

FORM 10-Q

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

For the quarterly period ended September 30, 2022

Commission file number 1-32737



KOPPERS HOLDINGS INC.

(Exact name of registrant as specified in its charter)

Pennsylvania
(State of incorporation)

20-1878963
(IRS Employer Identification No.)

436 Seventh Avenue
Pittsburgh, Pennsylvania 15219
(Address of principal executive offices)

(412) 227-2001
(Registrant's telephone number, including area code)

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock	KOP	The 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 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

Common Stock, par value \$0.01 per share, outstanding at October 31, 2022 amounted to 20,898,005 shares.

PART I—FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS

KOPPERS HOLDINGS INC.

CONDENSED CONSOLIDATED STATEMENT OF OPERATIONS AND COMPREHENSIVE (LOSS) INCOME

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2022	2021	2022	2021
<i>(Dollars in millions, except per share amounts)</i>				
	<i>(Unaudited)</i>	<i>(Unaudited)</i>	<i>(Unaudited)</i>	<i>(Unaudited)</i>
Net sales	\$ 536.1	\$ 424.8	\$ 1,497.9	\$ 1,273.3
Cost of sales	439.7	348.9	1,229.4	1,012.1
Depreciation and amortization	16.9	13.4	44.5	43.4
(Gain) on sale of assets	0.0	0.0	(2.5)	(7.8)
Impairment and restructuring charges	0.0	0.1	0.0	2.2
Selling, general and administrative expenses	36.7	37.8	116.4	110.6
Operating profit	42.8	24.6	110.1	112.8
Other income, net	0.8	0.9	1.8	2.7
Interest expense	11.4	10.2	32.3	30.5
Income from continuing operations before income taxes	32.2	15.3	79.6	85.0
Income tax provision	13.2	4.8	29.7	22.4
Income from continuing operations	19.0	10.5	49.9	62.6
Gain (loss) on sale of discontinued operations, net of tax benefit of \$0.0, \$0.2, \$0.3 and \$0.0	0.0	(0.5)	(0.5)	0.1
Net income	19.0	10.0	49.4	62.7
Net loss attributable to noncontrolling interests	(0.1)	(0.2)	(0.2)	(0.3)
Net income attributable to Koppers	\$ 19.1	\$ 10.2	\$ 49.6	\$ 63.0
Earnings (loss) per common share attributable to Koppers common shareholders:				
Basic -				
Continuing operations	\$ 0.91	\$ 0.50	\$ 2.38	\$ 2.96
Discontinued operations	0.00	(0.02)	(0.02)	0.01
Earnings per basic common share	\$ 0.91	\$ 0.48	\$ 2.36	\$ 2.97
Diluted -				
Continuing operations	\$ 0.91	\$ 0.49	\$ 2.35	\$ 2.87
Discontinued operations	0.00	(0.02)	(0.03)	0.00
Earnings per diluted common share	\$ 0.91	\$ 0.47	\$ 2.32	\$ 2.87
Comprehensive (loss) income	\$ (9.5)	\$ (17.4)	\$ (27.7)	\$ 45.7
Comprehensive loss attributable to noncontrolling interests	(0.4)	(0.2)	(0.6)	(0.2)
Comprehensive (loss) income attributable to Koppers	\$ (9.1)	\$ (17.2)	\$ (27.1)	\$ 45.9
Weighted average shares outstanding (in thousands):				
Basic	20,897	21,322	21,024	21,253
Diluted	21,085	21,947	21,345	21,949

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

KOPPERS HOLDINGS INC.
CONDENSED CONSOLIDATED BALANCE SHEET

	September 30, 2022	December 31, 2021
<i>(Dollars in millions, except per share amounts)</i>	<i>(Unaudited)</i>	
Assets		
Cash and cash equivalents, including restricted cash (Note 4)	\$ 42.8	\$ 45.5
Accounts receivable, net of allowance of \$3.3	232.8	182.8
Inventories, net	306.0	313.8
Derivative contracts	3.4	61.0
Other current assets	23.8	25.0
Total current assets	608.8	628.1
Property, plant and equipment, net	527.2	489.1
Operating lease right-of-use assets	84.6	91.2
Goodwill	292.0	296.0
Intangible assets, net	119.1	131.5
Deferred tax assets	12.3	15.0
Other assets	8.7	11.0
Total assets	\$ 1,652.7	\$ 1,661.9
Liabilities		
Accounts payable	\$ 187.1	\$ 171.9
Accrued liabilities	87.3	90.5
Current operating lease liabilities	19.4	21.3
Current maturities of long-term debt	0.0	2.0
Total current liabilities	293.8	285.7
Long-term debt	818.7	781.5
Accrued postretirement benefits	36.7	38.6
Deferred tax liabilities	20.7	33.4
Operating lease liabilities	66.2	70.3
Other long-term liabilities	44.2	41.6
Total liabilities	1,280.3	1,251.1
Commitments and contingent liabilities (Note 18)		
Equity		
Senior Convertible Preferred Stock, \$0.01 par value per share; 10,000,000 shares authorized; no shares issued	0.0	0.0
Common Stock, \$0.01 par value per share; 80,000,000 shares authorized; 24,523,231 and 24,026,844 shares issued	0.2	0.2
Additional paid-in capital	260.5	249.5
Retained earnings	347.4	300.9
Accumulated other comprehensive loss	(116.7)	(40.0)
Treasury stock, at cost, 3,608,208 and 2,930,694 shares	(122.5)	(104.0)
Total Koppers shareholders' equity	368.9	406.6
Noncontrolling interests	3.5	4.2
Total equity	372.4	410.8
Total liabilities and equity	\$ 1,652.7	\$ 1,661.9

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

KOPPERS HOLDINGS INC.
CONDENSED CONSOLIDATED STATEMENT OF CASH FLOWS

	Nine Months Ended September 30,	
	2022	2021
<i>(Dollars in millions)</i>	<i>(Unaudited)</i>	<i>(Unaudited)</i>
Cash provided by (used in) operating activities:		
Net income	\$ 49.4	\$ 62.7
Adjustments to reconcile net cash used in operating activities:		
Depreciation and amortization	44.5	43.4
Stock-based compensation	10.0	9.8
Change in derivative contracts	9.0	2.7
Non-cash interest expense	2.2	2.0
(Gain) on sale of assets	(2.6)	(7.8)
Insurance proceeds	(0.7)	(3.6)
Deferred income taxes	1.1	1.0
Change in other liabilities	0.4	3.8
Other - net	5.3	2.6
Changes in working capital:		
Accounts receivable	(59.0)	(26.7)
Inventories	(5.8)	(4.2)
Accounts payable	19.5	7.7
Accrued liabilities	(7.5)	(29.4)
Other working capital	1.6	(4.4)
Net cash provided by operating activities	67.4	59.6
Cash (used in) provided by investing activities:		
Capital expenditures	(80.0)	(87.6)
Insurance proceeds received	0.7	3.6
Cash provided by sale of assets	4.2	5.3
Net cash used in investing activities	(75.1)	(78.7)
Cash provided by (used in) financing activities:		
Net increase in credit facility borrowings	39.9	37.1
Repayments of long-term debt	(2.0)	(7.6)
Issuances of Common Stock	0.9	2.1
Repurchases of Common Stock	(18.5)	(3.3)
Payment of debt issuance costs	(4.8)	0.0
Dividends paid	(3.2)	0.0
Net cash provided by financing activities	12.3	28.3
Effect of exchange rate changes on cash	(7.3)	(2.8)
Net (decrease) increase in cash and cash equivalents	(2.7)	6.4
Cash and cash equivalents at beginning of period	45.5	38.5
Cash and cash equivalents at end of period	\$ 42.8	\$ 44.9
Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash outflow from operating leases	\$ 21.9	\$ 23.2
Supplemental disclosure of non-cash investing and financing activities:		
Right-of-use assets obtained in exchange for new operating lease liabilities	\$ 10.5	\$ 10.7
Supplemental disclosure of cash flow information:		
Non-cash investing activities		
Accrued capital expenditures	\$ 7.6	\$ 8.6

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

1. Basis of Presentation

The accompanying unaudited condensed consolidated financial statements and related disclosures have been prepared in accordance with accounting principles generally accepted in the United States applicable to interim financial information and with the instructions to Form 10-Q and Rule 10-01 of Regulation S-X. Accordingly, they do not include all of the information and footnotes required by generally accepted accounting principles for complete financial statements. In the opinion of management, all adjustments considered necessary for a fair presentation of Koppers Holdings Inc.'s and its subsidiaries' ("Koppers", "Koppers Holdings", the "Company", "we" or "us") financial position and interim results as of and for the periods presented have been included. All such adjustments are of a normal recurring nature unless disclosed otherwise. Because our business is seasonal, results for interim periods are not necessarily indicative of those that may be expected for a full year. The Condensed Consolidated Balance Sheet as of December 31, 2021 has been summarized from the audited balance sheet contained in the Annual Report on Form 10-K as of and for the year ended December 31, 2021. Certain prior period amounts in the condensed consolidated financial statements and notes to the condensed consolidated financial statements have been reclassified to conform to the current period's presentation.

The financial information included herein should be read in conjunction with our audited consolidated financial statements and related notes included in our Annual Report on Form 10-K for the year ended December 31, 2021.

2. New Accounting Pronouncements

In March 2022, the Financial Accounting Standards Board ("FASB") issued ASU No. 2022-01, "Derivatives and Hedging (Topic 815): Fair Value Hedging—Portfolio Layer Method." This ASU amends and simplifies existing guidance in order to allow companies to more accurately present the economic effects of risk management activities in financial statements. ASU No. 2022-01 is effective for periods beginning after December 15, 2022, and earlier adoption is permitted. The adoption of this ASU will not have a material impact on our financial statements as we principally utilize cash flow hedges.

3. Plant Closures and Divestitures

We have restructured our Carbon Materials and Chemicals ("CMC") segment in order to concentrate our facilities in regions where we believe we hold key competitive advantages to better serve our global customers. The recent restructuring activities which had an impact on our reported results include:

- In February 2021, we sold our closed Follansbee, West Virginia coal tar distillation facility and we recorded a gain on sale of \$5.7 million, consisting of \$2.6 million from cash proceeds in addition to the assumption of certain liabilities by the buyer.
- In September 2020, we sold Koppers (Jiangsu) Carbon Chemical Company Limited ("KJCC"). Refer to Note 4 - "Discontinued Operations" for more details.
- In October 2018, we sold our closed Clairton, Pennsylvania coal tar distillation facility. In the first quarter of 2021, certain post-sale conditions were achieved and the buyer of the property released cash held in escrow to us resulting in a gain on sale of \$1.8 million.

Other closure and divestiture activity relates to our Railroad and Utility Products and Services ("RUPS") segment, including:

- In March 2022, we sold our utility pole treating facility in Sweetwater, Tennessee and recorded a gain on sale of \$2.5 million.
- In October 2021, we sold our closed Denver, Colorado crosstie treating facility and recorded a gain on sale of \$23.4 million.

4. Discontinued Operations

On September 30, 2020, we sold KJCC to Fangda Carbon New Material Co., Ltd and C-Chem Co., Ltd., a subsidiary of Nippon Steel Chemical & Material Co., Ltd. (the "Buyers"). KJCC was located in Pizhou, Jiangsu Province, China and was a 75 percent-owned coal tar distillation company which was part of our CMC segment. On December 23, 2021 and March 31, 2022, the Buyers issued various claims, which, after negotiation, were settled in April 2022 for \$0.9 million, of which our share is \$0.7 million. These claims were paid out of amounts held in escrow and the remaining escrow amount of \$1.5 million was fully released in August 2022. In the third quarter of 2022, we recorded a charge of \$0.5 million related to a tax indemnity claim from the Buyers which was paid in the fourth quarter of 2022.

The sale of KJCC represented a strategic shift that had a major effect on our operations and accordingly is classified as discontinued operations in our condensed consolidated financial statements and notes.

5. Fair Value Measurements

Carrying amounts and the related estimated fair values of our financial instruments as of September 30, 2022 and December 31, 2021 are as follows:

	September 30, 2022		December 31, 2021	
	Fair Value	Carrying Value	Fair Value	Carrying Value
<i>(Dollars in millions)</i>				
Financial assets:				
Investments and other assets	\$ 1.3	\$ 1.3	\$ 1.3	\$ 1.3
Financial liabilities:				
Long-term debt (including current portion)	\$ 789.3	\$ 826.8	\$ 804.1	\$ 789.1

Investments and other assets – Represents the broker-quoted cash surrender value on universal life insurance policies. This asset is classified as Level 2 in the valuation hierarchy and is measured from values received from financial institutions.

Debt – The fair value of our long-term debt is estimated based on the market prices for the same or similar issuances or on the current rates offered to us for debt of the same remaining maturities (Level 2). The fair value of our Credit Facility approximates carrying value due to the variable rate nature of this instrument.

6. Comprehensive (Loss) Income and Equity

Total comprehensive (loss) income for the three and nine months ended September 30, 2022 and 2021 is summarized in the table below:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2022	2021	2022	2021
<i>(Dollars in millions)</i>				
Net income	\$ 19.0	\$ 10.0	\$ 49.4	\$ 62.7
Changes in other comprehensive (loss) income:				
Currency translation adjustment	(20.1)	(11.1)	(40.7)	(14.5)
Unrealized (loss) on cash flow hedges, net of tax benefit of \$4.9, \$6.1, \$21.1 and \$1.2	(8.7)	(16.6)	(37.4)	(3.3)
Unrecognized pension net loss, net of tax expense of \$0.1, \$0.1, \$0.2 and \$0.3	0.3	0.3	1.0	0.8
Total comprehensive (loss) income	(9.5)	(17.4)	(27.7)	45.7
Comprehensive loss attributable to noncontrolling interests	(0.4)	(0.2)	(0.6)	(0.2)
Comprehensive (loss) income attributable to Koppers	\$ (9.1)	\$ (17.2)	\$ (27.1)	\$ 45.9

Amounts reclassified from accumulated other comprehensive loss to net income consist of amounts shown for changes in or amortization of unrecognized pension net loss. This component of accumulated other comprehensive loss is included in the computation of net periodic pension cost as disclosed in Note 13 – "Pensions and Post-Retirement Benefit Plans." Other amounts reclassified from accumulated other comprehensive loss related to derivative financial instruments of \$5.8 million and \$27.0 million for the three and nine months ended September 30, 2022, and \$11.1 million and \$31.0 million for the three and nine months ended September 30, 2021, respectively. The amounts in the preceding sentence are net of tax.

