)	8.6	7.1
Weighted-average discount rate	5.44%	4.56%

(6) Inventories

Components of inventories at March 31, 2022 and December 31, 2021 are summarized as follows:

(in thousands)	March 31, 2022	December 31, 2021
Raw materials	$ 24,665	$ 23,530
Work in process	8,463	5,173
Finished goods and parts	68,519	64,184
Inventories	$ 101,647	$ 92,887

We record a reserve to the carrying value of our inventory to reflect the rapid technological change in our industry that impacts the market for our products. The inventory reserve was $15,877 and $16,509 as of March 31, 2022 and December 31, 2021, respectively.

At March 31, 2022, our obligation to repurchase inventory, included in accrued and other liabilities on our condensed consolidated balance sheets, was $2,581, relating to the sale of inventory to an assembly manufacturer and we had a commitment of $5,775 with the assembling manufacturer to purchase certain materials and supplies they acquired from third parties. At March 31, 2022, inventory held at assemblers was $537. Additionally, $21 and $456 of inventory was transferred to property and equipment during the quarters ended March 31, 2022 and 2021, respectively.

(7) Goodwill and Intangible Assets

The following table summarizes the activity in goodwill:

	Three Months Ended March 31, 2022								
	Healthcare			Industrial			Consolidated		
(in thousands)	Gross Goodwill	Impairments	Net Goodwill	Gross Goodwill	Impairments	Net Goodwill	Gross Goodwill	Impairments	Net Goodwill
Balance at beginning of year	$ 121,970	$ (32,055)	$ 89,915	$ 298,002	$ (42,329)	$ 255,673	$ 419,972	$ (74,384)	$ 345,588
Acquisitions (a)	(961)	—	(961)	(1,966)	—	(1,966)	(2,927)	—	(2,927)
Foreign currency translation adjustments	(847)	—	(847)	(1,119)	—	(1,119)	(1,966)	—	(1,966)
Total goodwill	$ 120,162	$ (32,055)	$ 88,107	$ 294,917	$ (42,329)	$ 252,588	$ 415,079	$ (74,384)	$ 340,695

a. The Acquisition amounts in Gross Goodwill for both the Healthcare and Industrial segments relate to purchase price adjustments for Volumetric and Oqton, respectively, which were acquired in 2021.

	December 31, 2021								
	Healthcare			Industrial			Consolidated		
(in thousands)	Gross Goodwill	Impairments	Net Goodwill	Gross Goodwill	Impairments	Net Goodwill	Gross Goodwill	Impairments	Net Goodwill
Balance at beginning of year	$ 101,767	$ (32,055)	$ 69,712	$ 134,382	$ (42,329)	$ 92,053	$ 236,149	$ (74,384)	$ 161,765
Acquisitions	39,182	—	39,182	170,033	—	170,033	209,215	—	209,215
Dispositions	(15,598)	—	(15,598)	(3,873)	—	(3,873)	(19,471)	—	(19,471)
Adjustments	(900)	—	(900)	900	—	900	—	—	—
Foreign currency translation adjustments	(2,481)	—	(2,481)	(3,440)	—	(3,440)	(5,921)	—	(5,921)
Total goodwill	$ 121,970	$ (32,055)	$ 89,915	$ 298,002	$ (42,329)	$ 255,673	$ 419,972	$ (74,384)	$ 345,588

Intangible assets, net, other than goodwill, at March 31, 2022 and December 31, 2021 are summarized as follows:

(in thousands)	March 31, 2022 Gross [a]	March 31, 2022 Accumulated Amortization	March 31, 2022 Net	December 31, 2021 Gross [a]	December 31, 2021 Accumulated Amortization	December 31, 2021 Net	Weighted Average Useful Life Remaining (in years)
Intangible assets with finite lives:							
Customer relationships	$ 52,304	$ (46,076)	$ 6,228	$ 53,062	$ (45,613)	$ 7,449	2.8
Acquired technology	19,891	(5,793)	14,098	17,518	(5,430)	12,088	5.2
Trade names	20,947	(10,854)	10,093	20,448	(10,438)	10,010	18.9
Patent costs	21,146	(11,740)	9,406	21,852	(11,812)	10,040	10.5
Trade secrets	19,837	(19,130)	707	19,924	(18,971)	953	1.1
Acquired patents	16,240	(15,958)	282	16,257	(15,945)	312	6.1
Other	13,457	(8,066)	5,391	12,982	(7,999)	4,983	9.4
Total intangible assets	$ 163,822	$ (117,617)	$ 46,205	$ 162,043	$ (116,208)	$ 45,835	8.5

a. Change in gross carrying amounts consists of adjustments to the Oqton and Volumetric purchase price allocation as well as foreign currency translation.

Amortization expense related to intangible assets was $2,678 and $2,427 for the three months ended March 31, 2022, and March 31, 2021, respectively.

(8) Accrued and Other Liabilities

Accrued liabilities at March 31, 2022 and December 31, 2021 are summarized as follows:

(in thousands)	March 31, 2022	December 31, 2021
Compensation and benefits	$ 22,527	$ 39,846
Accrued taxes	8,946	19,836
Vendor accruals	6,534	9,045
Product warranty liability	3,576	3,585
Accrued professional fees	2,857	2,263
Accrued other	941	1,593
Royalties payable	877	826
Total	$ 46,258	$ 76,994

Other long-term liabilities at March 31, 2022 and December 31, 2021 are summarized as follows:

(in thousands)	March 31, 2022	December 31, 2021
Long-term employee indemnity	$ 5,125	$ 5,237
Long-term tax liability	6,175	6,099
Defined benefit pension obligation	8,711	8,911
Long-term deferred revenue	8,894	10,244
Other long-term liabilities	5,546	1,763
Total	$ 34,451	$ 32,254

(9) Borrowings

Convertible Notes

On November 16, 2021 the Company issued $460,000 in aggregate principal amount of its 0% Convertible Senior Notes due November 15, 2026 (the “Notes”) pursuant to an Indenture, dated November 16, 2021 (the “Indenture”), between the Company and The Bank of New York Mellon, N.A., as trustee. The net proceeds from the offering of the Notes were $446,549 after deducting the initial purchasers’ discounts and commissions and offering expenses payable by the Company in the amount of $13,481 for which $12,492 is unamortized at March 31, 2022. The annual effective interest rate of the Notes is 0.594% when

including purchasers' discounts and commissions and offering expenses incurred by the Company. The Notes are senior, unsecured obligations of the Company, will not bear regular interest and the principal amount of the Notes will not accrete. The Notes will mature on November 15, 2026, unless earlier redeemed, repurchased or converted in accordance with the terms of the Notes. The Notes will be convertible at the option of the holders at any time prior to the close of business on the business day immediately preceding August 15, 2026, only under the following circumstances: (1) during any calendar quarter commencing after the calendar quarter ending on March 31, 2022 (and only during such quarter), if the last reported sale price of the Company's common stock, par value $0.001 per share (the "Common Stock"), is greater than or equal to 130% of the conversion price for each of at least 20 trading days (whether or not consecutive) during a period of 30 consecutive trading days
ending on, and including, the last trading day of the immediately preceding calendar quarter on each applicable trading day; (2)during the five business day period after any five consecutive trading day period (the "measurement period") in which the trading price (as defined in the Indenture) per $1 principal amount of Notes for each trading day of the measurement period was less than 98% of the product of the last reported sale price per share of the Common Stock and the conversion rate on each such trading day; (3) if the Company calls such Notes for redemption, at any time prior to the close of business on the second scheduled trading day immediately preceding the redemption date; and (4) upon the occurrence of specified corporate events, including a Fundamental Change (as defined in the Indenture), or distributions of the Common Stock. On or after August 15, 2026, until the close of business on the second scheduled trading day immediately preceding the maturity date, holders may convert all or any portion of their Notes at any time, at the option of the holder regardless of the foregoing circumstances. Upon conversion, the Company will pay cash up to the aggregate principal amount of the Notes to be converted and pay or deliver, as the case may be, cash, shares of the Common Stock, or a combination of cash and shares of the Common Stock, at the Company's election, in respect of the remainder, if any, of the Company's conversion obligation in excess of the aggregate principal amount of the Notes being converted. The Notes have an initial conversion rate of 27.8364 shares of Common Stock per $1 principal amount of Notes (which is subject to adjustment in certain circumstances). This is equivalent to an initial conversion price of approximately $35.92 per share. The conversion rate is subject to customary adjustments under certain circumstances in accordance with the terms of the Indenture. Holders of the Notes have the right to require the Company to repurchase for cash all or a portion of their Notes at 100% of their principal amount, plus any accrued and unpaid special interest, upon the occurrence of a Fundamental Change. The Company is also required to increase the conversion rate for holders who convert their Notes in connection with a Fundamental Change or convert their Notes that are called for redemption, as the case may be, prior to the maturity date. The Company may not redeem the Notes prior to November 20, 2024. The Notes are redeemable, in whole or in part, for cash at the Company's option at any time, and from time to time, on or after November 20, 2024 and before the 41st scheduled trading day immediately preceding the maturity date, but only if the last reported sale price per share of the Common Stock has been at least 130% of the conversion price then in effect for a specified period of time. The Notes are the Company's senior unsecured obligations and will rank senior in right of payment to any of the Company's existing and future indebtedness that is expressly subordinated in right of payment to the Notes; rank equal in right of payment to any of the Company's future unsecured indebtedness that is not so subordinated; be effectively subordinated in right of payment to any of the Company's existing and future secured indebtedness to the extent of the value of the collateral securing such indebtedness; and structurally subordinated to all existing and future indebtedness and other liabilities (including trade payables) of current or future subsidiaries of the Company. The Indenture also contains covenants, events of default and other provisions which are customary for offerings of convertible notes. We are in compliance with all covenants. At March 31, 2022 the fair value of the Notes is $389,500. This is based on the quoted market price where the volume of activity is not active and thus this is deemed a level 2 fair value measurement.

The Company incurred $664 of debt issuance cost accretion in the first quarter of 2022. Debt issuance cost accretion of $2,005, $2,679, $2,695, $2,711 and $2,394 are expected to be incurred in the remaining nine months of 2022 and in 2023, 2024, 2025 and 2026, respectively.

Credit Facility

We had a 5-year $100,000 senior secured revolving credit facility (the "Senior Credit Facility") to support working capital and general corporate purposes. The Senior Credit Facility also included a 5-year $100,000 senior secured term loan facility (the "Term Facility") that was fully repaid and terminated in the first quarter of 2021. Effective August 24, 2021, we terminated the 5-year $100,000 Senior Credit Facility. The Senior Credit Facility contained customary covenants, some of which required us to maintain certain financial ratios that determine the amounts available and terms of borrowings and events of default. We were in compliance with all covenants through the date of termination.

Borrowings under the Senior Credit Facility were subject to interest at varying spreads above quoted market rates and a commitment fee was paid on the total unused commitment. The interest rate on the Senior Credit Facility was 1.9% at December 31, 2020. On January 1, 2021, the Company completed the sale of Cimatron. A portion of the proceeds from the sale were used to repay the outstanding balance on the Term Facility. The Term Facility was fully repaid and terminated in the first quarter of 2021. Concurrent with the repayment of the Term Facility, we terminated the interest rate swap. See Note 10 for additional information.

Cash interest paid on our borrowings in the first quarter of 2022 and 2021 was $0 and $1,182, respectively.

(10) Hedging Activities and Financial Instruments

Derivatives Designated as Hedging Instruments

Interest Rate Swap Contract

On July 8, 2019, we entered into a $50,000 interest rate swap contract, designated as a cash flow hedge, to minimize the risk associated with the variability of cash flows in interest payments from variable-rate debt due to fluctuations in the one-month USD-LIBOR, subject to a 0% floor, through February 26, 2024. Changes in the interest rate swap were expected to offset the changes in cash flows attributable to fluctuations of the one-month USD-LIBOR for the interest payments associated with our variable-rate debt.

On January 4, 2021, in connection with the repayment and termination of the Term Facility, we terminated the interest rate swap agreement and recorded a $721 expense for the three months ended March 31, 2021.

There were no derivatives designated as hedging instruments on our balance sheet at March 31, 2022 or December 31, 2021.

Derivatives Not Designated as Hedging Instruments

Foreign Currency Contracts

We conduct business in various countries using both the functional currencies of those countries and other currencies to effect cross border transactions. As a result, we are subject to the risk that fluctuations in foreign exchange rates between the dates that those transactions are entered into and their respective settlement dates will result in a foreign exchange gain or loss. When practicable, we endeavor to match assets and liabilities in the same currency on our balance sheet and those of our subsidiaries in order to reduce these risks. When appropriate, we enter into foreign currency contracts to hedge exposures arising from those transactions. We have elected not to prepare and maintain the documentation to qualify for hedge accounting treatment under ASC 815, "*Derivatives and Hedging*," and therefore, all gains and losses (realized or unrealized) are recognized in Interest and other expense, net in the condensed consolidated statements of operations and comprehensive income (loss). Depending on their fair value at the end of the reporting period, derivatives are recorded either in prepaid expenses and other current assets or in accrued liabilities on the condensed consolidated balance sheets.

We had $46,000 and $43,000 in notional foreign exchange contracts outstanding as of March 31, 2022 and December 31, 2021, respectively. The fair values of these contracts were not material.

We translate foreign currency balance sheets from each international businesses' functional currency (generally the respective local currency) to U.S. dollars at end-of-period exchange rates, and statements of earnings at average exchange rates for each period. The resulting foreign currency translation adjustments are a component of other comprehensive income (loss). We do not hedge the fluctuation in reported revenue and earnings resulting from the translation of these international operations' results into U.S. dollars.

(11) Net Income (Loss) Per Share

Basic net income (loss) per share is calculated by dividing net income (loss) by the weighted average number of common shares outstanding during the applicable period. Diluted net income (loss) per share incorporates the additional shares issuable upon assumed exercise of stock options and the vesting of restricted stock and restricted stock units, except in such case when their inclusion would be anti-dilutive.

	Quarter Ended March 31,	
(in thousands, except per share amounts)	**2022**	**2021**
Numerator for basic and diluted net earnings (loss) per share:		
Net income (loss) attributable to 3D Systems Corporation	$ (26,799)	$ 45,228
Denominator for net earnings (loss) per share:		
Weighted average shares - basic	126,728	121,705
Dilutive effect of shares issuable under stock based compensation and other plans[1]	—	3,365
Weighted average shares - diluted	126,728	125,070
Anti-dilutive shares of stock based compensation awards which are excluded from the dilutive shares above[2]	1,503	—
Net income (loss) per share - basic	$ (0.21)	$ 0.37
Net income (loss) per share - diluted	$ (0.21)	$ 0.36

(1) The dilutive impact of share awards for the three months ended March 31, 2021 is 3,365 shares for which the calculation requires certain assumptions regarding assumed proceeds that will hypothetically repurchase unvested restricted shares and outstanding stock options. Because we had a net loss in the first quarter of 2022, dilutive shares are deemed ant-dilutive.
(2) Excludes the impact of shares contingently issuable upon the achievement of certain milestones in the Volumetric acquisition as discussed in Note 2. Additionally, it excludes 3,451 shares which are deemed fully or partially repurchased based on the calculation which requires certain assumptions regarding the assumed proceeds that will hypothetically repurchase unvested restricted shares and outstanding stock options.

On November 16, 2021, the Company issued $460.0 million in aggregate principal amount of its 0% Convertible Senior Notes due November 15, 2026 as discussed in Note 9. The Notes' impact to diluted shares will be calculated using the if-converted method as prescribed in ASU 2020-06. The Notes will increase the diluted share count when the average share price over a quarterly or annual reporting period is greater than $35.92, the conversion price of the Notes. For the quarter ended Quarter Ended March 31, 2022, the Notes were anti-dilutive on a stand-alone basis because the average share price during the quarter ended March 31, 2022 did not exceed the conversion price and because we had a net loss for the quarter.

On August 5, 2020, we entered into an Equity Distribution Agreement for an At-The-Market equity offering program ("ATM Program") under which we could have issued and sold, from time to time, shares of our common stock. On January 6, 2021, following the closing of the sale of Cimatron and the receipt of the related purchase price proceeds, the Company terminated the ATM Program. No shares of our stock were issued under the ATM Program in 2021.

(12) Fair Value Measurements

Fair value is the exchange price to sell an asset or transfer a liability (an exit price) in an orderly transaction between market participants at the measurement date. Fair value measurements use market data or assumptions market participants would use in pricing the asset or liability, including assumptions about risk and the risks inherent in the inputs to the valuation technique. These inputs may be readily observable, corroborated by market data, or generally unobservable. Valuation techniques maximize the use of observable inputs and minimize the use of unobservable inputs. The accounting guidance for fair value measurements and disclosures establishes a three-level fair value hierarchy:

- Level 1 - Inputs are based on quoted prices in active markets for identical assets and liabilities.
- Level 2 - Inputs are based on observable inputs other than quoted prices in active markets for identical or similar assets and liabilities.
- Level 3 - One or more inputs are unobservable and significant.

Financial and nonfinancial assets and liabilities are classified in their entirety based on the lowest level of input that is significant to the fair value measurement.

Cash equivalents, short-term investments and Israeli severance funds are valued utilizing the market approach to measure fair value for financial assets and liabilities. The market approach uses prices and other relevant information generated by market transactions involving identical or comparable assets or liabilities.

Assets and liabilities measured at fair value on a recurring basis are summarized below:

	Fair Value Measurements as of As of March 31, 2022						
	Fair Value Measurement				Balance Sheet Classification		
	Fair Value Level	Cost Basis	Unrealized Gains (Losses)	Market Value	Cash and Cash Equivalents	Short-term Investments and Marketable Securities	Other Assets
Money market funds	Level 1	$ 47,066	$ —	$ 47,066	$ 47,066	$ —	$ —
Certificates of Deposit	Level 2	2,449	(2)	2,447	350	2,097	—
Commercial paper	Level 2	44,185	—	44,185	14,555	29,630	—
Short-Term Bond Mutual Fund	Level 2	100,074	(400)	99,673	—	99,673	—
Corporate bonds	Level 2	231,766	(3,093)	228,673	3,733	224,940	—
Israeli severance funds	Level 2	—	—	—	—	—	2,014
Total Investment		**$ 425,540**	**$ (3,495)**	**$ 422,044**	**$ 65,704**	**$ 356,340**	**$ 2,014**

We did not have any transfers of assets and liabilities between Level 1, Level 2 and Level 3 of the fair value measurement hierarchy during the three months ended March 31, 2022.

	Fair Value Measurements as of December 31, 2021			
(in thousands)	Level 1	Level 2	Level 3	Total
Description				
Money market funds [a]	$ 485,521	$ —	$ —	$ 485,521
Israeli severance funds [b]	$ —	$ 2,070	$ —	$ 2,070

a. Money market funds at December 31, 2021 are recorded in cash and cash equivalents.
b. We partially fund a liability for our Israeli severance requirement through monthly deposits into fund accounts, the value of these contributions are recorded to non-current assets on the consolidated balance sheet.