The following tables present the change in equity for the three months ended September 30, 2022 and 2021, respectively:

<i>(Dollars in millions)</i>	<i>Common Stock</i>	<i>Additional Paid-In Capital</i>	<i>Retained Earnings</i>	<i>Accumulated Other Comprehensive Loss</i>	<i>Treasury Stock</i>	<i>Noncontrolling Interests</i>	<i>Total Equity</i>
Balance at June 30, 2022	\$ 0.2	\$ 257.0	\$ 329.3	\$ (88.7)	\$ (122.5)	\$ 3.9	\$ 379.2
Net income	0.0	0.0	19.1	0.0	0.0	(0.1)	19.0
Dividends	0.0	0.0	(1.0)	0.0	0.0	0.0	(1.0)
Issuance of common stock	0.0	0.3	0.0	0.0	0.0	0.0	0.3
Employee stock plans	0.0	3.2	0.0	0.0	0.0	0.0	3.2
Other comprehensive (loss) income							
Currency translation adjustment	0.0	0.0	0.0	(19.6)	0.0	(0.3)	(19.9)
Unrealized loss on cash flow hedges	0.0	0.0	0.0	(8.7)	0.0	0.0	(8.7)
Unrecognized pension net loss	0.0	0.0	0.0	0.3	0.0	0.0	0.3
Balance at September 30, 2022	\$ 0.2	\$ 260.5	\$ 347.4	\$ (116.7)	\$ (122.5)	\$ 3.5	\$ 372.4

<i>(Dollars in millions)</i>	<i>Common Stock</i>	<i>Additional Paid-In Capital</i>	<i>Retained Earnings</i>	<i>Accumulated Other Comprehensive Loss</i>	<i>Treasury Stock</i>	<i>Noncontrolling Interests</i>	<i>Total Equity</i>
Balance at June 30, 2021	\$ 0.2	\$ 242.7	\$ 268.8	\$ (5.5)	\$ (94.4)	\$ 4.3	\$ 416.1
Net income (loss)	0.0	0.0	10.2	0.0	0.0	(0.2)	10.0
Issuance of common stock	0.0	0.3	0.0	0.0	0.0	0.0	0.3
Repurchases of common stock	0.0	0.0	0.0	0.0	(1.4)	0.0	(1.4)
Employee stock plans	0.0	3.3	0.0	0.0	0.0	0.0	3.3
Other comprehensive (loss) income							
Currency translation adjustment	0.0	0.0	(0.3)	(11.1)	0.0	0.0	(11.4)
Unrealized loss on cash flow hedges	0.0	0.0	0.0	(16.6)	0.0	0.0	(16.6)
Unrecognized pension net loss	0.0	0.0	0.0	0.3	0.0	0.0	0.3
Balance at September 30, 2021	\$ 0.2	\$ 246.2	\$ 278.8	\$ (33.0)	\$ (95.8)	\$ 4.1	\$ 400.5

The following tables present the change in equity for the nine months ended September 30, 2022 and 2021, respectively:

<i>(Dollars in millions)</i>	<i>Common Stock</i>	<i>Additional Paid-In Capital</i>	<i>Retained Earnings</i>	<i>Accumulated Other Comprehensive Loss</i>	<i>Treasury Stock</i>	<i>Noncontrolling Interests</i>	<i>Total Equity</i>
Balance at December 31, 2021	\$ 0.2	\$ 249.5	\$ 300.9	\$ (40.0)	\$ (104.0)	\$ 4.2	\$ 410.8
Net income	0.0	0.0	49.6	0.0	0.0	(0.2)	49.4
Dividends	0.0	0.0	(3.2)	0.0	0.0	0.0	(3.2)
Issuance of common stock	0.0	0.9	0.0	0.0	0.0	0.0	0.9
Repurchases of common stock	0.0	0.0	0.0	0.0	(18.5)	0.0	(18.5)
Employee stock plans	0.0	10.1	0.0	0.0	0.0	0.0	10.1
Other comprehensive (loss) income							
Currency translation adjustment	0.0	0.0	0.0	(40.2)	0.0	(0.6)	(40.8)
Unrealized loss on cash flow hedges	0.0	0.0	0.0	(37.4)	0.0	0.0	(37.4)
Unrecognized pension net loss	0.0	0.0	0.0	1.0	0.0	0.0	1.0
Balance at September 30, 2022	\$ 0.2	\$ 260.5	\$ 347.4	\$ (116.7)	\$ (122.5)	\$ 3.5	\$ 372.4

<i>(Dollars in millions)</i>	<i>Common Stock</i>	<i>Additional Paid-In Capital</i>	<i>Retained Earnings</i>	<i>Accumulated Other Comprehensive Loss</i>	<i>Treasury Stock</i>	<i>Noncontrolling Interests</i>	<i>Total Equity</i>
Balance at December 31, 2020	\$ 0.2	\$ 234.1	\$ 215.8	\$ (15.9)	\$ (92.5)	\$ 4.3	\$ 346.0
Net income (loss)	0.0	0.0	63.0	0.0	0.0	(0.3)	62.7
Issuance of common stock	0.0	2.2	0.0	0.0	0.0	0.0	2.2
Repurchases of common stock	0.0	0.0	0.0	0.0	(3.3)	0.0	(3.3)
Employee stock plans	0.0	9.9	0.0	0.0	0.0	0.0	9.9
Other comprehensive (loss) income							
Currency translation adjustment	0.0	0.0	0.0	(10.2)	0.0	0.1	(10.1)
Cumulative translation adjustment loss on sale of subsidiary	0.0	0.0	0.0	(4.4)	0.0	0.0	(4.4)
Unrealized loss on cash flow hedges	0.0	0.0	0.0	(3.3)	0.0	0.0	(3.3)
Unrecognized pension net loss	0.0	0.0	0.0	0.8	0.0	0.0	0.8
Balance at September 30, 2021	\$ 0.2	\$ 246.2	\$ 278.8	\$ (33.0)	\$ (95.8)	\$ 4.1	\$ 400.5

On November 3, 2022, we declared a quarterly dividend of \$0.05 per common share, payable on December 12, 2022 to shareholders of record as of November 25, 2022.

7. Earnings per Common Share

The computation of basic earnings per common share for the periods presented is based upon the weighted average number of common shares outstanding during the periods. The computation of diluted earnings per common share includes the effect of non-vested nonqualified stock options and restricted stock units assuming such options and stock units were outstanding common shares at the beginning of the period. The effect of antidilutive securities is excluded from the computation of diluted loss per common share, if any.

The following table sets forth the computation of basic and diluted earnings per common share:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2022	2021	2022	2021
<i>(Dollars in millions, except share amounts, in thousands)</i>				
Net income attributable to Koppers	\$ 19.1	\$ 10.2	\$ 49.6	\$ 63.0
Less: Gain (loss) on sale of discontinued operations, net of tax of \$0.0	0.0	(0.5)	(0.5)	0.1
Income from continuing operations attributable to Koppers	\$ 19.1	\$ 10.7	\$ 50.1	\$ 62.9
Weighted average common shares outstanding:				
Basic	20,897	21,322	21,024	21,253
Effect of dilutive securities	188	625	321	696
Diluted	21,085	21,947	21,345	21,949
Earnings per common share – continuing operations:				
Basic earnings per common share	\$ 0.91	\$ 0.50	\$ 2.38	\$ 2.96
Diluted earnings per common share	0.91	0.49	2.35	2.87
Other data:				
Antidilutive securities excluded from computation of diluted earnings per common share	1,088	563	1,075	437

8. Stock-based Compensation

We have outstanding stock-based compensation awards that were granted under the amended and restated 2005 Long-Term Incentive Plan (the “2005 LTIP”), the 2018 Long-Term Incentive Plan (the “2018 LTIP”) and the 2020 Long-Term Incentive Plan, as amended (the “2020 LTIP”). The 2005 LTIP, the 2018 LTIP and the 2020 LTIP are collectively referred to as the “LTIP”. The LTIP provides for the grant to eligible persons of stock options, stock appreciation rights, restricted stock, restricted stock units, performance shares, performance awards, dividend equivalents and other stock-based awards, which are collectively referred to as the “awards.”

Restricted Stock Units and Performance Stock Units

Under the LTIP, the board of directors grants restricted stock units and performance stock units to certain employee participants (collectively, the “stock units”). Compensation expense for non-vested stock units is recorded over the vesting period based on the fair value at the date of grant. The fair value of restricted stock units is the market price of the underlying common stock on the date of grant and the fair value of performance stock units is determined using a Monte Carlo valuation model. For grants to most employees, the restricted stock units vest in four equal annual installments. Restricted stock units that have one-year vesting periods are also issued under the LTIP to members of the board of directors in connection with annual director compensation and, from time to time, are issued to employees in connection with employee compensation with vesting periods of typically two years or less.

Performance stock units have vesting based upon a market condition. These performance stock units have multi-year performance objectives and a three-year period for vesting (if the applicable performance objectives are achieved). The applicable performance objective is based on our total shareholder return relative to the Standard & Poor’s SmallCap 600 Materials Index. The number of performance stock units granted represents the target award and participants have the ability to earn between zero and 200 percent of the target award based upon actual performance. If minimum performance criteria are not achieved, no performance stock units will vest. We have the discretion to settle the award in cash rather than shares, although we currently expect that all awards will be settled by the issuance of shares.

We calculated the fair value of the performance stock unit awards on the date of grant using the assumptions listed below:

	January 2022 Grant		January 2021 Grant		March 2020 Grant	
Grant date price per share of performance award	\$	32.19	\$	29.84	\$	19.63
Expected dividend yield per share		0.00 %		0.00 %		0.00 %
Expected volatility		66.90 %		68.70 %		45.60 %
Risk-free interest rate		1.10 %		0.16 %		0.72 %
Look-back period in years		3.00		3.00		2.83
Grant date fair value per share	\$	45.19	\$	41.50	\$	11.56

Dividends declared, if any, on our common stock during the period prior to vesting of the stock units are credited at equivalent value as additional stock units and become payable as additional common shares upon vesting. In the event of termination of employment, other than retirement, death or disability, any non-vested stock units are forfeited, including additional stock units credited from dividends. In the event of termination of employment due to retirement, death or disability, pro-rata vesting of the stock units over the service period will result. There are special vesting provisions for the stock units related to a change in control.

The following table shows a summary of the performance stock units as of September 30, 2022:

Performance Period	Minimum Shares	Target Shares	Maximum Shares
2020 – 2022	0	74,259	148,563
2021 – 2023	40,751	137,936	235,138
2022 – 2024	0	149,892	299,784

The following table shows a summary of the status and activity of non-vested stock units for the nine months ended September 30, 2022:

	Restricted Stock Units	Performance Stock Units	Total Stock Units	Weighted Average Grant Date Fair Value per Unit
Non-vested at December 31, 2021	505,905	474,166	980,071	\$ 30.79
Granted	247,760	151,236	398,996	\$ 35.92
Performance share adjustment	0	2,491	2,491	\$ 14.20
Vested	(193,462)	(256,956)	(450,418)	\$ 34.47
Forfeited	(25,344)	(8,848)	(34,192)	\$ 28.19
Non-vested at September 30, 2022	534,859	362,089	896,948	\$ 31.28

Stock Options

Stock options to executive officers vest and become exercisable in four equal annual installments. The stock options have a term of ten years. In the event of termination of employment, other than retirement, death or disability, any non-vested options are forfeited. In the event of termination of employment due to retirement, death or disability, pro-rata vesting of the options over the service period will result. There are special vesting provisions for the stock options related to a change in control.

Compensation expense for non-vested stock options is recorded over the vesting period based on the fair value at the date of grant. We calculated the fair value of stock options on the date of grant using the Black-Scholes-Merton model and the assumptions listed below:

	January 2022 Grant		January 2021 Grant		March 2020 Grant		March 2019 Grant	
Grant date price per share of stock option award	\$	32.19	\$	29.84	\$	19.63	\$	26.63
Expected dividend yield per share		0.00 %		0.00 %		0.00 %		0.00 %
Expected life in years		6.76		6.64		6.40		6.14
Expected volatility		54.50 %		54.80 %		42.85 %		39.44 %
Risk-free interest rate		1.52 %		0.59 %		0.87 %		2.53 %
Grant date fair value per share of option awards	\$	17.58	\$	15.79	\$	8.42	\$	11.29

Prior to February 2022, we had not declared a dividend since 2014. The dividend yield is based on the Company's current and prospective dividend rate which calculates a continuous dividend yield based upon the market price of the underlying common stock. The expected life in years is based on historical exercise data of options previously granted by us. Expected volatility is based on the historical volatility of our common stock and the historical volatility of certain other similar public companies. The risk-free interest rate is based on U.S. Treasury bill rates for the expected life of the option.

The following table shows a summary of the status and activity of stock options for the nine months ended September 30, 2022:

	Options	Weighted Average Exercise Price per Option	Weighted Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value (in millions)
Outstanding at December 31, 2021	1,054,166	\$ 26.89		
Granted	98,108	\$ 32.19		
Expired	(30,138)	\$ 38.21		
Outstanding at September 30, 2022	1,122,136	\$ 27.05	4.87	\$ 1.3
Exercisable at September 30, 2022	843,475	\$ 26.99	3.77	\$ 1.2

Stock Compensation Expense

Total stock-based compensation expense recognized under our LTIP and employee stock purchase plan for the three and nine months ended September 30, 2022 and 2021 is as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2022	2021	2022	2021
<i>(Dollars in millions)</i>				
Stock-based compensation expense recognized:				
Selling, general and administrative expenses	\$ 3.2	\$ 3.2	\$ 10.0	\$ 9.8
Less related income tax benefit	1.2	0.8	3.6	2.6
Decrease in net income attributable to Koppers	\$ 2.0	\$ 2.4	\$ 6.4	\$ 7.2
Intrinsic value of exercised stock options	\$ 0.0	\$ 0.0	\$ 0.0	\$ 2.2
Cash received from the exercise of stock options	\$ 0.0	\$ 0.0	\$ 0.0	\$ 2.3

As of September 30, 2022, total future compensation expense related to non-vested stock-based compensation arrangements is expected to total \$21.6 million and the weighted-average period over which this expense is expected to be recognized is approximately 27 months.

9. Segment Information

We have three reportable segments: RUPS, Performance Chemicals ("PC") and CMC. Our reportable segments contain multiple aggregated business units since management believes the long-term financial performance of these business units is affected by similar economic conditions. The reportable segments are each managed separately because they manufacture and distribute distinct products with different production processes.