In addition to the assets and liabilities included in the above table, certain of our assets and liabilities are measured at fair value on a non-recurring basis. This includes goodwill and other intangible assets which are measured at fair value at acquisition and adjusted to fair value only if their fair value falls below the initial fair value. For further discussion on the valuation techniques and inputs used in the fair value measurement of goodwill and other intangible assets, see Notes 1, 2 and 7.

(13) Income Taxes

We maintain the exception under ASC 740-270-30-36(b), “Accounting for Income Taxes,” for jurisdictions that do not have reliable estimates of ordinary income. Based on volatility in the industry, we have continued to use a year-to-date methodology in determining the effective tax rate for the quarter ended March 31, 2022.

For the quarter ended March 31, 2022, the Company’s effective tax rate was (5.03)%. For the quarter ended March 31, 2021, the Company’s effective tax rate was (22.6)%. The difference between the statutory tax rate and the effective tax rate for the quarter ended March 31, 2022, is primarily driven by a full valuation allowance in various jurisdictions. The difference between the statutory tax rate and the effective tax rate for the quarter ended March 31, 2021, is primarily driven by the reduction of a liability for uncertain tax positions and the presence of a full valuation allowance in various jurisdictions. Cash paid for income taxes, net, in the first quarter of 2022 and 2021 was $8,496 and $1,314, respectively, of which $6,900 was withholding tax paid in the first quarter of 2022 which is expected to be refunded within the next twelve months.

(14) Commitments and Contingencies

We lease certain of our facilities and equipment under non-cancelable operating and finance leases. See Note 5.

We have an inventory purchase commitment with an assembling manufacturer. See Note 6 for additional information regarding this inventory purchase commitment.

Litigation

Export Controls and Government Contracts Compliance Matter

In October 2017, we received an administrative subpoena from the Bureau of Industry and Security of the Department of Commerce ("BIS") requesting the production of records in connection with possible violations of U.S. export control laws, including with regard to our Quickparts.com, Inc. subsidiary. In addition, while collecting information responsive to the above-referenced subpoena, our internal investigation identified potential violations of the International Traffic in Arms Regulations administered by the Directorate of Defense Trade Controls of the Department of State ("DDTC") and potential violations of the Export Administration Regulations administered by the BIS. On June 8, 2018 and thereafter, we submitted voluntary disclosures to BIS and DDTC identifying numerous potentially unauthorized exports of technical data.

As part of our ongoing review of trade compliance risks and our cooperation with the government, on November 20, 2019, we submitted to the U.S. Treasury Department's Office of Foreign Assets Control ("OFAC") an initial notice of voluntary disclosure regarding potential violations of economic sanctions related to Iran. We continued to investigate this issue and filed a final disclosure with OFAC on May 20, 2020. We have and will continue to implement compliance enhancements to our export controls, trade sanctions, and government contracting compliance program to address the issues identified through our ongoing internal investigation and will cooperate with DDTC and BIS, as well as the U.S. Departments of Justice, Defense, Homeland Security and Treasury in their ongoing reviews of these matters. In connection with these ongoing reviews, in August 2020, the Company received two federal grand jury subpoenas issued by the U.S. District Court for the Northern District of Texas. The Company responded to these two subpoenas and will continue to fully cooperate with the U.S. Department of Justice in the related investigation.

In addition, on July 19, 2019, we received a notice of immediate suspension of federal contracting from the United States Air Force, pending the outcome of an ongoing investigation. The suspension applied to 3D Systems, its subsidiaries and affiliates, and was related to the potential export controls violations involving our ODM business described above. Under the suspension, we were generally prohibited from receiving new federal government contracts or subcontracts from any executive branch agency as described in the provisions of 48 C.F.R Subpart 9.4 of the Federal Acquisition Regulation. The suspension allowed us to continue to perform current federal contracts, and also to receive awards of new subcontracts for items under $35 and for items considered commercially available off-the-shelf items. The Air Force lifted the suspension on September 6, 2019 following the execution of a two-year Administrative Agreement with us. We are now eligible to obtain and perform U.S. government contracts and subcontracts without restrictions. Under the Administrative Agreement, we were monitored and evaluated by independent monitors who will report to the Air Force on our compliance with the terms of the Company's Ethics & Compliance Program, including its overall culture, government contracting compliance program, and export controls compliance program. The Air Force terminated the Administrative Agreement and associated monitorship early on August 12, 2021 after the monitors found that we had satisfied the requirements of the Administrative Agreement.

Although we cannot predict the ultimate resolution of these matters, we have incurred and expect to continue to incur significant legal costs and other expenses in connection with responding to the U.S. government agencies.

Shareholder Suits

The Company and certain of its current and former executive officers have been named as defendants in a consolidated putative stockholder class action lawsuit pending in the United States District Court for the Eastern District of New York. The action is styled In re 3D Systems Securities Litigation, No. 1:21-cv-01920-NGG-TAM (E.D.N.Y.) (the "Securities Class

Action”). On July 14, 2021, the Court appointed a Lead Plaintiff for the putative class and approved his choice of Lead Counsel. Lead Plaintiff filed his Consolidated Amended Complaint (the “Amended Complaint”) on September 13, 2021, alleging that defendants violated the Securities Exchange Act of 1934, as amended (the “Exchange Act”), and SEC Rule 10b-5 promulgated thereunder by making false and misleading statements and omissions, and that the current and former executive officers named as defendants are control persons under Section 20(a) of the Exchange Act. The Amended Complaint was filed on behalf of stockholders who purchased shares of the Company’s common stock between May 6, 2020 and March 5, 2021, and seeks monetary damages on behalf of the purported class. Defendants moved to dismiss the Amended Complaint on February 15, 2022, and the motion will be fully briefed in May 2022. On April 15, 2022, the Company was informed the SEC is conducting a formal investigation of the Company related to, among other things, the allegations in the Securities Class Action and the Company received a subpoena from the SEC for the production of documents and information related to its investigation as a follow on to a previous voluntary request for documents. The Company is cooperating with the SEC.

The Company has been named as a nominal defendant and certain of its current and former executive officers and directors have been named as defendants in derivative lawsuits pending in the United States District Court for the Eastern District of New York, the South Carolina Court of Common Pleas for the 16th Circuit, York County, and the Supreme Court of the State of New York, Kings County. The actions are styled Nguyen v. Joshi, et al., No. 21-cv-03389-NGG-TAM (E.D.N.Y.) (the “Nguyen Action”), Lesar v. Graves, et al., No. 2021CP4602308 (S.C., Ct. of Common Pleas for the 16th Judicial Cir., Cty. of York) (the “Lesar Action”), Scanlon v. Graves, et al., No. 2021CP4602312 (S.C., Ct. of Common Pleas for the 16th Judicial Cir., Cty. of York) (the “Scanlon Action”), Bohus v. Joshi, et al., No. 22-cv-2203-CBA-RML (E.D.N.Y.) (the “Bohus Action”) and Fernicola v. Clinton, et al., No. 512613/2022 (N.Y., Kings County Supreme Court) (the "Fernicola Action"). The Complaints in the Nguyen and Bohuhs Actions, which were filed on June 15, 2021 and April 18, 2022, respectively, assert breach of fiduciary duty claims against all defendants and claims for contribution under the federal securities laws against certain of the defendants. The Complaints in the Lesar Action and the Scanlon Action, which were filed on July 26, 2021, assert breach of fiduciary duty and unjust enrichment claims against defendants. The Complaint in the Fernicola Action was filed on May 2, 2022 and asserts claims for breach of fiduciary duty and waste of corporate assets against the director defendants. On August 27, 2021, the Nguyen Action was stayed until 30 days after the earlier of: (i) the close of discovery in the Securities Class Action, or (ii) the deadline for appealing a dismissal of the Securities Class Action with prejudice. On October 26, 2021, the Lesar Action and the Scanlon Action were consolidated into a single stockholder derivative action, styled as In Re 3D Systems Corp. Shareholder Derivative Litigation, No. 2021CP4602308 (S.C., Ct. of Common Pleas for the 16th Judicial Cir., Cty. Of York) (the “South Carolina Derivative Action”). On March 3, 2022, the South Carolina Derivative Action was stayed until 30 days after the earlier of: (i) the close of discovery in the Securities Class Action, or (ii) the deadline for appealing a dismissal of the Securities Class Action with prejudice. Defendants’ deadline to answer, move to dismiss or otherwise respond to the complaint in the Bohus Action is June 24, 2022.

The Company believes the claims alleged in the putative securities class action and derivative lawsuits are without merit and the Company intends to defend itself and its current and former officers vigorously.

Other

We are involved in various other legal matters incidental to our business. Although we cannot predict the results of the litigation with certainty, we believe that the disposition of all these various other legal matters will not have a material adverse effect, individually or in the aggregate, on our consolidated results of operations, consolidated cash flows or consolidated financial position.

(15) Restructuring and Exit Activity Costs

There has been no restructuring or exit activity for the three months ended March 31, 2022.

On August 5, 2020, we announced, in connection with the new strategic focus, a restructuring plan intended to align our operating costs with current revenue levels and to better position the Company for future sustainable and profitable growth. The restructuring plan included a reduction of nearly 20% of our workforce, with the majority of the workforce reduction completed by December 31, 2020. We completed the restructuring efforts in the second quarter of 2021. Cost reduction efforts included reducing the number of facilities and examining every aspect of our manufacturing and operating costs. We incurred cash charges for severance, facility closing and other costs, primarily in the second half of 2020, and continued to incur additional charges through the second quarter of 2021, when we finalized all the actions to be taken. We also divested parts of the business that did not align with this strategic focus. See Note 2.

(in thousands)	Costs Incurred during 2020	Costs Incurred during the three months ended March 31, 2021	Total Costs Incurred Through March 31, 2021
Severance, termination benefits and other employee costs	$ 12,914	$ 731	$ 13,645
Facility closing costs	6,470	365	6,835
Other costs	668	(68)	600
Total	$ 20,052	$ 1,028	$ 21,080

The liabilities at March 31, 2021 related to these costs were principally recorded in accrued expenses in the condensed consolidated balance sheets and were as follows:

(in thousands)	Balance at December 31, 2020	Costs Incurred during three months ended March 31, 2021	Cost paid during March 31, 2021	Non-cash adjustments	Liability at March 31, 2021
Severance, termination benefits and other employee costs	$ 7,173	$ 731	$ (5,895)	$ —	$ 2,009
Facility closing costs	—	365	(365)	—	—
Other costs	—	(68)	(58)	126	—
Total	$ 7,173	$ 1,028	$ (6,318)	$ 126	$ 2,009

(16) Stock-Based Compensation

Presented below is a summary of the stock-based compensation cost and associated tax benefit included in the accompanying consolidated statements of operations:

	Three Months Ended March 31,	
	2022	2021
Stock-based compensation expense	$ 12,658	$ 11,050
Tax benefit	$ —	$ —

Included in the above expense for the first three months of 2022 and 2021 is $4,271 and $3,893, respectively, pertaining to annual incentive compensation which is paid in company shares. Additionally, the above expense for the first three months of 2022 includes $1,990 related to the Volumetric contingent consideration milestones as discussed in Note 2.

During the first three months of 2022 the Company granted 2.8 million shares of restricted stock which had a weighted average grant date fair value of $14.87 per share. The restricted stock awards generally vest ratably over three years, except for those awards granted to settle the accrued incentive compensation liability at December 31, 2021 for which the awards vested immediately. Additionally, the Company granted 0.3 million shares of performance-based awards whereby the number of shares that ultimately vest are based on the achievement of certain non-market-based 2022 performance metrics which, if achieved, the awards will vest over three years from the grant date. The weighted average grant date fair value of these performance-based awards was $19.38 per share.

Unrecognized stock-based compensation expense at March 31, 2022 was $77,500 which is expected to be recognized over a weighted average period of 2.9 years.

The following tables summarize information relating to restricted stock vesting:

(in thousands)	Three Months Ended March 31, 2022	Three Months Ended March 31, 2021
Vesting of restricted stock:		
Fair value of shares vested	$ 37,194	$ 9,209
Tax benefit realized upon vesting	$ —	$ —
Number of shares vested	2,212	211

(17) Subsequent Events

On April 1, 2022, we completed the acquisitions of Kumovis GmbH ("Kumovis") and Titan Additive LLC ("Titan") for a combined all cash purchase price of $80,000, before customary closing adjustments. Titan is a pellet-based extrusion platform that addresses customer applications requiring large build volumes, superior performance, and improved productivity at significantly lower cost. We believe the acquisition of Titan will open up new markets in the Industrial segment. Kumovis, servicing the Healthcare segment, utilizes polyether ether keton or PEEK materials, which has properties that lend it to many medical applications, including many implant applications, that fit into our personalized healthcare operations. The combined impact of both acquisitions are not expected to have a near-term material impact to the Company's financial position, statement of operations or cash flows, other than the use of cash for the purchase price and the potential increase in goodwill and intangible assets.

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

The following discussion and analysis should be read together with the unaudited condensed consolidated financial statements and the notes thereto included in Item 1 (the "Financial Statements") of this Quarterly Report on Form 10-Q ("Form 10-Q"). Also, we are subject to a number of risks and uncertainties that may affect our future performance that are discussed in greater detail under the heading "Forward Looking Statements" below and in Part I, Item 1A of our Annual Report on Form 10-K for the year ended December 31, 2021 ("2021 Form 10-K") under the heading "Risk Factor".

Business Overview

3D Systems Corporation ("3D Systems" or the "Company" or "we," "our" or "us") markets our products and services through subsidiaries in North America and South America (collectively referred to as "Americas"), Europe and the Middle East (collectively referred to as "EMEA") and the Asia Pacific and Oceania region ("APAC"). We provide comprehensive 3D printing and digital manufacturing solutions, including 3D printers for plastics and metals, materials, software, and digital design tools. Our solutions support advanced applications in two key industry verticals: Healthcare (which includes dental, medical devices and personalized health services) and Industrial (which includes aerospace, defense, transportation and general manufacturing). We have over 30 years of experience and expertise which have proven vital to our development of an ecosystem and end-to-end digital workflow solutions which enable customers to optimize product designs, transform workflows, bring innovative products to market and drive new business models.

The Company has two reportable segments, Healthcare and Industrial.

Overview and Strategy

In May 2020, our Chief Executive Officer and President, Dr. Jeffrey Graves, was hired. Dr. Graves undertook an initial assessment of the Company and developed the purpose statement to be the leader in enabling additive manufacturing solutions for applications in growing markets that demand high reliability products. He announced a four-phased plan to enable this vision: reorganize into two key industry verticals (Healthcare and Industrial), restructure to gain efficiencies, divest non-core assets, and invest for future growth.

As part of our strategic plan, we have organized into two key verticals. This structure allows us to align our solution-oriented approach with deep industry and customer knowledge. Our two key verticals span a range of industries. Healthcare includes dental, medical devices, personalized health services and regenerative medicine. Our Industrial vertical includes aerospace, defense, transportation and general manufacturing. We architect solutions specific to customers' needs through a combination of materials, hardware platforms, software, professional services and advanced manufacturing – creating a path to integrating additive manufacturing into traditional production environments. As a result, manufacturers achieve design freedom, increase agility, scale production and improve overall total cost of operation. Our technologies and process knowledge enable hundreds of thousands of production parts to be made through additive manufacturing each day.

We completed our restructuring efforts in the second quarter of 2021. Cost reduction efforts have included reducing the number of facilities and examining every aspect of our manufacturing and operating costs.

Divestitures

In conjunction with our four-phased plan, we divested parts of our business that did not align with our strategic focus on additive manufacturing. In January 2021, we sold Cimatron Ltd., which operated our Cimatron integrated CAD/CAM software for the tooling business and its GibbsCAM CNC programming software business, for $64.2 million. In August 2021 we sold our Simbionix line of surgical simulators for $305.0 million, and in September 2021 we sold our On Demand Manufacturing ("ODM") business for $82.0 million. All sale amounts are before customary closing adjustments.

We have now completed our planned divestitures of non-core assets and are focused on the strategic growth of our core additive manufacturing business.

Acquisitions

On November 1, 2021, we acquired Oqton, Inc. (“Oqton”), for $187.5 million. Oqton is a software company that creates an intelligent, cloud-based Manufacturing Operating System (MOS) platform tailored for flexible production environments that increasingly utilize a range of advanced manufacturing and automation technologies, including additive manufacturing solutions, in their production workflows. The cloud-based solution leverages the Industrial Internet of Things, artificial intelligence, and machine learning technologies to deliver a solution for customers to automate their digital manufacturing workflows, scale their operations and enhance their competitive position. The Oqton acquisition will allow the Company to expand its existing additive manufacturing software suite to the entire additive industry. Oqton's operating results are reported in the Industrial segment and the acquisition’s near term impact on the Company’s results of operations and cash flows are expected to be dilutive.

On December 1, 2021, we acquired Volumetric Biotechnologies, Inc. (“Volumetric”), for $40.2 million. Additional payments of up to $355.0 million are possible upon the attainment of several non-financial milestones through December 31, 2030 and 2035 and the continued employment of certain key individuals from Volumetric. Volumetric’s mission is to develop the ability to manufacture human organs using bioprinting methods and the underlying technologies required to create these highly complex biological structures. With this acquisition, 3D Systems expanded our capabilities and capacity in 3D printing related to bio-printing and regenerative medicine. Combining 3D Systems' regenerative medicine group with Volumetric’s highly complementary skill sets of biological expertise and cellular engineering is expected to accelerate our core regenerative medicine strategies which include the bio-printing of human organs, additional non-organ applications and bio-printing technologies for research labs. The acquisition’s near-term impact on the Company's results of operations and cash flows are expected to be dilutive. Volumetric's operating results are reported in the Healthcare segment.

COVID-19 Pandemic and Current Economic Environment

In March 2020, the World Health Organization declared the outbreak of coronavirus (“COVID-19”) a global pandemic. The COVID-19 pandemic has negatively impacted the global economy, disrupted global supply chains, and created significant volatility and disruption of financial markets. These factors have resulted in inflationary and cost pressures that have significantly increased, and continue to adversely impact, our production and distribution costs, including costs of spare parts and materials, packaging materials, and freight. We are also experiencing pressure on our supply chain due to shutdowns in China, strained transportation capacity, lack of sufficient labor availability, and manufacturing backlogs. In addition, the invasion of Ukraine by Russia in early 2022 has led to further economic disruption. While we do not operate in Ukraine and while our operations in Russia are not material, the conflict has exacerbated inflationary cost pressures and supply chain constraints which have negatively impacted the global economy and our business.

Due to the COVID-19 pandemic, our affiliates, employees, suppliers, customers and others have been and may continue to be restricted or prevented from conducting normal business activities, including as a result of shutdowns, travel restrictions and other actions that may be requested or mandated by governmental authorities. We have reopened our offices and begun business travel, with safety measures in place and in accordance with local guidance. Additionally, we implemented a hybrid-work program globally, providing more flexibility for employees to work remotely. We continue to monitor local transmission rates and regulatory guidance, and remain committed to protecting our employees, delivering for our customers, and supporting our communities.