Our RUPS segment sells treated and untreated wood products, manufactured products and services primarily to the railroad and public utility markets. Railroad products and services include procuring and treating items such as crossties, switch ties and various types of lumber used for railroad bridges and crossings and the manufacture of rail joint bars. Utility products include transmission and distribution poles and pilings. The segment also operates a railroad services business that conducts engineering, design, repair and inspection services for railroad bridges, a business related to the recovery of used crossties and a business related to the inspection of utility poles.

Our PC segment develops, manufactures, and markets wood preservation chemicals and wood treatment technologies and services a diverse range of end-markets including infrastructure, residential and commercial construction, and agriculture.

Our CMC segment is primarily a manufacturer of creosote, carbon pitch, naphthalene, phthalic anhydride and carbon black feedstock. Creosote is used in the treatment of wood and carbon black feedstock is used in the production of carbon black. Carbon pitch is used in the production of aluminum and steel in electric arc furnaces. Naphthalene is used for the production of phthalic anhydride and as a surfactant in the production of concrete. Phthalic anhydride is used in the production of plasticizers, polyester resins and alkyd paints.

Our primary measure of segment profitability is adjusted earnings before interest, income taxes, depreciation, amortization and certain non-cash and/or non-recurring items that do not contribute directly to management's evaluation of our operating results (as defined by us, "adjusted EBITDA"). These items include impairment, restructuring and plant closure costs, mark-to-market commodity hedging, gain or loss on sale of assets and LIFO inventory effects. This presentation is consistent with how our chief operating decision maker evaluates the results of operations and makes strategic decisions about the business. In addition, adjusted EBITDA is the primary measure used to determine the level of achievement of management's short-term incentive goals and related payout. For these reasons, we believe that adjusted EBITDA represents the most relevant measure of segment profit and loss.

Consolidated adjusted EBITDA is reconciled to net income, the most directly comparable financial measure determined and reported in accordance with U.S. GAAP. The accounting policies of the reportable segments are the same as those described in the summary of significant accounting policies. Intersegment transactions are eliminated in consolidation.

Contract Balances

The timing of revenue recognition results in both billed accounts receivable and unbilled receivables, both classified as accounts receivable, net of allowance within the condensed consolidated balance sheet. Contract assets of \$8.4 million and \$7.9 million are recorded within accounts receivable, net of allowance within the condensed consolidated balance sheet as of September 30, 2022 and December 31, 2021, respectively.

The following table sets forth certain sales and operating data, net of all intersegment transactions, for our segments for the periods indicated:

	<u>Three Months Ended September 30,</u>		<u>Nine Months Ended September 30,</u>	
	2022	2021	2022	2021
<i>(Dollars in millions)</i>				
Revenues from external customers:				
Railroad and Utility Products and Services	\$ 207.7	\$ 186.9	\$ 595.3	\$ 574.3
Performance Chemicals	153.1	115.2	439.1	384.4
Carbon Materials and Chemicals	175.3	122.7	463.5	314.6
Total	\$ 536.1	\$ 424.8	\$ 1,497.9	\$ 1,273.3
Intersegment revenues:				
Performance Chemicals	\$ 6.8	\$ 3.9	\$ 16.7	\$ 11.2
Carbon Materials and Chemicals	19.9	18.9	57.4	55.2
Total	\$ 26.7	\$ 22.8	\$ 74.1	\$ 66.4
Depreciation and amortization expense:				
Railroad and Utility Products and Services	\$ 5.6	\$ 5.3	\$ 16.5	\$ 16.9
Performance Chemicals	3.8	4.1	11.5	13.6
Carbon Materials and Chemicals	7.5	4.0	16.5	12.9
Total	\$ 16.9	\$ 13.4	\$ 44.5	\$ 43.4
Adjusted EBITDA:				
Railroad and Utility Products and Services	\$ 15.5	\$ 10.7	\$ 40.3	\$ 39.1
Performance Chemicals	16.7	20.2	57.9	82.5
Carbon Materials and Chemicals	36.6	22.5	77.8	51.5
Items excluded from the determination of segment profit:				
Impairment, restructuring and plant closure (costs) benefits	(0.3)	0.7	(0.2)	(4.3)
Gain on sale of assets	0.0	0.0	2.5	7.8
LIFO expense	(6.1)	(10.6)	(12.9)	(15.8)
Mark-to-market commodity hedging losses	(1.9)	(4.4)	(9.0)	(2.8)
Corporate unallocated	0.0	0.5	0.0	1.6
Interest expense	(11.4)	(10.2)	(32.3)	(30.5)
Depreciation and amortization	(16.9)	(14.1)	(44.5)	(44.1)
Income tax provision	(13.2)	(4.8)	(29.7)	(22.4)
Discontinued operations	0.0	(0.5)	(0.5)	0.1
Net income	\$ 19.0	\$ 10.0	\$ 49.4	\$ 62.7

The following table sets forth revenues for significant product lines, net of all intersegment transactions, for our segments for the periods indicated:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2022	2021	2022	2021
<i>(Dollars in millions)</i>				
Railroad and Utility Products and Services:				
Railroad treated products	\$ 120.6	\$ 107.1	\$ 348.2	\$ 327.6
Utility poles	63.0	59.6	178.7	186.2
Railroad infrastructure services	10.9	8.8	29.9	25.3
Rail joints	7.8	5.7	21.6	17.9
Other products	5.4	5.7	16.9	17.3
Total	207.7	186.9	595.3	574.3
Performance Chemicals:				
Wood preservative products	148.3	110.1	419.2	366.4
Other products	4.8	5.1	19.9	18.0
Total	153.1	115.2	439.1	384.4
Carbon Materials and Chemicals:				
Pitch and related products	109.6	70.4	270.0	177.7
Phthalic anhydride and other chemicals	31.6	19.7	85.0	52.2
Creosote and distillates	17.2	19.0	56.9	48.6
Naphthalene	9.1	6.2	26.1	15.5
Other products	7.8	7.4	25.5	20.6
Total	175.3	122.7	463.5	314.6
Total	\$ 536.1	\$ 424.8	\$ 1,497.9	\$ 1,273.3

The following table sets forth assets and goodwill allocated to each of our segments as of the dates indicated:

	September 30,	December 31,
	2022	2021
<i>(Dollars in millions)</i>		
Segment assets:		
Railroad and Utility Products and Services	\$ 620.9	\$ 594.1
Performance Chemicals	516.3	586.9
Carbon Materials and Chemicals	487.6	447.1
All other	27.9	33.8
Total	\$ 1,652.7	\$ 1,661.9
Goodwill:		
Railroad and Utility Products and Services	\$ 120.4	\$ 120.9
Performance Chemicals	171.6	175.1
Total	\$ 292.0	\$ 296.0

10. Income Taxes

Effective Tax Rate

The income tax provision for interim periods is comprised of an estimated annual effective income tax rate applied to current year ordinary income and tax associated with discrete items. These discrete items generally relate to excess stock compensation deductions, changes in tax laws, adjustments to unrecognized tax benefits and changes of estimated tax liability to the actual liability determined upon filing income tax returns. To determine the annual effective tax rate, management is required to make estimates of annual pretax income in each domestic and foreign jurisdiction in which we conduct business. Entities that have historical pre-tax losses and current year estimated pre-tax losses that are not projected to generate a future benefit are excluded from the estimated annual effective income tax rate.

The estimated annual effective income tax rate, excluding discrete items, was 36.1 percent and 26.8 percent for the nine months ended September 30, 2022 and 2021, respectively. The estimated annual effective income tax rate differs from the U.S. federal statutory tax rate due to:

	September 30,	
	2022	2021
Federal income tax rate	21.0 %	21.0 %
Foreign earnings taxed at different rates	6.8	3.6
Interest expense deduction limitation	5.9	0.0
Nondeductible expenses	1.6	1.3
State income taxes, net of federal tax benefit	0.6	0.8
Change in tax contingency reserves	0.1	0.1
GILTI inclusion, net of foreign tax credits	0.1	0.0
Estimated annual effective income tax rate	36.1 %	26.8 %

The interest expense deduction limitation is limited to 30.0 percent of adjusted taxable income as defined under the tax regulations. Starting January 1, 2022, the calculation of adjusted taxable income excludes an addback for depreciation and amortization whereas previous years' determination of adjusted taxable income included an addback for depreciation and amortization. This change in the determination of adjusted taxable income has decreased the amount of interest expense we can deduct and has had a significant unfavorable impact on our estimated annual effective income tax rate for the current year.

Income taxes as a percentage of pretax income were 41.0 percent for the three months ended September 30, 2022. This is higher than the estimated annual effective income tax rate of 36.1 percent due to additional tax expense recognized in the current quarter as a result of increasing the estimated annual effective income tax rate utilized in the previous quarter.

Income taxes as a percentage of pretax income were 37.3 percent for the nine months ended September 30, 2022. This was higher than the estimated annual effective income tax rate of 36.1 percent due to forecasted pre-tax losses of certain foreign subsidiaries that are not expected to generate a future benefit.

During the year, management regularly updates estimates of pre-tax income and income tax expense based on changes in pre-tax income projections by taxable jurisdiction, repatriation of foreign earnings, unrecognized tax benefits and other tax matters. To the extent that actual results vary from these estimates, the actual annual effective income tax rate at the end of the year could be materially different from the estimated annual effective income tax rate as of September 30, 2022.

Unrecognized Tax Benefits

We file income tax returns in the U.S. federal jurisdiction, individual U.S. state jurisdictions and non-U.S. jurisdictions. With few exceptions, we are no longer subject to U.S. federal, U.S. state, or non-U.S. income tax examinations by tax authorities for years prior to 2016.

Unrecognized tax benefits totaled \$1.4 million and \$1.5 million as of September 30, 2022 and December 31, 2021. The total amount of unrecognized tax benefits that, if recognized, would affect the effective tax rate, was approximately \$1.4 million and \$1.5 million as of September 30, 2022 and December 31, 2021. We recognize interest expense and any related penalties from unrecognized tax benefits in income tax expense. As of September 30, 2022 and December 31, 2021, we had accrued approximately \$0.4 million for interest and penalties.

We do not anticipate material changes to the amount of unrecognized tax benefits within the next twelve months.

11. Inventories

Net inventories as of September 30, 2022 and December 31, 2021 are summarized in the table below:

	September 30, 2022		December 31, 2021	
<i>(Dollars in millions)</i>				
Raw materials	\$	264.1	\$	266.8
Work in process		11.5		12.6
Finished goods		120.9		112.1
	\$	396.5	\$	391.5
Less revaluation to LIFO		90.5		77.7
Net	\$	306.0	\$	313.8

12. Property, Plant and Equipment

Property, plant and equipment as of September 30, 2022 and December 31, 2021 are summarized in the table below:

	September 30, 2022	December 31, 2021
<i>(Dollars in millions)</i>		
Land	\$ 13.7	\$ 15.2
Buildings	73.1	75.8
Machinery and equipment	888.9	836.8
	\$ 975.7	\$ 927.8
Less accumulated depreciation	448.5	438.7
Net	\$ 527.2	\$ 489.1

13. Pensions and Post-Retirement Benefit Plans

We maintain a number of defined benefit and defined contribution plans to provide retirement benefits for employees in the United States, as well as employees outside the United States. These plans are maintained and contributions are made in accordance with the Employee Retirement Income Security Act of 1974 ("ERISA"), local statutory law or as determined by the board of directors. The defined benefit pension plans generally provide benefits based upon years of service and compensation. Pension plans are funded except for three domestic non-qualified defined benefit pension plans for certain key executives.

In the United States, all qualified and two of the non-qualified defined benefit pension plans for salaried and hourly employees have been frozen and are closed to new participants. Accordingly, these pension plans no longer accrue additional years of service or recognize future increases in compensation for benefit purposes.

With respect to our defined benefit pension plan in the United Kingdom, in 2021 we entered into a buy-in bulk annuity insurance policy in exchange for a premium payment of \$67.8 million, which is subject to adjustment as a result of subsequent data cleansing activities. Under the terms of this buy-in insurance policy, the insurer is liable to pay the benefits of our defined benefit pension plan in the United Kingdom, but the plan still retains full legal responsibility to pay the benefits to the members of the plan using the insurance payments. The buy-in policy will be treated as a plan asset going forward until such time as the buy-in policy is converted to a buy-out policy, which is when individual insurance policies will be assigned to each member of the plan and the plan will no longer have legal responsibility to pay the benefits to the members. The data cleansing effort is expected to be completed in mid-2023 at which time the pension obligation will be irrevocably settled. Upon that event, we will recognize a pre-tax pension settlement loss of approximately \$22 million.

The defined contribution plans generally provide retirement assets to employee participants based upon employer and employee contributions to the participant's individual investment account. We also provide retiree medical insurance coverage to certain U.S. employees and a life insurance benefit to most U.S. employees. For salaried employees, the retiree medical and retiree life insurance plans have been closed to new participants.

The following table provides the components of net periodic benefit cost for the pension plans for the three and nine months ended September 30, 2022 and 2021:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2022	2021	2022	2021
<i>(Dollars in millions)</i>				
Service cost	\$ 0.3	\$ 0.4	\$ 0.9	\$ 1.1
Interest cost	1.4	1.1	4.3	3.8
Expected return on plan assets	(1.9)	(1.8)	(5.8)	(5.5)
Amortization of net loss	0.4	0.4	1.3	1.1
Net periodic benefit cost	\$ 0.2	\$ 0.1	\$ 0.7	\$ 0.5
Defined contribution plan expense	\$ 2.2	\$ 1.9	\$ 7.0	\$ 6.5

14. Debt

Debt as of September 30, 2022 and December 31, 2021 was as follows:

<i>(Dollars in millions)</i>	<i>Weighted Average Interest Rate</i>	<i>Maturity</i>	<i>September 30, 2022</i>	<i>December 31, 2021</i>
Term Loan	2.38 %	—	\$ 0.0	\$ 2.0
Revolving Credit Facility	2.38 %	—	0.0	287.1
Revolving Credit Facility	5.16 %	2027	326.8	0.0
Senior Notes due 2025	6.00 %	2025	500.0	500.0
Debt			826.8	789.1
Less short-term debt and current maturities of long-term debt			0.0	2.0
Less unamortized debt issuance costs			8.1	5.6
Long-term debt			\$ 818.7	\$ 781.5

Revolving Credit Facility

In June 2022, we entered into an \$800.0 million revolving credit agreement (the "Credit Facility") with a consortium of banks which replaced our previous \$600.0 million senior secured revolving credit facility and \$100.0 million senior secured term loan facility (the latter having been fully repaid as of March 31, 2022). The Credit Facility also provides for a \$50.0 million swingline facility and provides for the ability to incur one or more uncommitted incremental revolving or term loan facilities in an aggregate amount of at least \$730.0 million, subject to applicable financial covenants. The maturity date of the Credit Facility is in June 2027 subject to a springing maturity in the event the 2025 Notes (as defined below) are not repurchased, redeemed or refinanced prior to November 15, 2024. The interest rate on the Credit Facility is variable and may be based on the Secured Overnight Financing Rate ("SOFR"), which is the applicable benchmark for current borrowings, or an alternative benchmark depending on the borrowing type.

Borrowings under the Credit Facility are secured by a first priority lien on substantially all of the assets (excluding real property and other customary assets) of Koppers Inc., Koppers Holdings Inc. and their material domestic subsidiaries. The Credit Facility contains certain covenants that limit Koppers Inc. and its restricted subsidiaries, including, without limitation, limitations on additional indebtedness, liens, dividends, investments, acquisitions, subsidiary and certain other distributions, asset sales, transactions with affiliates and modifications to material documents, including organizational documents. In addition, such covenants give rise to events of default upon the failure by Koppers Inc. and its restricted subsidiaries to meet certain financial ratios.

As of September 30, 2022, we had approximately \$400 million of unused revolving credit availability after restrictions from certain letter of credit commitments and other covenants. As of September 30, 2022, \$7.8 million of commitments were utilized by outstanding undrawn letters of credit.

Senior Notes due 2025

Koppers Inc.'s \$500 million Senior Notes due 2025 (the "2025 Notes") are senior obligations of Koppers Inc., are unsecured and are guaranteed by Koppers Holdings Inc. and certain of Koppers Inc.'s domestic subsidiaries. The 2025 Notes pay interest semi-annually in arrears on February 15 and August 15 and will mature on February 15, 2025 unless earlier redeemed or repurchased. We are entitled to redeem all or a portion of the 2025 Senior Notes at a redemption price of 101.5 percent of principal value as of February 15, 2022 until April 15, 2023 when the 2025 Notes are redeemable at principal value.

The indenture governing the 2025 Senior Notes includes customary covenants that restrict, among other things, the ability of Koppers Inc. and its restricted subsidiaries to incur additional debt, pay dividends or make certain other restricted payments, incur liens, merge or sell all or substantially all of the assets of Koppers Inc. or its subsidiaries or enter into various transactions with affiliates.

15. Asset Retirement Obligations

We recognize asset retirement obligations for the removal and disposal of residues; dismantling of certain tanks required by governmental authorities; cleaning and dismantling costs for owned railcars; cleaning costs for leased rail-cars and barges; and site demolition, when required by governmental authorities or by contract. The following table reflects changes in the carrying values of asset retirement obligations:

	September 30, 2022	December 31, 2021
<i>(Dollars in millions)</i>		
Asset retirement obligation at beginning of year	\$ 13.2	\$ 19.8
Accretion expense	0.8	1.0
Revision in estimated cash flows	3.3	(0.3)
Cash expenditures	(0.6)	(7.3)
Currency translation	(0.2)	0.0
Balance at end of period	\$ 16.5	\$ 13.2

16. Leases

We recognize lease obligations and associated right-of-use assets for existing non-cancelable leases. We have non-cancelable operating leases primarily associated with railcars, office and manufacturing facilities, storage tanks, ships, production equipment and vehicles. Many of our leases include both lease (e.g., fixed rent) and non-lease components (e.g., maintenance and services). For certain asset classes such as railcars, storage tanks and ships, we have separated the lease and non-lease components based on the estimated stand-alone price for each component. For the remaining asset classes, we have elected to account for these components as a single lease component. In addition, we exclude leases expiring within twelve months from balance sheet recognition.

Many of our leases include one or more options to renew. We evaluate renewal options at the lease commencement date and regularly thereafter to determine if we are reasonably certain to exercise the option, in which case we include the renewal period in our lease term. As most of our leases do not provide an implicit rate, we use our incremental borrowing rate based on information available to determine the present value of the lease payments.

Lease expense for operating leases is recognized on a straight-line basis over the lease term. Variable lease expense is recognized in the period in which the obligation for those payments is incurred. Operating lease costs were \$7.1 million and \$21.8 million during the three and nine months ended September 30, 2022, respectively, and \$7.5 million and \$22.8 million during the three and nine months ended September 30, 2021, respectively. Variable lease costs were \$0.9 million and \$2.2 million during the three and nine months ended September 30, 2022, respectively, and \$0.8 million and \$2.7 million during the three and nine months ended September 30, 2021, respectively.

The following table presents information about the amount and timing of cash flows arising from our operating leases as of September 30, 2022:

<i>(Dollars in millions)</i>		
2022	\$	7.0
2023		23.7
2024		19.9
2025		16.2
2026		11.9
Thereafter		29.5
Total lease payments	\$	108.2
Less: Interest		(22.6)
Present value of lease liabilities	\$	85.6

Supplemental condensed consolidated balance sheet information related to leases is as follows:

	September 30, 2022	December 31, 2021
<i>(Dollars in millions)</i>		
Operating leases:		
Operating lease right-of-use assets	\$ 84.6	\$ 91.2
Current operating lease liabilities	\$ 19.4	\$ 21.3
Operating lease liabilities	66.2	70.3
Total operating lease liabilities	\$ 85.6	\$ 91.6
Weighted average remaining lease term, in years	5.7	5.8
Weighted average discount rate	7.3%	7.4%

17. Derivative Financial Instruments

We utilize derivative instruments to manage exposures to risks that have been identified, measured and are capable of being mitigated. The primary risks that we manage by using derivative instruments are commodity price risk associated with copper and foreign currency exchange risk associated with a number of currencies, principally the U.S. dollar, the Euro and British pounds. Swap contracts on copper are used to manage the price risk associated with forecasted purchases of materials used in our manufacturing processes. Generally, we will not hedge cash flow exposures for durations longer than 36 months and we have hedged certain volumes of copper through the end of 2023. We enter into foreign currency forward contracts to manage foreign currency risk associated with our receivable and payable balances in addition to foreign-denominated sales. Generally, we enter into master netting arrangements with the counterparties and offset net derivative positions with the same counterparties. Currently, our agreements do not require cash collateral.

The Company recognizes all derivative instruments as either assets or liabilities at fair value on the balance sheet. A derivative instrument's fair value is determined using significant other observable inputs, a Level 2 fair value measurement. We designate certain of our commodity swaps as cash flow hedges of forecasted purchases of commodities. For derivative instruments that are designated and qualify as cash flow hedges, the effective portion of the gain or loss on the derivative is reported as a component of other comprehensive (loss) income and is reclassified into earnings in the same period or periods during which the hedged transaction affects earnings. Gains and losses on the derivative instruments representing hedge ineffectiveness are recognized in current earnings.

For those commodity swaps where hedge accounting is not elected, the fair value of the commodity swap is recognized as an asset or liability on the consolidated balance sheet and the related gain or loss on the derivative is reported in current earnings. These amounts are classified in cost of sales in the condensed consolidated statement of operations.

As of September 30, 2022 and December 31, 2021, we had outstanding copper swap contracts of the following amounts:

	<i>Units Outstanding (in Pounds)</i>		<i>Net Fair Value - Asset (in Dollars)</i>	
	September 30, 2022	December 31, 2021	September 30, 2022	December 31, 2021
<i>(Amounts in millions)</i>				
Cash flow hedges	12.1	29.0	\$ 4.4	\$ 53.8
Contracts where hedge accounting was not elected	7.6	6.1	(2.0)	7.1
Total	19.7	35.1	\$ 2.4	\$ 60.9

As of September 30, 2022 and December 31, 2021, the fair value of the outstanding copper swap contracts is recorded in the balance sheet as follows:

	September 30, 2022	December 31, 2021
<i>(Dollars in millions)</i>		
Derivative contracts	\$ 3.4	\$ 60.9
Accrued liabilities	(0.4)	0.0
Other long-term liabilities	(0.6)	0.0
Net asset on balance sheet	\$ 2.4	\$ 60.9
Accumulated other comprehensive gain, net of tax	\$ 3.7	\$ 40.6

We estimate that \$3.9 million of unrealized gains, net of tax, related to commodity price hedging will be reclassified from other comprehensive (loss) income into earnings over the next twelve months.

See Note 6 – “Comprehensive (Loss) Income and Equity”, for amounts recorded in other comprehensive loss and for amounts reclassified from accumulated other comprehensive loss into net income for the periods specified below.

For the three and nine months ended September 30, 2022 and 2021, the unrealized (loss) gain from contracts where hedge accounting was not elected is as follows:

	<i>Three Months Ended September 30,</i>		<i>Nine Months Ended September 30,</i>	
	<i>2022</i>	<i>2021</i>	<i>2022</i>	<i>2021</i>
<i>(Dollars in millions)</i>				
(Loss) from contracts where hedge accounting was not elected	(1.9)	(4.4)	(9.0)	(2.7)

The fair value associated with forward contracts related to foreign currency that are not designated as hedges are immediately charged to earnings. These amounts are classified in cost of sales in the condensed consolidated statement of operations and comprehensive (loss) income.

As of September 30, 2022 and December 31, 2021, the fair value of outstanding foreign currency forward contracts is recorded in the balance sheet as follows:

	<i>September 30,</i>		<i>December 31,</i>	
	<i>2022</i>		<i>2021</i>	
<i>(Dollars in millions)</i>				
Derivative contracts	\$	0.0	\$	0.1
Accrued liabilities		(0.8)		(0.4)
Net liability on balance sheet	\$	(0.8)	\$	(0.3)

As of September 30, 2022 and December 31, 2021, the net currency units outstanding for these contracts were:

	<i>September 30,</i>		<i>December 31,</i>	
	<i>2022</i>		<i>2021</i>	
<i>(In millions)</i>				
United States Dollars		USD 11.7		USD 21.4

18. Commitments and Contingent Liabilities

We are involved in litigation and various proceedings relating to environmental laws and regulations, product liability and other matters. Certain of these matters are discussed below. The ultimate resolution of these contingencies is subject to significant uncertainty and should we fail to prevail in any of these legal matters or should several of these legal matters be resolved against us in the same reporting period, these legal matters could, individually or in the aggregate, be material to the condensed consolidated financial statements.

Legal Proceedings

Coal Tar Pitch Cases. Koppers Inc. is one of several defendants in lawsuits filed in two states in which the plaintiffs claim they suffered a variety of illnesses (including cancer) as a result of exposure to coal tar pitch sold by the defendants. There were 53 plaintiffs in 28 cases pending as of September 30, 2022, compared to 59 plaintiffs in 31 cases pending as of December 31, 2021. As of September 30, 2022, there were 27 cases pending in the Court of Common Pleas of Allegheny County, Pennsylvania, and one case pending in the Circuit Court of Knox County, Tennessee.

The plaintiffs in all 28 pending cases seek to recover compensatory damages. Plaintiffs in 24 of those cases also seek to recover punitive damages. The plaintiffs in the 27 cases filed in Pennsylvania seek unspecified damages in excess of the court’s minimum jurisdictional limit. The plaintiff in the Tennessee state court case seeks damages of \$15.0 million. The other defendants in these lawsuits vary from case to case and include companies such as Beazer East, Inc. (“Beazer East”), Honeywell International Inc., Graftech International Holdings, Dow Chemical Company, UCAR Carbon Company, Inc., and SGL Carbon Corporation. Discovery is proceeding in these cases. No trial dates have been set in any of these cases.

We have not provided a reserve for the coal tar pitch lawsuits because, at this time, we cannot reasonably determine the probability of a loss, and the amount of loss, if any, cannot be reasonably estimated. The timing of resolution of these cases cannot be reasonably determined. Although Koppers Inc. is vigorously defending these cases, an unfavorable resolution of these matters may have a material adverse effect on our business, financial condition, cash flows and results of operations.

Environmental and Other Litigation Matters

We are subject to federal, state, local and foreign laws and regulations and potential liabilities relating to the protection of the environment and human health and safety including, among other things, the cleanup of contaminated sites, the treatment, storage and disposal of wastes, the discharge of effluent into waterways, the emission of substances into the air and various health and safety matters. We expect to incur substantial costs for ongoing compliance with such laws and regulations. We may also face governmental or third-party claims, or otherwise incur costs, relating to cleanup of, or for injuries resulting from, contamination at sites associated with past and present operations. We accrue for environmental liabilities when a determination can be made that a liability is probable and reasonably estimable.

Environmental and Other Liabilities Retained or Assumed by Others. We have agreements with former owners of certain of our operating locations under which the former owners retained, assumed and/or agreed to indemnify us against certain environmental and other liabilities. The most significant of these agreements was entered into at Koppers Inc.'s formation on December 29, 1988 (the "Acquisition"). Under the related asset purchase agreement between Koppers Inc. and Beazer East, subject to certain limitations, Beazer East retained the responsibility for and agreed to indemnify Koppers Inc. against certain liabilities, damages, losses and costs, including, with certain limited exceptions, liabilities under and costs to comply with environmental laws to the extent attributable to acts or omissions occurring prior to the Acquisition and liabilities related to products sold by Beazer East prior to the Acquisition (the "Indemnity"). Beazer Limited, the parent company of Beazer East, unconditionally guaranteed Beazer East's performance of the Indemnity pursuant to a guarantee (the "Guarantee"). The Indemnity provides different mechanisms, subject to certain limitations, by which Beazer East is obligated to indemnify Koppers Inc. with regard to certain environmental, product and other liabilities and imposes certain conditions on Koppers Inc. before receiving such indemnification, including, in some cases, certain limitations regarding the time period as to which claims for indemnification can be brought. In July 2004, Koppers Inc. and Beazer East agreed to amend the environmental indemnification provisions of the December 29, 1988 asset purchase agreement to extend the indemnification period for pre-closing environmental liabilities, subject to the following paragraph, and agreed to share toxic tort litigation defense arising from any sites acquired from Beazer East.

Qualified expenditures under the Indemnity are not subject to a monetary limit. Qualified expenditures under the Indemnity include (i) environmental cleanup liabilities required by third parties, such as investigation, remediation and closure costs, relating to pre-December 29, 1988 ("Pre-Closing") acts or omissions of Beazer East or its predecessors; (ii) environmental claims by third parties for personal injuries, property damages and natural resources damages relating to Pre-Closing acts or omissions of Beazer East or its predecessors; (iii) punitive damages for the acts or omissions of Beazer East and its predecessors without regard to the date of the alleged conduct and (iv) product liability claims for products sold by Beazer East or its predecessors without regard to the date of the alleged conduct. The indemnification period ended July 14, 2019 (the "Claim Deadline") and Beazer East may now tender certain third-party claims described in sections (i) and (ii) above to Koppers Inc. However, to the extent the third-party claims described in sections (i) and (ii) above were tendered to Beazer East by the Claim Deadline, Beazer East will continue to be required to pay the costs arising from such claims under the Indemnity. Furthermore, the Claim Deadline did not change the provisions of the Indemnity with respect to indemnification for non-environmental claims, such as product liability claims, which claims may continue to be tendered by Koppers Inc. to Beazer East.