While the COVID-19 pandemic and other factors impacting the current economic environment continued to impact our reported results for the years ended December 31, 2021 and 2020, as well as the quarter ended March 30, 2022, we are unable to predict the longer-term impact that these factors may have on our business, results of operations, financial position or cash flows. The extent to which our operations may be impacted will depend largely on future developments, which are highly uncertain and cannot be accurately predicted, including the severity or resurgence of a COVID-19 outbreak, actions by government authorities to contain an outbreak or treat its impact, actions by government authorities to address inflationary and cost pressures, and the severity, length and potential expansion of the conflict in Ukraine. The impacts of these uncertain global economic and geopolitical conditions could result in further supply chain disruptions, including the shortages of critical components, and continued disruptions to, and volatility in, the financial markets. Recent events surrounding the global economy, geopolitics, and the COVID-19 pandemic continue to evolve. Although we believe that we will ultimately emerge from these events well positioned for long-term growth, uncertainties remain and, as such, we cannot reasonably estimate the duration or extent of these adverse factors on our business, results of operations, financial position or cash flows.

Summary of First Quarter 2022 Financial Results

(in thousands, except per share amounts)	Quarter Ended March 31, 2022	Quarter Ended March 31, 2021
Revenue:		
Products	$ 100,551	$ 93,648
Services	32,450	52,468
Total revenue	133,001	146,116
Cost of sales:		
Products	58,472	53,364
Services	20,734	28,512
Total cost of sales	79,206	81,876
Gross profit	53,795	64,240
Operating expenses:		
Selling, general and administrative	55,415	49,600
Research and development	21,612	16,599
Total operating expenses	77,027	66,199
Loss from operations	$ (23,232)	$ (1,959)

Total consolidated revenue for the first quarter of 2022 decreased 9.0% compared to the same period last year, driven by divestitures of non-core businesses in both the Healthcare and Industrial segments. Revenue from Healthcare decreased 11.3% to $64.3 million, compared to the same period last year, and Industrial revenue decreased 6.6% to $68.7 million, compared to the same period last year. Both decreases were driven by divestitures, partly offset by continued strong demand of our Healthcare and Industrial products and services despite the continued challenging macro economic environment and supply chain disruptions.

Gross profit for the quarter ended March 31, 2022 decreased by 16.3% or $10.4 million, to $53.8 million, compared to $64.2 million for the quarter ended March 31, 2021. Gross profit margin for the quarters ended March 31, 2022 and March 31, 2021 were 40.4% and 44.0%, respectively. The decrease in gross profit margin was primarily a result of divestitures and inflationary pressures.

Operating expenses for the quarter ended March 31, 2022 increased by 16.4%, or $10.8 million, to $77.0 million, compared to $66.2 million for the quarter ended March 31, 2021. Selling, general and administrative ("SG&A") expenses for the quarter ended March 31, 2022 increased by 11.7%, or $5.8 million, to $55.4 million, compared to $49.6 million for the quarter ended March 31, 2021, Research and development ("R&D") expenses for the quarter ended March 31, 2022 increased by 30.2%, or $5.0 million, to $21.6 million, compared to $16.6 million for the quarter ended March 31, 2021. The combined net increase in SG&A and R&D expenses is primarily due to spending in targeted areas to support future growth, expenses from acquired companies, including $4.0 million of Volumetric contingent consideration expenses, and higher bad debt expense due to heightened geopolitical activity.

Our operating loss for the quarter ended March 31, 2022 was $23.2 million, compared to a $2.0 million loss for the quarter ended March 31, 2021 due to lower gross margins and higher SG&A and R&D expenses as discussed above.

Results of Operations

The following tables set forth our operating results by segment:

	Three Months Ended March 31,					
	2022			2021		
	Healthcare	Industrial	Consolidated	Healthcare	Industrial	Consolidated
(in thousands)						
Revenue	$ 64,345	$ 68,656	$ 133,001	$ 72,521	$ 73,595	$ 146,116
Cost of sales	39,632	39,574	79,206	38,658	43,218	81,876
Gross profit	24,713	29,082	$ 53,795	33,863	30,377	64,240
Less:						
Segment operating expenses	17,010	22,796	39,806	14,070	17,755	31,825
Segment operating income	$ 7,703	$ 6,286	13,989	$ 19,793	$ 12,622	32,415
General corporate expense, net(b)			37,221			34,374
Operating (loss)			$ (23,232)			$ (1,959)

Revenue

Total consolidated revenue for the first quarter of 2022 decreased 9.0% compared to the same period last year, driven by divestitures of non-core businesses in both the Healthcare and Industrial segments, partly offset by continued strong demand of our products and services despite challenging macroeconomic and geopolitical conditions. Given the relatively high price of certain 3D printers and a corresponding lengthy selling cycle, as well as relatively low unit volume of the higher priced printers in any particular period, a shift in the timing and concentration of orders and shipments from one period to another can materially affect reported revenue in any given period.

In addition to changes in sales volumes, there are three other primary drivers of changes in revenue from one period to another: (1) divestitures, (2) the combined effect of changes in product mix and average selling prices and (3) the impact of fluctuations in foreign currencies. As used in this Management's Discussion and Analysis, the price and mix effects relate to changes in revenue that are not able to be specifically related to changes in unit volume, divestitures or foreign exchange.

We earn revenue from the sale of products and services through our Healthcare and Industrial segments. The product categories include 3D printers and corresponding materials, healthcare simulators (which was divested in third quarter of 2021), digitizers, software licenses, 3D scanners and haptic devices. The majority of materials used in our 3D printers are proprietary. The services category includes maintenance contracts and services on 3D printers and simulators, software maintenance, software as a service subscriptions, on-demand solutions (which was divested in the third quarter of 2021) and healthcare services.

The following table sets forth the change in revenue for the three months ended March 31, 2022 and 2021.

Table 1

(Dollars in thousands)	Products		Services		Total	
Revenue — first quarter 2021	$ 93,648		$ 52,468		$ 146,116	
Change in revenue:						
Volume	22,241	23.7 %	(2,118)	(4.0)%	20,123	13.8 %
Divestitures	(8,300)	(8.9)%	(16,903)	(32.2)%	(25,203)	(17.2)%
Price/Mix	(4,280)	(4.6)%	—	— %	(4,280)	(2.9)%
Foreign currency translation	(2,758)	(2.9)%	(997)	(1.9)%	(3,755)	(2.6)%
Net change	6,903	7.4 %	(20,018)	(38.2)%	(13,115)	(9.0)%
Revenue — first quarter 2022	$ 100,551		$ 32,450		$ 133,001	

Total consolidated revenue for the first quarter of 2022 compared to the same period last year decreased 9.0%, primarily due to divestitures, partially offset by higher product volume from the continued strong demand for our products and services and a continued rebound from the adverse impacts of the COVID-19 pandemic in the prior year. Recurring revenue, which includes service and materials, was $82.0 million and $96.7 million for the quarters ended March 31, 2022 and 2021, respectively, with the decrease primarily due to divestitures.

For the quarters ended March 31, 2022 and 2021, products revenue from Healthcare contributed $47.2 million and $49.6 million, respectively, and products revenue from Industrial contributed $53.4 million and $44.0 million, respectively. The lower products revenue in Healthcare was primarily due to divestitures and lower non-dental revenue, partly offset by continued strength in the dental market. The increase in products revenue in Industrial was primarily due to higher volumes, partially offset by divestitures.

For the quarters ended March 31, 2022 and 2021, services revenue from Healthcare contributed $17.1 million and $22.9 million, respectively, and services revenue from Industrial contributed $15.3 million and $29.6 million, respectively. The lower services revenue in both segments was primarily due to divestitures.

For the quarters ended March 31, 2022 and 2021, revenue from operations outside the U.S. was 44.6% and 43.8% of total revenue, respectively.

Gross profit and gross profit margins

The following table sets forth gross profit and gross profit margins for the three months ended March 31, 2022 and 2021.

Table 2

	Quarter Ended March 31,							
	2022		2021		Change in Gross Profit		Change in Gross Profit Margin	
(Dollars in thousands)	Gross Profit	Gross Profit Margin	Gross Profit	Gross Profit Margin	$	%	Percentage Points	%
Products	$ 42,079	41.8 %	$ 40,284	43.0 %	$ 1,795	4.5 %	(1.2)	(2.8)%
Services	11,716	36.1 %	23,956	45.7 %	(12,240)	(51.1)%	(9.6)	(21.0)%
Total	$ 53,795	40.4 %	$ 64,240	44.0 %	$ (10,445)	(16.3)%	(3.6)	(8.2)%

For the quarter ended March 31, 2022, as compared to the same period last year, the decrease in consolidated, product and services gross profit and gross profit margin percentage was predominantly due to product mix changes primarily as a result of divestitures and inflationary pressures. Healthcare gross profit decreased $9.1 million or 27.0% compared to the prior year comparable period and gross profit percentage of 38.4% in the first quarter of 2022 decreased from 46.7% compared to the first quarter of 2021. The year over year decrease in Healthcare gross profit percentage was due to product mix changes primarily due to divestitures and inflationary pressures, particularly freight and component costs. Industrial gross profit decreased $1.3 million or 4.3% compared to the prior year comparable period and gross profit percentage of 42.4% in the first quarter of 2022 increased from 41.3% compared to the first quarter of 2021. The year over year increase in gross profit percentage was primarily due to product mix changes primarily due to the divestiture of ODM, partly offset by inflationary pressures, particularly in freight and component costs.

Operating expenses

The following table sets forth the components of consolidated operating expenses, for the three months ended March 31, 2022 and 2021.

Table 3

	Quarter Ended March 31,					
	2022		2021		Change	
(Dollars in thousands)	Amount	% Revenue	Amount	% Revenue	$	%
Selling, general and administrative expenses	$ 55,415	41.7 %	$ 49,600	33.9 %	$ 5,815	11.7 %
Research and development expenses	21,612	16.2 %	16,599	11.4 %	5,013	30.2 %
Total operating expenses	$ 77,027	57.9 %	$ 66,199	45.3 %	$ 10,828	16.4 %

For the quarter ended March 31, 2022, as compared to the same period last year, SG&A expenses increased due to $4.0 million of Volumetric contingent consideration expense, $0.9 million of bad debt expense due to heightened geopolitical activity, expenses from acquired companies and higher legal and merger and acquisition expenses, partly offset by divestitures and cost savings from the 2020 cost optimization program.

For the quarter ended March 31, 2022, as compared to the same period last year, R&D expenses increased due to continued investments in growth initiatives and expenses from acquisitions, partly offset by divestitures and cost savings from the 2020 cost optimization program.

Loss from operations

The following table sets forth loss from operations for the three months ended March 31, 2022 and 2021.

Table 4

	Quarter Ended March 31,	
(Dollars in thousands)	2022	2021
Loss from operations:	$ (23,232)	$ (1,959)

The increase in loss from operations for the quarter ended March 31, 2022, as compared to the prior year period, was primarily driven by lower revenue, gross profit and higher operating expenses.

See "*Revenue*," "*Gross profit and gross profit margins*" and "*Operating expenses*" above.

Interest and other (expense) income , net

The following table sets forth the components of interest and other income (expense), net, for the three months ended March 31, 2022 and 2021.

Table 5

	Quarter Ended March 31,	
(Dollars in thousands)	2022	2021
Interest and other (expense) income , net		
Foreign exchange gain (loss)	$ (2,218)	$ 2,129
Interest income (expense), net	165	(1,038)
Other income (expense), net	(230)	37,762
Total interest and other income (expense), net	$ (2,283)	$ 38,853

Foreign exchange gain (loss), net, for the three months ended March 31, 2022, as compared to the prior year period, reported a loss due to the strengthening of the USD relative to the EUR which negatively impacted a EUR denominated intercompany loan receivable held by a USD functional currency entity and a USD denominated intercompany payable held by a EUR functional entity.

The Company earned a net $0.2 million of interest income for the three months ended March 31, 2022, due to significantly higher cash and short-term investments in the first quarter of 2022 compared to the first quarter of 2021 due to the proceeds from the 2021 divestitures and convertible debt issuance, partly offset by non-cash interest expense related to the convertible notes. This compares to the three months ended March 31, 2021 when the Company had significantly less in cash and short-term investments and there was a $0.7 million loss on the termination of an interest rate swap in connection with the payoff of the outstanding term loan in the first quarter of 2021.
Other income (expense), net, for the three months ended March 31, 2022, was a loss of $0.2 million compared to income of $37.8 million in the first quarter of 2021 primarily resulting from the gain on the sale of Cimatron.

Net income (loss)

The following table sets forth the primary components of net income (loss) for the three months ended March 31, 2022 and 2021.

Table 6

	Quarter Ended March 31,		
(Dollars in thousands, except per share amounts)	**2022**	**2021**	**Change**
Loss from operations	$ (23,232)	$ (1,959)	$ (21,273)
Other non-operating items:			
Interest and other (expense) income , net	(2,283)	38,853	(41,136)
(Provision) benefit for income taxes	(1,284)	8,334	(9,618)
Net (loss) income	$ (26,799)	$ 45,228	$ (72,027)
Weighted average shares - basic	126,728	121,705	
Weighted average shares - diluted	126,728	125,070	
Net (loss) income per share - basic	$ (0.21)	$ 0.37	
Net (loss) income per share - diluted	$ (0.21)	$ 0.36	

Net loss for the quarter ended March 31, 2022, was a loss of $26,799, as compared to net income of $45,228 for the quarter ended March 31, 2021 due to the previously discussed changes in revenue, gross profit, operating expense and interest and other income/(expense), net.

Liquidity and Capital Resources

Cash Flow

The Company currently funds its operations, including working capital and capital expenditures, and acquisitions through cash on hand cash, cash equivalents and short-term investments, cash flow from operations, which can vary widely from quarter to quarter, and financing activities as necessary. We expect that cash flow from operations, cash, cash equivalents and short-term investments, and other sources of liquidity, such as issuing equity or debt securities, subject to market conditions, will be available and sufficient to meet all foreseeable cash requirements. The following is a summary of the changes in the Company's cash flows followed by a brief discussion of these changes:

	Three Months Ended March 31,		
	2022	**2021**	**Dollar Change**
Cash flow (used in)/provided by operating activities	$(15,125)	$28,453	$(43,578)
Cash flow (used in)/provided by investing activities	$(373,209)	$50,563	$(423,772)
Cash flow (used in) financing activities	$(12,518)	$(28,337)	$15,819

Cash flow (used in)/provided by operating activities

Cash used by operating activities for the three months ended March 31, 2022 was $15.1 million, while cash provided by operating activities for the three months ended March 31, 2021 was $28.5 million. The decrease is due to the approximately $21.0 million of higher operating losses in the first quarter of 2022 compared to the same period in 2021. Working capital used cash of $10.9 million for the three months ended March 31, 2022 and provided cash of $10.8 million for the three months ended March 31, 2021.

For the quarter ended March 31, 2022, changes in accounts receivable, prepaid and other current assets and deferred revenue positively impacted cash flows while changes in inventory, accrued and other liabilities, including $6.9 million of withholding taxes paid in the first quarter of 2022 which are expected to be refunded in the next twelve months, negatively impacted cash flow from operations for the three months ended March 31, 2022.

For the quarter ended March 31, 2021, positive drivers of working capital related to cash inflows were decreases in accounts receivable and inventory balances, and an increase in accounts payable and deferred revenue balances, partially offset by an increase in prepaid expenses and other current assets and a decrease in accrued and other liabilities, driven by withholding tax payments related to the Cimatron sale.

Additionally changes in other non-current assets and other liabilities negatively impacted cash flow from operations by $1.0 million for the three months ended March 31, 2022 compared to a benefit of $8.7 million in the comparable period in 2021.

Cash flow (used in)/provided by investing activities

For the three months ended March 31, 2022, cash flow used by investing activities was $373.2 million compared to $50.6 million of cash provided by investing activities for the three months ended March 31, 2021. The primary cash outflows in 2022 related to investments of excess cash in short-term investments, the investment in Enhatch, capital expenditures and other investing activities. For the three months ended March 31, 2021, the primary inflows of cash related to proceeds from the sale of Cimatron partly offset by capital expenditures.

Cash flow (used in) financing activities

Cash used in financing activities was $12.5 million for the three months ended March 31, 2022, and $28.3 million for the three months ended March 31, 2021. The primary outflow of cash for the quarter ended March 31, 2022 related to payments for the net-share settlement of stock based compensation and the payment for the acquisition of a non-controlling interest. The primary outflow of cash for the quarter ended March 31, 2021 related to the repayment of the remaining balance of the then outstanding 5-year $100.0 million secured term loan facility, the net-share settlement of stock based compensation and the payment for the acquisition of a non-controlling interest.

Cash, Cash Equivalents and Short-Term Investments

At March 31, 2022, we had cash and cash equivalents on hand of $389.6 million including restricted cash. We had a short-term investments of $356.3 million. Cash and cash equivalents decreased $400.4 million since December 31, 2021 due to cash used in operations of $15.1 million, cash used in investing activities of $373.2 million, which includes $359.8 million net investments in short-term investments and cash used in financing activities of $12.5 million.

Cash held outside the U.S. at March 31, 2022 was $108.1 million, or 27.7% of total cash and cash equivalents, compared to $62.7 million, or 7.9% of total cash and cash equivalents, at December 31, 2021. As our previously unremitted earnings have been subjected to U.S. federal income tax, we expect any repatriation of these earnings to the U.S. would not incur significant federal and state taxes. However, these dividends are subject to foreign withholding taxes that are estimated to result in the Company incurring tax costs in excess of the cost to obtain cash through other means. Cash equivalents are comprised of funds held in money market instruments and are reported at their current carrying value, which approximates fair value due to the short term nature of these instruments. Short-term investments primarily consist of investment grade bonds with a remaining maturity of less than twelve months, certificates of deposit and short maturity bond funds. We strive to minimize our credit risk by investing primarily in investment grade, liquid instruments and limit exposure to any one issuer depending upon credit quality.

Material Cash Requirements

The Company's material cash requirements consist of the following contractual and other obligations:

Indebtedness

At March 31, 2022, we had $460.0 million of outstanding 0% convertible notes which mature in November of 2026 (the "Notes"). Management may consider pursuing additional long-term financing, market conditions permitting, when it is appropriate in light of cash requirements for operations or other strategic opportunities, which could result in higher financing costs.

Purchase Commitments

We have purchase commitments under legally enforceable agreements for goods and services with defined terms as to quantity, price and timing of delivery.

Leases

The Company has operating and financing lease obligations of $67.0 million at March 31, 2022, primarily related to real estate and equipment leases, of which approximately $8.3 million in payments are expected over the remainder of 2022. Additionally, the Company has $31.1 million in lease obligations for which the leases have not commenced as the facilities are under construction by the landlord. For more information on the Company's leases, refer to Note 5 to the Financial Statements.