The Indemnity provides for the resolution of issues between Koppers Inc. and Beazer East by an arbitrator on an expedited basis upon the request of either party. The arbitrator could be asked, among other things, to make a determination regarding the allocation of environmental responsibilities between Koppers Inc. and Beazer East. Arbitration decisions under the Indemnity are final and binding on the parties.

Contamination has been identified at most manufacturing and other sites of our subsidiaries. One site currently owned and operated by Koppers Inc. in the United States is listed on the National Priorities List promulgated under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended ("CERCLA"). Currently, at the properties acquired from Beazer East (which includes the National Priorities List site and all but one of the sites permitted under the Resource Conservation and Recovery Act ("RCRA")), a significant portion of all investigative, cleanup and closure activities are being conducted and paid for by Beazer East pursuant to the terms of the Indemnity. In addition, other of Koppers Inc.'s sites are or have been operated under RCRA and various other environmental permits, and remedial and closure activities are being conducted at some of these sites.

To date, the parties that retained, assumed and/or agreed to indemnify us against the liabilities referred to above, including Beazer East, have performed their obligations in all material respects. We believe that, for the last three years ended December 31, 2021, amounts paid by Beazer East as a result of its environmental remediation obligations under the Indemnity have averaged, in total, approximately \$6.4 million per year. Periodically, issues have arisen between Koppers Inc. and Beazer East and/or other indemnitors that have been resolved without arbitration. Koppers Inc. and Beazer East engage in discussions from time to time that involve, among other things, the allocation of environmental costs related to certain operating and closed facilities.

If for any reason (including disputed coverage or financial incapability) one or more of such parties fail to perform their obligations and we are held liable for or otherwise required to pay all or part of such liabilities without reimbursement, the imposition of such liabilities on us could have a material adverse effect on our business, financial condition, cash flows and results of operations. Furthermore, we could be required to record a contingent liability on our balance sheet with respect to such matters, which could result in a negative impact to our business, financial condition, cash flows and results of operations.

Domestic Environmental Matters. Koppers Inc. has been named as one of the potentially responsible parties (“PRPs”) at the Portland Harbor CERCLA site located on the Willamette River in Oregon. Koppers Inc. operated a coal tar pitch terminal near the site. Koppers Inc. has responded to an EPA information request and has executed a PRP agreement which outlines a private process to develop an allocation of past and future costs among more than 80 parties to the site. Koppers Inc. believes it is a *de minimis* contributor at the site.

The EPA issued its Record of Decision (“ROD”) in January 2017 for the Portland Harbor CERCLA site. The selected remedy includes a combination of sediment removal, capping, enhanced and monitored natural recovery and riverbank improvements. The ROD does not determine who is responsible for remediation costs. At that time, the net present value and undiscounted costs of the selected remedy as estimated in the ROD were approximately \$1.1 billion and \$1.7 billion, respectively. These costs may increase given the remedy will not be implemented for several years. Responsibility for implementing and funding that work will be decided in the separate private allocation process which is ongoing.

Additionally, Koppers Inc. is involved in two separate matters involving natural resource damages at the Portland Harbor site. One matter involves claims by the trustees to recover damages based upon an assessment of damages to natural resources caused by the releases of hazardous substances to the Willamette River. The assessment serves as the foundation to estimate liabilities for settlements of natural resource damages claims or litigation to recover from those who do not settle with the trustee groups. Koppers Inc. has been engaged in a process to resolve its natural resource damage liabilities for the assessment area. A second matter involves a lawsuit filed in January 2017 by the Yakama Nation in Oregon federal court. Yakama Nation seeks recovery for response costs and the costs of assessing injury to natural resources in waterways beyond the current assessment area. Following the most recent court rulings, the Yakama Nation case has been stayed pending completion of the private allocation process for the Portland Harbor CERCLA site.

In September 2009, Koppers Inc. received a general notice letter stating that it may be a PRP at the Newark Bay CERCLA site. In January 2010, Koppers Inc. submitted a response to the general notice letter asserting that Koppers Inc. is a *de minimis* party at this site.

We have accrued the estimated costs of participating in the PRP group at the Portland Harbor and Newark Bay CERCLA sites and estimated *de minimis* contributor settlement amounts at the sites totaling \$3.3 million as of September 30, 2022. The actual cost could be materially higher as there has not been a determination of how those costs will be allocated among the PRPs at the sites. Accordingly, an unfavorable resolution of these matters may have a material adverse effect on our business, financial condition, cash flows and results of operations.

There are two plant sites related to the Performance Chemicals business and one plant site related to the Utility and Industrial Products business in the United States where we have recorded environmental remediation liabilities for soil and groundwater contamination which occurred prior to our acquisition of the businesses. As of September 30, 2022, our estimated environmental remediation liability for these acquired sites totals \$3.9 million.

Foreign Environmental Matters. There is one plant site related to the Performance Chemicals business located in Australia where we have recorded an environmental remediation liability for soil and groundwater contamination which occurred prior to the acquisition of the business. As of September 30, 2022, our estimated environmental remediation liability for the acquired site totals \$1.2 million.

Environmental Reserves Rollforward. The following table reflects changes in the accrual for environmental remediation. A total of \$2.4 million and \$2.8 million are classified as current liabilities as of September 30, 2022 and December 31, 2021:

	<i>Period ended</i>	
	<i>September 30,</i> <i>2022</i>	<i>December 31,</i> <i>2021</i>
<i>(Dollars in millions)</i>		
Balance at beginning of year	\$ 10.7	\$ 11.0
Expense	0.4	0.3
Reversal of reserves	0.0	(0.1)
Cash expenditures	(0.7)	(0.4)
Currency translation	(0.3)	(0.1)
Balance at end of period	\$ 10.1	\$ 10.7

19. Subsequent Events

In October 2022, we acquired substantially all of the assets of Gross & Janes Co. for approximately \$15 million. Gross & Janes, headquartered in Kirkwood, Missouri, is the largest independent supplier of untreated railroad crossties in North America, with operations in Missouri, Arkansas and Texas.

ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

This report and any documents incorporated herein by reference contain "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995 and may include, but are not limited to, statements about sales levels, acquisitions, restructuring, declines in the value of Koppers assets and the effect of any related impairment charges, profitability and anticipated expenses and cash outflows. All forward-looking statements involve risks and uncertainties. All statements contained herein that are not clearly historical in nature are forward-looking, and words such as "believe," "anticipate," "expect," "estimate," "may," "will," "should," "continue," "plans," "potential," "intends," "likely," or other similar words or phrases are generally intended to identify forward-looking statements. Any forward-looking statement contained herein, in press releases, written statements or documents filed with the Securities and Exchange Commission, or in Koppers communications and discussions with investors and analysts in the normal course of business through meetings, phone calls and conference calls, regarding future dividends, expectations with respect to sales, earnings, cash flows, operating efficiencies, restructurings, product introduction or expansion, the benefits of acquisitions and divestitures, or other matters as well as financings and debt reduction, are subject to known and unknown risks, uncertainties and contingencies. Many of these risks, uncertainties and contingencies are beyond our control, and may cause actual results, performance or achievements to differ materially from anticipated results, performance or achievements. Factors that might affect such forward-looking statements, include, among other things, the impact of changes in commodity prices, such as oil and copper, on product margins; general economic and business conditions; inflation; disruption in the U.S. and global financial markets; potential difficulties in protecting our intellectual property; the ratings on our debt and our ability to repay or refinance our outstanding indebtedness as it matures; our ability to operate within the limits of our debt covenants; potential impairment of our goodwill and/or long-lived assets; demand for Koppers goods and services; competitive conditions; interest rate and foreign currency rate fluctuations; availability and costs of key raw materials, such as coal tar, and unfavorable resolution of claims against us, as well as those discussed more fully elsewhere in this report and in documents filed with the Securities and Exchange Commission by Koppers, particularly our latest annual report on Form 10-K and subsequent filings. We caution you that the foregoing list of important factors may not contain all of the material factors that are important to you. In addition, in light of these risks and uncertainties, the matters referred to in the forward-looking statements contained in this report and the documents incorporated by reference herein may not in fact occur. Any forward-looking statements in this report speak only as of the date of this report, and we undertake no obligation to update any forward-looking statement to reflect events or circumstances after that date or to reflect the occurrence of unanticipated events.

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with the unaudited financial statements and related notes included in Item 1 of this Part I as well as the audited consolidated financial statements and the related notes included in our Annual Report on Form 10-K for the year ended December 31, 2021.

Overview

We are a leading integrated global provider of treated wood products, wood preservation chemicals and carbon compounds. Our products and services are used in a variety of niche applications in a diverse range of end-markets, including the railroad, specialty chemical, utility, residential lumber, agriculture, aluminum, steel, rubber and construction industries. We serve our customers through a comprehensive global manufacturing and distribution network, with manufacturing capabilities in North America, South America, Australasia and Europe.

We operate three principal businesses: RUPS, PC and CMC. Through our RUPS business, we believe that we are the largest supplier of wood crossties to the Class I railroads in North America. Our other treated wood products include utility poles for the electric, telephone, and broadband utility industries in the United States and Australia and construction pilings in the U.S. We also provide rail joint bar products as well as various services to the railroad industry in North America.

Through our PC business, we believe that we are the global leader in developing, manufacturing and marketing wood preservation chemicals and wood treatment technologies for use in the pressure treating of lumber for residential, industrial and agricultural applications.

Our CMC business processes coal tar into a variety of products, including creosote, carbon pitch, carbon black feedstock, naphthalene and phthalic anhydride, which are intermediate materials necessary in the pressure treatment of wood, and the production of aluminum, steel, carbon black, high-strength concrete, plasticizers and specialty chemicals, respectively.

Non-GAAP Financial Measures

We utilize certain financial measures that are not in accordance with U.S. generally accepted accounting principles (U.S. GAAP) to analyze and manage the performance of our business. We believe that adjusted EBITDA provides information useful to investors in understanding the underlying operational performance of the company, our business and performance trends, and facilitates comparisons between periods. The exclusion of certain items permits evaluation and a comparison between periods of results for business operations, and it is on this basis that our management internally assesses our performance. In addition, our board of directors and executive management team use adjusted EBITDA as a performance measure under the company's annual incentive plans.

Although we believe that these non-GAAP financial measures enhance investors' understanding of our business and performance, these non-GAAP financial measures should not be considered an alternative to GAAP financial measures and should be read in conjunction with the relevant GAAP financial measures. Other companies in a similar industry may define or calculate these measures differently than we do, limiting their usefulness as comparative measures. Because of these limitations, these non-GAAP financial measures should not be considered in isolation or as substitutes for performance measures calculated in accordance with GAAP.

Adjusted EBITDA is a non-GAAP financial measure defined as net income from continuing operations before interest, income taxes, depreciation, amortization and other adjustments. These other adjustments are items that we believe are not representative of underlying business performance. Adjusted items typically include certain expenses associated with impairment, restructuring and plant closure costs, significant gains and losses on asset disposals or business combinations, LIFO and mark-to-market commodity hedging and other unusual items. Adjusted EBITDA is the primary measure of profitability we use to evaluate our businesses. Refer to Note 9 – "Segment Information" for reconciliations from adjusted EBITDA to net income on a consolidated basis.

Outlook

Trend Overview

Our businesses and results of operations are affected by various competitive and other factors including (i) the impact of global economic conditions on demand for our products, including the impact of imported products from competitors in certain regions where we operate; (ii) raw material pricing and availability, in particular the cost and availability of hardwood lumber for railroad crossties, softwood lumber for utility poles, scrap copper prices, and the cost and amount of coal tar available in global markets, which is negatively affected by reductions in blast furnace steel production and currently by the Russian invasion of Ukraine; (iii) volatility in oil prices, which impacts the cost of coal tar and certain other raw materials, as well as selling prices and margins for certain of our products including carbon black feedstock, phthalic anhydride, and naphthalene; (iv) competitive conditions in global carbon pitch markets; and (v) changes in foreign exchange rates.

The Infrastructure Investment and Jobs Act, which was signed into law on November 15, 2021, will usher in more than a trillion dollars in new spending across eight years to improve the nation's roads, bridges, rail, internet, water systems and more. As a global leader in water- and oil-borne preservatives serving many end markets with our wood-treatment technologies, we believe we are well-positioned to benefit from the new legislation. Our products are used in multiple infrastructure applications, including utility poles, railroad ties, highway and construction concrete, steel, aluminum, and wood for construction projects.

Railroad and Utility Products and Services

Historically, North American demand for crossties had been in the range of 22 million to 25 million crossties annually. However, the crosstie replacement market has been significantly lower in recent years. According to the Railway Tie Association ("RTA"), the estimated total crosstie installations in 2021 were approximately 18.3 million, of which 14.2 million were for Class I railroads. Throughout the pandemic, some sawmills were operating at 50 percent or less of their production capacity. Sawmills provide raw materials to several industries beyond the wood crosstie market and as demand and pricing for construction lumber increased significantly throughout 2021 and continuing into 2022, overall crosstie production output thus far has been lower than forecasted, but is beginning to show improvement. Crosstie prices increased significantly as a result of limited supply and railroad customers are deferring their purchases. Given continuing economic uncertainties such as a tight labor market, the RTA is forecasting a slight decrease in 2022 of 0.8 percent, or 18.6 million crossties, primarily from lower Class I volumes while the commercial market is expected to have slightly higher demand levels. In 2023, the outlook reflects a modest overall increase of 1.1 percent, or 18.8 million crossties, with increases from Class I as well as commercial railroads.

According to the Association of American Railroads (“AAR”), rail traffic for the first nine months of 2022 was unfavorable compared with the prior year period. Compared to the prior year, total U.S. carload traffic increased 0.1 percent, while intermodal units declined by 5.1 percent for the year-to-date period through September 30, 2022. The combined U.S. traffic for carloads and intermodal units was lower than the prior year by 2.7 percent. The data reflects that consumers are continuing to shift toward services and away from goods, as well as certain underlying factors that have helped to magnify this trend for railroads. These consist of retailers holding substantial inventories of unsold goods and significantly lower internet buying from its pandemic peak, which negatively impacts replacement demand and rail volumes for packaged goods.