Sources of Funding to Satisfy Material Cash Requirements

The Company believes that it has the financial resources needed to meet its cash requirements over the next twelve months. Cash requirements for periods beyond the next twelve months will depend, among other things, on the Company’s profitability and its ability to manage working capital requirements. The Company may also borrow from various sources as described above.

Other Contractual Commitments

Convertible Notes

We were in compliance with all covenants of the Notes as of March 31, 2022.

Other

We are committed to an initial investment of about $6.5 million related to our recently formed Saudi Arabia joint venture as described in Note 2 to the Financial Statements. Additional future investments in this relationship are contingent upon achievement of certain milestones by the joint venture.

Indemnification

In the normal course of business we periodically enter into agreements to indemnify customers or suppliers against claims of intellectual property infringement made by third parties arising from the use of our products. Historically, costs related to these indemnification provisions have not been significant. We are unable to estimate the maximum potential impact of these indemnification provisions on our future results of operations.

To the extent permitted under Delaware law, we indemnify our directors and officers for certain events or occurrences while the director or officer is, or was, serving at our request in such capacity, subject to limited exceptions. The maximum potential amount of future payments we could be required to make under these indemnification obligations is unlimited; however, we have directors’ and officers’ insurance coverage that may enable us to recover future amounts paid, subject to a deductible and to the policy limits.

Recent Accounting Pronouncements

Refer to Note 1 to the Financial Statements for further discussion.

Critical Accounting Policies and Significant Estimates

Our condensed consolidated financial statements are prepared in accordance with GAAP. The preparation of these condensed consolidated financial statements requires us to make certain estimates and assumptions that affect the reported amounts of assets, liabilities, revenues, costs and expenses, and related disclosures. On an ongoing basis, we evaluate our estimates and assumptions. Our actual results may differ from these estimates under different assumptions or conditions.

As of the date of this report, there have been no changes to our critical accounting policies and estimates described in the 2021 Form 10-K that have had a material impact on our condensed consolidated financial statements and related notes other than the implementation of a Short-Term Investment Policy as described in Note 1 to the Financial Statements.

Forward-Looking Statements

Certain statements made in this Form 10-Q that are not statements of historical or current facts are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, performance or achievements to be materially different from historical results or from any future results expressed or implied by such forward-looking statements. In many cases, you can identify forward-looking statements by terms such as “believes,” “belief,” “expects,” “may,” “will,” “estimates,” “intends,” “anticipates,” or “plans” or the negative of these terms or other comparable terminology.

Forward-looking statements are based upon management’s beliefs, assumptions and current expectations concerning future events and trends, using information currently available, and are necessarily subject to uncertainties, many of which are outside our control. Although we believe that the expectations reflected in the forward-looking statements are reasonable, forward-looking statements are not, and should not be relied upon as a guarantee of future performance or results, nor will they necessarily prove to be accurate indications of the times at or by which any such performance or results will be achieved. A number of important factors could cause actual results to differ materially from those expressed in or implied by the forward-looking statements. These factors include without limitation:

- impact of production, supply, contractual and other disruptions, including facility closures, furloughs and labor shortages or attrition as a result of vaccination requirements, due to the spread of the COVID-19 pandemic;
- our ability to deliver products that meet changing technology and customer needs;
- our ability to identify strategic acquisitions, to integrate such acquisitions into our business without disruption and to realize the anticipated benefits of such acquisitions;
- impact of future write-off or write-downs of goodwill and intangible assets;
- the concentration of revenue and credit risk exposure from our largest customer;
- our ability to acquire and enforce intellectual property rights and defend such rights against third party claims;
- our ability to protect our intellectual property rights and confidential information, including our digital content, from third-party infringers or unauthorized copying, use or disclosure;
- failure of our information technology infrastructure or inability to protect against cyber-attack;
- our ability to predict quarterly sales and manage product inventory due to uneven sales cycle;
- our ability to continue to generate net cash flow from operations;
- our ability to service our debt and ability to raise funds necessary to settle conversions of the Notes in cash, repay the Notes at maturity, or repurchase the Notes in the case of a fundamental change;
- our ability to remediate material weaknesses in our internal controls over financial reporting and maintain effect internal controls;
- fluctuations in our gross profit margins, operating income or loss and/or net income or loss;
- our ability to efficiently conduct business outside the U.S.;
- our dependence on our supply chain for components and sub-assemblies used in our 3D printers and other products and for raw materials used in our print materials;
- our ability to manage the costs and effects of litigation, investigations or similar matters involving us or our subsidiaries;
- product quality problems that result in decreased sales and operating margin, product returns, product liability, warranty or other claims;
- our ability to retain our key employees and to attract and retain new qualified employees, while controlling our labor costs;
- our ability to successfully develop and commercialize regenerative medicine products ourselves, or in conjunction with development partners;
- disruption in our management information systems for inventory management, distribution, and other key functions;
- compliance with U.S. and other anti-corruption laws, data privacy laws, trade controls, economic sanctions, and similar laws and regulations;
- our ability to maintain our status as a responsible contractor under federal rules and regulations;

- changes in, or interpretation of, tax rules and regulations; and
- the other factors discussed in the reports we file with or furnish to the SEC from time to time, including the risks and important factors set forth in additional detail in Item 1A. “Risk Factors” in the 2020 Form 10-K and this Form 10-Q.

Readers are cautioned not to place undue reliance on these forward-looking statements. The forward-looking statements included herein are made only as of the date of this Form 10-Q and we undertake no obligation to publicly update or revise any forward-looking statement made by us or on our behalf, whether as a result of new information, future developments, subsequent events or circumstances or otherwise, except as required by law. All subsequent written or oral forward-looking statements attributable to us or individuals acting on our behalf are expressly qualified in their entirety by the cautionary statements referenced above.

PART II — OTHER INFORMATION

Item 1. Legal Proceedings.

The information set forth in “Export Controls and Government Contracts Compliance Matter,” “Shareholder Suits,” and “Other” in Note 14 – Commitments and Contingencies to the Financial Statements in Part I, Item 1 of this Form 10-Q is incorporated herein by reference.

Item 1A. Risk Factors.

There are no material changes to the risk factors previously disclosed in our 2021 Form 10-K in response to Item 1A to Part I of Form 10-K.

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

Recent Issuances of Unregistered Securities

None

Issuer Purchases of Equity Securities

The following table provides information about purchases of equity securities that are registered pursuant to Section 12 of the Exchange Act for the quarter ended March 31, 2022:

	Total number of shares (or units) purchased	Average price paid per share (or unit)
Shares delivered or withheld pursuant to restricted stock awards		
January 1, 2022 - January 31, 2022	71,754 [a]	$ 20.46 [b]
February 1, 2022 - February 28, 2022	64,635 [a]	$ 19.36 [b]
March 1, 2022 - March 31, 2022	377,887 [a]	$ 15.81 [b]
	514,276 [a]	$ 16.91 [b]

a. Reflects shares of common stock surrendered to the Company for payment of tax withholding obligations in connection with the vesting of restricted stock.
b. The average price paid reflects the weighted average market value of shares withheld for tax purposes.

Item 3. Quantitative and Qualitative Disclosures about Market Risk.

For a discussion of market risks at December 31, 2021, refer to Item 7A. “Quantitative and Qualitative Disclosures about Market Risk” in the 2021 Form 10-K. During the first three months of 2022, there were no material changes or developments that would materially alter the market risk assessment performed as of December 31, 2021.

Item 4. Controls and Procedures.

Evaluation of disclosure controls and procedures

As of March 31, 2022, we carried out an evaluation, under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) of the Exchange Act) pursuant to Rules 13a-15 and 15d-15 under the Exchange Act. These controls and procedures are designed to provide reasonable assurance that the information required to be disclosed in the reports that we file or submit under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in the SEC's rules and forms and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, in a manner to allow timely decisions regarding required disclosures. Based on this evaluation, management has concluded that our disclosure controls and procedures were not effective as of March 31, 2022 because of the material weaknesses in internal control over financial reporting discussed below.

Our management, including our Chief Executive Officer and Chief Financial Officer, concluded that the material weaknesses in internal control over financial reporting that existed as of December 31, 2021, which are in process of being remediated, continued to exist as of March 31, 2022. These material weaknesses relate to a lack of certain controls, or improper execution of designed control procedures in the following areas:

- for certain non-standard contracts and non-standard contract terms;
- over the review of internally prepared reports and analyses utilized in the financial closing process; and
- for the calculation of the Company's provision for income taxes, including for material non-routine transactions.

The combination of control deficiencies that resulted in these material weaknesses were partially related to employee training, resulting in a lack of knowledge or skill level to properly execute the designed controls or perform an effective review over certain manual controls related to the financial statement close process. In addition, certain control deficiencies related to the timely review of transactions that were infrequent in nature.