With respect to our utility products business, the installed base for wood distribution poles in the U.S. is approximately 150 million and nearly half of this total are 40 years old. Industry demand has historically been in the range of two million to three million poles annually. On an overall basis, we believe that the rate at which utilities purchase utility poles will grow as they continue replacement programs within their service territories. As a whole, the key factors that drive growth in the utility pole market include growing global energy consumption as well as expansion of the global telecommunication industry. Generally, utilities need to maintain their infrastructure to avoid interruptions in service due to extreme weather events that are occurring more frequently along with aging electrical grid systems across the U.S. At the same time, the need for digital connectivity remains strong given that portions of the population are continuing to work remotely. As long as there are not any extended supply chain disruptions, we anticipate that 2022 demand for pole replacements will be relatively stable to slightly higher, as the overall industry is trending toward expanded and upgraded transmission networks. In addition, the higher incidence of extreme climate conditions along with a growing frequency of natural disasters including floods, hurricanes, storms, wildfires and tornadoes have affected the industry. As a result, there is a developing trend in the industry for utilities to maintain some additional inventory to prepare for potential damaging climate events.

With respect to raw materials, wood supply remains relatively stable, however we are experiencing pricing pressures based on higher freight and transportation costs. This negatively affects the price of pole material delivered to our pole peeling locations from the forest. As a result of these inflationary factors, we are implementing more real-time price increases to pass on higher costs to end customers.

Longer term, we are evaluating opportunities to potentially expand our market presence in the United States as well as certain overseas markets. We believe there remains an overall need for sustained investment in infrastructure and capacity expansion and with our vertical integration capabilities in wood treatment and strong customer relationships, we will ultimately benefit from increased demand.

As part of optimizing our business, we continue to evaluate a number of opportunities to improve efficiencies in our operational processes, people and facilities. With our 14 North American RUPS treating facilities operating at less than full utilization, our goal is to either capture more volume through the existing facilities or consolidate our operating footprint. In January 2022, we began curtailing operations at our Sweetwater, Tennessee plant. We sold the plant in March 2022 and recorded a gain of \$2.5 million on the sale. During 2021, we exited the Texas Electric Cooperatives’ Jasper, Texas facility and relocated the production of utility products to our Somerville, Texas plant. Separately, in the third quarter of 2020, we permanently closed our Denver, Colorado wood treatment facility. Concurrent with the decision to close the Denver facility, we announced our plan to modernize and upgrade parts of our treating network, specifically at our facility in North Little Rock, Arkansas, which would be primarily funded through proceeds from the sale of non-core assets, including the Denver facility. In October 2021, we sold our closed Denver, Colorado crosstie treating facility and recorded a gain on sale of \$23.4 million.

Performance Chemicals

As most of the products sold by PC are copper-based products, changes in the price and availability of copper can have a significant impact on product pricing and margins. We attempt to moderate the variability in copper pricing over time by entering into hedging transactions for the majority of our copper needs, which primarily range from six months up to 36 months. These hedges typically match expected customer purchases and from time to time, we enter into forward transactions based upon long-term forecasted needs of copper.

Product demand for our PC business has historically been closely associated with consumer spending on home repair and remodeling projects in North America, and therefore, trends in existing home sales serve as a leading indicator. In 2022, the market for existing homes seems to be slowing. According to the National Association of Realtors® (“NAR”), total existing-home sales decreased in September by 1.5 percent compared with August and 23.8 percent compared with the prior year, marking eight consecutive months of declines. Three out of the four major U.S. regions experienced month-over-month sales contractions, while the Western region held steady. On a year-over-year basis, sales dropped in all regions. In addition, the housing market is expected to be impacted by rising interest rates and inflation, which in turn, continue to have unfavorable effects on purchasing power.

According to the Leading Indicator of Remodeling Activity (“LIRA”) reported by the Joint Center for Housing Studies of Harvard University, home renovation and repair expenditures increased by 17.8 percent year-over-year in the third quarter of 2022. The LIRA projects year-over-year gains in remodeling expenditures to owner-occupied homes will decelerate from 16.1 percent in 2022 to 6.5 percent by the third quarter of 2023. Housing and remodeling markets are slowing from the high growth rates that were driven by the pandemic-induced demand and spending for home improvements will continue to face challenges from declining home sales, rising interest rates, and the increasing costs of contractor labor and building materials. By contrast, the Center’s Remodeling Futures Program steering committee, comprised of executives from leading corporations involved in the housing sector, anticipates that energy-efficiency retrofits incentivized by the Inflation Reduction Act of 2022, as well as disaster repairs and mitigation projects following Hurricane Ian are expected to further support expansion of the home remodeling market to nearly \$450 billion in 2023.

The Conference Board Consumer Confidence Index® was 102.5 in October, down from 107.8 in September. The Index decreased in October after back-to-back monthly gains in August and September. Notably, concerns about inflation—which had been receding since July—picked up again, with both gas and food prices serving as main drivers. According to the Conference Board, the decline in confidence suggests that economic growth may be slowing for the remainder of 2022 and recession risks appear to be rising.

Carbon Materials and Chemicals

The primary products produced by CMC are creosote, which is a registered pesticide in the United States and used primarily in the pressure treatment of railroad crossties, and carbon pitch, which is sold primarily to the aluminum industry for the production of carbon anodes used in the smelting of aluminum. We have realigned capacity in our CMC plants in North America and Europe over the past several years to levels required to meet creosote demand in North America for the treatment of railroad crossties. The CMC business currently supplies our North American RUPS business with its creosote requirements.

The availability of coal tar, the primary raw material for our CMC business, is linked to levels of metallurgical coke production. As the global steel industry, excluding Asia, has reduced the production of steel using metallurgical coke, the volumes of coal tar have been reduced. Coal tar raw material supply remains constrained globally due to reductions in blast furnace steel capacity in addition to near term supply restrictions resulting from the Russian invasion of Ukraine in March 2022. Our European CMC business historically received approximately 20 percent of its annual coal tar requirements from Russia and Ukraine. We have ceased purchasing coal tar from Russian suppliers and we are currently unable to purchase normal volumes of coal tar from Ukrainian suppliers due to the conflict. Currently, the financial impact of volume reductions in our coal tar supply have been offset by higher prices in our end markets for that region and are not expected to negatively impact operating results during 2022.

For the external markets served by our CMC business, we anticipate some slowdown in manufacturing. According to IHS Markit Automotive Group (IHS), the global auto industry continues to be influenced by near-term challenges of navigating ongoing supply chain pressures coupled with economic headwinds. While semiconductor availability has improved, it remains a key factor in the ability to accelerate production growth. Therefore, IHS has adjusted its forecast for macro deterioration and in the longer term, vehicle pricing will be a key consideration and a potential headwind to demand. The IHS forecast update, provided in September 2022, reflects near-to-intermediate term downward revisions, particularly focused on Europe and North America.

Seasonality and Effects of Weather on Operations

Our quarterly operating results fluctuate due to a variety of factors that are outside of our control, including inclement weather conditions, which in the past have affected operating results. Operations at some of our facilities have at times been reduced during the winter months. Moreover, demand for some of our products declines during periods of inclement weather. As a result of the foregoing, we anticipate that we may experience material fluctuations in quarterly operating results. Historically, our operating results have been significantly lower in the first and fourth calendar quarters as compared to the second and third calendar quarters.

Results of Operations – Comparison of Three Months Ended September 30, 2022 and 2021

Consolidated Results

Net sales for the three months ended September 30, 2022 and 2021 are summarized by segment in the following table:

	Three Months Ended September 30,		Net Change
	2022	2021	
<i>(Dollars in millions)</i>			
Railroad and Utility Products and Services	\$ 207.7	\$ 186.9	11 %
Performance Chemicals	153.1	115.2	33 %
Carbon Materials and Chemicals	175.3	122.7	43 %
	\$ 536.1	\$ 424.8	26 %

RUPS net sales increased by \$20.8 million, or 11 percent, compared to the prior year period. The sales increase was largely related to pricing increases across multiple markets, particularly crossties and utility poles, and activity increases in our railroad bridge services business. These increases were offset, in part, by volume decreases in our utility pole business mostly due to capacity and transportation issues driven by the current labor shortage. Foreign currency changes compared to the prior year period had an unfavorable impact on sales in the current year period of \$0.8 million, mainly from our Australian utility pole business.

PC net sales increased by \$37.9 million, or 33 percent, compared to the prior year period. The sales increase was primarily due to a 31% volume increase in the Americas and global price increases in the current year period for our copper-based preservatives. In the prior year period, volumes in the Americas decreased as high lumber prices and a temporary change in consumer spending habits tempered customer demand for treated lumber products. The increases were offset, in part, by volume decreases for wood treatment preservatives within our European markets. Foreign currency changes compared to the prior year period had an unfavorable impact on sales in the current year period of \$3.3 million.

CMC net sales increased by \$52.6 million, or 43 percent, compared to the prior year period due mainly to higher sales prices for carbon pitch, phthalic anhydride, carbon black feedstock and naphthalene driven by strong demand for our products and a higher raw material price environment, partly offset by volume decreases of \$8.1 million. Foreign currency changes compared to the prior year period from our international markets had an unfavorable impact on sales in the current year period of \$12.9 million.

Cost of sales as a percentage of net sales was 82 percent for the quarters ended September 30, 2022 and 2021 as global price increases across our businesses have offset an increase in raw material costs, fuel costs, shipping costs and other operating expenses as a result of rising inflation in the current year period.

Depreciation and amortization charges for the quarter ended September 30, 2022 were \$3.5 million higher when compared to the prior year period due mainly to an increase in depreciation associated with an asset retirement obligation within our European CMC business.

Selling, general and administrative expenses for the quarter ended September 30, 2022 were \$1.1 million lower when compared to the prior year period due mainly to a decrease in self-insured workers compensation and medical liabilities, as well as consulting and other professional services in the current year period.

Interest expense for the quarter ended September 30, 2022 was \$1.2 million higher when compared to the prior year period due to higher interest rates.

Income tax expense for the quarter ended September 30, 2022 increased due to higher pre-tax earnings and a higher estimated annual effective income tax rate of 36.1 percent when compared to the prior year period rate of 26.8 percent. This increase in the estimated annual effective income tax rate is attributable to the geographical mix of earnings as well as an increase in the interest expense deduction limitation due to a tax law change that went into effect January 1, 2022.

Segment Results.

Segment adjusted EBITDA and adjusted EBITDA margin for the three months ended September 30, 2022 and 2021 is summarized in the following table:

(Dollars in millions)	Three Months Ended September 30,		% Change
	2022	2021	
Adjusted EBITDA:			
Railroad and Utility Products and Services	\$ 15.5	\$ 10.7	45 %
Performance Chemicals	16.7	20.2	-17 %
Carbon Materials and Chemicals	36.6	22.5	63 %
Corporate unallocated	0.0	0.5	-100 %
Total Adjusted EBITDA	\$ 68.8	\$ 53.9	28 %
Adjusted EBITDA margin as a percentage of GAAP sales:			
Railroad and Utility Products and Services	7.5 %	5.7 %	30 %
Performance Chemicals	10.9 %	17.5 %	-38 %
Carbon Materials and Chemicals	20.9 %	18.3 %	14 %
Total Adjusted EBITDA margin	12.8 %	12.7 %	1 %

RUPS adjusted EBITDA increased by \$4.8 million compared to the prior year period. Adjusted EBITDA as a percentage of net sales increased to 7.5 percent from 5.7 percent in the prior year period and was favorably impacted by improvements in our utility pole and maintenance of way businesses primarily as a result of price increases and favorable absorption, partly offset by higher raw material and operating costs as a result of rising inflation in the current year period.

PC adjusted EBITDA decreased by \$3.5 million compared to the prior year period. Adjusted EBITDA as a percentage of net sales decreased to 10.9 percent from 17.5 percent in the prior year period. Higher overall raw material costs, which were exacerbated by working through higher cost inventory in a falling copper price environment, more than offset higher volumes in the Americas and global price increases.

CMC adjusted EBITDA increased by \$14.1 million compared to the prior year period. Adjusted EBITDA as a percentage of net sales increased to 20.9 percent from 18.3 percent in the prior year period due to a favorable pricing environment partly offset by an increase in raw material and other operating costs compared to the prior year period. Foreign currency changes from our international markets had an unfavorable impact on profitability in the current year period of \$3.1 million.

Results of Operations – Comparison of Nine Months Ended September 30, 2022 and 2021

Consolidated Results

Net sales for the nine months ended September 30, 2022 and 2021 are summarized by segment in the following table:

(Dollars in millions)	Nine Months Ended September 30,		Net Change
	2022	2021	
Railroad and Utility Products and Services	\$ 595.3	\$ 574.3	4 %
Performance Chemicals	439.1	384.4	14 %
Carbon Materials and Chemicals	463.5	314.6	47 %
	\$ 1,497.9	\$ 1,273.3	18 %

RUPS net sales increased by \$21.0 million or four percent compared to the prior year period. The increase was primarily a result of pricing increases across multiple markets, particularly crossties and utility poles, and activity increases in our railroad bridge services business. These increases were offset by volume decreases in our utility pole business due to transitioning production from the Texas Electric Cooperatives' Jasper, Texas plant to our Somerville, Texas plant. In addition, a decrease in purchasing activity of untreated crossties by our customers during the first half of the current period was a result of decreased supply due to increased demand for lumber driven by strong construction markets. Foreign currency changes compared to the prior year period had an unfavorable impact on sales in the current year period of \$2.2 million, mainly from our Australian utility pole business.

PC net sales increased by \$54.7 million or 14 percent compared to the prior year period. The sales increase was primarily due to global price increases in the current year period for most preservatives in our portfolio of products and a 9% volume increase in the Americas. In the prior year period, volumes in the Americas decreased as high lumber prices and a temporary change in consumer spending habits tempered customer demand for treated wood products. The increases were offset, in part, by volume decreases for preservatives within our European markets. Foreign currency changes compared to the prior year period had an unfavorable impact on sales in the current year period of \$7.0 million.

CMC net sales increased by \$148.9 million or 47 percent compared to the prior year period due mainly to higher sales prices and volumes for carbon pitch and phthalic anhydride, along with higher sales prices for carbon black feedstock and naphthalene driven by strong demand for our products coupled with limited supply in the current year period. Foreign currency changes from our international markets had an unfavorable impact on sales in the current year period of \$28.9 million.

Cost of sales as a percentage of net sales was 82 percent for the nine months ended September 30, 2022 compared to 79 percent in the prior year period. Gross margin was unfavorably impacted in the current year period primarily by an increase in raw material costs, fuel costs, shipping costs and other operating expenses across our businesses as a result of inflationary pressures in the current year period that outpaced price increases to our customers especially earlier in the year.

Depreciation and amortization charges for the nine months ended September 30, 2022 were consistent with the prior year period.

Gain on sale of assets for the nine months ended September 30, 2022 was related to the sale of our utility pole treating facility in Sweetwater, Tennessee while the gain on sale of assets for the prior year period was related to the sales of two previously decommissioned plants as described in Note 3 – "Plant Closures and Divestitures".

Impairment and restructuring charges for the nine months ended September 30, 2021 included demolition and other plant closure period costs related to the closure of our Denver, Colorado facility.

Selling, general and administrative expenses for the nine months ended September 30, 2022 were \$5.8 million higher when compared to the prior year period due mainly to an increase of \$4.1 million in travel, entertainment and advertising expenses and \$1.9 million for consulting and other professional services.

Interest expense for the nine months ended September 30, 2022 was \$1.8 million higher when compared to the prior year period due to higher interest rates.

Income tax expense for the nine months ended September 30, 2022 increased due to a higher estimated annual effective income tax rate of 36.1 percent when compared to the prior year period rate of 26.8 percent. This increase in the estimated annual effective income tax rate is attributable to the geographical mix of earnings as well as an increase in the interest expense deduction limitation due to a tax law change that went into effect January 1, 2022.

Segment Results.

Segment adjusted EBITDA and adjusted EBITDA margin for the nine months ended September 30, 2022 and 2021 is summarized in the following table:

<i>(Dollars in millions)</i>	<i>Nine Months Ended September 30,</i>		<i>% Change</i>
	<i>2022</i>	<i>2021</i>	
Adjusted EBITDA:			
Railroad and Utility Products and Services	\$ 40.3	\$ 39.1	3 %
Performance Chemicals	57.9	82.5	-30 %
Carbon Materials and Chemicals	77.8	51.5	51 %
Corporate unallocated	0.0	1.6	-100 %
Total Adjusted EBITDA	\$ 176.0	\$ 174.7	1 %
Adjusted EBITDA margin as a percentage of GAAP sales:			
Railroad and Utility Products and Services	6.8 %	6.8 %	-1 %
Performance Chemicals	13.2 %	21.5 %	-39 %
Carbon Materials and Chemicals	16.8 %	16.4 %	3 %
Total Adjusted EBITDA margin	11.7 %	13.7 %	-14 %

RUPS adjusted EBITDA increased by \$1.2 million compared to the prior year period. Adjusted EBITDA as a percentage of net sales remained at 6.8 percent compared to the prior year period as improvements in our utility pole and maintenance of way businesses, price increases and favorable absorption were substantially offset by higher raw material and operating costs as a result of rising inflation in the current year period.

PC adjusted EBITDA decreased by \$24.6 million compared to the prior year period. Adjusted EBITDA as a percentage of net sales decreased to 13.2 percent from 21.5 percent in the prior year period. Higher overall raw material costs, which were exacerbated by working through higher cost inventory in a falling copper price environment, more than offset global price increases and higher volumes in the Americas.

CMC adjusted EBITDA increased by \$26.3 million compared to the prior year period. Adjusted EBITDA as a percentage of net sales increased to 16.8 percent from 16.4 percent in the prior year period due to a favorable pricing environment partly offset by an increase in raw material and other operating costs compared to the prior year period. Foreign currency changes from our international markets had an unfavorable impact on profitability in the current year period of \$6.5 million. In addition, the prior year period margin was favorably impacted by a \$2.9 million insurance recovery.

The following table reconciles net income to adjusted EBITDA on a consolidated basis as calculated by us for the periods indicated below:

(Dollars in millions)	Three Months Ended September 30,		Nine Months Ended September 30,	
	2022	2021	2022	2021
Net income	\$ 19.0	\$ 10.0	\$ 49.4	\$ 62.7
Interest expense	11.4	10.2	32.3	30.5
Depreciation and amortization	16.9	13.4	44.5	43.4
Depreciation in impairment and restructuring charges	0.0	0.7	0.0	0.7
Income tax provision	13.2	4.8	29.7	22.4
Discontinued operations	0.0	0.5	0.5	(0.1)
Sub-total	60.5	39.6	156.4	159.6
Adjustments to arrive at adjusted EBITDA:				
Impairment, restructuring and plant closure costs (benefits) ⁽¹⁾	0.3	(0.7)	0.2	4.3
(Gain) on sale of assets	0.0	0.0	(2.5)	(7.8)
LIFO expense	6.1	10.6	12.9	15.8
Mark-to-market commodity hedging losses	1.9	4.4	9.0	2.8
Total adjustments	8.3	14.3	19.6	15.1
Adjusted EBITDA	\$ 68.8	\$ 53.9	\$ 176.0	\$ 174.7

(1) Includes costs associated with restructuring, sales and closures of certain RUPS and CMC facilities as described in Note 3 – “Plant Closures and Divestitures”.

Cash Flow

Net cash provided by operating activities for the nine months ended September 30, 2022 was \$67.4 million compared to net cash provided by operating activities of \$59.6 million in the prior year. The increase is primarily the result of lower working capital usage of \$5.8 million in the current year period.

Net cash used in investing activities for the nine months ended September 30, 2022 was \$75.1 million compared to net cash used in investing activities of \$78.7 million in the prior year period driven primarily by capital expenditures. Capital expenditures for both periods include increased investment in growth projects, primarily in our crosstie business, such as the expansion of our RUPS facility in North Little Rock, Arkansas.

Net cash provided by financing activities was \$12.3 million for the nine months ended September 30, 2022 compared to \$28.3 million of net cash provided by financing activities in the prior year. The cash provided by financing activities in the nine months ended September 30, 2022 reflected net borrowings of \$37.9 million partly offset by repurchases of common stock, dividends paid and payments of debt issuance costs. The cash provided by financing activities in the prior year period primarily reflected net borrowings of debt of \$29.5 million partly offset by repurchases of common stock of \$3.3 million related to long-term incentive compensation plans.

Liquidity and Capital Resources

Our Credit Facility is described in Note 14 “Debt.”

Restrictions on Dividends to Koppers Holdings

Koppers Holdings depends on the dividends from the earnings of Koppers Inc. and its subsidiaries to generate the funds necessary to meet its financial obligations, including the payment of any declared dividend of Koppers Holdings. The Credit Facility permits Koppers Inc. to make dividend payments to Koppers Holdings if certain conditions are met, including, among other permitted dividend payments, the ability to fund the payment of regularly scheduled dividends on and repurchases of Koppers Holdings common stock, in an aggregate amount per year not to exceed the greater of \$50.0 million in any fiscal year, with unused amounts in any fiscal year being carried over to the succeeding fiscal year, and 6.0% of market capitalization. The indenture governing the 2025 Notes restricts Koppers Inc.’s ability to finance our payment of dividends if a default has occurred or would result from such financing, Koppers Inc. is not able to incur additional indebtedness (as defined in the indenture), or the sum of all restricted payments (as defined in the indenture) have exceeded the permitted amount (which we refer to as the “basket”) at such point in time.

At September 30, 2022, the basket totaled \$297.5 million. Notwithstanding such restrictions, the indenture governing the 2025 Notes permits an additional aggregate amount of \$0.30 per share each fiscal quarter to finance dividends on the capital stock of Koppers Holdings, whether or not there is any basket availability, provided that at the time of such payment, no default in the indenture has occurred or would result from financing the dividends.

Liquidity

As of September 30, 2022, the maximum amount available under the Credit Facility considering restrictions from debt covenants was approximately \$400 million. The maximum amount available under the Credit Facility is increased by the amount of cash held by certain subsidiaries as defined by the Credit Facility. At December 31, 2021, the maximum amount available under the previous credit agreement which contained different covenants was approximately \$300 million.

Our need for cash in the next twelve months relates primarily to contractual obligations which include acquisitions, debt service, pension plan funding, purchase commitments and operating leases, as well as working capital, capital maintenance programs, the funding of plant consolidation and rationalizations, dividends and share repurchases. We may also use cash to pursue other potential strategic acquisitions or voluntary pension plan contributions. In addition, we continually monitor debt and capital markets. We may, from time to time, pursue one or more transactions to refinance all or a portion of the 2025 Notes, which may include, among other things, the purchase of 2025 Notes in the open market. We would expect to cancel any 2025 Notes which are purchased. Capital expenditures in 2022, excluding acquisitions, if any, are expected to total approximately \$95 million and are expected to be funded by cash from operations. We anticipate that our liquidity will continue to be adequate to fund our cash requirements for the next twelve months.

We manage our working capital to increase our flexibility to pay down debt. Debt will fluctuate throughout any operating period based upon the timing of receipts from customers and payments to vendors. As of September 30, 2022, approximately 85 percent of accounts payable was current and 15 percent was 1-30 days past due. As of September 30, 2021, approximately 75 percent of accounts payable was current, 20 percent was 1-30 days past due and five percent was greater than 30 days past due.

Debt Covenants

The covenants under the Credit Facility, including the following financial covenants, may affect availability of the facility:

- The total net leverage ratio, calculated as of the last day of each fiscal quarter (commencing with the fiscal quarter ending September 30, 2022), is not permitted to exceed 5.0. The total net leverage ratio as of September 30, 2022 was 3.33.
- The cash interest coverage ratio, calculated as of the last day of each fiscal quarter (commencing with the fiscal quarter ending September 30, 2022), is not permitted to be less than 2.0. The cash interest coverage ratio as of September 30, 2022 was 5.68.

We are currently in compliance with all covenants governing the Credit Facility. Our continued ability to meet these financial covenants can be affected by events beyond our control; however, we currently expect that our net cash flows from operating activities and funds available from our Credit Facility will be sufficient to provide for our working capital needs and capital spending requirements over the next twelve months.

Legal Matters

The information set forth in Note 18 to the Condensed Consolidated Financial Statements of Koppers Holdings Inc. included in Item 1 of this Part I is incorporated herein by reference.

Recently Issued Accounting Guidance

The information set forth in Note 2 to the Condensed Consolidated Financial Statements of Koppers Holdings Inc. included in Item 1 of this Part I is incorporated herein by reference.

Critical Accounting Policies

There have been no material changes to our critical accounting policies as disclosed in our Annual Report on Form 10-K for the year ended December 31, 2021.

Environmental and Other Matters

The information set forth in Note 18 to the Condensed Consolidated Financial Statements of Koppers Holdings Inc. included in Item 1 of this Part I is incorporated herein by reference.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

There are no material changes to the disclosure on this matter made in our Annual Report on Form 10-K for the year ended December 31, 2021.

ITEM 4. CONTROLS AND PROCEDURES

Our management, with the participation of the Chief Executive Officer and Chief Financial Officer and utilizing the Committee of Sponsoring Organizations of the Treadway Commission (COSO) Internal Control – Integrated Framework (2013), have evaluated the effectiveness of our disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) of the Securities Exchange Act of 1934 as of the end of the period covered by this report. Based on that evaluation, the Chief Executive Officer and Chief Financial Officer have concluded that these controls and procedures were effective as of the end of the period covered by this report. There were no changes in our internal control over financial reporting (as such term is defined in Rule 13a-15(f) under the Exchange Act) that occurred during the quarter ended September 30, 2022 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II—OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

The information set forth in Note 18 to the Condensed Consolidated Financial Statements of Koppers Holdings Inc. included in Item 1 of Part I of this report is incorporated herein by reference.

Koppers Holdings Inc. (the “Company”) has been cooperating with an investigation by the staff of the Division of Enforcement (the “Division”) of the U.S. Securities and Exchange Commission (“Commission”) into the Company’s public non-GAAP financial metrics disclosures regarding the Company’s debt reduction target and net leverage ratio for Fiscal Year 2019 and the related management of its accounts payable (the “Inquiry”). The Company and several of its current and former officers and employees received subpoenas for information and testimony (the “Subpoenas”), pursuant to a non-public formal order of investigation for the Inquiry dated February 14, 2021.

On November 1, 2022, the Commission announced that it had agreed to accept Koppers’ Offer of Settlement and, pursuant to that settlement, entered an order making findings, which Koppers neither admits nor denies, that Koppers violated Section 17(a)(3) of the Securities Act of 1933, Section 13(a) of the Securities Exchange Act of 1934 and related rules, and Rule 100(b) of Regulation G when it negligently failed to explain in its non-GAAP disclosures in the Company’s 2019 earnings releases, that it was delaying the payment of its non-critical vendors in order to meet its 2019 net debt reduction and net leverage ratio targets and that its short-term debt would increase in the next period. The Commission’s order acknowledges that the Company cooperated with its staff’s investigation and promptly undertook remedial acts, including strengthening policies and procedures relating to its accounts payables and its non-GAAP disclosures, and requires that the Company cease and desist from future violations and pay a civil monetary penalty of \$1.3 million. No current or former officers or employees of the Company were the subject of any enforcement action in connection with this matter.

The Company does not anticipate that the resolution of the SEC’s investigation will have any material impact on its operations or its current or any prior period financial statements.

ITEM 1A. RISK FACTORS

There have been no material changes to the Risk Factors previously disclosed in Item 1A of our Annual Report on Form 10-K for the year ended December 31, 2021.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

Not applicable.

ITEM 3. DEFAULTS UPON SENIOR SECURITIES

Not applicable.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

ITEM 5. OTHER INFORMATION

Not applicable.

ITEM 6. EXHIBITS

10.1*	Koppers Holdings Inc. Director Deferred Compensation Plan, as amended and restated effective August 3, 2022
31.1*	Certification of Chief Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2*	Certification of Chief Financial Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1*	Certification of Chief Executive Officer and Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS*	Inline 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*	Inline XBRL Taxonomy Extension Schema Document
101.CAL*	Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF*	Inline XBRL Taxonomy Extension Definition Linkbase Document
101.LAB*	Inline XBRL Taxonomy Extension Label Linkbase Document
101.PRE*	Inline XBRL Taxonomy Extension Presentation Linkbase Document
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)

* Filed herewith.

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.

Date: November 4, 2022

KOPPERS HOLDINGS INC.
(REGISTRANT)

By: /s/ JIMMI SUE SMITH

Jimmi Sue Smith
Chief Financial Officer

(Principal Financial Officer and Duly Authorized Officer)

KOPPERS HOLDINGS INC.
DIRECTOR DEFERRED COMPENSATION PLAN

As amended and restated effective August 3, 2022

1. **Name:**

This plan shall be known as the “Koppers Holdings Inc. Director Deferred Compensation Plan” (the “Plan”).