Remediation Plan

The first two material weaknesses described above (the "2020 Materials Weaknesses") were first identified at December 31, 2020 and continued to exist at December 31, 2021. However, as a result of the remediation plan we commenced in January 2021, the volume of control deficiencies that aggregated into the 2020 Material Weaknesses at December 31, 2021 were significantly reduced compared to 2020. The remediation plan we began in January 2021 is designed to improve our internal control over financial reporting and remediate the related control deficiencies that led to these material weaknesses. To fully remediate the 2020 Material Weaknesses in 2022, we plan the following additional remediation actions, which commenced in the first quarter of 2022:

1. Hire additional staff with appropriate accounting, finance, operational and technology knowledge and experience in the design and execution of controls. Specifically, we retained additional interim personnel and consultants to assist with the execution of controls in the first quarter of 2022. We also plan to hire several additional individuals with relevant accounting experience in the second quarter of 2022.
2. Re-design ineffective controls or processes. We will retain an outside firm with expertise in the design and execution of internal controls over financial reporting to examine our control designs and perform a root cause analysis as to why certain controls have not been and continue to not be properly executed.
3. Implement or enhance software to improve our financial close and reporting process. We are in process of enhancing our account reconciliation software and implementing software to facilitate the recording of journal entries, transaction matching and task management. We are also formulating plans to implement revenue accounting software and to integrate a material non-U.S. subsidiary onto our enterprise resource planning system.
4. Establish a formal controls governance committee to manage and enhance the oversight and execution of internal controls. In the first quarter of 2022, we established a controls governance committee consisting of members of senior leadership, which will meet monthly or more frequently as needed.

In addition to the remediation plan for the 2020 Material Weaknesses discussed above, we have supplemented our remediation plan to address the tax material weakness identified at December 31, 2021, and plan to implement a number of remediation actions in 2022, including:

1. Implement a tax accounting and reporting solution for our tax provision process. We have identified the tax reporting solution, developed an implementation plan and retained a consulting firm to facilitate the implementation plan.
2. Redesign controls related to the accounting for the income tax process. We are in process of assessing our income tax accounting controls.
3. Engage a third party to review our quarterly and annual tax calculations. In the first quarter of 2022 we engaged a third party to review our quarterly and annual tax calculations.
4. Hire additional experienced resources with backgrounds in income tax accounting. We are in process of recruiting additional experienced tax accounting personnel to assist with the design and execution of tax accounting controls.

The planned or in process remedial actions discussed above are in addition to the following remediation actions completed in 2021 and 2022 to address the 2020 Material Weaknesses:

1. Hired an experienced Chief Accounting Officer (CAO), along with additional accounting personnel some of whom possess public company accounting and financial reporting technical expertise.
2. Enhanced the monthly close process to improve the timeliness of recording entries which permits more time to review and analyze financial statement accounts and to execute control procedures.
3. Trained new and existing accounting and finance personnel as well as key personnel in other functions such as, operations, sales, business development, human resources, legal and supply chain on the newly enhanced, developed and implemented policies and procedures.
4. Trained relevant personnel as to the proper design and execution of control procedures and noted the importance of the ongoing execution and maintenance of control process and procedures.
5. Modified existing software to capture non-standard terms and conditions related to certain customer contracts.
6. Designed and tested a significant number of additional business process and information technology controls throughout 2021.
7. Formally enhanced, developed, and implemented policies, procedures and processes relating to our accounting and financial reporting.

We are committed to the remediation of all material weaknesses and are striving to successfully implement enhanced control processes and have a sufficient period of operational effectiveness to evidence material weakness remediation in 2022. However, as we continue to evaluate, and work to improve our internal control over financial reporting, management may determine that additional measures to address control deficiencies or modifications to the remediation plan are necessary. Therefore, we cannot assure you when we will remediate such weaknesses, nor can we be certain that additional actions will not be required or the incremental costs of any such additional actions. Moreover, we cannot assure you that additional material weaknesses will not arise in the future.

Changes in Internal Control over Financial Reporting

We are in the process of implementing certain changes in our internal control over financial reporting to remediate the material weaknesses identified at December 31, 2020 and 2021, as described above. The implementation of the material aspects of our remediation plan commenced in the first quarter of 2021 and are ongoing. Except as noted above with respect to the implementation of the remediation plan, there have been no additional changes in our internal control over financial reporting during the quarter ended March 31, 2022 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 6. Exhibits.

3.1	Certificate of Incorporation of Registrant. (Incorporated by reference to Exhibit 3.1 to Form 8-B filed on August 16, 1993, and the amendment thereto, filed on Form 8-B/A on February 4, 1994.)
3.2	Amendment to Certificate of Incorporation filed on May 23, 1995. (Incorporated by reference to Exhibit 3.2 to Registrant's Registration Statement on Form S-2/A, filed on May 25, 1995.)
3.3	Certificate of Amendment of Certificate of Incorporation filed with Secretary of State of Delaware on May 19, 2004. (Incorporated by reference to Exhibit 3.1 of the Registrant's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2004, filed on August 5, 2004.)
3.4	Certificate of Amendment of Certificate of Incorporation filed with Secretary of State of Delaware on May 17, 2005. (Incorporated by reference to Exhibit 3.1 of the Registrant's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2005, filed on August 1, 2005.)
3.5	Certificate of Amendment of Certificate of Incorporation filed with the Secretary of State of Delaware on October 7, 2011. (Incorporated by reference to Exhibit 3.1 to Form 8-K filed on October 7, 2011.)
3.6	Certificate of Amendment of Certificate of Incorporation filed with the Secretary of State of Delaware on May 21, 2013. (Incorporated by reference to Exhibit 3.1 of the Registrant's Current Report on Form 8-K, filed on May 22, 2013.)
3.7	Amended and Restated By-Laws of 3D Systems Corporation. (Incorporated by reference to Exhibit 3.1 of Registrant's Current Report on Form 8-K filed on March 15, 2018.)
4.1	Indenture, dated as of November 16, 2021, between 3D Systems Corporation and The Bank of New York Mellon Trust Company, N.A., as trustee. (Incorporated by reference to the Exhibit 4.1 of the Registrant's Current Report on Form 8-K filed on November 17, 2021.)
4.2	Form of 0% Convertible Notes due 2026 (included in Exhibit 4.1). (Incorporated by reference to the Exhibit 4.2 of the Registrant's Current Report on Form 8-K filed on November 17, 2021.)
10.1*	Executive Services Agreement, dated April 22, 2022, by and between 3D Systems Corporation and Wayne Pensky. (Incorporated by reference to Exhibit 10.1 of the Registrants Current Report on Form 8-K filed on April 26, 2022.)
31.1†	Certification of Principal Executive Officer filed pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 dated May 10, 2022.
31.2†	Certification of Principal Financial Officer filed pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 dated May 10, 2022.
32.1†	Certification of Principal Executive Officer filed pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 dated May 10, 2022.
32.2†	Certification of Principal Financial Officer filed pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 dated May 10, 2022.
101.INS†	XBRL Instance Document - the instance document does not appear in the Interactive Data file because its XBRL tags are embedded within the Inline XBRL document.
101.SCH†	XBRL Taxonomy Extension Schema Document.
101.CAL†	XBRL Taxonomy Extension Calculation Linkbase Document.
101.DEF†	XBRL Taxonomy Extension Definition Linkbase Document.
101.LAB†	XBRL Taxonomy Extension Label Linkbase Document.
101.PRE†	XBRL Taxonomy Extension Presentation Linkbase Document.
104	Cover Page Interactive Data File - this data file does not appear in the Interactive Data file because its XBRL tags are embedded within the Inline XBRL document.

* Management contract or compensatory plan or arrangement.
† Exhibits filed herein. All exhibits not so designated are incorporated by reference to a prior filing, as indicated.

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.

3D Systems Corporation

By /s/ Jagtar Narula

Jagtar Narula
Chief Financial Officer
(principal financial officer)

By /s/ Michael Crimmins

Michael Crimmins
Senior Vice President and Chief Accounting Officer
(principal accounting officer)

Date: May 10, 2022

Exhibit 31.1

Certification of
Principal Executive Officer of
3D Systems Corporation

I, Dr. Jeffrey A. Graves, certify that:

1. I have reviewed this report on Form 10-Q of 3D Systems Corporation;

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

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

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act 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(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

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

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

By: /s/ Dr. Jeffrey A. Graves
Dr. Jeffrey A. Graves
Title: President, Chief Executive Officer and Director
(principal executive officer)

Date: May 10, 2022

Exhibit 31.2

Certification of
Principal Financial Officer of
3D Systems Corporation

I, Jagtar Narula, certify that:

1. I have reviewed this report on Form 10-Q of 3D Systems Corporation;

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

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

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act 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(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

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

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

By: /s/ Jagtar Narula
Jagtar Narula
Title: Chief Financial Officer
(principal financial officer)

Date: May 10, 2022

Exhibit 32.1

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

This certification is provided pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 and accompanies the Annual Report on Form 10-Q (the "Form 10-Q") for the quarter ended March 31, 2022 of 3D Systems Corporation (the "Issuer").

I, Dr. Jeffrey A. Graves, President, Chief Executive Officer and Director (principal executive officer) of the Issuer, certify that, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, to the best of my knowledge:

(i) the Form 10-Q fully complies with the requirements of Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934; and

(ii) The information contained in the Form 10-Q fairly presents, in all material respects, the financial condition and results of operations of the issuer.

Date: May 10, 2022
/s/ Dr. Jeffrey A. Graves
Name: Dr. Jeffrey A. Graves
(principal executive officer)

Exhibit 32.2

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

This certification is provided pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 and accompanies the Annual Report on Form 10-Q (the "Form 10-Q") for the quarter ended March 31, 2022 of 3D Systems Corporation (the "Issuer").

I, Jagtar Narula, the Chief Financial Officer (principal financial officer) of the Issuer, certify that, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, to the best of my knowledge:

(i) the Form 10-Q fully complies with the requirements of Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934; and

(ii) The information contained in the Form 10-Q fairly presents, in all material respects, the financial condition and results of operations of the Issuer**.**

Date: May 10, 2022
/s/ Jagtar Narula
Name: Jagtar Narula
(principal financial officer)