2. **Purpose:**

The purpose of this Plan is to provide Non-Employee Directors with the opportunity to defer some or all of their eligible compensation received as directors of Koppers Holdings Inc. (the “Company”). The Company is establishing the Plan effective as of January 1, 2022. It is the intent of the Company that amounts deferred under the Plan by a Non-Employee Director shall not be taxable to the Non-Employee Director for United States federal income tax purposes until the time actually received by the Non-Employee Director. The provisions of the Plan shall be construed and interpreted to effectuate such intent.

3. **Definitions:**

For purposes of the Plan, the following terms shall have the following meanings:

“**Account**” means the bookkeeping account representing the total of all Stock Units credited for the benefit of a Participant under the Plan. All Accounts shall be maintained in Stock Units on the books of the Company to record a Participant’s interest attributable to all Cash Compensation and Stock Compensation deferred by the Participant under the Plan, as adjusted from time to time pursuant to the terms of the Plan.

“**Board**” means the Board of Directors of the Company.

“**Cash Compensation**” means any cash retainer fees payable to a Non-Employee Director for his or her service as a Non-Employee Director.

“**Common Stock**” means the common stock of the Company.

“**Company**” means Koppers Holdings Inc., a Pennsylvania corporation, including any successor thereto.

“**Effective Date**” means January 1, 2022.

“**Fair Market Value**” of a share of Common Stock on any date means the closing selling price per share at the close of regular hours trading (i.e., before after-hours trading begins) on the date in question on the Stock Exchange serving at the time as the primary market for the Company’s

common stock, as such price is reported by the National Association of Securities Dealers (if primarily traded on the Nasdaq Global or Global Select Market) or as officially quoted in the composite tape of transactions on any other Stock Exchange on which the Company's Common Stock is then primarily traded. If there is no closing selling price for the Company's Common Stock on the date in question, then the Fair Market Value shall be the closing selling price on the last preceding date for which such quotation exists.

"Non-Employee Director" means a member of the Board who is not an officer or employee of the Company or any of its subsidiaries.

"Participant" means a Non-Employee Director who has elected to participate in the Plan as provided in paragraph 5(b) below.

"Plan" means this Koppers Holdings Inc. Director Deferred Compensation Plan, as set forth herein, and as amended from time to time.

"Plan Administrator" means the Management Development and Compensation Committee of the Board.

"Plan Year" means the calendar year.

"RSU" means a restricted stock unit granted to a Non-Employee Director for his or her service as a Non-Employee Director.

"Section 409A" means Section 409A of the Internal Revenue Code of 1986, as it may be amended from time to time, and all authoritative interpretive guidance issued thereunder.

"Separation from Service" means a Non-Employee Director ceasing to be a member of the Board due to a voluntary or involuntary separation from service, for any reason, determined in accordance with Section 409A.

"Stock Compensation" means any shares of Common Stock issuable with respect to the settlement of an RSU.

"Stock Exchange" shall mean the American Stock Exchange, the Nasdaq Global or Global Select Market, the New York Stock Exchange, or any other principal securities exchange upon which the Company's Common Stock is traded.

"Stock Unit" means a notional unit representing the right to receive one (1) share of Common Stock.

4. Administration:

The Plan Administrator shall be responsible for administering the Plan. The Plan Administrator shall have all of the powers necessary to enable it to properly carry out its duties under the Plan.

Not in limitation of the foregoing, the Plan Administrator shall have the power to construe and interpret the Plan and to determine all questions that shall arise hereunder. The Plan Administrator shall have such other and further specified duties, powers, authority and discretion as are elsewhere in the Plan either expressly or by necessary implication conferred upon it. The Plan Administrator may appoint such agents as it may deem necessary for the effective performance of its duties, and may delegate to such agents such powers and duties as the Plan Administrator may deem expedient or appropriate that are not inconsistent with the intent of the Plan. The decision of the Plan Administrator upon all matters within its scope of authority shall be final and conclusive on all persons, except to the extent otherwise provided by law. The Plan Administrator shall not be liable for any action or determination made in good faith with respect to the Plan and the Company shall indemnify and hold harmless the Plan Administrator from all losses and expenses (including reasonable attorneys' fees) arising from the assertion or judicial determination of any such liability.

5. Operation:

(a) Eligibility. Each Non-Employee Director shall be eligible to participate in the Plan as of the date he or she is appointed as a Non-Employee Director.

(b) Elections to Defer. A Non-Employee Director may become a Participant in the Plan for a Plan Year by irrevocably electing, on a form (which may be in writing or electronic) provided by the Plan Administrator, to defer all or any portion of any Cash Compensation and/or any Stock Compensation for the Plan Year. In order to be effective, a Non-Employee Director's election to defer must be executed and returned to the Plan Administrator on or before the date specified by the Plan Administrator for such purpose, which such date must be prior to the beginning of the Plan Year to which the election applies. An election for a Plan Year shall apply to (1) Cash Compensation earned during such Plan Year, and (2) Stock Compensation issuable with respect to an RSU granted during such Plan Year. Except as otherwise provided below, the first Plan Year with respect to which a Non-Employee Director may make an election to defer pursuant to this paragraph 5(b) is the 2022 Plan Year. Notwithstanding the foregoing, (i) an individual who first becomes a Non-Employee Director after the start of a Plan Year may make a deferral election with respect to such Plan Year no later than the day before such individual is appointed as a Non-Employee Director; and (ii) a Non-Employee Director who becomes eligible to participate in the Plan on the Effective Date may elect to defer the Cash Compensation otherwise payable in January 2022 with respect to service from July 1, 2021 to December 31, 2021, provided that any such election is made no later than the 30th day after the Effective Date and that such election will apply only to the portion of such Cash Compensation paid for services after the date of such election. A Participant's election to defer for any Plan Year shall continue to apply to any subsequent Plan Year unless and until the Participant changes or revokes such election on or before the date specified by the Plan Administrator for such purpose, which such date must be prior to the beginning of such subsequent Plan Year. Any election pursuant to this paragraph 5(b) shall be irrevocable once it has been received by the Plan Administrator and the deadline for making such election has expired.

(c) Establishment of Account.

(i) The Company shall establish and maintain on its books an Account for each Participant. Each Account shall be designated by the name of the Participant for whom it is established.

(ii) Any Cash Compensation deferred by a Participant shall be credited to the Participant's Account and such amounts shall be credited to the Account as of the date the amounts would have otherwise been paid to the Participant with the number of Stock Units equal to the dollar amount of the deferred Cash Compensation divided by the Fair Market Value of a share of Common Stock on such date.

(iii) Any Stock Compensation deferred by a Participant shall be credited to the Participant's Account in a number of Stock Units equal to the corresponding number of shares of Common Stock subject to the agreement and/or plan pursuant to which such Stock Compensation was awarded to the Participant (including any fractional shares). The Stock Units shall be credited to the Participant's Account as of the date the shares would have otherwise been issued under the agreement and/or plan pursuant to which such Stock Compensation was awarded to the Participant.

(d) Account Adjustments. Should any cash dividend, whether regular or extraordinary, be declared and paid on the outstanding Common Stock while one or more Stock Units are credited to a Participant's Account (i.e., prior to the date of payment with respect to such Stock Units), then a special book account shall be established for the Participant and credited with a dollar amount equal to the amount of that dividend paid per share multiplied by the number of Stock Units at the time credited to the Participant's Account as of the record date for the dividend. No later than as of the earlier of (i) the date determined by the Plan Administrator each Plan Year or (ii) the date of the final payment to the Participant pursuant to paragraph 5(e) (each a "Dividend Crediting Date"), each cash dividend amount credited to the special book account since the prior Dividend Crediting Date shall be converted into an additional number of full or fractional Stock Units to be credited to the Participant's Account determined by dividing (i) such cash dividend equivalent amount by (ii) the average of the Fair Market Value per share of Common Stock on each of the dates during such period on which those dividends on the outstanding Common Stock were paid.

(e) Payment.

(i) Payment Form. A Participant shall be given the opportunity to elect that payment of his or her Account be made in one of the following forms at the time the Participant first elects to defer any payment under the Plan:

(A) One lump-sum payment; or

(B) Annual installments, up to a maximum period of five (5) years. The Participant's Account shall continue to be credited with adjustments under paragraph 5(d) above until the Account is fully paid out. The first annual installment shall be paid on the date on which payment commences pursuant to paragraph 5(e)(ii) and each subsequent annual installment shall be made on the anniversaries thereof. The number of Stock Units with respect to which each installment payment shall be made shall be equal to the number of Stock Units credited to the Participant's Account as of the date of such installment payment divided by the number of remaining installment payments, including the installment payment then due.

A Participant's election shall be made on the election form used by the Participant for making such Participant's initial deferral election pursuant to paragraph 5(b), which shall remain in effect unless and until Participant changes such election in accord with paragraph 5(e)(iii). A Participant who fails to make a payment election in accordance with the provisions of paragraph 5(e)(i) shall be deemed to have elected a lump sum payment to be paid in accordance with the requirements of paragraph 5(e)(i)(A). Any payment due hereunder shall be considered timely if made within 30 days of the date on which such payment is otherwise due.

(ii) Payment Timing. Payment of a Participant's Account shall be made or commence on the May 31st next following the Participant's Separation from Service or, if later, and elected by the Participant at the time the Participant first elects to defer any payment under the Plan, May 31st of the year specified by the Participant. A Participant's election shall be made on the election form used by the Participant for making such Participant's initial deferral election pursuant to paragraph 5(b).

(iii) Subsequent Changes to Payment Elections. A Participant may change the form of payment elected under paragraphs 5(e)(i) and (ii) above only if (A) such election is made at least twelve (12) months prior to the date payment would have otherwise commenced and (B) the effect of such elections is to defer commencement of such payment by at least five (5) years. For purposes of this Paragraph 5(e)(iii), a series of installment payments is treated as a single payment to be made in the year that the first installment would have otherwise been paid. Any election pursuant to this paragraph 5(e)(iii) shall be made on an election form provided by the Plan Administrator for such purpose. Any election by a Participant under this paragraph 5(e)(iii) with respect to a payment elected by the Participant pursuant to paragraph 5(e)(ii) shall be made not less than 12 months before the date such payment is scheduled to be paid or commence. This paragraph 5(e)(iii) is intended to comply with Treas. Reg. Section 1.409A-2(b) and shall be interpreted accordingly. No election that fails to comply with the requirements of Treas. Reg. Section 1.409A-2(b) shall be permitted under this paragraph 5(e)(iii).

(iv) Death. If a Participant dies after having commenced installment payments, any remaining unpaid installment payments shall be paid to the Participant's beneficiary as and when they would otherwise have been paid to the Participant had the Participant not died. If a Participant's Separation from Service is due to his death, the Participant's Account shall be payable to the Participant's beneficiary in a single payment to be made as soon as administratively practicable after the date of the Participant's death. Participants may designate a beneficiary under the Plan in accordance with such procedures as the Plan Administrator may establish from time to time. If a Participant does not have a beneficiary designation in effect, the designated beneficiary shall be the Participant's estate.

(v) Medium of Payment. All payments from a Participant's Account shall be in the form of shares of the Company's Common Stock. The number of shares of Common Stock issued shall be equal to the number of Stock Units with respect to which payment is due. Notwithstanding the foregoing, the Company may elect to pay any fractional share in cash in amount equal to the Fair Market Value of such fractional share.

(vi) Cashouts. Notwithstanding any other provision of the Plan, if, on the date that payment of a Participant's Account would otherwise be made or commenced, the Fair Market Value of the Common Stock issuable with respect to the number of Stock Units credited to the Participant's Account as of such date is less than \$25,000, such Participant's Account shall be paid in a single lump sum on such date.

(f) Vesting. All amounts credited to a Participant's Account shall be 100% vested at all times.

6. **Amendment, Modification, and Termination of the Plan**

The Board shall have the right and power at any time and from time to time to amend the Plan in whole or in part and at any time to terminate the Plan; provided, however, that no such amendment or termination shall reduce the amount actually credited to a Participant's Accounts under the Plan on the date of such amendment or termination, or further defer the due dates for the payment of such amounts, without the consent of the affected Participant. Notwithstanding any provision of the Plan to the contrary, but only to the extent permitted by Section 409A, in connection with any termination of the Plan the Board shall have the authority to cause the Accounts of all Participants to be paid in a single payment as of a date determined by the Board or to otherwise accelerate the payment of Accounts in such manner as the Board shall determine in its discretion.

7. **Applicable Law and Venue:**

The Plan shall be construed, administered, regulated and governed in all respects under and by the laws of the United States to the extent applicable, and to the extent such laws are not applicable, by the laws of the Commonwealth of Pennsylvania.

8. Compliance with Section 409A:

The Plan is intended to comply with Section 409A. Notwithstanding any provision of the Plan to the contrary, the Plan shall be interpreted, operated and administered consistent with this intent.

9. Tax Withholding:

The Company shall have the power and the right to deduct or withhold, or require a Participant to remit to the Company, an amount sufficient to satisfy federal, state, local, foreign or other taxes required by law to be withheld with respect to any taxable event arising as a result of this Plan.

10. Miscellaneous:

A Participant's rights and interests under the Plan may not be assigned or transferred by the Participant. The Plan shall be an unsecured, unfunded arrangement. To the extent the Participant acquires a right to receive payments from the Company under the Plan, such right shall be no greater than the right of any unsecured general creditor of the Company. Nothing contained herein shall be deemed to create a trust of any kind or any fiduciary relationship between the Company and any Participant. The Plan shall be binding on the Company and any successor in interest of the Company.

IN WITNESS WHEREOF, this instrument has been executed by an authorized officer of the Company as of the 3rd day of August, 2022.

KOPPERS HOLDINGS INC.

/s/ Stephanie Apostolou

By: Stephanie Apostolou

Title General Counsel and Secretary

CERTIFICATIONS

I, Leroy M. Ball, certify that:

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

Date: November 4, 2022

/s/ LEROY M. BALL
Leroy M. Ball
President and Chief Executive Officer

CERTIFICATIONS

I, Jimmi Sue Smith, certify that:

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

Date: November 4, 2022

/s/ JIMMI SUE SMITH
Jimmi Sue Smith
Chief Financial Officer

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

In connection with the Quarterly Report of Koppers Holdings Inc. (the "Company") on Form 10-Q for the quarter ending September 30, 2022 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), each of the undersigned hereby certifies in his or her capacity as an officer of the Company, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

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

/s/ LEROY M. BALL
Leroy M. Ball
President and Chief Executive Officer

November 4, 2022

/s/ JIMMI SUE SMITH
Jimmi Sue Smith
Chief Financial Officer

November 4, 2022
